O c t e l

V o i c e

P r o c e s s i n g

M o d u l e

Configuration Note 77164

NEC Electra Professional Level I*

Revised   9/17/97

**NEC
Pro I**

SLT SLT SLT SLT

**Digital Ports, 1 per
each Voice Mail Port.
See Section 3.0**

Voice Board(s)

Personal Computer
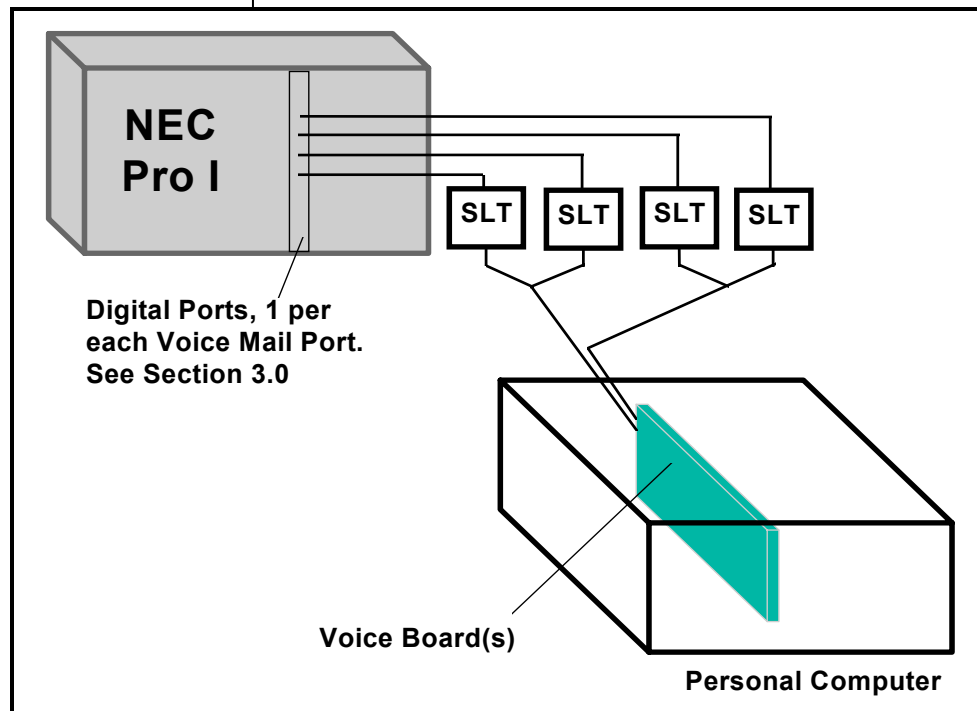
1.0   METHOD OF INTEGRATION

Method of integration

Inband. Smooth Operator family of products can achieve call forward to personal greeting by DTMF signals passed from the Electra Pro I, with the call. Message waiting indicators are set and canceled by dialing a DTMF feature access code prefix and the subscriber's extension. A hookflash followed by the extension transfers the caller to the operator.

2.0   SMOOTH OPERATOR ORDERING INFORMATION

*All references to Smooth Operator
pertain to the entire family of products*

There are many options available for both kit and turnkey versions of this product, depending on the application. Please consult with your sales representative.

Switch hardware requirements

3.0   SWITCH HARDWARE REQUIREMENTS

- One Electra Pro I digital (ESI) port per Smooth Operator port.

- Single Line Telephone Adaptor, part number SLT-F(1G)-10 ADP, one per Smooth Operator port.

- One RJ-14 jack with 4-conductor line cord for every two Smooth Operator ports

- One analog line for remote service access

- One RJ-11 Jack for above and 2-conductor modular telephone cord.

- If FaxMail is installed.
  - One analog line per FAX port.
  - One RJ-11 Jack for every Brooktrout TR-112 fax port OR one RJ-14 Jack for every two Brooktrout TR-114 fax ports, along with
    4-conductor modular telephone cords.

