

**NEC**

**SENTRY**

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**INSTALLATION GUIDE**

**NEC America, Inc.**

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# Chapter 1 Introduction

This manual describes the installation, databases, and configuration for the Sentry Alarm Control Terminal and the applications that can be used with the terminal.

## Overview

This manual contains the following chapters:

**Chapter 1, Introduction** - Describes the chapters in this installation guide.

**Chapter 2, Sentry Alarm Control Terminal** - Provides an overview of Sentry Alarm Control Terminal and describes the installation, databases and configuration parameters.

**Chapter 3, Annoyance Trap** - Provides an overview of the Annoyance Trap application and describes the installation, configuration parameters, and databases.

**Chapter 4, Emergency Conference** - Provides an overview of the Emergency Conference application and describes the installation, configuration parameters, and databases.

**Chapter 5, Executive Override** - Provides an overview of the Executive Override application and describes the installation, configuration parameters, and databases. Also provides a sample configuration.

**Chapter 6, MAT Assignments and PBX Information** - Describes the NEAX Maintenance Administration Terminal (MAT) commands that need to be used for each OAI Monitor application as well as the PBX software and conference cards that you need to run Sentry Alarm Control Terminal

**Chapter 7, Platform Maintenance** - Describes how to use the platform maintenance utility to perform administrative tasks, including: activating, deactivating, and resetting terminals.

**Appendix A, History Logging** - Provides a description of the History Logging configuration.

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## Chapter 2 Sentry Alarm Control Terminal

This chapter describes the databases and configuration parameters for the Sentry Alarm Control Terminal software. For information about using the Sentry Alarm Control Terminal, see the *Sentry Alarm Control Terminal User Guide*.

### Overview

The Sentry Alarm Control Terminal is a versatile UAP operator interface application that communicates with one or more Sentry OAI Monitor applications (such as the Emergency Conference Monitor or the Annoyance Trap Monitor) using message protocols defined by these applications. Data received from the monitors is displayed in real time.

Multiple instances of the Sentry Alarm Control Terminal may be executed simultaneously from the system console and/or from one or more dumb terminals connected to the UAP via RS-232. The content and format of displayed data is controlled through configuration files, allowing a high degree of customization. Each terminal can use a separate configuration, or configurations can be shared.

The Sentry Alarm Control Terminal uses text windows to display information and allows the user to manipulate window text from a keyboard. Special function keys are defined to permit the user to quickly perform needed tasks. System messages are used to inform the user of errors and other status changes. Dialog windows are displayed to show current configuration settings or when the program requires information from the user.

The following features are controlled through the configuration file set:

#### **Window and Dialog Attributes**

- Screen position
- Size in rows and columns
- Text colors and attributes (bold, blinking, etc.)
- Static text fields
- Dynamic text field formats

#### **Real Time Message Display Attributes**

- Message text field formats
- Text colors and attributes (bold, blinking, etc.)

#### **Screen Saver Attributes**

- Time out values
- Text colors and attributes (bold, blinking, etc.)
- Static text fields

#### **Function Key Assignments**

There are several processes included in the Sentry Alarm Control Terminal installation:

- Software Installation - Install software from media and follow prompts.
- Database Creation - Build, process, and install databases.
- Window Configuration Files - Create configuration files for terminal windows.
- Configuration Parameters- Set configuration parameters.
- Activate Terminals - Use platform maintenance tools to activate terminals.

The following sections describe these processes.

## Software Installation

The Sentry Alarm Control Terminal software must first be loaded from the release media. Remember to use the *Applications Manager (APM) Installation Manual* if you need further instructions for installing software using the APM.

**Note:** *You will be prompted for several values when you install the software. For more information about these and other parameters, refer to the next section, [Configuration Parameters on page 16](#).*

1. To begin the Sentry Alarm Control Terminal software installation, log in to the APM Platform Management Menu by typing **apmadm** at the UNIX login prompt, then press **Enter**. The login and password prompts are shown below.

If your “apmadm” account requires a password, enter the appropriate password at the subsequent password prompt.

```
login: apmadm
password:
```

The APM Administration main menu displays.

```
NEC America      APM Administration      Wed Jan 31, 1996

      APM Platform Release Rel2.0 (Oct 09, 1995)

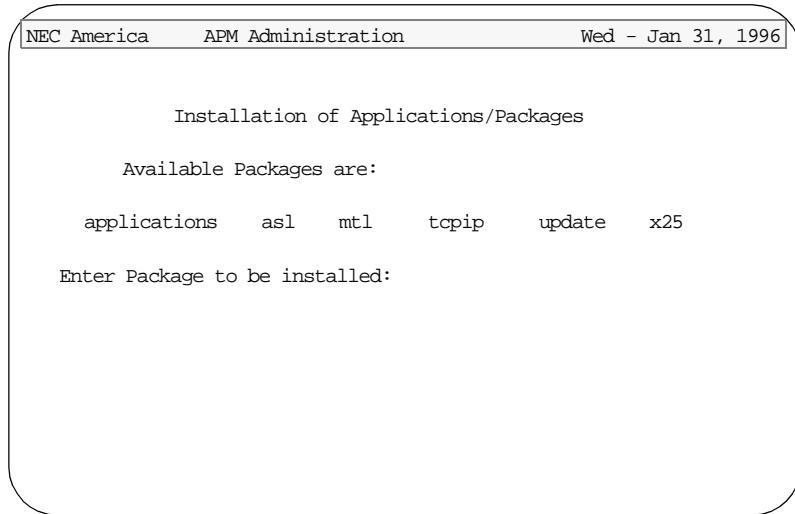
      Main Menu
      APM
      Debug Facilities
      Halt APM System
      File Archive
      Installation of Applications/Packages
      Removal of Packages
      Start-up APM System

      Logout
      UNIX

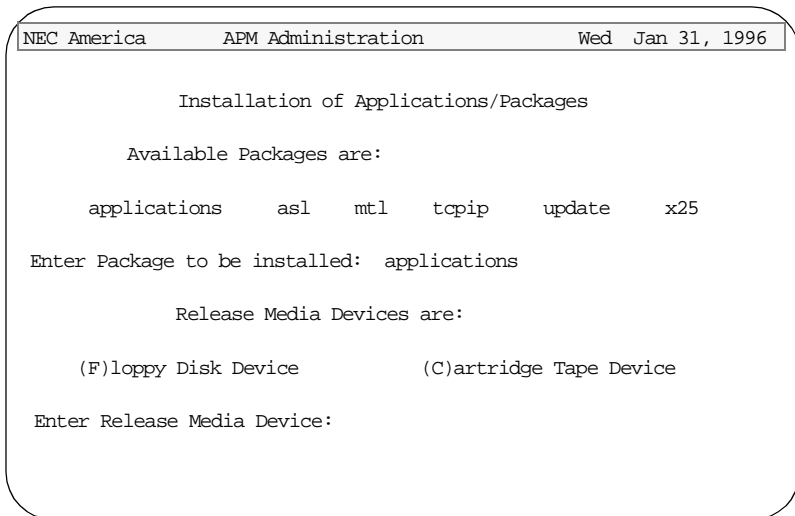
      Enter Option: []

      APM Status: ACTIVE
```

- 2. Type **i** and press **Enter** to select the Installation of Applications/Packages option. The Installation of Application/Packages screen displays.



- 3. At the “Enter Package to be installed” prompt, type **applications** and press **Enter**. The “Enter Release Media Device” prompt displays.





4. Select the floppy disk device as the installation media by typing **f** and pressing **Enter**.

The following screen displays:

```
Installation Procedure

Installing from /dev/fd0

Insert OAI Release Media #1
Enter <Return> to continue:
```

5. Insert the Sentry Alarm Control Terminal diskette into the floppy disk device, and press **Enter** to continue.

The screen displays files in the application installation. Many files may scroll off the screen, until all of the files from the diskette have been processed.

The “**Has all release media been loaded**” prompt displays.

```
x oai/app/sentryTrm/install/.profile, 1673 bytes, 4 tape blocks
x oai/app/sentryTrm/install/Mdefault.cfg, 434 bytes, 1 tape blocks
x oai/app/sentryTrm/install/ansi_sat, 1038 bytes, 3 tape blocks
.
.
.
.

x oai/app/sentryTrm/bin/sentryTerm, 540414 bytes, 1056 tape blocks
x oai/app/sentryTrm.ins, 8459 bytes, 17 tape blocks
x oai/chksum_app, 1011 bytes, 2 tape blocks

Has all release media been loaded [y or n] ?
```

- 6. Type **y** and press **Enter** to indicate that all release media has been loaded. The APM installation begins processing all of the Sentry Alarm Control Terminal installation files and checking them for correctness. The screen indicates the status of the installation.

```
OAI Platform is at revision 5 for machine i386 (Dec 19 1994 Rel 1.6.1)

sentryTm Revision: 5      machine type: i386      Version: 1.7
Processing, please wait...
Validating installed files
.....
Validation Completed

                          Installing the Release Files

                          Processing files
```

After the files have been processed, the “root password” prompt displays. In order to complete the Sentry Alarm Control Terminal installation, you must modify certain files that require “root” privileges.

```
NEC America Inc  Sentry Terminal Installation  Wed - Apr 29, 1998

Installation requires Super User (root) privileges.

Please Enter su/root Password:
```

7. Type in the root password at the prompt and press **Enter** to continue.

The Sentry Alarm Control Terminal installation will create any directory that does not already exist. The paths of the directories will display on the screen, as illustrated below.

```
NEC America Inc  Sentry Terminal Installation  Wed - Apr 29, 1998

Creating Sentry Terminal directories . . .

/oai/app/sentry created
/oai/app/sentry/bin created
/oai/app/sentry/install created
/oai/app/sentry/cfg created
/oai/app/sentry/cfg/terminals created
/oai/app/sentry/cfg/terminals/default created
/oai/log already exists
/oai/log/sentry created

Press Enter to continue. [ ]
```

8. Press **Enter** to continue the installation. The sentry user is added to the SCO UNIX operating system.

```
NEC America Inc  Sentry Terminal Installation  Wed - Apr 29, 1998

Installing sentry user on SCO UNIX.

Enter (sentry) user id [6000]:

User (sentry) already belongs to a group.

User (sentry) installed.

Press Enter to continue. [ ]
```

9. Press **Enter** again and the sntryadm user is added to the SCO UNIX operating system.

```
NEC America Inc  Sentry Terminal Installation  Wed - Apr 29, 1998

Installing sntryadm user on SCO UNIX.

Enter (sntryadm) user id [6000]:

Warning: The user id [6000] is already assigned on this system,
Install (sntryadm) with user id [6000] (y/n)
```

10. A warning indicating that the user ID has already been assigned to the system displays. Type **y** and press **Enter** to install the sntryadm user with the same ID. The sntryadm user is added to the system.

```
NEC America Inc  Sentry Terminal Installation  Wed - Apr 29, 1998

Installing sntryadm user on SCO UNIX.

Enter (sntryadm) user id [6000]:

Warning: The user id [6000] is already assigned on this system,
Install (sntryadm) with user id [6000] (y/n) y

User (sntryadm) already belongs to a group.

User (sntryadm) installed.

Press Enter to continue [ ]
```

11. Press **Enter** to continue the installation.

```
NEC America Inc  Sentry Terminal Installation  Wed - Apr 29, 1998

Installing the Sentry Terminal Binary . . .
Installing the Sentry Database Files . . .
Installing the Default Terminal Configuration Files . . .
Installing the ansi_sat terminal information . . .
Installing the Sentry Platform Maintenance Utilities . . .
Installing /etc/mygetty . . .
Updating /etc/gettydefs . . .

Press Enter to continue. [ ]
```

12. Press **Enter** to continue.

The following screen displays when the installation is complete.

```
NEC America Inc  Sentry Terminal Installation  Wed - Apr 29, 1998

Sentry Terminal Installation Complete.

The following configuration tasks must be completed before
starting Sentry Terminal application

1. Build, process, and install the sentry_m database.
2. Build a window configuration file for each entry in the
   sentry_m database

See the Sentry Terminal Installation guide for more information.

Press Enter to continue. [ ]
```

13. Press **Enter**.

## UNIX Subsystem Database Update

The SCO UNIX Subsystem database must be updated for the Sentry Alarm Control Terminal.

At the UNIX prompt, login as the superuser (root) and execute the SCO UNIX Subsystem Database authorization checking program (/tcb/bin/authck -s) and password deletion program (passwd -d) as shown below.

```
login: root
Password: <root password>
# /tcb/bin/authck -s

The following users have Protected Password Database entries
that do not match their Subsystem Database entries:
    sentry  sntryadm      .
                                .
                                .

There are errors in the database.
fix them (y/n)> Y <ENTER>

# passwd -d sentry

Deleting password for user sentry
# passwd -d sntryadm

Deleting password for user sntryadm
```

Answer **yes** when asked to fix the subsystem databases. This ensures that the SCO UNIX Subsystem Databases are left in a proper state.

## Database Creation

The Sentry Master Database contains information used by the Emergency Conference, Annoyance Trap, and Sentry Alarm Control Terminal applications. The Feature Application Database contains a sub set of the Sentry Master Database and is used by the Sentry Alarm Control Terminal program. Each feature database record contains an entry for each Sentry feature (Emergency Conference or Annoyance Trap) used by the system. Refer to the *APM Configuration Manual* for more information.

Each sentry master database record contains the following fields:

**Monitored Number**

The monitored number used by the caller to access the Emergency Conference or Annoyance Trap.

**Category**

An ASCII string containing the record category, which is set to “conference” for Emergency Conference records or “annoyance” for Annoyance Trap records.

**Name**

An ASCII string containing the Emergency Conference or Annoyance Trap name.

**Minimum Lines Used**

The minimum number of lines required by an Emergency Conference. This field is not used by the Sentry Alarm Control Terminal.

**First Line Number**

The first line number of the dedicated conference card set used by an Emergency Conference. This field is not used by the Sentry Alarm Control Terminal.

**Override Allowed**

A simple Y/N character that determines whether or not an emergency conference will override busy destinations. This field is not used by the Sentry Alarm Control Terminal.

**Warning Tone Issued**

A simple Y/N character that determines whether or not an Emergency Conference will issue a warning tone when a caller joins a conference. This field is not used by the Sentry Alarm Control Terminal.

**Window Symbol**

The name of the window symbol associated with an Emergency Conference or Annoyance Trap.

**Contact Database**

The name of the contacts database file used by an Emergency Conference. This field is not used by the Sentry Alarm Control Terminal.

**Authorized Database**

The name of the authorized caller database file used by an Emergency Conference. This field is not used by the Sentry Alarm Control Terminal.

**Sentry Master Database**

The Sentry master database is named “sentry\_m” by default and contains the following fields.

Field Description	Type	Size	Minimum Value	Maximum Value	Example Value
Monitored Number	ASCII	10			5776
Category	ASCII	25			conference
Name	ASCII	25			conference1
Minimum Lines Used	Numeric	2	0	42	0
First Line Number	Numeric	5	0	99999	0
Override Allowed	ASCII	1	n		y
Warning Tone Issued	ASCII	1	y		y
Window Symbol	ASCII	25			ALARM_WIN
Contact Database	ASCII	25			/oai/db/cur/conf1
Authorized Database	ASCII	25			/oai/db/cur/caller1

**Table 2-1 Sentry Master Database Fields**

**Feature Application Database**

The feature application database uses data contained in the sentry master database. It is called “features” by default and contains the following fields.

Field Description	Data Type
Monitored Number	ASCII
Name	ASCII
Window Symbol	ASCII
Category	ASCII

**Table 2-2 Feature Application Database Fields**



## Window Configuration Files

To create window configuration files:

1. Log in as **apmadm** to access the APM Administration Main Menu.
2. At the APM Administration Main Menu, type **U** to exit to UNIX.
3. At the UNIX prompt, type the following to change to the Sentry Alarm Control Terminal default configuration directory:

```
cd /oai/app/sentry/cfg/terminals/default
```

4. Make a feature configuration file for each Sentry Feature by copying the “**feature.def**” file using the following command:

```
cp feature.def <name.cfg>
```

where **<name.cfg>** is a unique name assigned by you. For example,

```
cp feature.def fire.cfg
```

5. Use a UNIX editor (such as vi) to edit each feature configuration file, following the instructions contained in the file’s header. For example,

```
vi fire.cfg
```

6. After the feature configuration files have been created and edited, use the following command to change to the Sentry Alarm Control Terminal configuration directory:

```
cd /oai/app/sentry/cfg/terminals
```

7. Use a UNIX editor (such as vi) to edit the Default Master Configuration file (Mdefault.cfg). Add the full path of each feature configuration file to the list within the Master Configuration file. For example,

```
vi Mdefault.cfg
```

**Note:** Refer to the next section, [Configuration Parameters on page 16](#) and [Feature Window Configuration on page 29](#) for more information about configuration parameters.

