

## **SECOND PARTY ALERT**

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**An  
Open Application Interface (OAI)  
User and Installation Guide**

**NEC America, Inc.**

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# Chapter 1 OPERATING PROCEDURES

## Introduction

Second Party Alert (SPA) allows you to identify the person who is calling on another line without interrupting the current call. If you receive a call on a secondary line while you are on the phone, you can press a function key that enables SPA to identify the caller on the D<sup>term</sup> Liquid Crystal Display (LCD) panel. Information can be displayed on more than one caller. Each time you press the function key, SPA displays the name and extension of the next caller. The calls are displayed in the order in which they are received.

You can also use SPA to send a signal to an internal caller that you are on another line and cannot answer. SPA then enables you to return the unanswered call later with the press of a key.

**Note:** *SPA can work in conjunction with the OAI Name Display application which displays names and extensions on the D<sup>term</sup>. If Name Display is installed, SPA uses its database of employee names and extensions. If Name Display is not available, you must create an employee name and extension database for SPA during installation.*

## Procedures

The following procedures outline the steps for using Second Party Alert (SPA).

### Start Second Party Alert

You can start SPA at any time, even if you are already speaking on a line, by pressing the D<sup>term</sup> key assigned to SPA. If you are not sure which key to use, see your system administrator.

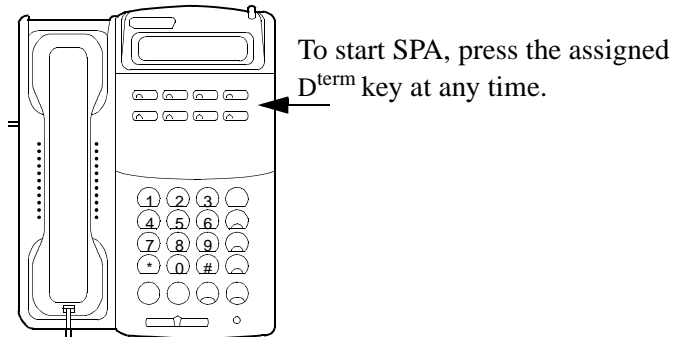


Figure 1-1 D<sup>term</sup> Telephone Set

### Caller Identification

If you are speaking to someone, and receive a internal or external call, SPA will display a message on the D<sup>term</sup>. The display has the format as specified in section Display Format on page 7 with a blank call signal. Some typical examples are:

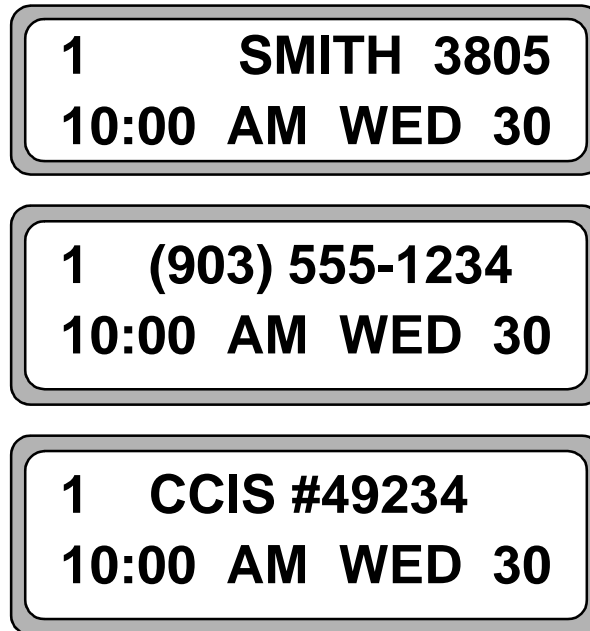
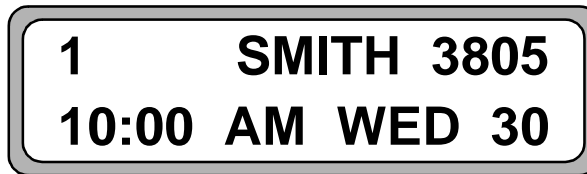


Figure 1-2 Caller ID SPA Display



## Browse List of Callers

When you are using SPA, information about incoming and outgoing calls displays on the D<sup>term</sup> LCD. [Figure 1-3](#) illustrates a typical SPA display:



**Figure 1-3 Example of SPA Display**

In the illustration above, a person named Smith is calling on line 1 from extension 3805. For more information about the items shown on the LCD, see [“Display Formats” on page 7](#).

To browse the list of callers:

1. Make sure SPA is active. (For more information on activating SPA, see [“Start Second Party Alert” on page 2](#).)

You will see one of the following types of information on the D<sup>term</sup> display:

- **<Line number> <Name> <Extension Number>** - The line number of the call followed by the caller’s name and extension, as in [Figure 1-3](#).
  - **Outgoing** - Indicates the call is an outgoing call placed from your phone.
  - **Unlisted** - Information for the internal caller is not available.
  - **Outside** - Indicates that the incoming call was placed from outside the PBX. (If ANI data is available, the area code, prefix, and suffix are displayed. See [Figure 1-9 on page 8](#) for an example of an outside call with available ANI data.)
  - **No Calls** - Indicates that no calls have been received or placed.
2. To view information for the next call on the display, press the assigned D<sup>term</sup> key (**6 or 8**).
  3. To view information for the previous call on the display, press the assigned D<sup>term</sup> key (**2 or 4**).

## Signal an Internal Caller

If you are currently speaking with someone and receive an internal call, you can use SPA to identify who is calling. You can also signal the caller to acknowledge the call and indicate you are on another line.

1. When you receive the internal call, you can see the caller's name and phone extension on your telephone display.

For more information on the display, refer to [“Internal Call Display Format” on page 7](#).

2. To acknowledge the call and signal the caller that you are busy or on another line, press the D<sup>term</sup> key assigned for signaling a caller on a subline (1 or #).

The party hears a chiming sound. This sound indicates to the caller that you acknowledge the call but cannot answer right now.

When you browse the list of callers, the parties you signaled with the chime display with an asterisk (\*) before their names as in [Figure 1-4](#). For more information on how to browse a list, see [“Browse List of Callers” on page 3](#).



**Figure 1-4** Signal Internal Caller

**Note:** *The D<sup>term</sup> display can only show six lines of information at one time. If you are on the phone, information for up to five calls can display. If you receive more than five calls, previous calls are overwritten on the display.*

## Return Call to an Internal Caller

To return an internal call:

1. Browse the list of callers to find the call you want to return. For more information on browsing calls and information displayed on the LCD, see [“Browse List of Callers” on page 3](#) and [“Internal Call Display Format” on page 7](#).
2. When information for the call you want to return is displayed, press the D<sup>term</sup> key assigned for returning a call (1 or #).
3. “Calling” or one of the following messages appears:
  - “Phone Busy” — Indicates that the phone you are calling is busy.
  - “Bad Number” — Indicates that the number is invalid.
  - “Call Failed” — Indicates that an error occurred when the call was placed.
  - “DB Error” — Indicates that a database error occurred.