Switch software requirements

3.1   SWITCH SOFTWARE REQUIREMENTS

- Issue 2

4.0   SUPPORTED FEATURES

[✓] Items are supported

Supported integration features

System Forward to Personal Greeting		Message Waiting	
All Calls	[ ]	LCD Display	[ ]
Ring/no answer	[ ]	LED	[✓]
Busy	[ ]	Lamp	[ ]
Busy/No Answer	[ ]	Audible / Stutter Dial Tone	[ ]
Do Not Disturb	[ ]	**Multiple Return to Operator**	[✓]
Station Forward to Personal Greeting		**Direct Call[1]**	[✓]
All Calls	[✓]	**Auto Attendant**	[✓]
Ring/no answer	[ ]	**Outcalling**	[✓]
Busy	[ ]	**Personal Greeting of Original-Called Party**	
Busy/No Answer	[✓]	Multiple Call Forward	[ ]
Do Not Disturb	[ ]	Double Call Forward	[ ]
Flexible Forwarding		Call Coverage	[ ]
Forward to No Answer Greeting	[✓]	**Intercom Paging**	[✓]
Forward to Busy Greeting	[✓]	**Supervised Transfers**	
Intercom/CO Forwarding	[ ]	Call Screening	[✓]
		Call Queuing	[✓]
		Intercom Paging	[✓]
		Record Telephone Conversation	[ ]

Note: [1]*See Section 7.1*

4.1   DISCONNECT TYPE

Disconnect is achieved by a hangup string sent from the PBX. For proper external disconnect supervision, Ground start trunks or Supervised loop start CO lines are recommended.

5.0   CONFIGURING THE ELECTRA PRO I

This section contains an outline of the steps necessary to configure the
NEC Electra Pro I to Integrate with Smooth Operator. Detailed
programming instructions are contained in sections 5.1 through 5.7.

- ☐ Station Master Hunt Selection
- ☐ SLT Transfer Selection
- ☐ Voice Mail Access Code Selection
- ☐ Voice Mail DTMF Delay Timer Selection
- ☐ Voice Mail DTMF Duration/Interdigit Time Selection
- ☐ Station Number Assignment
- ☐ Voice Mail/SLT Selection

All references to Smooth Operator pertain to the entire family of products

5.1   STATION MASTER HUNT SELECTION

The Station Master Hunt Number is the pilot number of the next ten extensions.
The first Smooth Operator port should be assigned as a Station Master Hunt
Number and the remaining Smooth Operator ports should be assigned in
ascending order *(see section 5.6)*. The extensions will hunt from the lowest
extension number to the highest extension number.

For example: if you assign 20 as a Master Hunt Number, extension 20
becomes the pilot number for extensions 20 through 29. If you assign 30
as a Master Hunt Number, extension 30 becomes the Master Hunt Number
for extensions 30 through 39.

Program the Station Master Hunt Number as follows:

Enter programming
Press **LK1**   (Line key 1)
Enter **35**
Enter the Smooth Operator pilot number (valid entries are 10, 20, 30, 40 or 50)
Change to desired setting by pressing **1** (desired setting is YES)
Press the **TRF** key to save, then **SPKR** to end programming

5.2   SLT TRANSFER SELECTION

The SLT Transfer Selection determines what action is required by the Smooth
Operator port to perform a transfer. The preferred method for Smooth
Operator to transfer a call is to dial a hookflash plus the subscriber's extension,
then hanging up (or holding the line to supervise the transfer).

Program the method of transfer as follows:

Enter Programming
Press **LK1**   (Line key 1)
Enter **64**
Change to desired setting by pressing **1** (desired setting is Hang Up)
     (the only alternative method is On-Hook which, requires an additional

Hookflash after dialing the subscriber's extension).
Press **TRF** key to save, then **SPKR** to end programming

5.3   VOICE MAIL ACCESS CODE SELECTION

Voice Mail Access Codes specify the inband signaling digits used for integrating with Smooth Operator.