## Configuration Parameters

The Sentry Alarm Control Terminal application uses configuration parameters defined in configuration files found in the “/oai/app/sentry/cfg/terminals” directory. The following sections describe the formats and functionality of these files.

### Master Configuration File

When a Sentry Alarm Control Terminal is started it will determine which UNIX tty device it is using (tty01, tty02, etc.). It will then look for a master configuration file in the “/oai/app/sentry/cfg/terminals” directory that is associated with the tty device (“/oai/app/sentry/cfg/terminals/Mtty01.cfg”, “/oai/app/sentry/cfg/terminals/Mtty02.cfg”, etc.).

If a master configuration file has not been created for this tty then the file “Mdefault.cfg” is used by default. Each master configuration file contains a list of configuration file paths. A subdirectory is normally created to hold the configuration files associated with the default configuration and each tty (“/oai/app/sentry/cfg/terminals/default/”, “/oai/app/sentry/cfg/terminals/tty01/”, etc.).

The master configuration file can list files that are located in different directories, allowing different tty devices to share configuration files. Each master configuration file contains a complete path for the following configuration files:

#### **db.cfg**

The data buffer configuration file (See, [Data Buffer Configuration File on page 17](#)).

#### **init.cfg**

The initialization configuration file (See, [Initialization Configuration File on page 21](#)).

#### **logos.cfg**

The screen save configuration file (See, [Screen Saver Configuration File on page 22](#)).

#### **keys.cfg**

The function keys configuration file (See, [Function Keys Configuration File on page 23](#)).

#### **dialogs.cfg**

The dialogs configuration file (See, [Dialogs Configuration File on page 25](#)).

#### **titleBar.cfg**

The title bar configuration file (See, [Title Bar Configuration on page 27](#)).

#### **msgBar.cfg**

The message bar configuration file (See, [Message Bar Configuration on page 28](#)).

#### **login.cfg**

The login screen configuration file (See, [Login Screen Configuration on page 28](#)).

#### **status.cfg**

The status window configuration file (See, [Status Window Configuration on page 28](#)).

#### **xxxxxx.cfg**

One or more feature window configuration files (See, [Feature Window Configuration on page 29](#)).

## Data Buffer Configuration File

The data buffer configuration file, “**db.cfg**”, contains constants and data buffer field definitions. Data buffers are used to store fields of ASCII character information contained in messages or read from a terminal. The fields within a data buffer may be used to build configurable display strings.

The data buffer configuration file contains field definitions consisting of a field symbol, the number of characters in the field, and the offset of the field (offsets start with 0). Data buffer configurations will not require modifications unless the Sentry Alarm Control Terminal application is changed. The following data buffers are defined below.

### Dynamic Window Area Configuration

The dynamic window area is the portion of the screen that is used to display dynamic windows. Usually, this area is located between the title and message bars. The following constants define the dynamic window area:

#### **DYNAMIC\_START**

The screen position of the first row of the dynamic window area (row 0 = the first row of the screen, row 23 = the last row of the screen).

#### **DYNAMIC\_END**

The screen position of the last row of the dynamic window.

### Feature Window Sorting Methods

Each feature window can have a unique sorting method which controls the order of stations in the window. (See, [Feature Window Configuration on page 29.](#)) The sorting method is selected from one of the following:

#### **SORT\_NONE**

Stations are not sorted.

#### **SORT\_BY\_TIME**

Stations are sorted by event time, with the newest events at the top of the window and the oldest events at the bottom.

### Feature Window Filtering Methods

Each feature window can have a unique filtering method which limits station updates to a particular class of station including caller, operator, and source. (See, [Feature Window Configuration on page 29.](#))

The filtering method is selected from one of the following:

#### **PASS\_CALLER**

Stations are not sorted.

#### **PASS\_OP**

Stations with a classification of operator are passed. All other stations are ignored.

#### **PASS\_SRC**

Stations with a classification of source are passed. All other stations are ignored.

**PASS\_OP\_CALLER**

Stations with a classification of operator or caller are passed. All other stations are ignored.

**PASS\_SRC\_CALLER**

Stations with a classification of source or caller are passed. All other stations are ignored.

**PASS\_SRC\_OP**

Stations with a classification of source or operator are passed. All other stations are ignored.

**PASS\_ALL**

All stations are passed.

### **Login Screen User Name and Password Data Buffer Configuration**

The user name and password data buffer is used by the login screen to contain the user name and password. It contains the following fields.

<b>U_NAME</b>	The user name field.
<b>U_PASSWORD</b>	The user password field.

### **Feature Title Data Buffer Configuration**

The feature title data buffer is used to build a feature title string. It contains the following fields:

<b>FEAT_TITLE</b>	The feature title field.
-------------------	--------------------------

### **Feature Statistics Data Buffer Configuration**

The feature statistics data buffer contains feature statistics. The following fields are defined:

<b>FEAT_NAME</b>	The feature name field.
<b>FEAT_EXT</b>	The feature monitored number extension field.
<b>FEAT_RING</b>	The ringing caller count field.
<b>FEAT_ANS</b>	The answered caller count field.
<b>FEAT_REL</b>	The released caller count field.
<b>FEAT_QUEUED</b>	The queued caller count field.
<b>FEAT_ABANDON</b>	The abandoned caller count field.
<b>FEAT_ACTIVE</b>	The active caller count field.
<b>FEAT_IDLE</b>	The idle caller count field.
<b>FEAT_TOTAL</b>	The total caller count field.
<b>FEAT_RECORD</b>	The recording flag field.
<b>FEAT_OFFLINE</b>	The monitor off line flag field.

## Clock and Caller Information Data Buffer Configuration

The clock and caller information data buffer contains date and time fields which may be used to create date and time display strings. The optional caller status fields (along with the date and time fields) are used to display caller status. The following fields are defined:

<b>MONTH_NUM</b>	The numeric month (1...12, where 1 = January, 2 = February, etc.)
<b>MONTH_ABRV</b>	The three character month name (Jan, Feb, etc.).
<b>MONTH_FULL</b>	The full month name (January, February, etc.)
<b>DAY_NUM</b>	The numeric date (1...31).
<b>WEEK_DAY_ABRV</b>	The three character week day (Mon, Tue, etc.).
<b>WEEK_DAY_FULL</b>	The full week day (Monday, Tuesday, etc.).
<b>YEAR_ABRV</b>	The last two digits of the current year (95 for 1995, 96 for 1996, etc.)
<b>YEAR_FULL</b>	The full current year (1995, 1996, etc.).
<b>HOURS_24</b>	The 24 hour value (0...23, where 0 = midnight, 1...11 = 1:00 AM to 11:00 AM, 12 = noon, and 13...23 = 1:00 PM to 11:00 PM).
<b>HOURS_12</b>	The 12 hour value (1...12).
<b>MINUTES</b>	The minutes value (0...59).
<b>SECONDS</b>	The seconds value (0...59).
<b>AM_PM</b>	The AM/PM string ("AM" or "PM").
<b>CALLER_ROW</b>	The caller window row.
<b>CALLER_EXT</b>	The caller's extension.
<b>CALLER_LOC</b>	The location of the caller's extension.
<b>CALLER_STAT</b>	The caller's status ("Released", "Ringing", "Answered", "Queued", or "Abandoned").
<b>CALLER_CLASS</b>	The caller's class ("Operator", "Caller", or "Source").
<b>CALLER_CONNECT</b>	Contains the extension of the party connected to the caller. This data is available for Annoyance Trap calls only

## Function Key Assignments Data Buffer Configuration

The function key assignments data buffer contains the function key assignment descriptions which are displayed in the function key help dialog (see [Function Key Help Dialog Configuration on page 25](#)). A function key assignment description field corresponding to the respective function key may be defined in the function key assignment data buffer. The following function key assignment description fields and the corresponding function keys are defined below.

<b>F1_DESC</b>	F1
<b>F2_DESC</b>	F2
<b>F3_DESC</b>	F3
<b>F4_DESC</b>	F4
<b>F5_DESC</b>	F5
<b>F6_DESC</b>	F6
<b>F7_DESC</b>	F7
<b>F8_DESC</b>	F8
<b>F9_DESC</b>	F9
<b>F10_DESC</b>	F10
<b>F11_DESC</b>	F11
<b>F12_DESC</b>	F12
<b>SHIFT_F1_DESC</b>	Shift-F1
<b>SHIFT_F2_DESC</b>	Shift-F2
<b>SHIFT_F3_DESC</b>	Shift-F3
<b>SHIFT_F4_DESC</b>	Shift-F4
<b>SHIFT_F5_DESC</b>	Shift-F5
<b>SHIFT_F6_DESC</b>	Shift-F6
<b>SHIFT_F7_DESC</b>	Shift-F7
<b>SHIFT_F8_DESC</b>	Shift-F8
<b>SHIFT_F9_DESC</b>	Shift-F9
<b>SHIFT_F10_DESC</b>	Shift-F10
<b>SHIFT_F11_DESC</b>	Shift-F11
<b>SHIFT_F12_DESC</b>	Shift-F12

## Title Bar Terminal Name Data Buffer Configuration

The title bar terminal name data buffer contains the tty terminal name used by the title bar window (see [Title Bar Configuration on page 27](#)). It contains the following fields:

<b>TITLE_TERM</b>	The tty terminal name field.
-------------------	------------------------------

## User Message Data Buffer Configuration

The user message data buffer contains the message displayed in the message bar (see [Message Bar Configuration on page 28](#)). It contains the following fields:

**USER\_MESSAGE**            The user message field.

## Null Text Data Buffer Configuration

The null text data buffer defines an empty data buffer. It contains the following fields:

**NULL\_TEXT**                The null text field.

## Initialization Configuration File

The initialization configuration file, “**init.cfg**” contains configuration parameters which are used during program initialization and contains the following constants:

<b>MON_CHECK_INTERVAL</b>	Specifies the time interval in seconds between monitor application checks. The Sentry Alarm Control Terminal application will periodically check the monitor applications (Emergency Conference, Annoyance Trap, etc.) to see if they are on line.
<b>LOGIN_USED</b>	Enables or disables the log in screen.
<b>SAVER_USED</b>	Enables or disables the screen saver.
<b>VALIDATE_LOG_OFF</b>	Enables or disables the log off validation dialog.
<b>VALIDATE_REMOVE</b>	Enables or disables the caller removal validation dialog.
<b>AUTO_POP_UP</b>	Enables or disables the automatic pop up of active windows.
<b>TERM_NAME</b>	Specifies the terminal name. This string is used in all status and error messages sent to the APM.
<b>INIT_FOCUS</b>	Specifies the window that will get initial focus.
<b>FEAT_DB_NAME</b>	Specifies the name of the feature database (see <a href="#">Feature Application Database on page 14</a> ).
<b>LOG_FILE</b>	Specifies the name of the debug logging file. If this variable is removed, debug logging is disabled.

## Screen Saver Configuration File

The screen saver configuration file is called “**logos.cfg**” timer and displays information used by the screen saver.

### Screen Saver Delay Values

The screen saver uses the following delay values:

<b>SAVER_DELAY</b>	The number of seconds the terminal must be idle before the screen saver is activated.
<b>REFRESH_DELAY</b>	The number of seconds a screen saver logo is displayed before it is refreshed.

### Logo Configuration

The screen saver supports three different logos. A single logo can be displayed, or the screen saver can cycle through all three logos. Each logo definition contains the logo color attributes and the logo text. The following logo configuration parameters are used:

<b>LOGOS_COUNT</b>	A numeric constant that specifies the number of logo definitions in the file.
<b>ALL_LOGOS</b>	A numeric constant which indicates that the screen saver should cycle through all logos. This value must be greater than LOGOS_COUNT
<b>WHICH_LOGO</b>	A numeric constant that specifies which screen saver logo to display. Set WHICH_LOGO to a value between 1 and LOGOS_COUNT to display a specific logo or ALL_LOGOS to cycle through all of the logos.

Each logo definition contains logo color attributes and logo text. The logo definitions use the following syntax, where X is a number between 1 and the value specified in LOGOS\_COUNT

<b>LOGO_X_CLR</b>	The logo color
<b>LOGO_X_TXT</b>	The logo text



## Function Keys Configuration File

The function keys configuration file, “**keys.cfg**”, contains function key definitions. Each function key definition contains a function key symbol, a handler routine index, and an optional handler parameter string. Function key assignments are changed by specifying a different handler index and/or parameter string for a function key symbol.

### Handler Routine Index Values

The handler routine index values are used to identify a function key handler routine. These index values should not be changed unless the Sentry Alarm Control Terminal application is modified. The following index values are defined:

<b>NO_FUNCTION</b>	The no function handler index. This handler is assigned to any function key that will not be used.
<b>STAT_VIS</b>	The status window visible handler index. This handler will toggle the status window on and off.
<b>WIN_FOCUS_PREV</b>	The window focus previous handler index. This handler will switch focus to the previous window.
<b>WIN_FOCUS_NEXT</b>	The window focus next handler index. This handler will switch focus to the next window.
<b>FEATURE_VIS</b>	The feature window visible handler index. This handler will toggle a feature window on and off.
<b>STAT_FOCUS</b>	The status window visible focus handler index. This handler will switch focus between the status and revolving windows.
<b>SHOW_ACTIVE</b>	The show active windows handler index. This handler will show all windows that contain active callers.
<b>CALLER_DEL_ALL</b>	The delete all callers handler index. This handler will delete all callers in a feature window.
<b>CALLER_DEL_IDLE</b>	The delete idle callers handler index. This handler will delete all idle callers in a feature window.
<b>WIN_SCROLL_UP</b>	The window scroll up handler index. This handler scrolls the dynamic windows up.
<b>WIN_SCROLL_DN</b>	The window scroll down handler index. This handler scrolls the dynamic windows down.
<b>MSG_BAR_CLEAR</b>	The clear message bar window handler index. This handler will clear the message bar window.
<b>LOG_OFF</b>	The log off handler index. This handler allows a user to log off the terminal.
<b>KEY_HELP</b>	The function key assignment handler index. This handler displays the function key assignment dialog.
<b>COLOR_HELP</b>	The color assignment handler index. This handler displays the color assignment dialog.
<b>ALARM_OFF</b>	The turn off audio alarm index. This handler will send a message to the Annoyance Trap monitor requesting the deactivation of the audio alarm.

## Function Key Definitions

Function key assignments are controlled by assigning handler routine index values and optional parameter strings to function key symbols. The following function key symbols are defined in the “**keys.cfg**” file, and the data associated with these symbols may be modified as desired to specify function key assignments:

<b>Function key symbol</b>	<b>Function Key</b>
<F1_BAS>	F1 key
<F2_BAS>	F2 key
<F3_BAS>	F3 key
<F4_BAS>	F4 key
<F5_BAS>	F5 key
<F6_BAS>	F6 key
<F7_BAS>	F7 key
<F8_BAS>	F8 key
<F9_BAS>	F9 key
<F10_BAS>	F10 key
<F11_BAS>	F11 key
<F12_BAS>	F12 key
<F1_BAS+SFT>	Shift-F1 key
<F2_BAS+SFT>	Shift-F2 key
<F3_BAS+SFT>	Shift-F3 key
<F4_BAS+SFT>	Shift-F4 key
<F5_BAS+SFT>	Shift-F5 key
<F6_BAS+SFT>	Shift-F6 key
<F7_BAS+SFT>	Shift-F7 key
<F8_BAS+SFT>	Shift-F8 key
<F9_BAS+SFT>	Shift-F9 key
<F10_BAS+SFT>	Shift-F10 key
<F11_BAS+SFT>	Shift-F11 key
<F12_BAS+SFT>	Shift-F12 key

## Dialogs Configuration File

The dialogs configuration file, “**dialogs.cfg**”, contains all pop up dialog window configurations. Each dialog has an associated dialog definition containing the following information:

- Number of rows and columns in the dialog.
- The location of the dialog on the screen.
- The dialog border style and color attributes.
- The dialog title offset, color attributes, and string constant.
- The following text color attributes:
  - Normal text.
  - Highlighted text.
  - Last line in the dialog.
- A list of static and dynamic text fields and color attributes.

All dialogs also have the following configuration parameters:

- Visibility Flag, specifies whether the dialog is initially visible or hidden.
- Anchored Flag, specifies whether the dialog is displayed at a fixed location on the screen, or if it may be moved to another location.
- Resize Allowed Flag, specifies whether the dialog may be resized.
- Focus Allowed Flag, specifies whether the dialog is allowed to receive input focus.