**Figure 1-5 Placing an Internal Call**

4. When you browse the list of callers after returning a call (see [“Browse List of Callers” on page 3](#)), one of the following symbols appears before the party’s name and number:
  - ->  
Displays when the number is called and no answer is received
  - <-  
Displays when the number is called and the party answers (internal calls only)

## Return Call to an Outside Caller

To return an outside call:

1. Browse the list of callers to find the call you want to place. (See [“Browse List of Callers” on page 3](#) and [“External Call Display Format” on page 8](#) for more information.)
2. When information for the call you want to place is displayed, press the D<sup>term</sup> key assigned for returning a displayed call:
  - For local and metro calls, Press #.
  - For long distance calls, Press 1.
3. “Calling” or one of the following messages appears. You might also see one of the following messages:
  - “Phone Busy” — Indicates that the phone you are calling is busy.
  - “Bad Number” — Indicates that the number is invalid.
  - “Call Failed” — Indicates that an error occurred when the call was placed.
  - “DB Error” — Indicates that a database error occurred.



Figure 1-6 Placing an Outside Call

4. When you browse the list of callers after returning a call, the “->” symbol appears before the party’s name and number. (See [“Browse List of Callers” on page 3](#) for more information on browsing a list.)

## Quit Second Party Alert

To quit using SPA, press the D<sup>term</sup> key assigned to SPA. If you are not sure which key to use, see your system administrator. The D<sup>term</sup> returns to its standard display.

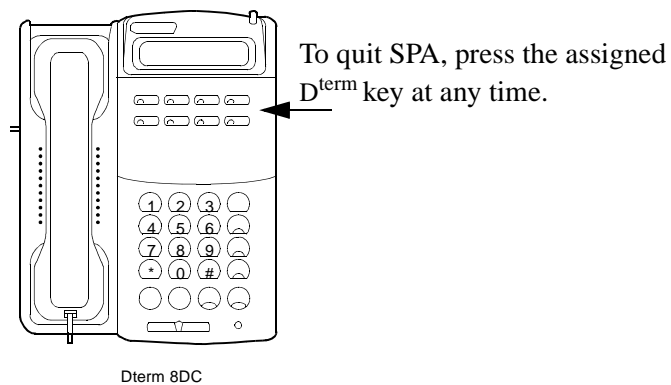


Figure 1-7 D<sup>term</sup> Telephone Set

## Display Formats

### Internal Call Display Format

Internal call information displayed on the LCD is shown in the following table and described below:

	1 Character	1 Character	8 Characters	1 Character	5 Characters
<b>Field</b>	Line Number	Call Signal	Name	Blank	Extension
<b>Values</b>	“1” - “6”	“ ”, “->”, “<-” or “*”	OUTGOING UNLISTED Caller (ex: SMITH)	“ ”	“0” - “ 99999”

- The *line number* represents the line number of an incoming call. A station can have up to five secondary lines.
  - 1 - Prime number
  - 2 - first secondary line
  - 3 - next secondary line
 (A blank character follows the line number.)
- The *call signal* is a single character indicating what actions the user performs on a call.
  - This character is a blank if no action is performed.
  - The “\*” character displays when a chime tone is issued at the caller’s station.
 

**Note:** Only internal PBX callers can be notified with a chime tone.
  - The “->” character displays when a number is called and no answer is received.
 

**Note:** The “<-” character displays when a number is called and the party answers. Internal PBX calls only.
- The *name* is an eight-character display retrieved from the name database. The name of the caller or one of the following messages displays in this field:
  - “UNLISTED” — Displays if the name is not in the database.
  - “OUTGOING” — Displays if the call is an outgoing call.
- The final field displays the caller’s extension.

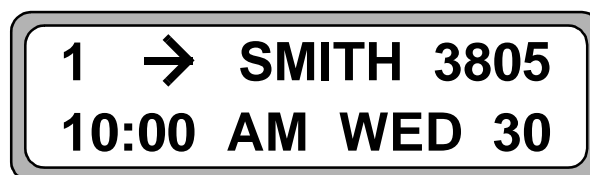


Figure 1-8 D<sup>term</sup> Display (Internal Call)

**External Call Display Format**

External calls with Automatic Number Identification (ANI) display different information than internal calls. The information displayed on the LCD is shown in the following table and described below:

	1 Character	1 Character	1 Character	3 Characters	1 Character	3 Characters	1 Character	4 Characters
<b>Field</b>	Line Number	Call Signal	Parenthesis	Area Code	Parenthesis	Extension	Hyphen	Phone Suffix
<b>Values</b>	“1” - “6”	“ ”, “->”	“(“	“000” - “999”	)“	“ 000” - “999”	“-“	“ 0000” - “9999”

- The *line number* represents the line number of an incoming call. A station can have up to five secondary lines.
  - 1 - Prime number
  - 2 - first secondary line
  - 3 - next secondary line
- The *call signal* is a single character indicating what actions the user performs on a call.
  - This character is a blank if no action is performed.
  - The “->” character displays when a number is called.
  - If an outside call has no ANI data, the line number and “OUTSIDE” display on the D<sup>term</sup>.
- The *area code* contains the three-digit area code of the caller.
- The *phone prefix* contains the three-digit phone number prefix of the caller.
- The *phone suffix* contains the four-digit phone number suffix of the caller.

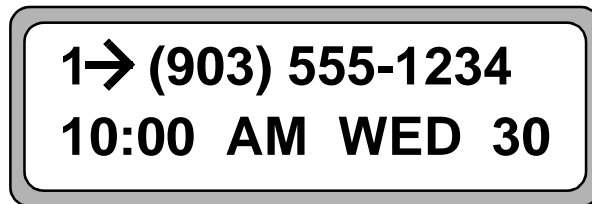


Figure 1-9 D<sup>term</sup> Display (External Call)

## CCIS Call Display Format

CCIS calls use Automatic Number Identification (ANI) and consists of a PBX Office Code and extension. The PBX Office Code is configured at the NEAX and may contain either integer or non-integer characters. If the PBX Office Code and extension both contain integer characters only, then CCIS extensions (without the PBX Office Code) and associated user names can be entered in the database. Calls display using the same format as internal calls. Other CCIS calls display using the information displayed on the LCD shown in the following table and described below:

	1 Character	1 Character	4 Characters	1 Character	9 Characters
<b>Field</b>	Line Number	Call Signal	CCIS Label	Blank	CCIS Number
<b>Values</b>	“1” - “6”	“ ”, “->”	CCIS	“ ”	Any ASCII characters

- The *line number* represents the line number of an incoming call. A station can have up to five secondary lines.
  - 1 - Prime number
  - 2 - first secondary line
  - 3 - next secondary line
- The *call signal* is a single character indicating what actions the user performs on a call.
  - This character is a blank if no action is performed.
  - The “->” character displays when a number is called.
- The *CCIS number* contains the PBX office code and extension.

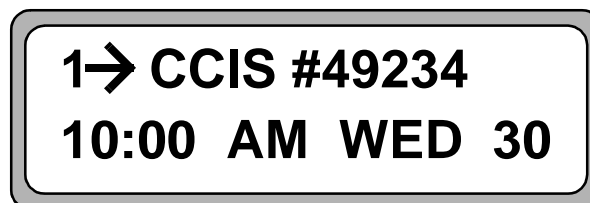


Figure 1-10 D<sup>term</sup> Display (CCIS Call)

### Function Key Assignments

The D<sup>term</sup> keypad is assigned the functions found in [Figure 1-11](#). These functions are valid when Second Party Alert is enabled. SPA does not use the keys shown with a white background.

