



Avaya Aura® Workforce Optimization
Workforce Management Schedulers' Guide
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Welcome to Forecasting and Scheduling

Welcome to Forecasting and Scheduling, a world-class, extensive solution for the workforce management needs of your enterprise contact center. This chapter introduces you to Forecasting and Scheduling and its features.

Forecasting and Scheduling provides you with an intuitive desktop solution for managing and planning your contact center activities, and ensures that your contact center will deliver the ultimate in customer service.

Forecasting and Scheduling offers:

- State-of-the-art forecasting and scheduling tools designed to meet your customer service goals.
- An easy-to-use interface that leverages advanced technology for rapid schedule building.
- Flexible forecasting and scheduling based on your contact center rules and needs.
- Virtual contact center management.
- Seamless integration with your automated call distributor (ACD).
- Queue- and group-level performance analysis and monitoring with easy-to-read graphs.
- Robust employee management tools.

These features are available through an easy-to-use Windows interface designed to make all levels in the contact center more productive.

Workforce Management Packages

To meet the needs of a broad spectrum of enterprises, the Workforce Management portion of the Workforce Optimization Solution is available in pre-packaged solutions that deliver different levels of functionality.

The *Operational Series Workforce Management Package* is comprised of functionality designed to optimize employee performance, reduce risk, and automate manual processes such as forecasting and scheduling. It includes:

- Forecasting and Scheduling—Client software used for daily and weekly forecasting and scheduling.
- Web-Enabled Self-Service—A standard, web-based interface module for employees, supervisors, and administrators.
- Advanced Adherence—Real-time employee adherence tracking, adherence management capabilities for monitoring adherence to schedule for deferred media, including aux codes and non-phone-based activities, as well as enabling management of adherence exceptions.
- Basic Scorecards—Pre-defined role-appropriate scorecards with pre-packaged Workforce Management and Quality Key Performance Indicators (KPIs), which display actual performance information on a daily basis.
- Coaching—Allows contact centers to make employee coaching a part of daily operations. It provides out-of-the-box workflow for scheduling, delivering, and tracking employee coaching that is integrated with individual quality monitoring evaluation scores and key performance indicators (KPIs).

Our *Advanced Series Workforce Management Package* builds on the Operational Series' functionality, and focuses on optimizing enterprise performance by raising first call resolution rates, increasing enterprise revenue generation, and ensuring consistent customer experiences.

In addition to those functions included in the Operational Series, the Advanced Series includes:

- Time Off Management (TOM)—A web-based module allowing employees to request and supervisors to manage employees' time-off and vacation requests.

This module is also an option for the Operational Series.



- Advanced Scorecards—A superset of the scorecards found in Basic Scorecards, as well as the ability to display trend information compared to goals.



An even deeper level of functionality for Scorecards is provided with KPI Design, which provides users with the ability to define additional data sources types, source measures, KPIs, and to connect custom adapters from these additional data sources.

- Strategic Planner—Allows you to plan long term for multi-skilled contact center and enterprise back-office environments, assess the operational and financial benefits and impacts of different scenarios before making decisions, increase forecasting accuracy with sophisticated analysis of historical data, plan your resources to

reflect projected customer demand and corporate objectives, develop optimal staffing plans that minimize costs while meeting service goals, and provide executives with the information they need to review and rapidly approve budgets and plans.

Our *Strategic Series Workforce Management Package* builds on the Advanced Series' functionality.

In addition to those functions included in the Advanced Series, the Strategic Series includes:

- Learning Lesson Management—Enables employees and supervisors to access on-demand learning, to enhance their skills, and to increase their productivity and performance.
- Content Producer—an application comprised of editing, authoring, and conversion tools to develop interactive clips for internal training and assessment.

Optional functions for the above packages include among other functions:

- Multi-Contact—Enables forecasting and scheduling for additional media other than phone, such as chat, e-mail, etc.
- Shift Bidding—A web-based module facilitating automated shift bidding.
- Multi Week—Enables you to schedule over a multi-week period rather than one week at a time.
- Operations—Allows volume control and workload management, particularly with the financial services arena.
- Projects—Nominally part of the Multi-Contact functions, this separately licensed feature expands the solution's functionality to meet the needs of non-customer-facing activities in the financial services and banking arenas.
- Queue Hopping—Allows you to schedule employees to work on different queues at different times.

Our *Performance Management Series Workforce Management Package* is similar to the Advanced Series Workforce Management Package. It includes:

- Strategic Planner
- Volume Capture (part of the Operations functions mentioned above)
- Pulse
- Alerts
- Standard reports
- Ad-hoc reports
- Advanced Adherence
- KPI Design (includes all the functionality of Basic Scorecards and Advanced Scorecards)

The *Workforce Management Express* package is designed specifically for centers with up to 150 seats, it combines many of the workforce management capabilities used by large contact centers into a prepackaged, affordable solution that's easy to use and fast to deploy.

Impact 360 Express Workforce Management can help reduce overstaffing and overtime, provide employees with the schedules they actually prefer, identify time-off opportunities, and reduce shrinkage. What's more, it can automate routine administrative tasks, freeing your supervisors to coach their staff.

With Impact 360 Express Workforce Management, your smaller contact center can simplify and automate the complex task of forecasting and scheduling, enhance employee morale, and increase productivity. It's a smart solution that can deliver a return on investment quickly.

- **Forecasting and Scheduling** — Impact 360 Express Workforce Management integrates with your ACD and uploads historical data directly from its database. You can use this data to forecast future contact volume and handle times for daily or weekly projections. You also can set up profiles to model contact volume behavior for recurring events and circumstances.

Impact 360 Express Workforce Management helps you produce optimal schedules down to the quarter hour by balancing defined shift rules, work patterns, breaks, off-phone times, targeted service-level goal, and employee skills, proficiencies, and preferences. By better aligning staffing levels with contact volumes, it can help drive down costs.

- **Planning, Adherence, and Management** — Impact 360 Express Workforce Management tracks key operational metrics so you can take corrective action right away. This intra-day functionality provides a real-time, graphical view of forecasted, actual, and predicted contact volume, handle time, service-level statistics, and other critical information. You can configure email alerts to notify users of deviations from plan and adjust your staffing accordingly.

What's more, Impact 360 Express Workforce Management can provide a complete picture of adherence. You can simultaneously compare your employees' actual activities against their schedules, review a breakdown of adherence per activity, and manage exceptions, helping minimize shrinkage in your center. Supervisors can receive instant alerts for out-of-adherence states, helping them correct problems right away. An advanced adherence exception management function shows employee exceptions graphically across the entire day in real time, allowing supervisors to approve or deny them in one-minute increments.


Better still, Impact 360 Express Workforce Management can enable you to perform what-if analyses to assess different staffing strategies, such as full time versus part time. This can help you make informed decisions using data that would be very difficult — if not impossible — to evaluate using spreadsheets.

- **Agent Self-Service** — Employees can easily manage and contribute to their own schedules without impacting service levels. They can request preferences for start times (by day), overtime, and days off in the week, and view published schedules using their browser-based interface. They can also post, negotiate, and request full or partial-day shift swaps via an online swap board — which is monitored by an automatic conflict checker and forwarded to managers for quick and easy processing. This can build morale and retention while allowing your managers to focus on coaching.
- **Reporting** — Impact 360 Express Workforce Management includes out-of-the-box reports on center activity, adherence, performance, staffing, time off, and more. It also provides audit trail functionality that shows system administrators the changes

made to the system, such as modifications to schedules, roles, permissions, forecasts, employee attributes, and more.

- **Multi-Contact**—This optional functionality enables forecasting and scheduling for additional media other than phone, such as chat, e-mail, etc.
- **Shift Bidding** — This optional functionality introduces greater fairness in awarding shifts by automatically factoring in seniority, rank, and unique “tie-breaking” bonus points to assign shifts. Supervisors can allocate bonus points to staff to recognize extra effort, and employees can choose to use them to elevate their position in the bid. The system also immediately informs employees of the chances of getting their shifts, setting expectations ahead of time.
- **Time-off Manager** — Using this optional functionality, you can streamline routine tasks associated with time-off requests. Employees can request, be wait-listed, withdraw, and view the status of their time-off requests. Requests can be routed for approval by managers or automatically processed based on rules you define.

This guide assumes at a minimum that you have the Operational Series. Modules and functions that are either optionally available or are only available in the Advanced Series or Strategic Series are appropriately identified in the text.

-  Verint Systems’ Workforce Optimization Solution includes the functions described in this Workforce Management guide. For that reason, you will at times see the product referred to as the Workforce Optimization Solution and at other times as Workforce Management.

Forecasting and Scheduling Work Modes

Forecasting and Scheduling uses two work modes to help you organize your contact center forecasting and scheduling tasks. Each mode contains several modules that are arranged sequentially, allowing you to create and modify your forecasts and schedules in an intuitive step-by-step manner. You simply enter the appropriate data in one module and move to the next.

The Organization Mode

The **Organization work mode** lets you create and maintain information about your organizations and the employees in them, where they work, when they work, and with whom they work. You can create a hierarchy of organizations that reflect the structure of your company and contact centers. These can be set up according to location,

supervisor, or any other criteria, and appropriate information at one level will flow up or down to the others. The Organization mode contains the following modules:

- **Operations**—Set your organization's hours of operation, minimum time between shift assignments, and number of seats.
- **Activities**—Create, edit, and delete your organizations' Activity Types, as well as the Activities that fall under the Activity Types.
- **Work Rules**—Set your shifts and shift events and create individualized work patterns.
- **Employees**—Enter information about your organization's employees and their preferences, assign them work patterns and skills, and view or edit their personal calendars.
- **Calendar**—Review the schedule for all employees or selected groups of employees in the organization, schedule calendar events, assign shifts to employees, add time off, lock or unlock shifts, and publish schedules.
- **Pulse**—Launches the **Tracking** module, **Pulse** section, **Pulse** tab, which allows you to view and compare actual and forecasted statistics.


The Campaign Mode

The **Campaign work mode** lets you manage your forecasting and scheduling, creating campaigns for your various types of calls — for example, one for sales and another for customer support. You can then forecast contact volume, set service goals, and schedule employees from throughout your organization to create weekly schedule profiles for each campaign. The Campaign mode contains the following modules:

- **Operations**—Set up the hours of operation for your campaign and assign organizations, queues, and skills to it.
- **Activities**—View your campaign's Activity Types, as well as the Activities that fall under the Activity Types.
- **Work Rules**—Set up special shifts, shift events, and work patterns exclusively for your campaign.
- **Employees**—Assign employees to a campaign, and view or edit their information and schedules.
- **Forecast**—Use historical data to forecast or modify your contact volume and average handle time.
- **Service Goals**—Set your customer service goals for your campaign.
- **Agent Requirements**—View the number of employees needed by your campaign, determined by your forecast and service goals (only available in non-skills mode).
- **Calendar**—Create a schedule for your campaign, view and print the schedule, make adjustments for individual employees, and schedule other activities.
- **Pulse**—Launches the web application's **Tracking** module, **Pulse** section, **Pulse** tab, which allows you to track your campaign's performance by comparing data from your ACD with your forecasted and required statistics.


Workforce Management Basics

This chapter provides an introduction to both the Forecasting and Scheduling client application and the Workforce Management portion of the Workforce Optimization Solution.

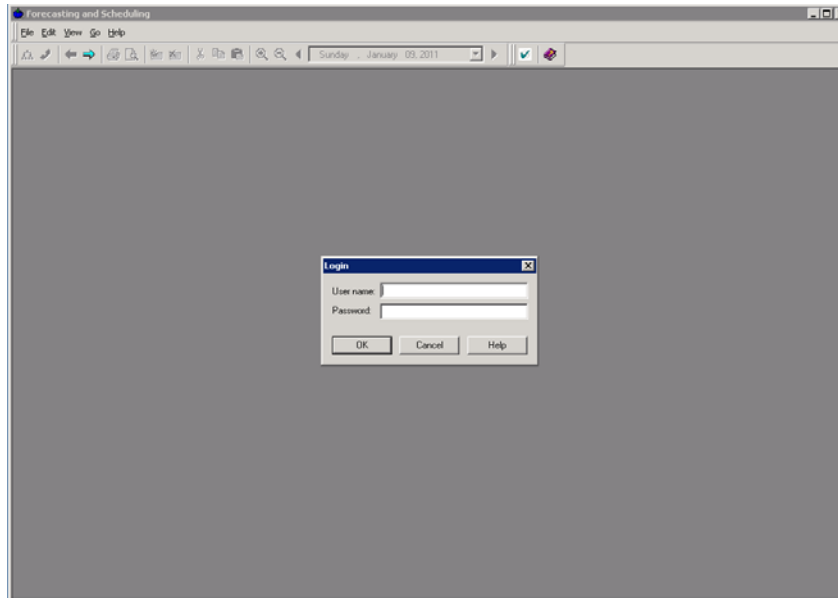
-  Much of the functionality of the Forecasting and Scheduling client application has been replicated in the Forecasting and Scheduling module of the web application. More detailed information of the Forecasting and Scheduling module of the web application can be found in [Chapter 21 "Forecasting and Scheduling in the Web Application"](#).

Starting Forecasting and Scheduling

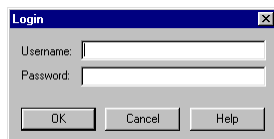
To start Forecasting and Scheduling:

- 1 Double-click the Forecasting and Scheduling icon  on your desktop, or click **Verint Systems > Forecasting and Scheduling > Forecasting and Scheduling** on the Windows **Start** menu.

The main **Forecasting and Scheduling** and **Login** windows appear.



- 2 Enter your user name and password in the **Login** window. The **Login** window is also available from the **File** menu.



If no user accounts have been created, please see your administrator for instructions.



- 3 Click an operation on the Forecasting and Scheduling Startup window. The following options are available:



- **Work on an organization:** Open an existing organization or create a new one.
- **Work on a campaign:** Open an existing campaign or create a new one.

- **Return to Last Activity:** Return to the activity you were working on when you last exited Forecasting and Scheduling.
- Help:** Open Forecasting and Scheduling's online help.
- Logout:** Quit Forecasting and Scheduling.

Changing the Forecasting and Scheduling Application Server

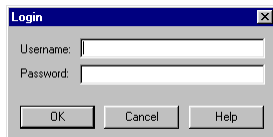
When Forecasting and Scheduling is installed, you specify the application server it should connect to. When you log onto Forecasting and Scheduling, the application server's database is the database to which your Forecasting and Scheduling client automatically connects.



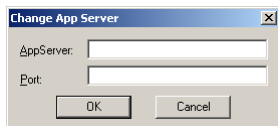
You can check the current server and database by selecting **About Forecasting and Scheduling** from the **Help** menu.

To change the Forecasting and Scheduling application server:

- 1 Open the Forecasting and Scheduling login window by starting the program or, from the **File** menu, selecting **Close Work** and then selecting **Login**.



- 2 If you need to connect to a different application server, hold down the **Ctrl** and **Shift** keys and click on the **Login** window. The **Change App Server** window appears



- 3 Type the new application server's name and port information and click **OK**. You are returned to the **Login** window to log onto the new database.

Getting Around in Forecasting and Scheduling

Forecasting and Scheduling provides two work modes:

- *Organization* mode lets you set up general information about your organization, its working hours, its employees, their availability, and their skills. It also provides an overview of the organization's schedule and activities and the ability to produce

reports about the organization's activities. Further, you can create a hierarchy of organizations to reflect the structure of your contact centers.

- *Campaign* mode contains tools that let you forecast your workforce requirements for the scheduling period, set your service goals, and schedule employees from your organization to meet those requirements and goals.

Forecasting and Scheduling uses work modes to allow you enter data for your organization once and, at the same time, set up campaigns and schedule employees with appropriate skills and availability from throughout the organization. Only one work mode is active at any time. Each mode contains several modules for different functions. These modules are arranged so that you can use them sequentially.

Using the Forecasting and Scheduling Window

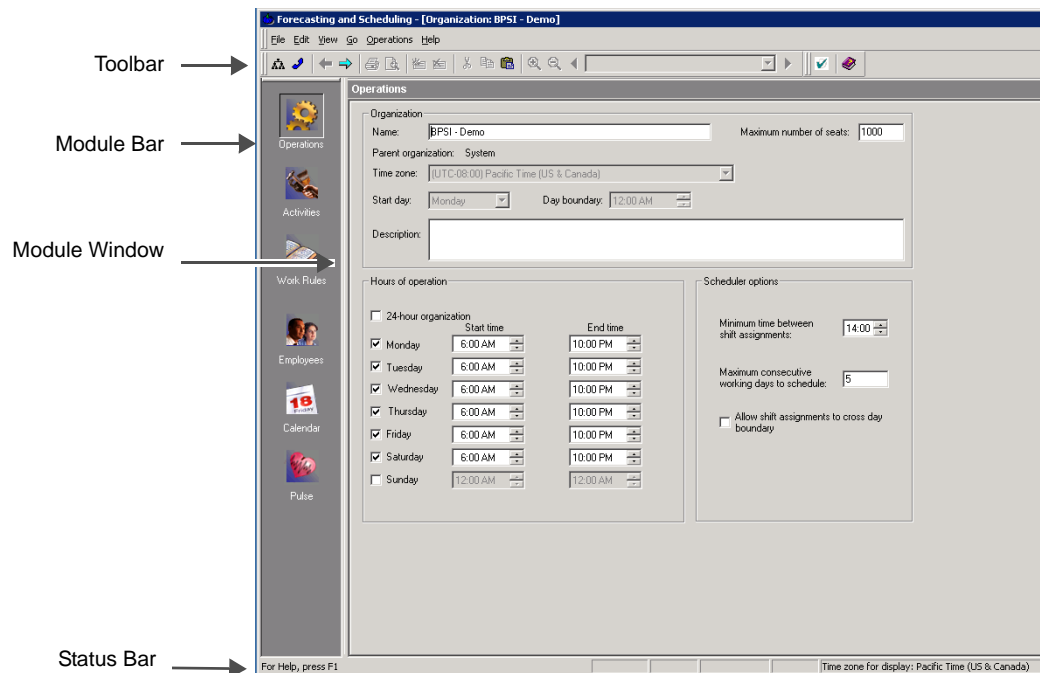
This section explains how to navigate through Forecasting and Scheduling and how to enter data in its modules.

Press **F5** to refresh Forecasting and Scheduling's display at any time.



The Forecasting and Scheduling Application window contains the following parts:

- 1 the Toolbar
- 2 the Module Bar
- 3 The Module Window
- 4 the Status Bar



The Toolbar

The Forecasting and Scheduling toolbar is similar to that used in standard Microsoft applications. It can be moved to any position on your monitor by clicking on it and dragging it to the desired location. Holding your cursor over a toolbar button for a short time displays a description of the button. Some buttons are only displayed in those modules where their functions are active.




To display or hide the Forecasting and Scheduling Toolbar:


















- On the **View** menu, click **Toolbar**.

The Toolbar is toggled on or off.

Toolbar Buttons

You can use the Forecasting and Scheduling Toolbar to perform the following functions:

	Work on an Organization.
	Work on a Campaign.
	Move to the previous module.
	Move to the next module.
	Print.
	Print Preview.
	Open a new Forecasting and Scheduling object—new employee, new shift, etc., or add items to a campaign. See "Using Grids" on page 30.
	Delete the object.
	Copy.
	Paste.
	Zoom in to show a single day.
	Zoom out to show several days.
	Select the day of the week selector. Use the arrows to move forward or backward one day or choose a date from the drop-down window. See <i>Date Selectors</i> .
	Open our web site using your default internet web browser.
	Open the Forecasting and Scheduling Help system.
following buttons appear only when their functions are active:	
	Sort in ascending order.
	Sort in descending order.
	Filter employees.
	List schedule conflicts
	Set up and start the scheduling process.
	Create a new calendar event.
	Analyze your schedule for conflicts
	Recalculate the service level and average speed to answer (ASA) statistics in a calendar.

	Refresh the calendar data for all employees in the campaign or organization, depending on which mode you are in.
	Display a legend for the calendar.
	Display tool tip descriptions when the cursor hovers over a shift or event.
	Display required and forecast levels for staffing and service level.
	The Comparison tool provides a quick comparison of the predicted and required staffing and service level statistics.
	Load a saved profile.
	Save a profile.
	Clear the current profile.
	Restore the profile.
	Scale contact information.
	Scale Average Handle Time (AHT).
	Enter shrinkage.
	Display a table view of the graph.
	Display the Full-Time Equivalent (FTE) calculator.
	Publish the schedule.
	Unpublish the schedule.
	Revert to the last published schedule.

The Module Bar

The Module Bar contains icons for the modules in each Forecasting and Scheduling work mode. Forecasting and Scheduling's modes are designed to use a step-by-step approach. You should go through each module in sequence to set up your organization or campaign. Please refer to the *Workforce Optimization Suite Schedulers Guide* for detailed information on the modules.

To navigate to a module, do one of the following:

- Click the module's icon on the Module Bar.

Or,

- Click the **Previous Module** or **Next Module** button   on the Toolbar.

Or,

- Select the module from the **Go** menu.

To display or hide the Forecasting and Scheduling Module bar:

- On the **View** menu, click **Module Bar**.

The Module Bar is toggled on or off.

Module Icons

The following icons are used to select modules in both Organization and Campaign modes. Icons appear to be indented when they are selected.



These modules have similar but distinct functionality in each work mode.



Operations module.



Activity module.



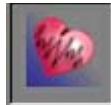
Work Rules module.



Employees module.



Calendar module.



Pulse module.

The following icons and modules are specific to the forecasting and scheduling process and are available only in Campaign mode:



Forecast module.



Service Goals module.



Agent Requirements module. (Not available when skills-based scheduling is used. See the *Workforce Management Schedulers Guide* for more detailed information.)

The Module Window

The Module window changes as each module is selected. See the *Workforce Optimization Suite Schedulers Guide* for detailed descriptions of each Module window.

The Status Bar

The Status Bar displays a brief help message and the time zone for the selected organization or campaign. It also indicates when you are in the What If or Examples mode.

To display or hide the Forecasting and Scheduling Status bar:

- On the **View** menu, click **Status Bar**.

The Status Bar is toggled on or off.


Entering Data in Forecasting and Scheduling

Forecasting and Scheduling uses standard Windows data entry methods. This section describes two methods you may not have used before—grids and calendars.




These methods are generally used for day-to-day data entry. Use Forecasting and Scheduling's import tools for entering large amounts of data, such as when you are first setting up Forecasting and Scheduling.

Using Grids

- Forecasting and Scheduling uses grids similar to those found in many Windows database applications to enter and display data.
 - To add a new row of data to a grid, do one of the following:
 - Click the **New** button  on the Toolbar. This takes you to the bottom row of the grid where you can enter your data.
- Or,
- Click the first field in the empty row at the bottom of the grid. This row is marked with an asterisk (*) in the row header.

	First Name(Asc)	M.I.	Last Name	Employee Type	Min Paid Hrs	Max Paid Hrs	Supervisor	Organization
▶	Alex		Fukunaga	Full-time	40.00	45.00	Myself	SF team 3
	Ann		Holt	Full-time	40.00	45.00	Myself	SF team 3
	Bill		Naylor	Full-time	40.00	45.00	Myself	SF team 3
	Dave		Andre	Full-time	40.00	45.00	Myself	SF team 3
	Edward		Hamilton	Full-time	40.00	45.00	Myself	SF team 3
	Joel		Rosenbaum	Part-time	10.00	30.00	Myself	SF team 3
	Kha		Vu	Part-time	10.00	30.00	Myself	SF team 3
	Mellanie		Branch	Full-time	40.00	45.00	Myself	SF team 3
	Michael		Kremer	Full-time	40.00	45.00	Myself	SF team 3
	Michael		Wilkes	Full-time	40.00	45.00	Myself	SF team 3
	Michael		Goldenberg	Part-time	10.00	30.00	Myself	SF team 3
	Ofer		Matan	Full-time	40.00	45.00	Myself	SF team 3
	Paul		Gourdin	Part-time	10.00	30.00	Myself	SF team 3
	Sarah		Morse	Full-time	40.00	45.00	Myself	SF team 3
	Scott		Veach	Full-time	40.00	45.00	Myself	SF team 3

To move between fields, press **Tab** or click a field with your mouse.

The pencil icon  indicates that a row is being edited. To save the data in the row, Tab to or click in a different row.



Data in Forecasting and Scheduling is saved **immediately**. If you want to manipulate your data without making permanent changes to it, use the What If mode. See the *Workforce Management Schedulers Guide* for information on the What If mode.


Some grid fields are used to select and link existing data such as shift events. These are designated by a special ellipsis icon **...** that appears when you move your cursor into the field. Click the icon to display a list of options for that field, and select the one you wish to use.

Shift activities for: 8 1/2 hour shift								
Name	Type	Length	Paid	Start Anytime	Start Window		Organization	Description
					Start	End		
15 minute break	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	02:00	03:30	San Francisco	
15 minute break	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	05:30	07:00	San Francisco	
1/2 hour lunch	Lunch	00:30	<input type="checkbox"/>	<input type="checkbox"/>	04:00	05:30	San Francisco	
*	...		<input type="checkbox"/>	<input type="checkbox"/>				

Using Calendars

Forecasting and Scheduling uses two types of calendars:

Date Selectors

Date selectors  are used in several modules to select the active day or week (depending on the module). They are displayed when the drop-down date selector on the Toolbar is clicked or when creating a new scheduling period.




- To select a date in the current month, click on the date.
- To change months, click the arrow to the left or right of the name of the month, or click on the month and select from the list.
- To change years, click the year, then use the spinner to change the year.
- To return to the current date, click **Today** at the bottom of the calendar.

Calendar Grids

Calendar grids are used to display shift assignments, employee vacations, breaks, meetings, and so forth. They are located in three modules:

- **Employee module**—one for each employee; displays scheduled activities for an entire week. In the Organization mode, you may move forward or backward in time as far as you wish. In the Campaign mode, only the current week can be displayed.
- **Organization Calendar**—schedules for all employees in the selected organization regardless of the campaign to which they are assigned. You may move forward or backward in time as far as you wish.
- **Campaign Calendar**—schedules for all employees in the selected campaign regardless of the organization to which they are assigned. You can only view dates for the current scheduling period, which can be up to six weeks long.

Monday, January 15, 2001		6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM
Paulus	Denise							
Baker	Linda							
Holt	Ann							
Smith	Cameron							
Hjellum	Donn							
Lehne	Marcia							
Brewer	Mark							
Larson	Pierce							
Elliott	Richard							
Hardy	David							
McGriff	Heather							
Jones	Steve							
Bell-Urbe	George							
Watson-Haley	Gina							

 The data in all Forecasting and Scheduling calendars are linked. A change in any calendar is instantly reflected in all of the others.

Use the date selector (see *Date Selectors*) to select the portion of the calendar grid you wish to display.

Activities are color coded. Hold the cursor over a time block for a short time to see an explanation of the code. Click **Legend** on the **View** menu or click **Settings** on the **File** menu to display a complete list.

Changing Forecasting and Scheduling's Settings

Forecasting and Scheduling allows you to make and change a number of settings that apply to the entire program. These are available regardless of the mode or module that is active.

Time Zones

Forecasting and Scheduling lets you set up organizations and campaigns within different time zones—a time zone is entered when the organization or campaign is originally created. When the organization or campaign is opened, the time and date information for the time zone you entered is displayed regardless of your system's time zone. You can change the display time zone at any time and information about times and dates in

other zones is automatically adjusted and correctly displayed. This feature is especially useful if you have contact centers in more than one time zone—you can quickly see the hours for each contact center displayed in its local time zone or in your own time zone. For example, if your East Coast contact center is open from 6 A.M. to 7 P.M. EST, the display time zone is automatically set to Eastern time (regardless of the time zone your system time is set to) when the organization is opened. As a result, you see:

The screenshot shows a configuration window for an organization. The 'Organization' section includes fields for Name (East Coast), Parent organization (BPSI - Demo), Time zone (UTC-05:00 Eastern Time (US & Canada)), Start day (Monday), Day boundary (12:00 AM), and Maximum number of seats (1000). The 'Hours of operation' section shows a table of days with start and end times, and a '24-hour organization' checkbox. The 'Scheduler options' section includes 'Minimum time between shift assignments' (14:00) and 'Maximum consecutive working days to schedule' (5).

Day	Start time	End time
<input checked="" type="checkbox"/> Monday	6:00 AM	10:00 PM
<input checked="" type="checkbox"/> Tuesday	6:00 AM	10:00 PM
<input checked="" type="checkbox"/> Wednesday	6:00 AM	10:00 PM
<input checked="" type="checkbox"/> Thursday	6:00 AM	10:00 PM
<input checked="" type="checkbox"/> Friday	6:00 AM	10:00 PM
<input checked="" type="checkbox"/> Saturday	6:00 AM	10:00 PM
<input type="checkbox"/> Sunday	12:00 AM	12:00 AM

If you are on the West Coast and want to see the hours your East Coast contact center is open in your time, set the display time zone to Pacific time and you will see:

The screenshot shows a configuration window for a scheduler. It is divided into several sections:

- Organization:** Name: East Coast, Maximum number of seats: 1000, Parent organization: BPSI - Demo, Time zone: (UTC-05:00) Eastern Time (US & Canada), Start day: Sunday, Day boundary: 9:00 PM.
- Hours of operation:** Inherited from: BPSI - Demo. A checkbox for "24-hour organization" is unchecked. A table lists days from Sunday to Saturday with start and end times. Sunday through Friday are checked and have a 3:00 AM to 7:00 PM schedule. Saturday is unchecked and has a 9:00 PM to 9:00 PM schedule.
- Scheduler options:** Inherited from: BPSI - Demo. Minimum time between shift assignments: 14:00. Maximum consecutive working days to schedule: 5. A checkbox for "Allow shift assignments to cross day boundary" is unchecked.

At the bottom right, a status bar indicates "Time zone for display: Pacific Time (US & Canada)".

- i** You can only enter or modify time information when your display time zone is the same as the organization or campaign time zone. It is dimmed when your display time zone is different.

Changing Your Display Time Zone

To change your display time zone:

- 1 Double-click the time zone on the Status Bar.

Time zone for display: Eastern Time (US & Canada)

- 2 Click the time zone you want to display, and then click **OK**.



All times and dates in the display reflect the new time zone.

You can leave the two time zones you use the most in this dialog box and switch quickly between them. You can also select other time zones as required.

- i** Changing your display time zone does **not** affect your system time. It only affects the Forecasting and Scheduling display.


Getting Help

Forecasting and Scheduling's online help system is available from each module and dialog box by pressing **F1**, clicking the **Help** icon, or from the **Help** menu.

Understanding Roles and Access Rights

Access to all functions in the Workforce Optimization Solution is controlled through the use of roles. A role defines a user's access rights; each user must be assigned a role in order to log into the Workforce Optimization Solution and the Workforce Optimization Solution will display or enable only those functions to which a user's role provides access. In Scorecards, your participation in KPIs is based on roles.

Each user's role is also assigned a **scope**. The scope can be either the organization level to which the role applies, campaign to which the role applies, installation, or group to which the role applies. For example, a manager may have access to the records of people in his own organization but not those in other organizations, or a scheduler can have rights to schedule Campaign A, but not Campaign B. Roles limited to generic (non-organizational and non-campaign) functions do not have scopes.

 The roles and associated access to the various functions, modules, sections, and tabs within Impact 360 are described in the documentation set as they would be for a new installation. If your system has been upgraded from a previous release, your previous settings are maintained, making it possible that users might not have access to certain features. If you want to grant access to these features, you will need to manually modify the role's access rights. Refer to the *Workforce Management Roles and Privileges Guide* to determine what the various privileges control, as well as their default role assignments.

Workforce Management comes preconfigured with a variety of different roles, which are described in a separate guide, the *Enterprise Suite User Management Guide*.

Starting the Workforce Optimization Solution

This section discusses starting the Workforce Optimization Solution and the general navigation and functionality you might find useful. Additional information on the Forecasting and Scheduling module can be found in [Chapter 21 "Forecasting and Scheduling in the Web Application"](#).

There are two ways to start the web application in Workforce Management, depending on how your system is configured:

- Single sign-on

When your system has been configured for single sign-on, you do not log into Workforce Management, or indeed, any of the Impact 360 applications, such as

eLearning, Quality Monitoring version 10 SP3, or Quality Monitoring version 7.8 SP1. All authentication is done when you log into Windows on your computer.

- Application-dependent sign-on

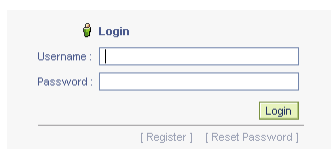
You must log into each Impact 360 application independently.

To start Workforce Management:

- 1 Open your web browser and type the URL of the server location where Workforce Management is installed.

If your system is configured for single sign-on, the login page is displayed and the **Trusted Login** check box is checked. You do not need to sign in to the application, only click on **Login**. You can then start working with Workforce Management.

If your system is not configured for single sign-on, the Login page opens, a portion of which is shown below:




The screenshot shows a login form with the following elements:

- A title "Login" with a key icon.
- A "Username:" label followed by a text input field.
- A "Password:" label followed by a password input field.
- A green "Login" button.
- Links for "[Register]" and "[Reset Password]" at the bottom.

- 2 Type your Username and Password (both are case-sensitive), then click **Login**. Workforce Management opens to the default page for your role or the one you have selected in Preferences.

If users have forgotten their password, and provided your company's networking and security environment permits, they can click **Reset Password**. The system will prompt them for certain data to identify them (the same data specified in the section *Self-Identification (XXX)* of the *Workforce Management Administration Guide*), and if an e-mail address has been registered for them, it will send a temporary password to their e-mail address. They can use this temporary password to log in; the system will then require them to change the temporary password and log in using the new password they have selected.

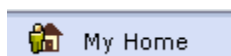
-  If an e-mail address is not registered for them, they will be instructed to contact their system administrator either to reset their password or register an e-mail address for them, so they can reset it themselves.

Getting Around in Workforce Management

Workforce Management uses a web-browser-based interface with a navigation bar and multiple levels of tabs.



The topmost level of navigation consists of *modules*, such as the following:

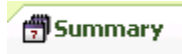


At the far right end of the modules, a button (🔼) allows you collapse and truncate the module navigation level from two lines to one, which can be useful depending on your screen's size.








Hovering your cursor over a module displays a window showing all the sections into which functions are grouped under the module, such as:

- **My Dashboards**
- **My Schedule**
- **My Requests**

The next level down of navigation is referred to as a *tab*, such as the following:



General controls are located above the navigation bar:

	Click Refresh to update the data on your page.
	Click Print to print a copy of the current page.
	Click Send Message to send a pop-up alert to selected target users.
	Click Enter What If to enter What If mode.
	Click Preferences to open the Preferences window.
	Click Help to open the Workforce Optimization Solution Help system and display help for the current page.
	Click Logout to log out of the Workforce Optimization Solution.

Navigate by hovering your cursor over the appropriate module to display the sections and their tabs, and click the tab you want to use.

Role Name	Default Role	Description
Adhoc Query Analyst	No	Adhoc Query Analyst
Administrator	No	System Administrator
Agent	Yes	Agent in the Organization
Branch Admin	No	Branch Administrator
Branch Employee	No	Branch Employee
Branch Manager	No	Branch Manager
General	No	Read-only Access to Organization and Campaign.
Installation & Setup Role	No	Installation & Setup Role
Manager	No	Organization Manager
New Agent	No	New Agent in the Organization

Note that the modules, sections, and tabs available change depending on the user's role and your license.

TIP



If you resize your browser window, the rightmost buttons on the button bar may be hidden. Resize your browser window, scroll horizontally, or change your screen resolution to see them.

TIP



If you find yourself frequently changing among two or three tabs, you can open multiple sessions in separate browser windows to make your access to these tabs quicker and easier.

Expanding Pages

Some pages in Workforce Management use two panes with a selection list on the left and an action page on the right.

Name	Mon 05/24	Tue 05/25	Wed 05/26	Thu 05/27	Fri 05/28	Sat 05/29	Sun 05/30
Jory Adams	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Melissa Adams	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Thaddeus Alde	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Howie Alred	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Sue Alred	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Rand Altior	Not published	Not published	Not published	Not published	Not published	Not published	Not published
David Anderson	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Jean Auel	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Alysi Bailey	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Al Baker	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Don Barer	Not published	Not published	Not published	Not published	Not published	Not published	Not published
John Belman	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Jennifer Barnes	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Kate Barnes	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Betsy Ben	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Michael Bates	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Laraysia Beene	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Christina Bell	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Abraham Belkovich	8:15 AM - 5:45 PM	12:01 PM - 9:15 AM	12:45 PM - 9:15 PM	11:30 AM - 8:00 PM	12:30 PM - 9:00 PM	Off	Off
Carl Benson	Not published	Not published	Not published	Not published	Not published	Not published	Not published

Either side of these pages can be expanded by clicking one of the arrow buttons between the panes.



- Click the button facing right to expand the left pane into a summary list.

Name	Suffix	Employee ID	Start Date	End Date	Supervisor	Manager Name	Rank	Wage Amount	Wage Type	Job Title	Organization Name
Aho, Sanna			Aug 1, 2001	Dec 31, 2078	No	Kreager, Eric	1	0.0	Hourly	Product Literature	
Albe, Christy			Jul 21, 2003	Jan 1, 2079	No	Kirberger, Jon	1	0.0	Hourly	MOUNFD	
Anderson, David			May 16, 1999	Jan 30, 2078	No	Purkhan, Kenneth	1	0.0	Hourly	CRM - Central and Great Lakes	
Anderson, Erick			Apr 28, 2002	Jan 1, 2079	No	Harris, Al	1	0.0	Hourly	PAIN	
Anderson, Jennifer			Jan 29, 2001	Jan 1, 2079	No	Schroette, Lisa	1	0.0	Hourly	CS - Valves	
Anderson, Tiffany			May 12, 2002	Jan 1, 2079	No	Poach, Hasey	1	0.0	Hourly	CRM - MW and South	
Arnold, Wiesbely			Apr 28, 2002	Jan 1, 2079	No	Harris, Al	1	0.0	Hourly	PAIN	
Ausp, Sarah			Jul 7, 2002		No				Hourly	CRM - Central and Great Lakes	
Balesberg, Rob			May 9, 2003	Jan 1, 2079	No	Poach, Hasey	1	0.0	Hourly	CRM - MW and South	
Baugh, Paul			Jan 14, 1998	Jan 1, 2079	No	Harper, Melissa	1	0.0	Hourly	CRM - East and MA	
Becker, Anne			Jan 18, 2003	Jan 1, 2079	No	O'Hearn, Shannon	1	0.0	Hourly	CS - Open Heart Technologies	
Bentley, Michele			Aug 12, 2002	Jan 1, 2079	No	O'Hearn, Shannon	1	0.0	Hourly	CS - Open Heart Technologies	
Bickly, Paula			Apr 17, 2002		No	Wood, Allison	1	0.0	Hourly	NAS	
Birkner, Philip			Jan 1, 2003	Jan 1, 2079	No	Kargho, Abdul	1	0.0	Hourly	Support Center - ITSC	
Boucher, Devin			Jul 29, 2002	Jan 1, 2079	No	Kreager, Jon	1	0.0	Hourly	MOUNFD	
Bouridge, Larry			Nov 11, 2002	Jan 1, 2079	No	Harris, Al	1	0.0	Hourly	PAIN	
Boyles, Nicole			Jul 24, 2003	Jan 1, 2079	No	Harris, Al	1	0.0	Hourly	PAIN	
Brink, Sheila			Oct 7, 1991		No	Schmitt, Jeffrey	1	0.0	Hourly	NAS	
Brogan, Elizabeth			May 11, 1999		No	Wood, Allison	1	0.0	Hourly	NAS	
Brusatto, Kristi			Jul 21, 2003	Jan 1, 2079	No	Schroette, Lisa	1	0.0	Hourly	CS - Valves	
Brusatto, Kristi			Jul 8, 2003	Jan 1, 2079	No	Schroette, Lisa	1	0.0	Hourly	CS - Valves	
Burman, Mike			Jul 23, 2001	Jan 1, 2079	No	Pfeifer, Graham	1	0.0	Hourly	Support Center - ITSC	
Burton, Jeremy			Aug 21, 2003	Jan 1, 2079	No	Kreager, Jon	1	0.0	Hourly	Viscose	
Bryn-Kolbasus, Heather			Jan 1, 2003	Jan 1, 2079	Yes				Hourly	Support Center - ITSC	
Callager, Heather			Dec 1, 2003		No	Harris, Al	1	0.0	Hourly	PAIN	
Carlson, Kris			Jan 29, 1991	Jan 1, 2079	No	Dapchoff, Daniel	1	0.0	Hourly	Training	
Carter, Tammy			Dec 1, 2003		No	Harris, Al	1	0.0	Hourly	PAIN	
Ceballos, Devina			Apr 2, 2000	Jan 1, 2079	No	Poach, Hasey	1	0.0	Hourly	CRM - MW and South	
Clark, Jacob			Feb 10, 2003	Jan 1, 2079	No	Poach, Hasey	1	0.0	Hourly	CRM - MW and South	

- Click the button facing left () to expand the right pane into a full page display.

Name	Monday 01/06	Tuesday 01/07	Wednesday 01/08	Thursday 01/09	Friday 01/10	Saturday 01/11	Sunday 01/12
Aho, Samra	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Alke, Christy	Off	Off	Off	Off	9:00 AM - 6:00 PM	Closed	Closed
Anderson, David	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Anderson, Erica	9:00 AM - 6:00 PM	9:00 AM - 6:00 PM	9:00 AM - 6:00 PM	9:00 AM - 6:00 PM	9:00 AM - 6:00 PM	Closed	Closed
Anderson, Jennifer	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Anderson, Tiffany	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Arnold, Wendy	8:00 AM - 5:00 PM	8:00 AM - 5:00 PM	8:00 AM - 5:00 PM	8:00 AM - 5:00 PM	8:00 AM - 5:00 PM	Closed	Closed
Asp, Sarah	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Bakelberg, Rob	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Bauch, Paul	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Becker, Anne	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Berley, Michele	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Bisby, Paula	Off	Time Off	Off	Off	Off	Closed	Closed
Borken, Philip	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Boucher, Brian	Off	Off	Off	Off	10:00 AM - 7:00 PM	Closed	Closed
Bourgeois, Larry	9:00 AM - 6:00 PM	9:00 AM - 6:00 PM	9:00 AM - 6:00 PM	9:00 AM - 6:00 PM	9:00 AM - 6:00 PM	Closed	Closed
Boyles, Nicole	8:00 AM - 5:00 PM	8:00 AM - 5:00 PM	8:00 AM - 5:00 PM	8:00 AM - 5:00 PM	8:00 AM - 5:00 PM	Closed	Closed
Brast, Sheila	Off	Off	Off	Off	10:00 AM - 7:00 PM	Closed	Closed
Brigg, Elizabeth	Off	Off	Off	Off	Off	Closed	Closed
Brownell, Nicole	Not published	Not published	Not published	Not published	Not published	Not published	Not published

- To return to the original display, click the single-arrow button to the side of the display. To switch the pages displayed, click the double-arrow.



The pane on the right may consist of one or more groupings, referred to as *containers*, as shown below:

Last Name	First Name	Middle Name	Suffix	Birth Date
Personal Contact				
Administrative Details				
Employee ID				
Tax ID (SSN)				
Wage Amount	0.00			
Rank				
Start Date				
Supervisor				
Organization	CRM - MN and South			
Manager				
Job Title				
Home Address				
Address				
Address 2				
City				
State				
Zip/Postal Code				
Country				
User Defined Fields				
Data Source				
Agent ID		Password		

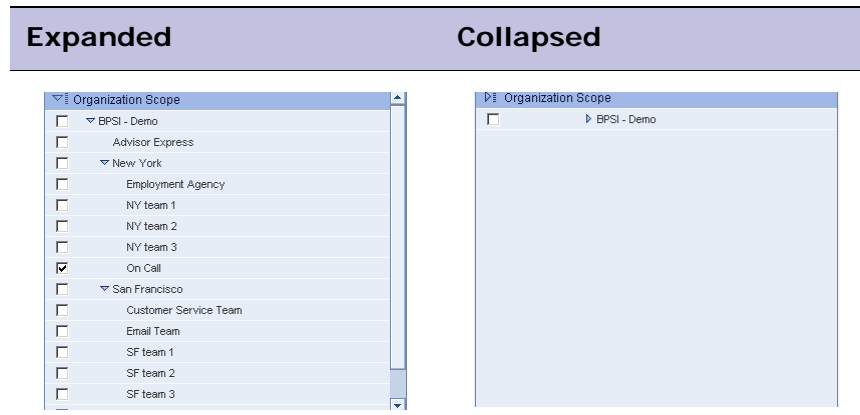
Each container has its own title and can be collapsed or expanded. Containers may contain multiple collapsed levels.

Expanding and Collapsing Lists

Some lists in the Workforce Optimization Solution have controls that allow you to expand the list completely, or to collapse it.

- Click right-facing button to expand the list.
- Click the down-facing button to collapse the list.

For example, the following graphic shows the Organization Scope list in both its expanded and collapsed form:

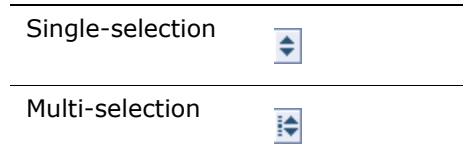


Selecting Items in a Drop-Down Menu

You set the value of some items in the Workforce Optimization Solution's web interface using drop-down menus. There are two types of drop-down menus:

- **single-selection**
You can only select one item from the drop-down menu.
- **multi-selection**
You can select one or more items, using the **Ctrl** key to select non-adjacent items or the **Shift** key to select a contiguous range of items.

The type of drop-down menu is indicated with the following buttons:



Once you've finished multi-selecting, click again.

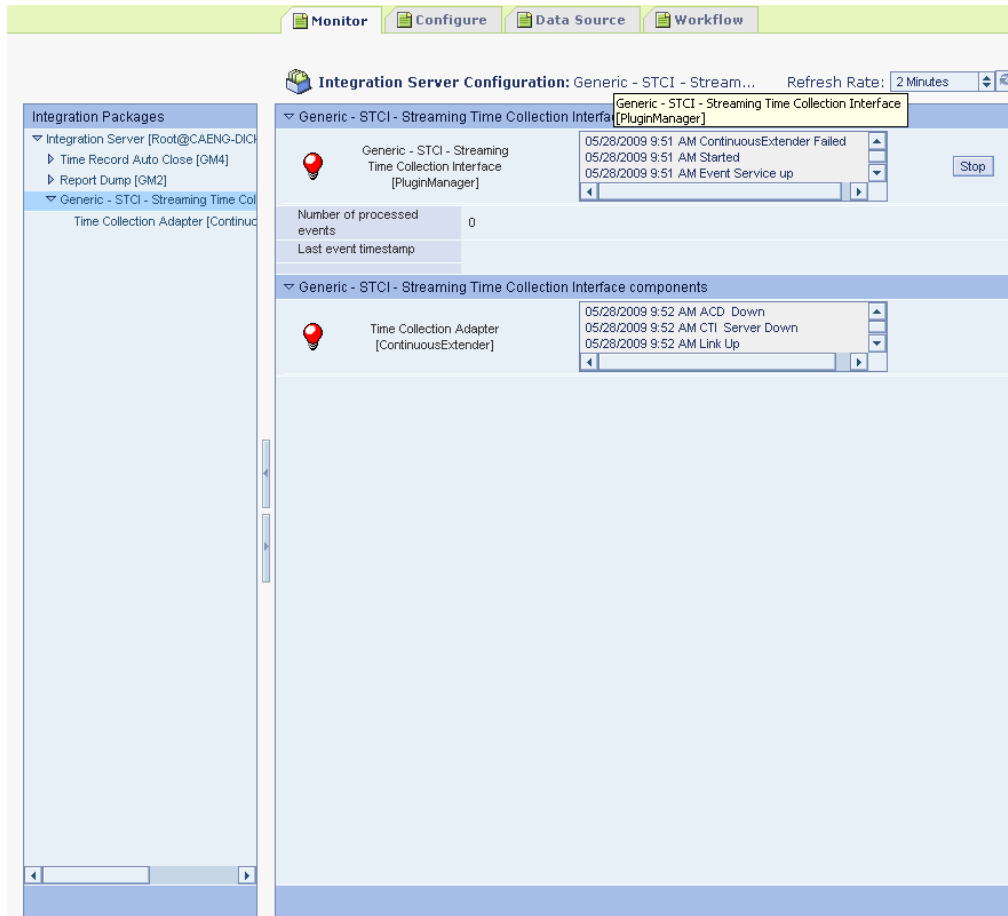


If the items you have selected cannot be fully displayed in the selection box, position your cursor over the selection for a few seconds (known as hovering). The selected items will be displayed as a tool-tip. This same technique can be used for both single and multi-selections.

Expanding Truncated Text

Some windows in the Workforce Optimization Solution automatically truncate text in the Content Title area of the window. To indicate that the text has been truncated, the system adds an ellipsis (...) to the end of the displayed text.

To expand the text so you can see it in its entirety, position your cursor over the text for a few seconds (referred to as *hovering*). The full text then appears in a pop-up box, as shown in the following figure:



Sorting Data

Many of the Workforce Optimization Solution's pages contain columns of information that can be sorted.

To sort information:

- Click the name of the column to be sorted. The column head turns darker and a small arrow ▼ indicates the sort order of the column.

Name	Organization Name	Badge ID	Employee ID	End Date	Supervisor	Pay Policy	Tax ID (SSN)	Start Date	Suffix	Y
Andersen, Kym	Bling				No	Corporate Pay Policy		Apr 23, 2001		0
Bier, Rocky	Bling				Yes	Corporate Pay Policy		Apr 23, 2001		0

- To reverse the sort order, click the name of the column again.

Printing a Page

To print a page:

- 1 Click **Print** on the navigation bar. The **Print** dialog box opens.
- 2 On the **Options** tab, select **Print frames as laid out on screen**.
- 3 Click **Print**.

Sending Pop-Up Messages

You can use the **Send Pop-up Message** button to send pop-up alerts to other employees.

When you click the **Send Pop-up Message** button, the **Send Pop-up Message** pop-up window opens.

To create a new alert message, you need to provide the pop-up alert target information (to whom) and the message itself.

Providing Target Information

You can send pop-up alerts to employees in a number of ways:

- 1 You can select employees by name, by checking the **Employees** check box. To select specific employees, click the employee icon. The employee selector screen appears. Select the employees as desired and click **Save**.
- 2 You can send pop-up alerts to all employees selected by an existing filter or one that you create or edit at the time of sending the alert by checking the **Employee Filter** check box.
- 3 You can send pop-up alerts to employees using their Workforce Management login names, separated one from the other by semi-colons, by checking the **Additional users by login names (semicolon separated)** check box.
- 4 You can send pop-up alerts to employees by role, checking the **Additional users by role** check box, and selecting the desired role from the drop-down list.
- 5 You can send pop-up alerts to employees using their Windows login names, separated one from the other by semi-colons, by checking the **Additional delivery targets (semicolon separated)** check box, provided you have specified these in the **Pop-up Address** field on the **Profiles** tab of the **User Management** module.

You can select targets using one or more of the above methods, if desired.

Providing Message Information

To provide the message information:

- 1 Insert the subject line and the message text in the available text boxes.
- 2 Select the delivery template from the drop-down list.

Message Templates

Three different templates are used for pop-up messages:

- **Normal**
Normal pop-up messages display a banner at the bottom right of the screen. This banner resembles a sheet of ruled note paper, and shows the subject of the message against a yellow background, and the sender and the date and time the message was sent against a white background. Clicking the banner opens a separate window showing the entire message.
- **High**
Messages sent using the **High** template are meant to be read immediately. For that reason, no banner is displayed, but the message is displayed in a separate window.
- **Confidential**
Confidential pop-up messages display a banner at the bottom right of the screen. This banner resembles a sheet of ruled note paper, and shows the text **Confidential message received...** against a yellow background. To maintain the confidentiality of the message, the sender and the date and time the message was

sent are not displayed. Instead, the text *****CONFIDENTIAL***** is displayed. Clicking the banner opens a separate window with a button that enables the reader to show the entire message (an additional level of security).

Sending the Message

To send the pop-up alert message:

- 1 Click **Send Pop-up Message** to send the alert message.
- 2 Click **Done** if you want to close the form without sending the message.

The form closes and you return to the web application.



Receiving Pop-Up Alert Messages



The pop-up messages you receive can be sent to you in two different ways:

- As a result of alerts that your administrator has configured. Alerts can be sent for such conditions as one of your KPIs being out of range, or your being out of adherence.
- When an administrator, manager, supervisor, or scheduler uses the **Send Pop-up Message** button at the top of the web application window.

Message Templates


As described previously, three different templates are used for pop-up messages:

- Normal
Normal pop-up messages display a banner at the bottom right of the screen. This banner resembles a sheet of ruled note paper, and shows the subject of the message against a yellow background, and the sender and the date and time the message was sent against a white background. Clicking the banner opens a separate window showing the entire message. Click  to close the message or click  to delete the message. If you take no action, the banner fades away, but the message is not lost; pop-up messages are kept for the duration of your session within Workforce Management.
- High
Messages sent using the **High** template are meant to be read immediately. For that reason, no banner is displayed, but the message is displayed in a separate window.
- Confidential
Confidential pop-up messages display a banner at the bottom right of the screen. This banner resembles a sheet of ruled note paper, and shows the text **Confidential message received...** against a yellow background. To maintain the confidentiality of the message, the sender and the date and time the message was sent are not displayed. Instead, the text *****CONFIDENTIAL***** is displayed. Clicking the banner opens a separate window with a button that enables the reader

to show the entire message (an additional level of security). Click  to close the message or click  to delete the message. If you take no action, the banner fades away, but the message is not lost; pop-up messages are kept for the duration of your session within Workforce Management.

Reading Messages

As mentioned previously, you can click the message banner (for Normal and Confidential messages) to open the message in a separate window.

If the banner is no longer visible, you can click the  icon on the Windows taskbar.

The window that opens displays an **Alerts** tab, consisting of the following message elements:

- Navigation icons
- Header
- Controls
- Body

Navigation Icons

Icons are displayed for each message. Icons for the first and last message are always displayed. When more than ten messages exist for the current session, an icon resembling multiple pages is shown, allowing you to move from one group of ten to the next.



Clicking on the icon labeled 11-21 above would change the navigation display to the following:




When you select a particular message icon, the color changes to red for **High** template messages, and yellow for **Normal** and **Confidential** template messages.


Header

The message header is displayed just below the navigation icons. It resembles the pop-up banner described previously, and varies according to the message template:


- Normal

	System down-time
	From: Steakley, Robert
	Sent: 4/25/2007 9:01:04 AM
	Template: Normal



- High



	System down-time
	From: Steakley, Robert
	Sent: 4/25/2007 9:00:29 AM
	Template: High

- Confidential

	A confidential message received...
	
	Template: Confidential

Controls

Message controls are displayed to the right of the message header. All messages, regardless of the template used, have a  **Delete** button. Click the  **Delete** button to delete a message.


In addition, **Confidential** messages have the  **Show** button. Click the  **Show** button to display the sender and message body of a confidential message. (Until you click this button, the sender is displayed as the string *********, and the message body as the string *****Confidential*****.)

Body

The message body is found below the message header area. Messages are shown in plain text for both **Normal** and **High** template messages.

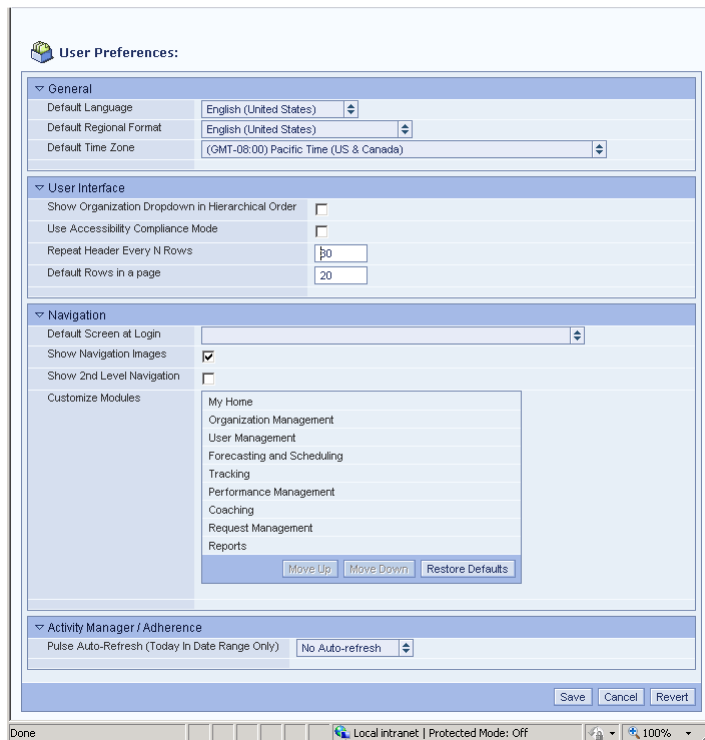
HTML tags can be used in the message text.




Confidential messages are not shown in plain text until you click the  **Show** button described previously. Instead, the string ***** is shown in place of the sender (in the window header), ***CONFIDENTIAL*** in place of the text, and the string **Confidential message received...** is shown in place of the subject.

Setting Preferences

You can set your viewing preferences by clicking **Preferences** on the navigation bar. These settings remain in effect until you change them.



 These settings affect only your display. Some of the preference settings shown might not be applicable to you, depending on your license.

Preferences allow you to choose the following display options:

General:

- **Default Language**—available languages are determined by your license and made available by your administrator through the Licensed Languages container of the System Management module’s Administration section’s **General** sidebar element. If only one language is available, this option is not displayed.
- **Default Regional Format**—sets the default format for:
 - Date (short and long formats, order, separator)

- Time (12 or 24 hour and relevant symbols, separator, leading zero)
- Currency (symbol, number settings)
- Number settings (000 separator, decimal point character)
- First day of week (in calendars)

The localized setting will be used anywhere dates, times, currency figures and numbers are displayed.

- **Default Time Zone**—activity times and schedules are displayed to you in this time zone.

User Interface:

- **Show Organization Dropdown in Hierarchical Order**—allows you to toggle the display of organizations in drop-down lists from purely alphabetical to a tree-style, showing the hierarchy of organizations and their child organizations.
- **Use Accessibility Compliance Mode**—allows the user interface to be displayed using certain alternate mechanisms prescribed by a U.S. Federal standard. These mechanisms are designed to facilitate access to the system by all users, regardless of their abilities or disabilities.
- **Repeat Header Every N Rows**—the frequency a table or report header will be displayed as you scroll through a list. Type a number in the text box. A blank box sets the number to the default, 30. Enter a zero (0) if you don't want the header to repeat.
- **Default Rows in a page**—for pages that support pagination, the number of rows to display by default for tabular data.

Navigation:

- **Default Screen at Login**—the screen that first appears each time you log in.
- **Show Navigation Images**—toggles the display of the images shown above the module names in the navigation bar. Suppressing the display of the images allows more information to be displayed on your monitor, somewhat reducing the need to scroll.
- **Show 2nd Level Navigation**—toggles the display of the navigation sections below the module name.
- **Customize Modules**—the controls allow you to customize the display order of the modules.

Activity Manager / Adherence

- **Pulse Auto-Refresh (Today in Date Range Only)**—How often to auto-refresh Pulse data.

Getting Help

Help for each Workforce Optimization Solution web page is available by clicking the **Help** link on the navigation bar.

Click the **About** button to view statements about intellectual property, open source attribution, and the user license.

Click the **Close** button to return to the main page.

Logging Off the System

You can log out of the Workforce Optimization Solution at any time.

To log out of the Workforce Optimization Solution:

- Click **Logout** on the navigation bar.

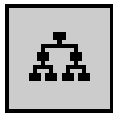
What If Mode

A special mode exists in both the web application and Forecasting and Scheduling that allows you to work with hypothetical schedule information without inadvertently altering the contents of your production database. For more information on What If mode, please see the chapter on Forecasting and Scheduling's Work Modes in the *Workforce Management Schedulers Guide*.

Forecasting and Scheduling's Work Modes

This chapter introduces Forecasting and Scheduling's work modes and provides you with information about using those modes to organize your contact center in Forecasting and Scheduling. You can find detailed information about these modes in [Chapter 5 "Organization Mode Modules and Tasks"](#) and [Chapter 6 "Campaign Mode Modules and Tasks"](#).

Forecasting and Scheduling lets you structure information about your contact center in two different ways:



- The *Organization* mode lets you manage information about your employees—where they work, when they work, who they work for and with, and how they work.



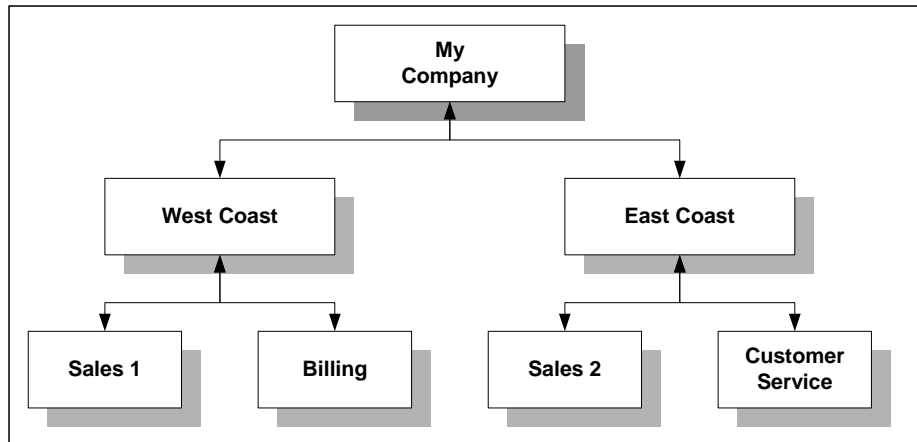
- The *Campaign* mode lets you manage information about your business—forecasting contact volume and scheduling employees from throughout your organization's hierarchy to meet the forecast requirements.

The Organization Mode

Use the Organization mode to create a business structure that reflects the way your company is organized. For example, you can structure your business by location, manager, supervisor, function, or skill set; you can also structure it according to virtually any other organizational hierarchy. Since information flows up and down the organization (employee data flows up; work rules flow down), you can work at any level within the structure, and your work will be reflected throughout the other levels.

- i** You are not required to create a hierarchic structure. You can place all your employees in a single organization, but doing so is not recommended.

This figure shows an example of a company organized along both geographic and functional lines:



My Company is first organized by location—East Coast and West Coast. Then the employees in each geographic organization are organized by function. You could further subdivide the functions (billing, sales, and so forth)—by supervisor, for example. Note that the information in this organization flows both up and down the hierarchy.



Forecasting and Scheduling's hierarchic organization lets you view groups of suborganizations by viewing their parent (the organization above them in the hierarchy). For example, the West Coast organization contains a roll-up of Sales 1 and Billing. You can see all employees in both organizations and their schedules.

Tasks You Can Perform in the Organization Mode

You can perform the following general tasks in the Organization mode:

- Create organizations.
- Create, edit, and delete your organizations' Activity Types, as well as the Activities that fall under the Activity Types.
- Set each organization's hours of operation.
- Create shifts and work patterns for each organization.
- Create calendar events, time off, and unavailabilities.
- Add employees to the organizations.
- View the organization calendar.
- Republish, unpublish, and revert schedules (the schedules must first have been published in Campaign mode).

Opening or Adding an Organization

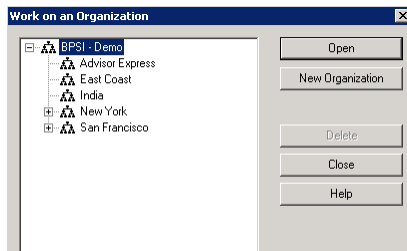
To open an existing organization:

- 1 In the Forecasting and Scheduling Startup window, click **Work on an Organization**.

Or

On the Toolbar, click the **Organization** button .


The **Work on an Organization** window appears.



- 2 Click + to expand the tree to locate the organization.
- 3 Double-click the organization.

Or

Click the organization, and then click **Open**.

-  If **Open** is unavailable (appears dimmed), you might not have access to the organization. See your system administrator for access privileges.

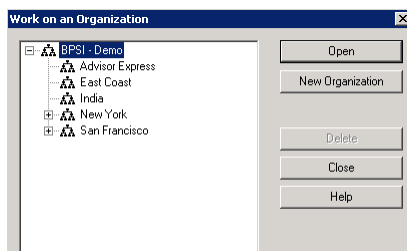
To add a new organization:

- 1 In the Forecasting and Scheduling Startup window, click **Work on an Organization**.

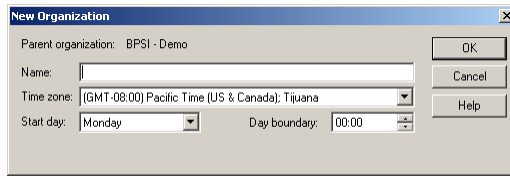
Or

On the Toolbar, click the **Organization** button .

The **Work on an Organization** window appears.



- 2 Click the parent organization of the one you are adding.
- 3 Click **New Organization**. The New Organization dialog box appears.



- 4 Type a name for the organization.
- 5 Select a time zone for this organization.
- 6 Select the day of the week on which the organization starts its work week.
- 7 Set the day boundary for the organization. This boundary is used to determine when the organization's work day begins and ends for scheduling purposes. If you have a 24-hour organization, this time determines the start and end times for your shifts. Employee shifts and schedules cannot cross this boundary unless the **Allow shift assignments to cross day boundary** check box in the **Advanced Options** group of the Organization mode Operations module is selected. You cannot change the time zone, start day, and day boundary once you have created a shift or an employee for this organization.
- 8 Click **OK** to add the new organization.

To delete an existing organization:

- 1 Close the organization if it is open.
- 2 Select the organization in the **Work on an Organization** window.
- 3 Click **Delete**, then click **Yes** to confirm. The organization and its contents are removed from the system.

To rename an organization:

- 1 Open the organization.
- 2 In the **Operations** module of the new organization, type the new name in the **Name** field.

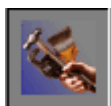
The new name appears in the **Work on an Organization** window.

Organization Mode Modules

The Organization mode contains the following modules:



- **Operations**—Use the **Operations** module to set information about the organization, including the maximum number of seats available, the organization's hours of operation, and the minimum time between shift assignments. Use the **Operations** module to establish a 24-hour contact center. See "[The Operations Module](#)" on page 78.



- **Activities**—Use the **Activities** module to create, edit, and delete your organizations' Activity Types, as well as the Activities that fall under the Activity Types. See "[The Activities Module](#)" on page 80.



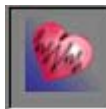
- **Work Rules**—Use the **Work Rules** module to set up shifts, shift events, and work rules for the current organization and its divisions. See “[The Work Rules Module](#)” on page 84.



- **Employees**—Use the **Employees** module to add, delete, and change information about the organization's employees. Also, use it to review and change individual employees' schedules, work patterns, and skills. See “[The Employees Module](#)” on page 123.




- **Calendar**—Use the **Calendar** module to review the schedule for all or selected groups of employees in the organization. See “[The Calendar Module](#)” on page 144.



- **Pulse**—Use the web application's **Tracking** module, **Pulse** section, **Pulse** tab to review the data gathered by your ACD. See page [391](#) for more information on Pulse.

The Campaign Mode

Use Campaign mode to forecast your contact center's needs and create schedules to meet those needs. Campaigns let you schedule employees of different organizations in different time zones to create “virtual” contact centers dedicated to a unique objective. You can create as many campaigns as needed.

-  Each campaign uses scheduling periods to forecast contact behavior and schedule individual employees to meet those needs. Each campaign links to a different set of queues or data sources for which it is responsible.

Tasks You Can Perform in the Campaign Mode

You can perform the following general tasks in the Campaign mode:


- Create new campaigns and scheduling periods with queues and resources from one or more organizations. Assign skills to queues.
- View your campaigns' Activity Types, as well as the Activities that fall under the Activity Types.
- Assign work patterns to campaigns and create new ones.
- Assign employees to campaigns.
- Use history and other data to forecast contact volume and employee requirements.
- Set campaign service goals.
- Generate and modify employee schedules to match campaign goals and requirements.

Adding a Campaign

To add a new campaign:

- 1 In the Forecasting and Scheduling Startup window, click **Work on a Campaign** .

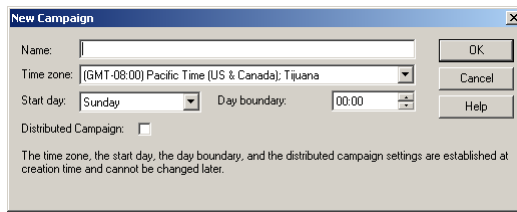
Or

On the Toolbar, click the **Campaign** icon  .


The **Work on a Campaign** window appears.



- 2 Click **Campaigns**, and then click **New Campaign**. The **New Campaign** dialog box appears.




- 3 Type a name and select a time zone, start day, and day boundary for the campaign. The start day and day boundary determine the scheduling period that will be scheduled. If this is to be a distributed campaign (see page [235](#)), click the **Distributed Campaign:** check box.

 You cannot change the time zone, start day, day boundary, or distributed campaign setting once the campaign is established.

- 4 Click **OK**. The new campaign appears in the **Work on a Campaign** window.

To delete a campaign:

 If you delete a campaign, all scheduling periods and other data associated with the campaign will be deleted as well.

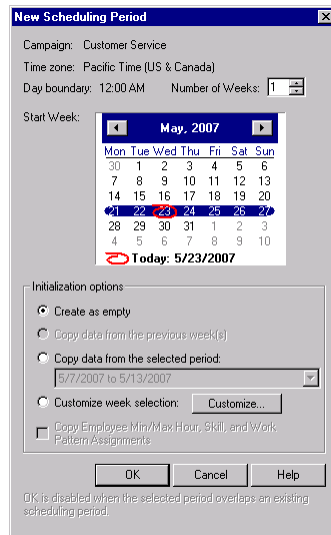
- 1 Close the campaign if it is open.
- 2 Click the campaign in the Work on a Campaign window.
- 3 Click **Delete**, and then click **Yes** to confirm the deletion. The campaign is deleted.

Adding a Scheduling Period to a Campaign

Each campaign uses a scheduling period to forecast contact center requirements and schedule employees to meet those requirements. Each campaign has its own set of scheduling periods.

To add a scheduling period:

- 1 Click the campaign you want to schedule.
- 2 Click **New Scheduling Period**. The **New Scheduling Period** dialog box appears..



- 3 Click in the scheduling period you want to schedule. The scheduling period is highlighted.
- 4 Choose the initialization options:
 - **Create as empty**—The profile includes no data.
 - **Copy data from the previous week(s)**—The profile includes data from the previous week(s). This data includes queues, organizations, employees, work rules, forecasts, service goals, and locked shift assignments.
 - **Copy data from the selected period**—The profile includes data from a previous period selected in the drop-down list.
 - **Customize week selection**—Use weekly data from various period(s) you select. See [Customizing the Week Selection](#), page 58.
 - **Copy Employee Min/Max Hour, Skill, and Work Pattern Assignments**—When you copy the data from existing scheduling period(s), you can also copy to the new scheduling period the min/max hours, skills, and work pattern assignments that were in effect for the week being copied.
- 5 Click **OK**. The scheduling period is added to the list of scheduling periods in this campaign.

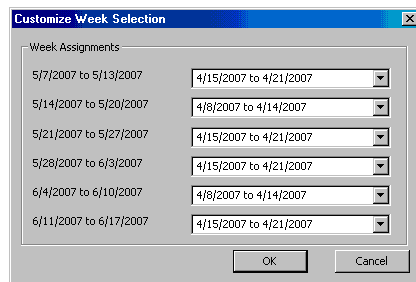
- i** The dates for the scheduling period that are displayed in the **Work on a Campaign** window are shown in your system time, regardless of the time of the campaign. For example, if a scheduling period starts at 12:00 a.m. Eastern time on Monday, March 8, 1999, and your system is set to Pacific time, the starting date of the scheduling period will be displayed as 3/7/99. This applies only to the **Work on a Campaign** window.

To delete a scheduling period:

- 1 If the scheduling period is currently open, close it.
- 2 Click the scheduling period in the **Work on a Campaign** window.
- 3 Click **Delete**, and then click **Yes** to confirm the deletion. The scheduling period is deleted.

Customizing the Week Selection

This is the most flexible initialization option. It provides a dialog box that allows you to match up each week of the new scheduling period with any previous week, regardless of in which scheduling period the previous week belongs.



This feature allows you, while scheduling multi-week periods, to copy from individual weeks that might have special promotions, or shutdowns, or other special weeks, and assign them to single weeks within the new campaign period.

Destination weeks are shown on the left; source weeks are selected one by one on the right. Only weeks that are within an existing scheduling period are shown in the source week selectors.


- i** All the weeks selected must have the same setting for **Skill Based**, **Queues**, and **Organizations**. If one of the weeks does not have the same setting, an error message is displayed.

- 💡** You can select the same source week multiple times. For example, when creating a scheduling period from 1/14 – 1/28, you could use 1/1 – 1/7 as the source for the first week and use 1/1 to 1/7 as the source for the second week.

Opening a Scheduling Period


To open an existing scheduling period:

- 1 Click the scheduling period in the **Work on a Campaign** window.
- 2 Click **OK**.

 If **Open** is unavailable (appears dimmed), you might not have access rights to the scheduling period. See your system administrator for access privileges.

Campaign Mode/Scheduling Period Modules

The following modules are available in Campaign mode:

 Additions and changes to these modules apply only to the scheduling period for which they are entered. You can only modify data at the organization or campaign where it is entered.



- **Operations**—Use the **Operations** module to set information about the campaign, including the campaign's queues and their associated skills, the campaign's hours of operation, and the organizations participating in the campaign. See "[The Operations Module](#)" on page 165.



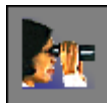
- **Activities**—Use the **Activities** module to view your campaigns' Activity Types, as well as the Activities that fall under the Activity Types. See "[The Activities Module](#)" on page 168.



- **Work Rules**—Use the **Work Rules** module to add or change shifts, shift events, and work rules for the campaign or scheduling period. See "[The Work Rules Module](#)" on page 169.



- **Employees**—Use the **Employees** module to add, delete, and change information about the campaign's employees. Also, use it to review and change individual employees' schedules, work patterns, and skills. See "[The Employees Module](#)" on page 169.



- **Forecast**—Use the **Forecast** module to project Contact Volume and Average Handle Time (AHT) for the open scheduling period using historical data. See "[The Forecast Module](#)" on page 173.



- **Service Goals**—Use the **Service Goals** module to set goals using the Service Level or Average Speed to Answer (ASA) and contact abandonment level. See "[The Service Goals Module](#)" on page 188.



- **Agent Requirements**—Use the **Agent Requirements** module to view the number of employees required to meet the forecasted contact volume and service goals throughout the work week. See "[The Agent Requirements Module](#)" on page 194.




- **Calendar**—Use the **Calendar** module to generate the schedule for the scheduling period based on the best fit between the employee requirements and work patterns. See “[The Calendar Module](#)” on page 199.
- **Pulse**—Use the web application’s **Tracking** module, **Pulse** section, **Pulse** tab to review the data gathered by your automatic call distributor (ACD), and compare it to the forecasted and required numbers. See page [391](#) for more information on **Pulse**.

What If Mode

Forecasting and Scheduling automatically saves changes to its database at the time they are made. If you want to make changes that are not saved, you can use the What If mode. This is a special mode of Forecasting and Scheduling that copies your current information into a separate database. You can then make any changes you want to the data without affecting your original data.

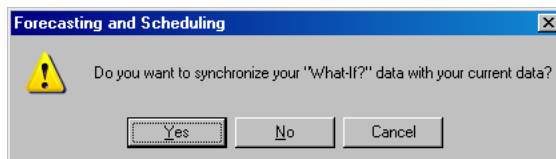
The data in the What If database, including your changes to it, will remain as you leave it until the data is resynchronized with the active database.

 What If mode uses a single Forecasting and Scheduling database, which is named **BPWHATIFDB**. Any Forecasting and Scheduling client can access this database.

When a Forecasting and Scheduling client is using the What If database, it is locked until that user leaves What If mode.

To enter What If mode:


- 1 From the **File** menu, select **Enter What If Mode**.
- 2 You are asked if you want to synchronize the What If data with your current data.

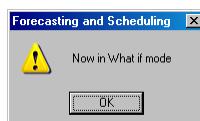


- Choose **Yes** to load your current data into the What If database. This operation makes an exact copy of your existing database. It overwrites any data that is currently in the What If database.

Or

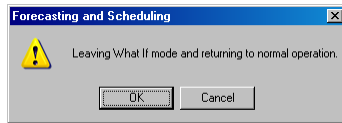
- Choose **No** to leave the What If database untouched—that is, it will be the same as it was the last time a user exited from What If mode.

- 3 You are notified that you are in What If mode. Click **OK**.  is displayed on the status bar until you return to normal operation.




To leave What If mode:

- 1 From the **File** menu, select **Exit What If Mode**.
- 2 You are switched back to your normal database. Your normal database is *not* updated. Click **OK** to acknowledge the change, or click **Cancel** to remain in What If mode.



Scheduling with Forecasting and Scheduling

This chapter provides step-by-step instructions for creating a schedule. Use it as a checklist as you schedule your contact center, and to troubleshoot if you do not achieve the results you want. See [Chapter 5 "Organization Mode Modules and Tasks"](#) and [Chapter 6 "Campaign Mode Modules and Tasks"](#) for detailed information about each module and task.

 You can use the What If mode to practice scheduling and test new scenarios without affecting your normal database. See [What If Mode](#) on page 60.

This chapter contains the following sections:

- [Setting Up Data Sources and Queues](#), **page 63**—Ensure that queues have been set up and data imported from your ACD or data source. See page [63](#).
- [Setting Up Your Organization](#), **page 64**—Create organizations and set their hours of operation and other parameters. See page [64](#).
- [Creating Your Activity Types and Activities](#), **page 64**—Create, edit, and delete your organizations' Activity Types as well as the Activities that fall under the Activity Types. See page [64](#).
- [Creating Your Work Rules](#), **page 65**—Establish and link shifts, shift events, and work patterns for each organization. See page [65](#).
- [Adding Employees](#), **page 66**—Add employees and assign them work patterns, preferences, skills, and availability. See page [66](#).
- [Setting Up Your Campaign and Scheduling Period](#), **page 67**—Create campaigns and scheduling Periods. See page [67](#).
- [Setting Up Campaign-Specific Work Rules](#), **page 67**—Create work rules for your campaign (optional). See page [67](#).
- [Adding Employees to Your Campaign](#), **page 67**—Assign employees from your organizations to the campaign. See page [67](#).
- [Forecasting Your Contact Volume](#), **page 67**—Use histories and profiles to forecast contact volume. See page [67](#).
- [Setting Your Service Goals](#), **page 68**—Establish service criteria for your campaign. See page [68](#).
- [Generating Your Schedule](#), **page 69**—Schedule employees to meet your goals. See page [69](#).

Setting Up Data Sources and Queues

Forecasting and Scheduling uses contact history data from your automatic call distributor (ACD) or other data sources to track and forecast your contact volume and predict your employee requirements. Make sure your administrator has configured data sources and queues within the **Data Sources** section of the **System Management** module of the web application before you start the scheduling process. Make sure you have your queues set up and are successfully importing data from them.



If you want to get started before your data source integration is complete, you can import a text file containing the contact history. You will still need to use the **Settings** tab of the **Work Queues** section of the **Organization Management** module of the web application to create queues.

Setting Up Your Organization

- 1 Create an organization or an organizational hierarchy. Make sure you enter the correct time and start day for each organization. See "[Opening or Adding an Organization](#)" on page 53.
- 2 For each organization you add, designate the number of seats available for the organization. This is the maximum number of employees from the organization that will be scheduled at any one time. Select the hours and days of operation and the day boundary for each organization. See page [79](#).
For non-24-hour contact centers:
 - a. Click the days of the week your contact center is open.
 - b. Set the start and end times for each day.For 24-hour contact centers:
 - a. Click **24-hour organization**.
- 3 (Optional) Enter the minimum time between employee shift assignments and the maximum number of consecutive working days that an employee can be assigned. If appropriate, click **Allow shift assignments to cross day boundary**. See page [79](#).

Creating Your Activity Types and Activities

Activity types are folders that contain similar activities; they make selecting an activity easier for **My Time** users in the web application. They are also used in time-off accrual.

Forecasting and Scheduling comes preconfigured with the following Activity Types:

- **Absence Activities** (such as vacation or jury duty)
- **Assigned Work Activities** (such as phone or research)
- **Desktop Monitoring** (if included in your license)
- **Learning Activities**
- **Planned Events** (such as training or a staff meeting)
- **Shift Events** (such as lunch or a coffee break)

You can add activity types or modify existing ones.


The **Activities** tab allows you to create or edit existing activities within Forecasting and Scheduling. The Activity Detail window that appears when you double-click on an

existing activity or double-click the * next to the row at the bottom of the grid allows you to set the following:

- Activity name
- Description
- Activity type (from a drop-down menu of the activity types you have defined)
- Whether the activity is paid
- The color displayed on the calendar for that activity
- The activity code displayed as part of the legend when you print in black and white.
- The media associated with the activity. (Only used in multi-contact scheduling, an optional feature of Forecasting and Scheduling; see [Chapter 7 "Multi-Contact and Skill-Based Scheduling"](#).)
- Whether you can use the activity in queue hopping. (See [Chapter 10 "Queue Hopping"](#).)


In addition, you can also specify the following:

- **Schedule Usage**—Whether you can use the activity as a primary activity in a shift, a shift event, a calendar event, time-off, or an unavailability. If the activity is used as an unavailability, you can set the activity to be used in requests. (See Request Management Usage next.) You can also specify resource constraints (the maximum number of employees that can be working this activity at the same time), and the cell group size (a number by which the number of employees working this activity at the same time must be divisible).

 A shift's primary activity is the activity that will be worked for the majority of the shift. For example, an eight-hour shift might have a primary activity of **Phone** and a one-hour shift event with activity **Lunch**. An employee who was assigned this shift would be scheduled for seven hours of the **Phone** activity and one hour of the **Lunch** activity.

- **Request Management Usage**—For unavailability events, if you can use the activity in time off requests, and is part of an allotted time off period.
- **Activity Manager Usage**—The adherence tolerance, maximum time in activity, and whether people in the activity should be considered as In or Out.
- **Scorecards Usage**—The source measure used to calculate the scorecard.


Creating Your Work Rules

 Each organization must have work rules. You can enter them in the parent organization at the top of the hierarchy where they will be available for all the organizations below it (recommended), or you can enter them individually for each organization.

- 4 Create your shift events. See page [96](#).

- 5 Create your shifts. See page [99](#).
Verify that your shift lengths and start times are valid for the organization's start and end times. Entries will appear in red if they are not valid.
- 6 Link shift events to each shift. See page [102](#).
Verify that the Start Window falls within the shift period. Entries will appear in red if they are not valid.
- 7 Create your work patterns. See page [103](#).
- 8 Link your shifts to work patterns and set their occurrence. See page [106](#).
 - a. On the Possible Days Off shift, the box for each day should be checked if employees are allowed to be off that day in the work pattern. For days that employees cannot be off in this work pattern, clear the check box.
 - b. Add the shifts you want associated with this work pattern.
 - c. For each shift, the box for each day should be checked if a shift can be assigned for that day in the work pattern. Clear the check boxes for days on which you do *not* want a shift to be assigned.
- 9 (Optional) Set the minimum and maximum consecutive days. See page [106](#).
- 10 (Optional) Set consistent start times. See page [107](#).
Verify that the shifts set for consistent start times have compatible start times available.
- 11 (Optional) Create fairness or shift assignment rules. See page [108](#).

Adding Employees

 For effective scheduling, it is **very** important that you enter employees only in organizations at the **lowest** level of your hierarchy.

- 12 Enter employee information. See page [124](#).
 - a. Make sure each employee has a minimum and maximum number of hours.
 - b. Make sure each employee is assigned a type that is consistent with the work patterns you want to assign them.
 - c. Make sure that each employee has the correct start date.
 - d. Verify that each employee does not have an end date earlier than today (unless they are no longer working).
 - e. If you use ranking to determine shift preferences, enter a number for each employee's rank. 1 is a higher ranking than 5. An employee with a higher ranking will be given a priority when assigning preferred shifts.
 - f. If you are using employee adherence, enter a Data Source ID number.
- 13 Assign each employee appropriate work patterns. Set their preferences (optional). See page [140](#). If you are using rotations instead of work patterns, assign the employee a rotation (see page [141](#)).

- 14 Optionally, assign each employee appropriate assignment rules (see page [141](#)).
- 15 If you are using skill-based scheduling, assign each employee the appropriate skills. See page [142](#).
- 16 Using the **Calendar** module, set any periods of employee unavailability. See page [153](#).

Setting Up Your Campaign and Scheduling Period

After you have set up your organizations, you can forecast and schedule.

- 17 Create a campaign. See page [162](#).
- 18 Create a scheduling period under the campaign. You can create an empty profile or base one on the data in a previous profile. See page [163](#).
- 19 Open the scheduling period. See page [165](#).
- 20 In the **Operations** module, link one or more organizations to your campaign. Adjust the hours of operation if necessary. See page [166](#).
- 21 Link one or more queues to your campaign. See page [167](#).
- 22 (Optional) Click **Skill-based** if appropriate. (See page [229](#).) Link skills to the highlighted queue.

Setting Up Campaign-Specific Work Rules

- 23 (Optional) Create any shifts or work patterns that apply only to this campaign. These will be listed with "Local" as the organization. (*Skip this module if you are not adding special work rules. The work rules created for the organization will automatically be used. See page [169](#).*)


Adding Employees to Your Campaign

- 24 Add employees to your campaign. Click **New** on the Toolbar and select employees from the list that is displayed. This list includes employees from all linked organizations. See page [169](#).

Forecasting Your Contact Volume

- 25 Create a forecast for each queue by doing one or more of the following (any of these can be used in combination with the others; see page [173](#)):

- Load an existing profile.
 - Add existing weeks to the history grid, and edit them if necessary.
 - Type numbers directly into the table.
- 26** (Optional) Adjust the forecast by scaling.
- 27** (Optional) Set schedule shrinkage.
- 28** Click **Save**.

 If you are licensed for Operations, and using linked queue forecasting, the process of creating forecasts for linked queue forecasting is virtually identical to the process of creating forecasts for other types of campaigns. However, when creating an LQF forecast, keep the following in mind:

- Only the work queue at the top of the linked queue forecasting chain (the source work queue) requires an initial volume forecast. Volume forecasts for the target work queues are generated during the scheduling process.
- Only the work queue at the top of the linked queue forecasting chain (the source work queue) requires an initial AHT forecast. If desired, you can also enter AHT forecasts for the target work queues. However, if you do not enter AHT forecasts for the target queues, the AHT forecast for the target queues will be automatically populated with the AHT time standard entered in the **Activity Handling Time** field on the **Organization Management** module, **Work Queue** section, **Work Queue Configuration** tab.

Since you are only required to create volume and AHT forecasts for the source work queue(s), you can choose to have only the forecast data for the source(s) work queue displayed. To do this, choose **Forecast -> Show Root Queue Only**. If **Show Root Queue Only** is selected, only the source work queue(s) are displayed in the **Work Queue** drop-down list.

Setting Your Service Goals

- 29** Select either **Service level** or **Average speed to answer** as your goal type (or **Deadline Goals** if your queue's media type is deferred). If you select **Service level**, enter a percentage of calls answered and time in seconds to meet the level. If you select **Average speed to answer**, enter the average time in seconds to meet the level. See page [188](#).
- 30** In **Abandonment**, type one of the following:
- The percentage of abandoned calls,
 - Or
 - (Skill-based only) Patience in seconds for the selected queue.
- 31** Set your service goal for each queue by doing one or both of the following:
- Click **Make goal constant** to set the goal to be the same throughout the scheduling period.
 - Type numbers directly in the table. You must enter numbers for *each day*.

- i** If you are licensed for Operations, and using linked queue forecasting, the process for creating service goals for LQF campaigns is identical to the process for creating service goals for non-LQF campaigns. When creating service goals for LQF campaigns, remember to create service goals for all work queues (source and target work queues) linked to the scheduling period.
- 32** If necessary, specify your wait time reserve thresholds. (Some ACDs allow you to give employees reserve or overflow skills. Under normal circumstances, these employees do not take calls on the queues corresponding to their reserve skills. However, if the predicted wait time on the queue is expected to exceed a certain threshold (the reserve threshold), the employees become active in the queue until the queue is cleared out.)
- 33** If necessary, specify a minimum priority threshold and priority. (For Operations scheduling, the minimum threshold represents a "hard floor" scheduling requirement that supersedes service goal requirements; the priority allows you to assign preferred activities to a given employee and have the scheduler apply those preferences when possible.)

Generating Your Schedule

- 34** In the **Calendar** module, click **Schedule**.
- 35** In the Scheduler Setup dialog box, select the days to schedule. See page [201](#).
- 36** (Optional) Select the preference determinant. If you select **Rank**, make sure each employee is ranked.
- 37** Use the sliders to select your scheduling preferences.
- 38** Click **OK** to generate a schedule for the period of the campaign.
- 39** (Optional) Click the **Publish** icon to publish the schedule for the campaign period.

Generating Schedules with Linked Queue Forecasting

- i** If you are licensed for Operations, and using linked queue forecasting, the process of creating scheduling periods for linked queue forecasting is virtually identical to the process of creating scheduling periods for other types of campaigns. However, when creating a linked queue forecasting scheduling period, keep the following in mind:
- Linked queue forecasting scheduling periods must be skill-based.
 - All source and target work queues in a chain should be linked to a single campaign.
 - If desired, you can also link work queues that are not involved in the linked queue forecasting chain to the scheduling period.

The Linked Queue Forecasting area of the Scheduler Setup window is shown below:

The screenshot shows the 'Scheduler Setup' dialog box. The 'Rescheduling options' section is checked, and the 'Linked Queue Forecasting' section is highlighted with a red box. The 'Delta Threshold' is set to 0.1, 'Cycles Count' is 30, and 'Duration (mins)' is 0. The 'Scheduling algorithm behavior' section has 'Schedule at least' set to 3 agent(s) per work and 'Minimize Class Sessions over Service Level' checked. The 'General Scheduling' section has 'Scheduling using agent preferences' set to 'No preferences'.

The following is an example how what happens during the LQF scheduling process. In the example, there are four work queues: Work Queue 1, Work Queue 2, Work Queue 3, and Work Queue 4. 100% of the items checked into Work Queue 1 flow to Work Queue 2. Work Queue 2 has two target queues: Work Queue 3 and Work Queue 4. 50% of the items checked into Work Queue 2 flow to Work Queue 3, and 50% flow to Work Queue 4. There are three levels, or tiers, in this chain, so the scheduling engine go through a minimum of 3 iterations in order to generate the schedule.

First iteration:

- A schedule is generated for Work Queue 1, based on the initial forecast.
- A volume forecast is generated for Work Queue 2, based on the number of items forecasted to be checked in for Work Queue 1. For example, if employees working on Work Queue 1 process 20 items for 15-minute time bucket, the volume forecast for Work Queue 2 will be 20 items for each 15-minute time bucket (100% of Work Queue 1's checked-in items become arrivals for Work Queue 2).

Second iteration:

- A schedule is generated for Work Queue 1 and Work Queue 2
- Volume forecasts are generated for Work Queue 3 and Work Queue 4, based on the number of items forecasted to be checked in for Work Queue 2. For example, if employees working on Work Queue 2 process 20 items for 15-minute time bucket, the volume forecast for Work Queue 3 will be 10 items for each 15-minute time bucket (50% of Work Queue 2's checked-in items become arrivals for Work Queue 3) and the volume forecast for Work Queue 4 will be 10 items for each 15-minute time bucket (50% of Work Queue 2's checked-in items become arrivals for Work Queue 4).

- Third iteration: A schedule is generated for Work Queue 1, Work Queue 2, Work Queue 3, and Work Queue 4.

In subsequent iterations, schedules are optimized and variances settle.

For linked queue forecasting, you can launch the scheduling engine from either the **Forecast** module or the **Calendar** module.

To generate a LQF schedule:

- 1 Do one of the following:

- In the **Calendar** module, choose **Calendar --> Enable LQF** and then click the **Schedule** icon. The **Linked Queues** dialog box appears, showing the work queues involved in the linked queue forecasting chain. Click **OK** to close the dialog box. The **Scheduler Setup** dialog box appears.

OR

- In the **Forecast** module, choose **Forecast --> Linked Queue Forecasting**. The **Linked Queues** dialog box appears, showing the work queues involved in the linked queue forecasting chain. Click **OK** to close the dialog box. The **Scheduler Setup** dialog box appears.

- 2 Click the **Linked Queue** tab.

- 3 Enter values for the linked queue forecasting thresholds. These fields govern how long the scheduling engine will run when generating a linked queue forecasting schedule.

- **Delta Threshold**—The delta threshold is a measure of the rate of change of the convergence metric. The convergence metric itself is a measure of how much volatility there is between the schedules generated in the previous linked queue forecasting cycle compared to the current cycle. With a reasonable set of scheduling data, schedules should eventually converge to produce an optimized schedule. As each scheduling cycle produces less and less change, the schedule is considered to be converging on the optimal solution. Here's an example: A value of 0.10 entered into the **Delta Threshold** field would direct the scheduling engine to stop if the convergence metric between the last cycle and the current cycle changed by 10% or less.
- **Cycles Count**—Cycle count places a limit on the number of cycles to be run in a given schedule generation. The cycle count is used in the event that convergence is never reached. Each cycle represents one tier of the LQF chain. If you are running linked queue forecasting from the **Forecast** module and want to see the volumes flow through an LQF chain tier by tier, you could set **Cycles Count** value to 1, run linked queue forecasting iteratively and examine the data flow after each iteration.
- **Duration (mins)**—Duration is the number of minutes to allow the scheduling engine to run. Like the **Cycle Count** value, this value is used to prevent an endless scheduling run in the event that convergence is never reached.

- 4 Complete the other fields on the **Scheduler Setup** dialog box as you would when generating any other schedule.

- 5 Click **OK** to launch the scheduling engine.

Linked Queue Recalculation

If you make changes to the schedule, such as adding time off, meetings, training, etc., it can affect the volume of work generated for the target work queues. You can use the **Forecast** menu's **Linked-Queue Recalc** item to recalculate volumes for the target work queues. When you use the **Linked-Queue Recalc** command, other statistics such as the service level and number of employees scheduled are also recalculated. These statistics appear above the schedules in the **Calendar** module.

To recalculate volumes for the target work queues and recalculate other statistics:

- 1 Do one of the following:
 - In the **Forecast** module, choose **Forecast -> Linked-Queue Recalc**. The **Linked Queues** dialog box appears. Click **OK**.OR
 - In the **Calendar** module, choose **Calendar -> Enable LQF**, and then click the **Recalculate Statistics** button. The **Linked Queues** dialog box appears. Click **OK**.
- 2 If desired, alter the default values on the **LQF Recalc Parameters** dialog box. The fields on the **LQF Recalc Parameters** dialog box are identical to those found on the **Scheduler Setup** dialog box. Click **OK**. The volumes and other statistics are recalculated.

Organization Mode Modules and Tasks

This chapter describes each Forecasting and Scheduling Organization mode module and task in detail. It contains the following topics:

- **Organization Mode**—Understanding Organization Mode and organizational hierarchies. See page [73](#).
- **Operations**—Setting up your organization, its size, and its hours of operation. See page [78](#).
- **Activities**—Creating, editing, and deleting your organizations' Activity Types as well as the Activities that fall under the Activity Types. See page [80](#).
- **Work Rules**—Establishing shifts, shift events, work patterns, and assignment rules. See page [84](#).
- **Employees**—Entering and importing employee data and preferences. Establishing employee work patterns. See page [123](#).
- **Calendar**—Viewing your employees' schedules. See page [144](#).
- **Pulse**—Tracking your contact center's performance. See page [391](#).

Organization Mode

Organization mode is used to enter and view information about your contact center and its employees. The information you enter in this mode is intended to be long-term and stable. You can make weekly changes at the employees' level.

For an overview of Forecasting and Scheduling's modes, see "The Organization Mode" on page 51. The following sections cover each of the mode's modules in detail.


Tasks You Can Perform in the Organization Mode

You can perform the following general tasks in the Organization mode:

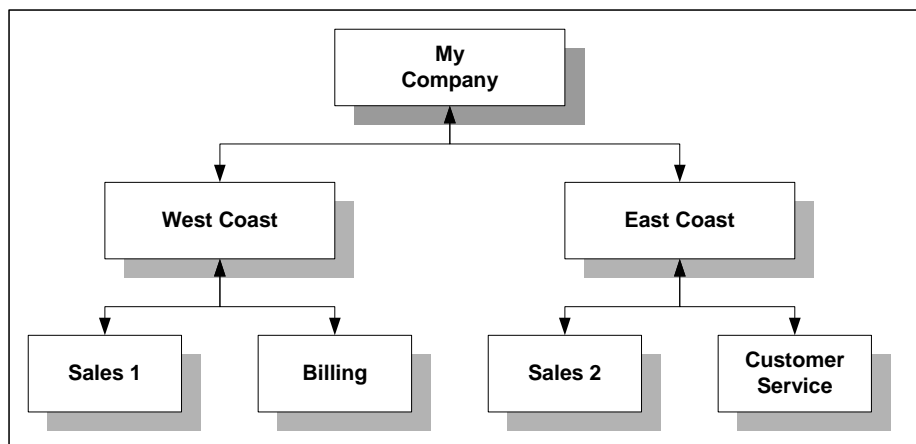
- Create organizations and their subdivisions.
- Set each organization's hours of operation.
- Create, edit, and delete your organizations' Activity Types, as well as the Activities that fall under the Activity Types
- Create shifts, shift events, work patterns, and assignment rules for each organization.
- Add employees and staffing profiles to the organizations and assign them skills and work patterns.
- View the organization and employee calendars and add calendar events.
- View statistics about all your queues.

Understanding Organizational Hierarchies

When you enter employee information into Forecasting and Scheduling, you can arrange your employees into multiple organizations at multiple levels. The organizations you create in this mode are hierarchic—in other words, since information flows up and down the organization, data you enter at any level will be reflected up or down the organizational chain depending on its type.

 You do not have to use a hierarchical structure in Forecasting and Scheduling. You can add all employees to a single organization if you want, but this is not recommended.

In the figure below, My Company has two geographic divisions, West Coast and East Coast. Each division has several subdivisions based on function and supervision. Information in the hierarchy flows both up and down.



Top-Down Information

Operations information (see page [78](#)) and work rules (see page [84](#)) flow downward. The following items are inherited by all organizations below the level where they are entered (the organization listed in the shift, shift event, assignment rule, or work pattern):

- Hours of operation.
- Activity types and activities.
- Work rules, including shifts, shift events, work patterns, and assignment rules.

Conversely, they are *not* available to organizations above or at the same level where they are created. Therefore, you should enter them at the *highest* level possible.

Hours of Operation

Hours of operation are inherited from the parent when an organization is first created, but can be easily changed after that. Once established, an organization's hours can be overridden from the parent organization.

Activity Types and Activities:

Activity types and activities are inherited from the parent when an organization is first created. You can also create additional activity types and activities for lower-level organizations.

Work Rules

Work rules do not change or override anything at the lower levels. They are simply inherited and available when they are created. Lower-level organizations are not able to modify inherited rules but are able to create their own.

Because the West Coast and East Coast organizations are responsible for the operation and scheduling of My Company's contact centers, and because each uses a different set of work patterns, you should enter the patterns at their level. West Coast work patterns are available to both of its divisions, Sales 1 and Billing. (If you open the **Work Rules** module, these patterns are displayed.) On the other hand, work patterns entered for Sales 1 are available only to that organization and cannot be seen by any other organization. Work patterns are not shared among organizations at the same level.

Bottom-Up Information

Employee information (see page [123](#)) flows upward; it is important that it be entered at the *lowest level possible*. Generally, this means that you should enter employee information at the level where the employee actually works, so that you can change the employee's information, proficiency level, and so forth, as needed. Higher-level organizations are also able to modify information for all their employees.

Tiffany and her scheduler both work for Customer Service. You should enter her employee information in Customer Service. Her scheduler can then change any of her information, such as her minimum or maximum hours, address, proficiency, and so

forth. Because her employee information rolls upward, the East Coast organization or My Company can also change her data when she gets her promotion and pay raise.

Opening, Adding or Deleting an Organization

To open an existing organization:

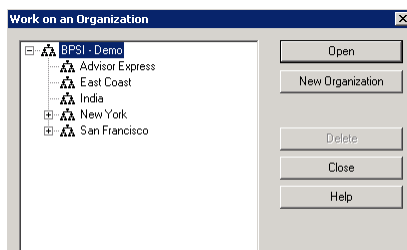
- 1 On the Forecasting and Scheduling Startup window, click **Work on an Organization**.



Or

On the Toolbar, click the **Organization** button ().


The **Work on an Organization** window appears.



- 2 Click + to expand the tree to locate the organization.
- 3 Double-click the organization.

Or

Click the organization, and then click **Open**.

-  If **Open** is unavailable (appears dimmed), you may not have access to the organization. See your system administrator for access privileges.

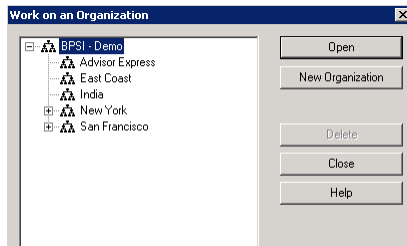
To add a new organization:

- 1 On the Forecasting and Scheduling Startup window, click **Work on an Organization**.

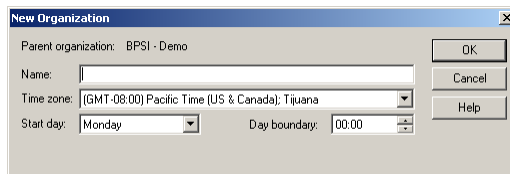
Or

On the Toolbar, click the **Organization** button ().


The **Work on an Organization** window appears.



- 2 Click the parent organization of the one you are adding.
- 3 Click **New Organization**. The New Organization dialog box appears.




- 4 Type a name for the organization.
- 5 Select a time zone for this organization.
- 6 Select the day of the week on which the organization starts its work week.
- 7 Set the day boundary for the organization. Forecasting and Scheduling uses this boundary to determine when the organization's work day begins and ends for scheduling purposes. If you have a 24-hour organization, this time determines the start and end times for your shifts. Employee shifts and schedules cannot cross this boundary unless the **Allow shift assignments to cross day boundary** check box in the Scheduler Options group of the Organization mode **Operations** module is selected. See ["The Operations Module"](#) on page 78.

 You cannot change the time zone, start day, and day boundary once you have created a shift or an employee for this organization.

- 8 Click **OK** to add the new organization.

To delete an existing organization:

- 1 Close the organization if it is open.
- 2 Select the organization in the Work on an Organization window.
- 3 Click **Delete**, and then click **Yes** to confirm. The organization is removed from the system.

 You cannot delete organizations if they are linked to any scheduling periods. See page [166](#)

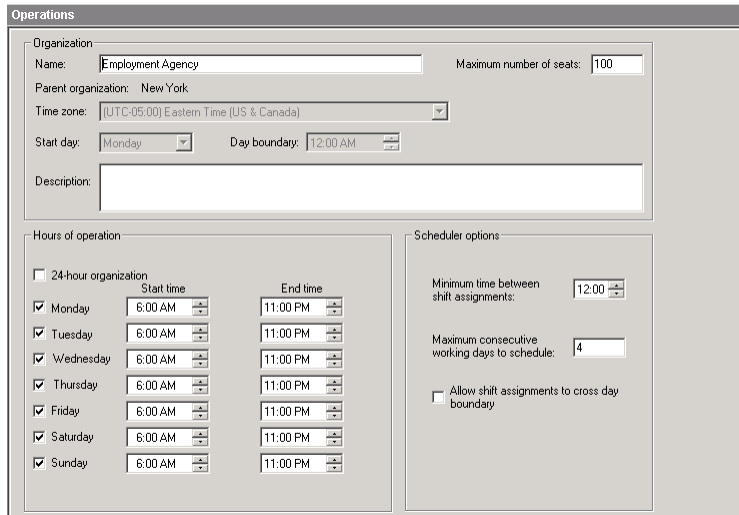
To rename an organization:

- 1 Open the organization.
- 2 In the **Operations** module of the new organization, type the new name in the **Name** field.

The new name appears in the Work on an Organization window.

The Operations Module

The **Operations** module is displayed when you open an organization or click the **Operations** icon. Information entered in this module applies to the open organization and all its divisions (organizations under it in the hierarchy—see “[Understanding Organizational Hierarchies](#)” on page 74), including hours of operation and schedule options. The name of the parent organization is displayed below the organization’s name.



You use the **Operations** module to set information about the organization, including the maximum number of seats available, the organization’s hours of operation, and the minimum time between employee shift assignments. Use the **Operations** module to set up a 24-hour contact center.

The Organization Group

Enter information about the organization under this group.

- **Name and Description**—Here you can change the name you originally assigned to the organization when it was created (see page [76](#)). The description is optional.
- **Maximum number of seats**—Enter the maximum number of employees that can be scheduled at any time for this organization.
- **Parent organization**—Automatically assigned when you create the organization. Organizations at the highest (root) level are labeled “This is a top organization.”
- **Time zone**—Designated when the organization is first created. *This time zone cannot be changed once you have created a shift or an employee for this organization.* If it is incorrect, you must delete the organization and create a new one with the correct time zone. The time zone is used to store time-related information, such as hours of operation and shifts, and is also used by Forecasting and Scheduling to make sure this organization’s employees are only scheduled during *its* open hours in *its* time zone.
- **Start day**—The day of the week the organization starts work.
- **Day boundary**—Designated when you first create the organization. If it is incorrect, you must delete the organization and create a new one. This time determines the start and end times of each work day. Employee shifts and schedules cannot cross this boundary unless the **Allow shift assignments to cross day boundary** check box in the Advanced Options group is selected.

The Hours of Operation Group

Enter information about the days and times this organization is open for business. Organizations below this one in the hierarchy inherit these hours. See page [75](#).

- i** If you change the hours of operation after scheduling periods have been scheduled, you must **clear each affected schedule and reschedule the scheduling period** before the changes will be reflected.
- i** If your display time zone is not the same as the organization’s time zone, items in this group will be unavailable. See [Getting Help](#) on page 49.
- **Day, Start Time, End Time**—Select each day and enter a start time and an end time for all shift events. If your hours cross midnight, the day of the week is displayed next to each time. Your hours of operation cannot cross the Day boundary.
 - i** You must always select the days your contact center is open, even if you select 24-hour contact center (see below).
- **24-hour organization**—Select this check box for contact centers that operate 24 hours a day, 7 days a week. The start and end times in the Hours of Operation

group are unavailable. Use **Day boundary** to set the start/end times for your 24-hour organization.



After you select 24-hour organization, you **must** select the days of operation for your organization.



If all days have the same schedule, first clear each day's check box, and then select the first day of the week. Enter the start and end times for that day. Select the other days; the start and end times automatically reflect the first day's times.

The Scheduler Options Group

These options provide additional choices for setting up and scheduling this organization. Enter the minimum time between shift assignments and the maximum consecutive work days to schedule. (Optional.)

- **Minimum time between shift assignments**—Set the minimum number of hours an employee will be given between shift assignments. This minimum applies to all employees in the organization and its divisions regardless of their work patterns (see page [91](#)).
- **Maximum consecutive working days to schedule**—Set the maximum number of days in a row an employee may be scheduled to work. This maximum applies to all employees in the organization and its divisions regardless of their work patterns (see page [91](#)).
- **Allow shift assignments to cross day boundary**—Select this check box to allow shift schedules to start in one day and end in another. A shift assignment's day of the week is the day the shift starts. A shift that starts at any time between 12:00 a.m. and 11:45 p.m. on Monday is considered a Monday shift.

The Activities Module

Click the **Activities** module icon to display the **Activities** module.

Activity types and the activities they contain are the basic building blocks of Workforce Management. Activities specify the scheduled work and the work actually done.

Activity Types

Activity types are folders that contain similar activities; they make selecting an activity easier for My Time users. Each activity type has a name, a description, and a setting specifying whether My Time users can see this activity type in the web application.

Workforce Management comes preconfigured with the following activity types:

- **Absence Activities** (such as vacation or jury duty)
- **Assigned Work Activities** (such as phone or research)
- **Desktop Monitoring** (TBD)
- **Learning Activities** (such as training sessions using the Competency-based Learning training application)
- **Planned Events** (such as training or a staff meeting)
- **Shift Events** (such as lunch or a coffee break)

For example, **Assigned Work Activities** could contain the **Phone** activity and the **Email** activity.

Absence Activities might contain the **Sick** activity and **Jury Duty** activity.

You can add new activity types or modify existing ones.

Activities

Activities represent work that employees can perform. Each activity has a name, a description, a setting specifying if the activity is paid, a color, a code, a tolerance, and an activity type.

- If an activity is marked as paid, any time an employee logs into this Activity, the resulting entry is also marked as paid. A manager can override the paid/unpaid status of any time entry on the Day Details page.
- Workforce Management uses the specified color and code of an activity to display schedules and time records on the Adherence screen in the web application.
- An activity's tolerance specifies how long an employee can be out of adherence to a scheduled activity before an exception appears. For example, the Phone activity is assigned a tolerance of 5 minutes. An employee is scheduled to log onto the Phone activity at 9:00 a.m. Instead, he logs on at 9:05 a.m. He was not adhering for 5 minutes and the tolerance is 5 minutes, so no adherence exception is displayed. However, if the employee logged in at 9:10 a.m., the full 10 minutes from 9:00 a.m. to 9:10 a.m. would show up as an exception.
- Finally, every activity must have an activity type.

Creating or Editing Activities

The **Activities** tab allows you to create or edit existing activities within Forecasting and Scheduling.

The Activity Detail window, shown above, appears when you double-click an existing activity or double-click the * next to the row at the bottom of the grid. It allows you to set the following:

- **Name**
- **Description**
- **Activity Type** (from a drop-down menu of the activity types you have defined)
- Whether the activity is paid
- The color displayed on the calendar for that activity
- The activity code displayed as part of the legend when you print in black and white.
- Whether the activity is used in queue hopping.

If you are licensed for queue hopping, the queue hopping check box can be enabled for activities that are checked as a Shift Event, and not checked as a Time Off, Unavailability, or Calendar Event activity.

Once you have selected the queue hopping check box, the queue selection button becomes available. When you select the button, Forecasting and Scheduling brings up a screen to allow you to choose the queues from which the scheduler will select. The media you have selected limits your queue selection. If no queues are shown, you do not have any queues configured for the selected media.

- The media associated with the activity. (You can select more than one.)

i You can only enable media when **Time Off**, **Use in Calendar Event**, and **Unavailability** are unchecked in the **Schedule Usage** container described below.

In addition, you can also specify the following:

- **Schedule Usage**—Whether the activity can be used as:
 - a primary activity in a shift
 - a shift event

- a calendar event
- an unavailability

If the activity is used as an unavailability, you can set the activity to be used in requests. (See the next bulleted item).

- a time off



If the activity can be used as a primary activity in a shift, the **Paid** field also needs to be checked, and you cannot set the activity to be used as a shift event. If the activity is used as an unavailability, you must set the activity to be used in requests (see the next item).

- resource constraints (the maximum number of employees that can be working this activity at the same time)
- cell group size (a number by which the number of employees working this activity at the same time must be divisible)
- **Request Management Usage**—For activities usable as time off or unavailability, if the activity can be specified in time off requests and is part of an allotted time off period.
- **Activity Manager Usage**—The adherence tolerance, maximum time in activity, and whether people in the activity should be considered as In or Out.
- **Scorecards Usage**—From the drop-down menu, the mapping of new activities to a Scorecards source mapping. The choices are **None** (the default), **Time in Admin**, **Time in Break**, **Time in Other**, and **Time in Training**.

The Scorecards source mappings are only needed for Scorecards, and can be ignored if your license does not include Scorecards.

Activities for Linked Queue Forecasting

If you are licensed for Operations, and want to use linked queue forecasting (, creating activities for linked queue forecasting is an optional step that requires the use of work queue hopping.

To create activities for linked queue forecasting:

- 1 Open the desired organization and go to the **Activities** module's **Activities** tab.
- 2 Click the **New** button on the toolbar.
- 3 Name the activity.
- 4 Select the media for this activity. This should be the same media as the work queue you intend to link the activity to.
- 5 Click to select the **Work Queue** check box. Once you have selected the **Work Queue** check box, the **Work Queue** selection button becomes available. Clicking the button brings up a screen to allow you to choose the work queue you want to link to this activity. Your work queue selection is limited by the media you have selected. If no work queues are shown, there are no work queues configured for the selected media. Also, when linking work queues to an activity, only work queues from the activity's organization (and parent organizations) are available for selection.

- i You must select a media before selecting the work queue you want to link to this activity. If you try to select work queues before selecting a media type, you will find that the work queue list is not populated.
- 6 Click to select the **Use in Shift (Primary Activity)** check box.
- 7 If desired, change the **Activity Manager Usage** and **Scorecards Usage** settings.
- 8 Click **OK** to close the dialog box.
- 9 Repeat the procedure for each linked queue forecasting activity.

The Work Rules Module

The **Work Rules** module is displayed when you click the **Work Rules** icon. Use the **Work Rules** module to set up shifts, shift events, work patterns, and assignment rules for your organization and link them together.

The screenshot shows the 'Work Rules' application window with two tabs: 'Shifts' and 'Shift Events'. The 'Shifts' tab is active, displaying a table with columns: Name, Activity, Length, Start Times, Min Spacing, Max Spacing, Organization, and Description. One row is visible: 'Training' with activity 'Training', length '00:00', start times '7:00, 8:00', min spacing '00:00', max spacing 'Unlimited', and organization 'BPS - Demo'.

The 'Shift Events' tab is also visible, displaying a table with columns: Name, Activity, Length, Fair, Anytime, Start Time Type, Start Window (Start, End), Flexible, Min Count, Max Count, Additional Activities, Organization, and Description. Three rows are visible: 'Break' (00:15, Fair, Anytime, Relative to Shift Start, 01:00-02:00), 'Lunch' (00:00, Fair, Anytime, Relative to Shift Start, 04:30-04:30), and 'Break 2' (00:15, Fair, Anytime, Relative to Shift Start, 06:00-07:00). All are for 'BPS - Demo'.

All work rules apply to the open organization and all its divisions. You can change work rules only in the organization where they are created, which is listed in the **Organization** field.


Creating a Work Pattern—A Checklist

This section provides a quick overview of all the steps needed to create a complete work pattern that can be assigned to an employee and scheduled. You can find detailed information about each step later in this chapter. You will first create the shift events, which will then be assigned to shifts. The combined shifts and shift events will then be linked into work patterns. Finally, you will create complex fairness and shift assignment rules that will be linked to employees and groups of employees in the **Employees** module.

To create work patterns and rules:


- 1 Click the **Shift Events** tab. Create any new shift events needed for your shift. See page [96](#).
- 2 Click the **Shifts** tab. Create any new shifts needed for this work pattern. See page [99](#).

Verify that your shift lengths and start times are valid for the organization's start and end times. Entries will appear in red if they are not valid. Be sure to include the appropriate activity.

 The **Length** column allows a shift length ranging from 15 minutes to 22 hours, 45 minutes. You can set the shift length in 5-minute intervals, using the up and down arrows, or manually in 1-minute intervals.

- 3 Link your shifts with shift events. See page [104](#).
Verify that the Start Window falls within the shift period.
- 4 Click the **Work Patterns** tab. Create your work patterns. See page [103](#).
- 5 Link your shifts to work patterns and set their occurrence. See page [104](#).
 - a. On the Possible Days Off shift, check the box for each day if employees are allowed to be off that day in the work pattern. For days that employees cannot be off in this work pattern, clear the check box.
 - b. Add the shifts you want associated with this work pattern.
 - c. For each shift, you should check the box for each day if a shift can be assigned for that day in the work pattern. Clear the check boxes for days on which you do *not* want a shift to be assigned.
- 6 (Optional) Set the minimum and maximum consecutive days. See page [106](#).
- 7 (Optional) Set consistent start times. See page [107](#).
Verify that the shifts set for consistent start times have compatible start times available.
- 8 Click the **Assignment Rules** tab. Create your Assignment Rules. See page [108](#). These will be assigned to individual employees in the **Employees** module. See page [141](#).
- 9 If you need to create a Project work rule, see "Creating Project Work Rules" on page 289 for detailed information.

This completes your work pattern.

 The **VTO Event** and **OT Extension** tabs are used in Intra-Day Optimization. See [Chapter 9 "Intra-Day Optimization"](#) for more information on this separately licensed feature.

An Introduction to Work Rules

The heart of Forecasting and Scheduling's scheduling feature is its ability to establish work rules and patterns that reflect the needs of both your contact centers and your individual employees. Employees are assigned work patterns that can combine a variety

of shift lengths, start and stop times, shift events, and specific rules (no weekend work, for example).

The work patterns that you create are reusable. You can assign a work pattern to many different employees, or you can assign many work patterns to one employee, specifying a number of allowable shift lengths and starting times. (An employee will only be scheduled for one work pattern per scheduling period if many are assigned.)

You can also create assignment rules that ensure your employees are treated fairly. For example, a Fairness rule might state that "All employees in the Sales group must work *the same number of* night shifts in a scheduling period with a tolerance of 1." See page [108](#).

This section explains the basic concepts of work rules—creating shifts and shift events and linking them to produce a set of work patterns that you can then assign to employees. For examples of useful work patterns, see "[Creating Effective Work Patterns](#)" on page 91.


Overview of the Work Rules Module

The **Work Rules** module is available in both Organization and Campaign modes. Information entered in the Organization mode applies to the current organization and all units below it in the organization's hierarchy. Normally, work rules are entered within the Organization mode and will be inherited by any campaign that is linked to that organization.

When specific rules are needed for a campaign, you enter rules in Campaign mode. These rules apply to all organizations in the open scheduling period but only for the duration of the profile.

You can only enter and edit assignment rules in Organization mode.

The **Work Rules** module contains the following tabs: **Shifts**, **Shift Events**, **VTO Event**, **OT Extension**, **Work Patterns**, **Assignment Rules**, **Project Rules**, and **Time Banks**.

 The **VTO Event** and **OT Extension** tabs are used in Intra-Day Optimization. See [Chapter 9 "Intra-Day Optimization"](#) for more information on this separately licensed feature.

The **Project Rules** tab is used in Operations-related scheduling. See [Chapter 13 "Operations"](#) for more information on this feature.

The **Time Banks** tab is used for time banking. See [Chapter 14 "Time Banking"](#) for more information on this separately licensed feature.

- **Shifts** are work periods of a definite length. Each shift type has a length and a start time or range of start times and can have linked shift events, such as breaks and meals.
- **Shift Events** are periods when employees are scheduled for activities such as breaks, meals, training, and so forth, and are not available to answer calls. You can link shift events to one or more shift types.
- **Work Patterns** combine shift types and their linked shift events with days of the week, consistent start times, and the minimum and maximum consecutive days the

shift types can be scheduled. These patterns are then assigned to employees in the **Employees** module.

- **Assignment Rules** allow you to create and edit assignment rules that ensure fairness or help manage shift assignments. Assignment rules also allow you to establish work pattern rotations.

i You can only modify shifts, shift events, work patterns, and assignment rules at the location where they were created. That location is displayed in the **Organization** column and is the organization name. Shifts, shift events, and work patterns created for campaigns are Local. You can only create and edit assignment rules in Organization mode. If you try to edit a work rule component in a different location, you are notified that it is read-only.

Shifts

Use the **Shifts** tab to specify the start time and length of work periods, the minimum and maximum time between shift events, and to associate shifts with shift events. You can create as many shift types as you need, and each shift can have as many shift events as necessary.

The screenshot shows the 'Work Rules' application interface. The top navigation bar includes tabs for Shifts, Shift Events, VTO Event, OT Extension, Work Patterns, Assignment Rules, Project Rules, and Time Banks. The 'Shifts' tab is active, displaying a table with columns: Name, Activity, Length, Start Times, Min Spacing, Max Spacing, Organization, and Description. The table lists various shift types such as Training, 8 1/2 hour shift, 9 hour shift, 4 hour shift early, 4 hour shift late, 8 hour shift, 8 1/2 hour shift, 8 1/2 hour shift - Email only, 8 1/2 hour shift - 2 hours of email, and 4 hour shift Email. The '8 hour shift' row is highlighted in yellow.

Below the Shifts table, the 'Shift Events for 8 hour shift' sub-tab is active, showing a table with columns: Name, Activity, Length, Paid, Anytime, Start Time Type, Start Window (Start, End), Flexible, Min Count, Max Count, Additional Activities, Organization, and Description. This table lists events like 15 minute break, 15 minute break, and 1/2 hour lunch, with the first '15 minute break' row highlighted in yellow.

Shift Events

Use the **Shift Events** tab to specify activities such as breaks, lunch, and training when the employee is not available. You can specify the activity, length, and start times of the activities. You can use one shift event for many different shifts.

Work Rules															
Shifts		Shift Events		VTO Event		OT Extension		Work Patterns		Assignment Rules		Project Rules		Time Banks	
Shift Events															
Name	Activity	Length	Paid	Anytime	Start Time Type	Start Window		Flexible	Min Count	Max Count	Additional Activities	Organization	Description		
Break	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Sta	01:00	02:00	<input type="checkbox"/>	0	0		BPSI - Demo			
Lunch	Lunch	01:00	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Sta	03:30	04:30	<input type="checkbox"/>	0	0		BPSI - Demo			
Break 2	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Sta	06:00	07:00	<input type="checkbox"/>	0	0		San Francisco			
15 minute break	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Sta	06:00	03:30	<input type="checkbox"/>	0	0		San Francisco			
15 minute break	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Sta	06:00	08:00	<input type="checkbox"/>	0	0		San Francisco			
1/2 hour lunch	Lunch	00:30	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Sta	04:00	05:00	<input type="checkbox"/>	0	0		San Francisco			
1 hour lunch	Lunch	01:00	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Sta	04:00	05:00	<input type="checkbox"/>	0	0		San Francisco			
1/2 hour training	Training	00:30	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Relative to Shift Sta	00:00	00:00	<input type="checkbox"/>	0	0		San Francisco			
Project Time	CKA	01:00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Relative to Shift Sta	00:00	00:00	<input type="checkbox"/>	0	0		San Francisco			
Email	Email	01:00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Sta	00:00	00:00	<input type="checkbox"/>	0	0		San Francisco			
*															

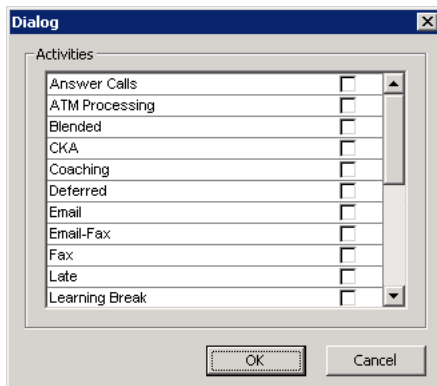
If you are licensed for queue hopping (see [Queue Hopping](#) for additional information), you can link multiple activities to a flexible shift event here.

An additional column, **Additional Activities**, is displayed, as follows:

Name	Activity	Length	Paid	Anytime	Start Time Type	Start Window		Flexible	Min Count	Max Count	Additional Activities	Organization	Description
						Start	End						
Break	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	01:00	02:00	<input type="checkbox"/>	0	0		BPSI - Demo	
Lunch	Lunch	01:00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	03:30	04:30	<input type="checkbox"/>	0	0		BPSI - Demo	
Break 2	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	06:00	07:00	<input type="checkbox"/>	0	0		BPSI - Demo	
15 minute break	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	01:00	03:30	<input type="checkbox"/>	0	0		San Francisco	
15 minute break	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	06:00	08:00	<input type="checkbox"/>	0	0		San Francisco	
1/2 hour lunch	Lunch	00:30	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	04:00	05:00	<input type="checkbox"/>	0	0		San Francisco	
1 hour lunch	Lunch	01:00	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	04:00	05:00	<input type="checkbox"/>	0	0		San Francisco	
1/2 hour training	Training	00:30	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Relative to Shift Start	00:00	00:00	<input type="checkbox"/>	0	0		San Francisco	
Project Time	CKA	01:00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Relative to Shift Start	00:00	00:00	<input type="checkbox"/>	0	0		San Francisco	
Email	Email	01:00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	00:00	00:00	<input type="checkbox"/>	0	0		San Francisco	
Fixed Break 1	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	02:00	02:00	<input checked="" type="checkbox"/>	0	1	...	Customer Service Te	
Fixed Break 2	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	07:00	07:00	<input checked="" type="checkbox"/>	0	1		Customer Service Te	
Fixed Lunch	Lunch	01:00	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	04:00	04:00	<input type="checkbox"/>	0	0		Customer Service Te	
*													

This column is only activated when a shift event has been specified as **Flexible**. Otherwise, the value is read-only.

Double-clicking the ellipsis (...) button causes a dialog box to pop up, allowing you to select multiple possible activities associated with the shift event by clicking the checkboxes.



You can also specify additional activities through the **Additional Activities** area of the **Shift Event Detail** dialog box:

Work Patterns

Use the **Work Patterns** tab to combine one or more shifts and their associated shift events, and designate the days of the week, minimum and maximum consecutive days they can be scheduled, and whether they have consistent start times. See ["Setting Work Rules for a Work Pattern"](#) on page 106.

You then assign work patterns to individual employees in the **Employees** module. Each work pattern is automatically assigned a Possible Days Off shift. This shift determines the days of the week the employee can be off.

Work Patterns		Name	Consistency Tolerance	Employee Type	Organization	Description
		Training Shift	30:00	Full-time	SPS - Demo	

Shift Rules for Training Shift		# Consecutive Days		Day Boundary is 12:00 AM						
Shifts		Min	Max	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Training		0	0	☐	☐	☐	☐	☐	☐	☐
Possible Days Off		0	0	☐	☐	☐	☐	☐	☐	☐

Assignment Rules

Use the **Assignment Rules** tab to create and edit assignment rules. Forecasting and Scheduling provides two groups of assignment rules. The first group, fairness rules, ensure that shift assignments are balanced so *all* members of a group are treated fairly. The second group, shift rules, ensure that individual employees or groups of employees are assigned (or are not assigned) certain types of events over a period of time.

You can also use the Assignment Rules Wizard to create work pattern rotations, assigning a sequence of work patterns over a period of time.

Forecasting and Scheduling’s Assignment Rules Wizard leads you through the process of creating the assignment rules. The rules themselves are assigned to employees in the **Employees** module (see page [142](#)).

For detailed information about assignment rules, see page [93](#).

Work Rules							
Shifts	Shift Events	VTO Event	OT Extension	Work Patterns	Assignment Rules	Project Rules	Time Banks
Assignment Rules							
	Name	Organization	Priority				
<input checked="" type="checkbox"/>	No more than two evening shifts in one week	New York	2				
<input type="checkbox"/>	Supervisor's team	BPSI - Demo	1				
<input type="checkbox"/>	Must work 5 days per week	New York	1				
<input type="checkbox"/>	Must work 2 shifts with project time	New York	2				
<input type="checkbox"/>	Exactly 5 days a week	San Francisco	1				
<input type="checkbox"/>	4 week rotation	New York					
<input type="checkbox"/>	32 to 45 min / max hours	San Francisco	1				
<input type="checkbox"/>	16 to 24 min / max hours	San Francisco	1				
Rule description (click on an underlined value to edit it): Employee must work no more than 2 (days) Evening 6:00 PM to 11:59 PM each week starting on <u>Monday, October 04, 1209</u>							

Project Rules

See “[Creating Project Work Rules](#)” on page 289 for information on Project work rules.

Using Work Patterns

Forecasting and Scheduling generates schedules by assigning shifts to employees based on their work patterns. When properly prepared, work patterns are powerful tools that allow you to match a wide range of work and employee requirements quickly and efficiently.

To use work patterns effectively, you must first understand how Forecasting and Scheduling schedules employees. This section explains the relationship between the different elements and provides some examples to demonstrate Forecasting and Scheduling's scheduling features and flexibility.

How Forecasting and Scheduling Uses Work Patterns to Schedule

Each employee is assigned one or more work patterns. Each work pattern consists of one or more shifts and their associated shift events.

When creating a new schedule, Forecasting and Scheduling evaluates the work patterns assigned to each employee. It then selects shifts for that employee out of one—and only one—work pattern:

- If Sarah is assigned a single work pattern that includes only Shift A, she will be scheduled only for Shift A.
- If Sarah is assigned a single work pattern that includes both Shift A and Shift B, she can be scheduled for a combination of days from *both* Shift A and Shift B.
- If Sarah is assigned two work patterns, one including only Shift A and the other including only Shift B, Forecasting and Scheduling will schedule her *either* all from Shift A *or* all from Shift B. Forecasting and Scheduling will use only one work pattern for her schedule.
- If Sarah is assigned two work patterns, one including Shift A and Shift B and the other including Shift C and Shift D, Forecasting and Scheduling will schedule her *either* a combination of days from Shift A and Shift B *or* a combination of days from Shift C and Shift D.

Creating Effective Work Patterns

You can create work patterns that will help Forecasting and Scheduling provide the best schedule to meet your service goals, labor rules, and employees' needs. These examples demonstrate how you can build general rules or very specific ones.

Example 1: Single Work Pattern

In this example, Mike can work both morning and evening shifts. Forecasting and Scheduling will choose from the shifts in this pattern and will schedule Mike to work a mixture of morning and evening shifts. Mike's contact center is open seven days a week. Because all of Mike's days are checked for each shift, including the Possible Days Off shift, Mike can be scheduled to work on any day or can be given any day off. Forecasting

and Scheduling will determine Mike's shifts based on service goals and his minimum and maximum paid hours.

Work Pattern 1:

Mike's Available Shift Types	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Shift A (8-hour morning)	X	X	X	X	X	X	X
Shift B (8-hour evening)	X	X	X	X	X	X	X
Possible Days Off	X	X	X	X	X	X	X

Example 2: Multiple Work Patterns

If Mike wishes to work either all morning shifts or all evening shifts, Mike's scheduler can assign him two work patterns. Forecasting and Scheduling will then schedule him for all Shift A or all Shift B.

Work Pattern 1

Mike's Available Shift Types	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Shift A (8-hour morning)	X	X	X	X	X	X	X
Possible Days Off	X	X	X	X	X	X	X

Work Pattern 2

Mike's Available Shift Types	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Shift B (8-hour evening)	X	X	X	X	X	X	X
Possible Days Off	X	X	X	X	X	X	X

Example 3: Multiple Shifts Within a Single Work Pattern

Jennifer can work three shift types. By creating and assigning a work pattern, her scheduler is able to specify when Jennifer is able to work. In this example, Jennifer can work different shift types on Mondays and Wednesdays, but has limited availability on the other days and cannot work weekends. Using this pattern, Forecasting and Scheduling will schedule her only for the shifts she can work.

Work Pattern 1

Jennifer's Available Shift Types	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Shift A (8-hour morning)	X		X		X		
Shift B (8-hour evening)	X		X				
Shift C (4-hour morning)		X		X			
Possible Days Off						X	X

Example 4: Multiple Shifts Within Multiple Work Patterns

Mary can work a variety of shift types. Her scheduler wants to ensure that employees are never scheduled to work a morning shift after a late night shift the night before. She also wants to be sure that Mary is given two days off in a row. The contact center's employees are given either Saturday and Sunday or Wednesday and Thursday off. These two work patterns will match those requirements. The system will choose one of the two patterns to work with.

Work Pattern 1

Mary's Available Shift Types	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Shift A (8-hour morning)	X	X		X			
Shift B (8-hour evening)	X	X	X	X	X		
Shift C (8-hour late night)		X		X	X		
Possible Days Off						X	X

Work Pattern 2

Mary's Available Shift Types	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Shift A (8-hour morning)	X				X		
Shift B (8-hour evening)	X	X			X	X	X
Shift C (8-hour late night)	X	X			X	X	
Possible Days Off			X	X			

Using Assignment Rules

Forecasting and Scheduling provides assignment rules to ensure equitable scheduling over a period of time. There are two groups of rules that are used in different situations:

- Fairness rules ensure that *all employees* assigned the rule are scheduled for the *same number* (a fair number) of shifts, days off, weekends off, working holidays,

and so forth, within a given period within a certain tolerance. For example, a Fairness rule might state that "All employees in the Sales group must work *the same number of* night shifts in a scheduling period with a tolerance of 1."

- Shift rules ensure that *individual employees or groups of employees* are given a *certain number* of shifts, days off, weekends off, working holidays, and so forth, within a given period. For example, a shift rule might state that "Employees in the Sales group should be scheduled to work *no more than* 4 days in 1 week."