Other dialog configuration parameters may also be specified.

### Function Key Help Dialog Configuration

The function key help dialog configuration defines the appearance of the function key help dialog. It contains the following fields:

<b>HELP_DIAG</b>	The help dialog configuration.
<b>HELP_VIS</b>	The help dialog visible flag.
<b>HELP_ANCHOR</b>	The help dialog anchored flag.
<b>HELP_SCALE</b>	The help dialog resize allowed flag.
<b>HELP_FOC_OK</b>	The help dialog focus allowed flag.

### Log Off Validation Dialog Configuration

The log off validation dialog configuration defines the appearance of the log off validation dialog. It contains the following fields:

<b>LOG_OFF_DIAG</b>	The log off validation dialog configuration.
<b>LOG_OFF_VIS</b>	The log off dialog visible flag.
<b>LOG_OFF_ANCHOR</b>	The log off dialog anchored flag.
<b>LOG_OFF_SCALE</b>	The log off dialog resize allowed flag.
<b>LOG_OFF_FOC_OK</b>	The log off dialog focus allowed flag.

## Caller Removal Validation Dialog Configuration

The caller removal validation dialog configuration defines the appearance of the caller removal validation dialog. It contains the following fields:

<b>CALL_RM_DIAG</b>	The caller removal validation dialog configuration.
<b>CALL_RM_VIS</b>	The caller removal dialog visible flag.
<b>CALL_RM_ANCHOR</b>	The caller removal dialog anchored flag.
<b>CALL_RM_SCALE</b>	The caller removal dialog resize allowed flag.
<b>CALL_RM_FOC_OK</b>	The caller removal dialog focus allowed flag.

## Color Assignments Dialog Configuration

The color assignments dialog configuration defines the appearance of the color assignments dialog. It contains the following fields:

<b>COLORS_DIAG</b>	The color assignments dialog configuration.
<b>COLORS_VIS</b>	The color assignments dialog visible flag.
<b>COLORS_ANCHOR</b>	The color assignments dialog anchored flag.
<b>COLORS_SCALE</b>	The color assignments dialog resize allowed flag.
<b>COLORS_FOC_OK</b>	The color assignments dialog focus allowed flag.
<b>TITLE_COL</b>	The color assignments feature title column value.
<b>RINGING_COL</b>	The color assignments call ringing column value.
<b>ANSWERED_COL</b>	The color assignments call answered column value.
<b>RELEASED_COL</b>	The color assignments call released column value.
<b>QUEUED_COL</b>	The color assignments call queued column value.
<b>ABANDONED_COL</b>	The color assignments call abandoned column value.
<b>MRK_NOR_COL</b>	The color assignments caller marked column value.
<b>MRK_HI_COL</b>	The color assignments caller marked and highlighted column value.

## Windows Configuration Files

The windows configuration files contain information that defines the Sentry Alarm Control Terminal screen layout. Each window has an associated windows definition file containing the following information:

- Number of rows and columns in the window.
- The location of the window on the screen.
- The window border style and color attributes.
- The window title offset, color attributes, and string constant.
- The following text color attributes:
  - Normal text.
  - Highlighted text.
  - Last line in the window.
- A list of static and dynamic text fields and color attributes.
- Visibility Flag: specifies whether the window is initially visible or hidden.
- Anchored Flag: specifies whether the window is displayed at a fixed location on the screen, or if it may be moved to another location.
- Resize Allowed Flag: specifies whether the window may be resized.
- Focus Allowed Flag: specifies whether the window is allowed to receive input focus.

Scrolling windows also have the following configuration parameters:

- Scroll Area Row Offset: for scrolling windows, specifies the scrolling area offset from the top of the window.
- Scroll Area Column Margin: for scrolling windows, specifies the scrolling area margin from the left side of the window.

Other window configuration parameters may also be defined.

## Title Bar Configuration

The title bar configuration defines the appearance of the title bar. It contains the following fields:

<b>TITLE_WIN</b>	The title bar window definition.
<b>CLOCK_FORMAT</b>	The title bar clock format definition.
<b>CLOCK_INTERVAL</b>	The title bar clock refresh interval in seconds.
<b>TITLE_VIS</b>	The title bar visibility flag.
<b>TITLE_ANCHOR</b>	The title bar anchored flag.
<b>TITLE_SCALE</b>	The title bar resize allowed flag.
<b>TITLE_FOC_OK</b>	The title bar focus allowed flag.

## Message Bar Configuration

The message bar configuration defines the appearance of the message bar. It contains the following fields:

<b>MSG_WIN</b>	The message bar window definition.
<b>MSG_VIS</b>	The message bar visible flag.
<b>MSG_ANCHOR</b>	The message bar anchored flag.
<b>MSG_SCALE</b>	The message bar resize allowed flag.
<b>MSG_FOC_OK</b>	The message bar focus allowed flag.

## Login Screen Configuration

The login screen configuration defines the appearance of the login screen. It contains the following fields:

<b>LOGIN_WIN</b>	The login screen window definition.
<b>LOGIN_VIS</b>	The login screen visibility flag.
<b>LOGIN_ANCHOR</b>	The login screen anchored flag.
<b>LOGIN_SCALE</b>	The login screen resize allowed flag.
<b>LOGIN_FOC_OK</b>	The login screen focus allowed flag.

## Status Window Configuration

The status window configuration defines the appearance of the status window. It contains the following fields:

<b>STATUS_WIN</b>	The status window definition.
<b>STATUS_FORMAT</b>	The status window data format definition.
<b>STATUS_ROW_OFF</b>	The status window scroll area row offset.
<b>STATUS_COL_MGN</b>	The status window scroll area column margin.
<b>STATUS_VIS</b>	The status window visible flag.
<b>STATUS_ANCHOR</b>	The status window anchored flag.
<b>STATUS_SCALE</b>	The status window resize allowed flag.
<b>STATUS_FOC_OK</b>	The status window focus allowed flag.
<b>STATUS_HLT_OK</b>	The status window highlight bar visible flag.
<b>STATUS_SEL_NOR</b>	The status window line selected color attribute.
<b>STATUS_SEL_HI</b>	The status window highlighted line selected color attribute.

## Feature Window Configuration

Each feature window has a configuration file that defines the appearance of the window. The configuration file contains the following fields (the characters “XXXX” are replaced with the name of the feature window, such as “FIRE”, “ADMIN”, etc.):

<b>XXXX_WIN</b>	The feature window definition.
<b>XXXX_FORMAT</b>	The feature window data format definition.
<b>XXXX_MONITOR</b>	The name of the monitor application associated with the feature window.
<b>XXXX_ROW_OFF</b>	The feature window scroll area row offset.
<b>XXXX_COL_MGN</b>	The feature window scroll area column margin.
<b>XXXX_VIS</b>	The feature window visible flag.
<b>XXXX_ANCHOR</b>	The feature window anchored flag.
<b>XXXX_SCALE</b>	The feature window resize allowed flag.
<b>XXXX_FOC_OK</b>	The feature window focus allowed flag.
<b>XXXX_HLT_OK</b>	The highlight bar visible flag.
<b>XXXX_SORT</b>	The feature window sort method.
<b>XXXX_FILTER</b>	The feature window filtering method.
<b>XXXX_REL</b>	The feature window caller released color attribute.
<b>XXXX_RING</b>	The feature window caller ringing color attribute.
<b>XXXX_ANS</b>	The feature window caller answered color attribute.
<b>XXXX_QUEUE</b>	The feature window caller queued color attribute.
<b>XXXX_ABND</b>	The feature window caller abandoned color attribute.
<b>XXXX_MRK_NOR</b>	The feature window caller marked color attribute.
<b>XXXX_MRK_HI</b>	The feature window caller marked and highlighted color attribute.

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## Chapter 3 Annoyance Trap

This chapter describes the field entries to make during the installation and configuration of the Annoyance Trap software.

### Overview

The Annoyance Trap program is an OAI application that provides a method for tracking and identifying annoying callers.

Any user can trigger the Annoyance Trap by placing the annoying party on hold and then dialing a designated number. The initiator is then reconnected to the annoying party. Depending upon the application configuration, a designated security operator may be placed in a three-way conference with the initiator and the annoying party, and/or an audio device may be triggered to alert security personal.

The Annoyance Trap program provides support for one or more display terminal applications through an event message protocol. Terminal applications that want to receive messages send a request to the Annoyance program, which will then send event messages to the terminal application as events occur.

The location and status of all parties may be displayed by the Sentry Alarm Control Terminal application. This information can be used to track and identify annoying callers. Note that the Annoyance Trap program does not require a terminal application to create a conference with the security operator and/or trigger the audio device, and can be run alone if there is no requirement for a display terminal. Events may also be saved in a history log file.

The installation and configuration of Annoyance Trap includes the following procedures:

- **Software Installation**
- **Application Configuration**
- **Database Requirements**

### Additional Manuals

In addition to this guide, instructions in the following manuals may provide further assistance in 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 Annoyance Trap are configured in the APM environment and how the Annoyance Trap databases are created, using the entries and values provided in this chapter.

## Software Installation

The Annoyance Trap software must first be loaded from the release media. Remember to use the *Applications Manager (APM) Installation Manual* if you need further instructions for installing software using the APM.

**Note:** *You will be prompted for several values when you install the software. For more information about these and other parameters, refer to the next section, [Configuration on page 40](#).*

1. To begin the Annoyance Trap software installation, log in to the APM Platform Management Menu by typing `apmadm` at the UNIX login prompt, then press Enter. The login and password prompts are shown below.

If your “apmadm” account requires a password, enter the appropriate password at the subsequent password prompt.

```
login: apmadm
password:
```

The APM Administration main menu displays, as illustrated below:

```
NEC America      APM Administration      Wed Jan 31, 1996

      APM Platform Release Rel2.0 (Oct 09, 1995)

              Main Menu
      APM
      Debug Facilities
      Halt APM System
      File Archive
      Installation of Applications/Packages
      Removal of Packages
      Start-up APM System

      Logout
      UNIX

      Enter Option: []

      APM Status: ACTIVE
```

2. Type `i` and press Enter to select the Installation of Applications/Packages option.

The Installation of Application/Packages screen displays.

```
NEC America      APM Administration      Wed - Jan 31, 1996

      Installation of Applications/Packages

      Available Packages are:

      applications      asl      mtl      tcpip      update      x25

      Enter Package to be installed:
```

3. At the “Enter Package to be installed” prompt, type `applications` and press Enter. The “Enter Release Media Device” prompt displays.

```
NEC America      APM Administration      Wed Jan 31, 1996

      Installation of Applications/Packages

      Available Packages are:

      applications      asl      mtl      tcpip      update      x25

      Enter Package to be installed: applications

      Release Media Devices are:

      (F)loppy Disk Device      (C)artridge Tape Device

      Enter Release Media Device:
```

4. Select the floppy disk device as the installation media by typing `f` and pressing Enter. The following screen displays:

```
Installation Procedure

Installing from /dev/fd0

Insert OAI Release Media #1
Enter <Return> to continue:
```

5. Insert the Annoyance Trap diskette into the floppy disk device, and press Enter to continue.

The screen displays files in the application installation. Many files may scroll off the screen, until all of the files from the diskette have been processed.

The “**Has all release media been loaded**” prompt displays, as illustrated below:

```
x oai/app/annoyTrap/install/Mannoi.cfg, 198 bytes, 1 tape blocks
x oai/app/annoyTrap/install/ani.cfg, 2338 bytes, 5 tape blocks
.
.
.
.
.
x oai/app/annoyTrap/bin/annoyTrap, 376592 bytes, 736 tape blocks
x oai/app/annoyTrap.ins, 7969 bytes, 16 tape blocks
x oai/chksum_app, 654 bytes, 2 tape blocks

Has all release media been loaded [y or n] ?
```

6. Type `y` and press `Enter` to indicate that all release media has been loaded.

The APM installation begins processing all of the Annoyance Trap installation files and checking them for correctness. The screen indicates the status of the installation.

```
OAI Platform is at revision 5 for machine i386 (Dec 19 1994 Rel 1.6.1)

annoyTrap Revision: 5      machine type: i386      Version: 1.7
Processing, please wait...
Validating installed files
.....
Validation Completed

                          Installing the Release Files

                          Processing files
```

After the files have been processed, the “root password” prompt displays. In order to complete the Annoyance Trap installation, you must modify certain files that require “root” privileges. The “root password” prompt is illustrated below:

```
NEC America Inc.  Annoyance Trap Installation  Wed - Apr 29, 1998

Installation requires Super User (root) privileges.

Please Enter su/root Password:
```

7. Type in the root password at the prompt and press Enter to continue the Annoyance Trap installation.

The Annoyance Trap installation will create any directory that does not already exist. The paths of the directories will display on the screen.

```
NEC America Inc. Annoyance Trap Installation Wed - Apr 29, 1998

Creating Annoyance Trap directories . . .

/oai/app/sentry created
/oai/app/sentry/bin created
/oai/app/sentry/install created
/oai/app/sentry/cfg created
/oai/app/sentry/cfg/terminals created
/oai/app/sentry/cfg/terminals/default created
/oai/log already exists
/oai/log/sentry created

Press Enter to continue. [ ]
```

8. Press Enter to continue. Next, you will be prompted to enter the “Annoyance Trap Pilot Number”.

```
NEC America Inc. Annoyance Trap Installation Wed - Apr 29, 1998

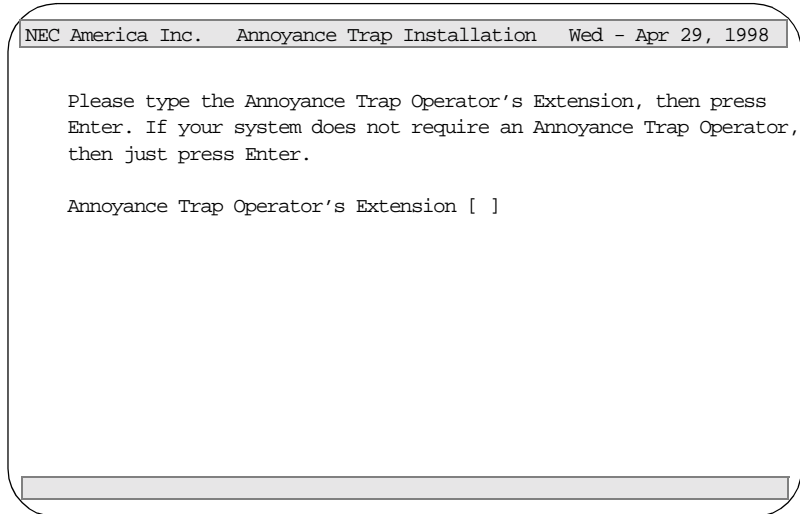
Please type the Annoyance Trap Pilot Number, then press Enter.

Annoyance Trap Pilot Number: [ ]
```

9. Type the number your site will use to trigger Annoyance Trap, such as \*69. This number should contain no more than 5 characters.

10. If you have entered the correct pilot number, type y and press Enter to verify your entry. Otherwise, type n and press Enter, and enter the correct value.

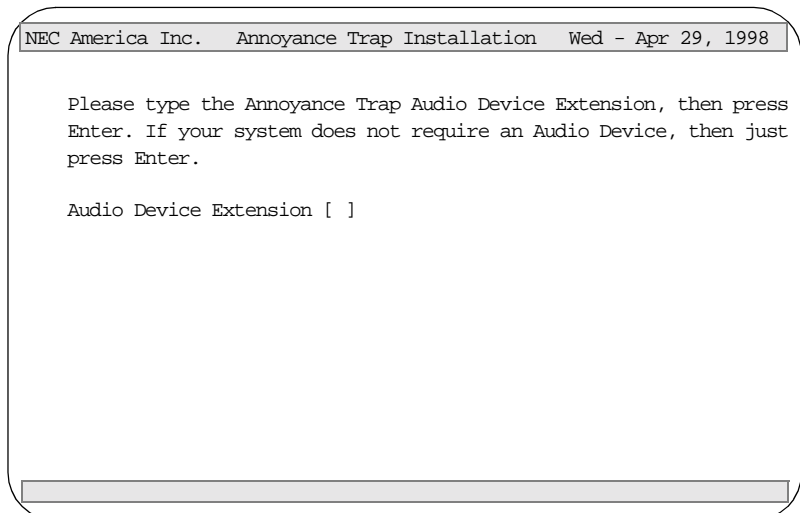
After you have entered and verified the pilot number, the “Annoyance Trap Operator’s Extension” prompt displays.



