

Nortel Workforce Management

Report Parameters

NN44480-129

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New in this release

The following sections detail what's new in *Report Parameters* NN44480-129) for Workforce Management Release 7.0.

- "Features" (page 7)

Features

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Introduction

This guide is intended for use by report developers. It, and its companion documents, are intended to provide you with enough information to create and deploy custom reports that can be run from within the Workforce Optimization Solution. This guide is not intended to teach the basics of computer or software operation or use, and does not contain tutorial information. You are expected to be experienced in working with contact center equipment and software applications as well as PC workstation hardware and software.

- "Report Parameters" (page 13)

Intended Audience for this Guide

This guide is designed to be used by report developers. They are expected to have the skills and associated experience listed in the following table:

Product	Years of Experience	Specific Experience
Cognos Report Framework Manager	1	Connecting to databases; defining parameters and formulas; grouping
Cognos Report Studio	1	Connecting to databases; defining parameters and formulas; grouping
Microsoft SQL Server or Oracle Server	2	Creating SQL queries. Select, Join, Outer Join, and Union operations. Creating temporary tables and parametrized queries. Using Datediff, DateAdd, Case, and other SQL functions. Running queries using SQL Query Analyzer or Oracle's SQL Plus utility.
Workforce Optimization Solution	Attended the basic training.	The developer must have attended the Workforce Optimization Solution basic training.

Standard Conventions

The Standard Conventions table highlights conventions used to describe user interaction, as well as special notations.

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Area	Description
Menu Items	Menu items are highlighted in bold as in the following example: From the menu, choose **File > Preferences > Options.**
Document Names	Other documents are referred to using italics. For example: Refer to the *Quality Monitoring 7.7 Installation Guide* for more information.
Buttons, Functions, and Dialog Box and Window Names	Specific button or function names are highlighted in bold. The following example shows how a button and dialog name are referred to in the documentation: Click **OK**, and then choose the **Restore Database** dialog box.
User Variables	When the user is expected to type a value, the name of the variable to be replaced is surrounded by <> . The following are examples: **<Your ER Server Name>** The notation **<Your ER Server Name>** refers to the name of your Enterprise Reporting server. When you see this notation, replace it with the actual name of your Enterprise Reporting server.

Customer support

This section explains how to get help for Nortel products and services.

Finding the latest updates on the Nortel Web site

The content of this documentation was current at the time the product was released. To check for updates to the latest documentation, go to www.nortel.com/documentation.

Getting help from the Nortel Web site

The best way to get technical support for Nortel products is from the Nortel Technical Support web site:

www.nortel.com

This site provides quick access to software, documentation, bulletins, and tools to address issues with Nortel products.

- download software, documentation, and product bulletins
- search the Technical Support web site and the Nortel Knowledge Base for answers to technical issues
- sign up for automatic notification of new software and documentation for Nortel equipment
- open and manage technical support cases

Getting help over the phone from a Nortel Solutions Center

If you do not find the information you require on the Nortel Technical Support web site, and have a Nortel support contract, you can also get help over the phone from a Nortel Solutions Center.

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In North America, call 1-800-4Nortel (1-800-466-7835). Outside North America, go to the following web site to obtain the phone number for your region:

www.nortel.com/callus

Getting help from a specialist by using an Express Routing Code

To access some Nortel Technical Solutions Centers, you can use an Express Routing Code (ERC) to quickly route your call to a specialist in your Nortel product or service. To locate the ERC for your product or service, go to:

www.nortel.com/erc

Getting help through a Nortel distributor or reseller

If you purchased a service contract for your Nortel product from a distributor or authorized reseller, contact the technical support staff for that distributor or reseller.

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Report Parameters

This chapter discusses the following:

- "Parameter Controls" (page 14)
- "Activity Control" (page 16)
- "Boolean Control" (page 19)
- "Integer Control" (page 20)
- "Float Control" (page 22)
- "String Control" (page 24)
- "Currency Control" (page 25)
- "Date Control" (page 25)
- "Time Control" (page 27)
- "Date Time Control" (page 29)
- "Date Range Control" (page 31)
- "Date Time Range Control" (page 33)
- "Time Zone Control" (page 34)
- "Time Frame Control" (page 35)
- "Single Value Selector Control" (page 37)
- "Multiple Value Selector Control" (page 40)
- "Employee Control" (page 42)
- "Employee Filter Control" (page 45)
- "Organization Control" (page 47)
- "Queue Control" (page 49)
- "Media Control" (page 51)
- "Localization" (page 51)
- "DTD - Report Parameters Prompts" (page 53)

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Parameter Controls

The Cognos Reports development environment lets you create reports that can accept input before the report is run. Parameters are used to communicate between Cognos Report Net Server and the Verint Systems application. These parameters are defined in the Cognos report information, and are defined in the Verint Systems report prompt information. The prompt information indicates the manner in which parameters are prompted within the Verint application.

Within the Verint Systems application, report parameter prompt information is defined in an XML file. Each Cognos report can have a Verint prompt information file. These prompt information files contain define the types of input controls, and the attributes which will be use in the Verint application. Each control has at least one label, and at least one input control. The XML file contains a list of values to be displayed for the list controls. The initial values are also defined for each parameter in the control.

The "glue" binding the parameters defined in the Cognos report information and the Verint prompt information is the parameter name. Parameter names must match between the two systems.

The following is an example where Workforce Optimization Solution application uses the prompting information to display a portion of the report's parameter page. The prompting section is highlighted in red; the prompt information file to build this section of the panel follows as well.

In the example, there are three prompts (control types): **DATE**, **EMPLOYEE_FILTER**, and **TIME_ZONE**. Each control type has a label, which shows up as the text on the left-side of the prompt area.

The first prompt is of control type **DATE**, and has a label of **Date**. Each prompt can have multiple parameters; however, in our example, each prompt has only one parameter. The name of the parameter as stated before is the glue which binds the prompt information to the Cognos Report. The parameter name defined here MUST match the parameter name defined in the Cognos report.

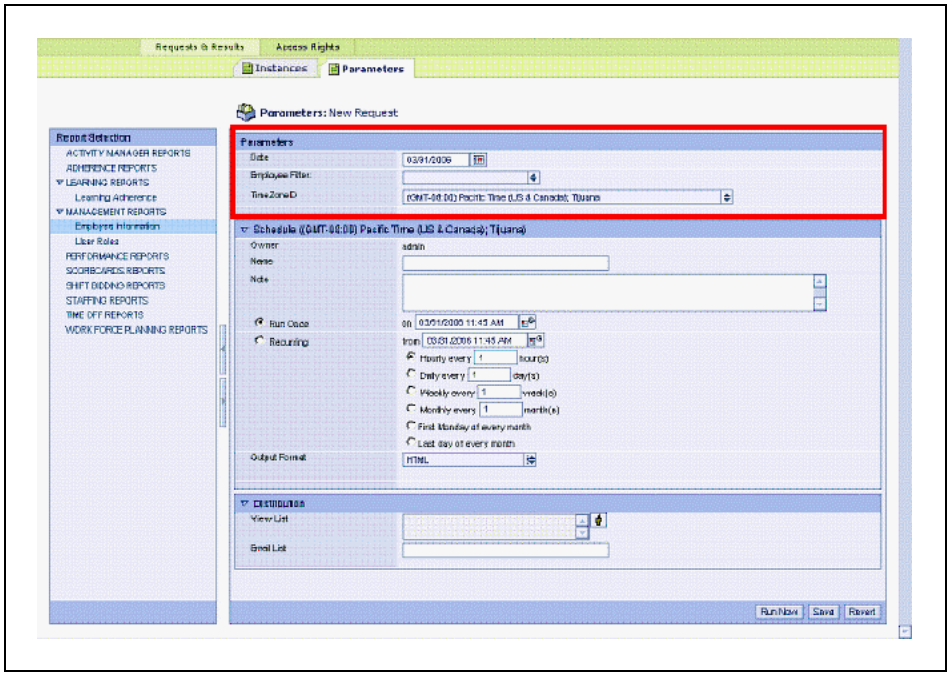
The values to be assigned to these parameters are collected from user input. Every parameter has a displayable mirror parameter. The displayable parameter name, by default, is **<parameter name>_DisplayValue**, where the parameter name is the one specified in the prompt information. The displayable parameter is assigned a similar value as the normal parameter, but in a displayable format.

In our example, a mirror parameter will be generated, having the name **EmployeeFilterID_DisplayValue**, which may, as an example, receive the value of **Sales**, which would represent the sales organization. However, the

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parameter **EmployeeFilterID** is set to the database's identifier value for the sales organization, which could be, as an example, the integer 100. In this example, the **EmployeeFilterID** parameter would be used in your Cognos report queries, and the **EmployeeFilterID_DisplayValue** parameter would be used as a label on your Cognos report.

In the prompt information, you have the option of changing the displayable parameter name.



Corresponding Prompt Information

```
<?xml version="1.0" encoding="UTF-8"?>

<reportcontrols name="Employee Information">

<control ctrl-type="DATE" label="Date">

<parameter name="Date" initial-value="Sep 01, 2005" />

</control>

<control ctrl-type="EMPLOYEE_FILTER" filter-by="ID"
label="Employee Filter:">

<parameter name="EmployeeFilterID" />

</control>

<control ctrl-type="TIME_ZONE" label="TimeZoneID">

<parameter name="TimeZoneID" />

</control>

</reportcontrols>
```


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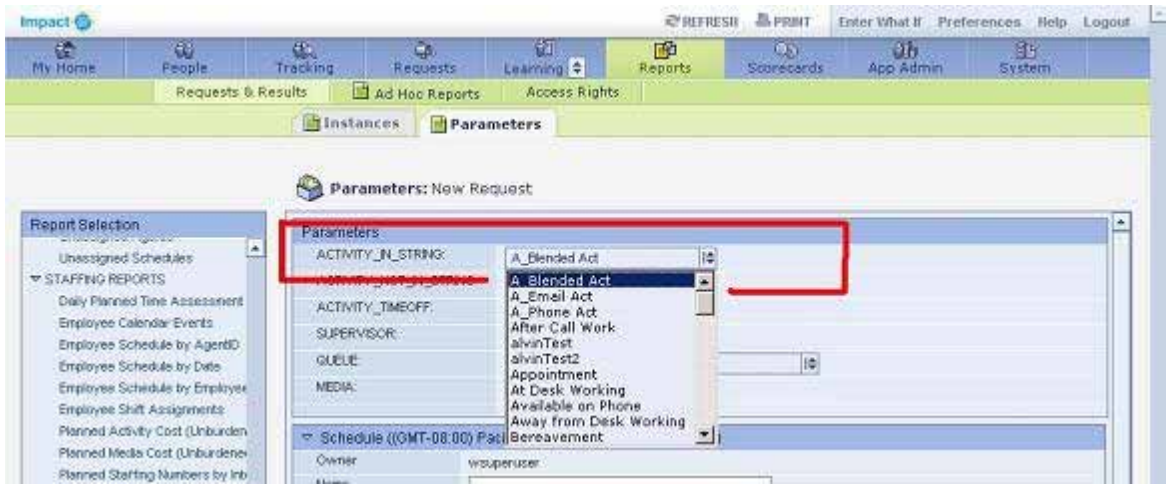
The following is a detailed definition of the available UI controls (components) for the report parameters. The sample screens were taken from the Workforce Optimization Solution. The report controls are defined in files of XML format. Also included are the sample XML files used to generate the Parameters section of the Requests & Results section's Parameter tab. In addition to the sample screen and sample XML file, the complete list of appropriate XML elements and attributes is defined for each control.

Activity Control

The **Activity** control allows you to enter values for report parameters representing a variety of activities. Of most importance is the filter-method attribute, which indicates to the activity control which data is to be displayed. There are several values for the filter-method attribute; some of the values indicate the display of data, which does not have anything to do with activities.