The following lists the Access Codes that are sent from the Electra Pro I (and from Smooth Operator) and describes the conditions under which they are sent.

All references to Smooth Operator pertain to the entire family of products

Access Code	Description	Desired setting
01	Direct call to Smooth Operator pilot number *(See section 7, Direct Call)*	
02	Dial # when Message Light is lit by Smooth Operator *(See section 7, Direct Call)*	
03	If a line rings only one extension and that extension forwards the phone to Smooth Operator, the Electra Pro I will send this code plus the extension number. *(not required by Smooth Operator)*	
04	Station A calls Station B, while Station B is ringing, Station A presses 3, the call is immediately forwarded to Smooth Operator and sends this code plus Station B's extension number.	*1
05	Call Forward All Calls.	*1
06	Call Forward Busy	*2
07	Call Forward No Answer	*3
08	Remote Logon *(not required by Smooth Operator*	
09	Disconnect. Specifies the digits sent when a caller hangs up. This is the code you will use in Smooth Operator System Setup Hangup String.	9999
10	Set Callback is the Message Waiting Light On feature code. Smooth Operator dials this code plus the extension when a mailbox receives a new message.	641
11	Cancel Callback is the Message Waiting Light Off feature code. Smooth Operator dials this code plus the extension when a subscriber logs into his mailbox and listens to his first new message. Optionally, the Message Waiting Light can be turned back on if the subscriber hangs up before listening to all new messages *(consult Octel PCPD Technical Support for*	64*

more information).	

Program the NEC Pro I to send and receive the desired inband signaling codes as follows:

Enter programming
Press **LK1**   (Line key 1)
Enter **67** [The Access Code will be shown as "VM 01"]
Select the Access Code you wish to program
    *[Press # to go to the next Access Code and press * to go to the previous]*
Enter the desired setting for the Access Code (press **HOLD** to clear data)
    [*Dial 1 - 9 or LNR/SPD plus * (*) or LNR/SPD + # (#)]*
Press **TRF** key to save data and the next Access Code will be displayed
Press **TRF** key to save when you are finished, then **SPKR** to end programming.

All references to Smooth Operator pertain to the entire family of products

5.4   VOICE MAIL DTMF DELAY TIMER SELECTION

The Voice Mail DTMF Delay Timer Selection specifies the length of time before the NEC Pro I sends DTMF digits to Smooth Operator after it answers a call.

Program the Voice Mail DTMF Delay Timer Selection to .5 sec as follows:

Enter programming
Press **LK1**   (Line key 1)
Enter **68**
Enter **2** (where 2 = .5 sec ; 1 = .1 sec ; 3 = 1.0 sec ; 4 = 2.0 sec)
Press **TRF** key to save and advance to the next step, or press **TRF** and **SPKR** to end programming

5.5   VOICE MAIL DTMF DURATION/INTERDIGIT TIMER

The Voice Mail DTMF Duration/Interdigit Timer specifies the duration of DTMF sent to Smooth Operator and the length of time between digits appropriately. The default value of 600/100ms can be changed to 100/70ms as follows:

Enter programming
Press **LK1**   (Line key 1)
Enter **69**
Press **2** (where 2=100/70ms; 0=70/60ms; 1=100/50ms; 3=400/100ms; 4=600/100ms)
Press **TRF** key to save, then press **SPKR** to end programming

5.6   STATION NUMBER ASSIGNMENT

This procedure assigns station numbers that correspond to the pilot number you assigned in section 5.1.

For example: if you assigned the Smooth Operator Station Master Hunt Number as 20, you could assign Station Numbers 20 - 29 to the installed Smooth Operator ports.