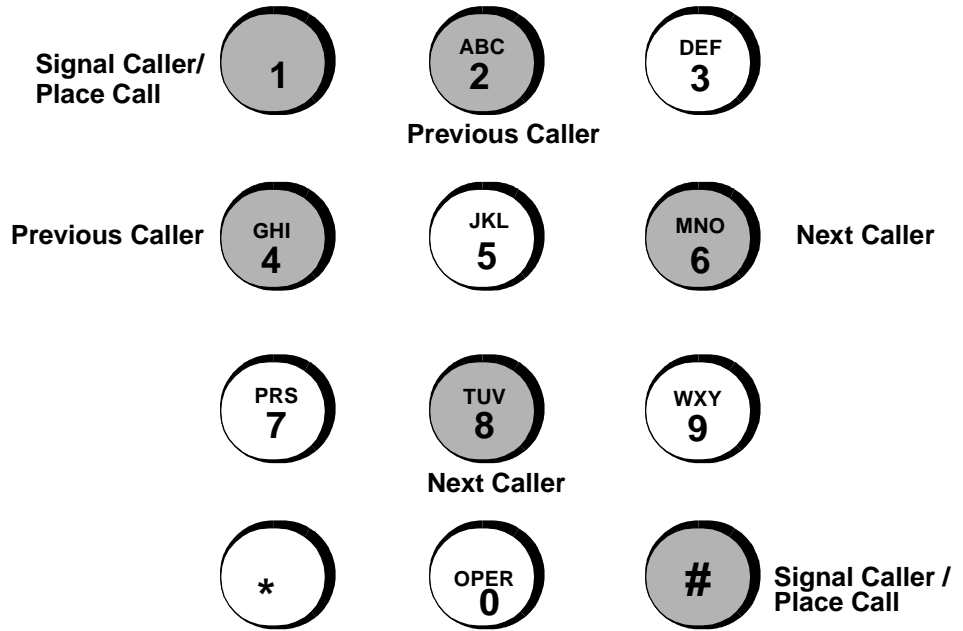


Figure 1-11 D<sup>term</sup> Keypad Layout



## Chapter 2 INSTALLATION AND CONFIGURATION

### Installation

This guide provides specific field entries that need to be made during the installation and configuration of SPA. In addition to this guide, use instructions in the following manuals for this installation:

- *Applications Manager (APM) Installation Manual* - Contains step-by-step instructions for installing the software from the release media.
- *Applications Manager (APM) Operations Manual* - Explains how applications like SPA are configured in the APM environment and how the SPA database is created, using the entries and values provided in this chapter.
- *NEAX2400 System Manuals* - Give very detailed explanations about the assignments that need to be made through the Maintenance Administration Terminal (MAT) commands on the NEAX2400.

The installation and set up of SPA involves the following sequence of steps:

- **Software Installation** — SPA software must first be loaded from the release media. Log in to the APM Platform Management Menu, select the Installation of Applications/Packages option, and follow the instructions provided in the *APM Installation Manual* to complete this part of the installation.
- **Application Configuration** — SPA is internally supported by the APM and must be configured in the APM environment. [Chapter 2, “INSTALLATION AND CONFIGURATION”](#) in this manual provides the information that must be entered into this APM configuration file. Use the instructions provided in the *APM Operations Manual* to make the entries contained in this section.
- **Database Requirements** — SPA requires a database that is constructed and maintained through the APM Database Administration option. The process begins with the creation of a master definition file and its related master database. Then, an application definition file is constructed which enables the processing of the master file into an application database. [Chapter 3, “DATABASE REQUIREMENTS”](#) of this manual defines the information which must be included in these definition and database files. Use the instructions provided in the *APM Operations Manual* to make the entries contained in this section.
- **MAT Assignments** — There are data settings that must be assigned at the NEAX2400 Maintenance Administration Terminal (MAT) before SPA will function. [Chapter 4, “MAT ASSIGNMENTS”](#) specifies the necessary commands and the values at which they are to be set. Use the instructions provided in the *NEAX2400 IMS System Manuals* to make the entries contained in this section.

## Installation (Continued)

The installation process, including its presentation in this and other manuals, is illustrated below:

### SECOND PARTY ALERT INSTALLATION REQUIREMENTS

Discussed in:

**Chapter 2**

**Software Installation**  
Software

Instructions in:

*APM Installation  
Manual*

**Chapter 2**

**Application Configuration**  
Application Characteristics  
Primary Parameter Configuration  
OAI Facilities (Optional)  
OAI Configuration Parameters (Optional)  
User-Defined Parameters

*APM Operations  
Manual*

**Chapter 3**

**Database Requirements**  
Master Field Definitions  
Master Database  
SPA Application Field Formats  
Process and Install SPA Database

*APM Operations  
Manual*

**Chapter 4**

**NEAX2400 IMS  
Maintenance Administration Terminal (MAT)  
Assignments**  
**AIPT** (Assignment of Interface I/O Port Data in IP)  
**ASYD** (Assignment of System-wide Data)  
**ASDT** (Assignment of Station Data)  
**AOKC** (Assignment of OAI Key Codes)  
**AKYD** (Assignment of Dterm Function Key)  
**ASHU** (Assignment of Station Hunting-Group Data)

*NEAX2400 IMS  
System Manuals*

## Software Installation

Installation of the Second Party Alert software is initiated from the Applications Manager (APM) Platform Administration Main Menu. To display this menu, type **apmadm** at the UNIX prompt and press **Enter**. Using instructions in the *APM Operations Manual*, select the Installation of Applications/Packages option from this menu and load the SPA software from release media. As the installation process executes, follow the steps described below, entering the necessary information.

---

### Step 1: Active Second Party Alert Application Check

In order to install the SPA software, no SPA applications can be running on the system.

- If SPA applications are running, the error screen illustrated in [Figure 2-1](#) is displayed and installation is terminated. Use the APM to terminate all active SPA programs before attempting another SPA installation.

```
The Second Party Alert Application is currently active.
Installation cannot continue until Second Party Alert has
been terminated through the Applications Manager.

Press Enter to continue. [ ] <ENTER>
```

**Figure 2-1 Active Application Error**

- If there are no active SPA programs, continue installation with “[Step 2: Superuser \(Root\) Password](#)”.

---

### Step 2: Superuser (Root) Password

- If no SPA applications are running on the system, the following password screen displays. Use the instructions below to enter the superuser (root) password:

```
Super User (root) privileges are required.
Please enter the Super User Password: su/root password <ENTER>
```

**Figure 2-2 Password Screen**

- Type the correct password for the root login and press **Enter** to continue. If you enter an invalid password, the following message displays: “Invalid root password. Do you wish to continue? (Y/N) [ ]”.
- Type **y** and press **Enter** to try again, or type **n** and press **Enter** to cancel the installation.

### Step 3: Existing SPA Installation Check

During this portion of the installation, the system determines if a previous version of SPA is installed.