Note in the examples that the *Fairness* rule ensures that all employees in the Sales group are scheduled for the same number of night shifts without designating how many night shifts each will work. Each employee could be scheduled for 3 or 4 night shifts as long as the other employees were assigned the same number.

The *Shift* rule, on the other hand, ensures that no employee in the Sales group will be scheduled for more than 4 days in 1 week. An individual employee can be scheduled for 0, 1, 2, 3, or 4 days without regard to the other employees' schedules.

Forecasting and Scheduling also lets you set up *rotations*, a sequence of work patterns that repeat over a period of time.

This section provides information about the way assignment rules are used to schedule employees equitably. For specific information about using the assignment rules wizard to create rules, see page [109](#).

Fairness Rules

You use Fairness rules to ensure that members of a group are scheduled fairly in relation to *other members of the group* over a period of time. In other words, the rules cause Forecasting and Scheduling to assign the same number of week days, weekends, night shifts, and so forth to all members of the group over a fixed period of time. Fairness rules apply only to the group to which they are assigned.

Fairness is determined using the following factors:

- An **item** that must be equitably assigned—specific shifts, days of the week, weekend days, weekend nights, holidays, and so forth.
- A **time period**—a number of days, weeks, months, or years,
- A **starting date**—starting on a specific date.
- A **tolerance**—an acceptable deviation from the Fairness rule.

Each rule uses a similar structure: The group assigned this rule will be scheduled to work the same number of **items** in a **time period** starting on a **date** with a tolerance of a **number**.

Here are some examples of Fairness rules:

- All employees should be scheduled for no more than five days every week starting on January 10.
- All employees should be scheduled for no more than one weekend day every week starting on March 2.
- This group must have off the same number of weekend nights every eight weeks starting on March 1 with a tolerance of one weekend night.


Shift Rules

You use shift rules to ensure that employees are (or are not) assigned specific shifts over a week. In other words, a rule can ensure that an employee will be assigned a certain number of weekend days off during a week period or will not be assigned more than a certain number of night shifts per week.

Shift rules establish a relationship between the employee assigned the rule and the schedule, while Fairness rules establish a relationship between the employee and other employees in a group.

The following factors determine shift rules:

- **People**—specific employees, groups of employees, everyone in an organization, the entire company
- A **constraint**—at least, no more than, between, exactly
- The **item that is occurring**—specific shifts, days of the week, weekends, weekend nights, minimum or maximum number of days or hours
- A **number of occurrences**—an explicit number of times an event will occur during the designated time period.

 The number of occurrences factor distinguishes shift rules from fairness rules. In a fairness rule, an event is scheduled the same number of times within a given period for each member of a group—the exact number of times is determined by Forecasting and Scheduling. In a shift rule, the event is assigned the designated number of times within a given period to each employee assigned the rule.

- A **time period**—the number of days or weeks
- A **starting date**—the date the rule starts

Each rule uses a similar structure.

Here are some examples of shift rules:

- All employees should be scheduled for no more than five days every week starting on January 10.
- All employees should be scheduled for no more than one weekend day every week starting on March 2.
- All employees in Organization A should be scheduled for exactly four mornings every six weeks starting on October 15.
- All employees in Organization B should be scheduled for no more than three nights every week starting on December 1.
- Tiffany and Simon should be scheduled for at least three nine-hour training shifts every week starting on November 1.

Rotations

You use rotations to assign a specific repeating sequence of work patterns. If, for example, you want a group of employees to work an early morning pattern for a week,

then work an evening pattern for a week, next work a late morning pattern for a week, and then start the sequence over, you can accomplish this with a rotation rule.

Rotations require the following information:

- The **number of weeks** in the rotation (2 to 26 weeks).
- The **work pattern** assigned to **each week**.
- The **starting date** of the rotation.

Team Work Rules

You can create work rules to have multiple employees scheduled to work at the same time as each other or as their supervisor or lead. Such a rule is referred to as a team work rule. For detailed information, see “[Creating Team Work Rules](#)” on page 114.

The Shift Events Tab


Use the **Shift Events** tab to create and modify periods of non-phone activities, such as breaks, training, and lunch. These periods are scheduled as part of the shifts to which they are linked. (See page [102](#).)

Work Rules													
Shifts Shift Events VTO/Ever OT Extension Work Patterns Assignment Rules Project Rules Time Banks													
Shift Events													
Name	Activity	Length	Paid	Anytime	Start Time Type	Start Window Start End	Flexible	Min Count	Max Count	Additional Activities	Organization	Description	
*	Break	00:15	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Sta	01:00 - 01:00	<input type="checkbox"/>				BPS - Demo		
	Lunch	01:00	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Sta	03:30 - 04:30	<input type="checkbox"/>				BPS - Demo		
	Break 2	00:15	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Sta	06:00 - 07:00	<input type="checkbox"/>				BPS - Demo		
	15 minute break	00:15	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Sta	01:00 - 03:30	<input type="checkbox"/>				San Francisco		
	15 minute break	00:15	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Sta	06:00 - 08:00	<input type="checkbox"/>				San Francisco		
	1/2 hour lunch	00:30	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Sta	04:00 - 05:00	<input type="checkbox"/>				San Francisco		
	1 hour lunch	01:00	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Sta	04:00 - 05:00	<input type="checkbox"/>				San Francisco		
	1/2 hour training	00:30	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Sta	01:00 - 01:00	<input type="checkbox"/>				San Francisco		
	Research hour	01:00	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>				San Francisco		

Forecasting and Scheduling schedules these periods within the start window that you provide (see page [97](#)) to make the smallest impact on your service levels.

A single shift event can be associated with as many shifts as you want. If you have an early break that is used by shifts A, B, and C, you only have to create it once, and then link it to each shift. *However, each shift event is assigned an activity, and cannot be linked to a shift that has the same activity.*

To create a new shift event, do one of the following:

- Click the * next to the row at the bottom of the grid or click the **New** button () on the Toolbar, and then enter data (see page [97](#)) in each field. For information about using grids, see page [30](#).
- Or
- Double-click anywhere in the empty row, and then fill in the **Shift Event Detail** dialog box.

To modify an existing shift event:

- Click the field you want to modify, and then type the new information.
- Or
- Double-click anywhere in the row you want to modify, and then fill in the **Shift Event Detail** dialog box.

To delete a shift event:


- 1 Make sure you are in the organization that originated the shift event.
- 2 Select the shift event, and then click the **Delete** button on the toolbar.
- 3 Click **OK** to confirm the deletion.

Shift events Grid Fields

The Shift Events grid and Shift Event Detail dialog box contain the following fields:


- **Name**—Type a descriptive name for the shift event.
- **Activity**—Select an activity for the period from the drop-down menu. Activities are created in the **Activities** module’s **Activities** tab.
- **Description**—Type a description of the shift event (optional).
- **Organization**—Filled in automatically when the shift event is saved.
- **Paid**—Click or clear the **Paid** check box to make the shift event paid or unpaid.
Paid shift events are included in calculating the minimum and maximum hours for which an employee is scheduled. (See page [129](#).) Unpaid shift events are not included in the minimum or maximum hours calculation.
- **Length**—Type the length of the period in hours and minutes. Lengths can be set in 1-minute increments.
- **Flexible**—If the duration of this shift event can vary (particularly useful in queue hopping, see [Chapter 10 “Queue Hopping”](#)), click the box labeled **Flexible**. You then specify the minimum and maximum counts of periods of the previously

specified length for that activity. For example, the scheduling engine can create a flexible shift event of length 15 minutes for which the minimum count is one and the maximum count is four as an activity of 15, 30, 45, or 60 minutes.

 Only paid shift events can be flexible, and only those for which the **Shift** box on the **Activities** tab in the **Activities** module (see [Activities](#) on page 81) has been checked.

When you create a flexible shift event, Forecasting and Scheduling checks to make sure its minimum duration can fit within the shift, taking into account the shift duration and other linked shift events.

- **Start Times**—You can specify shift events to start as follows:
 - **Start Anytime**—Click the **Start anytime** check box to allow a shift event to start at any time during the shift.
 - **Relative to Shift Start**—Using the **Start Begin** and **Start End** fields, you can specify that an activity should start within the specified range of hours after the start of the shift itself.
 - **Absolute**—Using the **Start Begin** and **Start End** fields, you can specify that an activity should start between two specific times of the day, for example, between 11:30 a.m. and 12:30 a.m. (One possible use for the **Absolute** setting is to accommodate the hours of operation of a cafeteria, for example, that is only open between certain hours of the day.)
 - **Start Begin**—For the setting **Relative to Shift Start**, enter the length of time **after the shift begins** for the shift event to begin. For the **Absolute** setting, specify the **earliest time of the day** at which the shift event can begin. If the shift event can start at any time during the shift, click the **Start Anytime** radio button.

 Both **Start Begin** and **Start End** (described next) move in 15-minute increments, although you can specify shift event lengths in 5-minute increments.


- **Start End**—For the setting **Relative to Shift Start**, enter the maximum length of time after the shift begins for the shift event to begin. For the **Absolute** setting, specify the latest time of the day at which the shift event can begin.

For a relative-to-shift-start activity, if you enter a **Start Begin** of 2:00 and a **Start End** of 3:00 for a break for a shift that starts at 8:00 a.m., the break will be scheduled to start between two and three hours *after* the beginning of the shift—sometime between 10:00 a.m. and 11:00 a.m.



The more time you allow between the start and end times, the more optimization choices Forecasting and Scheduling has.

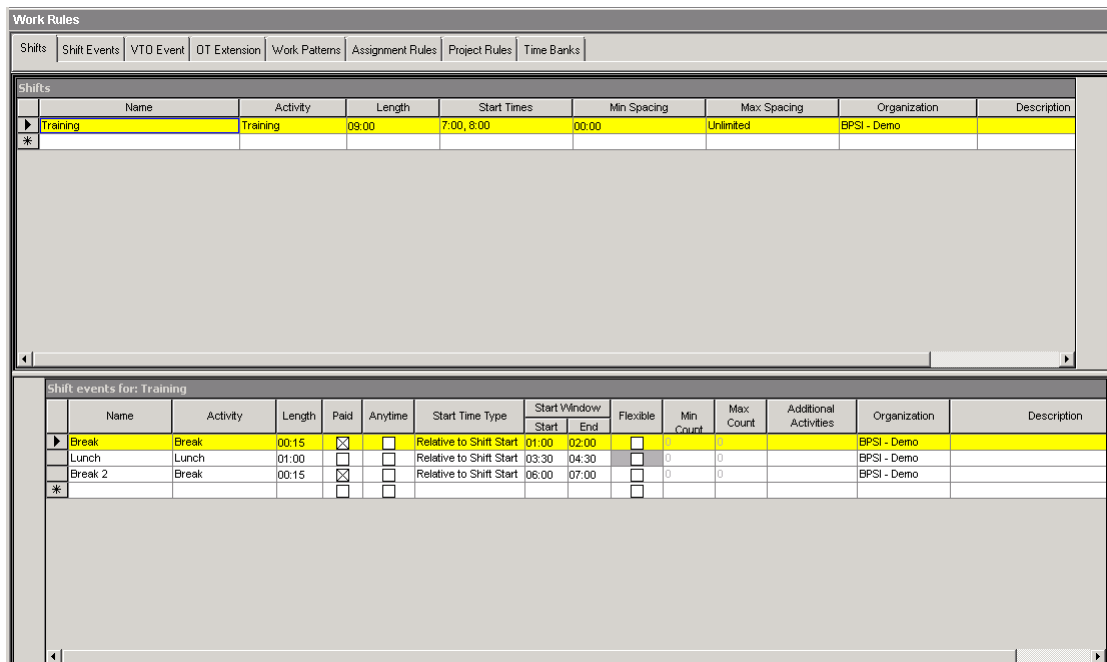
For an absolute shift start activity, if you enter a **Start Begin** of 2:00 and a **Start End** of 3:00 for a break for a shift that starts at 8:00 a.m., the break will be scheduled to start between 2:00 and 3:00 a.m.

 You must link shift events to shifts in order for them to be scheduled. See page [102](#).

The Shifts Tab

Shifts are part of a template that Forecasting and Scheduling uses to optimize your schedules. For example, you do not have to enter separate shifts to have an eight-hour shift start at 7:00, 7:15, 7:30, 7:45, and so forth.

Use the **Shifts** tab to create and modify employee shift types and link them to shift events. These shifts are placed on the schedule itself when employees are scheduled.




The screenshot shows the 'Work Rules' application window with the 'Shifts' tab selected. The interface is divided into two main panes. The upper pane, titled 'Shifts', contains a table with columns: Name, Activity, Length, Start Times, Min Spacing, Max Spacing, Organization, and Description. The 'Training' shift is highlighted in yellow. The lower pane, titled 'Shift events for: Training', contains a table with columns: Name, Activity, Length, Paid, Anytime, Start Time Type, Start Window (Start, End), Flexible, Min Count, Max Count, Additional Activities, Organization, and Description. Three events are listed: 'Break' (00:15), 'Lunch' (01:00), and 'Break 2' (00:15), each with checkboxes for 'Paid' and 'Anytime'.

Work Rules												
Shifts												
Name	Activity	Length	Start Times	Min Spacing	Max Spacing	Organization	Description					
▶ Training	Training	09:00	7:00, 8:00	00:00	Unlimited	BPSI - Demo						
* [Empty Row]												

Shift events for: Training												
Name	Activity	Length	Paid	Anytime	Start Time Type	Start Window	Flexible	Min Count	Max Count	Additional Activities	Organization	Description
						Start	End					
▶ Break	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	01:00	02:00	<input type="checkbox"/>	0	0	BPSI - Demo	
Lunch	Lunch	01:00	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	03:30	04:30	<input type="checkbox"/>	0	0	BPSI - Demo	
Break 2	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	06:00	07:00	<input type="checkbox"/>	0	0	BPSI - Demo	
* [Empty Row]												

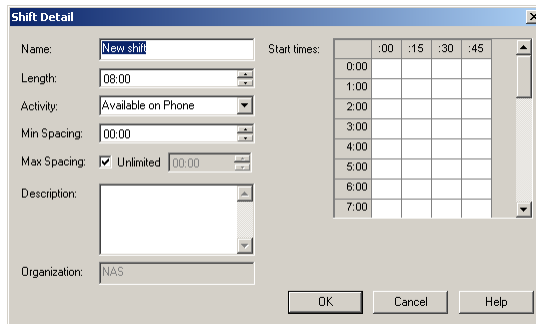
The upper pane of the tab contains a grid listing the organization’s shifts. When a shift is highlighted, the lower pane lists the shift events linked to that shift. For example, in the figure above, the **Training** shift is highlighted in the upper pane and the shift events linked to that shift are displayed in the lower pane.


To create a new shift:

- Click the * next to the row at the bottom of the grid, or click the **New** button () on the toolbar, and then enter data (see page [101](#)) in each field. For information about using grids, see page [30](#).

Or

- Double-click anywhere in the empty row, and then fill in the **Shift Detail** dialog box.




-  The **Length** field allows a shift length ranging from 15 minutes to 22 hours, 45 minutes, to be set in 5-minute intervals, or manually in 1-minute intervals, starting on 15-minute intervals.


- Click **OK**. The information is automatically entered into the grid. The Organization is entered automatically.

To modify an existing shift:

- Click the field you want to modify, and then type the new information.
- Or
- Double-click anywhere in the row you want to modify, and then fill in the **Shift Detail** dialog box.

To delete a shift:

- Make sure you are in the organization that originated the shift.
- Select the shift, and click the **Delete** button () on the toolbar.
- Click **OK** to confirm the deletion.

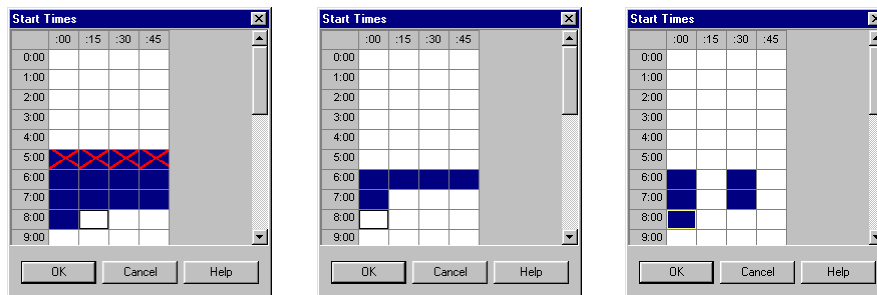
-  Any work patterns linked to the deleted shift are dimmed on the **Work Patterns** tab to show that the shift has been deleted. You then need to delete the shift from the work patterns. When you delete a shift, it can no longer be scheduled as part of a work pattern. It is not, however, removed from existing schedules. See page [103](#).

Shift Grid Fields

The Shifts grid and the Shift Details dialog box contain the following fields:


- **Name**—Type a descriptive name for the shift.
- **Length**—Type the length of the shift in hours and minutes.
- **Activity**—Select the activity that the employee will be performing during the majority of the shift.
- **Min Spacing**—Specify the minimum amount of time allowed between two consecutive shift events or between a shift event and the beginning or end of a shift.
- **Max Spacing**—Specify the maximum amount of time allowed between two consecutive shift events or between a shift event and the beginning or end of a shift.
- **Description**—Type a description of the shift in this field (optional).
- **Organization**—You can only modify or delete a shift in the organization where it was created. This field contains the name of that organization. It is filled in automatically when a new shift is saved and cannot be changed.

Start Times—The Start Times area has rows for each hour and columns for 15-minute increments. Drag your mouse across the range of times the shift can start, or click individual time blocks. A red “X” appears in any time block that falls outside the shift’s acceptable range, which is determined by the organization’s hours and the length of the shift. Drag across or click selected times to clear them.




i Don't forget to include all the start times. For example, if you want your shifts to start every 15 minutes from 6:00 to 7:00, you must click 6:00, 6:15, 6:30, 6:45, and 7:00.

You can select any times or range of times within the shift’s acceptable range by dragging down one or more columns or across one or more rows, or by clicking individual time blocks. Start times do not have to be consecutive.

 The greater the range of start times you provide, the more flexibility Forecasting and Scheduling has in creating an optimum schedule that matches your service level and employee availability.

Linking Shifts and Shift Events


You can link each shift to one or more shift events, and you can link a shift event to as many shifts as you want (see page 96). When a shift is selected, its linked shift events are displayed in the lower pane of the **Shifts** tab.

-  You cannot link a shift event with an activity to a shift with the same activity. For example, you cannot link an immediate shift event with an immediate shift.

To link one or more shift events to a shift:

- 1 Select the shift. The Shift Event grid for that shift is displayed in the lower pane.


Shift activities for: 8 hour shift									
Name	Activity	Length	Paid	Anytime	Start Time Type	Start Window		Organization	De
						Start	End		
▶ 15 minute break	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	01:00	03:30	San Francisco	
15 minute break	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	06:00	08:00	San Francisco	
1/2 hour lunch	Lunch	00:30	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	04:00	05:00	San Francisco	

- 2 Click the * next to the row at the bottom of the grid, and then click the ellipses box () that appears in the **Name** field. The **Shift Events** dialog box appears.

Select Shift Activity to Link									
Shift Activities									
Name	Activity	Length	Paid	Anytime	Start Time Type	Start Window		Organization	Descriptor
						Start	End		
▶ Break	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift St	01:00	02:00	BPSI - Demo	
Lunch	Lunch	01:00	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift St	03:30	04:30	BPSI - Demo	
Break 2	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift St	06:00	07:00	BPSI - Demo	
15 minute break	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift St	01:00	03:30	San Francisco	
15 minute break	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift St	06:00	08:00	San Francisco	
1/2 hour lunch	Lunch	00:30	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift St	04:00	05:00	San Francisco	
1 hour lunch	Lunch	01:00	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift St	04:00	05:00	San Francisco	
1/2 hour training	Training	00:30	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Relative to Shift St	00:00	00:00	San Francisco	
Project Time	OKA	01:00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Relative to Shift St	00:00	00:00	San Francisco	
Email	Email	01:00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Relative to Shift St	00:00	00:00	San Francisco	
Fixed Break 1	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift St	02:00	02:00	Customer Service	
Fixed Break 2	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift St	07:00	07:00	Customer Service	
Fixed Lunch	Lunch	01:00	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift St	04:00	04:00	Customer Service	

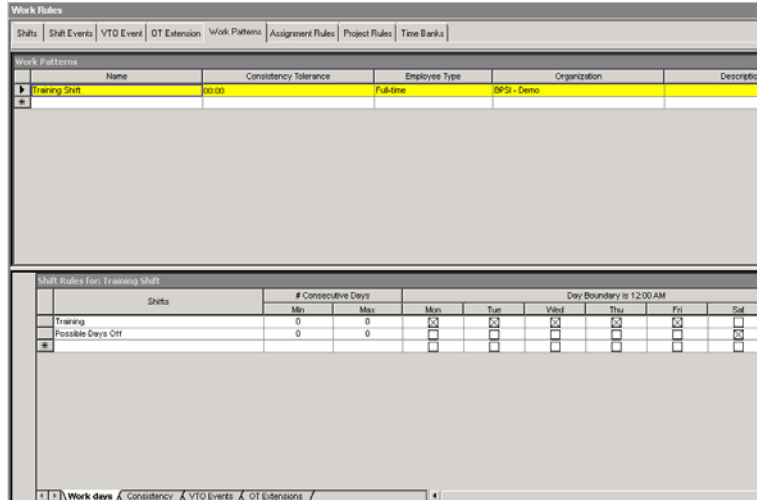
- 3 Select one or more shift events to link to the shift, and then click **OK**. The new shift events are displayed on the grid in the lower pane.

To unlink a shift event from a shift:

- 1 Select the shift. The Shift Event grid for that shift is displayed in the lower pane.
- 2 Select the shift event, and then click the **Delete** button () on the toolbar.
- 3 Click **OK** to confirm the deletion.

The Work Patterns Tab

Use the **Work Patterns** tab to provide the rules that Forecasting and Scheduling uses when scheduling shifts for employees.

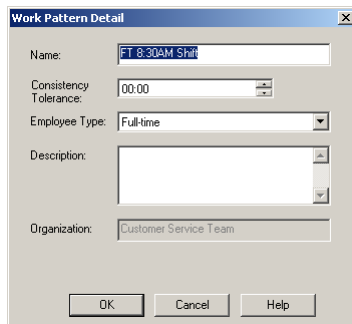


Work patterns consist of the shifts that can be assigned to an employee and can include rules determining the days of the week the shifts can be scheduled, the number of consecutive days the shifts will be scheduled, and whether the shifts must start at the same time.

The upper pane of the tab contains a grid listing the organization’s work pattern types. When a shift is highlighted, the lower pane lists the shifts and rules linked to that pattern.

To create a new work pattern:


- In the upper pane, click the * next to the row at the bottom of the grid, or click the **New** button on the toolbar, and then enter data (see page [104](#)) in each field. For information about using grids, see page [30](#).
- Or
- Double-click anywhere in the empty row, and then fill in the Work Pattern Detail dialog box. The information is automatically entered into the grid.




To modify an existing work pattern:

- Click the field you want to modify, and type the new information.
Or
- Double-click anywhere in the row you want to modify, and then fill in the **Work Pattern** dialog box.

To delete a work pattern:

- 1 Make sure you are in the organization that originated the shift.
- 2 Select the shift, and then click **Delete**  on the toolbar.
- 3 Click **OK** to confirm the deletion.

 Any deleted work pattern that has been assigned to an employee appears dimmed in the **Work Patterns** tab of the **Employees** module. See page [140](#).

Work Patterns Grid Fields

The **Work Patterns** grid and **Work Pattern Detail** dialog box contain the following fields:

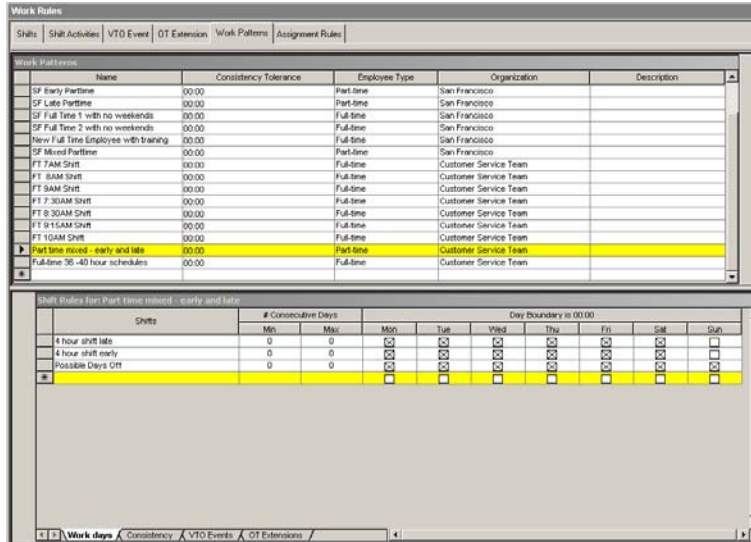
- **Name**—Type a descriptive name for the work pattern. Consider the names of your shifts when assigning work pattern names.
- **Consistency Tolerance**—Select in 15-minute intervals how much tolerance you want the scheduling engine to use when applying the consistency settings to the start times for shifts. For example, you can specify that all employees' shifts or shift events must start within **X** minutes of each other. If no consistent start time setting is set for a particular day, the tolerance will not apply to that day.
- **Type**—Select an employee type from the menu. Employee types are created in the web application.

The type determines the type of employee to whom you can assign a work pattern. For example, if you designate a work pattern as Full Time, you can only assign the pattern to employees designated as Full Time. You assign work patterns to employees in the **Employees** module. See page [140](#).

- **Description**—Type a description of the shift event (optional).
- **Organization**—Filled in automatically when the work pattern is saved.

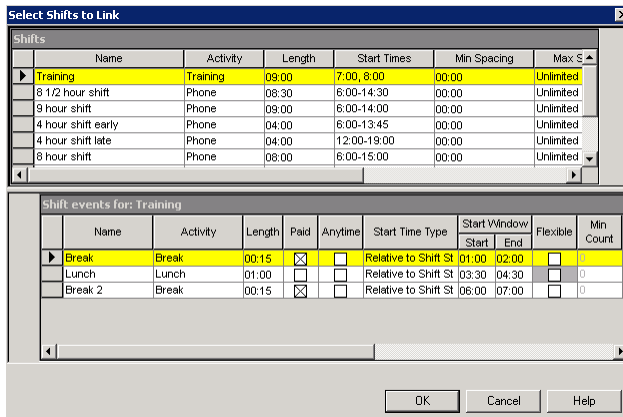
Linking Work Patterns and Shifts

Each work pattern is linked to one or more shifts. When a work pattern is highlighted, its linked shifts are displayed in the lower pane. For example, in the figure below, the **Part-time mixed - early and late** pattern is selected in the upper pane and the shifts linked to it, the **4 hours shift early** and **4 hour shift late**, and possible days off, are displayed in the lower pane. A work pattern can have many shifts, and you can use a shift in many different work patterns.




To link one or more shifts to a work pattern:

- 1 Select the work pattern. The Work Rules grid for that work pattern is displayed in the lower pane.
 When you create a new work pattern, a shift is automatically added. The Possible Days Off shift indicates the days an employee assigned the work pattern can be scheduled for a day off. See "Setting Work Rules for a Work Pattern" on page 106.
- 2 In the lower pane, click the * next to the row at the bottom of the grid, and then click the ellipses box (**...**) that appears in the **Shifts** field. The Shifts dialog box appears, containing all the shifts you have created. When you select a shift, its linked shift events are listed in the lower pane of the dialog box.



- 3 Select one or more shifts to link to the work pattern, and then click **OK**. The new shifts are displayed on the Work Rules grid in the lower pane of the work pattern grid.

To unlink a shift from a work pattern:

- 1 Select the work pattern. The Work Rules grid for that shift is displayed in the lower pane.
- 2 Select the shift, and then click the **Delete** button () on the toolbar.
- 3 Click **OK** to confirm the deletion.

Setting Work Rules for a Work Pattern

When you have linked one or more shifts to your work pattern, you next set additional work rules for each shift.

Setting Possible Work Days

You can use the **Work Days** tab (in the lower left corner of the Work Pattern window) to set the days of the week that you want a shift scheduled and determine the days that employees with the work pattern can be off.


Shift Rules for: Full time pattern 9 hour									
Shifts	# Consecutive Days		Day Boundary is 12:00 AM						
	Min	Max	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Possible Days Off	0	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9 hour shift	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To set the work days for a shift:

- Select the days of the week you want the shift to be scheduled for employees assigned the work pattern.

When a shift is linked to a work pattern, it initially has all days selected (checked). This means that Forecasting and Scheduling can schedule an employee with this pattern to work any day the organization is open. Clear the days you **do not** want the selected shift assigned to any employee with the work pattern.

The Possible Days Off shift indicates the days an employee can be off. If you **do not** want employees with the work pattern to have a certain day off (Monday, for example), clear that day. If you clear all the days except, say, Saturday and Sunday, those are the only days an employee will be given off.

 If an organization is not open on a particular day or time (see page [79](#)), all employees will be scheduled for that time off regardless of their work patterns.


Setting Consecutive Days for a Shift

You can set the minimum and maximum number of days you want a shift assigned to an employee with the work pattern. These numbers determine how many days in a row an employee will work a shift or how many days in a row an employee will have off. You can do this for each shift.

To set the minimum and maximum number of consecutive days for a shift:

- 1 In the **# Consecutive Days** column of the selected shift, click **Min**.
- 2 Select the minimum number of days in a row that this shift should be assigned.
Employees with this work pattern are assigned this shift *at least* that many times in a row. If the shift is **Possible Days Off**, employees are given at least that number of days off in a row.
- 3 In the **# Consecutive Days** column of the selected shift, click **Max**.
- 4 Select the maximum number of days in a row that this shift should be assigned.
Employees with this work pattern are assigned this shift *no more than* that many times in a row. If the shift is **Possible Days Off**, employees are given no more than that number of days off in a row.

For example, if your organization is open seven days a week and you want your employees to have two days off in a row, in the **Possible Days Off** shift, set both the minimum and maximum days to 2.

-  You do not need to set both the minimum and maximum days. You can set either one without the other or leave both at zero.




Setting Consistent Start Times for Shifts and Shift Events

Forecasting and Scheduling uses the range of start times you set for each shift to schedule employees (see page [101](#)). You can create a work rule so that a work pattern sets consistent start times for each employee. Forecasting and Scheduling still schedules different employees for different start times, but each individual employee with that work pattern starts a shift at the same time each day.

You can also set a consistency tolerance, as described previously in “[Work Patterns Grid Fields](#)” on page 104.

To set consistent shift start times:

- 1 Click the **Consistency** tab at the bottom of the **Work Patterns** tab. The **Consistency** grid appears.

Shifts		Day Boundary is 12:00 AM							Consistent shift activities
		Mon	Tue	Wed	Thu	Fri	Sat	Sun	
	8 hour shift	1	1	2	2	1	--	--	<input checked="" type="checkbox"/>
	8 hour deferred	--	--	--	--	--	--	--	<input type="checkbox"/>
	*								<input type="checkbox"/>

- 2 Select numbers to set the shifts and days of the week with the same start times. All shifts with the same numbers will have the same start times. In the illustration above, the shifts scheduled for Monday, Wednesday, and Friday will have the same start time. The shifts scheduled on Tuesday and Thursday will have the same start time, but it will be a different time than Monday, Wednesday, and Friday. Saturday and Sunday have a common start time different than the weekdays.
- 3 Check **Consistent Shift Events** to have the Shift Events start at the same time.

- i** If you use consistent start times, Forecasting and Scheduling still chooses the actual shift start time from within the range of start times you provided. If you want shifts to start at the same hour, say 8:00 a.m., create a shift with 8:00 a.m. as the only available start time. The disadvantage of doing this is that it restricts Forecasting and Scheduling's ability to generate an optimum schedule.

The Assignment Rules Tab

Use the **Assignment Rules** tab to create Fairness and Shift rules for employees, and to create and assign shift rotations.

Name	Organization	Priority
24 hours from 6:00 a.m. to 6:00 p.m. every day in one week	New York	2
Supervisor's team	BFG - Demo	1
Must work 5 days per week	New York	1
Must work 2 shifts with project time	New York	2
Exactly 5 days a week	San Francisco	1
4 week rotation	New York	1
22 to 45 min / max hours	San Francisco	1
16 to 24 min / max hours	San Francisco	1

Rule description (click on an undefined value to edit it):
 Employee must work no more than 2 shifts.
 Evening 6:00 PM to 11:59 PM each week.
 Starting on Monday, October 04, 1999

Fairness rules ensure that each member of a group of employees is assigned the same number of specific events (shifts, nights, weekends, weekend nights, days off, and so forth) during a specified period. See page 94 for a list of the exact conditions. A Fairness rule compares each employee's schedule with those of all the other employees to ensure that each receives fair treatment. Because Forecasting and Scheduling cannot always guarantee that a workable schedule can completely comply with a given rule, you can include a tolerance level in the rule.

Shift rules ensure that employees or groups of employees are assigned a specified number of events (shifts, nights, weekends, weekend nights, days off, and so forth) during a specified period. A shift rule adjusts the schedule of an employee or group of employees to meet the specified conditions. You can assign assignment rules to individual employees or to groups of employees.

To summarize, Fairness rules compare the schedules of all employees assigned the rule to ensure an equitable relationship between them. Shift rules compare the schedules of employees assigned the rule with the conditions of the rule itself.

Rotations let you assign employees a set of specific work patterns that are scheduled in the same order over a period of time. For example, you can assign an employee or group of employees three work patterns, A, B and C, in a three-week rotation. Employees are assigned work pattern A the first week, work pattern B the second week, work pattern C the third week, then work pattern A the fourth week, work pattern B the fifth week, and so forth.

- i** If a work pattern contains more than one shift type, an employee may not work the same shifts each week of the rotation. See page 91.


Creating Shift and Fairness Assignment Rules

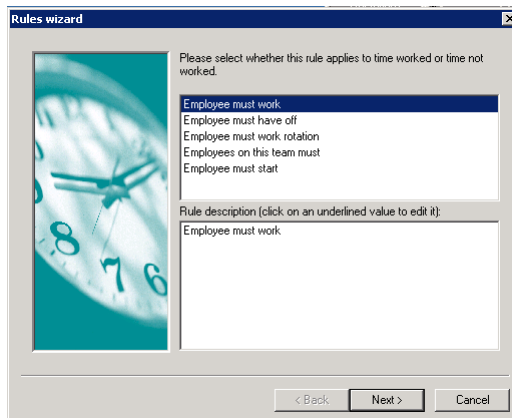
Forecasting and Scheduling provides a wizard to help you create new assignment rules. The wizard leads you through each step of the process.

See “[Creating Work Pattern Rotations](#)” on page 112 for information about creating rotations.

- i Review [Using Assignment Rules](#) on page 93 to familiarize yourself with the structure and terminology of assignment rules before using the wizard.

To create an assignment rule:

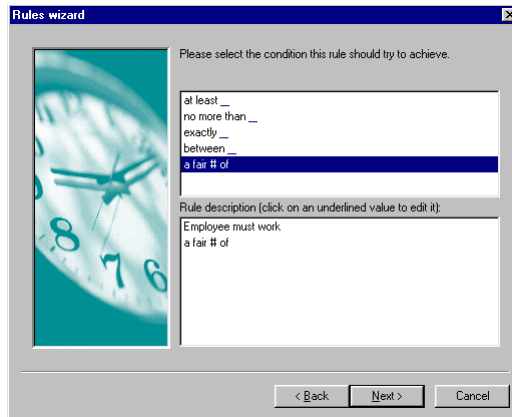
- 1 In the upper pane, double-click the * next to the row at the bottom of the grid, or click the **New** button () on the toolbar. The Rules wizard appears.
- 2 Select **Employee must work** or **Employee must have off**. (See page [112](#) for **Employee must work rotation**, page [114](#) for **Employees on this team must** and **Employees on this team must start**.)



- 3 Click **Next** to continue.

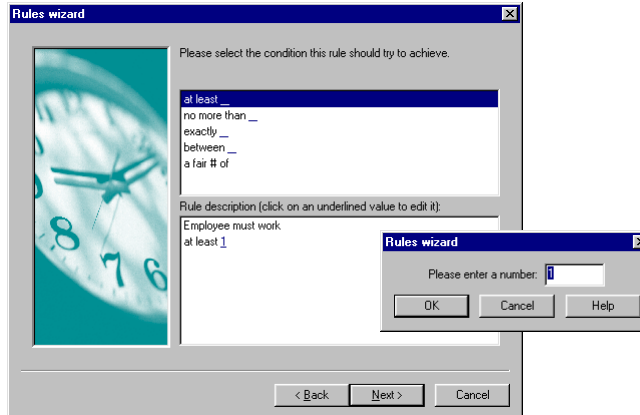
- i **Employee must work** indicates that the employee assigned the rule must **start** work sometime during the selected period. **Employee must not work** indicates that the employee assigned the rule must **not start** work any time during the selected period.

- 4 To create a fairness rule, select **a fair # of** (see page [94](#)) in the upper pane. The number of occurrences is computed by Forecasting and Scheduling.



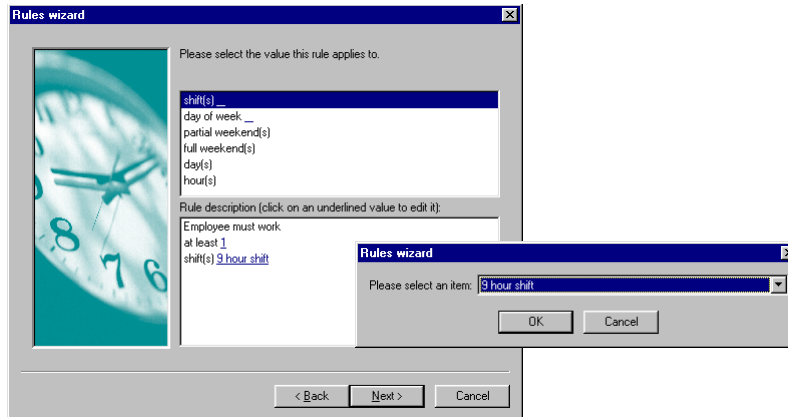
Or

To create a shift rule, select a constraint (see page 93) in the upper pane, and then click the number of occurrences in the lower pane. Type a number in the dialog box, and then click **OK**.



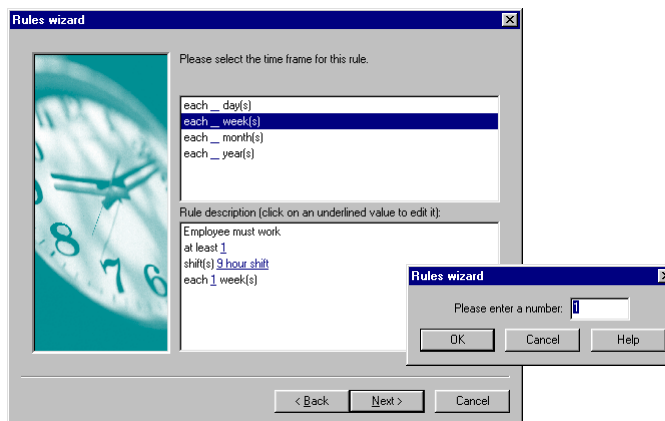
Click **Next** to continue.

- 5 Select the object (shift, day of the week, weekend, and so forth) to be assigned in the upper pane. If needed, click the underlined shift name or day of the week to open the selection dialog. Choose the shift or day, and then click **OK**.




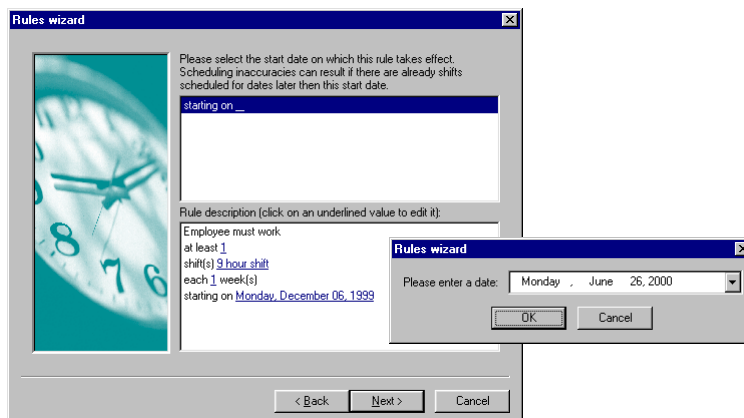
Click **Next** to continue.

- 6 Select the time period for the rule in the top pane, and then click the underline to open the selection dialog. Type a number, and then click **OK**.



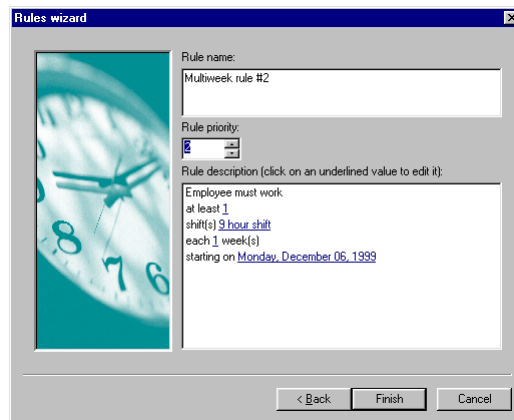
Click **Next** to continue.

- 7 Select **starting on** in the top pane, and then click the underline to open the date selection dialog. Type the date the rule will take effect, or click the  button and select the date from the date selector.



Click **Next** to continue.

- 8 Type a name for the rule in **Rule name**, and assign the rule a **Priority**. In the event of a conflict between rules, the priority determines which rule Forecasting and Scheduling will use.




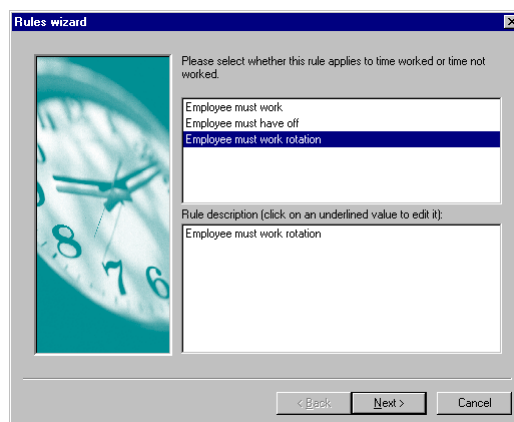
- 9 Click **Finish** to complete the rule and close the wizard, or click **Back** to edit any part.

Creating Work Pattern Rotations

Forecasting and Scheduling creates and assigns work pattern rotations through assignment rules.

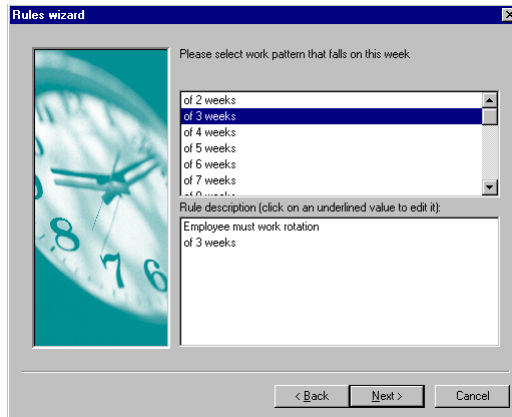
To create a work pattern rotation:

- 1 In the upper pane, double-click the * next to the row at the bottom of the grid or click the **New** button () on the toolbar. The Rules wizard appears.
- 2 Select **Employee must work rotation**.



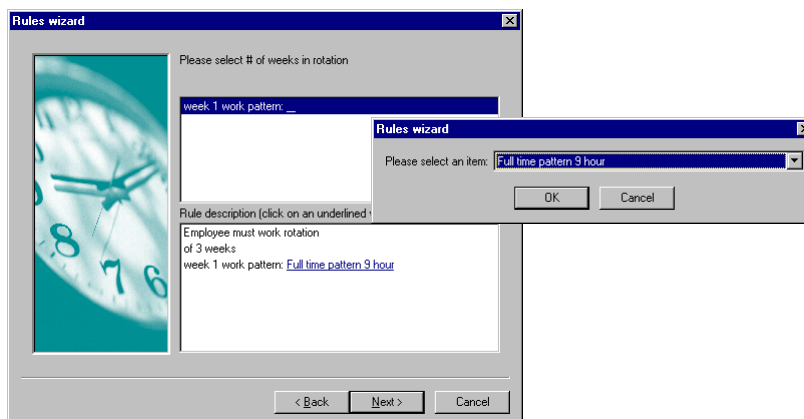
Click **Next** to continue.

- 3 Select the length (in weeks) of the rotation.

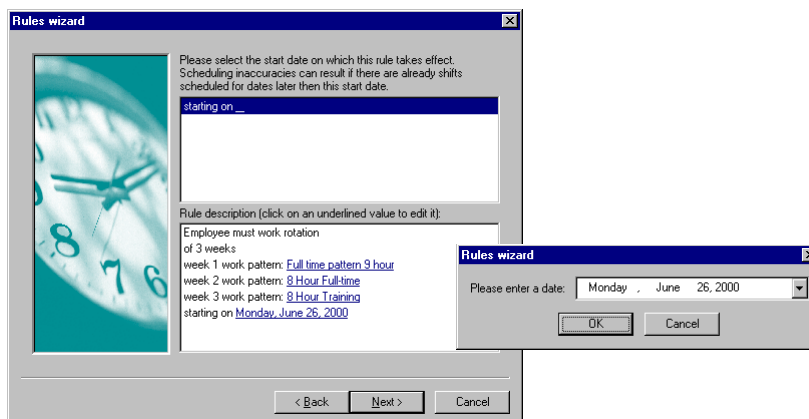


Click **Next** to continue.

- 4 Select a work pattern for the first week of the rotation by clicking the work pattern name and selecting a pattern from the list. Click **Next** and repeat to enter the work pattern for each week.

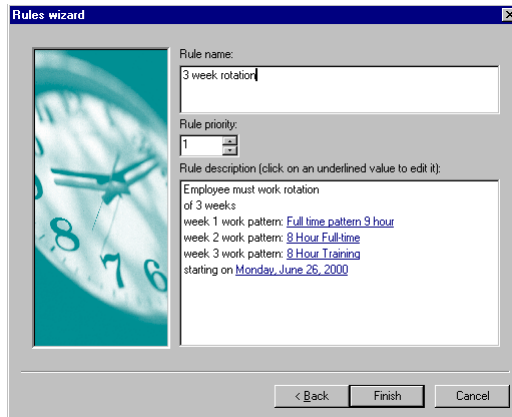


- 5 Select a starting date for the first week in the rotation.



Click **Next** to continue.


- 6 Give your rule a name and set its priority. In case of a conflict between assignment rules, the priority determines which rule is used.

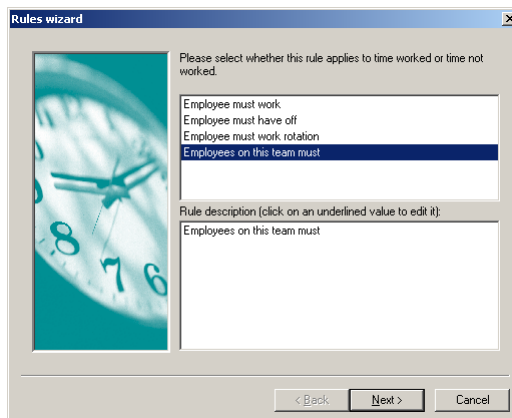


- 7 Click **Finish** to complete the rotation rule. Use the **Rotations** tab in the **Employees** module to assign rotations. (See page [141](#).)

Creating Team Work Rules

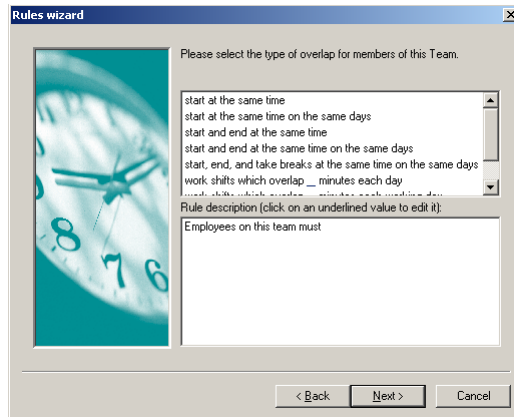
You can create work rules to have multiple employees scheduled to work at the same time as each other or as their supervisor or lead, or start shifts or shift events at the same time. Such a rule is referred to as a team work rule.

- 1 In the upper pane, double-click the * next to the row at the bottom of the grid or click the **New** button () on the toolbar. The Rules wizard appears.
- 2 For overlapping shifts, select **Employees on this team must**.



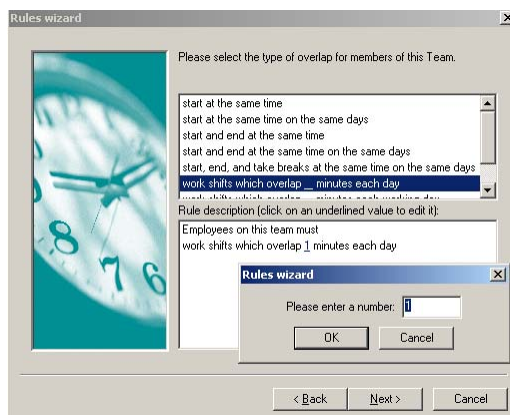
Click **Next** to continue.

- 3 Select the type of overlap for the team members.



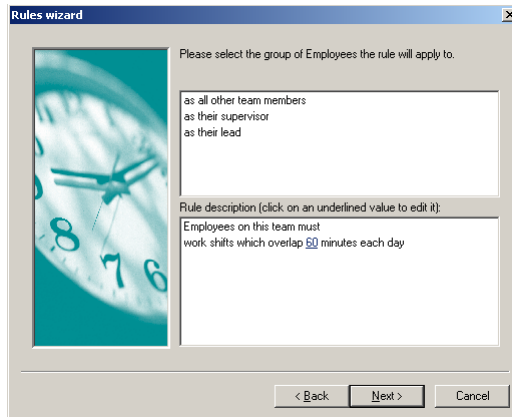
The choices for overlap consist of:

- **start at the same time**
 - **start at the same time on the same days**
 - **start and end at the same time**
 - **start and end at the same time on the same days**
 - **start, end, and take breaks at the same time on the same days**
 - **work shifts which overlap _ minutes each day**
 - **work shifts which overlap _ minutes each working day**
 - **work shifts which overlap _ minutes each week**
- 4 If you select one of the last three overlaps listed above, click the underlined number, fill in the desired number, and then click **OK**.



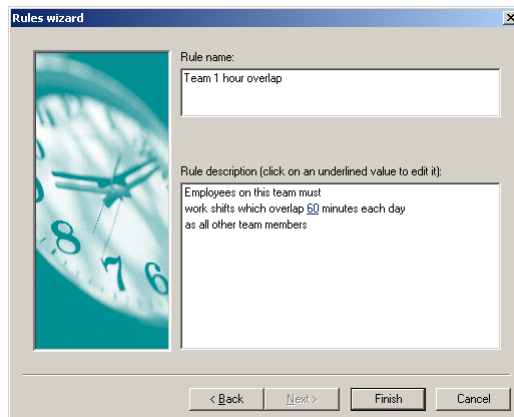
Click **Next** to continue.

- 5 Select the group of employees to whom the rule is to apply. Choices include:
- **as all other team members**
 - **as their supervisor**
 - **as their lead**




Click **Next** to continue.

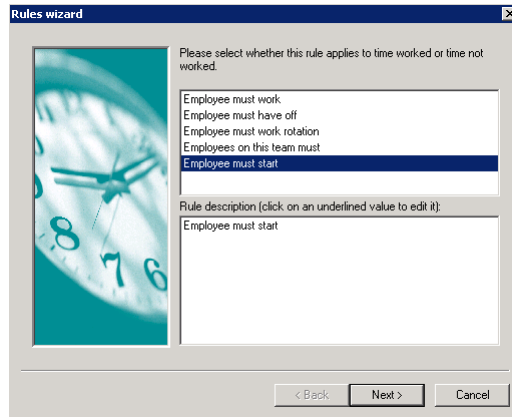
- 6 Type a name for the rule in **Rule name**, and assign the rule a **Priority**. In the event of a conflict between rules, the priority determines which rule Forecasting and Scheduling will use.



- 7 Click **Finish** to complete the rule and close the wizard, or click **Back** to edit any part.

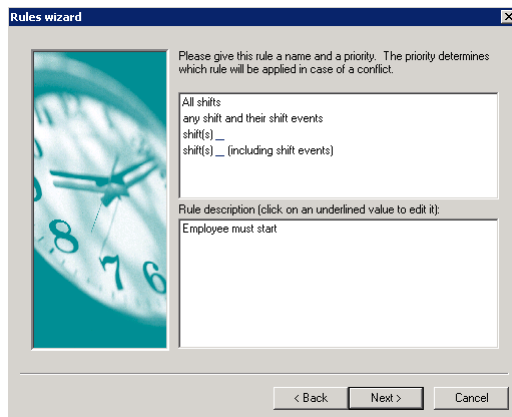
For shifts or shift events starting at the same time:

- 1 In the upper pane, double-click the * next to the row at the bottom of the grid or click the **New** button () on the toolbar. The Rules wizard appears.
- 2 Select **Employee must start**.



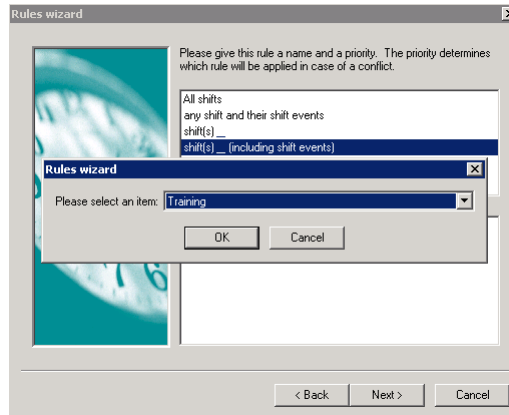
Click **Next** to continue.

- 3 Select the type of overlap for the team members.



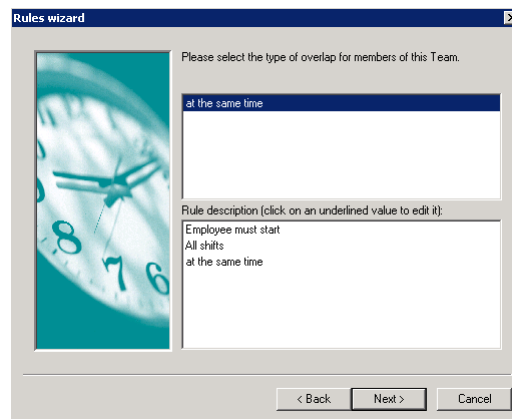
The choices for starting consist of:

- **All shifts**
 - **any shift and their shift events**
 - **shift(s) __**
 - **shift(s) __ (including shift events)**
- 4 If you select one of the last two options listed above, click the underline, select the desired shift from the drop-down menu, and then click **OK**.



Click **Next** to continue.

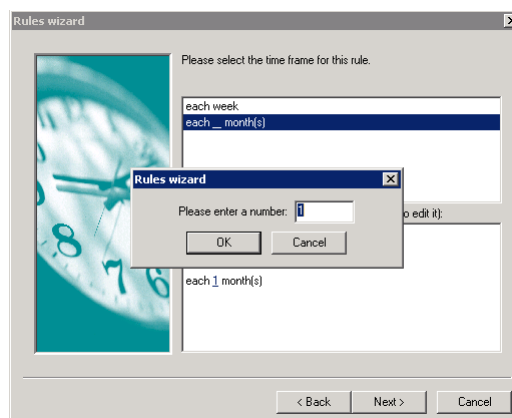
- 5 There is only one choice of overlap: **at the same time**.



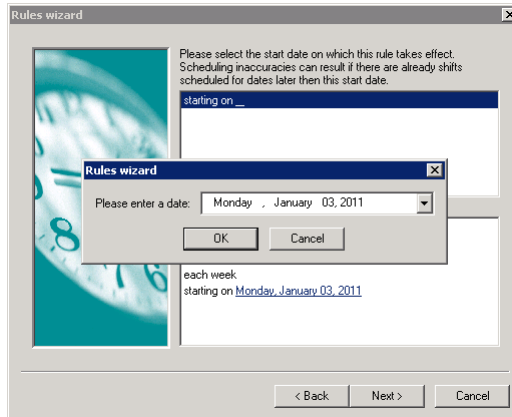
Click **Next** to continue.

- 6 Select the time frame for this rule. Choices are:
- **each week**
 - **each __ month(s)**

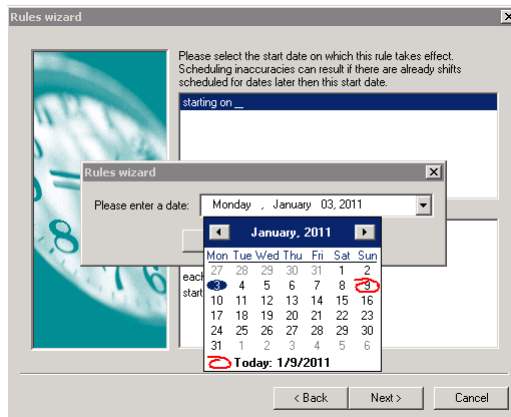
For the latter choice, click the underline to fill in the months value.



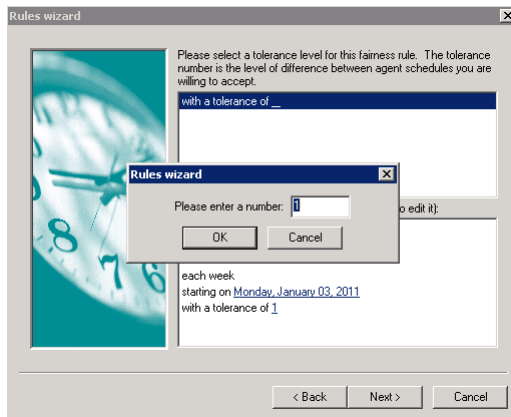
- Select the start date by clicking the underline in **starting on**__.



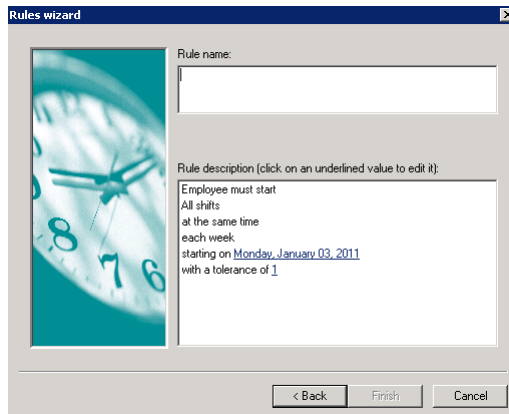
- Click the arrow on the right side of the day display to open a selector if you want to select a different date.



- Specify a tolerance level by clicking on the underline in **with a tolerance of** __.




- Type a name for the rule in **Rule name**.




- 11** Click **Finish** to complete the rule and close the wizard, or click **Back** to edit any part.

Editing and Deleting Assignment Rules

 You assign assignment rules to employees in the **Employees** module. See [Assigning Assignment Rules to Employees](#) on page 141.

To edit an assignment rule:

- In the upper pane of the **Assignment Rules** tab, click the rule you want to edit, then click on an underlined item in the lower pane to change it.
- Or
- In the upper pane of the **Assignment Rules** tab, double-click the rule you want to edit. When the Rule wizard appears, click **Back** to move to the part of the rule you wish to edit. Make your changes, then click **Next**, and then click **Finish**.

 If you change an assignment rule that applies across multiple weeks and that has already been scheduled, you must clear the schedule for each scheduling period to which the rule applies, and reschedule the period. Failure to clear and reschedule scheduling periods—including those that have passed—can result in inaccurate schedules.

To delete an assignment rule:

- 1** In the upper pane of the **Assignment Rules** tab, click the rule you want to delete.
- 2** Click **Delete** on the toolbar, and then click **OK** to delete the rule.

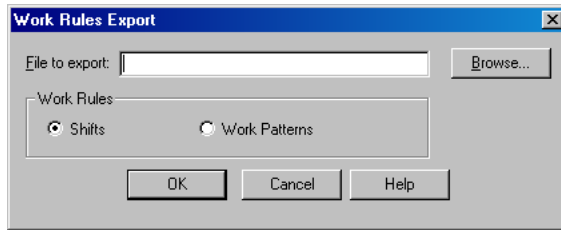
Exporting Shift and Work Pattern Information

You can export information about your shifts and work patterns. This information can be particularly helpful when you are upgrading your system, and need to have documentation on any shifts or work patterns you have defined.

To export this information:

- 1 On the **File** menu, click the **Export** menu item.

The **Work Rules Export** window opens:



- 2 Enter specifications for the export file using one of the following methods:
 - a. To select from a list of file formats, click **Browse** and type the file name (with no extension.) Then select a type under **Save as type**. For example, you type **forecast**, and select **HTML**. Then click **Save**.
 - b. Under **File to export**, type the file name, extension, and location to which the file will be exported. For example, **c:\myfiles\forecast.htm**
- 3 Select which category of information you want to export, **Shifts** or **Work Patterns**.

Shift Information

When you export information on shifts, Forecasting and Scheduling creates a file with the following columns of information:

- **Shift Names**
- **Start Times**
- **Length**
- **Activity**
- **Min Spacing**
- **Max Spacing**
- **Organization**
- **Shift**
- **Activity Name**
- **Type**
- **Start Window**
- **Length**
- **Activity**
- **Paid**

This information essentially records what you see on the **Shifts** tab of the **Work Rules** module, in the top and bottom grids, for each defined shift and its associated shift events. For example:

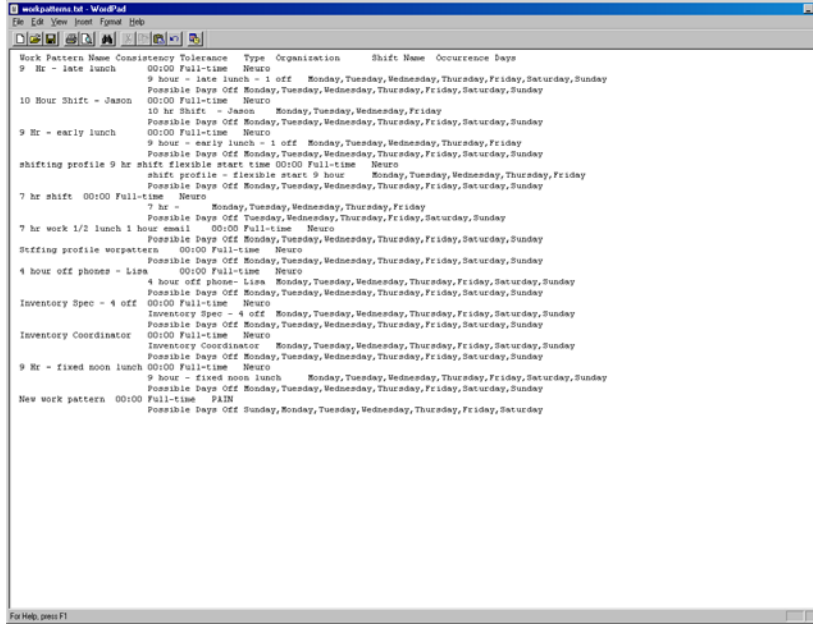
Shift Name	Start Time	Length	Activity	Min Spacing	Max Spacing	Organization	Shift Activity Name	Type	Start Window	Length Activity	Paid
New Shift	08:00	Available on Phone	MEDPHONIC								
9 hour - early lunch - 1 off	07:00,08:00,08:30,09:00,09:30,10:15:00	09:00	Available on Phone					Neuro			
10 hr Shift - Jason	08:00	11:00	Available on Phone					Neuro			
one hour phone coverage	07:30,07:45,08:00,08:15,08:30,08:45,09:00:00	09:00	Available on Phone					Neuro			
shift profile - flexible start 9 hour	07:30,07:45,08:00,08:15,08:30,08:45,09:00:00	09:00	Available on Phone					Neuro			
lots of flex-10hr	07:30,07:45,08:00	10:00	Available on Phone					Neuro			
7 hr - 07:30,07:45,08:00,08:15,08:30,08:45,09:00,09:15,09:30,09:45,10:00,10:15,10:30,10:45,11:00:07:00	09:00	Available on Phone						Neuro			
9 hour - late lunch - 1 off	07:00,08:00,08:30,09:00,10:00	09:00	Available on Phone					Neuro			
Inventory Coordinator	07:30,08:00	09:00	Available on Phone					Neuro			
4 hour off phone- Lisa	07:00,08:00,08:30	09:00	Available on Phone					Neuro			

Work Patterns Information

When you export information on work patterns, Forecasting and Scheduling creates a file with the following columns of information:

- **Work Pattern Name**
- **Consistency Tolerance**
- **Type**
- **Organization**
- **Shift Name**
- **Occurrence Days**

This information essentially records what you see on the **Work Patterns** tab of the **Work Rules** module, in the top and bottom grids, for each defined work pattern and its associated shift rules. For example:




The Employees Module

The **Employees** module is displayed when you click the **Employees** icon.

Employees											
Employees											Staffing Profiles
First Name	M.I.	Last Name	Suffix	Birth Date	Employee Type	Is Supervisor	Is Team Lead	Min Paid Hrs	Max Paid Hrs	Supervisor	Team Lead
▼		Adams		1/27/1965	Full-time	<input type="checkbox"/>	<input type="checkbox"/>	35.00	45.00	Myself	Myself
		Aaron	Wheeler		Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Myself	Myself
		Abraham	Belworth		Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Melinda Brinkle	Myself
		Albert	Johnson		Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Melinda Brinkle	Myself
		Alison	Crane		Part-time	<input type="checkbox"/>	<input type="checkbox"/>	20.00	20.00	Melinda Brinkle	Myself
		Anne	Wong		Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Myself	Myself
		Bob	Devries		Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Melinda Brinkle	Myself
		Bulworth	Markman		Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Melinda Brinkle	Myself
		Brenda	Vucovick		Part-time	<input type="checkbox"/>	<input type="checkbox"/>	20.00	20.00	Myself	Myself
		Charlotte	Wong		Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Myself	Myself
		Daniel	Volmer		Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Myself	Myself
		Eari	Thadwick		Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Myself	Myself
		Elvira	Nesteron		Part-time	<input type="checkbox"/>	<input type="checkbox"/>	20.00	20.00	Melinda Brinkle	Myself
		Frederick	Koza		Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Melinda Brinkle	Myself
		George	Teller		Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Myself	Myself

Calendar	Preferences	Work Patterns	Rotations	Assignment Rules	Skills							
Monday	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
Tuesday												
Wednesday												
Thursday												
Friday												
Saturday												
Sunday												

 See [Creating Staffing Profiles](#) on page 267 for information about the **Staffing Profiles** tab.


Use the **Employees** module in Organization mode to:

- Add employees to an organization and edit their information. See page [124](#).
- Move employees from one organization to another. See page [127](#).
- View an employee's personal calendar; add vacations, training, and so forth; set employee unavailability. See page [131](#).
- Add employee preferences for days off and start times. See page [138](#).
- Assign work patterns to employees. See page [140](#).
- Assign rotations to employees. See page [141](#).
- Assign shift and fairness assignment rules to employees. See page [141](#).
- Assign skills to employees (if skill-based scheduling is enabled). See page [142](#).

The next section discusses adding and editing employee information. For specific information about the Employee grid field, see "[Employee Grid Fields](#)" on page 129.

Adding Employees

You can add employees directly to Forecasting and Scheduling or you can import a text file containing the employee data. You can also designate employees to be supervisors and/or team leads.

 Employees should always be added at the lowest possible level.

To import employee data from a text file:

- 1 While in the Organization work mode, click **Employees**.
- 2 On the **File** menu, click **Import**. The **Employee Import** dialog box appears.

- 3 Type the name of the file in **File to import**, or click **Browse** to locate it.
- 4 Select the delimiter used by the import file (tab, comma, or semicolon).
- 5 If the file contains non-essential data (header information, for example) at its beginning, type the number of lines the data occupies in **Number of lines to ignore at start of file**.
- 6 Select the fields you want to import, or click **Check All** to select all the fields. **First Name** and **Last Name** are mandatory fields and are always checked.
- 7 For each of the fields you have selected, type the column in which it appears in the import file.
If more than one item occupies the same column (**First Name** and **Last Name**, for example), type the same number for both items.
- 8 Click **OK** to begin the import.


Import Specifications


When data contained in an imported field is inconsistent with its intended usage in Forecasting and Scheduling, Forecasting and Scheduling handles it in the following way:

- **First Name** and **Last Name**—These are required fields.
- **Employee type**—This is a required field. If the imported data contains an employee type not already present in the database, you are asked if you want to create a new type. If you click **No**, the record is skipped. If you click **Cancel**, the import is canceled.
- **Min hours/Max hours**—If the **Min hours** value is larger than the **Max hours** value, the values are made equal. For instance, if **Min hours** is 50 and **Max hours**


is 40, they are both set to 40. If either value is greater than 100, the field is set to 0.

- **Organization**—If the import file specifies an organization different from the current active organization, and the organization exists in the Forecasting and Scheduling database, the employee is imported into the specified organization and not into the current organization. If the organization specified in the import file does not exist in the Forecasting and Scheduling database, the employee is imported into the current working organization.
- **Start date**—If there is an error in the Start date, it is changed to the current date.
- **End date**—If there is no End date, the system inserts the year 2079.

 A log file titled **EmployeeImport.log** is created when you import employee data. If you have difficulty importing employees, open this file with any text editor and check for errors.

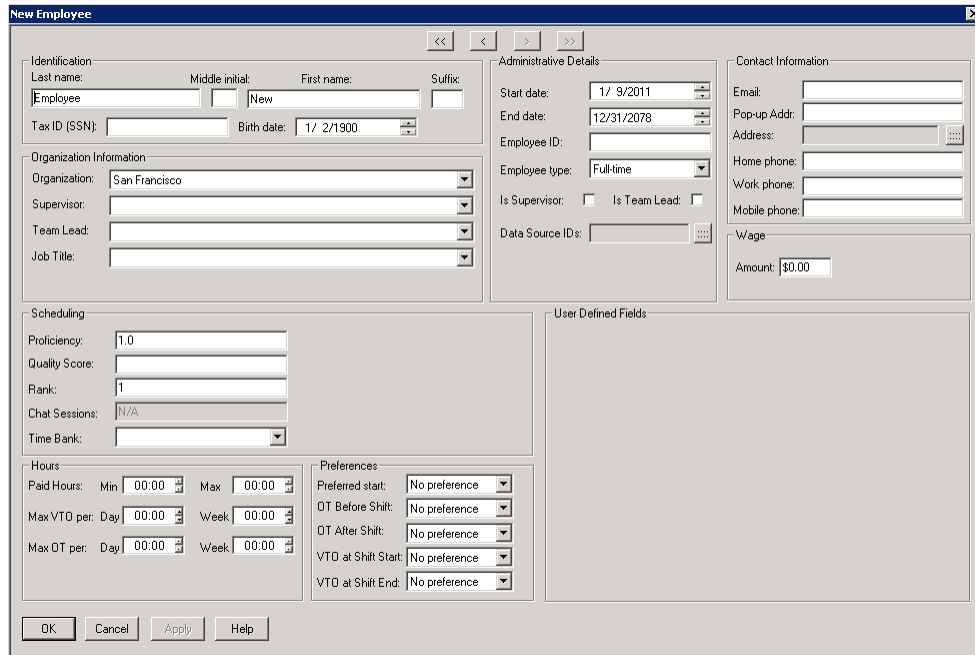
 When you import employee data, Forecasting and Scheduling assumes that each data item has effective dates equal to the start and end date for the employee.

To add an employee using the Employees grid:

- Click the * next to the row at the bottom of the grid or click the **New** button () on the toolbar, and then enter data in each field.

Or

- Double-click anywhere in the empty row, and then fill in the **New Employee** dialog box.



If you are not authorized to view secure employee fields, they are crosshatched out.



Editing and Deleting Employees




If you are adding or changing the same information for a group of employees, such as their organization or supervisor, select all the employees, hold the shift key down, and double-click the last employee selected to open the **Employee Details** dialog box and change the data.

To edit employee data:

- 1 Click in the field you want to edit.
- 2 Type in the new data.
- 3 Click in a different row to save the data.

To delete employee data:

- Select an employee, and then click the **Delete** button () on the toolbar.

When an employee is deleted, Forecasting and Scheduling sets the employee's End date to the current date. The employee appears on all past schedules but is not scheduled after the deletion date.



It is often quicker to delete employees if you select the **Work Patterns** tab at the bottom of the **Employee** module instead of the default **Calendar** tab.

Effective Dates

The **Employee** module allows you to maintain historical information for some of its fields. On the employee grid, some of the items have a blue icon on the right side of their cell. This icon, which looks like a calendar, is the **Effective Dates** button. The button brings up a dialog box that displays all of the historical information for the field and any fields that share the effective date.

The dialog box also provides three options:

- **Update value for current period** – Allows you to set a new value based on the effective date period of the current value displayed.



The value displayed is always based on the effective value on the first date of the Viewing Display Period, which is displayed on the tool bar at the top of the Forecasting and Scheduling window.

- **Insert value for period from** – Allows you to set a new value for the exact Viewing Display Period shown on the toolbar at the top of the Forecasting and Scheduling window.
- **Insert value from** – Allows you to set a new value from the first date of the Viewing Display Period through the end date of the employee.

The effective date dialog boxes are also available from the employee detailed dialog window. When you are editing more than one employee at a time (referred to as multi-editing), the effective date dialog box options display "*****" in place of the dates for option one. When you select this option, it still results in the new value being used for each individual employee's effective dates for the value valid on the first day of the Viewing Display Period. You cannot edit any of the fields if one or more are secure fields.

Sorting and Filtering the Employee Grid

Forecasting and Scheduling lets you sort the information in the Employee grid by any column. It also lets you filter information to create subsets of employees.

To sort information in the Employee grid:

- Double-click the heading of the column you want to sort by. Double-click again to reverse the sort order.

Or

- 1 Click in a field in the column you want to sort by.
- 2 From the **Employee** menu, select the sort order.

To create a subset of employees:

- 1 From the Employee menu, select **Filter**. The Employee Filter dialog box appears.

- i** In Organization mode, employees are always filtered by their Start Date and End Date (see below). To be displayed, an employee must have a Start Date on or before the last day in the current week (displayed in the date selector at the top of the **Employees** module), and an End Date on or after the first day of the current week. In other words, the employee must have at least one day of active employment during the week to be displayed. Employees who do not meet these criteria will not be displayed, even if they meet all of the filter's criteria.

- 2 Enter the information you want to filter by, and then click **OK**.
Remember that *all* fields in the Employee Filter dialog box containing data are used to create the subset.

To return to a full set of employees:

- 1 From the **Employee** menu, select **Filter**. The **Employee Filter** dialog box appears.
- 2 Click **Clear All**, and then click **OK**.

Employee Grid Fields

The Employee grid contains the following fields:

- **First Name, M.I.** (middle initial), **Last Name, Suffix**—**First Name** and **Last Name** are required fields. **M.I.** and **Suffix** are optional. The default names are **New** and **Employee**.
- **Birth Date**—Type the employee's date of birth.
- **Employee Type**—Select a type from the menu. Types are created in the **Employee Type** tab of the Settings dialog box. This is a required field. The default is the same type as the employee immediately above. If there is no employee above, the first type on the menu is used. Employee types determine the work patterns an employee is scheduled for.
- **Is Supervisor**—If the employee supervises other employees, click the checkbox to designate the employee as a supervisor. That employee is then added to the drop-down menu choices for Supervisor for other employees in the supervisor's organization and suborganizations. Supervisors can receive notifications about their employees and process their employees' requests. In addition, Team Rules created in the Assignment Rule module can refer to employees with the same supervisor or team lead (see next field) as a team. The **Supervisor** field is described below.
- **Is Team Lead**—If the employee is the team lead of other employees, click the checkbox to designate the employee as a team lead. That employee is then added to the drop-down menu choices for Team Lead for other employees in the team lead's organization and suborganizations. In addition, Team Rules created in the Assignment Rule module can refer to employees with the same supervisor or team lead as a team. The **Team Lead** field is described below.
- **Min paid hours, Max paid hours**—Type the minimum and maximum number of paid hours an employee can be scheduled each week. The default is **00:00**.

An employee is always scheduled for at least the minimum hours and is never scheduled for more than the maximum. An employee with minimum hours of 0

might not be scheduled, depending on the employee's maximum hours and employee requirements. An employee with maximum hours of 0 *is not* scheduled.

- **Supervisor**—Choose a supervisor. If none is selected, the default setting is blank. See also **Is Supervisor** above.
- **Team Lead**—Choose a team lead. If none is selected, the default setting is blank. See also **Is Team Lead** above.
- **Organization**—Choose an organization. The default is the current organization.
- **Proficiency**—Classify employees' proficiency according to their average handle time. The default entry is **1.0**.


Forecasting and Scheduling uses this number when scheduling employees. An employee with 1.0 has an average handle time, an employee with 2.0 takes twice as long, and an employee with 0.5 takes half as long to handle calls.

- **Rank**—Assign a rank to be used by the scheduler in determining employee preferences. The default entry is **1**.
The lower the number, the higher the rank.
- **E-Mail, Pop-up Address, Address, Home Phone, Work Phone, Mobile Phone, Job Title, Tax ID (SSN), Wage**—Optional fields.
- **Start Date**—Enter the employee's start date. The default is today's date. The scheduling engine uses this seniority date in determining the effect of employee preferences.



An employee is not scheduled for a period that starts earlier than the start date—the date the employee's data is entered. To schedule an employee for an earlier period, make sure the employee's start date is earlier than the first day of the schedule.

An employee with a start date later than the last day of the current week is not displayed.

- **End Date**—Enter the last date an employee worked for your organization. The default date is placed far into the future.
Employees with end dates earlier than the current date are considered terminated and are not scheduled. Employees with end dates earlier than the first day of the current week are not displayed.
- **Employee ID**—Type the employee's internal ID number here.
- **Data Source IDs**—Click the  button to open a list of Impact 360 data sources. Type the employee's data source identification used by the Adherence capabilities of Impact 360™ next to each data source. ********* will appear on the main grid when ACD IDs are assigned.

AgentACDID	
ACDName	ACDID
ACD1	12345

OK Cancel

- **User 1, User 2, User 3...User 10**—Type any additional employee information in these fields. (Your administrator assigns names to the user fields in Impact 360™. A

maximum of ten user fields are available. They must be assigned names in sequence starting with the first field. Those fields that have not been assigned a name are not visible in the employee grid.)

- **Preferred Start**—Select a block of time the employee prefers to begin work. This selection sets high preferences for the times in that period. Individual time preferences are set in the **Preferences** tab. These preferences are used when user-defined preferences cannot be met.
- **Max VTO Per Week, Max VTO Per Day, Max OT Per Week, Max OT Per Day**—If you have an Intra-Day Optimization license, you can view and set the weekly and daily maximums for overtime and voluntary time off here.
- **OT Before Shift, OT After Shift, VTO at Shift Start, VTO at Shift End**—If you have an Intra-Day Optimization license, these columns show the employee's current preferences, as set in the web application's My Profile module, in the Schedule Preferences section. You can override the settings here.
- **Chat Sessions**—The number of concurrent chat sessions the employee can participate in.
- **Effective Date** buttons—The employee fields that have effective dates allow for two types of editing. If the date displayed is the correct period for which you want to set the new value, you can save your changes by clicking the **Apply** button or **OK** button at the bottom of the dialog box.

To change the effective dates of one or more of the values, click the **Effective Dates** button (the calendar icon) next to the value(s) to be modified. The **Effective Dates** dialog box appears, allowing you to set the dates of the change along with the new value. This data is not actually saved until you click the **Apply** button or **OK** button at the bottom of the dialog box. (See "[Effective Dates](#)" on page 127 for more information on the **Effective Dates** dialog box.)

- **i** The Copy and Paste features apply to rows, not columns. That is, you can copy an employee and paste a copy in a new row, but you cannot copy the Preferred Start column and paste the data elsewhere.

The newly created employee will not transfer historical or future data from the employee being copied. Data values are based on the first date of the view period displayed on the toolbar. These are the same as the data values being displayed in the grid for the employee being copied. Also note that you must stay in the same view period between the time that you copy and paste the employee(s).

The Employee Personal Calendar

The **Calendar** tab in the lower pane of the **Employees** module contains the selected scheduling period's schedule for the highlighted employee. For general information, see "[Calendar Grids](#)" on page 32. Use the date selector in the toolbar (Organization mode only) to select a different scheduling period if desired.

Calendar											
Preferences Work Patterns Rotations Assignment Rules Skills											
PM											
	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00
Monday											
Tuesday											
Wednesday											
Thursday											
Friday											
Saturday											
Sunday											

You can use the Employee Calendar to:

- Display the employee's schedule.
- Add or change shift assignments and calendar events, such as employee unavailability.

Creating and Modifying Shift Assignments and Calendar Events

You can create and modify shift assignments and calendar events directly in the employee's personal calendar. You can also use most of these techniques on calendars in the **Calendar** module and in Campaign mode.

Shift Assignments

To change an employee's shift time or length:

- 1 Select the employee, and then double-click the *shift* for the day you want to change.

Or

Right-click the shift, and then select **Edit Shift Assignment....**


Or

Right-click on an empty space, and then select **New > Create Shift Assignment....**

The **Shift Assignment** dialog box appears.

- 2 Use the **Shift Assignment** dialog box to edit the employee's shift:
 - **Start date/time**—Type a new shift start date and time.
 - **End date/time**—This field reflects changes made in the start time or shift length, but you can make changes manually as well.

- **Activity**—Select one of the activities from the drop-down menu. (The activities displayed are those specified as shift events on the **Activities** tab of the **Activities** module. See [page 82](#), under **Schedule Usage**.)
- **Overtime before/after shift**—Either select an existing OT extension using the drop-down menu, or type the length of any scheduled overtime. The overtime is displayed with a grid pattern on the calendar.
- **Shifts**—Click a shift to change the current assignment. All available shifts for the employee’s organization are listed. **The End date/time** field is updated to reflect any changes in shift length.

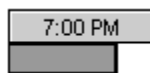
 This overrides all other considerations, such as assigned work patterns and employee type (part or full time).

- **Comments**—Type any comments about the .

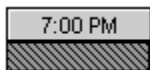
- 3 Click **OK** to complete the . Changes are reflected on all employee calendars. See [page 31](#).

To change an employee’s shift time manually:

- 1 Select the employee, and then click the shift for the day you want to change. A heavy border appears around the shift showing that it is selected.



- 2 Drag the shift to its new start or end time. The shift is crosshatched to indicate that it is locked and will not be changed by Forecasting and Scheduling. See “[Locking and Unlocking Shifts, Shift Events, and Calendar Events](#)” on page 158.




Custom Shifts

You can manually change the time, length, and type of a shift. When you complete your changes, the shift is locked (see [page 158](#)). If you change the shift’s parameters outside those defined for the shift, you create a *custom shift*.

A custom shift is a you change so that it violates the parameters set in the **Shifts** tab of the **Work Rules** module. (See “[The Shifts Tab](#)” on page 99.) For example:

- Its start time is outside the shift start time window.
- Its length is different than that defined for the shift.
- It has a different type or number of shift events than those defined for the shift.
- Its shift events have a different start time or length than those defined for the shift.

 A custom shift *cannot* be unlocked in the same way as other shifts. To unlock a custom shift, you must first change the custom shift’s parameters so that they do not violate those defined for the shift.

Creating New Calendar Events

Calendar events are scheduled independently and are not necessarily associated with shifts. Some examples are vacations, meetings, and leave of absence.

To create a new calendar event:

- 1 Select the employee, and then right-click the shift when you want the event to occur.
- 2 Choose **New > Create Calendar Event**. The **Regular Calendar Event** dialog box appears.

- 3 Use the **Regular Calendar Event** dialog box to set the employee's availability during the shift period:
 - **Start date/time, End date/time**—Type a start and an end date and time for the event. Events must be set in 15-minute intervals.
 - **Activity**—Select an activity. (The activities displayed are those specified as usable for calendar events on the **Activities** tab of the **Activities** module.)
 - **Comments**—Type descriptive comments about this event.
 - **Must occur during a shift**—Click if the event must be scheduled when the assigned employees are working.
 - **Can occur at any time**—Click if the event can be scheduled at any time during the organization's hours of operation.
 - **Attendees**—In the left pane, select employees participating in the event, and then click **Add**. To remove employees from the event, click them in the right pane, and then click **Remove**.

When you remove an employee from this pane, it clears the event from their calendar.



The employee filter controls the attendee list. For example, if the employee filter is set to display part-time employees, only part-time employees are listed in the attendee field.



Adding Vacation Days

Vacation days are treated as a special kind of event if they are selected from the right-click menu. (See [To create a vacation day:](#), page 135 below.):

- The start and end times for vacation day are automatically set to the organization's start and end hours for the vacation day.
- The **Rule for counting toward min/max hours** is automatically set to **Use underlying shift**.

Where should vacations be added?

You can add or change vacation days from any calendar in the **Employee** or **Calendar** modules in Organization and Campaign modes. In general:

- Add vacation days in the Organization mode's **Employees** module for vacations during time periods that have not been scheduled.
- Add vacation days in the Campaign mode's **Calendar** module for vacations during time periods that have already been scheduled. This gives you a view of the overall schedule for the period of the vacation and lets you assess its impact. Remember to refresh the service levels after the vacation has been added. You might also want to reschedule at this time.

To create a vacation day:


- Select the employee's name.
- In the lower calendar tab, right-click the day or shift and select **Make Vacation Day**. The entire day is marked as a vacation day.
- To create multiple vacation days, right-click the vacation day you just created, select **Edit Time Off...**, and then click **Add Recurrence...** to create a recurring time-off event with Vacation as the activity, and set the recurrence time, period, and pattern. See "[Creating Recurring Event Templates](#)" on page 137 for more information.

To remove a vacation day, click anywhere in the vacation day, and then click the **Delete** button on the toolbar.

You can also add vacations by right-clicking the calendar and selecting **New > Create Time Off...** See page [151](#).

Creating Floating Events

You can create a Calendar Event and make the event "float," that is, make its start time a range to accommodate employee schedules. In the Calendar, right-click and choose **Create Floating Event**.

 You must reschedule events to have the Forecasting and Scheduling scheduler distribute the floating events after they have been entered. When you initially create a floating event, it is placed at the earliest start time of the event.

- **Event Attributes**—Specify all attributes of the Calendar Event.
- **Possible Days**—Click the days the event can take place, the earliest time it can start, and the latest time it can start (or select a number and use the arrows) on each day.
- **Time Zone**—The time zone of the organization. This field cannot be changed.


When a floating event is scheduled, it is scheduled around the schedules of those participants.

Creating Recurring Floating Events

In Campaign mode, you can create a calendar event and make the event simultaneously "float" and "recurring," that is, make its start time a range to accommodate employee schedules, with this range potentially recurring over a period of time.

To create a recurring floating event:

- 1 In the Calendar, right-click and choose **Create Recurring Floating Event**.

 You must reschedule events to have the Forecasting and Scheduling scheduler distribute the recurring floating events after they have been entered. When you initially create a recurring floating event, it is placed at the earliest start time of the event in each recurring period.

- 2 Specify values for the following:

- **Event Attributes**—Specify all attributes of the calendar event.
- **Possible Days**—Click the days the event can take place, the earliest time it can start, and the latest time it can start (or select a number and use the arrows) on each day.
- **Recurrence Properties**—Select the start and end dates of the recurring period and specify how often the event is to recur.
- **Time Zone**—The time zone of the organization. This field can't be changed.

When a recurring floating event is scheduled, it is scheduled around the schedules of those participants.

Creating an Unavailability


An unavailability is a general category that simply indicates that an employee is unavailable for scheduling. An employee can be unavailable for a short period (8:00 - 10:00 a.m., for example), for an entire day, or for the same period across several days. Unavailabilities are typically used to prevent Forecasting and Scheduling from scheduling a shift when the employee cannot be at work.

To make a period unavailable:

- Drag across the period you want to make unavailable. The period is marked unavailable.

To create a day-long unavailability for a single day:

- Right-click anywhere next to the employee, and then select **Make Unavailable**. The entire day is marked as unavailable.

 If an employee will always be unavailable on a particular day, create the unavailability as a recurring calendar event. See page [155](#).

To make the same period unavailable over more than one day:

- If the employee is unavailable during the same time period over several days, drag across the period and the days.

Calendar	Preferences	Work Patterns	Rotations	Assign
	M	6:00	7:00	8:00
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				

Calendar	Preferences	Work Patterns	Rotations	Assign
	M	6:00	7:00	8:00
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				




Multiple-day dragging works in the employee personal calendar in either Organization or Campaign mode. Click the **Calendar** tab in the **Employees** module or double-click the employee's name in the **Calendar** module.

Creating Recurring Event Templates

You can create a Calendar Event, Time Off, or Unavailability that automatically recurs at regular intervals, such as a meeting that takes place every Monday and Friday. In the Calendar, right click, and then choose **New > Create Recurring Event....** The **Recurrence Attributes** window opens, which has the following sections:

- **General**—Specify the type of event and when it can occur.
- **Event time for each recurrence day**—Specify the start time, end time, and length of the event.
- **Recurrence period**—Select the start and end dates of the recurring event..
- **Recurrence pattern**—Type the frequency in **Recur every ... weeks**. Select the days of the week when the event will take place. (For an event recurring multiple days in the same week, the frequency of weeks should be one, with multiple days selected.)
- **Attendees**—Use the **Add >>** and **<< Remove** buttons to select the employees affected by the event.

 In Organization mode, when you add an unavailability, it is set as a recurring event ending in the year 2038. When you add an unavailability in Campaign mode, it applies only to the current scheduling period.

Recurring Multiple-Day Unavailabilities

Forecasting and Scheduling treats multiple-day unavailabilities as a single unavailability that recurs each selected day.

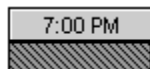
- If the multiple-day unavailability is created in the Organization mode, it is automatically set to recur each week. For example, the unavailability shown above is set to recur each Monday, Tuesday, and Wednesday each week until 1/1/2038. To limit it to one week, you must remove the recurrence. See page [137](#).
- If the multiple-day unavailability is created in the Campaign mode, it is only set for the dates and times selected. The last day the event will recur is the last date selected during the drag.

To delete an unavailability:

- 1 click the unavailable period to highlight it
- 2 Press the **Delete** key on your keyboard. Do this for each unavailable period.

Locking and Unlocking Shifts, Shift Events, and Calendar Events

Forecasting and Scheduling does not adjust or reschedule locked shifts, shift events, and calendar events. Locked periods are crosshatched.




To lock a shift, shift event, or calendar event:

- Right-click the shift, shift event, or calendar event, and then select **Lock Shift** or **Lock Shift Event** from the menu.
- Or
- Drag the shift, shift event, or calendar event to a new time.
- Or
- Change the time of the shift in the dialog box or the calendar event in the **Edit Calendar Event** dialog box. Set the time of a shift event in the **Edit Shift Event** dialog box.

To unlock a shift, shift event, or calendar event:


- 1 Right-click the shift, shift event, or calendar event.
- 2 Select **Unlock Shift** or **Unlock Shift Event** from the menu.

 You cannot use the **Lock/Unlock Multiple...** command in Organization mode. See [Locking and Unlocking Multiple Shifts](#) on page 210 for information on using this command in campaign mode.

Adding Employee Preferences

Use the **Preferences** tab to set employee preferences for days off and shift start times. Preferences are indicated by a number between 1 (highest) and 99 (lowest). You can set

preferences for blocks of starting times (**Start Early, Start Late**) on the Employee grid. The block preferences are used when individual user-defined preferences cannot be met. See page [131](#).

-  Employee preferences are used in combination with other preferences and with seniority and ranking settings. See [Preferences and Priorities](#) on page 606.

Preferences are independent of time, and do not change from scheduling period to scheduling period.

To add start-time preferences:

- 1 Click the employee's name to highlight it, and then click the **Preferences** tab in the lower pane. (You can set preferences for only one employee at a time.)


		AM													
Days Off		06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00			
Monday		3	3	3	3	4	4	4	4	5	5	5	5		
Tuesday		3	3	3	3	4	4	4	4	5	5	5	5		
Wednesday		3	3	3	3	4	4	4	4	5	5	5	5		
Thursday		3	3	3	3	4	4	4	4	5	5	5	5		
Friday		3	3	3	3	4	4	4	4	5	5	5	5		
Saturday	2	3	3	3	3	4	4	4	4	5	5	5	5		
Sunday	1	3	3	3	3	4	4	4	4	5	5	5	5		

- 2 Click a single time cell, or drag across a block of cells, and then type a number. Preferences are indicated by a number between 1 (highest) and 99 (lowest). This number is used as the preference in all highlighted cells.
 - Click the border around the cell, move the cursor till it turns to a +, and drag to select adjacent cells.
 - Highlight an area and drag it to move it to a new location.

If a group of cells with different preferences is highlighted and a new number is entered, all highlighted cells are changed to the new preference.

To add days-off preferences:

- In the **Days Off** column, type a preference for each day off.

-  The days-off preference is a part of the start-time preferences. For example, a Monday with a preference of 5 is more important than a start time with a preference of 10, but less important than a start-time preference of 4.

To delete preferences:

- Select a cell or group of cells, and then press the **Delete** key to clear preferences from the highlighted cells.

Do NOT use the **Delete** button on the toolbar—this deletes the selected employee.




Start Early/Start Late

You set preferences for blocks of starting times (**Start Early, Start Late**) on the Employee grid. See page [131](#). Forecasting and Scheduling uses block preferences when individual user-defined preferences cannot be met.







Assigning Work Patterns to Employees



Use the **Work Patterns** tab to assign the patterns created in the **Work Rules** module (see page [103](#)) to each employee.


 Although it is possible to assign employees a work pattern for which they do not have appropriate skills, the employees are never scheduled for that work pattern.

To assign a work pattern to an employee:

- 1 Click the **Work Patterns** tab in the lower pane. Since each work pattern is assigned to an employee type (full-time, part-time, and so forth), only patterns appropriate to the selected employee's type are displayed.

Calendar Preferences Work Patterns Rotations Assignment Rules Skills						
OK	Work Pattern	Start Date	End Date	Preferences		
	Training Shift	7/3/2000				
	SF - Full Time 1	7/2/2000		1		
	SF - Full Time 2	7/2/2000		1		
	SF Full Time 1 with no weekends	7/2/2000		1		
	SF Full Time 2 with no weekends	7/2/2000		1		
	New Full Time Employee with training	7/2/2000		1		

- 2 In the **OK** column, click a pattern with a red . A green  is displayed showing that the pattern can be assigned.
- 3 Add the employee's preference for that shift—a number between 1 (highest) and 99 (lowest). This preference is used when scheduling. See page [606](#).

 Remember that Forecasting and Scheduling selects only one pattern per week for each employee. In the preceding illustration, the employee will be assigned either the **SF - Full Time 1**, **SF - Full Time 2**, **SF Full Time 1 with no weekends**, or **SF Full Time 2 with no weekends**, not a mixture of the four.

The work pattern is selected/deselected, and its preference value set for the period displayed in the **Start Date** and **End Date** columns of the work pattern display.

To select a different period:

- 1 Click the **Effective Dates** button (resembles a calendar) on the employee row for which you want to change the period.

A dialog box appears, allowing you to set the effective dates. See "Effective Dates" on page 127 for more details.

Assigning Rotations to Employees

If a rotation is assigned to an employee, the **Work Patterns** tab is not available.



Use the **Rotations** tab to assign shift rotation patterns to employees. Rotations are created in the **Work Rules** module (see page [95](#)).

To assign a rotation to an employee:

- 1 Click the **Rotations** tab in the lower pane.

Calendar Preferences Work Patterns Rotations Assignment Rules Skills			
OK	Name	Work Pattern	
▶	Rotation 1	1 - WP 2.5/2.6am	

- 2 In the **OK** column, click a pattern with a red ✘ . A green ✔ is displayed showing that the rotation has been assigned. Only one rotation can be assigned.
- 3 Select the Work Pattern on which the rotation will start. Only the work patterns assigned to this rotation are available.

If you change the work pattern, the rotation positioning changes for all the weeks in the pattern.



Assigning Assignment Rules to Employees

Use the **Assignment Rules** tab to assign assignment rules to employees. You create assignment rules and rotations in the **Work Rules** module (see page [93](#)).

Each assignment rule can be applied on a scheduling period-to-scheduling period recurring basis independently from the other rules.

To assign an assignment rule to an employee:


- 1 Click the **Assignment Rules** tab in the lower pane.

Calendar Preferences Work Patterns Rotations Assignment Rules Skills				
OK	Name	Cycle	Pattern	Week
✔	Minimum hours per quarter			
✔	Maximum hours per quarter			
✘	At least 10 partial weekends per quarter			
✘	At least 2 Mondays off every month			
✔	Fair number of hours per quarter			
✔	Fair number of partial weekends per quarter			
✔	Exactly 5 days a week			
✘	No more than 5 days a week			

- 2 In the **OK** column, click a pattern with a red ✘ . A green ✔ is displayed showing that the rule has been assigned.

To have the rule recur according to a weekly pattern:

- 1 Type the frequency at which the pattern recurs in the **Weeks** column. You can enter 1 to 26 weeks.
- 2 Select whether the pattern is active or not active during each weekly cycle.
- 3 Set the week of the cycle you are now in.

 If you change the week of the cycle, the rotation positioning changes for all the weeks in the cycle.

Assigning Skills to Employees

Use the **Skills** tab to assign skills to employees. You create skills in **Settings**. For complete information about skill-based scheduling, see page [229](#).

To assign a skill to an employee:

- 1 Click the **Skills** tab in the lower pane.

Calendar Preferences Work Patterns Rotations Assignment Rules Skills							
OK	Skill	Start Date	End Date	Proficiency	Priority	Class	
	English Billing Service - Phone	7/2/2000		1.0	1	Primary Skill	
	French Billing Service - Phone	7/2/2000		1.0	1	Primary Skill	
	New - Phone	7/3/2000					
	Observation - Project	7/3/2000					

- 2 In the **OK** column, click a pattern with a red . A green is displayed showing that the skill has been assigned.
- 3 Assign a proficiency level for the skill. If you use proficiencies to schedule, the level entered in the employee grid (see page [130](#)) is ignored and the skill-related proficiencies are used.
- 4 Assign a priority to each skill. Lower numbers mean that the skill has a higher priority for that employee. The queue listed as **1** is considered to be the employee's primary queue. Priority **2** is the secondary queue, and so forth.
- 5 Assign a classification for the employee's skill. Possible choices are **Primary Skill**, **Reserve 1**, **Reserve 2**. These classifications allow you to specify when an employee is a reserve employee (sometimes referred to as an overflow employee) for a queue.

The skill will be selected/deselected and its related entries set for the period displayed in the **Start Date** and **End Date** columns of the work pattern display.

To select a different period:

- 1 Select the **Calendar** icon on the employee row desired.


A dialog box pops up, allowing you to set it for the dates specified. See "Effective Dates" on page 127 for more details.

Skill Priorities

Skill priorities, defined at the employee level, are used in skill-based scheduling to simulate work routing when the schedule is created. They determine how work will be routed to your employees:

- If all skill priorities are equal, a contact is normally routed to the next available employee assigned to (scheduled for) the contact's queue.
- If two or more employees are available, the contact is assigned to the employee with the highest skill priority.
- If an employee with two or more skills is the only person available to take a contact and contacts from more than one queue are waiting, the contact from the employee's highest skill priority queue determines which contact is routed to the employee.

For blended queue hopping scenarios in the Backoffice, skill priorities have another dimension: activity preference. Here skill priority denotes preference for a work queue per employee and this allows the scheduler, as part of a final scheduling pass, to swap activities among schedules to assign work to employees according to their preference (without impacting service level).

 Priorities are one of several factors used to route a contact. Other factors, such as the length of time a contact has been holding and the time since an employee last received a contact, are also taken into account.

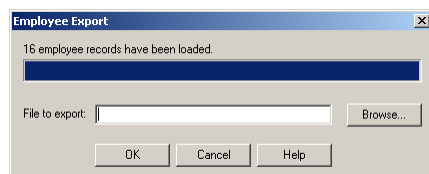
Skill Classifications

An increasing number of contact centers use various sorts of reserve and overflow employees. The **Primary Skill**, **Reserve 1**, and **Reserve 2** classifications enable you to designate such reserve employees.

The primary difference between normal skill assignment and reserve skill assignment is that reserve skills are only active when a certain condition is met. Otherwise, an employee is not considered eligible to answer a call needing this skill. The condition that triggers the reserve status is an expected wait time threshold that is specified in the Service Goal window. See "[Reserve Thresholds](#)" on page 191 for more information.

Exporting Employee Data


You can export employee data to a tabbed text (*.txt) file, an Excel 5 or higher (*.xls) file, or an HTML (*.htm) file.



To export employee data:

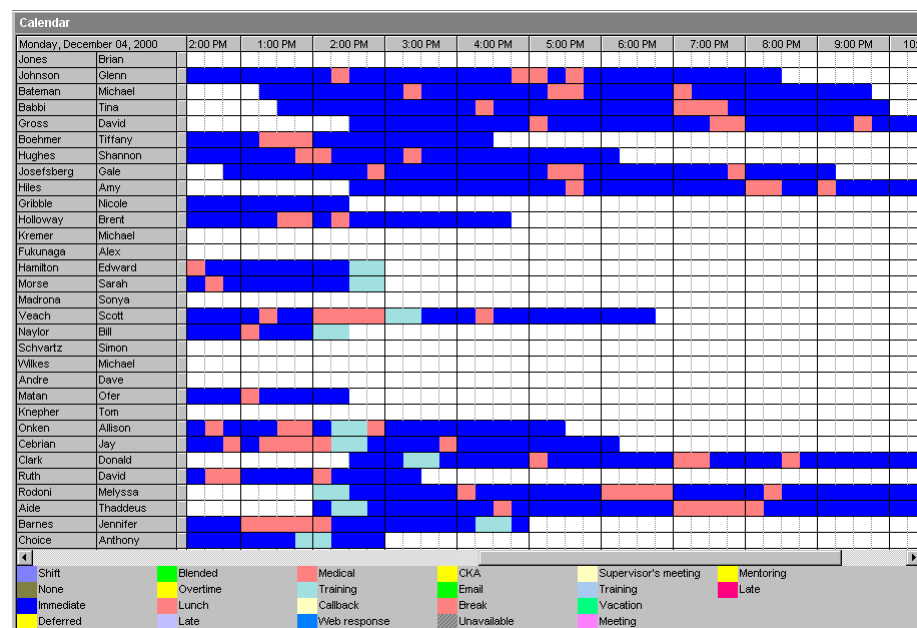
- 1 From the **File** menu, select **Export**. The Employee Export dialog box appears.
- 2 Type a file to which you want to export the employee data, or click **Browse**, and then select a file.
- 3 Click **OK** to export the information.

 Employees are filtered and sorted during export in the same way they appear in the current employee list. See [Sorting and Filtering the Employee Grid](#) on page 128.


 No effectivity data is exported; the data exported is based on the data currently displayed in the grid or detailed employee dialog boxes (on the first date of the viewing period currently displayed).

The Calendar Module

The **Calendar** module is displayed when you click the **Calendar** icon.



Use the **Calendar** module to view your organization's overall employee schedule and make shift or event changes for individual employees. For general instructions and information about Forecasting and Scheduling's calendar grids, see "Using Calendars" on page 31.

 This is *not* where you create schedules. You create schedules in the Campaign Mode **Calendar** module. See page [199](#).

To display or hide the legend of activities and their colors below the calendar:

- From the **View** menu, select **Legend**.
The legend is toggled on or off.

To display additional information about an individual employee:

- Double-click an employee's name. A window similar to the lower pane of the **Employees** module is displayed (see page [131](#)).

Weekly Calendar for Knepher, Tom						
	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Sunday						

Days Off					
	00:00	01:00	02:00	03:00	04:00
Monday	5				
Tuesday	5				
Wednesday					
Thursday					
Friday					
Saturday	1				
Sunday	1				

Sorting and Filtering Calendar Entries

Employees in the Organization calendar are initially sorted and filtered the same way they are in the **Employees** module (see page [123](#)).

To change the general employee sort order:

- Return to the **Employees** module and change the sort order there.

The following items on the **Calendar > Sort** menu allow you to sort employees :

- **Sort Ascending (Up)** (alphabetical, for example, A-Z)
- **Sort Descending** (alphabetical)
- **Use Employee Sort** (sorts the same as set in the **Employees** module)
- **Sort by Shift Start Time**
- **Sort by Shift End Time**
- **Sort by Shift Length**
- **Sort by Shift Type**
- **Sort by Event Start Time**
- **Sort by Work Pattern**
- **Sort by First Name**
- **Sort by Last Name**

To use a sort option, for example, to sort employees by start times:

- From the **Calendar** menu, select **Sort by Shift Start Time**. Employees are sorted with the earliest start time at the top. Clear **Sort by Shift Start Time** to return to the original order.

To display a subset of employees:

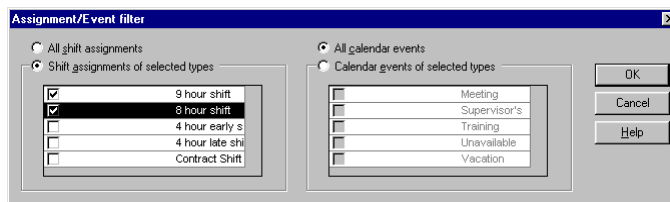
- From the **Calendar** menu, select **Employee Filter**. For information about this filter, see page [128](#).



The filters in the **Employees** and **Calendar** modules interact. When you set or clear the filter in one module, you take the same action in the other.

To display a subset of shifts or calendar events:

- 1 From the **Calendar** menu, select **Event Filter**. The Assignment/Event filter is displayed.



- 2 In the left pane, click **s of selected types**, and then click the shifts you want to display.
- 3 In the right pane, click **Calendar events of selected types**, and then click the events you want to display.
- 4 Click **OK**. The calendar shows only the selected shift and event types.

Creating and Modifying Shift Events

Forecasting and Scheduling schedules shift events in accordance with the parameters you set up in the **Work Rules** modules. You can also create or modify shift events manually.

To create a shift event:

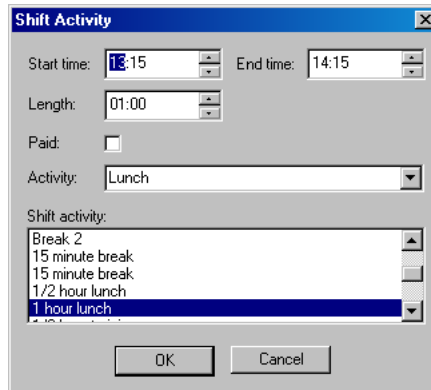
- Right-click on the employee's schedule row, and then select **New > Create Shift Event...**
- Set the shift events parameters.
- Click **OK**.

To change a shift event:

- Click the event, and then drag it to the new time period. It is locked there (see page [158](#)).

Or

- Right-click the shift event, select **Edit Shift Event**, and then set the new shift event parameters. Click **OK**. The shift event is locked (see page [158](#)).

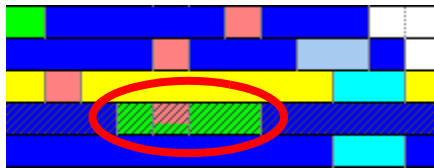


You can broadly divide shift events into two types, work-related shift events, and break-related shift events, based on their activity. If the activity can be used in a shift, it is considered work-related; if it cannot be used in a shift, it is considered break-related.

As you edit shift events, whether by dragging or through the **Edit Shift Event** menu item, you cannot place a break-related activity such that it overlaps another break-related activity.

You can place a break-related activity over a work-related activity, though. For example, if the employee were scheduled for a 2-hour shift event answering e-mail or performing a queue-hopping activity (see [Chapter 10 "Queue Hopping"](#)), you could place a lunch or other type of break within that shift event.

On the calendar, such superimposed break-related shift events are displayed with the underlying activity also visible, as shown in the following graphic:



The fourth row in the portion of schedule shown above has such a superimposed break-related shift event, shown circled in red, a 15-minute break starting 15 minutes into a 1-hour email shift event.

- i** As scheduler, you can see the underlying email activity within Forecasting and Scheduling. However, when employees view their schedule in the web application, they do not see the underlying activity. They see on their calendar 15 minutes of email, 15 minutes of break, and then 30 minutes of email.

i You can also use a copy and paste function for shifts. Right-clicking on a shift displays a menu containing, among other items, the following: **Copy**, **Copy Weekly Schedule**, and **Paste**.

For shifts, **Copy** is only enabled when the highlighted item is a shift. **Paste** is only enabled when you select an area where there is no shift.

Copy Weekly Schedule copies all shifts within the current week. This selection is disabled in period mode in a multi-week campaign.

When you click **Paste**, a new shift is created. When conflicts happen, it is handled just as if you are creating shifts manually.

When you **Paste** a week's schedule, the operation is not transactional, meaning failure of pasting one shift assignment does not impact subsequent **Paste** operations.





You can select multiple employees and **Paste**. In this case, when you select multiple employees and right-click to select **Paste**, the data copied over retains its original start time.

Creating and Modifying Calendar Events

Calendar events are scheduled independently and are not necessarily associated with shifts. Some examples are vacations, meetings, and leave of absence. Calendar events can occur once or can be set to recur on a continuing basis. You can select a time or let Forecasting and Scheduling pick the best time.

To create or edit a calendar event:

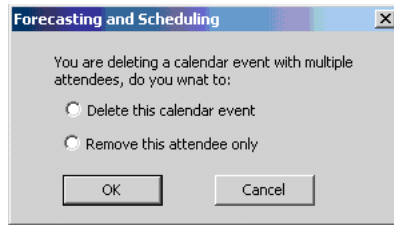
- 1 Right-click outside a calendar event in a grid, and then select **New > Create Calendar Event**.
(To edit a calendar event, right-click a calendar event in a grid, and then select **Edit Calendar Event**. You can also double-click the shift.)
- 2 Specify the time and Activity.
- 3 Specify when the event can occur.
 - **Must occur during a shift**—The event must occur when the attendees are scheduled. If this event is included on the calendar before the period is scheduled, the attendees are scheduled to work at that time or a conflict is generated.
 - **Can occur at any time**—The event can take place at any time without referring to the attendees' schedules.
- 4 Specify attendees.
 - To add another attendee, select the employee in the box on the left, and then click **Add >>**.
 - To remove attendees, select the employee in the box on the right, and then click **<< Remove**.

-  When you remove employees from this pane, it clears the event from their calendar.
-  The employee filter controls the attendee list. For example, if the employee filter is set to display part-time employees, only part-time employees are listed in the attendee field.
-  Attendees for calendar events can be marked as not attending. Only people that have been selected as attendees of an event can be marked as not attending. To see who has been marked as not attending, select one or more events, and then right-click in the list box displaying the attendee list. If attendees are marked as not attending, their names are displayed with a thin red line drawn through them.
- Forecasting and Scheduling ignores events in which attendees are marked as not attending when it calculates staffing statistics (for example, Number scheduled, Staffing with Quality). The scheduler also ignores the events for those not attending. This feature is only enabled for regular calendar events (not time offs or unavailability).
- 5 To make the calendar event a recurring event, click **Add Recurrence...**, and then fill out the fields as appropriate in the **Recurrence Attributes for Normal Calendar Event** window (see "[Recurring Calendar Events](#)" on page 150).
 - 6 To make the calendar event a floating event, click **Add Floating...** Floating events are discussed on page [135](#); recurring floating events are discussed on page [136](#).)
 - 7 Click **OK**.
-  You can also use a copy and paste function for calendar events. Right-clicking on a calendar event displays a menu containing, among other items, the following: **Copy**, **Copy Weekly Schedule**, and **Paste**.
- For calendar events, **Copy** is only enabled when the highlighted item is a calendar event. **Paste** is only enabled when you select an area where there is no calendar event.
- When you click **Paste**, a new calendar event is created. When conflicts happen, it is handled just as if you are creating calendar events manually.
- If an event is copied to a new employee, this employee is added to the attendee list. If the event is copied to the same user, a new event is created, with the same attendee list.
- You can select multiple employees and **Paste**. In this case, when you select multiple employees and right-click to select **Paste**, the data copied over retains its original start time.

To delete a calendar event:

- Select a calendar event, and then click **Delete** on the **Edit** menu, or click **Delete** on the toolbar.

- i** When you delete an event with multiple attendees, a pop-up dialog gives you the option of deleting the event or removing the selected attendee:



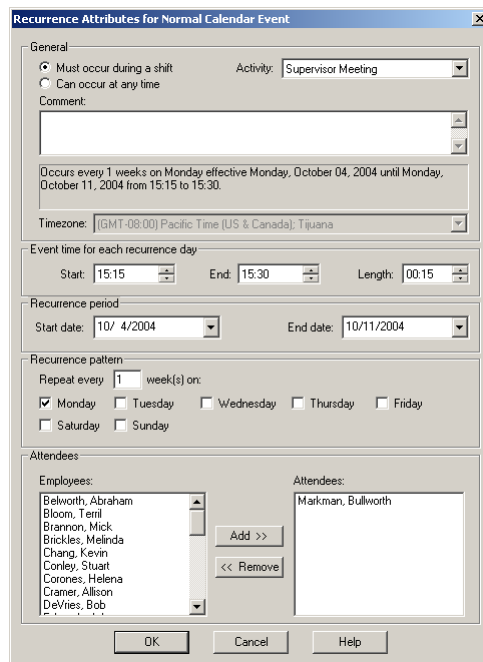
To remove recurrence attributes:

- 1 Double-click the recurring calendar event, or right-click the recurring event, and then select **Edit Recurring Calendar Event....**
- 2 When prompted, make sure the radio button **Open this recurrence** is selected, and then click **OK**.
- 3 Click the button **Remove Recurrence**.

All instances of the recurring calendar event are removed, except for the instance you opened.

Recurring Calendar Events

You have another way available to create a calendar event that automatically recurs at regular intervals. In the Calendar, right click, and then choose **New > Create Recurring Event....** The window **Recurrence Attributes for Normal Calendar Event** opens.



This window has the following sections:

- **General**—Allows you to specify whether the event must occur during a shift or can occur at any time, and select the activity associated with the event. Also summarizes the recurrence pattern defined by the window's settings, and the time zone of the organization.
- **Event time for each recurrence day**—Specify the start time, end time, and length of the recurring event.
- **Recurrence period**—Select the start and end dates of the recurring event.
- **Recurrence pattern**—Type the frequency in **Repeat every ... week(s) on:**. Select the days of the week that the event will take place. (For an event recurring multiple days in the same week, the frequency of weeks should be one, with multiple days selected.)
- **Attendees**—Use the **Add >>** and **<< Remove** buttons to select the employees affected by the event.

Creating and Modifying Time Off Events

Time off events represent employees who are absent from work for some activity, such as vacation, sick leave, or jury duty. Time off events are placed on top of shift and calendar events.

To create time off:

- 1 Right-click outside a time-off event in a grid, and then select **New > Create Time Off...** (You can also click the **New** button.)

(To edit Time Off, right-click time off in a grid, and then select **Edit Time Off...** You can also double-click the time off.)

You can also select the **Make Absence...** item from the right-click menu. A submenu appears, listing all of the various time off activities available. Select one of these to create a time off that is linked to the underlying shift (see item [Step 4](#) below) and occupies the entire shift from start to finish. The other options described below are bypassed. (You can right-click to get the full edit dialog box.)

- 2 Specify the start date and time, end date and time, and activity.
- 3 Use the check box to specify how many hours the time off counts as.
 - If **Use underlying shift** is checked, the number of Time Off hours is equal to the paid time in the Shift Assignments underneath the Time Off. If this event is included on the calendar before the period is scheduled, the attendees may be scheduled to work Shift Assignments at that time depending on their work rules and the Service Goal.
 - If **Use underlying shift** is **not** checked, you directly specify the number of Time Off hours for the event. If this event is included on the calendar before the period is scheduled, the attendees are scheduled to work the specified number of hours at that time or a conflict will be generated.

4 Link to the underlying shift event.

Time off events can be linked to underlying shift assignments. When time off events are linked, they move when an underlying shift assignment is moved, and cannot be resized to extend past the beginning or end of the shift. Overtime and overtime gaps are included as part of the shift for this determination. In addition, linked events are deleted when the underlying shift is deleted.


Linking a time off event to a shift manually locks the shift. If this shift is subsequently unlocked, the time off event remains linked. However, the linked time off event is deleted when you schedule the campaign. If the shift remains locked during scheduling, the linked time off event is not modified.

5 Specify attendees.

- To add another attendee, select the employee in the box on the left, and then click **Add >>**.
- To remove attendees, select the employee in the box on the right, and then click **<< Remove**.

6 To make the time off event a recurring event, click **Add Recurrence...**, and then fill out the fields as appropriate in the **Recurrence Attributes for Time Off Event** window (see [Recurring Time Off Events](#), page 153 below).

7 Click **OK**.

 Depending on how your system has been configured, when you view the details of a time-off event, you will see the comments employees entered for time-off requests, from the web application.

To delete time off:

- Select the time off, and then click **Delete** on the **Edit** menu, or click **Delete** on the toolbar.

To create a vacation day:

- Right-click anywhere next to the employee's name, and then select **Make Vacation Day**. A time off event with the Vacation activity is created for the entire day.

To remove a vacation day:

- Click anywhere in the vacation day, and then click **Delete** on the toolbar. The employee's shift assignment for that day is cleared.

To remove recurrence attributes:

- 1 Double-click the recurring time off event, or right-click the recurring event, and then select **Edit Recurring Time Off...**
- 2 When prompted, make sure the **Open this recurrence** radio button is selected, and then click **OK**.
- 3 Click the **Remove Recurrence** button.

All instances of the recurring time off event event are removed, except for the instance you opened.

Recurring Time Off Events

You can also create a Time Off event that automatically recurs at regular intervals by right-clicking in the calendar and then choosing **New > Create Recurring Time Off....** The **Recurrence Attributes for Time Off Event** window opens.

This window has the following sections:

- **General**—Allows you to specify whether to use the underlying shift or specify the number of hours, and select the activity associated with the time off. Also summarizes the recurrence pattern defined by the window's settings, and the time zone of the organization.

You can specify partial hours as well using decimals, such as 10.25.



- **Event time for each recurrence day**—Specify the start time, end time, and length of the event.
- **Recurrence period**—Select the start and end dates of the recurring event.
- **Recurrence pattern**—Type the frequency in **Repeat every ... week(s) on:**. Select the days of the week that the event will take place. (For an event recurring multiple days in the same week, the frequency of weeks should be one, with multiple days selected.)
- **Attendees**—Use the **Add >>** and **<< Remove** buttons to select the employees affected by the event.

Creating and Modifying Unavailabilities

An unavailability indicates that an employee is unavailable for scheduling. An employee can be unavailable for a short period (8:00 to 10:00 a.m., for example), or for an entire day. Shift Assignments created by the scheduling engine or created manually cannot overlap an unavailability.

To make a period unavailable:

- Right-click outside an unavailability in a grid, and then select **New > Create Unavailability....**
Or
- Drag across the period you want to make unavailable. The period is marked unavailable.

To make a period unavailable across several days for a specific employee:

- 1 Double-click the employee's name.
The weekly calendar window for that employee opens.
- 2 Drag down across the days you want the period to be unavailable. The days are marked unavailable. (Multiple-day dragging works in the employee personal calendar in either Organization or Campaign mode.)

To create a day-long unavailability:

- Right-click anywhere next to the employee, and then select **Make Unavailable**. The entire day is marked as unavailable.



In Organization mode, when you drag to create an unavailability, it is set as a recurring event ending in the year 2038. When you add an unavailability in Campaign mode, it applies only to the current scheduling period.

To edit an unavailability:

- 1 Right-click an unavailability in a grid, and then select **Edit Unavailability**. You can also double-click the unavailability.
- 2 Specify the time and Activity.
- 3 Specify Attendees.
 - To add another attendee, select the employee in the box on the left, and then click **Add >>**.
 - To remove attendees, select the employee in the box on the right, and then click **<< Remove**.
- 4 To make the unavailability event a recurring event, click **Add Recurrence...**, and then fill out the fields as appropriate in the **Recurrence Attributes for Unavailability Event** window (see "Recurring Unavailability Events" on page 155).
- 5 Click **OK**.

To delete an unavailability:

- Click the unavailable period, and then press the **Delete** key on your keyboard.

To remove recurrence attributes:

- 1 Double-click the recurring unavailability event, or right-click the recurring event, and then select **Edit Recurring Unavailability....**
- 2 When prompted, make sure the **Open this recurrence** radio button is selected, and then click **OK**.
- 3 Click the **Remove Recurrence** button.

All instances of the recurring unavailability event are removed, except for the instance you opened.

Recurring Unavailability Events

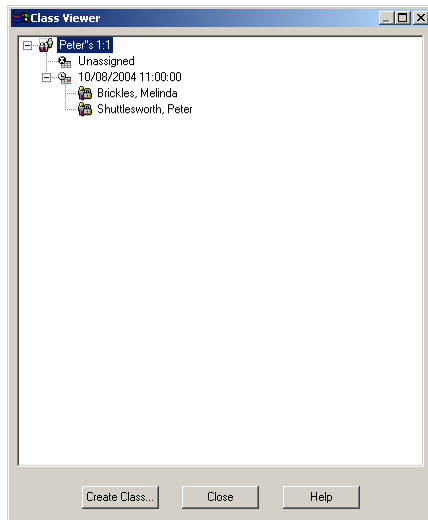
You can create an unavailability event that automatically recurs at regular intervals. In the Calendar, right-click, and then choose **New > Create Recurring Unavailability....** The **Recurrence Attributes for Unavailability Event** window opens.

This window has the following sections:

- **General**—Allows you to select the activity associated with the event. Also summarizes the recurrence pattern defined by the window's settings, and the time zone of the organization.
- **Event time for each recurrence day**—Specify the start time, end time, and length of the event.
- **Recurrence period**—Select the start and end dates of the recurring event.
- **Recurrence pattern**—Type the frequency in **Repeat every ... week(s) on:**. Select the days of the week that the event will take place. (For an event recurring multiple days in the same week, the frequency of weeks should be one, with multiple days selected.)
- **Attendees**—Use the **Add >>** and **<< Remove** buttons to select the employees affected by the event.

Viewing Classes

The Class Viewer displays all of the classes and sessions, as well as the attendees for each (including those attendees not currently assigned to a session).



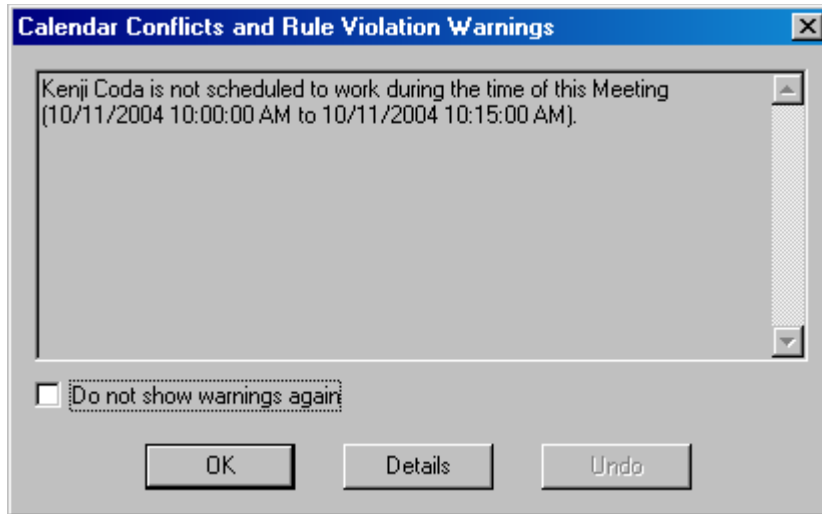
- i Since the amount of this information can potentially be quite large, you can resize the class viewer so that the display is larger (or smaller), as desired.

You access the Class Viewer by clicking the **View All Classes...** menu item in the menu that pops up when you right-click on any item in the Calendar grid.

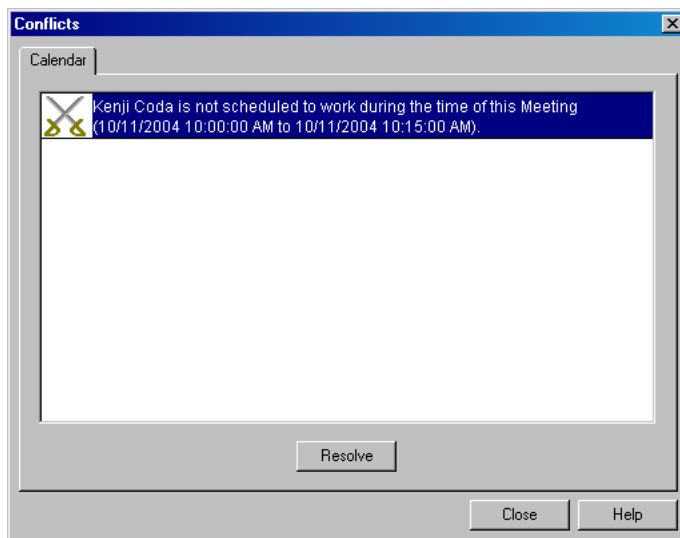
- i Classes and sessions cannot be modified in organization mode.

Resolving Conflicts

If you create a recurring event, including a vacation day, that occurs at the same time as an employee's shift assignment and the employee is marked as unavailable, Forecasting and Scheduling displays a **Calendar Conflicts and Rule Violation Warnings** dialog box.

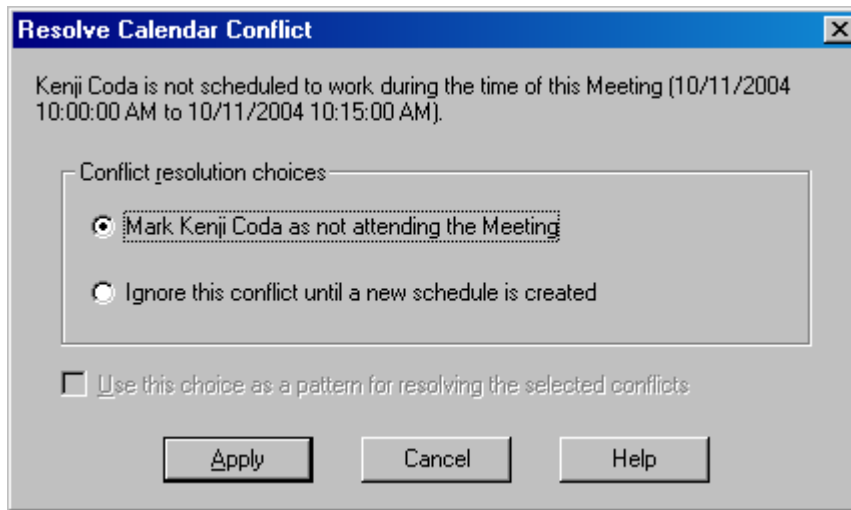


You can accept the conflict by clicking **OK** (and optionally click the check box to suppress further warnings), or click **Details** to display the **Conflicts** window. (If you accepted a conflict, a red exclamation point is shown next to the employee's name. Double-clicking the exclamation point also opens the **Conflicts** window.)



To resolve a conflict:

- 1 In the Conflicts window, click **Resolve** to open the **Resolve Calendar Conflicts** window.



- 2 Select:

Mark <employee> as not attending the Meeting. The employee <employee> is removed from the Attendee list when there are conflicts.

Or

Ignore this conflict until a new schedule is created. The conflicting shift assignment or event is ignored. When a new schedule is generated, the scheduling engine attempts to resolve the conflict at that time.

- Or
- Select the employee's name in the Attendees list, click the button << **Remove**, and then click **OK**.

Locking and Unlocking Shifts, Shift Events, and Calendar Events

Forecasting and Scheduling does not adjust locked shifts, shift events, or calendar events. Locked periods are crosshatched.

To lock a shift, shift event, or calendar event:

- Right-click the shift, shift event, or calendar event, and then, from the menu, select **Lock Shift** or **Lock Shift Event**.
- Or
- Drag the shift, shift event, or calendar event to a new time.

Or

- Change the time of the shift in the **Shift Assignment** dialog box or the calendar event in the **Edit Calendar Event** dialog box, or change the time of the shift event in the **Edit Shift Event** dialog box.

To unlock a shift, shift event, or calendar event:

- Right-click the shift, shift event, or calendar event, and then, from the menu, select **Unlock Shift** or **Unlock Shift Event**.

You cannot unlock a custom shift. See [Creating New Calendar Events](#) on page 134.




Printing the Calendar

Forecasting and Scheduling lets you print calendar schedules for all employees, individual employees, or selected groups. The next section provides steps to set up and print a calendar. You can find detailed information about each of the screens and options on page [222](#).

To set up and print a calendar:

- 1 From the **File** menu, select **Page Setup** (see page [223](#)). Set the printing style, calendar layout style, days to print, sorting options, and other print options. Click **Settings**. The Pattern Setting window is displayed (see page [225](#)).
- 2 Set a print pattern for each period and event by double-clicking the current pattern and selecting from the Pattern Selection window. Click **OK** to set each pattern. When you have selected all patterns, set the scale and non-phone font. Click **OK** to return to the Page Setup window.
- 3 In the Page Setup window, click **Preview** to see what your schedule will look like when printed (see page [226](#)).
- 4 Click **Print** to open the Window Print dialog (see page [226](#)).
- 5 Set up your options, and then click **Print** to print the schedule.

Publishing the Schedule

Although schedule publishing is typically done in Campaign mode (see page [227](#)), you can click the **Publish** button () to republish the schedules of employees who have already been published. When you republish, you update the schedules of employees who already have a published schedule for the time period specified; if one or more employees have no published schedule for the time period specified, their schedule for that period does not change.

Once published, schedules are made available to managers, supervisors, and employees, and are viewable in a number of places in the web application, including:

- **My Home** module, **My Schedule** section
 - **Summary** tab

- **Personal** tab
- **Group** tab
- **My Home** module, **My Time** section
 - **Schedule** tab
- **People** module
 - **Schedules** tab

You can publish schedules for one employee, all employees, or the current filtered set of employees. Additionally, you can publish the entire scheduling period, or some defined time period.

The Pulse Module

The web application's **Tracking** module, **Pulse** section, **Pulse** tab is displayed when you click the **Pulse** icon. See page [391](#) for more information on using the **Pulse** tab.

Campaign Mode Modules and Tasks

This chapter describes each Forecasting and Scheduling Campaign mode module and task in detail. It contains the following topics:

- **Operations**—Setting up your campaign, establishing its hours, and linking it to organizations, queues, and skills. See page [165](#).
- **Activities**—Viewing your campaigns' Activity Types as well as the Activities that fall under the Activity Types. You can also specify here if the activity types should be visible in the web application's **My Home** module, **My Time** section, and the schedule usage of specific activities (for example, whether they're Time Off, Shift Event, Calendar Events). See page [168](#).
- **Work Rules**—Establishing work rules for your scheduling period. See page [169](#).
- **Employees**—Adding employees to your campaign and setting their work patterns. See page [169](#).
- **Forecast**—Using histories and profiles to forecast contact volume. See page [173](#).
- **Service Goals**—Establishing service level goals for your campaign. See page [188](#).
- **Agent Requirements**—Viewing your campaign's staffing requirements. See page [194](#).
- **Calendar**—Scheduling your employees to meet your forecast. See page [199](#).
- **Pulse**—Tracking your campaign's performance. See page [391](#).

Campaign Mode

You use Campaign mode to forecast your contact center's workload and create schedules to meet those needs. Each campaign is linked to a different set of data source queues, such as an ACD, for which it is responsible. Organizations are linked to each campaign, and the campaigns inherit their employees and work rules from the modules in the Organization mode. Each campaign uses schedules called scheduling periods to let you forecast contact behavior and allow you to set service goals for a particular period. They then calculate employee requirements and individual employees are scheduled to meet those requirements.

Campaigns let you schedule employees of different organizations in one or more time zones to create "virtual" contact centers dedicated to a single objective, such as billing, sales, or customer support. You can have one campaign or you can create as many campaigns as you need.


Tasks You Can Perform in Campaign Mode

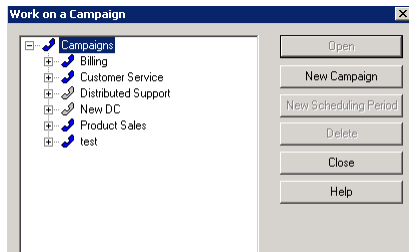
You can perform the following general tasks in Campaign mode:

- Create new campaigns and scheduling periods with queues and resources from one or more organizations. Link skills to queues.
- View your campaigns' Activity Types as well as the Activities that fall under the Activity Types, specify if the activity types should be visible in the web application's **My Home** module, **My Time** section, and specify the schedule usage of specific activities (for example, whether they're Time Off, Shift Event, Calendar Events).
- Link work patterns to campaigns and create new ones.
- Link employees to campaigns.
- Use history and other data to forecast contact volume and employee requirements.
- Set campaign service goals.
- Generate and modify employee schedules to match campaign goals and requirements.