(Note: Single Line Telephone Adaptors cannot be installed on ports 01 or 02)

Program Station Number Assignment as follows:

Enter programming
Press **LK4**   (Line key 4)
Enter **06**
Select the Smooth Operator port you wish to program
     *[Press # to go to the next port number and press * to go to the previous]*
Enter the Station Number you wish to assign to the port
Press **TRF** key to advance to the next port number
Repeat the above for each installed Smooth Operator port
Press **SPKR** to end programming

All references to Smooth Operator pertain to the entire family of products

5.7   VOICE MAIL/SLT SELECTION

This procedure configures the Smooth Operator ports for Voice Mail. Set this parameter to "VMail" for each port as follows:

Enter programming
Press **LK4**   (Line key 1)
Enter **07**
Select the Smooth Operator port you wish to program
     *[Press # to go to the next port number and press * to go to the previous]*
Press **1** *(where 1 = VMAIL)*
Press **TRF** key to advance to the next port number
Repeat the above for each installed Smooth Operator port
Press **SPKR** to end programming

Smooth Operator programming

6.0   CONFIGURING THE SMOOTH OPERATOR

During the install process, run the Integrator program and choose the NEC Electra Pro I. The Integrator will place appropriate feature codes into the Smooth Operator Setup.

The integrator inserts the following codes with two digit extensions assumed. Adjust to match site requirements.

Outside Line Access Code	**9,**
Off Hook Delay (OFFHDLY)	**25**
Hook Flash Interval (FLINTVL)	**50**
DTMF Tone Length (TONELEN)	**8**

Intercom Paging Parameters

Intercom Paging Code	**&,C270NR**
Release Code for Intercom Paging	**&**

Message Waiting Parameters

Permit Message Waiting Lights	**Enabled**
Message Waiting Light Prefix ON	**641**
Message Waiting Light Prefix OFF	**64***
Light Message Waiting Light for Every Message	**Disabled**

Hangup Detection Parameters

Hangup String (HANGUPSTR)	**9999**
Hangup String Timeout (HANGUPDLY)	**50**

Inband Parameters

Total Number of DID Digits	**5**
Seconds to Wait for DID	**2**
Location of Inband Signaling Code	**1**
Number of Milliseconds to Wait for Digits	**500**
Code for Go to Voice Mail	***1**
Start at End of String for Go to Voice Mail	**Enabled**
Location of Mailbox Number for Go to Voice Mail	**2**
Code for Busy Extension	***2**
Start at End of String for Busy Extension	**Enabled**
Location of Mailbox Number for Busy Extension	**2**
Code for No Answer Extension	***3**
Start at End of String for No Answer Extension	**Enabled**
Location of Mailbox for No Answer Extension	**2**
Start at End of String for Default Code	**Enabled**
Location of Mailbox Number for Default Code	**2**

Note: Verify these dialing sequences for your PBX

7.0   CONSIDERATIONS / ALTERNATIVES

Important notes concerning this integration

The following item should be considered, below:

☐ Direct Call

7.1   DIRECT CALL

All references to Smooth Operator pertain to the entire family of products

True direct call is not supported on the Electra Pro I. However, you can program the Electra Pro I to send up to four digits as Access Codes on certain types of calls *(See section 5.3)*. Access code 01 is used to specify the digits sent to Smooth Operator when a direct call is made to the Smooth Operator pilot number. Access code 02 specifies the digits sent to Smooth Operator when a subscriber presses the pound (#) key when the message waiting light is lit. We recommend that you program the Electra Pro I to send the same digits for Access Codes 01 and 02.

Create a mailbox that is outside the range of valid extension numbers. Block that mailbox with a VTREE that has only one option (Go to mailbox login

point) at the first level. The Access Codes should programmed to send *1 plus that mailbox number. When subscribers dial the Smooth Operator pilot number or press # when their message waiting light is lit, Smooth Operator will respond with "Please enter your mailbox number".

OcTel®

COMMUNICATIONS CORPORATION

Sarasota City Center
1819 Main Street, Suite 900
Sarasota, FL 34236
(941) 331-7500
(CFN 77164)