- If SPA is not installed, the installation continues with [“Step 4: Existing OAI Name Display Database Check”](#) on page 15.
- If SPA is installed, then a warning screen is displayed, indicating that the current installation will be saved if installation is continued. Type **y** and press **Enter** to continue, or type **n** and press **Enter** to terminate.

```
Second Party Alert is currently installed on this
machine. If you choose to continue, the current
installation will be saved and all executable files
will be upgraded. Database files will not be altered
since this version uses the same database formats as
previous versions.
```

```
Do you wish to continue? (y/n) [y] <ENTER>
```

**Figure 2-3 Previous Version Detected**

- If you chose to continue the installation after a previous version of SPA was detected, the following screen will be displayed. Type **y** and press **Enter** to delete this previously saved installation, or type **n** and press **Enter** to terminate.

```
A copy of "/oai/app/party.old" already exists on your system.
This copy must be removed before the current system can be
saved. If it is not removed, installation will be aborted.
```

```
Do you wish to remove "/oai/app/party.old"? (y/n) [y] <ENTER>
```

**Figure 2-4 Delete Previous Version**

- If you chose to save the previous version, the following message is displayed after the existing SPA installation has been saved. Press **Enter** to continue with [“Step 4: Existing OAI Name Display Database Check”](#) on page 15.

```
The current installation of Second Party Alert is now
saved in "/oai/app/party.old".
```

```
Press Enter to continue. [ ] <ENTER>
```

**Figure 2-5 Saved Previous Version Confirmation Message**

---

### Step 4: Existing OAI Name Display Database Check

In this step, the system determines if an OAI Name Display Database is installed on the system:

- If the Name Display Database is not installed, the MSF Op-code screen is displayed as described in “[Step 5: Specify the MSF Op-code Number](#)”.
- If the Name Display Database is installed, the following screen is displayed. Type **y** and press **Enter** to use the OAI Name Display Database, or type **n** and press **Enter** to create a separate Names Database.

```
An OAI Name Display Database exists on this system. You may
use this database with Second Party Alert, or create a separate
Names Database.
```

```
Do you wish to use the existing OAI Name Display Database? (y/n) [y] <ENTER>
```

**Figure 2-6 Database Exists**

---

### Step 5: Specify the MSF Op-code Number

Use the following instructions to specify the MSF Op-code Number:

- Type the MSF Op-code used by SPA and press **Enter**.
  - If you enter an invalid MSF Op-code, the message “ERROR: Invalid MSF number, please enter a value of 128...191!!!” is displayed. Press **Enter**, type a valid MSF Op-code, and press **Enter** again. When you enter a valid MSF Op-code, that code is displayed on the screen.

```
Please enter the MSF Op-code number (128...191) that will be
used by Second Party Alert.
```

```
MSF Op-code: [128] <ENTER>
```

```
You entered [128] -- is this correct? (y/n) [y] <ENTER>
```

**Figure 2-7 Verify MSF Op-code**

- Type **n** and press **Enter** to cancel the entry and try again, or type **y** and press **Enter** to accept the entry and continue.

---

## Step 6: Specify the OAI Key Code

Use the following instructions to specify the appropriate OAI Key Code:

- Type the OAI Key Code used by the PBX to generate the MSF Op-code specified in “[Step 5: Specify the MSF Op-code Number](#)” on page 15, and press **Enter**.
  - If you enter an invalid OAI Key Code, the message “ERROR: Invalid OAI Key Code, please enter a value of 1...14!!!” is displayed. Type **Enter**, type a valid OAI Key Code, and press **Enter** again. When you enter a valid OAI Key Code, that code is displayed on the screen.

```
Please enter the OAI Key Code (1...14) used by the PBX to
generate MSF Op-code 128.

OAI Key Code: [ 1 ] <ENTER>

You entered [1] -- is this correct? (y/n) [y] <ENTER>
```

**Figure 2-8 Confirm OAI Key Code**

- Type **n** and press **Enter** to cancel the entry and try again, or type **y** and press **Enter** to accept the entry and continue.

---

## Step 7: Specify the Chime Tone

Use the following instructions to specify the chime tone used to alert internal callers:

- Type the Chime Tone used by SPA to alert internal callers and press **Enter**.
  - If you enter an invalid Chime Tone, the message “ERROR: Invalid Chime Tone Number, please enter a value of 0...7!!!” is displayed. Press **Enter**, type a valid Chime Tone, and press **Enter** again. When you enter a valid Chime Tone, the chime tone number is displayed on the screen.

```
Please select the Chime Tone used to alert internal callers
from one of the following:

    0 Connected Tone
    1 Release Tone
    2 Request Tone
    3 Warning Tone
    4 Special Tone
    5 Acknowledgment Tone
    6 Non-acknowledgment Tone
    7 Confirmation Tone

Chime Tone Number: [ 0 ] <ENTER>

You entered [0] -- is this correct (y/n) [y] <ENTER>
```

**Figure 2-9 Verify Chime Tone**

- Type **n** and press **Enter** to cancel the entry and try again, or type **y** and press **Enter** to accept the entry and continue.

---

### Step 8: Specify the Secondary Line Chime Flag

Use the following instructions to set the Secondary Line Chime flag:

- Type **y** and press **Enter** to enable the Secondary Line Chime, or type **n** and press **Enter** to disable it. The flag you selected is displayed on the screen.

```
Do you want each station to chime when a call
is received on a secondary line (y/n) [y] <ENTER>

You entered [y] -- is this correct (y/n) [y] <ENTER>
```

**Figure 2-10 Secondary Line Chime Flag**

- Type **n** and press **Enter** to cancel the entry and try again, or type **y** and press **Enter** to accept the entry and continue.

---

### Step 9: Specify the Local Area Code

Use the following instructions to enter the local area code:

- Type the local area code and press **Enter**. The area code you entered displays on the screen.

```
Please enter your local area code: [972] <ENTER>

You entered [972] -- is this correct (y/n) [y] <ENTER>
```

**Figure 2-11 Local Area Code**

- Type **n** and press **Enter** to cancel the entry and try again, or type **y** and press **Enter** to accept the entry and continue.

---

### Step 10: Specify the NEAX Trunk Access Prefix

Use the following instructions to enter the NEAX Trunk Access Prefix:

- Type the NEAX Trunk Access Prefix and press **Enter**. The prefix you entered displays on the screen.

```
Please enter you NEAX trunk access prefix: [9] <ENTER>

You entered [9] -- is this correct (y/n) [y] <ENTER>
```

**Figure 2-12 Verify Trunk Access Prefix**

- Type **n** and press **Enter** to cancel the entry and try again, or **y** and press **Enter** to accept the entry and continue.

---

### Step 11: Specify the Local Call Method

Use the following instructions to specify the method used to place local calls:

- Type the number that specifies the correct local call method for your area, and press **Enter**.
  - If an invalid value is entered, the message “ERROR: Invalid Local Method, please enter a value of 1...2!!!” is displayed. Press **Enter**, type a valid value, and press **Enter** again.
  - When a valid value is entered, the following will be displayed.

```
Please select the method used to place local calls
from one of the following:

      1   7 Digits Only (555 1234)
      2   Area Code + 7 Digits (987 555 1234)

Local Call Method: [1] <Enter>

You entered [1] -- is this correct (y/n) [y] <Enter>
```

**Figure 2-13 Local Call Method**

- Type **n** and press **Enter** to cancel the entry and try again, or **y** and press **Enter** to accept the entry and continue.