11. If your system requires an Annoyance Trap operator, type the operator's extension at the prompt, such as 1000, and press Enter. Then, verify that this extension is correct at the next prompt.

If your system does not require an Annoyance Trap operator, press **Enter** without typing an extension.

After entering and verifying the appropriate value, if any, the following screen displays:



12. Do one of the following:
  - If your system requires an Annoyance Trap audio device, type the device's extension at the prompt, such as 1001, and press **Enter**. Verify that this extension is correct at the next prompt, and go to step 13.
  - If your system does not require an Annoyance Trap audio device, press **Enter** without typing an extension. Press **Enter** to verify that you have not entered an extension, then go to step 14.
13. The dummy phone is used to activate the audio device, and is required if an audio device extension has been specified. Type the dummy phone extension at the "Dummy Phone Extension" prompt, and press Enter. Verify this value by typing y and pressing Enter.
14. The following screen displays, whether or not your system has an Annoyance Trap audio device.

```
NEC America Inc. Annoyance Trap Installation Wed - Apr 29, 1998

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

Press Enter to continue [ ]
```

15. Press Enter to continue and the Annoyance Trap Auto-Configuration program installs the default configuration.

```
NEC America Inc. Annoyance Trap Installation Wed - Apr 29, 1998

Annoyance Trap Auto-Configuration

/oai/utlils/autocfg running . . .
/oai/utlils/autocfg: Annoyance Trap application configured.
/oai/utlils/autocfg terminated normally.

Annoyance Trap Auto-Config Complete

Press Enter to continue. [ ]
```



16. Press Enter to continue the installation process.

```
NEC America Inc. Annoyance Trap Installation Wed - Apr 29, 1998

Installing the Annoyance Trap Binary . . .
Installing the Tenant Database Files . . .
Installing the Building Database Files . . .
Installing the History Log Configuration Files. . .

Press Enter to continue. [ ]
```

17. Press Enter to continue and the following screen displays when the installation is complete.

```
NEC America Inc. Annoyance Trap Installation Wed - Apr 29, 1998

Annoyance Trap Installation Complete.

Press Enter to continue. [ ]
```

18. Press Enter.

## Configuration

The Annoyance Trap software is configured automatically during installation if you answer “yes” to the autoconfig prompt. You may also configure Annoyance Trap manually by using the Add Function of the Application Configuration option on the APM System Administration menu. The default application name is Annoyance\_Trap.

**Note:** *This section contains information that is entered in the Annoyance Trap configuration file. For specific instructions on what these parameters mean and how to make these entries, use the APM Operations Manual.*

## Application Characteristics

When manually adding Annoyance Trap to the APM Application Configuration file, define the parameters as follows:

**Note:** *These parameters are defined automatically if you answered “yes” to the autoconfig prompt during installation.*

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

## Primary Configuration Parameters

These parameters are defined automatically if you answered “yes” to the autoconfig prompt during installation. On the APM Configuration Entry screen, make the entries indicated below for each Annoyance Trap parameter. Entries for parameters marked by an asterisk (\*) must be made exactly as shown. Other entries are examples and are site-dependent.

**Note:** Use the instructions provided for this option in the APM Operations Manual.

Parameter	Entry	Description
<b>Name</b>	Annoyance_Trap	The application name to be displayed in the APM menus. This name is displayed exactly as you enter it here, including case.
<b>Exec Filename*</b>	/oai/app/sentry/bin/annoyTrap	Indicates the path name of the executable file.
<b>Group*</b>	SENTRY	Names the group to which Annoyance Trap is associated.
<b>Response Mode*</b>	I(gnore)	Indicates the action that the APM is to take with Annoyance Trap should a member of the group terminate.
<b>Initialization Batch</b>	N(o)	Indicates whether or not (Yes or No) Annoyance Trap is to be initialized automatically when the OAI system is initialized.
<b>Termination Mode*</b>	Message	Indicates how the APM is to notify Annoyance Trap to terminate.
<b>Standard Output</b>	/dev/null	Designates the file into which Annoyance Trap output is redirected.
<b>Number of Restarts</b>	0	Indicates how many times the APM may restart Annoyance Trap after it terminates erroneously.

**OAI Facilities**

These NEAX 2400 facilities are set up automatically if you answered “yes” to the autoconfig prompt during installation. To manually set up the facilities, use the Facilities command on the APM Configuration Entry screen and follow the instructions in the *APM Operations Manual*.

Parameter	Entry	Description
Facilities	SCF SMFR SMFN	The OAI facilities required by Annoyance Trap.

## Secondary OAI Configuration Parameters

These parameters are defined automatically if you answered “yes” to the autoconfig prompt during installation. Use the OAI-Conf command on the APM Configuration Entry screen to make the entries indicated below for each parameter. Entries for parameters marked by an asterisk (\*) must be made exactly as shown. Other entries are examples and are site-dependent.

**Note:** Use the instructions provided for this option in the APM Operations Manual.

Parameter	Entry	Description
<b>Database Name #1*</b>	/oai/db/cur/blding	The name of the building database. If this parameter is blank or invalid, the Annoyance Trap program terminates.
<b>Database Name #2*</b>	/oai/db/cur/tenants	The name of the tenant number database. If this parameter is blank, the Annoyance Trap program sends a warning message to the APM and the tenant number supplied by the OAI configuration is used by default for all extensions. If an invalid name is entered, an error message is sent to the APM and the Annoyance Trap program terminates. <i>For more information about databases, see <a href="#">Database Requirements on page 45</a></i>
<b>Timeout Value #1</b>	(blank)	Not used.
<b>Timeout Value #2</b>	(blank)	Not used.
<b>Tenant Number</b>	1	Specifies the number of the tenant that Annoyance Trap serves.
<b>Source Link Name</b>	OAI1TCP	Identifies the port on the source side of the communication link.
<b>Destination Link Name</b>	PBX1TCP	Identifies the port on the destination side of the communication link.
<b>Association Recovery</b>	30	Designates the number of seconds Annoyance Trap waits before trying to re-establish an association with the NEAX that has been released.

## User-Defined Parameters

Parameter	Entry	Description
User Defined #1	/oai/app/sentry/cfg/history/ Mannoy.cfg	The name of the history logging master configuration file (See Appendix A). If this parameter is blank, the Annoyance Trap program sends a warning message to the APM. If an invalid file name is entered, an error message is sent to the APM and the Annoyance Trap program terminates.

**Note:** The following parameters contain configuration pairs consisting of a keyword, at least one blank space, and an option. Multiple configuration pairs may be specified in a single parameter if space permits. Case is ignored for keywords, but options must match exactly. The configuration pairs may occur in any order, and the following keywords and options are supported

User Defined #2	trapPilot nnnnn	Specifies the pilot number used to trigger Annoyance Trap. Valid syntax is  trapPilot <nnnnn>  where “nnnnn” specifies the pilot number, which can be no more than five digits. If an invalid option is specified, the Annoyance Trap program sends an error message to the APM and terminates.
User Defined #3	trapContact nnnnn	Specifies the optional Annoyance Trap security operator. Valid syntax is  trapContact <nnnnn>  where “nnnnn” specifies the security operator’s extension number, which can be no more than five digits. If this option is blank or invalid, the Annoyance Trap program sends a warning message to the APM.
User Defined #4	audioDevice nnnnn	Specifies the optional audio device extension. Valid syntax is  audioDevice <nnnnn>  where “nnnnn” specifies the audio device extension number, which can be no more than five digits. If this option is blank or invalid, the Annoyance Trap program sends a warning message to the APM.
User Defined #5	dummyPhone nnnnn	Specifies the dummy phone extension. The dummy phone is used to activate the audio device, and is required if an audio device extension has been specified. Valid syntax is  dummyPhone <nnnnn>  where “nnnnn” specifies the dummy phone extension, which can be no more than five digits. If an audio device has been specified and this option is blank or invalid, the Annoyance Trap program sends an error message to the APM and terminates.
User Defined #6	debug stdout, debug stderr, debug <filename>	Specifies debug logging to stdout, stderr, or another UNIX filename. Valid syntax for specifying a UNIX filename is  debug <filename>  where “filename” is the UNIX filename. If this parameter is omitted, debug logging is disabled (the default setting after autoconfig). If an invalid option is specified, the Annoyance Trap program sends an error message to the APM and terminates.

## Database Requirements

Annoyance Trap requires two databases: the Building database and the Tenant database.

This section contains needed to create Emergency Conference databases. Use this information with the procedural instructions in the *APM Operations Manual*. If you encounter messages during this process, refer to the “Process” and “Error Messages” chapters of the *APM Operations Manual*.

## Database Creation

The following steps are done automatically during installation:

- 1. Create a Master Definition File**  
Create the master definition file that defines the fields in the master database file.
- 2. Create an Application Definition File**  
Create a definition file for the Annoyance Trap database. This file defines the formats by which data from the master file is to be converted to meet the needs of Annoyance Trap.

## Database Records

After database is created, perform the following steps to add, modify, or delete records:

- 1. Build a Master Database File**  
Enter data (such as phone extension numbers) into the master database fields that were defined in the master definition file.
- 2. Process the Application Database**  
Use the **Process Application Databases** option on the APM Database Administration menu to create the file that will be used by Annoyance Trap. When the **Process** option is activated, data is drawn from the master database and converted to the formats specified in the application definition file.
- 3. Install the Application Database**  
Use the **Install Application Databases** option on the APM Database Administration menu to enable Annoyance Trap to copy its database.
- 4. Reboot the Annoyance Trap application**

## Building Database

The Building database is shared with other Sentry applications, so you might not have to build it for Annoyance Trap. You will receive a message from the APM if you try to create the Building database and it already exists.

The Building database contains a list of extensions and the location of each extension. A building location can be associated with an individual numeric extension or a range of numeric extensions. A given building can have more than one record if all of the extensions located in it are not consecutive. Each building database record contains the following fields:

- **First Phone** - The first extension in the range of extensions.
- **Last Phone** - The last extension in the range of extensions.
- **Building ID** - An ASCII string containing the building location.

The Building master database is named “blding\_m” by default and contains the following fields.

Field Description	Type	Size	Minimum Value	Maximum Value
First Phone	Numeric	5	0	99999
Last Phone	Numeric	5	0	99999
Building ID	ASCII	24		

**Table 3-1 Building Master Database Fields**

The Building application database is named “blding” by default and contains the following fields.

Field Description	Data Type
First Phone	Long Integer
Last Phone	Long Integer
Building ID	ASCII

**Table 3-2 Building Application Database Fields**



## Tenant Number Database

The Tenant Number database is shared with other Sentry applications, so you might not have to build it for Annoyance Trap. You will receive a message from the APM if you try to build the Tenant database and it already exists.

The Tenant Number 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 '#'. If all extensions have the same tenant number, then this database is not required and the tenant number provided by the OAI configuration may be used by default. Each tenant number database record contains the following fields:

- **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.

The Tenant Number master database is named "tenant\_m" by default and contains the following fields:

Field Description	Type	Size	Minimum Value	Maximum Value
First Extension	ASCII	10		
Last Extension	ASCII	10		
Tenant Number	Numeric	3	1	255

**Table 3-3 Tenant Master Database Fields**

The Tenant Number application database is named "tenants" by default and contain the following fields:

Field Description	Data Type
First Extension	ASCII
Last Extension	ASCII
Tenant Number	Short Integer

**Table 3-4 Tenant Number Application Database Fields**

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## Chapter 4 Emergency Conference

This chapter describes the field entries to make during the installation and configuration of the Emergency Conference software. For information on using Emergency Conference, see the *Emergency Conference User Guide*.

### Overview

The Emergency Conference program is an OAI application that allows a user to call a designated emergency conference number and to connect to a set of predefined destination extensions in a conference call. Additional callers can be added, up to the predefined limited for the conference. Once the conference is full, additional callers are queued. All parties (both calling and destination) are fully connected in the conversation. By default, any caller may initiate or join a conference; however, each emergency conference can restrict access using an optional list of authorized callers.

Each multiple party conference is created using OAI to connect all of the extensions to one or more NEC 8 party conference cards.

Each emergency conference has at least one destination extension designated. Every time a caller connects to the emergency conference, any destination extension that is not already connected to the conference will be reconnected. If the destination extension is busy, it will not be connected unless the emergency conference has been configured to “override” all non-conference calls. If “override” is in effect, the busy destination extension will hear an audible tone, the prior connect will be released and the extension will be connected to the emergency conference.

The calling extension will be joined to the emergency conference if the conference is not already full. If the conference is full, then the calling extensions will be queued up and serviced in the order in which they have called.

The Emergency Conference program provides support for one or more display terminal applications through an event message protocol. Terminal applications that want to receive messages send a request to the Emergency Conference program, which will then send event messages to the terminal application as they occur.

The Emergency Conference program does not require any terminal applications to perform the conferencing tasks, and can be run alone if there is no requirement for a display terminal. Events may also be saved in a history log file.

The installation and configuration of Emergency Conference includes the following procedures:

- **Software Installation**
- **Application Configuration**
- **Database Requirements**

## Additional Manuals

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 Emergency Conference are configured in the APM environment and how the Emergency Conference databases are created, using the entries and values provided in this chapter.

## Software Installation

The Emergency Conference software must first be loaded from the release media. Remember to use the *Applications Manager (APM) Installation Manual* if you need further instructions for installing software using the APM.

**Note:** *You will be prompted for several values when you install the software. For more information about these and other parameters, refer to the next section, [Configuration on page 61](#).*

1. To begin the Emergency Conference software installation, log in to the APM Platform Management Menu by typing **apmadm** at the UNIX login prompt, then press **Enter**. The login and password prompts are shown below.

If your “apmadm” account requires a password, enter the appropriate password at the subsequent password prompt.

```
login: apmadm
password:
```

The APM Administration main menu displays, as illustrated below:

```
NEC America      APM Administration      Wed Jan 31, 1996
APM Platform Release Rel2.0 (Oct 09, 1995)
Main Menu
  APM
  Debug Facilities
  Halt APM System
  File Archive
  Installation of Applications/Packages
  Removal of Packages
  Start-up APM System
  Logout
  UNIX
Enter Option: []
APM Status: ACTIVE
```

2. Type **i** and press **Enter** to select the Installation of Applications/Packages option.

The Installation of Application/Packages screen displays.

```
NEC America      APM Administration      Wed - Jan 31, 1996
Installation of Applications/Packages
Available Packages are:
applications  asl  mtl  tcpip  update  x25
Enter Package to be installed:
```

3. At the “Enter Package to be installed” prompt, type **applications** and press **Enter**.

The “**Enter Release Media Device**” prompt displays.

```
NEC America      APM Administration      Wed Jan 31, 1996

      Installation of Applications/Packages

      Available Packages are:

      applications      asl      mtl      tcpip      update      x25

Enter Package to be installed: applications

      Release Media Devices are:

      (F)loppy Disk Device      (C)artridge Tape Device

Enter Release Media Device:
```

4. Select the floppy disk device as the installation media by typing **f** and pressing **Enter**.

The following screen displays:

```
      Installation Procedure

      Installing from /dev/fd0

      Insert OAI Release Media #1
      Enter <Return> to continue:
```

5. Insert the Emergency Conference diskette into the floppy disk device, and press **Enter** to continue.

The screen displays files in the application installation. Many files may scroll off the screen, until all of the files from the diskette have been processed.