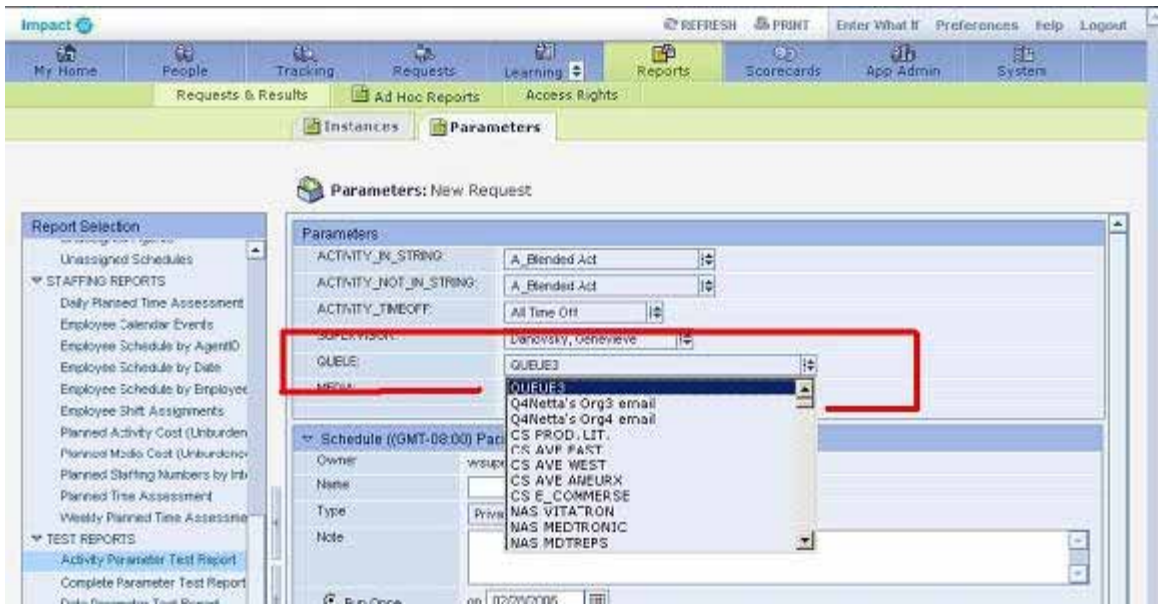
- **ACTIVITY**—Allow the selection from a list of activities.
- **ACTIVITY_TIMEOFF**—Allow the selection from a list of activities indicating a time-off event. The **ACTIVITY_TIMEOFF** activities are a subset of **ACTIVITIES**.
- **SUPERVISOR**—Allow the selection from a list of supervisors.
- **QUEUE**—Allow the selection from a list of queues.
- **MEDIA** – Allow the selection from a list of media types.
- If no filter-method attribute is supplied, the control will look for the values to be defined as part of the control. See the list-item tag of the Selector controls.

Activity Control–with Filter-Method Set to ACTIVITY



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Activity Control–with Filter-Method Set to QUEUE



Activity Control–Prompt Information

```
<?xml version="1.0" encoding="UTF-8"?>

<reportcontrols name="Activity Parameter Test Report">

<control ctrl-type="ACTIVITY" filter-method="ACTIVITY"
label="ACTIVITY_IN_STRING:">

<parameter name="ACTIVITY_IN_STRING" in-string="true" />

</control>

<control ctrl-type="ACTIVITY" filter-method="ACTIVITY"
label="ACTIVITY_NOT_IN_STRING:">

<parameter name="ACTIVITY_NOT_IN_STRING" in-string="true" />

</control>

<control ctrl-type="ACTIVITY" filter-method="ACTIVITY_TIMEOFF
" label="ACTIVITY_TIMEOFF:">

<parameter name="ACTIVITY_TIMEOFF" in-string="true" />

</control>

<control ctrl-type="ACTIVITY" filter-method="SUPERVISOR"
label="SUPERVISOR:">

<parameter name="SUPERVISOR" in-string="true" />

</control>
```


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```
<control ctrl-type="ACTIVITY" filter-method="QUEUE"
label="QUEUE:">
<parameter name="QUEUE" in-string="true" />
</control>
<control ctrl-type="ACTIVITY" filter-method="MEDIA"
label="MEDIA:">
<parameter name="MEDIA" in-string="true" />
</control>
</reportcontrols>
```

Activity Control–Elements/Attributes

Element	Attribute	Required	Definition
control	ctrl-type	Yes	Must be ACTIVITY
	filter-method	No	Can be ACTIVITY, ACTIVITY_TIMEOFF, SUPERVISOR, QUEUE, MEDIA, or empty, in which case a series of list-item tags must be supplied. The setting of the filter-method indicates the retrieval of the appropriate list of data from the database.
	label	Yes	The visual label of the parameter. In the above example, the label is ACTIVITY_IN_STRING. This label can be localized within a resource bundle before being displayed.
	is-required	No	Specifies whether the user is required to fill in a value for this parameter. If true, the user is prompted with a pop-up that indicates the control must be filled in if the control is left blank.
parameter	name	Yes	The name of the parameter, for use within the reporting system. This is the name the report writers refer to when developing their reports.
	in-string	No	When the user selects multiple choices, is the list to be sent to the reporting system as a comma-separated string, or as an array of strings. Generally, the list is sent as a comma-separated string, which is appropriate for the where clause of SQL queries.

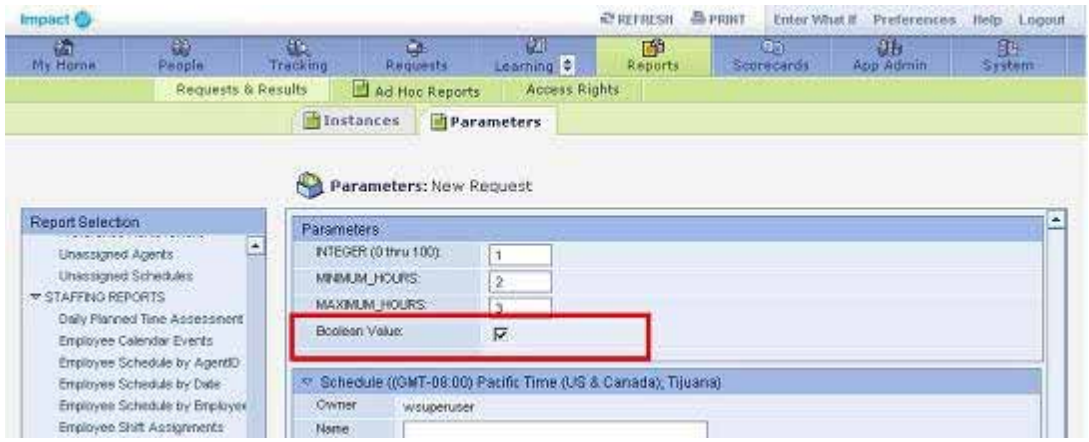
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Element	Attribute	Required	Definition
	display-name	No	Specifies the name of the displayable parameter. This is the name report writers refer to when developing their reports. Displayable parameters generally do not get processed as a part of the report query, but are displayed directly on the report. For example, the activity At Desk Working may have an internal id of -42356; a parameter defined by the name attribute will receive the numeric value for the query processing, that is -42356. However, the parameter named by the display-name attribute will receive the At Desk Working string.
	initial-value	No	The initial value specifies the initial selection of the control. Setting this value is not recommended when the filter-method is specified. Because the use of the filter-method attribute indicates a database retrieval, there are no guarantees what the actual data may be.

Boolean Control

The Boolean control allows the user to select true or false values for report parameters. The parameters for the report queries take on the value of 0 or 1.

Boolean Control- Snapshot



Boolean Control – Parameter Information

```
<?xml version="1.0" encoding="UTF-8"?>

<reportcontrols name="Parameter Test Report">
```


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```
<control ctrl-type="BOOLEAN" label="BOOLEAN">
<parameter name="BOOLEAN" initial-value="1" />
</control>
</reportcontrols>
```

Boolean Control - Elements/Attributes

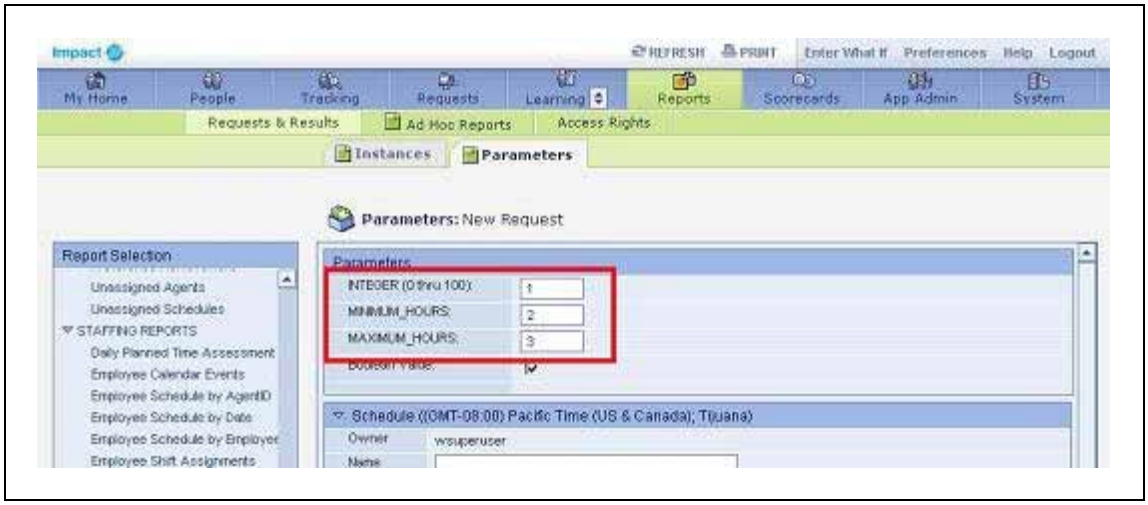
Element	Attribute	Required	Definition
control	**ctrl-type**	Yes	**BOOLEAN**
	label	Yes	The visual label of the parameter. In the above example, the label has a Boolean value. This label can be localized within a resource bundle before being displayed.
	is-required	No	Specifies whether the user is required to fill in a value for this parameter. If true, the user is prompted with a pop-up that indicates the control must be filled in, if the control is left blank.
parameter	**name**	Yes	The name of the parameter, for use within the reporting system. This is the name report writers refer to when developing their reports.
	display-name	No	Specifies the name of the displayable parameter. This is the name report writers refer to when developing their reports. Displayable parameters generally do not get processed as a part of the report query, but are displayed directly on the report. For example, the display-name parameter will be set to True or False when the name parameter is set to 1 or 0.
	initial-value	No	The initial value specifies the initial setting of the parameter control. Possible values are 0 or 1.

Integer Control

The Integer control allows the user to enter whole numbers for parameter values.