---

## Step 12: SPA Auto-Config — New Configuration

- If a previous version of SPA is installed on the system, installation continues with [“Step 13: SPA Auto-Config — Update Existing Configuration”](#) on page 20.
- If SPA is not installed, the following information screen is displayed, indicating that the default configuration values will be used for auto configuration.

```
The default Second Party Alert Application Configuration
will now be installed by the autoconfig program. After the
Second Party Alert Installation has concluded, be sure to
check the configuration using the Applications Manager (APM)
and modify any settings that are different on your system.

Press Enter to continue [ ] <ENTER>
```

**Figure 2-14 SPA Auto-Config (New Config)**

- Type **Enter** to begin the auto configuration process. During the SPA auto configuration, the following screen is displayed:

```
Second Party Alert Auto-Configuration

/oai/utlils/autocfg running...
/oai/utlils/autocfg: 2nd_Party_Alert          application configured.
/oai/utlils/autocfg terminated normally.

Second Party Alert Auto Configuration Complete

Press Enter to continue [ ] <ENTER>
```

**Figure 2-15 SPA Auto-Config Complete (New Config)**

- When the auto configuration has completed, type **Enter** and continue with [“Step 14: Database Template Installation”](#) on page 21.

### Step 13: SPA Auto-Config — Update Existing Configuration

- If a previous version of SPA is installed on the system, then the following information screen is displayed, indicating that the current configuration will be updated.

```
The current Second Party Alert Application Configuration will
be modified to support the new version.  When the autoconfig
program is executed by the installation program, you will be
informed that "2nd_Party_Alert" is already configured.

When the autoconfig program asks if you want to reconfigure, be
sure to answer with 'Y' or 'y' to ensure that the modified Second
Party Alert Configuration is installed.

After the Second Party Alert Installation has concluded, be sure
to check the configuration using the Applications Manager (APM)
and validate that all settings are correct for you system.

Press Enter to continue [ ] <ENTER>
```

**Figure 2-16 SPA Auto-Config (Existing Config)**

- Type **Enter** to begin the auto configuration process. During the SPA auto configuration the following screen is displayed:

```
Second Party Alert Auto-Configuration

/oai/Utils/autocfg running...

/oai/Utils/autocfg: 2nd_Party_Alert is already configured.
/oai/Utils/autocfg: Reconfigure (y/n)? y <ENTER>
/oai/Utils/autocfg: 2nd_Party_Alert application configured.

/oai/Utils/autocfg terminated normally.

Second Party Alert Auto Configuration Complete

Press Enter to continue [ ] <ENTER>
```

**Figure 2-17 SPA Auto-Config Complete (Existing Config)**

- At the “Reconfigure (y/n)?” prompt, type **y** and press **Enter** to update the existing SPA configuration. When the auto configuration has completed, press **Enter** to continue with [“Step 14: Database Template Installation”](#).

---

### Step 14: Database Template Installation

- After auto configuration, the installation script will install the database template files. The following screen will be displayed:

```
Second Party Alert Database Template Installation

Copying Second Party Alert Names Master Database template
Copying Second Party Alert Names Application Database template
Copying Phone Line Master Database template
Copying Phone Line Application Database template
Copying Tenant Master Database template
Copying Tenant Application Database template

Second Party Alert Installation Complete

Press Enter to continue [ ] <ENTER>
```

**Figure 2-18 Database Template Installation**

- After the database templates have been installed, SPA installation is complete. Now go to [“Configure Application” on page 23](#) to configure the SPA applications.

## Configuration

The following sections describe the configuration of Second Party Alert (SPA).

### Access System Administration Menu

To access the System Administration Menu:

- Select the **APM** option from the APM Platform Management menu.
- Enter the System Administrator password at the APM password screen.

### Change Facility Number

The *Number of Facilities* must be set to **9** or greater in the OAI Library Configuration before SPA 1.5 (or previous versions) will work. (The default is 8.)

Using the APM, perform the following steps to change the default value of *Number of Facilities*:

- Select **System Configuration** from the System Administration menu.
- Select **OAI Library Configuration**.
- Select **Modify**.
- Press the **Enter** key.
- Use the arrow keys to move to the *Number of Facilities* field.
- Enter **9** (or greater) and press the **Enter** key.
- Select the **Quit** option two times to return to the System Administration menu.

## Configure Application

SPA is configured into the APM system using the Add function of the Application Configuration option on the APM System Administration menu. Enter the **Application Configuration** option from the System Administration menu.

This section contains the information that you should enter into the configuration file for SPA. For specific instructions on what these parameters mean and how to make these entries, use the *APM Operations Manual*.

---

### Step 1: Application Characteristics

When adding SPA to the APM Application Configuration file, define it as follows:

**Note:** *This step is done automatically during installation if you answer YES to the autoconfig prompt.*

Parameter	Default Entry	Description
OAI Application	Y	Indicates whether or not (Yes or No) SPA communicates with the NEAX2400 using OAI processes.
CRT Application	N	Indicates whether or not (Yes or No) SPA requires a terminal screen that is of the same type as the one used by the APM
Communication Queue	N	Indicates whether or not (Yes or No) this non-OAI application needs an IPC queue to communicate with other processes.

**Step 2: Primary Configuration Parameters**

On the APM Configuration Entry screen, make an entry for each SPA parameter shown below. If the parameter is followed by an asterisks (\*) in the table, you must make the entry exactly as shown. Other entries serve only as examples — actual entries are site-dependent.

**Note:** *This step is done automatically during installation if you answer YES to the autoconfig prompt.*

Parameter	Default Entry	Description
Application Name	2nd_Party_Alert	Specifies the name to be displayed in the APM menus. This name is displayed however it is entered here (i.e., capital letters, lower case, etc.)
Executable Filename*	/oai/app/party/bin/spa	Indicates the path name of the executable file.
Group*	(no entry)	Indicates the group to which SPA is associated.
Response Mode*	I	Indicates the action that the APM is to take with SPA should a member of the group terminate, such as I(gnore).
Initialization Batch	N	Indicates whether or not (Yes or No) SPA is to be initialized automatically when the OAI system is initialized.
Termination Mode*	M	Indicates how the APM is to notify SPA to terminate (e.g., message).
Standard Output	/dev/null	Designates the file into which SPA output is redirected.
Number of Restarts	0	Indicates how many times the APM may restart SPA after it terminates erroneously.

---

### Step 3: OAI Facilities

According to instructions in the *APM Operations Manual*, designate the following NEAX2400 facilities for SPA using the Facilities command on the Configuration Entry screen. These facilities are automatically set up when you run autoconfig during installation.

MRFI	Mode Release (I)	MRFR	Mode Release (R)
MSF	OAI Mode Set	NTF	Number Transfer
SMFR	Status Request (R)	SMFN	Status Notification (N)
TCFD	Terminal Control (D)	TCFI	Terminal Control (I)
SCF	Switch Control		

**Note:** *The same MSF Op-Code that is specified here must be assigned to SPA at the NEAX MAT. For more information, see [Chapter 4, "MAT ASSIGNMENTS"](#). Only one MSF can be specified or the application terminates immediately.*

**Step 4: Secondary OAI Configuration Parameters**

Using the OAI-Conf command on the APM Configuration Entry screen, make an entry for each of the following parameters. If the parameter is followed by an asterisks (\*) in the table, you must make the entry exactly as shown. Other entries serve only as examples — actual entries are site-dependent. Use the instructions provided for this option in the APM Operations Manual. These parameters are automatically set up when you run autoconfig during installation.