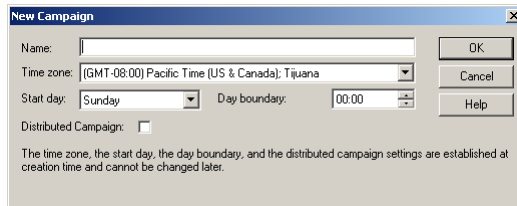
Adding a Campaign

To add a new campaign:


- 1 Click **Work on a Campaign** on the Forecasting and Scheduling Startup window.
Or
Click the **Campaign** icon () on the Toolbar.
The **Work on a Campaign** window appears.



- 2 Click **Campaigns**, and then click **New Campaign**. The New Campaign dialog box appears.



- 3 Enter a name, time zone, start day, and day boundary for the campaign. The start day and day boundary determine the scheduling period that will be scheduled.

 You cannot change the name of the campaign, its time zone, start day, or day boundary once the campaign is established.

- 4 Click **OK**. The new campaign appears in the **Work on a Campaign** window.

To delete a campaign:


- 1 Click the campaign in the **Work on a Campaign** window.
- 2 Click **Delete**, and then click **Yes** to confirm the deletion. The campaign is deleted.

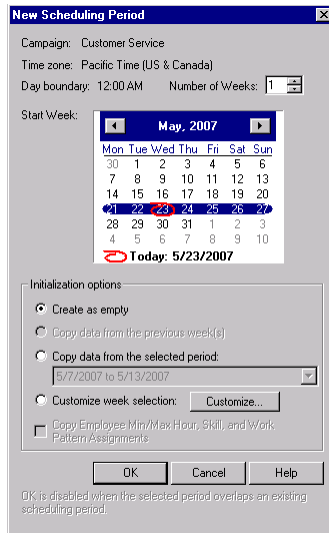
Adding a Scheduling Period to a Campaign

Each campaign uses a scheduling period to forecast contact center requirements and schedule employees to meet those requirements. Each campaign has its own set of scheduling periods.


To add a scheduling period:


- 1 Click the campaign you want to schedule.
- 2 Click **New Scheduling Period**. The **New Scheduling Period** dialog box appears. Weeks that have already been added to a campaign are displayed in **bold type**.

 The **OK** button and options are disabled if the scheduling period being created overlaps an existing scheduling period for this campaign.



- 3 Click in the scheduling period you want to schedule. The scheduling period is highlighted.
- 4 Choose an initialization option:
 - **Create as empty**—The profile includes no data.
 - **Copy data from the previous week(s)**—The profile includes data from the previous week(s). This data includes queues, organizations, employees, work rules, forecasts, service goals, and locked shift assignments.
 - **Copy data from the selected period**—The profile includes data from a previous period selected in the drop-down list.
 - **Customize week selection**—Use weekly data from various period(s) you select.
 - **Copy Employee Min/Max Hour, Skill, and Work Pattern Assignments**—When you copy the data from existing scheduling period(s), you can also copy to the new scheduling period the min/max hours, skills, and work pattern assignments that were in effect for the scheduling period being copied.
- 5 Click **OK**. The scheduling period is added to the list of scheduling periods in this campaign.

 If your company has a Multi-Site license, you are editing a distributed campaign, creating a new scheduling period will create a new scheduling period for the distributed campaign and every sub-campaign.

 The dates for the scheduling period that are displayed in the **Work on a Campaign** window are shown in your system time regardless of the time zone of the campaign. For example, if a scheduling period starts at 12:00 a.m. Eastern time on Monday, March 8, 1999, and your system is set to Pacific time, the starting date of the scheduling period is displayed as 3/7/99. This applies only to the **Work on a Campaign** window.


To delete a scheduling period:

- 1 Click the scheduling period in the **Work on a Campaign** window.
- 2 Click **Delete**, and then click **Yes** to confirm the deletion. The scheduling period is deleted.

Opening a Scheduling Period

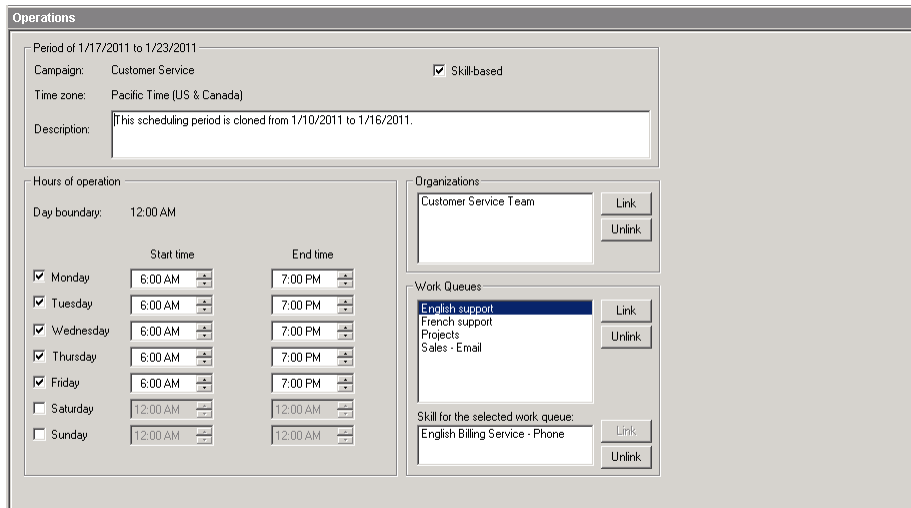
To open an existing scheduling period:

- 1 Click the scheduling period in the **Work on a Campaign** window.
- 2 Click **OK**.

 If **Open** is unavailable (appears dimmed), you might not have access rights to the scheduling period. See your administrator for access privileges.

The Operations Module

The **Operations** module is displayed when you open a campaign or click the **Operations** icon. Information entered in this module applies to the open campaign and its schedules for the selected scheduling period. (This information can later be copied for use in another scheduling period.)



Operations

Period of 1/17/2011 to 1/23/2011

Campaign: Customer Service Skill-based

Time zone: Pacific Time (US & Canada)

Description: This scheduling period is cloned from 1/10/2011 to 1/16/2011.

Hours of operation

Day boundary: 12:00 AM

	Start time	End time
<input checked="" type="checkbox"/> Monday	6:00 AM	7:00 PM
<input checked="" type="checkbox"/> Tuesday	6:00 AM	7:00 PM
<input checked="" type="checkbox"/> Wednesday	6:00 AM	7:00 PM
<input checked="" type="checkbox"/> Thursday	6:00 AM	7:00 PM
<input checked="" type="checkbox"/> Friday	6:00 AM	7:00 PM
<input type="checkbox"/> Saturday	12:00 AM	12:00 AM
<input type="checkbox"/> Sunday	12:00 AM	12:00 AM

Organizations

Customer Service Team

Work Queues

English support

French support

Projects

Sales - Email

Skill for the selected work queue:

English Billing Service - Phone

The Operations view data is usually uniform across each week in the scheduling period. So we provide editing from two zoom levels: **Week** and **Period**. The **Week** and **Period** views look identical, but save data on the dates based on the zoom level. If you use the **Period** zoom level, you edit the Operations view data, and the individual entries are applied to each week in the scheduling period. If you use the **Week** zoom level to edit the Operations view data, the entries only apply to the current week being viewed. The entry box is blue in the period zoom mode if the values are different for different weeks.

In the created scenario shown in the previous graphic, the company closed for a day and a half, Monday, and half the day Tuesday, for maintenance, so the values for one of the weeks are different and appear in blue.

The Campaign Information Group

Enter descriptive information about the campaign under this group:

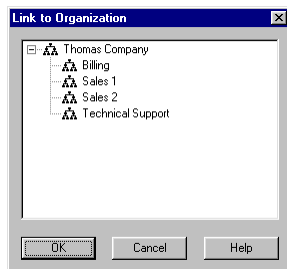
- **Campaign, Range, and Description**—The name you assigned to the campaign when it was created and the dates of the schedule (see page [163](#)). These cannot be changed. The description is optional.
- **Time Zone**—The time zone you selected when the campaign was created. Time zones cannot be changed.
- **Skill-based**—Select this check box to permit skill-based scheduling. See [Chapter 7](#) “Multi-Contact and Skill-Based Scheduling”.

The Organizations Group

A schedule inherits its hours of operation, employees, and work rules from the organizations linked to it. Any number of organizations from any location or any level in the hierarchy can be linked to a schedule. If your current schedule includes organizations from previous profiles, you can unlink them and link new ones.


To link an organization to the schedule:

- 1 Click **Link**. The **Link to Organization** dialog box is displayed.



- 2 Click the organization you want to link. Click **OK**.
- 3 Repeat steps [Step 1](#) and [Step 2](#) for each organization that you want to add.


The Hours of Operation Group

 Unless your display time zone is the same as the campaign’s time zone, items in this group are unavailable. See [Getting Help](#) on page 49.

- The day boundary is set when you create the campaign and cannot be changed.
- The hours of operation are set by the organizations you link to the schedule. If you link multiple organizations to your profile, you should expand the hours of operation

to include the earliest start and latest start times of organizations with the same day boundary in the same time zone as the campaign. You can adjust these hours to create a unique schedule for the scheduling period, if you want.

- The hours of operation for your campaign should not exceed the hours of operation of your organization.

 If all days have the same schedule, first clear each day's check box, and then select the first day of the week. Enter the start and end times for that day. Select the other days, and the start and end times will automatically reflect the first day's times.

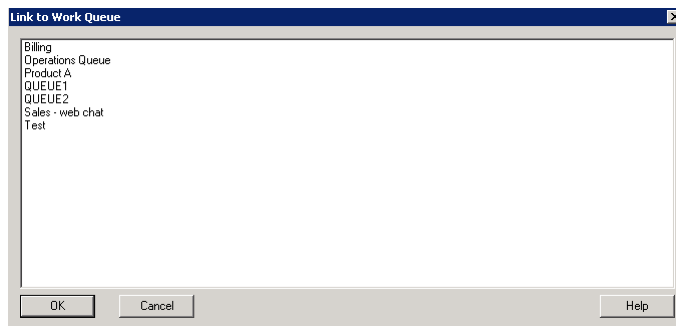
The Work Queues Group

Your automatic call distributor (ACD) and other data sources use queues to sort and route contacts to the appropriate employees. They are set up and deleted in the **Organization Management** module of the web application.

Use the **Work Queues** group to link your schedule to specific queues and to link a skill to each queue (skill-based scheduling only).

To link a queue to a schedule:

- 1 Click **Link**. The **Link to Queue** dialog box is displayed.



- 2 Click one or more queues to link them. Click a queue a second time to clear it.
- 3 Click **OK** to link the queues.

To link a skill to a queue (skill-based scheduling only):

- 1 Make sure the **Skill-based** check box (see page [166](#)) is selected.
- 2 Select the queue you want to link a skill to.
- 3 Click **Link**. The **Map Skills to Queue** dialog box is displayed.



- 4 Click the skill you want to map to the selected queue.
- 5 Click **OK**.

In skill-based scheduling, you must link a skill to every queue.



The Activities Module

The **Activities** module is displayed when you click the **Activities** icon.

The **Activity Types** tab allows you to view the preconfigured activity types and those created for your organization's campaign. The set of preconfigured activity types include:

- **Absence Activities** (such as vacation or jury duty)
- **Assigned Work Activities** (such as phone or research)
- **Learning Activities** (such as training sessions using Competency-based Learning)
- **Planned Events** (such as training or a staff meeting)
- **Shift Events** (such as lunch or a coffee break)

You can add additional activity types in Organization mode.

The **Activities** tab in Campaign mode allows you to view your campaign's existing activities within Forecasting and Scheduling. You can add additional activities in Organization mode.

See "[The Activities Module](#)" on page 80 for more information on creating activity types and activities.

The Work Rules Module

The **Work Rules** module is displayed when you click the **Work Rules** icon.

The screenshot shows the 'Work Rules' module interface. The top section displays a list of work rules with columns for Name, Activity, Length, Start Times, Min Spacing, Max Spacing, Organization, and Description. The bottom section shows a detailed view of a specific work rule for a 9-hour shift - iPhone, with columns for Name, Activity, Length, Paid, Anytime, Start Time Type, Start Window (Start/End), Flexible, Min Count, Max Count, Additional Activities, Organization, and Description.

Name	Activity	Length	Start Times	Min Spacing	Max Spacing	Organization	Description
9 hour shift - iPhone	Phone	09:00	6:00-10:00	00:00	Unlimited	Local	
9 hour shift - Email	Email	09:00	6:00-10:00	00:00	Unlimited	Local	
Supervisor Shift	Answer Calls	00:00	8:00	00:00	Unlimited	Local	
Supervisor's Shift	Non Phone Work	09:00	8:00	00:00	Unlimited	Local	
Training	Training	09:00	7:00, 8:00	00:00	Unlimited	BPSI - Demo	
8 1/2 hour shift	Phone	08:30	6:00-14:30	00:00	Unlimited	San Francisco	
8 hour shift	Phone	08:00	6:00-14:00	00:00	Unlimited	San Francisco	
4 hour shift early	Phone	04:00	6:00-13:45	00:00	Unlimited	San Francisco	
4 hour shift late	Phone	04:00	12:00-19:00	00:00	Unlimited	San Francisco	
8 hour shift	Phone	08:00	6:00-15:00	00:00	Unlimited	San Francisco	
8 1/2 hour shift	Phone	08:30	6:00-14:30	00:00	Unlimited	San Francisco	
8 1/2 hour shift - Email only	Deferred	08:30	6:00-14:30	00:00	Unlimited	San Francisco	
8 1/2 hour shift - 2 hours of email	Phone	08:30	6:00-14:30	00:00	Unlimited	San Francisco	
4 hour shift Email	Deferred	04:00	12:00-19:00	00:00	Unlimited	San Francisco	
7 AM Shift	Phone	08:00	7:00	00:00	Unlimited	San Francisco	

Name	Activity	Length	Paid	Anytime	Start Time Type	Start Window Start	Start Window End	Flexible	Min Count	Max Count	Additional Activities	Organization	Description
15 minute break	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	08:00	08:30	<input type="checkbox"/>	0	0		San Francisco	
15 minute break	Break	00:15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	08:00	08:00	<input type="checkbox"/>	0	0		San Francisco	
1 hour lunch	Lunch	01:00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	04:00	06:00	<input type="checkbox"/>	0	0		San Francisco	
1/2 hour training	Training	00:30	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Relative to Shift Start	00:00	00:00	<input checked="" type="checkbox"/>	0	1		San Francisco	
1 hour training	Training	01:00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Relative to Shift Start	00:00	00:00	<input type="checkbox"/>	0	0		Local	
Research	Research	01:00	<input type="checkbox"/>	<input type="checkbox"/>	Relative to Shift Start	00:00	00:00	<input type="checkbox"/>	0	0		Local	

Your schedule inherits its work rules from the organizations it is linked to. While work rules are normally entered in the Organization mode (see page 84), you can enter them here for this weekly schedule only. Work rules entered in Campaign mode have an organization of **Local**. You can *only* add and modify complex work rules in Organization mode.

For information about creating and using work rules, see “The Work Rules Module” on page 84.

As in Organization mode, you can export information about a campaign’s shifts and work patterns. Refer to “Exporting Shift and Work Pattern Information” on page 120 for more information.

The Employees Module

The **Employees** module is displayed when you click the **Employees** icon.

Employees												
Employees Staffing Profiles												
	First Name	M.I.	Last Name	Suffix	Birth Date	Employee Type	Is Supervisor	Is Team Lead	Min Paid Hrs	Max Paid Hrs	Supervisor	Team Lead
▶	Alex		Adams		1/27/1965	Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Myself	Myself
	Aaron		Whittier			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Myself	Myself
	Abraham		Belworth			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Melinda Brickle	Myself
	Albert		Johnson			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Melinda Brickle	Myself
	Allison		Cramer			Part-time	<input type="checkbox"/>	<input type="checkbox"/>	00.00	20.00	Melinda Brickle	Myself
	Anne		Wong			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Myself	Myself
	Bob		DeVries			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Melinda Brickle	Myself
	Bulworth		Markman			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Melinda Brickle	Myself
	Brenda		Vocavick			Part-time	<input type="checkbox"/>	<input type="checkbox"/>	00.00	20.00	Myself	Myself
	Charlotte		Wong			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Myself	Myself
	Daniel		Volmer			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Myself	Myself
	Earl		Thadwick			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Myself	Myself
	Evina		Nelsonson			Part-time	<input type="checkbox"/>	<input type="checkbox"/>	00.00	20.00	Melinda Brickle	Myself
	Frederick		Kozza			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Melinda Brickle	Myself
	George		Teller			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Myself	Myself

Calendar Preferences Work Patterns Rotations Assignment Rules Skills													
	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
Monday													
Tuesday													
Wednesday													
Thursday													
Friday													
Saturday													
Sunday													

i Items that cannot be edited are shown in gray. In addition, you cannot edit the contents of the **Skills** tab.

i Whether you are editing information from the grid or on the detailed dialog, employee data that can be edited in campaign mode requires you to bring up the effective date dialog. You are limited to setting employee data within the current dates selected, which will in fact always be inside the current scheduling period.

Like the **Work Rules** module, the Campaign mode **Employees** module gets its information from the organizations you selected in the **Operations** module. It lets you add all the available employees in those organizations and includes their associated work patterns. You can add or change the availability and work patterns and skills of individual employees to meet the requirements of your campaign.

i You can also add employees, their associated work patterns, and skills in Organization mode. For detailed instructions for using the **Employees** module in Organization mode, see page [123](#).

You can also add staffing profiles to the campaign in this module. Like employees, the available staffing profiles are determined by the organizations linked to the scheduling period

This section provides instructions for actions that are unique to the Campaign mode.

To add an employee to a schedule:

- 1 Click **New** () on the toolbar. The **Add Employees** dialog box is displayed:

Add Employees							
First Name	M.I.	Last Name	Suffix	Birth Date	Employee Type	Is Supervisor	Is Team Lea
Joey		Adams		1/27/1965	Full-time	<input type="checkbox"/>	<input type="checkbox"/>
Aaron		Whistler			Full-time	<input type="checkbox"/>	<input type="checkbox"/>
Abraham		Belworth			Full-time	<input type="checkbox"/>	<input type="checkbox"/>
Albert		Johnson			Full-time	<input type="checkbox"/>	<input type="checkbox"/>
Allison		Cramer			Part-time	<input type="checkbox"/>	<input type="checkbox"/>
Anne		Wong			Full-time	<input type="checkbox"/>	<input type="checkbox"/>
Bob		DeVries			Full-time	<input type="checkbox"/>	<input type="checkbox"/>
Bullworth		Markman			Full-time	<input type="checkbox"/>	<input type="checkbox"/>
Brenda		Vocavick			Part-time	<input type="checkbox"/>	<input type="checkbox"/>
Charlotte		Wong			Full-time	<input type="checkbox"/>	<input type="checkbox"/>
Daniel		Volmer			Full-time	<input type="checkbox"/>	<input type="checkbox"/>
Earl		Thadwick			Full-time	<input type="checkbox"/>	<input type="checkbox"/>
Elvira		Notterson			Part-time	<input type="checkbox"/>	<input type="checkbox"/>
Frederick		Kroza			Full-time	<input type="checkbox"/>	<input type="checkbox"/>


Buttons: Reset Columns, Filter, OK, Cancel, Help

- 2 Employees already scheduled to work appear in blue. Click the left column next to the employees you want to add. Use the **Shift** and **Ctrl** keys to select groups of employees.

Hold the cursor over a column head and drag to move the column. Click **Reset Columns** to restore the original order.













- 3 Click **OK**. The employees are added to your profile.



To remove an employee from the schedule:

- Select the employee.
- Click the **Delete** button () on the toolbar. The employee is removed from the schedule only. The employee is *not* removed from the employee database.

To add a work pattern for an employee:

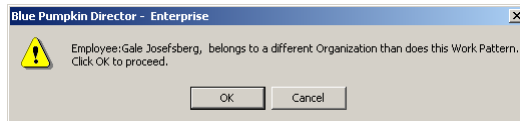
- 1 Click the **Work Patterns** tab in the lower pane

Calendar Preferences Work Patterns Rotations Assignment Rules Skills				
OK	Work Pattern	Start Date	End Date	Preferences
	Training Shift	 7/3/2000		
	SF - Full Time 1	 7/2/2000		1
	SF - Full Time 2	 7/2/2000		1
	SF Full Time 1 with no weekends	 7/2/2000		1
	SF Full Time 2 with no weekends	 7/2/2000		1
	New Full Time Employee with training	 7/2/2000		1

- 2 In the **OK** column, click a pattern with a red  . A green  is displayed showing that the pattern can be assigned.

 Work patterns assigned to employees in Campaign mode appear in magenta and apply only to the current scheduling period.

- 3 If you assign a work pattern to an employee from a different organization, you are asked to confirm the assignment. Click **OK** to assign the work pattern.




- 4 Add the employee's preference for that shift (1 to 99). This preference can be used when scheduling. See page [203](#).

Effectivities

As described previously on page [127](#), the **Employee** module allows you to maintain historical information for some of its fields. On the employee grid, some of the items have a blue icon on the left side their cell. This icon, which looks like a calendar, is the **Effective Dates** button. The button brings up a dialog box that displays all of the historical information for the field and any fields that share the effective date.

The dialog box also provides three options:

- **Update value for current period** – Allows you to set a new value based on the effective date period of the current value displayed.

 The value displayed is always based on the effective value on the first date of the Viewing Display Period, which is displayed on the tool bar at the top of the Forecasting and Scheduling window.


- **Insert value for period from** – Allows you to set a new value for the exact Viewing Display Period shown on the toolbar at the top of the Forecasting and Scheduling window.
- **Insert value from** – Allows you to set a new value from the first date of the Viewing Display Period through the end date of the employee.

The effective date dialogs are also available from the employee's detailed dialog window. When you are editing more than one employee at a time (referred to as multi-editing), the effective date dialog options display "*****" in place of the dates for option one. When you select this option, it still results in the new value being used for each individual employee's effective dates for the value valid on the first day of the Viewing Display Period. You cannot edit any of the fields if one or more are secure fields.

The following fields have effective date dialogs:

- **Organization with Supervisor, Team Lead, and Job Title**
- Minimum/Maximum Paid Hours, with Minimum/Maximum Daily and Weekly VTO and OT Hours
- **Rank**
- **Proficiency**
- **Quality Score**
- **Wage**
- **Work Patterns**
- **Skills**

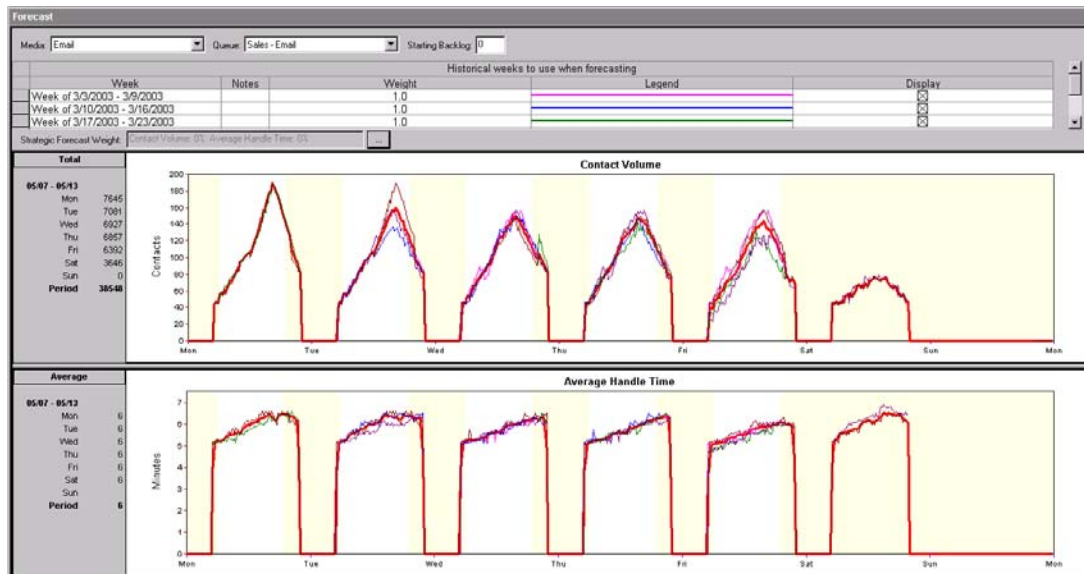
You can only edit employees through the effective date dialogs when in Campaign mode. All the fields specified for effective date dialogs, except for those related to organization, are available for editing. When you edit in campaign mode, the effective date dialog automatically pops up, displaying only the **Insert value for period from** option as available. The **Insert value for period from** option allows you to set a value for this field that is only valid during the campaign period currently being edited. Values after this period are returned to their previous state.

-  The changes can be viewed from both Organization and Campaign modes by bringing up the effective date dialog that relates to the employee parameter of interest.

The Forecast Module


The **Forecast** module is displayed when you click the **Forecast** icon. It displays for the full scheduling period graphs, a grid showing historical weeks (when displaying a week or day zoom level), and a table (when you select **Table** from the **View** menu.)

If you are viewing a multi-week scheduling period in the **Forecast** module, you can zoom in to the weekly mode to view the data for an individual week or day in the scheduling period. Only in weekly or daily zoom can you add historical data weeks. Historical data is always exactly one week long. The historical week data used to create the forecast for a single week in the scheduling period will be displayed above the graph data.



The **Forecast** module helps you estimate contact volume and average handle time for each queue in your scheduling period. These forecasts are the most important factor in creating employee schedules that meet your contact center's requirements.

Forecasts for each scheduling period are based on historical data imported from your ACD or other data source for the queues you designated in the **Operations** module (see page 167), or on historical data that you enter from other sources.

 If any notes have been created in Pulse for the historical weeks you are using to forecast, an icon will be shown in the **Notes** column.

Forecasting and Scheduling lets you forecast for one or more queues during a single scheduling period. Each queue can be forecast separately, since each queue contains information based on different conditions—for example, the volume of sales calls is higher before Christmas, while the volume of product support calls is higher after Christmas.



Although you can import contact history data into the **Forecast** module, it will not be saved as historical data for reuse in future scheduling periods. To save the data for reuse, first import it into the web application's **Tracking** module, **Pulse** section, **History** tab. It is then available as contact history data anytime you want to use it.

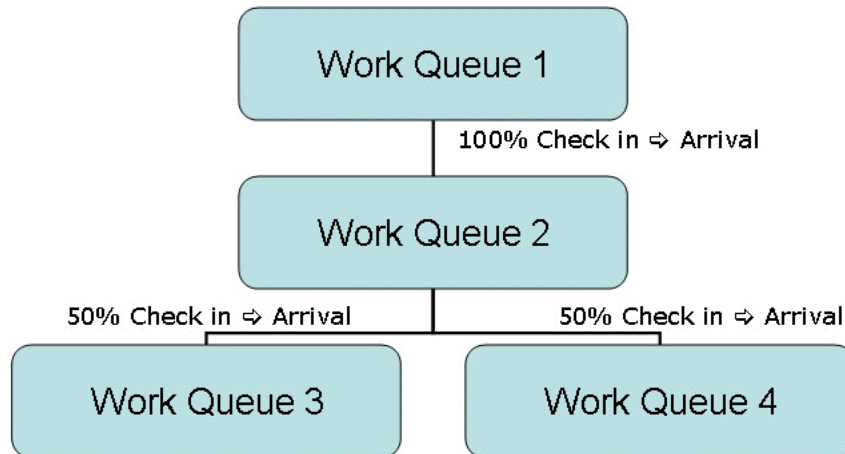
Linked Queue Forecasting

If you are licensed for Operations, you might have a need for linked queue forecasting. In back office operations, it is common for a given work item to pass through many steps, often involving many people. While each step may have its own service level target, the business generally cares most about the complete end to end turn-around time for completing all steps. This is interesting from a forecasting and scheduling perspective because while the forecast for the first step in the process can be done by traditional means, the forecast for subsequent steps is completely dependent on both the forecast and the schedule of previous steps.

Scheduling is further complicated by the fact that an employee can work on more than one step, and therefore solving this problem can not be done linearly (you can't simply forecast and schedule for step 1, and move on to step 2 without having to come back to step 1 again). With Forecasting and Scheduling's linked queue forecasting (LQF), you can determine who should be doing what, for how long, and when. For example, imagine that an employee can work on step 1, 3, and 5 of a 6-step process. Forecasting and Scheduling's scheduling engine can determine when the employee should work on each step, and for how long, which is critical in ensuring that the overall service level for the entire process is met.

Linked Queue Forecasting Chains

Central to the process of linked queue forecasting are work queue chains.



The above figure shows a simple example of a work queue chain. Work Queue 1 is the source work queue. Work Queue 2 is the target work queue for Work Queue 1: 100% of the items checked into Work Queue 1 flow to Work Queue 2. Work Queue 2 has two target queues: Work Queue 3 and Work Queue 4. 50% of the items checked into Work Queue 2 flow to Work Queue 3, and 50% flow to Work Queue 4. Work Queue 3 and Work Queue 4 have no target queues—they are the end of the chain.

Workflow for Linked Queue Forecasting

In general, the workflow for linked queue forecasting is as follows:

- 1 In the web application:
 - a. On the **Organization Management** module, **Work Queues** section, **Settings** tab, create the desired work queues
 - b. On the **Organization Management** module, **Work Queues** section, **Work Queue Configuration** tab, create the chains between the source and target work queues.
- 2 In Forecasting and Scheduling:
 - a. (Optional) In the **Activities** module, create activities and link the LQF work queues to the activities.
 - b. In the **Work Rules** module, create shift events that include the new activities, shift(s) that include the new shift events, and work patterns that include the new shifts.
 - c. In the **Employees** module, assign shifts to employees.
 - d. Create a campaign.
 - e. In the **Operations** module, link the LQF work queues to the campaign.
 - f. In the **Forecast** module, create a forecast for the source work queue(s).
 - g. In the **Service Goals** module, set service goals for all the work queues.
 - h. In either the **Forecasting** module or the **Calendar** module, enable LQF scheduling and generate a schedule. The scheduling engine will generate volume



forecasts for the target work queues as well as schedule employees to work on the source and the target work queues.



Pulse Notes

If any notes have been created in Pulse for the historical weeks you are using to forecast, an icon will be shown in the **Notes** column.

There are two cases where viewing notes can be helpful in the **Forecast** module:

- 1 During the history week selection process
- 2 When viewing the history week

When selecting a history week the knowledge of any special situations which occurred during the week can assist in identifying an appropriate week. As you scroll through the weeks, the icon  indicates that the week has notes, or the icon  that the week has no notes. You can click the icon to drill down for more information. If you drill down, a read-only notes display page is shown, which provides a list of any notes pertaining to the current queue(s) selected on one or more of the days currently selected.

When you are just viewing an already established forecast, a grid appears at the top of the screen displaying the weeks of history that were used to generate the AHT and CV forecast. Each row of the grid has a column for the purpose of displaying the notes icon described above, the icon  indicating that the week has notes, or the icon  that the week has no notes. You can also drill down here to review the read-only page of notes pertaining to the history week selected.

Profiles

You use profiles to speed the process of forecasting. They are not required, but are useful to track different contact behavior and patterns. Profiles let you create a weighted average of contact behavior that you consider typical of a certain time period or particular business conditions. This is done by combining weeks of historical data to create a sample of contact patterns. For instance, you might create a profile for the two weeks before Christmas and another profile for the weeks after invoices are mailed.

By averaging the data from several weeks, a profile can smooth out the random quirks that can distort your forecast. At the same time, averaging can blur distinctions that let you anticipate patterns in your contact volume. To avoid this, Forecasting and Scheduling lets you use weighted averages, assigning lesser weight to de-emphasize weeks with irregular behavior or greater weight to emphasize weeks with important patterns.

Profiles can consist of:

- An average of *absolute* weeks—for example, the weeks of December 28 and January 4.
- An average of *relative* weeks—for example, the three previous weeks.
- A particular set of forecast numbers.

To create a profile:

- 1 Use the weeks grid to select the data that represents the contact behavior you want to forecast. You can use any Pulse Notes that may be attached to the historical week to verify you are selecting the desired week.
- 2 Set the weight for each week if desired.
- 3 Adjust the data manually.
- 4 Save the profile to be used in the future.

For detailed instructions about creating and saving profiles, see page [182](#).

Forecasting for Queues

You designate queues for scheduling periods in the Campaign mode's **Operations** module (see page [167](#)); they are listed in the Queue list at the top of the **Forecast** module.


Individual Queue Forecasting

Forecasting is always done for individual queues. When a specific queue is selected, a profile for that queue can be loaded and the weeks in the profile are displayed in the grid above the graphs. The graphs then reflect the forecast for that queue only. If your scheduling period uses only one queue, you will use this method.


Multiple Queue Forecasting

If you have linked more than one queue to a scheduling period, an additional entry called **<Combined>** is listed and you are provided additional options for the way you want to forecast. When **<Combined>** is selected, it displays the combined forecast for all queues. You can use this combined mode to apply a profile to all queues at once, or you can make changes to each queue individually. Here are some tips for forecasting using multiple queues:

- If you change the week selection or load a profile in the combined view, the same set of weeks is assigned to all of the individual queues.
- If you modify the data in the combined view (see "[Adjusting the Forecast](#)" on page 181), the change is distributed proportionally to all the queues.
- If all queues use the same weeks of data, those weeks are listed in the grid when in day or week zoom level.
- If the queues use different weeks of data, no weeks are listed.
- If you modify the data in a single queue, this change is automatically reflected in the combined queue.

-  Multiple queue forecasting is always used for skill-based scheduling. The scheduler evaluates the contact volume of each queue separately. See [Forecasting and Setting Service Goals for Skill-Based Scheduling](#) on page 233.
- For non-skill-based scheduling, the scheduler uses the combined forecast. Individual queues are used for tracking purposes only.


The Forecast Graphs

- The thick red line is your current forecast. Colors for the other scheduling periods are indicated in the **Legend** column of the grid.
- The summary columns to the left of the graph show the total contact volume and average handle time (AHT) for each day, week, and scheduling period. The day/week currently selected is shown in yellow. Click a day/week to display that day or week's graphs.
- The table at the right of the graph, which appears when you click the **Table** icon on the toolbar () or on the **View** menu, displays the current day's forecast. These are the same as the values shown by the red line. You can edit this data directly (see page [181](#)).
- The default display is one day. Use the **Zoom Out** button on the Toolbar to display a week's data or scheduling period's data in the graph and tables. Use the **Zoom In** button to return to a week's data or a single day's data.

Creating a Forecast

Forecasting and Scheduling uses historical data to forecast three critical aspects of your contact center: contact volume, average handle time (AHT), and shrinkage. The forecast of contact volume and AHT is based on one of the following options. You may:

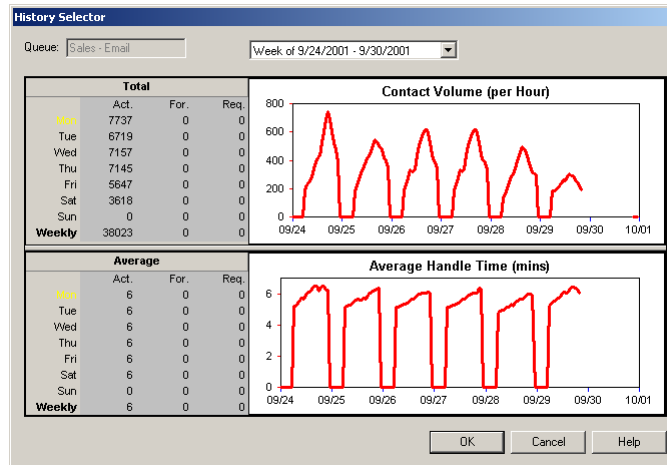
- Create and load profiles consisting of one of the following:
 - An average of *absolute* weeks—for example, the weeks of December 28 and January 4. See ["Absolute and Relative Weeks"](#) on page 185.
 - An average of *relative* weeks—for example, the three previous weeks.
 - A particular set of forecast numbers.
- Load a profile and modify it to suit your needs.

 Forecasting and Scheduling does not require profiles to forecast.

- Select individual weeks of historical data that represent the expected contact center volume, handle time, and shrinkage. You can then save these as a new profile if you wish.
- Import a set of data from a text file.

To create a new forecast:

- 1 Select the week and the queue for which you wish to create the forecast.
- 2 Click a cell in the **History Week** column.
- 3 Click the ellipsis button (**...**) to open the **History Selector** dialog box



- 4 Use the date selector (see page [31](#)) to select a week to add to your profile. (Weeks containing data are shown in bold.) A weekly graph and summary for the selected week is displayed.
- 5 If the week has a Note related to any of the data in the week selected, a notes icon appears on the top right of the window. Select the note icon to bring up a window to display all notes related to this history week. (Notes can only be created or edited from **Pulse**.)
- 6 Click **OK**. The week is added to the grid.
- 7 Repeat as desired to add additional weeks to the grid.

You can also create a forecast by importing contact volume and AHT data, as described in the next section.

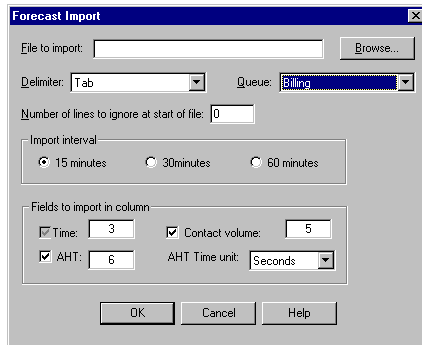
Importing and Exporting Contact Volume and AHT Data

Contact volume and AHT data can be imported from your ACD or other source in a text file.

To import a forecast:

- 1 On the **File** menu, click **Import**. The **Forecast Import** dialog box is displayed.

i Data imported into the **Forecast** module is **not saved as historical data**. To save the imported data as contact history, import it into the web application's **Tracking** module, **Pulse** section, **History** tab.

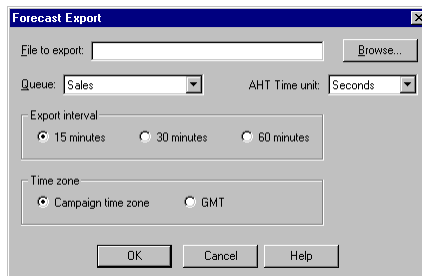


- 2 Type the name of the file containing the information, or click **Browse** and locate it.
- 3 Select the delimiter (tab, comma, or semicolon) used by the file.
- 4 Select the queue to import the forecast into.
- 5 Type the number of lines at the top of the data containing header or other information that will be ignored during the import.
- 6 Select the import interval for the data: **15 minutes**, **30 minutes**, or **60 minutes**.
- 7 Select the fields to import and their column order. **Time** is a key field and must be included. Fields other than **Contact Volume** and **AHT** are ignored. (Times in the import file are offset to account for differences in the campaign's day boundary.
- 8 If you select **AHT**, choose a time frame (seconds, minutes, or hours).
- 9 Click **OK** to import the data. A file called **ImportForecast.log** is created that contains the results of your import action.

i If your imported file exceeds the number of data points required for this scheduling period, Forecasting and Scheduling uses the set at the beginning of the file. If your imported file has less data points than required for this scheduling, Forecasting and Scheduling populates the days at the beginning of the scheduling period

To export a forecast:

- 1 On the **File** menu, click **Export**. The **Forecast Export** dialog box is displayed.



- 2 Type the name of the file containing the information, or click **Browse** and locate it.
- 3 Select the queue and the time frame for AHT.
- 4 Select the time interval for the data.
- 5 Select the appropriate time zone.
- 6 Click **OK** to export the data.

Adjusting the Forecast

After you have created a forecast by any of the available methods, such as adding historical data, importing contact volume and AHT data, or loading existing profiles or other data you want to use, you can adjust the forecast.


To edit the current forecast:

- 1 Display the tables to the right of the grid (see page [178](#)).
- 2 Change the numbers as needed. The graph updates when you click outside the field you changed. The Weeks grid is grayed to show that your forecast has been modified manually. You cannot add additional weeks in this state.



Use this method to enter your own numbers without referring to previous weeks. You can also drag the Forecasted line in the graph to a new value.

To remove any changes to the forecast:

- On the toolbar, click **Restore** (). Table values are returned to their original numbers and scaling is reset to 0. The Weeks grid becomes active and you can add new weeks.


Scaling

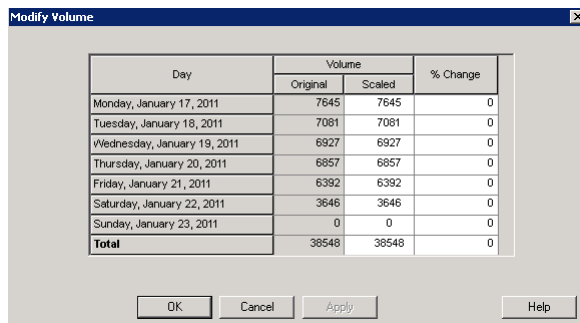
You might want to keep an existing contact pattern but adjust the overall parameters to match the change in your business. Scaling lets you change the totals while keeping the overall distribution of contacts.

You can scale both contact volume and average handle time (AHT).

Scaling can be performed at daily, weekly and period zoom levels. Depending on what zoom level you are in, the scale dialog will be brought up in a corresponding view. In addition, selecting individual cells on the grid allows you to even specify your scaling date selection even to a finer detail.

To change the current contact volume by fixed amounts:

- 1 On the toolbar, click the **Volume** button (). The **Modify Volume** dialog box is displayed.



Day	Volume		% Change
	Original	Scaled	
Monday, January 17, 2011	7645	7645	0
Tuesday, January 18, 2011	7081	7081	0
Wednesday, January 19, 2011	6927	6927	0
Thursday, January 20, 2011	6857	6857	0
Friday, January 21, 2011	6392	6392	0
Saturday, January 22, 2011	3646	3646	0
Sunday, January 23, 2011	0	0	0
Total	38548	38548	0

Buttons: OK, Cancel, Apply, Help

- 2 Edit the **Volume** column by typing new whole numbers.


Or

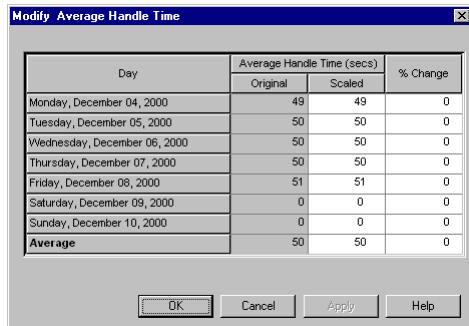
Edit the **% Change** column by typing new percentages (or using the buttons).

As you change either column, the amount in the corresponding column and the totals are automatically updated.

- 3 Click **OK**. The Weeks grid is grayed to show that your forecast has been modified manually. You cannot add additional weeks in this state.

To change the current average handle time by fixed amounts:

- 1 On the toolbar, click the **Scale AHT** button (). The **Modify Average Handle Time** dialog box is displayed.



Day	Average Handle Time (secs)		% Change
	Original	Scaled	
Monday, December 04, 2000	49	49	0
Tuesday, December 05, 2000	50	50	0
Wednesday, December 06, 2000	50	50	0
Thursday, December 07, 2000	50	50	0
Friday, December 08, 2000	51	51	0
Saturday, December 09, 2000	0	0	0
Sunday, December 10, 2000	0	0	0
Average	50	50	0

- 2 Edit the **Average Handle Time (sec) Scaled** column by typing new whole numbers.


Or

Edit the **% Change** column by typing new percentages (or using the buttons).

As you change either column, the amount in the corresponding column and the totals are automatically updated.

- 3 Click **OK**. The Weeks grid is grayed to show that your forecast has been modified manually. You cannot add additional weeks in this state.


To clear the forecast and start over:

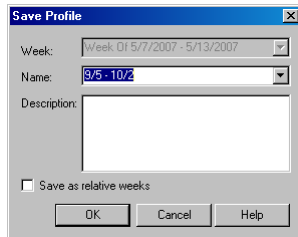
- Click **Clear** (). The forecast data is cleared and all values for the week are set to 0. The Weeks grid becomes active and you can add new weeks.


Loading and Editing Profiles

Once you have created a forecast that accurately forecasts your Center's contact volume and contact patterns, you can save that forecast as a weekly profile. You can then use that weekly profile in future scheduling periods.


To create a new profile:

- 1 Select the week zoom level for the week you want to create the profile. (If you are not defining the week here, the **Save Profile** dialog box gives you a chance to select the week to be saved.)
- 2 Load the data you want to include in the new profile. You can use any Pulse Notes that may be attached to the historical week to verify you are selecting the desired week.
- 3 From the **File** menu, select **Save Profile**, or on the toolbar, click the **Save Profile** button (). The **New Profile** dialog box appears.



-  The first week of the **Save Profile** dialog box contains the week specified, or a drop down menu when you are in a multi-week scheduling period and zoomed out to period view.


- 4 Type a name and description for the profile.
- 5 Click the **Save as relative weeks** check box to save a relative profile. If this check box is not selected, the profile is saved as absolute weeks. See "[Absolute and Relative Weeks](#)" on page 185 for examples.
- 6 Click **OK**.

-  Saving and loading of data is specific to the media/queue combination you currently have selected. When you save a profile, you are only saving for the selected media/queue combination, as follows:

- Saving unaltered data saves the historical weeks.
- Saving altered data saves the trace data.
- Saving a combination of altered and unaltered data saves it as altered data.


This behavior has implications for loading profiles, as described on page [184](#).

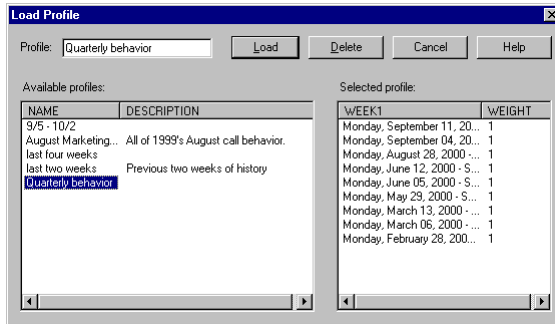
To load an existing profile:

-  A profile consists of one week's worth of data. If you are loading a profile into a multiple-week scheduling period, you can either zoom into the week period to which it should be applied first, or choose the whole period, and have that profile be applied individually to each week in the period.

- 1 Select a queue if necessary. See “Forecasting for Queues” on page 177. To load the same profile for all queues, select **Combined**.

To load a profile into a single week, select the week or a day in that week first. To load the same profile for each of the weeks in a multiple week scheduling period, select the period zoom level.

- 2 Select the weekly zoom level and the week desired for the weekly profile. If you are in period zoom level, you will be warned and allowed to proceed, but the profile loaded will be applied individually to each week in the scheduling period.
- 3 On the **File** menu, select **Profile**, and then click **Load**, or click **Load Profile** on the toolbar (). The **Load Profile** dialog box is displayed.



- 4 Click the profile you want to load. The historical weeks included in the profile and their weight are shown in the right pane.
- 5 Click **Load**. If you are in a scheduling period zoom level and have more than one week, you will need to confirm that you intend to copy this profile to each week in the period. The profile is loaded and the historical weeks and their weight are displayed in the grid and the **Contact Volume** and **AHT** graphs.



Saving and loading of data is specific to the media/queue combination you currently have selected. If you are loading, no matter what media/queue you saved originally, Forecasting and Scheduling attempts to load the data into the currently selected media/queue combination.

Saving unaltered data saves the historical weeks. Therefore, if you load this profile into any queue, Forecasting and Scheduling looks for these historical weeks of data for the queue(s) being loaded. Queues that do not have data for this historical week will not have data loaded. Because the load is context sensitive to your currently selected media and queue(s), if you have multiple media and want to load all queues for each media, you should load this profile in combined mode for each media.

Saving altered data saves the trace data. Therefore, if you load it into the same media type containing the same queues from "combined," Forecasting and Scheduling loads it into the individual queues exactly as saved. If you load it into a different media, or the same media containing a different set of queues, Forecasting and Scheduling splits the data evenly among the different queues in this media. At the combined level, the data looks the same.

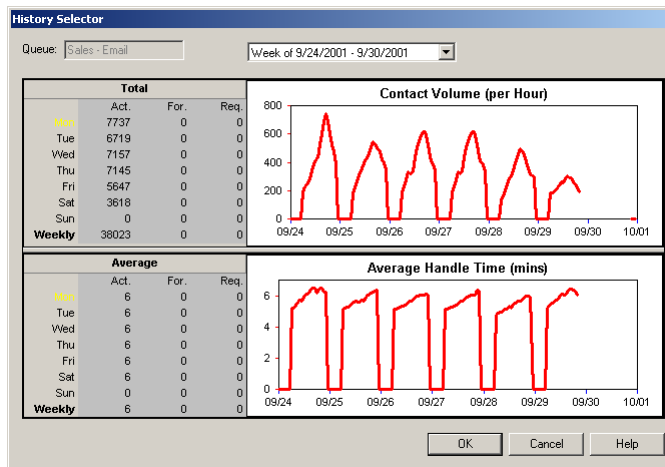
Saving a combination of altered and unaltered data saves it as altered data and works the same as described above for altered data.


To delete a profile:

- 1 Click **Load Profile**. The **Load Profile** dialog box is displayed.
- 2 Click the profile you want to delete.
- 3 Click **Delete**. The profile is permanently removed.

To add a week to a profile:

- 1 Load the profile you want to modify.
- 2 Click in the **Week** column of the empty field (with the *) on the grid.
- 3 Click the ellipsis button () to open the **History Selector** dialog box.



-  A notes icon will be displayed at the top right of the screen if there is a note related to the week of data being viewed. You can select this icon to have a window pop up, where you can view Pulse notes related to this week.

- 4 Use the date selector (see page [31](#)) to select a week to add to your profile. A weekly graph and summary for the selected week is displayed.
- 5 Click **OK**. The week is added to the grid.
- 6 To save the new week into the loaded profile, click **Save Profile**, and then click **OK** to save it with the same name.


Or

To save the data as a new profile, type a new name and description.

Absolute and Relative Weeks

Absolute weeks are specific, identifiable weeks during the year. They are useful in identifying contact volumes and patterns that occur at certain times of the year or in conjunction with certain events. For example, the two weeks before Christmas, 1999, are absolute weeks. If you mail invoices on the 15th of each month, the week after the 15th is an absolute week. The data in absolute weeks never changes.

Relative weeks are determined by their relationship to the current week (the scheduling period that you are forecasting for). They are useful in identifying trends in contact volumes and patterns that occur during normal operations. For example, suppose, on the first of May, you create a profile containing the four preceding weeks in April and save it as relative weeks. If you select that profile on the first of June, the profile will contain data for the four preceding weeks, that is, the last four weeks in May. The data in relative weeks changes with each scheduling period. (If you really want to save the exact data from April, save the profile using absolute weeks.)

 If Employee Requirements have been manually modified (see [Entering Employee Requirements Manually](#) on page 197), saving a Forecast (by moving to another module) causes the following reminder to be displayed:

Since the Employee Requirements have been manually modified, the changes made to the Forecast will not affect the Edited Employee Requirements and will not be considered by the scheduler. Would you like to save your changes?

Click **Yes** to save your changes and move to the other module, **No** to discard your changes and move to the other module, and **Cancel** to continue working in the **Forecast** module.


Forecasting Shrinkage

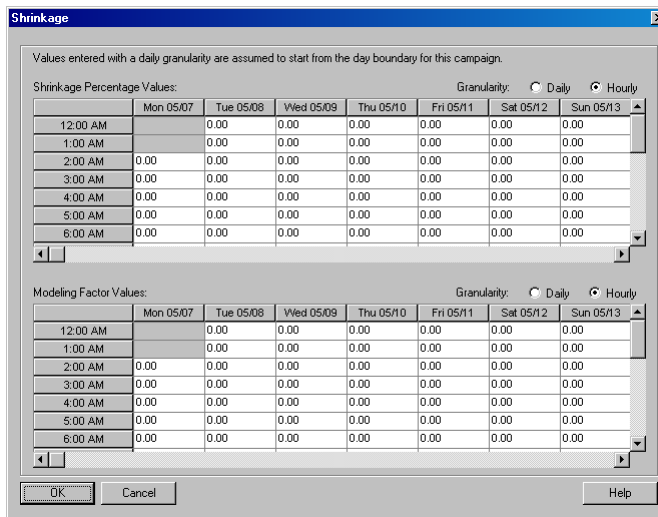
Shrinkage refers to the total number of employees who are not on the phone as scheduled. This includes absent employees as well as employees taking unscheduled breaks. Based on your shrinkage input, the system compensates for shrinkage by scheduling more employees.

You can enter your expected shrinkage using modeling values and/or percentage values. You can enter each value at either an hourly or daily interval.

When using modeling values, the Employee Requirements calculation is expanded or contracted by the sum of the shrinkage + modeling factor for each interval just as is done for shrinkage. The FTEs are adjusted based on the shrinkage for each interval.

To forecast shrinkage:

- 1 On the toolbar, Click the **Shrinkage** button (). The **Shrinkage** dialog box is displayed.



Values entered with a daily granularity are assumed to start from the day boundary for this campaign.

Shrinkage Percentage Values: Granularity: Daily Hourly

	Mon 05/07	Tue 05/08	Wed 05/09	Thu 05/10	Fri 05/11	Sat 05/12	Sun 05/13
12:00 AM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1:00 AM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2:00 AM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3:00 AM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4:00 AM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5:00 AM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6:00 AM	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Modeling Factor Values: Granularity: Daily Hourly


	Mon 05/07	Tue 05/08	Wed 05/09	Thu 05/10	Fri 05/11	Sat 05/12	Sun 05/13
12:00 AM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1:00 AM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2:00 AM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3:00 AM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4:00 AM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5:00 AM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6:00 AM	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OK Cancel Help

- 2 For each day your contact center is open, type a number for the estimated shrinkage percentage.
And/or
For each day or hour per day your contact center is open, type a positive or negative number for the shrinkage modeling factor.
- 3 Click **OK**. Forecasting and Scheduling takes those percentages and numbers into account when generating your schedule.

Setting Strategic Forecast Weight

After creating a forecast via historical weeks, you can add a strategic forecast to the forecast with some weighting.

-  This feature requires that a strategic forecast has been created in Strategic Planning and then exported to Forecasting and Scheduling.

To add a strategic forecast weight:

- 1 Select an individual queue and zoom to weekly or daily mode
- 2 Click the button next to the strategic forecast weight label.

The forecast from the historical weeks is now displayed as the "tactical forecast," and the forecast from strategic planning is displayed as the "strategic forecast." A strategic forecast weight can now be entered for contact volume and for average handle time. As you change the weight, the amounts in the corresponding column are automatically updated.

The weighting determines how much of the strategic forecast is applied to the tactical forecast in order to create the "final forecast." If the weighting is 100%, the

final forecast values will be identical to the strategic forecast and the historical weeks will only be used for patterning. If the weighting is 50%, the final forecast values will be half way between the tactical and the strategic forecast.

3 Click **OK**.

Strategic Forecasts can only be used for inbound queues.



When a campaign has queues of Project media, the page displayed in the **Forecast** tab changes. For more information, see [Chapter 13 "Operations"](#).

The Service Goals Module

The **Service Goals** module is displayed when you click the **Service Goals** icon.

Summary	
03/21-03/27	
Mon	0
Tue	0
Wed	0
Thu	0
Fri	0
Sat	0
Sun	0
Period	0

Use the **Service Goals** module to set goals for how quickly you want calls to be answered and to enter information about your abandonment assumptions. Forecasting and Scheduling uses these goals together with your forecast (see page [173](#)) to predict the number of employees that will be required at any time of the day. These requirements are then used to generate the employees' schedules.

In the **Service Goals** module, changes are applied only to the period that is displayed. The default display when the module is opened is the entire scheduling period. To display or modify data for a single day, on the toolbar use **Zoom In** (🔍). Use **Zoom Out** (🔍) to return to the whole scheduling period.

Types of Service Goals

You can use either of two criteria for your service goals:

- **Service Level**—The percentage of calls that will be answered within the specified time.
- **Average Speed to Answer**—ASA. The average length of time it takes to answer *all* non-skill-based schedule calls or skill-based schedule calls for immediate queues.



You might find that Service Level is a better indicator of performance than Average Speed to Answer. A good average speed might hide the fact that while some calls are answered very quickly, others are answered very slowly.

If you are licensed for the optional Operations features, and are using an Operations media type in Forecasting and Scheduling, you can also set deadline goals. See [Chapter 13 "Operations"](#) for more information on deadline goals.



Certain terminology within Forecasting and Scheduling changes if you are licensed for the Operations features. The following table lists the changes that occur with the Operations features:

Term	Operations-Equivalent
queue	work queue
contact volume (or CV)	volume (or V)
average handle time	activity handle time

A deadline goal is used to represent an objective of finishing work arriving in certain interval by a set time of day. For instance, all work arriving between 6 a.m. and 3:30 p.m., today, must be completed by 5:15 p.m., today; work arriving from 3:30 p.m., today, through 6 a.m., tomorrow, must be completed by 10 a.m., tomorrow.

You can vary not only the percentage of work handled within the service goal, but also vary the service goal time threshold by time of day.

See ["Deadline Goal Modeling"](#) on page 284 for more information on deadline goals.

Making Goals Constant

You can set service goals for an entire scheduling period, for an individual day, or on an hour-by-hour basis.

You can apply these goals to the entire scheduling period or to a single day by clicking **Make goals constant**. Goals for each day are listed to the left of the graph, and the displayed date is listed in yellow. The Total reflects the average for the scheduling period.

Set your goals first for the entire scheduling period, and then zoom in to adjust them for each day.

Setting Goals for Queues (Skill-Based Scheduling Only)

If your campaign is skill-based, the **Queue** menu is displayed. If the campaign is linked to more than one queue (see page [167](#)), you must set service goals for **each** queue.

Setting Goals for Quality

If the quality goal is set to **Schedule X % of Agents with a Score of at Least Y**, the scheduling engine first staffs to meet the service goal. Next, the scheduling engine adds or removes employees such that at least **X** percent of the staffing necessary to meet the service goal also meet the quality goal.

If the quality goal is set to **Schedule X # of Agents with a Score of at Least Y**, the scheduling engine treats this goal just as it treats the **Schedule At Least X Agents** option (see page [205](#)). Specifically, the scheduling engine schedules this minimum amount of employees even if doing so causes overstaffing of the queue.


Abandonment

Abandoned calls are those in which the caller hangs up before the contact is answered. In non-skill-based scheduling, a single abandonment percentage is used to track these. In skill-based scheduling, a patience factor for each queue is used because callers will often stay on the phone longer for some types of calls than for others.

Setting Abandons (Non-Skill-Based Scheduling Only)

Abandons affect both forecasted ASA and Employee Requirements from ASA Service Goals:

- If you are using ASA Service Goals, as you change your abandon rate, your Employee Requirements (see page [194](#)) vary inversely. In other words, if you increase the abandonment rate, the employee requirements decrease by an equivalent amount. This is because the abandoned contact percentage is subtracted from the forecasted number of calls and the employee requirements are adjusted accordingly.

 Because Forecasting and Scheduling uses the abandon percentage to generate your schedule, you should base it on historical data rather than setting it as a goal.

To set the abandon rate:

- Type the percentage of calls you expect to be abandoned during the period of the weekly schedule.

Setting Patience for Queues (Skill-Based Scheduling Only)

If you are using skill-based scheduling, you should set a *patience factor* for each queue. This is the amount of time you expect a caller to remain on the line for each queue before hanging up. You might, for example, set a longer patience factor for a contact in

a Tech Support queue than in a Sales queue. This figure should be based on actual experience rather than setting it as a goal.

To set the patience level:

- 1 From the **Queue** menu, select a queue.
- 2 Type a patience factor in seconds for the queue.
- 3 Repeat for each queue.

Reserve Thresholds

Some ACDs allow you to give employees reserve or overflow skills. Under normal circumstances, these employees do not take calls on the queues corresponding to their reserve skills. However, if the predicted wait time on the queue is expected to exceed a certain threshold (the reserve threshold), the employees become active in the queue until the queue is cleared out. Additional employees can be given a secondary reserve skill with a higher threshold, and only take calls on the queue if the expected wait time exceeds the higher threshold. This situation is modeled in Forecasting and Scheduling by assigning the employees **Reserve 1** or **Reserve 2** skills for these queues in the **Employees** module in Organization mode. The wait time thresholds for each queue are defined in the **Service Goals** module in Campaign mode.

Priority

You can specify a priority level per work queue from 1 to 10 (default is 5) for a work queue of any media type. Priority levels signify a relative priority order; a priority level 2 work queue has higher priority over a priority level 4 work queue and a priority level 4 work queue has higher priority over a priority level 5 work queue. This queue prioritization is used by the scheduler algorithm to make sure requirements of higher priority queues are given preference over requirements of lower priority queues. Additionally, for work queues of deferred media type only, you can set a minimum threshold per work queue which represents a "hard floor" scheduling requirement that supersedes service goal requirements. This minimum threshold parameter (which is a percentage of total requirements that must be met over the campaign scheduling period) ensures that lower priority work queues do not get "starved" at the expense of higher priority work queues.

Typically, work queues of immediate media should be given higher priority over work queues of deferred media type. This implies that employees should work on deferred or operations work only when there is no phone work.

Setting Your Service Goals

To set your service goal for the entire scheduling period:

- 1 If you are using skill-based scheduling (see [Chapter 7 "Multi-Contact and Skill-Based Scheduling"](#)), select a media type and a queue. If the campaign is linked to more than one queue you must set service goals for each queue.
- 2 To set goals for the entire scheduling period, click **Zoom Out** on the Toolbar if the entire scheduling period is not displayed. If a single day is displayed, only goals for that day will be set.
- 3 Click **Service Level** and type the *percentage of calls* you want answered within the *number of seconds* you enter.

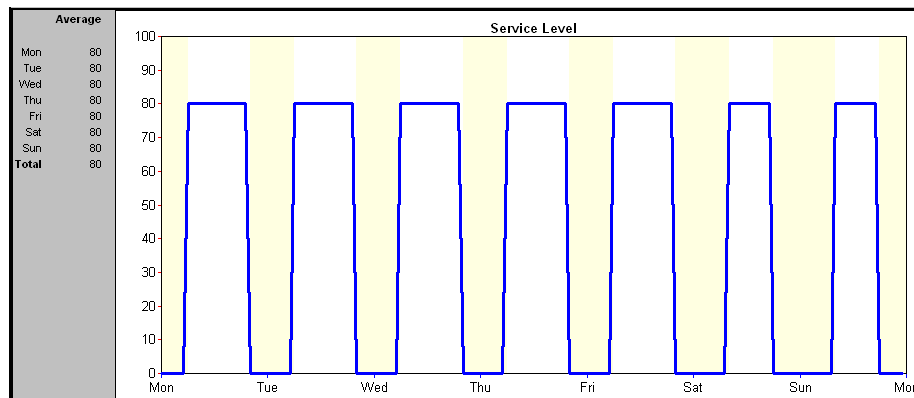
Or

Click **Average speed to answer**, and then type the *average* number of seconds you want *all* calls answered in.

i You might find that Service level is a better indicator of performance than Average Speed to Answer. A good average speed might hide the fact that while some calls are answered very quickly, others are answered very slowly.

i If the service goal percentage is set to 0% for one or more hours, the scheduler treats that time as if the queue were closed. During these intervals, the scheduler will not schedule any employees unless forced to by work rules like minimum hours. Without this feature, the scheduler could sometimes schedule people in these intervals to meet minimum employee requirements or to distribute over-staffing evenly.

- 4 Click **Make goals constant** to apply the percentage or time to all calls at all times during the displayed period.



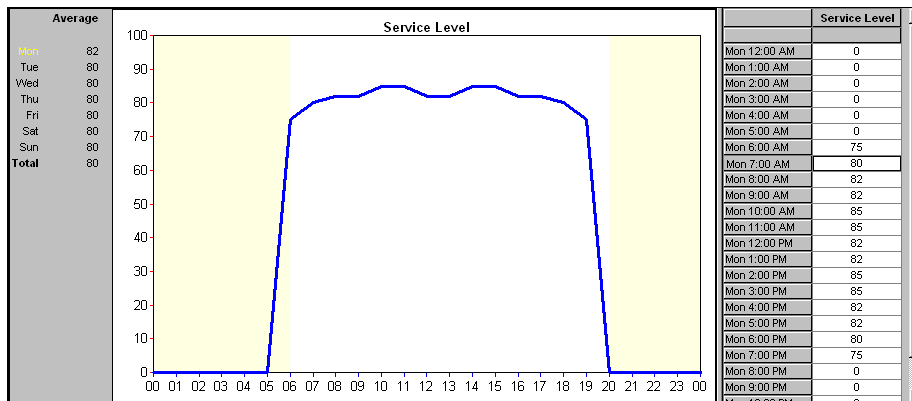
- 5 Type the percentage or number of employees and the quality goal value that these employee must meet. This feature allows you to have input into your expectations of the quality of employees to be answering phones based on the displayed period. The quality value for each employee is either directly entered into the **Employees** module, or can be automatically generated and populated for each employee from another configured data source, such as Evaluations.

- 6 Type the percentage of calls you expect to be abandoned if you are using non-skills scheduling or, if you are using skill-based scheduling, type a Patience factor in seconds. This number represents the length of time a caller will wait before hanging up. Since this number is used by Forecasting and Scheduling to generate your schedule, you should base it on historical data rather than setting it as a goal.

To set service goals for a single day:

- 1 On the toolbar, Click **Zoom In**. Select the week of the scheduling period or day of the week you wish to fine tune from the date selector, or by clicking the week/day to the left of the graph. You can now adjust the week's or day's goals by doing one or both of the following:
 - a. Type a new goal, and then click **Make goals constant** to apply it during the entire week/day.
 - b. On the **View** menu, click **Table**. A table of values is displayed to the right of the graph. You can fine-tune your hourly percentages or times by typing new values. (You can also click the graph and drag the line to change the percentage or time.)

The graph is automatically adjusted and the summary is updated to reflect the new figure



- 2 Repeat step 1 for each week of the period, or day of the week you want to fine-tune.

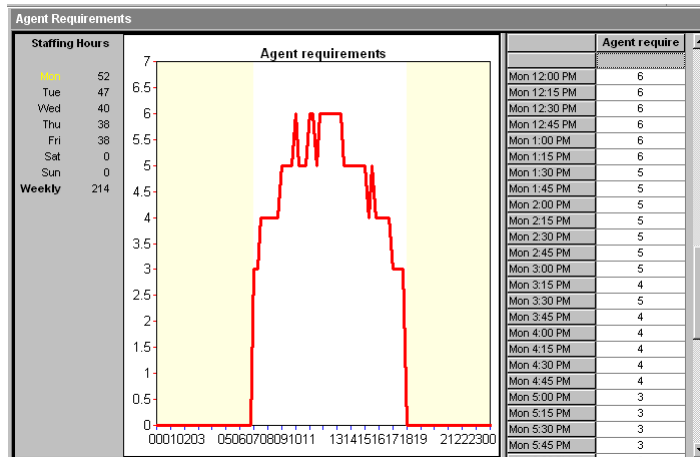
i If Employee Requirements have been manually modified (see [Entering Employee Requirements Manually](#) on page 197), saving a Service Goal (by moving to another module) causes the following reminder to be displayed:

Since the Employee Requirements have been manually modified, the changes made to the Service Goal will not affect the Edited Employee Requirements and will not be considered by the scheduler. Do you want to continue?

Click **Yes** to save your changes and move to the other module. Click **No** to discard your changes and continue working in the **Service Goals** module.

The Agent Requirements Module

The **Agent Requirements** module is displayed when you click the **Agent Requirements** icon.



The **Agent Requirements** module typically uses the contact volume forecast and the service level goal you established to predict the number of employees that need to be scheduled. Some organizations schedule differently, however, and explicitly enter their employee requirements manually, usually through importing a file. The manual method of inputting employee requirements is discussed in “[Entering Employee Requirements Manually](#)” on page 197.

i Agent requirements are available if you are using skill-based scheduling, but they are defined as FTE requirements, the number of dedicated employees that would be required for each queue.. See page [229](#) for more information on skill-based scheduling.

Viewing Your Employee Requirements

The **Agent Requirements** graph shows the number of employees needed to meet the predicted contact volume at the established service level goals, taking into account AHT and shrinkage. It is divided into 15-minute intervals throughout the selected day/week.

If your campaign is linked to multiple queues, the employee requirements are based on the combined forecast for those queues. See “[Multiple Queue Forecasting](#)” on page 177.

The summary column to the left of the graph shows the staffing hours for each day or week (that is, hours answering contacts), and the total hours for the scheduling period. The current day is highlighted in yellow. Click a day/week to display it in the graph or choose a day/week from the date selector.

On the **View** menu, click **Table**. A table of values is displayed to the right of the graph. These numbers are read-only.

The default display is one day. On the toolbar, use **Zoom Out** (🔍) to display a week’s data or full scheduling period in the graph and the tables. Use **Zoom In** (🔍) to return to a single day or week.

Calculating the Cost of Your Schedule

Forecasting and Scheduling includes a Full-Time Equivalent (FTE) calculator that lets you see in advance what staffing levels your forecast and actual schedules will require and what their cost will be.

Use the FTE Calculator in non-skills mode only.



To use the FTE Calculator:

- 1 On the **View** menu, click **FTE Calculator**. The calculator is displayed

- 2 Enter the data as requested, and then click **Recalculate**. The hours, number of full-time equivalent employees, and their cost is displayed for both the forecast and for the actual schedule after it has been generated.

FTE Data

This section discusses the data the FTE Calculator uses and the calculations it makes.

A. Input Data

Enter each of the following parameters:

-
- A1)** The number of shifts a full-time equivalent employee works each week.
-
- A2)** The average length of each shift.
-
- A3)** The number of *paid* hours each shift.
-
- A4)** The average number of hours the employee spends on the phone.
-
- A5)** The FTE employee's hourly wage.
-

B. Estimates Based on the Forecast and Service Level Requirements

The following estimates use the data entered in section A and the forecasted employee and service level requirements:

-
- B1) Estimated staffing hours**—The same as the total required staffing hours estimated by the **Agent Requirements** module (see above).
-
- B2) FTEs needed**—Estimated staffing hours (B1) divided by the product of the number of shifts (A1) and the time spent on the phone (A4); that is, **B2 = B1/(A1*A4)**.
-
- B3) Total cost**—FTEs needed (B2) times the number of shifts per week (A1) times the paid hours in the shift (A3) times the hourly wage (A5); that is, **B3=B2*A1*A3*A5**.
-

C. Estimates Based on the Current Schedule

The following estimates use the data entered in section A and the schedule that is currently displayed in the calendar.

-
- C1) Paid hours scheduled**—The total of the currently scheduled shift assignments corrected for paid and non-paid shift events.
-
- C2) Hours scheduled answering contacts**—The total hours an employee is scheduled to perform immediate, deferred, or blended activities.
-
- C3) FTEs according to the current schedule**—Hours scheduled answering contacts (C2) divided by the product of the number of shifts (A1) and the time spent on the phone (A4); that is, **C3=C2/(A1*A4)**.
-
- C4) Total Schedule Cost**—The sum of the hours worked by each employee multiplied by his or her hourly wage (listed in the Hourly Wage field in the **Employees** module. If no hourly wage is listed, the FTE employee's hourly wage (A5) will be used.
-
- C5) Max number of concurrent employees**—The number of employees scheduled during the 15-minute period when the most employees are on the phone simultaneously.
-
- C6) Min number of concurrent employees**—The number of employees scheduled during the 15-minute period when the fewest employees are on the phone simultaneously.
-

Entering Employee Requirements Manually

The typical workflow for scheduling in the contact center world is:


- 1 Generate a contact volume forecast.
- 2 Enter service requirements.
- 3 Enter other factors, such as shrinkage.
- 4 Enter in schedule parameters.
- 5 Obtain preliminary employee requirements.
- 6 Create a schedule to meet these employee requirements.

This general workflow has been the standard and is still used in the majority of contact centers.

Some contact centers do not generate schedules based on their historical forecast. Instead, they are given specific employee requirements to meet. [Step 1](#) through [Step 4](#) above do not occur as part of the normal scheduling process, although they might still be used for forecasting and tracking. [Step 5](#) is not an output step, it is an input step instead. Rather than using data from the previous steps to generate an employee requirement graph, such centers manually input their requirements based on their contracts. [Step 6](#) is also slightly different in that the employee requirements are a minimum, rather than a goal. That is, instead of trying to meet the employee requirements exactly, such contact centers see them as a bottom limit below which the scheduler should not go.

To enter employee requirements manually (ignoring any forecast and service goals that have been calculated):

- 1 From the **Edit** menu, select the **Allow Editing of Requirements** menu item . When editing is enabled, this menu item displays a check mark to its left.

 Once you've enabled this menu item and modified employee requirements, you cannot disable the menu item until you leave the **Agent Requirements** module without saving your changes.

- 2 From the **View** menu, select **Table**.

You can edit the requirements in the table:

- Manually
- Using cut and paste.
- By importing a text file (.TXT)

The text file has a simple format. It should have three columns, separated by tabs, for the date (DD/MM/YYYY), time (HH:MM in 15-minute intervals, as listed in the table), and the staffing requirements. For example:

Date	Time	Staffing
10/11/2004	00:00	0
10/11/2004	00:15	0
10/11/2004	00:30	0

10/11/2004	00:45	0
10/11/2004	01:00	0
10/11/2004	01:15	0
10/11/2004	01:30	0
10/11/2004	01:45	0
10/11/2004	02:00	0
10/11/2004	02:15	0
10/11/2004	02:30	0
10/11/2004	02:45	0
10/11/2004	03:00	0
10/11/2004	03:15	0
10/11/2004	03:30	0
10/11/2004	03:45	0
10/11/2004	04:00	0
10/11/2004	04:15	0
10/11/2004	04:30	0
10/11/2004	04:45	0
10/11/2004	05:00	0
10/11/2004	05:15	0
10/11/2004	05:30	0
10/11/2004	05:45	0
10/11/2004	06:00	0
10/11/2004	06:15	0
10/11/2004	06:30	0
10/11/2004	06:45	0
10/11/2004	07:00	0
10/11/2004	07:15	0
10/11/2004	07:30	0
10/11/2004	07:45	0
10/11/2004	08:00	12
10/11/2004	08:15	12
10/11/2004	08:30	12
10/11/2004	08:45	12

- 3 As necessary, use the **Scale** and the **Restore** buttons on the toolbar, or the corresponding menu items on the **Edit** menu to respectively scale the numbers that you have entered manually (similar to the scaling function in forecasts described on

page [181](#)), or to discard any changes that you have made to employee requirements.

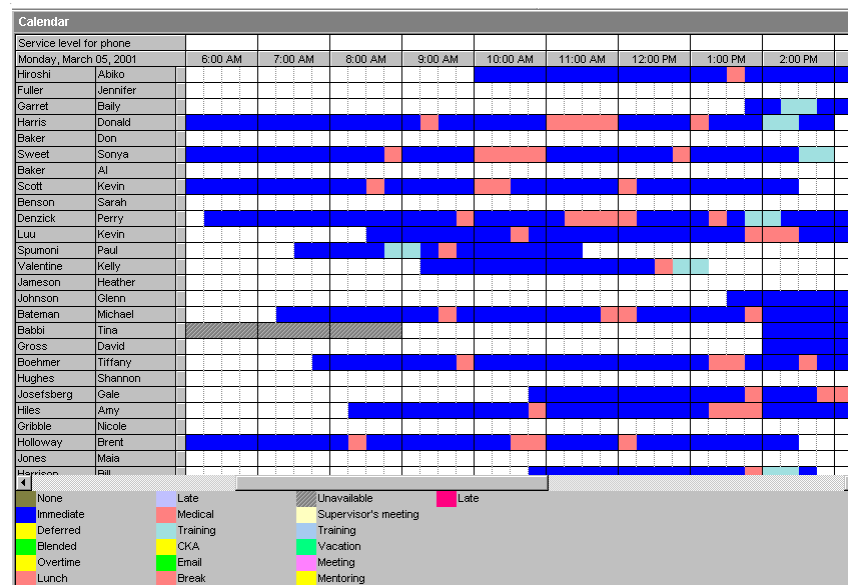
When you select a different module within Forecasting and Scheduling, you are prompted to save your changes as follows:

Employee Requirements have been manually modified. The scheduler will no longer consider the forecast or service goals. Do you want to save your changes?

Click **Yes** to save your changes and move to the other module. Click **No** to discard your changes and move to the other module. Click **Cancel** to continue working in the **Agent Requirements** module.

The Calendar Module

The **Calendar** module is displayed when you click the **Calendar** icon

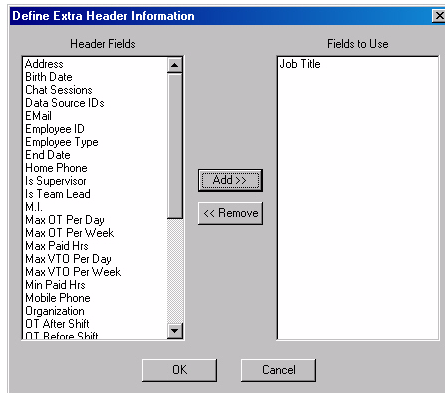


The **Calendar** module uses the forecast, service levels, employee requirements, employees, and work patterns to generate a scheduling period's schedule for your contact center. The schedule section is blank until you generate a schedule for the scheduling period. It will contain items such as vacations, meetings, or unavailability that have been prearranged.

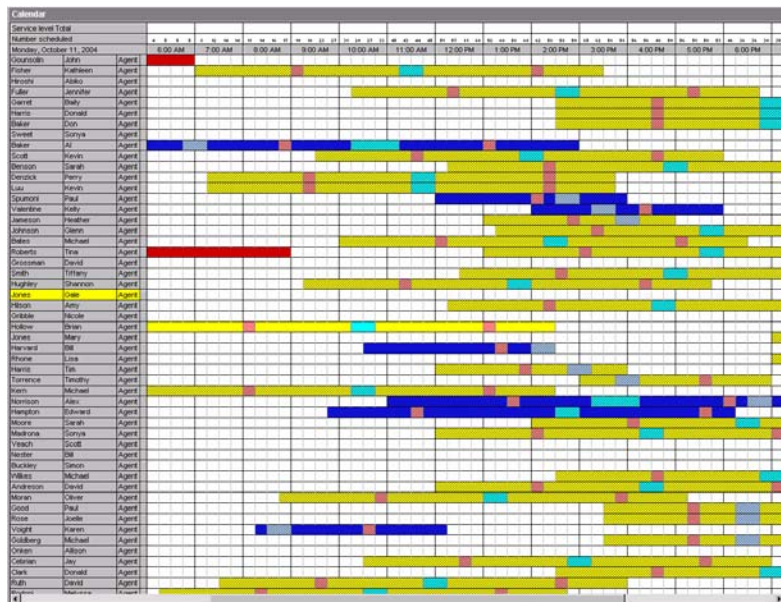
By default, the left side of the **Calendar** window shows three columns for each employee: last name, first name, and a third column where schedule conflicts are flagged.

You can, however, configure this area to show additional columns, which is particularly useful when you have a number of employees with similar names, such as John Smith.

To configure the left side of the **Calendar** window, on the **View** menu, use the **Extra Employee Headers** menu item. The **Define Extra Header Information** dialog window is displayed.



Select those items you want to add to the employee table, and then click the **Add >>** and **Remove >>** buttons to add and remove items respectively. Once you have selected those items that you want, click **OK** to close the window. The **Calendar** window refreshes to display the additional information.




Generating a Schedule

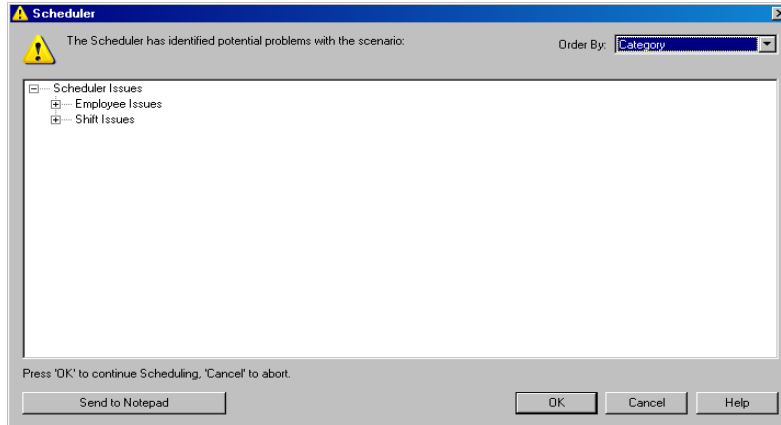
Forecasting and Scheduling offers a wide range of options that you can set before you generate a schedule. After the scheduler is complete, you can edit the schedule directly or reschedule with a different set of options, if you want.

Analyzing the Schedule and Resolving Conflicts

You can perform an initial analysis to search for potential issues and conflicts before you actually create the schedule. An analysis performs all the scheduling tasks up to the actual creation of the schedule and indicates scheduling conflicts, min/max hour issues, and assignment rule conflicts. You can then resolve these conflicts before scheduling.

To analyze the schedule:


- On the toolbar, click the **Analyze** button (). Forecasting and Scheduling analyzes your schedule and provides a list of issues. These can be sorted by type of issue or by employee.



Setting Up the Scheduler

The **Scheduler Setup** dialog box lets you enter your options and start the scheduling process.

To open the **Scheduler Setup** dialog box:

- On the toolbar, click the **Scheduler** button ().
Or
- On the **Calendar** menu, select **Schedule....**

The **Scheduler Setup** dialog box is displayed.

Choose Days to Schedule

Click the days to schedule:

- **Schedule Entire Period**—Schedule (or reschedule) the whole week.
- **Schedule Today Only**—Schedule the current day (which is displayed in place of **Today**) only. If you only want to schedule a part of the current day, set those times.
- **Schedule Today Forward**—Schedule the rest of the period, starting with the current day (which is displayed in place of **Today**) only. If you only want to schedule part of the current day, set those times and the schedule will begin at the time you set and run through the rest of the scheduling period.

The current day is the day displayed in the Date Selector in the **Calendar** module.




Rescheduling Options

Select options you want used when you reschedule:

- **Schedule shift assignments:**
 - **Add shift assignments**—You can add additional employees to the schedule when this is selected. Deselect it if you do not want to add shift schedules

- **Remove shift assignments**—You can remove existing shift schedules from the schedule when this is selected. Deselect it if you do not want to remove shift schedules.
- **Schedule shift events**—You can schedule shift events, such as breaks, lunches, training, and so forth. This box is automatically checked if **Schedule shift assignments** is checked.
- **Schedule calendar event**—You can schedule calendar events, such as floating events and classes.
- **OT / VTO Scheduling**—OT extensions and VTO events will be scheduled. If this box is checked, **Schedule shift assignments** is unchecked and unavailable. Several additional OT/VTO scheduling options are displayed. This option is only available if your company has an intra-day optimization license.

 If you select **OT / VTO Scheduling**, the General Scheduling tab described on page [206](#) is hidden, and the **OT/VTO Scheduling** tab is displayed. For information on this tab and scheduling with overtime or voluntary time off, see [Chapter 9 “Intra-Day Optimization”](#).

Scheduling Using Employee Preferences

Choose whether employee preferences (see page [140](#)) are to be used by Forecasting and Scheduling when scheduling.

- **No preferences**—Preferences are ignored when scheduling.
- **Preferences by ranking**—Preferences are used based on the ranking given in the **Employees** module (see page [130](#)).
- **Preferences by seniority**—Preferences are used based on the employee’s start date (see page [130](#)).
- **Preferences by seniority/ranking**—Preferences are used based on a combination of seniority and ranking.
- **Favor Service Level/Favor Preferences**—Use the slider to determine the relative weight the scheduler will give to meeting service level requirements or to meeting employee preferences.
- When you move the preference slider bar towards **Favor preference**, the scheduling algorithm makes giving an employee one of their top X% of preferences (also known as one of their *avored preferences*) a higher priority than maximizing service goal, but less important than work rules. (Even if you prefer to have every day off, you still need to work your minimum hours, for instance.)

Whenever the Scheduling engine pauses during the scheduling process to show you potential problems, or at the end of the scheduling process if no problems are encountered, click the **View favored preferences** button to see how the scheduling preferences for the employees were accommodated. A sample excerpt of a preferences report is shown following:

Favored Preferences

Park, Julie - Start Date 1/2/2000 - top 6% of options favored each day:

8/9/2004 - 38 start time/day off options - 6 favored: Day Off,09:45,10:00,10:15,10:30,10:45

8/10/2004 - 38 start time/day off options - 6 favored: Day Off,09:45,10:00,10:15,10:30,10:45

8/11/2004 - 38 start time/day off options - 6 favored: Day Off,09:45,10:00,10:15,10:30,10:45

8/12/2004 - 38 start time/day off options - 6 favored: Day Off,09:45,10:00,10:15,10:30,10:45

8/13/2004 - 38 start time/day off options - 6 favored: Day Off,09:45,10:00,10:15,10:30,10:45

8/14/2004 - No start time/day off options favored

8/15/2004 - No start time/day off options favored

Koza, Frederick - Start Date 1/17/2000 - top 10% of options favored each day:

8/9/2004 - No start time/day off options favored

8/10/2004 - No start time/day off options favored

8/11/2004 - No start time/day off options favored

8/12/2004 - No start time/day off options favored

8/13/2004 - No start time/day off options favored

8/14/2004 - No start time/day off options favored

8/15/2004 - No start time/day off options favored

Spielberg, Lisa - Start Date 12/12/2001 - top 63% of options favored each day:

8/9/2004 - No start time/day off options favored

8/10/2004 - No start time/day off options favored

8/11/2004 - No start time/day off options favored

8/12/2004 - No start time/day off options favored

8/13/2004 - No start time/day off options favored

8/14/2004 - No start time/day off options favored

8/15/2004 - No start time/day off options favored

Whistler, Aaron - Start Date 12/15/2001 - top 65% of options favored each day:

8/9/2004 - 18 start time/day off options - 13 favored:
07:00,07:15,07:30,07:45,08:00,08:15,08:30,08:45,09:00,09:15,09:30,09:45,10:00

8/10/2004 - 18 start time/day off options - 12 favored:
07:00,07:15,07:30,07:45,08:00,08:15,08:30,08:45,09:00,09:15,09:30,09:45

8/11/2004 - 18 start time/day off options - 12 favored:
07:00,07:15,07:30,07:45,08:00,08:15,08:30,08:45,09:00,09:15,09:30,09:45

8/12/2004 - 18 start time/day off options - 12 favored:
07:00,07:15,07:30,07:45,08:00,08:15,08:30,08:45,09:00,09:15,09:30,09:45

8/13/2004 - 18 start time/day off options - 13 favored: Day Off,07:00,07:15,07:30,07:45,08:00,08:15,08:30,08:45,09:00,09:15,09:30,09:45

8/14/2004 - No start time/day off options favored

8/15/2004 - No start time/day off options favored

Scheduling Algorithm Behavior

You can set additional scheduling preferences for periods when the perfect schedule cannot be generated.

- **Prefer Understaffing/Prefer Overstaffing**—Use the slider to determine whether the scheduler will schedule more employees to increase the service level or fewer employees to lessen operational costs.
- **Minimize spikes in service level/Maximize overall (weekly) service level**—Use the slider to determine whether the scheduler should
 - a. Favor less variance in the schedule, creating a smoother curve but a lower overall service level (minimize spikes)
 - Or
 - b. Favor better overall service by allowing poor service during some periods, creating “spiky” employee requirements (maximize overall service level)
- **Schedule at least ___ agents per queue**—Type the minimum number of employees that must be scheduled. The system will never schedule fewer than this number.
- **Minimize Class Sessions over Service Level**—If this box is checked, the scheduling engine minimizes the number of class sessions (at the expense of service level). This situation often results in all sessions being filled up with the maximum number of attendees. If this box is unchecked, the scheduling engine maximizes service level. This situation will often result in the maximum number of class sessions being created (given the constraint for the minimum number of attendees).

General Scheduling

General Scheduling contains three sections:

- **Scheduling using agent preferences:**

Choose employee preferences.

- **No preferences**—Preferences are ignored when scheduling.
- **Preferences by ranking**—Preferences are used based on the ranking given in the **Employees** module. See [“Adding Employees”](#) on page 124.
- **Preferences by seniority**—Preferences are used based on the employee’s start date.
- **Preferences by seniority/ranking**—Preferences are used based on a combination of seniority and ranking.
- **Favor Service Level/Favor Preferences**—Use the slider to determine the relative weight the scheduler gives to meeting service level requirements or to meeting employee preferences.

- **Amount of Time to Spend Scheduling**

Depending on the number of employees and the complexity of their work patterns and scheduling options, Forecasting and Scheduling can take a considerable amount of time to create a schedule. Select the amount of time you want to spend.

- **Normal**—Forecasting and Scheduling spends enough time to provide a good schedule.
- **Advanced**—Forecasting and Scheduling spends more time attempting to resolve conflicts and rule violations.
- **Schedule until interrupted**—Forecasting and Scheduling continues to refine the schedule until the process is stopped.



If you reschedule a scheduling period, the scheduler begins working with the current schedule. If you interrupt the scheduling process using the **Stop & Save Best Schedule** button (see below), and then restart it, the process starts where you left off. To start the scheduling process again from scratch, first right-click the schedule, and then select **Clear Schedule**.

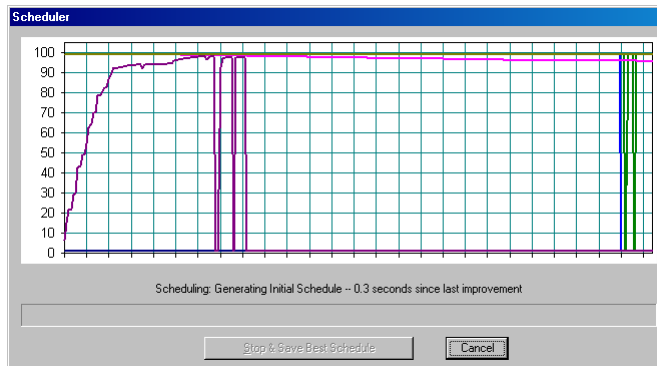
- **Agents to Schedule**

Select the type of employee to schedule.

- Select **Employees only** if you are not using workforce planning.
- For additional information about scheduling Staffing Profiles, see [“Adding Staffing Profiles to the Schedule”](#) on page 271.

Start Scheduling

Click **OK** to start the scheduling process. The Scheduler window is displayed. As the scheduling proceeds, progress messages are displayed below the progress chart

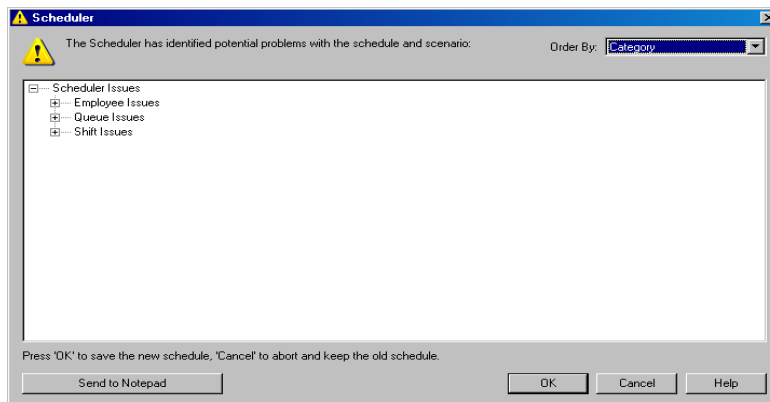


- Click **Stop & Save Best Schedule** to accept the current schedule.
- Click **Cancel** to quit the scheduling process without creating a schedule.

Scheduling Warnings and Error Messages

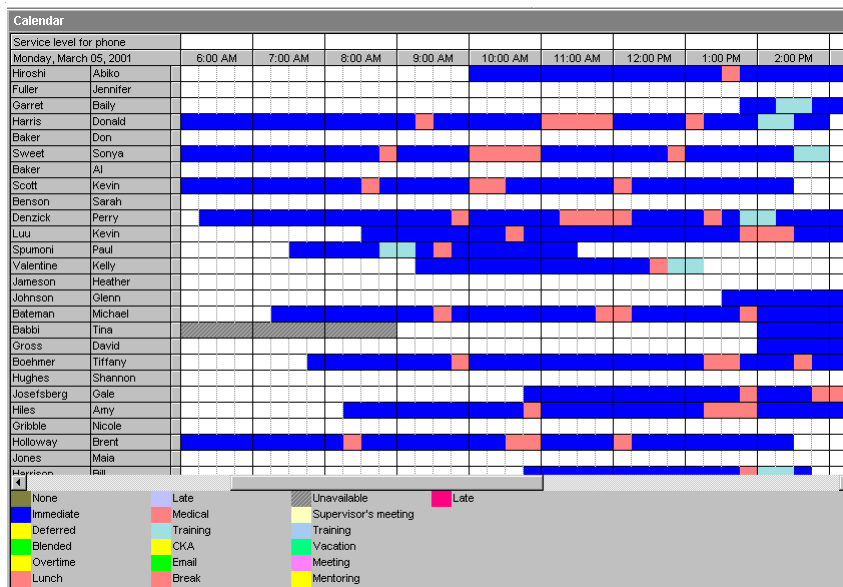
Forecasting and Scheduling notifies you of any warnings or violations while scheduling, helping you to know where to go to fix any problems. These warnings or violations can be very detailed and can be displayed and saved in Notepad. See "[Understanding the Schedule Checker Messages](#)" on page 588 for information about specific warning messages.


You might see these messages more than once. You are if any of the errors must be fixed before the system can create a schedule.



Viewing the Schedule

When the scheduler finishes, a calendar is displayed for the current day:



 Depending on how your system has been configured, when you view the details of a time-off event, you will see the comments employees entered for time-off requests, from the web application.


Schedule Statistics

Forecasting and Scheduling provides statistics above the schedule.

Staffing differentials	2	60	62	58	52	62	14	49	61	62	62	49
Service level	16	100	100	100	100	100	100	100	100	100	100	100
ASA	188	0	0	0	0	0	0	0	0	0	0	0
Number scheduled	2	60	62	58	52	62	14	49	61	62	62	49

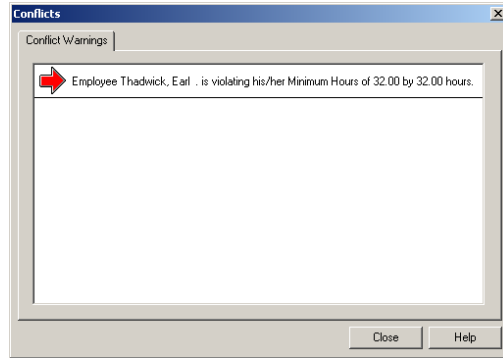
- **Staffing Differentials**—The difference between the available number of employees and the required number. Negative numbers indicate understaffing. (Not available in skill-based scheduling.)
- **Service Level**—The predicted service level based on the current schedule.
- **ASA**—The predicted average speed to answer. (Not available in skill-based scheduling.)
- **Number Scheduled**—The number of people scheduled to be answering contacts.

Scheduling Conflicts

Forecasting and Scheduling indicates employees with scheduling conflicts by an exclamation point next to their name. A button with a blue exclamation point  indicates a potential conflict that cannot be resolved here.

Conflict Warnings

If the employee's schedule makes it possible that the requirements of one or more scheduling rules cannot be filled, the rules are listed in the **Conflicts** window that opens when you click on a blue exclamation point.

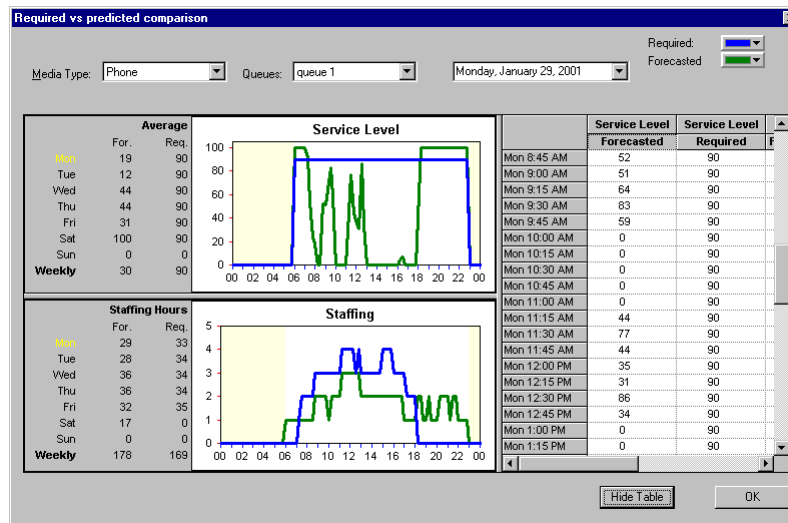


Statistical Comparisons

In addition to the complete statistical information available in the **Tracking** module, **Pulse** section, **Pulse** tab, a quick comparison of the predicted and required staffing and service level statistics is available in the **Calendar** module. For detailed descriptions of the statistics, see "Schedule Required versus Predicted Statistics" on page 607.

To display the required versus predicted comparison:

- 1 On the Tool bar, click **Recalculate** () to update the statistics, and then click **Report** (). The **Required vs. predicted comparison** window is displayed:



- 2 Select a media type or queue. Click **Show Table** to display the values for each 15-minute period.

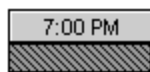
Changing the View Dates for the Schedule

The schedule shows one day by default.

- Use the date selector to move between days.
- On the tool bar, use **Zoom Out** on the toolbar to display a week's data in the calendar. Use **Zoom In** to return to a single day.

Locking and Unlocking Shifts, Shift Events, and Calendar Events

Forecasting and Scheduling does not adjust or reschedule locked shifts, shift events, or calendar events, including class sessions and floating events. Locked periods are crosshatched.



To lock a shift, shift event, or calendar event:

- Right-click the shift, shift event, or calendar event, and then, from the menu, select **Lock Shift** or **Lock Event**.
- Or
- Drag the shift, shift event, calendar event, or class to a new time.
- Or
- Change the time of the shift in the **Shift Assignment** dialog box or the calendar event in the **Edit Calendar Event** dialog box.

To unlock a shift, shift event, calendar event, or class:

- Right-click the shift, shift event, calendar event, or class, and then, from the menu, select **Unlock Shift** or **Unlock Event**.

Locking and Unlocking Multiple Shifts

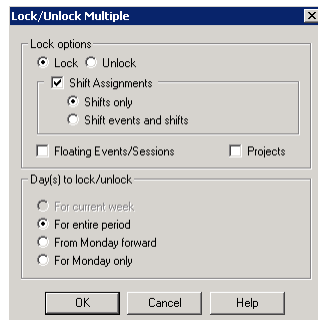
You can lock and unlock all shifts for your weekly schedule. (See “[Locking and Unlocking Shifts, Shift Events, and Calendar Events](#)” on page 158 for additional information.)



You can also use this command to unlock all shifts and shift events that you have locked manually. See page [158](#). To lock or unlock schedules for individual employees, see below.

To lock all shifts in the current period's schedule:

- 1 Right-click in the calendar, and then select **Lock/Unlock Multiple**. The **Lock/Unlock Multiple** dialog box is displayed.



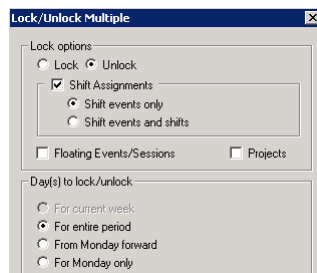
- 2 Click **Lock**, and then select the type of period to lock:
 - **Floating Events/Sessions**—Only floating events and class sessions are locked. Shifts and shift events remain unlocked.
 - **Shift Assignments: Shift events only**—Only the shift events are locked. Shifts, calendar events, floating events, and class sessions remain unlocked.

Or

 - **Shift Assignments: Shift events and shifts**—Both shifts and shift events are locked. Floating events and class sessions remain unlocked.
- 3 Select the time period you want locked:
 - **For current week**—The current week when it is part of a multi-week schedule.
 - **For the entire period**—All selected periods during the current weekly schedule are locked.
 - **From selected day forward**—Only selected periods from the day you right-clicked to the end of the current period are locked.
 - **For the selected day only**—Only selected periods on the day you right-clicked are locked.

To unlock all shifts in the current weekly schedule:

- 1 Right-click in the calendar, and then select **Lock/Unlock Multiple**. The **Lock/Unlock Multiple** dialog box appears



- 2 Click **Unlock**, and then select the type of period to unlock:

- **Floating Events/Sessions**—Only floating events and class sessions are unlocked. Shifts and shift events remain locked.
 - **Shift Assignments: Shift events only**—Only the shift events are unlocked. Shifts, calendar events, floating events, and class sessions remain locked.
- Or
- **Shift Assignments: Shift events and shifts**—Both shifts and shift events are unlocked. Floating events and class sessions remain locked.
- 3 Select the time period you want unlocked:
- **For current week**—The current week when it is part of a multi-week schedule.
 - **For the entire period**—All selected events for the selected employee during the current period will be unlocked.
 - **From selected day forward**—Only selected periods from the day you right-clicked to the end of the current period will be unlocked.
 - **For the selected day only**—Only selected periods on the day you right-clicked will be unlocked.

If your site is licensed for integration with Competency-based Learning, and your administrator has enabled the integration, you can also lock/unlock learning breaks as described on page [214](#).

Editing the Schedule

You can make changes to the schedule using the same techniques discussed previously in [Chapter 5 "Organization Mode Modules and Tasks"](#). Depending on the change you are making, refer to one of the following sections:

- ["Creating and Modifying Shift Events"](#) on page 146
- ["Creating and Modifying Calendar Events"](#) on page 148
- ["Creating and Modifying Time Off Events"](#) on page 151
- ["Creating and Modifying Unavailabilities"](#) on page 153

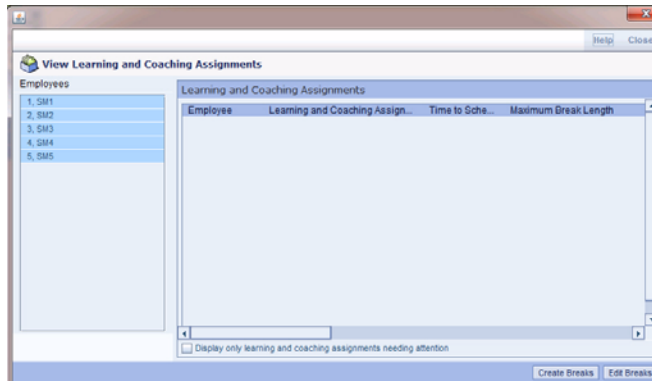
Viewing Learning and Coaching Assignments

If your site is licensed for integration with Competency-based Learning, and your administrator has enabled the integration, learning assignments generated in the Learning system and coaching assignments generated in the **Coaching** module of the web application are used by Forecasting and Scheduling to create floating learning breaks in the schedule. These breaks correspond to the lesson assignments for the scheduling period.

To view these learning and coaching assignments:

- From the **Calendar** menu, use the **View Learning And Coaching Assignments...** menu item.

The **View Learning And Coaching Assignments** dialog box opens, which allows you to select one or more employees and view all of their learning and coaching assignments.



Each learning assignment has one of three states, which are displayed in the **Needs Attention** column. These states reflect what actions are required for that learning assignment, and consist of:

- **Create** – You need to create new floating breaks for this assignment.
- **Delete** – You need to delete one or more breaks that are currently scheduled.
- **None** – You do not need to take any action for this assignment.

Click the button labeled **Display only learning and coaching assignments needing attention** at the bottom of the dialog box to exclude from the list those assignments with a **None** attention status.

All of the buttons on the bottom of the dialog box specify actions that can be performed on the selected assignments. If no assignments are selected, these actions apply to all assignments:

- Click **Create Breaks** to delete all breaks associated with the selected assignments, and then display the **Create Learning and Coaching Breaks** dialog box, where you can specify the time periods allowed for the breaks. For each created break, the values of the two editable fields in the grid control the number of breaks created and their maximum length. These two fields are:
 - **Time to Schedule (this period)** – Defaults to the total time left to schedule for the entire assignment. This is also the maximum allowable value.
 - **Maximum Break Length** – Specifies the longest possible break. If this value is less than the above value, multiple breaks are created.
- Click **Update and Optimize** to perform the same actions as for **Update**, and, after breaks are deleted and/or created, to run the scheduling engine.
- Click **Edit Breaks** to bring up the **Edit Learning and Coaching Breaks** dialog box, where you can manipulate all of the individual learning breaks currently active (for all weeks).
- Click **Close** to close the dialog box.
- Click **Help** to display the Help topic for this dialog box.

Once you've clicked **Edit Breaks**, the dialog box that opens allows you to manipulate actual learning breaks associated with the assignments selected in the **View Learning**

And Coaching Assignments dialog box. The various actions listed below are always applied to the selected breaks:

- Click **Edit** to bring up the parent learning break definition dialog box so that various attributes can be modified. This dialog is a simplified version of the floating event definition dialog. If you change any of the parameters that result in a new break being created, the original breaks list in the dialog is not refreshed. You must click **OK**, and then reopen the dialog to see the new break(s) that were created.
- Click **Delete** to remove all of the specified breaks and their break definitions (including the floating events associated with the breaks). This button is only activated if one or more breaks are selected.
- Click **Lock/Unlock** to lock/unlock all of the selected breaks. This button is only activated if one or more breaks are selected.
- Click **Close** to exit the dialog box.
- Click **Help** to display the Help topic for this dialog box.

Column Manipulation

You can move and resize the columns as desired. The settings are remembered when you exit the application and return. If you want to restore the default column positions and widths, right-click anywhere in the header row, and then select the appropriate menu item. From this menu, you can also select to resize the columns based on their contents if desired.

Grid Column Definitions

A few of these columns have been discussed previously, but are included here for completeness:

- **Employee** – Last name, first name (locale-specific).
- **Learning and Coaching Assignment** – Name of the assignment.
- **Time to Schedule (this period)** – Total time to allocate for this period. This is an editable field. The default value is the total time remaining to be scheduled. If this field is edited, the maximum value is the total time remaining.
The time to schedule can be 0 if no sessions should be scheduled.
- **Maximum Break Length** – The default value is the time to schedule this period. The maximum is the time to schedule. If the time to schedule is 0, then this field displays 0 and is not editable. If the total time to schedule is not 0, the maximum is this value and the minimum is 1 minute. This field is editable.
- **Needs Attention** – Status indicating what needs to be done.
 - **None** – No attention required.
 - **Create** – One or more breaks need to be created.

- **Delete** – One or more breaks in the future need to be deleted.
- **Priority** – Lesson importance. This value is passed directly from the Learning system. Higher numbers reflect higher priority.
- **Status** – Current status. The possible values for this status are:
 - **Assigned** – The assignment has been assigned to the person, but no further action has been done on it (this is the initial status).
 - **Not Started** – The assignment has not yet been attempted (same as **Assigned**).
 - **In Progress** – The assignment has been launched at least once, but not finished. Possible reasons are either because the student is actually currently taking the lesson, or the student exited the lesson in the middle.
 - **Failed** – The student got a score below the passing score.
 - **Bookmarked** – The same as **In Progress**.
 - **Under Adjustment** – The lesson was changed to this status by a supervisor.
 - **Disallowed** – The lesson was changed to this status by a supervisor.
 - **Done** – The student finished a lesson with no passing score. This status exists from the time that the student finishes the lesson until the lesson is scored.
 - **Passed** – The student got a score on or above the passing score.
 - **Completed** – All lessons are finished for a particular block.
 - **Deleted** – The learning assignment was deleted from the Learning system.
- **Status Date** - The last date/time the status was updated.
- **Available Date** - The date/time the assignment starts.
- **Due Date** - The date/time by which the assignment must be completed.
- **Total Length** - The total amount of time for which to schedule breaks.
- **Already Scheduled** - The amount of time in the schedule currently allocated for this assignment.
- **Scheduled (this period)** - The amount of Learning time already scheduled for this period.
- **Time remaining to schedule** - The total amount of time left to be scheduled. This is the total time - scheduled time. The scheduled time for Failed status is only the time scheduled in the future, otherwise the scheduled time is all time scheduled for this assignment for all scheduling periods.
- **Assignment Type** - Identifies whether the assignment is for Learning or for Coaching.

Creating Learning and Coaching Breaks

You can open the **Create Learning and Coaching Breaks** dialog box by clicking the **Create Breaks** or **Update and Optimize** buttons in the **View Learning And Coaching Assignments** dialog box. The dialog box consists of seven windows where you can select the start and end times for each day where learning and coaching breaks

can be assigned. If you are creating learning or coaching breaks for a campaign that encompasses or intersects with the current viewing time, then the earliest day you can select is today's date. The default start time for that day is between 15 and 30 minutes (rounded to a 15-minute boundary) in the future.

If the learning or coaching assignment is wholly in the past or wholly in the future, the campaign's hours of operation are used as the defaults.

Editing Learning and Coaching Breaks

This dialog box allows you to manipulate actual learning breaks associated with the assignments selected in the **View Learning And Coaching Assignments** dialog box. The various actions listed below are always applied to the selected breaks:

- Click **Edit** to bring up the parent learning or coaching break definition dialog box so that various attributes can be modified. This dialog box is a simplified version of the floating event definition dialog box (see page [135](#)). If you change any of the parameters that result in a new break being created, the original breaks list in the dialog is not refreshed. You must click **OK**, and then reopen the dialog to see the new break(s) that were created.
- Click **Delete** to remove all of the specified breaks and their break definitions (including the floating events associated with the breaks). This button is only activated if one or more breaks are selected.
- Click **Lock/Unlock** to lock/unlock all of the selected breaks. This button is only activated if one or more breaks are selected.
- Click **Close** to exit the dialog box.
- Click **Help** to display the help topic for this dialog box.

Viewing and Changing Employee Schedules

Forecasting and Scheduling allows you to view and edit schedules for individual employees.

To display detailed information for an employee:

- Double-click an employee's name. The **Employee Detail** dialog box is displayed:

Weekly Calendar for Knepher, Tom						
	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Sunday						

	Days Off					
		09:00	10:00	11:00	12:00	13:00
Monday	5					
Tuesday	5					
Wednesday						
Thursday						
Friday						
Saturday	1					
Sunday	1					

You can use the techniques explained earlier (see “Creating and Modifying Shift Events” on page 146) to edit individual schedules, add absences, and so forth.

Scheduling Classes

Forecasting and Scheduling allows you to schedule employee classes (during employee availability) or other such activities while minimizing the cost of holding these classes and minimizing the disruption to service level that holding these classes might cause.

There are many factors governing the optimal placement of employee classes, making it a difficult task to do manually. By scheduling classes at the same time as shifts for these employees, Forecasting and Scheduling can move shifts around if necessary to accommodate the classes.

Some of the factors affecting class scheduling include:

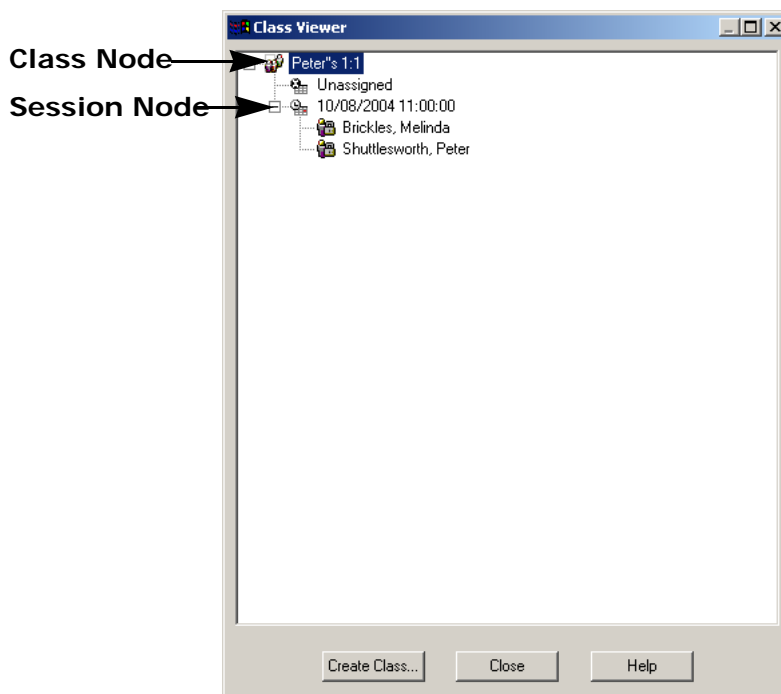
- Number of class sessions required
 - How many class sessions are required to satisfy the employee demand for this class?
 - For each class sessions, there is an implied cost, so it might be necessary to minimize the number of sessions.
 - Employees might not always be available at the same time; therefore, additional sessions might be required.
 - If you place all employees into a single session, it might be too damaging to service level, so smaller sessions (and, therefore, more sessions) might be required.
 - The **Min/Max Sessions** attribute might force a minimum or maximum number of sessions.
- Optimal time to schedule the class sessions
 - When you schedule employees into a class, it removes them from the phone, so sessions should ideally be scheduled during periods of overstaffing, or overlapping scheduled activities that do not contribute to queue work (activities

that are considered shift work [that is, not lunch or break, for example] but not linked to a media).

- The **Max Simultaneous Sessions** attribute may prevent sessions from overlapping one another. The attribute is meant to model resource constraints. For example, if only one instructor is available to teach a class, multiple overlapping sessions cannot be scheduled. Likewise, a single room in which to teach a class prohibits multiple overlapping sessions.
- Into which sessions to schedule an employee
 - The **Min/Max Attendee** attribute will affect what session an employee is placed. This attribute models room size and other class size constraints.
 - Maximizing Service Level is another factor.
- Given that employees must attend these classes, the optimal placement of their shift assignments
 - Employee shifts are scheduled so that employees required to attend the same class during some week would be available at the same time (subject to min/max attendee and service level considerations).

Viewing Classes

The Class Viewer displays all of the classes and sessions, as well as the attendees for each (including those attendees not currently assigned to a session).



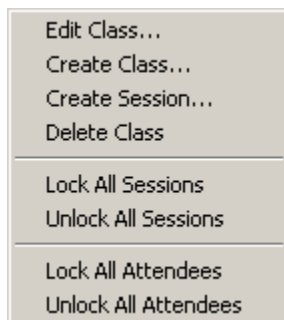
i Since the amount of this information can potentially be quite large, you can resize the class viewer so that the display is larger (or smaller), as desired.

You access the Class Viewer by clicking on the **View All Classes...** menu item in the menu that pops up when you right-click on any item in the Calendar grid.

There are a large number of class and session editing facilities available from within the Class Viewer. You can:

- Assign attendees to a session by moving them from the Unassigned tree node to a session node.
- Move attendees from one session to another.
- Unassign attendees by moving them from a session node to the Unassigned tree node.

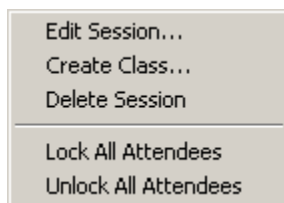
You can perform a variety of actions by right-clicking on one of the nodes. If you right-click on a class node, you get the following pop-up menu:



When you lock a session, the scheduler cannot change the time it occurs.

When you lock an attendee, the session cannot move that attendee to a different session.

If you right-click on a session (except for the unassigned node), you get the following menu:



When you edit a class or session, it brings up the appropriate edit dialog box from which you can make desired changes.

You can also edit a class or session simply by double-clicking either the class or session node. You can also toggle the locked status of a session or attendee by clicking the icon attached to that node.

When you lock an attendee, the session also locks. If you want to unlock the session, you can do so; however, unlocking the session also unlocks all previously locked attendees.

Creating Classes

You can create a class in one of three ways:

- 1 Use the right-mouse button menu (**New > Create Class...**).
- 2 Double-click a class session, and then select **Edit the class...**
- 3 From the Class Viewer.


When you create or edit a class, the **Class Attributes** window appears.

This window has the following sections:

- **General**—Allows you to specify: whether sessions must overlap a shift; the class name (must be unique within a campaign); the activity to use for each class.
- **Event time windows**—Allows you to specify the class length, and the allowed time window within which the class can appear for each day of the campaign.
- **Class Attributes**—Allows you to specify the limits that you wish to impose on the meeting optimizer when it schedules classes. Note that you can override these limits inside the class viewer, these values are used both to determine the way that sessions are placed initially as well as during scheduling.
- **Attendees**—The list on the left contains the employees not currently attending the class; the list on the right shows the current attendees. Select which employees you want to attend the class by using the **Add >>** and **<< Remove** buttons.

The **View Sessions** button allows you to pop up the Class Viewer to see the sessions as they are currently placed. It is grayed when you create a class because the sessions are not placed until you exit the dialog box.

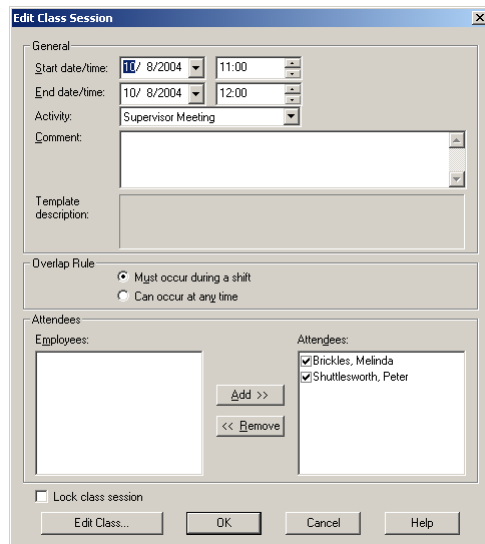
When you click **OK** from this window, class sessions are created and class sessions are filled up with employees. This initial placement of sessions and employees into those sessions is only meant as a viewable placeholder for the sessions and attending employees. At this point, some of the class attributes may be violated. Scheduling will resolve any of these violations.

 When you edit an existing class, all existing sessions are deleted and then recreated as above.

Creating a Class Session

You can create or edit a class session in the Class Viewer window, or edit it by double-clicking the session in the calendar grid and selecting **Edit the session...** from the pop-up dialog box that appears.

The **Edit Class Session** window is displayed.



This window has the following sections:

- **General**—Allows you to specify the time and activity type of the session.
- **Overlap Rule**—Allows you to specify if the event must overlap the shift.
- **Attendees**—Use the **Add >>** and **<< Remove** buttons to select which employees you wish added to the event. Attendees can be locked into the event (checked) or free to float within one event to another.

The **Lock Session** check box allows you to specify if the session is locked or not. Locking an attendee automatically sets this check box, although you are free to uncheck it.

Importing Outsourcer Schedules

For contact centers that share calls across their own sites and outsourced centers, forecasted workload or staffing requirements' information can be shared with the outsourcers to allow them to schedule their staff. The outsourcers' schedules can then be imported back into the contact center's model allowing an increased level of coordination.

To access the Import Outsourcer Schedule dialog box, click the **Import Outsourcer Schedule...** menu item on the **Calendar** menu in the **Calendar** module.

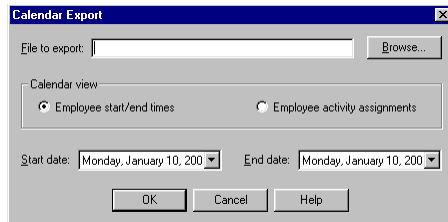
Imported outsourcer schedules appear on the calendar as staffing profiles named after the organization that is imported. These schedules are locked. When importing schedules for multiple organizations, schedules for different organizations append to each other, while schedules for same organization overwrite existing ones.

You can specify the time window for which you want to import data by specifying **Start date** and **End date**.

Only organizations that are configured to import outsourcer schedules in the Integration Server can be imported.

Exporting the Schedule

The schedule you have created can be exported to a tabbed text (*.txt) file, an Excel 5 (*.xls) file, or an HTML (*.htm) file



Use the Employee Filter to select and export schedules for groups or individuals. See [Sorting and Filtering the Employee Grid](#) on page 128.

To export your schedule:

- 1 From the **File** menu, select **Export**. The **Calendar Export** dialog box appears.
- 2 Type a file to which to export the schedule, or click **Browse** and select a file.
- 3 Select either **Employee start/end times** or **Employee activity assignments**.
- 4 Select the start and end dates.
- 5 Click **OK** to export the information.

Printing the Calendar

Forecasting and Scheduling lets you print calendar schedules for all employees, individual employees, or selected groups. The next section provides steps to set up and print a calendar.



Use the Employee Filter to select and print schedules for groups or individuals. See [Sorting and Filtering the Employee Grid](#) on page 128.

To set up and print a calendar:

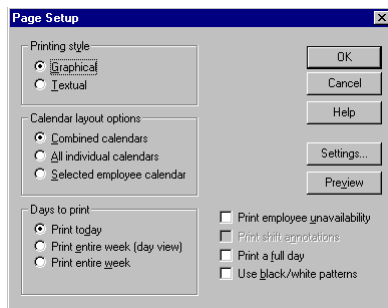
- 1 From the **File** menu, select **Page Setup** (see below). Set the printing style, calendar layout style, days to print (current day, current period in day view, or the entire current period), sorting options, and other print options. Click **Settings**. The **Pattern Setting** window appears (see page [225](#)).
- 2 Set a print pattern for each period and event by double-clicking the current pattern and selecting from the **Pattern Selection** window. Click **OK** to set each pattern.

When you have selected all patterns, set the scale and non-phone font. Click **OK** to return to the **Page Setup** window.

- 3 In the **Page Setup** window, click **Preview** to see what your schedule will look like when printed (see page [226](#)).
- 4 Click **Print** to open the Windows **Print** dialog box.
- 5 Set up your options, and then click **Print** to print the schedule.

Page Setup

The **Calendar** module's **Page Setup** dialog box lets you set style, layout, and sorting options, determine the days to print, and set other options. The availability of several options is determined by the print style. Unavailable options are dimmed.



Printing Style

There are two printing styles:

- **Graphical**—Schedules are printed in a graphic format similar to the one displayed on the Forecasting and Scheduling calendar.
- **Textual**—Schedules are printed as a text table.

Calendar Layout Options

You have three choices for the Calendar layout:

- **Combined calendars**—Prints a combined schedule for all employees shown in the **Calendar** module.
- **All individual calendars**—Prints individual schedules for each employee shown in the **Calendar** module.
- **Selected employee calendar**—Prints only the schedule for the highlighted employee.

Days to Print

You can choose to:

- **Print current week**—Prints the current week of a multi-week schedule.
- **Print today**—Prints the current day (the day displayed in the **Calendar** module).
- **Print entire week (day view)**—Prints daily schedules for the current week. Prints 12 hours per page.
- **Print entire week**—Prints a combined schedule for the current week. Less detail is available than in day view.

Other Options

The other options available here include:

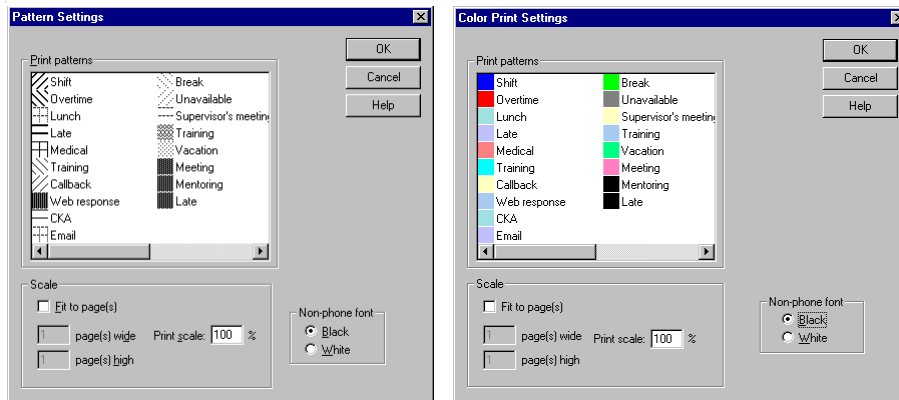
- **Print employee unavailability**—Includes periods of employee unavailability in the schedule. Available only when graphical printing style is selected.
- **Print shift annotations**—Includes any comments found in the Comments field of the **Edit Shift Assignment** dialog box. Available only when textual printing style is selected.
- **Print a full day**—Prints an entire day's schedule on a single page. Available only when graphical printing style is selected.
- **Use black/white patterns**—Prints the schedule using the grayscale patterns (see below). Click this option when you are printing in grayscale on a color printer.

Settings

The **Settings** dialog box lets you customize the graphic schedule. Patterns are displayed in color or grayscale, depending on the printer you have selected in the **Print** dialog box.

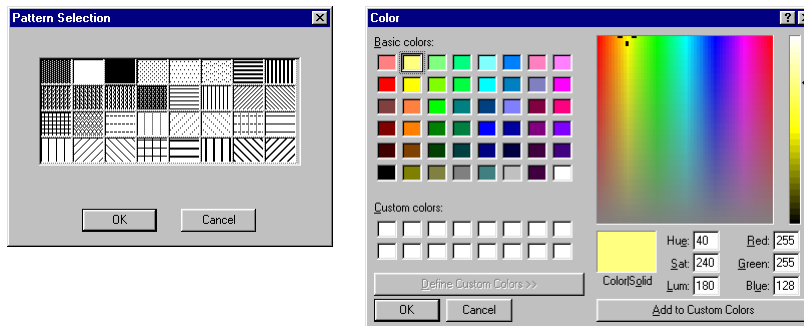
-  If you use a color printer to print a grayscale or black/white schedule, be sure to select Use black/white patterns in the **Page Setup** window.

You can also fit the schedule on a specific number of pages or set the scale of the printout, and you can choose the font color (black or white) for non-phone events



To modify a setting:

- 1 Double-click the graphic pattern or color you want to change. The **Settings** dialog box is displayed.



- 2 Click the new graphic or color you want to use, and then click **OK**.

To fit the schedule to a specific number of pages:

- Select the **Fit to page(s)** check box, and then type the number of pages wide and the number of pages high. Type **1** in each field to print the schedule on a single page.

To change the scale of the schedule printout:

- Be sure the **Fit to page(s)** check box is not selected. Type the percentage of the schedule's original size you want the printout to use.

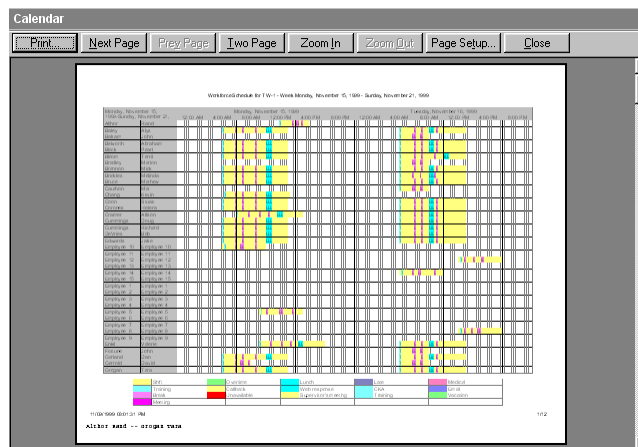
To set the non-phone font color:

- Click **Black** or **White**.

Click **OK** to return to the **Page Setup** dialog box.

Preview

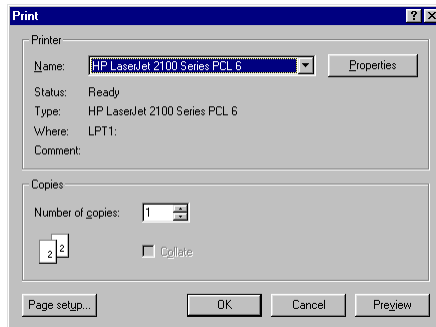
The **Print Preview** window lets you preview a copy of your schedule before you print it.



Use the buttons at the top of the window to open the print dialog box, move from page to page, display two pages at a time, zoom in or out, open the Page Setup dialog box, and close the preview window.

Print


Use the Forecasting and Scheduling **Print** dialog box to select your printer, set the number of copies of the selected schedule you want to print, and change the orientation of the page from portrait to landscape

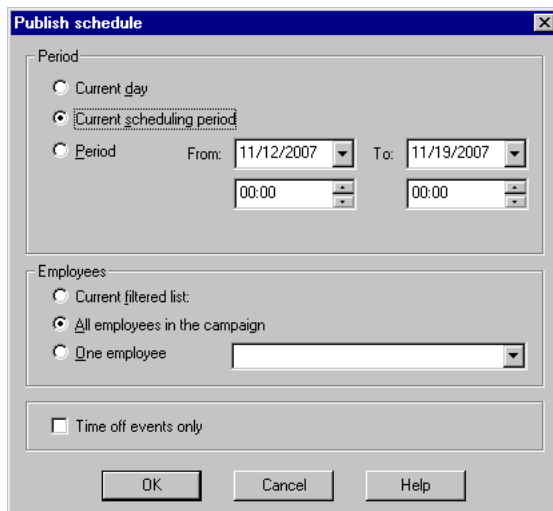


- To change the orientation of the page, click **Properties**. The Properties dialog box varies with each printer, so be sure and look at each tab for **Portrait** and **Landscape**. Select the **Rotate** check box if one exists.

Click **OK** to print your schedules.

Publishing the Schedule

Click the **Publish** button () to make schedules available to managers, supervisors, and employees.



Once published, schedules are viewable in a number of places in the web application, including:

- **My Home** module, **My Schedule** section
 - **Summary** tab
 - **Personal** tab
 - **Group** tab
- **My Home** module, **My Time** section
 - **Schedule** tab
- **Tracking** module, **Roster** section


- **Schedule** tab

You can publish schedules for one employee, all employees, or the current filtered set of employees. Additionally, you can publish the entire period, some defined time period, or you can just publish time-off events.


Publishing works somewhat differently in Organization mode than in Campaign mode.


 See page [159](#) for more information.

Unpublishing Schedules

Click the **Unpublish** button () to make the schedule for the selected period unavailable to employees. You can unpublish schedules for one employee, all employees, or the current filtered set of employees. Additionally, you can unpublish the entire period, or some defined time period. (The **Time off events only** checkbox is not enabled when you are unpublishing schedules.)

Reverting to Published Schedules

Click the **Revert to Published Schedule** button () to return the schedules for this period to their published state. Any changes made after publishing are rolled back. (The **Time off events only** checkbox is not enabled when you are unpublishing schedules.) This function is only available if schedules have been published for the current period.

 If you revert a published schedule after you have deleted a class that was part of the schedule (see [Creating Classes](#) on page 219), the previously deleted class sessions reappear in the schedule, but are converted to regular events. They are no longer considered instances of a class, and must be edited or deleted one by one.


The Pulse Module

The web application's **Tracking** module, **Pulse** section, **Pulse** tab is displayed when you click the **Pulse** icon. The **Pulse** tab will reflect the current scheduling period and zoom level you are using in Forecasting and Scheduling. See page [391](#).

Multi-Contact and Skill-Based Scheduling

For organizations that are licensed for the optional multi-contact functions of Forecasting and Scheduling, Forecasting and Scheduling offers an innovative, easy-to-use solution to the complex problems involved in skill-based scheduling. To implement skill-based scheduling, you simply determine the skills your contact center requires, associate those skills and the appropriate media with your employees, and link the skills to your queues. Forecasting and Scheduling does the rest, scheduling the right number of people with the right skills at the right times.

Skill-based scheduling is completely integrated with the rest of Forecasting and Scheduling's forecasting and scheduling tools, and, once established, is completely transparent.

 This section offers a brief overview of skill-based scheduling. See the referenced portions of this guide for complete information.

As customer contact centers have become more sophisticated, their employees have been required to respond to customers through a variety of media. Forecasting and Scheduling incorporates features designed to help contact center managers efficiently schedule employee resources to handle customer contact through these different media types.

Forecasting and Scheduling associates media type with a queue. This lets you leverage your understanding of our existing multi-queue technology to model your alternative media queues. You can associate a queue or skill with one of the following six medias: phone, email, fax, web chat, call back, or voice over IP. These media are categorized as immediate or deferred answering types. Phone, chat and voice over IP are immediate, and fax, call back and email are deferred. Skills definitions are expanded to include the media associated with a skill.

Forecasting and Scheduling can model three types of multi-contact routing:

- The first (and simplest) is a dedicated employee groups model. In this model, each media has a group of employees who handle only that media and do not handle contacts from any other queue. While there may be skill-based routing within each media, there is no mixing of contacts between the medias.
- The second model is media hopping. Here an employee will work with one media type for a length of time and then switch to another type. While employees may work more than one media type in the course of a day, they will not work more than one answer type at any time.
- The third model is true blending. Here, employees can be routed contacts from any media at any time. An employee can be handling a phone call, then an email, and then another phone call.