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Integer Control - Snapshot



The screenshot above shows several Integer controls, demonstrates the use of min-value and max-value, and especially the use of lower-limit-id and upper-limit-id. The **MINIMUM_HOURS** parameter only accepts values between 0 and 100 inclusive. The **MAXIMUM_HOURS** parameter only accepts values from the value entered into the **MINIMUM_HOURS** parameter to the value of 100 inclusive. The **LOWER-LIMIT-ID** and **UPPER-LIMIT-ID** can be used to allow multiple controls set each others min and max values based on user entry.

```
<?xml version="1.0" encoding="UTF-8"?>

<report controls name="Parameter Test Report">

<control ctrl-type="INTEGER" label="INTEGER (0 thru 100):">

<parameter name="MIN_MAX_CHECK" initial-value="1"
min-value="0" max-value="100" />

</control>

<control ctrl-type="INTEGER" label="MINIMUM_HOURS:">

<parameter name="MINIMUM_HOURS" initial-value="2"
min-value="0" max-value="100" />

</control> <control ctrl-type="INTEGER" label="MAXIMUM_HOU
RS:">

<parameter name="MAXIMUM_HOURS" initial-value="3"
lower-limit-id="MINIMUM_HOURS" max-value="100" />

</control>

</reportcontrols>
```


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Integer Control - Elements/Attributes

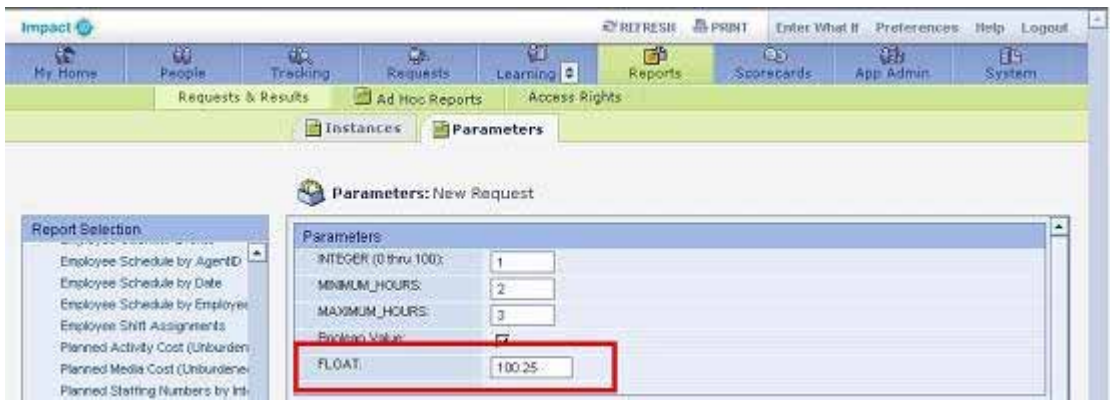
Element	Attribute	Required	Definition
control	ctrl-type	Yes	INTEGER
	label	Yes	The visual label of the parameter. In the above example, the label is the text to the left of the control. This label can be localizedl within a resource bundle before being displayed.
	is-required	No	Specifies whether the user is required to fill in a value for this parameter. If true, the user is prompted with a pop-up that indicates the control must be filled in, if the control is left blank. When specifying initial-value, also setting is-required to true is unnecessary, because setting initial-value satisfies requirement.
parameter	name	Yes	The name of the parameter, for use within the reporting system. This is the name report writers refer to when developing their reports.
	display-name	No	Although the display-name parameter is implemented, its effect for numeric values is to set the numeric value in the display-name parameter.
	initial-value	No	The initial value specifies the initial setting of the parameter control and must be a numeric value. Floating values are rounded.
	min-value	No	The minimum allowable integer value for this control. Values below this result in the user being prompted with an input error.
	max-value	No	The maximum allowable integer value for this control. Values above this result in the user being prompted with an input error.
	lower-limit-id	No	The name of another parameter whose user-entered value is used as the minimum allowable integer value for this control. The value entered for this attribute corresponds to another parameter's name attribute.
	upper-limit-id	No	The name of another parameter whose user-entered value is used as the maximum allowable integer value for this control. The value entered for this attribute corresponds to another parameter's name attribute.

Float Control

The **Float** control allows the user to enter floating point numbers for parameter values. The **Float** control is similar to the Integer control.

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Float Control - Snapshot



Float Control – Parameter Information

```
<?xml version="1.0" encoding="UTF-8"?>

<reportcontrols name="Numeric Parameter Test Report">

<control ctrl-type="FLOAT" label="FLOAT:">

<parameter name="MIN_MAX_FLOAT" initial-value="100.25"
min-value="0.1" max-value="110.4" />

</control>

</reportcontrols>
```

Float Control – Elements/Attributes

Element	Attribute	Required	Definition
control	ctrl-type	Yes	FLOAT
	label	Yes	The visual label of the parameter. In the above example, the label is the text to the left of the control. This label can be localizedl within a resource bundle before being displayed.
	is-required	No	Specifies whether the user is required to fill in a value for this parameter. If true, the user is prompted with a pop-up that indicates the control must be filled in, if the control is left blank. When specifying initial-value, also setting is-required to true is unnecessary, because setting initial-value satisfies requirement.
parameter	name	Yes	The name of the parameter, for use within the reporting system. This is the name report writers refer to when developing their reports.

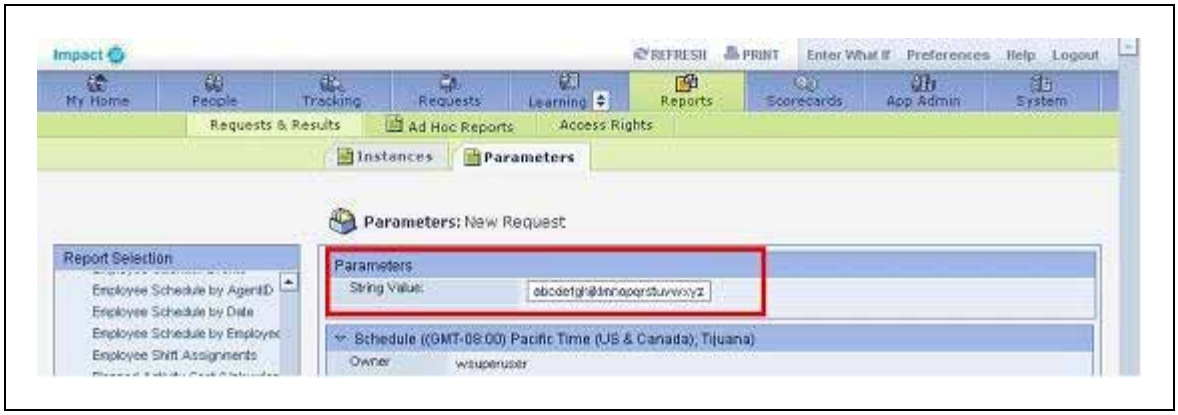
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Element	Attribute	Required	Definition
	display-name	No	Although the display-name parameter is implemented, its effect for numeric values is to set the numeric value in the display-name parameter.
	initial-value	No	Specifies the initial setting of the parameter control, and must be a numeric value.
	min-value	No	The minimum allowable integer value for this control. Values below this result in the user being prompted with an input error.
	max-value	No	The maximum allowable integer value for this control. Values above this result in the user being prompted with an input error.
	lower-limit-id	No	The name of another parameter whose user-entered value is used as the minimum allowable integer value for this control. The value entered for this attribute corresponds to another parameter's name attribute.
	upper-limit-id	No	The name of another parameter whose user-entered value is used as the maximum allowable integer value for this control. The value entered for this attribute corresponds to another parameter's name attribute.

String Control

The String control allows the user to enter or edit a single line of text for a parameter value.

Snapshot - String Control



String Control – Example Parameter Information

```
<?xml version="1.0" encoding="UTF-8"?>
```


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```
<reportcontrols name="String Parameter Test Report">
<control ctrl-type="STRING" label="STRING">
<parameter name="STRING_CHECK" initial-value="abcdefghijklmnopqrstuvwxyz" display-name="STRING_CHECK_TEXT" />
</control>
</reportcontrols>
```

String Control – Elements/Attributes

The following table describes the tags and attributes used in the XML definition of the String control.

Element	Attribute	Required	Definition
control	ctrl-type	Yes	STRING
	label	Yes	The visual label of the parameter. In the above example, the label is String value:. This label can be localized within a resource bundle before being displayed.
	is-required	No	Specifies whether the user is required to fill in a value for this parameter. If true, the user is prompted with a pop-up that indicates the control must be filled in, if the control is left blank.
parameter	name	Yes	The name of the parameter, for use within the reporting system. This is the name report writers refer to when developing their reports.
	display-name	No	Specifies the name of the displayable parameter. This is the name report writers refer to when developing their reports. The value for the display-name parameter will be the same as the value for the name parameter.
	initial-value	No	The initial value specifies the initial selection of the control.

Currency Control

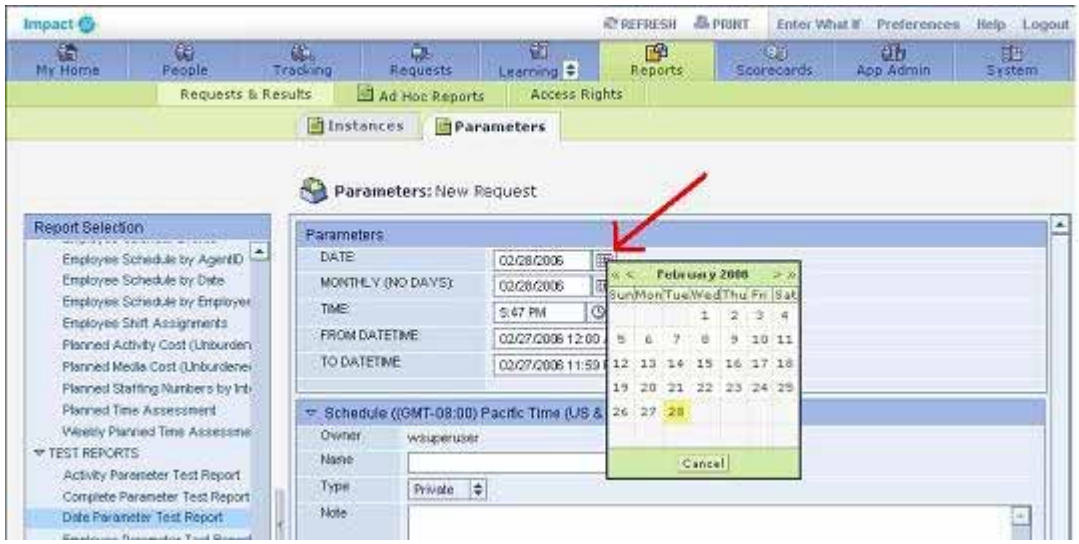
The currency control is currently not implemented.

Date Control

The Date control allows the user to enter a date via the keyboard, or by selecting from a calendar pop-up. To bring up the calendar pop-up, select the icon to the right of the date.

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Date Control - Screenshot



Date Control – Example Parameter Information