Parameter	Default Entry	Description
Database Name #1*	/oai/db/cur/nmdsp	Indicates the path name of the database containing the names and extensions of everyone in the organization.  <b>Note:</b> <i>This entry refers either to the name of the SPA database created through the APM (see Chapter 3, “DATABASE REQUIREMENTS”) or to the Name Display database that is to be used by SPA. If the Name Display database is to be used, enter its name here.</i>
Database Name #2*	/oai/db/cur/phonline	Indicates the path name of the database containing primary extensions and the secondary (virtual) lines associated to them.
Timeout Value #1	60	Designates the number of seconds that SPA waits before clearing information from the D <sup>term</sup> LCD panel.
Timeout Value #2	0	Indicates that there is not a timeout period for the second timeout value.
Tenant Number	1	Specifies the number of the tenant that SPA serves.
Source Link Name	OAI1TCP	Identifies the port on the source side of the communication link.
Destination Link Name	PBX1TCP	Identifies the port on the destination side of the communication link.
Association Recovery	30	Designates the number of seconds SPA waits before trying to re-establish an association with the NEAX that has been released.



### Step 5: User-Defined Parameters

Make the following additional parameter entry through the UserDefined command on the OAI Configuration screen. These parameters are automatically set up when you run autoconfig during installation.

Parameter	Typical Entry	Description
User Defined #1	7	The OAI key code assigned on the MAT via the AOKC command.
User Defined #2	2	<p>This is the chime tone value (assigned at installation) that is heard by the caller and called party. The tones are:</p> <ul style="list-style-type: none"> <li>• 0Connected tone*</li> <li>• 1Release tone</li> <li>• 2Request tone</li> <li>• 3Warning tone*</li> <li>• 4Special tone*</li> <li>• 5Acknowledgment tone</li> <li>• 6Non-acknowledgment tone</li> <li>• 7Confirmation tone</li> </ul> <p><b>Note:</b> For 4200 V6 or earlier version of the PBX software, the connect tone, warning tone, and special tone <b><i>do not produce</i></b> any audio tones.</p>
User Defined #3	(no entry)	This allows the station to chime when a call is received on a secondary line. If the value is set to <i>Y</i> , a chime sounds. If it is set to <i>N</i> , no chime sounds. the default is <i>N</i> .
User Defined #4	8	This value describes the size of the display name used by the name display database defined in Second Party Alert. Valid values for this field are 8 and 16. The default is 8.
User Defined #5		Enter the local area code in this field (assigned at installation).
User Defined #6		Enter the NEAX trunk access prefix (assigned at installation).
User Defined #7	/oai/db/cur/tenants	Indicates the path name of the tenant number database.

**Step 5: User-Defined Parameters (Cont)**

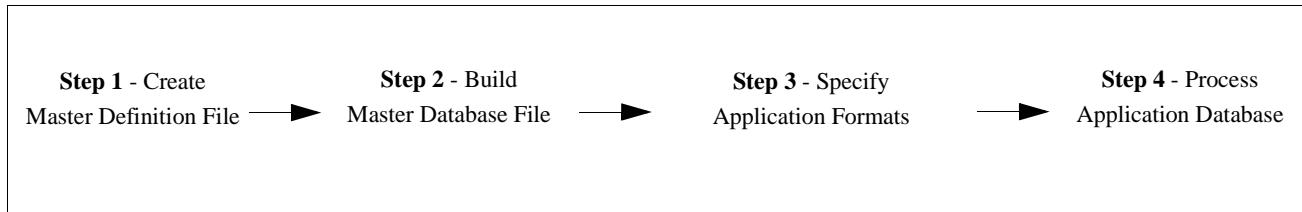
Parameter	Typical Entry	Description
User Defined #8	7	This field specifies the number of digits used to place a local call. Valid values for this field are 7 (7 digit phone number only) and 10 (area code + 7 digit phone number). If this field is blank or an invalid value is specified, the default value of 7 is used by the program.
User Defined #14	/T L1 U9 D/oai/log/dbg/party.out	This is not part of the default setup. Enter the value listed to enable debug logging.  <b>Caution:</b> <i>This file grows very quickly. Please monitor the file size to ensure the hard drive does not run out of space.</i>

This completes the configuration of SPA in the APM. Now go to [Chapter 3, "DATABASE REQUIREMENTS"](#) to create its database support.

## Chapter 3 DATABASE REQUIREMENTS

This chapter assumes that SPA is not going to use the OAI Name Display application database and must have one built. In this case, SPA requires two databases that are created through the Database Administration option on the APM System Administration Menu.

Database creation in the APM involves the following 4-step process:



- **Step 1 - Create a Master Definition File:** This step involves creating the master definition file that defines the fields in the master database file.
- **Step 2 - Build a Master Database File:** This step involves entering data (e.g., actual phone lines) into the master database fields that were just defined in the master definition file in Step 1.
- **Step 3 - Create an Application Definition File:** In this step, a definition file is created for the SPA database. This file defines the formats by which data from the master file is to be converted to meet the needs of SPA.
- **Step 4 - Process and Install the Application Database:** In this step, the Process and Install Application Databases options on the APM Database Administration menu creates the file that will be used by SPA. When the Process option is activated, data is drawn from the master database and converted to the formats specified in the application definition file. The Install option is then activated to enable SPA to copy its database.

### Instructions

The information required for the SPA database is provided in the table on the following page. Using this information with the procedural instructions provided in the *APM Operations Manual*, enter the Database Administration option on the APM System Administration Menu and build the SPA database. Any messages displayed during these steps are addressed in the Process and Error Messages chapter of the *APM Operations Manual*.

**Note:** Remember to complete Step 4, Process and Install the Application Database, for each database after you enter the following information.

**Name Display Database Information**

The Name Display database field entries are shown in the following table and defined below the table. Name the Master Definition File **name\_m** and the Application Definition File **nmdsp**.

**Note 1:** *You do not have to create this database if the Name Display application is installed, and its database is going to be used.*

**Note 2:** *Name the **name\_m** file in the Define Master Database Fields option, chosen from the Build Master Database option on the Database Administration menu. Name the **nmdsp** file in the Specify Application Database Fields option.*

Field Description	Master Definition File				Application Definition File	Master Database
	Type	Size	Min. Value	Max. Value	Data Type	Typical Entry
Extension	N	5	0	99999	ASCII	4290
Display Name	A	8			ASCII	F. Smith

**Field Definitions**

- Extension - The five-digit primary extension number. This is the number that is displayed with the caller’s name when this phone is used to place the call.
- Display Name - The name that is to be displayed on the D<sup>term</sup> LCD panel. The name must be entered in the format, F.Lucas, with the first name initial separated from the last name by either a period (.) or a blank space.

## Phone Line Database Information

The Phone Line database field entries are shown below in the table and defined below the table. Name the Master Definition File **phone\_m** and the Application Definition File **phonline**.

**Note:** Name the **phone\_m** file in the Define Master Database Fields option, chosen from the Build Master Database option on the Database Administration menu. Name the **phonline** file in the Specify Application Database Fields option.