The “Has all release media been loaded” prompt displays, as illustrated below:

```
x oai/app/econf/install/Mconf.cfg, 161 bytes, 1 tape blocks
x oai/app/econf/install/blding.adf, 94 bytes, 1 tape blocks
x oai/app/econf/install/blding_m.mdf, 210 bytes, 1 tape blocks
.
.
.
.

x oai/app/econf/bin/conference, 418059 bytes, 817 tape blocks
x oai/app/econf.ins, 8034 bytes, 16 tape blocks
x oai/chksum_app, 721 bytes, 2 tape blocks

Has all release media been loaded [y or n] ?
```

- 6. Type **y** and press **Enter** to indicate that all release media has been loaded. The APM installation begins, processing all of the Emergency Conference installation files and checking them for correctness. The screen indicates the status of the installation.

```
OAI Platform is at revision 5 for machine i386 (Dec 19 1994 Rel 1.6.1)

econf Revision: 5      machine type: i386      Version: 1.7
Processing, please wait...
Validating installed files
.....
Validation Completed

                Installing the Release Files

                Processing files
```

After the files have been processed, the “root password” prompt displays. In order to complete the Emergency Conference installation, you must modify certain files that require “root” privileges.

```
NEC America Inc. Emergency Conference Installation Wed - Apr 29, 1998

Installation requires Super User (root) privileges.

Please Enter su/root Password:
```



7. Type in the root password at the prompt and press **Enter** to continue the Emergency Conference installation.

The Emergency Conference installation creates any directories that do not already exist. The paths of the directories display on the screen, as illustrated below.

```
NEC America Inc. Emergency Conference Installation Wed - Apr 29, 1998

Creating Emergency Conference directories . . .

/oai/app/sentry created
/oai/app/sentry/bin created
/oai/app/sentry/install created
/oai/app/sentry/cfg created
/oai/app/sentry/cfg/history created
/oai/log already exists
/oai/log/sentry created

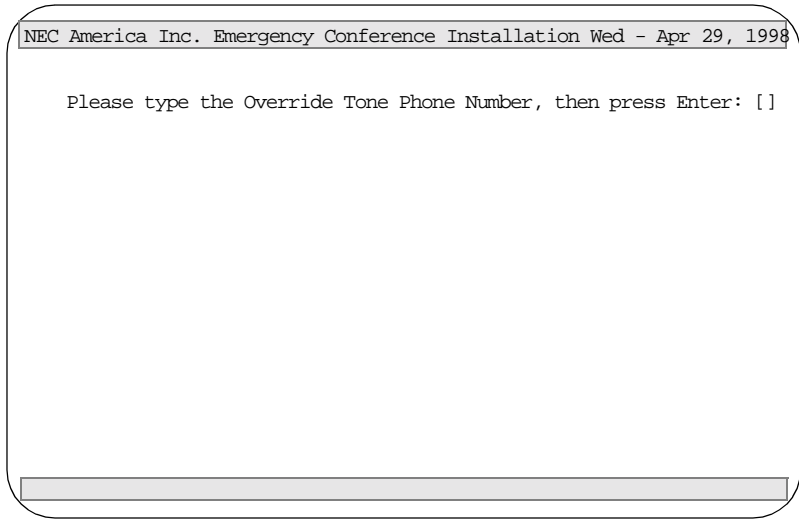
Press Enter to continue. [ ]
```

8. Press **Enter**. The “Override Conference Pilot Number” prompt displays:

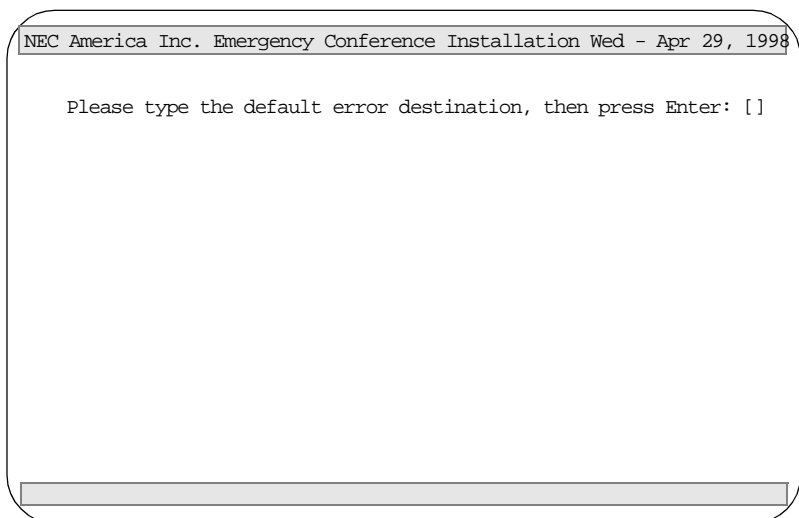
```
NEC America Inc. Emergency Conference Installation Wed - Apr 29, 1998

Please type the Override Conference Pilot Number, then press Enter:[]
```

- 9. Type the number your site will use to override a busy destination, such as 1000. This number can contain no more than 5 characters.
- 10. If you have entered the correct pilot number, type **y** and press **Enter** to verify your entry. Otherwise, type **n** and press **Enter**, and enter the correct value.  
After you have entered and verified the pilot number, the “**Override Tone Phone Number**” prompt displays.



- 11. The **Override Tone Phone** number specifies the dummy phone extension which is used to provide a warning tone when a busy destination is overridden. Type the appropriate dummy phone number, such as 1001, and press **Enter**.  
Verify this number by typing **y** and pressing **Enter**.  
The “**default error destination**” prompt displays.



12. The default error destination specifies the extension number of the destination that receives transferred parties that could not be reconnected to the transferring party. Type the extension number to receive transferred parties when the line is busy, and press **Enter**. Type **y** and press **Enter** to verify this number.

```
NEC America Inc. Emergency Conference Installation Wed - Apr 29, 1998

Do you want released contacts to be redialed if a caller joins
an active conference?(y/n) []
```

13. If you want released contacts to be redialed if a caller joins an active conference, type **y** and press **Enter** twice.

```
NEC America Inc. Emergency Conference Installation Wed - Apr 29, 1998

During initialization, do you want parties connected to a
conference call set to be automatically released? (y/n) []
```

14. If you want parties to be connected to a conference card set to be automatically released during initialization, type **y** and press **Enter** twice. Otherwise, type **n** and press **Enter**. Confirm your entry at the prompt. The “Service Feature Class” prompt displays.

```
NEC America Inc. Emergency Conference Installation Wed - Apr 29, 1998

Are you using a Service Feature Class (SFC) to disable the flash
hook feature while a station is connected to a conference? (y/n) []
```

15. Do one of the following:
- If you want to disable the flash hook feature while a station is connected to a conference, type **y** and press **Enter**.
  - If you do not want to disable the flash hook feature while a station is connected to a conference, type **n** and press **Enter**. Then go to step 17.
16. If you wanted to disable the flash hook feature while a station is connected to a conference, type the number between 1 and 15 that you want to use to disable the feature and press **Enter**. Then verify this number by typing **y** and pressing **Enter**.

```
NEC America Inc. Emergency Conference Installation Wed - Apr 29, 1998

Please type the Service Feature Class (SFC) Number (1...15)
used to disable the flash hook feature, then press Enter? []
```

17. The Emergency Conference Auto-Configuration program installs the default configuration. This screen displays whether or not you disabled the flash hook feature.

```
NEC America Inc. Emergency Conference Installation Wed - Apr 29, 1998

The default Emergency Conference Application Configuration
will now be installed by the autoconfig program. After the
Emergency Conference 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. [ ]
```

18. Press **Enter** to start the auto-configuration. The status of the configuration displays, as illustrated below:

```
NEC America Inc. Emergency Conference Installation Wed - Apr 29, 1998

Emergency Conference Auto-Configuration

/oai/utlils/autocfg running . . .
/oai/utlils/autocfg: Sentry_Conference application configured.
/oai/utlils/autocfg terminated normally.

Emergency Conference Auto-Config Complete

Press Enter to continue. [ ]
```

- 19. Press **Enter** to continue the installation process.

```
NEC America Inc. Emergency Conference Installation Wed - Apr 29, 1998

Installing the Emergency Conference Binary . . .
Installing the Conference Database Files . . .
Installing the Conference Card Database Files . . .
Installing the Tenant Database Files . . .
Installing the Building Database Files . . .
Installing example Contact Database Files . . .
Installing example Authorized Caller Database Files . . .
Installing the History Log Configuration Files . . .
Press Enter to continue. [ ]
```

- 20. Press **Enter** to continue.  
The following screen displays when the installation is complete.

```
NEC America Inc. Emergency Conference Installation Wed - Apr 29, 1998

Emergency Conference Installation Complete.
Press enter to Continue. [ ]
```

- 21. Press **Enter**.

## Configuration

The Emergency Conference software is configured automatically during installation if you answer “yes” to the autoconfig prompt. You may also configure Emergency Conference manually by using the Add Function of the Application Configuration option on the APM System Administration menu. The default application name is Sentry\_Conference.

**Note:** *This section contains information that is entered in the Emergency Conference configuration file. For specific instructions on what these parameters mean and how to make these entries, use the APM Operations Manual.*

## Application Characteristics

When manually adding Emergency Conference to the APM Application Configuration file, define the parameters as follows:

**Note:** *These parameters are defined automatically if you answered “yes” to the auto-config prompt during installation.*

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

## Primary Configuration Parameters

These parameters are defined automatically if you answered “yes” to the autoconfig prompt during installation. On the APM Configuration Entry screen, make the entries indicated below for each Emergency Conference parameter. Entries for parameters marked by an asterisk (\*) must be made exactly as shown. Other entries are examples and are site-dependent.

**Note:** Use the instructions provided for this option in the APM Operations Manual.

Parameter	Entry	Description
<b>Name</b>	Sentry_Conference	The application name to be displayed in the APM menus. This name is displayed exactly as you enter it here, including case.
<b>Exec Filename*</b>	/oai/app/sentry/bin/conference	Indicates the path name of the executable file.
<b>Group*</b>	SENTRY	Names the group to which Emergency Conference is associated.
<b>Response Mode*</b>	I(gnore)	Indicates the action that the APM is to take with Emergency Conference should a member of the group terminate.
<b>Initialization Batch</b>	N(o)	Indicates whether or not (Yes or No) Emergency Conference is to be initialized automatically when the OAI system is initialized.
<b>Termination Mode*</b>	Message	Indicates how the APM is to notify Emergency Conference to terminate.
<b>Standard Output</b>	/dev/null	Designates the file into which Emergency Conference output is redirected.
<b>Number of Restarts</b>	0	Indicates how many times the APM may restart Emergency Conference after it terminates erroneously.



## OAI Facilities

These NEAX 2400 facilities are set up automatically if you answered “yes” to the autoconfig prompt during installation. To manually set up the facilities, use the Facilities command on the APM Configuration Entry screen and follow the instructions in the *APM Operations Manual*.

Parameter	Entry	Description
Facilities	RCF SCF SMFR SMFN	Required by OAI Facilities Emergency Conference

## Secondary OAI Configuration Parameters

These parameters are defined automatically if you answered “yes” to the autoconfig prompt during installation. Use the OAI-Conf command on the APM Configuration Entry screen to make the entries indicated below for each parameter. Entries for parameters marked by an asterisk (\*) must be made exactly as shown. Other entries are examples and are site-dependent.

**Note:** Use the instructions provided for this option in the *APM Operations Manual*.

Parameter	Entry	Description
Database Name #1*	/oai/db/cur/sentry	The name of the sentry database. If this parameter is blank or invalid, the Emergency Conference program terminates.
Database Name #2*	/oai/db/cur/cards	The name of the conference card database. If this parameter is blank or invalid, the Emergency Conference program terminates. <i>For more information about databases, see <a href="#">Database Requirements on page 66</a></i>
Timeout Value #1	(blank)	Not used.
Timeout Value #2	(blank)	Not used.
Tenant Number	1	Specifies the number of the tenant that Emergency Conference serves.
Source Link Name	OAI1TCP	Identifies the port on the source side of the communication link.
Destination Link Name	PBX1TC	Identifies the port on the destination side of the communication link.
Association Recovery	30	Designates the number of seconds Emergency Conference waits before trying to re-establish an association with the NEAX that has been released.

## User-Defined Parameters

Parameter	Entry	Description
User Defined #1	/oai/app/sentry/cfg/history/Mconf.cfg	The name of the history logging master configuration file (See Appendix A). If this parameter is blank, the Emergency Conference program sends a warning message to the APM. If an invalid file name is entered, an error message is sent to the APM and the Emergency Conference program terminates.
User Defined #2	/oai/db/cur/tenants	Contains the name of the Tenant Number database (see <a href="#">Database Requirements on page 66</a> ). If this parameter is blank, the Emergency Conference program sends a warning message to the APM and the tenant number supplied by the OAI configuration is used by default for all extensions. If an invalid parameter is specified, an error message is sent to the APM and the Emergency Conference program terminates.
User Defined #3	/oai/db/cur/blding	Contains the name of the Building database (see <a href="#">Database Requirements on page 66</a> ). If this parameter is blank or invalid, an error message is sent to the APM and the Emergency Conference program terminates.

**Note:** *The following parameters contain configuration pairs consisting of a keyword, at least one blank space, and an option. Multiple configuration pairs may be specified in a single parameter if space permits. Case is ignored for keywords, but options must match exactly. The configuration pairs may occur in any order, and the following keywords and options are supported.*

User Defined #4	overridePilot nnnn	Specifies the pilot number required to override a busy destination. Valid syntax is  <pre>overridePilot &lt;nnnn&gt;</pre> where “nnnn” is a monitored number which specifies the pilot number and can be no more than five digits. If this option is invalid, the Emergency Conference program sends a error message to the APM and terminates. Assign this number on the MAT using the AMNO command.
User Defined #5	overrideTonePhone nnnnn	Specifies the dummy phone extension. The dummy phone is used to provide a warning tone when a busy destination is overridden. Valid syntax is  <pre>overrideTonePhone &lt;nnnnn&gt;</pre> where “nnnnn” specifies the dummy telephone number, which can be no more than five digits. If this option is invalid, the Emergency Conference program sends an error message to the APM and terminates. The dummy phone is a D <sup>term</sup> station with off hook suppression enabled.
User Defined #6	redialReleasedContacts	Specifies whether released contacts are dialed immediately when a new caller dials the conference monitored number. Valid syntax is  <pre>redialReleasedContacts &lt;TRUE/FALSE&gt;</pre> where “TRUE” indicates that idle contacts are always dialed when a caller initiates a conference. “FALSE” indicates that a contact that has released will not be dialed until all contacts have released.

<b>User Defined #7</b>	forceCardSetClear	<p>Specifies how stations connected to dedicated card set lines are handled during initiation. Valid syntax is</p> <pre style="text-align: center;">forceCardSetClear &lt;TRUE/FALSE&gt;</pre> <p>where “TRUE” indicates that the stations connected to dedicated card set lines are released. “FALSE” indicates that stations connected to dedicated card set lines are not released.</p>
<b>User Defined #8</b>	errorDestination	<p>Specifies the extension number of the destination that receives transferred parties that could not be reconnected to the transferring party. Valid syntax is</p> <pre style="text-align: center;">errorDestination &lt;number&gt;</pre> <p>where “number” specifies the pilot number. If an invalid option is specified, the default value of “0” is used.</p>
<b>User Define #9</b>	flashHookDisableSFC	<p>Specifies the service feature class used to disable a station’s flash hook ability while the station is connected to a conference card line. Valid syntax is</p> <pre style="text-align: center;">flashHookDisableSFC &lt;number&gt;</pre> <p>where “number” is an OAI Service Feature Class value from 1 to 15. If an invalid option is specified, the Emergency Conference program sends an error message to the APM and terminates. If this parameter is not specified, then a station will be able to flash hook while connected to a conference card line. Every station connected to a conference will temporarily change to this SFC; therefore, you must use the ASFC MAT command; SFI=24 allows this SFC.</p>
<b>User Defined #10</b>	debug	<p>Enables debug logging to stdout, stderr, or a UNIX file. Valid debug pairs are</p> <pre style="text-align: center;">debug stdout, debug stderr, or debug &lt;filename&gt;</pre> <p>where “filename” specifies a UNIX filename. If an invalid option is specified, the Emergency Conference program sends an error message to the APM and terminates.</p>

## Database Requirements

Emergency Conference requires six databases: Sentry, Conference Card, Tenant Number, Building, Contacts, and Authorized Caller.

This section contains information you need to create Emergency Conference databases. Use this information with the procedural instructions in the *APM Operations Manual*. If you encounter messages during this process, refer to the “Process” and “Error Messages” chapters of the *APM Operations Manual*.

### Database Creation

The following steps are done automatically during installation:

- 1. Create a Master Definition File**  
Create the master definition file that defines the fields in the master database file.
- 2. Create an Application Definition File**  
Create a definition file for the Emergency Conference database. This file defines the formats by which data from the master file is to be converted to meet the needs of Emergency Conference.

### Database Records

After database is created, perform the following steps to add, modify, or delete records:

- 1. Build a Master Database File**  
Enter data (such as phone extension numbers) into the master database fields that were defined in the master definition file.
- 2. Process the Application Database**  
Use the **Process Application Databases** option on the APM Database Administration menu to create the file that will be used by Emergency Conference. When the **Process** option is activated, data is drawn from the master database and converted to the formats specified in the application definition file.
- 3. Install the Application Database**  
Use the **Install Application Databases** option on the APM Database Administration menu to enable Emergency Conference to copy its database.
- 4. Reboot the Emergency Conference application**

## Sentry Database

The Sentry database contains information used by the Emergency Conference, Emergency Conference, and the Sentry Alarm Control Terminal applications. Each database record contains the following fields:

### Monitored Number

The monitored number used by the caller to access the Emergency Conference or Annoyance Trap.