```
<?xml version="1.0" encoding="UTF-8"?>
<reportcontrols name="Date Parameter Test Report">
<control ctrl-type="DATE" label="DATE:">
<parameter name="DATE_TEST" />
</control>
</reportcontrols>
```

Date Control – Elements/Attributes

Element	Attribute	Required	Definition
control	ctrl-type	Yes	DATE
	label	Yes	The visual label of the parameter. In the above example, the label is DATE:. This label can be localized within a resource bundle before being displayed.
	is-required	No	Specifies whether the user is required to fill in a value for this parameter. If true, the user is prompted with a pop-up that indicates the control must be filled in, if the control is left blank.

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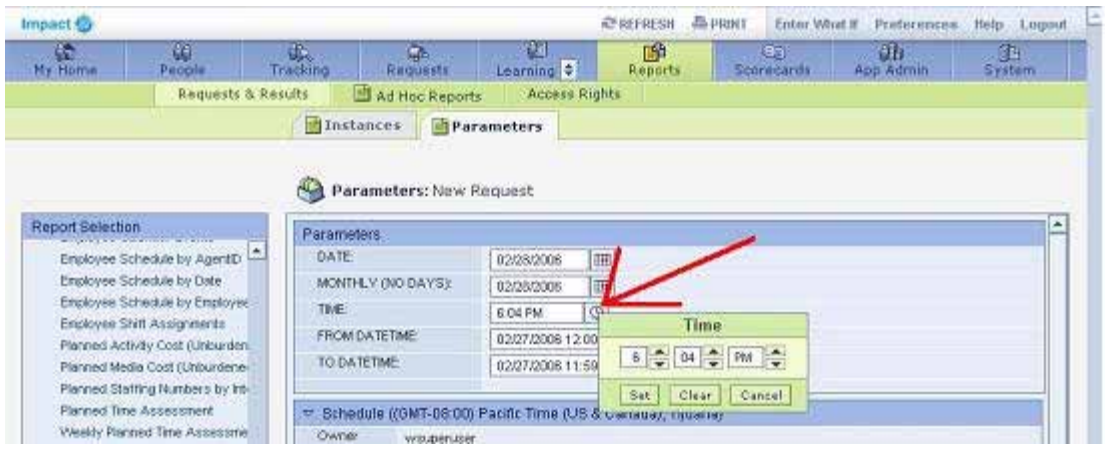
Element	Attribute	Required	Definition
	is-monthly	No	Either a value of true or false. A true value specifies the date is to be entered in year and month only. If the control has a parameter whose is-to-date attribute is true, the date will be set to the last day of the specified month, otherwise the date will be set to the first day of the month.
parameter	name	Yes	The name of the parameter, for use within the reporting system. This is the name report writers refer to when developing their reports.
	display-name	No	Specifies the name of the displayable parameter. This is the name report writers refer to when developing their reports.
	initial-value	No	The initial value specifies the initial selection of the control. If not specified, initial-value is set to the current system date.
	lower-limit-id	No	The name of another parameter whose user-entered value will be used as the minimum allowable date value for this control. The value entered for this attribute will correspond to another parameter's name attribute.
	upper-limit-id	No	The name of another parameter whose user-entered value will be used as the maximum allowable date value for this control. The value entered for this attribute will correspond to another parameter's name attribute.
	is-to-date	No	Either a value of true or false. If true, this date identifies itself as the upper end of a date range, which can be used in limit checking, and is used for special processing in data dumps. Combined with the is-monthly flag, this date will automatically be set to the last day of the month.
	is-from-date	No	Either a value of true or false. If true, this date identifies itself as the lower end of a date range, which can be used in limit checking, and is used for special processing in data dumps.

Time Control

The **Time** control allows the user to enter a time via the keyboard, or by selecting from a calendar pop-up. To bring up the calendar pop-up, select the icon to the right of the date.

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Time Control - Snapshot



Time Control – Example Parameter Information

```
<?xml version="1.0" encoding="UTF-8"?>
<reportcontrols name="Date Parameter Test Report">
<control ctrl-type="TIME" label="TIME:">
<parameter name="TIME_TEST" />
</control>
</reportcontrols>
```

Time Control – Elements/Attributes

Element	Attribute	Required	Definition
control	ctrl-type	Yes	**TIME**
	label	Yes	The visual label of the parameter. In the above example, the label is TIME:. This label can be localized within a resource bundle before being displayed.
	is-required	No	Specifies whether the user is required to fill in a value for this parameter. If **true**, the user is prompted with a pop-up that indicates the control must be filled in, if the control is left blank.
parameter	name	Yes	The name of the parameter, for use within the reporting system. This is the name report writers refer to when developing their reports.
	display-name	No	Specifies the name of the displayable parameter. This is the name report writers refer to when developing their reports.

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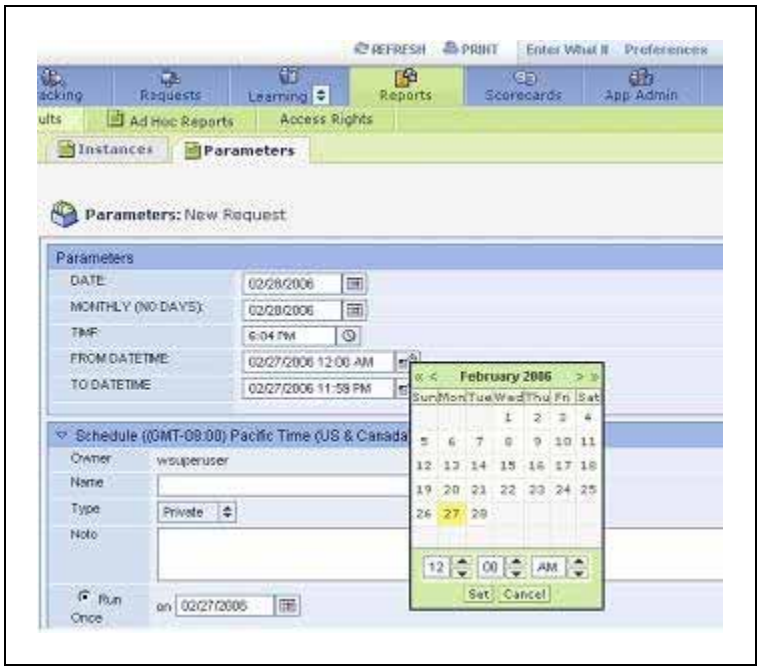
Element	Attribute	Required	Definition
	initial-value	No	The initial value specifies the initial selection of the control. If not specified, **initial-value** is set to the current system time.
	lower-limit-id	No	The name of another parameter whose user-entered value will be used as the minimum allowable time value for this control. The value entered for this attribute corresponds to another parameter's **name** attribute.
	upper-limit-id	No	The name of another parameter whose user-entered value will be used as the maximum allowable date value for this control. The value entered for this attribute corresponds to another parameter's **name** attribute.
	is-to-time	No	Either a value of **true** or **false**. If true, this time identifies itself as the upper end of a time range, which can be used in limit checking, and is used for special processing in data dumps.
	is-from-time	No	Either a value of **true** or **false**. If true, this time identifies itself as the lower end of a time range, which can be used in limit checking, and is used for special processing in data dumps.

Date Time Control

The Date Time control allows the user to enter a date and time via the keyboard, or by selecting from a calendar pop-up. To bring up the calendar pop-up, select the icon to the right of the date.

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Date-Time Control - Snapshot



Date-Time Control – Example Parameter Information

```
<?xml version="1.0" encoding="UTF-8"?>
<reportcontrols name="Date Parameter Test Report">
<control ctrl-type="DATE_TIME" label="FROM DATETIME:">
<parameter name="FROM_DATETIME_TEST" is-from-date="true" />
</control>
</reportcontrols>
```

Date-Time Control – Elements/Attributes

Element	Attribute	Required	Definition
control	ctrl-type	Yes	DATE_TIME
	label	Yes	The visual label of the parameter. In the above example, the label is FROM_DATETIME. This label can be localized within a resource bundle before being displayed.
	is-required	No	Specifies whether the user is required to fill in a value for this parameter. If true, the user is prompted with a pop-up that indicates the control must be filled in, if the control is left blank.

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Element	Attribute	Required	Definition
parameter	name	Yes	The name of the parameter, for use within the reporting system. This is the name report writers refer to when developing their reports.
	display-name	No	Specifies the name of the displayable parameter. This is the name report writers refer to when developing their reports.
	initial-value	No	The initial value specifies the initial selection of the control. If not specified, initial-value is set to the current system date.
	lower-limit-id	No	The name of another parameter whose user-entered value will be used as the minimum allowable date time value for this control. The value entered for this attribute corresponds to another parameter's name attribute.
	upper-limit-id	No	The name of another parameter whose user-entered value will be used as the maximum allowable date time value for this control. The value entered for this attribute corresponds to another parameter's name attribute.
	is-to-date	No	Either a value of true or false. If true, this date time identifies itself as the upper end of a date time range, which can be used in limit checking, and is used for special processing in data dumps.
	is-from-date	No	Either a value of true or false. If true, this date time identifies itself as the lower end of a date time range, which can be used in limit checking, and is used for special processing in data dumps.

Date Range Control

The Date Range control allows the user to enter a date range via the keyboard, or by selecting from a calendar popup. To bring up the calendar popup, select the icon to the right of the date.



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Sample Parameter Definition

The following is a sample XML file used to generate the prompt parameters displayed in the previous screen snapshot.

```
<?xml version="1.0" encoding="UTF-8"?>
<reportcontrols name="Date Parameter Test Report">
<control ctrl-type="DATE_RANGE" label="DATE RANGE:">
<parameter name="TO_DATERANGE_TEST" is-from-date="true" />
<parameter name="FROM_DATERANGE_TEST" is-to-date="true" />
</control>
</reportcontrols>
```

Detailed Specification

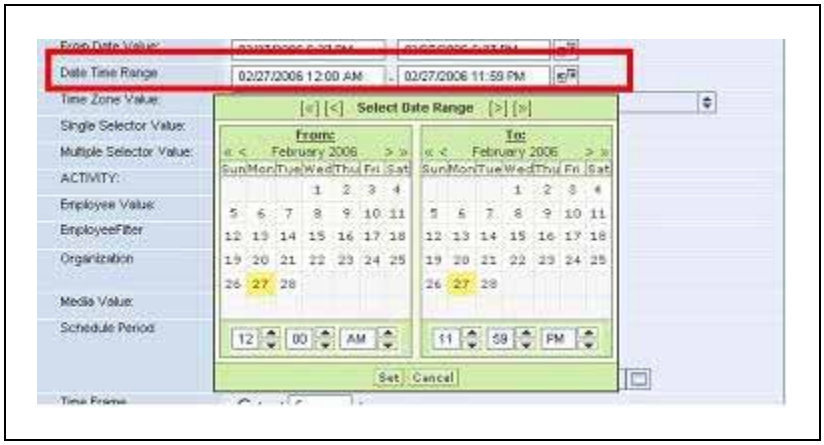
The following table describes the tags and attributes used in the XML definition of the Date Range control.

Element	Attribute	Required	Definition
control	ctrl-type	Yes	**DATE_RANGE**
	label	Yes	The visual label of the parameter. In the above example, the label is **Date Time Range**. This label can be localized within a resource bundle before being displayed.
	is-required	No	Specifies whether the user is required to fill in a value for this parameter. If **true**, the user is prompted with a pop-up that indicates the control must be filled in, if the control is left blank.
parameter	name	Yes	The name of the parameter, for use within the reporting system. This is the name report writers refer to when developing their reports.
	display-name	No	Specifies the name of the displayable parameter. This is the name report writers refer to when developing their reports.
	initial-value	No	The initial value specifies the initial selection of the control. If not specified, initial-value is set to the current system date.
	is-to-date	No	Either a value of **true** or **false**. If **true**, this date time identifies itself as the upper end of a date time range, which can be used in limit checking, and is used for special processing in data dumps.
	is-from-date	No	Either a value of **true** or **false**. If **true**, this date time identifies itself as the lower end of a date time range, which can be used in limit checking, and is used for special processing in data dumps.

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Date Time Range Control

The Date Time Range control allows the user to enter a date range via the keyboard, or by selecting from a calendar pop-up. To bring up the calendar pop-up, select the icon to the right of the date.



Sample Parameter Definition

The following is a sample XML file used to generate the prompt parameters displayed in the screen snapshot.

```
<?xml version="1.0" encoding="UTF-8"?>
<reportcontrols name="Parameter Test Report">
<control ctrl-type="DATE_TIME_RANGE" label="Date Time Range">

<parameter name="FROM_DATE_TIME" is-from-date="true" />
<parameter name="TO_DATE_TIME" is-to-date="true" />
</control>
</reportcontrols>
```

Detailed Specification

The following table describes the tags and attributes used in the XML definition of the Date Time Range control.

Element	Attribute	Required	Definition
control	ctrl-type	Yes	**DATE_TIME_RANGE**
	label	Yes	The visual label of the parameter. In the above example, the label is **Date Time Range**. This label can be localized within a resource bundle before being displayed.

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Element	Attribute	Required	Definition
	is-required	No	Specifies whether the user is required to fill in a value for this parameter. If **true**, the user is prompted with a pop-up that indicates the control must be filled in, if the control is left blank.
parameter	name	Yes	The name of the parameter, for use within the reporting system. This is the name report writers refer to when developing their reports.
	display-name	No	Specifies the name of the displayable parameter. This is the name report writers refer to when developing their reports.
	initial-value	No	The initial value specifies the initial selection of the control. If not specified, **initial-value** is set to the current system date.
	is-to-date	No	Either a value of **true** or **false**. If **true**, this date time identifies itself as the upper end of a date time range, which can be used in limit checking, and is used for special processing in data dumps.
	is-from-date	No	Either a value of **true** or **false**. If **true**, this date time identifies itself as the lower end of a date time range, which can be used in limit checking, and is used for special processing in data dumps.

Time Zone Control

The Time Zone control allows the user to select from a list of time zones. The time zone control converts all query dates to GMT time using the specified time zone. All display dates are displayed using the selected time zone value.



Sample Parameter Definition

The following is a sample XML file used to generate the prompt parameters displayed in the screen snapshot.