Field Description	Master Definition File				Application Definition File	Master Database
	Type	Size	Min. Value	Max. Value	Data Type	Typical Entry
Phone Line 1	N	5	0	99999	Long Integer	4290
Phone Line 2	N	5	0	99999	Long Integer	4291
Phone Line 3	N	5	0	99999	Long Integer	4292
Phone Line 4	N	5	0	99999	Long Integer	4293
Phone Line 5	N	5	0	99999	Long Integer	4294
Phone Line 6	N	5	0	99999	Long Integer	4295

### Field Definitions

- Phone Line 1 - The five-digit primary extension number. This is the number that is displayed with the caller's name when this phone is used to place the call.
- Phone Line 2 - 6 - The five-digit secondary, or virtual, lines that are associated with the primary extension that was entered in the first field. These virtual lines must be assigned to this primary line and to a hunt group through the NEAX Maintenance Administration Terminal (see MAT Assignments).

**Tenant Number Database Information**

The Tenant Number database field entries are shown below in the table and defined below the table. The database contains a list of extensions and associated tenant numbers used by the PBX. A tenant number can be associated with an individual numeric extension or a range of numeric extensions. A given tenant number can have more than one record if all of the extensions associated with it are not consecutive. Tenant numbers can also be associated with individual extensions that contain non-numeric characters such as ‘\*’ or ‘#’. Make the Master Definition File **tenant\_m** and the Application Definition File **tenants**.

**Note:** Name the **tenant\_m** file in the Define Master Database Fields option, chosen from the Build Master Database option on the Database Administration menu. Name the **tenant** file in the Specify Application Database Fields option.

Field Description	Master Definition File				Application Definition File	Master Database
	Type	Size	Min. Value	Max. Value	Data Type	Typical Entry
First Extension	ASCII	10			ASCII	1000
Last Extension	ASCII	10			ASCII	1099
Tenant Number	Numeric	3	1	255	Short Integer	1

**Field Definitions**

- First Extension- the first extension in the range of extensions.
- Last Extension- the last extension in the range of extensions.
- Tenant Number- this field contains the associated tenant number.

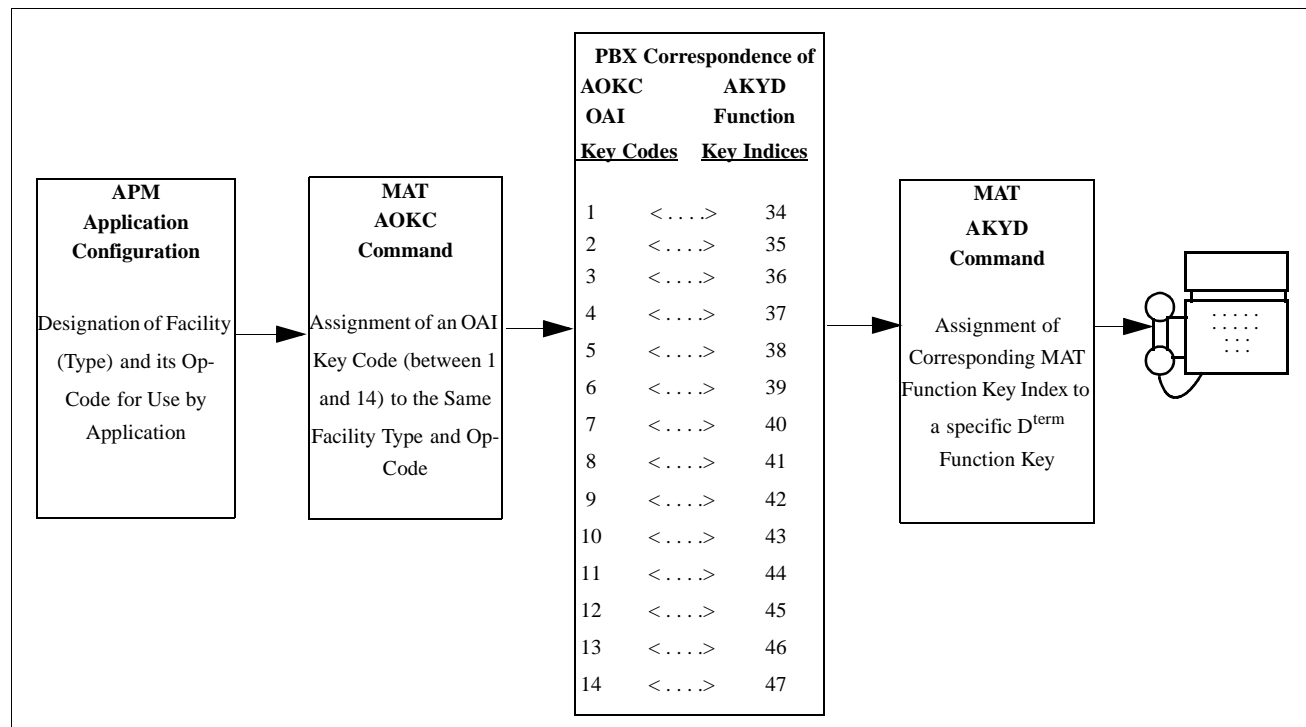
This completes creation of SPA database support. Now go to [Chapter 4, “MAT ASSIGNMENTS”](#) to make the necessary command assignments at the NEAX2400 MAT.

# Chapter 4 MAT ASSIGNMENTS

This guide assumes that data settings that affect the operation of all OAI software on a system-wide basis have already been assigned on the NEAX Maintenance Administration Terminal (MAT). Such settings include system index values and assignment of Interface I/O Port Data in the Interface Processor (IP). For more information about these system data settings and the MAT commands described below for SPA, refer to the *OAI Module Installation Manual for the NEAX2400 IMS*, the *NEAX2400 IMS Command Manual*, the *NEAX2400 IMS Job Specification Manual*, and the *NEAX2400 IMS Programming Manual*.

The user-defined parameter #1 assigned during the application configuration on [page 27](#) identifies the function key that the phone user presses to display call information. You must now assign this key at the MAT to the Mode Set Facility (MSF) for all D<sup>term</sup>s that will be able to display calling party information.

Using the AOKC command, assign the MSF facility and its Op-Code to one of the 14 OAI Key Codes in the MAT. Each of these OAI Key Codes corresponds to an AKYD Function Key Index (FKI) value that is then assigned to the specific D<sup>term</sup> function key. This process is illustrated below.



**Figure 4-1 OAI Function Key Assignment**

A knowledge of the D<sup>term</sup> stations in the NEAX system and which ones will be set up to access SPA is necessary for using the following commands.

## AIPT Command: (Assignment of Interface I/O Port Data in IP)

This command can be used to assign TCP/IP address of the system's IP. Let system and UAP both in ethernet.

- IP-NO: Assign face Processor Number.
- Port Number
- PNI: Assign 1
- KIND: Assign 3 for choose TCP/IP protocol.
- Assign ETHER-PKGNO
- Assign TCP/IP address

## ASYD Command: Assignment of System Data

If the Name Display application is not installed and a Name Display Database has been created through the APM for SPA use, the Name Display feature on the NEAX2400 does not need to be enabled, and this MAT assignment does not have to be made. If the Name Display application is installed and its database is going to be used by SPA, the Name Display feature on the NEAX2400 must be enabled. This feature allows SPA to access the Name Display database and retrieve the name associated with the calling extension. Use the ASYD command to enable this feature if necessary:

- System 1, Index 78, bit 3  
Enter either of the following two values:
  - 0: Display name only.
  - 1: Display calling/called number with name.
- System 1, Index 78, bit 5  
Enter 1 (yes) to set name display feature into service.