### Category

An ASCII string containing the record category, which is set to ‘conference’ for Emergency Conference records or ‘annoyance’ for Annoyance Trap records.

### Name

An ASCII string containing the Emergency Conference or Annoyance Trap name.

### Minimum Lines Used

The minimum number of lines required by an Emergency Conference. When reserving a conference card set from the conference card set pool (see [Conference Card Database on page 70](#)) the first available card set that contains at least this number of lines will be returned. A value of zero will cause the first available set with the smallest number of lines to be returned. If a dedicated card set is used, this value has no effect.

### First Line Number

The first line number of the dedicated conference card set used by this Emergency Conference. If this value is zero, a conference card set from the conference card set pool will be used (see [Conference Card Database on page 70](#)).

### Override Allowed

A simple Y/N character that determines whether or not this emergency conference will override busy destinations.

### Warning Tone Issued

A simple Y/N character that determines whether or not this Emergency Conference will issue a warning tone when a caller joins a conference.

### Window Symbol

The name of the window symbol associated with this Emergency Conference or Annoyance Trap. This field is used by Sentry Alarm Control Terminal application.

### Contact Database

The name and path of the contacts database file (see [Contacts Database on page 73](#)) used by this Emergency Conference, for example “/oai/db/cur/conf1”. The file specified in this field contains a list of contacts that are connected to the conference card set when a user initiates this conference. If this field is blank or the specified database is empty, then no contacts are defined for this conference.

### Authorized Database

The name and path of the authorized caller database file (see [Authorized Caller Database on page 74](#)) used by this Emergency Conference, for example “/oai/db/cur/caller1”. The file specified in this field contains a list of extensions that are

allowed to initiate this conference. If this field is blank or the specified database is empty, then this conference may be initiated from any extension. If you use the name and path of the contact database, then only the contacts can be authorized.

**Sentry Database  
(Continued)**

The Sentry master database is named “sentry\_m” by default and contains the following fields.

Field Description	Type	Size	Minimum Value	Maximum Value	Example Value
Monitored Number	ASCII	10			5776
Category	ASCII	25			conference
Name	ASCII	25			conference1
Minimum Lines Used	Numeric	2	0	42	0
First Line Number	Numeric	5	0	99999	0
Override Allowed	ASCII	1	n		y
Warning Tone Issued	ASCII	1	y		y
Window Symbol	ASCII	25			ALARM_WIN
Contact Database	ASCII	25			/oai/db/cur/conf1
Authorized Database	ASCII	25			/oai/db/cur/caller1

**Table 4-1 Sentry Master Database Fields**

The Sentry application database is named “sentry” by default and contains the following fields.

Field Description	Data Type
Monitored Number	ASCII
Category	ASCII
Name	ASCII
Minimum Lines Used	Short Integer
First Line Number	Long Integer
Override Allowed	ASCII
Warning Tone Issued	ASCII
Contact Database	ASCII
Authorized Database	ASCII

**Table 4-2 Sentry Application Database Fields**

## Conference Card Database

The conference card database contains a list of conference card sets. Conference card sets can be configured as a dedicated or pool sets. A dedicated set is reserved by specifying the first extension in the set and is normally associated with a specific conference. A pool set is reserved on a first come, first serve basis and can be used by several conferences sequentially. Each conference card database record contains the following fields:

- **First Extension** - The first extension in the card set. All other extensions are assumed to follow in ascending order.
- **Available Extensions** - The number of extensions in the set. This should be 8 for a single card set, or a multiple of 6 for a multi-card set.
- **In Pool** - A simple Y/N character that specifies if this is a dedicated set ('N') or in the pool ('Y').

The Conference Card master database is named "Cards\_m" by default and contains the following fields.

Field Description	Type	Size	Minimum Value	Maximum Value
First Extension	Numeric	5	0	99999
Available Extensions	Numeric	2	0	42
In Pool	ASCII	1	n	

**Table 4-3 Conference Card Master Database Fields**

The Conference Card application database is named "cards" and contains the following fields.

Field Description	Data Type
First Extension	Long Integer
Available Extensions	Short Integer
In Pool	ASCII

**Table 4-4 Conference Card Application Database Fields**



## Tenant Number Database

The Tenant Number database is shared with other Sentry applications, so you might not have to build it for Emergency Conference. You will receive a message from the APM if you try to build the Tenant database and it already exists.

The Tenant Number 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 '#'. If all extensions have the same tenant number, then this database is not required and the tenant number provided by the OAI configuration may be used by default. Each tenant number database record contains the following fields:

- **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.

The Tenant Number master database fields is named "tenant\_m" and contains the following fields.

Field Description	Type	Size	Minimum Value	Maximum Value
First Extension	ASCII	10		
Last Extension	ASCII	10		
Tenant Number	Numeric	3	1	255

**Table 4-5 Tenant Master Database Fields**

The Tenant Number application database is named "tenants" and contains the following fields.

Field Description	Data Type
First Extension	ASCII
Last Extension	ASCII
Tenant Number	Short Integer

**Table 4-6 Tenant Number Application Database Fields**

## Building Database

The Building database is shared with other Sentry applications, so you might not have to build it for Emergency Conference. You will receive a message from the APM if you try to create the Building database and it already exists.

The Building database contains a list of extensions and the location of each extension. A building location can be associated with an individual numeric extension or a range of numeric extensions. A given building can have more than one record if all of the extensions located in it are not consecutive. Each building database record contains the following fields:

- **First Phone** - The first extension in the range of extensions.
- **Last Phone** - The last extension in the range of extensions.
- **Building ID** - An ASCII string containing the building location.

The Building master database is named “blding\_m” by default and contains the following fields.

Field Description	Type	Size	Minimum Value	Maximum Value
First Phone	Numeric	5	0	99999
Last Phone	Numeric	5	0	99999
Building ID	ASCII	24		

**Table 4-7 Building Master Database Fields**

The Building application database is named “blding” by default and contains the following fields.

Field Description	Data Type
First Phone	Long Integer
Last Phone	Long Integer
Building ID	ASCII

**Table 4-8 Building Application Database Fields**

## Contacts Database

Each conference may have an optional contacts database file containing a list of contacts that are called by the conference application when the conference is initiated. The contacts database must be created manually and can be given any name that you want, such as `conf1`. A separate file may be used by each conference, or files may be shared between conferences. Each database record contains the following fields:

- **Extension:** The extension number of the contact.
- **Prime Line:** If the contact extension is a secondary line on a  $D^{\text{term}}$ , this field contains the  $D^{\text{term}}$ 's prime line value. If the contact extension is the prime line, then this field contains the same value as the extension field.
- **Control Station Flag:** If this field is set to "Y" or "y", then this contact is designated as a control station. All control stations must be answered and released before the conference is terminated. When all callers and answered contacts have released from the conference, all ringing contacts will continue to ring until all control stations have answered and released.

Each Contacts master database must have a unique name. An example database named "conf1\_m" is provided. All contacts master databases must have the following fields.

Field Description	Type	Size	Minimum Value	Maximum Value
Extension	Numeric	5	0	99999
Prime Line	Numeric	5	0	99999
Control Station Flag	ASCII	1	n	

**Table 4-9 Contacts Master Database Fields**

Each Contacts application database must have a unique name. An example database named "conf1" is provided. All contacts application databases must have the following fields.

Field Description	Data Type
Extension	Long Integer
Prime Line	Long Integer
Control Station Flag	ASCII

**Table 4-10 Contacts Application Database Fields**

## Authorized Caller Database

Each conference may have an optional authorized caller database file containing a list of extensions that are authorized to initiate a conference. The contacts database must be created manually. A separate file may be used by each conference, or files may be shared between conferences. If the conference contacts are the only extensions allowed to initiate a conference, then the contact database may also be specified as the authorized caller database. Each database record contains the following fields:

- **Extension:** The extension number that is authorized to call this conference.
- **Prime Line:** If the contact extension is a secondary line on a D<sup>term</sup>, this field contains the D<sup>term</sup>'s prime line value. If the contact extension is the prime line, then this field contains the same value as the extension field.
- **Control Station Flag:** This field is not used by the authorized caller database.

Each Authorized Caller master database must have a unique name. An example database named "caller1\_m" is provided. All Authorized Caller Master databases must have the following fields.

Field Description	Type	Size	Minimum Value	Maximum Value
Extension	Numeric	5	0	99999
Prime Line	Numeric	5	0	99999
Control Station Flag	ASCII	1	n	

**Table 4-11 Authorized Caller Master Database Fields**

Each Authorized Caller application database must have a unique name. An example database named "caller1" is provided. All Authorized Caller Databases must have the following fields.

Field Description	Data Type
Extension	Long Integer
Prime Line	Long Integer
Control Station Flag	ASCII

**Table 4-12 Authorized Caller Application Database Fields**

## Chapter 5 Executive Override

This chapter describes the field entries to make during the installation and configuration of the Executive Override software.

### Overview

Executive Override is a versatile OAI telephony application that allows callers to monitor and/or join a two-party conversation from a D<sup>term</sup> telephone. Executive Override contains special security features which limits who may use it and how it may be used, and history logging provides real time logging of events to file systems and/or serial devices such as printers. The following paragraphs briefly describe the various features of Executive Override.

**Executive Override** The Executive Override application supports the following features.

#### **Override Type**

Three types of override types are specified.

##### ***Basic***

Immediately joins a user with a two party conversation.

##### ***Automatic***

Allows a user to camp-on a busy destination extension for a configurable time interval. If the destination extension becomes idle before the time interval expires, then the user is connected to the destination; otherwise, the user is joined with the conversation.

##### ***Monitor***

Allows the user to silently listen to a two party conversation. The user has the option of joining the conversation later by pressing the OAI function key again.

#### **Warning Tone Flag**

This flag specifies whether a warning tone is heard by all parties before a user joins a conversation. The warning tone flag is used by basic and automatic overrides only. Monitor overrides are always initiated with no warning tone, but all parties will hear a warning tone if a user joins the conversation.

#### **Join Method**

This flag specifies how a user is joined with a two party conversation. The following types are used:

##### ***Three Way***

All parties are connected together in a three way conference.

##### ***Two Way***

The user is connected with only one member of the two party conversation; the other party is disconnected.

Table 5-1, “Executive Override Options,” on page 76 lists all the valid feature combinations supported by Executive Override. A unique combination of override options defines an *override category* (Basic Override with warning tone and three way conference, etc.).

Override Type	Warning Tone	Join Method
Basic	Yes	Three Way
Basic	Yes	Two Way
Basic	No	Three Way
Basic	No	Two Way
Automatic	Yes	Three Way
Automatic	Yes	Two Way
Automatic	No	Three Way
Automatic	No	Two Way
Monitor	Not Applicable	Three Way
Monitor	Not Applicable	Two Way

**Table 5-1 Executive Override Options**

## Override Security

Each Executive Override category allows the following security options:

### Authorization Codes

The user is normally required to enter an authorization code before an Executive Override can be performed. Authorization codes are unique numeric values (up to ten digits) which are assigned to individuals.

### Protected Stations

Any telephone can be designated a protected station. Conversations which take place on a protected station can not be monitored or joined using Executive Override.

### Secure Stations

Any telephone can be designated a secure station. When Executive Override is executed from a secure station, no authorization code is required.

## Installation and Configuration

The installation and configuration of Executive Override includes the following procedures:

- Software Installation
- Application Configuration
- Database Requirements

**Additional  
Manuals**

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 Executive Override are configured in the APM environment and how the Executive Override databases are created, using the entries and values provided in this chapter.

## Software Installation

The Executive Override software must first be loaded from the release media. Remember to use the *Applications Manager (APM) Installation Manual* if you need further instructions for installing software using the APM.

**Note:** *You will be prompted for several values when you install the software. For more information about these and other parameters, refer to the next section, [Configuration on page 87](#).*

1. To begin the Executive Override software installation, log in to the APM Platform Management Menu by typing **apmadm** at the UNIX login prompt, then press **Enter**. The login and password prompts are shown below.

If your “apmadm” account requires a password, enter the appropriate password at the subsequent password prompt.

```
login: apmadm
password:
```

The APM Administration main menu displays, as illustrated below:

```
NEC America                APM Administration        Wed Jan 31, 1996
-----
APM Platform Release Rel2.0 (Oct 09, 1995)

Main Menu
  APM
  Debug Facilities
  Halt APM System
  File Archive
  Installation of Applications/Packages
  Removal of Packages
  Start-up APM System

  Logout
  UNIX

Enter Option: []

APM Status: ACTIVE
```



2. Type **i** and press **Enter** to select the Installation of Applications/Packages option.

The Installation of Application/Packages screen displays.

```
NEC America          APM Administration          Wed - Jan 31, 1996

      Installation of Applications/Packages

      Available Packages are:

applications  asl  mtl  tcpip  update  x25

Enter Package to be installed:
```

3. At the “**Enter Package to be installed**” prompt, type **applications** and press **Enter**.

The “**Enter Release Media Device**” prompt displays.

```
NEC America          APM Administration          Wed Jan 31, 1996

      Installation of Applications/Packages

      Available Packages are:

applications  asl  mtl  tcpip  update  x25

Enter Package to be installed: applications

      Release Media Devices are:

(F)loppy Disk Device          (C)artridge Tape Device

Enter Release Media Device:
```

4. Select the floppy disk device as the installation media by typing **f** and pressing **Enter**.

The following screen displays:

```
Installation Procedure

Installing from /dev/fd0

Insert OAI Release Media #1
Enter <Return> to continue:
```

5. Insert the Executive Override diskette into the floppy disk device, and press **Enter** to continue.

The screen displays files in the application installation. Many files may scroll off the screen, until all of the files from the diskette have been processed.

The “**Has all release media been loaded**” prompt displays, as illustrated below:

```
x oai/app/override/install/Movr.cfg, 161 bytes, 1 tape blocks
x oai/app/override/install/listx, 673 bytes, 2 tape blocks
x oai/app/override/install/overDb.cfg, 2183 bytes, 5 tape blocks

x oai/app/override/bin/override, 395053 bytes, 772 tape blocks
x oai/app/override.ins, 8135 bytes, 16 tape blocks
x oai/chksum_app, 688 bytes, 2 tape blocks

Has all release media been loaded [y or n] ?
```

- Type **y** and press **Enter** to indicate that all release media has been loaded. The APM installation begins processing all of the Executive Override installation files and checking them for correctness. The screen indicates the status of the installation.

```
OAI Platform is at revision 5 for machine i386 (Dec 19 1994 Rel 1.6.1)

override Revision: 5      machine type: i386      Version: 1.7
Processing, please wait...
Validating installed files
.....
Validation Completed

                          Installing the Release Files

                          Processing files
```

After the files have been processed, the “root password” prompt displays. In order to complete the Executive Override installation, you must modify certain files that require “root” privileges.

```
NEC America Inc. Executive Override Installation  Wed - Apr 29, 1998
```

```
Installation requires Super User (root) privileges.
```

```
Please Enter su/root Password:
```

7. Type in the root password at the prompt and press **Enter** to continue the Executive Override installation.

The Executive Override installation creates any directories that do not already exist. The paths of the directories display on the screen, as illustrated below.

```
NEC America Inc. Executive Override Installation  Wed - Apr 29, 1998

Creating Executive Override directories . . .

/oai/app/sentry created
/oai/app/sentry/bin created
/oai/app/sentry/install created
/oai/app/sentry/cfg created
/oai/app/sentry/cfg/history created
/oai/log already exists
/oai/log/sentry created

Press Enter to continue. [ ]
```

8. Press **Enter** and the “APM Configuration” prompt displays:

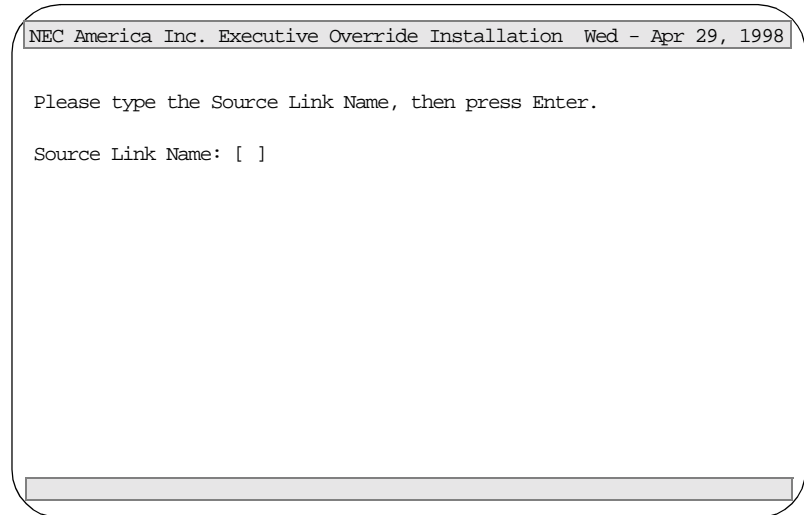
```
NEC America Inc. Executive Override Installation  Wed - Apr 29, 1998

A unique APM Configuration must be created for each Executive
Override Combination used in this system. Configurations can
be created now, if desired, or later using the APM.

Do you want to create the APM Configurations now? (y/n) [ ]
```

9. A unique APM configuration must be created for each Executive Override combination used in the system. Do one of the following:
  - To create the APM Configurations now, type **y** and press **Enter**.
  - To create the configurations later using the APM, type **n** and press **Enter**. Then continue with step [20](#).