Setting Up Media and Activity Associations

For organizations that are licensed for the optional multi-contact functions of Forecasting and Scheduling, you can associate an activity with media. See "[Creating Your Activity Types and Activities](#)" on page 64 for additional information.

You can select more than one media to associate with an activity. Media can be enabled only when **Timeoff**, **Use In Calendar Event**, and **Unavailability** are unchecked.

To use media hopping, a feature that allows employees to switch between working different combinations of media during a day or on different days, you can create multiple activities, each with different media.

For example, you might create a Phone + VOIP activity and a Email only activity. You can then create multiple shifts and shift events using these activities, such as an Email only shift and a Phone + VOIP shift with a 1-hour Email shift event.

Setting Up Skill Types

Once you have decided on an appropriate set of skills for your employees, use the **Skills** tab of the **Organizations** section of the **Organization Management** module of the web application to enter them. There is no limit to the number of skills you can create.

The use of this tab is documented in chapter on Organization Management of the *Workforce Management Administration Guide*.

Assigning Skills to Employees

Skills are assigned to employees in the **Employees** module (see page [142](#)).



You can use the employee filter (see page [128](#)) to determine which employees have specific skills.

To assign skills to employees:

- 1 Click the **Employees** icon to open the **Employees** module.
- 2 Highlight the employee or group of employees you want to assign skills to, and then click the **Skills** tab.

Employees									
Employees Staffing Profiles									
	First Name(Asc)	M.I.	Last Name	Employee Type	Min Paid Hrs	Max Paid Hrs	Supervisor	Organization	Proficie
	Bill		Naylor	Full-time	40:00	45:00	Myself	SF team 3	1.0
	Dave		Andre	Full-time	40:00	45:00	Myself	SF team 3	1.0
	Edward		Hamilton	Full-time	40:00	45:00	Myself	SF team 3	1.0
	Joel		Rosenbaum	Part-time	10:00	30:00	Myself	SF team 3	1.0
	Kha		Yu	Part-time	10:00	30:00	Myself	SF team 3	1.0
▶	Mellanie		Branch	Full-time	40:00	45:00	Myself	SF team 3	1.0
	Michael		Kremer	Full-time	40:00	45:00	Myself	SF team 3	1.0
	Michael		Wilkes	Full-time	40:00	45:00	Myself	SF team 3	1.0
	Michael		Goldenberg	Part-time	10:00	30:00	Myself	SF team 3	1.0
	Ofer		Matan	Full-time	40:00	45:00	Myself	SF team 3	1.0
	Paul		Gourdin	Part-time	10:00	30:00	Myself	SF team 3	1.0
	Sarah		Morse	Full-time	40:00	45:00	Myself	SF team 3	1.0
	Scott		Veach	Full-time	40:00	45:00	Myself	SF team 3	1.0
	Simon		Schwartz	Full-time	40:00	45:00	Myself	SF team 3	1.0
	Soryya		Madrona	Full-time	40:00	45:00	Myself	SF team 3	1.0
	Tom		Knepher	Full-time	40:00	45:00	Myself	SF team 3	1.0

Calendar Preferences Work Patterns Rotations Assignment Rules Skills			
OK	Skill	Proficiency	Priority
✓	English Billing Service - Phone	1.0	1
✓	English Technical Support - Phone	1.0	1
✗	French Billing Service - Phone		
✗	French Technical Support - Phone		
✓	English Chat - Chat	1.0	1
✓	English Email - Email	1.0	1
✓	Fax - Fax	1.0	1

- 3 In the **OK** column, click a pattern with a red ✗ . A green ✓ is displayed showing that the pattern has been assigned. If you have selected a group of employees, a yellow ? indicates that some, but not all, of the selected employees have that skill.
- 4 Assign a proficiency level for each skill. This level is used in creating your skill-based schedule. An employee with 1.0 has an average handle time, an employee with 2.0 takes twice as long, and an employee with 0.5 takes half as long to handle calls. This setting overrides any proficiency you set up in the employee grid. See page [130](#).
- 5 Assign a priority to each skill. Lower numbers mean that the skill has a higher priority for that employee. The queue listed as **1** is considered to be the employee's primary queue. Priority **2** is the secondary queue, and so forth.

Skill Priorities

Priorities are used by the skill-based scheduler to simulate contact routing when the schedule is created. They determine how contacts will be routed to your employees:

- If no priorities are set (or all priorities are equal), a contact is normally routed to the next available employee assigned to (scheduled for) the contact's queue.
- If two or more employees are available, the contact is assigned to the employee with the highest priority.
- If an employee with two or more skills is the only person available to take a contact and contacts from more than one queue are waiting, the contact from the employee's highest priority queue will determine which contact is routed to her.

i Priorities are one of several factors used to route a contact. Other factors, such as the length of time a contact has been holding and the time since an employee last received a contact, are also taken into account.

Assigning Skills to Queues

Once skills have been assigned to your employees, you must first determine the skill required to answer each type of contact and associate that skill with the incoming contact queues. This is done in the Campaign mode **Operations** module (see page [165](#)).

Forecasting and Scheduling - [Campaign: Customer Service - 1/10/2011 to 1/16/2011]

File Edit View Go Operations Help

Period of 1/10/2011 to 1/16/2011

Operations

Period of 1/10/2011 to 1/16/2011

Campaign: Customer Service Skill-based

Time zone: Pacific Time (US & Canada)

Description: This scheduling period is cloned from 12/13/2010 to 12/19/2010.

Hours of operation

Day boundary: 12:00 AM

	Start time	End time
<input checked="" type="checkbox"/> Monday	6:00 AM	7:00 PM
<input checked="" type="checkbox"/> Tuesday	6:00 AM	7:00 PM
<input checked="" type="checkbox"/> Wednesday	6:00 AM	7:00 PM
<input checked="" type="checkbox"/> Thursday	6:00 AM	7:00 PM
<input checked="" type="checkbox"/> Friday	6:00 AM	7:00 PM
<input type="checkbox"/> Saturday	12:00 AM	12:00 AM
<input type="checkbox"/> Sunday	12:00 AM	12:00 AM

Organizations

Customer Service Team

Work Queues

English support

French support

Sales - Email

Skill for the selected work queue:

English Billing Service - Phone

For Help, press F1

Period Zoom Skill based Time zone for display: Pacific Time (US & Canada)

To assign skills to queues:


- 1 In the Campaign mode, click the **Operations** icon to open the **Operations** module.
- 2 Click the **Skill-based** check box.
- 3 Link the appropriate queue to your campaign (see page [167](#)).
- 4 Select each queue and link the skill set needed by that queue (see page [167](#)). Employees will receive calls from that queue only if they have the required skill.

Forecasting and Setting Service Goals for Skill-Based Scheduling

To use skill-based scheduling, you must create forecasts and service goals for each queue you are scheduling. See “[Forecasting for Queues](#)” on page 177 and “[Setting Your Service Goals](#)” on page 192 for additional information.

To create a forecast:

- 1 In Campaign mode, click the **Forecast** icon to open the **Forecast** module.
- 2 Select the queue for which you want to forecast.

 If you use the same profile or weeks of history for all queues, you can forecast using the **<Combined>** queue.

- 3 Load the profile or weeks of history you want to use (see page [182](#)).
- 4 Make any adjustments to the forecast (see page [181](#)), and then save it.
- 5 Repeat steps [Step 2](#) to [Step 4](#) for each additional queue (unless you use the **<Combined>** queue).

To set your service goals:

- 1 In the Campaign mode, click the **Service Goals** icon to open the **Service Goals** module.
- 2 Select the queue you want to set service goals for.
- 3 Select the type of service goal to use, and then enter the parameters (see page [192](#)).
- 4 Repeat steps [Step 2](#) and [Step 3](#) for each additional queue.

Generating the Schedule

The final step is to generate a schedule. Forecasting and Scheduling schedules employees with the required skills to meet the forecasted contact volume and service

goals for *each queue*. Schedules are optimized to ensure that you have the right mix of employees available at any time.

To generate a skill-based schedule:

- 1 In the Campaign mode, click the **Calendar** icon to open the **Calendar** module
- 2 On the toolbar, click **Schedule**.
- 3 In the Scheduler Setup dialog box (see page [201](#)), select the days to schedule.
- 4 (Optional) Select the preference determinant. If you select **Rank**, make sure each employee is ranked.
- 5 Use the sliders to select your scheduling preferences.
- 6 Click **OK** to generate a schedule for the period of the campaign.

Multi-Site Scheduling

To support multi-site operations that share calls, but do not have a virtual environment, Forecasting and Scheduling provides, as a separately licensed feature, functions to allow you to create *centralized* forecasts and *distributed* schedules. Generally, a multi-site environment operates using a static call allocation that can vary through the day, and can be adjusted in real time to compensate for variations in the original plan.

To support such environments, Forecasting and Scheduling provides the following components:

- 1 A two-tiered campaign structure, where a *main* or *parent* campaign can have one or more sub-campaigns associated with it. A parent campaign generally represents an entire collection of calls and the employees from all sites that take these calls. The sub-campaigns are used to represent employees from each individual site (or more accurately, those that log into a specific ACD). Both the parent campaigns and the sub-campaigns have individual scheduling periods. See ["Using Virtual Queues"](#) on page 237 for more detailed information.
- 2 A differentiation of queue types into three types:
 - The queue type that has existed all along in Forecasting and Scheduling, the *normal* queue.

The *normal* queue is the default type for all new queues that you create. The normal queue type is mapped directly to data source groups in the **Work Queue Group Mapping** tab. In the **Work Queue Group Mapping** tab, only normal queues are shown on the left side of the window, and only normal queues are available to be mapped to either of the two parent type queues, discussed next.
 - The *distributed* queue.

The distributed queue is used in Main campaigns where calls are distributed among multiple sites using a percent allocation method. This type of queue can only be added to a Main campaign that has at least one defined sub-campaign.

- The *virtual queue*.

The other type of queue is the virtual queue, which is used in campaigns where calls are distributed among multiple sites using a dynamic method of distribution. Only certain types of ACDs support dynamic distribution, such as Cisco, Genesys, Avaya BSR, and Look Ahead Interflow. You can add this type of queue only to a stand-alone campaign. Campaigns that are sub-campaigns or that allow sub-campaigns cannot have virtual queues.

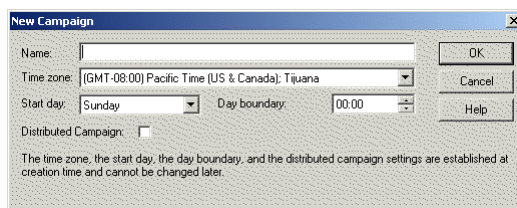
Refer to the *Workforce Management Administration Guide* for more information on creating and managing queues and sub-queues.

Using Distributed Queues


- i** Step 1 through Step 4 below are performed in the web application's **Organization Management** module, under the **Work Queues** section.

To create a distributed queue:

- 1 As required for your installation, create the appropriate normal queues (using the **Settings** tab). You will map these normal queues to distributed queues in step Step 4.
- 2 As required for your installation, map the normal queues to a data source (using the **Work Queue Group Mapping** tab).
- 3 Create the required distributed queues (using the **Settings** tab).
If your site has a multi-site scheduling license, you can select the type of queue using the **Type** drop-down menu.
- 4 Map the appropriate normal queues to the distributed queues (using the **Parent Work Queue Mapping** tab).
- 5 As required for your installation, create the appropriate distributed campaigns.
See "[Adding a Campaign](#)" on page 162 for information on creating campaigns. If your site is licensed for multi-site scheduling, the **New Campaign** window has an additional check box, **Distributed Campaign**. Check this box to create a distributed campaign:



- 6 Create two or more sub-campaigns for the distributed campaign. (In the **Work on a Campaign** window, select your distributed campaign and click **New Campaign** to create the sub-campaign.

- 7 Create scheduling periods for the distributed campaign. Any scheduling period you create for the distributed campaign is automatically propagated to its existing sub-campaigns.
 -  If a campaign is a normal campaign, only normal queues (that are not sub-queues) or virtual queues can be linked. Distributed queues, distributed sub-queues, and virtual sub-queues cannot be linked.

If a campaign is a distributed campaign, no queues can be linked. Instead, the top-level queues of the queues linked to the sub-campaigns are displayed.
- 8 For each sub-campaign, link it in the **Operations** module to the appropriate sub-queues, skills, and organizations, as described in “[The Work Queues Group](#)” on page 167.
- 9 For each organization you linked in the previous step, in the **Employees** module add the appropriate employees to the sub-campaigns, as described on page [169](#).
- 10 At the distributed campaign level, go to the **Forecast** module and create a forecast (see page [178](#)).
- 11 Move to the **Service Goals** module, and then enter service goals for the distributed campaign.
- 12 Allocate percentages as follows:
 - a. If you already know the allocation percentages, type them manually in the **Forecast** module (see page [192](#)).
 - b. Otherwise, create a schedule for the distributed campaign and accept the allocation percentages that are calculated for the schedule (see page [200](#)).
- 13 If desired, each site can then create and publish a schedule for each of its sub-campaigns, using the allocation percentages derived in step [Step b](#) above.



To move quickly within a distributed campaign, right-click over the module bar. The menu that appears allows you to move from a distributed campaign to one of its sub-campaigns, or from a sub-campaign to another peer sub-campaign or the distributed campaign of which it is a part. The same menu also allows you to change Forecasting and Scheduling module at the same time.

When you use this right-click menu, it is equivalent to selecting another module or another campaign using the Module bar or Tool bar. As with using the Module bar or Tool bar, you are prompted to save any changes that were in progress before you leave the current module or campaign/sub-campaign.

Using Virtual Queues

As discussed previously, virtual queues are used in campaigns where calls are distributed among multiple sites using a dynamic method of distribution. Only certain types of ACDs support dynamic distribution, such as Cisco, Genesys, Avaya BSR, and Look Ahead Interflow.

-  Step 1 through Step 4 below are performed in the web application's **Organization Management** module, under the **Work Queues** section.

To create a virtual queue:

- 1 As required for your installation, create the appropriate normal queues (using the **Settings** tab). You will map these normal queues to distributed queues in step [Step 4](#).
- 2 As required for your installation, map the normal queues to a data source (using the **Queue Group Mapping** tab).
- 3 Create the required virtual queues (using the **Settings** tab).
- 4 Map the appropriate normal queues to the virtual queues (using the **Parent Queue Mapping** tab).
- 5 Link the virtual queues to a normal campaign.

From this point onward, virtual queues behave exactly as normal queues. Refer to ["Setting Up Campaign-Specific Work Rules"](#) on page 67 through the end of [Chapter 4](#) ["Scheduling with Forecasting and Scheduling"](#) for additional information.

Intra-Day Optimization

No matter how good the information on which your schedules and plans are based, they are always subject to variations on a real time and intra-day basis. Workforce Management has a feature, Intra-Day Optimization, that allows you to run your operations more effectively and more efficiently by responding to and adjusting for these variations. Essentially, Intra-Day Optimization allows you to:

1 Identify the variations.

You can easily identify and be alerted to real time variations from the plan, including being alerted to changes such as in call volume, handle time, service level deviations from the plan, and variations in staffing from the schedule. This information can be sent to you in the form of an email alert or by your monitoring a Pulse view that automatically refreshes.

2 Understand the reason for the variation.

Once you are aware of these deviations, you can dig in deeper to understand the current and potential future impacts, using a Pulse view. This view provides information, such as staffing numbers for skills-based environments, and future-looking trend lines.

3 Resolve the situation.

After being alerted to an issue, and gaining an understanding of the problem, you can quickly take action to resolve these issues. Based on the trending of the call arrivals and handle time compared to your base forecast, you can easily reforecast to see the potential future effects if these trends continue. You can then publish a revised forecast to modify the schedule. With this new forecast, you can then take corrective actions, such as:

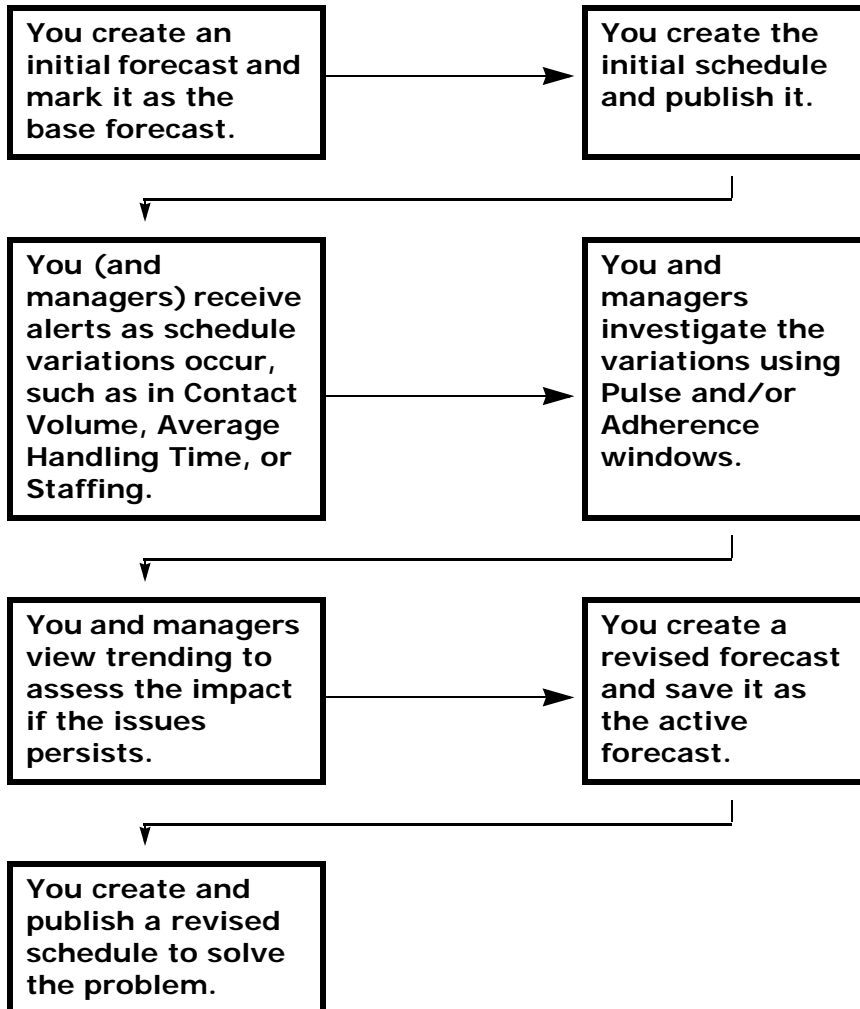
- canceling certain activities
- adding overtime (OT)

- asking people to take voluntary time off (VTO) as appropriate

You can directly schedule both the addition of OT and VTO based on employee settings and preferences.

The General Workflow

The following diagram shows the workflow you typically follow in situations where you need to do intra-day optimization.



Creating an Initial Forecast

The process of creating an initial forecast is generic to the scheduling process, whether you are using intra-day optimization or not. It is covered in detail in ["Creating a Forecast"](#) on page 178.

A key concept in intra-day optimization is the distinction between the *active* forecast, the *base* forecast, and saved forecasts.

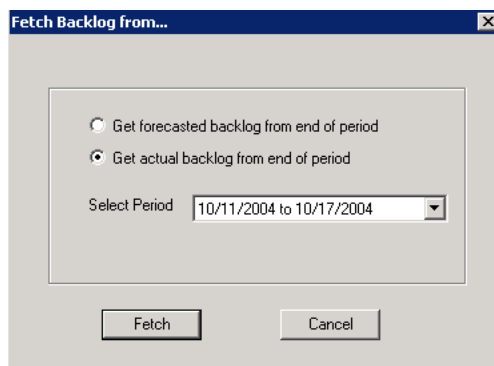
The *active* forecast is the one that is being displayed.

You can explicitly save the active forecast as base using the **Forecast** menu's **Set Forecast as Base** item. However, a copy of the active forecast is automatically saved as base when you initially publish a schedule, as described in "Creating and Publishing a Schedule" on page 242.

Getting Backlog Values

You can incorporate actual or forecast backlog data in your forecasts using the **Forecast** menu's **Get Backlog From...** menu item.

A pop-up window opens, allowing you to get actual or forecasted backlog data from a selected scheduling period:



Once you've specified the type of backlog and the scheduling period, click **Fetch** to get the information, or **Cancel** to return to the **Forecast** module without getting backlog data.

Specifying Interim Backlog

You can specify an interim backlog value in the middle of a scheduling period for a queue or combined queue. This means a concept of **X** backlog in **Y** time for every forecast profile. You enter an interim backlog value for a selected time bucket for the selected queue or combined queue.

The interim backlog value is prepopulated with the actual backlog value when the forecast profile is created from Pulse and loaded in Forecasting and Scheduling upon reforecast, or when the saved forecast instance has an interim backlog value defined for it. The interim backlog at the **Forecast** tab any time any profile or instance is loaded (although it may not be the active forecast yet). If actual backlog does not exist for the current time, pick the most recent actual backlog.

Interim backlog for a combined queue should distribute proportionally to individual queues, just like starting backlog for combined queues. The actual backlog levels of the individual queues at the given time are examined, and the the set starting or interim backlog at the combined queue is distributed according to the actual individual backlog

distribution. If the actual backlog at the individual queues is zero, which could happen for starting backlog, there is an even distribution among the individual queues.

The interim backlog setting, by default, propagates to the entire queue list. You can overwrite the interim backlog for a specific queue or combined queue by customizing the setting for that individual queue or combined queue in Forecasting and Scheduling.

To set the interim backlog manually, you have to check the checkbox next to **Interim**. This enables the Interim backlog Time and value fields.

The next time you run the scheduler, the backlog is reset to the interim backlog specified at the time specified. Schedules are then generated based on those values.

Creating and Publishing a Schedule

As for creating a forecast, the process of creating and publishing a schedule is generic to the scheduling process, whether you are using intra-day optimization or not. It is covered in detail in “[The Calendar Module](#)” on page 199.

When you generate and then publish a schedule from the active forecast, a copy of the active forecast is saved as the *base* forecast (unless there is already an existing base forecast for the scheduling period).

Once a base forecast has been created for a scheduling period, anyone (with sufficient privileges) can publish the schedule again; the base forecast is left unchanged. If a base forecast can be saved, a warning appears asking you to confirm that you want to do this. If the base forecast cannot be saved for any reason, an error message is displayed that the base forecast cannot be saved, along with the reason and whatever remedial steps are required.

Using Alerts for Pulse Thresholds

For the purposes of intra-day optimization, you need to be alerted to potential problems. Three categories of data comparison can be configured to alert you of problems:

1 **Actual statistics vs. goal**

Allows you to compare the actual service level or average speed to answer with the respective goal.

2 **Actual statistics vs. forecast**

Allows you to compare a variety of different statistics, such as abandons, service level, and backlog, with their forecasted values.

3 **Actual statistics out of range**


Allows you to compare a variety of different statistics, such as abandons, service level, and backlog, with a value range that you specify.

For each of these categories, a specific rule template is provided. These templates are configured in the web application, on the **Campaign** tab of the **Alert Rules** section of the **Tracking** module. (See page [433](#) for additional information on configuring these alerts.)

On the above-mentioned **Campaign** tab in the web application, the selection pane displays all defined campaigns. When you select a campaign in the selection pane, the following information about the campaign then displays in the **Campaign Alert Rules** container to its right:

- the rule name
- whether the rule is enabled
- the rule definition
- those users, if any, to whom alert e-mails will be sent
- the campaign for which the rule is defined

Buttons at the bottom of the tab allow you to create a new rule, edit an existing rule (if a rule is selected in the right pane), or delete a rule.

 If a rule is created using a Combined queue, the rule always applies to all queues in that campaign, even if the queues linked to that campaign change in the future.

If a rule is created for an individual queue, or a selection combining several individual queues, the rule always applies to the specific queues, even if the queues are unlinked from the campaign and/or linked to a new campaign.

Creating Campaign Alert Rules for Intra-day Optimization

The general process of creating alert rules is covered, as mentioned above, on page [433](#).

This section contains information particularly relevant to those alerts used in intra-day optimization.

Once you have clicked **Create**, the right side of the window refreshes and displays the following containers:

- general information
- rule definition
- e-mail configuration

Of these containers, the rule definition container's contents change depending on which category of rule you are defining. The other containers are the same, regardless of the rule category.

As mentioned previously, you can define three different rule categories:

- 1 **Actual Statistics vs. Goal**
- 2 **Actual Statistics vs. Forecast**
- 3 **Actual Statistics Out of Range**

Actual Statistics vs. Goal

When you select **Actual Statistics vs. Goal**, it allows you to compare the actual service level or average speed to answer with the respective goal. The rule definition container changes to show the following:

The screenshot shows a rule definition window titled "Rule: Actual Statistics vs. Goal". The configuration is as follows:

- If Actual:** Service Level (dropdown), Deviates from (dropdown), Goal by more than (text input)
- Comparison:** % Difference, Percentage Points (dropdown)
- over:** (text input), day(s) (dropdown)
- for Queues:** (text input),
- Scope:** combined, individually
- Alerts:** Send alerts no more than once every 5 Minutes (dropdown)

The rule has a sentence-like structure, and is described in detail in "Campaign Tab" on page 433:

Actual Statistics vs. Forecast

Selecting **Actual Statistics vs. Forecast** allows you to compare a variety of different statistics, such as abandons, service level, and backlog, with their forecasted values. The rule definition container changes to show the following:

The screenshot shows a rule definition window titled "Rule: Actual Statistics vs. Forecast". The configuration is as follows:

- If Actual:** Service Level (dropdown), Deviates from (dropdown), Forecasted by more than (text input)
- Comparison:** % Difference, Percentage Points (dropdown)
- over:** (text input), day(s) (dropdown)
- for Queues:** (text input),
- Scope:** combined, individually
- Alerts:** Send alerts no more than once every 5 Minutes (dropdown)

The rule has a sentence-like structure, and is described in detail in "Campaign Tab" on page 433:

Actual Statistics Out of Range

Selecting **Actual Statistics Out of Range** allows you to compare a variety of different statistics, such as abandons, service level, and backlog, with a value range that you specify. The rule definition container changes to show the following:

Rule: Actual Statistics Out of Range

If Actual

Is Between
 Is Not Between

and

over day(s)

for Queues:

combined
 individually

Send alerts no more than once every Minutes

The rule has a sentence-like structure, and is described in detail in “Campaign Tab” on page 433:

Viewing Trends in Pulse

A powerful and versatile way of picking deviations in your forecasts from the actual data is to use trends within Pulse. Trends allow you to compare and display your actual data with your forecast, and these trends can later be saved as a new forecast for which a revised schedule can be published. These trends are visible when a single queue, multiple queues, or the combined queue is selected.

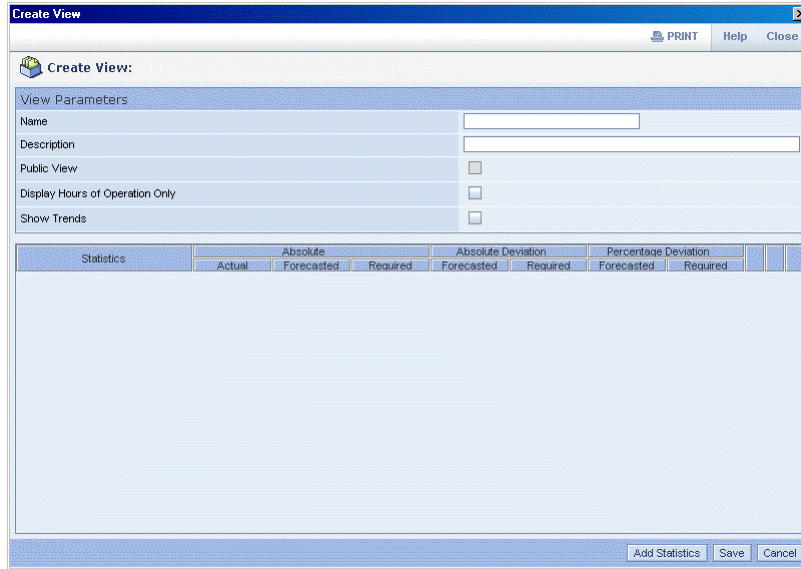
You can view trends for the following statistics:

- **Volume (CV)**
- **Activity Handling Time (AHT)** (can be saved as part of the new forecast)
- **Average Speed to Answer (ASA)** (based on the trend of AHT, CV, and scheduled Staffing)
- **Service Level (SL)** (based on the trend of AHT, CV, and scheduled Staffing)
- **Backlog** (based on the trend of AHT, CV, scheduled Staffing, and current backlog)
- **Abandons** (based on the trend of AHT, CV, and scheduled Staffing)
- **Occupancy** (based on the trend of AHT, CV, and scheduled Staffing)

The forecasted Contact Volume and Average Handling Time data are compared to the actual data. Intervals where the actual data is null are excluded from the calculation.

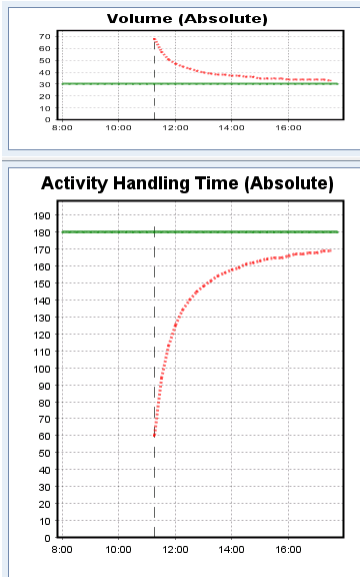
To display trends:

- 1 Select either **Create View** or **Edit View**, as described in Chapter 18 "Using the Tracking Module". A window opens (labeled either **Create View** or **Edit View**, depending on which button you clicked).



- 2 Make sure the **Show Trends** box is checked.
- 3 Save your changes as appropriate to a new view or the view you just edited.

The Pulse graph changes as shown below:



The dotted red line shows the direction of the trend.



You can compare the actual data with the trend-based data by displaying the data table and toggling **Show Trend** on and off for your view.

Configuring Trends

In addition to displaying the trend, you can configure various characteristics of the trend by clicking **Configure Trends** at the bottom of the **Pulse** tab to open the **Trends Configurations** window:

i The **Configure Trends** button is only active when you are viewing the current scheduling period (Schedule Period mode).

The three containers of the **Trends Configurations** window allow you to configure:

- the starting time upon which the trend's calculations should be based. (The default is the starting time of the scheduling period.)

- **Past Time Intervals to Exclude**

You may specify up to two different time intervals when the trend's calculations should be excluded.

- **Trend Parameters:**

- **End Point.**

You choose when the trend's calculations is to end. (The default is the end of the current day.)

- **Convergence Effect.**

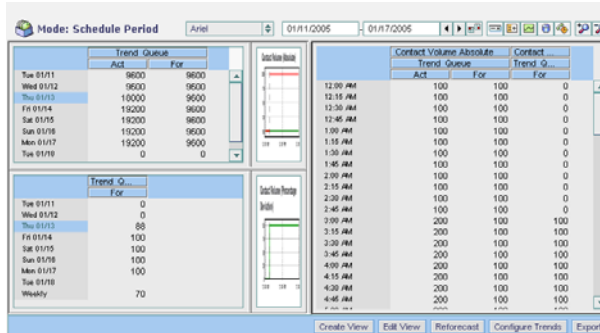
You choose how the trend should be calculated, based on the convergence rate of the trend's effect.

Convergence Effect

The convergence effect determines how quickly you want the trend to converge back to your forecast. You can choose one of four convergence effects for your trend:

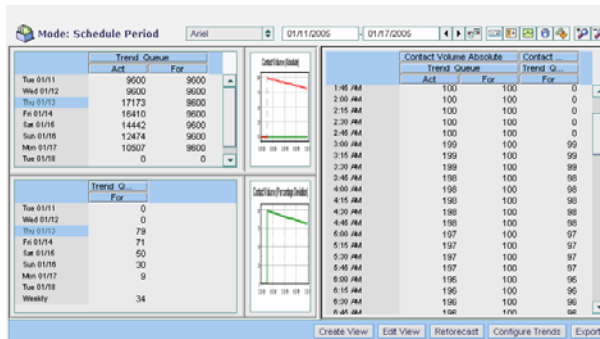
- **No Convergence**

The trending effect is applied through the entire time range of the campaign with no decrease. This is the default setting.



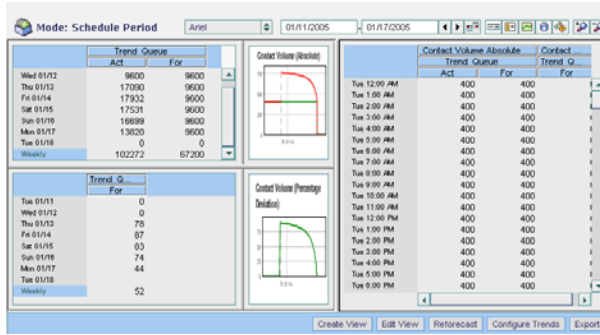
- **Linear Convergence**

The trending effect converges linearly through the entire time period.



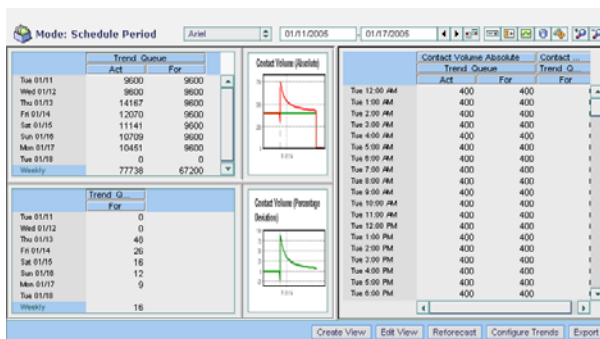
- **Late Convergence**

The trending effect is applied through most of the time range with convergence taking place near the end of the range.



- **Early Convergence**

The trending effect converges quickly and trails off gradually through the rest of the time period.



Saving the Trend as a New Forecast

Once you have defined and modified your trend, you can save the future trend combined with the baseline forecast up to the point where the future trending starts as a new forecast.

To save the forecast:

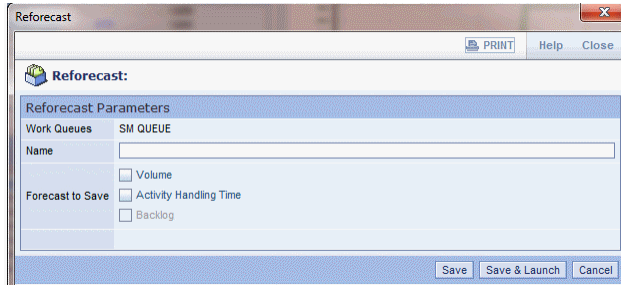
1 Click **Reforecast**.

The **Reforecast** button is only active under certain conditions:



- Trending must be enabled in the view.
- Pulse must be in **Schedule Period** mode. This means that a Campaign must be selected in the left frame, and the schedule period must be selected in the SP Selector. If the date range selector is shown instead of the SP Selector, the date range chosen must exactly match the SP start and end dates.
- The date range is the current week.
- You cannot reforecast if an Outbound or Project queue is selected (or if a combined queue is selected that has an outbound/project queue as one of its children). An outbound queue is a queue assigned to the **Phone - Outbound** media type. A Project queue is a queue assigned to the **Project** media type.
- You cannot reforecast if the selected queue is the child of a distributed or virtual queue.
- You cannot reforecast unless both **CV** and **AHT** are shown in the view.
- Your role must have been assigned the Reforecast privilege, and you must have been given campaign scope for the selected campaign.

The **Reforecast** pop-up window is displayed:



2 Type a name for your forecast.

3 Select the information you want to save in your forecast. You have the option of saving one or more of the following sets of information:

- Contact volume only
- Average handling time only
- Backlog

i In the Contact volume only and Average handling time only options, the actual Queue History Time Series that is stored consists of the new data chosen and the active forecast version of the statistic not chosen, thus ensuring that when loaded, a complete forecast is available.

If multiple queues or the combined queue are chosen, a complete Queue History Time Series is always saved for each queue.

This allows only a subset (for example, only one queue, or only contact volume, as opposed to contact volume and average handling time) of what was saved to be loaded, and ensures when you load multiple queues at once, or the combined queue, that the data is correctly distributed among the queues.

If the **Backlog** checkbox is checked, the new forecast instance that you create includes the latest actual backlog and the latest date with backlog. When this forecast is loaded, the interim backlog becomes part of the active forecast. The interim backlog value and date fields for the active forecast are prepopulated with the corresponding values when that forecast instance was created in Pulse. When you close your work or save the forecast profile as the active forecast, the simulator "silently" recalculates all statistics and, during that process, updates the forecasted backlog as well. When Pulse is refreshed, the updated forecasted backlog values along with Service level are displayed.

- 4 Click **Save** to save the forecast, or click **Save & Launch** to save the forecast and launch the **Forecast** module of Forecasting and Scheduling.
- 5 In the **Forecast** module, click the **Load** button to load your revised forecast into Forecasting and Scheduling.

When you leave the **Forecast** module, you are prompted to save your changes to the forecast.

- 6 Click **Yes**.

Revising the Schedule

Now that you have created a revised forecast and made it the active forecast, you can use this updated forecast to make changes to the schedule.

As mentioned previously, you can take corrective actions on the schedule to accommodate the new forecast by:

- canceling certain activities
- adding overtime (OT)
- asking people to take voluntary time off (VTO) as appropriate

Canceling activities is straightforward, but adding overtime and voluntary time off merit additional discussion.


Beyond adjusting activities, when a contact center finds itself overstaffed or understaffed, it will generally need to have people work overtime or take voluntary time off to compensate for the staffing misalignment.

Setting Up Overtime and Voluntary Time Off

Overtime (OT extensions) is a shift type and Voluntary Time Off (VTO Events) is an activity type.

To use either or both, the following sequence must be followed:

- 1 You need to define OT extensions and VTO events at the organization level in the **Work Rules** module.
- 2 These OT extensions and VTO events must be linked to work patterns at the organization level in the **Work Rules** module.
- 3 The work patterns must be linked to individual employees at the organization level in the **Employees** module. (These links may already be in place in your company.)
- 4 The maximum amount of overtime and voluntary time off must be specified for each employee at the organization level in the **Employees** module.

 If you intend on using OT and VTO preference information, your employees must have set their preferences in the **Schedule Preferences** tab of the **My Profile** section of the **My Home** module in the web application.

Defining VTO Events

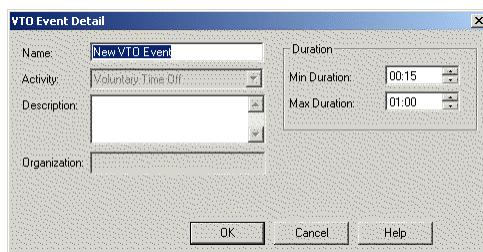
In organization mode, you define VTO events in the **Work Rules** module.

- 1 Click the **VTO Event** tab.




- 2 Double-click the asterisk to the left of the empty column, or click the **New** button on the toolbar.

The **VTO Event Detail** window opens.



- 3 Fill in a name for the VTO event, a brief description, and specify the minimum and maximum duration of the event.

 Verify that your VTO event lengths are valid for the organization's start and end times.

- 4 Click **OK** to save the VTO event.

Defining OT Extensions

OT extensions represent additional time that can be added to extend the time employees work in case of understaffing. They can be added before or after shift assignments. They have many attributes that are similar to shift assignments including duration, activity, and linked shift events. Additionally, they have attributes called **Min Gap** and **Max Gap** that represent the minimum and maximum allowable time between the shift assignment and the OT extension that is placed before or after the shift assignment.

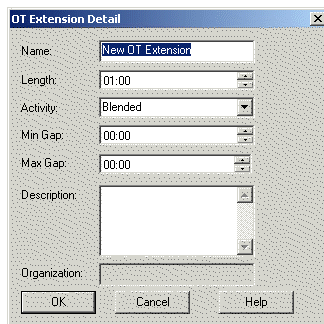
In organization mode, you define OT extensions in the **Work Rules** module.

- 1 Click the **OT Extension** tab.



- 2 Double-click the asterisk to the left of the empty column, or click the **New** button on the toolbar.

The **OT Extension Detail** window opens.



- 3 Fill in the following information:
 - The name of the OT extension.
 - Its length.
 - The underlying shift event.

i Shift events can be linked to OT extensions in exactly the same way that shift events can be linked to shifts. See [Linking Shifts and Shift Events](#) on page 102.

- The minimum allowable time between the shift assignment and the OT extension.
- The maximum allowable time between the shift assignment and the OT extension.
- A description of the extension.

- i Verify that your OT Extension lengths and min/max gaps are valid for the organization's start and end times.

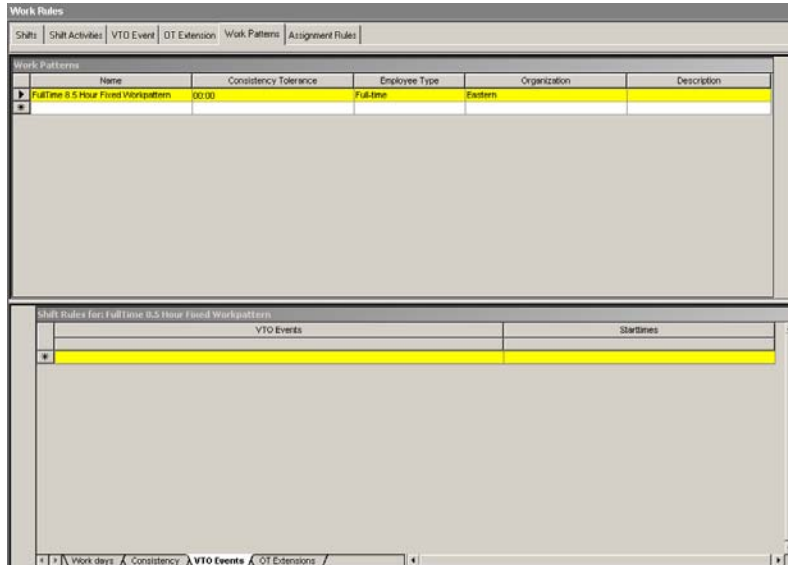
- 4 Click **OK** to save the OT extension.

Linking OT Extensions and VTO Events to Work Patterns

You create the link between a work pattern and the OT extension or VTO event in the organization's **Work Rules** module.

To create such a link:

- 1 Click the **Work Patterns** tab of the **Work Rules** module.
- 2 Select the work pattern you want to link to an OT extension or to a VTO event.
- 3 In the bottom portion of the window, click the VTO Events or OT Extensions tab, as appropriate.



- 4 Click an empty row or the asterisk at the right of the empty row, and then click on the ellipsis symbol that appears on the right side of the **Name** field.



The **Select VTO event to Link** window or **Select OT Extensions** window opens, depending on which of them you are linking to the work pattern.

- 5 Select one or more VTO events or OT extensions you wish to link and click **OK**.
The new shifts are displayed on the Work Rules grid on the lower pane of the work pattern grid.
Next to each of the OT extensions, you can specify if the OT extension can occur before shifts, after shifts, or before or after shifts. Next to each of the VTO events,

you can specify if the VTO event can occur at the beginning of shifts, at the end of shifts, or at the beginning or end of shifts.

Linking Employees to Work Patterns

For any new work patterns you created, or existing ones you've modified, you need to verify that each employee is linked to the correct work pattern.

Linking employees to work patterns is done in the **Employees** module, and is described in "Assigning Work Patterns to Employees" on page 140.

Specifying Maximum OT and VTO Time

You specify the maximum amount of overtime and voluntary time off for each employee in the **Employees** module.

- 1 Double-click the employee's row.

The employee's information is displayed in a pop-up window.

- 2 In the Scheduling section, specify the maximum amount of OT and VTO for the employee per day and per week.
- 3 Verify that the employee's preferences are shown in the Preferences section of this window. You can override the settings if necessary.
- 4 Click **OK** to save your changes.

i We recommend that you always set maximum OT and VTO hours in Organization mode. Although you can also set these in Campaign mode, the changes are specific to that scheduling period only, whereas the Organization mode settings are effective across all campaigns in which the employee is included.

Scheduling with Overtime and Voluntary Time Off

You create a schedule with overtime or voluntary time off to accommodate your revised active forecast in Campaign mode in the **Calendar** module.

- 1 On the Tool bar, click the **Schedule** button.

- 2 In the **Rescheduling options** area, make sure the check box **OT / VTO scheduling** is checked.

The OT/VTO Scheduling tab (near the midpoint of the window) is automatically displayed when OT/VTO scheduling is enabled.

- 3 Select which user preferences settings you want to use for this schedule:
 - **No preferences**—Preferences are ignored when scheduling.
 - **Preferences by ranking**—Preferences are used based on the ranking given in the **Employees** module.

- **Preferences by seniority**—Preferences are used based on the employee's start date.
- **Preferences by seniority/ranking**—Preferences are used based on a combination of seniority and ranking.

See [Preference Scheduling](#), page 258 below for additional information on the effects of using preference settings in scheduling.

- 4 Specify the OT/ VTO Scheduling parameters:
 - **Add OT before Shifts**—OT extensions can be added before shift assignments.
 - **Add OT after Shifts**— OT extensions can be added after shift assignments.
 - **Total Maximum OT Hours**—The total duration of OT extension time that can be added to all the employees (of the filtered set of employees) being scheduled.
 - **Add VTO before Shifts**—VTO events can be added at the beginning of shift assignments.
 - **Add VTO after Shifts**—VTO events can be added at the end of shift assignments.
 - **Total Maximum VTO Hours**—The total duration of OT extension time that can be added to all the employees (of the filtered set of employees) being scheduled.
- 5 Click **OK** to start generating the schedule, as described in “[Generating a Schedule](#)” on page 200.

Preference Scheduling

When preferences are used, overtime is assigned to employees based on their preferences and their rank (or seniority), using the following hierarchy:

- 1 Overtime is first assigned to employees who prefer overtime and have a high rank.
- 2 Overtime is then assigned to employees who prefer overtime and have a lower rank.
- 3 Overtime is subsequently assigned to employees who have indicated no preference towards overtime.
- 4 If overtime is still needed, it is assigned to employees who do not prefer overtime and have low rank.
- 5 Finally, if overtime is still needed, it is assigned to employees who do not prefer overtime and have higher rank.

This means that employees who do not prefer overtime might still be assigned it (although it is less likely for high-ranked employees).



If you want to ensure that no overtime is assigned to employees who do not prefer it, either assign these employees 0 maximum hours in the **Employees** module or filter the employees to show only employees who prefer overtime before scheduling.

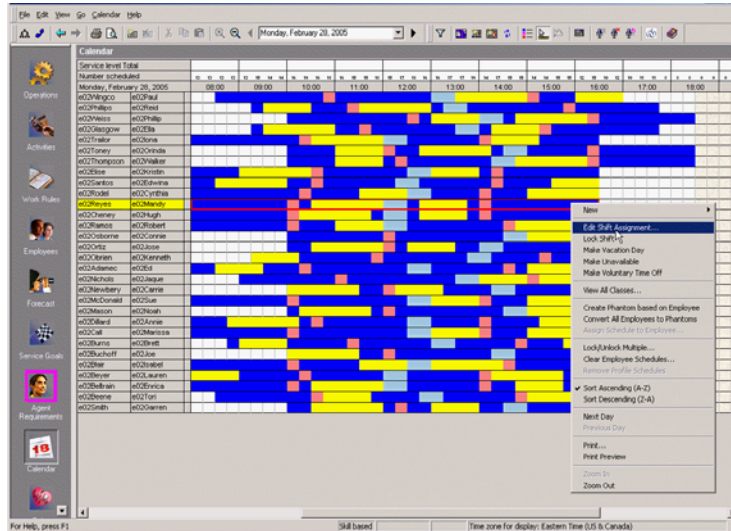
The same hierarchy is used for assigning voluntary time off.

Manually Adding OT Extensions or VTO Events

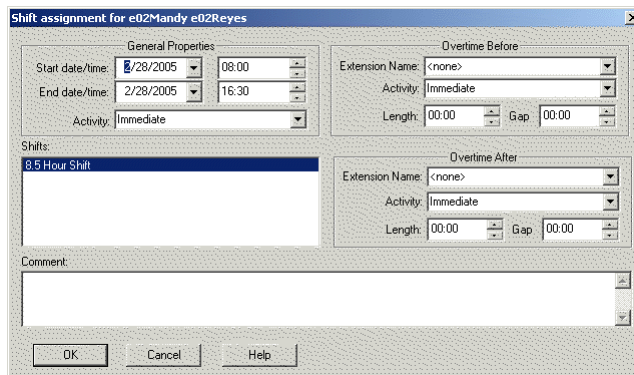
You also have the option of manually adding OT extensions or VTO events to a schedule in the **Calendar** module.

To add an OT extension manually to an employee’s schedule:

- 1 Right-click on the employee’s shift assignment.
- 2 From the menu, select **Edit Shift Assignment....**



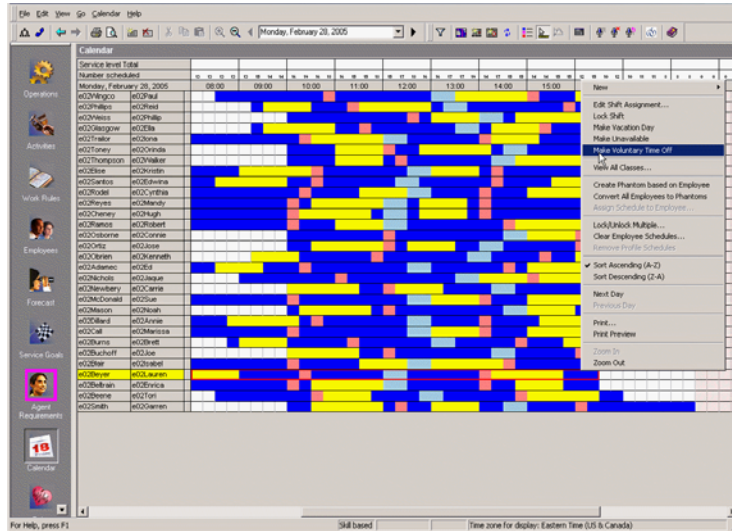
A window showing the shift assignment's details opens.



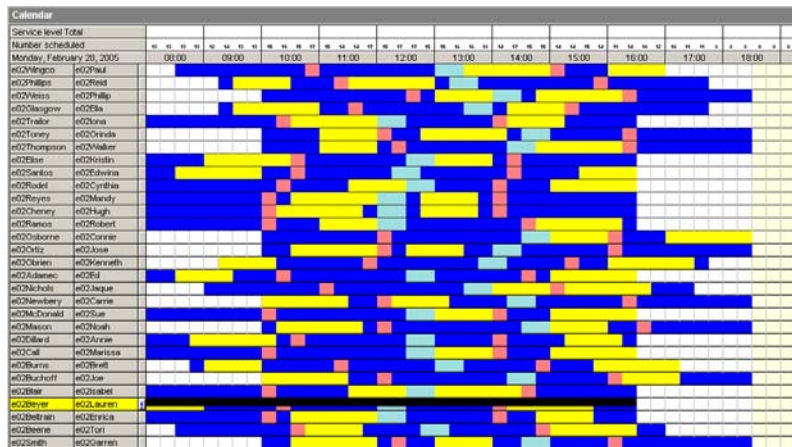
- 3 In the **Overtime Before** and **Overtime After** sections, select the extension name and the activity, and specify the overtime length and gap.
- 4 Click **OK** to save your changes and add the OT extension to the employee's schedule.

To add a VTO event manually to an employee's schedule:

- 1 Right-click the employee's shift assignment.
- 2 From the menu, select **Make Voluntary Time Off**.



A graphical marker (by default a black bar) overlays the shift assignment to indicate the VTO event.



You can edit the VTO event by right-clicking the event, and then selecting the **Edit Time Off...** menu item. For more details on editing time off events, see “[Creating and Modifying Shift Assignments and Calendar Events](#)” on page 132.

Republishing the Schedule

Once you have a schedule that meets your revised requirements, you can publish the schedule, using the same procedures described in “[Publishing the Schedule](#)” on page 227.

Queue Hopping

Forecasting and Scheduling provides an optional license for its queue hopping feature. Queue hopping is defined as employees working (and being scheduled to work) on different queues at different times. Some centers and outsourcers use queue hopping for several purposes:

- 1 Capacity Tracking:** Some centers and outsourcers need to track the exact capacity they have for a specific queue at a specific time without worrying about the capacity being split up among numerous skills.
- 2 Context Switching Difficulties:** Employees might find it difficult to switch between certain complex tasks, so solid blocks of scheduled time are preferred.
- 3 Technology Limitations:** It might not be feasible to route from any skill due to the ACD or dialer, or the use of multiple ACDs and dialers.
- 4 Software or Workstation Limitations.** Often as a result of mergers and acquisitions, it might be necessary for the employees to use a different application and/or PC/workstation to work on some of the workload they are skilled to do.
- 5 Emergency Response Team Approach:** Some centers will move lower skilled employees to take a different set of calls during emergency situations, such as an exceptionally high volume on one queue.

Queue hopping affects a number of areas of the Workforce Management user interface; some features are added that are specific to queue hopping while some other areas have been enhanced with features that not only support queue hopping but are more generally usable. These features include:

- Subordinate data sources (dependent on queue hopping license)
- Enhancements to Forecasting and Scheduling's **Activities** module (dependent on queue hopping license)
- Flexible shift events in Work Rules (not dependent on queue hopping license)
- The ability to create and edit "break" shift events within "work" shift events (not dependent on queue hopping license)

Subordinate Data Sources

Forecasting and Scheduling accommodates queue hopping and queue hopping adherence for organizations that give employees different ACD login IDs for each of their queue hopping activities. A new concept that has been added is that of a uniquely named subordinate data source of another data source. When you assign a data source to an employee, you can specify which subordinate data source is being assigned. These subordinate data sources have their own activity mappings, which act as overrides to the primary activity mapping. Adapters and interfaces for Streaming Time Collection and Historical Time Collection use the ACD login ID to determine which subordinate data source to use and which mappings to determine the activity to be used for the time entry.

Subordinate data sources (sometimes referred to as child data sources) are created in the same way as other data sources, in the web application, in **System Management>Data Sources:Settings**.

Activities Module—Queue Hopping

If you are licensed for queue hopping, two additional columns are visible in the grid of the **Activities** tab of the **Activities** module.

Activities												
Activity Types												Activities
Activity	Description	Organization	Type	Is Paid	Color	Activity Code	Media	Time Off	Shift	Shift Activity	Queue Hopping	Queues
AC11	Customer Service	Customer Service	Assigned Work Act	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
AC12	Customer Service	Customer Service	Assigned Work Act	<input checked="" type="checkbox"/>			Callback		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Answer Call	Answer Calls	BPSS - Demo	Assigned Work Act	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Blended	Blended	BPSS - Demo	Assigned Work Act	<input checked="" type="checkbox"/>		B	Phone Outbound,Callback Fax,Email,Ch		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	French support,Eng
Break	Break	BPSS - Demo	Shift Events	<input type="checkbox"/>		B			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CKA	Closed Key Act	BPSS - Demo	Shift Events	<input type="checkbox"/>		C			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DE_Break	Break	BPSS - Demo	Shift Events	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DC_CKA	Closed key act	BPSS - Demo	Shift Events	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DE_Email	Answering cutt	BPSS - Demo	Shift Events	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DE_Late	Late	BPSS - Demo	Shift Events	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DE_Lunch	Lunch	BPSS - Demo	Shift Events	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DE_Medical	Medical	BPSS - Demo	Shift Events	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DE_Training	Training	BPSS - Demo	Shift Events	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Deferred	Deferred	BPSS - Demo	Assigned Work Act	<input checked="" type="checkbox"/>		D	Callback Fax,Email		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Email	Answering cutt	BPSS - Demo	Shift Events	<input checked="" type="checkbox"/>		E	Email		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Email-Fax		BPSS - Demo	Assigned Work Act	<input checked="" type="checkbox"/>			Fax,Email		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Fax		BPSS - Demo	Assigned Work Act	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
General Abs	General Absence	BPSS - Demo	Absence Activities	<input checked="" type="checkbox"/>		A			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
General Un	General Unavail	BPSS - Demo	Planned Events	<input checked="" type="checkbox"/>		U			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Generic No	Activity used as	System	System Defined	<input type="checkbox"/>		NW			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Generic No	Activity used as	System	System Defined	<input type="checkbox"/>		WV			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Immediate	Phone	BPSS - Demo	Assigned Work Act	<input checked="" type="checkbox"/>		I	Chat,Voice-over-IP,Phone		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Jury Duty	Jury Duty	BPSS - Demo	Absence Activities	<input checked="" type="checkbox"/>		J			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Late	Late	BPSS - Demo	Shift Events	<input type="checkbox"/>		L			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Learning Dr	Scheduled Lear	System	Learning Activities	<input checked="" type="checkbox"/>		L			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Learning Dr	Activity used int	System	System Defined	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Learning Dr	Learning training	System	Learning Activities	<input checked="" type="checkbox"/>		LS			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Lunch	Lunch	BPSS - Demo	Shift Events	<input type="checkbox"/>		L			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Medical	Medical	BPSS - Demo	Shift Events	<input type="checkbox"/>		M			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Meeting	General Meeting	BPSS - Demo	Planned Events	<input type="checkbox"/>		M			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Mentoring	Mentoring	BPSS - Demo	Planned Events	<input type="checkbox"/>		MN			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
No Activity	Activity used int	System	System Defined	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
No CallNo S	No CallNo Show	BPSS - Demo	Absence Activities	<input type="checkbox"/>		K			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Non Phone		BPSS - Demo	Assigned Work Act	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
None	None	BPSS - Demo	Planned Events	<input type="checkbox"/>		N			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Outbound	Outbound	BPSS - Demo	Assigned Work Act	<input checked="" type="checkbox"/>		O	Phone Outbound		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Personal Da	Personal Day	BPSS - Demo	Absence Activities	<input checked="" type="checkbox"/>		P			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Records Ma	Activity used int	System	System Defined	<input type="checkbox"/>		M			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Research	Research	BPSS - Demo	Assigned Work Act	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

The **Work Queue Hopping** column contains a check box for each activity. You can check this box only if the activity can be used for shifts and the activity is linked to one or more media. The media are used as a filter for the types of queues that can be linked to the activity. You must also assign one or more queues to a queue hopping activity.



Creating and editing activities is done in Organization mode.

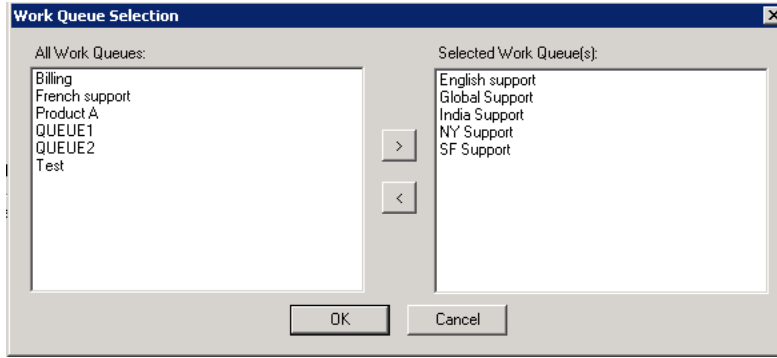
To assign a queue to a queue hopping activity:

- 1 Double-click in the far-left column the grey box to the left of the row containing the queue hopping activity.

The **Activity Detail** window opens.

- 2 Check the **Work Queue** box if it is not already checked.
- 3 Click the ellipses to the right of the **Work Queues** field to open the **Work Queue Selection** window:

- 4 Click those queues you want to assign to the activity, and then click the arrow pointing right to list the queues under the **Selected Work Queues:** side of the window.



5 Click **OK**.

Activity	Description	Organization	Type	Is Paid	Color	Activity Code	Media	Time Off	Shift	Shift Activity	Queue Hopping	Queues
Answer Call	Answer Call	BPSI - Demo	Assigned Work Act	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Answered	Answered	BPSI - Demo	Assigned Work Act	<input checked="" type="checkbox"/>		B	Callback,Chat,Email / fax,Phone,Phone		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	English support,Ind
Break	Break	BPSI - Demo	Shift Events	<input type="checkbox"/>		B			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
CHA	Closed Key Act	BPSI - Demo	Shift Events	<input type="checkbox"/>		C			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
DC_Break	Break	BPSI - Demo	Shift Events	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
DC_OKA	Closed key activ	BPSI - Demo	Shift Events	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
DC_Email	Answering out	BPSI - Demo	Shift Events	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
DC_Late	Late	BPSI - Demo	Shift Events	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
DC_Lunch	Lunch	BPSI - Demo	Shift Events	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
DC_Medical	Medical	BPSI - Demo	Shift Events	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
DC_Training	Training	BPSI - Demo	Shift Events	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Deferred	Deferred	BPSI - Demo	Assigned Work Act	<input checked="" type="checkbox"/>		D	Callback,Fax,Email		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Email	Answering out	BPSI - Demo	Shift Events	<input checked="" type="checkbox"/>		E	Email		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Email-Fax		BPSI - Demo	Assigned Work Act	<input checked="" type="checkbox"/>			Fax,Email		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Fax		BPSI - Demo	Assigned Work Act	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
General Abs	General Absence	BPSI - Demo	Absence Activities	<input checked="" type="checkbox"/>		A			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
General Unavail	General Unavail	BPSI - Demo	Planned Events	<input checked="" type="checkbox"/>		U			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Generic No	Activity used as	System	System Defined	<input type="checkbox"/>		NW			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Generic No	Activity used as	System	System Defined	<input type="checkbox"/>		W			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Immediate	Phone	BPSI - Demo	Assigned Work Act	<input checked="" type="checkbox"/>		I	Chat,Voice-over-IP,Phone		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Jury Duty	Jury Duty	BPSI - Demo	Absence Activities	<input checked="" type="checkbox"/>		J			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Late	Late	BPSI - Demo	Shift Events	<input type="checkbox"/>		L			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Learning B	Scheduled Lear	System	Learning Activities	<input checked="" type="checkbox"/>		L			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Learning B	Activity used in	System	System Defined	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Learning S	Learning training	System	Learning Activities	<input checked="" type="checkbox"/>		LS			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Lunch	Lunch	BPSI - Demo	Shift Events	<input type="checkbox"/>		L			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Medical	Medical	BPSI - Demo	Shift Events	<input type="checkbox"/>		M			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Meeting	General Meeting	BPSI - Demo	Planned Events	<input checked="" type="checkbox"/>		M			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Mentoring	Mentoring	BPSI - Demo	Planned Events	<input checked="" type="checkbox"/>		MN			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
No Activity	Activity used in	System	System Defined	<input type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
No Callho S	No Callho Show	BPSI - Demo	Absence Activities	<input checked="" type="checkbox"/>		X			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Non Phone		BPSI - Demo	Assigned Work Act	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
None	None	BPSI - Demo	Planned Events	<input type="checkbox"/>		N			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Outbound	Outbound	BPSI - Demo	Assigned Work Act	<input checked="" type="checkbox"/>		O	Phone Outbound		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Personal Da	Personal Day	BPSI - Demo	Absence Activities	<input checked="" type="checkbox"/>		P			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Records Ma	Activity used in	System	System Defined	<input type="checkbox"/>		M			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Research	Research	BPSI - Demo	Assigned Work Act	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Shift/Overt	Shift/Overtime O	BPSI - Demo	Absence Activities	<input type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Sick	Sick	BPSI - Demo	Absence Activities	<input checked="" type="checkbox"/>		S			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

i If you do not have a multi-contact license (see Chapter 7 “Multi-Contact and Skill-Based Scheduling”), check the **Work Queue Hopping** check box to automatically assign the Phone media to the activity.

Flexible Activities

You can use flexible activities independently of queue hopping. Refer to page [97](#) for information on creating flexible activities.

Enhancements to the Calendar Module

Several enhancements to the **Calendar** module have a particular benefit for queue hopping schedules:

- You can create and edit all characteristics of a shift event assignment within a shift. For example, you can right-click on a shift assignment and create a new shift event assignment.
- You can insert break-related shift events within work-related shift events. For example, you can assign a queue hopping shift event of two hours to an employee, and create a break or a lunch break within that queue hopping activity.

See “[Creating and Modifying Shift Events](#)” on page 146 for additional information on these enhancements.

Workforce Planning

This chapter describes Forecasting and Scheduling's workforce planning features. Workforce planning lets you determine the number and type of employees needed to meet your service goals and skill requirements.

Workforce Planning—An Overview

One of the major challenges facing all types of contact centers is workforce planning—determining the staffing level a contact center requires to meet its service goals. Forecasting and Scheduling's goal seek scheduling process uses real schedules and forecasts to determine the number of employees required to meet the goals of any given scheduling period. This can be the total required to staff a center or a campaign from scratch, or the number of new employees a center needs to add to its current staffing.

Creating a Workforce Plan

Forecasting and Scheduling's goal-seek scheduling process creates a workforce plan in five steps.

To create a workforce plan:

- 1 Define staffing profiles for the types of employees. See ["Creating Staffing Profiles"](#) on page 267.
- 2 Define the percentage of each type of staffing profile to be scheduled for a given scheduling period—for example, 30% full-time profile, 70% part-time profile. See ["Allocating the Staffing Profiles"](#) on page 270.
- 3 Define the acceptable percentage your staffing profiles can deviate from the scheduling period's service goals.

- 4 Create a workforce plan by creating a schedule for the scheduling period. See ["Scheduling Staffing Profiles"](#) on page 271. The scheduler uses goal seeking to add "phantom employees" based on the profiles and create the optimal schedule.
- 5 Use the results to determine the FTEs, cost, and employee staffing requirements. See ["Calculating Full-Time Equivalents"](#) on page 273.

Creating Staffing Profiles

Staffing profiles describe the type of employees a contact center needs, their work patterns, skills, and assignment rules. Only one profile is necessary for each type of employee—Forecasting and Scheduling will automatically create the correct number of each type of employee according to your scheduling requirements.

Building Staffing Profiles

Staffing profiles are created in the Organization mode’s **Employees** module. They flow up the organization hierarchy—in other words, they can be viewed and changed by organizations above the level at which they are created. They cannot be seen or used by organizations at the same level or below. See ["Understanding Organizational Hierarchies"](#) on page 74. They can, however, be assigned to a different organization. See the **Organization** field description in step [Step 3](#) below.


To create a staffing profile:

- 1 Open the organization you want to create the profile for, and then enter the **Employees** module.
- 2 Click the **Staffing Profile** tab at the top of the employee grid. The Staffing Profile grid is displayed.

Employees						
Employees Staffing Profiles						
	Profile Name	Work Pattern	Organization	Wage	Proficiency	Chat Sessions
▶	Full-time English	SF - Full Time 1	San Francisco	\$ 20.00	1.0	1
	Full-time French	SF - Full Time 2	San Francisco	\$ 25.00	1.0	2
	Sales and service 1	SF Early Parttime	San Francisco	\$ 15.00	1.0	1
	Sales and service 2	SF Late Parttime	San Francisco	\$ 15.00	1.0	1
*						
Assignment Rules Skills						
	OK	Skill	Proficiency	Priority		
	✓	English Billing Service	1.0	1		
	✓	English Technical Support	1.0	1		
	✗	French Billing Service				
	✗	French Technical Support				
	✗	Product Service				
	✗	Product Sales				
	✗	French Billing Email				
	✗	French Tech Support Chat				


- 3 Fill in the information for each grid field:
 - **Profile Name**—A descriptive name for the profile.
 - **Work Pattern**—Select the work pattern (see page 103) you want to profile. When Forecasting and Scheduling creates a schedule using this profile, the shifts and times are selected using this work pattern. A list of work patterns is available from the drop-down menu.
 - **Wage**—Type an average wage for the profile.
 - **Organization**—The current organization is entered automatically. Select a different organization from the drop-down menu to assign the profile to that organization.
 - **Proficiency**—Type the required proficiency level for the profile. 1.0 is average proficiency.
Forecasting and Scheduling uses this number when scheduling employees. An employee with 1.0 has an average handle time, an employee with 2.0 takes twice as long, and an employee with 0.5 takes half as long to handle calls.
 - **Chat sessions**—Type the number of simultaneous chat sessions for the profile.
- 4 Click **OK**.
- 5 Select the Assignment Rules (see page 93) that apply to the profile. In the **OK** column, click a pattern with a red ✘ . A green ✔ is displayed showing that the rule has been assigned.

Assignment Rules		Skills
OK	Assignment Rules	
✘	Exactly 5 days a week	
✔	No more than 5 days a week	

 While you cannot assign minimum or maximum hours to a profile, you can create an assignment rule that accomplishes the same thing.

- 6 Click the **Skills** tab and select the skills that apply to the profile. In the **OK** column, click a pattern with a red ✘ . A green ✔ is displayed showing that the skill has been assigned. Assign a proficiency level and priority to the skill. See “Assigning Skills to Employees” on page 142.


Assignment Rules		Skills	Proficiency	Priority
OK	Skill		Proficiency	Priority
✔	English Billing Service		1.0	1
✔	English Technical Support		1.0	1
✘	French Billing Service			
✘	French Technical Support			
✘	Product Service			
✘	Product Sales			
✘	French Billing Email			
✘	French Tech Support Chat			

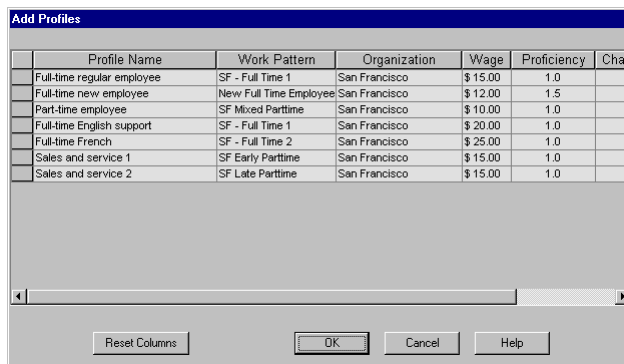
 You can add assignment rules and skills to groups of profiles by selecting all the profiles you want to apply the rule or skill to. A yellow ? shows that some, but not all, of the profiles are assigned the rule or skill.

Adding the Staffing Profiles to a Scheduling Period

The staffing profiles created in the Organization mode are added to a scheduling period the same way employees are. They are then allocated by percentage or number of employees. Profiles are available in a campaign only if the organization the profile is assigned to (or one above it in the hierarchy) is linked to the campaign.

To assign a staffing profile to a scheduling period:

- 1 Open the scheduling period you want to schedule. Make sure the organization with the profile you want to use is linked to the campaign. See page [166](#).
- 2 Open the **Employees** module, and then click the **Staffing Profile** tab. A blank tab is displayed.
- 3 On the Tool bar, Click the **New** button (). The **Add Profiles** dialog box is displayed.




- 4 Profiles already included in the scheduling period appear in blue. Click the left column next to the profiles you want to add. Use the **Shift** and **Ctrl** keys to select multiple profiles. Place your cursor at the head of a column and drag it to move it to a different location. Click **Reset Columns** to restore them to their original order.
- 5 Click **OK**. The profiles are added to the scheduling period.

Employees		Staffing Profiles									
	Profile Name	Work Pattern	Organization	Wage	Proficiency	Chat Sessions	Target Agent Ratio		Limit # of Agents To		
							At Least	At Most	At Least	At Most	
	FT Shift 1 7AM	FT 7AM Shift	Customer Service Team	\$ 0.00	1.0	1	0 %	100%	0	9999	
	FT Shift 2 7:30AM	FT 7:30AM Shift	Customer Service Team	\$ 0.00	1.0	1	0 %	100%	0	9999	
	FT Shift 3 8AM	FT 8AM Shift	Customer Service Team	\$ 0.00	1.0	1	0 %	100%	0	9999	
	FT Shift 4 8:30AM	FT 8:30AM Shift	Customer Service Team	\$ 0.00	1.0	1	0 %	100%	0	9999	
	FT Shift 5 9AM	FT 9AM Shift	Customer Service Team	\$ 0.00	1.0	1	0 %	100%	0	9999	
	FT Shift 6 9:15AM	FT 9:15AM Shift	Customer Service Team	\$ 0.00	1.0	1	0 %	100%	0	9999	
	FT Shift 7 10AM	FT 10AM Shift	Customer Service Team	\$ 0.00	1.0	1	0 %	100%	0	9999	
	Total Profiles									0	

Assignment Rules		Skills
<input type="checkbox"/>	OK	Assignment Rules
<input checked="" type="checkbox"/>	Exactly 5 days a week	
<input checked="" type="checkbox"/>	32 to 45 min / max hours	
<input checked="" type="checkbox"/>	16 to 24 min / max hours	

The **Total Profiles** row shows the minimum and maximum number of employees to be assigned to any of the profiles.

To delete a staffing profile from a scheduling period:

- Highlight the profile, and then, on the Tool bar, click **Delete** (). The profile is removed from the scheduling period only. The profile is *not* removed permanently.

Allocating the Staffing Profiles

Once the staffing profiles have been added to your scheduling period, you can set a target ratio by percentage for each profile. You can also enter the minimum and maximum number of employees you want assigned to each profile, and specify separately the absolute minimum and maximum number of employees for the aggregate of all profiles in the scheduling period.

Setting the Target Employee Ratio

During the scheduling process, Forecasting and Scheduling will attempt to create a schedule using this ratio. Keep in mind that the ratio is a target.

- To give the scheduler the most freedom to determine the optimal ratio of employee types, leave all **At Least** fields set to 0% and all **At Most** fields set to 100%. This is the default setting.
- Other percentage allocations are used as targets and will be approached as closely as possible. Impossible ratios (for example, two or more **At Least** fields set to 100%) are ignored by the scheduler. Ratios that exceed the employee limits (see below) are also ignored.
- To set an exact allocation, fill in both the **At Least** and **At Most** fields. For example, if you want an allocation of exactly 60% full-time and 40% part-time employees, type **60** in both the **At Least** and **At Most** fields for the full-time profile, and then type **40** in both the **At Least** and **At Most** fields for the part-time profile.

To set a target employee ratio:

- For each profile, enter a percentage in the **At Least** and **At Most** fields.

Limiting the Number of Employees

You can set the absolute minimum and maximum number of employees that will be scheduled. These limits are absolute and will not be exceeded. These limits override any conflicts with target employee ratios (see above).

- To give the scheduler the greatest freedom to determine the optimal number of employees, leave all **At Least** fields set to 0 and all **At Most** fields set to 9999.
- To set an exact number of employees you want scheduled for a profile, type that number in both the **At Least** and **At Most** fields for the profile.

You can also set the total minimum and total maximum number of employees for the aggregate of all the profiles in the scheduling period.

For example, if you have a number of profiles that represent skills that are hard to staff, you can specify per profile the minimum number needed of employees with those skills and the maximum number of those employees you have on staff. You can then specify

the total maximum number of employees for all profiles as equal to your seats for that site. The scheduler then selects the remaining number of employees needed from any of the profiles, without exceeding the maximum numbers specified for a specific profile, or the maximum number specified for all profiles (in this example, your maximum number of seats).

To set employee limits:

- For each profile, type a number of employees in the **At Least** and **At Most** fields.
- If desired, type a total minimum and/or a total maximum number of employees for the aggregate of all the profiles in the scheduling period.

Scheduling Staffing Profiles

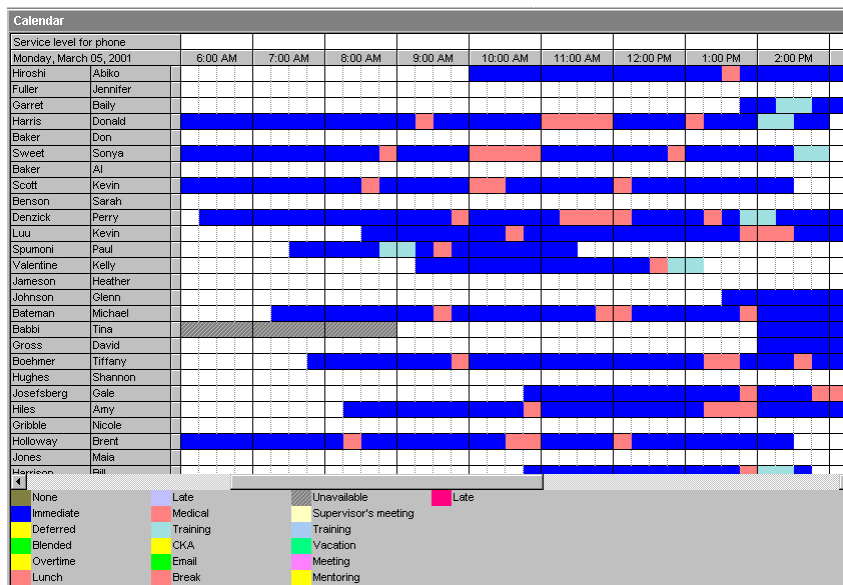
After you have created the staffing profiles, added them to the scheduling period, and established service goals for them, you must schedule them to create your staffing plan. The process is identical to creating a schedule in any other scheduling period; the profiles are used by the scheduler to create and add “phantom employees” to the schedule.


Adding Staffing Profiles to the Schedule

Staffing profiles are added to the schedule in the Campaign mode **Calendar** module, in the **Schedule Setup** dialog box. You can determine whether they will be scheduled by themselves, with “real” employees, or not at all.

To add or remove staffing profiles:

- 1 Open the Campaign mode’s **Calendar** module.



- 2 Open the Scheduler Setup dialog box by doing one of the following:
 - On the Tool bar, click the **Scheduler** button ().
 - On the **Calendar** menu, select **Schedule**.

The **Scheduler Setup** dialog box is displayed. (See "Setting Up the Scheduler" on page 201 for additional information about this dialog box.)

- 3 In the **Agents to Schedule** section, select one of the choices:
 - **Employees Only**—Only employees are scheduled. Staffing profiles are ignored. This is the default option.
 - **Staffing Profiles Only**—Only staffing profiles are scheduled. The scheduler uses goal seeking to add enough phantom employees to meet the skills required and the service levels you have set.
 This option is not available if there are employees assigned to the scheduling period. To use this option, first delete all employees from the scheduling period (see page [171](#)).
 - **Employees and Staffing Profiles**—Employees are scheduled, and then phantom employees are created and scheduled as necessary to meet the skills required and the service levels you have set.
 If the current employee schedules are locked (see page [210](#)), their portion of the schedule is unchanged and phantom employees are added to the existing schedule.
 If the current employee schedules are unlocked, they are scheduled first, and then phantom employees are added to the schedule.
- 4 Click **OK** to generate the schedule. When the schedule is complete, the phantom employees are listed in blue below the employees. They are named after their

staffing profile—Full-Time 1, Full-Time 2, for example, with the pattern as the last name and the number as the first name.

Calendar																													
Staffing differentials	0	-1	-3	-1	-1	1	5	5	1	1	1	1	1	0	0	0	-1	-2	-3	-3	-2	-2	-3	3	3	3	3		
Service level	91	81	56	79	85	94	99	99	93	92	91	90	90	90	86	87	82	77	79	63	61	72	73	64	95	97	95	9	
ASA	5	11	41	13	9	3	1	1	4	4	5	5	6	6	8	7	11	14	19	22	30	31	31	27	2	2	3	2	
Number scheduled	37	36	33	34	39	42	40	47	46	45	40	40	40	49	50	52	51	53	51	50	40	47	47	45	49	49	47	4	
Monday, October 25, 1999																													
Full Time Employee 25																													
Full Time Employee 26																													
Full Time Employee 27																													
Full Time Employee 28																													
Full Time Employee 29																													
Full Time Employee 3																													
Full Time Employee 30																													
Full Time Employee 31																													
Full Time Employee 4																													
Full Time Employee 5																													
Full Time Employee 6																													
Full Time Employee 7																													
Full Time Employee 8																													
Full Time Employee 9																													
Part Time Employee 1																													
Part Time Employee 2																													

To hide or display the phantom employees:

- From the **View** menu, select **Hide Profile Schedules** to hide or display the phantom employees and their schedules.

The statistics for the current display are shown in the **Staffing differentials** and **Number scheduled** rows at the top of the schedule grid. Toggle the profiles on and off for a quick comparison of the schedule with and without the phantom employees.

To clear the phantom employees from the schedule:

- Right-click the calendar, and then select **Remove Profile Schedules**. All phantom employees are removed from the schedule. You must reschedule the period (see page [271](#)) to add them back.

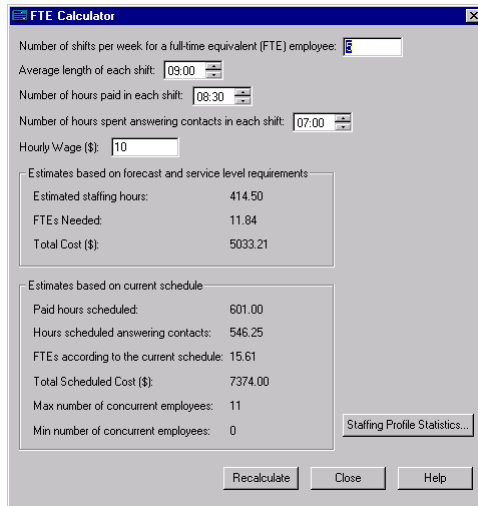
Calculating Full-Time Equivalents

Information about the staffing profile is available from the FTE Calculator (FTE stands for Full-Time Equivalent). The calculator also lets you determine the cost of the additional phantom employees you have scheduled.

- i** To see the statistics for your profiles, make sure the Staffing Profiles are not hidden (see above). If the Staffing Profiles are hidden, the FTE Calculator uses only the actual employees.

To view the profile statistics:

- 1 From the **View** menu, select **FTE Calculator**. The calculator is displayed.



Complete the requested information, and then click **Recalculate** to set the values for one FTE.

- i The **Estimates based on current schedule** section includes all employees displayed on your schedule.

- 2 Click **Staffing Profile Statistics**. The **Staffing Profile Statistics** window displays statistics for the profiles currently displayed on your schedule.

Name	# on schedule	% scheduled	# FTE	Cost
Full Time	31	25	29.63	12444.00
Part Time	4	3	0.80	280.00
New Full Time	0	0	0.00	0.00
Totals	35	29	30.43	12724.00

The following statistics are displayed:

- **Name**—The name of the profile and the last name of each scheduled phantom employee using the profile.
- **# on schedule**—The number of phantom employees using this profile that are scheduled. The minimum and maximum number of phantom employees can be set in the **Profiles** tab of the Campaign mode **Work Rules** module. See ["Limiting the Number of Employees"](#) on page 270.
- **% on schedule**—The percentage of phantom employees using this profile. Percentage goals are set in the **Profiles** tab of the Campaign mode **Work Rules** module. See ["Setting the Target Employee Ratio"](#) on page 270.

- **# FTE**—The number of full-time equivalents. FTEs are determined by the settings in the top portion of the FTE Calculator.
- **Cost**—The total cost of the FTEs. Cost is determined using the hourly wage set for the profile in the **Profiles** tab of the Organization mode **Work Rules** module. See "[Building Staffing Profiles](#)" on page 267.

OutBound Scheduling

In addition to the more traditional, in-bound calls handled by call centers, a growing number of call centers are involved in out-bound calling, making calls using a predictive dialer or manually dialing a list of customers or prospects, for such purposes as collections, pro-active customer service, and telemarketing. The optional OutBound-Media license for Forecasting and Scheduling enhances Forecasting and Scheduling to encompass the calling statistics associated with outbound calls. These statistics include:

Statistic	Description
Abandons	The total count of connects that occurred, but had to be dropped because no employee accepted the connect.
Backlog	The total count of numbers that are entered in the dialer and still need to be dialed or re-dialed because the right party has not yet been connected.
Connect AHT	The average talk time of all connects in this interval.
Connect Rate	The percentage of dials that connected to someone, equivalent to Connects/Dials .
Connects	The total count of outbound dials that were made in a given interval that connected to a person.
Dials	The total count of outbound dials that were made in a given interval. This count includes connects, right party connects, and dials that did not connect to a person.
FTEs	Full Time Equivalents. Where an employee might work on multiple queues during an interval, this represents the amount of time employees contributed to this particular queue.
Occupancy	The percentage of time that employees who were logged into this queue spent on the phone with connects in this interval.

Statistic	Description
Right Party Connect AHT	The average talk time of all right party connects in this interval.
Right Party Connect Rate	The percentage of dials that connected to the intended party, equivalent to Right Party Connects/Dials .
Right Party Connects	The total count of outbound dials that were made in a given interval that connected to the person that was intended to be reached. These numbers will not be redialed because the right party has been reached.
Staffing	The total count of employees logged into this queue in this interval.

 You associate outbound queues with outbound data sources using the web application's **Organization Management** module's **Work Queues** section.

Outbound scheduling affects the following modules of Forecasting and Scheduling:

- **Forecast**
- **Service Goals**
- **Agent Requirements**
- **Calendar**
- **Pulse**

Forecast Module—Outbound

Selecting one of the outbound media causes an additional section to be displayed at the top of the **Forecast** window, **Forecasted Lists**.

Forecasts are created for incoming lists based on the actual lists from the historical weeks that you add. Dialer lists are defined per queue per scheduling period. When you add a week of history to the forecast, you also add all historical lists that intersected that week where the volume is multiplied by (**<historical week's weight>/<sum of all weeks' weights>**). You can manually edit the list forecast, and you can import and export lists.

Each list forecast has four attributes:

- **List Start Date:** When the dialer can begin dialing this list
- **List End Date:** When the dialer must stop dialing this list
- **Length:** The amount of numbers on this list that can be dialed.
- **Retries Allowed:** The number of retries allowed for each number

The information shown under the **Forecasted Lists** section includes these attributes, as well as the queue associated with the list.

The lower part of the **Forecast** window shows one of two sets of graphs. The first set consists of a graph of:

- **Connect Rate**
- **Connect AHT**

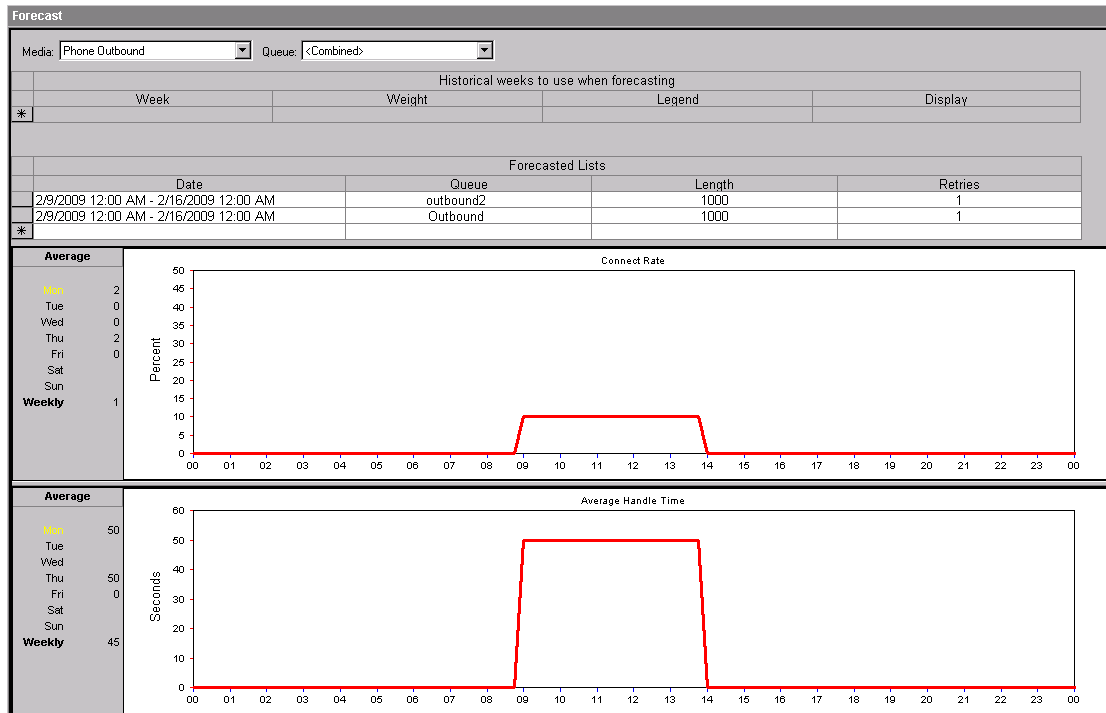
To display the second set of graphs, use the **View Right Party Connect Forecast** menu item from the **Forecast** menu or the **View Right Party Connects** button (🎯). (Use these items to toggle between the two sets of graphs.) The second set consists of graphs of:

- **Right Party Connect Rate**
- **Right Party Connect AHT**

For outbound media, the **Right Party Connect Rate** and **Right Party Connect AHT** can have significant effects on the schedule. These statistics might not be available for all centers; however, when they are, they should be made part of the forecast. Note that these statistics can represent different things in different centers: in a collections center, they would represent the person from whom the center is trying to collect; in a sales center, they would represent a potential customer or a successful sale.


i Daily and combined totals for **Right Party Connect Rate** are averaged and daily and combined totals for **Right Party Connect AHT** are averaged weighted on the rates. This is inconsistent with **Pulse**, where rates are weighted on dials and AHT is weighted on connects, because these statistics are not yet available at this stage of the outbound scheduling process.

These four time series forecasts are needed for you to create an outbound schedule.

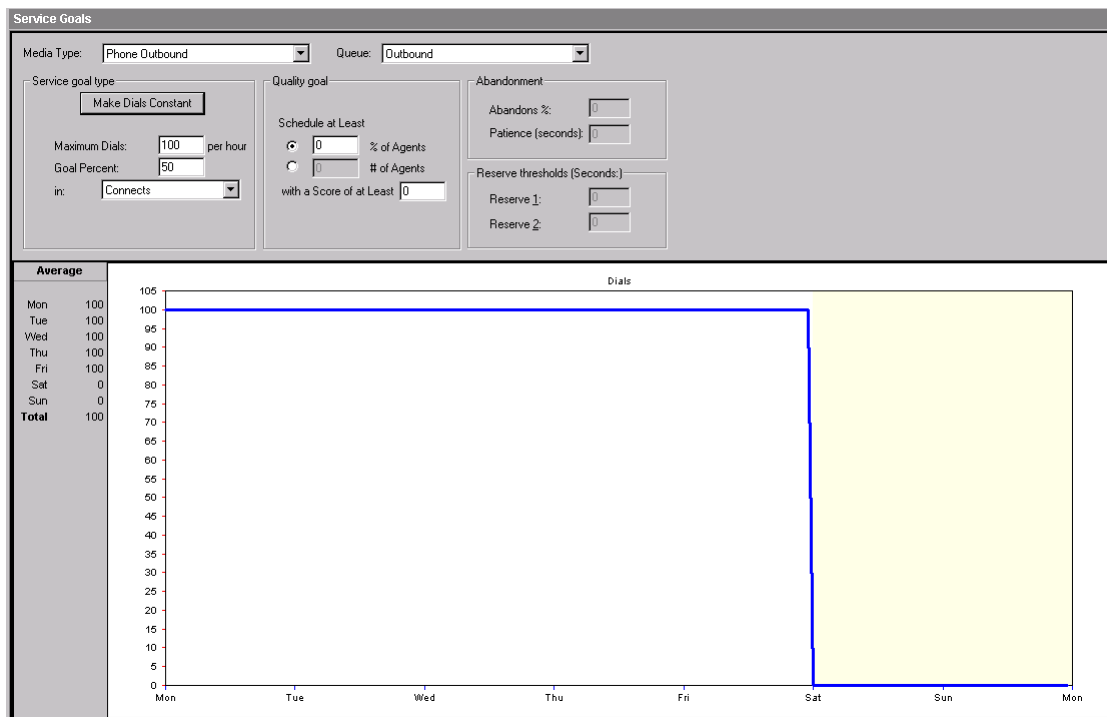


Service Goals—Outbound

For an outbound queue, the **Service Goals** module allows you to enter the maximum dials per hour and the percentage of the lists that you want to either connect to, or right party connect to, before the list ends.

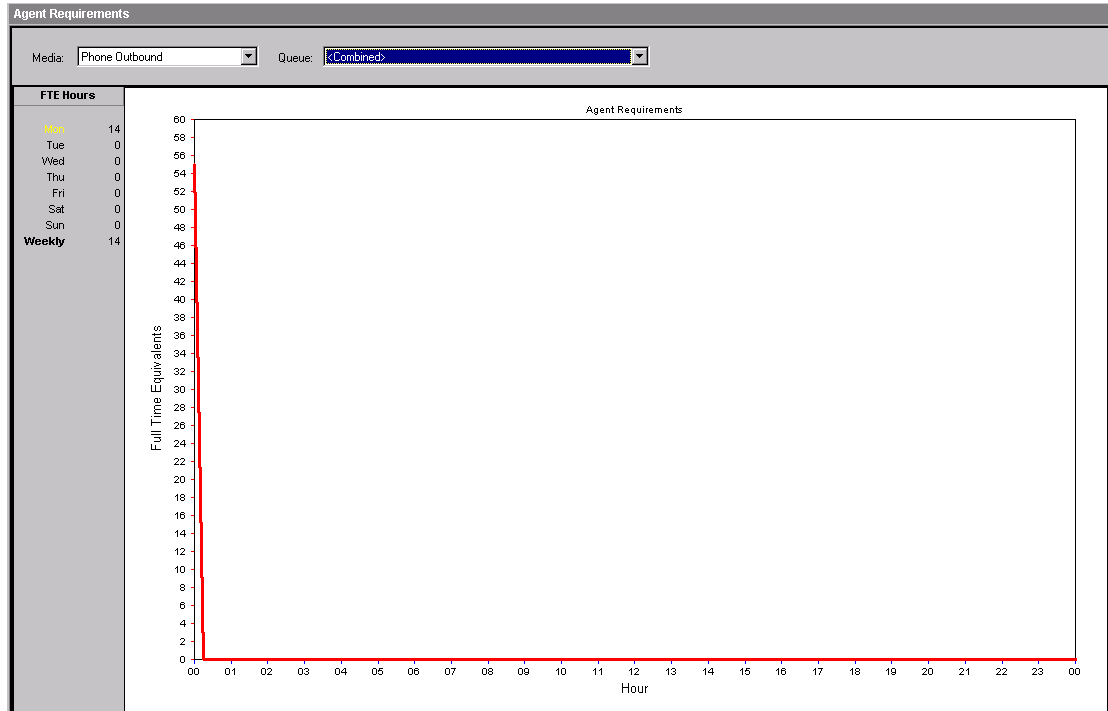
 Right Party goals should only be used if you have right party forecasts.

The maximum dials per hour can be set per queue. You can set the value of the maximum dials per hour to 0, which halts calls on that list, or you can set it to represent a dialing plan for the queue.



Agent Requirements—Outbound

Employee requirements in FTE hours are only shown as non-zero for the start date of the list (sometimes referred as the list arrival time). The hours shown for that date are the total workload for that list.



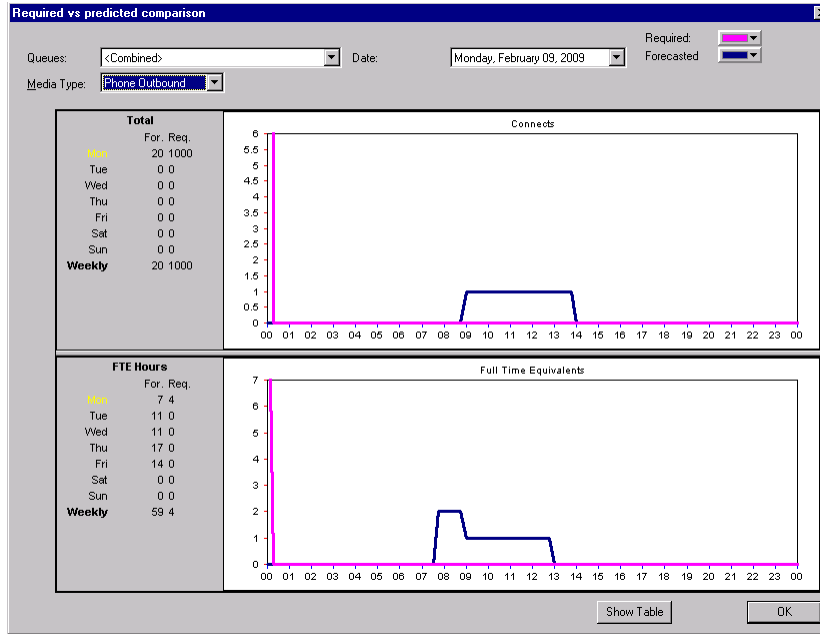
Calendar Module—Outbound

When you create an outbound schedule, the scheduling engine schedules as many employees as possible at the peak Right Party Connect times without exceeding the service goal. The results include both the employee schedules and the dialing plan that should be used along with them.

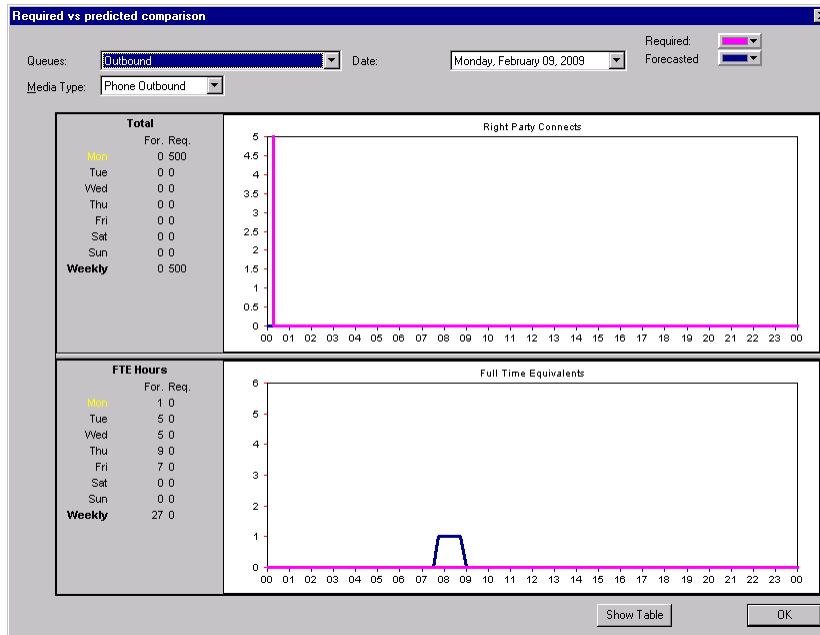
These schedules are reasonable across multiple outbound queues. Furthermore, the outbound service levels trade off with inbound service levels (instead of being strictly higher or strictly lower priority than inbound).

The only other area of the **Calendar** module affected by outbound media is the **Comparison Tool**.

If your service goal for the outbound media was expressed as a percentage of connects (see page 279), the **Comparison Tool** will show graphs for connects and full time equivalents for outbound media types and queues.



If, however, your Service Goal was expressed as a percentage of right party connects (also see page 279), the **Comparison Tool** shows graphs for right party connects and full time equivalents for outbound media types and queues.



Pulse Module—Outbound

The statistics associated with outbound media, such as **Dials**, **Right Party Connects**, and **Right Party Connect AHT**, can be viewed within the **Pulse** module, which is part of the web application's **Tracking** module. In addition, **Dials** can be exported for use as a dialing plan.

Refer to the *Workforce Management Managers Guide* for more information.

Operations

The Operations functionality is a separately-licensed feature that enhances the Workforce Management packages to provide support for Financial Services Operations.

Certain terminology within Forecasting and Scheduling changes if you are licensed for the Operations features. The following table lists the changes that occur with the Operations features.

Term	Operations-Equivalent
queue	work queue
contact volume (or CV)	volume (or V)
average handle time	activity handle time

The remainder of this chapter discusses the enhancements for Operations that are specific to Forecasting and Scheduling:

Deadline Goal Modeling

If you are licensed for the optional Operations features, and are using an Operations media type in Forecasting and Scheduling, you can also set deadline goals as an alternation to Service Goals.

A deadline goal is used to represent an objective of finishing work arriving in certain interval by a set time of day. For instance, all work arriving between 6 a.m. and 3:30 p.m., today, must be completed by 5:15 p.m., today; work arriving from 3:30 p.m., today, through 6 a.m., tomorrow, must be completed by 10 a.m., tomorrow.


You can vary not only the percentage of work handled within the service goal, but also vary the service goal time threshold by time of day.

Deadline goals function similarly to ASA in terms of implications on the **Agent Requirements** module and the scheduling engine.

- 1 Employee requirements are not impacted by service goals, including deadline goals.
- 2 The scheduling engine has to predict employee requirements based on deadline goals .
- 3 The scheduling engine has to schedule employees to meet deadline goals.

To set deadline goals:

- 1 Click **Deadline goals**.
- 2 Specify the percentage of arriving work to be completed in the **% of volume** field. (Only values from 1 to 100 are valid.)
- 3 Specify the time within which the above specified percentage of work is to be completed, in the **Completed within time in minutes** field.

 If you have changed the time unit for the **Operations** media type, the above field label changes to reflect the current time unit.

For example, if you were to set the deadline goals for a 24-hour shift so that all work arriving at any hourly bucket gets done by the end of day, you would set up a deadline goal series as follows:

- The first hour would have **% of volume** = 100 and **Completed within time in minutes** = 24 hours or 1440 minutes
- The second hour would have **% of volume** = 100 and **Completed within time in minutes** = 23 hours or 1380 minutes, and so on.
- The 23rd hour would have **% of volume** = 100 and **Completed within time in minutes** = one hour or 60 minutes.

You can fine tune the settings, if desired:

- 1 On the **View** menu or toolbar, click **Table**. A table of values displays to the right of the graph. You can fine-tune your deadline goals or deadline times by typing new

values. (You can also click on the graph and drag the line to change the goals or time.)

The graph is automatically adjusted and the summary is updated to reflect the new figures.

Project Scheduling

In the Operations industry, employees process volume-driven work as well as processing work, such as filing, inventories, etc., that is not volume-driven. Project scheduling, a separately-licensed feature within Forecasting and Scheduling, expands the solution's functionality to meet the needs of these non-customer-facing activities.

Basically, Project Scheduling involves a given requested quantity of work with:


- Work Rules, such as:
 - Window of time work can be done each day of the week
 - Length of time for a segment of work
 - Maximum simultaneous employees assigned
 - Maximum count for day and week per employee
- A forecast, defined as:
 - Work Activity
 - Start/End Date
 - Total Duration Requirements

If your license includes project scheduling, the following areas of the Workforce Management solution have been affected:

- A **Project** media type has been added.
- Project data is represented in **Project** queues. (Queues are created in the web application, as described in "[Work Queues](#)" on page 449.)
- You will need to create skills that can be assigned to the projects. This will result in defining which employees can be assigned time on the projects. Skills are created as described in [Chapter 7 "Multi-Contact and Skill-Based Scheduling"](#).
- A **Project Rules** tab has been added to the **Work Rules** module, similar to **VTO Event** and **OT Extension** tabs. You define the project's rules using this tab.

Work Rules							
Shifts	Shift Activities	VTO Events	OT Extension	Work Patterns	Assignment Rules	Project Rules	
Project Rules							
Name	Description	Activity	Organization	Length	Daily Max Count	Weekly Max Count	


- Selecting a Projects queue in Campaign mode's **Forecast** module allows for history selection and setting of forecasting data.
- The Scheduling engine uses the work rules and forecasts to add jobs to the employees in the scheduling period. The **Required vs. Predicted** comparison for project queues compares the amount of work desired versus the amount scheduled.
- The **Operations** module always includes the project forecast data when cloning scheduling periods forward to create new scheduling periods.

 Project queues are not available in the **Service Goals** and **Agent Requirements** modules.

Project Workflow

In general, to use project scheduling, you would follow this workflow:

- 1 Create a project queue. That is, create a queue and assign it a media type of **Project**.

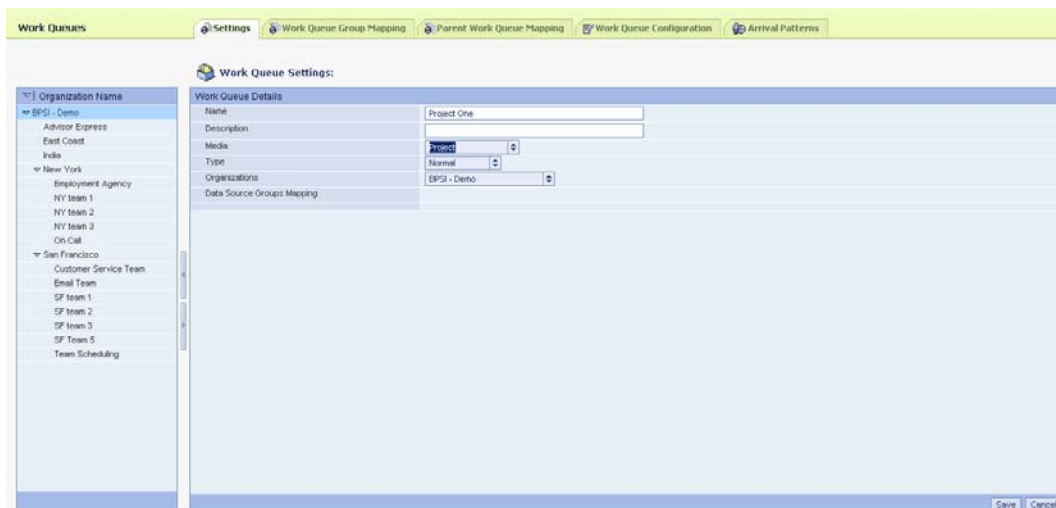
 Project queues require another type of queue, such as operations, to exist in the campaign. You cannot have project type queues alone in the campaign, because project activities are laid on top of shift assignments.

- 2 Create a project activity (an activity that has a media type of **Project**) and select one queue from the selection of project queues. See page [288](#).
- 3 Create a project work rule. (These rules are created from the **Project Rules** tab and are associated with a project activity and a work unit length.) See page [289](#).
- 4 Create a project skill (a skill with a media type of **Project**) and assign the project skill to one or more employees. See page [291](#).

- 5 Create a Campaign Scheduling Period and select queues including one or more project queues. See page [291](#).
- 6 Create a project forecast (a project queue, populated by calculations from historical Volume and AHT week data or by manually entering the start date/ stop date and a duration for the project). The project queue is used to designate which project rules apply. See page [291](#).
- 7 Create a schedule. The scheduling algorithm assigns project activities based on project rule unit length to employees with this project skill to meet the project forecast. See page [293](#).

Creating a Project Queue

As mentioned previously, project queues are created in the web application, as described in “[Work Queues](#)” on page 449. Make sure to select **Project** as the media for the queue:



Creating Project Activities

You can define project activities in both Organization and Campaign mode.

When creating an activity, you assign one or more media to the activity. For project activities, you select the **Project** media option. If the **Project** media option is selected, you must specify the specific project queue. No more than one project queue can be assigned to an individual activity.

A Project Queue drop-down selector has been added to both the grid and **Activity Detail** dialog box. The drop-down selector on the grid is grayed out until you select a **Project** media. The drop-down selector on the **Activity Detail** dialog box is not displayed until you select a **Project** media. Queues are displayed in the selectors in alphabetical order; the first queue displayed is the default project queue.

When you select a **Project** media for an activity, it must be the sole media selected for that activity. If you select a **Project** media for an activity that already has one or more other media selected, you are prompted to have all other media be automatically deselected, or to cancel the **Project** media selection. If you select a media while a **Project** media is selected, you are prompted to have the **Project** media automatically deselected, or to cancel the new media's selection.

Selecting **Project** for the media deselects and makes read-only the following options:

- Queue Hopping
- Unavailability
- Time Off
- Used in Requests
- Time Off with Allotment

Selecting **Project** for the media selects and makes read-only the following option:


- Use in Calendar Event

Scorecards usage features are validated as off when saved.

All Activity Manager features are enabled.

Creating Project Work Rules


Project work rules can be created in either Organization or Campaign mode.

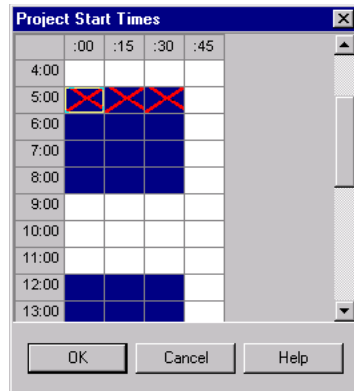
The **Projects Rules** tab in the **Work Rules** module provides a grid format of all the data entry items for projects. Double-clicking an item or the asterisk on the blank row, or using the **New** button () or the **New** item on the **Edit** menu brings up the **Project Rules** details dialog box.

- i** The **New** menu item on the **Edit** menu and the blank line on the grid are only available if there is an activity defined that has the **Project** media selected.

The dialog box contains the same information as the grid, but in a window layout.

- **Name**—Type a descriptive name for the rule.
- **Length**—Type the length of time for a segment of work in hours and minutes, in 15-minute increments.
- **Activity**—Use the drop-down menu to select a **Project** media activity.
- **Daily Max Count**—The maximum number of project work segments per employee in a day. This value is 1 or more, or **Unlimited** (the default). This field is similar to the **Maximum Time in Activity** option on the Activities grid (see page [83](#)).
- **Weekly Max Count**—The maximum number of project work segments per employee in a week. This value is 1 or more, or **Unlimited** (the default).
- **Max simultaneous employees**—The maximum number of employees who can be assigned to this project. This value is 1 or more, or **Unlimited** (the default).
- **Description**—Type a description of the rule in this field (optional).
- **Organization**—The organization that the project belongs to (read-only field).
- **Start times**—The project start times in text format of each day of the work week.

Click the Rules Detail button () to bring up the start time grid to select the start time for that particular day. The grid has rows for each hour and columns for 15-minute increments. Drag your mouse across the range of times the shift can start, or click individual time blocks. A red "X" appears in any time block that falls outside the shift's acceptable range, which is determined by the organization's hours and the length of the shift. Drag across or click selected times to clear them. If no start times are allocated, the grid text is red for that row. The times displayed are midnight to midnight, regardless of the day boundary. The times are based on the Campaign time zone, regardless of the time zone of the employees, and are saved to the database in GMT format.



Creating and Assigning Project Skills

The process of creating project skills and assigning them to employees is virtually identical to creating skills and assigning them to employees working on non-project activities. Refer to ["Setting Up Skill Types"](#) on page 230 and ["Assigning Skills to Employees"](#) on page 230, respectively.

For project skills, make sure to select the **Project** media type for the skill.

Creating a Campaign Schedule Period with Project Queues

The process of creating a campaign schedule period is virtually identical to that described in ["Adding a Scheduling Period to a Campaign"](#) on page 163.

Note that when you create a new scheduling period and copy data from a previous week(s), the project forecasts are copied forward. Scheduled project tasks (which are calendar events) are not copied forward; only shift assignments are copied.

Creating a Project Forecast

Forecasts for each project's scheduling period are based on historical data imported from a data source for the queues you designated in the **Operations** module (see page [165](#)), or on historical data that you enter from other sources.

When you select **Project** from the **Media** drop-down menu, the **Queue** dropdown provides a list of all projects available for this scheduling period.

The Forecast window view is different for a project compared to the standard summary grid/graph model. Instead, you see a grid in the lower half of the window where you can enter the projects for an individual week.

Clicking on a cell in the **Queue** column, and then clicking the ellipsis at the right side of the cell opens **Forecasted Project Detail** window, which allows you to specify the following.

- **Start Date/time** and **End Date/time**—Dates are restricted to be within the limits of the scheduling period. The default dates for a new project are the start and end date of the current view, based on the zoom level. A calendar dropdown or list of dates. The date selection is not limited to being within the scheduling period or

viewing period, but it must intersect. One Queue can not have multiple projects with intersecting start end dates.

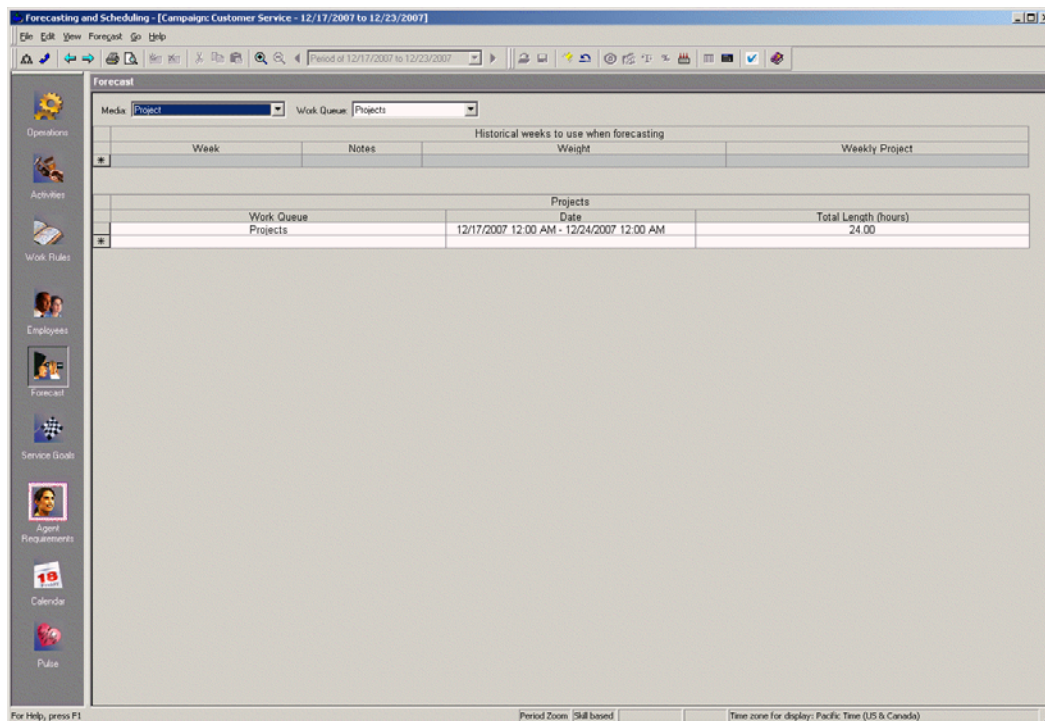
- **Queue**—The name of the queue for which you are forecasting.
- **Total duration (hours)**—The total duration of this project (displayed in decimal to the second place (for example, 20.25 means 20 hours and 15 minutes)

Zooming in or out only affects which projects are displayed. If one or more dates from the project intersect the viewing period, the project is displayed.

Creating a project forecast is not, however, limited to the viewing period, only the scheduling period. If the new project does not intersect the viewing period, you are notified that you will not be able to see this project based on the current viewing period, and told to zoom out to view this project.

Adding Historical Weeks


Projects can be based on historical weeks provided those weeks have actual volumes and handle time populated through groups or VCT chaining. (VCT chaining is discussed in the section on Work Queue Configuration in the *Workforce Management Administration Guide*.)



When you add a week, you select if the volume should be imported into daily projects or weekly projects.

Historical weeks can only be added when no manually created projects exist, so you could not add historical weeks if you had a project on day 1-2. Instead, if you have no projects defined, and you add a historical week you get either:

- One project for the week, where the length is equal to the total volume multiplied by the standard time for the historical week.
- One project for every day, where the length is equal to the total volume multiplied by the standard time for the historical days.

 Project queues do not support options for entering backlog data, using strategic forecasting weights, or reforecasting.

If there is no project data, or you want to modify the results of history weeks manually, you can edit the data in the column **Total Length (hours)**. Once you have modified a value, the section for **Historical weeks to use when forecasting** is grayed out. You can no longer select additional weeks of historical data to use until you click either the **Clear** button or the **Restore** button.

Creating a Schedule


The process of creating a schedule including projects is essentially identical to that described in “[Generating a Schedule](#)” on page 200.

The scheduling engine places Calendar Event Assignments on the calendar to fit the project time, similar to class scheduling (page [217](#)). Filling the project time is given a higher priority than service levels. No additional events past the number needed to meet the forecast are scheduled. (In other words, there is no over staffing on projects.)

The scheduling engine looks at the activity queue mapping to decide which activities to add to the Calendar to staff the forecasted projects.

The scheduling engine schedules projects based on the following rules:

- 1 It must occur during the window specified in the Project work rules.
- 2 The employee's maximum projects per day and week are also set in the Project work rules.
- 3 It must occur during a work portion of the employee's shifts.

 Project queues are not available from the drop-down queue selector for the Required vs. Predicted Graph window.

FTE Calculator

The FTE Calculator has been enhanced for use with projects.

A button has been added: **Project Statistics....**

FTE Calculator

Number of shifts per week for a full-time equivalent (FTE) employee:

Average length of each shift:

Number of hours paid in each shift:

Number of hours spent answering contacts in each shift:

Hourly Wage (\$):

Estimates based on current schedule

Paid hours scheduled:	1100.00
Hours scheduled answering contacts:	991.25
FTEs according to the current schedule:	28.32
Total Scheduled Cost (\$):	0.00
Max number of concurrent employees:	25
Min number of concurrent employees:	0

Project Statistics...
Staffing Profile Statistics...
Recalculate Close Help

Clicking the **Project Statistics...** button brings up a window with a grid.

Project Statistics

	Queue Name	# scheduled	Assignment Re	Assignment Sc	Cost
▶	Proj 1 Queue	5	100.00	102.00	-102.00
	Proj 2 Queue	0	100.00	0.00	0.00
		5	200.00	102.00	-102.00

Close Help

The grid contains the following data columns:

- **Queue Name**
- **# scheduled:** The number of employees with one or more project assignments.
- **Assignment Re:** The amount of assignments requested.
- **Assignment Sc:** The amount of assignments scheduled.
- **Cost:** This is prorated for the project overlap against the scheduling period window.

In addition, an exclamation point (!) flag, similar to that used for conflicts, is displayed for Over/Under situations.

Time Banking

Time Banking functionality is a separately-licensed feature that enhances the Workforce Management packages.

Time banking, also referred to as annualized hours is a common practice in Europe, specifically in Germany and France, and is starting to become more common in the UK. Companies using time banking often have full time salaried employees, but have large seasonal variations in their contact volume. Instead of using overtime, part-time employees, and the like to meet the variable load, they arrange with their full-time employees to work longer hours during busy times of the year, and fewer hours during slow times of year. In this way they ensure that through the course of the year their employees still work the same number of hours that they would have worked if they had worked a normal set number of hours each week.

Other companies prefer to balance the hours worked on a shorter period of time. Employees *bank* hours when they work more than the normal amount of time, and subtract from the bank when they work less than the normal number of hours.

Multiple areas in the Workforce Management product were enhanced or added to provide Time Banking support, specifically:

- **Work Rules** module: Enables you to:
 - Create time banks
 - Populate them with the requisite number of one-week base periods
 - Lock base periods to prevent changes
 - Group weeks within a time bank (also called intermediate time periods), allowing you to see the target total for larger periods (such as seasons).
 - Import time bank information from a file or from Strategic Planner.
- **Employee** module: Allows you to:
 - Assign time banks to employees (Organization mode only)

- Monitor target hours against scheduled hours per employee (Campaign mode only)
- Adjust target hours for individual employees in a specific base time period (Campaign mode only)
- **Calendar** module: The scheduling engine has been enhanced to:
 - Attempt to meet target hours for the entire scheduling period based on the time bank assigned to the employee.
 - Allow the employee's Min/Max hours to take precedence over time bank hours.

Creating a Time Bank

To create a time bank:

- 1 In Organization mode, go to the **Work Rules** module.
- 2 Select the **Time Banks** tab.
- 3 Start the creation process by doing one of the following:
 - Click the bottom line of the grid.
 - OR
 - Click the **New** button in the task bar.
 - OR
 - Select the **New** menu item from the **Edit** menu.

The Time Bank dialog box is displayed:

- 4 Fill in the fields on the dialog box as appropriate:
 - **Name:** (50 characters) The name of the time bank template. (Can be edited, but must be unique.)

- **Start Date:** (Default value: Jan. 1st) Click to bring up a calendar. Clicking any week highlights the selected day. Base time period weeks are aligned with the organization week boundary, but that is not a requirement for the start date.
 - **End Date:** (Default value: Dec. 31st following the start date.) Click to bring up a calendar. Clicking any week highlights the selected day. The span from the start date to the end date must be between six weeks to one year. This requirement is checked when attempting to save the time bank. Base time period weeks are aligned with the organization week boundary, but that is not a requirement for the end date.
 - **Organization:** A read-only field containing the name of the current organization.
- 5 At the bottom of the Time Bank dialog box, select the method of initializing the time bank's target hours. Target hours can either be initialized from Strategic Planner data that has been imported to the Workforce Management database, or from a total number of hours for the Time Bank period.

If you select the **Calculate From Total Target Hours** option, the base period target hours are calculated based on the total number days in the time bank divided by the target hours in the bank multiplied by the number of days in the base period (7), as follows:

- a. Calculate the total number of hours divided by the number of days.
- b. If the beginning period and/or end period are partial weeks, multiply the number of days in the partial weeks times the hours per day calculated in step [Step a](#) and put in partial weeks (rounded to 15 minutes).
- c. Calculate the new total number of hours minus the partial week hours.
- d. Calculate the number of days remaining.
- e. For the current week value, multiply the value from step [Step c](#) times the value from step [Step d](#), and round to 15 minutes.
- f. Calculate the new total number of hours by subtracting the hours used for the week in step [Step e](#).
- g. Repeat steps [Step d](#) to [Step f](#) until only one full week remains, and put the remainder in that week.

If you select the **Use Strategic Planner Plan** option, the drop down contains a list of the Strategic Planner data that intersects the start date and end date you have specified for the time bank. If you change the start or end date, you need to reselect the Strategic Planner plan to be loaded.

Strategic Planner plans are loaded differently based on whether they were exported from a monthly or weekly scenario.

For monthly scenarios, the monthly values used for the weeks in that month are used for the intersecting weeks in the time bank. If the time bank represents 12 months, it will have 12 values. For example, if you have 3 years of data, 2008 - 2010, and are loading for year 2009, the second year's data (values 13 to 24) is used. Assuming a Monday start day for this organization, and the plan value 42

was used for January and 35 for February, the following week values are stored for the first few weeks:

1/1 to 1/4 (partial week) - 42/7 days * 3 days = 18 hours

1/4 to 1/11 - 42 hours

1/12 to 1/18 - 42 hours

1/19 to 1/25 - 42 hours

1/26 or 2/1 (week divided between months) - 42/7 * 6 days + 35/7 * 1 day = 41 hours

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For weekly scenarios, the weekly values used for each week in the month are loaded into the weeks they overlap the most. Because there is no guarantee that the weekly values will start on a Monday, and be loaded into an organization that starts on a Monday, if the plan weeks were starting on a Wednesday, January 21st, 2009 to January 27th, and you are loading this into a time bank for the entire 2009 year for an organization that starts on a Monday, you would be loading in one of two weeks: January 19th to January 25th or January 26th to February 1st. More days intersect with January 19th to January 25th, so the first week’s hours would be put in this week. Data would then be loaded consecutively until the plan runs out of data to load, or Forecasting and Scheduling runs out of weeks in the time bank.

i You can update data in your time bank from Strategic Planner as well as in Forecasting and Scheduling. However, if the week is locked in Forecasting and Scheduling, the value in Strategic Planner is ignored. Unlocked base period cells with data available from Strategic Planner are overwritten in Forecasting and Scheduling, regardless of locked intermediate and top period levels. Forecasting and Scheduling existing time bank target values for non-intersecting weeks of the Strategic Planner time bank are retained. Intermediate and top period locks are removed.

6 Click **OK** to save the time bank.

The top and bottom panels of the **Time Banks** tab update. The upper panel adds a row with the new time bank template.

The lower panel displays the details of the time bank, and has a title row showing the dates of each 1-week base period (starting on the organization's first day of week) that makes up the time bank.

Time Bank Detail																			
1/1/2010-12/31/2010	1/1/2010(3)	1/4/2010	1/11/2010	1/18/2010	1/25/2010	2/1/2010	2/8/2010	2/15/2010	2/22/2010	3/1/2010	3/8/2010	3/15/2010	3/22/2010	3/29/2010	4/5/2010	4/12/2010	4/19/2010	4/26/2010	5/3/2010
Base Period	16:15	38:15	38:15	38:15	38:15	38:15	38:15	38:15	38:15	38:15	38:15	38:15	38:15	38:15	38:15	38:15	38:15	38:15	38:15
Target Bank Hours	2000:00																		

There may be partial weeks at the beginning and/or end to be able to meet the specified start and end dates. Partial weeks display the number of days they contain in parentheses after the dates in the column headers.

A second row is created displaying the target hours for each base period.

Updating Start and End Dates

Consider the case where you have a time bank for 2010 that will be very similar for 2011. You can copy and paste the 2010 time bank and then change the start and end dates to be 2011 start and end dates. Forecasting and Scheduling copies the data from the weeks sequentially, regardless of partial or full weeks. If the new period has fewer weeks, Forecasting and Scheduling only copies the number of weeks that exist; the others are ignored. If the new period has more weeks, none are copied into the additional weeks. Intermediate periods are removed. Base period locks are left in place.

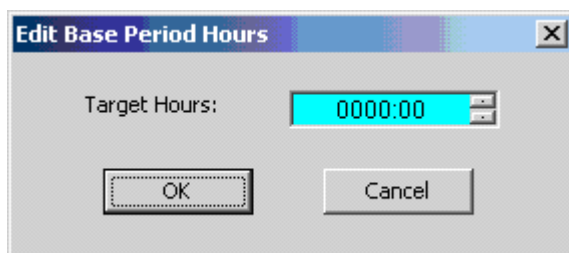
Editing Time Bank Total Hours

You can update the total bank hours from the dialog or directly from the grid. When changed, the new value is subtracted or added proportionately to all unlocked cells.

Editing Base Periods

For base periods, you can edit the hours directly in the grid cell. Valid values are integers or integers with a minutes value, in increments of 15. For example: 30, 30:15, 22:30, 32:45.

You can edit multiple cells, by highlighting a group of cells, right-clicking, and selecting Edit Period Hours..., which opens the following dialog box:



When edited cells have different values, the background color is turned blue and the value in the edit box is 0. When you complete editing the base period value(s), clicking another cell results in the entered values being rolled up into any parent intermediate value and into the total target value.

Creating and Editing Intermediate Time Periods

The purpose of intermediate time periods is to create meaningful segments of time that correlate to larger time segments than a base. For example, you may think of the time bank in chunks such as Winter, Spring, Summer, and Fall. The scheduling algorithm does not use intermediate periods; their sole purpose is to help you visualize the distribution of hours over the entire time bank in larger units.

Intermediate time periods consist of one or more base time periods. When a time bank profile is first created, there are no intermediate periods; you can create one by right-clicking the time bank in the lower panel and selecting the **Add Intermediate Period** menu item.

You can edit the hours directly in the grid cell. Valid values are integers or integers with a minutes value, in increments of 15. For example: 30, 30:15, 22:30, 32:45. Entries are exactly as described as for base cells. When you finish editing the intermediate period value, clicking on another cell results in the entered values being rolled up into the total target value, and down into the base period target values. The intermediate value is divided proportionately based on the current target values in the cell (if possible, provided that the minutes are in increments of 15). For example, an intermediate cell changed from being 100 to 150, which has 3 cells with values 40 (2/5 of total 100), 20(1/5 of total 100), 40(2/5 of total 100), would be changed to be 60(150*2/5), 30(150*1/5), 60 (150*2/5).

The base cells can be locked to prevent intermediate value changes rippling to these cells. Locking a base cell is performed by selecting one or more base cells, right-clicking, and selecting **Lock**. A locked cell is grayed out. After you finish editing the hours in cell, the cell is automatically locked.

Additional editing rules:

- Modifying an intermediate value with all of its children locked will result in an error message and not be allowed.
- You are always required to confirm when modifying the intermediate value that you understand that the unlocked base values will be changed

Deleting Time Banks

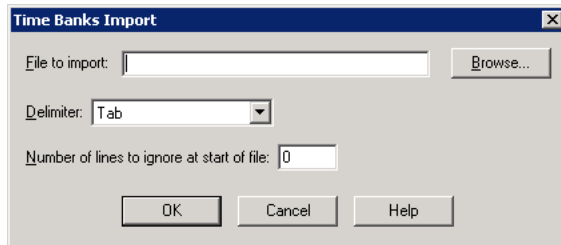
You can delete a time bank by selecting the toolbar **Delete** button, or using the **Delete** key after highlighting one or more time banks. You are required to confirm that you intend to delete the time bank. If there are one or more employees assigned to the time bank, the employees are unassigned from the time bank.

Copying/Pasting Time Banks

To create additional time banks, you can copy an existing time bank and paste it. To copy a time bank, select the time bank on the top grid and press the tool bar **Copy** button, or use **CTRL-C**. Use the toolbar **Paste** button, or **CRTL-V** to paste the time bank. The new time bank appears prefixed with the words **Copy of**.

Importing Time Banks


You can import weekly base period values to create time banks from a file, using the **Import** menu item from the **File** menu, which brings up the following pop-up window:



Enter the name of the file to import, the delimiter character used in the file (Tab, Comma, or Semi-Colon), and the number of lines at the beginning of the file to ignore. The file imported provides the name and start and end dates for the time banks to be created. When you click **OK**, the new time bank description appears in the top grid with its details appearing in the bottom grid.

An import file must contain the following Time bank definition header line.

Time Bank Name, Start Date, End Date, Start Day of Week (not currently used), **Target Hours Week 1, Target Hours Week 2, Target Hours Week N**

 The time bank base period dates will be based on the organization's week boundary day. The algorithm does not distinguish between the first period being a partial or a full week; it puts the hours sequentially into each base period. If there are too few week values, the extra weeks will have target hours of 0. If there are too many week values, the extra values are ignored.

Imported Time Bank names are forced to be unique by adding a number in parentheses after the name until a unique one is found. For example, if the imported time bank name were **SP1**, it might be changed to **SP1 (1)** if **SP1** already exists.

Error handling is provided for time bank start and end dates that do not meet length criteria, and incorrectly formatted files.

If a data value is unreadable because it is not numeric, it is replaced with a 0. If a data value is not divisible by 15 minutes, it is rounded to a value divisible by 15.

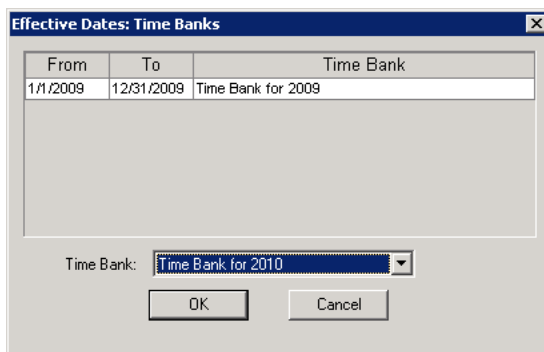
If the Start Day of Week is -1, it is not imported, because this value indicates that the data is not weekly data. Only weekly period values may be imported.

Assigning Time Banks to Employees

Time banks are assigned to employees in the **Employees** module in Organization mode. The upper pane has a sortable column, **Time Bank**.

Employees														
Employees Staffing Profiles														
	First Name	M.I.	Last Name(Asc)	Suffix	Birth Date	Employee Type	Is Supervisor	Is Team Lead	Min Paid Hrs	Max Paid Hrs	Supervisor	Team Lead	Organization	Time Bank
▶	Joey		Adams		1/27/1965	Full-time	<input type="checkbox"/>	<input type="checkbox"/>	35.00	45.00			Customer Servi	
	Abraham		Belworth			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	00.00	40.00	Brickles, Me		Customer Servi	
	Terril		Bloom			Part-time	<input type="checkbox"/>	<input type="checkbox"/>	00.00	20.00	Brickles, Me		Customer Servi	
	Mick		Brannon			Part-time	<input type="checkbox"/>	<input type="checkbox"/>	00.00	20.00	Brickles, Me		Customer Servi	
	Melinda		Brickles			Full-time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Brickles, Me		Customer Servi	
	Kevin		Chang			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Brickles, Me		Customer Servi	
	Stuart		Conley			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Brickles, Me		Customer Servi	
	Helena		Corones			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Brickles, Me		Customer Servi	
	Allison		Cramer			Part-time	<input type="checkbox"/>	<input type="checkbox"/>	00.00	20.00	Brickles, Me		Customer Servi	
	Bob		DeVries			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Brickles, Me		Customer Servi	
	Jale		Edwards			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Brickles, Me		Customer Servi	
	Joseph		Harms			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Brickles, Me		Customer Servi	
	Yolanda		Jackson			Part-time	<input type="checkbox"/>	<input type="checkbox"/>	00.00	20.00	Brickles, Me		Customer Servi	
	Albert		Johnson			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Brickles, Me		Customer Servi	
	Lynette		Jones			Full-time	<input type="checkbox"/>	<input type="checkbox"/>	32.00	40.00	Brickles, Me		Customer Servi	

Clicking the button at the right side of the **Time Bank** field opens the **Effective Dates: Time Banks** pop-up dialog box that allows you to select the time bank for the selected employee.



The dialog box titled "Effective Dates: Time Banks" contains a table with the following data:

From	To	Time Bank
1/1/2009	12/31/2009	Time Bank for 2009

Below the table is a "Time Bank:" label followed by a dropdown menu currently showing "Time Bank for 2010". At the bottom are "OK" and "Cancel" buttons.