```
<?xml version="1.0" encoding="UTF-8"?>
```


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```
<reportcontrols name="Parameter Test Report">
<control ctrl-type="TIME_ZONE" label="TIMEZONE">
<parameter name="TIME_ZONE" />
</control>
</reportcontrols>
```

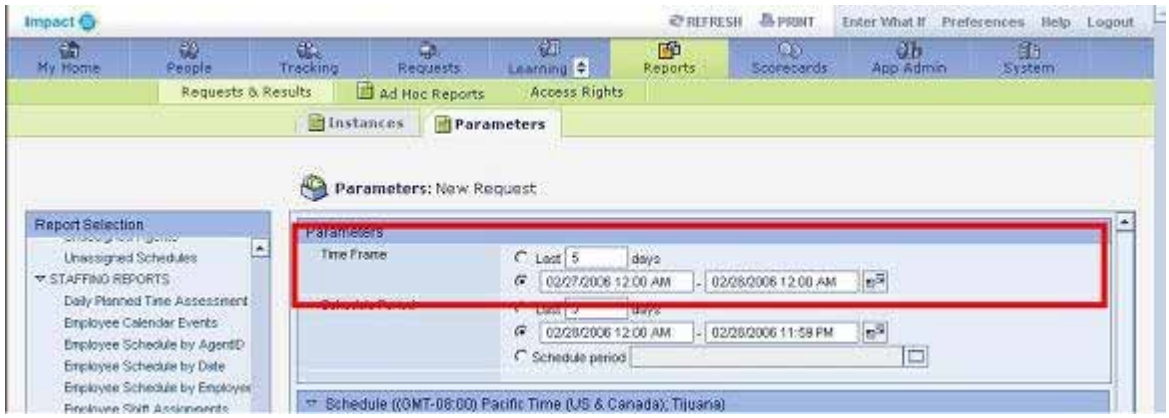
Detailed Specification

The following table describes the tags and attributes used in the XML definition of the Time Zone control.

Element	Attribute	Required	Definition
control	ctrl-type	Yes	TIME_ZONE
	label	Yes	The visual label of the parameter. In the above example, the label is Time Zone Value. This label can be localized within a resource bundle before being displayed.
	is-required	No	Specifies whether the user is required to fill in a value for this parameter. If true, the user is prompted with a pop-up that indicates the control must be filled in, if the control is left blank.
parameter	name	Yes	The name of the parameter, for use within the reporting system. This is the name report writers refer to when developing their reports.

Time Frame Control

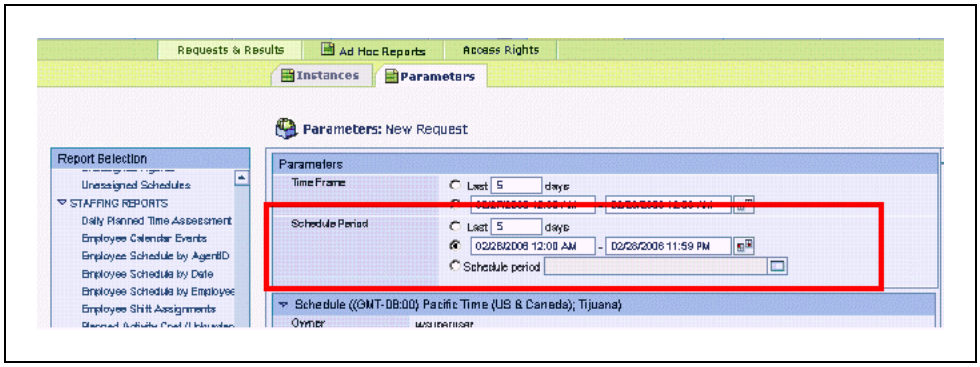
The Time Frame control allows the user to enter a date time range via the keyboard, or by selecting from a several sub controls. The date time range can be entered by entering the date-time range directly, or by selecting a start date combined the delta number of days from the start date, or by selecting from a schedule period picker.



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Schedule Period Control

The schedule period control is the exact same control as the **Time Frame** control, with the exception that the Schedule Period ID is required.



Sample Parameter Definition

The following is a sample XML file used to generate the prompt parameters displayed in the screen snapshot.

```
<?xml version="1.0" encoding="UTF-8"?>

<reportcontrols name="Parameter Test Report">

<control ctrl-type="TIME_FRAME" show-fromto-separately="true"
label="Time Frame">

<parameter name="FROM_TF_DATE_TIME" is-from-date="true" />

<parameter name="TO_TF_DATE_TIME" is-to-date="true" />

<parameter name="LAST_XDAYS_TF" initial-value="5"
min-value="1" max-value="9999" is-last-ndays="true" />

</control>

</reportcontrols>
```

Detailed Specification

The following table describes the tags and attributes used in the XML definition of the Time Frame control.

Element	Attribute	Required	Definition
control	ctrl-type	Yes	**TIME_FRAME**
	label	Yes	The visual label of the parameter. In the above example, the label is **Time Frame**. This label can be localized within a resource bundle before being displayed.
	is-required	No	Specifies whether the user is required to fill in a value for this parameter. If **true**, the user is prompted with a pop-up that indicates the control must be filled in, if the control is left blank.

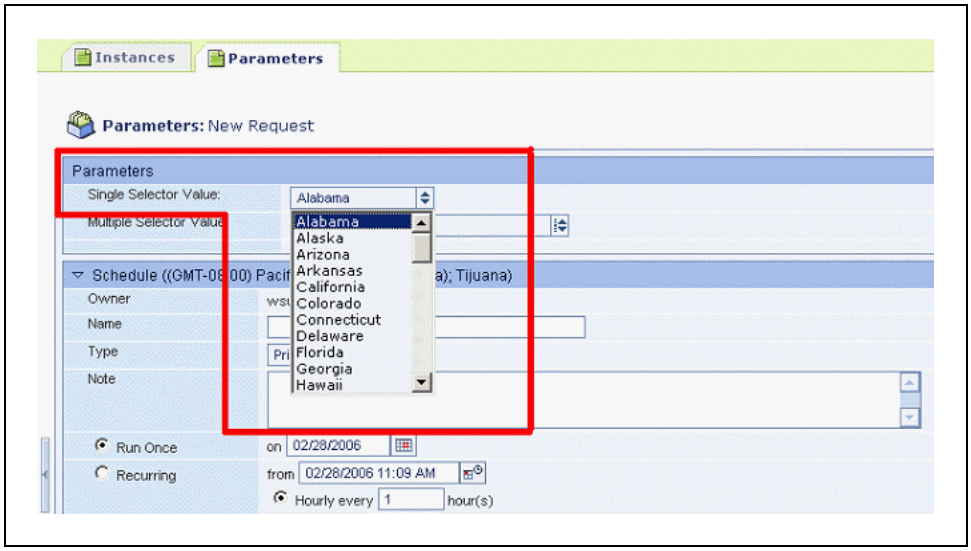
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Element	Attribute	Required	Definition
	show-date-only	No	Either **true** or **false**, specifies whether to show only the date or to show time as well.
	show-fromto-separately	No	Either **true** or **false**. Specifies to show the from and to date time range on its own separate line, with its own radio button.
parameter	name	Yes	The name of the parameter, for use within the reporting system. This is the name report writers refer to when developing their reports.
	display-name	No	Specifies the name of the displayable parameter. This is the name report writers refer to when developing their reports.
	initial-value	No	The initial value specifies the initial selection of the control. If not specified, **initial-value** is set to the current system date.
	lower-limit-id	No	The name of another parameter whose user-entered value will be used as the minimum allowable date time value for this control. The value entered for this attribute corresponds to another parameter's **name** attribute.
	upper-limit-id	No	The name of another parameter whose user-entered value will be used as the maximum allowable date time value for this control. The value entered for this attribute corresponds to another parameter's **name** attribute.
	is-to-date	No	Either a value of **true** or **false**. If **true**, this date time identifies itself as the upper end of a date time range, which can be used in limit checking, and is used for special processing in data dumps.
	is-from-date	No	Either a value of **true** or **false**. If **true**, this date time identifies itself as the lower end of a date time range, which can be used in limit checking, and is used for special processing in data dumps.
	is-sp-id	No	Either a value of **true** or **false**. If **true**, indicates this parameter is to receive the data for the schedule period id.
	is-last-ndays	No	Either a value of **true** or **false**. If **true**, indicates this parameter is to receive the last ndays value.

Single Value Selector Control

The Single Value Selector control allows for the selection of one item among many.

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Sample Single Value Selector Control

```
<?xml version="1.0" encoding="UTF-8"?>

<reportcontrols name="Parameter Test Report">

<control ctrl-type="SINGLE_VALUE_SELECTOR" label="SingleVal
ueSelector">

<parameter name="SVS">

<list-item id="1">Alabama</list-item>

<list-item id="2">Alaska</list-item>

<list-item id="3">Arizona</list-item>

<list-item id="4">Arkansas</list-item>

<list-item id="5">California</list-item>

<list-item id="6">Colorado</list-item>

<list-item id="7">Connecticut</list-item>

<list-item id="8">Delaware</list-item>

<list-item id="9">Florida</list-item>

<list-item id="10">Georgia</list-item>

<list-item id="11">Hawaii</list-item>

<list-item id="12">Idaho</list-item>

<list-item id="13">Illinois</list-item>

<list-item id="14">Indiana</list-item>

<list-item id="15">Iowa</list-item>

<list-item id="16">Kansas</list-item>
```


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```
<list-item id="17">Kentucky</list-item>
<list-item id="18">Louisiana</list-item>
<list-item id="19">Maine</list-item>
<list-item id="20">Maryland</list-item>
<list-item id="21">Massachusetts</list-item>
<list-item id="22">Michigan</list-item>
<list-item id="23">Minnesota</list-item>
<list-item id="24">Mississippi</list-item>
<list-item id="25">Missouri</list-item>
<list-item id="26">Montana</list-item>
<list-item id="27">Nebraska</list-item>
<list-item id="28">Nevada</list-item>
<list-item id="29">New Hampshire</list-item>
<list-item id="30">New Jersey</list-item>
<list-item id="31">New Mexico</list-item>
<list-item id="32">New York</list-item>
<list-item id="33">North Carolina</list-item>
<list-item id="34">North Dakota</list-item>
<list-item id="35">Ohio</list-item>
<list-item id="36">Oklahoma</list-item>
<list-item id="37">Oregon</list-item>
<list-item id="38">Pennsylvania</list-item>
<list-item id="39">Rhode Island</list-item>
<list-item id="40">South Carolina</list-item>
<list-item id="41">South Dakota</list-item>
<list-item id="42">Tennessee</list-item>
<list-item id="43">Texas</list-item>
<list-item id="44">Utah</list-item>
<list-item id="45">Vermont</list-item>
<list-item id="46">Virginia</list-item>
<list-item id="47">Washington</list-item>
<list-item id="48">West Virginia</list-item>
<list-item id="49">Wisconsin</list-item>
<list-item id="50">Wyoming</list-item>
```


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```
</parameter>
</control>
</reportcontrols>
```

Detailed Specification

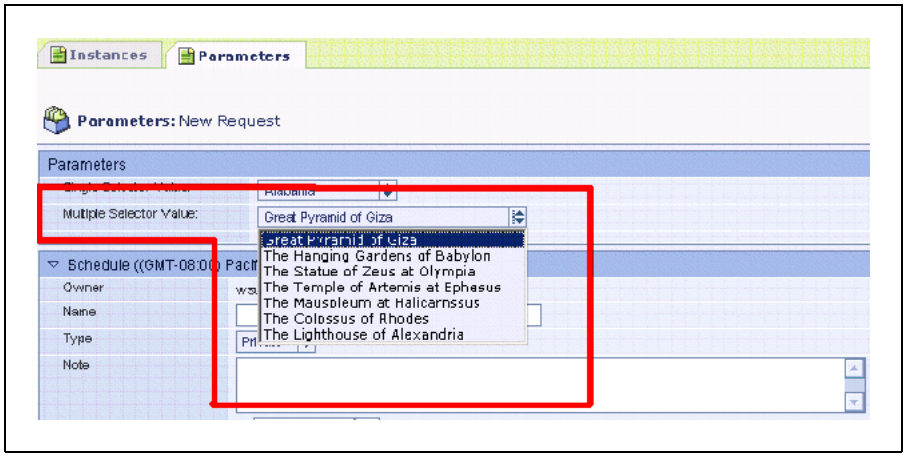
The following table describes the tags and attributes used in the XML definition of the Single Value Selector control.