10. In the following steps, you will set the source link name, destination link name, and default tenant number for all Executive Override configurations. Press **Enter** to continue this procedure. The “**source Link Name**” prompt displays.



11. Type the port name which is on the source side of the communication link, such as OAI1TCP, and press **Enter**. Verify that you have entered the correct source link name by typing **y** and pressing **Enter**.  
The “**Destination Link Name**” prompt displays.
12. Type the port name which is on the destination side of the communication link, such as PBX1TCP, and press **Enter**. Verify that you have entered the correct destination link name by typing **y** and pressing **Enter**.  
The “**Tenant Number**” prompt displays.

13. Type the number of the tenant that Executive Override serves, and press **Enter**. Verify that you have entered the correct tenant by typing **y** and pressing **Enter**.

The APM configurations settings that you entered are displayed.

```
NEC America Inc. Executive Override Installation  Wed - Apr 29, 1998

The following APM Configuration settings will be used by all
Executive Override configurations:

      Source Link Name: [OAI1TCP]
      Destination Link Name: [PBX1TCP]
      Default Tenant Number [1]

Are these values correct? (y/n) [ ]
```

14. If these values are correct, type **y** and press **Enter**. If these values are not correct, type **n** and press **Enter**, and reenter the information beginning with the source link name (step 11.)
15. You must set the configuration for each of the items listed below. To do this, you must enter and verify the appropriate value(s). Press **Enter** to begin the configuration.
  - Application Name
  - Override Type
  - Join Method
  - Warning Tone
  - Authorization Codes Database
  - Stations Database
  - No Answer Timeout
  - MSF Number
  - Dterm Function Key LED Number

Once you have entered values for each of these items, a confirmation screen similar to the one below displays with the values you entered:

```
NEC America Inc. Executive Override Installation  Wed - Apr 29, 1998

The following APM Configuration settings have been specified
for this Executive Override configuration:

Application Name: [BasicNoTone]
Override Type: [Basic]
Join Method: [Three-Party]
Warning Tone: [None]
Authorization codes Database Name: [auth1]
Stations Database Name: [station1]
No Answer Timeout: [20]
Camp On Timeout: [0]
MSF Number: [128]
Dterm Function Key LED Number: [3]
Are these values correct? (y/n) [ ]
```

16. If these values are correct, type **y** and press **Enter**. If these values are not correct, type **n** and press **Enter**, and reenter data beginning with the application name.
17. Once you have entered the correct values, the auto-configuration script runs. When prompted, press **Enter** to continue.  
  
The authorization codes database files and the stations database files are installed.
18. When prompted, press **Enter** to continue.
19. To specify another Executive Override APM Configuration, type **y** and press **Enter**. You will repeat the configuration procedure beginning with step 15. If you do not want to specify another configuration, type **n** and press **Enter**.

- 20. The installation process continues. The status of the process displays, as illustrated below:

```
NEC America Inc. Executive Override Installation Wed - Apr 29, 1998

Installing the Executive Override Binary . . .
Installing the Tenant Database Files . . .
Installing the History Log Configuration Files . . .

Press Enter to continue. [ ]
```

- 21. Press **Enter** to continue.  
The following screen displays when the installation is complete.

```
NEC America Inc. Executive Override Installation Wed - Apr 29, 1998

Executive Override Installation Complete.

Press Enter to continue. [ ]
```

- 22. Press **Enter**.



## Configuration

The Executive Override software is configured automatically during installation if you answer “yes” to the autoconfig prompt.

You may also configure Executive Override manually by using the Add Function of the Application Configuration option on the APM System Administration menu. Executive Override provides an extremely flexible configuration mechanism that allows many combinations of features and services.

A single executable file is provided to perform all Executive Override tasks. Configuration parameters are passed to the executable file to determine the functionality and databases used, resulting in a unique APM configuration for each Executive Override category. These configurations may share database files, use separate databases files, or use a combination of shared and separate files.

Each APM configuration requires a unique MSF assignment to activate it. The following sections describe the configuration parameters and databases used by Executive Override, and then a configuration example is provided.

For an example of an Executive Override Configuration, see [Executive Override Configuration Sample on page 96](#).

**Note:** *This section contains information that is entered in the Executive Override configuration file. For specific instructions on what these parameters mean and how to make these entries, use the APM Operations Manual.*

## Application Characteristics

When manually adding Executive Override to the APM Application Configuration file, define the parameters as shown below. These parameters are defined automatically if you answered “yes” to the autoconfig prompt during installation.

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

## Primary Configuration Parameters

These parameters are defined automatically if you answered “yes” to the autoconfig prompt during installation. On the APM Configuration Entry screen, make the entries indicated below for each Executive Override parameter. Entries for parameters marked by an asterisk (\*) must be made exactly as shown. Other entries are examples and are site-dependent.

**Note:** Use the instructions provided for this option in the APM Operations Manual.

Parameter	Entry	Description
<b>Name</b>	Monitor_notone	The application name to be displayed in the APM menus. This name is displayed exactly as you enter it here, including case. The example here shows a monitor override with no warning tone. You will assign a separate name for each configuration. This value must be unique for each Executive Override configuration.
<b>Exec Filename*</b>	/oai/app/sentry/bin/override	Indicates the path name of the executable file. This value must be identical for each Executive Override configuration.
<b>Group*</b>	SENTRY	Names the group to which Executive Override is associated.
<b>Response Mode*</b>	I(gnore)	Indicates the action that the APM is to take with Executive Override should a member of the group terminate.
<b>Initialization Batch</b>	N(o)	Indicates whether or not (Yes or No) Executive Override is to be initialized automatically when the OAI system is initialized.
<b>Termination Mode*</b>	Message	Indicates how the APM is to notify Executive Override to terminate.
<b>Standard Output</b>	/dev/null	Designates the file into which Executive Override output is redirected.
<b>Number of Restarts</b>	0	Indicates how many times the APM may restart Executive Override after it terminates erroneously.

## OAI Facilities

These NEAX 2400 facilities are set up automatically if you answered “yes” to the autoconfig prompt during installation. To manually set up the facilities, use the Facilities command on the APM Configuration Entry screen and follow the instructions in the *APM Operations Manual*.

Parameter	Entry	Description
Facilities	MRFI MRFR NTF SCF TCFD TCFI SMFR SMFN	The OAI Facilities required by Executive Override.
MSF	<nnn>	The unique MSF assignment required for each configuration of Executive Override. The value <nnn> is a number ranging from 128 to 191.

## Secondary OAI Configuration Parameters

These parameters are defined automatically if you answered “yes” to the autoconfig prompt during installation. Use the OAI-Conf command on the APM Configuration Entry screen to make the entries indicated below for each parameter. Entries for parameters marked by an asterisk (\*) must be made exactly as shown. Other entries are examples and are site-dependent.

**Note:** Use the instructions provided for this option in the APM Operations Manual.

Parameter	Entry	Description
<b>Database Name #1*</b>	/oai/db/cur/auth1	The path (up to 25 characters) of the authorization code database. If this parameter is blank, the Executive Override program sends a warning message to the APM and will not request authorization codes from users. If an invalid name is entered, an error message is sent to the APM and the Executive Override program terminates.
<b>Database Name #2*</b>	/oai/db/cur/station1	The path (up to 25 characters) of the Special Station database. If this parameter is blank, the Executive Override program sends a warning message to the APM and continues. If an invalid file name is entered, an error message is sent to the APM and the Executive Override program terminates.

**Note:** For more information about the above databases, see [Database Requirements on page 92](#).

<b>Timeout Value #1</b>	<nn>	The “no answer” timeout value in seconds. This parameter is used whenever Executive Override is ringing an extension. If this parameter is blank, the Executive Override program sends a warning message to the APM and the timeout function is disabled.
<b>Timeout Value #2</b>	<nn>	The camp-on time out value in seconds that is used by an automatic override. If this parameter is blank, the Executive Override program sends a warning message to the APM and the time out function is disabled. Do not make an entry for this parameter if User-Defined Value #3 is set to “type basic” or “type monitor”.
<b>Tenant Number</b>	1	Specifies the number of the tenant that Executive Override serves.
<b>Source Link Name</b>	OAI1TCP	Identifies the port on the source side of the communication link.
<b>Destination Link Name</b>	PBX1TCP	Identifies the port on the destination side of the communication link.
<b>Association Recovery</b>	30	Designates the number of seconds Executive Override waits before trying to re-establish an association with the NEAX that has been released.

## User-Defined Parameters

Parameter	Entry	Description
<b>User Defined #1</b>	/oai/db/cur/tenants	Contains the name of the Tenant Number database (see <a href="#">Database Requirements on page 92</a> ). If this parameter is blank, the Executive Override program sends a warning message to the APM and the tenant number supplied by the OAI configuration is used by default for all extensions. If an invalid parameter is specified, an error message is sent to the APM and the Executive Override program terminates.
<b>User Defined #2</b>	/oai/app/sentry/ cfg/history/ Movr.cfg	The name of the history log device database (See <a href="#">Database Requirements on page 92</a> and Appendix A). If this parameter is blank, the Executive Override program sends a warning message to the APM and history logging is disabled. If an invalid file name is entered, an error message is sent to the APM and the Executive Override program terminates.

**Note:** *The following parameters contain configuration pairs consisting of a keyword, at least one blank space, and an option. Multiple configuration pairs may be specified in a single parameter if space permits. Case is ignored for keywords, but options must match exactly. The configuration pairs may occur in any order, and the following keywords and options are supported*

<b>User Defined #3</b>	type <type of override>	Specifies the type of override this application performs. Valid type pairs are “type basic,” “type automatic,” or “type monitor.” If this option is invalid, the Executive Override program sends an error message to the APM and terminates.
<b>User Defined #4</b>	join <n>	Specifies the join method used by this application. Valid syntax is  <pre>join &lt;n&gt;</pre> where <n> specifies the join method, which can be “2” or “3”. If this option is invalid, the Executive Override program sends an error message to the APM and terminates.
<b>User Defined #5</b>	tone <warning tone>	Specifies the warning tone used by basic and automatic overrides. Valid tone pairs are “tone none,” “tone 1,” or “tone 2.” If this option is invalid, the Executive Override program sends an error message to the APM and terminates.
<b>User Defined #6</b>	led <nn>	Specifies the LED lamp associated with the D <sup>term</sup> function key configured to activate Executive Override. Valid syntax is  <pre>led &lt;nn&gt;</pre> where <nn> is a value ranging from 1 to 14. If an invalid value is specified, the Executive Override program sends an error message to the APM and terminates.

## Database Requirements

Executive Override requires three databases: Authorization Code, Special Station, and Tenant Number.

This section contains requirements for creating the Executive Override databases. Use this information with the procedural instructions in the *APM Operations Manual*. If you encounter messages during this process, refer to the “Process” and “Error Messages” chapters of the *APM Operations Manual*.

## Database Creation

The following steps are done automatically during installation:

- 1. Create a Master Definition File**  
Create the master definition file that defines the fields in the master database file.
- 2. Create an Application Definition File**  
Create a definition file for the Executive Override database. This file defines the formats by which data from the master file is to be converted to meet the needs of Executive Override.

## Database Records

After database is created, perform the following steps to add, modify, or delete records:

- 1. Build a Master Database File**  
Enter data (such as phone extension numbers) into the master database fields that were defined in the master definition file.
- 2. Process the Application Database**  
Use the Process Application Databases option on the APM Database Administration menu to create the file that will be used by Executive Override. When the Process option is activated, data is drawn from the master database and converted to the formats specified in the application definition file.
- 3. Install the Application Database**  
Use the **Install Application Databases** option on the APM Database Administration menu to enable Executive Override to copy its database.
- 4. Reboot each Executive Override application**

## Authorization Code Database

Each Authorization Code database contains a list of valid authorization codes. A user is prompted for an authorization code when an Executive Override is requested from a non-secure station (see [Special Station Database on page 94](#)). After an authorization code is entered, the authorization code database is searched for a matching value. If a match is found, the Executive Override request is permitted; otherwise, the request is denied. An authorization code database record contains the following fields:

- **Authorization Code**  
This *required* field is a unique numeric value up to ten digits long. A minimum number of digits may be specified by defining a minimum numeric value of the desired length (a minimum value of 1000 will force codes to be at least 4 digits long).
- **User Name**  
The name of user that is assigned the access code. This field is optional.
- **User Extension**  
The extension of the user that is assigned the access code. This field is optional.

Each Authorization Code master database must have a unique name and contain the following field.

Field Description	Type	Size	Minimum Value	Maximum Value
Authorization Code	Numeric	10	0	9999999999
User Name	ASCII	25		
User Extension	Numeric	5	0	99999

**Table 5-2 Authorization Code Master Database Fields**

Each Authorization Code application database must have a unique name and contain the following fields.

Field Description	Data Type
Authorization Code	Long Integer
User Name	ASCII
User Extension	Long Integer

**Table 5-3 Authorization Code Application Database Fields**

## Special Station Database

Each special station database contains a list of stations that receive special treatment by Executive Override. A station in this database may be designated secure, protected, both, or neither. Stations which are not listed in this database are assumed to be neither secure nor protected. If a station is designated secure, then an authorization code is not needed to perform an Executive Override from this station. If a station is designated protected, then conversations on this station can not be monitored or joined by Executive Override. A special station database record contains the following fields:

- **Extension** (Required) - A unique station extension.
- **Secure** (Required) - Set to 'y' if the station is in a secure area, 'n' otherwise.
- **Protected** (Required) - Set to 'y' if conversations on this station are protected from Executive Override, 'n' otherwise.

Each Special Station master database must have a unique name and contain the following field.

Field Description	Type	Size	Minimum Value	Maximum Value
Extension	Numeric	5	0	99999
Secure	ASCII	1	n	
Protected	ASCII	1	n	

**Table 5-4 Special Station Master Database Fields**

Each Special Station application database must have a unique name and contain the following fields.

Field Description	Data Type
Extension	Long Integer
Secure	ASCII
Protected	ASCII

**Table 5-5 Special Station Application Database Fields**



## Tenant Number Database

The Tenant Number database is shared by other Sentry applications, so you might not have to build it for Executive Override. You will receive a message from the APM if you try to build the Tenant database and it already exists.

The Tenant Number 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 '#'. If all extensions have the same tenant number, then this database is not required and the tenant number provided by the OAI configuration may be used by default. Each tenant number database record contains the following fields:

- **First Extension** - The first extension in the range of extensions.
- **Last Extension** - The last extension in the range of extensions.
- **Tenant Number** - The associated tenant number.

The Tenant Number master database is named "tenant\_m" by default and contains the following fields.

Field Description	Type	Size	Minimum Value	Maximum Value
First Extension	ASCII	10		
Last Extension	ASCII	10		
Tenant Number	Numeric	3	1	255

**Table 5-6 Tenant Master Database Fields**

The Tenant Number application database is named "tenants" by default and contains the following fields.

Field Description	Data Type
First Extension	ASCII
Last Extension	ASCII
Tenant Number	Short Integer

**Table 5-7 Tenant Number Application Database Fields**

## Executive Override Configuration Sample

Suppose your site wants to use Basic Override with warning tone, Automatic Override with warning tone, and Monitor Override. The Automatic Override timeout is specified as 15 seconds, and the “no answer” timeout is specified as 20 seconds. All categories will create three party conferences and share a single list of authorized users.

The Basic and Automatic Overrides share a special stations database, while the Monitor Override has its own special stations database. Each category logs history events to a common file, and each has a separate history log file. All categories share a common serial printer.

The following steps can be taken to determine the configuration required:

### 1. Determine the number of APM configurations needed

In this case, three APM configurations are used:

- Basic Override with tone and three party conferences
- Automatic Override with tone and three party conferences
- Override with three party conferences

### 2. Create the authorization code databases

One authorization code database is required by this example, and is called “authCodes”.