An employee cannot belong to more than one time bank on any date. When you select a new time bank from the dropdown list on the **Effective Dates: Time Banks** dialog box, if the new time bank overlaps any of the employee's current time banks, you are prompted if you wish to continue, which will result in the existing time bank assignment being deleted.

The time bank selection consists of all time banks eligible based on the current date into the future for the selected employee(s).

Filtering by Time Bank

You can filter the view of employees by a selected time bank, using the Time Bank drop-down selector on the Employee Filter dialog box.

The **Employee Filter** dialog box contains the following fields and controls:

- Supervisor:** Dropdown menu
- Team Lead:** Dropdown menu
- Employee Type:** Dropdown menu
- Is Supervisor:** Radio buttons (Yes, No)
- Is Team Lead:** Radio buttons (Yes, No)
- Organization:** Dropdown menu
- Job Title:** Dropdown menu
- Skill:** Dropdown menu
- Work Queue:** Dropdown menu
- Work Pattern:** Dropdown menu
- Rotations:** Dropdown menu
- Assignment Rules:** Dropdown menu
- Preferred Start:** Dropdown menu
- Name Contains:** Text input field
- OT Before Shift:** Dropdown menu
- OT After Shift:** Dropdown menu
- VTO Shift Start:** Dropdown menu
- VTO Shift End:** Dropdown menu
- Time Bank:** Dropdown menu

On the right side, there is a section for **Lower limit** and **Upper limit** with the following fields:

- Min Hours
- Max Hours
- Start Date
- End Date
- Proficiency
- Rank
- Quality Score
- Max OT Per Week
- Max OT Per Day
- Max VTO Per Week
- Max VTO Per Day

Buttons at the bottom: Clear Field, Clear All, OK, Cancel, Help.

You can select from a list of time banks that is created by adding only those time banks assigned for the time period being viewed. For example, if the organization allows for **Time bank 1**, **Time bank 2**, and **Time bank 3**, but **Time bank 3** is not currently assigned to an employee, only **Time bank 1** and **Time bank 2** are displayed in the drop-down selector. In addition, only time banks that cross the current viewing period are displayed, because past or future time banks to the viewing period are not shown.

Viewing an Employee's Time Bank

In Campaign mode, the Employee module's lower pane has a **Time Bank** tab, which allows you to view the time bank for individual employees, and make adjustments if needed.

Adjustments are values that will be added to the target value of the cell, and will be accumulated forward.

In the example below, three numbers are shown for each level of period:

- Target
Target is the hours set in the Time Bank definition.
- Paid

Paid is the combination of shifts worked and adjustments.

- Balance


Balance is defined as:

$$\text{Balance} = \text{Paid} - \text{Target}$$

Target is read-only; Balance can only be indirectly changed by editing Paid. Beyond the current period, only Target hours is loaded. Paid and Balance are empty for future periods. When cells are read-only, they are grayed out. If there is an adjustment component to the Paid total, an asterisk is displayed to the right of Paid.

When Balance is positive, which means employees have deposited more hours in the bank, the cell's color is green, otherwise it is red.

		1/1/2009-12/31/2009	1/1/2009(4)	1/5/2009	1/12/2009	1/19/2009	1/26/2009	2/2/2009	2/9/2009	2/16/2009	2/23/2009	3/2/2009	3/9/2009
Base Period	Target	31:45	38:15	38:30	38:30	38:30	38:15	38:15	38:15	38:15	38:15	38:15	38:15
	Paid	100:00*	0:00	-3:00*	38:30*	49:55*	4:10						
	Balance	68:15	-38:15	-41:30	0:00	11:25	-34:5						
Intermediate Period	Target	70:00			115:30								
	Paid	100:00			85:25								
	Balance	30:00			-30:5								
Time Bank	Target												
	Paid												
	Balance												

 A number in parenthesis after the date on the date line indicates that this is a partial week and the number of days in that partial week.

When a shift assignment spans a base period boundary, the following simple rule is used in counting the scheduled hours:

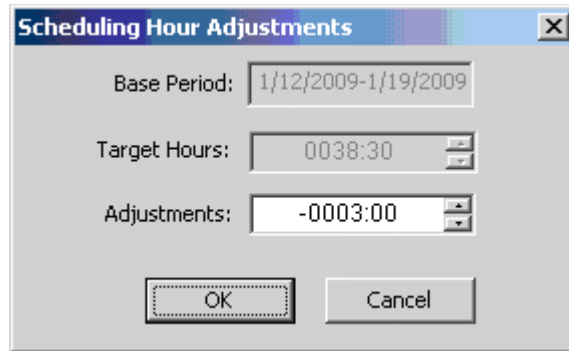
The whole shift length is counted towards that base period if its start date is in the base period; otherwise, it is not included at all for this base period.

The scheduled portion of the time bank is always based on existing data.

In the case where one time bank ends in a scheduling period and another time bank starts in the period, the time bank shown depends on the navigation context. As you navigate day by day (or week by week), the time bank grid is repopulated with the time bank that covers the current day (or the first day of the current week, if it is week mode).

Adjusting Time Bank Hours for Employees

You can enter a scheduling period adjustment based on a specific base periods by double clicking the base cell to launch the following dialog box:



Only the **Adjustments** field can be changed; its value can be either positive or negative.

Scheduling with Time Banks

The scheduling engine attempts to meet the time bank target for the current period, just as if it were an hours assignment rule with the same duration as the period. If the employee is running over or under his hours for the previous period, the scheduler tries to schedule fewer or extra hours in this period to get back to the plan. If, after scheduling, the employee is over or under his hours for the current period for the bank to date, the following message is shown in both the scheduler warning messages and conflicts:

Employee X is over/under scheduled for Y hours for his Time Bank Z hours of A from mm/dd/yyyy to mm/dd/yyyy.

If the time bank period for an employee does not fully intersect the scheduling period that is being scheduled, a pre-scheduler warning is shown identical to the warning when an assignment rule period does not correspond to the scheduling period.

If the base time bank period does not match the scheduling period, there is a warning message during scheduling.

The scheduling algorithm in a multi-week scenario applies the target hours either weekly, or for the entire period. This is determined per employee based on what was requested for the time bank to which they've been assigned for this period. If two different time banks are active for this period, the first time bank's preference is used for the calculations.

Workforce Management Basics

This chapter provides a short introduction to the Workforce Management portion of the Workforce Optimization Solution. It includes the following sections:

- [Starting the Workforce Optimization Solution](#), page 308—Opening and logging into the Workforce Optimization Solution. See page [308](#).
- [Getting Around in Workforce Management](#), page 309—Introducing the Workforce Optimization Solution’s setup and workflow, navigating in the Workforce Optimization Solution, using its pages, and entering data. See page [309](#).
- [Setting Preferences](#), **page 321**—Setting your local time zone, opening page, and other personal preferences. See page [321](#).
- [Getting Help](#), **page 322**—Using our Help system. See page [322](#).
- [Logging Off the System](#), page 323—Exiting Workforce Management. See page [323](#).
- [What If Mode](#), page 323—Working with hypothetical schedule information without altering the contents of your production database. See page [323](#).

Starting the Workforce Optimization Solution

There are two ways to start the web application in Workforce Management, depending on how your system is configured:

- Single sign-on

When your system has been configured for single sign-on, you do not log into Workforce Management, or indeed, any of the Impact 360 applications, such as eLearning, Quality Monitoring version 10 SP3, or Quality Monitoring version 7.8 SP1. All authentication is done when you log into Windows on your computer.

- Application-dependent sign-on

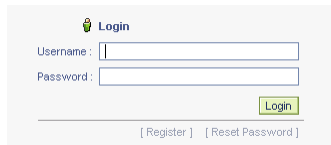
You must log into each Impact 360 application independently.

To start Workforce Management:

- 1 Open your web browser and type the URL of the server location where Workforce Management is installed.


If your system is configured for single sign-on, the login page is displayed and the **Trusted Login** check box is checked. You do not need to sign in to the application, only click on **Login**. You can then start working with Workforce Management.

If your system is not configured for single sign-on, the Login page opens, a portion of which is shown below:



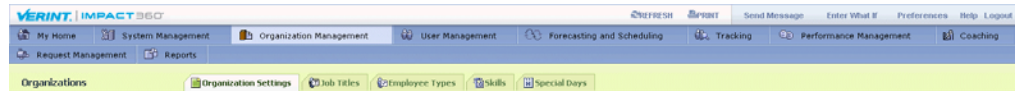
- 2 Type your Username and Password (both are case-sensitive), then click **Login**. Workforce Management opens to the default page for your role or the one you have selected in Preferences.

If users have forgotten their password, and provided your company's networking and security environment permits, they can click **Reset Password**. The system will prompt them for certain data to identify them (the same data specified in the section *Self-Identification (XXX)* of the *Workforce Management Administration Guide*), and if an e-mail address has been registered for them, it will send a temporary password to their e-mail address. They can use this temporary password to log in; the system will then require them to change the temporary password and log in using the new password they have selected.

-  If an e-mail address is not registered for them, they will be instructed to contact their system administrator either to reset their password or register an e-mail address for them, so they can reset it themselves.

Getting Around in Workforce Management

Workforce Management uses a web-browser-based interface with a navigation bar and multiple levels of tabs.



The topmost level of navigation consists of *modules*, such as the following:

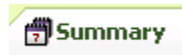


At the far right end of the modules, a button (⌵) allows you collapse and truncate the module navigation level from two lines to one, which can be useful depending on your screen's size.








Hovering your cursor over a module displays a window showing all the sections into which functions are grouped under the module, such as:

- **My Dashboards**
- **My Schedule**
- **My Requests**

The next level down of navigation is referred to as a *tab*, such as the following:



General controls are located above the navigation bar:

	Click Refresh to update the data on your page.
	Click Print to print a copy of the current page.
	Click Send Message to send a pop-up alert to selected target users.
	Click Enter What If to enter What If mode.
	Click Preferences to open the Preferences window.
	Click Help to open the Workforce Optimization Solution Help system and display help for the current page.
	Click Logout to log out of the Workforce Optimization Solution.

Navigate by hovering your cursor over the appropriate module to display the sections and their tabs, and click the tab you want to use.

Role Name	Default Role	Description
Adhoc Query Analyst	No	Adhoc Query Analyst
Administrator	No	System Administrator
Agent	Yes	Agent in the Organization
Branch Admin	No	Branch Administrator
Branch Employee	No	Branch Employee
Branch Manager	No	Branch Manager
General	No	Read-only Access to Organization and Campaign.
Installation & Setup Role	No	Installation & Setup Role
Manager	No	Organization Manager
New Agent	No	New Agent in the Organization

Note that the modules, sections, and tabs available change depending on the user's role and your license.

TIP



If you resize your browser window, the rightmost buttons on the button bar may be hidden. Resize your browser window, scroll horizontally, or change your screen resolution to see them.

TIP



If you find yourself frequently changing among two or three tabs, you can open multiple sessions in separate browser windows to make your access to these tabs quicker and easier.


Expanding Pages

Some pages in Workforce Management use two panes with a selection list on the left and an action page on the right.

Either side of these pages can be expanded by clicking one of the arrow buttons between the panes.



- Click the button facing right to expand the left pane into a summary list.

- Click the button facing left () to expand the right pane into a full page display.

Name	Monday 01/06	Tuesday 01/07	Wednesday 01/08	Thursday 01/09	Friday 01/10	Saturday 01/11	Sunday 01/12
Aho, Samra	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Alke, Christy	Off	Off	Off	Off	9:00 AM - 6:00 PM	Closed	Closed
Anderson, David	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Anderson, Erica	9:00 AM - 6:00 PM	9:00 AM - 6:00 PM	9:00 AM - 6:00 PM	9:00 AM - 6:00 PM	9:00 AM - 6:00 PM	9:00 AM - 6:00 PM	Closed
Anderson, Jennifer	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Anderson, Tiffany	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Arnold, Wendy	8:00 AM - 5:00 PM	8:00 AM - 5:00 PM	8:00 AM - 5:00 PM	8:00 AM - 5:00 PM	8:00 AM - 5:00 PM	Closed	Closed
Asp, Sarah	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Bakelberg, Rob	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Beauch, Paul	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Becker, Anne	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Berley, Michele	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Bisby, Paula	Off	Time Off	Off	Off	Off	Closed	Closed
Borken, Philip	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Boucher, Brian	Off	Off	Off	Off	10:00 AM - 7:00 PM	Closed	Closed
Bourgeois, Larry	9:00 AM - 6:00 PM	9:00 AM - 6:00 PM	9:00 AM - 6:00 PM	9:00 AM - 6:00 PM	9:00 AM - 6:00 PM	Closed	Closed
Boyles, Nicole	8:00 AM - 5:00 PM	8:00 AM - 5:00 PM	8:00 AM - 5:00 PM	8:00 AM - 5:00 PM	8:00 AM - 5:00 PM	Closed	Closed
Brast, Sheila	Off	Off	Off	Off	10:00 AM - 7:00 PM	Closed	Closed
Brigg, Elizabeth	Off	Off	Off	Off	Off	Closed	Closed
Brownell, Nicole	Not published	Not published	Not published	Not published	Not published	Not published	Not published

- To return to the original display, click the single-arrow button to the side of the display. To switch the pages displayed, click the double-arrow.



The pane on the right may consist of one or more groupings, referred to as *containers*, as shown below:

Last Name	First Name	Middle Name	Suffix	Birth Date
Personal Contact				
Value				
Type				
Administrative Details				
Employee ID				
Tax ID (SSN)				
Wage Amount	0.00			
Rank				
Start Date				
Supervisor				
Organization	CRM - MN and South			
Manager				
Job Title				
Data Source				
Agent ID				Password
Home Address				
Address				
Address 2				
City				
State				
Zip/Postal Code				
Country				
User Defined Fields				

Each container has its own title and can be collapsed or expanded. Containers may contain multiple collapsed levels.

Expanding and Collapsing Lists

Some lists in the Workforce Optimization Solution have controls that allow you to expand the list completely, or to collapse it.

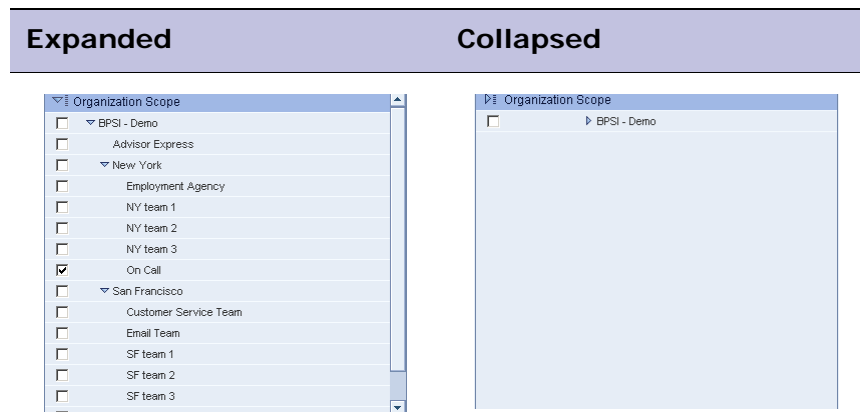


Click right-facing button to expand the list.



Click the down-facing button to collapse the list.

For example, the following graphic shows the Organization Scope list in both its expanded and collapsed form:

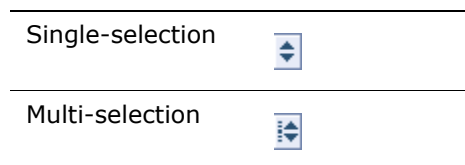



Selecting Items in a Drop-Down Menu

You set the value of some items in the Workforce Optimization Solution's web interface using drop-down menus. There are two types of drop-down menus:

- **single-selection**
You can only select one item from the drop-down menu.
- **multi-selection**
You can select one or more items, using the **Ctrl** key to select non-adjacent items or the **Shift** key to select a contiguous range of items.

The type of drop-down menu is indicated with the following buttons:



Once you've finished multi-selecting, click  again.

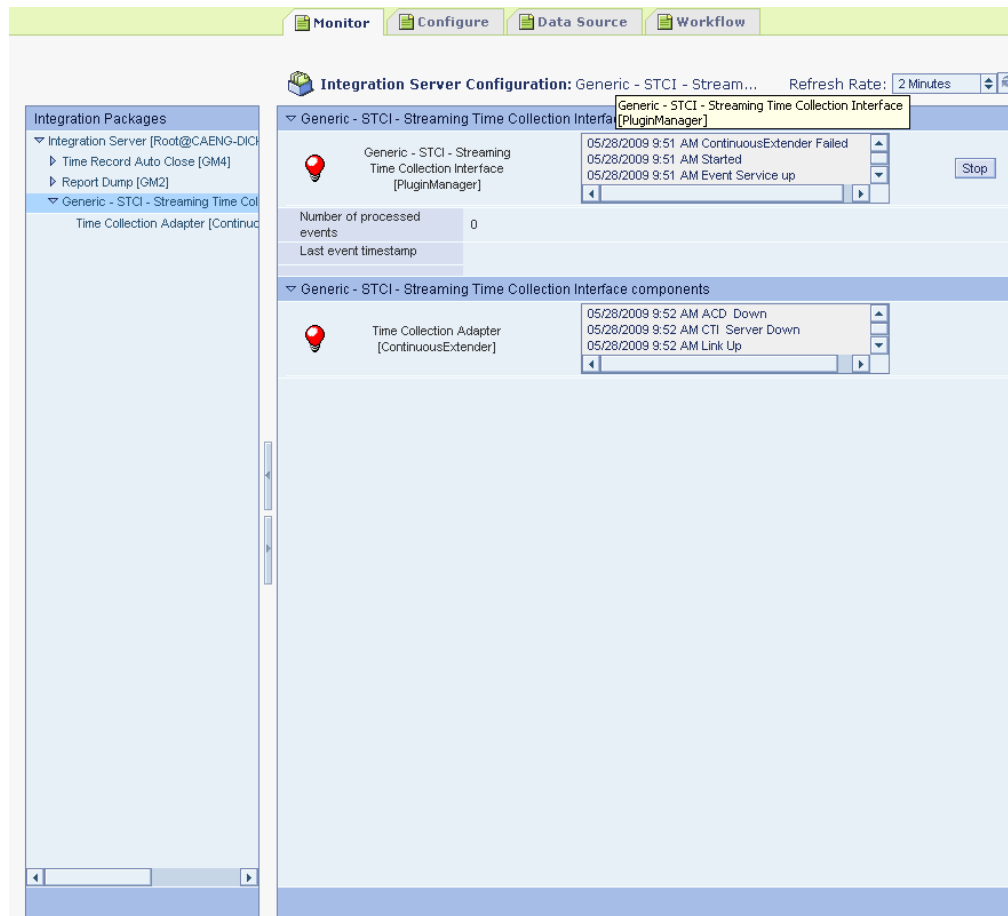


If the items you have selected cannot be fully displayed in the selection box, position your cursor over the selection for a few seconds (known as hovering). The selected items will be displayed as a tool-tip. This same technique can be used for both single and multi-selections.

Expanding Truncated Text

Some windows in the Workforce Optimization Solution automatically truncate text in the Content Title area of the window. To indicate that the text has been truncated, the system adds an ellipsis (...) to the end of the displayed text.


To expand the text so you can see it in its entirety, position your cursor over the text for a few seconds (referred to as *hovering*). The full text then appears in a pop-up box, as shown in the following figure:



Sorting Data

Many of the Workforce Optimization Solution's pages contain columns of information that can be sorted.

To sort information:

- Click the name of the column to be sorted. The column head turns darker and a small arrow  indicates the sort order of the column.

Name	Organization Name	Badge ID	Employee ID	End Date	Supervisor	Pay Policy	Tax ID (SSN)	Start Date	Suffix	Y
Andersen, Kym	Bling				No	Corporate Pay Policy		Apr 23, 2001		0
Bier, Rocky	Bling				Yes	Corporate Pay Policy		Apr 23, 2001		0

- To reverse the sort order, click the name of the column again.

Printing a Page

To print a page:

- 1 Click **Print** on the navigation bar. The **Print** dialog box opens.
- 2 On the **Options** tab, select **Print frames as laid out on screen**.
- 3 Click **Print**.

Sending Pop-Up Messages

You can use the **Send Pop-up Message** button to send pop-up alerts to other employees.

When you click the **Send Pop-up Message** button, the **Send Pop-up Message** pop-up window opens.

To create a new alert message, you need to provide the pop-up alert target information (to whom) and the message itself.

Providing Target Information

You can send pop-up alerts to employees in a number of ways:

- 1 You can select employees by name, by checking the **Employees** check box. To select specific employees, click the employee icon. The employee selector screen appears. Select the employees as desired and click **Save**.
- 2 You can send pop-up alerts to all employees selected by an existing filter or one that you create or edit at the time of sending the alert by checking the **Employee Filter** check box.
- 3 You can send pop-up alerts to employees using their Workforce Management login names, separated one from the other by semi-colons, by checking the **Additional users by login names (semicolon separated)** check box.
- 4 You can send pop-up alerts to employees by role, checking the **Additional users by role** check box, and selecting the desired role from the drop-down list.
- 5 You can send pop-up alerts to employees using their Windows login names, separated one from the other by semi-colons, by checking the **Additional delivery targets (semicolon separated)** check box, provided you have specified these in the **Pop-up Address** field on the **Profiles** tab of the **User Management** module.

You can select targets using one or more of the above methods, if desired.

Providing Message Information

To provide the message information:

- 1 Insert the subject line and the message text in the available text boxes.
- 2 Select the delivery template from the drop-down list.

Message Templates

Three different templates are used for pop-up messages:

- **Normal**
Normal pop-up messages display a banner at the bottom right of the screen. This banner resembles a sheet of ruled note paper, and shows the subject of the message against a yellow background, and the sender and the date and time the message was sent against a white background. Clicking the banner opens a separate window showing the entire message.
- **High**
Messages sent using the **High** template are meant to be read immediately. For that reason, no banner is displayed, but the message is displayed in a separate window.
- **Confidential**
Confidential pop-up messages display a banner at the bottom right of the screen. This banner resembles a sheet of ruled note paper, and shows the text **Confidential message received...** against a yellow background. To maintain the confidentiality of the message, the sender and the date and time the message was

sent are not displayed. Instead, the text *****CONFIDENTIAL***** is displayed. Clicking the banner opens a separate window with a button that enables the reader to show the entire message (an additional level of security).

Sending the Message

To send the pop-up alert message:

- 1 Click **Send Pop-up Message** to send the alert message.
- 2 Click **Done** if you want to close the form without sending the message.

The form closes and you return to the web application.





Receiving Pop-Up Alert Messages

The pop-up messages you receive can be sent to you in two different ways:

- As a result of alerts that your administrator has configured. Alerts can be sent for such conditions as one of your KPIs being out of range, or your being out of adherence.
- When an administrator, manager, supervisor, or scheduler uses the **Send Pop-up Message** button at the top of the web application window.


Message Templates

As described previously, three different templates are used for pop-up messages:

- **Normal**
Normal pop-up messages display a banner at the bottom right of the screen. This banner resembles a sheet of ruled note paper, and shows the subject of the message against a yellow background, and the sender and the date and time the message was sent against a white background. Clicking the banner opens a separate window showing the entire message. Click  to close the message or click  to delete the message. If you take no action, the banner fades away, but the message is not lost; pop-up messages are kept for the duration of your session within Workforce Management.
- **High**
Messages sent using the **High** template are meant to be read immediately. For that reason, no banner is displayed, but the message is displayed in a separate window.
- **Confidential**
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Reading Messages

As mentioned previously, you can click the message banner (for Normal and Confidential messages) to open the message in a separate window.

If the banner is no longer visible, you can click the  icon on the Windows taskbar.

The window that opens displays an **Alerts** tab, consisting of the following message elements:

- Navigation icons
- Header
- Controls
- Body

Navigation Icons

Icons are displayed for each message. Icons for the first and last message are always displayed. When more than ten messages exist for the current session, an icon resembling multiple pages is shown, allowing you to move from one group of ten to the next.



Clicking on the icon labeled 11-21 above would change the navigation display to the following:




When you select a particular message icon, the color changes to red for **High** template messages, and yellow for **Normal** and **Confidential** template messages.


Header

The message header is displayed just below the navigation icons. It resembles the pop-up banner described previously, and varies according to the message template:


- Normal

	System down-time
	From: Steakley, Robert
	Sent: 4/25/2007 9:01:04 AM
	Template: Normal



- High



	System down-time
	From: Steakley, Robert
	Sent: 4/25/2007 9:00:29 AM
	Template: High

- Confidential

	A confidential message received...
	
	Template: Confidential

Controls

Message controls are displayed to the right of the message header. All messages, regardless of the template used, have a  **Delete** button. Click the  **Delete** button to delete a message.


In addition, **Confidential** messages have the  **Show** button. Click the  **Show** button to display the sender and message body of a confidential message. (Until you click this button, the sender is displayed as the string *********, and the message body as the string *****Confidential*****.)

Body

The message body is found below the message header area. Messages are shown in plain text for both **Normal** and **High** template messages.

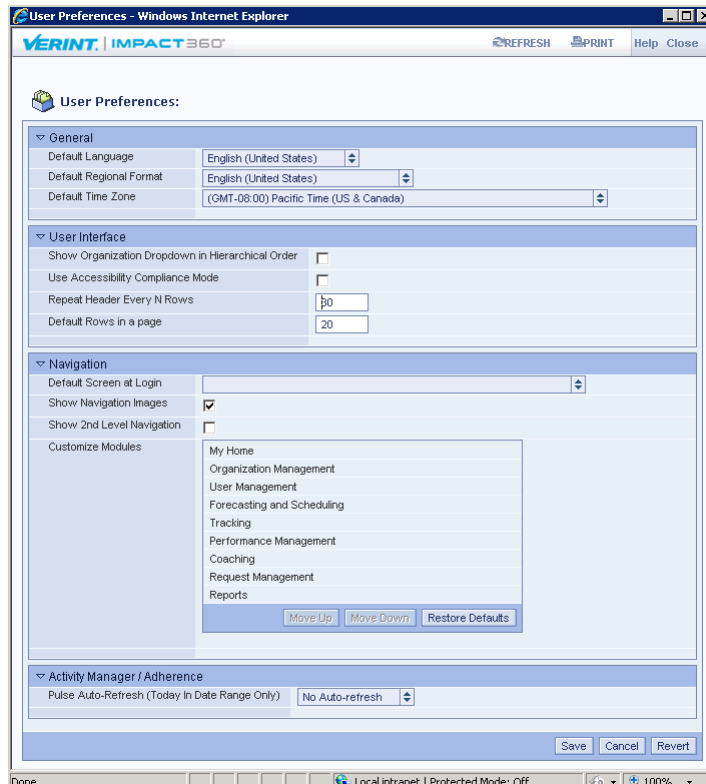
HTML tags can be used in the message text.




Confidential messages are not shown in plain text until you click the  **Show** button described previously. Instead, the string ***** is shown in place of the sender (in the window header), ***CONFIDENTIAL*** in place of the text, and the string **Confidential message received...** is shown in place of the subject.

Setting Preferences

You can set your viewing preferences by clicking **Preferences** on the navigation bar. These settings remain in effect until you change them.



 These settings affect only your display. Some of the preference settings shown might not be applicable to you, depending on your license.

Preferences allow you to choose the following display options:

General:

- **Default Language**—available languages are determined by your license and made available by your administrator through the Licensed Languages container of the System Management module's Administration section's **General** sidebar element. If only one language is available, this option is not displayed.
- **Default Regional Format**—sets the default format for:
 - Date (short and long formats, order, separator)

- Time (12 or 24 hour and relevant symbols, separator, leading zero)
- Currency (symbol, number settings)
- Number settings (000 separator, decimal point character)
- First day of week (in calendars)

The localized setting will be used anywhere dates, times, currency figures and numbers are displayed.

- **Default Time Zone**—activity times and schedules are displayed to you in this time zone.

User Interface:

- **Show Organization Dropdown in Hierarchical Order**—allows you to toggle the display of organizations in drop-down lists from purely alphabetical to a tree-style, showing the hierarchy of organizations and their child organizations.
- **Use Accessibility Compliance Mode**—allows the user interface to be displayed using certain alternate mechanisms prescribed by a U.S. Federal standard. These mechanisms are designed to facilitate access to the system by all users, regardless of their abilities or disabilities.
- **Repeat Header Every N Rows**—the frequency a table or report header will be displayed as you scroll through a list. Type a number in the text box. A blank box sets the number to the default, 30. Enter a zero (0) if you don't want the header to repeat.
- **Default Rows in a page**—for pages that support pagination, the number of rows to display by default for tabular data.

Navigation:

- **Default Screen at Login**—the screen that first appears each time you log in.
- **Show Navigation Images**—toggles the display of the images shown above the module names in the navigation bar. Suppressing the display of the images allows more information to be displayed on your monitor, somewhat reducing the need to scroll.
- **Show 2nd Level Navigation**—toggles the display of the navigation sections below the module name.
- **Customize Modules**—the controls allow you to customize the display order of the modules.

Activity Manager / Adherence

- **Pulse Auto-Refresh (Today in Date Range Only)**—How often to auto-refresh Pulse data.

Getting Help

Help for each Workforce Optimization Solution web page is available by clicking the **Help** link on the navigation bar.

Click the **About** button to view statements about intellectual property, open source attribution, and the user license.

Click the **Close** button to return to the main page.

Logging Off the System

You can log out of the Workforce Optimization Solution at any time.

To log out of the Workforce Optimization Solution:

- Click **Logout** on the navigation bar.

What If Mode

A special mode exists in both the web application and Forecasting and Scheduling that allows you to work with hypothetical schedule information without inadvertently altering the contents of your production database. For more information on What If mode, please see the chapter on Forecasting and Scheduling's Work Modes in the *Workforce Management Schedulers Guide*.

Viewing Your Information: The My Home Module

The **My Home** module allows you to access the following sections:

My Schedule	You can:
<ul style="list-style-type: none">• Group	<ul style="list-style-type: none">• View schedule summary information for each day in a selected range for multiple employees in their own organizations and other organizations as specified in the Time Off settings.
My Scorecards	Allows users to view their scorecards. This section is documented in a separate guide, the <i>Scorecards User Guide</i> .
My Learning	Allows users to view advanced eLearning tools that deliver customized lessons to your desktop. These lessons are designed to increase your performance and competency rank. This section is documented in a separate guide, the <i>Competency-based Learning Student User Guide</i> .
My Profile	Allows you to:
<ul style="list-style-type: none">• Personal Information	<ul style="list-style-type: none">• View your personal information and update your password.

Depending on your license, you might have access to additional sections and tabs. These sections can include the following:

My Dashboards	Part of the optional and separately licensed Dashboards feature, this section allows you to view certain tables in a graph format.
My Learning	Allows users to view advanced eLearning tools that deliver customized lessons to your desktop. These lessons are designed to increase your performance and competency rank. This section is documented in a separate guide, the <i>Competency-based Learning Student User Guide</i> .
My Coaching	Part of the optional and separately license Coaching feature. See the <i>Coaching Addendum</i> for more information on this feature.

Viewing Your Schedule: My Schedule

For a manager, the **My Schedule** section contains one tab:

Group	Displays schedule summary information for each day in a selected range for multiple employees.
--------------	--

The Group Tab

This page by default displays schedule summary information for each day in a selected range for multiple employees.

Choosing the Schedule's Display Format

The information can be displayed for multiple employees in one of three formats (also called *views* or *modes*):


- each day in a selected range in tabular format (Multiday view)
- a single day in tabular format (Text view)
- a single day in graphical format (Graph view)

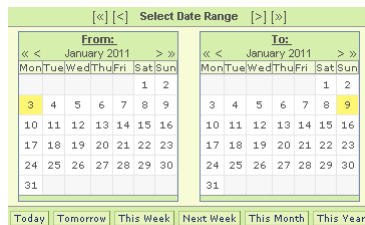
Multiday View

In Multiday view, each date in the date range for each person is represented by an entry in the table. The entry may be one of:

- the start and end of the work period
- **No shift**
- **Not published**
- **Time Off**
- **Closed**

The start and end usually represent the start and end of the shift, except when the shift is extended by an adjacent calendar event or when it is trimmed by a time-off event.

You can change the dates displayed by clicking on the date range selector icon  next to the shown dates and select the date range.



When selecting the date range, you can click one of the following at the bottom of the pop-up:

- **Today**
- **Tomorrow**
- **This Week**
- **Next Week**
- **This Month**
- **This Year**

Alternatively, you can select a start date on the left calendar, an end date on the right calendar, and click **Set** .



You can move both calendars in synch using the arrow buttons on either side of the window title **Select Date Range**. To move each calendar independently, use the arrow buttons on either side of the month's name. The **<<** and **>>** buttons move in increments of a year; the **<** and **>** buttons move in increments of a month.

If you do not want to change the date range in the selector, click **Cancel**.

To switch among the views, use the **View** drop-down selector on the top right of the page.

Changing the Sort Order

Use the **Sort by** drop-down selector to select the sorting criterion. If you are not viewing the first page in a multipage list of the selected group of employees, changing the sort order takes you back to the first page.

You can sort the information on this screen by one of the following:

- Last Name
- First Name
- Start Time (Shift Start Time)
- End Time (Shift End Time)
- Length (Shift Length)

Controlling the Amount of Information Displayed

If the list of selected employees in the group is long, you can use the pagination drop-down selector at the bottom left of the window to limit the number of employees being displayed, thus allowing the page to render quickly.

To move to the next or previous page in a long list, use the next (right arrow) or previous (left arrow) buttons in the pagination control.

Additionally, when you scroll through a long list of employees on a page, the column headers repeat every certain number of rows. You can set this number in the Preferences window.

Changing Groups

You can also change the group of employees being viewed by clicking on the group selector icon next to the name of the current group. The **Select Organization / Campaign Group** window appears as a pop-up window, allowing you to select a group of employees using their organization and/or campaign associations.



- 1 Select one organization in the lefthand tree, or select one campaign in the righthand list, or select both an organization and a campaign. When selecting an organization, you can expand and collapse organization tree branches by clicking the triangular icons to the left of the organization names.
- 2 Click **Save**.

If both an organization and campaign are selected (highlighted), the selection will affect employees from the selected organization who are working in the selected campaign, a subset of both organization and campaign.

If only an organization name is selected, you are selecting all the employees in this organization.

If only a campaign name is selected, you are selecting all the employees working for this campaign, regardless of their organization.

Text View

This page displays detailed schedule information for one day for multiple employees. It is best suited for printing daily group schedules.

Employee Name	Shift	Activities
Albert Johnson	9:45 AM - 6:15 PM	Training (8:00 AM - 9:30 AM), Phone (9:45 AM - 10:45 AM), Break (10:45 AM - 11:00 AM), Phone (11:00 AM - 1:48 PM), Lunch (1:45 PM - 2:15 PM), Phone (2:15 PM - 4:15 PM), Break (4:15 PM - 4:30 PM), Phone (4:30 PM - 6:15 PM)
Lynette Jones	9:00 AM - 5:30 PM	Phone (9:00 AM - 10:30 AM), Break (10:30 AM - 10:45 AM), Phone (10:45 AM - 11:00 AM), Training (11:00 AM - 12:30 PM), Deferred (12:30 PM - 1:30 PM), Lunch (1:30 PM - 2:00 PM), Phone (2:00 PM - 2:15 PM), Deferred (2:15 PM - 3:15 PM), Phone (3:15 PM - 4:30 PM), Break (4:30 PM - 4:45 PM), Phone (4:45 PM - 5:30 PM)
Frederick Koza	7:45 AM - 7:00 PM Overtime 5:00 PM - 7:00 PM	Phone (7:45 AM - 9:30 AM), Training (9:30 AM - 11:00 AM), Phone (11:00 AM - 11:45 AM), Lunch (11:45 AM - 12:15 PM), Phone (12:15 PM - 3:00 PM), Break (3:00 PM - 3:15 PM), Phone (3:15 PM - 5:00 PM), Phone (5:00 PM - 7:00 PM)
Bulworth Markman	7:00 AM - 3:30 PM	Phone (7:00 AM - 8:00 AM), Training (8:00 AM - 9:30 AM), Break (9:30 AM - 9:45 AM), Phone (9:45 AM - 11:15 AM), Lunch (11:15 AM - 11:45 AM), Phone (11:45 AM - 1:00 PM), Break (1:00 PM - 1:15 PM), Phone (1:15 PM - 3:30 PM)
Elvira Notterson	2:15 PM - 6:15 PM	Training (9:30 AM - 11:00 AM), Phone (2:15 PM - 3:15 PM), Break (3:15 PM - 3:30 PM)

Each employee in the selected group is represented by one row in the table with possible multiple subrows for different activities. The name of employee is shown in the **Name** column. The name of the current user is highlighted.

The record in the **Shift** column for any employee may show the shift start and end times, or **No shift**, or **Not published**.

The color box on the left of the shift shows the main shift event. If you see a yellow information icon next to the shift end time, you can hover the mouse over it and read the shift comment.

The data in the **Activities** column shows all events during this day for the employee. Each activity during a day is represented by a row, which shows activity color box, activity name, activity start and end times, and optional Description icon. The description is displayed when you hover the mouse over the yellow information icon.

A shift overtime period is displayed in a separate line in the **Shift** column and activities that are covered by an overtime period have a cross-hatch pattern on top of the color icon box next to the activity name in the **Activities** column. The pattern resembles the following:

You can change the dates displayed by clicking on the date range selector next to the dates shown and selecting the date range. When selecting the date range, you can click one of the following at the bottom of the pop-up:

- **Today**
- **Tomorrow**
- **This Week**
- **Next Week**
- **This Month**
- **This Year**

Alternatively, you can select a start date on the left calendar, an end date on the right calendar, and click **Set** . If you do not want to change the date range in the selector, click **Cancel**.

Changing the Sort Order

Use the Sort by drop-down selector to select the sorting criterion. If you are not viewing the first page in a multipage list of the selected group of employees, changing the sort order takes you back to the first page.

You can sort the information on this screen by one of the following:

- Last Name
- First Name
- Start Time (Shift Start Time)
- End Time (Shift End Time)
- Length (Shift Length)

Controlling the Amount of Information Displayed

If the list of selected employees in the group is long, you can use the pagination drop-down selector at the bottom left of the window to limit the number of employees being displayed, thus allowing the page to render quickly.

To move to the next or previous page in a long list, use the next (right arrow) or previous (left arrow) buttons in the pagination control.

Additionally, when you scroll through a long list of employees on a page, the column headers repeat every certain number of rows. You can set this number in the Preferences window. (See "[Setting Preferences](#)" on page 25.)

Changing Groups

You can also change the group of employees being viewed by clicking on the group selector icon next to the name of the current group. The group selector window appears as a pop-up window, allowing you to select a group of employees using their organization and/or campaign associations.

- 1 Select one organization in the lefthand tree, or select one campaign in the righthand list, or select both an organization and a campaign. When selecting an organization, you can expand and collapse organization tree branches by clicking the triangular icons to the left of the organization names.
- 2 Click **Save**.

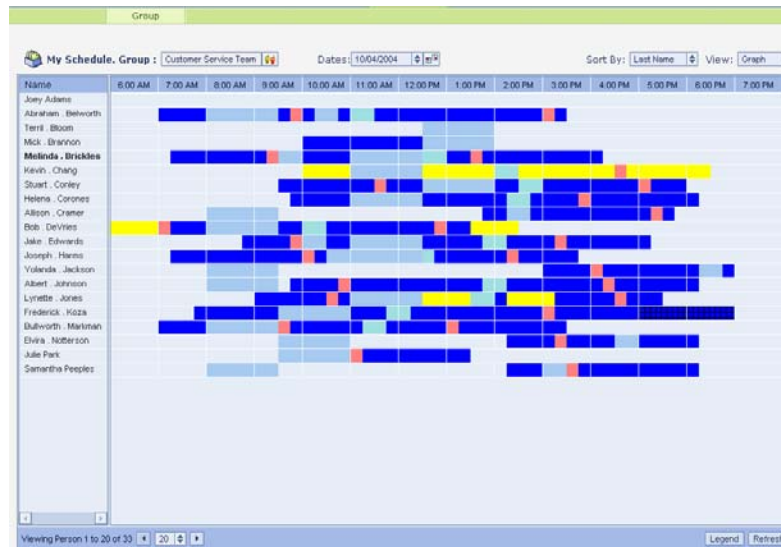
If both an organization and campaign are selected (highlighted), the selection will affect employees from the selected organization who are working in the selected campaign, a subset of both organization and campaign.

If only an organization name is selected, you are selecting all the employees in this organization.

If only a campaign name is selected, you are selecting all the employees working for this campaign, regardless of their organization.

Graph View

This page displays the schedule graph for one day for multiple employees.



Each employee in the selected group is represented by one row in the table with possible multiple subrows for different activities. The name of employee is shown in the **Name** column. The name of the current user is highlighted.


Each activity is shown in its color with its duration. Rows are not selectable nor clickable. The names of the activities are shown in the legend. An empty row means that employee either does not have any scheduled activity on a given date, or that the schedule for the selected date is not published. Check the text view for the exact description.

If you have enabled the display of Net Staffing, you also see a ribbon below your own schedule for each date in the date range, displaying the Net Staffing for that date.

- This ribbon shows which hours have a net staffing shortage or surplus, thus allowing you to request overtime or voluntary time off, respectively.
- The ribbon runs the length of the time range being displayed, and is a sequence of color-coded hourly cells indicating whether each hour has an excess of Net Staffing, a shortage of Net Staffing, or Neutral. (The colors for each depend on your Preferences settings.)
- Because overtime can be requested far prior to or after a shift, the hourly range of the graphical schedules includes the entire day whenever Net Staffing is displayed.

For example, when Net Staffing is disabled, the row might only include 8 hours, but when net staffing is enabled, the row includes all 24 hours.

- When viewing past days or hours, the net staffing ribbon is empty. In other words, Net Staffing is only shown for future hours.
- The Net Staffing ribbon is only displayed for the first seven days in the date range.
- The Net Staffing ribbon, in addition to indicating which hours are requestable, is also interactive, allowing you to create a shift or VTO request directly from the schedule view page. When you click inside one of the net staffing ribbon's cells, the entire cell is selected and hi-lighted with the "Cell Selection" color (yellow by default, but configurable). While the mouse button is still down, you can drag the mouse left or right, expanding or contracting the cell selection. Dragging the cell selection up or down is not permitted.
- Once you release the mouse button, a **Create Shift Requests & Changes** dialog appears, pre-populated with the details of this request. The dialog chooses the shift whose length best matches the length of the ribbon selection, and the activity is set to the activity that is linked to your queue that has the greatest net staffing shortage.
- If you are already scheduled for a shift on that day, the dialog instead chooses an extension, if one can be found that would overlap some or all of the ribbon selection. Again, the extension whose duration best matches the ribbon selection is chosen, and the activity is the activity for the queue that has the greatest staffing shortage.
- If there is no shift or extension which matches your selection, you receive a message saying that nothing is available to match the selection and the elements in the dialog are disabled.
- Unavailability events are shown in red if there is a net staffing shortage during that time.
- If you are scheduled for a time-off event, those cells are displayed in the Net Staffing ribbon as Neutral cells (grey, by default).
- Both unavailability and time-off events can still be requested, however. Clicking the cell takes you to the **Shift Requests & Changes** dialog. If a shift request overlaps an unavailability, and the request is approved, the entire unavailability event is dropped, even the part(s) that do not intersect the new shift.

When a shift assignment has an overtime period, either before the normal start or after the normal end of the shift, a cross-hatched pattern covers the overtime period. This pattern can cover any event and background color, and resembles the following: 

You can change the dates displayed by clicking on the date range selector next to the dates shown and selecting the date range. When selecting the date range, you can click one of the following at the bottom of the pop-up:

- **Today**
- **Tomorrow**
- **This Week**
- **Next Week**
- **Next Month**
- **Next Year**

Alternatively, you can select a start date on the left calendar, an end date on the right calendar, and click **Set** . If you do not want to change the date range in the selector, click **Cancel**.

Changing the Sort Order

Use the Sort by drop-down selector to select the sorting criterion. If you are not viewing the first page in a multipage list of the selected group of employees, changing the sort order takes you back to the first page.

You can sort the information on this screen by one of the following:

- Last Name
- First Name
- Start Time (Shift Start Time)
- End Time (Shift End Time)
- Length (Shift Length)

Controlling the Amount of Information Displayed

If the list of selected employees in the group is long, you can use the pagination drop-down selector at the bottom left of the window to limit the number of employees being displayed, thus allowing the page to render quickly.

To move to the next or previous page in a long list, use the next (right arrow) or previous (left arrow) buttons in the pagination control.

Additionally, when you scroll through a long list of employees on a page, the column headers repeat every certain number of rows. You can set this number in the Preferences window.

Changing Groups

You can also change the group of employees being viewed by clicking on the group selector icon next to the name of the current group. The group selector window appears as a pop-up window, allowing you to select a group of employees using their organization and/or campaign associations.


- 1 Select one organization in the lefthand tree, or select one campaign in the righthand list, or select both an organization and a campaign. When selecting an organization, you can expand and collapse organization tree branches by clicking the triangular icons to the left of the organization names.
- 2 Click **Save**.

If both an organization and campaign are selected (highlighted), the selection will affect employees from the selected organization who are working in the selected campaign, a subset of both organization and campaign.


If only an organization name is selected, you are selecting all the employees in this organization.

If only a campaign name is selected, you are selecting all the employees working for this campaign, regardless of their organization.

Viewing Your Personal Information: My Profile

 Privileges to view and edit information are set by your system administrator. Depending on your role and privileges, some information may not be available.


Use the **Personal Information** tab of the **My Profile** section of the **My Home** module to review your personal information and change your password if desired.

Use the arrow buttons  to expand or contract each section.

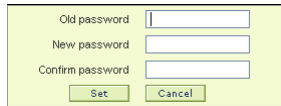
Changing Your Password

Use the **Login Data** container of the **My Profile** section to change your password.

To change your password:

- 1 Expand the **Login Data** container if necessary.
- 2 Click the selector icon to the right of the **Password** field (.

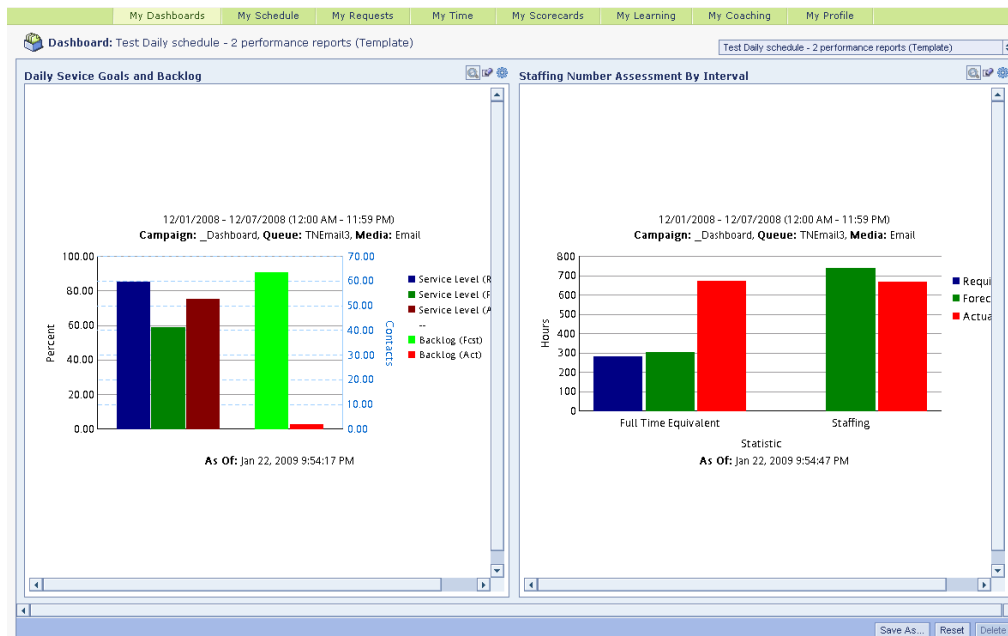
A pop-window appears, as shown in the following illustration:



- 3 Type a new password and confirm it. Remember, passwords are case-sensitive.
- 4 Click **Set** to save your new password.
- 5 Click **Save** at the bottom of the **Personal Information** pane to save all changes made, including any password changes.

Viewing Dashboards


This page allows you to view those dashboards that have been configured by your system administrator and for which you have view privileges.




A dashboard can show up to three columns, each containing one or more graphic tables.

The drop-down selector at the top right of the page allows you to select which dashboard you want to see.


Up to three mode buttons can appear to the right of each graph:

- View mode ()

The default mode, which is viewing the graph.

- Edit mode ()

Allows you to set or change the run-time parameters for a particular graph.

- Configuration mode ()

Typically this mode button is only shown for administrators and those with privileges to edit dashboards.

If you have changed the run-time parameters for the graphs on a dashboard, you can save those changes to a new dashboard, provided that your administrator has enabled this functionality. To save a new dashboard, click **Save As...** at the bottom right of the page. Click **Delete** to delete the dashboard being displayed. Click **Reset** to cancel any unsaved changes and revert to the settings in use before you changed anything.

Request Management

Workforce Management schedulers typically also have access to the **Requests** module of the web application.

The **Request Management** module covers:



- Time-Off Management

Time Off Management is part of the Advanced Workforce Management solution. Time Off Management is an optional addition to the Operational Workforce Management solution.

- Shift-Swap Management
- Shift-Bidding Management

Shift bidding is an optional feature available for either the Operational or Advanced Workforce Management solution.

This chapter discusses all three types of requests.

The **Request Management** module allows you to:

- approve and deny time-off and shift-swap requests
- withdraw approved time-off requests on the behalf of employees
- approve and deny withdrawal of approved time-off requests
- waitlist denied time-off requests on the behalf of employees
- approve and deny waitlisted time-off requests
- set up and manage shift bid auctions

Depending on your license and configuration settings, you can also:

- create a request for a new shift
- create an overtime shift request (a normal shift marked completely as OT)
- create a request to add OT extension or normal extension at the end or start of an existing shift
- change an existing shift (shrink or extend the length of shift by choosing a different shift, or adding extensions before or after the shift, or changing the shift type or shift start time).

An employee can request time off as one of three different types:

- 1 Use my time-off hours to schedule my absence** (counts as **X** hours time off)
- 2 Schedule around my time-off request if possible** (use underlying shifts time off)
- 3 Mark as unavailable and schedule around this time** (unavailability request)

Unavailability requests are only available for activities that are requestable and specified as able to be used for unavailability. If the request is approved, an unavailability event is created.

Types 1 and 2 behave differently depending on whether a schedule has already been published for the time that is being requested. Therefore, there are four distinct possibilities for an employee's time off request:

- "Count as **X** hours time off" when there is no published schedule
- "Count as **X** hours time off" when there is a published schedule
- "Use underlying shifts time off" when there is no published schedule
- "Use underlying shifts time off" when there is a published schedule

The system considers dates prior to the last published shift assignment for an employee to be published, and considers time after this to be unpublished.

Here are specific details of how each of the four use cases works:

"Count as X hours time off" when there is no published schedule

Uses the number of minutes specified for the event, regardless of whether the event overlaps with any shifts. To determine the number of minutes to be specified when creating the event from request management, the scheduling engine uses the following rules:

- 1** If the time-off event is less than the length of the default time-off length provided for that employee, the event length is used.
- 2** If the time-off event length is equal to or greater than the default length provided for that employee, the employee's default length is used.
- 3** If there is no default length specified (the field is null) for an employee, the request is allowed, but it causes a validation alert stating that the request cannot be approved.

Once an event is created, if the user edits the number of minutes for an event already marked as using a specific number of minutes, the current settings of the event are used regardless of the three points above.

Under no circumstances is an underlying shift used as the basis for calculating the hours of events that are not marked as "use underlying shift."

If this time is scheduled, the scheduler will try to place **X** hours of paid Shift Assignments underneath the Time Off.

"Count as X hours time off" when there is a published schedule

Uses the total paid time in shifts and shift events currently published from the start date of the request until the end date of the request.

Once the event is created, if the user edits the number of minutes for an event already marked as using a specific number of minutes, the current settings of the event are used.

Under no circumstances is an underlying shift used as the basis for calculating the hours of events that are not marked as "use underlying shift."

If this time is rescheduled, the scheduler will try to place **X** hours of paid shift assignments underneath the time off.

"Use underlying shifts time off" when there is no published schedule

When the event is created, the following rules are used:

- 1** If the time-off event is less than the length of the default time-off length provided for that employee, the event length is used.
- 2** If the time-off event length is equal to or greater than the default length provided for that employee, the employee default length is used.
- 3** If there is no default length specified (the field is null) for an employee, the request is denied.

If the default lengths for the employee are edited, it affects the calculation on unpublished weeks.

Once the schedule is published, the paid time underlying the time off is used.

If this time is scheduled, the scheduling engine might place any amount of staffing underneath this time in order to satisfy the employee's work rules and meet the service goals of the campaign.

"Use underlying shifts time off" when there is a published schedule

Uses the paid time of the overlapping published shifts and shift events. This is true regardless of any settings the employee might have for default time.

If the schedule is republished, the paid time underlying the Time Off is used.

If this time is rescheduled, the scheduling engine might place any amount of staffing underneath this time in order to satisfy the employee's work rules and meet the service goals of the campaign.


Using the Employees Requests Section: Viewing and Managing Requests

Use the **Employee Requests** section of the **Request Management** module to view employee requests. Click on the top of a column to sort by the column. Click again to reverse the sort order.

Use the date range selector to filter requests by their start and end dates.

To filter out unwanted requests:

- In the **View** field at the top left of the page, select one of the predefined filters or select **Create** or **Edit** to create or edit a filter. Selecting **Create** or **Edit** opens the **Request Filter** page. Click **Help** from that page for more assistance.

 The **All Active** filter does not include expired and withdrawn requests of all three types, or invalid requests of Time Off and Shift Swap type. If you want to view those request types, you must create a specific filter for those statuses or select the **All** filter, which display all the requests for the selected time range.

To show only requests for a specific employee:













- In the **Find** field at the top left of the page, specify the employee's last name then click the **Go** button beside it. The employee name criteria is applied on top of the selected filter.



Name	Status	Type	Submitted	Last Modified	Start	End	Length	Hours Accounted	Choice Alerts	Seniority	Expired	Comments	Alerts	Actions
Campbell, Sean		Vacation	02/05/2007 8:52 PM	02/04/2007 12:11 AM	12/04/2007 12:00 AM	12/05/2007 12:00 AM	2 day(s)	16:00		12030005	No	Created		
Campbell, Sean		Vacation	02/01/2007 1:46 PM	02/05/2007 12:11 AM	04/18/2008 12:00 AM	04/19/2008 12:00 AM	1 day(s)	8:00		12030005	No	Created		
Campbell, Sean		Vacation	02/16/2007 2:06 PM	05/09/2007 4:49 PM	07/11/2007 12:00 AM	07/12/2007 12:00 AM	1 day(s)	8:00		12030005	No	Created		
Fetterway, David		Vacation	04/26/2007 11:43 AM	04/26/2007 11:46 AM	04/04/2008 12:00 AM	04/05/2008 12:00 AM	1 day(s)	8:00		10040003	No	Created		
Fetterway, David		Vacation	03/07/2007 2:45 PM	04/16/2007 1:12 PM	03/20/2008 12:00 AM	03/20/2008 12:00 AM	3 day(s)	24:00		10040003	No	Created		
Fetterway, David		Vacation	05/14/2007 4:29 PM	05/14/2007 4:29 PM	05/13/2008 12:00 AM	05/16/2008 12:00 AM	3 day(s)	24:00		10040003	No	Created		

The columns displayed on the **Employee Requests** page are determined by the type of request you are displaying. If you are viewing multiple types of requests at the same time (the default), you see only those columns that the request types have in common.

For your reference, a brief description of each column is listed below:

Column	Description
Name	The employee's name.
Status	An icon showing the current stage in the request processing, such as pending, approved, denied. The name of the status is displayed when you hover the cursor over the icon. The status icons are: <ul style="list-style-type: none">  The request has been approved. Below this icon you may see an additional icon if you have requested withdrawing the time-off request. <ul style="list-style-type: none">  A request to withdraw the approved time-off request is in progress.  A request to withdraw the approved time-off request has been rejected.  The request has been denied.  The request has been escalated.  The request has expired.  The request is in negotiation.  The request is invalid.  The request is pending approval.  The request has been waitlisted. (A request that has been denied can be waitlisted for approval if conditions change.)  The request has been tentatively approved.  The request has been withdrawn.
Type	The type of request: time off, shift swap, shift bidding, new shift, or shift change.
Submitted	The date on which the request was submitted.
Last modified	The date on which the request was last changed.
Seniority	The employee's start date in the company.
Expired	Whether the request has expired (Yes) or not.
Comments	The text of any comments entered by the manager or employee.
Alerts	Icons showing which request validation rules are violated by this request. The rule name is displayed when you hover the cursor over the icon. See above for more information on these icons.
Actions	Clickable icons for editing, approving, denying, or other status changes for the request. See above for more information on the action icons.

The following columns are specific to Time Off requests:

Column	Description
Start	The time stamp of the beginning of the requested time off.
End	The time stamp of the end of the requested time off.
Length	The duration of the requested time off.
Hours Accounted	The number of the employee's time-off hours involved in the request.


The following columns are specific to Shift Swap requests:

Column	Description
Time Off Pool	The time-off pool to which the employees belong.
Shift Date	The date on which the shift offered for swap takes place.
Start	The time (in the viewing time zone) when the shift starts.
End	The time (in the viewing time zone) when the shift ends.
Post Expires	The time by which employees expect the swap to be finalized.
Swap Type	Whether the swap is one-way or two-way. (In a one-way swap, one employee takes over another's shift without giving one in return.)
Partial Shift	Shows whether the shift swap being proposed is partial. (Shifts can be swapped either entirely or partially. In a partial shift swap, the employee can propose swapping only a portion of the shift, or can propose dividing the shift into multiple portions, each of which can be swapped.)

The following columns are specific to Shift Bid requests:

Column	Description
Bid Name	The name given by the employee to the request.
Use Points	Whether the employee has chosen to use accumulated bonus points in this bid.
Rank	The employee's rank in the company.
Points	Bonus points are provided to encourage employees to bid on unpopular schedules. This column shows the number of bonus points available to the employee.
Bonus	The number of bonus points awarded for this shift.
Score	The calculated score of the shift bidding request. The score weights the request against other requests for the same shift.
Preference	The preference level selected by the employee for the specific schedule that is being requested.

The following columns are specific to Shift Requests & Changes:

-  The values displayed for shift requests & changes reflect the difference from what was originally scheduled. For example, if only the shift start time changes then none of the other columns will display a value. You see the change request(s), not the original shift settings.

Column	Description
Campaign	The name of the campaign to which the user is assigned during the start of the request.
Start Date	The start date and time of the request. The date and time includes any overtime before or after the shift. For requests to change an existing shift, only the changes are reflected. For example, a request to extend a shift would only include the extension date and time, not the already scheduled shift.
End Date	The end date and time of the request.
Shift	The name of the main shift, if any, being requested.
Activity	The name of the main shift's activity, if any, being requested.
Overtime	Displays Yes or No to indicate if the main shift being requested is overtime.
Ext Before	The name of the extension before shift, if any, being requested.
Ext Before Activity	The name of the activity for the extension before the shift, if any, being requested.
Ext Before OT	Displays Yes or No to indicate if the extension before the shift being requested is overtime.
Ext After	The name of the extension after shift, if any, being requested.
Ext After Activity	The name of the activity for the extension after the shift, if any, being requested.
Ext After OT	Displays Yes or No to indicate if the extension after the shift being requested is overtime.

Filtering Requests

By default, the **Employee Requests** section of the **Request Management** module uses the predefined filter **All Active**, which does not include expired and withdrawn requests of all three types, or invalid requests of Time Off and Shift Swap type. In addition, you can select the predefined filter **Active**, which display all the requests for the selected time range.

You can also create your own filters.

To filter out unwanted requests:

- 1 In the **View** field at the top left of the page, select one of the predefined filters or select **Create Filter** or **Edit Filter** to create or edit a filter. When you select **Create Filter** or **Edit Filter**, the **Request Filter** page is displayed.

To create a new filter:

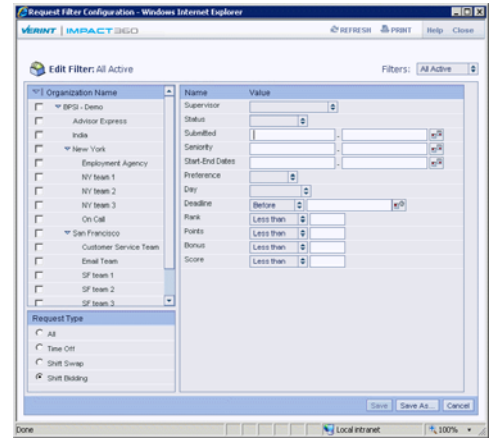
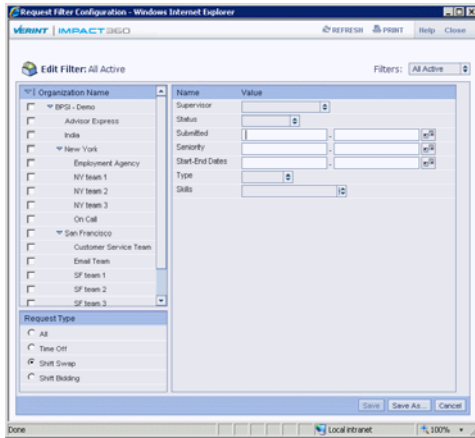
- 1 In the upper left pane, select the organization(s) to filter. When you select an organization, all its suborganizations are automatically selected as well.
- 2 Select the request type.
The working pane refreshes to display the items relevant to the selected request type.

All Request Types

Time Off

Shift Swap

Shift Bid



Shift Request & Change



- 3 For each item you want to filter by, type a value or make a selection from the drop-down menus.

The filter criteria available for all request types include:


Criterion	Description
Supervisor	List of available supervisors.
Status	Request status type. The usual set of status types include: Approved; Denied; Escalated; Expired; Invalid; Pending; Tentative.
Submitted	Date the request was submitted.
Seniority	Start date for employees associated with the request.
Start-End Dates	Time-off period for time off requests; shift date for shift swap and shift bidding requests.

The filter criteria available for time-off requests include:

Criterion	Description
Number of Choices	Values are either All or First Only . These are used to specify whether the selected Start-End Dates apply to all or just the first time off choice.
Time Off Pool	A drop-down menu allowing you to select a time-off pool to filter by.

Time-off requests have additional status types:

- **Waitlist:** The employee's request could not be approved, but the manager has flagged the request as waitlisted. If another employee submits a withdrawal of approved time off, the waitlisted request might be approved by the manager.

 Filtering time-off requests with a status of **Waitlist** changes all the columns on the **Employee Requests** page to show columns applicable to waitlists, sorted by predefined priority settings or by any other listed columns. Only valid waitlisted time-off requests are listed on the page. The columns displayed include:

Name (name of the employee)

Status (status of the request)

Type (type of request)

Submitted (request submission date)

Last Modified

Start Date (start date for the waitlisted time-off choice)

End Date (end date for the waitlisted time-off choice)

Length (length of request for the waitlisted time-off choice)

Hours Accounted (for the waitlisted time-off choice)

Seniority

Expiry Date (waitlist expiration date)

Priority

Organization Name

Time Off Pool

Added To Waitlist

Days on Waitlist (number of days on Waitlist)

Time on Waitlist (exact Time on waitlist)

Rank

Expired (status if expired)

Comments

Alerts

Actions

- **Withdrawal Requested:** The employee has requested a withdrawal of a time-off request that was already approved.

- **Withdrawal Rejected:** The employee's request to withdraw a time-off request that was already approved has been rejected.

The filter criteria available for shift swap requests include:

Criterion	Description
Type	Shift swap type: One-way or two-way swap.
Skills	Employee skills. (Allows multiple skills to be selected from a drop-down menu. Use the Ctrl key to select additional skills, and click the drop-down menu's arrow when your selection is complete.

The filter criteria available for shift bidding requests include:

Criterion	Description
Preference	Shift preference level.
Day	The day of the week on which the shift falls.
Deadline	The bid deadline (personal or auction deadline).
Rank	Rank of the employee submitting the request.
Points	Points accumulated by the employee.
Bonus	The bonus (if any) assigned to the employee for a particular auction.
Score	The total score of the employee.

The filter criteria available for Shift Requests & Changes include:

Criterion	Description
Type	The type of custom shift request to display, e.g., New Shift or Shift Change.
Campaign	The names of the campaigns used to filter the list.
Shift	The names of the shift used to filter the list. You cannot filter by both Shift and Extension.
Activity	The names of the activities used to filter the list.
Extension	The names of the extensions used to filter the list. You cannot filter by both Shift and Extension.
Overtime	Select Yes or No to include or exclude overtime requests from the list.

- 4 Click **Save As**, and then type a name at the top of the pop-up window.
- 5 Click **Save** to save the filter and return to the previous page.

To edit an existing filter:

- 1 For each field you want to change, select or deselect an operator and type or select a value from the list.
- 2 Click **Save** to save the filter and return to the previous page.

To delete an existing filter:

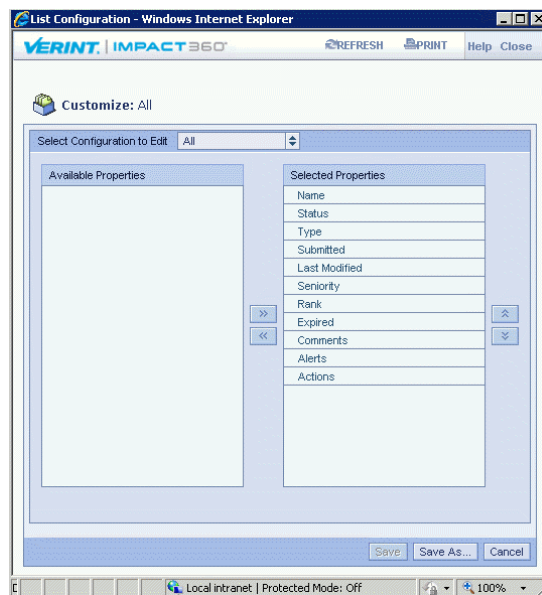
- 1 From the **Filter** menu on the upper right, select the filter you want to delete.
- 2 Click **Delete**, and then click **OK** to confirm the deletion and return to the previous page.

To show only requests for a specific employee, in the **Find** field at the top left of the page, specify the employee's name, and then click the **Go** button beside it. The employee name criteria is applied on top of the selected filter.

Customizing the Columns Displayed

To customize the columns displayed:

- 1 In the **Customize** field at the top right of the page, select **Edit**. The **List Configuration** page opens.



- 2 Select the desired configuration to edit using the drop-down list.
- 3 Move the desired properties from the left pane to the right pane using the arrows in the middle.

If your license includes Shift Requests & Changes, and you have already created a filter of that type, additional properties are available for display. These include:

- **Ext Before**
- **Ext Before Activity**
- **Ext Before OT**

- **Ext After**
 - **Ext After Activity**
 - **Ext After OT**
- 4 Click **Save** if you are editing an existing configuration setting, or click **Save As** to save a new configuration using a new name.
 - 5 Click **Done** to exit this window without saving.









Managing Requests



You can manage requests either one by one, or as a group.

Managing Time-Off Requests One By One

The icon buttons in the **Actions** columns allow you to manage pending requests. (If you do not see the **Actions** column, you need to customize the display to make sure it is chosen.)

The available buttons are:








Icon	Usage
	Approve the request. The schedule information is updated for Forecasting and Scheduling, and alerts, if configured, are sent.
	Approve a request for withdrawal of an approved time-off request.
	Cancel a request for withdrawal of an approved time-off request.
	Deny the request.
	Edit the request.
	Withdraw the request.
	Reject a request for withdrawal of an approved time-off request.
	Tentatively approve the request. Requests that have been tentatively approved display the status Pending to the employees that submitted them, but display the status Tentative to you until you either confirm the request or publish the schedule.




Icon	Usage
	<p>View the details of the request. A pop-up window opens that provides several groups of information, each in its own container.</p> <p>For Time-Off Requests, you see:</p> <ul style="list-style-type: none"> • Summary Information: Contains information such as the Employee Name, Time Off Type, and Time Off Hours. • Alerts Information: Displays the icons and a description for any failed validations. See the table beginning on page 353 for additional information. • Time Off Choice(s) Information: Contains Time Off Choice(s) information associated with the Time Off Request, such as choice ranking, dates, total duration, number of hours debited against time off, and choice alerts. Each possible choice for a time off request is validated independently. For each failed validation, this area shows the icon and description of the validation, similar to that described in the previous section on the alerts information. • Status Information: Contains the modification history (audit trail) of the Time Off Requests.
	Withdraw the request.



Be aware that time-off requests that are tentatively approved do change the schedule with Forecasting and Scheduling. If a scheduler or other person with appropriate privileges then publishes a schedule with tentative approvals, the approvals change from tentative to approved. Shift swap requests stay marked invalid.

The **Alerts** column shows you any violations of filing rules for the requests using the icons in the following table:






Icon	Type of Rule	Rule and Description
	Time Off	<p>Time Off Pool has available time off hours.</p> <p>This rule is violated if the total length of scheduled time-off events during the requested day(s) is greater than the number of hours entered in the Organization Management:Request Management:Time Off Pools page for the time off pool to which the requester belongs.</p>
	Time Off	<p>Employee has enough time off hours.</p> <p>This rule is violated if the total length of scheduled time-off events for this employee during the time off year exceeds the yearly allotment entered on the User Management:Employees:Time Off page. Time Off year may be either the employee anniversary year or a calendar year, as configured in the Organization Management:Request Management:Settings page.</p> <p>If your license includes the optional Time Off Accrual feature, this validation rule takes into account the number of hours accrued by an employee as of the request target date.</p>
	Time Off	<p>Request complies with filing rules.</p> <p>This rule is violated if the request submittal date violates at least one of the filing rules applicable to the requester's organization.</p>
	Time Off	<p>Request avoids blackout days.</p> <p>This rule is violated if the request covers a day marked as a blackout day on the Organization Management:Request Management:Time Off Pools page.</p>
	Time Off	<p>Requested time off is not being swapped.</p> <p>This rule is violated if one or more request choices overlaps a shift that will be received or given away as the result of a pending shift swap request (state of shift swap request is either pending, in negotiation, or escalated).</p>
	Time Off	<p>Scheduled calendar event activities that the request avoids <choice>.</p> <p>This rule is violated if the requested time off period overlaps with another scheduled calendar event.</p>
	Time Off	<p>Minimum duration of the request <duration></p> <p>This rule is violated if the request duration (end date - start date) is not at least the specified minimum. The minimum can be expressed in units of Minutes, Hours, or Days.</p>



Icon	Type of Rule	Rule and Description
	Time Off	Maximum duration of the request <duration> This rule is violated if the request duration (end date - start date) exceeds the specified maximum. The maximum can be expressed in units of Minutes, Hours, or Days .
	Time Off	Requested time off is for a past date. This rule is violated any time a request is created for a start date earlier than the creation date of the request.
	Approved Time Off Withdrawal	Request complies with filing rules. This rule is violated if the request submittal date violates at least one of the filing rules applicable to the requester's organization.

Managing Shift-Swap Requests One By One





The icon buttons in the **Actions** columns allow you to work with pending requests. (If you do not see the **Actions** column, you need to customize the display to make sure it is chosen.)





The available buttons are:





Icon	Usage
	Approve the request. The schedule information is updated for Forecasting and Scheduling, and alerts, if configured, are sent.
	Deny the request.
	Edit the request. (When you are editing a waitlisted request, the system displays the Waitlist Order , which shows the system's best estimate of the employee's order in the waitlist based on the entire time range of the request. Because the waitlist approval order is decided on the time range that becomes available, it is possible that a request with lower waitlist order in the waitlist might get approved before this employee's request is approved.)
	Withdraw the request.
	Tentatively approve the request. Requests that have been tentatively approved display the status Pending to the employees that submitted them, but display the status Tentative to you until you either confirm the request or publish the schedule.

Icon	Usage
	<p>View the details of the request. A pop-up window opens that provides several groups of information, each in its own container.</p> <p>For Shift Swap Requests, you see:</p> <ul style="list-style-type: none"> • General Information: This container lists the employees' shifts to be swapped. Shift information includes shift type and date. It also contains information regarding the expiration of the request. • Alerts Information: Displays the icons and a description for any failed validations. See the following table for additional information. • Status Information: Contains the modification history (audit trail) of the Shift Swap Requests. <p>(When you are viewing the details of a waitlisted request, the system displays the Waitlist Order, which shows the system's best estimate of the employee's order in the waitlist based on the entire time range of the request.</p> <p>Because the waitlist approval order is decided on the time range that becomes available, it is possible that a request with lower waitlist order in the waitlist might get approved before this employee's request is approved.)</p>
	Withdraw the request.

The **Alerts** column shows you any violations of filing rules for the requests using the icons in the following table:

Icon	Type of Rule	Rule and Description
	Shift Swap	<p>Both employees are from the same organization.</p> <p>This rule is violated if employees are assigned to different organizations.</p>
	Shift Swap	<p>Both employees are from the same campaign.</p> <p>This rule is violated if both shifts in a swap do not belong to the same campaign. They can be in different campaign-weeks.</p>
	Shift Swap	<p>Both employees have exactly the same skills for the active campaign queue.</p> <p>This rule is violated if the receiving employee does not have the same skills as the employee currently scheduled to work the shift.</p>
	Shift Swap	<p>Both employees have at least same skills for the active campaign queue.</p> <p>This rule is violated if the receiving employee does not have at least the same skills as the employee currently scheduled to work the shift.</p>





Icon	Type of Rule	Rule and Description
	Shift Swap	<p>Both employees have the same proficiencies for the active campaign queue.</p> <p>This rule is violated if the receiving employee does not have the same skills and proficiencies as the employee currently scheduled to work the shift.</p>
	Shift Swap	<p>Request complies with filing rules.</p> <p>This rule is violated if the request submittal date violates at least one of the filing rules applicable to the requester's organization.</p>
	Shift Swap	<p>Both employees comply with min/max hours.</p> <p>This rule is violated if, after the swap, at least one of the employees will not comply with the min/max hours during the corresponding week(s) of the shift they get and the shift they give away in the swap.</p>
	Shift Swap	<p>Swapped shifts start on the same organization week.</p> <p>This rule is violated if the shift swap request fails the earlier validation rule, both employees are from the same organization, or if the swapped shifts do not fall within the same organization week.</p>
	Shift Swap	<p>Swapped shifts have the same paid hours.</p> <p>This rule is violated if the total duration of paid time in the two shifts is different.</p>
	Shift Swap	<p>Swapped shifts must overlap the exact same portion with scheduled calendar events and time offs, and not overlap unavailabilities.</p> <p>This rule validates the following for each employee:</p> <ul style="list-style-type: none"> • Calendar events, which may or may not be inside a shift, do not overlap the exact same portion of the swapped-in shift. • Time-off events, which may or may not be inside a shift, do not overlap the exact same portion of the swapped-in shift. • Any unavailability type event does not overlap with the swapped shifts as the result of the swap.
	Shift Swap	<p>Swapped shifts will overlap scheduled calendar events that must occur during a shift.</p> <p>This rule is violated if calendar events, which have to be inside a shift, fall outside of shifts as the result of the swap.</p>
	Shift Swap	<p>Partial Shift Swap: Minimum duration of the shift that can be swapped: <x> Minutes/Percent.</p> <p>This rule is violated if the duration of the swapped shift is less than the specified duration.</p>
	Shift Swap	<p>Partial Shift Swap: Minimum duration of the shift to leave after pickup: <x> Minutes/Percent.</p> <p>This rule is violated if the remaining shift duration after the swap is less than the specified duration.</p>



Icon	Type of Rule	Rule and Description
	Shift Swap	<p>Partial Shift Swap: Maximum shift duration allowed: <x> minutes per Organization Day/Rolling 24 Hour Period.</p> <p>This rule is violated if the total shift duration as a result of the swap is greater than the specified maximum. This rule can be applied in two ways:</p> <ol style="list-style-type: none"> 1 For the organization day: the shift duration is calculated using the organization day boundaries. 2 For a rolling 24-hour period: the rule considers a rolling 24-hour period before and after the shift for the duration calculation.
	Shift Swap	<p>Partial Shift Swap: Activities that cannot be included in the swap: <activity name(s) from drop-down>.</p> <p>This rule is violated if the swap includes any of the specified activities.</p>
	Shift Swap	<p>Partial Shift Swap: Gap should be between <x> and <y> minutes, or at least <z> minutes.</p> <p>This rule is violated if the gap created as a result of the swap is outside the specified range, or if the gap is less than the specified duration. If both the range and the minimum are specified, the rule will be violated only if both the conditions are violated.</p>
	Shift Swap	<p>Partial Shift Swap: Maximum overlap with an existing shift: <x> minutes.</p> <p>This rule is violated if the overlap with an existing shift caused due to the swap is greater than the specified duration.</p>

Managing Shift-Bid Requests One by One



The icon buttons in the **Actions** columns allow you to manage pending requests. (If you do not see the **Actions** column, you need to customize the display to make sure it is chosen.)




The available buttons are:

Icon	Usage
	<p>Approve the request. The schedule information is updated for Forecasting and Scheduling, and alerts, if configured, are sent.</p> <p>In serialized shift bid auctions (see <i>Adding Employees to an Auction Serially</i>), employees can withdraw a shift bid request, even when it has already been approved.</p>
	Deny the request.
	Edit the request.
	Withdraw the request.

Icon	Usage
	<p>View the details of the request. A pop-up window opens that provides several groups of information, each in its own container.</p> <p>For Shift Bidding Requests, you see:</p> <ul style="list-style-type: none"> Shift Bid Request Information: <p>This container displays Shift Bid Request information, and is editable when you are creating or updating a Shift Bid Request. The information includes the Bid Name, Preference Level (if applicable), and comments associated with the requests.</p> <p>When an Auction is configured to use Bonus Points, a checkbox allowing you to specify Use Points is displayed. Keep in mind that using points might affect the rank on the Shift Bid Requests. This information is displayed in the Shift Bid Auction section of this Form.</p> Shift Bid Auction Information: <p>This container displays associated Shift Bid Auction information and is not editable. The information in this container includes Scheduling Period and Deadlines.</p> Biddable Schedule Information: <p>This container displays Shifts Assignment information for one or more selected Biddable Schedules and is not editable.</p> Alerts Information: <p>Displays the icons and a description for any failed validations. See the following table for additional information.</p> Status Information: <p>Contains the modification history (audit trail) of the Shift Bid Requests.</p>
	Withdraw the request.

The **Alerts** column shows you any violations of filing rules for the requests using the icons in the following table:

Icon	Type of Rule	Rule and Description
	Shift Bidding	<p>Request complies with filing rules.</p> <p>This rule is violated if the request submittal date violates at least one of the filing rules applicable to the requester's organization.</p>
	Shift Bidding	<p>Employee's schedule complies with min/max hours.</p> <p>This rule is violated if the requested schedule does not comply with the employee's min/max hours for the week of the auction.</p>

Icon	Type of Rule	Rule and Description
	Shift Bidding	<p>Employee has the same skills as required for the selected schedule.</p> <p>This rule is violated if the employee does not have exactly the same skills as the phantom employee for whom the schedule is generated. Employees with more skills than required will cause a violation of this rule.</p>
	Shift Bidding	<p>Employee has sufficient skills for the selected schedule.</p> <p>This rule is violated if the employee does not have the same skills as the phantom employee for whom the schedule is generated.</p>
	Shift Bidding	<p>Employee's schedule complies with organization hours of operation.</p> <p>This rule is violated if any of the requested shifts in the shift bid fall outside of the employee organization's hours of operation.</p>

Managing Requests as a Group

To work with the requests as a Group, on the Tool bar, click **Group Actions**; a menu appears listing the available Group Actions.

The options listed are:

- **Approve all without Violations**
- **Tentatively Approve all without Violations**
- **Deny any with Violations**
- **Confirm all Tentative Approvals**
- **Remove all Tentative Approvals**

Creating a Time-Off Request

You can create only time-off requests for your employees from this page.



To create a new time-off request:

- 1 On the Tool bar, click **Create New Request**.

A pop-up window is displayed, enabling you to create a new time-off request.

2 Specify the Time Off Type, Time Off Hours and Comment.

You must provide at least one time-off choice. You can specify the rank of the time-off choice by selecting the **Time Off Choices** row, and then using the Tool bar button to move it up or down.

You can also choose to have your request waitlisted if it cannot be approved at this time. See *Waitlisting* for more information.

3 To add a new Time Off Choice, click Add.

4 To delete a Time Off Choice, select it and click Delete.

Withdrawing Approved Time-Off Requests

Previously, employees could only withdraw pending time-off requests. Employees can now attempt to withdraw requests for time-off that have already been approved.

When a time-off request is withdrawn, the hours used from the Time-Off allocation are restored and made available for other employees. Once the request has been withdrawn, the employee's schedule that is underlying the time-off will be published. Alternatively, managers can set up an approval process so that they can manually approve the withdrawal. Filing rules can be applied for auto-approval or a withdrawal request.

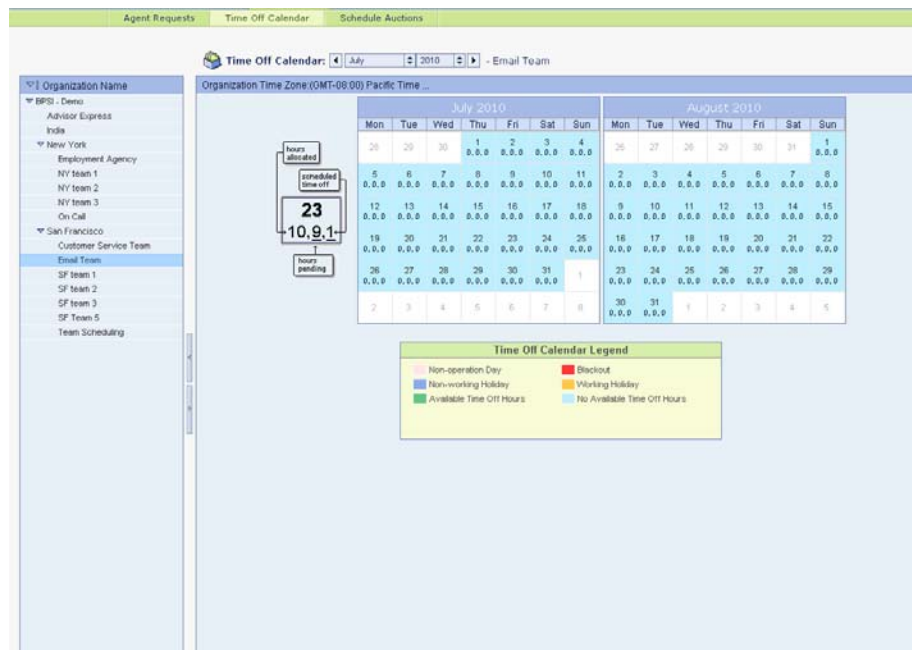
Waitlisting

Normally, when an employee withdraws an approved time-off request, the system checks to see if there are any other pending requests that can use the time-off allocation. However, when auto-processing rules are being used, requests filed at a time when there is no available time-off allocation available are denied, and not left pending.

To respond to this situation, managers can now add waitlist criteria to time-off auto-processing rules, as well as override auto-processing rules by manually waitlisting any pending or denied employee requests, approve waitlisted requests, or deny waitlisted requests when they manually process requests.

Using the Time Off Calendar Section

The **Time Off Calendar** section of the **Request Management** module provides an overview of a group's time off activity in a graphical format.



The **Time Off Calendar** section has the organization structure on the left and the time off pools on the right.

The display shows two months (current and next).

There are two possible display modes:

- **View (Time Off Pool)**
Select the time off pool and click the view (time off pool view), which displays the time off pool's activity overview (activities of employees who belong to the time off pool).
- **View Organization**
Displays the activity of the employees that belong to that organization.

Each day of the month contains three numbers displayed below the calendar date:

- **hours available**

In the View display view, the hours available indicate the total number of time-off hours allocated for that day to the current time-off pool. This number can be set by administrators and schedulers in the **Request Management** section of the **Organization Management** module, on the **Time Off Pools** tab.

In the View Organization view, this value always shows as **n/a**.

- **hours pending**

The number of time-off hours for that day that have not been approved or denied.

- **scheduled time off**

The number of time-off hours approved for the day.

To change organization, select a different organization in the Selection Pane at the left side of the page.

To select a new date for the calendar display, use the date selector near the top of the page.

Using the Schedule Auctions Section: Managing Shift Bid Auctions

If you have licensed the optional Shift Bidding feature, in order for a shift auction to exist, you need a schedule. Moreover, you need a schedule with shifts not assigned to specific employees. The shifts available for bidding are created within Forecasting and Scheduling, when your scheduler generates a schedule in one of two ways:


- by scheduling either both employees and employee templates (also known as phantoms), or just employee templates
- by scheduling employees, and then converting one or more specific employee shift assignments to phantoms

Once the phantom shifts exist, you can allow employees to submit bids for their preferred schedules. Bids can be prioritized based on a variety of criteria, including a scoring system of accrued points.

Settings Tab

Use this tab to view or modify Shift Bid Auction settings.

If you have not selected an auction name in the Selection Pane at the left, the right side of the window allows you to create a new one. If you have selected an auction, the right side allows you to edit its settings.

 If you have already selected an existing shift bid auction, but you want to create a new one, click the **Create** button.

Creating a New Auction


To create a new shift bid auction (when you have not selected an auction name in the Selection Pane at the left):

- 1 Specify a name for the new Shift Bid Auction.
- 2 Select a status (**Open** or **Closed**).




If an auction's status is **Closed**, employees cannot submit bids for that auction. You can use this restriction if you cannot complete an auction's settings in one session. Until you complete the auction's settings, keep its status **Closed**. Then, once you have completed the settings, change its status to **Open**, thus allowing employees to submit bids.

- 3 Select the scheduling period.

 To create a Shift Bid Auction, you require the availability of future scheduling periods for campaigns to which the user has privileges.


- 4 Select the bidding mode, either *full period schedules* or a *combination of individual shifts*.
(When an employee bids on a full period schedule, it means that the employee bids on a specific schedule for the whole scheduling period, whereas bidding on a combination of individual shifts allows the employee to pick and choose different shifts from each day of the scheduling period. As an example, if there are five possible shifts on which to bid, shift A through shift E, a full period schedule means the employee must select A, B, C, D, or E. A combination of individual shifts allows the employee to select A for one day, D for the next day, and so on.)
- 5 Specify the deadline for bids.
- 6 If appropriate, type the number of bonus points to be awarded to those employees who have placed bids on this auction but did not get any of their requests approved.
- 7 Specify by clicking the check box whether the scoring system should be used for this auction (that is, whether employees can use their accumulated points for this auction).

 Employees can use their points when placing a bid to improve their Bid Rank when an auction is configured to use scoring.
- 8 Specify whether employees can only bid on the schedule for their own organization.
- 9 Click **Save**.

Updating Existing Auctions

To update an existing shift bid auction:

- 1 From the Selection Pane, select an existing shift bid auction.
- 2 Change the information as needed.

 Some information cannot be modified once an auction has been created.

- 3 Click **Save**.


Closing an Existing Shift Bid Auction

To close an existing shift bid auction:

- 1 From the Selection Pane, select an existing shift bid auction.
- 2 Click **Close Auction**.

A pop-up menu is displayed with two buttons:

- **Close and Assign None Approved Bonus**
 - **Close without Assigning None Approved Bonus**
- 3 Click one of the two buttons as appropriate.

-  Duplicate None Approved Bonus Points are *assigned* if the same auction is opened or closed more than once and you click **Close** and **Assign None Approved Bonus** each time.

Deleting an Existing Shift Bid Auction


To delete an existing shift bid auction:

- 1 From the Selection Pane, select an existing shift bid auction.
- 2 Make sure the auction is closed. If not, change its Auction Status to **Closed**, and then click **Save**.
- 3 Click **Delete**. (The **Delete** button is only enabled when you have selected a closed auction)

Definition of Some Terms

The following terms are important to understand in the context of Shift Bid Auctions:

- **None Approved Bonus**
Bonus Points assigned to employees who have placed bids on this auction but did not get any of their requests approved.
- **Use Scoring**
Specifies whether employees can use their accumulated points for this auction.

-  Employees can use their points when placing a bid to improve their Bid Rank when an auction is configured to use scoring.

Schedules Tab: Viewing and Modifying Bonus Points

Use the **Schedules** tab to view biddable schedules and specify the bonus points associated with them.

Auction Name	Template Name	Available	Bonus	Hours	Sun 10/24	Mon 10/25	Tue 10/26	Wed 10/27	Thu 10/28
CS - Week of 10/24/04 - 10/30/04	Full Time 36_40 hour schedule	1	0	40.00	-	9:45 AM - 6:15 PM	9:45 AM - 6:15 PM	7:30 AM - 4:00 PM	9:45 AM - 6:15 PM
CS - Week of 11/08/04	New Full Time Employee with 1h	1	0	32.00	-	9:45 AM - 5:15 PM	-	7:00 AM - 3:30 PM	10:30 AM - 7:15 AM
	New Full Time Employee with 1h	1	0	40.00	-	7:00 AM - 3:30 PM	7:00 AM - 3:30 PM	9:45 AM - 6:15 PM	9:15 AM - 6:15 AM
	New Full Time Employee with 1h	1	0	40.00	-	7:15 AM - 3:45 PM	7:30 AM - 4:00 PM	7:15 AM - 3:45 PM	7:15 AM - 3:45 PM
	Part time mixed - early and la	1	0	8.00	-	2:15 PM - 6:15 PM	-	-	7:15 AM - 3:45 PM
	Part time mixed - early and la	1	0	16.00	-	11:45 AM - 3:45 PM	-	11:15 AM - 3:15 PM	11:15 AM - 3:15 PM
	Part time mixed - early and la	1	0	20.00	-	9:30 AM - 1:30 PM	2:15 PM - 6:15 PM	2:15 PM - 6:15 PM	10:15 AM - 10:15 AM
	Part time mixed - early and la	1	0	20.00	-	2:15 PM - 6:15 PM	9:15 AM - 1:15 PM	7:00 AM - 11:00 AM	7:00 AM - 11:00 AM
	SF - Full Time 1 - English BI	1	0	40.00	-	7:30 AM - 4:30 PM	7:15 AM - 4:15 PM	7:45 AM - 4:45 PM	7:15 AM - 4:15 AM
	SF - Full Time 1 - English BI	1	0	40.00	-	9:30 AM - 6:30 PM	9:15 AM - 6:15 PM	9:15 AM - 6:15 PM	9:15 AM - 6:15 AM
	SF - Full Time 1 - English BI	1	0	40.00	-	7:45 AM - 4:45 PM	9:30 AM - 5:30 PM	7:30 AM - 4:30 PM	9:15 AM - 6:15 AM
	SF - Full Time 1 - English BI	1	0	32.00	-	-	6:00 AM - 3:00 PM	8:15 AM - 5:15 PM	9:00 AM - 9:00 AM
	SF - Full Time 1 - English BI	1	0	40.00	-	7:15 AM - 4:15 PM	9:00 AM - 5:00 PM	7:15 AM - 4:15 PM	10:00 AM - 10:00 AM
	SF - Full Time 1 - English BI	1	0	32.00	-	-	7:15 AM - 4:15 PM	7:00 AM - 4:00 PM	6:45 AM - 6:45 AM
	SF - Full Time 2 - English BI	1	0	40.00	-	10:00 AM - 6:30 PM	10:00 AM - 6:30 PM	10:15 AM - 6:45 PM	10:15 AM - 10:15 AM
	SF - Full Time 2 - English BI	1	0	40.00	-	9:00 AM - 5:30 PM	9:45 AM - 5:15 PM	7:15 AM - 3:45 PM	9:15 AM - 6:15 AM
	SF - Full Time 2 - English BI	1	0	40.00	-	9:45 AM - 6:15 PM	9:15 AM - 4:45 PM	9:45 AM - 6:15 PM	9:45 AM - 6:15 AM
	SF - Full Time 2 - English BI	1	0	40.00	-	9:00 AM - 5:30 PM	10:00 AM - 6:30 PM	9:15 AM - 5:45 PM	9:00 AM - 9:00 AM

i Schedules are only displayed if they contain phantom shift assignments. As mentioned previously, there are two ways for a scheduler to create phantom shift assignments within Forecasting and Scheduling, which can be used concurrently.

The first method is to generate the schedule using Staffing Profiles (also referred to as Employee Templates). Phantom shift assignments are created for the Staffing Profiles.

The second method is to convert specific employee shift assignments to phantoms.

To view schedules associated with a Shift Bid Auction, from the Selection Pane, select a shift-bid auction.

The associated biddable schedules are shown in the Work Pane.

To update any schedules associated with a shift-bid auction:

- 1 From the Selection Pane, select a shift-bid auction.
- 2 Specify bonus points for each schedule.

i These bonus points are provided to encourage employees to bid on unpopular schedules. The **Bonus Point** item on the **Schedule Page** is enabled even in auctions where **Use Scoring** is not enabled, allowing employees to accumulate these points for future use.

- 3 Click **Save** to update the schedule information.

Employees Tab


Use the **Employees** tab to view or modify the employees (bidders) associated with a shift bid auction.

Auction Name	Name	Status	Seniority	Rank	Points	Bonus	Score	Deadline
CS - Week of 10/24/04 - 10/30/04	Belworth, Abraham	1 Bids	04/09/2001	5	0	10	430	06/00/2004 11:59 PM
CS - Week of 11/09/04	Bloom, Terri	0 Bids	09/09/2002	3	0	0	214	06/00/2004 11:59 PM
	Brannon, Mick	0 Bids	03/15/2004	6	0	0	28	06/00/2004 11:59 PM
	Brickles, Melinda	Waiting	11/12/2001	8	0	0	304	
	Chang, Kevin	Scheduled	03/15/2004	2	0	0	36	
	Conley, Stuart	0 Bids	04/01/2002	7	0	0	256	06/00/2004 11:59 PM
	Corones, Helena	0 Bids	03/15/2004	10	0	0	20	06/00/2004 11:59 PM
	Cramer, Allison	Scheduled	05/20/2000	3	0	0	494	
	DeVries, Bob	0 Bids	06/27/2002	0	0	0	240	06/00/2004 11:59 PM
	Edwards, Jake	3 Bids	12/18/2000	4	0	0	422	06/00/2004 11:59 PM
	Harris, Joseph	0 Bids	05/01/2000	2	0	0	496	06/00/2004 11:59 PM
	Jackson, Yolanda	0 Bids	01/13/2001	1	0	0	418	06/00/2004 11:59 PM
	Johnson, Albert	Waiting	03/15/2004	0	0	0	40	
	Jones, Lynette	0 Bids	09/05/2001	3	0	0	334	06/00/2004 11:59 PM
	Kozia, Frederick	3 Bids	01/16/2000	1	0	50	788	06/00/2004 11:59 PM
	Martens, Bulworth	0 Bids	07/04/2000	8	0	0	464	06/00/2004 11:59 PM
	Netterson, Elvira	0 Bids	03/11/2000	10	0	0	500	06/00/2004 11:59 PM
	Park, Julie	2 Bids	01/01/2000	5	0	25	655	06/00/2004 11:59 PM
	Peebles, Samantha	0 Bids	02/16/2002	1	0	20	388	06/00/2004 11:59 PM
	Rodriguez, Tony	Waiting	05/25/2000	9	0	0	472	
	Rosen, Michael	1 Bids	10/05/2000	6	0	0	488	

To view the employees associated with a shift bid auction, select a shift bid auction from the Selection Pane. Those employees without a shift assignment for that auction are shown in the working pane, which is labeled **Employees**. Note that you can paginate the information displayed, that is, you can control the number of employees displayed at a time.


To add employees to a selected shift bid auction:

- 1 Select one or more employees displayed in the **Employees** working pane who have not yet been added to the auction.

 Employees do not need to be selected if you are adding all employees currently waiting to be added.

- 2 Click **Add to Auction**. A form is displayed allowing you to specify such information as the bidding deadline.

You must add those employees who are not being displayed because of the pagination settings separately, as you are informed by the note at the top of the form: **Action will only apply to records in current page**.

 The typical way in which employees are notified that they have been added to a shift bid auction is by email. Depending on the employee's privileges and the manager's privileges, the email they receive might contain a link that will open Workforce Management with the relevant request displayed.

Unless your particular situation allows you to personally notify your employees, verify with your administrator that email alerts have been configured.

To remove one or more employees from a selected shift bid auction:

- 1 In the **Employees** working pane, select one or more employees (who were added to the auction).
- 2 Click **Remove from Auction**.

Depending on your system's configuration, you can change bid deadlines and bonus points for employees currently part of the auction.

To change bid deadlines or bonus points:

- 1 Change the deadline.
If the shift bid auction is configured to use bonus points, the **Bonus** column is shown.
- 2 Change the bonus points assigned to an employee as appropriate.
- 3 Click **Save**.



Bonus points given in this way are not accumulated. They are used at your discretion to give an advantage in this shift auction for selected employees.

To enter a bid for an employee:

- 1 Select a single employee who has already been added to the auction.
- 2 Click **Bid for Employee**. Fill in, as appropriate, the **Bid Options** page that is displayed.

Adding Employees to an Auction Serially

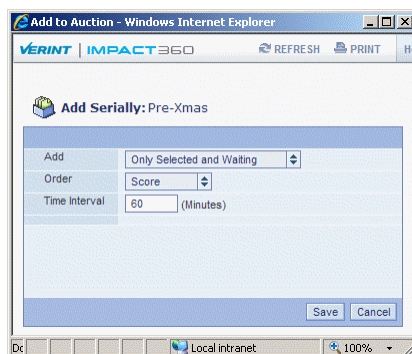
In conjunction with auto-approval of shift bid requests, you can add eligible employees to an auction serially. Eligible employees are those who:

- have been added to the campaign
- have **not** yet been added to the auction
- have **not** yet been assigned a shift for the campaign

To add employees serially to a selected Shift Bid Auction

- 1 Click **Add Serially**.

A pop-up dialog box allows you to specify the order in which employees are to be added (by seniority, rank, score, or bonus). The dialog box also allows you to specify a maximum time interval for an employee to submit a bid.




You must add those employees who are not being displayed because of the pagination settings separately, as you are informed by the note at the top of the form: **Action will only apply to records in current page**.

Once an employee has been added to the auction, an alert message is sent to the employee (see the previous note about configuring alerts), who then has to submit a schedule bid within the specified interval. The next employee is added and notified

either when the current employee's shift bid is approved, or when the time limit expires. (The expiration timer only runs during the campaign's hours of operations.)

An employee whose time has expired is still allowed to submit shift bids, but runs the risk of having to bid for the less desirable schedules.

Once clicked, the **Add Serially** button changes to **Stop Serialized Add**. You can stop the serial addition of employees to the auction by clicking this button and answering **Yes** to the confirming pop-up window that appears. To restart the process, click **Add Serially** again.

-  You can add an employee to the auction manually, bypassing serialization mode, but in this case, employees might be competing for the same schedule. The one whose request is auto-approved first gets the schedule. The other request turns into an invalid request.

For information on closing an auction, see *Closing an Existing Shift Bid Auction*.

Bid Options Tab

Use this tab to view available biddable schedules or to create bids for employees.

To view schedules associated with a shift-bid auction:

- 1 From the Selection Pane, select a shift-bid auction.

The associated biddable schedules are shown on the Work Pane.

To submit a bid on behalf of an employee:

- 1 From the Employee drop-down menu located on the top right of the screen, select An employee.
- 2 Select a schedule if the auction is configured to bid on Full Schedule.
- 3 Select multiple schedules if the auction is configured to bid on Individual Shifts.
- 4 Click **Create**. The Shift Bid Request Form opens, allowing you to create a Shift Bid.

The screenshot shows a web browser window titled "Shift Bid Request - Windows Internet Explorer". The page header includes the Verint logo and "IMPACT 360". The main content area is titled "Shift Bid Request: Create New Request".

Shift Bid Request

Employee Name: Johnson, Albert
 Bid Name:
 Preference: 1 (1 - Highest)
 Use Points:
 Comments:

Auction: Pre-Xmas

Schedule period: 12/17/2007 - 12/23/2007
 Total Schedule Hours: 8.00
 None Approved Bonus: 0
 Bid Rank: 1 of 1 when points are used; otherwise 1 of 1.
 Auction Deadline: 12/14/2007 11:59 PM
 Personal Deadline: 12/14/2007 11:59 PM

Day

Day	Shift Details
Mon 12/17	7:45 AM - 4:15 PM Break 9:45 AM - 10:00 AM Lunch 12:00 PM - 12:30 PM Break 2:30 PM - 2:45 PM
Tue 12/18	-
Wed 12/19	-
Thu 12/20	-
Fri 12/21	-
Sat 12/22	-
Sun 12/23	-

Buttons: Save, Cancel

Understanding Bid Rank Information

Bid Rank shows the employee's rank for the biddable schedule.

In schedules for shift-bid auctions that use scoring, you might see a bid rank shown as 3(1). In such cases, the value in parentheses represents the bid rank if the employee were to apply points to the bid. The value outside of the parentheses represents the bid rank if the employee were not to apply points to the bid.

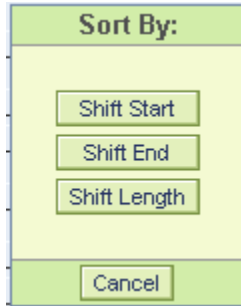
Sorting and Filtering Shift Bid Requests

You can sort the biddable schedules by clicking the column heading. An arrow appears to the right of the column heading, showing the direction of the sort.

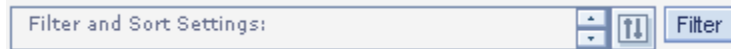
You can click on additional columns—the system sorts the biddable schedules by the last three columns selected. The last column selected is the primary sort. For example, by clicking on the Preference column, then the Bonus column, and then twice on the Hours column, the display is sorted primarily by the number of hours, highest to lowest, then by Bonus (lowest to highest), and then by Preference, lowest to highest.

When you click one of the date column headers, it brings up a pop-up menu that allows you to sort that column by one of:

- **Shift Start**
- **Shift End**
- **Shift Length**



You can display the settings that you currently have active for sorting by using the **Filter and Sort Settings** controls above the table showing your bid options.



You can scroll through the contents of the **Filter and Sort Settings** area using the scroll controls at its right side, or click the  button to expand the area to show all your current settings:

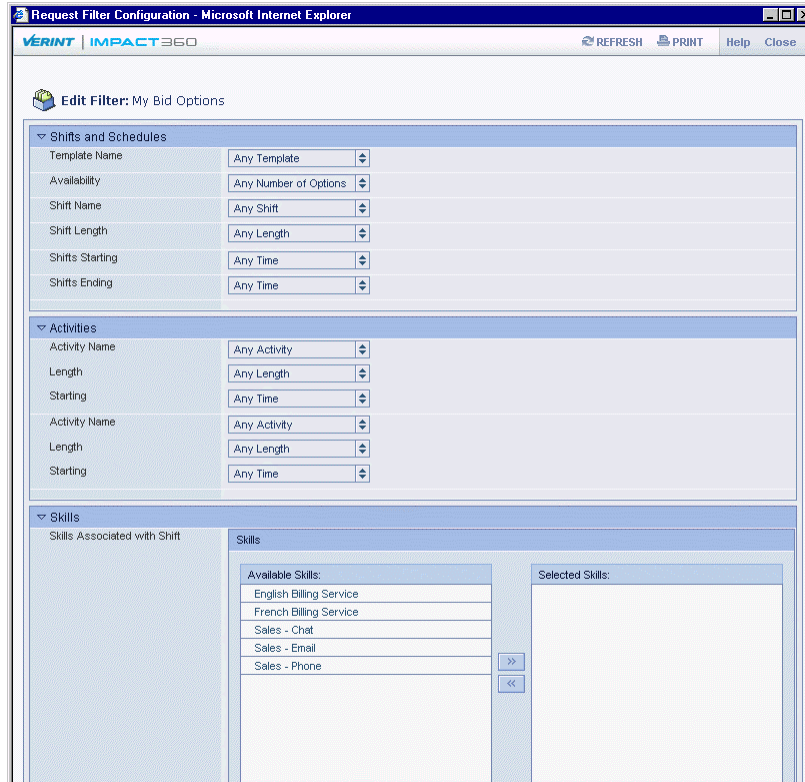


You can also filter requests.

To create a filter:

- 1 Click the  button.

The **Request Filter Configuration** window opens.



- 2 Select the options as desired for shifts and schedules, activities, and skills, and then click **Save**.

The available options provide a great flexibility for filtering, and are described in the following table:

- i** Both employees and managers have access to the filtering options. Some of the information in the following table is relevant only to one role or the other; most of the information applies to both. Role-specific information is identified as such in the table.

Option	Description
Shifts and Schedules	
<i>Template Name</i>	<p>You can filter on the name of the template.</p> <p>Information for managers: Template names are assigned to the phantom schedules by Forecasting and Scheduling, using the names the scheduler gave them on the Work Patterns tab of the Work Rules module. Template names are used for the phantom schedules only when the original scheduling within Forecasting and Scheduling was done with Agents to Schedule set to either Staffing Profiles Only or Employees and Staffing Profiles.</p> <p>Information for employees: The name used for a particular schedule can come from two different portions of the scheduling software; a search on the template name might not yield the expected result. In such a case, try searching on the Shift Name (see Shift Name, page 372).</p>
<i>Availability</i>	<p>You can filter on the number of instances of a particular template that have not yet been bid upon. (Refer to the column Available on the Bid Options tab.) Choices are:</p> <ul style="list-style-type: none"> • Any Number of Options No filtering is done for this characteristic. • Equal To Causes a field to appear where you specify the number of instances. • No More Than Causes a field to appear where you specify the number of instances. • No Less Than Causes a field to appear where you specify the number of instances. • Between Causes two fields to appear, where you can specify the range of instances.

Option	Description
<i>Schedule Length</i>	<p>You can filter on the length (in hours) of a particular template. (Refer to the column Hours on the Bid Options tab.) Choices are:</p> <ul style="list-style-type: none"> • Any Length No filtering is done for this characteristic. • Equal To Causes a field to appear where you specify the number of hours. • No More Than Causes a field to appear where you specify the number of hours. • No Less Than Causes a field to appear where you specify the number of hours. • Between Causes two fields to appear, where you can specify the range of the number of hours.
<i>Shift Name</i>	<p>Similar in use to the Template Name option described previously.</p> <p>Information for managers: Shift names are used for the phantom schedules only when the original scheduling within Forecasting and Scheduling was done with Agents to Schedule set to Employees Only and, subsequently, the employees were converted to phantoms.</p> <p>Information for employees: Because the name used for a particular schedule can come from two different portions of the scheduling software, a search on the shift name might not yield the expected result. In such a case, try searching on the Template Name (see Template Name, page 371).</p>

Option	Description
<i>Shift Length</i>	<p>You can filter on the length (in hours) of a particular shift (the number of hours on a particular day). Choices are:</p> <ul style="list-style-type: none"><li>• Any Length No filtering is done for this characteristic.<li>• Equal To Causes a field to appear where you specify the number of hours.<li>• No More Than Causes a field to appear where you specify the number of hours.<li>• No Less Than Causes a field to appear where you specify the number of hours.<li>• Between Causes two fields to appear, where you can specify the range of the number of hours.

Option	Description
<i>Shifts Starting</i>	<p>You can sort on the time that a shift starts. Choices are:</p> <ul style="list-style-type: none"><li>• Any Time No filtering is done for this characteristic.<li>• At Causes a time selector to be displayed, where you can select the exact shift start time on which you want to filter. A Match all shifts in schedule check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint.<li>• Not After Causes a time selector to be displayed, where you can select the time at or before which the filtered shifts should begin (similar to a less than or equal to constraint). A Match all shifts in schedule check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint.<li>• Not Before Causes a time selector to be displayed, where you can select the time at or after which the filtered shifts should begin (similar to a greater than or equal to constraint). A Match all shifts in schedule check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint.<li>• Between Causes a time range selector to be displayed, where you can select a time range between which the filtered shifts should begin. A Match all shifts in schedule check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint.

Option	Description
<i>Shifts Ending</i>	<p>You can sort on the time that a shift ends. Choices are:</p> <ul style="list-style-type: none"> • Any Time No filtering is done for this characteristic. • At Causes a time selector to be displayed, where you can select the exact shift end time on which you want to filter. A Match all shifts in schedule check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint. • Not After Causes a time selector to be displayed, where you can select the time at or before which the filtered shifts should end (similar to a less than or equal to constraint). A Match all shifts in schedule check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint. • Not Before Causes a time selector to be displayed, where you can select the time at or after which the filtered shifts should end (similar to a greater than or equal to constraint). A Match all shifts in schedule check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint. • Between Causes a time range selector to be displayed, where you can select a time range between which the filtered shifts should end. A Match all shifts in schedule check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint.

Activities

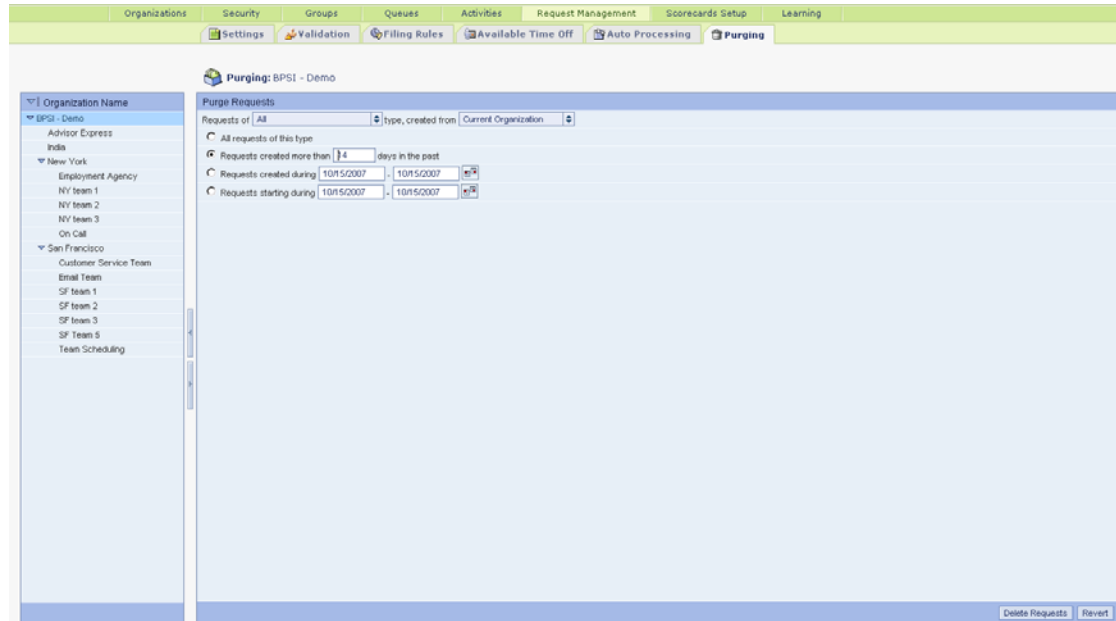
Option	Description
<i>Activity Name</i>	<p>You can filter on the name of up to two activities within the schedules displayed. The activities shown are a function of the activities that your scheduler has created in Forecasting and Scheduling, and has checked as able to be part of a shift event. For example:</p> <ul style="list-style-type: none">• Break• CKA• Late• Learning Break
<i>Length</i>	<p>You can filter on the length (in hours) of a particular activity. Choices are:</p> <ul style="list-style-type: none">• Any Length No filtering is done for this characteristic.• Equal To Causes a field to be displayed where you specify the number of hours.• No More Than Causes a field to be displayed where you specify the number of hours.• No Less Than Causes a field to be displayed where you specify the number of hours.• Between Causes two fields to be displayed, where you can specify the range of the number of hours.

Option	Description
<i>Starting</i>	<p>You can sort on the time that an activity starts. Choices are:</p> <ul style="list-style-type: none"> • Any Time No filtering is done for this characteristic. • At Causes a time selector to be displayed, where you can select the exact activity start time on which you want to filter. A Match all shifts in schedule check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint for that activity. • Not After Causes a time selector to be displayed, where you can select the time at or before which the filtered shifts should begin (similar to a less than or equal to constraint). A Match all shifts in schedule check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint for that activity. • Not Before Causes a time selector to be displayed, where you can select the time at or after which the filtered shifts should begin (similar to a greater than or equal to constraint). A Match all shifts in schedule check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint for that activity. • Between Causes a time range selector to be displayed, where you can select a time range between which the filtered shifts should begin. A Match all shifts in schedule check box also is displayed, which filters all of the shifts in the schedule based on the same time constraint for that activity.

Option	Description
Skills <i>Skills Associated with Shift</i>	<p>Displays a two-column table. For managers, all skills defined are shown in the Available Skills column. (Employees only see the skills they themselves have.) Select (or multi-select) the skills on which you want to filter, and then click <input type="button" value="»"/> to move the skill(s) to the Selected Skills column (or <input type="button" value="«"/> to remove a skill from the Selected Skills column).</p> <p>Additional radio buttons allow you to specify whether you want to filter for an exact match for the skills you have selected, or whether you want to see other possible matches. The available radio buttons are:</p> <ul style="list-style-type: none"> • At Least These Skills You want to see any shifts that include the selected skills. • At Most These Skills You do not want to see any shifts that include skills other than the ones you've selected, but you do want to see shifts that might not include all of the skills you have selected. • Exactly These Skills You only want to see shifts that include the selected skills.

Purging Requests

Use the **Purging** tab of the **Request Management** section of the **Organization Management** module to purge (remove) requests from the database.



This page has the following controls:

- **Request Type**—Choose the type of request to be purged.
The purge can be applied to the employees of the current organization or can include the employees at the child organizations.
- **For requests created from**—You can purge requests from the current organization or from an entire organization branch.

You can limit the effects of the purge using one of the following:

- **All requests of this type**—Purge this type of request without considering a date.
- **Requests created more than <number> days in the past**—Select a date boundary based on the requests' creation date for the purge.
- **Requests created during <start_range> - <end_range>**—Select a date range for a purge based on the requests' creation date.
- **Requests starting during <start_range> - <end_range>**—Select a date range for a purge based on the requests' start date.

Click **Delete Requests** to remove the requests.

Click **Revert** to cancel your changes.

Using the Tracking Module

The **Tracking** module is used to view the time records for individuals or groups of individuals, work with adherence, track a contact center's performance, and configure rules for alerting specific users when potential problems occur.

Roster	Allows employees' schedule and time-off summary data to be viewed.
<ul style="list-style-type: none">• Schedules	<ul style="list-style-type: none">• Not visible by default for administrators. Allows employees' schedule information to be viewed.
<ul style="list-style-type: none">• Time Summary	<ul style="list-style-type: none">• Shows the time-off summary data for each of the selected employees.
Adherence	A performance assessment tool that lets managers and schedulers analyze employee adherence to schedules at any point during the day or to assess trends and potential problems.
<ul style="list-style-type: none">• Quick View	<ul style="list-style-type: none">• Displays a snapshot of the current adherence information of selected employees. See page 387.
<ul style="list-style-type: none">• Adherence	<ul style="list-style-type: none">• Allows you to view employee adherence to schedules. Out of adherence time periods for the selected day are displayed next to the employee's name.
Pulse	Helps managers and schedulers track contact center performance. Also provides a place for them to enter historical data into the application and edit it. See page 390 .

<ul style="list-style-type: none"> ● Pulse 	<ul style="list-style-type: none"> ● Helps you track contact center performance. It collects your contact center data throughout the day from their ACD and compares your actual performance with forecast and required values, enabling you to analyze your performance and apply corrections as needed.
<ul style="list-style-type: none"> ● History 	<ul style="list-style-type: none"> ● Allows you to enter historical data into the application and edit it.
Alert Rules	Allows you to view alert rules for three different <i>scopes</i> : organizations, campaigns, and the system as a whole. This section, starting on page 424 , contains the following tabs:
<ul style="list-style-type: none"> ● Organization 	<ul style="list-style-type: none"> ● View alert rules pertaining to an organization.
<ul style="list-style-type: none"> ● Campaign 	<ul style="list-style-type: none"> ● View alert rules pertaining to a campaign.
<ul style="list-style-type: none"> ● System 	<ul style="list-style-type: none"> ● View alert rules pertaining to the Workforce Management system.

NOTE



As mentioned previously, there are two "flavors" of adherence available:

- Basic Adherence, which allows Real-time employee adherence tracking for phone-based activities.
- Advanced Adherence, which provides on top of Basic Adherence added adherence management capabilities for monitoring adherence to schedule for phone media, including aux codes and non-phone-based activities, as well as enabling management of adherence exceptions.

At the present time, the Operational Workforce Management, Advanced Workforce Management, Strategic Workforce Management, Workforce Management Express, and Performance Management Workforce Management solutions all include Advanced Adherence. Basic Adherence is available as an option for some other packages.

If you are licensed for Operations, you will also see a **Volumes** section. Its two tabs, **Work** and **History**, are discussed in the *Workforce Management Managers' Guide*.

Viewing Schedule Information: The Schedules Tab

Use the **Schedules** tab to view employees' schedule information.

Name	Sun 05/23	Mon 05/24	Tue 05/25	Wed 05/26	Thu 05/27	Fri 05/28	Sat 05/29
Joey Adams	Not published	Not published	Not published	Not published	Not published	Not published	Not published
Abraham, Belworth	Closed	6:15 AM - 2:45 PM	9:45 AM - 6:15 PM	9:45 AM - 6:15 PM	8:30 AM - 5:00 PM	9:30 AM - 6:00 PM	Off
Bloom, Terri	Closed	10:30 AM - 2:30 PM	10:00 AM - 2:00 PM	2:00 PM - 6:00 PM	10:00 AM - 2:00 PM	10:30 AM - 2:30 PM	Off
Brannon, Mick	Closed	11:00 AM - 3:00 PM	11:30 AM - 3:30 PM	9:45 AM - 12:45 PM	2:45 PM - 6:45 PM	10:30 AM - 2:30 PM	Off
Brickles, Melinda	Closed	7:15 AM - 4:15 PM	8:00 AM - 5:00 PM	7:15 AM - 4:15 PM	7:15 AM - 4:15 PM	7:15 AM - 4:15 PM	Off
Chang, Kevin	Closed	Off	Off	Off	Off	Off	Off
Conley, Stuart	Closed	9:45 AM - 6:15 PM	9:45 AM - 6:15 PM	9:45 AM - 6:15 PM	9:45 AM - 6:15 PM	9:45 AM - 6:15 PM	Off
Corones, Helena	Closed	Off	Off	Off	Off	Off	Off
Cramer, Allison	Closed	1:45 PM - 5:45 PM	12:30 PM - 4:30 PM	11:00 AM - 3:00 PM	Off	10:15 AM - 2:15 PM	Off
DeVries, Bob	Closed	9:00 AM - 5:30 PM	8:45 AM - 5:15 PM	8:30 AM - 5:00 PM	8:45 AM - 5:15 PM	Off	Off
Edwards, Jake	Closed	7:15 AM - 3:45 PM	7:00 AM - 3:30 PM	9:15 AM - 5:45 PM	9:45 AM - 6:15 PM	8:30 AM - 5:00 PM	Off
Harms, Joseph	Closed	7:15 AM - 3:45 PM	6:30 AM - 3:00 PM	7:30 AM - 4:00 PM	7:00 AM - 3:30 PM	7:00 AM - 3:30 PM	Off
Jackson, Yolanda	Closed	2:15 PM - 6:15 PM	2:15 PM - 6:15 PM	2:15 PM - 6:15 PM	2:00 PM - 6:00 PM	2:15 PM - 6:15 PM	Off
Johnson, Albert	Closed	8:15 AM - 4:45 PM	8:00 AM - 4:30 PM	7:00 AM - 11:00 AM	7:15 AM - 3:45 PM	8:15 AM - 4:45 PM	Off
Jones, Lynette	Closed	7:45 AM - 4:15 PM	8:30 AM - 5:00 PM	7:15 AM - 3:45 PM	7:45 AM - 4:15 PM	7:15 AM - 3:45 PM	Off
Kozza, Frederick	Closed	Off	Off	Off	Off	Off	Off
Markman, Bulworth	Closed	9:45 AM - 6:15 PM	Off	9:00 AM - 5:30 PM	9:00 AM - 5:30 PM	7:30 AM - 4:00 PM	Off
Notterson, Elvira	Closed	2:15 PM - 6:15 PM	2:15 PM - 6:15 PM	11:00 AM - 3:00 PM	3:00 PM - 7:00 PM	1:45 PM - 5:45 PM	Off
Park, Julie	Closed	8:30 AM - 12:30 PM	7:45 AM - 11:45 AM	2:00 PM - 6:00 PM	2:00 PM - 6:00 PM	2:15 PM - 6:15 PM	Off
Peebles, Samantha	Closed	8:15 AM - 12:15 PM	7:15 AM - 11:15 AM	7:15 AM - 11:15 AM	7:15 AM - 11:15 AM	2:15 PM - 6:15 PM	Off
Rodriguez, Tony							
Rogers, Michael							
Shutlesworth, Peter							
Smith, Termy							
Songer, Richard							
Spiesberg, Lilia							
Talfer, George							
Thadwick, Earl							
Vocovick, Brenda							
Volker, Daniel							

This tab supports three different modes, which can be changed by clicking on the View drop-down menu on the content title.

- **Multiday:** (Default) Display schedules for multiple days.
- **Text:** Displays a single day's schedule in text mode.
- **Graph:** Displays a single day's schedule in graph mode.

(Refer to Chapter 16 "Viewing Your Information: The My Home Module" for more information on the three modes.)

Employees are listed in the left pane of the **Schedules** tab. You must select the employees you want to view in this pane.

To view information, click one or more employees to highlight them, then click **View**.

Use the **Ctrl** or **Shift** key to select groups of employees, or click **Select All** to highlight all the employees.

Click **Select None** to deselect all the employees.

Type a name in the Find box and click **Go** to locate a specific employee.

You can filter the Name list by selecting a filter from the View menu at the top of pane. Select **Create Filter** or **Edit Filters** to create a new filter or change an existing one, respectively, as described on page [387](#).

Sorting the Schedule Information


Use the **Sort by** drop-down selector to select the sorting criterion.

Name	Sun 05/23	Mon 05/24	Tue 05/25	Wed 05/26	Thu 05/27	Sat 05/28
Joey Adams	Not published	Not published	Not published	Not published	Not published	Not published
Abraham Belworth	Closed	6:15 AM - 2:45 PM	9:45 AM - 6:15 PM	9:45 AM - 6:15 PM	8:30 AM - 5:00 PM	6:00 PM Off
Terri Bloom	Closed	10:30 AM - 2:30 PM	10:00 AM - 2:00 PM	2:00 PM - 6:00 PM	10:00 AM - 2:00 PM	10:30 AM - 2:30 PM Off
Michelle Brannon	Closed	11:00 AM - 3:00 PM	11:30 AM - 3:30 PM	8:45 AM - 12:45 PM	2:45 PM - 6:45 PM	10:30 AM - 2:30 PM Off
Melinda Brinkles	Closed	7:15 AM - 4:15 PM	8:00 AM - 5:00 PM	7:15 AM - 4:15 PM	7:15 AM - 4:15 PM	7:15 AM - 4:15 PM Off
Kevin Chang	Closed	Off	Off	Off	Off	Off
Stuart Conley	Closed	9:45 AM - 6:15 PM	9:45 AM - 6:15 PM	9:45 AM - 6:15 PM	9:45 AM - 6:15 PM	9:45 AM - 6:15 PM Off
Helena Coronos	Closed	Off	Off	Off	Off	Off
Allison Cramer	Closed	1:45 PM - 5:45 PM	12:30 PM - 4:30 PM	11:00 AM - 3:00 PM	Off	10:15 AM - 2:15 PM Off
Bob DeVries	Closed	9:00 AM - 5:30 PM	8:45 AM - 5:15 PM	8:30 AM - 5:00 PM	8:45 AM - 5:15 PM	Off
Jake Edwards	Closed	7:15 AM - 3:45 PM	7:00 AM - 3:30 PM	9:15 AM - 5:45 PM	9:45 AM - 6:15 PM	8:30 AM - 5:00 PM Off
Joseph Harns	Closed	7:15 AM - 3:45 PM	6:30 AM - 3:00 PM	7:30 AM - 4:00 PM	7:00 AM - 3:30 PM	7:00 AM - 3:30 PM Off
Yolanda Jackson	Closed	2:15 PM - 6:15 PM	2:15 PM - 6:15 PM	2:15 PM - 6:15 PM	2:00 PM - 6:00 PM	2:15 PM - 6:15 PM Off
Albert Johnson	Closed	8:15 AM - 4:45 PM	8:00 AM - 4:30 PM	7:00 AM - 11:00 AM	7:15 AM - 3:45 PM	8:15 AM - 4:45 PM Off
Lynette Jones	Closed	7:45 AM - 4:15 PM	8:30 AM - 5:00 PM	7:15 AM - 3:45 PM	7:45 AM - 4:15 PM	7:15 AM - 3:45 PM Off
Frederick Kozze	Closed	Off	Off	Off	Off	Off
Markman Markman	Closed	9:45 AM - 6:15 PM	Off	9:00 AM - 5:30 PM	9:00 AM - 5:30 PM	7:30 AM - 4:00 PM Off
Elvira Notterson	Closed	2:15 PM - 6:15 PM	2:15 PM - 6:15 PM	11:00 AM - 3:00 PM	3:00 PM - 7:00 PM	1:45 PM - 5:45 PM Off
Julie Park	Closed	8:30 AM - 12:30 PM	7:45 AM - 11:45 AM	2:00 PM - 6:00 PM	2:00 PM - 6:00 PM	2:15 PM - 6:15 PM Off
Samantha Peeples	Closed	8:15 AM - 12:15 PM	7:15 AM - 11:15 AM	7:15 AM - 11:15 AM	7:15 AM - 11:15 AM	2:15 PM - 6:15 PM Off

If you are not viewing the first page in a multipage list of the selected group of employees, changing the sort order takes you back to the first page.

You can sort the information on this screen by one of the following:

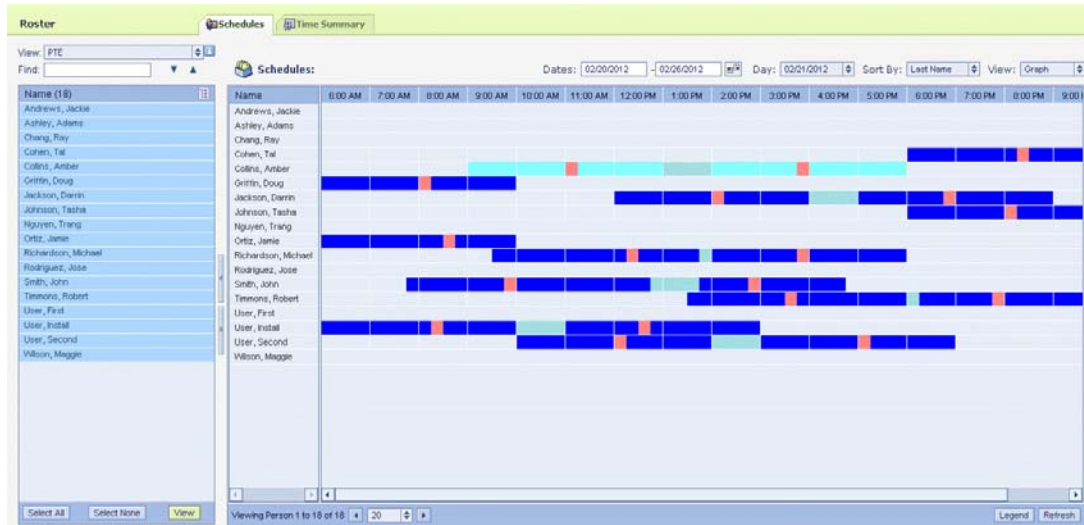
- Last Name
- First Name
- Start Time (Shift Start Time)
- End Time (Shift End Time)
- Length (Shift Length)

 The screen might not show the schedules for all selected employees if you do not have privileges to view their schedules.


Multiday Graph View

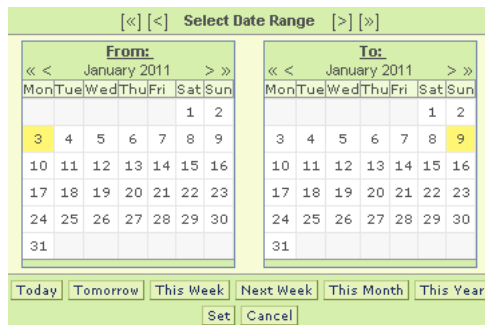
In Multiday view, each date in the date range for each person is represented by an entry in the table. The entry may be one of:

- the start and end of the work period
- **No shift**
- **Not published**
- **Time Off**
- **Closed**



The start and end usually represent the start and end of the shift, except when the shift is extended by an adjacent calendar event or when it is trimmed by a time-off event.

You can change the dates displayed by clicking on the date range selector icon  next to the shown dates and select the date range.



When selecting the date range, you can click one of the following at the bottom of the pop-up:

- **Today**
- **Tomorrow**
- **This Week**
- **Next Week**
- **This Month**
- **This Year**

Alternatively, you can select a start date on the left calendar, an end date on the right calendar, and click **Set** .



You can move both calendars in synch using the arrow buttons on either side of the window title **Select Date Range**. To move each calendar independently, use the arrow buttons on either side of the month's name. The **<<** and **>>** buttons move in increments of a year; the **<** and **>** buttons move in increments of a month.

If you do not want to change the date range in the selector, click **Cancel**.

To switch among the views, use the **View** drop-down selector on the top right of the page.

Changing the Sort Order

Use the **Sort by** drop-down selector to select the sorting criterion. If you are not viewing the first page in a multipage list of the selected group of employees, changing the sort order takes you back to the first page.

You can sort the information on this screen by one of the following:

- Last Name
- First Name
- Start Time (Shift Start Time)
- End Time (Shift End Time)
- Length (Shift Length)

Controlling the Amount of Information Displayed

If the list of selected employees in the group is long, you can use the pagination drop-down selector at the bottom left of the window to limit the number of employees being displayed, thus allowing the page to render quickly.

To move to the next or previous page in a long list, use the next (right arrow) or previous (left arrow) buttons in the pagination control.

Additionally, when you scroll through a long list of employees on a page, the column headers repeat every certain number of rows. You can set this number in the **Preferences** window.

Changing Groups

You can also change the group of employees being viewed by clicking on the group selector icon next to the name of the current group. The **Select Organization / Campaign Group** window appears as a pop-up window, allowing you to select a group of employees using their organization and/or campaign associations.



- 1 Select one organization in the lefthand tree, or select one campaign in the righthand list, or select both an organization and a campaign. When selecting an organization,

you can expand and collapse organization tree branches by clicking the triangular icons to the left of the organization names.

2 Click **Save**.

If both an organization and campaign are selected (highlighted), the selection will affect employees from the selected organization who are working in the selected campaign, a subset of both organization and campaign.

If only an organization name is selected, you are selecting all the employees in this organization.

If only a campaign name is selected, you are selecting all the employees working for this campaign, regardless of their organization.

Viewing Time-Off Information: The Time Summary Tab

This tab shows the time-off summary data for each of the selected employees. If only a single employee is selected, a year selector appears in the page title area. This selector lists the years for the selected employee. When the yearly selection changes, the page is updated with the time off summary information for that year.

If multiple employees are selected, a date selector is shown at the top right of the tab.. Once you have selected a date, the page is updated so that, for each employee, the calendar year that includes the selected day is shown in the work pane.

If Time Off Accrual is enabled for any of the selected employees' organizations, the summary table also includes the time off accrual-related columns. Also, in the employee container title area, there is a link to Time Off Accrual Calculator, to display the number of accrued hours at a given date.

For each employee selected, the workpane displays columns for:

- Time Off Type
- Total
- Starting Balance
- Used
- Scheduled
- Pending
- Estimated Remaining

At the bottom of the workpane are a pagination control and a **Refresh** button, to refresh the information displayed.

Adherence

The **Adherence** section allows you to analyze employee adherence to schedules at any point during the day or to assess trends and potential problems.

It contains two tabs:

Quick View	Displays a snapshot of the current adherence information of selected employees.
Adherence	Allows you to view employee adherence to schedules. Out of adherence time periods for the selected day are displayed next to the employee's name.

Adherence Quick View

Use the **Quick View** tab of the **Adherence** section of the **Tracking** module to display a snapshot of the current adherence information of selected employees. (Note that the following illustration shows the employees' organization. Your administrator can configure whether the organization column is displayed or not.)

Employee Selection

Employees are listed in the left pane of the **Adherence** window. You must select the employees you want to view in this pane.