Element	Attribute	Required	Definition
control	ctrl-type	Yes	**SINGLE_VALUE_SELECTOR**
	label	Yes	The visual label of the parameter. In the above example, the label is **Single Value Selector**. This label can be localized within a resource bundle before being displayed.
	is-required	No	Specifies whether the user is required to fill in a value for this parameter. If **true**, the user is prompted with a pop-up that indicates the control must be filled in, if the control is left blank.
parameter	name	Yes	The name of the parameter, for use within the reporting system. This is the name report writers refer to when developing their reports.
	display-name	No	Specifies the name of the displayable parameter. This is the name report writers refer to when developing their reports.
	initial-value	No	The initial value specifies the initial selection of the control. If not specified, **initial-value** is set to the current system date.
list-item	id	No	Indicates the ID to be passed to the named parameter. In some cases, when selecting from a list of items, the label of the selected value is not desired but some key or ID, often a numeric ID in the database. The display value parameter receives the textual form of the selected value.

Multiple Value Selector Control

The Multiple Value Selector control allows for the selection of many items among many. This control can be distinguished from the Single Value Selector control by the icon to the right of the input field.

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Sample Parameter Definition

The following is a sample XML file used to generate the prompt parameters displayed in the screen snapshot.

```
<?xml version="1.0" encoding="UTF-8"?>
<reportcontrols name="Parameter Test Report">
<control ctrl-type="MULTI_VALUE_SELECTOR" label="MultipleVal
ueSelector">
<parameter name="MVS">
<list-item id="1">Great Pyramid of Giza</list-item>
<list-item id="2">The Hanging Gardens of Babylon</list-item>
<list-item id="3">The Statue of Zeus at Olympia</list-item>
<list-item id="4">The Temple of Artemis at Ephesus</list-ite
m>
<list-item id="5">The Mausoleum at Halicarnssus</list-item>
<list-item id="6">The Colossus of Rhodes</list-item>
<list-item id="7">The Lighthouse of Alexandria</list-item>
</parameter>
</control>
</reportcontrols>
```

Detailed Specification

The following table describes the tags and attributes used in the XML definition of the Multiple Value Selector control.

Element	Attribute	Required	Definition
control	ctrl-type	Yes	**SINGLE_VALUE_SELECTOR**

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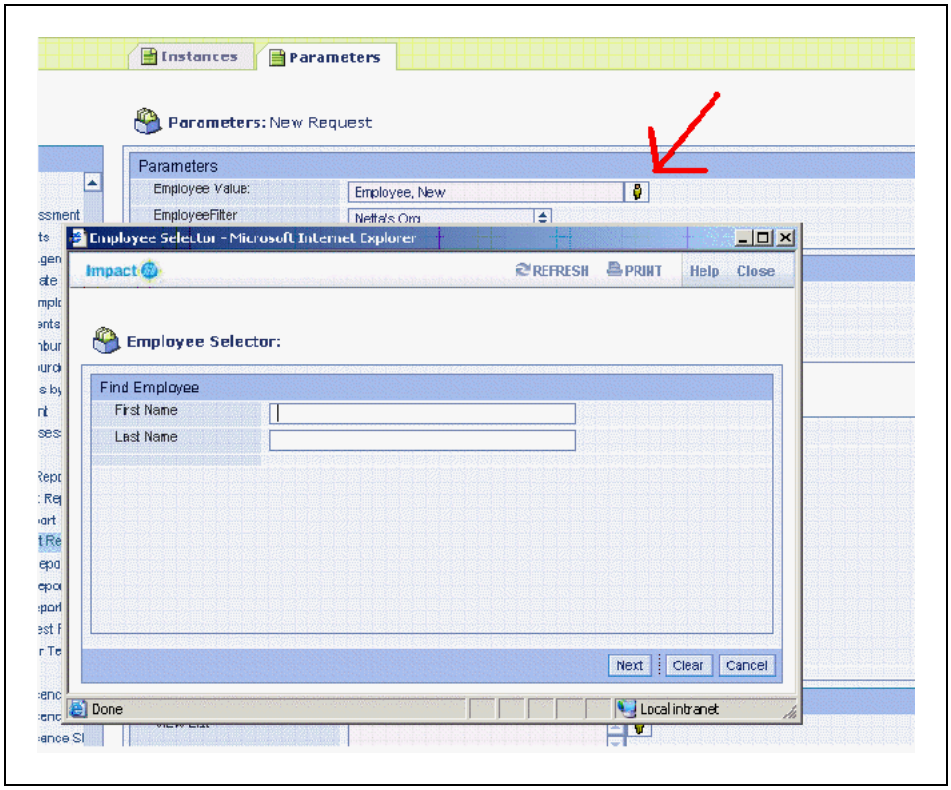
Element	Attribute	Required	Definition
	label	Yes	The visual label of the parameter. In the above example, the label is **Multiple Value Selector**. This label can be localized within a resource bundle before being displayed.
	is-required	No	Specifies whether the user is required to fill in a value for this parameter. If **true**, the user is prompted with a pop-up that indicates the control must be filled in, if the control is left blank.
parameter	name	Yes	The name of the parameter, for use within the reporting system. This is the name report writers refer to when developing their reports.
	display-name	No	Specifies the name of the displayable parameter. This is the name report writers refer to when developing their reports.
	initial-value	No	The initial value specifies the initial selection of the control. If not specified, **initial-value** is set to the current system date.
	in-string	No	Either a value of **true** or **false**. When the user selects multiple choices, is the list to be sent to the reporting system as a comma-separated string, or as an array of strings. Generally, the list is sent as a comma-separated string, which is appropriate for the where clause of SQL queries.
list-item	id	No	Indicates the ID to be passed to the named parameter. In some cases, when selecting from a list of items, the label of the selected value is not desired but some key or ID, often a numeric ID in the database. The display value parameter receives the textual form of the selected value.

Employee Control

The **Employee** selector control allows for the selection of one employee, it initially prompts for a first and last name filter. If the filter is left empty, no filter is applied; all employees are shown.

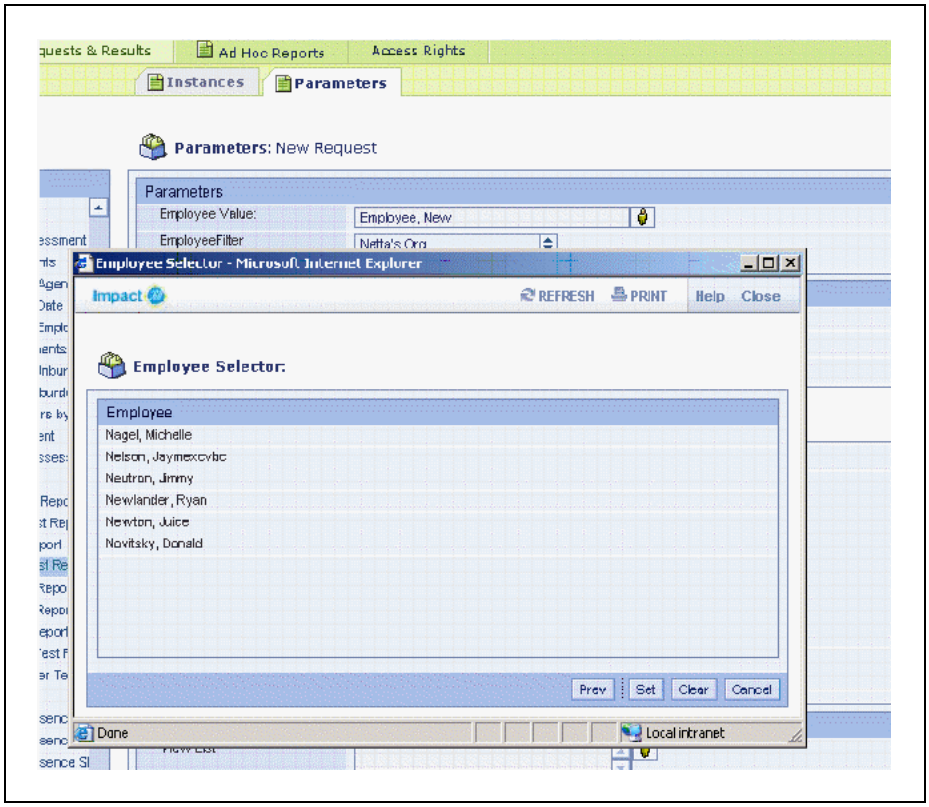
The following screen shots shows a sample **Employee** control with an employee first/last name filter.

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The following screen shots shows a sample **Employee** control with employee selection.

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Sample Parameter Definition

The following is a sample XML file used to generate the prompt parameters displayed in the screen snapshot.

```
<?xml version="1.0" encoding="UTF-8"?>
<reportcontrols name="Parameter Test Report">
<control ctrl-type="EMPLOYEE" label="EMPLOYEE">
<parameter name="EMPLOYEE" />
</control>
</reportcontrols>
```

Detailed Specification

The following table describes the tags and attributes used in the XML definition of the **Employee** selector control.

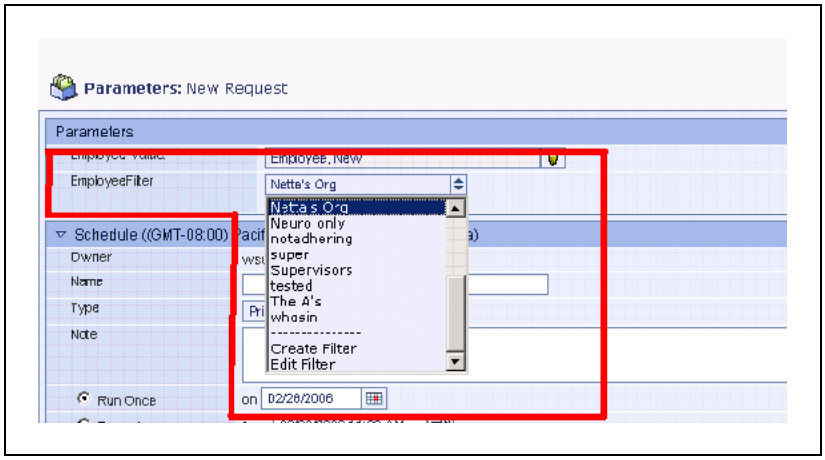
Element	Attribute	Required	Definition
control	ctrl-type	Yes	**EMPLOYEE**

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Element	Attribute	Required	Definition
	label	Yes	The visual label of the parameter. In the above example, the label is **Employee Value**. This label can be localized within a resource bundle before being displayed.
	is-required	No	Specifies whether the user is required to fill in a value for this parameter. If **true**, the user is prompted with a pop-up that indicates the control must be filled in, if the control is left blank.
parameter	name	Yes	The name of the parameter, for use within the reporting system. This is the name report writers refer to when developing their reports.
	display-name	No	Specifies the name of the displayable parameter. This is the name report writers refer to when developing their reports.