## ASDT Command: Assignment of Station Data

Each D<sup>term</sup> that is to carry SPA must be set up to handle multiple incoming calls in a manner that is supportive of the SPA function. In addition to its primary incoming line, each supported D<sup>term</sup> must have a user-defined number of virtual lines assigned to it, and those primary/virtual lines assigned into a pilot hunt group. Then, when the D<sup>term</sup> user is on the primary line, any incoming call is wrapped to the next virtual line in that hunt group. Use the ASDT and ASHU commands to complete these assignments for each supported D<sup>term</sup>:

1. Enter the same tenant number that is configured for the application in the APM Application Configuration option (Tenant #1, [page 26](#)).
2. Identify virtual lines for each supported D<sup>term</sup>. These lines should agree with the secondary, or virtual, lines entered for each D<sup>term</sup> station in the database.



## AOKC Command: (Assignment of OAI Key Codes)

This command is used to associate the MSF facility and its Op-Code that was configured in the APM for the application to one of the OAI Key Codes in the MAT.

1. Select an unused OAI Key Code, from 1 to 14. To determine what Key Codes are available for assignment, use the LOKC command to list the AOKC Key Codes that are already assigned.
2. Enter the type of facility using the value that designates the MSF.
3. Enter the same MSF Op-Code that was configured for SPA in the APM. Retrieve it using the **Providers** command on the APM Configuration Entry screen.

## AKYD Command: (Assignment of D<sup>term</sup> Function Key)

The AKYD command can only be used to assign key data on those D<sup>terms</sup> that have already been assigned through the ASDT command.

MAT Function Key Indexes #34 to #47 have been designated for use in the OAI system and correspond to the 14 OAI Key Codes as illustrated in [Figure 4-1 on page 33](#). The AKYD command is used to assign a D<sup>term</sup> function key to the specific MAT Function Key Index that, in turn, corresponds to the previously assigned OAI Key Code. This command must be used to assign the function key on each D<sup>term</sup> that is to be set up with access to SPA.

1. D<sup>term</sup> function key #8 was designated in the application configuration as the key that is to be pressed to activate SPA from the D<sup>term</sup> ([Step 5: User-Defined Parameters on page 27](#)).
2. Enter the same tenant number that is configured for the application in the APM Application Configuration option (Tenant #1, [page 26](#).)
3. Enter the station number of the D<sup>term</sup> on which the function key is being assigned.
4. Enter the D<sup>term</sup> function key to the MAT Function Key Index that in turn corresponds to the previously assigned OAI Key Code.
5. Assign the virtual line, such as the subline.

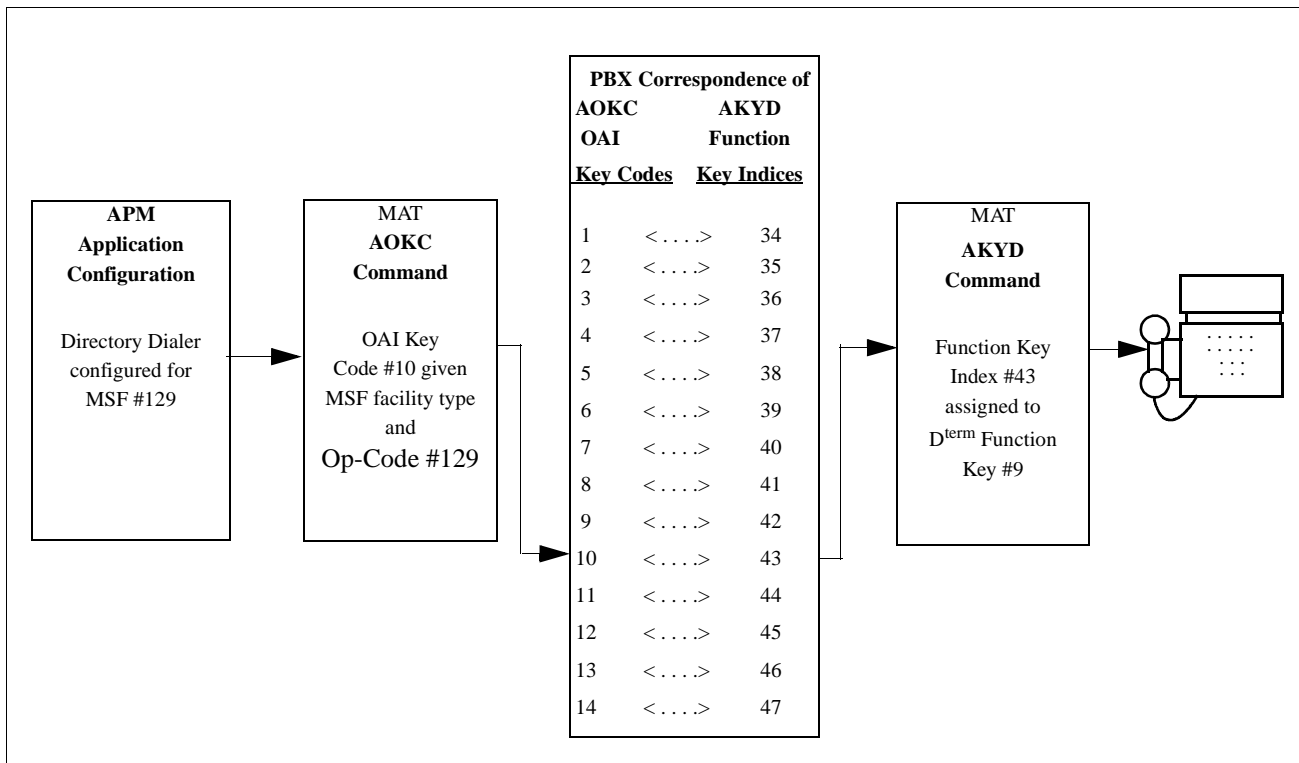


Figure 4-2 OAI Function Key Assignment

In the example above, MSF was selected in the APM Application Configuration, and its Op-Code was determined to be #129. MSF #129 is then assigned through the AOKC command to an OAI Key Code. In this example the Key Code is #10. The D<sup>term</sup> function key that is to be used to access SPA is configured as function key #8. Since OAI Key Code #10 corresponds in the PBX to MAT Function Key Index #43, D<sup>term</sup> function key #8 is assigned to Function Key Index #43 using the AKYD command. Now whenever a phone user presses function key #8 on any assigned D<sup>term</sup>, MSF 129 initiates communication with SPA for display of calling party information

### ASHU Command: Assignment of Station Hunting-Group Data

1. Enter the same tenant number that is configured for the application in the APM Application Configuration option (Tenant #1, [page 26](#)).
2. For each primary station number, enter the virtual line numbers that are to be in the hunt group. These virtual line numbers must agree with those assigned in the ASDT command and those entered in the database.

SPA is now installed and ready to be initialized. Enter the APM Operations Menu and initialize SPA through the Non-CRT Application option, according to instructions provided in the *APM Operations Manual*.