- To view information, click one or more employees to highlight them, then click **View**.
- Use the **Ctrl** key to select groups of employees, or click **Select All** to highlight all the employees.
- Click **Select None** to deselect all the employees.
- Type a name in the **Find** box and click **Go** to locate a specific employee.

Filters

You can filter the **Name** list by selecting a filter from the **View** menu at the top of pane. Select **Create Filter** or **Edit Filters** to create a new filter or change an existing one.

The Quick View Pane

This pane consists of three containers:

- Adherence Status Summary
- Day Summary (up to now)
- a tabular display

The screenshot displays the Adherence Status Summary and Day Summary interface. The Adherence Status Summary table shows the following data:

Adherence Status Summary	Value
Total Selected	11
Total In	2
Out Of Adherence	3
Too Long In Activity	0
Activity	

The Day Summary (up to now) table shows the following data:

Day Summary (up to now)	Value
Scheduled In-Office Hours	44:38:41
Exceptions during In-Office Hours	42:36:09
Day's Adherence	5%

The main table below provides detailed adherence data for each employee:

Name	Organization	Scheduled Activity	Out Of Adherence	Actual Activity	Time In Activity	Day's Adherence
Doan, 1	DoanPhan	Blended	0:54:40			0%
Doan, 10	DoanPhan					0%
Doan, 11	DoanPhan					
Doan, 2	DoanPhan	Blended		Blended	0:02:32	1%
Doan, 3	DoanPhan	Blended	3:39:40			39%
Doan, 4	DoanPhan			Blended	0:01:20	
Doan, 5	DoanPhan	Blended	1:09:40			0%
Doan, 6	DoanPhan					0%
Doan, 7	DoanPhan					

Adherence Status Summary


The Adherence Status Summary container provides aggregate information for the selected employees:

- **Total Selected**—The total number of employees selected.
- **Total In**—The total number of selected employees currently logged onto the ACD system.
- **Out Of Adherence**—The number of selected employees currently out of adherence.
- **Too Long In Activity**—The number of selected employees currently exceeding the Maximum time in activity set in the Organization Activity setup.
- **Activity**—The activities that are scheduled and are actually being performed by the selected employees.


Day Summary (up to now)

This container lists information for the current day, for all of the selected employees. This summary data applies only to the current activities that the user(s) are in. In contrast to the other data on this page, the values listed here apply to the entire day, from 12:00 AM to the current time. The container lists the following:

- **Scheduled In-Office Hours**: The total duration of all scheduled activities for the day that do not map to the system-defined **No Activity** activity. This value counts the scheduled hours up to the current time only.


 The use of the term In-Office is not related to physically present employees vs. work-at-home employees.


- **Exceptions during In-Office Hours:** The total duration of all unapproved exceptions for the day that occur during scheduled activities that do not map to the system-defined **No Activity** activity. Only the minutes that overlap between the exceptions and the scheduled in-office hours are counted.
- **Day's Adherence:** The percentage of time during scheduled in-office hours that the employees are in adherence. This value is calculated using the following formula: $(1 - (\text{Adherence Exceptions during In-Office Hours} / \text{Scheduled In-Office Hours})) * 100$. This value counts the scheduled hours up to the current time only.

 This calculation is computed using the exact underlying durations (with millisecond precision), rather than using the rounded values displayed in the table. Also, the percentage is rounded to the nearest integer. Therefore, the value displayed may be slightly different than the number you arrive at by your own calculations.

Tabular Display

Use this container to view a summary of the current adherence status for the selected employees.

 Collapse the top **Adherence Status Summary** and **Day Summary (up to now)** containers if you want additional room to view the adherence data in the lower container.


- Click the top of any column to sort by that column. Click again to reverse the sort order.
- To set the rate at which the page is updated, select the Refresh Rate from the drop down menu.
- Click the pushpin icon  to make the selected employee stay at the top of the list when sorted.

The columns display the adherence status for the selected employees as of the displayed time:

- **Name**—The name of the employee.
- **Organization**—The organization to which the employee belongs. Depending on how your system is configured, you might not see this column.
- **Scheduled Activity**—The activity the employee is currently scheduled for.
- **Out of Adherence**—The time the employee has been continuously out of adherence (disregarding authorized exceptions).
- **Actual Activity**—The activity the employee is currently logged onto.
- **Time in Activity**—The amount of time the employee has been in the current state. This is measured against the setting of **Maximum time in activity**, which is set in the Organization Activity setup. If **Time In Activity** is greater than the **Maximum Time In Activity**, the colored box is red, indicating that a **Too Long In Activity**

exception has occurred. Otherwise, the colored box is blank (with a solid white border), indicating that a **Too Long In Activity** exception has not occurred.

- **Day's Adherence:** The percentage of time during scheduled in-office hours that the employees are in adherence. This value is calculated using the following formula: $(1 - (\text{Adherence Exceptions during In-Office Hours} / \text{Scheduled In-Office Hours})) * 100$. This value counts the scheduled hours up to the current time only.

 This calculation is computed using the exact underlying durations (with millisecond precision), rather than using the rounded values displayed in the table. Also, the percentage is rounded to the nearest integer. Therefore, the value displayed may be slightly different than the number you arrive at by your own calculations.

Time Intervals

Time intervals are used to determine where employees' time will be charged when they are not logged in. Use this page to enter single time intervals.

To add a time interval:

- 1 Click **Create Time Interval** and complete the dialog box that appears.
- 2 Use the date selector and clock icon to set the start and end date and time of the activity.
- 3 Select an activity type and activity for the interval.
- 4 Enter the duration of the interval in hours and minutes.
- 5 Select **Payable** if the activity is paid.
- 6 Type any notes to include with the interval.
- 7 Click **Save** to save the interval and return to the **Day Details** tab, or click **Cancel** to return to the **Day Details** tab without saving the time interval.

Pulse

The **Pulse** section of the **Tracking** module is designed to help you track your contact center performance. It collects your contact center data throughout the day from your ACD and compares your actual performance with forecasted and required values, enabling you to analyze your performance and apply corrections as needed. Pulse also allows schedulers to enter historical data into the application and edit it.

It contains two tabs:

Pulse	Helps you track your contact center performance. It collects your contact center data throughout the day from your ACD and compares your actual performance with forecast and required values, enabling you to analyze your performance and apply corrections as needed.
History	Allows you to view (and schedulers to enter) historical data into the application and edit it. See <i>History</i> .

The Pulse Tab

This tab allows you to view call center data throughout the day as well as historical data.



i Not all ACDs provide all the statistics tracked by Workforce Management. You may not receive actual data, but you will see predicted and required data.

Queues are listed in the left pane of the **Pulse** tab. You must select the queues you want to view in this pane.



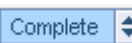
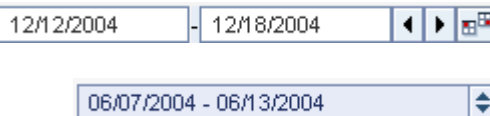





To view information, click one or more queues to highlight them, then click **View**.






- Use the **Ctrl** key to select groups of queues, or click **Select All** to highlight all the queues.
- Click **Select None** to deselect all the queues.

The right-hand portion of the **Pulse** tab is made up of three general areas:

- 1 The top panel
- 2 The data panel in the center
- 3 The bottom panel

The top panel contains the following controls, from left to right:

	<ul style="list-style-type: none"> • Campaign selector - Allows you to filter the queue list by selecting a campaign from the filter menu at the top of pane. Select a specific campaign for queues in the campaign or select a blank entry to display all queues, regardless of campaign.
	<ul style="list-style-type: none"> • Work Queue Filter - Allows you to select those organizations for which you want to create a work queue filter.
	<ul style="list-style-type: none"> • View selector - A view defines a list of statistics to display. A dashed line divides the list of views. The views above the dashed lines are public; the views below the dashed lines are private.
	<ul style="list-style-type: none"> • Date Range/SP selector - (SP stands for scheduling period.) Specifies the date interval to be retrieved in the data panel. Depending on the setting of the Show SP selector/Show date range selector control, you are either given a list of scheduling periods (SPs) to choose from, or date range fields. You can either enter the from/to dates manually, or by using the date range selector. The maximum date range is 2 months (62 days).
	<ul style="list-style-type: none"> • Show SP selector/Show date range selector - A toggle button that allows you to change the previous Date Range selector to the SP (schedule period) selector. If you have not selected a campaign in the left pane, the SP selector is not enabled, and this toggle is disabled
	<ul style="list-style-type: none"> • Show/Hide Summary Table - Toggle to display or hide the summary tables.
	<ul style="list-style-type: none"> • Show/Hide Data Table - Toggle to display or hide the data table in the data panel.
	<ul style="list-style-type: none"> • Show Individual/Aggregated Queues - Toggle to shift between the display of individual queues selected in the left pane queue selector or an aggregated view of the queues.
	<ul style="list-style-type: none"> • Show User/Campaign Timezone Queues - Display data in the campaign or users' time zone.

	<ul style="list-style-type: none"> • Zoom In – Changes the zoom mode to the next zoom mode level with greater detail. If you are viewing a single-week SP, or when no SP is selected, the only possible zoom mode levels (in order of decreasing detail) are Daily and Period. If you are viewing a multi-week SP, the possible zoom mode levels (in order of decreasing detail) are Daily, Weekly, and Period. If you are already at the Daily zoom mode level, this control is disabled.
	<ul style="list-style-type: none"> • Zoom Out – Changes the zoom mode to the next zoom mode level with less detail. If you are viewing a single-week SP, or when no SP is selected, the only possible zoom mode levels (in order of decreasing detail) are Daily and Period. If you are viewing a multi-week SP, the possible zoom mode levels (in order of decreasing detail) are Daily, Weekly, and Period. If you are already at the Period zoom mode level, this control is disabled.
	<ul style="list-style-type: none"> • Pulse Notes - Opens a pop-up window that allows you to view and create Pulse notes.
	<ul style="list-style-type: none"> • Recalculate Statistics - Allows you to update the Pulse statistics to take into account any changes you have made.
	<ul style="list-style-type: none"> • Refresh – When you click this button, the data panel is refreshed with data from the server.

Depending on the dates you have selected, there are three viewing modes:

- **Schedule Period**
The date ranges represent the same date intervals as a scheduling period. This period could be a single or multi-week scheduling period.
- **Campaign**
The date ranges do not fall exactly during an scheduling period interval, but a campaign is selected in the campaign filter on the left pane selector.
- **Free Range**
A campaign is not selected in the filter in the left pane. (Sometimes referred to as All Queues mode.)

To display your viewing mode, hover the cursor over the name of the queue(s) displayed in the top panel of this window.

The data panel is divided into three areas (from left to right):

1 Summary table

This table displays a summary of all days/weeks in the date range. The first-level column header of the summary table shows the list of queues currently selected.

The second level column header shows **Act** (Actual) to indicate that actual data is being displayed (as opposed to forecasted/required data). Each summary table applies to all of the selected queues in the queue selector, but only to a single statistic defined in the selected view. The name of the statistic and the calculation type (**Absolute**, **Absolute Deviation**, or **Percentage Deviation**) is displayed in the header of the corresponding graph.

Trend data, if enabled in the view (see page [397](#)), is shown in blue and italicized, to distinguish it from other data.

If a multi-week SP is *not* selected, each data value in this table is an aggregation for a day. The last row in the table is a summary of the entire period. When you click a specific day in the table, the zoom mode level changes to **Daily**, and the graph and data table show data for the specified day in 15-minute intervals. When you click the last row (**Period**), the zoom mode level changes to **Period**, and the graph and data table display data spanning the full time period in 1-hour intervals.

If a multi-week SP *is* selected, then each data value aggregation displayed is based on the current zoom mode level. The summary table's rows contain data aggregations for each week in the scheduling period, and a **Period** row, which contains the total value for the entire scheduling period. If the current zoom mode level is **Weekly** or **Daily**, the summary table also displays data in daily aggregations for the currently selected week.

When you click the last row in the table (**Period**):

- The current zoom mode changes to **Period** zoom level.
- The summary table collapses to show only the weekly aggregations and the total row.
- The graph and data table display data spanning the full time period in 1-day intervals.

When you click a specific week row in the table:

- The current zoom mode changes to **Weekly** zoom level.
- The summary table expands the selected week to show all of the daily aggregations for that week.
- The graph and data table display data spanning the selected week in 1-hour intervals.

When you click a specific day row in the table:

- The current zoom mode changes to **Daily** zoom level.
- The graph and data table display data spanning the selected day in 15-minute intervals.

2 Graph

The graph displays the time period on the x-axis and the statistic value on the y-axis. The name of the statistic and the calculation type are specified in the title of the graph. Each queue can have up to three lines: actual, forecasted, required.

The color of each statistic is specified in the headers of the summary table on the left.

If you hover the cursor over a line, a tool tip shows the line details. A dashed line represents a calculated trend. Trend will appear for the actual line only. A dashed vertical line represents the current time.

3 Data table

This table displays detailed values for the selected queues and statistics. The first level column header shows the statistic and calculation. The second level is the queue name or **Aggregated** when you are in aggregated mode. The third level denotes the type: **Actual**, **Forecasted**, or **Required**. The columns displayed depend on the queues you've selected in the left pane queue selector, and on the trace view selected in the top panel. The time interval toggles between 1-hour and 15-minute intervals depending on the zoom mode. Data can be copied to the clipboard by highlighting the data and using **Ctrl-C**.

The bottom panel contains the following controls:

- **Create View** - Click to create a new view.
- **Edit View** - Allows you to edit the current view displayed in the top panel.
- **Reforecast** - Saves the current forecast including the trend as a new forecast. This button is enabled under certain conditions:
 - Trending must be enabled in the view.
 - Pulse must be in **Schedule Period** mode. This means that a Campaign must be selected in the left frame, and the schedule period must be selected in the SP Selector. If the date range selector is shown instead of the SP Selector, the date range chosen must exactly match the SP start and end dates.
 - The date range is the current week.
 - You cannot reforecast if an Outbound or Project queue is selected (or if a combined queue is selected that has an outbound/project queue as one of its children). An outbound queue is a queue assigned to the **Phone - Outbound** media type. A Project queue is a queue assigned to the **Project** media type.
 - You cannot reforecast if the selected queue is the child of a distributed or virtual queue.
 - You cannot reforecast unless both **CV** and **AHT** are shown in the view.
 - Your role must have been assigned the Reforecast privilege, and you must have been given campaign scope for the selected campaign.

Refer to the chapter on Intra-Day Optimization in the *Impact 360 Schedulers Guide* for more information on using the **Reforecast** button.

- **Configure Trend** - Modifies the parameters that define the trend calculation. This button is enabled when the date range is the current week, the mode is Scheduled Period, and **Show Trend** has been selected for the view. Refer to the chapter on

Intra-Day Optimization in the *Impact 360 Schedulers Guide* for more information on using the **Configure Trend** button.

- **Export** – Exports current view data to a file.

Using the Work Queue Attribute Filter

This pop-up window consists primarily of two columns: the **Organization Name** column, and the **Work Queue Attributes Work Queue Attribute Values** column.

Use the checkboxes in the **Organization Name** column to select those organizations for which you want to create a work queue filter.

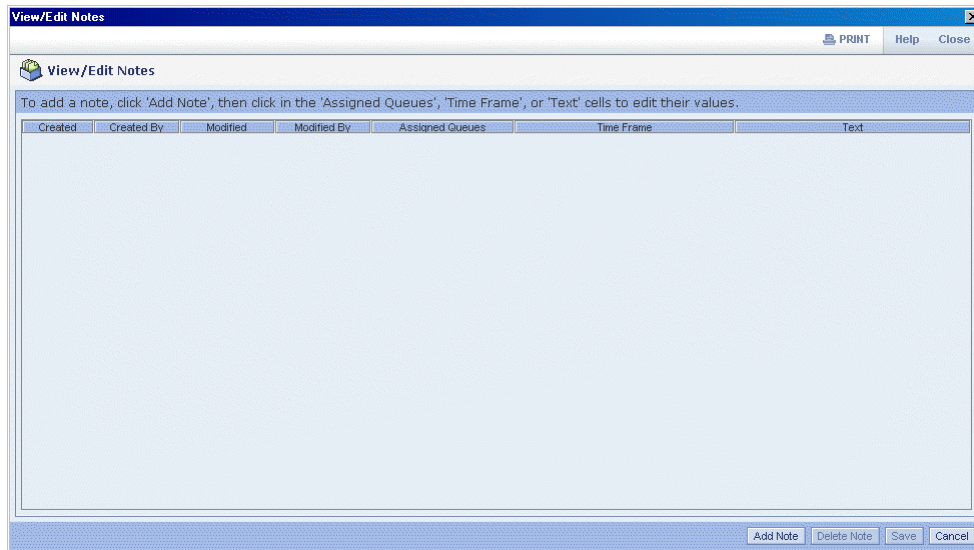
In the **Work Queue Attributes Work Queue Attribute Values** column, use the Media drop-down selector to select the media on which you wish to filter. Use the **Show linked root work queues only** drop-down selector to specify if you only want to view linked root work queues (**True**) or not (**False**).

Checkboxes at the bottom of the window allow you to specify whether the filter should be viewable by all users, and whether this filter should be the default filter.

Additional controls allow you to delete the filter, save the filter, save the filter with a different name (**Save As...**), or cancel any changes you have made (provided those changes have not already been saved).

Pulse Notes

As mentioned previously, you can create, edit, or view notes, which can be assigned to queues for a particular date/time range.



The page consists of a table that lists all of the notes for the current time period and set of queues.

The table includes the following columns:

Column	Usage
Created	The date when the note was first created. The data in this column is read-only.
Created By	The user name of the user who created the note. The data in this column is read-only.
Modified	The date when the note was last modified. The data in this column is read-only.
Modified By	The user who last modified the note. The data in this column is read-only.
Assigned Queues	The queues to which the note applies. To modify the queue assignments, click inside the Assigned Queues cell for the note to bring up the Assign Queues window.
Time Frame	The date/time range when the note is applicable.
Text	The actual note text. Click inside a note's Text cell to add or edit the text. Each note must be between 1 and 2000 characters long.

Pulse Data Types

Pulse allows you to view three types of data:

- **Actual**—Historical data from the ACD or other sources. See *Exporting Pulse Data from the Pulse Tab*.
- **Forecasted**—Predicted data derived from the Forecast module and the schedule created in the Calendar module.
- **Required**—Data derived from the Service Goals and FTE Requirements tabs.

Pulse Views

A view defines a list of statistics to display. You can configure and save a variety of views. You can display a comparison of **Absolute** numbers or show the **Deviation** of the Actual data from the Forecasted and Required data. (Deviation data subtracts the selected statistic from the Actual data.)

To create or edit a customized view definition for Pulse:

- 1 Click the **Create View** or **Edit View** button found in the bottom panel. A window opens (labeled either **Create View** or **Edit View**, depending on which button you clicked).

This window consists of two sections: a set of general view parameter inputs at the top and a view definition table describing the set of graphs and data to be displayed at the bottom.

The view parameters include:

Parameter Name	Description
Name	The name of the defined view.
Description	The description of the defined view (optional).
Public View	Check this box if the defined view is to be visible to other users. (You must have been given the appropriate privileges to create a public view.)
Display HOO Only	Check this box if the view only displays the Hours of Operation (HOO) in campaign mode. (Any statistics for times and dates not part of the hours of operation are excluded from Pulse calculations if this box is checked.)
Show Trends	Check this box if the view is capable of showing trends.

- 2 Add statistics to the view by clicking **Add Statistics** at the bottom of the window. You can add the following statistics:
 - **Volume**—Actual data can be imported from your ACD. Forecasted data comes from the Forecasting and Scheduling Forecast module. If Actual data is higher than Forecasted data, the volume is *higher* than expected.

- **Activity Handling Time**—Actual data can be imported from your ACD. Forecasted data comes from the Forecast module of Forecasting and Scheduling. If Actual data is higher than Forecasted data, the Average Handle Time (AHT) is *longer* than expected.
- **Service Level**—Actual data can be imported from your ACD. Required data comes from the Service Goals module of Forecasting and Scheduling; Forecasted data comes from the Calendar module of Forecasting and Scheduling. If Actual data is higher than Forecasted or Required data, the service level is *better* than expected.
- **Average Speed to Answer**—Actual data can be imported from your ACD. Required data comes from the Service Goals module of Forecasting and Scheduling; Forecasted data comes from the Calendar module of Forecasting and Scheduling. If Actual data is higher than Forecasted or Required data, the Average Speed to Answer (ASA) is *longer* than expected.
- **Abandons**—Actual data can be imported from your ACD. Required data comes from the Service Goals module of Forecasting and Scheduling. If Actual data is higher than Required data, there are *more* abandonments than expected.
- **Backlog**—The total number of queued contacts (for deferred queues only).
- **Staffing**—Actual data can be imported by schedulers. Required data comes from the Agent Requirements module of Forecasting and Scheduling; Forecasted data comes from the Calendar module of Forecasting and Scheduling. If Actual data is higher than Forecasted or Required data, *overstaffing* is indicated.

If a shift change is approved for an employee, a count of one is added to the staffing of all relevant queues of the employee, and also to the combined queue of the campaign for the time period for which the shift was approved.

If a time-off request of an employee who has a shift in the campaign is approved, or a shift change is withdrawn, a count of one is subtracted from the staffing of all relevant queues of the employee, and also to the combined queue of the campaign for period for which the time-off or withdrawal was approved.

- **Occupancy**—A measure of how busy your employees will be. For example, if out of two hours scheduled to be on the phone, an employee spends one hour on call-related work, then his occupancy is 50%. This figure is based on the scheduling simulations.
- **Full Time Equivalents**—The number of scheduled hours divided by the hours in a full work week gives the hypothetical number of full time equivalent (FTE) employees needed. The hours of several part time employees may add up to one FTE.
- **Adjusted Full Time Equivalents**—The ratio of forecasted full time equivalents to forecasted staffing is subtracted from the forecasted full time equivalents for each of the queues. This is done for all relevant queues that match the employee's skills.
- The adjusted full time equivalents for a campaign is a simple summation of the adjusted full time equivalents for all underlying queues.
- **Net Staffing**—This statistic allows managers to know how much they are short or surplus on staffing, allowing them to efficiently manage VTO and Shift requests.

It is calculated by subtracting the Required Full Time Equivalents from the Forecasted Full Time Equivalents, dividing the result by the Forecasted Full Time Equivalents, and dividing that by the Forecasted Staffing. That is, $((FFTE - RFTE) / FFTE) / FSTAFF$.

If your company is licensed for Outbound Media, the following statistics are also included:

- **Dials**—The total count of outbound dials that were made in a given interval. This count includes connects, right party connects, and dials that did not connect to a person.
- **Connects**—The total count of outbound dials that were made in a given interval that connected to a person.
- **Connect Rate**—The percentage of dials that connected to someone, equivalent to **Connects/Dials**.
- **Right Party Connects**—The total count of outbound dials that were made in a given interval that connected to the person that was intended to be reached. These numbers will not be redialed because the right party has been reached.
- **Right Party Connect Rate**—The percentage of dials that connected to the intended party, equivalent to **Right Party Connects/Dials**.
- **Right Party Connect AHT**—The average talk time of all right party connects in this interval.




If your company is licensed for Operations, the following statistic might also be included (depending on your system's configuration):

- **Volume Handled**—Consists only of actual data (no forecasted, for example), and is used for calculating weighted averages.

3 Click on which data to display for the various statistics. Options include:

Display Data	Description
Absolute Actual	Check this box if the view is to display the absolute actual statistics for the given statistic.
Absolute Forecasted	Check this box if the view is to display the absolute forecasted statistics for the given statistic.
Absolute Required	Check this box if the view is to display the absolute required statistics for the given statistic.
Absolute Deviation Forecasted	Check this box if the view is to display the absolute deviation of the forecasted vs. actual statistics for the given statistic.
Absolute Deviation Required	Check this box if the view is to display the absolute deviation of the required vs. actual statistics for the given statistic.

Display Data	Description
Percentage Deviation Forecasted	Check this box if the view is to display the percentage deviation of the forecasted vs. actual statistics for the given statistic.
Percentage Deviation Required	Check this box if the view is to display the percentage deviation of the required vs. actual statistics for the given statistic.

- Rank the various statistics higher or lower using the  or  buttons as appropriate.
- Remove any unwanted statistics by clicking the  button.
- Click **Save** to save the view and return to the main Pulse window.

Exporting Pulse Data from the Pulse Tab

To export Pulse data from the **Pulse** tab:

- Click **Export** at the bottom right of the tab. The **Pulse Export** dialog box is displayed.



The dialog contains the following parameters:

Parameter	Description
Work Queues	A read-only text field that enumerates the queues to be exported.
Destination File	The file path where the exported data will be saved.
Time Zone	You choose in which Time Zone data will be exported.
Time Interval	You choose in which time interval data will be exported
Delimiter	You choose which delimiter to put between columns in the exported data file.

- 2 Fill in the **Destination File**, **Time Zone**, **Time Interval**, and **Delimiter** fields as appropriate for your situation.
- 3 Click **Export** to export the data from the current view.

Click **Cancel** to cancel the export.

Staffing Requirements in a Skills-Based Campaign

Staffing numbers (requirements and actuals) are often viewed as some of the most critical data for someone running a contact center. Although information on predicted service levels, etc. in a skills-based environment is interesting and helpful, these statistics do not allow you to determine whether you are going to meet your service Level, and if not, what then to do, such as how many employees are needed on the phone, or, if you are overstaffed, how many people can you send home.

Determining the number people you need in a skills-based environment is complex. Generally speaking, it is difficult to determine you need X people, because the number of people that are needed depends on the skills of the individuals available. The Impact 360 provides two different Pulse views into staffing to help you:

- 1 Staffing (how many actual employees)
- 2 Full Time Equivalentents (the effective contribution needed)

Staffing

One way to measure staffing numbers is to look at the number of bodies, or people, that have a given skill. The information shown differs slightly depending on whether you are looking at a single queue in a campaign, or the combined queue for a campaign. For the Staffing graph, you see the following in each of the above-named circumstances for each interval:

- For combined queues:
 - **Actual:** The number of employees from the campaign logged in during the interval (taken from adherence data).
 - **Forecasted:** The number of employees scheduled in the campaign.
 - **Required** (only available in non-skill based campaigns): The equivalent to required FTEs, assuming all employees handle all queues.
- For individual queues:
 - **Actual:** The number of logged-in employees from this campaign that have the required skill (taken from adherence data coupled with employee skill data).
 - **Forecasted:** The number of employees on the schedule with the skill associated to the given queue.
 - **Required:** not available.
- For several individual queues:
 - **Actual:** The number of logged-in employees from this campaign that have *any* of the required skills linked to the selected queues (taken from adherence data coupled with employee skill data).

- **Forecasted:** The number of employees on the schedule with the skills associated to all of the selected queues.
- **Required:** not available.

Determining Employee Count Based on Skill Assignments

The association between the skills of an employee and a given queue are determined using the campaign Operations module mapping between skills and queues. This mapping might change from week to week under different campaign weeks.

When you view this data in Pulse on the campaign side, only mappings from the given campaign and campaign week are used. When you view this data on the organization side of Pulse, all campaign weeks defined for the viewing period are referenced to determine the linkages.

- Proficiencies and priorities are not considered when counting bodies staffed.
- Reserve skills are not used when counting bodies staffed.

Determining Actual Staffing from Adherence Information

Because of the limitations and inaccuracies involved with obtaining staffing numbers from traditional Direct Contact Statistics (DCS) reports, Workforce Management determines the actual staffing from Adherence and Time Collection information.

To determine if an employee should count towards the Bodies staffing numbers, there the media association of the actual activity being worked is checked. When determining Forecasted bodies from the schedule, this association is also referenced to ensure a fair comparison of data.

The Bodies staffing numbers are displayed in Pulse on a 15-minute basis; the determination of the actual number of bodies for each skill and combination thereof is determined at the end of each 15 minute time interval (e.g., at 10:00, 10:15, 10:30, etc.). Employees must be logged in for at least half of the interval to count as being staffed for the interval.

For employees doing work other than phone work, where they are always logged into the ACD, Workforce Management uses Time Collection data from the Employee Control module (if used), or the auxiliary codes that employees enter into the phone system to indicate that they will be doing work on another media.

Only the employees' skills based on the scheduled activity or recorded actual activity are used in the Bodies calculation.

If any events are auto-closed, or additional changes are made to the actual activities (by the managers), staffing numbers must be recalculated.

FTEs

The other way to measure staffing is to look at the effective contribution of each employee given the skill mix. This information differs depending on whether you are looking at a single queue in a campaign, or the combined queue for a campaign. For the FTEs graph, you see the following in each of the above circumstances for each interval:

- For combined queues:
 - **Forecasted FTEs:** The sum of the contributions of all employees scheduled in the campaign over all queues in the campaign. In a non-skills based campaign, you see the contribution of all employees, based on the assumption that all

employees can work on all queues. The value shown for FTEs is therefore equal in this case to the values shown for Staffing.

- **Required FTEs:** The sum of the requirements from each individual queue, assuming that each one is non-skills based. (This figure is identical to that shown using the Comparison Tool for skills campaigns.) In a non-skills based campaign, you see the requirement for all employees, based on the assumption that all employees can work on all queues.
- **Actual FTEs:** The sum over all queues of the effective contribution based on the actual CV, AHT, Abandons, and SL.
- For individual queues:
 - **Forecasted FTEs:** The contributions of all employees scheduled to work on this queue.
 - **Required FTEs:** The requirement for the queue assuming it is non-skills based. (This figure is identical to that shown using the Comparison Tool for skills campaigns.)
 - **Actual FTEs:** The effective contribution based on the actual CV, AHT, Abandons, and SL.
- For several individual queues:
 - **Forecasted FTEs:** The sum of the contributions of all employees scheduled in the campaign over all selected queues.
 - **Required FTEs:** The sum of the requirements from each selected individual queue, assuming that each one is non-skills based.
 - **Actual FTEs:** The sum over all selected queues of the effective contribution based on the actual CV, AHT, Abandons, and SL.

Pulse Statistics

Pulse collects your contact center data throughout the day from your ACD and compares your actual performance with forecast and required values, enabling you to analyze your performance and apply corrections as needed.

Pulse displays statistics for each media type and queue. The statistics available depend on whether the campaign is in skills or non-skills mode and whether you are using a single or multiple queue setup.

The following tables summarize the statistics and their source for each type of setup.

Non-Skills with a Single Queue

Non-Skills: Single queue linked to Campaign week (Sheet 1 of 2)			
	Required	Forecasted/ Predicted	Actual
Abandons (Abandoned calls)	Does not exist.	This value is based on the call volume you have forecasted in the Forecast module and the % abandons you set in the Service Goals module.	Comes from the ACD
AHT	Does not exist. You will not see the Blue Required Line.	Part of the forecast you generated in the Forecast module by adding historical weeks or profile	Comes from the ACD
ASA	The ASA (number of secs) value you input into the Service Goals module. This is only shown if ASA is the selected goal.	The service levels Forecasting and Scheduling generates only after you create a schedule. ASA is always generated after a schedule even if ASA is not your goal. This represents the predicted time in which you will answer calls based on the number of people on the schedule.	Comes from the ACD
Call Volume	Does not exist.	Your forecast is generated in the Forecast modules by adding historical weeks or a profile.	Comes from the ACD
Full Time Equivalents	The effective contribution requirement.	The effective contributions of all employees scheduled to work on this queue.	The effective contribution based on the actual CV, AHT, Abandons, and SL.

Non-Skills: Single queue linked to Campaign week (Sheet 2 of 2)

	Required	Forecasted/ Predicted	Actual
Occupancy	Does not exist.	Predicted occupancy is a measure of how busy your employees will be. For example, if an employee spends 1 hour on call related work out of 2 hours scheduled to be on the phone, then his occupancy is 50%.	Comes from the ACD
Service Level	The service level value (% calls in number of secs) you input into the Service Goals module. This is only shown if Service Level is the selected goal in the module.	This number is the expected service level based on the number of people you have on the phones. This is only generated if Service Level is your goal type.	Comes from the ACD.
Staffing	Does not exist. See instead Full Time Equivalents above.	Forecasted/Predicted staffing represents the number of employees on the phones on your schedule. Employees in calendar events or shift events do not count. This number does not exist until you create a schedule. Staffing differentials are forecasted staff minus required staffing.	Comes from the ACD or the staffing calculator.
Volume Handled (if you are licensed for Operations and configured to use Volume Handled)	Does not exist.	Does not exist.	Comes from the ACD. Volume Handled, when available, is used for calculating weighted averages for Actual Service Level and Actual AHT values.

Non-Skills with Multiple Queues

Non-Skills: <Combined> queue view in multi-queue scenarios (Sheet 1 of 2)

	Required	Forecasted/ Predicted	Actual
AHT	Does not exist.	Part of the forecast you generated in the Forecast module by adding historical weeks or profiles.	Comes from the ACD
ASA	The ASA (number of secs) value you input into the Service Goals module. This is only shown if ASA is the selected goal.	The service levels Forecasting and Scheduling generates only after you create a schedule. ASA is always generated after a schedule even if ASA is not your goal. This represents the predicted time in which calls will be answered based on the number of people on the schedule.	Comes from the ACD
Abandons (Abandoned calls)	Does not exist.	This value is based on the call volume you have forecasted in the Forecast module and the % abandons you set in the Service Goals module.	Comes from the ACD
Call Volume	Does not exist. You will not see the Blue Required Line.	Your forecast is generated in the Forecast module by adding historical weeks or a profile.	Comes from the ACD
Full Time Equivalents	The sum of the effective contribution requirements from each individual queue.	The effective contributions of all employees.	The sum over all queues of the effective contribution based on the actual CV, AHT, Abandons, and SL.

Non-Skills: <Combined> queue view in multi-queue scenarios (Sheet 2 of 2)

	Required	Forecasted/ Predicted	Actual
Occupancy	Does not exist.	Predicated occupancy is a measure of how busy your employees will be. For example, if an employee spends 1 hour on call related work out of 2 hours scheduled to be on the phone, then his occupancy is 50%.	Not available.
Service Level	The service level value (% calls in number of secs) you input into the Service Goals module. This is only shown if Service Level is the selected goal in the module.	This number is the expected service level based on the number of people you have on the phones.	Comes from the ACD.
Staffing	Does not exist. See instead Full Time Equivalents previous in this table.	Forecasted/Predicted staffing represents the number of employees on the phones on your schedule. Employees in calendar events or shift events do not count. This number does not exist until you create a schedule. Staffing differentials are forecasted staff minus required staffing.	This is only available from the Staffing Calculator.
Volume Handled (if you are licensed for Operations and configured to use Volume Handled)	Does not exist.	Does not exist.	Comes from the ACD. Volume Handled, when available, is used for calculating weighted averages for Actual Service Level and Actual AHT values.

Non-Skills: Multiple queues—looking at each individual queue			
	Required	Forecasted/ Predicted	Actual
Abandons (Abandoned calls)	Does not exist.	The value only exists for <Combined>.	Comes from the ACD
AHT	Does not exist.	Part of the forecast you generated in the Forecast module by adding historical weeks or profile. This is the value just for the selected queue, not the <Combined> forecast.	Comes from the ACD.
ASA	This value only exists for <Combined>.	This value only exists for <Combined>. You will not see the Green Forecasted Line.	Comes from the ACD
Call Volume	Does not exist.	Forecast your generated in the Forecast modules by adding historical weeks or a profile. This is the value just for the selected queue, not the <Combined> forecast.	Comes from the ACD.
Full Time Equivalents	This value only exists for <Combined>.	The value only exists for <Combined>.	The effective contribution based on the actual CV, AHT, Abandons, and SL.
Occupancy	No such thing	This value only exists for <Combined>.	Comes from the ACD
Service Level	This value only exists for <Combined>.	This value only exists for <Combined>.	Comes from the ACD.
Staffing	Does not exist. See instead Full Time Equivalents previous in this table.	This value only exists for <Combined>.	Comes from the ACD or the Staffing Calculator.

Skills

Skills: <Combined> queue view in multi-queue scenarios (Sheet 1 of 2)

	Required	Forecasted/ Predicted	Actual
Abandons (Abandoned calls)	Does not exist.	Forecasted abandons at the <Combined> view is equal to the average predicted abandons across all queues.	Sum of the abandons per queue delivered by the ACD.
AHT	Does not exist.	Part of the forecast you generated in the Forecast module by adding historical weeks or profile. This will be the same as your <Combined> forecast.	Comes from the ACD
ASA	ASA is not supported in Skills.	Forecasting and Scheduling generates this for you after you have generated a schedule. This line is a call weighted average of the forecasted ASA calculated for each queue.	Comes from the ACD.
Backlog	No such thing	This is the sum of the individual backlogs from all queues.	Comes from the ACD
Call Volume	Does not exist.	Forecast you generated in the Forecast modules by adding historical weeks or a profile. This will be the same as your <Combined> forecast.	Sum of the call volumes presented by the ACD for each of the individual queues.
Full Time Equivalents	The sum of the effective contribution requirements from each individual queue.	The sum of the effective contributions of all employees scheduled in the campaign over all queues in the campaign.	The sum over all queues of the effective contribution based on the actual CV, AHT, Abandons, and SL.
Occupancy	No such thing	This is the average occupancy across all queues.	Comes from the ACD

Skills: <Combined> queue view in multi-queue scenarios (Sheet 2 of 2)

	Required	Forecasted/ Predicted	Actual
Service Level	This line is a call weighted average of the goals set in the Service Goals module for each queue.	Forecasting and Scheduling generates this for you after you have generated a schedule. This line is a call weighted average of the forecasted service levels calculated for each queue.	Comes from the ACD
Staffing	You will not see the Blue Required Line. See Full Time Equivalentents previous in this table.	Forecasted staffing at the <Combined> view is equal to the total number of employees you have on the schedule who are scheduled for phone time.	This is only available from the staffing calculator.
Volume Handled (if you are licensed for Operations and configured to use Volume Handled)	Does not exist.	Does not exist.	Comes from the ACD. Volume Handled, when available, is used for calculating weighted averages for Actual Service Level and Actual AHT values.

Skills: Individual queue view in skills scenarios (Sheet 1 of 2)

	Required	Forecasted/ Predicted	Actual
Abandons (Abandoned calls)	Does not exist.	The predicted abandons for the queue.	Comes from the ACD.
AHT	Does not exist.	Part of the forecast you generated in the Forecast module by adding historical weeks or profile.	Comes from the ACD

Skills: Individual queue view in skills scenarios (Sheet 2 of 2)

	Required	Forecasted/ Predicted	Actual
ASA	ASA is not supported in Skills.	Forecasting and Scheduling generates this for you after you have generated a schedule.	Comes from the ACD.
Backlog	No such thing	Forecasting and Scheduling generates this for you after you have generated a schedule.	Comes from the ACD
Call Volume	Does not exist. You will not see the blue Required Line.	Forecast generated in the Forecast modules by adding historical weeks or a profile.	Comes from the ACD.
Full Time Equivalents	The effective requirements in dedicated employees for each individual queue.	The effective contributions of employees scheduled in the queue.	The effective contribution based on the actual CV, AHT, Abandons, and SL.
Occupancy	No such thing	This is the average occupancy across all queues.	Comes from the ACD
Service Level	The goals set in the Service Goals module for each queue.	Forecasting and Scheduling generates this for you after you have generated a schedule.	Comes from the ACD.
Staffing	You will not see the blue Required Line. See Full Time Equivalents previous in this table.	The number of employees you have on the schedule who are scheduled for this queue.	Comes from the ACD or from the staffing calculator.

Virtual Queues

Virtual Queue (Sheet 1 of 2)			
	Required	Forecasted/ Predicted	Actual
Abandons (Abandoned calls)	Same as a normal queue.	Same as a normal queue.	Sum of the abandons from the subqueue delivered by the ACD.
AHT	Same as a normal queue.	Same as a normal queue.	Call volume weighted average of the subqueues from the ACD.
ASA	Same as a normal queue.	Same as a normal queue.	Call volume weighted average of the subqueues from the ACD.
Backlog	Same as a normal queue.	Same as a normal queue.	The sum over all the subqueues from the ACD.
Call Volume	Same as a normal queue.	Same as a normal queue.	The sum over all the subqueues from the ACD.
Full Time Equivalents	Same as a normal queue.	Same as a normal queue.	The sum over all the subqueues from the ACD.
Occupancy	Same as a normal queue.	Same as a normal queue.	Not available.
Service Level	Same as a normal queue.	Same as a normal queue.	Call volume weighted average of the subqueues from the ACD.

Virtual Queue (Sheet 2 of 2)

	Required	Forecasted/ Predicted	Actual
Staffing	Same as a normal queue.	Same as a normal queue.	This is only available from the staffing calculator.
Volume Handled (if you are licensed for Operations and configured to use Volume Handled)	Does not exist.	Does not exist.	Comes from the ACD. Volume Handled, when available, is used for calculating weighted averages for Actual Service Level and Actual AHT values.

Distributed Queues

Distributed Queue or Combined View of Distributed Queues (Sheet 1 of 2)

	Required	Forecasted/ Predicted	Actual
Abandons (Abandoned calls)	Does not exist.	Sum of the forecasted abandons from the subqueue or the combined queues in the subcampaigns.	Sum of the abandons from the subqueue delivered by the ACD.
AHT	Does not exist.	Call volume weighted average of the subqueues' forecasts.	Call volume weighted average of the subqueues from the ACD.
ASA	Call volume weighted average of the required ASA from the combined queues in the subcampaigns. Only available at the combined level in non-skills campaigns.	Call volume weighted average of the forecasted ASA from the subqueue or the combined queues in the subcampaigns.	Call volume weighted average of the subqueues from the ACD
Backlog	Does not exist.	Sum of the forecasted backlog from the subqueue or the combined queues in the subcampaigns.	The sum over all the subqueues from the ACD.
Call Volume	Does not exist.	Sum of the subqueues' forecasts.	The sum over all the subqueues from the ACD.
Full Time Equivalents	Sum of the required FTEs from the subqueue or the combined queues in the subcampaigns.	Sum of the forecasted FTEs from the subqueue or the combined queues in the subcampaigns.	The sum over all the subqueues from the ACD.
Occupancy	Does not exist.	Not available.	Not available.
Service Level	Call volume weighted average of the required service levels from the subqueue or the combined queues in the subcampaigns.	Call volume weighted average of the forecasted service levels from the subqueue or the combined queues in the subcampaigns.	Call volume weighted average of the subqueues from the ACD.

Distributed Queue or Combined View of Distributed Queues (Sheet 2 of 2)

	Required	Forecasted/ Predicted	Actual
Staffing	Does not exist.	Not available.	This is only available from the staffing calculator.
Volume Handled (if you are licensed for Operations and configured to use Volume Handled)	Does not exist.	Does not exist.	Comes from the ACD. Volume Handled, when available, is used for calculating weighted averages for Actual Service Level and Actual AHT values.

History

Use the **History** tab to view historical actual data. (The Schedulers role by default is the only role allowed to edit this information.)

Queues are listed in the left pane of the **History** tab. You must select the queues you want to view in this pane.







To view information:

- 1 Click one or more queues to highlight them.
- 2 Click **View**.
 - Use the **Ctrl** key to select groups of queues, or click **Select All** to highlight all the queues.
 - Click **Select None** to deselect all the queues.

The right-hand portion of the **History** tab is made up of three general areas:

- 1 The top panel.
- 2 The data panel in the center.
- 3 The bottom panel.

The top panel contains the following controls, from left to right:

Campaign: <input type="text" value="test"/>	<ul style="list-style-type: none"> • Campaign selector - Allows you to filter the queue list by selecting a campaign from the filter menu at the top of pane. Select a specific campaign for queues in the campaign or select a blank entry to display all queues, regardless of campaign.
Media: <input type="text" value="Phone"/>	<ul style="list-style-type: none"> • Media selector - Allows you to filter the queue list by media type. Select a specific media type or select a blank entry to see all queues, regardless of media type.
<input type="text" value="12/12/2004"/> - <input type="text" value="12/18/2004"/>  <input type="text" value="06/07/2004 - 06/13/2004"/>	<ul style="list-style-type: none"> • Date Range/SP selector - (SP stands for scheduling period.) Specifies the date interval to be retrieved in the data panel. Depending on the setting of the Show SP selector/Show date range selector control, you are either given a list of scheduling periods (SPs) to choose from, or date range fields. You can either enter the from/to dates manually, or by using the date range selector. The maximum date range is 2 months (62 days).
	<ul style="list-style-type: none"> • Show SP selector/Show date range selector - A toggle button that allows you to change the previous Date Range selector to the SP (schedule period) selector. If you have not selected a campaign in the left pane, the SP selector is not enabled, and this toggle is disabled
	<ul style="list-style-type: none"> • Show/Hide Summary Table - Toggle to display or hide the summary tables.
	<ul style="list-style-type: none"> • Show/Hide Data Table - Toggle to display or hide the data table in the data panel.
	<ul style="list-style-type: none"> • Show Individual/Aggregated Queues - Disabled on this tab.
	<ul style="list-style-type: none"> • Show User/Campaign Timezone Queues - Display data in the campaign or users' time zone.





- **Zoom In** – Changes the zoom mode to the next zoom mode level with greater detail. If you are viewing a single-week SP, or when no SP is selected, the only possible zoom mode levels (in order of decreasing detail) are **Daily** and **Period**. If you are viewing a multi-week SP, the possible zoom mode levels (in order of decreasing detail) are **Daily**, **Weekly**, and **Period**. If you are already at the **Daily** zoom mode level, this control is disabled.




- **Zoom Out** – Changes the zoom mode to the next zoom mode level with less detail. If you are viewing a single-week SP, or when no SP is selected, the only possible zoom mode levels (in order of decreasing detail) are **Daily** and **Period**. If you are viewing a multi-week SP, the possible zoom mode levels (in order of decreasing detail) are **Daily**, **Weekly**, and **Period**. If you are already at the **Period** zoom mode level, this control is disabled.



- **Pulse Notes** – Click the  button to open the **View/Edit Notes** pop-up window, which allows you to create a note for the selected week or scheduling period. Such notes can help you identify any special situations that occurred during the period.

This button changes to  if you select a period that has a note associated with it.

Click the  button to open the **View/Edit Notes** pop-up window to view the note.



- **Refresh** – When you click this button, the data panel is refreshed with data from the server.
-

Depending on the dates you have selected, there are three viewing modes:

- **Schedule Period**
The date ranges represent the same date intervals as a scheduling period. This period could be a single or multi-week scheduling period.
- **Campaign**
The date ranges do not fall exactly during an scheduling period interval, but a campaign is selected in the campaign filter on the left pane selector.
- **Free Range**

A campaign is not selected in the filter in the left pane. (Sometimes referred to as All Queues mode.)

In addition to the three modes mentioned above, Pulse can be in **Edit** mode, which indicates that you have manually modified or imported some data which has not yet been saved to the database. When you are in **Edit** mode, auto refresh is disabled.

To display your viewing mode, hover the cursor over the name of the queue(s) displayed in the top panel of this window.

The data panel is divided into three areas (from left to right):

1 Summary table

This table displays a summary of all days/weeks in the date range. The first-level column header of the summary table shows the list of queues currently selected. The second level column header shows **Act** (Actual) to indicate that actual data is being displayed (as opposed to forecasted/required data). Each summary table applies to all of the selected queues in the queue selector, but only to a single statistic defined in the selected view. The name of the statistic and the calculation type (**Absolute**) is displayed in the header of the corresponding graph.

If a multi-week SP is *not* selected, each data value in this table is an aggregation for a day. The last row in the table is a summary of the entire period. When you click a specific day in the table, the zoom mode level changes to **Daily**, and the graph and data table show data for the specified day in 15-minute intervals. When you click the last row (**Period**), the zoom mode level changes to **Period**, and the graph and data table display data spanning the full time period in 1-hour intervals.

If a multi-week SP *is* selected, then each data value aggregation displayed is based on the current zoom mode level. The summary table's rows contain data aggregations for each week in the scheduling period, and a **Period** row, which contains the total value for the entire scheduling period. If the current zoom mode level is **Weekly** or **Daily**, the summary table also displays data in daily aggregations for the currently selected week.

When you click the last row in the table (**Period**):

- The current zoom mode changes to **Period** zoom level.
- The summary table collapses to show only the weekly aggregations and the total row.
- The graph and data table display data spanning the full time period in 1-day intervals.

When you click a specific week row in the table:

- The current zoom mode changes to **Weekly** zoom level.
- The summary table expands the selected week to show all of the daily aggregations for that week.
- The graph and data table display data spanning the selected week in 1-hour intervals.

When you click a specific day row in the table:

- The current zoom mode changes to **Daily** zoom level.

- The graph and data table display data spanning the selected day in 15-minute intervals.

2 Graph

The graph displays the time period on the x-axis and the statistic value on the y-axis. The name of the statistic and the calculation type are specified in the title of the graph. Only the actual line is shown for each queue.

The color of each statistic is specified in the headers of the summary table on the left.

If you hover the cursor over a line, a tool tip shows the line details. A dashed vertical line represents the current time.

3 Data table

This table displays detailed values for the selected queues and statistics. The first level column header shows the statistic and calculation. The second level is the queue name. The third level denotes the type **Actual**. The columns displayed depend on the queues you've selected in the left pane queue selector, and on the statistics you selected using the **Edit View** button on the bottom panel. The time interval toggles between 1-hour and 15-minute intervals, based on the zoom mode. Data can be copied to the clipboard by highlighting the data and using **Ctrl-C**.

To make changes to the data, select a cell to edit, and type in the new value. To edit a range of values, select the range and type a value. All cells in the range are modified with the new value. Once you edit some data, you are in **Edit** mode until you click the **Save** or **Revert** button. Editing of combined queue data or future data is not allowed.

The bottom panel contains the following active controls:

- **Edit View** – Allows you to edit the current view displayed in the top panel.
- **Save** – Saves the edited values in the data panel. Once you click **Save**, editing mode is terminated.
- **Revert** – Reverts back to original values before you changed them in edit mode. Once you click **Revert**, editing mode is terminated.
- **Import**—Imports data from a file.
- **Export** – Exports current view data to a file.

Importing Data into the Pulse History Tab

Pulse Actual data can be imported from applications that can create text files that use tabs or commas. Pulse data can be exported in tabbed or comma-separated text. Imported data is saved and can be used to forecast future scheduling requirements.

To import data into Pulse's history:

- 1 Click **Import**. The Pulse **Import** dialog box is displayed

Field Name	Column Number	Time Unit
<input checked="" type="checkbox"/> Volume	5	
<input checked="" type="checkbox"/> Activity Handling Time	6	Seconds
<input checked="" type="checkbox"/> Service Level	7	
<input checked="" type="checkbox"/> Average Speed to Answer	8	
<input checked="" type="checkbox"/> Abandons	9	
<input checked="" type="checkbox"/> Backlog	10	
<input checked="" type="checkbox"/> Staffing	11	
<input checked="" type="checkbox"/> Occupancy	12	
<input checked="" type="checkbox"/> Full Time Equivalents	13	
<input checked="" type="checkbox"/> Dials	14	
<input checked="" type="checkbox"/> Connects	15	
<input checked="" type="checkbox"/> Right Party Connects	16	
<input checked="" type="checkbox"/> Right Party Connect AHT	17	
<input checked="" type="checkbox"/> Volume Handled	18	
<input checked="" type="checkbox"/> Work Queue Name	1	
<input checked="" type="checkbox"/> Date	2	
<input checked="" type="checkbox"/> Time	3	

The dialog box contains the following parameters:

- **Source File** – The file path where the data to be imported is located.
- **Time Zone** – You choose in which Time Zone the data will be imported.
- **Time Interval** – You choose in which time interval data will be imported
- **Delimiter** – You choose which delimiter was put between columns in the imported data file, **Tab** or **Comma**.

The dialog box also contains a mapping table with a list of available statistics that you can import from the file. You need to map each statistic to its corresponding column number in the file.

The statistics include:

- **Volume**
- **Activity Handling Time**
- **Service Level**
- **Average Speed to Answer**
- **Abandons**
- **Backlog**
- **Staffing**
- **Occupancy**
- **Full Time Equivalents**
- **Volume Handled**

If your company is licensed for Outbound Media, the following statistics are also included:

- **Dials**
- **Connects**
- **Right Party Connects**
- **Right Party Connect AHT**

Other columns that also need to be mapped are:

- **Queue Name**
- **Date**
- **Time**

Click **Import** to import the data from the current view.

Click **Cancel** to cancel the export.

Import File Dependencies

Pulse assumes that imported information uses the following default formats for date and time respectively:

- Date: MM/dd/yyyy
- Time: HH:mm (24-hour format)

If the data you want to import does not conform to these defaults, you must prepend the following lines to the import file:

```
DATE_TIME_FORMAT  
<date_time_format_string>
```

The specification for the **<date_time_format_string>** can be found at <http://java.sun.com/j2se/1.4.2/docs/api/java/text/SimpleDateFormat.html>.

Another header line is optional. The optional line provides column headings for each of the columns. If it is present, the **Queue Name** column must contain column headers for the **Queue Name** and the **Time** columns. If you have an Operations license, the

Queue Name header must be **Work Queue Name**, otherwise the **Queue Name** header must be **Queue Name**. The **Time** column header must be **Time**.

If the header line is incorrect, a warning message is displayed, the header line is skipped, and the remainder of the contents of the file is imported. The warning message, therefore, has no effect on importing the non-header lines in the import file.

The following shows an excerpt from a comma-separated file that can be imported into Pulse History. (The symbol ¶ is used in the example to show line breaks; it is not part of the file.)

```
DATE_TIME_FORMAT¶
MM/dd/yyyy h:mm a¶
Queue Name,Date,Time,Time Interval,Contact Volume (Absolute Act),Contact Volume (Absolute For),Contact Volume (Percentage Deviation For),Average Handling Time (Absolute Act),Average Handling Time (Absolute For),Service Level (Absolute Act),Service Level (Absolute For),Service Level (Absolute Req)¶
Billing,10/04/2004,12:00 AM,00:15,,0,,,0,,0,0¶
Billing,10/04/2004,12:15 AM,00:15,,0,,,0,,0,0¶
Billing,10/04/2004,12:30 AM,00:15,,0,,,0,,0,0¶
Billing,10/04/2004,12:45 AM,00:15,,0,,,0,,0,0¶
```

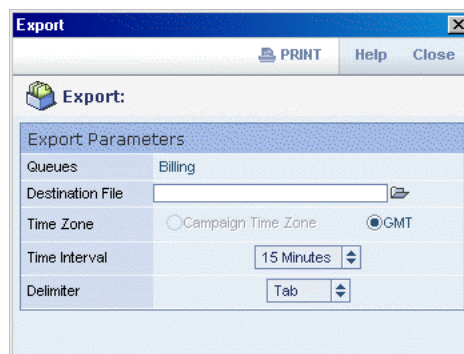
Pulse also requires that dates and times be expressed in GMT timezone terms when you import from **All Queues** mode. (The only option in the **Import** window is **GMT**.) Note that the imported data, however, is displayed in the TimeZone specified in your preferences. (See [Setting Preferences](#) on page 321 for more information.)

Data imported from Campaign mode (that is, when you have selected a campaign on the left) can be imported either in GTM timezone or the campaign timezone.

Exporting Pulse Data from the History Tab

To export Pulse data from the **History** tab:

- 1 At the bottom right of the tab, click **Export**. The Pulse **Export** dialog box is displayed.





The dialog box contains the following parameters:

Parameter	Description
Work Queues	A read-only text field that enumerates the queues to be exported.
Destination File	The file path where the exported data will be saved.
Time Zone	You choose in which Time Zone data will be exported.
Time Interval	You choose in which time interval data will be exported
Delimiter	You choose which delimiter to put between columns in the exported data file.

- 2 Fill in the **Destination File**, **Time Zone**, **Time Interval**, and **Delimiter** fields as appropriate for your situation.
- 3 Click **Export** to export the data from the current view.
To cancel the export, click **Cancel**.

Alert Rules

This section contains the following tabs:

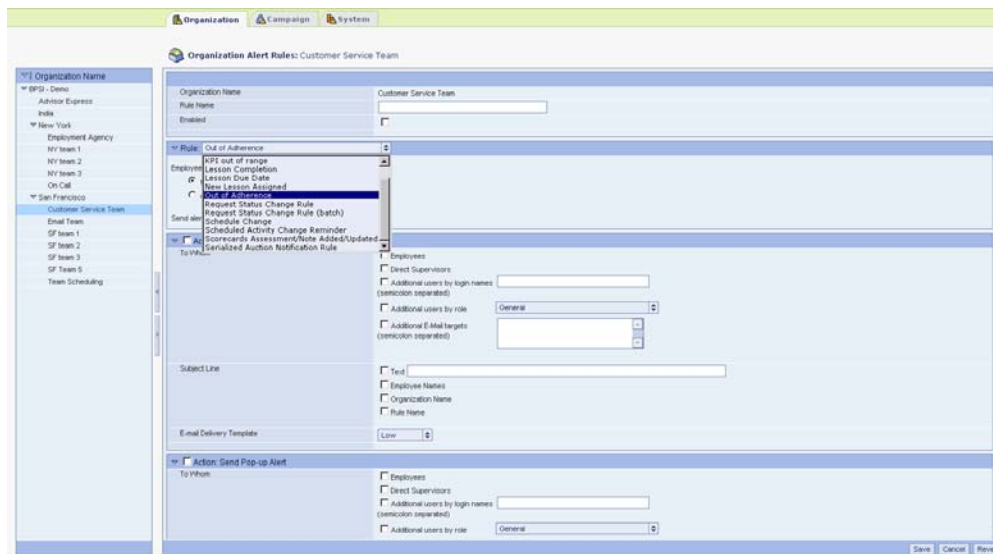
 Campaign	View alert rules pertaining to a campaign.
 System	View alert rules pertaining to the system.

Alert rules are used to specify events that generate alerts to specified users or targets. Currently, alerts are delivered by email.

Alert rules are defined in relation to a scope (Campaign or System). Some rules are valid only within a certain scope.

Organization Tab

Use the **Organization** tab to create, edit, or delete alert rules for your organizations (depending on your privileges).



As shown above, the following alert rule templates are currently available in Organization scope, depending on your license and system configuration:

- **KPI out of range:** An alert is sent when a KPI falls outside a range. The alert is sent
 - for all employees/organizations or any employee who has the job title specified in the rule
 - where the employee's/organization's KPI value/score is of the specified periodicity (daily, weekly, monthly, quarterly, or annually)
 - where the KPI value/score is less than or equal to/greater than or equal to a threshold (Excellent, Good, Average, Poor or Bad in case of score) and/or
 - the employee/organization has no dependencies on peer value or the employee/organization is below the specified percentile of his organization for <X> out of the last <Y> periods (as specified in the periodicity)

i Where eLearning is also licensed, this alert rule can also be used to assign selected lessons, and/or assign lessons mapped to a specific competency.

For example, a manager might receive a message similar to the following:

**The following employees are found to be below thresholds defined for kpi CompetencyKPI for the rule Alert Rule All:
Canfield, Heather; Jupin, Kimberley; Ligsay, George; Liter, Eric; Onken, Allison; Ruth, David; Yost, Brian**

- **Negative Employee Time Off Balance:** (Only visible if you are licensed for Time Off Accrual.) An alert is sent when one or more employees have a negative time-off balance when time-off information is imported.

An example of such an alert is:

From: Joshi, Sameet
 Sent: Monday, June 08, 2009 11:17 PM
 To: Joshi, Sameet
 Subject: Workforce Optimization Notification NEG BAL
 Importance: Low

These employees have negative time off balance.

Please review the details below:

Organization	Employee Name	Activity Name	Last Updated Date	Balance	Modified On	Negative Balance on Date
async_org	2413, 2413 J.	Vacation	09/06/2009	-35.00	09/06/2009 06:16:44	09/06/2009
Hello Org	_TO_A3967, 1_3967	Vacation	09/06/2009	80.00	09/06/2009 06:16:44	24/08/2009
async_org	Halliday, Thomas J.	Vacation	09/06/2009	-25.00	09/06/2009 06:16:44	09/06/2009

Please Note: All times in GMT

- **Out of Adherence:** An alert is sent when an employee is out of adherence. Out of Adherence alert rules take one of two forms:
 - **Employee out of adherence for more than X minutes for activity Y:** If an employee is in a non-adhering state (continuously, for planned activity Y) for more than X minutes, an alert is sent. (If the duration of the planned activity Y is less than X minutes, the alert will not be triggered even if the employee has been out of adherence for more than X minutes on some other planned activities.)

i Employees are not considered to be in a non-adhering state until they have been out of adherence for more than the tolerance (minutes) for the current planned activity.

- **Employee out of adherence for more than X minutes for any activity:** If an employee is in a non-adhering state (continuously, for any planned activity) for more than X minutes, an alert is sent. In this case, the computation for X minutes is the same as that used for the **Out of Adherence** column on the **Quick View** tab (see the chapter "Using the Tracking Module," in the *Workforce Management Managers Guide* for more information on the **Quick View** tab).

For example, the employee's manager might receive a message similar to the following:

The following employee(s) are out of adherence:

Eckersley, Dennis

Eckersley, Dennis	
Planned Activity:	
Actual Activity:	Blended
Minutes Out Of Adherence: 33	

- **Request Status Change Rule:** An alert is sent when an employee's time-off, shift-swap, or shift-bidding request changes status. For example:

time-off

Submitted on	10/19/2007 2:25 PM
Status	approved
Employee	west, agent5
Timeoff type	Vacation
Approved choice	1
Start time	11/27/2007 10:00 PM
End time	11/28/2007 10:00 PM
View Request	Link to Request

- i** Depending on the employee's privileges and the manager's privileges, the email they receive might contain a link that will open Workforce Management with the relevant request displayed.

The status change types for which an alert can be sent for each of the three request types are:

Time-Off Requests	Shift-Swap Requests	Shift-Bidding Requests
Approved	Approved	Approved
Denied	Denied	Denied
Pending	Pending	Pending
Escalated	Escalated	Escalated
Invalidated	Invalidated	Invalidated
Waitlisted	Change in Ownership	
Withdrawal Requested		
Withdrawal Accepted		
Withdrawal Denied		

- **Request Status Change Rule (batch)**: The system checks at the specified intervals for any changes in the requests of multiple, specified employees. One alert message is sent with the aggregated changes during the specified interval. Compare this rule with **Request Status Change Rule**, described above.

For example, the employees' manager might receive a message similar to the following:

From: jsmith@anycompany.com [mailto:jsmith@anycompany.com]
Sent: Wednesday, August 31, 2005 9:31 AM
To: John Smith
Subject: Workforce Optimization Suite Notification
Importance: Low

time-off

Submitted on 08/31/2005 9:26 AM
 Status pending
 Employee Employee, west1
 Timeoff type test
 choice 1
 Start time 09/07/2005 12:00 AM
 End time 09/10/2005 12:00 AM
 choice 2
 Start time 09/21/2005 12:00 AM
 End time 09/23/2005 12:00 AM

time-off

Submitted on 08/30/2005 9:26 AM
 Status pending
 Employee Employee, west2
 Timeoff type test
 choice 1
 Start time 09/08/2005 12:00 AM
 End time 09/11/2005 12:00 AM
 choice 2
 Start time 09/25/2005 12:00 AM
 End time 09/27/2005 12:00 AM

- **Schedule Change:** An alert is sent when an employee's schedule changes. For example:

Please observe schedule change(s) for the following employee(s):

Eckersley, Dennis

Old Schedule			New Schedule		
Eckersley, Dennis					
Friday, January 7, 2005 (GMT-07:00) Arizona					
Activity	Start	End	Activity	Start	End
Immediate	10:00 AM	12:00 PM	Immediate	11:00 AM	1:00 PM
Break	12:00 PM	12:15 PM	Break	1:00 PM	1:15 PM
Immediate	12:15 PM	6:00 PM	Immediate	1:15 PM	7:00 PM

- **Scheduled Activity Change Reminder:** An alert is sent when an employee's scheduled activity is about to change. For example:

To: Netta Landau
Subject: ***Schedule change reminder***
Importance: Low

Scheduled activity change reminder for Beardsley, John
Activity Name: Blended
Activity Description: Blended Desc
Time Start: 3:30 PM 05/17/2007 (GMT-08:00) Pacific Time (US & Canada)

Scheduled activity change reminder for Gonzalez, Mariana
Activity Name: Lunch
Activity Description: Time for Lunch!
Time Start: 3:30 PM 05/17/2007 (GMT-08:00) Pacific Time (US & Canada)

- **Scorecards Assessment/Note Added/Updated:** An alert is sent when a new assessment and/or note is added/updated to scorecards of organizations or employees. For example:

A Scorecards Assessment and/or Note was added or updated on the following KPIs:


- 94865, agentA2, 94865_OrgA, WPerRoll_KPI, KPI Type:Person, Sun Mar 18 00:00:00 GMT 2007, Weekly Periodicity (Note was added/updated)
[link to Scorecards](#)

Notes:

- Data in this email is true to the time the email alert was sent.
- Notes, Assessments and KPIs might be deleted since this email was sent
- **Serialized Auction Notification Rule:** An alert is sent when the next bidder is added to a serialized auction. Serialized auctions are described in the chapter “Managing Time-Off Requests, Shift Swapping, and Shift Bidding” in the *Workforce Management Managers Guide*.

For example, an employee might receive a message similar to the following:

You (qa, agent3) are currently added to the auction 12-26-2005 Auction. The deadline, after which the next bidder will be added, is 01/31/2006 6:17 PM. Please submit your bid before this deadline expires.

-  Depending on the employee’s privileges and the manager’s privileges, the email they receive might contain a link that will open Workforce Management with the relevant request displayed.

If your license includes eLearning, you will also see a number of alerts specifically for eLearning. These include:

- **New Lesson Assigned:** Employees receive an e-mail or pop-up notifying them when new lessons are assigned.
 If eLearning is integrated with Quality Monitoring version 7.8 SP1, this alert rule can also be configured to call attention to customer interactions (contacts) recorded in Quality Monitoring version 7.8 SP1. Contacts on lesson assignment are flagged for evaluation and viewed in Quality Monitoring version 7.8 SP1, and can alert a supervisor to reevaluate an employee’s performance after the employee has completed a lesson.
- **Lesson Due Date:** Employees receive an e-mail or pop-up notifying them either that an assigned lesson has a due date within a specified number of days or that the

due date has passed. Criteria set when the rule is configured determine whether the notice informs the employee of a due date or a past due date.

- **Lesson Completion:** Employees receive an e-mail notification that lessons have been completed. An administrator can specify whether the e-mail is sent each time a lesson has been completed, or when a specific lesson has been completed.

If eLearning is integrated with Quality Monitoring version 7.8 SP1, this alert rule can also be configured to call attention to customer interactions (contacts) recorded in Quality Monitoring version 7.8 SP1. Contacts on lesson completion are flagged for evaluation and viewed in Quality Monitoring version 7.8 SP1, and can alert a supervisor to reevaluate an employee's performance after the employee has completed a lesson.

- **Competency Due Date:** Employees receive an e-mail notification that an assigned competency has not been acquired or is below the required rank, and is either due within a specified number of days or is past due.
- **Competency Rank:** Employees receive an e-mail notification that an employee has received a competency rank below the required or the rank specified in the alert rule. This alert rule can be configured so that individual lessons and/or lessons mapped to a specified competency are assigned to employees.

For more detailed information on the eLearning alerts, refer to the *eLearning Administration Guide*.

If your license includes Operations, you will see the following additional alert rules:

- **Actual Statistics Out of Range:** An alert is sent when a selected actual statistic deviates from a range defined in the alert rule.


The rule has a sentence-like structure as described below:

If Actual statistic, <[Is Between | Is Not Between]> <number1> and <number2> Percentage Points over <number3> <time_units1> for Queue(s): queues <[combined | individually]> Send alerts no more than <number4> <time_units2>

where:

<statistic>	<p>Is the statistic you want to compare. Choices are:</p> <ul style="list-style-type: none"> • Abandons • Average Handling Time • Average Speed to Answer • Backlog • Contact Volume • Full Time Equivalent • Occupancy • Service Level • Staffing <p>If your license includes Outbound-Media, you also can choose the following statistics:</p> <ul style="list-style-type: none"> • Connect Rate • Connects • Dials • RPC (Right Party Connects) • RPC Average Handling Time • RPC Rate <p>If your license includes Operations, you also can choose the following statistic:</p> <ul style="list-style-type: none"> • Volume Handled
<[Is Between Is Not Between]>	<p>Is the mathematical operation you want to use. Choose one of:</p> <ul style="list-style-type: none"> • Is Between • Is Not Between
<number1>	<p>Is the bottom end of the value range you are specifying.</p>
<number2>	<p>Is the top end of the value range you are specifying.</p>
<number3>	<p>Is the number of the following time units.</p>
<time_units1>	<p>Is the time period over which the comparison is to be made. Choices are:</p> <ul style="list-style-type: none"> • Minutes • Hours • Days
<queues>	<p>Is the queue(s) you have selected using the drop-down menu. Only those queues associated with the selected campaign are shown.</p>
<[combined individually]>	<p>Determines if the rule applies to the combination of all the selected queues (combined), or to each queue individually (individually). The default is combined.</p>

<number4>	Is the number of the following time units.
<time_units2>	Is the time unit at which alerts are to be sent. Choices are: <ul style="list-style-type: none"> • Minutes • Hours • Days

 The rules above allow you to define deviation alerts for the following actual statistics: Abandons, Average Handling Time, Average Speed To Answer, Backlog, Contact Volume, Full Time Equivalents, Occupancy, Service Level, and Staffing.

If your license includes Outbound-Media, you also can choose the following statistics: Connect Rate, Connects, Dials, RPC (Right Party Connects), RPC Rate, and RPC Average Handling Time.

An example of such an alert is:

Under Organization: Arcturus

For Queue(s): Q4Staffing - phone,

The statistic Staffing

has actual value 5 bodies which is not between the predefined value range from 1 to 2

in the last 30 minute(s).

- **WIT Deadline Goal Status Alert:** An alert is sent when a selected goal status deviates from a range defined in the alert rule.


The rule has a sentence-like structure as described below:

Notify when WIT ticket deadline goal status is <[Unattended Tickets | Predicted to miss Service Goal | Likely to miss Service Goal | Already out of Service Goal | All of the above]> and employee(s) have <[Assigned WIT Items | Published Schedules | All WIT Tickets]> Open hours threshold <number> in minutes.

To create a new organization alert rule or change an existing one:

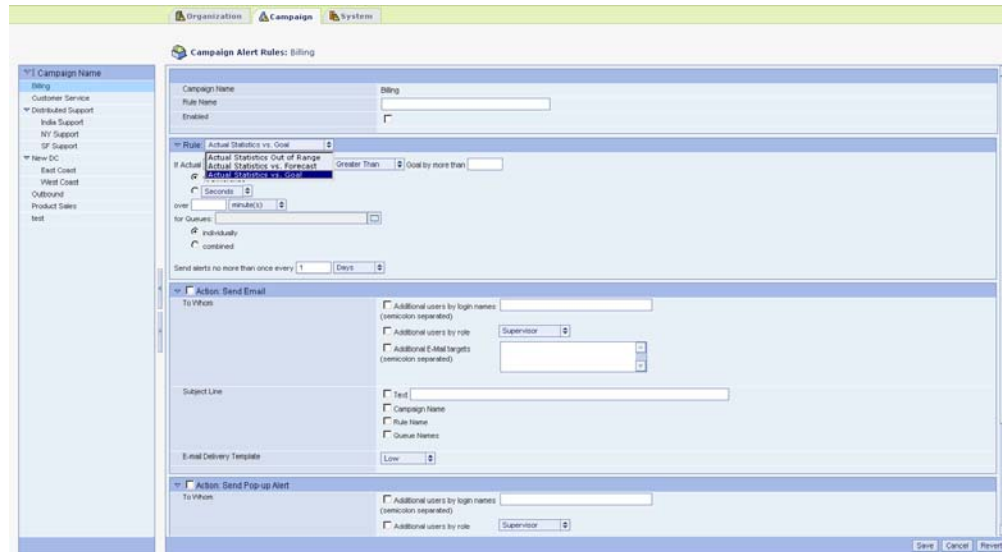
- 1 Select a rule from the drop-down menu and complete any required rule information. This option is available when creating a rule. The rule section is read-only when you are editing an existing rule.
- 2 Type the rule name in the **Rule Name** text box.
- 3 Select whether it is enabled in the **Enabled** check box.
- 4 Provide the Email Action information, click the checkbox at the top of the container, and:
 - **To whom to send the alert:** Check the applicable checkboxes (**Employees, Direct Supervisors, Additional users by login names (semicolon separated), Additional users by role, Additional E-Mail targets (semicolon separated)**). Type the additional user names, select the desired

- role, and add the additional e-mail addresses of the additional delivery targets, as applicable.
- **What text to include in the subject line:** Check the applicable checkboxes (**Text** (user-provided text), **Employee Names**, **Organization Names**, **Rule Name**). Provide text for the **Text** field if applicable.
 - **The e-mail delivery template to be used:** Select the e-mail delivery template from the drop-down list (**Low**, **Standard**, **High**).
- 5 Provide the Pop-up Alert Action information, click the checkbox at the top of the container, and:
- **To whom to send the alert:** Check the applicable checkboxes (**Employees**, **Direct Supervisors**, **Additional users by login names (semicolon separated)**, **Additional users by role**, **Additional delivery targets (semicolon separated)**). Type the additional user names, select the desired role, and add the additional user names of the additional delivery targets, as applicable.
 - **What text to include in the subject line:** Check the applicable checkboxes (**Text** (user-provided text), **Employee Names**, **Organization Names**, **Rule Name**). Provide text for the **Text** field if applicable.
 - **The pop-up delivery template to be used:** Select the pop-up delivery template from the drop-down list (**Normal**, **High**, **Confidential**).
- 6 Click **Save**.

 When editing an existing alert rule, you cannot change the rule template that was initially selected from the drop-down menu.

Campaign Tab

Use the **Campaign** of the web application tab to create, edit, or delete alert rules for your campaigns. (By default, only administrators and schedulers can use this tab.) Campaign alert rules track the deviation of key operational statistics from their forecast, goal, or a specified range of values, and are a valuable management tool in curbing such deviations.



As shown in the preceding graphic, the following alert rule templates are currently available in Campaign scope:

- **Actual Statistics vs. Goal:** An alert is sent when a selected actual statistic deviates from the goal by a certain percentage.

The rule has a sentence-like structure as described below:

If Actual <statistic>, <operation> Goal by more than <amount> <[% Difference | Percentage Points]> over <number1> <time_units1> for Queue(s): <queues> <[combined | individually]> Send alerts no more than <number2> <time_units2>

where:

<statistic>	Is the statistic you want to compare. Choices are: <ul style="list-style-type: none"> • Service Level • Average Speed to Answer
<operation>	Is the mathematical operation you want to use. Choices are: <ul style="list-style-type: none"> • Deviates from • Is Greater Than • Is Less Than
<amount>	Is a number you specify, the quantity of the following units of comparison.
<[% Difference Percentage Points]>	Is the unit of comparison. Choose one of % Difference or Percentage Points .
<number1>	Is the number of the following time units.
<time_units1>	Is the time period over which the comparison is to be made.

<queues>	Is the queue(s) you have selected using the drop-down menu. Only those queues associated with the selected campaign are shown.
<[combined individually]>	Determines if the rule applies to the combination of all the selected queues (combined), or to each queue individually (individually). The default is combined .
<number2>	Is the number of the following time units.
<time_units2>	Is the time unit at which alerts are to be sent. Choices are: <ul style="list-style-type: none"> • Minutes • Hours • Days

An example of such an alert is:

Under campaign: Promotion 1 Campaign

For Queue(s): QUEUE2,

The statistic Service Level (SL)

has actual value 65 which is less than the predefined service goal value 70 by 5 percentage points in the last 30 minute(s).

- **Actual Statistics vs. Forecast:** An alert is sent when a selected actual statistic deviates from the forecast by a certain percentage.

The rule has a sentence-like structure as described below:

If Actual <statistic>, <operation> Forecasted by more than <amount> <[% Difference | Percentage Points]> over <number1> <time_units1> for Queue(s): <queues> <[combined | individually]> Send alerts no more than <number2> <time_units2>

where:

<statistic>	<p>Is the statistic you want to compare. Choices are:</p> <ul style="list-style-type: none"> • Abandons • Average Handling Time • Average Speed to Answer • Backlog • Contact Volume • Occupancy • Staffing (Bodies) • Staffing (FTEs) • Service Level <p>If your license includes Outbound-Media, you also can choose the following statistics:</p> <ul style="list-style-type: none"> • Connects • Dials • Right Party Connects • Right Party Connect AHT
<operation>	<p>Is the mathematical operation you want to use. Choices are:</p> <ul style="list-style-type: none"> • Deviates from • Is Greater Than • Is Less Than
<amount>	<p>Is a number you specify, the quantity of the following units of comparison.</p>
<[% Difference Percentage Points]>	<p>Is the unit of comparison. Choose one of % Difference or Percentage Points.</p>
<number1>	<p>Is the number of the following time units.</p>
<time_units1>	<p>Is the time period over which the comparison is to be made. Choices are:</p> <ul style="list-style-type: none"> • Minutes • Hours • Days
<queues>	<p>Is the queue(s) you have selected using the drop-down menu. Only those queues associated with the selected campaign are shown.</p>
<[combined individually]>	<p>Determines if the rule applies to the combination of all the selected queues (combined), or to each queue individually (individually). The default is combined.</p>

<number2>	Is the number of the following time units.
<time_units2>	Is the time unit at which alerts are to be sent. Choices are: <ul style="list-style-type: none"> • Minutes • Hours • Days

An example of such an alert is:

Under campaign: Pulsar Campaign

with media: Phone

For Queue(s):

The statistic Average Handling Time (AHT)

has actual value 147 which deviates from the predefined forecast value 88 by more than 1 percentage

in the last 30 minute(s).

- **Actual Statistics Out of Range:** An alert is sent when a selected actual statistic deviates from a range defined in the alert rule.


The rule has a sentence-like structure as described below:

If Actual statistic, <[Is Between | Is Not Between]> <number1> and <number2> Percentage Points over <number3> <time_units1> for Queue(s): queues <[combined | individually]> Send alerts no more than <number4> <time_units2>

where:

<statistic>	<p>Is the statistic you want to compare. Choices are:</p> <ul style="list-style-type: none"> • Abandons • Average Handling Time • Average Speed to Answer • Backlog • Contact Volume • Full Time Equivalent • Occupancy • Service Level • Staffing <p>If your license includes Outbound-Media, you also can choose the following statistics:</p> <ul style="list-style-type: none"> • Connect Rate • Connects • Dials • RPC (Right Party Connects) • RPC Average Handling Time <p>If your license includes Operations, you might also be able to choose the following statistic, depending on how your system has been configured:</p> <ul style="list-style-type: none"> • Volume Handled
<[Is Between Is Not Between]>	<p>Is the mathematical operation you want to use. Choose one of:</p> <ul style="list-style-type: none"> • Is Between • Is Not Between
<number1>	<p>Is the bottom end of the value range you are specifying.</p>
<number2>	<p>Is the top end of the value range you are specifying.</p>
<number3>	<p>Is the number of the following time units.</p>
<time_units1>	<p>Is the time period over which the comparison is to be made. Choices are:</p> <ul style="list-style-type: none"> • Minutes • Hours • Days
<queues>	<p>Is the queue(s) you have selected using the drop-down menu. Only those queues associated with the selected campaign are shown.</p>
<[combined individually]>	<p>Determines if the rule applies to the combination of all the selected queues (combined), or to each queue individually (individually). The default is combined.</p>

<number4>	Is the number of the following time units.
<time_units2>	Is the time unit at which alerts are to be sent. Choices are: <ul style="list-style-type: none"> • Minutes • Hours • Days

 The rules above allow you to define deviation alerts for the following actual statistics: Abandons, Average Handling Time, Average Speed To Answer, Backlog, Contact Volume, Full Time Equivalents, Occupancy, Service Level, and Staffing.

An example of such an alert is:

Under campaign: Arcturus

For Queue(s): Q4Staffing - phone,

The statistic Staffing

has actual value 5 bodies which is not between the predefined value range from 1 to 2

in the last 30 minute(s).


To create a new campaign alert rule or change an existing one:

- 1 Select a rule from the drop-down menu and complete any required rule information. This option is available when creating a rule. The rule section is read-only when you are editing an existing rule.
- 2 Type the rule name in the **Rule Name** text box.
- 3 Select whether it is enabled in the **Enabled** check box.
- 4 Provide the **Email Action** information, click the checkbox at the top of the container, and:
 - **To whom to send the alert:** Check the applicable checkboxes (**Additional users by login names (semicolon separated), Additional users by role, Additional E-Mail targets (semicolon separated)**). Type the additional user names, select the desired role, and add the additional e-mail addresses of the additional targets, as applicable.
 - **What text to include in the subject line:** Check the applicable checkboxes (**Text (user-provided text), Campaign Names, Rule Name, Queue Names**). Provide text for the **Text** field if applicable.
 - **The e-mail delivery template to be used:** Select the e-mail delivery template from the drop-down list (**Low, Standard, High**).
- 5 Provide the Pop-up Alert Action information, click the checkbox at the top of the container, and:
 - **To whom to send the alert:** Check the applicable checkboxes (**Employees, Direct Supervisors, Additional users by login names (semicolon separated), Additional users by role, Additional delivery targets**).

(semicolon separated)). Type the additional user names, select the desired role, and add the additional user names of the additional delivery targets, as applicable.

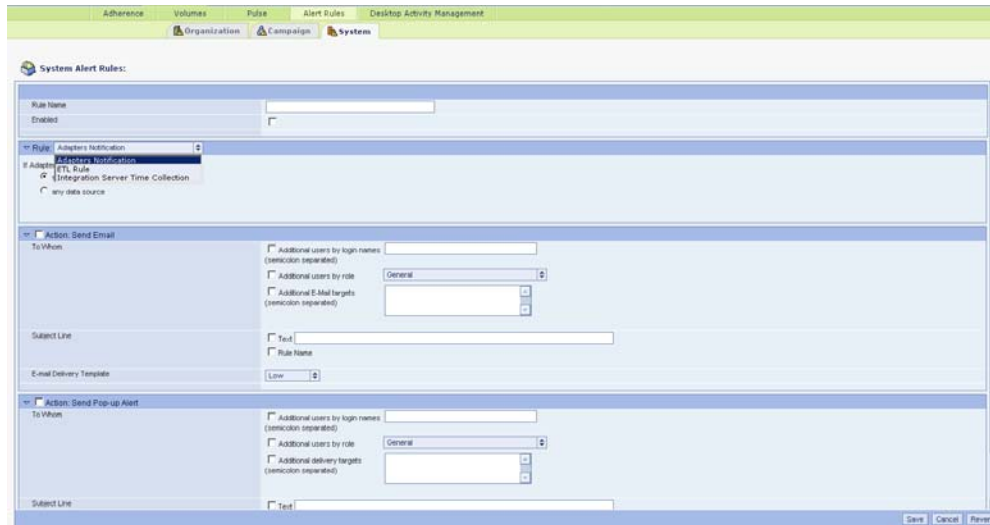
- **What text to include in the subject line:** Check the applicable checkboxes (**Text** (user-provided text), **Campaign Names**, **Rule Name**, **Queue Names**). Provide text for the **Text** field if applicable.
- **The pop-up delivery template to be used:** Select the pop-up delivery template from the drop-down list (**Normal**, **High**, **Confidential**).

6 Click **Save**.

 When editing an existing alert rule, you cannot change the rule template that was initially selected from the drop-down menu.

System Tab

Use this tab to create, edit, or delete alert rules for your system (typically these alerts would go to the administrator or your IT department). Only administrators and schedulers by default can create or modify system alert rules.



As shown in the preceding graphic, the following alert rule templates are currently available for the System scope:

- **Adapter Notification:** An alert is sent to a specific user or e-mail address when any of the adapters fails. Adapter alerts take one of two forms:
 - **If Adapter fails for data source Y:** If an adapter fails for data source Y, an alert is sent.
 - **If Adapter fails for any data source:** If an adapter fails for any data source, an alert is sent.

An example of such a notification is:

The following adapter(s) reported failure:

[Avaya CMS Report prior to 4.1 - DCS\[CS6\]](#)

Time: 01/31/2005 5:44 PM

- **Integration Server Time Collection:** An alert is sent when an ACD link goes down. Integration Server Time Collection alert rules take one of two forms:
 - **If the link is down for more than X minutes for data source Y:** If the connection to the ACD is down (continuously) for data source Y for more than X minutes, an alert is sent.
 - **If the link is down for more than X minutes for any data source:** If the connection to the ACD is down (continuously) for any data source for more than X minutes, an alert is sent.

An example of such a notification is:

ACD link is down for the following data source(s):

Avaya RTAA
Time: 01/22/2005 12:11 AM

- **ETL Rule:** An alert is sent about the results for an ETL run (only shown if you are licensed for Desktop And Process Analytics). There are three types of alerts that can be generated for ETL runs:
 - **ETL starts**
 - **ETL finishes without error**
 - **ETL finishes with error**

To create a new alert rule or change an existing one, see the *Enterprise Suite User Management Guide*.

Reports

Workforce Management schedulers typically also have access to the **Report** module of the web application. Refer to the *Workforce Management Reports Guide* for information on running and viewing reports.

Using the Organization Management Module

This chapter provides information about setting up activities, request management, scorecards, and alert rules for organizations.

It covers the following topics:

Organizations	View organizations and information that is specific to them:
<ul style="list-style-type: none">• Special Days	<ul style="list-style-type: none">• View special days, such as holidays, for each organization, their start and end dates and whether they are paid. See page 447.
Work Queues	Only visible if you are licensed for Financial Services Operations. Allows you to view and manage your volume work queues and arrival patterns:
<ul style="list-style-type: none">• Work Queue Configuration	<ul style="list-style-type: none">• Only visible if you are licensed for Financial Services Operations. Allows you to define a normal queue as a VCT Queue and link it to an organization.
<ul style="list-style-type: none">• Arrival Patterns	<ul style="list-style-type: none">• Only visible if you are licensed for Financial Services Operations. Allows you to view and edit the patterns that have been created. The purpose of the arrival pattern is to be a close representation of the distribution of intraday work to be done.

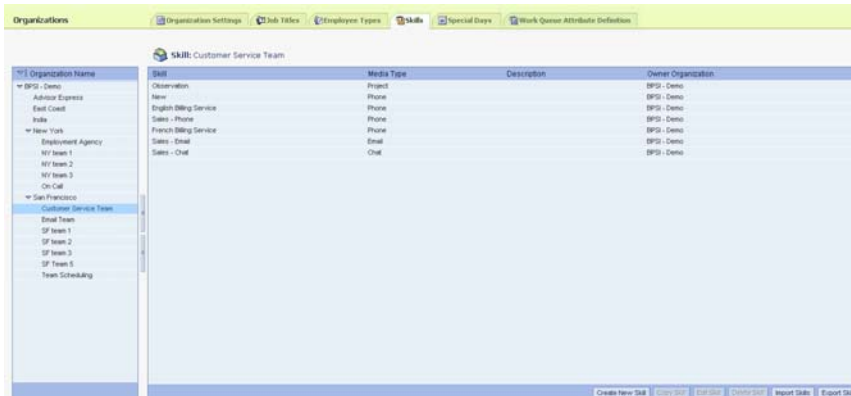
Activities	Set up and configure activities and their supporting information for each organization. See page 456 .
<ul style="list-style-type: none"> • Activity Types 	<ul style="list-style-type: none"> • View activity types. Activity types are groups of similar activities. See page 457.
<ul style="list-style-type: none"> • Activities 	<ul style="list-style-type: none"> • View activities. Activities represent work an employee can perform. See page 460.
<ul style="list-style-type: none"> • Adherence Mapping 	<ul style="list-style-type: none"> • Map activities to other adhering activities. Adherence mapping lets you select alternate activities that are considered in adherence when an employee is scheduled for a particular activity. See page 467.
Request Management	Allows you to control how time-off requests, shift swap requests, and shift bidding are handled in your organization:
<ul style="list-style-type: none"> • Settings 	<ul style="list-style-type: none"> • View or change request settings for a specific organization. See page 469.
<ul style="list-style-type: none"> • Validation 	<ul style="list-style-type: none"> • Set validation rules. See page 469.
<ul style="list-style-type: none"> • Filing Rules 	<ul style="list-style-type: none"> • View and edit Request Filing Rules. See page 471.
<ul style="list-style-type: none"> • Time Off Pools 	<ul style="list-style-type: none"> • Allocate time off hours, control waitlisting, and specify blackout days for a organization. See page 472.
<ul style="list-style-type: none"> • Auto Processing 	<ul style="list-style-type: none"> • Allows you to control the auto-processing rules for time off, shift swap, and shift bidding for each organization. See page 473.
<ul style="list-style-type: none"> • Purging 	<ul style="list-style-type: none"> • Purge (remove) requests from the database. See page 477.

Information on the **Work Rules** section and its tabs is located in [Chapter 21](#) "Forecasting and Scheduling in the Web Application".

Organizations

Use this page to create, view and edit organizational structures and associated information within Workforce Management. This section discusses the following tabs:

- **Skills**
- **Special Days**
- **Work Queue Attribute Definition**



Organization Name	Skill	Media Type	Description	Owner Organization
BPIS - Demo	Observation	Phone		BPIS - Demo
BPIS - Demo	Adviser Expense	Phone		BPIS - Demo
BPIS - Demo	East Coast	English Billing Service		BPIS - Demo
BPIS - Demo	India	Sales - Phone		BPIS - Demo
BPIS - Demo	New York	French Billing Service		BPIS - Demo
BPIS - Demo	Employment Agency	Sales - Email		BPIS - Demo
BPIS - Demo	NY team 1	Sales - Chat		BPIS - Demo
BPIS - Demo	NY team 2			
BPIS - Demo	NY team 3			
BPIS - Demo	On Call			
BPIS - Demo	San Francisco			
BPIS - Demo	Customer Service Team			
BPIS - Demo	Email Team			
BPIS - Demo	SF team 1			
BPIS - Demo	SF team 2			
BPIS - Demo	SF team 3			
BPIS - Demo	SF team 5			
BPIS - Demo	Team Scheduling			

Skills

Administrators can use the **Skills** tab to create, copy, edit, delete, import, or export employee skills. The tab consists of two panes: an organization selection pane, and a workpane. The workpane displays the following columns of information for the selected organization:

- **Skill:** the name of the skill.
- **Media Type:** The type of media associated with the skill, such as phone or email.
- **Description:** An optional description of the skill.
- **Owner Organization:** The organization owning the skill.

Creating and Editing Skills

Use this tab to create a new skill or edit an existing skill.

The left pane consists of an organization selector. The right pane allows you to specify or edit the following:

- **Organization Name** (this drop-down selector allows you to override the organization selected in the left pane)
- **Name**
- **Description** (optional)
- **Media Type** (use the drop-down selector to choose the media type)

Click **Save** to save any values you have edited.

Click **Cancel** to cancel any changes you have made and return to the **Skills** tab.

Click **Revert** to revert any values you have edited but not saved to their original values.

Importing Skills

Use this pop-up window to import skills from an external file into Forecasting and Scheduling. The window is divided into two containers:

- File setup
- Fields and column numbers

The **File Setup** container allows you to:

- Specify the name of the file to import. (You can use the **Browse** button to find and select the file.)
- Select the delimiter character used in the file. (**Tab**, **Comma**, or **Semicolon**)
- The number of lines to ignore at the start of the file.

The other container displays checkboxes for the fields to be imported (**Skill Name**, **Media Type**, **Description**, and **Organization**), as well as, for each field, a box in which you can enter the column number within the import file containing the value to be imported for that field.

Click **Import** to import the skills, or **Cancel** to return to the **Skills** tab without importing the skills from the external file.

Exporting Skills

Use this pop-up window to export skills to an external file from Workforce Management. The window is divided into two containers:

- **File Setup**
- **Organization Name**

The **File Setup** container allows you to select the delimiter character to be used in the file. (**Tab**, **Comma**, or **Semicolon**)



- The number of lines to ignore at the start of the file.

The **Organization Name** container displays checkboxes for the organizations for which the skills are to be exported.

Click **Export** to export the skills, or **Done** to return to the **Skills** tab without exporting the skills to the external file.

Special Days

Administrators can use the **Special Days** tab to add, edit, or delete special days, such as holidays, and copy them to other organizations. These are used in time intervals to ensure employees receive the appropriate pay. For managers and schedulers, this tab is read-only.

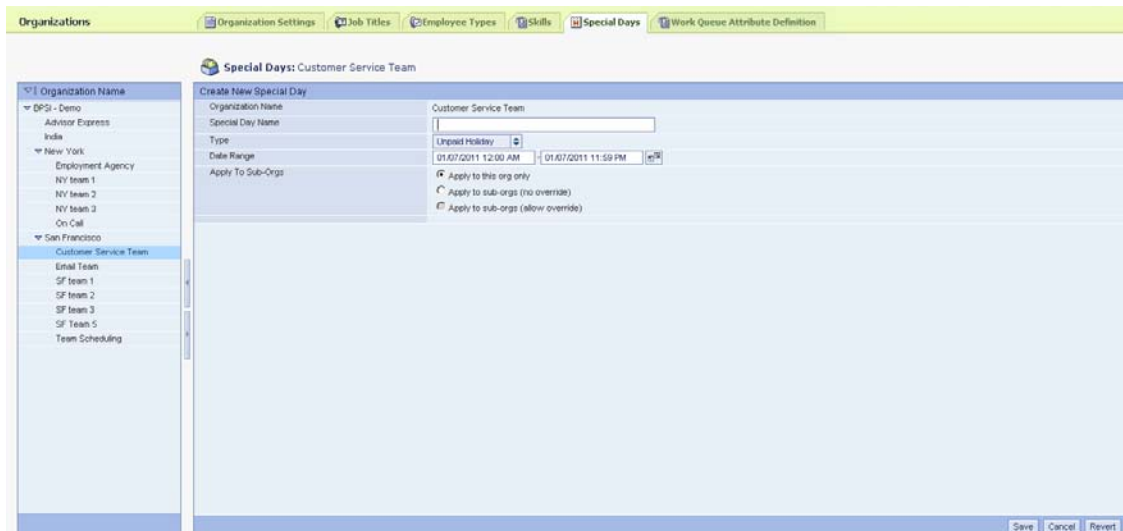
 Be sure to set the year in the upper right of the page. View Year: 2006 


Creating and Editing Special Days

Use this page to create new special days or change an existing one:

To create a new special day:

- 1 Select an organization in the left pane.
- 2 Click **Create New Special Day**. The New Special Day page opens.



- 3 Type the special day's name.
- 4 Select **Paid Holiday** if the special day is paid, or **Unpaid Holiday** if it is not. If your administrator has enabled the creation of blackout days for organizations, you can also select **Blackout Day**, which marks that day as blacked out for the selected organization.
- 5 Click the date range selector icon  to select the special day's **Start Day** and **End Day**, and, optionally, start and end times.
- 6 Click one of the radio buttons under **Apply to Sub-Orgs**, for applying these settings to suborganizations (children of this parent organization):
 - **Apply to this org only**: The settings only apply to the selected organization.
 - **Apply to sub-orgs (no override)**: The settings apply to the selected organization and its sub-organizations. These settings cannot be overridden in one of those sub-organizations.
 - **Apply to sub-orgs (allow override)**: The settings apply to the selected organization and its sub-organizations. These settings can be overridden in one of those sub-organizations.
- 7 Click **Save**. The new special day is listed.

Work Queues

This section is only visible if you are licensed for Financial Services Operations. It allows you to view and manage your volume work queues and arrival patterns, and contains the following tabs:

- **Work Queue Configuration**
- **Arrival Patterns**

Work Queue Configuration

This pane is used to specify the parameters for a VCT work queue. There are three types of VCT work queues:

- 1 Work Completed, WIP and Inventory:** This work queue type has all the VCT Event types of **CHECKIN**, **CHECKOUT** and **ARRIVAL** enabled.
- 2 Work Completed and Inventory:** This work queue type has only **ARRIVAL** and **CHECKIN** events enabled; a **CHECKOUT** event of equivalent value is automatically generated for each **CHECKIN** event, so there is no **WIP**, only **Work Completed**.
- 3 Work Completed:** This work queue type has only the **CHECKIN** event enabled, which in turn generates an **ARRIVAL** and a **CHECKOUT** of equivalent values.

The parameters you can specify are:

- **As of:** Use this date selector to view and/or set the Activity Handling Time for a specific date.
- **Use Volume Capture:** Select this option to specify the work queue as a VCT work queue.

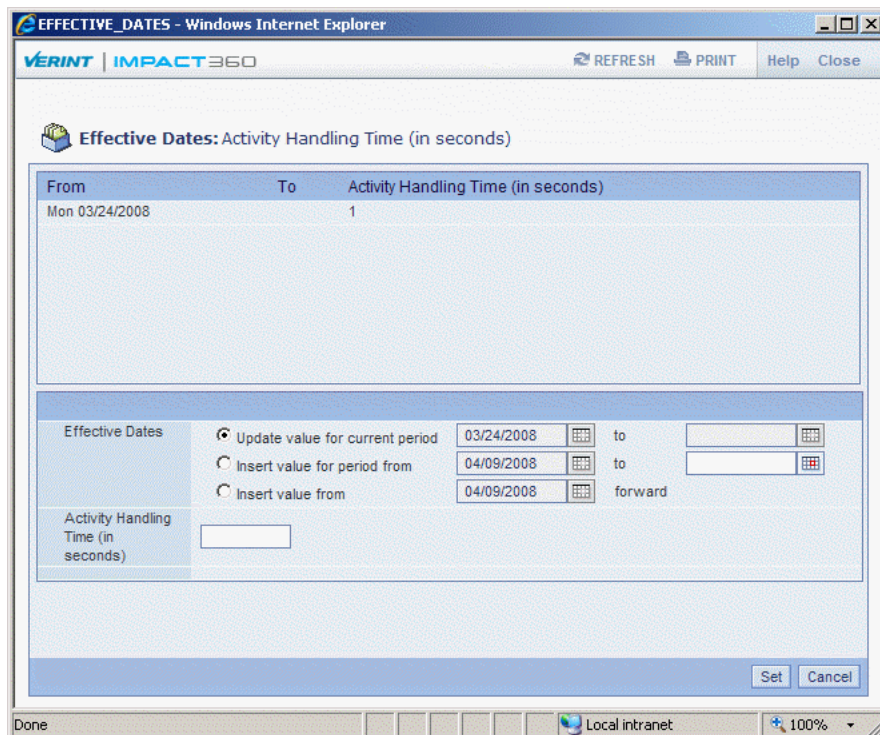
If you select **Use Volume Capture**, the following additional parameters are displayed:

- **Type:** Select the work queue type:
 - **Work Completed, WIP and Inventory**
 - **Work Completed and Inventory**
 - **Work Completed**
- **Show on Work Page:** Allows you to distinguish a manual entry VCT queue from an automated queue without requiring the creation of sub-organizations to "hide" the automated VCT queues. If checked, that queue is displayed on the tab **My Home:My Volumes:Work** as well as **Tracking:Volumes:Work**.
- **Activity Handling Time (in seconds):** Enter the activity handling time (in seconds) for the work queue. Click the pencil icon to the right of the field to enter effectivity dates for the Activity Handling Time.
- **Arrival Pattern:** Select the Arrival Pattern Type:
 - **Operational Hours**
 - **Named Patterns**

- **No Pattern**

- **LQF Only:** All VCT Chains for the corresponding VCT queue are triggered (active) only during Linked Queue Forecasting and Scheduling and not during manual entry or during automated VCT feed import. When the **LQF Only** checkbox is unchecked, VCT chains for the current queue are active both during data entry or VCT file import, and also during linked queue forecasting and scheduling.

To schedule, recalculate, or analyze LQF queues, you must select the **Enable LQF** option on the calendar in the Forecasting and Scheduling module. Otherwise, linked volumes are not generated.



The top portion of the pop-up window shows the history of effective dates that have been applied to the selected work queue.

The lower part allows you to specify a new Activity Handling Time, and gives you the following options for setting dates:

- Update value for current period:** This selection is the default, and replaces the displayed value for whichever time period it is currently saved. If you always save using this option, it has the same effect as having no effective dates and always resetting the current value. If you are using effective dates, this option updates the AHT for the current applicable period, which will not result in any new mediation in start date or end date.

i Editing the AHT value on the Work Queue Configuration page has the same effect as using the Effectivity Pop-Up window with the **Update value for current period** option.

- Insert value for period from:** Allows you to set the new value from the beginning of the period being viewed into the future to a specified date. If you

are using effective dates, a new interval is created. For example, if you have previously set AHT to 10 between 1-1-2006 through no specified end date (that is, forever), and now use this option to set AHT to 20 from 3-1-2008 to 4-1-2008, the end result is similar to the following:

1-1-2006 - 3-1-2008: 10

3-2-2008 - 4-1-2008: 20

4-2-2008 - forever: 10

- c. **Insert value from:** Allows you to set the new value from the beginning of the viewed period into the future, with no specified end date. If you are using effective dates, a new interval is created or deleted. For example, if you have set AHT to 10 from 1-1-2006 through no specified end date, and now use this option to set AHT to 20 from 3-1-2008 to no specified end date, the end result is:

1-1-2006 - 3-1-2008: 10

3-2-2008 - forever: 20

Linked Queue Configuration



To schedule, recalculate, or analyze LQF queues, you must select the **Enable LQF** option on the calendar in the Forecasting and Scheduling module. Otherwise, linked volumes are not generated. Refer to the *Workforce Management Schedulers' Guide* for more information.

To configure work queues as LQF work queues:

- 1 In the web application, go to the **Organization Management** module, **Work Queues** section, **Work Queue Configuration** tab.
- 2 In the **Organization Name** pane, select the organization the work queue belongs to.
- 3 In the **Queues** pane, select the work queue you want to configure.
- 4 Click the **Edit Work Queue** button. The **Work Queue Configuration** window appears.
- 5 Click to select the **Use Volume Capture** check box.
- 6 From the **Type** drop-down list, select a type. There are three types:
 - **Work Completed, WIP and Inventory**—This work queue type has all the event types enabled (**Arrivals**, **Check-out**, and **Check-in**).
 - **Work Completed and Inventory**—This work queue type has only **Arrivals** and **Check-in** events enabled; a **Check-out** event of equivalent value is automatically generated for each **Check-in** event, so there is no **Work in Progress** (WIP) event, only **Work Completed**.
 - **Work Completed**—This work queue type has only the **Check-in** event enabled, which in turn generates an **Arrivals** event and a **Check-out** event of equivalent values.

- 7 In the **Activity Handling Time** field, enter the AHT. If desired, use the date selector below the **Activity Handling Time** field to view and/or set the AHT for a specific date or date range.

The AHT entered here on the **Work Queue Configuration** tab is the time standard for the work queue. This time standard is calibrated by Professional Services as the average amount of time taken to process one item for the queue. This value is used in productivity computations. If you are using linked queue forecasting and do not have the AHT entered for the source queue in Forecasting and Scheduling's **Forecast** module, the AHT for the work queue will be automatically populated with the time standard entered on the **Work Queue Configuration** tab for that work queue.

- 8 From the **Arrivals Pattern** drop-down list, select the arrival pattern. There are three types of patterning supported:
 - **Operational Hours**—Arrivals for each day are distributed evenly over the organization's hours of operation.
 - **Named Patterns**—Arrivals for each day are distributed based on definitions you provide.
 - **No Pattern**—Arrivals are converted to volumes as is, at the times they actually occur, without any spread. This pattern can be used if you want volumes to follow the true arrival pattern, and if arrivals are frequent during the organizational hours.
- 9 If desired, click to select the **LQF Only** check box.

Selecting this check box means that the work queue won't be available for VCT or VCT data imports. If you want to use linked queue forecasting when forecasting and scheduling, but don't want the VCT feed for the source queue to trigger volume creation for the target queues (as it does in a typical VCT scenario), designate the source queue as LQF only.

- 10 Do one of the following:
 - If the work volume from this work queue will flow to a target queue, click the **Add** button on the right side of the screen.OR
 - If the work queue will have no target work queues (that is, if this work queue is the end of the chain), skip this step and the following steps. Click **Save** to save your work.
- 11 From the **Source Event** drop-down list, choose the event from the source queue that will cause the work item to flow from the source work queue to the target work queue. This event will likely be **Check-in**.
- 12 From the **Target Event** drop-down list, choose the event the work flowing from the source work queue will come to the target queue as. This event could be:
 - **Arrivals**—If the target work queue's type is **Work Completed, WIP and Inventory** or **Work Completed and Inventory**
 - **Check-in**—If the target work queue's type is **Work Completed** (the **Arrivals** is implied with this type of work queue).

- 13** From the **Target Work Queue(s)** drop-down list, select the work queue that the work will flow to.
- 14** From the **Proportion Type** drop-down list, select the type of work considered when calculating workflow from one queue to another. The proportion may be a fixed percentage, a forecasted percentage, or a relative period.
- 15** In the **Period** field, enter an integer that represents the number of weeks considered when calculating workflow from one queue to another.
- 16** In the **Proportion (Pct)** field, enter the proportion of work that will flow from the source work queue to the target work queue.
- 17** (Optional) Enter a number in the **Bundle Size** field. This field is applicable if employees working on items in the source work queue check in items but the items aren't sent to the employees working on the target work queue until the required bundle size is reached.
- 18** (Optional) Enter bundle lag time in the bundle lag fields.

You can use **Bundle Lag** to introduce a delay in the creation of the forecast for target queues in a linked queue forecasting chain. If there is a delay in processing that isn't being modeled by an activity, it can be modeled through bundle lag. For example, imagine that Queue A produces 10 units of work at 9 AM and is chained 100% to Queue B. Without a bundle lag time, the 10 units of work would immediately be pushed to Queue B as an arrival. However, with a bundle lag time of 2 hours, it would not become an arrival for Queue B until 11 AM.
- 19** Click **Save**.

The **Multi-Select** check box is not relevant for linked queue forecasting.



Arrival Patterns

Use the **Arrival Patterns** tab to view and edit the patterns that have been created. The Operations – Arrival Processing adapter can be configured to use an arrival pattern defined here to convert **ARRIVAL** VCT Events into volumes by applying the arrival pattern to the sum of **ARRIVALS** over a defined window. The purpose of the arrival pattern is to be a close representation of the distribution of intraday work to be done.

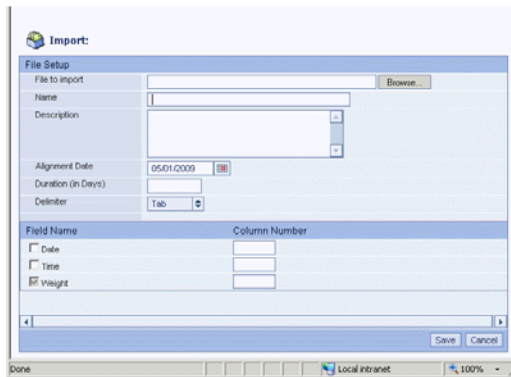


From this tab, the following options are available from the options displayed in the lower right of the pane:

- **Import**— Click this option to import a new pattern.
- **Create**—Click this option to manually create a new pattern.
- **Edit**—Select an existing pattern and click this option to change the pattern's settings.
- **Delete**—Select an existing pattern and click this option to delete the pattern.

Importing Arrival Patterns

Clicking the **Import** button opens a page that allows you to import a pattern created from information contained in an external source file. The fields in the source file can be delimited either by **Tab** characters or commas.



The page contains two areas:

File Setup

Use the fields in this section to specify the following:

Field	Description
File to Import	The path and name of the external file to be imported.
Name	The name assigned to the pattern.
Alignment Date	The date the pattern was created.
Duration (in days)	The number of days for which the pattern applies.
Delimiter	Use the drop-down menu to select either Tab or Comma as the field delimiter used in the file.

Field Name and Column Number

Use the Field Name checkboxes and Column Number fields to specify the fields to be imported, as follows:

Checkbox or Field	Description
Date	Used to identify the column in the external file that contains the date.
Time	Used to identify the column in the external file that contains the time.
Weight	Specifies the percentage allocation for each 15-minute interval.
Column Number	Specifies the order (1, 2, 3, etc.) in the external file of the date, time, or weight column.

Creating or Editing Arrival Patterns

The following fields can be edited:

Field	Description
Name	A pattern name that you assign.
Description	A description of the pattern. This field is optional and provided for your convenience.
Alignment Date	The starting day of week of the pattern. It is recommended that you select a date in history prior to or coinciding with the oldest import date.
Duration (in days)	The number of days for which the pattern applies.
Default frequency of import	The frequency with which you are running the Operations – Data Management adapter. Typically, the Operations – Data Management adapter is run at the end of the day, in which case this parameter should be set to one day. If you are running the adapter every three hours, it should be set to three hours.
Daily Pattern	The quarter-hour distribution percentage of the pattern.

Activities

Use these pages to view activities types and activities.

Activities are the basic building blocks of Workforce Management. Activities specify the scheduled work and the work actually done.

Activities represent work that employees can perform. Each activity has a name, a description, a setting specifying if the activity is paid, a color, a code, a tolerance, and an activity type.

- If an activity is marked as paid, any time an employee logs into this activity, the resulting entry will also be marked as paid. A manager can override the paid/unpaid status of any time entry on the Day Details page.
- The color and code of an activity are used to display schedules and time records on the Calendar, Schedule Viewing screens, Adherence screen, and other screens.
- An activity's tolerance specifies how long an employee can be out of adherence to a scheduled activity before an exception appears. For example, the Phone activity is assigned a tolerance of 5 minutes. An employee is scheduled to log onto the Phone activity at 9:00 a.m. Instead, he logs on at 9:05 a.m. He was not adhering for 5 minutes and the tolerance is 5 minutes, so no adherence exception will be displayed. However, if the employee logged in at 9:10 a.m., the full 10 minutes from 9:00 a.m. to 9:10 a.m. would show up as an exception.
- Finally, every activity must have an activity type.

Activity types are folders that contain similar activities; they make selecting an activity easier for **My Time** users. Each activity type has a name, a description, and a setting specifying whether or not **My Time** users can see this activity type.

Workforce Management comes preconfigured with the following activity types:

- **Absence Activities** (such as vacation or jury duty)
- **Assigned Work Activities** (such as phone or research)
- **Desktop Monitoring** (if included in your license)
- **Learning Activities**
- **Planned Events** (such as training or a staff meeting)
- **Shift Events** (such as lunch or a coffee break)

For example, **Assigned Work Activities** could contain the **Phone** activity and the **email** activity. It should be marked visible to **My Time** users since employees are expected to log into these activities through the **My Time** module.

Absence Activities might contain the **Sick** activity and **Jury Duty** activity. This activity type would be marked as not visible to **My Time** users as employees are not expected to log into the **Sick** activity. Instead, managers would create records containing the **Sick** activity when an employee calls in sick.

Viewing Activity Types

Use the **Activity Types** tab to list the Activity Types for each organization. Each activity type serves as an organizer for activities. They are used to make selection of activities simpler in other parts of Workforce Management.

Organization Name	Name	Description	Visible in My Time	Owner Organization	Time Off With Accrual	Schedule of Accrual	Accrual Policy
BPSI - Demo	Absence Activities	Absent activities such as Vacation or Jury Duty	Yes	BPSI - Demo	No	Yearly	Allot all hours on start date
Advisor Express	Assigned Work Activities	Assigned activities such as Phone or Research	Yes	BPSI - Demo	No	Yearly	Allot all hours on start date
India	Desktop Monitoring	Desktop Monitoring	Yes	BPSI - Demo	No	Yearly	Allot all hours on start date
New York	Learning Activities	Learning Activities	No	BPSI - Demo	No	Yearly	Allot all hours on start date
Employment Agency	Planned Events	Planned activities such as Training or Staff Meeting	Yes	BPSI - Demo	No	Yearly	Allot all hours on start date
NY team 1	Shift Events	Activities during a shift such as Lunch or Coffee Break	Yes	BPSI - Demo	No	Yearly	Allot all hours on start date
NY team 2							
NY team 3							
On Call							
San Francisco							
Customer Service Team							
Email Team							
SF team 1							
SF team 2							
SF team 3							
SF Team 5							
Team Scheduling							

Activity types can be added and modified here, or in Forecasting and Scheduling.

Workforce Management comes preconfigured with the following activity types:

- **Absence Activities** (such as vacation or jury duty)
- **Assigned Work Activities** (such as phone or research)
- **Desktop Monitoring** (if included in your license)
- **Learning Activities**
- **Planned Events** (such as training or a staff meeting)
- **Shift Events** (such as lunch or a coffee break)

Click at the top of a column to sort by that column. Click again to reverse the sort order.

To create an activity type:

- 1 Select an organization in the left pane.
- 2 Select the activity type in the right pane.
- 3 Click **Create Activity Type**. The **Activity Type Details** window is displayed.
- 4 Fill in as appropriate the fields described in the following table:

Field	Description
Owner Organization	Name of the organization to which the Activity Type is assigned.
Name	Name of the Activity Type.
Description	Description of the Activity Type.
Visible in My Time	Specifies if the activity type is visible to users of the My Time section.
Time Off With Accrual	Check this option to enable time off accrual for all activities created under this activity type. This setting is applicable to time off activities only.

Field	Description
Schedule of Accrual	<p>This setting determines the period at which hours are accrued for the activity (Daily, Weekly, Semi-Monthly, Monthly, Yearly).</p> <p>If the Accrual Schedule is set to Monthly, hours are accrued at the start of each month, based on the specified accrual day of the month.</p>
Accrual Policy	<p>This option affects the calculation of accrued time off hours until the next accrual schedule, and can be set for an activity type or individual activity.</p> <p>As an illustration, if an employee joins on 1st March 2009 and that employee's accrual schedule is 12 hours per year accrued on 1st Jan, the accrued hours until the next accrual schedule will change, based on the which of the following options is selected:</p> <ul style="list-style-type: none"> • Allot all hours on start date: All 12 hours will be allotted to the employee immediately, even though the employee was not in the organization on 1st of Jan 2009 and 12 hours will be accrued on Jan 1st 2010. This option is the default when an activity or activity type is created (activities that follow the older model of employee time off hours should use this option). • Allot prorated hours on start date: Nine hours will be allotted to the employee based on the fact that nine months are left until the next accrual schedule; 12 hours will be accrued on Jan 1st 2010. • Earn all hours on next accrual schedule: No hours are allotted on the start date; the employee will accrue 12 hours on Jan 1st 2010. • Earn prorated hours on next accrual schedule: No hours are allotted on the start date; the employee will accrue nine hours on Jan 1st 2010 having worked for nine months at the time of accrual. <p>(The accrual rate can be set for each employee individually from the Profiles tab of the User Management module.)</p>

5 Click **Save** to create the activity type and return to the Activity Types page.

Click **Cancel** to abandon any changes you made and return to the Activity Types page.

Click **Revert** to undo any unsaved changes on the page

To edit an activity type:

- 1 Select an organization in the left pane.
- 2 Select the activity type in the right pane.

- 3 Click **Edit Activity Type**.
- 4 Change the settings for the **Name**, **Description**, and **Visible in My Time** parameters as desired.
- 5 Click **Save** to save your changes and return to the Activity Types page.

Click **Cancel** to abandon any changes you made and return to the Activity Types page.

Click **Revert** to undo any unsaved changes on the page.

To delete an activity type:

- 1 Select an organization in the left pane.
- 2 Select the activity type in the right pane.
- 3 Click **Delete Activity Type**.
- 4 Click **OK** to delete the Activity Type, or **Cancel** to return to the Activity Types page without deleting the Activity Type.

Viewing Activities

Use this tab to list the activities for each organization. Activities represent types of work an employee can perform. Activities are added and modified here, or in Forecasting and Scheduling.



If you have used special activities to override the properties for any time-off activities, the override value will be displayed. However, override values are not identified on this page.



Name	Description	Owner Organization	Activity Type	Paid	Color	Activity Code	Time Off	Media	Shift	Shift Event	Calendar	Unavailability	Used In Report
Answer Calls	Answer Calls	BPSI - Demo	Assigned Work Activities	Yes	Blue		No	Yes	Yes	Yes	No	No	No
Blended	Blended	BPSI - Demo	Assigned Work Activities	Yes	Green	B	No	Callback, Fax, Email, Chat, Voice-over-IP, Phone	Yes	Yes	No	No	No
Break	Break	BPSI - Demo	Shift Events	No	Red	B	No		No	Yes	No	No	No
OXA	Closed Key Activity	BPSI - Demo	Shift Events	No	Cyan	C	No		No	Yes	No	No	No
DE_break	Break	BPSI - Demo	Shift Events	Yes	Yellow		No		No	No	No	No	No
DE_OXA	Closed key activity	BPSI - Demo	Shift Events	Yes	Yellow		No		No	No	No	No	No
DE_Email	Answering customer email	BPSI - Demo	Shift Events	Yes	Yellow		No		No	No	No	No	No
DE_Late	Late	BPSI - Demo	Shift Events	Yes	Yellow		No		No	No	No	No	No
DE_Lunch	Lunch	BPSI - Demo	Shift Events	Yes	Yellow		No		No	No	No	No	No
DE_Medical	Medical	BPSI - Demo	Shift Events	Yes	Yellow		No		No	No	No	No	No
DE_training	Training	BPSI - Demo	Shift Events	Yes	Yellow		No		No	No	No	No	No
Deferred	Deferred	BPSI - Demo	Assigned Work Activities	Yes	Yellow	D	No	Callback, Fax, Email	Yes	Yes	No	No	No
Email	Answering customer email	BPSI - Demo	Shift Events	Yes	Green	E	No		Yes	Yes	No	No	No

Click at the top of a column to sort by that column. Click again to reverse the sort order.

To create an activity:

- 1 Select an organization in the left pane.
- 2 Click **Create Activity**. The **Activity Details** window is displayed.
- 3 Fill in the fields described in the following table as appropriate:

Section	Field	Description
Activity Details	Owner Organization	Name of the organization to which the activity is assigned.
	Name	Name of the activity.
	Description	Description of the activity.
	Activity Type	The Activity Type to which this activity belongs.
	Paid	Specifies if the activity is paid.
	Color	The color used to display schedules and time records on the Adherence page.
	Activity Code	The code used for displaying the activity.
	Time Off	Whether this activity can be used for time off.
	Media	The media to which this activity is mapped.
	Work Queue Hopping	Displayed if you are licensed for queue hopping. Check this box only if the activity can be used for shifts and the activity is linked to one or more media. The media are used as a filter for the types of queues that can be linked to the activity. You must also assign one or more queues to a queue hopping activity.
Work Queues	Displayed if you are licensed for queue hopping. Allows you to select those queues to assign to the queue hopping activity, as mentioned previously.	

Section	Field	Description
Scheduling Usage	Use in Shift (Primary Activity)	Specifies if the activity can be used in a shift.
	Use in Shift Event	Specifies if the activity can be used in a shift event.
	Use in Calendar Event	Specifies if the activity can be used in a calendar event.
	Unavailability	Specifies if the activity can be used in an unavailability.
	Resource Constraint	Specifies the maximum number of employees that can be working this activity at the same time.
	Cell Group Size	Specifies a number by which the number of employees working this activity at the same time must be divisible.
	Can be Scheduled Within a Shift from Another Campaign	Specifies if the activity can be scheduling within a shift from another campaign.
Request Management Usage	Used in Request	Specifies if the activity can be used in a request.

Section	Field	Description
	Time Off With Accrual	Specifies if a time-off activity has been specified as having an allotted number of hours per week or per month for the owner organization.
	Schedule of Accrual	<p>This setting determines the period at which hours are accrued for the activity (Daily, Weekly, Semi-Monthly, Monthly, Yearly).</p> <p>If the Accrual Schedule is set to Monthly, hours are accrued at the start of each month, based on the specified accrual day of the month.</p>
	Accrual Policy	<p>This option affects the calculation of accrued time off hours until the next accrual schedule, and can be set for an activity type or individual activity.</p> <p>As an illustration, if an employee joins on 1st March 2009 and that employee's accrual schedule is 12 hours per year accrued on 1st Jan, the accrued hours until the next accrual schedule will change, based on the which of the following options is selected:</p>

Section	Field	Description
		<ul style="list-style-type: none"> • Allot all hours on start date: All 12 hours will be allotted to the employee immediately, even though the employee was not in the organization on 1st of Jan 2009 and 12 hours will be accrued on Jan 1st 2010. This option is the default when an activity or activity type is created (activities that follow the older model of employee time off hours should use this option). • Allot prorated hours on start date: Nine hours will be allotted to the employee based on the fact that nine months are left until the next accrual schedule; 12 hours will be accrued on Jan 1st 2010. • Earn all hours on next accrual schedule: No hours are allotted on the start date; the employee will accrue 12 hours on Jan 1st 2010. • Earn prorated hours on next accrual schedule: No hours are allotted on the start date; the employee will accrue nine hours on Jan 1st 2010 having worked for nine months at the time of accrual. <p>(The accrual rate can be set for each employee individually from the Profiles tab of the User Management module.)</p>

Section	Field	Description
Activity Manager Usage	Adherence Tolerance Minutes	The number of minutes an employee can be out of adherence in the scheduled activity before an exception is created. This Out of adherence exception will show on the Adherence page and will create an Out of adherence alert for that scheduled activity if an applicable alert rule has been defined and enabled.
	Maximum Time In Activity	The maximum amount of time an employee can remain in the recorded/actual activity before a Too long in activity exception is created. The Too long in activity exception will show in the Quick View tab.
	Who Is In State	Specifies the state that the activity represents for the Who Is In display.
Scorecards Usage	Scorecards Source Measure	Only shown if you are licensed for Scorecards. A source measure reflects a type of measurement used to evaluate a person's or an organization's performance. To make analyzing activity data more practical and meaningful for Scorecards, activities are mapped to a smaller group of source measures. This field specifies the source measure to which the activity has been mapped.

To edit an activity:

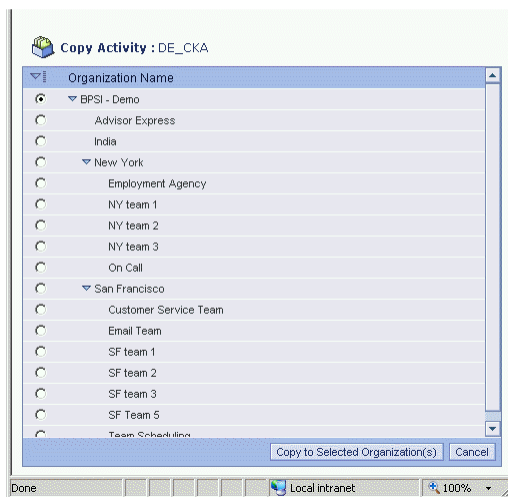
- 1 Select an organization in the left pane.
- 2 Select the activity in the right pane.
- 3 Click **Edit Activity**. The following window is displayed.

The screenshot shows the 'Activity Details' window for 'BPSI - Demo'. The left pane shows a tree view of organizations, with 'BPSI - Demo' selected. The right pane displays the following settings:

- Activity Details:**
 - Owner Organization: BPSI - Demo
 - Name: [Text Field]
 - Description: [Text Field]
 - Activity Type: [Dropdown: Advice Activities]
 - Paid:
 - Color: [Color Picker]
 - Activity Code: [Text Field]
 - Time Off:
 - Map: [Text Field]
 - Work Order Mapping:
 - Work Order: [Text Field]
- Scheduling Usage:**
 - Use in Shift (Primary Activity):
 - Use in Shift Bank:
 - Use in Calendar Bank:
 - Availability:
 - Resource Constraint: [Dropdown]
 - Call Group Size: [Text Field]
- Request Management Usage:**
 - Used in Request:
 - Time Off/On Account:
 - Schedule of Account: [Dropdown: Years]
 - Account Policy: [Dropdown: Arbitration or Arbitration]
- Activity Manager Usage:**
 - Adherence Tolerance Minutes: [Text Field]
 - Maximum Time in Activity: minutes
 - Who is in State: [Dropdown]
- Scorecards Usage:**
 - Scorecard Score Measure: [Dropdown: None]

To copy an activity:

- 1 Select an organization in the left pane.
- 2 Select the activity in the right pane.
- 3 Click **Copy Activity**.
- 4 Select the organization(s) to which you want to copy the information.



- 5 Click **Copy to Selected Organization(s)**.

To delete an activity:

- 1 Select an organization in the left pane.
- 2 Select the activity in the right pane.
- 3 Click **Delete Activity**.

Click **OK** to delete the activity, or **Cancel** to return to the **Activities** page without deleting the selected activity.

Adherence Mapping

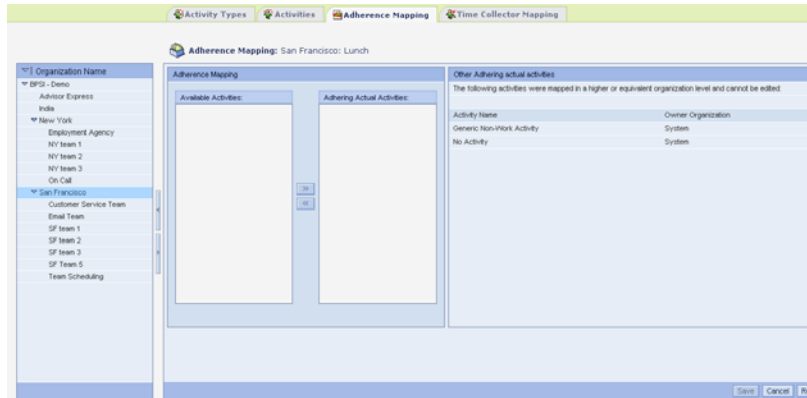
Use this page to list the adherence mapping for each organization's activities. Adherence mapping lets you select alternate activities that are considered in adherence when an employee is scheduled for a particular activity. For example, if an activity called **Email** is mapped to the scheduled activity **Answercalls**, employees are considered in adherence if they are performing either activity.

Organization Name	Scheduled Activity	Adhering Actual Activities	Owner Organization
BPSI - Demo	Answer Calls	Phone, Wrapup	BPSI - Demo
Advisor Express	Blended	Generic Non-Work Activity, Generic Work Activity	BPSI - Demo
New York	Break	Generic Non-Work Activity, No Activity	BPSI - Demo
Employment Agency	CHA	Generic Non-Work Activity, No Activity	BPSI - Demo
NY team 1	Deferred	Generic Work Activity	BPSI - Demo
NY team 2	Email	--	BPSI - Demo
NY team 3	Email Fax	--	BPSI - Demo
On Call	General Absence	Generic Non-Work Activity, No Activity	BPSI - Demo
San Francisco	General Unavailability	Generic Non-Work Activity, No Activity	BPSI - Demo
Customer Service Team	Jury Duty	Generic Non-Work Activity, No Activity	BPSI - Demo
Email Team	Life	Generic Non-Work Activity, No Activity	BPSI - Demo
SF team 1	Lunch	Generic Non-Work Activity, No Activity	BPSI - Demo
SF team 2	Medical	Generic Non-Work Activity, No Activity	BPSI - Demo
SF team 3	Meeting	Generic Non-Work Activity, No Activity	BPSI - Demo
SF team 5	Mentoring	--	BPSI - Demo
Team Scheduling	No Activity	--	System
	No Call/No Show	Generic Non-Work Activity, No Activity	BPSI - Demo
	None	Generic Non-Work Activity, No Activity	BPSI - Demo
	Personal Day	Generic Non-Work Activity, No Activity	BPSI - Demo
	Phone	Generic Non-Work Activity, Generic Work Activity	BPSI - Demo
	Research	--	BPSI - Demo
	Sick	Generic Non-Work Activity, No Activity	BPSI - Demo
	Supervisor's meeting	--	BPSI - Demo
	Supervisor Meeting	Generic Non-Work Activity, No Activity	BPSI - Demo
	Training	Generic Non-Work Activity, No Activity	BPSI - Demo
	Unavailable	--	BPSI - Demo
	Vacation	Generic Non-Work Activity, No Activity	BPSI - Demo
	Wrapup	--	BPSI - Demo

The page displays the adhering actual activities mapped to the scheduled activities. Scheduled activities are activities that can be used in shifts, shift events, calendar events, unavailabilities, or time off.

To edit an adherence mapping:

- 1 Select the scheduled activity in the right pane. (You must have the activity's owner organization selected in the left pane to edit it.)
- 2 Click **Edit Adherence Mapping**. The Adherence Mapping window is displayed.



- 3 Highlight the activity to map and click **>>** to map it to the scheduled activity.
- 4 Click **Save**. The scheduled activity is listed with the new mapping.

To map or unmap an activity to other adhering activities:

Highlight the activity and click **Edit Adherence Mapping**. The Adherence Mapping page opens.

To add an adhering activity to an existing mapping:

- 1 Highlight the activity and click **Edit Adherence Mapping**. The Adherence Mapping page opens.
- 2 Highlight an activity to map in the Available Scheduled Activities column and click **>>** to map it to the scheduled activity. Use **Shift** or **Ctrl** to select multiple activities. The mapped activities appear in the Adhering Actual Activities column.
- 3 Click **Save**. The scheduled activity is listed with the new mapping.

To remove an adherence mapping:

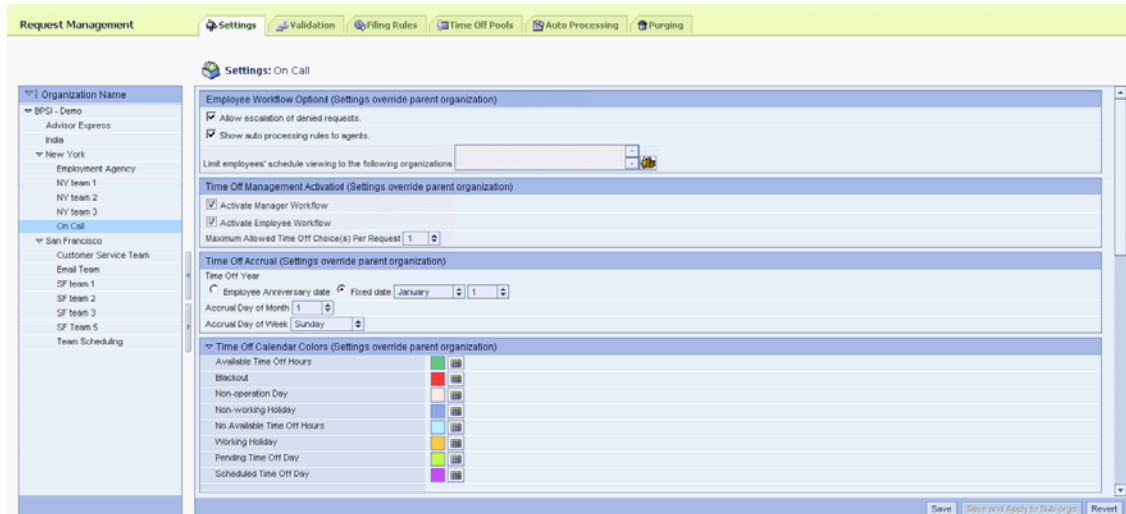
- 1 Highlight the activity and click **Edit Adherence Mapping**. The Adherence Mapping page opens.
- 2 Highlight an activity to map in the Adhering Actual Activities column and click **<<** to remove the mapping. Use **Shift** or **Ctrl** to select multiple activities.
- 3 Click **Save**. The scheduled activity is listed with the updated mapping.

i The adherence mapping **No Activity** is an internal classification used to denote the time interval between shifts, and is ignored in adherence calculations. For activities such as **Break**, there should be no adherence mapping. (The characters -- should appear in the **Adhering Actual Activities** column.)

i **No Activity** should be explicitly mapped for scheduled activities such as vacation, or training, where the user is not expected to be logged in.

Request Management

Use the **Settings** tab to control how time-off requests, waitlists, time-off allocations, shift swap requests, shift bidding, and shift requests & changes are handled for a specific organization.