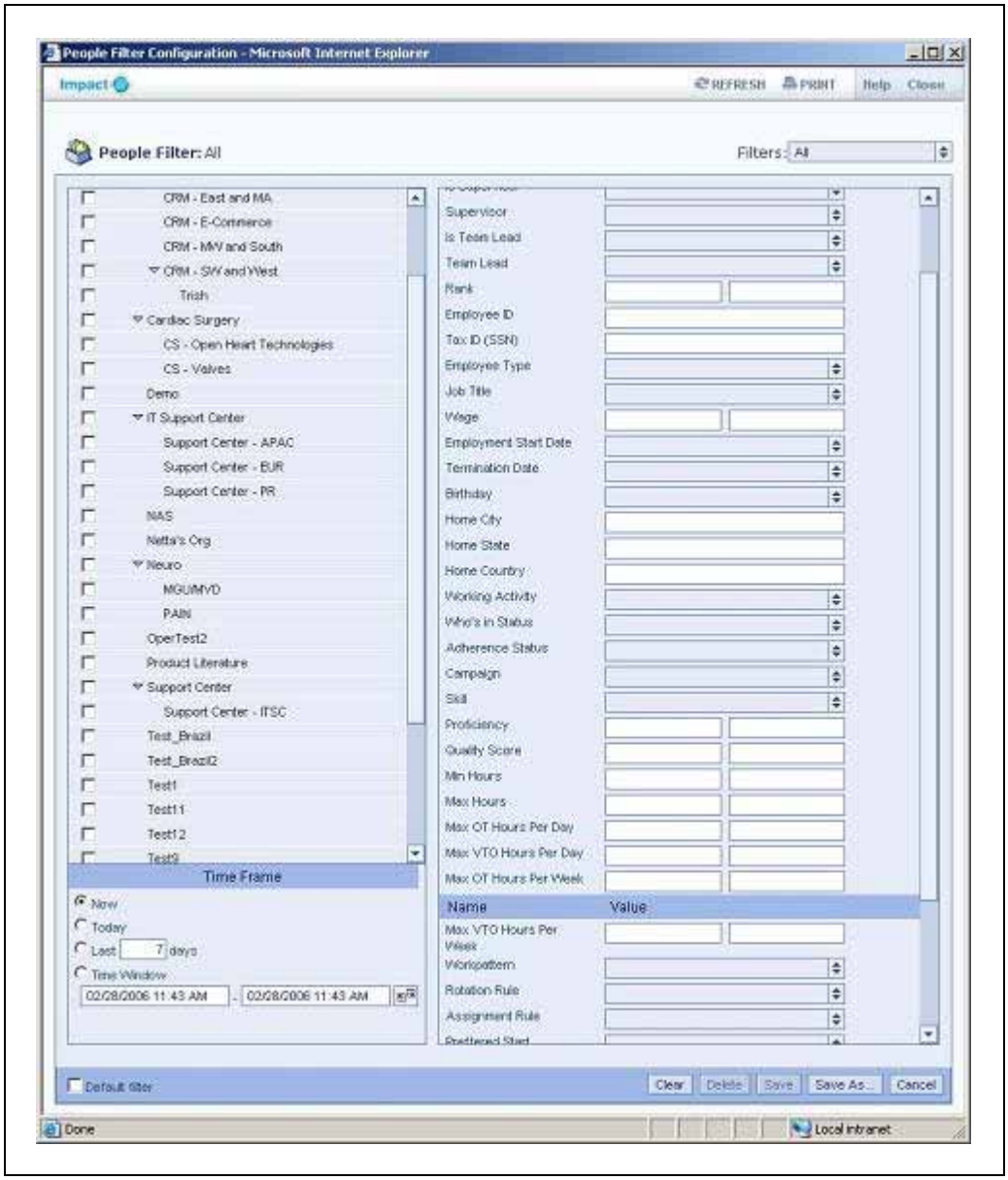
Employee Filter Control

The Employee Filter selector control allows for the selection of employees via an extensive filter.



The following screen shot shows the pop-up window for the filter.

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Sample Parameter Definition

The following is a sample XML file used to generate the prompt parameters displayed in the screen snapshot.

```
<?xml version="1.0" encoding="UTF-8"?>
<reportcontrols name="Parameter Test Report">
<control ctrl-type="EMPLOYEE_FILTER" label="EmployeeFilter">
<parameter name="EMPLOYEE_FILTER" />
</control>
```


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```
</reportcontrols>
```

Detailed Specification

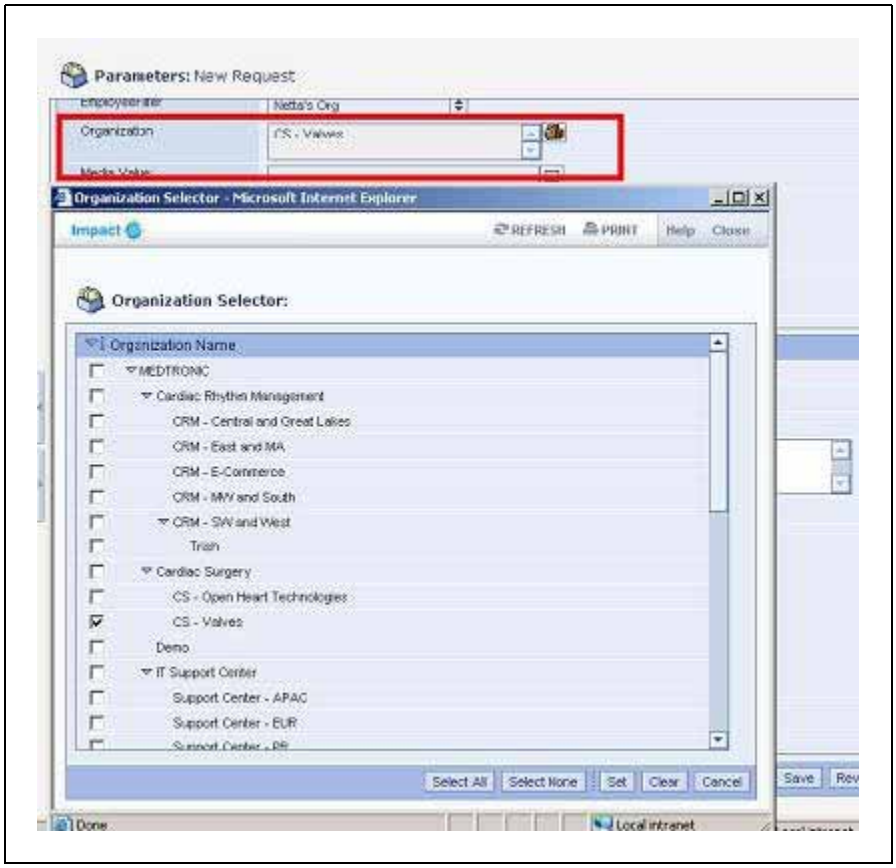
The following table describes the tags and attributes used in the XML definition of the **Employee Filter** control.

Element	Attribute	Required	Definition
control	ctrl-type	Yes	**EMPLOYEE_FILTER**
	label	Yes	The visual label of the parameter. In the above example, the label is **Employee Filter**. This label can be localized within a resource bundle before being displayed.
	is-required	No	Specifies whether the user is required to fill in a value for this parameter. If **true**, the user is prompted with a pop-up that indicates the control must be filled in, if the control is left blank.
parameter	name	Yes	The name of the parameter, for use within the reporting system. This is the name report writers refer to when developing their reports.
	display-name	No	Specifies the name of the displayable parameter. This is the name report writers refer to when developing their reports.
	in-string	No	Either a value of **true** or **false**. When the user selects multiple choices, is the list to be sent to the reporting system as a common separated string, or as an array of strings. Generally, the list is sent as a comma-separated string, which is appropriate for the where clause of SQL queries.

Organization Control

The organization selector control allows for the selection within the hierarchy of the organization.

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Sample Parameter Definition

The following is a sample XML file used to generate the prompt parameters displayed in the screen snapshot.

```
<?xml version="1.0" encoding="UTF-8"?>
<reportcontrols name="Parameter Test Report">
<control ctrl-type="ORGANIZATION" label="Organization">
<parameter name="ORGANIZATION" />
</control>
</reportcontrols>
```

Detailed Specification

The following table describes the tags and attributes used in the XML definition of the **Organization** selector control.

Element	Attribute	Required	Definition
control	ctrl-type	ctrl-type	**ORGANIZATION**

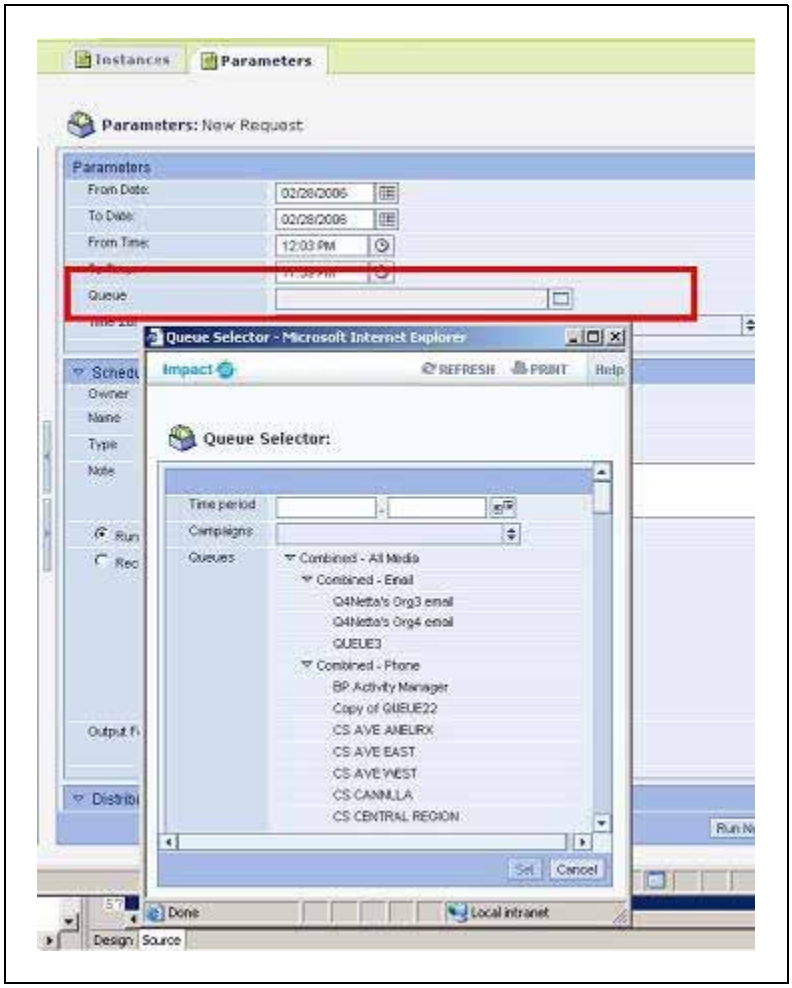
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Element	Attribute	Required	Definition
	label	Yes	The visual label of the parameter. In the above example, the label is **Organization**. This label can be localized within a resource bundle before being displayed.
	is-required	No	Specifies whether the user is required to fill in a value for this parameter. If **true**, the user is prompted with a pop-up that indicates the control must be filled in, if the control is left blank.
parameter	name	Yes	The name of the parameter, for use within the reporting system. This is the name report writers refer to when developing their reports.
	display-name	No	Specifies the name of the displayable parameter. This is the name report writers refer to when developing their reports.
	in-string	No	Either a value of **true** or **false**. When the user selects multiple choices, is the list to be sent to the reporting system as a common separated string, or as an array of strings. Generally, the list is sent as a comma-separated string, which is appropriate for the where clause of SQL queries.

Queue Control

The Queue selector control allows for the selection of a queue within the hierarchy of the organization.

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Sample Parameter Definition

The following is a sample XML file used to generate the prompt parameters displayed in the screen snapshot.

```
<?xml version="1.0" encoding="UTF-8"?>

<reportcontrols name="Daily Forecast Assessment">

<control ctrl-type="QUEUE" label="Queue">

<parameter name="QueueID" queue-id="QUEUE" in-string="true"
/>

<parameter name="CampaignID" queue-id="CAMPAIGN" />

<parameter name="MediaID" queue-id="MEDIA" />

</control>

</reportcontrols>
```


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Detailed Specification

The following table describes the tags and attributes used in the XML definition of the **Queue** selector control.

Element	Attribute	Required	Definition
control	ctrl-type	Yes	**QUEUE** or **MEDIA**
	label	Yes	The visual label of the parameter. In the above example, the label is **Queue**. This label can be localized within a resource bundle before being displayed.
	is-required	No	Specifies whether the user is required to fill in a value for this parameter. If **true**, the user is prompted with a pop-up that indicates the control must be filled in, if the control is left blank.
parameter	name	Yes	The name of the parameter, for use within the reporting system. This is the name report writers refer to when developing their reports.
	display-name	No	Specifies the name of the displayable parameter. This is the name report writers refer to when developing their reports.
	in-string	No	Either a value of **true** or **false**. When the user selects multiple choices, is the list to be sent to the reporting system as a common separated string, or as an array of strings. Generally, the list is sent as a comma-separated string, which is appropriate for the where clause of SQL queries.
	queue-id	No	Possible values are **SELECTOR**, **MEDIA**, **CAMPAIGN**, **QUEUE**. These indicate what data the corresponding parameter is to receive. When selecting a queue, all four data fields can be generated, it is necessary to know which value is to go into this parameter.

Media Control

The Media control's use is almost identical to that of the Queue control. See "Queue Control" (page 49).

Localization

The mechanism used for the localization of report parameters uses bundled properties files, where the bundle name is defined in the report prompt file. In addition, reports come with localized values for the report name, which is defined in a non-traditional manner in a properties file. See the Custom Report Enablement document (Custom_Report_Enablement.pdf) for information on the localization of report names.

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Report Localization: Report Parameter Prompts

The report parameter prompt files contain label attributes and they may contain list-item elements, the values of which may need to be localized. Each report parameter prompt file can specify a bundle attribute associated with the report controls element. This bundle attribute specifies a property file which will contain the localized data. The report framework will use the specified bundle to localize labels and list-items, treating the values of the labels and list items as keys into the bundle file. These bundle files are handle as any bundle file would be for java, for a detailed description of localizing with bundles, see the comments in java.util.PropertyResourceBundle.java

ActivityCost_prompt.xml

```
<?xml version="1.0" encoding="UTF-8"?>

<reportcontrols name="ActivityCost" bundle=="ActivityCostBun
dle">

<control ctrl-type="EMPLOYEE_FILTER" filter-by="ID"
label="Employee Filter:" is-required="true">

<parameter name="EmployeeFilterID" />

</control>

<control ctrl-type="TIME_FRAME" show-fromto-separately="true"
label="Time Frame" >

<parameter name="BPFromDateTime" is-from-date="true" />

<parameter name="BPToDateTime" is-to-date="true" />

<parameter name="LastXDays" initial-value="10" min-value="0"
max-value="999" is-last-ndays="true" />

</control>

<control ctrl-type="TIME_ZONE" label="TimeZoneID" >

<parameter name="TimeZoneID" />

</control>

</reportcontrols>
```

The file ActivityCost_prompt.xml is a sample parameter prompt file, for the Activity Cost report. Within this sample there are 3 labels which need to be localized “Employee Filter:”, “Time Frame” and “TimeZoneID”. The bundle attribute specifies a bundle name of ActivityCostBundle.

ActivityCostBundle_fr.properties

```
Employee Filter:=Filtrage des employés:

Time Frame=Écheance

TimeZoneID=Identifiant de fuseau horaire
```


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The filename template is <bundlename>_<locale>.properties, where bundlename has been defined in the bundle attribute of the reportcontrols element of the report prompt file. The localization bundles must be on the class path for them to be found and used properly.

As an example, for the French locale fr, the localize file **ActivityCostBundle_fr**.properties must be defined. In the example, the value on the left of the = sign must match the corresponding value in the **ActivityCost_prompt.xml** file; the value on the right side of the = is the value displayed when in the fr locale. A separate properties file is required for each locale to be supported.

In previous versions, the reports pre-supplied by Verint Systems were localized using bundled class files as defined in the L10N subdirectories. This mechanism only applied for the pre-supplied reports and is documented in the Localization Kit. A bundle class file, **ReportParameterWebBundle.class**, was used in earlier versions; this mechanism has been deprecated and should therefore no longer be used.

DTD - Report Parameters Prompts

The following is the **Verint Reports Controls DTD**, the complete definition of the report parameters prompt file.

```
<!--

File:  reportcontrols.dtd

Author:  tnevin@witness.com

Date:  10-15-2005

The purpose of this dtd is validating report parameter prompt
files.  For each report a parameter prompt file will exist
conforming to this dtd.  The file shall define the parameter
prompting information for the report.  The prompting
information shall be specified by a list of controls which
will be defined by the control element.  Each control
represents a GUI component or collection of GUI components.
Within each control will be at least one or more parameters,
most controls will have one parameter.  The parameters are
fixed by control via it's ctrl-type attribute, that is each
control will expect a certain number of parameters.

Each control's parameters are defined with a list of possible
attributes, not all attribites will apply to all types of
controls or parameters.

-->

<!-- The name attribute for this element, currently has no
use, other then for documentation purposes.
```


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```
The bundle attribute specifies the resource bundle name for
the purposes of localization.  The bundle is equivalent to
the name passed to the java ResourceBundle class.

-->

<!ELEMENT reportcontrols (control+) >

<!ATTLIST reportcontrols

name CDATA #IMPLIED bundle

CDATA #IMPLIED >

<!--

The control element specifies the use of a GUI component.

*) ctrl-type attribute specifies which GUI component to
use.  When extending this list, add your ctrl-type value to
your custom component here.  Also include an entry in the
REPORTCONTROL database table.

*) label attribute is a key to your localization file, the
localized value of the label attribute will be displayed on
the GUI to visually identify the control.

*) filter-by

*) filter-method

*) is-monthly attribute specifies whether dates are to be
input by year and month only (if true) or by year, month and
day (if false).  If the is-monthly flag is set, the DATE_RANG
and DATE_TIME_RANGE pickers will have there starting dates
set to the first of the month and ending dates will be set
to the end of the month.  The is-monthly attribute is only
valid for ctrl-types which input dates or date-times, that
would include DATE, DATE_TIME, DATE_RANGE, DATE_TIME_RANGE,
SP, TIME_FRAME.

*) is-required attribute specifies whether the user is
required to enter date for the corresponding control.  When
submitting a report the user will be prompted to fill in
those parameter fields which require input.  With some
controls the setting of this attribute may be ignored.

*) show-date-only this attribute will cause only the dates to
prompted for input (if true), as opposed to dates and times
(if false).  This attribute is used by composite controls
which have dates as one of there components, such as the SP
and TIME_FRAME controls.

*) show-fromto-separately attribute shows the from and to
dates on separate lines of the GUI. The defualt behavior is
to show from and to dates next to each other, this is used by
the DATE_RANGE, DATE_TIME_RANGE, SP and TIMEFRAME controls.
```


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```
-->

<!ELEMENT control (parameter+) >

<!ATTLIST control

ctrl-type (INTEGER | FLOAT | CURRENCY | STRING | BOOLEAN |
DATE | TIME | DATE_TIME | DATE_RANGE | DATE_TIME_RANGE |
TIME_ZONE | SINGLE_VALUE_SELECTOR | MULTI_VALUE_SELECTOR |
EMPLOYEE | EMPLOYEE_FILTER | ORGANIZATION | QUEUE | ACTIVITY
| MEDIA | SP | TIME_FRAME | NMTOKEN) #REQUIRED

label CDATA #IMPLIED

filter-by (NAME | ID) "ID"

filter-method (ACTIVITY | ACTIVITY_TIMEOFF | SUPERVISOR |
QUEUE | MEDIA) "QUEUE"

is-monthly (true | false) "false"

is-required (true | false) "false"

show-date-only (true | false) "false" show-fromto-separately
(true | false) "false" >

<!--

The parameter element defines each of the parameters for a
given control.  Each control, as defined by it's ctrl-type,
will have expectations of it's corresponding parameters, as
follows.

*) name attribute defines the name of the parameter, this
name shall exactly correspond to the name of the parameter's
as defined in the reports.

2) display-name attribute defines the name of the parameter
whose value shall be displayed on the report, this parameter
will not be used in the queries.  This parameter value shall
be localized, readable format.

*) initial-value attribute shall specify what the first
time value of the parameter shall be for new report.  The
initial-value is implemented by the INTEGER, FLOAT, STRING,
BOOLEAN, TIME_ZONE controls.

*) min-value attribute shall specify the lowest allowable
value for the parameter inclusive.  The min-value is
implemented for the INTEGER and FLOAT ctrl-types.

*) max-value attribute shall specify the highest allowable
value for the parameter inclusive.  The max-value is
implemented for the INTEGER and FLOAT ctrl-types.

*) upper-limit-id attribute shall specify the name of another
parameter, the value of which will be the max-value for this
parameter, inclusive.  This attribute is NOT required of
```


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```
DATE_RANGE and DATE_TIME_RANGE ctrl-types, as this is already
a part of there functionality.

*) lower-limit-id attribute shall specify the name of another
parameter, the value of which will be the min-value for this
parameter, inclusive.  This attribute is NOT required of
DATE_RANGE and DATE_TIME_RANGE ctrl-types, as this is already
a part of there functionality.

*) is-from-date attribute shall specifiy if the parameter
is a from date parameter, this parameter is required in
the SP, and TIME_FRAME controls, and is optional, in the
DATE_RANGE and DATE_TIME_RANGE controls.  For the DATE_RANGE
and DATE_TIME_RANGE controls, the first parameter is

taken as the from date and the second parameter is taken as
the to date.

*) is-sp-id attribute shall specify if the parameter is an
schedule period id parameter, this is required by the SP
control.

*) is-last-ndays attribute shall specify if the parameter
is an last ndays parameter, this is required by the SP and
TIME_FRAME controls.

*) sort-by

*) in-string attribute indicates if the value information
is to be transferred to the report server as an array of
strings (in-string=false), or as a single comma-separated
string (in-string=true).  This attribute is valid for the
MULTI_VALUE_SELECTOR control.

*) queue-id TODO This attribute is valid for the QUEUE
control.

-->

<!ELEMENT parameter (list-item*)>

<!ATTLIST parameter

name NMTOKEN #REQUIRED

display-name NMTOKEN #IMPLIED

initial-value CDATA #IMPLIED

min-value CDATA #IMPLIED

max-value CDATA #IMPLIED

upper-limit-id CDATA #IMPLIED

lower-limit-id CDATA #IMPLIED

is-to-date (true | false) "false"

is-from-date (true | false) "false"
```


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```
is-sp-id (true | false) "false"
is-last-ndays (true | false) "false"
sort-by (true | false) "false"
in-string (true | false) "false"
queue-id (SELECTOR | MEDIA | CAMPAIGN | QUEUE) "QUEUE" >
<!--
The list-item element supports the MULTI_VALUE_SELECTOR and
SINGLE_VALUE_SELECTOR controls.
-->
<!ELEMENT list-item (#PCDATA)>
<!ATTLIST list-item
id CDATA #IMPLIED >
```


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Nortel Workforce Management

Report Parameters

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