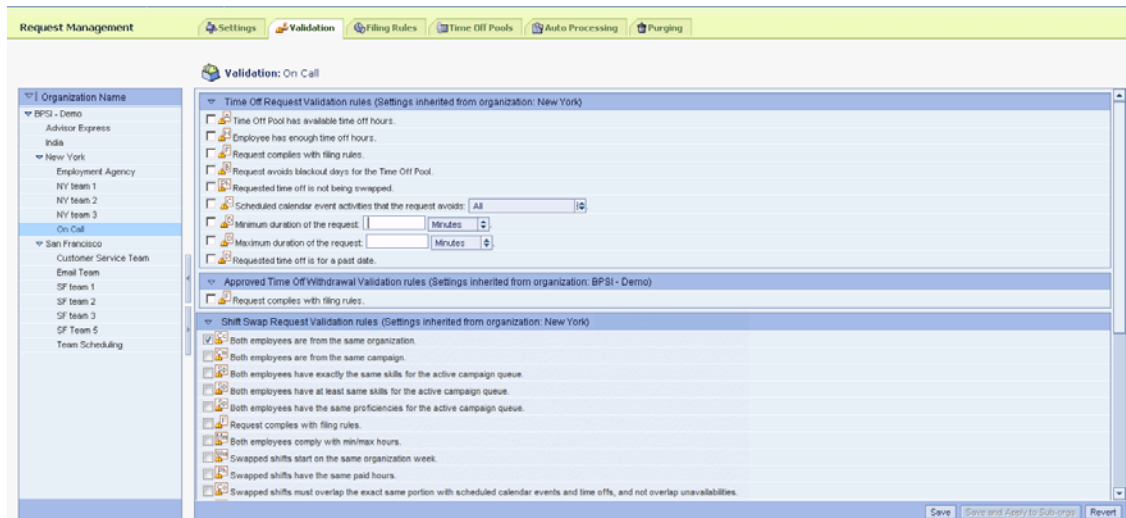


In addition to the Organization selection pane, the other pane of the **Settings** page consists of the following containers:

- *Employee Workflow Options*
- *Time Off Management Activation*
- *Time Off Accrual*
- *Time Off Calendar Colors*
- *Time Off Management Policies*
- *Shift Bidding* (only relevant if you are licensed for the optional Shift Bidding feature)
- *Shift Bidding Policies* (only relevant if you are licensed for the optional Shift Bidding feature)
- *Shift Swap*
- *Shift Swap Policies*
- *Shift Requests & Changes*

Validation

Use the **Validation** tab of the **Request Management** section of the **Organization Management** module to set validation rules.



Select the rules you want to use to validate time off, approved time-off withdrawal, swift swap, shift bidding, and shift requests & changes requests. The validation icon will appear on both the administrator and employee request pages.

Click **Save** to save your changes for the selected organization, **Save and Apply to Sub-orgs** to save the changes for the selected organization and its child organizations, or **Revert** to cancel any changes in progress that have not yet been saved.

Filing Rules

Use this page to view and edit request filing rules. Click on the top of a column to sort by the column. Click again to reverse the sort order.

Organization Name	Apply	Request Type	Which Request	When to file	Owner Organization
BPSI - Demo	<input checked="" type="checkbox"/>	Shift Swap	All requests of this type	More than 3 days in advance	BPSI - Demo
India	<input checked="" type="checkbox"/>	Time Off (Unavailable)	For Weekend	More than 2 days in advance	BPSI - Demo
New York	<input checked="" type="checkbox"/>	Time Off (Unavailable)	All requests of this type	More than 15 days in advance	BPSI - Demo

This table shows the filing rules for time off, shift swapping, shift bidding, and shift request changes that have been defined for each organization. The following columns are defined on this page.

- **Apply**—This column controls whether the rule is applied to the current organization. The rules of a parent organization flow down to the child organizations. The rules defined in a parent organization can be optionally applied to a child organization. If a rule defined in a parent is not applied to a child organization, the rule is not used for the child organization. It is legal for a grandchild organization to differ with the child organization. When the checkbox is changed, **Save Applied** must be used to save changes. When applied settings are saved, the child organizations are changed to match the parent's applied state. Only the changes are copied to the children.
- **Request Type**—This column shows the request type, which can be either time off, approved time off withdrawal, shift swap, shift bidding, or shift request & change (can be new shift, shift change, new OT shift, and OT shift change).
- **Which Request**—This column shows the criteria that will be used to determine which requests are affected by the rule.
- **When to file**—This column shows when the requests must be filed.
- **Owner Organization**—This column shows where the rule was created. A rule can be modified only if you have selected its owner organization.

Click **Save Applied** to save the applied checkbox column changes.

Click **Create New Rule** to create a new filing rule. This button displays a pop-up window to allow you to select the kind of rule to create. The pop-up window also allows

you to specify whether the changes are to be applied to the selected organization (**Apply to this org only**), the organization and its child organizations with no overrides at the child level (**Apply to sub-orgs (no override)**), or the organization and its child organizations with overrides at the child level allowed (**Apply to sub-orgs (allow override)**).

Click **Copy Rule** to copy a selected rule to another organization. It is not necessary to copy a rule to a child organization because rules flow down to child organizations naturally. This button is useful when copying a rule to a sibling organization.

Click **Edit Rule** to modify the selected rule.

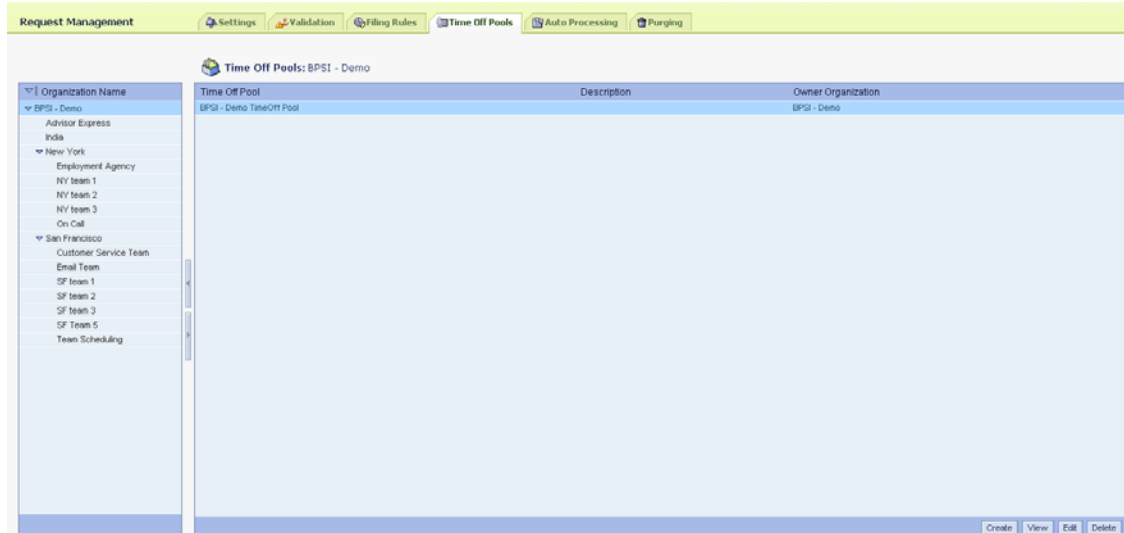
Click **Delete Rule** to remove the selected rule. The rule is removed from the selected organization and its child organizations.

Time Off Pools

You use the **Time Off Pools** tab to allocate the time off that is available to a group (pool) of employees. For instance, if you specify that 32 hours of time off are allocated to a pool for a certain day, employees in that pool can be granted requests for time off for up to a total of 32 hours before no more time off is available.

The initial view of this tab lists all the available time-off pools for the currently selected organization and its parents in a tabular format, comprising three columns:

- **Time Off Pool**
- **Description**
- **Owner Organization**



The **Create**, **Edit**, and **Delete** buttons at the bottom of the page allow you create, edit, and delete, respectively, time off pools.

The **Create** button allows you to create a Time-Off Pool for the organization selected in the left pane. Once this Time-Off Pool is created, you can then assign employees from this organization or any organizations under this organization to the time-off pool.

The **Edit** button is enabled only when you select a time-off pool that was created in the organization selected in the left pane. You cannot edit time-off pools from child organizations.

The **Delete** button is enabled only when you select a time-off pool that was created in the organization selected in the left pane. If a time-off pool is deleted, all the time-off pool effectivity information for employees that pertains to this time-off pool is also deleted. The employees that belong to the deleted time-off pool are not assigned to any other time-off pool for the relevant period. Waitlisted requests, if any, are auto processed again to be approved, denied, or pending, based on the changed scenario.

The **View** button shows detailed information on the selected time off pool, including:

- its owner organization, name, and description
- its waitlist settings
- allocated time-off hours and blackout days

Creating and Editing Time Off Pools

This page consists of three containers:

- **Time Off Pool Details**
- **Time Off Waitlist**
- **Enter Allocated Time Off hours into calendar and mark blackout days:** a calendar allowing you to enter blackout dates

The **Time Off Pool Details** container shows the organization for which the time-off pool is being created (read-only). In addition, it has two fields:

- **Name** – Enter a name for the time-off pool in this field.
- **Description** – Optionally enter a description of the time-off pool.

Time Off Waitlists

The settings in this container control waitlisting time-off requests:

- **Enable waitlists**—If checked, requests for time-off that have been denied can be put on a waitlist, in case another employee withdraws a time-off request that has been approved.
- **Enable auto scan of waitlisted requests**—Allows you to enable (or disable) auto scanning of waitlists. Selecting this checkbox enables scanning of waitlists for any of the following events that lead to changes in the organization's timeoff pool allotment hours or employee time-off hours.
 - A change to the time-off pool allocation for an organization
 - An employee withdraws an approved time-off event
 - A change to the blackout status of a date
 - A change in the approved allocation hours of the approved time off when the schedule has been published
 - Any changes such as an update, addition, deletion, enabling/disabling auto processing or auto filing, or validation rules for time off. (Including similar

actions for the parent organization's time-off pool or organizations sharing the time-off pool allocation hours).

A waitlist scan is triggered on any of the above events. Once a waitlist scan has been triggered, the waitlisted requests are filtered and sorted according to the date range and the organizations affected by the triggering event. The auto processing rule engine then sequentially processes these filtered and sorted waitlisted requests for approval or denial.

- **Waitlist sort priorities**—Allows you to specify the sort order priority for the waitlists. You can select up to three different columns for sorting and computing the waitlist order for waitlisted requests. The requests are sorted by the first, second and then third column, with either ascending or descending order, respectively. The default setting has the first column as **Submitted** in ascending order. The settings for the second and third columns are optional.

The following fields can be selected for the waitlist sort order settings:

- **Seniority**
- **Rank**
- **Submitted** (the date the time-off request was created)
- **Days on Waitlist** (the number of days on the waitlist)
- **Time on Waitlist** (the exact time on the waitlist)
- **Length** (for the waitlisted time-off request choice)
- **Hours Accounted** (for the waitlisted time-off request choice)

Creating and Editing Blackout Days

For days when no time off is allowed, place a check in the checkbox next to the date, which will make it a blackout date regardless of hours that are allocated. It is also possible to enter a range of blackout dates.

Request Management Settings Validation Filing Rules **Time Off Pools** Auto Processing Purging

Time Off Pools: RMChildorg1

Time Off Pool Details

Organization Name: RMChildorg1

Name:

Description:

Time Off Waitlist

Enable waitlists

Enable auto scan of waitlisted requests

Waitlist sort priorities:

Seniority: Ascending (First priority)

(Second priority)

(Third priority)

Enter Allocated Time Off hours into calendar and mark blackout days

Mon	Tue	Wed	Thu	Fri	Sat	Sun
			1	2	3	4
			<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5	6	7	8	9	10	11
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
12	13	14	15	16	17	18
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
19	20	21	22	23	24	25
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
26	27	28	29	30	31	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	

hours allocated:

blackout day mark:

Set Blackout Day Range Import Clear Revert Save Cancel

To use this page:

- 1 Enter the number of hours allocated for a given date.
- 2 Click on a checkbox to mark a day as a blackout day.
- 3 Click **Save** to save your changes.

Click **Clear** to remove all changes.

Click **Revert** to undo all changes you have made since the last time you clicked **Save**.

Click **Import** to invoke a dialog to upload a file to the server.

To import allocations from a text (.txt) file, create the file using the following format:

mm/dd/yyyy <tab> number

For example:

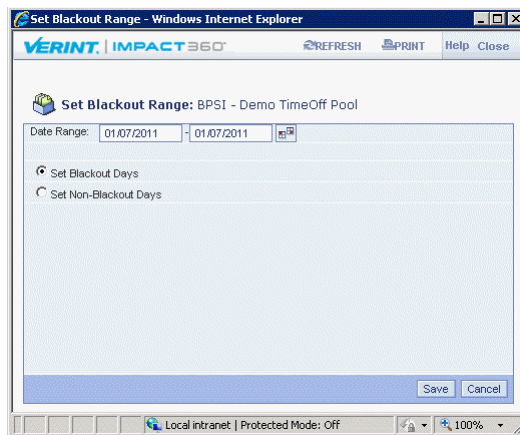
01/10/2003 50.5

01/11/2003 55

Use a **Tab** character to separate the date and number. Use a new line for each date. Convert other formats, such as MS Excel, to text files before importing them.

Setting a Blackout Day Range

Use this window to set/unset blackout dates for a range of days, as compared to the main screen where each day has to be selected.



- 1 Specify the desired range of dates using the Date Range selector.
- 2 Click the appropriate radio button to designate the specified range of dates as blackout days (**Set Blackout Days**), or click **Set Non-Blackout Days** to remove the blackout designation from the specified range of dates.
- 3 Click **Save**.

Auto Processing

This table allows you to control the auto-processing rules for time off, approved time off withdrawal, shift swap, shift bidding, and shift change requests for each organization.

Organization Name	Apply	Request Type	Which Request	How to Auto-Process	Owner Organization
<ul style="list-style-type: none"> ▼ BPSI - Demo <ul style="list-style-type: none"> Advisor Express ▼ New York <ul style="list-style-type: none"> Employment Agency NY team 1 NY team 2 NY team 3 On Call ▼ San Francisco <ul style="list-style-type: none"> Customer Service Team Email Team SF team 1 SF team 2 SF team 3 SF Team 5 Team Scheduling 	<input type="checkbox"/>	Shift Bidding	All requests of this type	Approve request with no violations. Deny requests violating	Customer Service Team
	<input checked="" type="checkbox"/>	Shift Bidding	All requests of this type	Do not auto approve any requests. Do not auto deny any requests.	Customer Service Team
	<input checked="" type="checkbox"/>	Shift Swap	All requests of this type	Do not auto approve any requests. Deny requests violating	Customer Service Team
	<input checked="" type="checkbox"/>	Time Off	All requests of this type	Do not auto approve any requests. Deny requests violating	Customer Service Team

The following columns are defined on this page.

- **Apply**—This column controls whether the rule is applied to the current organization. The rules of a parent organization flow down to the child organizations. The rules defined in a parent organization can be optionally applied to a child organization. If a rule defined in a parent is not applied to a child organization then the rule is not used for the child organization. It is legal for a grandchild organization to differ with the child organization. When the checkbox is changed, **Save Applied** must be used to save changes. When applied settings are saved, the child organizations are changed to match the parent's applied state. Only the changes are copied to the children.
- **Request Type**—This column shows the request type, which can be either time off, approved time off withdrawal, shift swap, shift bidding, or shift request and change.
- **Which Request**—This column shows the criteria that are used to determine which requests are affected by the rule.
- **How to Auto-process**—This column shows the criteria used to approve or deny a request.
- **Owner Organization**—This column shows where the rule was created. A rule can be modified only if you have selected its owner organization.

Click **Save Applied** to save the applied checkbox column changes.

Click **Copy Rule** to copy a selected rule to another organization. It is not necessary to copy a rule to a child organization because rules flow down to child organizations naturally. This button is useful when copying a rule to a sibling organization.

Click **Delete Rule** to remove the selected rule. The rule is removed from the selected organization and its child organizations.

Click **Create New Rule** to create a new auto-processing rule for Time Off, Approved Time Off Withdrawal, Shift Swap, Shift Bidding, or Shift Request & Change. This button displays a pop-up window to allow you to select the kind of rule to create.

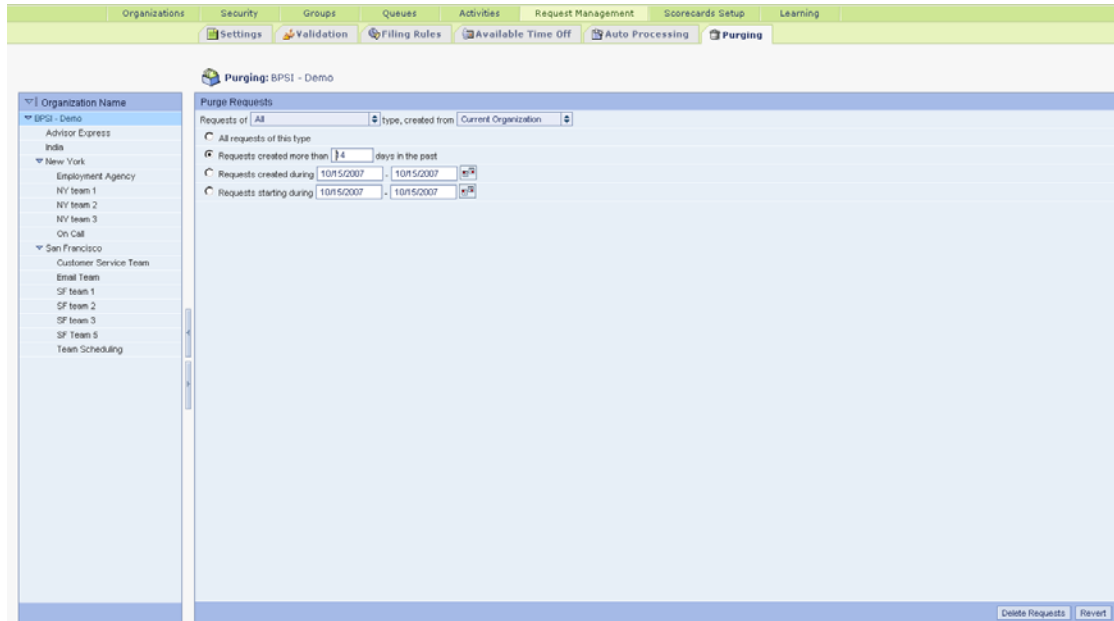


The pop-up window also allows you to specify whether the changes are to be applied to the selected organization (**Apply to this org only**), the organization and its child organizations with no overrides at the child level (**Apply to sub-orgs (no override)**), or the organization and its child organizations with overrides at the child level allowed (**Apply to sub-orgs (allow override)**).

Click **Edit Rule** to modify the selected rule.

Purging

Use the **Purging** tab of the **Request Management** section of the **Organization Management** module to purge (remove) requests from the database.



This page has the following controls:

- **Request Type**—Choose the type of request to be purged.
The purge can be applied to the employees of the current organization or can include the employees at the child organizations.
- **For requests created from**—You can purge requests from the current organization or from an entire organization branch.

You can limit the effects of the purge using one of the following:

- **All requests of this type**—Purge this type of request without considering a date.
- **Requests created more than <number> days in the past**—Select a date boundary based on the requests' creation date for the purge.
- **Requests created during <start_range> - <end_range>**—Select a date range for a purge based on the requests' creation date.
- **Requests starting during <start_range> - <end_range>**—Select a date range for a purge based on the requests' start date.

Click **Delete Requests** to remove the requests.

Click **Revert** to cancel your changes.

Forecasting and Scheduling in the Web Application

Much of the functionality provided in the Forecasting and Scheduling client has been implemented in the web application. This chapter discusses the web-based Forecasting and Scheduling Calendar functions, organized according to the various modules and sections they fall under.

IMPORTANT



For scheduling to be enabled in the web application, Forecasting and Scheduling must have been installed on the same machine as Integration Server and Integration Server must be running. In addition, the following adapter needs to have been added to the selected integration packages:

- WFM - Silent Forecasting and Scheduling

Please check with your system administrator to make sure the above requirements have been satisfied.

Moreover, if you need to remove the WFM - Silent Forecasting and Scheduling adapter from the list of the active adapters and interfaces on Integration Server, make sure you have stopped its operation before removing it.

System Management

The **Media Types** tab in the **General Settings** section of the **System Management** module is used in Forecasting and Scheduling.

Media Types

This tab allows you to set up the time units used with specific media types. Use the drop-down selector to specify whether the media type should use units of seconds, minutes, or hours.

Organization Management



The following tabs in the **Organization Management** module are used in Forecasting and Scheduling.

- **Organizations**
 - **Skills**
- **Work Rules**
 - **Shifts**
 - **Shift Events**
 - **VTO Events**
 - **OT Extensions**
 - **Work Patterns**
 - **Project Rules**
 - **Rotations**
 - **Assignment Rules**

Skills

The use of this tab is discussed in the chapter "Managing Organizations" of the *Workforce Management Administration Guide*.

Organization Shifts

The initial view of this tab has an organization selection pane on the left side of the tab, and a collapsed list of shifts associated with that organization. Use the  button to expand the list for all the shifts, or the  button to expand individual shifts.

In the expanded view, shift events associated with the selected shift are displayed below the shift. You can both edit shifts and assign shift events to them by double-clicking on the appropriate row.

Click **Import** to launch a dialog that enables you to select the data to be imported, specify import options, such as the time interval, and specify file options, such as the delimiter used.

Click **Export** to launch a dialog that enables you to select the data to be exported, specify export options, such as the time interval, and specify file options, such as the delimiter used.

Click **Create** to create a new shift.

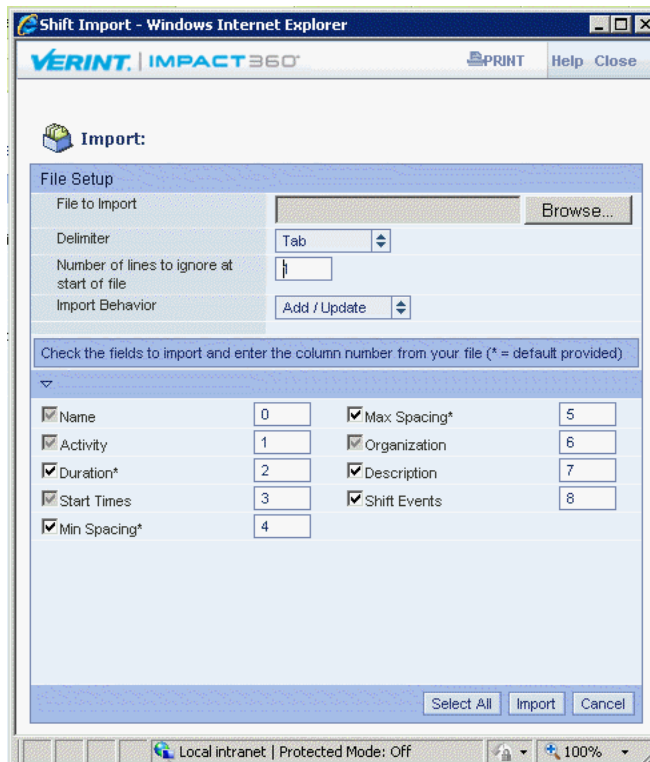
Click **Edit** to edit an existing shift.

Click **Delete** to delete an existing shift.

Click **Copy** to copy an existing shift.

Importing a Shift for an Organization

Use this pop-up window to import a shift.



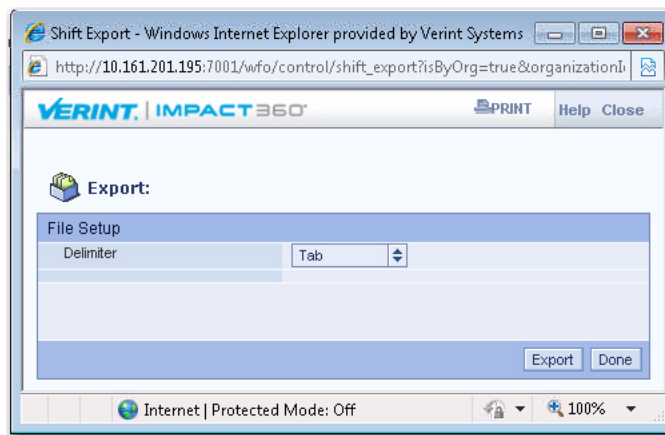
The window consists of two containers:

- The top container allows you to specify the information relevant to the file containing the data you are importing. You can specify or browse for the file to be imported, specify the field delimiter used in the file (**Tab** or **Semicolon**), the number of lines to ignore at the start of the file, and import behavior (how you want the data handled, that is, **Add / Update**, **Update Only**, **Add Only**).
- The lower container allows you to select the fields to be imported and specify the number of the column that contains that field's data.

Buttons at the bottom of the pop-up window allow you to select all the fields to import (**Select All**), import the data as specified (**Import**), or cancel the operation and return to the **Shifts** page (**Cancel**).

Exporting a Shift for an Organization

Use this pop-up window to export a shift.



The pop-up window allows you to select the data delimiter to be used in the export file: **Tab**, or **Semicolon**.

The data is exported to the file **Shifts.txt**; Windows pop-ups allow you to open the file, save the file (and specify its location), or cancel the export operation.

Creating a Shift for an Organization

Use this form to create a shift.

The associated organization name is displayed, but cannot be edited.

The remainder of the form consists of:

- **Name:** Specify a name for the shift.
- **Description:** (Optional). Assign a meaningful description of the shift.
- **Activity:** Select the shift event from the drop-down menu. Values depend on those activities defined in your company.
- **Duration:** Specify the duration of the shift, in 1-minute increments.
- **Start Times:** Use the grid to specify the shift's start times.

The grid enables you to easily mark various blocks of time throughout the day. You can multi-select blocks by clicking and dragging across the grid.

An **X** is drawn in a cell if it has been selected but the current organization's or campaign's hours of operation has defined that time period to be closed on every day during the week (effectively making that selection invalid).

- **Min Spacing:** Specify the minimum spacing between the beginning or end of this activity and other activities.
- **Max Spacing:** Specify the maximum spacing between the beginning or end of this activity and other activities, or check the **Unlimited** box if you do not want to specify a maximum spacing.
- **Shift Events:** Use the **Add** button to add shift events.

Use the **Save** button to save the shift you created.

Use the **Cancel** button to cancel creating this shift and return to the shifts list.

Use the **Revert** button to restore the settings to those previously saved.

Organization Shift Events

This tab has an organization selection pane on the left side of the tab.

The right pane displays the shift events in a tabular format, consisting of the following columns of information:

- name of the shift event
- the activity type of the event. Values depend on those activity types defined for your company.
- the length of the event
- the start time type (**Anytime**, **Absolute**, or **Relative to Shift Start**)
- the window of time at which the event can start
- whether the event is paid
- whether the event is flexible
- the minimum count of this event per shift
- the maximum count of this event per shift
- additional activities associated with the event
- the organization associated with the event
- the description of the event

Click **Import** to launch a dialog that enables you to select the data to be imported, specify import options, such as the time interval, and specify file options, such as the delimiter used.

Click **Export** to launch a dialog that enables you to select the data to be exported, specify export options, such as the time interval, and specify file options, such as the delimiter used.

Click **Create** to create a new shift event.

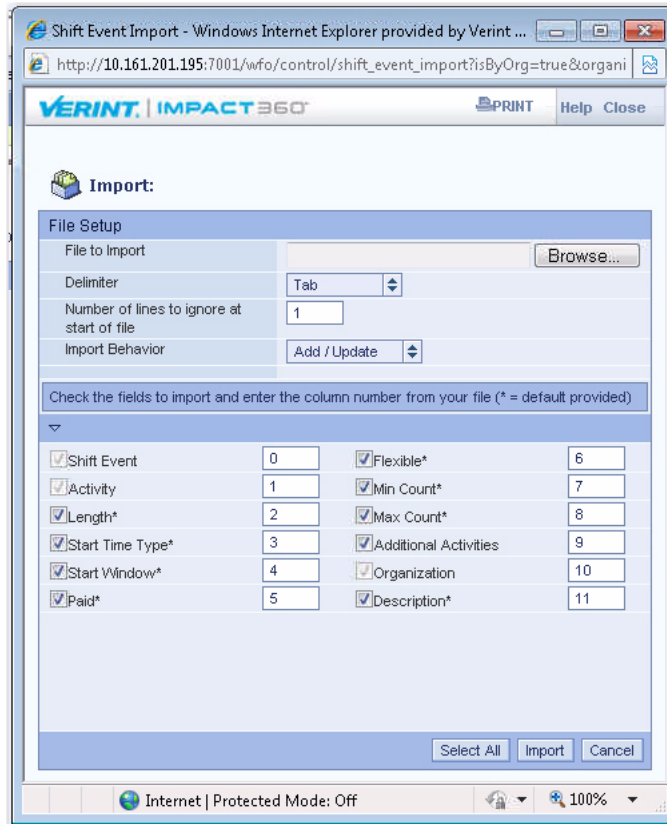
Click **Edit** to edit an existing shift event.

Click **Delete** to delete an existing shift event.

Click **Copy** to copy an existing shift event.

Importing a Shift Event for an Organization

Use this pop-up window to import a shift event.



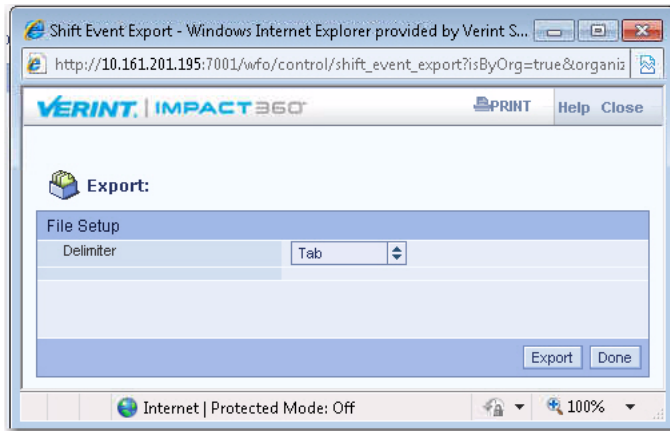
The window consists of two containers:

- The top container allows you to specify the information relevant to the file containing the data you are importing. You can specify or browse for the file to be imported, specify the field delimiter used in the file (**Tab** or **Semicolon**), the number of lines to ignore at the start of the file, and import behavior (how you want the data handled, that is, **Add / Update**, **Update Only**, **Add Only**).
- The lower container allows you to select the fields to be imported and specify the number of the column that contains that field's data.

Buttons at the bottom of the pop-up window allow you to select all the fields to import (**Select All**), import the data as specified (**Import**), or cancel the operation and return to the **Shift Events** page (**Cancel**).

Exporting a Shift Event for an Organization

Use this pop-up window to export a shift event.



The pop-up window allows you to select the data delimiter to be used in the export file: **Tab**, or **Semicolon**.

The data is exported to the file **ShiftEvents.txt**; Windows pop-ups allow you to open the file, save the file (and specify its location), or cancel the export operation.

Creating or Editing a Shift Event

This form allows you to create a shift event.

The associated organization name is displayed, but cannot be edited.

The remainder of the form consists of:

- name of the shift event
- the description of the event
- the activity type of the event
- the length of the event
- whether the event is paid
- whether the event is flexible
- the minimum count of this event per shift
- the maximum count of this event per shift
- the start time type (**Anytime**, **Absolute**, or **Relative to Shift Start**)
- the earliest time at which the event can start
- the latest time at which the event can start
- a container listing any additional activities associated with the event

Use the **Save** button to save the shift event you created or edited.

Use the **Cancel** button to cancel creating this shift event and return to the shift events list.


Use the **Revert** button to restore the settings to those previously saved.

Organization VTO Events

When a contact center finds itself overstaffed or understaffed, one method of compensating for the staffing misalignment is to ask people to take time off voluntarily. Voluntary Time Off (VTO Event) is an activity type. This page displays a list of existing VTO Events for the selected organizations.

The left side of the page lists the organizations.

The right side of the page shows the VTO Events for the selected organizations, and displays the following columns of information:

- **VTO Event:** The name of the VTO Event.
- **Activity:** The underlying shift event. (Click the  button for details on the shift event.)
- **Min Duration:** The minimum duration of the VTO Event.
- **Max Duration:** The maximum duration of the VTO Event.
- **Organization:** The event's owner organization.
- **Description:** An optional description of the event.


Click the  button to change the viewing timezone.

Four additional buttons are located at the bottom of the work pane:

- **Create:** When you click **Create**, the page refreshes to one allowing you to specify the settings for a new VTO Event.
- **Edit:** Clicking **Edit** refreshes the page to one that allows you to change the settings for an existing VTO Event.
- **Delete:** Allows you to delete one or more existing VTO Events.
- **Copy:** Allows you to copy an existing VTO Event.

Creating an Organization VTO Event

1 Fill in the following information:

 The field **Organization** is read-only and reflects the organization that was selected when you clicked **Create**.

- The name of the VTO Event.
- An optional description of the event.
- The underlying shift event, selected from the drop-down menu.

2 Click **Save** to save the VTO Event.


Click **Cancel** to return to the VTO Events main screen without saving any changes.


Click **Revert** to revert any values you have edited but not saved to their original values.

OT Extensions for Organizations

OT extensions represent additional time that can be added to extend the time employees work in case of understaffing. They can be added before or after shift assignments. They have many attributes that are similar to shift assignments including duration, activity, and linked shift events. Additionally, they have attributes called **Min Gap** and **Max Gap** that represent the minimum and maximum allowable time between the shift assignment and the OT extension that is placed before or after the shift assignment.

The **OT Extensions** tab shows those extensions defined for the selected organization. The right-side of the tab shows the following columns of information for each extension:

- **OT Extension:** The name of the OT extension.
- **Activity:** The underlying shift event. (Click the  button for details on the shift event.)
- **Length:** Its length.
- **Min Gap:** The minimum allowable time between the shift assignment and the OT extension.
- **Max Gap:** The maximum allowable time between the shift assignment and the OT extension.
- **Organization:** The extension's owner organization.
- **Description:** An optional description of the extension.


Click the  button to change the viewing timezone.

Four additional buttons are located at the bottom of the work pane:


- **Create:** When you click **Create**, the page refreshes to one allowing you to specify the settings for a new OT extension.
- **Edit:** Clicking **Edit** refreshes the page to one that allows you to change the settings for an existing OT extension.
- **Delete:** Allows you to delete one or more existing OT extensions.
- **Copy:** Allows you to copy an existing OT extension.

Creating or Editing an OT Extension

1 Fill in the following information:

 The field **Organization** is read-only and reflects the organization that was selected when you clicked **Create**.

- The name of the OT extension.
- An optional description of the extension.
- The underlying shift event, selected from the drop-down menu.
- Its duration.
- **Min Gap**: The minimum allowable time between the shift assignment and the OT extension.
- **Max Gap**: The maximum allowable time between the shift assignment and the OT extension.

 Verify that your OT Extension lengths and min/max gaps are valid for the organization's start and end times.

- The shift events associated with the OT extension. The **Add** and **Remove** buttons open a pop-up window allowing you to select those shift events to add or remove from the OT extension.


2 Click **Save** to save the OT extension.

Click **Cancel** to return to the OT Extensions main screen without saving any changes.

Click **Revert** to revert any values you have edited but not saved to their original values.

Adding or Removing Shift Events for OT Extensions

This pop-up window presents in tabular format the shift events available to be associated with the OT extension. For each shift event, the following columns of information are displayed:

- **Name**—A descriptive name for the shift event.
- **Activity**—The activity for the period. (Click the  button for details on the shift event.)
- **Length**—The length of the shift event in hours and minutes. Lengths can be set in 1-minute increments.
- **Start Time Type**—Shift events can start as follows:
 - **Anytime**—A shift event can start at any time during the shift.
 - **Relative to Shift Start**—An activity will start within the specified range of hours after the start of the shift itself.

- **Absolute**—An activity should start between two specific times of the day, for example, between 11:30 a.m. and 12:30 a.m.
- **Start Window**—For the settings **Relative to Shift Start** or **Absolute**, the range of the earliest and latest times for the shift event to begin.
- **Paid**—Whether the shift event is paid or unpaid.
Paid shift events are included in calculating the minimum and maximum hours for which an employee is scheduled. Unpaid shift events are not included in the minimum or maximum hours calculation.
- **Flexible**—Whether the duration of this shift event can vary (particularly useful in queue hopping).

Only paid shift events can be flexible.



- **Min Count**
- **Max Count**
- **Additional Activities**
- **Description**—A description of the shift event (optional).
- **Organization**—Filled in automatically when the shift event is saved.

Organization Work Patterns

The initial view of this tab has an organization selection pane on the left side of the tab, and a collapsed list of work patterns associated with that organization. Use the button to expand the list for all the work patterns, or the button to expand individual work patterns.

If you are licensed for monthly work patterns, an additional column, **Type**, is displayed, which shows the period length of the work period: **Week**, **28 Day Month**, **29 Day Month**, **30 Day Month**, or **31 Day Month**.

In the expanded view, shifts associated with the selected work pattern are displayed below the pattern. Each work pattern is associated to a set of work days, consistency shift events (that is, consistent start times), minimum days, and maximum days.

Click **Import** to launch a dialog that enables you to select the data to be imported, specify import options, such as the time interval, and specify file options, such as the delimiter used.

Click **Export** to launch a dialog that enables you to select the data to be exported, specify export options, such as the time interval, and specify file options, such as the delimiter used.

Click **Create** to create a new work pattern.

Click **Edit** to edit an existing work pattern.

Click **Delete** to delete an existing work pattern.

Click **Copy** to copy an existing work pattern.

Importing a Work Pattern for an Organization

Use this pop-up window to import a work pattern.

Import:

File Setup

File to Import:

Delimiter:

Import Behavior:

Check the fields to import and enter the column number from your file (* = default provided)

Work Patterns

<input checked="" type="checkbox"/> Campaign	<input type="text" value="5"/>	<input checked="" type="checkbox"/> Consistency Tolerance	<input type="text" value="3"/>
<input checked="" type="checkbox"/> Work Pattern	<input type="text" value="1"/>	<input checked="" type="checkbox"/> Employee Type*	<input type="text" value="4"/>
<input checked="" type="checkbox"/> Description	<input type="text" value="2"/>	<input checked="" type="checkbox"/> Work Pattern Type	<input type="text" value="5"/>

Work Days

<input checked="" type="checkbox"/> Work Pattern Name	<input type="text" value="0"/>	<input checked="" type="checkbox"/> Consistent Shift Events	<input type="text" value="3"/>
<input checked="" type="checkbox"/> Name	<input type="text" value="1"/>	<input checked="" type="checkbox"/> Min Consecutive Days	<input type="text" value="4"/>
<input checked="" type="checkbox"/> Work Days	<input type="text" value="2"/>	<input checked="" type="checkbox"/> Max Consecutive Days	<input type="text" value="5"/>

Consistency

<input checked="" type="checkbox"/> Work Pattern Name	<input type="text" value="0"/>	<input checked="" type="checkbox"/> Consistency	<input type="text" value="2"/>
<input checked="" type="checkbox"/> Name	<input type="text" value="1"/>		

VTO Events

<input checked="" type="checkbox"/> Work Pattern Name	<input type="text" value="0"/>	<input checked="" type="checkbox"/> Start Times	<input type="text" value="2"/>
<input checked="" type="checkbox"/> VTO Event	<input type="text" value="1"/>		

OT Extensions

<input checked="" type="checkbox"/> Work Pattern Name	<input type="text" value="0"/>	<input checked="" type="checkbox"/> Start Times	<input type="text" value="2"/>
<input checked="" type="checkbox"/> OT Extension	<input type="text" value="1"/>		

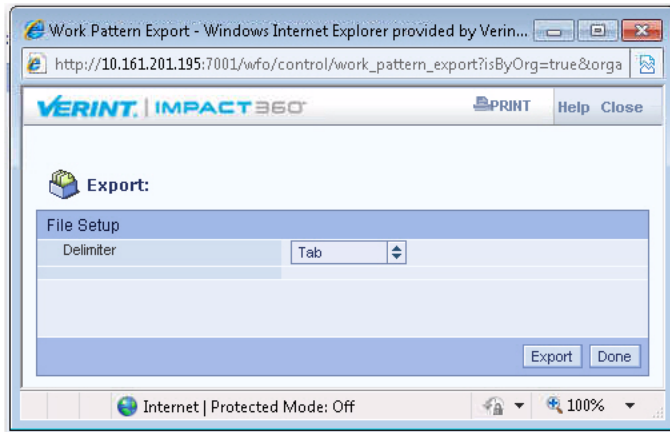
The window consists of two top-level containers:

- The top container allows you to specify the information relevant to the file containing the data you are importing. You can specify or browse for the file to be imported, specify the field delimiter used in the file (**Tab** or **Semicolon**), and import behavior (how you want the data handled, that is, **Add / Update**, **Update Only**, **Add Only**).
- The lower container allows you to select the fields to be imported and specify the number of the column that contains that field's data. Individual containers are provided for:
 - **Work Patterns**
 - **Work Days**
 - **Consistency**
 - **VTO Events**
 - **OT Extensions**

Buttons at the bottom of the pop-up window allow you to select all the fields to import (**Select All**), import the data as specified (**Import**), or cancel the operation and return to the **Work Patterns** page (**Cancel**).

Exporting a Work Pattern for an Organization

Use this pop-up window to export a work pattern.



The pop-up window allows you to select the data delimiter to be used in the export file: **Tab**, or **Semicolon**.

The data is exported to the file **WorkPatterns.txt**; Windows pop-ups allow you to open the file, save the file (and specify its location), or cancel the export operation.

Creating or Editing Organization Work Patterns

This form allows you to create a work pattern.

The associated organization name is displayed, but cannot be edited.

The remainder of the form consists of:

- name of the work pattern
- an optional description of the pattern
- a consistency tolerance selector (you can use the up and down arrows to set the tolerance in hours and in minutes)
- a drop-down selector for the employee type assigned to the work pattern (such as full-time, contractor, supervisor, etc.)
- if you are licensed for monthly work patterns, a drop-down selector for the work pattern type (the setting of this drop-down selector affects the title of the work days/consistency container, described below)

Three containers allow you to specify:

- work days/consistency for a particular shift

Check boxes allow you to select the days of the week in the work pattern, and two other selectors allow you to specify the minimum number of consecutive shifts of

the same type and maximum number of consecutive shifts of the same type, respectively, in the work pattern.

Use the **Add** button to add more shifts to the work pattern.

- VTO events

Use the **Add** button to select the VTO events to add to the work pattern.

- OT Extensions

Use the **Add** button to select the OT extensions to add to the work pattern.

Use the **Save** button to save the work pattern you created or edited.

Use the **Cancel** button to cancel creating this work pattern and return to the work pattern list.

Use the **Revert** button to restore the settings to those previously saved.

Organization Project Rules

The initial view of this tab has an organization selection pane on the left side of the tab, and a list of project rules associated with that organization, or that organization and its parent, if the selected organization is a child organization.

The project rules are shown in a tabular format; the following columns are displayed:

- **Name:** The name of the project rule.
- **Description:** An optional description of the project rule.
- **Activity:** The activity related to the Project media belonging to the selected organization.
- **Length:** The length of the activity.
- **Organization:** The owner organization of the project rule.
- **Daily Max Count:** The maximum number of project work segments per employee in a day. This value is 1 or more, or **Unlimited** (the default).

NOTE For the purposes of calculation, Unlimited is defined as 32,767.



- **Weekly Max Count:** The maximum number of project work segments per employee in a week. This value is 1 or more, or **Unlimited** (the default).
- **Max Simultaneous Employees:** The maximum number of employees who can be assigned to this project. This value is 1 or more, or **Unlimited** (the default).
- **Project Start Times:** The project start times in text format of each day of the work week.

Controls at the bottom of the tabular view allow you to control the number of entries shown on a page; the buttons allow you to **Create**, **Edit**, **Delete**, or **Copy** project rules.

Creating or Editing Organization Project Rules

This form allows you to create a project rule or edit an existing project rule.

The associated organization name is displayed, but cannot be edited.

The remainder of the form consists of:

- name of the project rule
- an optional description of the project rule
- a drop-down selector for the activity associated with the project
- a drop-down selector for the duration of the activity
- settings for **Daily Max Count**, **Weekly Max Count**, and **Max Simultaneous Employees**. You can, respectively, click the **Unlimited** check-box or specify a number.

NOTE For the purposes of calculation, Unlimited is defined as 32,767.



The second container allows you to specify the project rule's possible start times for each day of the work week:

- 1 Click the day of the week to open a grid showing the 15-minute intervals for each hour of the day. The cells shown in white are possible start-times for the project rule. Cells are grayed out to indicate that the project cannot start during that time, whether because of the hours of operation, or based on the duration of the project activity.
- 2 Drag the cursor over the hours and 15-minute intervals you want to specify as possible starting times for the rules. Selected cells are highlighted in blue.

Use the **Save** button to save the project rule you created or edited.

Use the **Cancel** button to cancel creating this project rule and return to the project rule list.

Use the **Revert** button to restore the settings to those previously saved.

Rotations

The initial view of this tab has an organization selection pane on the left side of the tab, and a list of rotations associated with that organization.

Name	Organization	Alignment Date	Weeks	Work Patterns
Four Weeks Rotation	New York	08/01/2011	4	FT 9hr, FT 9hr, FT 9hr, FT 9hr flex training

The list displays the following columns of data:

- 1 the rotation's name
- 2 the rotation's owner organization
- 3 the alignment date of the rotation
- 4 the number of weeks in the rotation
- 5 a list of work patterns in the rotation

You can sort the data in all of the columns except for the list of work patterns in the rotation.

To create a rotation:

- 1 Select the organization for which you want to create the rotation.
- 2 Click **Create**.

To edit a rotation:

- 1 Select the organization that owns the rotation that you want to edit.
- 2 Select the rotation you want to edit.
- 3 Click **Edit**.

Creating or Editing Rotations

To create or edit a rotation:

- 1 In the **Name** field, supply a name for the rotation.

The Organization field shows the name of the organization that was selected when you previously clicked **Create**.

The screenshot shows the 'Rotations' management interface. On the left is a navigation pane with a tree view of organizations. The main area displays the 'Rotations' form with the following fields:

- Name:
- Organization: Employment Agency
- Alignment Date: 10/10/2011
- Work Patterns: A table with columns for Name, Consistency Tolerance, Employee Type, Organization, and Description. The table is currently empty.

At the bottom right of the form are buttons for 'Save', 'Cancel', and 'Revert'.

- 2 Use the date selector to choose the alignment date for the rotation. The alignment date must align to the start of a business week. Also, there must be no more than 26 weeks in the rotation.
- 3 Use the **Add**, **Delete**, **Move Up**, and **Move Down** buttons to select, remove, or reorder the work patterns associated with the rotation.

Adding Work Patterns to Rotations

To add a work pattern to a rotation:

- 1 Select the desired work pattern names from the collapsed list. (You can click the right-arrow button to expand the work pattern to see its details, such as shifts, VTO events, and OT extensions.)

Work Patterns - Windows Internet Explorer

VERINT | IMPACT 360

Work Patterns:

Name	Consistency Tolerance	Employee Type	Organization	Description	Type
FT Shr	0.00	Full-time	.Verint		Week

Shift	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Consistent Shift Events	Min Consecutive Days	Max Consecutive Days
Shr_1hr lunch	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	0	0
Possible Days Off	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	0	0

VTO Event	Activity	Min Duration	Max Duration	Organization	Description	Start Times
Short VTO	Voluntary Time Off	0:00	1:00	.Verint		Start or End
VTO	Voluntary Time Off	2:00	8:00	.Verint		Start or End

OT Extension	Activity	Length	Min Gap	Max Gap	Organization	Description	Start Times
1.5 Hr OT	Answer Calls	1:30	0:00	1:00	.Verint		Before or After
4 Hr OT with Break	Answer Calls	4:00	0:15	1:00	.Verint		Before or After
OT	Answer Calls	2:00	0:15	1:00	.Verint		Before or After

FT 9hr flex training	0.00		Full-time	.Verint	Week
FT 8.5hr	0.00		Full-time	.Verint	Week
FT 8.5hr flex research	0.00		Full-time	.Verint	Week
FT 8.5hr Cal lunch	0.00		Full-time	.Verint	Week
PT Early	0.00		Part-time	.Verint	Week
PT Late	0.00		Part-time	.Verint	Week

Viewing 1 to 10 of 10 | Page 1 | All | Add Selected Work Patterns

- 2 Click **Add Selected Work Patterns** to assign those work patterns to your rotation.

Assignment Rules

The initial view of this tab has an organization selection pane on the left side of the tab, and a list of assignment rules associated with that organization.

Assignment Rule	Organization	Priority	Description
FullTimeRule	.Verint	3	Employee must work at least 40 hours each week starting on Dec 27, 2010 ending on Dec 31, 2078
PartTimeRule	.Verint	3	Employee must work at least 20 hours each week starting on Jan 31, 2011 ending on Dec 31, 2078
Same As Supervisor	.Verint	4	Employees on this team must start at the same time on the same days as their supervisor with a tolerance of 45 minutes
No More Than 4 Evening Shifts A Week	New York	2	Employee must work no more than 4 days Evening (6:00 PM - 12:00 AM) each week starting on Aug 1, 2011 ending on Dec 31, 2078

The list displays the following columns of data:

- 1 the assignment rule's name
- 2 the assignment rule's owner organization
- 3 the priority of the assignment rule
- 4 a description of the assignment rule

You can sort the data in all of the columns except for the description of the assignment rule.

To create an assignment rule:

- 1 Select the organization for which you want to create the assignment rule.
- 2 Click **Create**.

To edit an assignment rule:

- 1 Select the organization that owns the assignment rule that you want to edit.
- 2 Select the assignment rule you want to edit.
- 3 Click **Edit**.

Additional buttons allow you to delete and copy assignment rules.

Creating or Editing Assignment Rules

To create or edit an assignment rule:

- 1 In the **Name** field, supply a name for the assignment rule.

The Organization field shows the name of the organization that was selected when you previously clicked **Create** or **Edit**.

- 2 Use the drop-down menu to assign a priority for the assignment rule.
- 3 Use the radio buttons to select the rule type:
 - **Employee must work**
 - **Employee must have time off**
 - **Employees on this team must**
 - **Employee must start**
- 4 Depending on your choices for the rule type, additional selections can appear, allowing you to specify:
 - the count (for **Employees must work** and **Employees must have time off**)

- team constraint types (for **Employees on this team must**)

Rule Type	<input type="radio"/> Employee must work <input type="radio"/> Employee must have off <input checked="" type="radio"/> Employees on this team must <input type="radio"/> Employee must start
Team Constraint Type	<input type="radio"/> start at the same time <input type="radio"/> start at the same time on the same days <input type="radio"/> start and end at the same time <input type="radio"/> start and end at the same time on the same days <input type="radio"/> start, end, and take breaks at the same time on the same days <input type="radio"/> work shifts that overlap <input type="text" value="0"/> minutes each day <input type="radio"/> work shifts that overlap <input type="text" value="0"/> minutes each working day <input type="radio"/> work shifts that overlap <input type="text" value="0"/> minutes each week

- start unit (for **Employee must start**)

Rule Type	<input type="radio"/> Employee must work <input type="radio"/> Employee must have off <input type="radio"/> Employees on this team must <input checked="" type="radio"/> Employee must start
Start Unit	<input type="radio"/> all shifts <input type="radio"/> any shift and their shift events <input type="radio"/> shift <input type="text" value="4hr early"/> <input type="radio"/> shift <input type="text" value="4hr early"/> and its shift events

Any of the choices for **Employee must start** cause additional containers to be displayed, for the **Start Constraint** and **Period**, respectively.

- 5 Click **Save** to save your changes, **Cancel** to cancel your changes and return to the previous page, or **Revert** to undo any changes you have not saved.

User Management

The following tabs in the **User Management** module are used in Forecasting and Scheduling.

- **Employees**
 - **Profiles**
 - **Skills**
 - **Work Rules**
- **Staffing Profile**
 - **Staffing Profile**

Assigning Employee Skills

Use this tab to assign skills to employees or to edit the skill assignments already made.

- 1 Select the employee(s) whose skills you want to assign or edit in the selection pane on the left side of the tab.

In cases where you have selected multiple employees, an asterisk is displayed in fields if differing values have been assigned to that field for one or more of the selected employees. An asterisk is also displayed in Start Date of a skill if that same value is not used for all of the selected employees.

- 2 Assign a proficiency level for each skill. This level is used in creating your skill-based schedule. An employee with 1.0 has an average activity handle time, an employee with 2.0 takes twice as long, and an employee with 0.5 takes half as long to handle

calls. This setting overrides any proficiency you set up in the employee grid. See page [130](#).

- 3 For chat skills, specify the number of chat sessions.
- 4 The **Assigned** container lists the skills, and their start and end dates. In addition, you can specify a proficiency, the skill priority (lower numbers mean that the skill has a higher priority for that employee—the skill listed as **1** is considered to be the employee's primary skill; priority **2** is the secondary skill, and so forth), and the skill classification (**Primary Skill**, **Reserve 1**, or **Reserve 2**). You can also select a skill assignment and click one of the two buttons at the bottom of the container, to **Add** a skill assignment, or **Remove** a skill assignment.
- 5 Click **Save** to save the skill assignments, or **Revert** to cancel your changes without saving the skill assignments.

Alternatively, you can click the Pencil icon to the right of an assigned skill to edit that skill's properties.

Work Rules

This page consists of two panes: an employee selection pane and a workpane.

The employees are listed alphabetically in the pane on the left, according to the filter selected in the **View** drop-down menu above the employee list.

You can use the **Find** function to look for a specific employee.

In addition, buttons at the bottom of the selection pane allow you to select all the employees in the organization (**Select All**), clear the selection (**Select None**), and display the work rules for the selected employees (**View**). You can also use the **Ctrl** key to select multiple, non-contiguous employees, or the **Shift** key to select multiple, contiguous employees.

The workpane is located on the right. At the top of the workpane is a date selector, preceded by **Zoom In** and **Zoom Out** buttons. The body of the workpane consists of a number of containers:

- **Hours**

Use this container to specify the following hours-related information for the employee(s):

- **Minimum Paid Hours**
- **Maximum Paid Hours**
- **Maximum OT Per Day**
- **Maximum OT Per Week**
- **Maximum VTO Per Day**
- **Maximum VTO Per Week**
- **Start Date**
- **End Date**

Use the up- and down-arrows to increment the hours, and the date selectors to set the start and end dates.

- **Pooling Rules**

This container allows you to specify the pooling rules applicable to the selected employee(s). Enable the **Employee Can Pool** checkbox if the employee is a pooler, if this check box is checked, set the employee's minimum hours in the primary campaign (**Min Paid Hours in Primary**) and one or more organizations in which the employee can pool (**Secondary Organizations**). The container also display allows you to specify the effectivity of the pooling using the **Start Date** and **End Date** selectors.

- **Work Patterns**

This container displays those work patterns already assigned to the selected employee(s). Click **Add** to open a pop-up window allowing you to select additional work patterns, or select an existing, assigned work pattern and click **Remove** to remove the work pattern from those assigned to the employee.

For each work rule displayed, selectors for the Start Date and End Date allow you to determine the effectivity of the work pattern, and a Preferences selector allows you to set the preference for that work pattern.

In cases where you have selected multiple employees, an asterisk is displayed to the left of a work pattern if that pattern is not assigned to all of the selected employees. An asterisk is also displayed as the value for a preference if that same value is not used for all of the selected employees.

If you are licensed for monthly work rules, and a monthly work pattern has been assigned to an employee, the length of the work pattern is shown in parentheses after the work pattern name.

- **Assignment Rules**

This container displays those assignment rules already assigned to the selected employee(s). Click **Add** to open a pop-up window allowing you to select additional assignment rules, or select an existing, assigned assignment rule and click **Remove** to remove the assignment rule from those assigned to the employee.

In cases where you have selected multiple employees, an asterisk is displayed to the left of an assignment rule if that rule is not assigned to all of the selected employees.

- **Rotations**

This container allows you to assign rotations, used to assign a specific repeating sequence of work patterns. If, for example, you want a group of employees to work an early morning pattern for a week, then work an evening pattern for a week, next work a late morning pattern for a week, and then start the sequence over, you can accomplish this with a rotation rule. Click **Add** to open a pop-up window allowing you to select additional rotations, or select an existing, assigned rotation and click **Remove** to remove the rotation from those assigned to the employee.

- **Time Banks**

This container shows you any time banks assigned to the selected employee. An employee cannot belong to more than one time bank on any date. Click **Add** to open a pop-up window allowing you to select additional time banks, or select an existing, assigned time bank and click **Remove** to remove the time bank from those

assigned to the employee. If the new time bank overlaps any of the employee's current time banks, you are prompted if you wish to continue, which will result in the existing time bank assignment being deleted.

The time bank selection consists of all time banks eligible based on the current date into the future for the selected employee(s).

Once you have set up the work rule, click **Save** to save your work rules, or **Revert** to cancel your changes without saving the work rule.

Employee Summary

Expanding the left side of the page displays a list of the employees in the campaign. The tabular format shows for each employee:

- the employee's full name, using the format **lastname, firstname**
- the employee's first name
- the employee's last name
- the employee's middle initial
- suffix (such as Sr. or Jr.)
- the employee's birth date
- the employee's start date
- the employee's end date
- whether the employee is a supervisor
- whether the employee is a team lead
- employee ID
- the employee's tax ID (such as the social security number)
- the employee's wage amount
- the employee's rank
- the name of the organization to which the employee belongs
- the name of the employee's supervisor
- the name of the employee's team lead
- the employee's job title

Staffing Profiles for Organizations

This page lists organizations on the left, and staffing profiles on the right.

For each staffing profile, the following columns of information are displayed:

- **Profile Name**—A descriptive name for the profile.
- **Work Pattern**—When Forecasting and Scheduling creates a schedule using this profile, the shifts and times are selected using this work pattern.
- **Organization**—The organization associated with the staffing profile.
- **Wage**—The average wage for the profile.
- **Proficiency**—The required proficiency level for the profile. 1.0 is average proficiency.

Forecasting and Scheduling uses this number when scheduling profiles. A profile with 1.0 has an average activity handle time, a profile with 2.0 takes twice as long, and a profile with 0.5 takes half as long to handle calls.

- **Chat Sessions**—The number of simultaneous chat sessions for the profile.
- **Assignment Rules**—The assignment rules associated with the staffing profile.
- **Skills**—The skills associated with the staffing profile.

Four buttons at the bottom of the work pane allow you to **Create**, **Edit**, **Delete**, and **Copy** staffing profiles.

Creating Staffing Profiles for Organizations

This window allows you to create staffing profiles by supplying the following information:

- **Name**—A descriptive name for the profile.
- **Work Pattern**—Use the drop-down selector to choose the work pattern for the staffing profile. When Forecasting and Scheduling creates a schedule using this profile, the shifts and times are selected using this work pattern.
- **Wage**—The average wage for the profile.
- **Organization**—Use the drop-down selector to choose the organization associated with the staffing profile.
- **Proficiency**—Specify the required proficiency level for the profile. 1.0 is average proficiency.

Forecasting and Scheduling uses this number when scheduling profiles. A profile with 1.0 has an average activity handle time, a profile with 2.0 takes twice as long, and a profile with 0.5 takes half as long to handle calls.

- **Chat Sessions**—Specify the number of simultaneous chat sessions for the profile.
- **Assignment Rules**—Click the **Add** button to open a pop-up window that allows you to select one or more assignment rules to be associated with the staffing profile. Click **Add Selected Assignment Rules** to save your changes and return to the staffing profiles creation window, or **Cancel** to return to the staffing profiles creation window without saving your changes.
- **Skills**—Click the **Add** button to open a pop-up window that allows you to select one or more skills to be associated with the staffing profile. Click **Add Selected Skills** to save your changes and return to the staffing profiles creation window, or **Cancel** to return to the staffing profiles creating window without saving your changes.

Click **Save** to save any values you have edited.

Click **Cancel** to cancel any changes you have made.

Click **Revert** to revert any values you have edited but not saved to their original values.

Forecasting and Scheduling

The sections and tabs in the Forecasting and Scheduling module are shown in the following graphic:

Campaigns	Staffing Profiles
Settings	Staffing Profiles
Queues	
Work Rules	Tactical Forecasts
Shifts	Forecasts
Shift Events	Shrinkage
VTO Events	Instances
OT Extensions	Distributed Allocation
Work Patterns	
Project Rules	Goals
	Service Goals
	FTE Requirements
Employees	Calendar
Profiles	Calendar
Skills	Allocation Tool
Work Rules	

Campaigns

Settings

This tab displays campaigns and their scheduling periods.

The left pane consists of a campaign/scheduling period selector.




The right pane consists of two containers:

- **General Settings**

This container displays:

- an optional description of the campaign
- the campaign's timezone
- the week's start day
- the day boundary time
- the organization(s) associated with the campaign, along with an organization selector

- a checkbox allowing you to specify the campaign as skill-based
- **Hours of Operation**
This container consists of a set of checkboxes and time selectors, allowing you to specify those days and the time range on those days for which employees need to be scheduled.

Above the right pane's containers is another schedule period selector, with zoom buttons ( and ) and a toggle () between the campaign and the user-preferred time zone. The zoom buttons are particularly useful for multi-editing, allowing you to zoom out to show the complete scheduling period.

A set of buttons is available at the bottom right:

- Use the **Create Campaign** button to create a new campaign.
- Use the **Create Scheduling Period** button to create a new scheduling period for the selected campaign.
- Use the **Save** button to save the campaign you created or edited.
- Use the **Delete** button to delete the selected campaign/scheduling period.
- Use the **Revert** button to restore the settings to those previously saved.

Campaign Scheduling Period Summary

Expanding the left side of the Campaign Settings page displays a list of the existing campaigns. The campaigns can be expanded to show the associated scheduling periods.

Creating or Editing a Campaign

This page allows you to create or edit a campaign by filling out the following fields:

- **Name:** The name of the campaign.
- **Description:** (Optional) A description of the campaign.
- **Time Zone:** Use the drop-down list to select the campaign's time zone.
- **Week Start Day:** Use the drop-down list to select the start day of the campaign.
- **Day Boundary:** Use the time selector to specify the time at which one day is considered to end and the next to begin.
- **Distributed Campaign:** Use this checkbox to specify whether a campaign is a distributed campaign.

Click **Save** to save the campaign.

Click **Cancel** to leave this page without saving your changes, and return to the **Settings** tab.

Creating Scheduling Periods

This page allows you create a scheduling period for the selected campaign.

You can then choose:

- The number of weeks in the period
- the start date of the period
- one of several initialization options:

- Create as empty
- Copy data from previous week(s). This choice is enabled only if the previous consecutive weeks form a scheduling period for this campaign that is the same length as the currently selected date range.
- Copy data from select period. (Use the period selector to choose the period.) This choice is enabled only if a scheduling period of the same length as the currently selected date range exists for this campaign.
- Customize week selection. (Click the pencil icon to make your week selection.) This choice is enabled only if there is at least one other SP for this campaign.

You can choose scheduling period weeks for each week of the scheduling period. Between one and six weeks are displayed. All weeks default to the first week defined previous to this one.

When you are copying data from a previous period, the checkbox **Copy employee Min/Max hours, skill, and work pattern assignments** becomes enabled, allowing you to copy this information to the new period.

Queues

This tab allows you to add or remove a queue from a scheduling period.

The left pane of the tab consists of a queue selector.

The right pane shows the following information in a tabular format:

- the queue name
 - a description (optional) of the queue
 - the owner organization
 - the media type
 - the type of queue
 - if the campaign is skill-based, a drop-down selector allows you to choose the skill
- The drop down selector only shows those skills owned by the organizations selected or their ancestors. There is a one-to-one relationship between work queues and skills. The same skill can be assigned to more than one queue.

If Net Staffing is being displayed, you will see columns for:

- Net Staffing Least Time Interval (used to specify the minimum period that should be used for over/under calculations)
- Net Staffing Threshold Over (count of acceptable OVER tolerance for each skilled queue)
- Net Staffing Threshold Under (count of acceptable UNDER tolerance for each skilled queue)



NOTE



If the selected queue is part of a distributed campaign, this tab is read-only, and the buttons **Add to SP** and **Remove from SP** are disabled.

Work Rules

Shifts

The initial view of this tab has a campaign selection pane on the left side of the tab, and a collapsed list of shifts associated with that campaign. Use the  button to expand the list for all the shifts, or the  button to expand individual shifts.

In the expanded view, shift events associated with the selected shift are displayed below the shift. You can edit shifts and add or remove assigned shift events by double-clicking on the appropriate row.

Click **Import** to launch a dialog that enables you to select the data to be imported, specify import options, such as the time interval, and specify file options, such as the delimiter used.

Click **Export** to launch a dialog that enables you to select the data to be exported, specify export options, such as the time interval, and specify file options, such as the delimiter used.

Click **Create** to create a new shift.

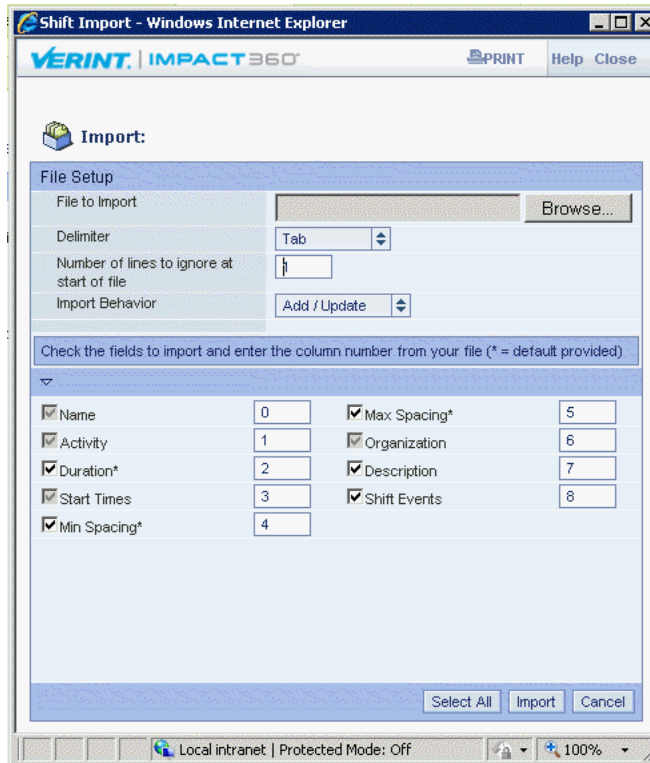
Click **Edit** to edit an existing shift.

Click **Delete** to delete an existing shift.

Click **Copy** to copy an existing shift.

Importing a Shift for a Campaign

Use this pop-up window to import a shift.



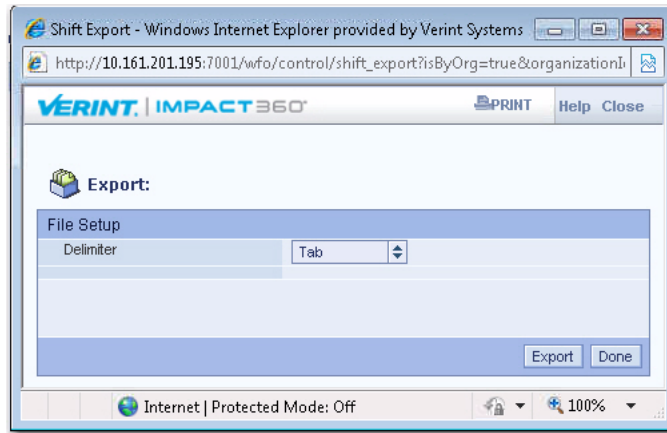
The window consists of two containers:

- The top container allows you to specify the information relevant to the file containing the data you are importing. You can specify or browse for the file to be imported, specify the field delimiter used in the file (**Tab** or **Semicolon**), the number of lines to ignore at the start of the file, and import behavior (how you want the data handled, that is, **Add / Update**, **Update Only**, **Add Only**).
- The lower container allows you to select the fields to be imported and specify the number of the column that contains that field's data.

Buttons at the bottom of the pop-up window allow you to select all the fields to import (**Select All**), import the data as specified (**Import**), or cancel the operation and return to the **Shifts** page (**Cancel**).

Exporting a Shift for a Campaign

Use this pop-up window to export a shift.



The pop-up window allows you to select the data delimiter to be used in the export file: **Tab**, or **Semicolon**.

The data is exported to the file **Shifts.txt**; Windows pop-ups allow you to open the file, save the file (and specify its location), or cancel the export operation.

Creating a Shift for a Campaign

Use this form to create a shift.

The associated campaign name is displayed, but cannot be edited.

The remainder of the form consists of:

- **Name:** Specify a name for the shift.
- **Description:** (Optional). Assign a meaningful description of the shift.
- **Activity:** Select the activity from the drop-down menu. Values depend on those activities defined in your company:
- **Duration:** Specify the duration of the shift, in 15-minute increments.
- **Start Times:** Use the grid to specify the activity's start times.

The grid enables you to easily mark various blocks of time throughout the day. You can multi-select blocks by clicking and dragging across the grid.

An **X** is drawn in a cell if it has been selected but the current organization's or campaign's hours of operation has defined that time period to be closed on every day during the week (effectively making that selection invalid).

- **Min Spacing:** Specify the minimum spacing between this activity and other activities.
- **Max Spacing:** Specify the maximum spacing between this activity and other activities, or check the **Unlimited** box if you do not want to specify a maximum spacing.
- **Shift Events:** Use the **Add** button to add shift events.

Use the **Save** button to save the shift you created.

Use the **Cancel** button to cancel creating this shift and return to the shifts list.

Use the **Revert** button to restore the settings to those previously saved.

Shift Events

This tab has a campaign selection pane on the left side of the tab.

The right pane displays the shift events in a tabular format, consisting of the following columns of information:

- name of the shift event
- the activity type of the event. Values depend on those activity types defined in your company.
- the length of the event
- the start time type (**Anytime**, **Absolute**, or **Relative to Shift Start**)
- the window of time at which the event can start
- whether the event is paid
- whether the event is flexible
- the minimum count of this event per shift
- the maximum count of this event per shift
- additional activities associated with the event
- the organization associated with the event
- the description of the event

Click **Import** to launch a dialog that enables you to select the data to be imported, specify import options, such as the time interval, and specify file options, such as the delimiter used.

Click **Export** to launch a dialog that enables you to select the data to be exported, specify export options, such as the time interval, and specify file options, such as the delimiter used.

Click **Create** to create a new shift event.

Click **Edit** to edit an existing shift event.

Click **Delete** to delete an existing shift event.

Click **Copy** to copy an existing shift event.

Importing a Shift Event for a Campaign

Use this pop-up window to import a shift event.

Import:

File Setup

File to Import

Delimiter

Number of lines to ignore at start of file

Import Behavior

Check the fields to import and enter the column number from your file (* = default provided)

<input checked="" type="checkbox"/> Shift Event	<input type="text" value="0"/>	<input checked="" type="checkbox"/> Flexible*	<input type="text" value="6"/>
<input checked="" type="checkbox"/> Activity	<input type="text" value="1"/>	<input checked="" type="checkbox"/> Min Count*	<input type="text" value="7"/>
<input checked="" type="checkbox"/> Length*	<input type="text" value="2"/>	<input checked="" type="checkbox"/> Max Count*	<input type="text" value="8"/>
<input checked="" type="checkbox"/> Start Time Type*	<input type="text" value="3"/>	<input checked="" type="checkbox"/> Additional Activities	<input type="text" value="9"/>
<input checked="" type="checkbox"/> Start Window*	<input type="text" value="4"/>	<input checked="" type="checkbox"/> Organization	<input type="text" value="10"/>
<input checked="" type="checkbox"/> Paid*	<input type="text" value="5"/>	<input checked="" type="checkbox"/> Description*	<input type="text" value="11"/>

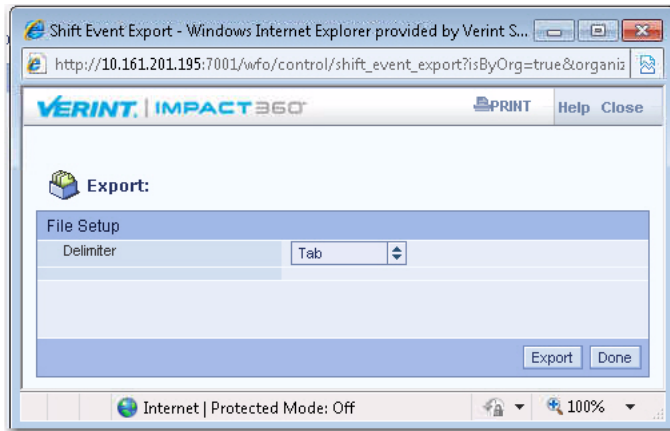
The window consists of two containers:

- The top container allows you to specify the information relevant to the file containing the data you are importing. You can specify or browse for the file to be imported, specify the field delimiter used in the file (**Tab** or **Semicolon**), the number of lines to ignore at the start of the file, and import behavior (how you want the data handled, that is, **Add / Update**, **Update Only**, **Add Only**).
- The lower container allows you to select the fields to be imported and specify the number of the column that contains that field's data.

Buttons at the bottom of the pop-up window allow you to select all the fields to import (**Select All**), import the data as specified (**Import**), or cancel the operation and return to the **Shift Events** page (**Cancel**).

Exporting a Shift Event for a Campaign

Use this pop-up window to export a shift event.



The pop-up window allows you to select the data delimiter to be used in the export file: **Tab**, or **Semicolon**.

The data is exported to the file **ShiftEvents.txt**; Windows pop-ups allow you to open the file, save the file (and specify its location), or cancel the export operation.

Creating or Editing a Shift Event

This form allows you to create a shift event.

The associated campaign name is displayed, but cannot be edited.

The remainder of the form consists of:

- name of the shift event
- the description of the event
- the activity of the event
- the length of the event
- whether the event is paid
- whether the event is flexible
- the minimum count of this event per shift
- the maximum count of this event per shift
- the start time type (**Anytime**, **Absolute**, or **Relative to Shift Start**)
- the earliest time at which the event can start
- the latest time at which the event can start
- a container listing any additional activities associated with the event

Use the **Save** button to save the shift event you created.

Use the **Cancel** button to cancel creating this shift event and return to the shift events list.

Use the **Revert** button to restore the settings to those previously saved.


VTO Events

When a contact center finds itself overstaffed or understaffed, one method of compensating for the staffing misalignment is to ask people to take time off voluntarily. Voluntary Time Off (VTO Event) is an activity. This page displays a list of existing VTO Events for the selected campaigns.

The left side of the page lists the campaigns.

The right side of the page shows the VTO Events for the selected campaigns, and displays the following columns of information:

- **VTO Event:** The name of the VTO Event.
- **Organization:** The event's owner organization.
- **Description:** An optional description of the extension.


Click the  button to change the viewing timezone.

Four additional buttons are located at the bottom of the work pane:

- **Create:** When you click **Create**, the page refreshes to one allowing you to specify the settings for a new VTO Event.
- **Edit:** Clicking **Edit** refreshes the page to one that allows you to change the settings for an existing VTO Event.
- **Delete:** Allows you to delete one or more existing VTO Events.
- **Copy:** Allows you to copy an existing VTO Event.

Creating a Campaign VTO Event

1 Fill in the following information:

 The field **Campaign** is read-only and reflects the campaign that was selected when you clicked **Create**.

- The name of the VTO Event.
- An optional description of the event.

2 Click **Save** to save the VTO Event.

Click **Cancel** to return to the VTO Events main screen without saving any changes.


Click **Revert** to revert any values you have edited but not saved to their original values.

OT Extensions

OT extensions represent additional time that can be added to extend the time employees work in case of understaffing. They can be added before or after shift assignments. They have many attributes that are similar to shift assignments including duration, activity, and linked shift events. Additionally, they have attributes called **Min Gap** and **Max Gap** that represent the minimum and maximum allowable time between the shift assignment and the OT extension that is placed before or after the shift assignment.

The **OT Extensions** tab shows those extensions defined for the selected campaign. The right-side of the tab shows the following columns of information for each extension:

- **OT Extension:** The name of the OT extension.
- **Length:** Its length.
- **Min Gap:** The minimum allowable time between the shift assignment and the OT extension.
- **Max Gap:** The maximum allowable time between the shift assignment and the OT extension.
- **Organization:** The extension's owner organization.
- **Description:** An optional description of the extension.


Click the  button to change the viewing timezone.

Four additional buttons are located at the bottom of the work pane:


- **Create:** When you click **Create**, the page refreshes to one allowing you to specify the settings for a new OT extension.
- **Edit:** Clicking **Edit** refreshes the page to one that allows you to change the settings for an existing OT extension.
- **Delete:** Allows you to delete one or more existing OT extensions.
- **Copy:** Allows you to copy an existing OT extension.

Creating or Editing a Campaign OT Extension

1 Fill in the following information:

 The field **Campaign** is read-only and reflects the campaign that was selected when you clicked **Create**.

- The name of the OT extension.
- An optional description of the extension.
- The underlying shift event, selected from the drop-down menu.
- Its duration.
- **Min Gap:** The minimum allowable time between the shift assignment and the OT extension.
- **Max Gap:** The maximum allowable time between the shift assignment and the OT extension.



 Verify that your OT Extension lengths and min/max gaps are valid for the organization's start and end times.

- The shift events associated with the OT extension. The **Add** and **Remove** buttons open a pop-up window allowing you to select those shift events to add or remove from the OT extension.

2 Click **Save** to save the OT extension.

Click **Cancel** to return to the OT Extensions main screen without saving any changes.
Click **Revert** to revert any values you have edited but not saved to their original values.

Work Patterns

The initial view of this tab has a campaign selection pane on the left side of the tab, and a collapsed list of work patterns associated with that campaign. Use the  button to expand the list for all the work patterns, or the  button to expand individual work patterns.

If you are licensed for monthly work patterns, an additional column, **Type**, is displayed, which shows the period length of the work period: **Week, 28 Day Month, 29 Day Month, 30 Day Month, or 31 Day Month**.

In the expanded view, shifts associated with the selected work pattern are displayed below the pattern. Each work pattern is associated to a set of work days, consistency shift events (that is, consistent start times), minimum consecutive days, and maximum consecutive days.

Click **Import** to launch a dialog that enables you to select the data to be imported, specify import options, such as the time interval, and specify file options, such as the delimiter used.

Click **Export** to launch a dialog that enables you to select the data to be exported, specify export options, such as the time interval, and specify file options, such as the delimiter used.

Click **Create** to create a new work pattern.

Click **Edit** to edit an existing work pattern.

Click **Delete** to delete an existing work pattern.

Click **Copy** to copy an existing work pattern.

Importing a Work Pattern for a Campaign

Use this pop-up window to import a work pattern.

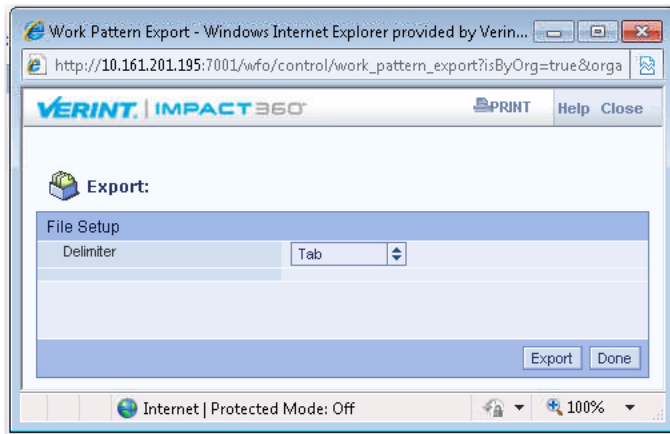
The window consists of two top-level containers:

- The top container allows you to specify the information relevant to the file containing the data you are importing. You can specify or browse for the file to be imported, specify the field delimiter used in the file (**Tab** or **Semicolon**), and import behavior (how you want the data handled, that is, **Add / Update**, **Update Only**, **Add Only**).
- The lower container allows you to select fields to be imported and specify the number of the column that contains that field's data. (Mandatory fields are grayed out and cannot be selected or deselected.) Individual containers are provided for:
 - **Work Patterns**
 - **Work Days**
 - **Consistency**
 - **VTO Events**
 - **OT Extensions**

Buttons at the bottom of the pop-up window allow you to select all the fields to import (**Select All**), import the data as specified (**Import**), or cancel the operation and return to the **Work Patterns** page (**Cancel**).

Exporting a Work Pattern for a Campaign

Use this pop-up window to export a work pattern.



The pop-up window allows you to select the data delimiter to be used in the export file: **Tab**, or **Semicolon**.

The data is exported to the file **WorkPatterns.txt**; Windows pop-ups allow you to open the file, save the file (and specify its location), or cancel the export operation.

Campaign Project Rules

The initial view of this tab has a campaign selection pane on the left side of the tab, and a list of project rules associated with that campaign.

The project rules are shown in a tabular format; the following columns are displayed:

- **Name:** The name of the project rule.
- **Description:** An optional description of the project rule.
- **Activity:** The activity related to the Project media belonging to the selected organization.
- **Length:** The length of the activity.
- **Organization:** The owner organization of the project rule.
- **Daily Max Count:** The maximum number of project work segments per employee in a day. This value is 1 or more, or **Unlimited** (the default).

NOTE For the purposes of calculation, Unlimited is defined as 32,767.



- **Weekly Max Count:** The maximum number of project work segments per employee in a week. This value is 1 or more, or **Unlimited** (the default).
- **Max Simultaneous Employees:** The maximum number of employees who can be assigned to this project. This value is 1 or more, or **Unlimited** (the default).
- **Project Start Times:** The project start times in text format of each day of the work week.

Controls at the bottom of the tabular view allow you to control the number of entries shown on a page; the buttons allow you to **Create**, **Edit**, **Delete**, or **Copy** project rules.

Creating or Editing Campaign Project Rules

This form allows you to create a project rule or edit an existing rule.

The associated campaign name is displayed, but cannot be edited.

The remainder of the form consists of:

- name of the project rule
- an optional description of the project rule
- a drop-down selector for the activity associated with the project
- a drop-down selector for the duration of the activity
- settings for **Daily Max Count**, **Weekly Max Count**, and **Max Simultaneous Employees**. You can, respectively, click the **Unlimited** check-box or specify a number.

NOTE For the purposes of calculation, Unlimited is defined as 32,767.



The second container allows you to specify the project rule's possible start times for each day of the work week:

- 1 Click the day of the week to open a grid showing the 15-minute intervals for each hour of the day. The cells shown in white are possible start-times for the project rule. Cells are grayed out to indicate that the project cannot start during that time, whether because of the hours of operation, or based on the duration of the project activity.
- 2 Drag the cursor over the hours and 15-minute intervals you want to specify as possible starting times for the rules. Selected cells are highlighted in blue.

Use the **Save** button to save the project rule you created or edited.

Use the **Cancel** button to cancel creating this project rule and return to the project rule list.

Use the **Revert** button to restore the settings to those previously saved.

Employees

Profiles

Information on employee profiles can be found in a separate guide, the *Enterprise Suite User Management Guide*.

Skills

Use this tab to assign skills to employees in a campaign or to edit the skill assignments already made.

- 1 Select the employee(s) whose skills you want to assign or edit in the selection pane on the left side of the tab. The employees displayed depend on what you have selected for a campaign, period, and whatever filter is in effect.

In cases where you have selected multiple employees, an asterisk is displayed in fields if differing values have been assigned to that field for one or more of the selected employees. An asterisk is also displayed in Start Date of a skill if that same value is not used for all of the selected employees.

- 2 Assign a proficiency level for each skill. This level is used in creating your skill-based schedule. An employee with 1.0 has an average handle time, an employee with 2.0 takes twice as long, and an employee with 0.5 takes half as long to handle calls. This setting overrides any proficiency you set up in the employee grid. See page [130](#).
- 3 For chat skills, specify the number of chat sessions.
- 4 The **Skills Assignment** container lists the skills, and their start and end dates. In addition, you can specify a proficiency, the skill priority (lower numbers mean that the skill has a higher priority for that employee—the skill listed as **1** is considered to be the employee's primary skill; priority **2** is the secondary skill, and so forth), and the skill classification (**Primary Skill**, **Reserve 1**, or **Reserve 2**). You can also select a skill assignment and click one of the two buttons at the bottom of the container, to **Add** a skill assignment, or **Remove** a skill assignment.
- 5 Click **Save** to save the skill assignments, or **Revert** to cancel your changes without saving the skill assignments.

Work Rules

This page consists of two panes: an employee selection pane and a workpane.

The employees are listed alphabetically in the pane on the left. Above the employee list are three drop-down selector:

- **Campaign**, used to select the campaign whose work rules you want to view or assign
- **Period**, used to select the particular campaign period whose rules you want to view or assign
- **View**, used to filter the employees being displayed
- **Find**, used to look for a specific employee

In addition, buttons at the bottom of the selection pane allow you to select all the displayed employees in the campaign (**Select All**), clear the selection (**Select None**), and display the work rules for the selected employees (**View**). You can also use the **Ctrl** key to select multiple, non-contiguous employees, or the **Shift** key to select multiple, contiguous employees.

The workpane is located on the right. At the top of the workpane is a date selector, preceded by **Zoom In** and **Zoom Out** buttons. The body of the workpane consists of several containers:

- **Hours**

Use this container to specify the following hours-related information for the employee(s):

- **Minimum Paid Hours**
- **Maximum Paid Hours**
- **Maximum OT Per Day**
- **Maximum OT Per Week**
- **Maximum VTO Per Day**
- **Maximum VTO Per Week**
- **Start Date**
- **End Date**

Use the up- and down-arrows to increment the hours, and the date selectors to set the start and end dates.

- **Work Patterns**

This container displays those work patterns already assigned to the selected employee(s). Click **Add** to open a pop-up window allowing you to select additional work patterns, or select an existing, assigned work pattern and click **Remove** to remove the work pattern from those assigned to the employee.

For each work rule displayed, selectors for the Start Date and End Date allow you to determine the effectivity of the work pattern, and a Preferences selector allows you to set the preference for that work pattern.

In cases where you have selected multiple employees, an asterisk is displayed to the left of a work pattern if that pattern is not assigned to all of the selected employees. An asterisk is also displayed as the value for a preference if that same value is not used for all of the selected employees.

Once you have set up the work rule, click **Save** to save your work rules, or **Revert** to cancel your changes without saving the work rule.

Staffing Profiles

This page lists campaigns on the left, and staffing profiles on the right.

For each staffing profile, the following columns of information are displayed:

- **Profile Name**—A descriptive name for the profile.
- **Work Pattern**—When Forecasting and Scheduling creates a schedule using this profile, the shifts and times are selected using this work pattern.
- **Organization**—The organization associated with the staffing profile.
- **Wage**—The average wage for the profile.
- **Proficiency**—The required proficiency level for the profile. 1.0 is average proficiency.

Forecasting and Scheduling uses this number when scheduling employees. An employee with 1.0 has an average handle time, an employee with 2.0 takes twice as long, and an employee with 0.5 takes half as long to handle calls.

- **Chat Sessions**—The number of simultaneous chat sessions for the profile.
- **Assignment Rules**—The assignment rules associated with the profile.
- **Skills**—The skills associated with the staffing profile.
- **Min. Ratio**—This field is editable, and specifies for the scheduling engine the minimum percentage this profile will take in total profiles. Legitimate values are between 0-100, and no larger than the value specified in **Max. Ratio**.
- **Max. Ratio**—This field is editable, and specifies for the scheduling engine the maximum percentage this profile will take in total profiles. Legitimate values are between 0-100.
- **Min. No.**—This field is editable, and specifies for the scheduling engine the minimum number of employees. Legitimate values are between 0-9999, and no larger than the value specified in **Max. No.**
- **Max. No.**—This field is editable, and specifies for the scheduling engine the maximum number of employees. Legitimate values are between 1-9999.

The last row is **Total Profiles**, where you can edit the total Max and Min values.

Clicking **Add to SP** launches a pop-up window allowing you to add the selected staffing profiles to a scheduling period.

Select a staffing profile and click **Remove from SP** to remove the selected staffing profiles from the current scheduling period.

Click **Save** to save any values you have edited.

Click **Revert** to revert any values you have edited but not saved to their original values.

Adding Staffing Profiles to a Campaign

Profiles are available in a campaign only if the organization to which the profile is assigned is linked to the campaign.

The profiles are listed in the pop-up window with the following columns of information:

- **Profile Name**—A descriptive name for the profile.
- **Work Pattern**—When Forecasting and Scheduling creates a schedule using this profile, the shifts and times are selected using this work pattern.
- **Organization**—The organization associated with the staffing profile.
- **Wage**—The average wage for the profile.
- **Proficiency**—The required proficiency level for the profile. 1.0 is average proficiency.

Forecasting and Scheduling uses this number when scheduling employees. An employee with 1.0 has an average handle time, an employee with 2.0 takes twice as long, and an employee with 0.5 takes half as long to handle calls.

- **Chat Sessions**—The number of simultaneous chat sessions for the profile.
- **Assignment Rules**—The assignment rules associated with the profile.
- **Skills**—The skills associated with the staffing profile.

To assign a staffing profile to a scheduling period:

- 1 Select the profiles you want to add. (Use SHIFT and CTRL keys to select multiple profiles.)
- 2 Click **Save**. The profiles are added to the scheduling period.

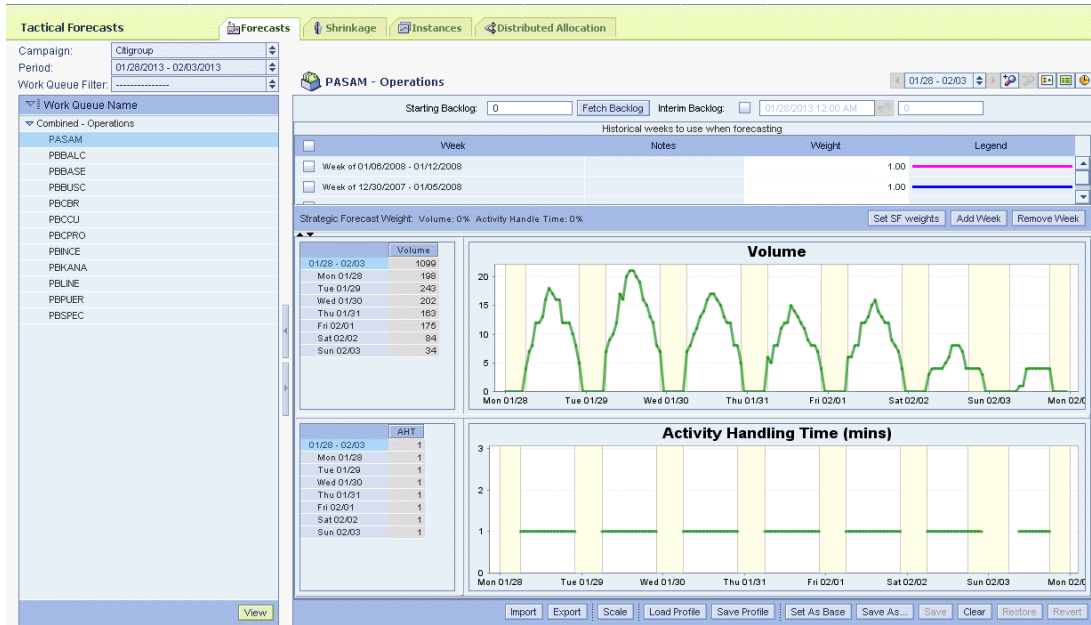
Tactical Forecasts

Forecasts

There are several media classes where forecasting is configured:

- **Immediate**
- **Deferred**
- **Outbound (for more information on outbound media, see [Chapter 12 "OutBound Scheduling"](#))**





If historical weeks are being used as part of the forecast, a history table shows the weeks, any notes, weights, and legends for the forecast.







You can select one to many queues of a specific media type (for example, phone) and edit specific fields and data in the data table. For the history table, all the weeks in use by the selected queues are displayed. In multi-edit mode, an additional column displays the queue. When the history week belongs to a single queue, this column shows the queue's name. When all the queues share the week, the column shows the text **All**. When some of the queues share the history week, an asterisk is shown. The week column always displays the week. The Notes, Weight, and Legend columns show the value if it is the same for all queues that share the week, otherwise they show an asterisk.

The chart and table view display the aggregate value for all the queues of the same media. The default view in multi-select mode has all the queues' display column unchecked, showing the forecast trend line only, to enable the chart to display quickly. Selectors at the top left of the window allow you to select the campaign and scheduling period.

At the top right of the window is a view selector, and a set of buttons, described in the following table:

Button	Usage
 and  (Zoom In and Zoom Out)	When you access the Forecasts tab, the view time span is the same as the scheduling period. In a multi-week scheduling period, the zoom in button navigates to weeks. Zoom out returns to the scheduling period while clicking the Zoom In button a second time zooms from weeks into days. At the daily level, only the zoom out button is enabled and returns to the week.
 or  (Hide Summary Table or Show Summary Table)	Controls whether the summary table at the left side of the graph is displayed.

Button	Usage
 or  (Show Data Table or Hide Data Table)	Controls whether a table listing the data graphed is displayed at the right side of the graph.
 or  (Show in User Timezone or Show in Campaign Timezone)	By default, data is displayed in the campaign time zone. If you toggle to the user-preferred time zone, all data and displays are offset by the user timezone hours.

As part of the view selector, arrows on each side allow you to navigate to the previous (left arrow) view or next view (right arrow). If you are in multi-edit mode and select a week, these buttons help navigate the weeks. If a day is selected, they are used to navigate the days.

Buttons at the bottom right of the window allow you to:

- import

Clicking **Import** launches a dialog that enables you to select the data to be imported, specify import options, such as the time interval, and specify file options, such as the delimiter used.
- export

Clicking **Export** launches a dialog that enables you to select the data to be exported, specify export options, such as the time interval, and specify file options, such as the delimiter used.
- scale

Clicking **Scale** launches a dialog that enables you to scale different forecasts (Volume, AHT, etc.) depending on the media class. There is a dropdown menu at the top left allowing you to choose which forecast you would like to scale. The options for each media class are as follows:

 - **Immediate: Scale Volume, Scale AHT**
 - **Deferred: Scale Volume, Scale AHT**

See “Scaling” on page 534 for more detailed information.
- load profiles (see “Loading Profiles” on page 533)
- save profiles

Save As allows you to save the forecast by name. The forecast will then be available on the **Instances** tab. You are prompted to enter the name of the forecast. When saving in multi-edit mode, the forecasts for all the selected queues are saved under the same name. Deleting the forecast from the **Instances** tab deletes the saved forecast for all the queues in the name. When editing one queue at a time and saving them under the same name, the last forecast for each edited queue is appended to the same forecast instance name.

Save allows you to save the forecast modifications to the current queue as the active forecast. If you have edited multiple queues, you are prompted if you want

to save the current queue or all modified queues as the active forecast. When the forecast is saved, the FTE requirements are calculated.

- **set the base**
Sets the current viewable forecast as the base forecast.

In addition, several more buttons allow you to do the following for any changes you've made:

- **Save**
- **Clear**
Clears the forecast, effectively setting the forecast to zero for the open view. In week mode, it clears the week's forecast; in period mode, it clears the entire scheduling period's forecast.
- **Restore**
Restores the forecast back to the profile being used, removing all manual edits.
- **Revert**
Reverts back to the last saved forecast.

Above the graphs in the main window, a container displays any historical weeks that are being used in the forecast. Click **Add Week** to add historical weeks.

Click **Remove Week** to remove a historical week. Click **Set SFT weights** to set strategic forecast weights.

Adding Historical Weeks

For most media types, you can add one or more historical weeks of data, which are then averaged together to become the forecast for the currently selected week of the scheduling period.

The history selector has an option, **Week**, which allows you to choose a start date that coincides with the campaign's start day of week; it adds the remainder of the week to make up the historical week.

If you are licensed for Monthly scheduling, a second option, **Month**, allows you to select a month and year.

A third option for Monthly scheduling, **Custom Week**, allows you to choose individual days to correspond with each day of the scheduling period week.



Sometimes data within the historical week you are selecting has days of data that should be ignored. A checkbox in Pulse allows you to specify that the data included in specific dates should be ignored if part of the historical week is loaded as part of a forecast.

You can exclude the data if you never want it to be included in the forecast. If you had added this historical week to your forecast, and then the Pulse setting, the next time the forecast is loaded from the database, the checkbox implications will be reflected in the data. (If you manually modified the forecast, as with all manual modifications, the historical data is no longer loaded.)

In the Forecaster, when you select a historical week with a note that has excluded data, an icon is displayed at the right side of the selector.

Click the icon to see the exact date/times being ignored. See ["Viewing Notes for Historical Weeks"](#) on page 528 for more information.

Project Queues

Project queues, used in back-office operations, are handled somewhat differently.

Project media types represent non-volume driven work. Unlike other media types, Project media do not have a chart view. Instead, you can add projects to a selected scheduling period. These project represent the additional work that needs to be required (such as ATM servicing).

Projects can still be based on historical week data if they have actual volumes and handle time populated through groups or VCT chaining.

When a week is added, you can select if the volume should be imported into weekly projects (the **Weekly Project** checkbox is checked) or daily projects.

The Weekly Project checkbox shown below would allow the user to define whether he wants the data to be grouped by Week or by Day. As a given Project Queue can be weekly or not, it is an attribute defined at the Queue level. So only the check box present at the Header level is available for selection, all other check boxes at the row level (un-editable) would follow the Weekly Project header check box.

You can only add historical weeks when no manually created projects exist, so you could not add historical weeks if you had a project on day 1-2. Instead, if you have no projects defined, and you add a historical week, you will get either

- 1 One project for the week, where the length is equal to the total volume multiplied by standard time for the historical week.
- 2 One project for every day, where the length is equal to the total volume multiplied by standard time for the historical days.

Options for entering backlog data and using strategic forecasting weights are not shown when a Projects queue is selected.

When there are no Projects (that is, Project Forecasts) added manually, can still choose the Actual data from History for both CV and AHT. Clicking the **Add Week** button opens a Historical View pop-up, which allows you to choose the Actual data from History. Historical weeks can be added only at a single queue level, they cannot be added either in a combined queue or at a multi-select queue level. The **Add Week** button is disabled in these cases.

Once you have selected the Historical Week, the Total Length (hours) required for the Project Forecast are calculated using the CV & AHT information just selected. The Project Forecast Row is automatically populated based on the Historical Week added.

You can add more than one Historical week for a given scheduling period at a time.

The projects table displayed in the workpane has the following columns:

- **Work Queue:** The currently selected queue. This is always the currently selected single queue because you cannot add projects in a multi-queue or combined queue scenario.
- **Date:** Shows selectors for the start and end dates. Dates are restricted to be within the limits of the scheduling period. The default dates for a new Project definition are the start and end date of the current view based on the zoom level. One work queue cannot have multiple projects with intersecting start/end dates.
- **Total Length (hours):** Total duration of this project (displayed in decimal to two places). (For example, 20.25 means 20 hours and 15 minutes.)

Historical weeks and projects cannot be added at the multi-week level (you must zoom in to a day or week to add them).

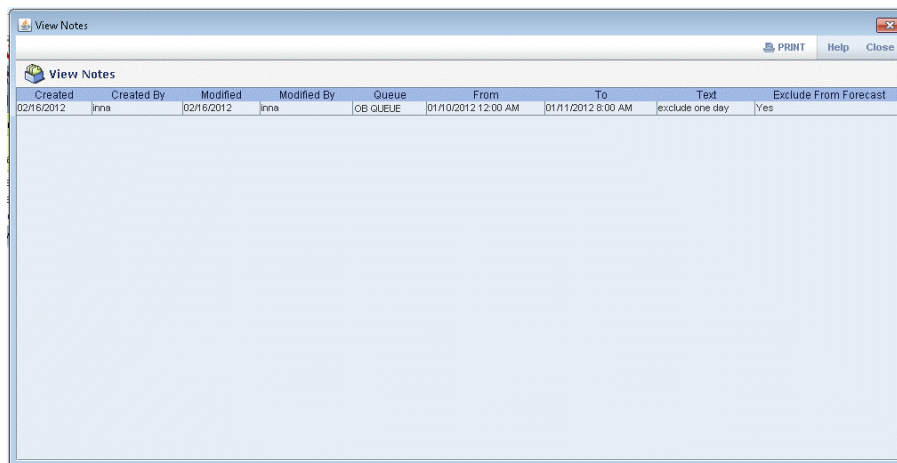
Multi-edit in the historical weeks for Project Media works the same as for other media types, except it will have a weekly project column. The display checkbox is removed as there is no chart to display the historical week data. The weekly project column shows the value if all the queues in the period share the same value, otherwise it shows as blank with an asterisk (*). You can still make changes to the checkbox to apply to all historical weeks for the particular date range of the week.

Along with the Historical week's selected in Combined/Multi-Queue select mode, the Work Queue name is displayed as well. If multiple work queues share the same Historical Week, **All** is displayed instead of the queue name. If the work queues are distinct, individual work queue names are displayed.

Projects also cannot be added in a multi-edit (or combined scenario).

Viewing Notes for Historical Weeks

This pop-up window displays in a tabular format the notes associated with a historical week, if any.



The screenshot shows a window titled "View Notes" with a toolbar containing "PRINT", "Help", and "Close". Below the toolbar is a table with the following data:

Created	Created By	Modified	Modified By	Queue	From	To	Text	Exclude From Forecast
02/16/2012	jlna	02/16/2012	jlna	OB QUEUE	01/10/2012 12:00 AM	01/11/2012 8:00 AM	exclude one day	Yes

The table has the following columns:

- **Created:** The date the note was created.
- **Created By:** The person who created the note.
- **Modified:** The date the note was modified.
- **Modified By:** The person who modified the note.
- **Queue:** The queue with which the note is associated.
- **From:** The specified start date of the note's relevance within the historical week.
- **To:** The specified end date of the note's relevance within the historical week.
- **Text:** The text of the note.
- **Exclude From Forecast:** Whether the data in the specified range of the historical week has been excluded from the forecast.

Setting Strategic Forecast Weights

This pop-up window allows you to set the weight of strategic forecasts imported from Strategic Planning relative to the tactical forecast from Forecasting and Scheduling.

Strategic Volume Forecast Weight %

Date	Tactical	Strategic	Forecast
01/28/2013	198	1,009	198
01/29/2013	243	980	243
01/30/2013	202	938	202
01/31/2013	163	672	163
02/01/2013	175	0	175
02/02/2013	84	0	84
02/03/2013	34	674	34
Period	1,099	4,273	1,099

Strategic Average Handling Time Forecast Weight %

Date	Tactical	Strategic	Forecast
01/28/2013	1	5	1
01/29/2013	1	5	1
01/30/2013	1	5	1
01/31/2013	1	5	1
02/01/2013	1	0	1
02/02/2013	1	0	1
02/03/2013	1	5	1
Period	1	5	1

Save Cancel

You can enter a percentage from 0 to 100, and use that percentage to interpolate between the tactical and strategic forecasts. For example, at zero percent, the resulting forecast is identical to the tactical forecast; at 100 percent, the resulting forecast is identical to the strategic forecast; at 50 percent the resulting forecast is the average of the two.

The weight can be applied to one or more queues, depending on your selection.


Single- and multi-week scheduling periods are handled identically. If you are zoomed to the entire scheduling period, all days of the period are displayed in the summary table and all days are affected by the percentage entered.

Forecasting for Outbound Media

As described previously in [OutBound Scheduling](#), in addition to the more traditional, in-bound calls handled by call centers, a growing number of call centers are involved in out-bound calling, making calls using a predictive dialer or manually dialing a list of customers or prospects, for such purposes as collections, pro-active customer service, and telemarketing. The optional OutBound-Media license enhances Forecasting and

Scheduling to encompass the calling statistics associated with outbound calls. These statistics include:

Statistic	Description
Abandons	The total count of connects that occurred, but had to be dropped because no employee accepted the connect.
Backlog	The total count of numbers that are entered in the dialer and still need to be dialed or re-dialed because the right party has not yet been connected.
Connect AHT	The average talk time of all connects in this interval.
Connect Rate	The percentage of dials that connected to someone, equivalent to Connects/Dials .
Connects	The total count of outbound dials that were made in a given interval that connected to a person.
Dials	The total count of outbound dials that were made in a given interval. This count includes connects, right party connects, and dials that did not connect to a person.
FTEs	Full Time Equivalents. Where an employee might work on multiple queues during an interval, this represents the amount of time employees contributed to this particular queue.
Occupancy	The percentage of time that employees who were logged into this queue spent on the phone with connects in this interval.
Right Party Connect AHT	The average talk time of all right party connects in this interval.
Right Party Connect Rate	The percentage of dials that connected to the intended party, equivalent to Right Party Connects/Dials .
Right Party Connects	The total count of outbound dials that were made in a given interval that connected to the person that was intended to be reached. These numbers will not be redialed because the right party has been reached.
Staffing	The total count of employees logged into this queue in this interval.

 You associate outbound queues with outbound data sources using the **Organization Management** module's **Work Queues** section.

Selecting one of the outbound media causes an additional container to be displayed near the top of the **Forecast** window, **Forecasted Lists**.

Forecasts can be created for incoming lists based on the actual lists from the historical weeks that you can add. Dialer lists are defined per queue per scheduling period. When you add a week of history to the forecast, you also add all historical lists that intersected that week where the volume is multiplied by (**<historical week's weight>/<sum of all weeks' weights>**). This is referred to as a Forecasted List.

In addition, you can manually edit the list forecast, and you can import and export the data shown in the table.

Each list forecast has four attributes:

- **List Start Date:** When the dialer can begin dialing this list
- **List End Date:** When the dialer must stop dialing this list
- **Length:** The amount of numbers on this list that can be dialed.
- **Retries Allowed:** The number of retries allowed for each number

The information shown under the **Forecasted Lists** container includes these attributes, as well as the queue associated with the list.

The **Add** and **Remove** buttons at the bottom of the container allow you to add or remove forecasted lists. See "[Creating Forecasted Lists](#)" on page 531 for more information on adding forecasted lists to your forecast.


The lower part of the **Forecast** window shows two graphs. A selector at the top right side of the pane allows you to select what is being graphed. When it is set to Display Both, the top graph displays the following two statistics:

- **Connect Rate**
- **Right Party Connect Rate**

The second graph displays:

- **Activity Handle Time**
- **Right Party Activity Handle Time**

For outbound media, the **Right Party Connect Rate** and **Right Party Activity Handle Time** can have significant effects on the schedule. These statistics might not be available for all centers; however, when they are, they should be made part of the forecast. Note that these statistics can represent different things in different centers: in a collections center, they would represent the person from whom the center is trying to collect; in a sales center, they would represent a potential customer or a successful sale.

 Daily and combined totals for **Right Party Connect Rate** are averaged and daily and combined totals for **Right Party Activity Handle Time** are averaged weighted on the rates. This is inconsistent with **Pulse**, where rates are weighted on dials and AHT is weighted on connects, because these statistics are not yet available at this stage of the outbound scheduling process.

These four time series forecasts are needed for you to create an outbound schedule.

Creating Forecasted Lists

If historical outbound call lists are contained in the history weeks that you added, they show up in the **Forecasted Lists** table when the historical week is added. You can also manually add your own call lists by clicking the **Add** button on the Forecasted Lists table.

NOTE



This button is only enabled when you are viewing a single week in the scheduling period.

After you click **Add**, you are presented with a dialog that allows you to specify the start and end dates for the new list, as well as the length of the list and the number of retries for that list. Click **Ok** to add the new call list to the forecast for the week in the scheduling period that is currently being viewed.

Editing Forecasted Lists

If historical outbound call lists are contained in the history weeks that you added, they show up in the **Forecasted Lists** table when the historical week is added. You can edit your own call lists by clicking the **Edit** button on the Forecasted Lists table.



This button is only enabled when you are viewing a single week in the scheduling period.

The pop-up window allows you to edit the start and end dates for the list, as well as the length of the list and the number of retries for that list. Click **Ok** to save the changes to the call list to the forecast for the week in the scheduling period that is currently being viewed.

Selecting Historical Weeks

A history table shows the weeks, any notes, weights, and legends for the forecast.

You can select one to many queues of a specific media type (for example, phone) and edit specific fields and data in the data table. For the history table, all the weeks in use by the selected queues are displayed. In multi-edit mode, an additional column shows as column two, displaying the queue. When the history week belongs to a single queue, this column shows the queue's name. When all the queues share the week, the column shows the text **All**. When some of the queues share the history week, an asterisk is shown. The week column always displays the week. The Notes, Weight, and Legend columns show the value if it's the same for all queues that share the week, otherwise they show an asterisk.

The display for a strategic forecast also shows the value if it is the same across all queues, or an asterisk if different.

The chart and table view display the aggregate for all the queues. The default view in multi-select mode has all the queues' display column unchecked, showing the forecast trend line only, to enable the chart to display quickly.

Loading Profiles

When you click **Load Profile**, you are presented with a box that allows you to select a previously saved profile. When a profile is selected, the weeks that the profile represents are displayed on the right along with the weights. You also see the percentage weight of the strategic forecast for the selected profile. If you check **Save as Relative Weeks** when saving, the selected weeks on the right will be the weeks relative to the offset that was saved to the current scheduling period start date.

There is a drop down menu for filtering the available profiles, with two options:

- **My Profiles:** Displays profiles you created.
- **All Profiles:** Displays all profiles regardless of who created them.

Clicking the **Load** button at the bottom of the screen loads the selected profile.

Clicking the **Delete** button at the bottom of the screen deletes the selected profile.

Clicking the **Cancel** button closes the dialog without loading a profile.

Saving Profiles

Clicking **Save Profile** enables you to save the currently displayed profile. You can specify a new name or overwrite an existing profile. You can also save the profile weeks as specific dates or save the profile based on relative weeks. The latter stores the offset of the weeks in the profile from the start of the scheduling period. The strategic forecast weights are also stored with the profile. In multi-edit mode, the superset of all weeks in use by the selected queues is saved to the profile.

Scaling

You can scale forecasts (Scale Volume or AHT) and FTE Requirements. There is a dropdown menu at the top left allowing you to choose which forecast you would like to scale. (For FTE Requirements, FTE is the only choice.)

To modify the current contact volume or AHT for an inbound queue:

- 1 Select the forecast you would like to scale (**Volume** or **Activity Handle Time**), using the drop-down selector at the top of the pop-up window.
- 2 Edit the **Scaled** or **% Change** columns by typing new whole numbers. As you change either column, the amount in the corresponding column and the totals are automatically updated.
- 3 Click **Set** to close the pop-up window and apply the changes, or click **Cancel** to cancel all changes and close the pop-up window.

To modify the connect rate, right party connect rate, AHT, or right party connect AHT for an outbound queue:

- 1 Select the forecast you would like to scale (**Connect Rate**, **Activity Handle Time**, **Right Party Connect Rate**, or **Right Party Connect Activity Handle Time**), using the drop-down selector at the top of the pop-up window.
- 2 Edit the **Scaled** or **% Change** columns by typing new whole numbers. As you change either column, the amount in the corresponding column and the totals are automatically updated.
- 3 Click **Set** to close the pop-up window and apply the changes, or click **Cancel** to cancel all changes and close the pop-up window.

Scaling Volume

You can enter values into the **Scaled** column or the **% Change** column on the day, multiday, or totals cells.

Entering values into the scaled day or multiday cells sets the scaled value to the exact integer value and adjusts the **% Change** column to the exact decimal value for all the selected days. The **Total Scaled** cell sums up to all the values in the scaled column. The totals cell for **% Change** is the weighted sum of the **% Change** * original volume for all days divided by the **Totals** cell for the original volume. If the new scaled value is nonzero and the original volume is zero for that day, the **% Change** cell will be blank, and the total scaled value may not correspond to the total original volume * (1 + (average % change * .01)).


Entering values into the % change day or multiday cells sets the **% Change** cell to the exact decimal value entered and changes the scaled column to the original * 1+(% Change *.01), rounded to the nearest integer value. The **Totals** cell for **% Change** will be the sum of the **% Change** * original volume for all days divided by the **Totals Cell** for the original volume. The **Totals** cell for **Scaled** is set to the sum of the scaled column.

Entering values into the scaled total cell sets the scaled column total to the entered value. The scaled column is set to the original value * scaled total divided by the original total rounded down + 1 when the cumulative residual exceeds the next integer value. The % change column is set to (scaled divided by the original - 1) * 100. The

average % change cell is set to the sum of (original value * % change) divided by the original total.

Entering values into the average % change cell sets the scaled total to the original total * (1 + ([new value]) * .01). All other values including the % Change are set off the new value for scaled totals, as described in the previous paragraph.

Scaling AHT

 Activity Handling Time cannot be scaled during intervals where the forecast volume is zero; the **Scaled** column will be disabled for such intervals.

You can enter values into the **Scaled** column or the **% Change** column on the day, multiday, or totals cells.

Entering values into the scaled day or multiday cells sets the scaled value to the exact integer value and adjusts the **% Change** column to the exact decimal value for all the selected days. The **Average Scaled** cell reflects the volume-weighted average of the values in the scaled column, rounded to the nearest integer. The average % change cell is the total of the % change * original AHT * volume (not displayed) for each interval across all the days, divided by the total of the original AHT * volume terms. If the new scaled value is nonzero and the original AHT is zero for that day, the % change cell is blank, and the total scaled value may not correspond to the average original AHT * (1 + (average % change * .01)).

Entering values into the % change day or multiday cells sets the **% Change** cell to the exact decimal value entered and changes the scaled column to the original * 1+(% Change *.01), rounded to the nearest integer value. The average % change cell is the total of the % change * original AHT * volume (not displayed) for each interval across all the days, divided by the total of the original AHT * volume terms. If the new scaled value is nonzero and the original AHT is zero for that day, the % change cell is blank, and the total scaled value may not correspond to the average original AHT * (1 + (average % change * .01)).

Entering values into the scaled total cell sets the average scaled value to the entered value. Each value in the scaled column is set to the corresponding original value * volume (not displayed) * average scaled value divided by the total of (volume * original AHT) rounded down, with the difference carried over to the next day's total. The **% Change** column is set to (scaled divided by the original - 1) * 100. The **Average % Change** cell is set to the total of (volume * original AHT * % change) divided by the total of (volume * original).

Entering values into the average % change cell sets the scaled total to the original total * (1 + ([new value]) * .01). All other values including the **% Change** are set off the new value for average scaled value , as described in the previous paragraph.

Backlog

From the deferred media screen, you can specify the starting backlog for one to many queues in the current scheduling period in one of the following two ways:

- manually
- by fetching the starting backlog (either forecasted or actual) from a selected period

You can also specify an interim backlog value in the middle of scheduling period for a queue or set of queues, such as **X** backlog in **Y** time for every forecast profile. The interim backlog value needs to be specified in the following way:

- Enter an interim backlog value for a selected time bucket for the selected queue or combined queue

The interim backlog value is pre-populated with the actual backlog value when the forecast profile is created from Pulse and loaded upon reforecast or when the saved forecast instance had an interim backlog value defined for it. The interim backlog changes any time any profile or instance is loaded (although it may not be the active forecast yet). If actual backlog does not exist for the current time, the most recent actual backlog is used.

When a value is entered for interim backlog when multiple queues are selected, the backlog is distributed evenly to individual queues just like starting backlog for multiple queues.

- To set the interim backlog manually, check the checkbox next to **Interim**, which enables the Interim backlog **Time** and **Value** fields.

The next time you run the scheduler, the backlog is reset to the interim backlog specified at the time specified. Schedules are generated based on that interim backlog.

Interim backlog is also saved for each deferred media forecast instance.

Shrinkage

The **Shrinkage** tab allows you to enter both shrinkage and modeling factors at either a daily or hourly level, using a tabular view. A radio button allows you to select the granularity.

When you select daily, you are presented with a single line for the day; when you select hourly, you are presented with hourly data that resides within the operating hours. When you set a daily value for any day and toggle to hourly, values in the daily table are copied to all hours of the hourly table. When switching from hourly to daily, values in the first row of the hourly table are copied to the daily table. If the first row of the hourly table is not editable because of operating hours, values in the daily table are not affected when you switch from hourly to daily.

Instances

This tab allows you to manage the different instances of the forecast. It is divided into two major areas:

- the queue selection pane
- the workpane

The queue selection pane displays a list of selectable queues, depending on the settings of the campaign, scheduling period, and media selectors that are above the queue list.

The workpane consists of three containers:

- Forecast information, consisting of the forecast description, the date it was created, who created it, the date it was modified, and who modified it.
- The weeks in the forecast. For each week, this container displays in a tabular format the week, any notes associated with the week, the assigned weight, and a legend that allows you to correlate the week with the color used in the graphs in the third container. Checkboxes to the left of the weeks allow you to select which weeks should be graphed.
- The graphical display, which is a read-only version of the existing forecasting screen that is synched with the instance that is selected in the top portion of the screen.

Two buttons are available at the bottom of the screen. These buttons are:

- **Delete:** Deletes the selected instance.
- **Load as active forecast:** Loads the selected instance and sets the selected instance to the active forecast.

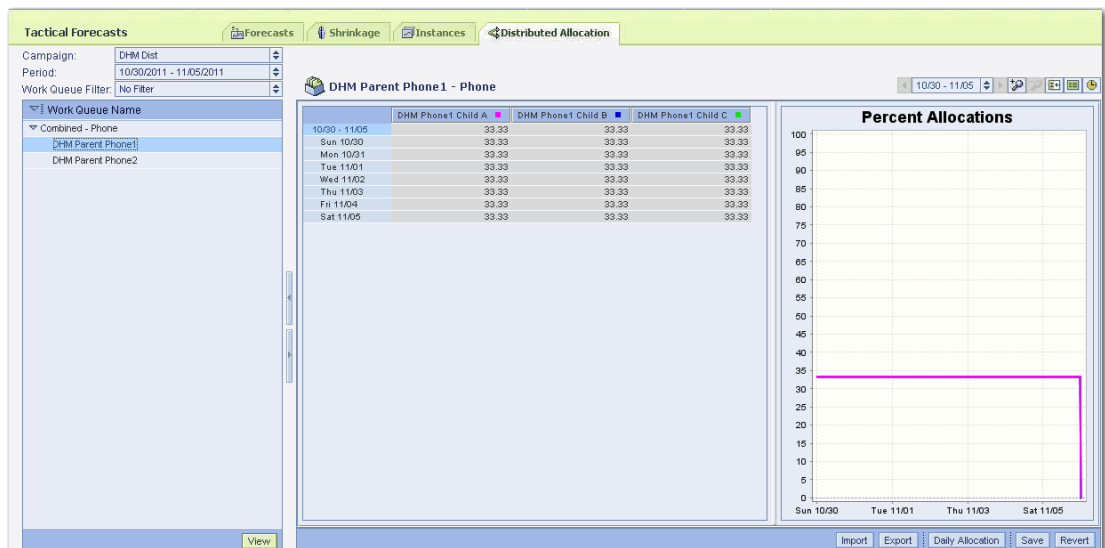
Distributed Allocation

A distributed queue is used in campaigns where calls are distributed among multiple sites using a percent allocation method. This type of queue can only be added to a campaign that has at least one defined sub-campaign.

Campaigns that include distributed queues are referred to as distributed campaigns.

Distributed campaigns have child sub-campaigns, as well as scheduling periods. The sub-campaign children have scheduling period child nodes. All of the scheduling period nodes are uniform within the distributed campaign.

Sub-campaigns are shown in the campaign selection drop down indented and directly following the distributed campaign in the list. There is only one level of sub-campaign.



Selectors above the work queue list allow you to select the campaign and period, and to create or select a filter.

Additional controls at the top right of the chart allow you to select a different period, zoom in or out, toggle the display of the summary table, toggle the display of the data table, and change the timezone from the campaign time zone to your time zone.

A number of buttons are provided at the bottom of the chart:

- **Import** allows you to import allocation data.
- **Export** allows you to export the allocation data.
- **Daily Allocation** pops up a daily percentage table pop-up that allows you to enter forecast allocation percentages for an entire day at a time rather than just at 15-minute intervals. If a child queue is closed for an entire day, that day cannot be edited for that queue and zero is displayed in the table for that child queue on that day. Click **Set** to propagate your changes, or **Cancel** to return to the **Distributed Allocation** tab without putting your changes into effect.
- **Save** allows you to save any changes you've made.
- **Revert** allows you to cancel any unsaved changes you've made.

When a child campaign forecast is edited, the parent forecast is updated to reflect the new aggregate of the child forecasts and all the child forecasts' allocation percentages are adjusted to reflect the new proportion of the parent forecast contributed by each child.

Goals

Service Goals

The window is divided into a left pane and a right pane. The left pane allows you to select one to many queues of the same media type. The queues are filtered based on the campaign and scheduling period. If no media is selected, all queues are displayed in the scheduling period categorized based on media.

Selecting a queue from the queue selector displays the queue in the right hand pane. You can use the **Ctrl** key to multi-select queues of the same media. When you click the **View** button, it displays an aggregated view for the selected queues.

You can also expand the combined queues for any one media from the tree, displaying all the queues for a media. There is no combined view for the top level, because you cannot multi-edit different types of media at one time.

The queue selector is also presented in different ways if the selected scheduling period is either skilled or non-skilled.

For non-skilled SPs:

- In a multi-queue scenario, only the combined queue is displayed. Constituent queues are not selectable and their service goals are not editable.
- In a single-queue scenario, the queue is displayed but it is treated as a combined queue.

For skilled SPs:

- Combined queues are displayed above the constituent queues of the same media type, but they are not selectable. Only non-combined queues are selectable.

Only Phone and Project Media can be non-skilled scheduling periods. There are two differences between skilled and non-skilled scheduling periods:

- There are different options available when editing service goals for skilled vs. non-skilled scheduling periods.

There are several media classes where service goals are configured: **Immediate** (such as Chat, Voice over IP, and Phone), **Deferred** (such as Email, Fax, Operations, and Callback), and **Outbound**. Each media class has different configuration options depending on whether you are on the day or period, and may also have different configuration options depending on whether the scheduling period is skilled or non-skilled.

- Service goals are set up only for the combined queue in non-skilled campaigns, so you cannot select an individual queue and set up service goals for an individual queue. If it is a single-queue campaign, the name of the queue is displayed; otherwise the queue is labeled **Combined**.

For outbound work queues:

- You can only enter data that falls within operating hours for outbound media. Any data point for a value that falls outside of operating hours is automatically discarded.
- You can enter the maximum dials per hour and the percentage of the dialer list that is expected to be Connects or Right Party Connects before the list ends.

NOTE



For multiple work queues, the sum of the maximum dials for each work queue must not exceed the maximum number of dials the dialer is capable of making.









- The **Goal Percent** field contains the percentage of dials on the dialer list that you expect to connect to, or right party connect to. The connect or right party connect option is selected from the drop down.

For process resolution queues:

- Only the **Service Goal Type** container is displayed:

On the right side, there is an entry form on top of a graphical chart, where you can enter service level information or manually edit service levels via a table or on the chart.

At the top of the window is a view selector, and a set of buttons, as shown in the following table:

Button	Usage
 and  (Zoom In and Zoom Out)	When you access the Service Goals tab, the view time span is the same as the scheduling period. In a multi-week scheduling period, the zoom in button navigates to weeks. Zoom out returns to the scheduling period while clicking the Zoom In button a second time zooms from weeks into days. At the daily level, only the zoom out button is enabled and returns to the week.
 or  (Hide Summary Table or Show Summary Table)	Controls whether the summary table at the left side of the graph is displayed.
 or  (Show Data Table or Hide Data Table)	Controls whether a table listing the data graphed is displayed at the right side of the graph.
 or  (Show in User Timezone or Show in Campaign Timezone)	By default, Service Goals are displayed in the campaign time zone. If you toggle to the user time zone, all data and displays are offset by the user timezone hours.

As part of the schedule selector, arrows on each side allow you to navigate to the previous (left arrow) view or next view (right arrow). If you are in a multi-week schedule period, and select a week, these buttons help navigate the weeks. If a day is selected, they are used to navigate the days.

You can also import or export service goal data:

- Clicking **Import** launches a dialog that enables you to select the data to be imported, specify import options, such as the time interval, and specify file options, such as the delimiter used.
- Clicking **Export** launches a dialog that enables you to select the data to be exported, specify export options, such as the time interval, and specify file options, such as the delimiter used, and the timezone of the data.

Work Queue Summary

Expanding the left side of the page displays a list of the existing work queues. The work queues can be expanded to show the associated scheduling periods.

Display Units

The display for the time varies based on the time-unit setting for the media type to which the selected queue is related. For example, the Abandonment editor's **Patience** label will indicate **minutes** as the time unit for the **Patience** input field when the selected queue is of a media type that has **minutes** as its display units. The display units impact anywhere time units are displayed or entered for a specific media type.

Editing Data


There are two ways to manually edit the service goal:

- Click and drag data points on the chart view
- Entering data in the data table

Click and Drag Editing

You can click any period on the chart and drag a point up and down. This is particularly useful in identifying and correcting outliers. Depending on the zoom level of the view, the edits may be at one day or one-hour granularity.

Editing in the Data Table

You can access the table using the  button in the toolbar. Editing the data in the table changes the graphical display accordingly. Depending on the zoom level of the view, the edits may be at one day or one-hour granularity.

Copying and Pasting Data

You can copy and paste data from the table editor to and from other table editors within the application and to and from Excel.

You can select whether to copy/paste from the table editor at the currently displayed granularity or at the inherent granularity of the data being edited. Thus, if you are viewing hourly service goals data at one-day granularity, you can copy/paste it at one-day or one-hour granularity. Pasting data at its inherent granularity replaces the data; pasting at a coarser granularity scales the existing data according to the new values, essentially providing a bulk scaling function.

Data Aggregation

Depending on the zoom level of the view, data may be presented and edited at one-day or one-hour intervals. Regardless of the granularity of the view, the underlying data is stored at hourly intervals. Thus, it may be necessary to combine multiple data values from a series of consecutive time intervals into a single value for display.

The view may contain a single queue, or it may contain multiple queues of the same media type. Thus, it may be necessary to combine multiple values from different queues into a single value for display.

There are several general types of data aggregation that are used:

- **Summation**
All values within the specified time interval in any of the included queues are summed together.
- **Average**
All values within the specified time interval in any of the included queues are summed together, and the result is divided by the total number of data points in the sum.
- **Weighted Average**
Each value within the specified time interval in any of the included queues is first multiplied by another data value stored for that time interval and queue (the

weight), and the resulting products are summed together. Then, the grand total is divided by the summation of the weights used.

Cutting across these aggregation types are additional constraints such as whether time periods outside a campaign's operating hours are to be included in an aggregate value.

FTE Requirements

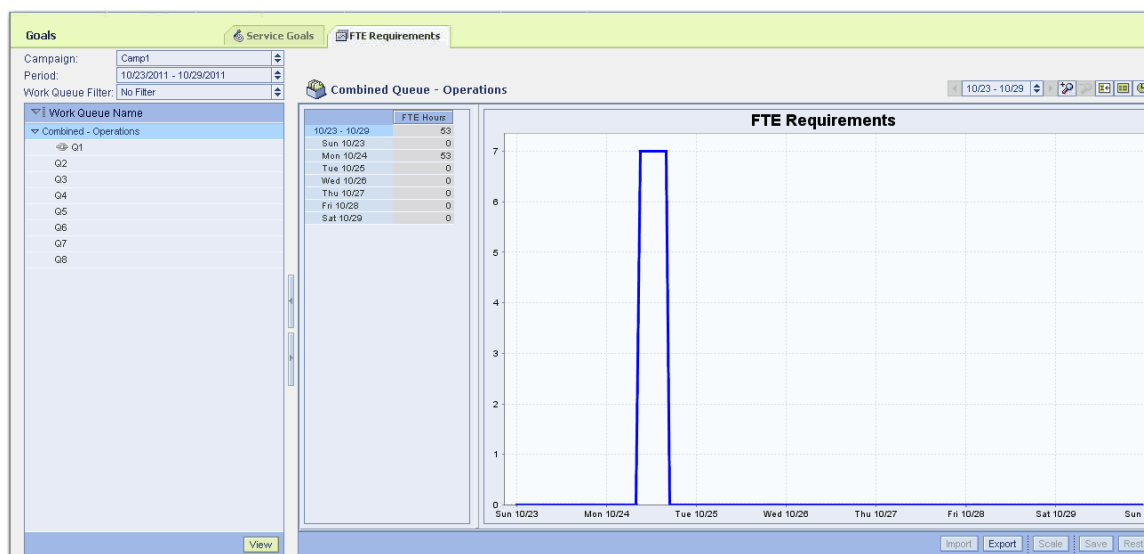
The **FTE Requirements** page displays a graph showing the number of employees needed to meet the predicted contact volume at the established service level goals, taking into account AHT and shrinkage. It is divided into 15-minute intervals throughout the selected day/week.

NOTE



For Outbound media, the FTE calculation is based on the Connect Rate percentage.

A summary column to the left of the graph shows the staffing hours for each day and the total hours for the week. The current day is highlighted; clicking on a day changes the display of the graph and table to that day's context.



For both skilled and non-skilled campaigns, the FTE requirement for every 15-minute interval is the goal that Forecasting and Scheduling attempts to meet exactly when creating a schedule.

If your campaign is linked to multiple queues, the employee requirements are based on the combined forecast for those queues.

The summary column to the left of the graph shows the staffing hours for each day or week (that is, hours answering contacts), and the total hours for the scheduling period. The current day is highlighted in blue. Click a day/week to display it in the graph or choose a day/week from the date selector.

The summary table aggregates FTE data differently, depending on the time period that is selected.

- If a single day is selected, the FTE data shows in the chart and summary table for every 15-minute interval in the day.
- If a single week is selected, the data is aggregated to the hour.
- If multiple weeks are selected, the data is aggregated to the day level.

If FTE requirements are changed manually at a week or multi-week level (manual changes are only allowed in non-skilled campaigns), they are applied to their sub-intervals (15 minutes) using a weighted distribution based on the values of the FTE that were already present.

Selectors and buttons at the top of the graph allow you to:

- Select the entire scheduling period or individual days within the scheduling period.
- Zoom in (and out)
- Toggle the display of the summary table.
- Toggle the display of the data table.
- Choose to display the graph in either the campaign's time zone or your time zone.
- Enable/disable manual editing of FTE requirements.

Buttons at the bottom of the graph allow you to:

- **Import** FTE requirements.
- **Export** FTE requirements.
- **Scale** FTE requirements.
- **Save** any edits made.
- **Restore** the values that were previously there, provided you have not saved changes in the meantime.

Calendar

Calendar

The **Calendar** tab is divided into two major panes:

- an employee selection pane
- a calendar display pane

Using the Employee Selection Pane

The employees are listed alphabetically in the pane on the left, according to the filter selected in the **View** drop-down menu above the employee list.

You can use the **Find** function to look for a specific employee.

If phantom employees are used in the campaign, or employees designated as poolers, you also see two toggle buttons at the top right of the employee names:

- **Show Phantoms/Hide Phantoms**
- **Show Poolers/Hide Poolers**

By default, poolers are not shown. If you toggle on the display of poolers, they appear with an icon to indicate they are poolers and their name is colored in the workpane to indicate that they are poolers.

NOTE

The **Show Poolers/Hide Poolers** button is not displayed in **No Campaign** mode.

In addition, buttons at the bottom of the selection pane allow you to select all the employees in the campaign (**Select All**), clear the selection (**Select None**), and display the schedule for the selected employees (**View**).

Employee Summary

Expanding the left side of the page displays a list of the employees in the campaign. The tabular format shows for each employee:

- the employee's full name, using the format **lastname, firstname**
- the employee's first name
- the employee's last name
- the employee's middle initial
- suffix (such as Sr. or Jr.)
- the employee's birth date
- the employee's start date
- the employee's end date
- whether the employee is a supervisor
- whether the employee is a team lead
- employee ID
- the employee's tax ID (such as the social security number)
- the employee's wage amount
- the employee's rank
- the name of the organization to which the employee belongs
- the name of the employee's supervisor
- the name of the employee's team lead
- the employee's job title

Understanding the Calendar Display Pane

Above the area where the schedule is displayed, a campaign selector allows you to select a campaign. Next to it are:

- a selector for the scheduling period you want to display
- a control for zooming in and out
- a control for toggling between the user-preferred and campaign time zones
- a **Refresh** button

Below these selectors is a toolbar consisting of several selectors and a variety of buttons. This toolbar consists of:

- A statistics selector. The drop-down menu allows you to select one or more of the following statistics to display, depending on the queue type (see the description of the second toolbar below), such as:
 - **Volume**
 - **Activity Handling Time**
 - **Service level**
 - **Average Speed to Answer**
 - **Backlog**
 - **Staffing**
 - **Occupancy**
 - **Dials** (for outbound dialing)
 - **Connects** (for outbound dialing)
 - **Connect Rate** (for outbound dialing)
 - **RPC (Right Party Connects - for outbound dialing)**
 - **Right Party Connect Rate** (for outbound dialing)
 - **Right Party Connect AHT** (for outbound dialing)
 - **FTE Differential**
 - **Project**

Each statistic you have selected from the drop-down menu is displayed in a ribbon above the hour columns for the schedule.

The Period Statistics ribbon at the top of the other statistics ribbons displays statistic values aggregated over the entire scheduling period. The statistics it contains depend on the current scheduling period, as well as which queue you have selected in the queue selector.

- The following statistics are always shown: **Service Level Forecast, Service Level Required, FTE Forecast, and FTE Required.**
- If the scheduling period has a Project queue, the Period Statistics include: **Project Forecast and Project Requested.**
- If the scheduling period is not distributed and the ASA service goal has been set, the Period Statistics include: **ASA Forecast and ASA Required.**

- If the scheduling period is not distributed and contains a Deferred or Outbound queue, the Period Statistics includes **Backlog**.
- If the scheduling period is not distributed and contains an Outbound queue, the Period Statistics includes: **Connects Forecast** and **RPC Forecast**.

Clicking a ribbon expands it into a graph, showing:

- Required
- Forecasted Schedule (or Staffing statistic)
- Forecasted Schedule (or Staffing statistic) with No Phantoms (only if phantoms are on this calendar)

When the ribbons are expanded in the fish-eye view, the zoomed-in day shows a line chart.

- A **Recalculate statistics** button
- A set of buttons for:
 - analyzing the schedule
 - running the scheduling engine
 - enabling/disabling linked queue forecasting (LQF)
- A **Filter the events** button
- A **Suggest available employees** button (shown only for skilled campaigns)

This button brings up a pop-up window, allowing you to show all employees for the campaign, or to filter on those available who have the skill(s) to work the selected queues for the selected time period.

If you choose a shift assignment and make it an absence, the **Suggest available employees** pop-up window is shown automatically with some pre-set values, such as the queues the absent employees can work, or the time period of the shift assignment. If you click **OK**, the employee filter is turned on and the calendar switches to the specific queue; the **Create** option is changed to **Create Shift**.
- A drop-down menu for sorting. You can sort by:
 - **None**
 - **Shift Start Time**
 - **Shift End Time**
 - **Shift Length**
 - **Shift Type**
 - **Event Start Time**
 - **Work Pattern**
- another set of buttons for:
 - displaying the schedule in graphical, textual, or fish-eye format
 - toggling the display of the legend
 - toggling the display of conflict warnings
 - undoing an action

- publishing, unpublishing, and reverting schedules
- locking and unlocking shift assignments and events
- displaying the FTE Calculator
- importing outsourcer schedules
- viewing learning and coaching assignments
- configuring which employee attributes are to be displayed in the row header

Up to ten additional attributes may be displayed in the row header. The employee's last and first name are always the first column in the row header. Additional headers are shown in alphabetical order of the header name, starting with **Address** and ending with **Work Phone**.

- A day selector, used to select a specific day of the scheduling period to display.

A second toolbar below the first consists of:

- A queue selector

The queue selector filters the activities drop-down list. It does not filter the shift events. Project queues are not shown in the drop-down. The statistics mentioned previously are filtered based on the selected item. The selector is disabled when no campaign is selected. The ribbon statistics show the values for the currently selected queue.

The first option is the **Combined** queue, which represents all queues, if more than one exists.

There can be other **Combined** media options for each media class if there are multiple queues with the same media and multiple media classes.

- An event type selector
- An activity type selector
- A toggle button controlling your ability to create events using your mouse in the graphical display of the schedule

One last toolbar is located under the schedule. It contains a page selector and a pagination control, specifying the number of employees to display per page. In addition, this area displays the time zone being displayed, and the following buttons:

- **Create**—Create an instance of the event type you selected with the event type selector.
- **Edit**—Edit the selected schedule event.
- **Delete**—Delete the selected schedule event.
- **Print**—Print the schedule.
- **Export**—Export the schedule information to a file.

The schedule operates in two modes:

- non-campaign (active when **<no campaign>** is selected in the Campaign selector)
In non-campaign mode, any employee's schedule can be viewed (only for the user-preferred time zone) if the employee can be filtered out by the employee filter on the left employee select pane. The shift list and calendar event activity are determined by who has been shown on the schedule grid for event types. For

instance, if there are 10 employees' schedules shown on the grid, then all the shifts that 10 employees can use for the current view period are listed as available shifts. You can choose any of them and assign it to any one of the 10 employees in this view period.

- campaign mode

In campaign mode, the schedule can be viewed under the campaign time zone or the user preferred time zone.

Schedule Views

As mentioned previously, there are three views for the schedule:

- Graphical view
- Textual view
- Fish-eye view (the default)

Graphical View

In graphical view, below the two ribbons at the top of the main pane are rows for each statistic you have selected for display, as mentioned previously, followed by a hour column header.

The main body of the tabular display shows the employee on the left and spreadsheet-like cells, one for each 15-minute interval. The cells are colored to show the shift events or activities taking place at that time. Use the **Legend** below the schedule to understand the use of the colors. (The display of the legend can be toggled on or off, as mentioned previously.)

If a scheduling conflict exists for an employee, a red triangle with an exclamation point inside is displayed to the right of the employee's name. Click this icon to open a pop-up window for viewing conflicts.

You can expand the graphical view to a "full-screen" version by clicking the right-arrow between the two panes, to show the right and hide the left pane.

In full-screen mode, you can still choose the campaign and scheduling period weeks (the campaign and scheduling period selectors move to the top of the pane), and apply filters. But you only see all the employee in the current scheduling period; you do not have the option to select individual employees and click the **View** buttons to show the subset in this view mode.

Full-screen mode is extremely useful where you want to see all the employees' calendars all the time.

Textual View

In textual view, the main body of the tabular display shows the employees on the left and spreadsheet-like columns, one for each day or week of the scheduling period.

Within the cells for each employee are displayed the color-coded activity, and the start and end times for the activity.

You can expand the textual view to a "full-screen" version by clicking the right-arrow between the two panes, to show the right and hide the left pane.

In full-screen mode, you can still choose the campaign and scheduling period weeks (the campaign and scheduling period selectors move to the top of the pane), and apply

filters. But you only see all the employee in the current scheduling period; you do not have the option to select individual employees and click the **View** buttons to show the subset in this view mode.

Full-screen mode is extremely useful where you want to see all the employees' calendars all the time.

Fish-Eye View

Fish-eye view is a combined view. It is a week view with only one day in graphical view. By clicking the day title hyper-link, you can switch the current day into graphical view. In fish-eye view, there is only a day selector instead of a week selector. By choosing a different day using the day selector, you can see a graphical view for that day only; the others days are in the textual week view.

With this view, you can easily view the whole period with a very detailed picture of a specific day. Since this view is able to provide the different details level in one view, there is no need to zoom-in/zoom-out. However, if the zoom in/zoom out button is clicked, the fish-eye view turns into a textual view, by default.

Textual view cells are read only, and show the activity color box, and start/end (but not the activity name).

A tooltip shows the detail content about a cell whenever you hover the mouse on a specific cell.

If there is any time-off event on the day that has a shift assignment, the tooltip will show the time off event details as well.

You can expand the fish-eye view to a "full-screen" version by clicking the right-arrow between the two panes, to show the right and hide the left pane.

In full-screen mode, you can still choose the campaign and scheduling period weeks (the campaign and scheduling period selectors move to the top of the pane), and apply filters. But you only see all the employee in the current scheduling period; you do not have the option to select individual employees and click the **View** buttons to show the subset in this view mode.

Full-screen mode is extremely useful where you want to see all the employees' calendars all the time.

Using the Right-Click Menu

Right-clicking on a selection on the calendar provides access to a menu containing the following functions:

- **New**

This menu item gives access to a submenu, allowing you to select the new entity to add to the schedule. The **New** menu includes:

- **Create Calendar Event...**
- **Create Shift Event...**
- **Create Time Off...**
- **Create Unavailability**
- **Creat Shift Assignment**

- **Create Recurring Event...**
- **Create Recurring Time Off...**
- **Create Recurring Unavailability...**
- **Create Recurring Floating Event...**
- **Create Floating Event...**
- **Create Class...**
- **Edit**
- **Edit Shift Assignment**
- **Delete**
- **Lock**
- **Unlock**
- **Make Absence**

This menu item gives access to a submenu, allowing you to select the type of absence to add to the schedule. These absence types include:

- **General Absence**
- **Jury Duty**
- **No Call/No Show**
- **Personal Day**
- **Sick**
- **Vacation**
- **Voluntary Time Off**
- **Clear Employee Schedules...**
- **Remove Profile Schedules**
- **Lock/Unlock Multiple**
- **View All Classes**
- **Create Phantom based on Employee**
- **Convert All Employees to Phantoms**
- **Assign Schedule to Employee...**
- **Copy**
- **Copy Weekly Schedule**

Allows you to to copy any employee's whole week schedule and paste to any employee in any week.

You can copy and paste weekly schedules across campaigns, and copy into no-campaign mode. In this case, shifts in the Day1 of the *From* week are copied into Day1 of the *To* week, shifts in the Day2 of the *From* week are copied into Day2 of the *To* week, and so on and so forth.

In text mode, you can select and copy a group of cells and paste the whole group. All the shift assignments in the group are copied to the new *Paste* location, across campaigns and no-campaign mode.

- **Paste**

Autobreaking

When you manually create a shift assignment in the Web Calendar, a simple algorithm is used to place the shift events within the shift and in overtime. Usually, this algorithm results in the events being placed at their earliest possible time slots. With Autobreaking, a more sophisticated algorithm is used for break placement, as well as for providing suggestions on better shift templates or overtime templates to use when you customize the shift/extension length.

The Autobreaking algorithm is also used when Shift / Shift Change requests are approved, and when you edit shift assignments in the Web Calendar.

The Autobreaking algorithm optimizes shift event placement based on Net Staffing (when approving Shift/Shift Change requests) or on FTE Differential (when creating/editing shift assignments within the Web Calendar).

There are therefore three scenarios under which autobreaking is used in the Web:

- 1 When creating a new shift assignment.
- 2 When editing an existing shift assignment.
- 3 When approving a Shift/Shift Change request in the **Request Management** module.

Each of these is discussed separately below.

Creating a New Shift Assignment

There are two main ways to create a shift assignment in the Web Calendar:

- 1 From the "Create Shift Assignment" dialog.
- 2 By painting a new shift using the paintbrush tool in the Graph view.

Either way, you can create a shift assignment based on a shift template, or you can create a *custom* shift assignment (one that is not based on a shift template).



To create a custom shift from the dialog, you choose **<Custom Shift>** in the Shift selector (and fill in the other fields). To create a custom shift from the Graph view, enable the paintbrush tool, select **Custom Shift** in the Event Type selector, choose an activity in the Activity selector, and then click and drag the mouse in the agent's calendar row to indicate the shift start time and the desired shift length.

When you create a new shift assignment based on a shift template, autobreaking uses the shift events mapped to that template for placing within the shift. No prompt for a *best match* template is necessary because you have explicitly chosen a template to use (provided you do not customize the template's length).

In contrast, when you create a new custom shift assignment, autobreaking has no shift template on which to base the shift events, so it suggests a *best match* shift template to use, based on the the shift assignment's length, activity, and whether it is linked to one

of the agent's work patterns. If you accept the recommended shift, the shift's template is set accordingly, and that shift template's events are placed optimally within the shift assignment. (See "How Autobreaking Optimizes Shift Event Placement for Net Staffing or FTE Differential" on page 554). If you decline the shift recommendation, it remains a custom shift, and no shift events are placed within the shift assignment.

OT Extensions work the same way, that is, if you select an OT Extension template, autobreaking places its shift events within the extension. But if you create a custom OT Extension assignment, autobreaking suggests a *best match* OT Extension template to use, based on the extension's length, activity, and the agent's work patterns.



TIP To create a custom extension from the dialog, choose **<None>** in the Extension Name selector.

Another type of custom shift/extension occurs when the extension's selected length does not match the selected template. In this case, if autobreaking finds a template that better matches the specified length, it suggests it to you. If you decline it, autobreaking uses the selected template's shift events instead. This differs from a true custom template selection, where, if you decline the recommended template, no shift events are placed at all.

Editing a Shift Assignment From the Web Calendar

There are three main ways to edit a shift assignment in the Web Calendar:

- 1 From the **Edit Shift Assignment** dialog.
- 2 By clicking and dragging the shift's start or end points in the Graph view, thereby stretching or contracting the shift's length.
- 3 By editing the shift's start or end times in the Text view, thereby stretching or contracting the shift's length.

Changing a shift assignment's shift template or OT Extension template from the dialog automatically triggers autobreaking to remove the original shift events and replace them with those for the newly selected template. However, if the selected shift/extension's length does not match the newly selected template, autobreaking attempts to find a shift/extension template that better matches the selected length. If it finds one, it suggests this template to you. If you accept the suggestion, the shift/extension template changes accordingly, and that template's events replace any existing shift events.

When stretching or contracting the shift's length from either the Graph or Text view, the dialog does not appear. It is assumed that you do not want to change the shift/extension templates. Nevertheless, autobreaking still looks for a best match. If autobreaking finds a better matching shift/extension template, it again recommends it and prompts for your approval. If you decline the recommended template, autobreaking leaves the existing shift events where they were. If you accept the template change, autobreaking replaces the existing shift events.

Anti-lock Breaking

As stated earlier, when you change a shift assignment's shift/extension template (whether explicitly, or by accepting a template recommendation), all the existing shift

events (whether they are locked or unlocked) are replaced by the new template's shift events. There is an exception, however: If an existing shift event is locked, and that shift event also belongs to the new template, that shift event remains locked and in its place, while the other existing shift events are deleted. Furthermore, the corresponding shift event from the new template is skipped when placing shift events in the shift.

The autobreaking algorithm determines if an existing locked shift event matches a shift event in the new template by comparing the shift events' activity and duration. If both are equal, they are considered a match. If the new template has more than one matching shift event, the algorithm only ignores those that have a matching pair in the existing shift.

This is only true for shift events within the main shift, however. Shift events within an OT Extension are always deleted and replaced with the new extension template's shift events.

How Autobreaking Determines the Best Matching Template

The algorithm for finding the best matching shift/extension template takes into account template duration, activity, and whether the template is linked to one of the agent's work patterns. The algorithm is as follows:

- 1 If a template is already selected, and the template's length matches the desired length, autobreaking uses that template.
- 2 Otherwise, autobreaking finds the shift/extension template linked to the scheduling period that has the closest duration to the desired duration, without going over. If there is a single closest shift template, autobreaking uses it.
- 3 If there are multiple templates with this closest duration, autobreaking uses one that has the desired activity and that is linked to one of the agent's work patterns.
- 4 If there is no closest duration template that matches the activity and the work pattern, autobreaking uses one that matches the activity.
- 5 If there is no closest template that matches the activity, autobreaking uses one that matches the work pattern.
- 6 Otherwise, autobreaking uses any one of the closest duration templates.

How Autobreaking Optimizes Shift Event Placement for Net Staffing or FTE Differential

As stated previously, the Autobreaking algorithm optimizes shift event placement for Net Staffing (when approving Shift/Shift Change requests) or for FTE Differential (when creating/editing shift assignments within the Web Calendar).

When determining where to place a shift event within the shift/extension, priority is given to placing breaks in time intervals where the corresponding FTE Differential values are the highest (that is, overstaffed periods), while still abiding by the shift event start/end windows and spacing rules.

Conversely, when placing an *is used in shift* shift event, autobreaking attempts to place it in the interval where the FTE Differential values are the lowest (that is, understaffed periods).

Autobreaking always follows the shift event start/end windows and spacing rules. It only looks at FTE Differential/Net Staffing within these valid windows.

All other things being equal, breaks are placed in slots where the FTE Differential ribbon shows the largest values, and *is used in shift* shift events are placed in slots where the FTE Differential ribbon shows the smallest values. This is only the case when you are in

a *non-multi-skilled* scenario for all queues in the scheduling period, the simplest example of which is a non-skilled scheduling period.



A non-multi-skilled scenario is a scenario where each and every scheduled activity is work that can only be performed on one queue. For example, if there is only one queue in the scheduling period, every scheduled activity is either work done on that queue, or none at all. There is no uncertainty as to which queue should get the FTE Forecast contribution for any scheduled activity.

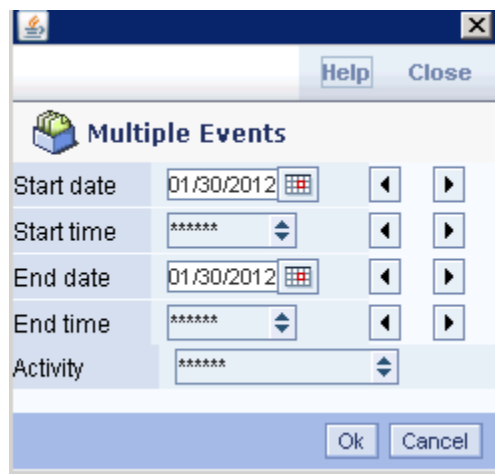
Approving a Shift/Shift Change Request

When a Shift or Shift Change request is approved, autobreaking optimally positions the shift/extension template's events within the shift assignment. As stated earlier, autobreaking optimizes for Net Staffing rather than for FTE Differential, but this should not really make a difference.

Unlike creating a shift assignment through the Web Calendar, you approving a shift request does not cause autobreaking to find or recommend a *best match* shift/extension template. It uses the template selected in the Shift Request dialog. Also, when you approve a Shift Change request, all the existing shift events (whether locked or unlocked) are deleted and replaced with the new template's shift events.

Multi-Editing Events

When you have selected multiple events, the right-click menu enables the item **Multi Edit ...**, which opens a pop-up window, **Multiple Events**.



Use this pop-up window to edit multiple events at the same time.

You can edit the following attributes:

- **Start date**
- **Start time**
- **End date**
- **End time**
- **Activity**

When all the events have the same value for a particular attribute, such as the **Start date**, that value is displayed. When the values are different, a series of asterisks is displayed (*****).

Use the various date and time selectors, drop-down selectors, and arrow controls to change the settings as desired.

Click **OK** to save your changes, or **Cancel** to return to the Calendar window without saving your changes.

Recalculating Statistics

Click the **Recalculate statistics** button to recalculate statistics. These statistics allow you to do a quick comparison of the predicted and required staffing and service level statistics.

Analyzing Schedules

This pop-up window allows you to check a schedule for conflicts. It lists any potential problems, such as:

- Employees are not assigned to work patterns.
- Employee minimum or maximum hours cannot be met.
- In skill-based scheduling, required skills are not available.

Setting Up and Running the Scheduler



For scheduling to be enabled in the web application, the Forecasting and Scheduling client application must have been installed on the same machine as Integration Server and Integration Server must be running. In addition, the following adapter needs to have been added to the selected integration packages:

- WFM - Silent Forecasting and Scheduling

This pop-up window allows you to set schedule options and start the scheduling process. It consists of seven sections:

1 Days to schedule

You can schedule (or reschedule) the entire period.

You can schedule the current day only. If you only want to schedule a part of the current day, set those times.

You can schedule the rest of the period, starting with the current day. If you only want to schedule part of the current day, set those times and the schedule will begin at the time you set and run through the rest of the scheduling period.

The current day is the day displayed in the Date selector in the Calendar.

2 Rescheduling options

Select options you want used when you reschedule:

Schedule shift assignments, adding or removing shift assignments:

- You can add additional employees to the schedule when **Add shift assignments** is selected. Deselect it if you do not want to add shift schedules.
- You can completely remove existing shift assignments from the schedule when **Remove shift assignments** is selected. Deselect it if you want to replace an existing shift assignment with a different shift assignment.

Schedule shift events, such as breaks, lunches, training, and so forth. This box is automatically checked if **Schedule shift assignments** is checked. Use the drop-down selector to select the shift events you want to schedule.

Schedule calendar events, such as floating events and classes.

Check **OT / VTO scheduling** to schedule OT extensions and VTO events. If this box is checked, **Schedule shift assignments** is unchecked and unavailable. Several additional OT/VTO scheduling options are displayed.

3 Scheduling algorithm behavior

You can set additional scheduling preferences for periods when the perfect schedule cannot be generated.

Prefer Understaffing/Prefer Overstaffing—Use the slider to determine whether the scheduler will schedule more employees to increase the service level or fewer employees to lessen operational costs.

Minimize spikes in service level/Maximize overall (weekly) service level—Use the slider to determine whether the scheduler should:

- a. Favor less variance in the schedule, creating a smoother curve but a lower overall service level (minimize spikes)

Or

- b. Favor better overall service by allowing poor service during some periods, creating "spiky" employee requirements (maximize overall service level)

Schedule at least N agents—Specify the minimum number of employees that must be scheduled. The system will never schedule fewer than this number.

Minimize Class Sessions over Service Level—If this box is checked, the scheduling engine minimizes the number of class sessions (at the expense of service level). This situation often results in all sessions being filled up with the maximum number of attendees. If this box is unchecked, the scheduling engine maximizes service level. This situation will often result in the maximum number of class sessions being created (given the constraint for the minimum number of attendees).

4 Scheduling using agent preferences

Choose whether employee preferences are to be used when scheduling:

- **No preferences**—Preferences are ignored when scheduling.
- **Preferences by ranking**—Preferences are used based on the ranking given in the **User Management:Employees:Profiles** tab.

- **Preferences by seniority**—Preferences are used based on the employee's start date.
- **Preferences by seniority/ranking**—Preferences are used based on a combination of seniority and ranking.

Favor service level/Favor preference—Use the slider to determine the relative weight the scheduler will give to meeting service level requirements or to meeting employee preferences.

When you move the preference slider bar towards **Favor preference**, the scheduling algorithm makes giving an employee one of their top **X%** of preferences (also known as one of their favored preferences) a higher priority than maximizing service goal, but less important than work rules. (Even if you prefer to have every day off, you still need to work your minimum hours, for instance.)

Whenever the Scheduling engine pauses during the scheduling process to show you potential problems, or at the end of the scheduling process if no problems are encountered, click the **View favored preferences** button to see how the scheduling preferences for the employees were accommodated.

5 Time to schedule

- a. The amount of time to spend scheduling:

Depending on the number of employees and the complexity of their work patterns and scheduling options, it can take a considerable amount of time to create a schedule. Select the amount of time you want to spend.

Normal—The scheduling engine spends enough time to provide a good schedule.

Advanced—The scheduling engine spends more time attempting to resolve conflicts and rule violations.

Schedule until interrupted—The scheduling engine continues to refine the schedule until the process is stopped.

- b. Agents to schedule:

Select the type of employee to schedule.

Select **Employees only** if you are not using workforce planning.

6 OT/VTO parameters

This section is only active if the rescheduling option OT / VTO scheduling was checked.

Specify the OT/VTO parameters:

- **Add OT before shift**—OT extensions can be added before shift assignments.
- **Add OT after shift**—OT extensions can be added after shift assignments.
- **Add VTO to start of shift**—VTO events can be added at the beginning of shift assignments.
- **Add VTO to end of shift**—VTO events can be added at the end of shift assignments.
- **Total Maximum OT Hours**—The total duration of OT extension time that can be added to all the employees (of the filtered set of employees) being scheduled.

- **Total Maximum VTO Hours**—The total duration of OT extension time that can be added to all the employees (of the filtered set of employees) being scheduled.

7 Ignoring warnings settings:

The two checkboxes, **Ignore initial schedule warnings and continue scheduling**, and **Ignore secondary schedule warnings and continue scheduling** allow you to bypass the warning message screens when scheduling. These settings are particularly useful when you are generating a schedule that takes a significant amount of time to complete, thus allowing unattended operation.

Viewing Warnings

This pop-up window lists the schedule warnings produced during schedule generation. The pop-up window has the following buttons at the bottom of the window:

- **Export**
Opens a pop-up window allowing you to specify a file into which you can export the warnings.
- **OK**
Closes the pop-up window and continues the schedule generation process.
- **Cancel**
Closes the pop-up window and cancels the schedule generation process.

Scheduling Warnings and Conflicts

The Conflicts and Warnings pop-up window shows any conflicts or warnings associated with a specific employee.

Click **Resolve** to open a pop-up window where you can resolve the conflict.

Click **Close** to return to the calendar.

Viewing and Resolving Conflicts

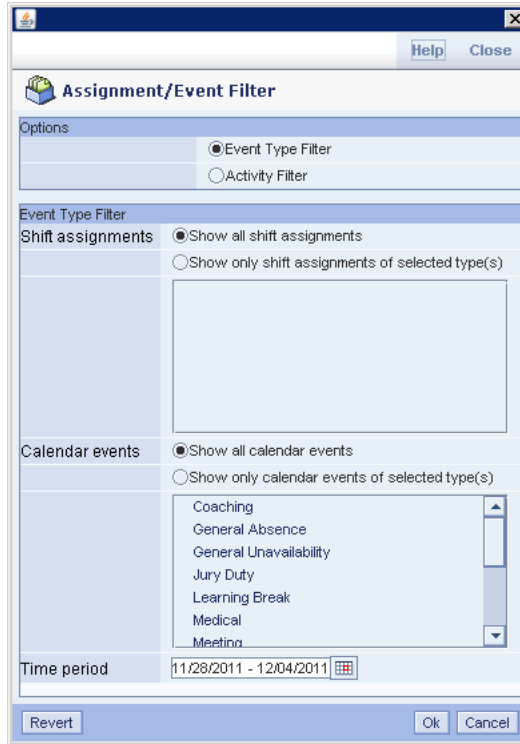
Select the conflict you want to resolve and click the **Resolve** button.

Click **Close** to close the pop-up window and return to the main Calendar window.

Filtering Events and Assignments

The **Assignment/Event Filter** pop-up window allows you to select the types of shift assignments and calendar events you want displayed, by activity, or by activity and timeframe, and even the layer of the events.

Enable the radio button **Event Type Filter** to filter the shift assignments and calendar events by activity.



You have the following options:

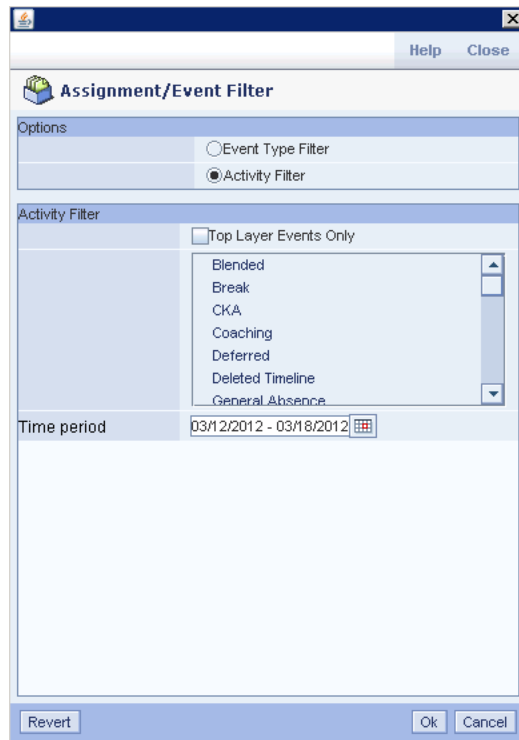
- **Show all shift assignments**
- **Show all calendar events**
- **Show only calendar events of selected types(s)**

Click the types of calendar events you want to display from the display box. Use the **Ctrl** key to select multiple, non-contiguous calendar events; use the **Shift** key to select multiple, contiguous calendar events.

- **Time period**

Use the date range selector to specify the time period for the shift assignments and calendar events by activity.

Enable the radio button **Activity Filter** to filter the shift assignments and calendar events by activity.



You have the following options:

- **Top Layer Events Only**

Enabling this checkbox allows you to filter the events and exclude those that fall under another activity. For example, you can filter out all the meetings in today and tomorrow, but exclude the ones whose attendees are off by adding the layer condition.

- **Time period**

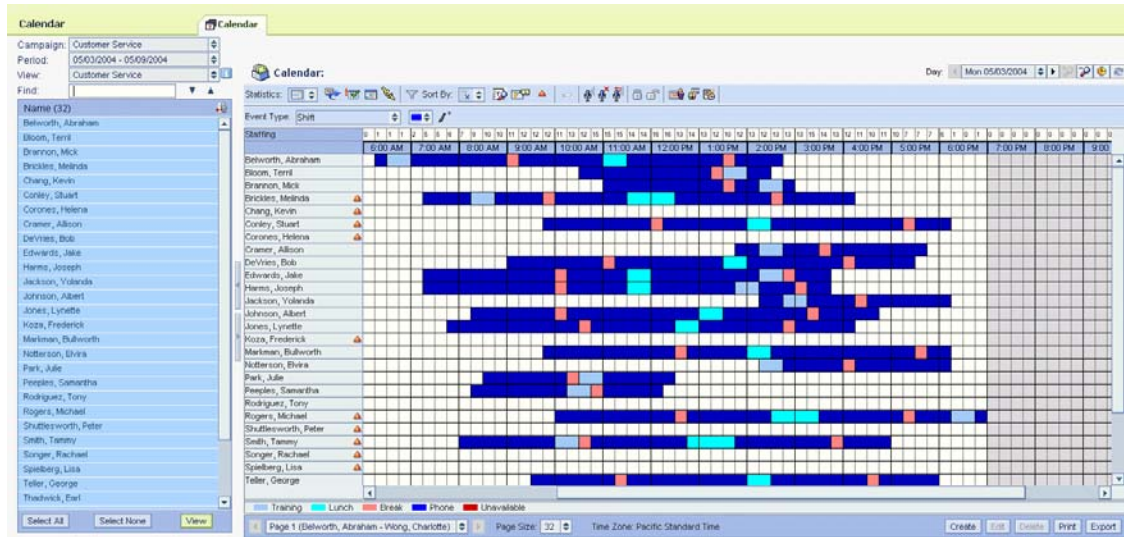
Use the date range selector to specify the time period for the shift assignments and calendar events by activity.

When you have selected multiple events, you can edit those events in the dialog box by right-clicking and choosing **Edit**. You can only change the start time and/or end time of events by setting the same start/end for all events, or moving forward or backward with the offset. You can also change the activity for all the selected events.

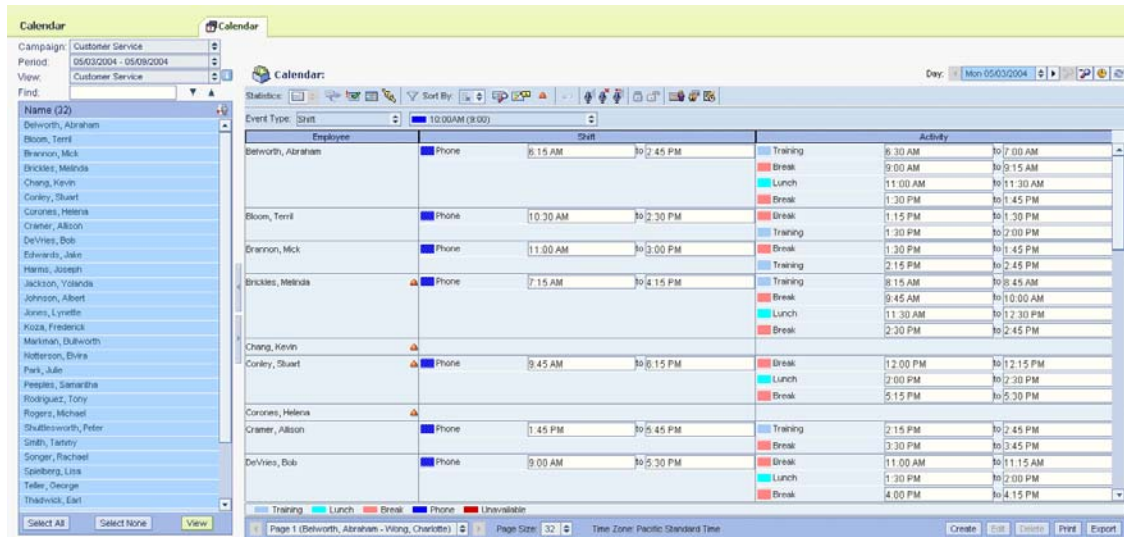
toggling the Display Mode

The Calendar display can be in one of three modes: fish-eye, graphic, or text.

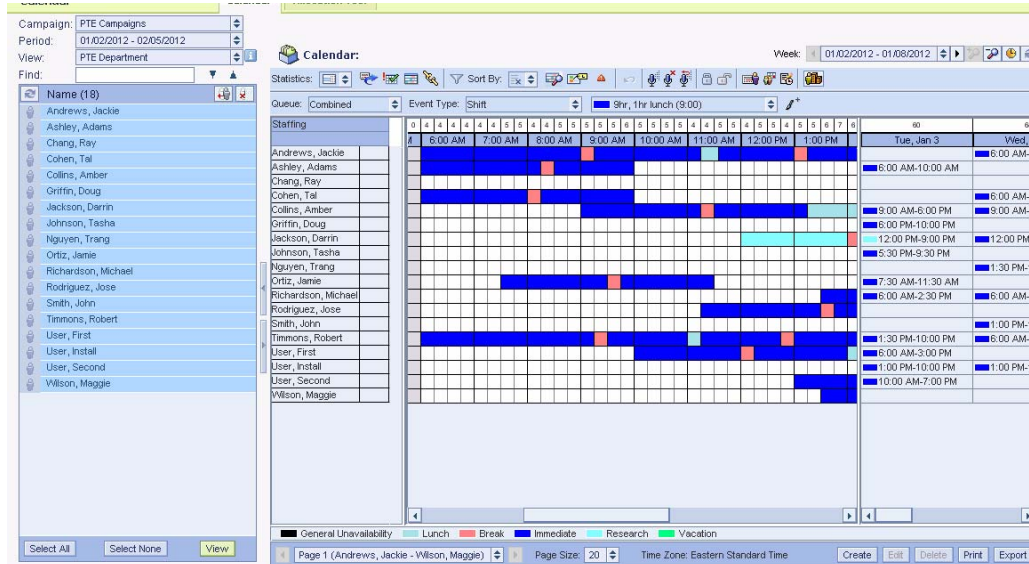
The graphic mode is the one shown mostly in this chapter:



The text mode is in a tabular format, and is shown below:



The fish-eye view is shown below:



Publishing, Unpublishing, and Reverting Schedules

Three icons in the toolbar allow you to control the publishing of schedules:

Icon	Usage
	Publish the schedule
	Unpublish the schedule
	Revert published schedules.

Publishing Schedules

Clicking the **Publish** icon brings up a pop-up window that allows you to specify:

- the start date of the period to publish
- the end date of the period to publish
- whether to only publish time-off events (a checkbox)
- radio buttons to publish the schedule for all employees in the campaign or selected employees

A table lists for each employee in the campaign the employee's last name, first name, and organization. A checkbox to the left of each employee allows you to select specific employees whose schedules you want to publish.

Click **OK** to publish the schedule for the dates, events, and employees you have selected.

Click **Cancel** to close the pop-up window and return to the **Calendar** tab without publishing the schedule.

Unpublishing Schedules

Clicking the **Unpublish** icon brings up a pop-up window that allows you to specify:

- the start date of the period to unpublish
- the end date of the period to unpublish
- radio buttons to unpublish the schedule for all employees in the campaign or selected employees

A table lists for each employee in the campaign the employee's last name, first name, and organization. A checkbox to the left of each employee allows you to select specific employees whose schedules you want to unpublish.

Click **OK** to unpublish the schedule for the dates and employees you have selected.

Click **Cancel** to close the pop-up window and return to the **Calendar** tab without unpublishing the schedule.

Reverting Schedules

Clicking the **Revert to published schedules** icon brings up a pop-up window that allows you to return the schedules for this period to their published state. Any changes made after publishing are rolled back. (The **Time off events only** checkbox is not enabled when you are unpublishing schedules.) This function is only available if schedules have been published for the current period.

The pop-up window allows you to select:

- the start date of the period to revert
- the end date of the period to revert
- radio buttons to revert the schedule for all employees in the campaign or selected employees

A table lists for each employee in the campaign the employee's last name, first name, and organization. A checkbox to the left of each employee allows you to select specific employees whose schedules you want to revert.

Click **OK** to revert the schedule for the dates and employees you have selected.

Click **Cancel** to close the pop-up window and return to the **Calendar** tab without reverting the schedule.

Locking or Unlocking Multiple Events

You can lock and unlock all shifts for your weekly schedule.

You can also unlock all shifts and shift events that you have locked manually.

The **Lock/unlock events** pop-up window consists of three sections.

- 1 **Lock/Unlock:** Select the action you want to perform.
- 2 **What to lock:** Select those schedule components you want to lock. Choices include:

- **Shift Assignments:** You can select only the shifts, or the shift and shift events.
 - **Floating Events/Sessions**
 - **Projects**
- 3 Days to lock/unlock:** You can lock or unlock the schedules for the current day or week, the remainder of the period from the current day onward, or the entire period.

Click **Ok** to lock/unlock the schedules as specified.

Click **Cancel** to close the pop-up window and return to the calendar.

Using the FTE Calculator

The Full-Time Equivalent (FTE) calculator lets you see in advance what staffing levels your forecast and actual schedules will require and what their cost will be.

To use the FTE Calculator:

- 1** Enter the following data in the **Inputs** section:
 - The number of shifts per week for a full-time equivalent (FTE) employee.
 - The average length of each shift.
 - The average hours paid in each shift.
 - The average hours spent answering contacts in each shift.
 - The hourly wage.
- 2** Click **Recalculate**.

The **Estimates based on current schedule** section then displays:

- The paid hours scheduled.
- The hours scheduled for answering contacts.
- The number of FTEs according to the current schedule.
- The total scheduled cost.
- The maximum number of employees working concurrently.
- The minimum number of employees working concurrently.

When finished with the FTE Calculator, click **Close** to close the pop-up window and return to the calendar.

Importing Outsourcer Schedules

For contact centers that share calls across their own sites and outsourced centers, forecasted workload or staffing requirements' information can be shared with the outsourcers to allow them to schedule their staff. The outsourcers' schedules can then be imported back into the contact center's model allowing an increased level of coordination.

The pop-up window allows you to select the organization into which you want to import the outsourcer schedule. Imported outsourcer schedules appear on the calendar as staffing profiles named after the organization that is imported. These schedules are locked. When importing schedules for multiple organizations, schedules for different organizations append to each other, while schedules for same organization overwrite existing ones.

You can specify the time window for which you want to import data by specifying **Start date** and **End date**.

Click **Ok** to import the outsourcer schedule, or click **Cancel** to close the pop-up window and return to the calendar, without import the outsourcer schedule.

Only organizations that are configured to import outsourcer schedules in the Integration Server can be imported.

Viewing Learning and Coaching Assignments

Learning and coaching assignments can be used by Forecasting and Scheduling to create floating breaks in the schedule. These breaks correspond to the lesson and coaching assignments for the scheduling period.

The **View Learning and Coaching Assignments** pop-up window allows you to select one or more employees from the list on the left, and view all of their assignments in a tabular format on the right. This table consists of the following columns:

- the employee name
- the learning or coaching assignment
- the time to be scheduled for the assignment in this period. (Defaults to the total time left to schedule for the entire assignment. This is also the maximum allowable value.)
- the maximum break length (If this value is less than the time to be scheduled for the assignment in this period, multiple breaks are created.)
- the assignment's state

Each assignment has one of three states, which are displayed in the **Needs Attention** column. These states reflect what actions are required for that assignment, and consist of:

- **Create** – You need to create new floating breaks for this assignment.
- **Delete** – You need to delete one or more breaks that are currently scheduled.

- **None** – You do not need to take any action for this assignment.
- the assignment priority
- its status
- the date of its status change
- the available date for the assignment
- the due date of the assignment
- the assignment's total length
- whether the assignment has already been scheduled
- how much of the assignment has been scheduled this period
- the time remaining to schedule
- the assignment type

Two buttons at the bottom of the window allow you to create or edit breaks for the selected assignments. If no assignments are selected, these actions apply to all assignments:

- Click **Create Breaks** to bring up the **Create Learning and Coaching Assignments** pop-up window, where you can schedule individual learning assignments.
- Click **Edit Breaks** to bring up the **Edit Breaks** pop-up window, where you can manipulate all of the individual training assignments currently active (for all weeks).

Creating Learning and Coaching Assignment Breaks

This pop-up window allows you to create breaks in employees' schedules to accommodate Learning and Coaching assignments.

The window contains selectors for the start and end dates in which to create the breaks. For each day of the week, Monday through Sunday, checkboxes allow you to select on which days breaks can be created, and two time selectors allow you to specify the time range during which breaks can be created.

Click **OK** to save your changes and create the breaks, or click **Cancel** to close the pop-up window without creating the breaks.

Editing Learning and Coaching Assignment Breaks

The **Edit Breaks** pop-up window allows you to manipulate all of the individual learning and coaching breaks currently active (for all weeks).

You can manipulate actual learning and coaching breaks associated with the assignments selected in the **View Learning and Coaching Assignments** pop-up window. The various actions listed below are always applied to the selected breaks:

- Click **Edit** to bring up the parent break definition dialog box so that various attributes can be modified. If you change any of the parameters that result in a new

break being created, the original breaks list in the dialog is not refreshed. You must click **OK**, and then reopen the dialog to see the new break(s) that were created.

- Click **Delete** to remove all of the specified breaks and their break definitions (including the floating events associated with the breaks). This button is only activated if one or more breaks are selected.
- Click **Lock/Unlock** to lock/unlock all of the selected breaks. This button is only activated if one or more breaks are selected.
- Click **Close** to exit the dialog box.

Viewing All Classes

Right-clicking the calendar brings up a menu, on which the item **View All Classes** appears. Selecting this item brings up the **Class Viewer** pop-up window, which shows you all classes scheduled within the selected campaign.

Clearing Employee Schedules

Right-clicking the calendar brings up a menu, on which the item **Clear Employee Schedules...** appears. Selecting this item brings up the **Clear Employee Schedule** pop-up window, which allows you to clear the schedules for the current day or week, the remainder of the period from the current day onward, or the entire period.

You can clear the following schedule components:

- shifts and overtime
- overtime only
- projects only

Click **Ok** to clear the schedules as specified.

Click **Cancel** to close the pop-up window and return to the calendar.

Assigning Phantom Schedules to Employees

Right-clicking a phantom schedule brings up the **Assign Phantom Schedule to Employee** pop-up window, which allows you to assign a phantom schedule to a specific employee. The window contains four sections:

- **Filter:** You can filter out from the selection list those employees who already have a schedule assigned.
- **Sorting by:** You can sort employees by either their first or last name.
- **Sorting direction:** The sorting can be done in ascending or descending order.
- **Select one employee to assign this shift:** Use the scroll list to select the employee to assign the shift.

Click **Ok** to assign the phantom schedule to the selected employee.

Click **Cancel** to close the pop-up window and return to the calendar.

Setting Up Printing

Clicking the Print button opens the The Print options pop-up window, which lets you set style, layout, and sorting options, determine the days to print, and set other options. The availability of several options is determined by the print style. Unavailable options are dimmed.

Printing Style

There are two printing styles:

- **Graphical**—Schedules are printed in a graphic format similar to the one displayed on the Forecasting and Scheduling calendar.
- **Textual**—Schedules are printed as a text table.

Calendar Layout Options

You have three choices for the Calendar layout:

- **Combined calendars**—Prints a combined schedule for all employees shown in the **Calendar** module.
- **All individual calendars**—Prints individual schedules for each employee shown in the **Calendar** module.
- **Selected employee calendar**—Prints only the schedule for the selected employee. Use the drop-down selector to select the employee.

Days to Print

You can choose to:

- **Print current day (day zoom)**—Prints the current day (the day displayed on the calendar).
- **Print entire period (day zoom)**—Prints daily schedules for the current period. Prints 12 hours per page.
- **Print current week**—Prints a combined schedule for the current week. Less detail is available than in day view.
- **Print entire period**—Prints a combined schedule for the current period. Less detail is available than in day view.

Other Options

The other options available here include:

- **Print shift comments**—Includes any comments for the shift.
- **Fit to page width**—Scales the print-out to fit the page set-up.

Click the **Page setup...** button to open a Microsoft Windows-standard page setup pop-up window, which allows you to specify the paper size, source, print orientation, and margins.

Click the **Print preview...** button to see what your schedule will look like when printed.

Click **Print** to open the Windows Print pop-up window.

Click **Cancel** to return to the calendar without printing the schedule.

Exporting Schedules

This pop-up window allows you to select the schedule information to export and the time period.

You can export employee start and end times, or employee activity assignments.

A period selector allows you to choose which period's information to export.

Allocation Tool

This page allows you to make changes to the distributed campaign forecast. Those changes are propagated to the forecasts of the child campaigns, according to the allocation percentages specified on this page.

The page consists of:

- a queue selection pane, which only displays immediate and deferred queues
- a display pane, which itself consists of three components:

- a summary view

The summary view displays the actual portion of each day's total forecast that is allocated to each child queue over each day in the scheduling period.

- a graphical view of allocation

The graphical view of allocation displays the allocation percentage for all the distributed child queues as lines on a single chart, with different line colors representing the different child queues. The chart cannot be edited directly.

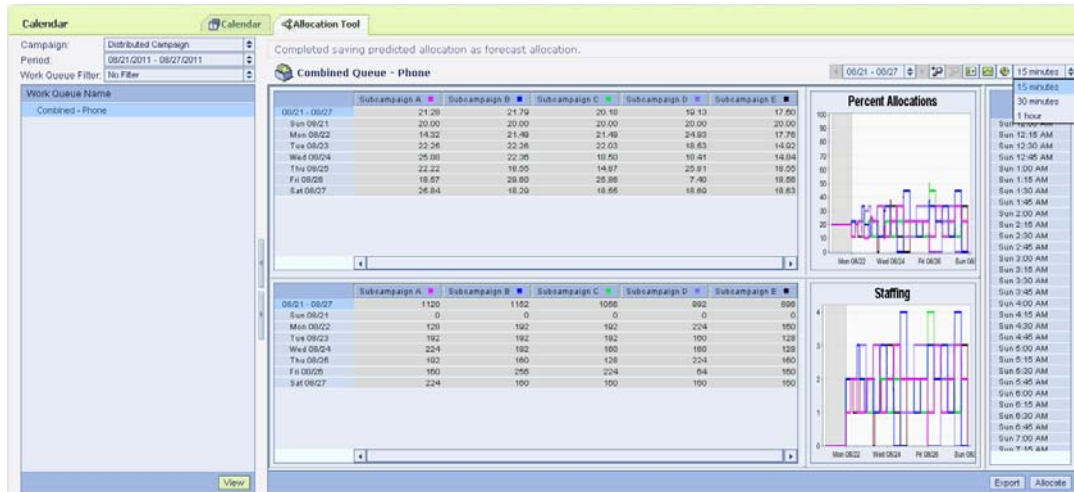
- a tabular presentation of allocation by 15-minute intervals

The table view permits allocation percentages to be entered for each child queue at 15-minute intervals.

NOTE



Although allocation percentages can only be viewed and edited directly at 15-minute intervals, they can be exported at 15-, 30-, or 60-minute intervals.



When one child campaign's forecast is modified, there is no effect on the other child campaign forecasts; no effort is made to maintain the previous allocation percentages. When invoked in a distributed campaign, the allocation tool displays optimized forecast volume allocation percentages based on the actual schedule and is not editable. The calculated percentages can be viewed and exported at 15-, 30-, or 60-minute intervals.

Two different components control the allocation of the volume forecast among child campaigns of a distributed campaign: the **Distributed Allocation** tab, which is accessible from the **Forecasting and Scheduling** module's **Tactical Forecasts** section, and the **Allocation Tool** tab, which is accessible from the **Forecasting and Scheduling** module's **Calendar** section.

Two buttons are located below the display pane:

- **Export**, which allows you to export the allocations currently shown on the tab.
- **Allocate**, which updates the forecast distribution percentages with those shown and redistributes the forecast to the child queues using those percentages.

Entering Data in the Table View

Table cell selection and editing in this tab is different from other existing tables.

Table cells on this tab are divided into four classes, each with different behavior:

- disabled cells

Cells that correspond to times outside the scheduling periods hours of operation are disabled. No value can be entered in these cells and they do not participate in the calculations involving the other three cell types.

- active cells

The cells most recently selected, whether using the mouse or keyboard navigation are the active cells.

Whatever value you enter in an active cell is duplicated in all active cells.

As a value is entered in the active cells, the total of all the locked and active cells for a single day is subtracted from 100. The remainder is distributed evenly across all the unlocked inactive cells for that day.

- locked cells

Cells that have been clicked or dragged to or in a selected row are locked until you click in a different row. Active cells are not counted as locked cells.

The value in a locked cell does not change after it has been locked. Unlocked inactive cells' values will be adjusted as necessary to accommodate values in active cells and locked cells.

- passive cells.

Cells that are neither locked nor active are passive, and have values auto-entered and displayed as you enter a value into the active cells. All passive cells have the same value, such that the total of all cells in a row is always 100%.

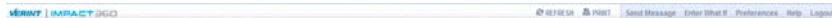
When you enter a value in the active cells, the daily distribution is calculated for every child queue for the selected day.

The displayed values are used to allocate the forecast for each interval proportionally to all the child queues that are open during that interval. For example, if there are three queues, each allocated 33.33% of the forecast, then during periods in which only two of the queues are open, each will receive 50% of the forecast.

What If Mode in the Web Application

You can also enter What If mode when you are logged into the web application.

To enter What If mode, click the Enter What If text at the top of the web application window:



The colors used in the display change to signify that you are in What If mode.

What If mode in the web application allows you to use the following reports:

- Management Reports
 - Employee Information
- Performance Reports
 - Daily Comprehensive Performance
 - Daily Forecast Assessment
 - Daily Service Goals and Backlog
 - Monthly Forecast Assessment Summary
 - Monthly Service Goals Assessment Summary
 - Service Goals Assessment
 - Staffing Number Assessment by Interval
- Staffing Reports
 - Daily Planned Time Assessment by Employee

- Employee Calendar Events
- Employee Schedule by AgentID
- Employee Schedule by Date
- Employee Schedule by Employee
- Employee Shift Assignments
- Planned Activity Cost (Unburdened)
- Planned Media Cost (Unburdened)
- Planned Staffing Numbers by Interval
- Planned Time Assessment
- Weekly Planned Time Assessment by Employee
- Time Off Reports
 - Absence Hours and Absence Shrinkage for Employee by Time
 - Absence Hours and Absence Shrinkage for Employee Filter by Employee
 - Absence Hours and Absence Shrinkage for Employee Filter by Organization
 - Absence Hours and Absence Shrinkage for Employee Filter by Time
 - Absence Numbers for Employee by Time
 - Absence Numbers for Employee Filter by Employee
 - Absence Numbers for Employee Filter by Organization
 - Absence Numbers for Employee Filter by Time
 - Time Off Allocations by Time
 - Time Off Requests for Employee by Time
 - Time Off Requests for Employee Filter by Organization
 - Time Off Requests for Employee Filter by Time
 - Time Off Summary for Employee
 - Time Off Summary for Employee Filter
- Work Force Planning Reports
 - Daily Profile Requirements
 - Profile Requirements

For additional information on these reports, see the *Framework Reports Guide*.

Frequently Asked Questions

If you are having trouble with Forecasting and Scheduling, read through the following questions and answers before contacting technical support. In many cases, you will find the answer to your question.

Questions and Answers—Organization Mode

Creating an Organization

- 1** Do I have to create an organizational hierarchy?
No. You can have one organization with all of your employees in it.
- 2** Does my hierarchy have to be by location?
No. You can have all of your employees on the same floor and break them out into different divisions or units. It is completely dependent on how you want to manage your employees.

Operations

- 1** Is maximum consecutive work days to schedule just within a week?
No. The maximum days to schedule specifies the number of days in a row that employees can *ever* be scheduled, even across week boundaries.
- 2** How is this different from consecutive shift assignments in work rules?
This is a different feature than consecutive shift assignment. This is for employees total scheduled days, regardless of the shifts they are assigned. The consecutive shift assignment rules are on a per shift basis and specify how many days in a row a particular shift may be assigned to an employee.

- 3** Can my start day be any day?

Yes. When you create the organization, you specify the start day. Anything related to days of the week will automatically adjust to show that start day as the first day. For example, if you set your start day to be Wednesday, then the hours of operation and all of the calendars will put Wednesday at the head of the list.
- 4** How do I change the time zone display to see the hours of operation in my own time zone?

You can change the time zone by double-clicking the display time zone in the status bar on the bottom of the screen. You can set up two defaults to switch back and forth. You can only edit data in the time zone of the organization. The time-related data will automatically adjust to the new time zone.
- 5** Can schedules cross the week boundary?

Yes.
- 6** Can I schedule different organizations together that are in different time zones?

Yes. Simply add the organization in the **Operations** module of the Campaign mode and verify the hours of operation are correct for the full range of times you are open. The system takes care of the rest.
- 7** How do I give an organization its time zone?

You set an organization's time zone when it is created. This cannot be changed, which is why it appears only as a text string on the Operations screen.
- 8** How do I specify hours for my 7-day, 24-hour operation?

In the Organization mode **Operations** module, click **24-hour contact center**. Your start and stop times are automatically set for you based on the day boundary you set when you created the organization.

Work Rules

- 1** Do I need to create separate shift events for each shift?

No. You create a pool of shift events that any shift can use.
- 2** How do I create new shift event types?

Go to the **Activities** module.
- 3** How many shift event types can I have?

As many as you want.
- 4** How many shifts, shift events, or work patterns can I have?

As many as you want.
- 5** Can I create shift events such as breaks that are less than 15 minutes long?

Yes. You can create a shift event ranging from one minute to 23 hours, 59 minutes long.

- 6 Which part of the work rules actually gets associated with an employee?
Work Patterns. Each employee is assigned one or more work patterns and each work pattern can be assigned to as many employees as you want. Rotations and Assignment Rules are also associated with each employee.
- 7 If I have many organizations in my hierarchy, but they all have the same work rules, do I *have* to create separate ones for each?
No. You can set the work rules at the parent company and all of the other Organizations will inherit them. This speeds your setup process and helps you control the patterns at a high level.
- 8 Can I automatically rotate shifts?
Yes. Rotations can be set up in the Organization mode **Work Rules** module.
- 9 How long does a work pattern cover?
One week only.
- 10 How can I define a split shift?
You can define split shifts as one long shift with a big break between the first and second parts. Define a shift that is the total length of the first shift plus the second shift plus the split time. Then, define an *unpaid* break that is fixed (only one possible start time for the break) occurring between the first and second shifts. (Of course, you can still define other breaks inside the shifts.)

Employees

- 1 Is there a limit to the number of employees?
The only limit is the number that you are licensed for.
- 2 What if I have a lot of employees that no longer work for me? Will that count toward the number of employees I have?
No. The licensing mechanism only looks at active employees in the database. When an employee leaves, you simply deactivate them by giving them an end date and they are not counted towards licensing (and they cannot be scheduled) after that date.
- 3 Can I delete employees?
Yes. Their information from the past will remain valid so that reports (in the Workforce Management web application) and old schedules are correct, but they will not be seen or scheduled as you move into the future.
- 4 Are there any user-definable fields?
Yes. There are 10 (**User1, User2...User10**). These fields are given names in the **System** module, **Administration** section, **General** side-bar element of the web application.
- 5 Where do I set unavailability in Forecasting and Scheduling?
On the **Calendar** tab in the **Employees** module. Click and drag to set the hours the employee is unavailable. *You will need to make the unavailability a recurring event if the employee is always unavailable during that time.* Right-click the unavailability,

select **Edit Unavailability...**, and click **Add Recurrence...** in the **Unavailability Event** window.

- 6 When I create vacations for my employees, can I determine the number of vacation hours that will actually be counted for reporting?

Yes. The system defaults a vacation to 8 hours, but you can edit this value. Forecasting and Scheduling also counts the hours set for vacation hours towards meeting the minimum and maximum paid hours for the week. Double-click the event, then click **Event makes employee(s) unavailable**, then click **Count toward min/max paid hours**, and then type the number of hours.

- 7 What is Proficiency?

Proficiency is a factor of Average Handle Time. It is used mainly to distinguish between fast employees, and employees who take longer to handle calls. **1** is an average employee. A slower employee receives a proficiency of **2**, meaning he takes twice as long to handle a contact, while a fast employee has a proficiency of **0.5**, meaning he is twice as fast.

- 8 Is there something to automatically help me determine Proficiency?

No. It is up to you to define and enter that information.

- 9 When I set a preference, what am I actually setting the preference for?

You are setting a preference for certain start times, days off, or a certain work pattern.

- 10 Can I set a preference for a shift?

Yes. You can set a preference for a shift by creating a work pattern that contains only that shift.

- 11 Can I tell the system that an employee prefers to work at a certain time in the day?

You can do this by setting the employee's preferences in the **Employees** module.

Calendar

- 1 What sorting options does the calendar provide?

Sorting options include.

- **Sort Ascending (Up)** (alphabetical, for example, A-Z)
- **Sort Descending** (alphabetical)
- **Sort by Shift Start Time**
- **Sort by Shift End Time**
- **Sort by Shift Length**
- **Sort by Shift Type**
- **Sort by Event Start Time**
- **Sort by Work Pattern**

- 2 What filtering options does the calendar provide?

Filtering by shift assignment or calendar event, or filtering by any employee field.

- 3 How do I create a meeting?
Meetings are created through “classes.” See “[Creating Classes](#)” on page 219.
- 4 I have a staff meeting every Monday morning. Do I need to create one each week?
No. You can use the **Recurring Events** feature and it will automatically schedule your event for every Monday. Events can recur at any period you may specify.
- 5 Can the system find the best time to hold the meeting?
Yes. This is achieved through the Floating Events feature. The user can specify the possible days and time range in which the meeting can occur, and specify the invitees. When the system schedules, it finds the best time to hold that meeting based on the current schedule and when service levels would be impacted the least.

Questions and Answers—Campaign Mode

Creating a Campaign

- 1 So what exactly is a campaign?
The best way to think of a campaign is that it is a group that you need to schedule. Some users will have one campaign only, others will have multiple. A campaign is a line of business that has one or more queues associated with it and employees to take the calls from those queues.
- 2 What is a scheduling period?
A scheduling period represents one or more weeks that are, or can be, scheduled.
- 3 Can I copy scheduling period data from scheduling period to scheduling period?
Yes. The data that is copied includes the queues, skills, organizations, employees, forecasts, service goals, and any locked shift assignments from the copied scheduling period.

Operations

- 1 I see that there is a time zone field for the campaign. Do I have to have organizations from that same time zone?
No. This is just a way to determine the time zone used for the data you enter into the campaign mode. Any user can change the display time zone and see the information in the selected time.
- 2 Can I have hours of operation for a scheduling period that are different than the hours of operation for the organizations which are linked to it?
Yes. The system is flexible enough to let you set hours that are different at the campaign level. This also helps you to set special hours for holidays, for example.

- 3 Is there a place in Forecasting and Scheduling where I can specify holidays and their hours?
Forecasting and Scheduling does not have a holiday calendar. However, because of the flexibility of the hours of operation at the campaign level, you can change hours to be different for any day in any scheduling period. This ensures you can set your hours to match any special scenario.
- 4 When I'm adding an organization to a campaign and I pick a parent organization, will all of its children automatically be selected as well?
Yes.

Work Rules

- 1 How are work rules used in a campaign?
When you create work rules in the campaign, it enables you to set rules that are only applied to this campaign. It enables you to customize shifts and work patterns to meet the needs of special weeks. Most users set up their work rules in Organization mode and use those on a regular basis. Campaign work rules provide you with flexibility without changing your global work rules.
- 2 Do I have to use the **Work Rules** module in the campaign?
No. Because you can set up general rules in the Organization, once you link that Organization to the campaign, you will automatically see their work rules here. When you link employees, you also see the employee/work pattern linkages you set in the **Employees** module in the organization.

Employees

- 1 What happens in the Campaign **Employees** module?
This is where you specify the individual employees who will be taking calls from the queues you set in the **Operations** window. When you link an organization, you are automatically given the ability to choose from its employees. When you click the New button in the toolbar, you are provided with a list of employees from the Organizations you linked. You can choose any number of employees.
- 2 Can I change employee information in Campaign mode?
Yes, but only a limited amount of information can be changed. You can change the following pieces of information: min/max hours, ranking, proficiency, work pattern links, and skills.
- 3 Can employees be scheduled in multiple campaigns?
Yes. Forecasting and Scheduling will be sure not to destroy any shifts that were created by another campaign.
- 4 Can an employee be scheduled in multiple campaigns on the same day?
No. Employees can receive only one shift assignment per day from the scheduling engine.

Forecasting

- 1** Do I need to use profiles to forecast?

No. In Forecasting and Scheduling, you can choose weeks from history, create a profile, or just type in numbers.
- 2** Can I edit profiles?

Yes. Once they are created they can be edited at any time. Load the profile, make your changes, and then resave the profile.
- 3** Can profiles be any other length of time than a week?

No. Profiles are limited to a week, but they can contain as many weeks of data as you want.
- 4** Can Forecasting and Scheduling automatically reforecast?

You can use the Pulse graphs to easily compare forecasted to actuals, and run a Report on the deviation from predicted and/or required. This identifies the adjustment that is necessary. You can then return to the **Forecast** module and change the forecast by using the Scale feature or by adjusting the numbers in the table.
- 5** How does the weighting feature work?

By averaging the data from several weeks, a profile can smooth out the random quirks that can distort your forecast. At the same time, averaging can blur distinctions that let you anticipate patterns in your contact volume. To avoid this, Forecasting and Scheduling lets you use weighted averages, assigning lesser weight to de-emphasize weeks with irregular behavior or greater weight to emphasize weeks with important patterns.
- 6** Can I use absenteeism from this time last year?

Only if you copied the week from a week from last year. Otherwise, you must determine it yourself.
- 7** Should I import data directly into Forecast?

No. You should import data into Pulse so it will be saved for future use.

Service Level

- 1** Why is my predicted average speed to answer (ASA) so high?

This usually indicates that there are not enough employees assigned to meet the predicted workload.

When the workload (the total number of seconds of work that needs to be done by the scheduled employees) exceeds the total time available to the employees, the ASA jumps to a very large number because there is no one to answer the calls. The large prediction is accurate.
- 2** How accurate is the Full-Time Equivalent (FTE) cost calculator? Can I use it for budgeting?

The cost calculation in the FTE calculator should be seen as an estimate to which some overhead needs to be added. The calculated costs are based on the staffing

hours required multiplied by a single hourly wage. The result is accurate only if the contact center is perfectly staffed with absolutely no overstaffing or understaffing. In the real world, of course, some overstaffing or understaffing is inevitable due to contact volume spikes and other uncontrollable variables.

Calendar

- 1 When I create a schedule, John Doe is not scheduled to work at all.

First, check the **Employees** module to make sure that John's **Min hours per week** setting is greater than zero. If it is zero, then Forecasting and Scheduling will not use John unless necessary.

If John's minimum hours setting is greater than zero and he is still not being assigned to work, Forecasting and Scheduling could not find a way to use this employee. In the **Employees** module, make sure there is a work pattern checked for John. Then check John's calendar for unavailabilities to make sure that John is available for work during the shift times.
- 2 Jane Doe should work 5 shifts a week and is only scheduled for 4 days.

If you add another shift, it will probably cause Jane to exceed her maximum work hours per week. In the **Employees** module, check to see that her maximum and minimum work hours are correct. Also, remember that these minimum and maximum hours include all paid time. If you define a break in a shift pattern as paid, then that break time counts against the minimum and maximum hours.
- 3 Forecasting and Scheduling is not scheduling people even though they are available and there is high demand.

You may be out of seats! In the Organization mode **Operations** module, check to see how many seats you have given Forecasting and Scheduling for scheduling, and then look at the schedule to see if you are hitting that ceiling.
- 4 My part-time employees are not being given as many hours as I want. What can I do?

There are a number of things to check.

First, look at the Staffing graph in the **Pulse** module to see if there is much understaffing. If there is little or no understaffing, then Forecasting and Scheduling is not giving your part-timers many hours because it does not need them to make a good schedule! You can force Forecasting and Scheduling to give hours to part-timers by specifying minimum work hours per week for part-timers in the **Employees** module.

If there is some understaffing, but part-timers still are not working, try changing the **Scheduling algorithms behavior** settings in the **Schedule Setup** window. (To open the **Schedule Setup** window, click the **Re/schedule** button in the **Calendar** module.) Move the slider to **Prefer overstaffing**. By doing this, you are telling Forecasting and Scheduling that you are willing to accept more overstaffing at times in order to eliminate understaffing.

- 5 What is the difference between scheduling meetings and scheduling non-phone time?
- It is the difference between one-time events and recurring events. Meetings, training sessions, and the like are usually one-time-only events that you add directly to the schedule on a specific day. Breaks and other non-phone times, however, are usually recurring events that are scheduled for every shift and should be part of the shift pattern.
- 6 How can I establish a set schedule for an employee?
- You can create a set schedule (one that always starts at the same time, for example) by editing the employee's availability or by creating a customized shift pattern.
- 7 I want to change John Doe's schedule so he does not work Mondays any longer. What's the best way to do this?
- If this change is permanent and John is never going to work Mondays again, make the change on John's Calendar in the **Employees** module. Right-click Monday, and then select **Make Unavailable** to make the entire day unavailable, and Forecasting and Scheduling will never schedule John for Mondays. If John will be unavailable on Mondays for only a week or two, make the change in the Campaign mode **Calendar** module. When you generate a week's schedule, start by making John unavailable for Monday if he will not be able to work that day.
- 8 When the schedule is printed, it looks funny.
- In the Campaign mode **Calendar** module, select **Page Setup** from the **File** menu, and then click the **Settings** button to open the **Print Settings** window. In this window, you can configure the patterns used for printing schedules. Use the test page to see if your pattern choices print to your liking. One or the other of the two custom settings provided usually works for most printers.
- 9 When the schedule is printed, I can't distinguish between shifts and breaks.
- The print patterns currently selected for shifts and breaks look the same on your particular printer. In the Campaign mode **Calendar** module, select **Page Setup** from the **File** menu, and then click the **Settings** button to open the **Print Settings** window. In this window, you can configure the patterns used for printing schedules. Use the test page to see if your pattern choices print to your liking. One of the two custom settings provided will work for most printers.
- 10 When I print the schedule, it prints out on more than one page. Is there any way I can reduce the size of the printout to fit the schedule onto one page?
- You can print the schedule in text formats, which typically take less space than graph formats, or you can resize the graphic schedule printout. To resize the graphic schedule printout, select **Page Setup** from the **File** menu, and then click **Settings** to open the Print Settings window. In the **Scale** section of this window, you can scale the printout by a percentage or you set the number of pages you want the schedule printed on, and have Forecasting and Scheduling automatically resize the schedule to fit.

Pulse—Importing Contact History Data

- 1 I recently installed Forecasting and Scheduling but I have not configured Integration Server to automatically import ACD data. I would like to set up a forecast to create a schedule. How do I import a few weeks of ACD data/contact history into Forecasting and Scheduling?

The best method for importing many weeks of data from many queues is by configuring Integration Server. Manually importing data, which is described below, can be complex and time-consuming if you need to import large amounts of data.

- 2 Should I import this data into the **Forecast** module or the **Pulse** module?

Import your data into the web application's **Tracking** module, **Pulse** section, **History** tab. Contact history data imported into Pulse is saved and can be used for any forecast in the future. Data imported into the **Forecast** module is *not* saved as contact history and will be more difficult to reuse in a future forecast.

If the data imported into Forecast is not saved in Pulse, any changes made to forecast values cannot be undone. For example, if you enter data in a forecast manually and then change some of the contact volumes, the original values are not saved and you cannot undo your changes by clicking **Restore**. When you load a week of data saved in Pulse into your forecast, you can change the numbers in the **Forecast** module and can then clear all your changes by clicking **Restore**.

- 3 What is the best way to do this manually?

First, create a report on your ACD that will be saved as a text (*.txt) file. Add your data to the report, and then import the data into Pulse.

To create your ACD report file:

- Use one of the following delimiters: Tab, Comma, or Semicolon.
- Make sure each text file contains information for only one queue and for a single week. Do not print more than one queue to a file. To print more than one week to a single file, see page [586](#).
- Make sure each text file has an interval of 15, 30, or 60 minutes. 15-minute intervals are best.


- Import the following types of data into the **Pulse History** tab (as you require): **Date, Time, Contact Volume, Service Level, Abandon, ASA, AHT, Staffing, and Occupancy.** No other categories are necessary for this report.

Here is an example of a portion of an ACD tab-delimited text report with a 30-minute time interval (48 total 30-minute intervals per day):

Date	Group	Time	Contact Volume	ASA	SL	Abdn
22/11/1999	5913	00:00	0	0	100	0
22/11/1999	5913	00:30	0	0	100	0
22/11/1999	5913	01:00	0	0	100	0
22/11/1999	5913	01:30	0	0	100	0
22/11/1999	5913	02:00	0	0	100	0
22/11/1999	5913	02:30	0	0	100	0

To illustrate how this report can be imported into Workforce Management, let's assume you have created a text file with the formatting shown above and saved it as **C:\Group5913.txt**. The contact center has a Monday 12 a.m. start, and the hours of operation are M–F. This file contains 5 days worth of data (Monday, 11/22/99 through Friday, 11/26/99). The only ACD Queue/Group/Skill in this report is Group 5913. Let's also assume that a queue has already been created in Forecasting and Scheduling for Group 5913 (a new queue is created with ACD Utilities), and this queue is already linked to an existing scheduling period.

To import data using this file:

- Start the web application.
- Open the **Tracking** module, and select the **History** tab in the **Pulse** section.
- Select the queue for which you are importing data.
- Click the **Show Data Table** button . This allows you to see the data you import.
- From the Date selector, select the week to import. In this example, you would click on Monday, 11/22/99.
- Click **Import** to open the **Import** dialog box:

Field Name	Column Number	Time Unit
<input checked="" type="checkbox"/> Contact Volume	5	
<input checked="" type="checkbox"/> Average Handling Time	6	Seconds
<input checked="" type="checkbox"/> Service Level	7	
<input checked="" type="checkbox"/> Average Speed to Answer	8	
<input checked="" type="checkbox"/> Abandons	9	
<input checked="" type="checkbox"/> Backlog	10	
<input checked="" type="checkbox"/> Staffing	11	
<input checked="" type="checkbox"/> Occupancy	12	
<input checked="" type="checkbox"/> Full Time Equivalents	13	
<input checked="" type="checkbox"/> Dials	14	
<input checked="" type="checkbox"/> Connects	15	
<input checked="" type="checkbox"/> Right Party Connects	16	
<input checked="" type="checkbox"/> Right Party Connect AHT	17	
<input checked="" type="checkbox"/> Queue Name	1	
<input checked="" type="checkbox"/> Date	2	
<input checked="" type="checkbox"/> Time	3	

The dialog box contains the following parameters:

- **Source File** – The file path where the data to be imported is located. Click the browse button at the right of the **Source File** field, locate **C:\Group5913.txt**, and then click **Open**.
- **Time Zone** – You set **Time zone** to either campaign or GMT, depending on the way the report is generated by the ACD. In this example, it should be set to campaign time zone.
- **Time Interval** – You choose in which time interval data will be imported. For this example, set the **Importing interval** to 30 minutes.
- **Delimiter** – You choose which delimiter was put between columns in the imported data file. In this example, select **Tab** from the **Delimiter** pull-down.

The dialog box also contains a mapping table with a list of available statistics (trace types) that you can import from the file.

You need to map each statistic to its corresponding column number in the file.

The statistics include:

- Contact Volume
- Average Handling Time
- Service Level
- Average Speed to Answer
- Abandons
- Backlog
- Staffing
- Occupancy

- Full Time Equivalent

Other columns that also need to be mapped are:

- Queue Name
- Date
- Time

- g. For the example text, place check marks in the following fields and set the column numbers as indicated:

Contact volume = 4

Average Speed to Answer = 5

Service Level = 6

Abandons = 7

- h. Click **Import** to import the data from the current view. When the import is complete, you should get a dialog box that states something like this:

Pulse import done.

240 records out of 244

from file C:\Group5913.txt were imported

You have now imported one week's worth of data into Pulse contact history for Queue/Group/Skill 5913. You are now ready to import data for other queues into the same week or import data for more weeks into the same queue.

- 4** How do I import more than one week in a single file

If you need to import several weeks worth of data, you can create a single text file for a queue that has more than one week in it. Date formats come in several different forms from each ACD, and certain formats cause the import process to fail. Therefore, using the example above, if you want to import 3 weeks of data, you need to add data to the text file to account for the Saturday and Sundays that are closed. There must be at least one hour of data with zero values for Saturday and for Sunday, or the Monday data for the second week will be imported into Saturday of the first week. To adjust for this, do the following:

- a. Set up the first week using 5 days worth of data with all 24 hours accounted for (in this example, 48 lines of 30 minutes report text).
- b. Copy one hour's worth of data and paste it twice between Week 1 and Week 2, and change the date for this data to the Saturday and Sunday dates. If you use the example above, the following four lines would be inserted between Week 1

and Week 2, and dates would be changed. (Only two lines are added because it is a 30-minute report; four lines would be needed for a 15-minute report):

27/11/1999	5913	00:00	0	0	100	0
27/11/1999	5913	00:30	0	0	100	0
28/11/1999	5913	00:00	0	0	100	0
28/11/1999	5913	00:30	0	0	100	0

It is not necessary to change the dates, but it makes it easier to understand the text file by doing so. Insert the Saturday and Sunday data between each week in the text file. You do not need to insert 24 hours of data for each day.

Technical Reference

This appendix contains:

- a list of common error messages (page [588](#))
- a description of the way Forecasting and Scheduling uses different text colors (page [604](#))
- a section on deleting information (page [605](#))
- a look at the way Forecasting and Scheduling uses priorities and preferences (page [606](#))
- a description of how to do a quick comparison of the predicted and required staffing and service level statistics (page [607](#))

Understanding the Schedule Checker Messages

The heart of Forecasting and Scheduling is its ability to generate schedules for your employees. During the scheduling process, it analyzes many factors to provide an optimum schedule that satisfies your forecast requirements and desired service levels as well as taking into account employee availability and preferences.

If the scheduler cannot generate an optimum schedule, it displays messages that let you know where the difficulty lies. This section lists those messages and offers suggestions that might eliminate them.

General Issues

<Number> profiles without shift assignments were scheduled. This was necessary to satisfy 'Target Agent Ratio' or 'Limit # of Agents to' constraints.

The scheduler created some staffing profiles without any shift assignments to satisfy the **Target Agent Ratio** or **Limit # of Agents To** constraints. To address this issue, there are several possibilities:

- 1 You might want to reduce the **Target Agent Ratio** percent or the **Limit # of Agents To** number in the **Staffing Profiles** tab of the campaign's **Employees** module so that additional staffing profiles will not be created.
- 2 You might want to assign an assignment rule such as *Employees must work between 30 and 40 hours per week* to the staffing profiles in the **Staffing Profiles** tab of the organization's **Employees** module. This ensures that the additional staffing profiles that are created will have shift assignments.

It may be difficult to create profiles from Template <profile_name> due to Assignment Rule <assignment_rule_name>.

The scheduler attempted to add the named staffing profile, but was unable to because it could not create a schedule that complied with the staffing profile's assignment rule. Examine the other messages to see how many units were overstaffed or understaffed for the assignment rule. Verify that staffing profile's work pattern is consistent with the assignment rule and could be followed without violating the rule. Also, verify that all other assignment rules assigned to the staffing profile are consistent with the named assignment rule.

It may be difficult to create profiles from Template <profile_name> due to overstaffing.

The scheduler attempted to add the named staffing profile, but was unable to because it causes excessive overstaffing. Although it is unlikely the scheduler will add more staffing profiles to the starting schedule, it might still change the mix of staffing profiles by removing others and replacing them. If you want the scheduler to add more staffing profiles of the given type, there are several possibilities:

- 1 You can set the **Scheduling algorithm behavior** slider bar towards **Prefer Overstaffing** in the scheduler options.
- 2 You can increase the forecast in the campaign's **Forecast** module.
- 3 You can increase the service goal in the campaign's **Service Goals** module.
- 4 You can remove existing employees from the calendar.

It may be difficult to create profiles from Template <profile_name> due to the number of seats in Organization <organization_name>.

The scheduler attempted to add the named staffing profile, but was unable to, because the number of seats would have been exceeded in the named organization. If you want to add more staffing profiles from the given organization, you need to increase the number of seats in the organization's **Operations** module.

It may be difficult to create profiles from Template <profile_name> due to work pattern issues.

The scheduler attempted to add the named staffing profile, but was unable to, because it could not create a schedule that complied with the staffing profile's assigned work pattern. Examine the other messages to see if the work pattern was valid, if there were ignored shifts, or if there was a shift possible on every day. Also, verify that work pattern's occurrence grid is consistent with the work pattern's min/max consecutive shifts and the max consecutive working days specified in the staffing profile's organization.

No agents are scheduled to work between <date> <time> and <date> <time>.

Even though there were contacts arriving between the given dates and times, there are no employees scheduled. The employees' work patterns or work rules, such as Max Hours, might not have allowed them to be scheduled. To address this issue, there are several possibilities:

- 1 Add more employees to the scheduling period in the campaign's **Employees** module.
- 2 Add more shifts to the employees work patterns in the **Work Pattern** tab of the **Work Rules** module, or add more start times to the shifts in the **Shifts** tab of the **Work Rules** module.
- 3 Increase the employees' maximum hours in the **Employees** module.

Only <number> agents at: <date> <time> are scheduled, but Min Agents constraint requires <number> agents.

The scheduler was not able to satisfy the Min Agents constraint during the given times. The employees' work patterns or work rules such as Max Hours may not have allowed them to be scheduled. To address this issue, there are several possibilities:

- 1 Add more employees to the scheduling period in the campaign's **Employees** module.
- 2 Add more shifts to the employees work patterns in the **Work Pattern** tab of the **Work Rules** module, or add more start times to the shifts in the **Shifts** tab of the **Work Rules** module.
- 3 Increase the employees' maximum hours in the **Employees** module.
- 4 Reduce the number of Min Agents specified.

Only <number> agents at <queue_name>:<date> <time> are scheduled, but Min Agents constraint requires <number> agents.

In a skill-based environment, the scheduler tries to meet the Min Agents constraint for every queue. The scheduler was not able to satisfy the Min Agents constraint during the given times. The employees' work patterns or work rules, such as Max Hours, may not have allowed them to be scheduled. To address this issue, there are several possibilities:

- 1 Add more employees to the scheduling period in the campaign's **Employees** module.
- 2 Add more shifts to the employees' work patterns in the **Work Pattern** tab of the **Work Rules** module, or add more start times to the shifts in the **Shifts** tab of the **Work Rules** module.

3 Increase the employees' maximum hours in the **Employees** module.

4 Reduce the number of Min Agents specified.

Organization <organization_name> is misaligned from the current scheduling period by more than 24 hours.

The scheduler always schedules the organization weeks for the employees who are linked to the scheduling period. For example, a campaign has a week start of Sunday. Some employees in the scheduling period are from an organization with a week start of Monday. When this scheduling period is scheduled, those employees are scheduled from Monday to Monday; the scheduler will not modify their schedule on the first Sunday of the scheduling period. This message is given if the organization's week start is more than a day different from the campaign's. In this case, it might be difficult to verify that all shift assignments created by the scheduler are acceptable.

The sum of the maximum target agent ratios for staffing profiles is <number>. This must be at least 100.

It is not possible to schedule less than a 100% ratio of staffing profiles. You must go to the **Staffing Profile** tab of the campaign's **Employees** module and increase the maximum target agent ratios until they total at least 100.

The sum of the minimum target agent ratios for staffing profiles is <number>. This must be at most 100.

It is not possible to schedule more than a 100% ratio of staffing profiles. You must go to the **Staffing Profile** tab of the campaign's **Employees** module and reduce the minimum target agent ratios until they total at most 100.

There are no employees in this scheduling period.

You must go to the campaign's **Employees** module and add employees before you can generate a schedule.

There is an active employee filter and no employees are selected for this scheduling period.

You must clear or modify your employee filter such that some employees are selected before you can generate a schedule.

Warning: No staffing profiles have been linked to this scheduling period.

You must add staffing profiles to the scheduling period before scheduling staffing profiles. Staffing profiles can be added in the **Staffing Profile** tab of the campaign's **Employees** module.

Warning: The number of employees from Organization <organization_name> selected to be scheduled in this scheduling period is more than twice the number of seats in that organization.

It is likely your number of seats is too low. The number of seats is set in the organization's **Operations** module.

Warning: The Workforce Planner will not add any new agents when scheduling with a filter active.

You must clear your employee filter before the scheduler will add any staffing profiles to the scheduling period.

You are scheduling into the past: This scheduling period begins at <day_of_week>, <date>, which is prior to the current time of <day_of_week>, <date>.

You are scheduling a period that starts earlier than the current time. This is not a fatal message—the scheduler will continue to schedule, if you want.

Assignment Rule Issues

Rotation rule <rotation_name> has work patterns of a different employee type.

Typically, employees can only be assigned work patterns of their own employee type, but this rotation contains multiple employee types. The scheduler will still assign the work patterns, but you might want to verify that the employee types are set correctly in the **Work Pattern** tab of the **Work Rules** module and that the rotation contains the correct work patterns in the **Assignment Rule** tab of the **Work Rules** module.

Violation: you have overscheduled <employee_name> by <number> <units> or <number>% in period <day_of_week>, <date> to <day_of_week>, <date> for rule <assignment_rule_name>.

The scheduler was unable to create a schedule that satisfied the named assignment rule. Verify that the employee's work pattern and min hours are consistent with the assignment rule and can be followed without violating the rule. Also, verify that all other assignment rules assigned to the employee are consistent with the named assignment rule.

Violation: you have under-scheduled <employee_name> by <number> <units> or <number>% in period <day_of_week>, <date> to <day_of_week>, <date> for rule <assignment_rule_name>.

The scheduler was unable to create a schedule that satisfied the named assignment rule. Verify that the employee's work pattern and max hours are consistent with the assignment rule and can be followed without violating the rule. Also, verify that all other assignment rules assigned to the employee are consistent with the named assignment rule.

Warning: it is projected that you may have overscheduled <employee_name> by <number> <units> or <number>% in period <day_of_week>, <date> to <day_of_week>, <date> for rule <assignment_rule_name>.

The scheduler was unable to create a schedule that satisfied the percentage of the multi-week assignment rule that should have been scheduled in the current period. Verify that the employee's work pattern and min hours are consistent with the assignment rule and can be followed without violating the rule. Also, verify that all other assignment rules assigned to the employee are consistent with the named assignment rule. The scheduler will try to "catch up" by scheduling fewer units in future periods.

Warning: it is projected that you may have under-scheduled <employee_name> by <number> <units> or <number>% in period <day_of_week>, <date> to <day_of_week>, <date> for rule <assignment_rule_name>.

The scheduler was unable to create a schedule that satisfied the percentage of the multi-week assignment rule that should have been scheduled in the current period. Verify that the employee's work pattern and max hours are consistent with the assignment rule and can be followed without violating the rule. Also, verify that all other assignment rules assigned to the employee are consistent with the named assignment rule. The scheduler will try to "catch up" by scheduling more units in future periods.

Employees: <employee_name> and <employee_name> are on the same team, but they do not have the same min/max hours.

If the team assignment rule specifies that employees must start at the same time, end at the same time, and work the same days, then the employees must also have the same min/max hours. You should adjust their min/max hours in the **Employees** module or modify the team assignment rule in the **Assignment** Rule tab of the organization's **Work Rules** module.

Employees: <employee_name> and <employee_name> are on the same team, but they do not have the same Work Patterns.

If the team assignment rule specifies that employees must start at the same time, end at the same time, and work the same days, then the employees must also have the same work patterns. You should change their work patterns in the **Work Patterns** tab of the **Employees** module or modify the team assignment rule in the **Assignment Rule** tab of the organization's **Work Rules** module.

Employee Issues

Employee <employee_name> does not have any work patterns available.

You must assign at least one work pattern to the employee before the employee can be scheduled. Work patterns are assigned to employees in the **Employees** module.

Employee <employee_name> has 0.0 maximum paid hours per week.

The employee will not be scheduled unless the employee's maximum hours are greater than 0.

Employee <employee_name> has a shift assignment on <date> with an abnormally long duration of <number> hours -- the maximum length of a shift is 23.27 hours.

You cannot schedule a shift that is longer than 23.75 hours. Adjust the length of the shift and reschedule.

Employee <employee_name> has the skills to work <media_type> queues, but is not linked to any shifts that allow the employee to work <media_type> queues.

In multi-contact scheduling, the employee has skills for some media, but is not linked to any work patterns that contain shifts with an activity that includes the media. For example, even if an employee has skills to work email queues, it is not possible for the employee to work on email unless one of his work patterns contains a shift with an activity that includes the Email media.

Employee <employee_name> is not qualified to work on any of the queues in this scheduling period.

In skill-based scheduling, the employee named does not have any of the skills required by the campaign's queues. To give the employee skills, add them in the **Skills** tab in the **Employees** module. Skills should be added through the Organization mode's **Employees** module

Employee <employee_name> was deleted during the span of the current scheduling period.

An employee has been removed from one of the organizations linked to your campaign and will not be scheduled after the deletion date. The employee's names will remain on the schedule, however, and you can give the employee a shift assignment manually.

Note: Employee <employee_name> has an end date of <day_of_week>, <date>, and the scheduling period ends on <day_of_week>, <date>.

An employee has been terminated from one of the organizations linked to your campaign and will not be scheduled after the termination date. The employee's names will remain on the schedule, however, and you can give the employee a shift assignment manually.

Note: Employee <employee_name> has a start date of <day_of_week>, <date>, and the scheduling period starts on <day_of_week>, <date>.

An employee has been hired during the scheduling period and will not be scheduled before the hire date. The employee's names will remain on the schedule, however, and you can give the employee a shift assignment manually.

Queue Issues

Average proficiency on queue <queue_name> (<number>) is greater than 1.

If the average proficiency is greater than 1, then the AHT used by the scheduler will be greater than the AHT forecast in the **Forecast** module. Proficiency can be set in the **Employees** module.

Average proficiency on queue <queue_name> (<number>) is less than 1.

If the average proficiency is less than 1, then the AHT used by the scheduler will be less than the AHT forecast in the **Forecast** module. Proficiency can be set in the **Employees** module.

In the forecast, the call volume at <date> <time> is <number>, but the average handling time is 0.000.

If the contact volume is greater than 0, the average handling time (AHT) must also be greater than 0. Adjust these numbers in the **Forecast** module. If you are unsure why that value is zero, check the historical contact volume you are using for your forecast. If this value is 0, you should check your ACD reports to determine why the AHT was zero. Sometimes, this is due to your ACD reporting calls in one interval (when the contact arrived) and AHT in the next interval (when the contact completed).

Patience for Queue <queue_name> is <number> seconds, which is shorter than the Service Time of <number> seconds.

In a skills-based environment, the patience should be greater than the service goal time. If the patience is less than the service goal time, the service level forecasts will be

inaccurate. Adjust the service goal time and patience in the campaign's **Service Goals** module.

Queue <queue_name>: In the forecast, the call volume at <date> <time> is <number>, but the average handling time is 0.000.

In a skills-based environment, if the contact volume is greater than 0 on the named queue, the average handling time (AHT) must also be greater than 0. Adjust these numbers in the **Forecast** module. If you are unsure why that value is zero, check the historical contact volume you are using for your forecast. If this value is 0, you should check your ACD reports to determine why the AHT was zero. Sometimes, this is due to your ACD reporting calls in one interval (when the contact arrived) and AHT in the next interval (when the contact completed).

The number of employees qualified to work queue Combined Queue (<number>) is less than the minimum staffing (<number>).

It is likely that the minimum staffing is too high. You should reduce the minimum staffing required in the scheduler options, or add more employees to the scheduling period in the campaign's **Employees** module.

The number of employees qualified to work queue <queue_name> (<number>) is less than the minimum staffing (<number>).

In a skill-based environment, the scheduler will try to meet the minimum staffing for every queue. It is likely that the minimum staffing is too high. You should reduce the minimum staffing required in the scheduler options, add more employees to the scheduling period in the campaign's **Employees** module, or give more employees the skill to work on the named queue in the organization's **Employees** module.

There are no agents qualified to answer calls on queue <queue_name>.

You are using skill-based scheduling and none of the agents have the skills linked to the queue. Either change the skills linked to the queue in the **Operations** module or assign the skill to some employees in the **Employees** module.

Warning: No skills are linked to queue <queue_name>. All employees are assumed to be skilled to work this queue.

In a skill-based environment, skills should be linked to all queues. If no skill is linked to a queue, the scheduler assumes every employee has a skill for the queue.

For queue <queue_name>, the reserve threshold is 0. This value should probably be greater than 0.

The reserve threshold time should be greater than 0; otherwise, there is little difference between a primary skill and a reserve skill.

For queue <queue_name>, the reserve threshold 1 (<number> seconds) is greater than the reserve threshold 2 (<number> seconds).

The second reserve threshold time should be less than the first reserve threshold time since it is assumed that the Agents with reserve 1 skills should be used before agents with reserve 2 skills.

Goal/Forecast Issues

In Queue <queue_name>, the Service Level goal should have some non-zero values. Please ensure that a service level goal has been set for this queue.

You must set service levels for each queue and for each day. Adjust your service levels in the **Service Goals** module. If you are in a skill-based scenario, be sure to set service goals for all of your queues. If you did set your Service level goals and they are still at 0, check to be sure your hours of operation are set in the **Operations** module, and check to be sure you have created a forecast in the **Forecast** module.

Min/Max Hour Issues

Employee <employee_name> is working <number> paid hours, which is greater than the specified maximum <number> paid hours.

Because this message does not include any information about work hours, some other factor is causing this problem. Here are some things to evaluate:

- 1 **Work Pattern issues**—Perhaps the occurrence grid or the min consecutive days set in the work pattern does not allow the max hours to be reached.
- 2 **Scheduler options**—If you are rescheduling, check to see if you have **Don't remove people** checked. If this is checked, no shift assignments can be removed.

Employee <employee_name> is working <number> paid hours, which is less than the specified minimum <number> paid hours.

Because this message does not include any information about work hours, some other factor is causing this problem. Here are some things to evaluate:

- 1 **Unavailability and Hours of Operation**—Do you have any events that are marked **Makes employee unavailable**? These unavailability events will prevent the scheduler from adding shifts. The scheduler is also unable to place shifts when the campaign or organization is closed.
- 2 **Number of Seats**—Perhaps the scheduler cannot add more hours due to the number of seats for the organization being reached.
- 3 **Work Pattern Issues**—Perhaps the occurrence grid or the max consecutive days set in the work pattern do not allow the min hours to be reached.
- 4 **Scheduler Options**—If you are rescheduling, check to see if you have **Don't add people** checked. If this is checked, no additional shift assignments be made. The scheduler can only adjust shifts around.

The maximum paid hours for employee <employee_name> is <number>, but according to his/her work patterns, his/her minimum possible paid hours is <number>.

This message means you have a mismatch between the **Max Hours** field in the **Employees** module and the minimum hours that can be worked set by the work patterns you have linked to this employee. You should correct this message before you continue to schedule; otherwise, you must reschedule or manually add shift assignments to ensure the correct number of hours.

Here are some steps to correct it:

- 1 First, determine what the minimum and maximum hours for this employee should be. Then, re-evaluate the error message.
- 2 If the maximum paid hours in parentheses are correct, then evaluate the work patterns that are linked to the employee. Check the shifts inside each of the work patterns to ensure they have the right amount of paid time. Make sure your breaks are set correctly to paid/unpaid. Remember, if you get this message, you have too many hours in your work pattern.
- 3 If the maximum paid hours number is not correct and the number the work patterns provide is correct, return to the **Employees** module in Organization mode and adjust the **Max Pd Hrs** field with the correct value. Although you can continue and the employee will be scheduled for the correct number of hours, be sure to fix the mistake.

The minimum paid hours for employee <employee_name> is <number>, but according to his/her work patterns, his/her maximum possible paid hours is <number>.

This message means you have a mismatch between the **Min Hours** field in the **Employees** module and the maximum hours that can be worked set by the work patterns you have linked to this employee. This message tells you that you do not have enough paid hours in the work pattern to meet the minimum hours you have set in the **Employees** module. You should correct this message before you continue to schedule; otherwise, you must reschedule or manually add shift assignments to ensure the correct number of hours.

Here are some steps to correct it:

- 1 First, determine what the minimum and maximum hours for this employee should be. Then, re-evaluate the error message.
- 2 If the minimum paid hours are correct, you should evaluate the work patterns that are linked to the employee. Check the shifts inside each of the work patterns to ensure they have the right amount of paid time. Remember, if you get this message you are not scheduling enough hours.
- 3 Check your shift lengths.
- 4 Be sure your breaks are set correctly to paid/unpaid.
- 5 If the minimum hours are not correct and the amount that the work rules supply is correct, simply return to the **Employees** module in the organization and adjust the **MIN PD HRS** field with the correct value. Although you can continue and the employee will be scheduled for the correct number of hours, be sure to fix the mistake.

Shift Issues

<employee_name> has not been assigned a shift on <date>, but he/she is not allowed an OFF shift that day in any work pattern.

The scheduler was unable to assign a shift assignment to the named employee on the given date, but that employee was also not allowed to have a day off on that date. There are several possible reasons and resolutions for this issue:

- 1 Verify that the employee has some shifts "checked" in the employee's work patterns' occurrence grids on the given date in the **Work Rules** module.
- 2 Check the other warning messages to see if the shifts that are allowed in the employee's occurrence grid are being ignored.
- 3 If the number of seats for the employee's organization has been reached, the scheduler will not schedule the employee for any shift assignment. The number of seats can be increased in the organization's **Operations** module.
- 4 Verify that a shift can be added on the given date without violating the max consecutive days specified in the organization's **Operations** module or the min/max consecutive shifts specified in the **Work Pattern** tab of the **Work Rules** module.

<Work_pattern_name> has an invalid shift linked to it which will be ignored.

The work pattern will be ignored because one of the linked shifts was invalid. Examine the other messages to determine why the shift was invalid. It might be due to the shift event windows or the hours of operation.

No shifts can occur on <day_of_week> in work pattern <work_pattern_name>.

This tells you that the indicated day is not checked in the **Work Pattern Occurrences** tab for any shifts or for a possible days off in that work pattern. If you want to have shifts assigned on Mondays for that tab, then the shifts should be checked. If you do not want to have shifts scheduled on that day, you should check **Possible Day Off**.

On <date>, Employee <employee_name> has a custom shift assignment which is in a consistent start group, but has an invalid start time.

The named employee is working a work pattern that has consistent start times set, but the employee also has a custom shift assignment on the given date that was manually modified, such that its start time is not allowed by the shift definition. The scheduler will not be able to schedule other shift assignments of that type start consistently unless the shift assignment is removed or moved to an allowed start time.

Shift <shift_name> cannot be scheduled as shift events: <shift_event_names> cannot all fit in the overlapping start/end window.

This shift will be ignored because it is not possible to fit all of the named shift events within their overlapping start/end window. The start/end windows for the shift events must be adjusted in the **Shift Events** tab of the organization's **Work Rules** module, such that they have less overlap.

Shift <shift_name> does not fit within the hours of operation for any day in the week.

This shift will be ignored because it does not fit inside the hours of operation for its organization on any day in the week. For example, the shift might start at 8 a.m., but the organization is closed on the weekends and only opens at 9 a.m. on the weekdays.

Shift <shift_name> will be ignored for Employee <employee_name> because he/she cannot work shift <shift_name> on any queue this week.

If the shift's primary activity has associated media, but the employee cannot work any queue of the media, then the shift will be ignored. For example, an employee is linked to a work pattern that contains a shift named "Email + Fax 8 hour Shift." This shift has a primary activity named "Email + Fax" that is associated with two media: Email and Fax. Now, if the employee has no skills to work any Email or Fax queues, then this shift will be ignored. Similarly, if no Email or Fax queues are linked to the scheduling period, then this shift will be ignored.

Shift <shift_name> will be ignored for Profile <profile_name> because he/she cannot work shift <shift_name> on any queue this week.

If the shift's primary activity has associated media, but the staffing profile cannot work any queue of the medias, then the shift will be ignored. For example, a profile is linked to a work pattern that contains a shift named "Email + Fax 8 hour Shift." This shift has a primary activity named "Email + Fax" that is associated with two media: Email and Fax. Now, if the profile has no skills to work any Email or Fax queues, then this shift will be ignored. Similarly, if no Email or Fax queues are linked to the scheduling period, then this shift will be ignored.

Shift Event Issues

Shift <shift_name> has an invalid shift event.

The shift will be ignored because one of the linked shift events was invalid. Examine the other messages to determine why the shift event was invalid. It might be due to an illegal window.

Shift <shift_name> will be ignored for Employee <employee_name> as he/she cannot work shift event <shift_event_name> on any queue this week.

If the shift events' activity has associated media, but the employee cannot work any queue of the media, then the shift will be ignored. For example, an employee is linked to a work pattern that contains a shift named "8 hour Shift with 1 hour Email + Fax." This shift has a shift event named "1 hour Email + Fax." This shift event has an activity named "Email + Fax" that is associated with two media: Email and Fax. Now, if the employee has no skills to work any Email or Fax queues, then this shift will be ignored. Similarly, if no Email or Fax queues are linked to the scheduling period, then this shift will be ignored.

Shift <shift_name> will be ignored for Profile Template <employee_name> because he/she cannot work shift event <shift_event_name> on any queue this week.

If the shift events' activity has associated media, but the staffing profile cannot work any queue of the media, then the shift will be ignored. For example, a profile is linked to a work pattern that contains a shift named "8 hour Shift with 1 hour Email + Fax." This shift has a shift event named "1 hour Email + Fax." This shift event has an activity named "Email + Fax" that is associated with two Media: Email and Fax. Now, if the profile has no skills to work any Email or Fax queues, then this shift will be ignored. Similarly, if no Email or Fax queues are linked to the scheduling period, then this shift will be ignored.

Shift event <shift_event_name> has an illegal window for Shift <shift_name>.

The named shift event does not fit within the shift or the shift event's start/end window does not fit in the shift. The shift event must be modified to have a shorter duration or an earlier start/end window in the Shift Event tabs of the organization's **Work Rules** module.

Number of Seats Issues

All seats for Organization <organization_name> are in use; more hours may not be scheduled unless the Number of Seats is increased.

At some time in the scheduling period, every seat is being used so no more employees or staffing profiles can be scheduled from that organization. If you want more employees to be scheduled, you must increase the number of seats in the organization's **Operations** module.

From <date> <time> to <date> <time>, the number of employees scheduled in Organization <organization_name> exceeds the number of seats in the call center (<number>).

During the time period specified, employees and staffing profiles from the named organization are using more seats than the specified number of seats. The scheduler will remove shift assignments from the scheduling period until the number of seats is not exceeded. However, the scheduler will not remove shift assignments that are locked. If you want more employees to be scheduled, you must increase the number of seats in the organization's **Operations** module.

The Number of Seats for organization <organization_name> is 0. Defaulting to unlimited number of seats for the organization.

The number of seats represents the number of phones available at any one time and determines the maximum number of agents that will be scheduled during any single 15-minute interval. If it is set to 0 in the organization's **Operations** module, the scheduler can schedule more agents than there are seats. Enter the maximum number of seats to avoid this.

Hours of Operations Issues

Employee <employee_name> has Work Pattern <work_pattern_name> which contains Shift <shift_name>, but Shift <shift_name> does not fit in the hours of operation for Organization <organization_name> on <date>.

The named employee has a shift specified in their work patterns' occurrence grid that cannot be scheduled due to their organization's hours of operation. This shift should be removed from the occurrence grid on that day in the **Work Pattern** tab of the organization's **Work Rules** module. For example:

- 1 A shift might be "checked" for Sunday in the work pattern's occurrence grid, but this employee's organization is not open on Sunday.
- 2 A shift that must start at 8 a.m. might be "checked" for Monday in the work pattern's occurrence grid, but this employee's organization does not open until 9 a.m. on Monday.

Event Issues

Employee <employee_name> has a shift event overlapping the Event with comment '<event_comment>' at <date> <time>.

The scheduler attempts to always schedule shift events outside of calendar events, but it was unable to schedule the named shift event outside of the listed event. You might need to manually modify the calendar event or the shift event. Additionally, you can check the start/end windows for the shift event to see if they can be expanded. If the calendar event is a floating event or a class, you can also check the start/end window of the floating event or class to see if they can be expanded as well.

Class <event_comment> at <date> <time> requires at least <number> attendees but there are only <number>.

The scheduler was unable to satisfy the class attribute **Minimum number of Attendees**. Here are some possibilities to correct it:

- 1 Make sure that min/max attendees can accommodate the required attendees (required attendees may not divide into min/max attendees).
- 2 There may be a group of employees scheduled at some time due to their work patterns, where the size of the group is less than minimum number of attendees.
- 3 The scheduler option attribute **Schedule at least X agents per queue** might be preventing agents from attending a class.

Class <event_comment> at <date> <time> requires no more than <number> attendees but there are <number>.

The scheduler was unable to satisfy the class attribute **Maximum number of Attendees**. Make sure that min/max attendees can accommodate the required attendees (required attendees might not divide into min/max attendees).

Attendee Issues

Employee <employee_name> could not be scheduled to attend the Event with comment '<event_comment>' at <date>.

The named employee does not have a shift assignment "underneath" a calendar event or a floating event that he is required to attend. The employee's availability might not coincide with the event time. This generally implies that there are other calendar events overlapping available times or the employee's work patterns do not coincide with the times the event starts.

Employee <employee_name> is not attending class <event_comment> as required.

The named employee does not have a shift assignment "underneath" a class session that the employee is required to attend. Here are some possibilities to correct it:

- 1 Employee availability may not coincide with class times. This generally implies that there are other calendar events overlapping available class times or the employee's work patterns do not coincide with the times the class may start.
- 2 The scheduler option attribute **Schedule at least X agents per queue** might be preventing agents from attending a class.

Preference Issues

Employee <employee_name> is using both start time/day off preferences and work pattern preferences.

You should not use both work pattern preferences and start time/day off preferences. You can remove work pattern preferences by setting all work pattern preference values to 1 in the **Work Pattern** tab of the **Employees** module. If both are used, the start time/day off preferences take priority.

Employee <employee_name> was assigned to work pattern <work_pattern_name>. The employee has <number> work patterns which (s)he prefers more than the assigned pattern.

The named employee did not receive his or her most preferred work pattern. There are several possible causes for this:

- 3 It was not possible for this employee to work the more preferred work patterns due to other work rules, such as min/max hours, assignment rules, and unavailability.
- 4 The scheduler did not schedule any more preferred work patterns since they were not useful for meeting the service goal.
- 5 The scheduler did schedule some more preferred work patterns, but they were all assigned to other employees who had higher rank or higher seniority than this employee.
- 6 The scheduler did schedule some more preferred work patterns, but they were all assigned to other employees who could not "swap" work patterns with this employee due to their work pattern assignments or work rules.

Employee <employee_name> was not scheduled for any of his/her favored preferences on <date>.

The named employee did not receive any of the preferred start times or days off that were favored given the Favor Preferences slider bar position in the scheduler options. You can review the employee's favored preferences by clicking the **View Favored Preference** button. It is possible that the employee could not work the favored preference due to other work rules, such as min/max hours, assignment rules, and unavailability.

The top 25 percent of <employee_name>'s preferred days off are not possible in any of his/her work patterns.

It is not possible for this employee to get his or her most preferred days off in any of his work patterns. If you want to address this, you can:

- 1 Ask the employee to modify his preferences in My Profile, My Preferences web page, or day off possibilities
- 2 You can assign him additional work patterns in the **Work Pattern** tab of the **Employees** module.
- 3 You can modify his work patterns to contain additional days off in the **Work Pattern Occurrence** tab of the **Work Rules** module.

The top 25 percent of <employee_name>'s preferred start times are not possible in any of his/her work patterns.

It is not possible for this employee to get his or her most preferred start times in any of his work patterns. If you wish to address this, you can:

- 1 Ask the employee to modify the preferences in **My Profile, My Preferences** web page, or day off possibilities.
- 2 You can assign the employee additional work patterns in the **Work Pattern** tab of the **Employees** module.
- 3 You can modify the employee's work patterns to contain additional shifts in the **Work Pattern Occurrence** tab of the **Work Rules** module.

Additional Messages

In addition to the standard checker messages, a few situations produce special warnings in a dialog box whenever a scheduling run is attempted. These situations require immediate remedy—the scheduling engine cannot be run until they are resolved.

Employee <employee_name> has two shift assignments that start on <date> in the Calendar. One of them must be removed!!

You must delete one of the Shift Assignments before you can generate a schedule.

Illegal scheduling window: The start of the scheduling window (<date> <time>) must be before the end of the scheduling window (<date>).

You must set the start time to before the end time in the scheduler options before you can generate a schedule.

No queues are linked to this scheduling period -- cannot schedule.

You must go to the Campaign **Operations** module and add queues before you can generate a schedule.

Scheduling cannot continue as Employee <employee_name> has a Shift Assignment overlapping an Unavailability at <date> <time>.

You must delete the Shift Assignment or the Unavailability before you can generate a schedule.

There are no employees selected to be scheduled in scheduling period.

You must go to the campaign's **Employees** module and add employees before you can generate a schedule.

Text Colors

The following text colors are used in Forecasting and Scheduling:

Red

Where you will see it: The **Shifts** tab within the **Work Rules** module.

What it means: The data you have entered is invalid and will not be used to schedule. For example:

- The length of a shift is longer than the hours of operation.
- There are invalid start times for a shift set.
- The length of a break is longer than a shift to which it is linked.
- The start window for a break falls outside the length of a shift to which it is attached.

How to make it go away: Change the value in the red field to fall within the Hours of Operation or shift length.

Magenta

Where you will see it: The **Employees** module in the Campaign mode.

What it means: You have changed an employee's data so that it is different from the default set in the Organization mode. This appears in the employee grid and the employee's tab for work patterns.

How to make it go away: If you do not want to apply the changes you made, remove and re-add the employee.

Gray

Where you will see it: Shifts, Employees, Calendar.

What it means: Something has been deleted or contains an item that has been deleted. For example:

- A gray shift contains a deleted shift event.
- A gray work pattern contains a deleted shift.
- A grayed employee means the employee has been deleted (**Employees** module and calendar).

How to make it go away: If it is a work rule, delete the link to the item that has been deleted (for example, the shift event for the gray shift or the shift in the gray work pattern).

Blue

Where you will see it: In the Campaign mode, in the Add Employee dialog box.

What it means: The employee has already been added to the campaign.

Deleting Items in Forecasting and Scheduling

Since Forecasting and Scheduling uses data in many different ways, the effect of deleting an item depends on the item itself and its links. This section explains the effect of deleting different items.

Deleted from Database

These items are deleted immediately and completely from the database:

- Organizations
- Campaigns
- Scheduling periods
- Organization link to scheduling period
- Queue link to a scheduling period (this automatically deletes the forecast for the queue)
- Queues (queues are deleted in Integration Server)
- Shift event link to a shift
- Shift link to a work pattern
- Weeks in the **Forecast** module

Deleted by Inactivating at a Particular Time

The following items will be “deleted” by inactivating them as of the date you select. When you delete these items, it does not remove them from the database and does not automatically unlink them from any other items:

- Shifts
- Shift events
- Work patterns
- Employees (by setting an end date)

If you are viewing Forecasting and Scheduling in a time frame before the deletion occurred, you can see the item you deleted. For example, if you delete a shift on 12/1/99 and view a scheduling period for 11/21/99, you can see the deleted shift.

If you are viewing Forecasting and Scheduling in a time frame after the deletion occurred, you cannot see the deleted item. For a scheduling period, the time frame is any *week* after the deletion; for an organization, it is any *day* after the deletion occurs.

In places where the deleted item was associated with another item prior to the delete, you are notified by a visual cue. For example, the shift deleted on 12/1/99 is displayed in gray in any work patterns it was linked to. It is not removed from that work pattern, but it will *not* be scheduled.

Preferences and Priorities

Forecasting and Scheduling uses a number of rules, constraints, objectives, and preferences to create an optimum schedule. This section describes those factors and the way the scheduler prioritizes them. They are listed in order from highest to lowest priority.

Fixed Constraints

These items set limits the scheduler cannot violate. All schedules must meet all of these constraints. They are of equal priority.

- **Minimum and maximum consecutive days for a shift**—The minimum and maximum number of days a shift will be assigned to an employee with a work pattern. These numbers will determine how many days in a row an employee will work a shift or how many days in a row an employee will have off. See page [106](#).
- **Minimum time between shift assignments**—The minimum number of hours an employee will be given between shift assignments. See page [80](#).
- **Maximum consecutive working days to schedule**—The maximum number of days in a row an employee can be scheduled to work. See page [80](#).
- **Consistency rules**—Consistent start times and shift events are assigned to all employees with a work pattern. See page [107](#).
- **Hours of Operation**—All shift start and finish times must occur during the organization or campaign's hours of operation. See page [79](#) and page [166](#).

Prioritized Constraints and Preferences

These items are listed in the order they are considered by the scheduling engine.

- 1 **Maximum number of seats**—The maximum number of agents that can be scheduled at any time for an organization. See page [79](#).
- 2 **Employee's minimum and maximum paid hours**—The minimum and maximum number of paid hours an employee can be scheduled each week. See page [129](#).
- 3 **Assignment Rules**—Priorities for each Assignment Rule are set when the rules are created. See page [108](#).

- 4 **Meetings inside shift assignments**—Meetings will, to the greatest extent possible, be scheduled during periods when all attendees are scheduled to work. See page [148](#).
- 5 **Not scheduling employees**—At times where the Service Goal is set to 0% on all of their skills.
- 6 **Meeting the minimum staffing**—As set in the Scheduler Setup dialog box.
- 7 **Service goals**—Schedules will be created that best reach your service goals. See page [188](#).
- 8 **Shift start time and days off preferences**—These preferences are set in the **Preferences** tab of the **Employees** module. See page [138](#).
- 9 **Work pattern preferences**—These preferences are set in the **Work Patterns** tab of the **Employees** module. See page [140](#).
- 10 **Even spacing of shift events**—Shift events will be spaced as evenly as possible throughout each shift.

Schedule Required versus Predicted Statistics

In addition to the complete statistical information available in the **Pulse** module, a quick comparison of the predicted and required staffing and service level statistics is available in the **Calendar** module (see page [209](#)).

Schedule Statistical Comparison: Non-Skills

Non-Skills: Single queue linked to scheduling period
or
<Combined> queue view in multi-queue scenarios
or
Single queue in multi-queue scenarios

	Required	Forecasted/Predicted
ASA	The ASA (number of secs) value YOU input into the Service Goals module. This is only shown if ASA is the selected goal.	The service levels Forecasting and Scheduling generates after you create a schedule. ASA is always generated after a schedule even if ASA is not your goal. This represents the predicted time to which you will answer calls based on the number of people on the schedule.
Full Time Equivalent	For single queues, the effective contribution based on the actual CV, AHT, Abandons, and SL. For multiple queues, the sum of the effective contribution requirements from each individual queue.	For single queues, the effective contribution requirement. For multiple queues, the effective contributions of all agents.
Service Level	The service level value (% calls in number of secs) YOU input into the Service Goals module. This is only shown if Service Level is the selected goal in the module	Forecasting and Scheduling generates this for you after you have generated a schedule. This line is a call-weighted average of the forecasted service levels calculated for each queue.

Schedule Statistical Comparison: Skills

**Skills: Single queue linked to scheduling period
or
<Combined> queue view in multi-queue scenarios**

	Required	Forecasted/Predicted
Full Time Equivalents	The sum of the effective contribution requirements from each individual queue.	The sum of the effective contributions of all agents scheduled in the campaign over all queues in the campaign.
Service Level	Forecasting and Scheduling generates this for you. This line is a call-weighted average of the goals set in the Service Goals module for each queue.	Forecasting and Scheduling generates this for you after you have generated a schedule. This line is a call-weighted average of the forecasted service levels calculated for each queue.

Skills: Multiple queues—looking at each individual queue

	Required	Forecasted/Predicted
Full Time Equivalents	Sum of the effective contribution requirements from each selected individual queue, assuming that each one is non-skills-based.	Sum of the effective contributions of all agents scheduled in the campaign over all selected queues.
Service Level	This line represents the Service Goal you determined in the Service Goals module.	Forecasting and Scheduling generates this for you after you have generated a schedule. This is the forecasted staffing for the queue you have selected based on the scheduling simulations.

Preferences Scheduling in Forecasting and Scheduling

This appendix gives you information about the Forecasting and Scheduling preferences scheduling methodology to help you better understand the way it impacts your schedules.

General Preferences Methodology

The Forecasting and Scheduling scheduler uses a set of rankings or preferences to determine when employees are scheduled for work. In a preferences scheduling model, employees with more seniority or higher ranking have their work preferences satisfied before less senior or lower ranking employees. Assignment of work hours is based on the availability of those hours determined initially by the creation of the best possible schedule.

Scheduling using preferences does not impact service level—preferences are used only if it is possible to do so while maintaining the required service level. The only exception to this is defined by the user and is controlled through the preferences slider bar on the schedule setup screen.

Preference-based scheduling is used to ensure that schedules are created that provide the best possible customer service with the most efficient use of employee time, while at the same time promoting employee satisfaction, especially among senior or high-ranking employees.

There are two methods of assigning and scheduling preferences within Forecasting and Scheduling:

- **Work pattern preferences** enable employees to set a preference for a particular type of weekly pattern or schedule.
- **Start time and day off preferences** enable employees to set specific preferences for start times or days off.

These two methods can be used in conjunction with each other.

Work Pattern Preferences

This section shows how Forecasting and Scheduling uses work-pattern-based preferences to schedule.

Work pattern preferences show an employee's relative preference for different types of schedules. For example, a call center might have both "5 by 8" and "4 by 10" schedules available for employees. By using work pattern preferences, employees can state a preference for one type of schedule over the other.

Work Pattern Scheduling

To understand how work-pattern-based scheduling preferences work, it is important to understand how Forecasting and Scheduling creates schedules using the work patterns you assign to your employees in the **Employees** module.

When the Forecasting and Scheduling scheduling engine creates a schedule for an employee, it uses the set of work patterns that are linked to the employee to determine the types of shifts that it can assign. Each employee is assigned shifts from *only one work pattern per week*. The scheduling engine picks shifts (and, therefore, start times) from that single work pattern. *It cannot pick shifts from multiple work patterns.*

Here is an example of how Forecasting and Scheduling uses work patterns to give employee schedules:

Scenario 1

An employee has work pattern **X** assigned to her in the **Employees** module.

Work pattern **X** has a shift that can start at any of the following times: 6, 7, 8, 9, 10, or 11 a.m.

Schedule Result: Employee can be scheduled for a shift that starts at any of the start times (6-11a.m.).

Scenario 2

An employee has work patterns **A** and **B** assigned to her in the **Employees** module

- Work pattern **A** has a shift that can start at 6, 7, or 8 a.m.
- Work pattern **B** has a shift that can start at 9, 10, or 11 a.m.

The scheduling engine picks *either* work pattern **A** *or* work pattern **B** to use when it creates the employee's shift assignments.

Schedule Result:

- The employee will start at either 6, 7, or 8 a.m. for the entire week.
- Or
- The employee will start at either 9, 10, or 11 for the entire week.

Because the scheduling engine uses only one work pattern, it is impossible to schedule a combination of 6–11 shifts through the week.

Setting Preferences with Work Patterns

Preferences are established for employees at the level of the work pattern. This is done when assigning work patterns to employees in the **Employees** module.

Work pattern preference enables employees to set preferences for a particular type of shift or weekly schedule. Since work patterns are collections of shifts and their associated shift events, work pattern preferences allow employees to set relative preferences for different types of shifts or schedules. For example, employees can specify a higher preference (by entering a *lower* number) for the 4-day by 10-hour work pattern and a lower preference (by entering a *higher* number) for the 5-day by 8-hour work pattern.

Work pattern preferences can also be used for consistency. For example, you can create two identical work patterns but have consistency turned on for only one of them. By using work pattern preferences, employees can state whether they prefer to have consistent schedules or not.

To set up and use work pattern preferences:

- 1 Create work patterns that reflect the different types of schedules that employees can select. For this example, create two work patterns. One contains the 5-day, 8-hour shift, while the other contains the 4-day, 10-hour shift.

For individual start time preferences, create the following:

- Work Pattern "10 hour" has a 10-hour shift that can be scheduled on all days.
 - Work Pattern "8 hour" has an 8-hour shift that can be scheduled on all days.
- 2 Assign employees both of these work patterns, indicating that they can work either one. An employee's linked work patterns will be:
 - Work Pattern "10 hour"
 - Work Pattern "8 hour"

- 3 For each employee, type a preference for each work pattern. Preferences are expressed in numbers; 1 is the *highest* preference.

Here are three employees who prefer to work 8-hour shifts. In Forecasting and Scheduling, the lower number is always more important. Therefore, you type a **1** next to the "8 hour" work pattern and a **2** next to the "10 hour" work pattern.

Employee 1 - most senior

Work Pattern	Preference
Work Pattern "10 hour"	2
Work Pattern "8 hour"	1

Employee 2 – second most senior

Work Pattern	Preference
Work Pattern "10 hour"	2
Work Pattern "8 hour"	1

Employee 3 – third most senior

Work Pattern	Preference
Work Pattern "10 hour"	2
Work Pattern "8 hour"	1

These employees each have *one* preferred work pattern for the entire week. Employees cannot state a preference for each day.

Each employee can have other personal data that determines how the employee is scheduled. This includes unavailabilities, assignment rules, skills, proficiency, and min/max paid hours. Some constraints, such as work rules, employee unavailability, and min/max paid hours, are not violated by the scheduling engine.

Start Time and Day Off Preferences

This section shows how Forecasting and Scheduling uses start-time and day-off preferences to schedule.

Shift Scheduling

To understand how preferences-based scheduling works, you must first understand how Forecasting and Scheduling uses shifts and selects days off.

Without preferences, Forecasting and Scheduling can select any day off that is valid according to the work pattern and any start time that is valid according to the shift. For example, a work pattern can be created using shifts that can start any time between 10 a.m. and 2 p.m., and has possible days off on all days except Monday. Forecasting and Scheduling uses these possible start times and days off to select a combination that provides the best service level. Each employee is assigned shifts and days off from *only one work pattern per week*. The scheduling engine chooses shifts (and, therefore, start times) and days off from a single work pattern; *it cannot pick shifts and days off from multiple work patterns*.

Other factors can affect the start times and days off that are selected. An employee’s availability can force Forecasting and Scheduling to schedule an employee in a certain way. For example, an employee can be marked as unavailable on Monday, which means that the employee always gets a day off on Monday. Consistency can affect start times by enabling the scheduling engine to select only one start time for the whole week. Assignment rules can also determine days off and start times, while min/max hours can affect how many days off an employee is assigned.

Setting Preferences with the Preferences Tab

Start time and day off preferences are set on the **Preferences** tab in the **Employees** module.

Start time and day off preferences enable employees to indicate their preferences for a particular start time or day off. For example, employees can state their preferences to start work at 9 a.m. and to have a day off on Friday. These preferences can be set separately for each start time and day. That is, employees can state a preference to start on Monday at 6 a.m., Tuesday at 7 a.m., and to have days off on Wednesday and Saturday. Employees can rank any of these choices and can also select multiple preferences and rank them from most to least important. For example, an employee can state that his highest preference is to start work at 9 a.m., his second preference is to start work at 10 a.m. and his third preference is to start work at 11 a.m. Let’s take a look at this example to see how this is set within Forecasting and Scheduling.

Calendar Preferences Work Patterns Rotations Assignment Rules Skills												
Days Off	Start Times											
	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00				
Monday	1	1	1	1	2	2	2	2	3	3	3	3
Tuesday	1	1	1	1	2	2	2	2	3	3	3	3
Wednesday	1	1	1	1	2	2	2	2	3	3	3	3
Thursday	1	1	1	1	2	2	2	2	3	3	3	3
Friday	1	1	1	1	2	2	2	2	3	3	3	3
Saturday	1	1	1	1	2	2	2	2	3	3	3	3
Sunday	1	1	1	1	2	2	2	2	3	3	3	3

Now the employee also wants to add day-off preferences. It is important to note that day-off preferences are part of the same preferences scale as start times. By giving a start-time preference a 1 and giving a day-off preference a 2, you are stating that the start-time preference is more important than the day-off preference. If the scheduling engine must choose between assigning this person a start-time or day-off preference, it selects the start-time preference because it is more important. In this case, the employee has selected Friday as his most important preference for a day off and Tuesday as his second. The employee has also stated that these day-off preferences are less important than his start-time preferences. The preferences are entered like this:

Calendar Preferences Work Patterns Relations Assignment Rules Skills																												
	Days Off	8:00			9:00			10:00			11:00			12:00			1:00			2:00			3:00					
		Monday					1	1	1	1	2	2	2	2	3	3	3	3										
Tuesday	5				1	1	1	1	2	2	2	2	3	3	3	3												
Wednesday					1	1	1	1	2	2	2	2	3	3	3	3												
Thursday					1	1	1	1	2	2	2	2	3	3	3	3												
Friday	4				1	1	1	1	2	2	2	2	3	3	3	3												
Saturday					1	1	1	1	2	2	2	2	3	3	3	3												
Sunday					1	1	1	1	2	2	2	2	3	3	3	3												

Users also have a choice of selecting a default start-time preference of *start early* or *start late*. (This is set on the main employee grid.) This default choice is less important than the user-defined preferences on the grid and is used if no user-defined preferences can be scheduled. That is, if our employee cannot be scheduled for one of his preferred start times of 9 a.m., 10 a.m., or 11 a.m., the default preference is used. This default preference is also used when the employee only states a preference for early or late, and does not select specific start times. For example, if an employee asks for as early a start time as is possible, there is no need to specify start-time preferences in the grid. Instead, just select "start early" in this field.

Preferences Scheduling

This section discusses the way the scheduling engine uses preferences to create a schedule.

How the Scheduling Engine Assigns Preferences

This section shows how preferences are used by the scheduler.

- 1 The scheduling engine creates the optimal schedule for the forecasted call volume while meeting the service goals as closely as possible. This step takes into account employee unavailability, proficiency, any skills, and min/max hours, but does *not* include preferences.

Employees are scheduled for one work pattern only out of the group of work patterns they have been assigned. Out of this work pattern, and taking into

consideration other factors such as availability, the employee is assigned days off and start times. Preferences are not taken into account at this point.

After the first step, schedules might look like this for patterns with single start times:

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Employee 1	7am	7am	7am	7am		7am	
Employee 2	8am	8am	8am		8am		8am
Employee 3		6am	6am		6am	6am	6am

- 2 The scheduling engine next tries to rearrange the schedules, or “swap” to give the more senior or higher-ranked employees their preferred work pattern, start time, or day off.

i Start-time and day-off preferences are always given priority by the scheduler over work-pattern preferences if both are used.

Any swaps must not impact the service levels generated by the initial schedule. Swaps can only happen if a work pattern, start time, or day off is already on the schedule. Forecasting and Scheduling does not schedule work patterns, days off, or start times simply to provide individual employees with their preferences.

For example, all three employees preferred to work the late work pattern. But, since that work pattern was not scheduled, no employee can receive his or her preferences. In another example, all three employees preferred to start at 9 a.m., but a 9 a.m. start time is not available and no employee—regardless of seniority or ranking—will be assigned it.

The scheduling engine now starts with the most senior employee and looks at the rest of the employees and sees if there is a work pattern, start time, or day off that has been assigned that is preferred by the more senior employee. If one is found, the engine does a swap.

For instance, Employee 1’s top preference is an 8 a.m. start time. According to the original schedule, Employee 1 starts at 7 a.m. and Employee 2 starts at 8 a.m. However, since Employee 1 is more senior, the scheduler swaps the two shifts and gives Employee 1 the 8 a.m. start time. Notice also that the days off were switched in this case, and Employee 1 is now off on Thursday and Saturday instead of Friday and Sunday. This is only done if Employee 1’s day-off preferences match this new schedule or are less important than his start-time preferences.

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Employee 1	8am	8am	8am		8am		8am
Employee 2	7am	7am	7am	7am		7am	
Employee 3		6am	6am		6am	6am	6am

Obstacles to Preferences Being Granted

Preferences are considered to be less important than service level and hard constraints such as min/max hours, availability, and hours of operation. The scheduler only executes a swap if it does not adversely impact service level or violate a hard constraint. For example, the scheduler will not swap two employees' shifts to provide a preferred day off if the change causes an employee to go over the employee's maximum hours. If there is any conflict, the swap is not executed.

- Employees with varying unavailability can present an obstacle to complete Shift Swaps.

For example, if you add some employee unavailability to the first schedule the engine created, you see a schedule like this:

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Employee 1	7am	7am	7am	7am		7am	
Employee 2	8am	8am	8am		8am		8am
Employee 3		6am	6am		6am	6am	6am

The scheduling engine cannot make the swaps necessary to give more senior employees their preferences because unavailability is blocking some of the preferred start times. With start-time and day-off preferences, the scheduling engine can make single day swaps. Therefore, it switches days where possible and might create the following schedule:

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Employee 1	8am	8am	8am			7am	8am
Employee 2	7am	7am	7am	7am	8am		
Employee 3		6am	6am		6am	6am	6am

Switching Monday, Tuesday, and Wednesday was easy in this case. Saturday and Sunday are more difficult. The scheduling engine cannot switch the two shifts because the unavailability makes it impossible to assign these shifts to these employees. Therefore, Friday and Saturday remain as is. You could also have a problem if consistency is turned on for these employees. Consistency is the constraint that requires all shifts during the week for a single employee to have the same start time. If consistency had been turned on, you could not have swapped any days, because doing so while leaving Friday and Saturday the same would have caused a violation in consistency.

- Employees with varying skill sets or proficiencies can limit the ability to satisfy preferences by swapping.

When the system swaps shifts or work patterns, service goals cannot suffer. This means the system must swap employees that have the same skill sets or the same level of proficiency. When you switch one employee for an employee with a different

proficiency or skill set, it might cause an adverse affect on the service level for that time period.

- Employees with varying min/max hours can limit the ability to swap.

The hours after a shift or schedule swap must fall within the employee min/max hours, otherwise a swap cannot be made. A swap will not be made that puts employees above their maximum hours or below their minimum hours.

- Assignment rules can limit the ability to swap.

The scheduling engine will not make a swap if that swap causes an assignment rule to be violated. For example, an assignment rule that calls for each employee to work one weekend every two weeks will prevent a swap that would give one employee two weekends off, even if this is a senior employee who prefers to not work weekends.

- Employees from different organizations can cause difficulty swapping shifts.

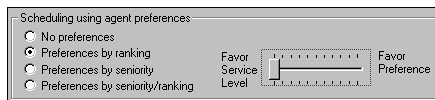
A swap will not be made if it causes an employee to violate organization parameters. For example, a swap must not put more employees on the schedule at one time from a particular organization than that organization has seats. Also, an employee who prefers to work early will not receive a shift through a swap that would cause that employee to work outside hours of operation.

- Work patterns might limit shift swapping.

When swapping individual shifts, both employees must be eligible for their new shift within the work pattern that the scheduler has selected for the week. If the employee is only eligible for this shift through an assigned work pattern that has not been selected for this week, the swap *will not be made*.

The Preferences Slider Bar

Many constraints can prevent shift and work-pattern swapping, lowering the chances that employees will receive their preferred schedules. The more constraints on a schedule and the more individual employees that have different skills sets, proficiencies, availabilities, and so forth, the more difficult it becomes for the scheduling engine to find a valid swap. For this reason, a preferences slider bar is part of the scheduling setup screen of Forecasting and Scheduling. The preferences slider bar on the scheduling setup screen enables you to determine how important preferences are to you and to override the service level in order to guarantee some employees their preferences.



When the bar is set all the way to the left (its default position), the scheduling engine schedules as described above. Preferences are only given to employees if service level allows it. No special consideration is given to any employee other than the normal swapping described above.

If you move this bar one notch to the right, the scheduling engine tries to guarantee that the top 1 percent of your employees receive the top 1 percent of their preferences. It does this even if service level is impacted. In cases where these employees would have received their preferences anyway, the impact on service level is minimal.

However, there could be significant impact in situations where the employees would not normally have received their preferences. Unfortunately, it is impossible to determine ahead of time the impact of guaranteeing preferences to a certain number of employees.

As you move the slider bar to the right, you are *guaranteeing* that more people get more of their preferences. For example, the first notch to the right of the **Favor Service Level** position guarantees that the top 1 percent of employees receive the top 1 percent of their preferences but will not guarantee any other employees get any of their preferences. This does not mean that employees lower on the scale will not receive their preferences; they will still be assigned, if possible.

As you move the slider bar to the right, you guarantee that the top 1 percent of people get their top 1 percent of preferences, the top 2 percent receive the top 2 percent of their preferences, the top 3 percent receive the top 3 percent of their preferences, and so on.

Keep in mind that even if the slider bar is set all the way to the right, which should guarantee some employees their preferences, the scheduling engine cannot assign shifts that override hard constraints. For example, if your most senior person requests a start time of 9 a.m. but is not available to start work until 10 a.m., Forecasting and Scheduling's scheduling engine cannot assign the employee a 9 a.m. shift, regardless of the slider's position.

Whenever the Scheduling engine pauses during the scheduling process to show you potential problems, or at the end of the scheduling process if no problems are encountered, click the **View favored preferences** button to see how the scheduling preferences for the employees were accommodated. A sample preferences report is shown below:

Favored Preferences

Park, Julie - Start Date 1/2/2000 - top 6% of options favored each day:

8/9/2004 - 38 start time/day off options - 6 favored: Day Off,09:45,10:00,10:15,10:30,10:45

8/10/2004 - 38 start time/day off options - 6 favored: Day Off,09:45,10:00,10:15,10:30,10:45

8/11/2004 - 38 start time/day off options - 6 favored: Day Off,09:45,10:00,10:15,10:30,10:45

8/12/2004 - 38 start time/day off options - 6 favored: Day Off,09:45,10:00,10:15,10:30,10:45

8/13/2004 - 38 start time/day off options - 6 favored: Day Off,09:45,10:00,10:15,10:30,10:45

8/14/2004 - No start time/day off options favored

8/15/2004 - No start time/day off options favored

Koza, Frederick - Start Date 1/17/2000 - top 10% of options favored each day:

- 8/9/2004 - No start time/day off options favored**
- 8/10/2004 - No start time/day off options favored**
- 8/11/2004 - No start time/day off options favored**
- 8/12/2004 - No start time/day off options favored**
- 8/13/2004 - No start time/day off options favored**
- 8/14/2004 - No start time/day off options favored**
- 8/15/2004 - No start time/day off options favored**

Spielberg, Lisa - Start Date 12/12/2001 - top 63% of options favored each day:

- 8/9/2004 - No start time/day off options favored**
- 8/10/2004 - No start time/day off options favored**
- 8/11/2004 - No start time/day off options favored**
- 8/12/2004 - No start time/day off options favored**
- 8/13/2004 - No start time/day off options favored**
- 8/14/2004 - No start time/day off options favored**
- 8/15/2004 - No start time/day off options favored**

Whistler, Aaron - Start Date 12/15/2001 - top 65% of options favored each day:

- 8/9/2004 - 18 start time/day off options - 13 favored:
07:00,07:15,07:30,07:45,08:00,08:15,08:30,08:45,09:00,09:15,09:30,09:45,10:00**
- 8/10/2004 - 18 start time/day off options - 12 favored:
07:00,07:15,07:30,07:45,08:00,08:15,08:30,08:45,09:00,09:15,09:30,09:45**
- 8/11/2004 - 18 start time/day off options - 12 favored:
07:00,07:15,07:30,07:45,08:00,08:15,08:30,08:45,09:00,09:15,09:30,09:45**
- 8/12/2004 - 18 start time/day off options - 12 favored:
07:00,07:15,07:30,07:45,08:00,08:15,08:30,08:45,09:00,09:15,09:30,09:45**
- 8/13/2004 - 18 start time/day off options - 13 favored: Day Off,07:00,07:15,07:30,07:45,08:00,08:15,08:30,08:45,09:00,09:15,09:30,09:45**
- 8/14/2004 - No start time/day off options favored**
- 8/15/2004 - No start time/day off options favored**

Vocavick, Brenda - Start Date 3/15/2004 - top 92% of options favored each day:

- 8/9/2004 - No start time/day off options favored**
- 8/10/2004 - No start time/day off options favored**
- 8/11/2004 - No start time/day off options favored**
- 8/12/2004 - No start time/day off options favored**
- 8/13/2004 - No start time/day off options favored**
- 8/14/2004 - No start time/day off options favored**
- 8/15/2004 - No start time/day off options favored**

Chang, Kevin - Start Date 3/15/2004 - top 94% of options favored each day:

- 8/9/2004 - No start time/day off options favored**
- 8/10/2004 - No start time/day off options favored**
- 8/11/2004 - No start time/day off options favored**
- 8/12/2004 - No start time/day off options favored**
- 8/13/2004 - No start time/day off options favored**
- 8/14/2004 - No start time/day off options favored**
- 8/15/2004 - No start time/day off options favored**

Brannon, Mick - Start Date 3/15/2004 - top 97% of options favored each day:

- 8/9/2004 - No start time/day off options favored**
- 8/10/2004 - No start time/day off options favored**
- 8/11/2004 - No start time/day off options favored**
- 8/12/2004 - No start time/day off options favored**
- 8/13/2004 - No start time/day off options favored**
- 8/14/2004 - No start time/day off options favored**
- 8/15/2004 - No start time/day off options favored**

Corones, Helena - Start Date 3/15/2004 - top 100% of options favored each day:

- 8/9/2004 - No start time/day off options favored**
- 8/10/2004 - No start time/day off options favored**
- 8/11/2004 - No start time/day off options favored**
- 8/12/2004 - No start time/day off options favored**
- 8/13/2004 - No start time/day off options favored**

8/14/2004 - No start time/day off options favored

8/15/2004 - No start time/day off options favored