### 3. Create the special station databases

Two special databases are required by this example. They are named as follows:

- “stations1”: this database is shared by the Basic and Automatic Overrides.
- “stations2”: this database is used by Monitor Override.

### 4. Create the history log device databases

Three history log device databases are required by this example. Each database file contains entries for the common history log file, the separate history log file, and the common serial printer. The databases are named as follows:

- “Movr1.cfg”: this database is used by the Basic Override.
- “Movr2.cfg”: this database is used by the Automatic Override.
- “Movr3.cfg”: this database is used by Monitor Override.

For more information about the history log, see [Appendix A: History Logging on page 109](#).

### 5. Create the APM configurations

The following APM configurations are defined for this example. Note that only parameters used to differentiate between configurations are listed (see [Configuration on page 87](#) for a complete list). Also note that the path names used are dependent upon installation and are provided here for illustration purposes only.

## Executive Override Configuration Sample (Continued)

Basic Override with tone and three way conferences uses the following configuration:

Executable File Name: “/oai/app/sentry/bin/override”  
Application Name: “BasicToneThreeWay”  
Application Database 1: “/oai/db/cur/auth1”  
Application Database 2: “/oai/db/cur/stations1”  
Time Out Value 1: 20  
Time Out Value 2: 0  
MSF Assignments: 140  
User Defined 1: “/oai/db/cur/tenants”  
User Defined 2: “/oai/app/sentry/cfg/history/Movr1.cfg”  
User Defined 2: “type basic tone 1 join 3”

Automatic Override with tone and three way conferences uses the following configuration:

Executable File Name: “/oai/app/sentry/bin/override”  
Application Name: “AutoToneThreeWay”  
Application Database 1: “/oai/db/cur/auth1”  
Application Database 2: “/oai/db/cur/stations1”  
Time Out Value 1: 20  
Time Out Value 2: 15  
MSF Assignments: 141  
User Defined 1: “/oai/db/cur/tenants”  
User Defined 2: “/oai/app/sentry/cfg/history/Movr2.cfg”  
User Defined 3: “type automatic tone 1 join 3”

Monitor Override with three way conferences uses the following configuration:

Executable File Name: “/oai/app/sentry/bin/override”  
Application Name: “MonitorThreeWay”  
Application Database 1: “/oai/db/cur/auth2”  
Application Database 2: “/oai/db/cur/stations2”  
Time Out Value 1: 20  
Time Out Value 2: 0  
MSF Assignments: 142  
User Defined 1: “/oai/db/cur/tenants”  
User Defined 2: “/oai/app/sentry/cfg/history/Movr3.cfg”  
User Defined 3: “type monitor join 3”

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## Chapter 6 MAT Assignments and PBX Information

This chapter describes the NEAX Maintenance Administration Terminal (MAT) commands that need to be used for each OAI Monitor application as well as the PBX software and conference cards that you need to run Sentry Alarm Control Terminal.

### PBX Software

The Sentry applications require PBX Software Version DE 6.25 or higher. This version provides the following features:

1. An SCF 3 will work with a single line (analog ) telephone.
2. The SCF 3 timeout is disabled, so the SCF 3 will ring the calling party until the calling party answers or the call is terminated.
3. The inter-digit timer will generate an off hook alarm when an incomplete extension is dialed.

### 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 MAT. Such settings include system index values which are described in [“Emergency Conference” on page 102](#) (step 7) 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 Sentry Alarm Control Terminal, 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*.

### Executive Override

The user-defined parameter #6 assigned during the application configuration identifies the function key that the phone user presses to activate Executive Override. You must now assign this key at the MAT to the Mode Set Facility (MSF) for all D<sup>terms</sup> 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 in [Figure 6-1](#).

## Executive Override (Cont)

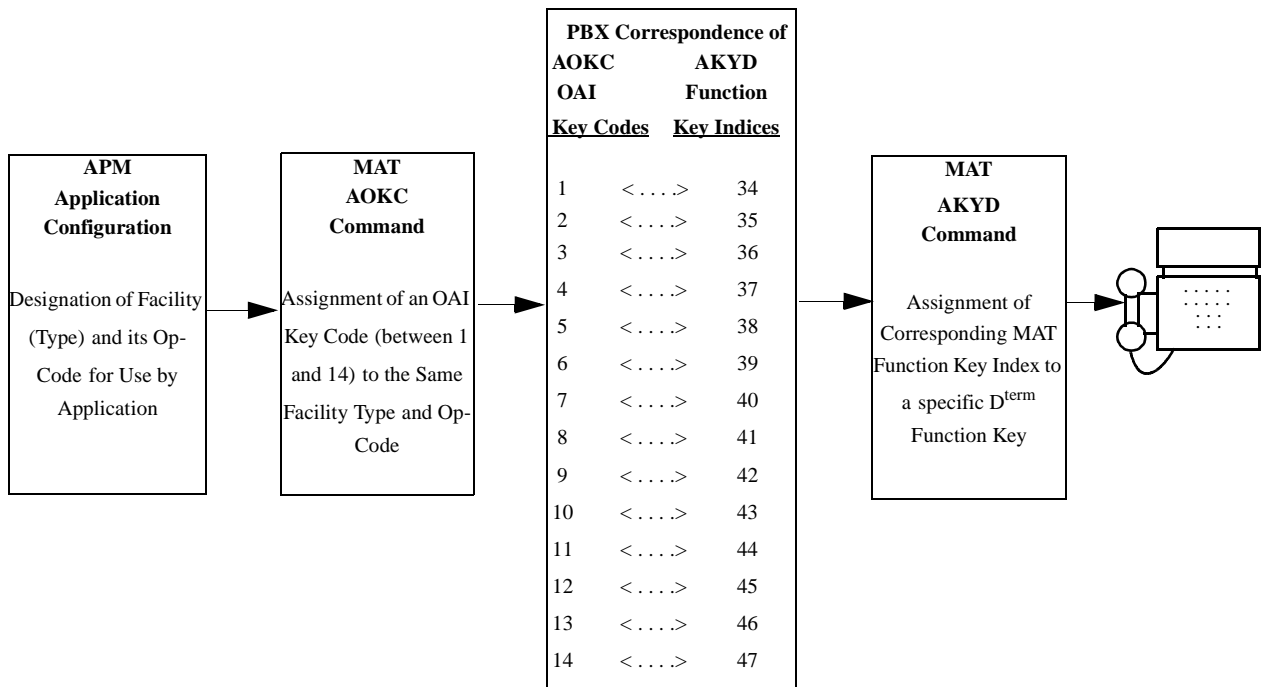


Figure 6-1 OAI Function Key Assignment

A knowledge of the D<sup>term</sup> stations in the NEAX system and which ones will be set up to access Sentry Alarm Control Terminal is necessary for using the following commands. Executive Override requires the following PBX programming. You should program one or more D<sup>term</sup> function keys on the desired stations to generate the appropriate MSF values (AOKC, AKYD) required by each Executive Override configuration.

### 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 Executive Override 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 6-1 on page 100](#). 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 Executive Override.

1. In this example, D<sup>term</sup> function key #8 was designated in the application configuration as the key that is to be pressed to activate Executive Override from the D<sup>term</sup>.
2. Enter the same tenant number that is configured for the application in the APM Application Configuration option (Tenant #1).
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.

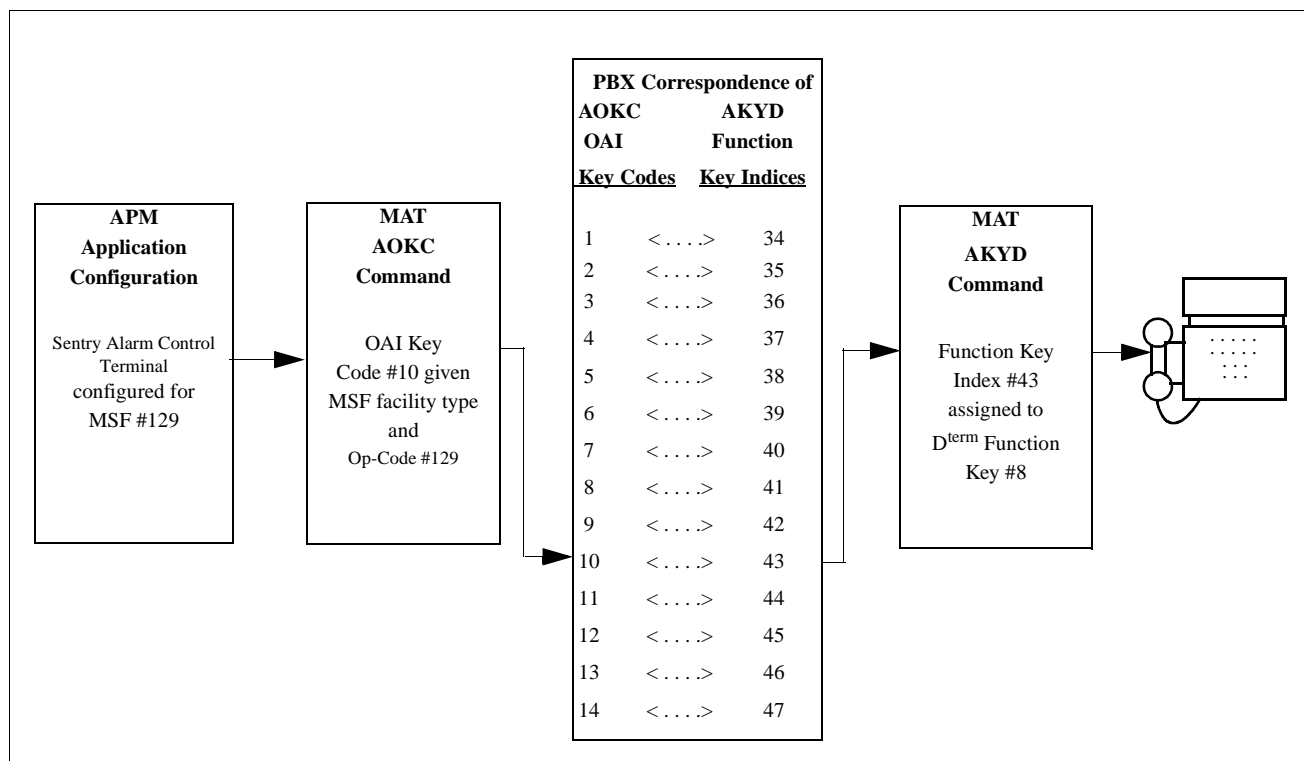


Figure 6-2 OAI Function Key Assignment

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

In the example in [Figure 6-2](#), 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 Executive Override 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 Executive Override for display of calling party information.

### **Annoyance Trap**

Annoyance Trap requires the following PBX programming:

#### **AMNO: Assignment of Monitored Number**

Assigns a monitored number that is controlled by Annoyance Trap. Enter the same tenant number (except 0) configured for Annoyance Trap, the monitored number that Annoyance Trap will monitor, and the optional UCD pilot number to which calls will be routed when Annoyance Trap is not monitoring the monitored number.

#### **Dummy Phone**

If an audio device is used, a dummy phone must be created. This phone is used to place a call to the audio device, which causes the audio device to make noise.

### **Emergency Conference**

Emergency Conference requires the following PBX programming:

1. A monitored number for each conference. See [“AMNO: Assignment of Monitored Number” on page 102](#) for information on creating a monitored number.
2. A monitored number used to override callers. See [“AMNO: Assignment of Monitored Number” on page 102](#) for information on creating a monitored number.
3. Restrict transfers of route/trunks to a conference monitored number. If such a transfer is attempted, the transferred party should be re-connected to the transferring party.
4. Create a dummy phone used to provide a warning tone when a caller is overridden, using a D<sup>term</sup> phone with off hook suppression enabled.
5. Use the ASFC MAT command to create an OAI service feature class that enables SFI 24 (the Emergency Call feature). This feature is used to disable a station's flash hook ability while connected to a conference. For example:  
SFI = 24; SFC = 3; RES = 1.  
The SFC you use here must equal the User Define #9 parameter.
6. You can use the ARSC command to prevent any outside phone from joining the conference. RSC for the conference line should be restricted.



## No Dial Alarm Conferencing

No Dial Alarm Conferencing requires the following additional PBX programming:

1. The off hook alarm must be enabled, and it must be configured to terminate to a station. Modify the following ASYD index as follows:

System 1 Index 168 bit 4=1, bit 5=1

Use the ASID command to specify the off hook alarm station.

2. The off hook alarm station must be set to forward all calls to the No Dial Alarm monitored number using the ACFS command.

3. To set the off hook alarm timer modify the following ASYD indexes:

System 1 Index 128 bit 0-3

The value specified by bits 0-3 may range from 0 to 15. A value of 0 will specify a timer interval of 12 seconds. A value of 1 to 15 specified a timer interval that is twice the number value. For example, 1 = 2 seconds, 2 = 4 seconds, etc.

4. All stations that will activate the no dial alarm must have SFI 30 turned on to enable the off hook alarm using the ASFC command, and must be placed in a single group using the ASGD command.

## Conference Cards

### PA-CFTB Conference Cards

PA-CFTB Conference Cards require the following settings:

1. EPROM #1 should be the following version:

SP863

D1

001

This EPROM will allow conference lines to answer calls more quickly. If you use another EPROM version, there will be a delay before the conference lines answer.

2. Conference card switch settings should be as follows:

Switch 0

1 3                      On

2 4 5 6 7 8            Off

Switch 1

1 2 3 4 5 6 7        On

8                        Off

Switch 2

1 2 3 4 5 6            On

7 8                      Off

3. When assigning the CFTB card, set TEC=3. RSC and SFC settings for the conference should be different than the RSC and SFC settings for the other phones.

4. Conference card lines must have the following SFI values enabled: 70, 95, 103, 104 (ASFC).
5. Conference cards may be daisy chained together.

## Chapter 7 Platform Maintenance

This chapter describes how to use the platform maintenance utility program to perform administrative functions.

### Logging In

To access the platform maintenance utility, use the following steps:

1. Log in to the Sentry Platform Maintenance Main Menu by typing **sntryadm** at the UNIX login prompt, then press **Enter**. The login and password prompts are shown below.

If your “sntryadm” account requires a password, enter the appropriate password at the subsequent password prompt.

```
login: sntryadm
password:
```

The Sentry Platform Maintenance Main Menu displays, as illustrated below:

```
NEC America Inc.   Sentry Platform Maintenance   Thu May 7, 1998

*** Main Menu ***

Attendant Terminals
Error Log File
UNIX
Logout

Enter Option:  []

>
```

**Note:** *The following sections describe the actions performed by each option.*

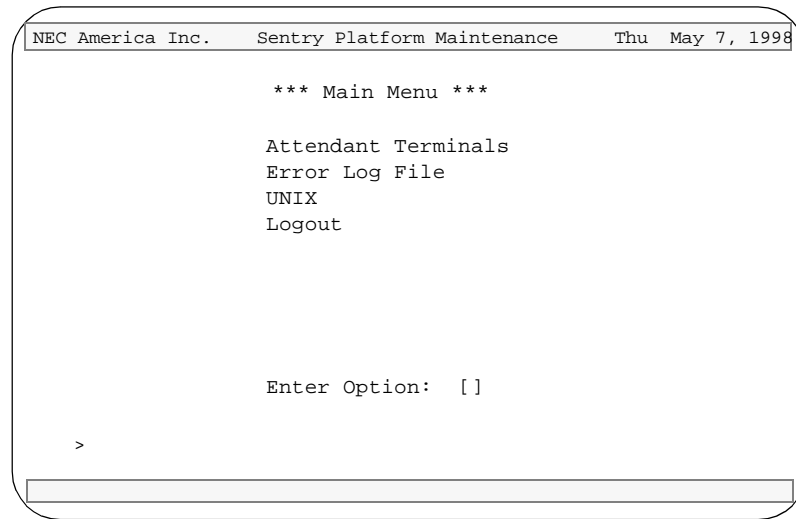
## Attendant Terminal Maintenance

The Sentry Alarm Control Terminal application may be assigned to one or more UNIX tty devices using the attendant terminals option. When you select the Attendant Terminals option from the Sentry Platform Maintenance Main Menu, the Attendant Terminals screen displays with a list of the active terminals.

You can use the Attendant Terminals screen to activate, deactivate, or reset attendant terminals. These procedures are described in more detail below.

To activate, deactivate, or reset an attendant terminal:

1. Log in to the Sentry Platform Maintenance Main Menu, as described in [Logging In on page 105](#). After a successful login, the main menu displays.



```
NEC America Inc.   Sentry Platform Maintenance   Thu May 7, 1998

*** Main Menu ***

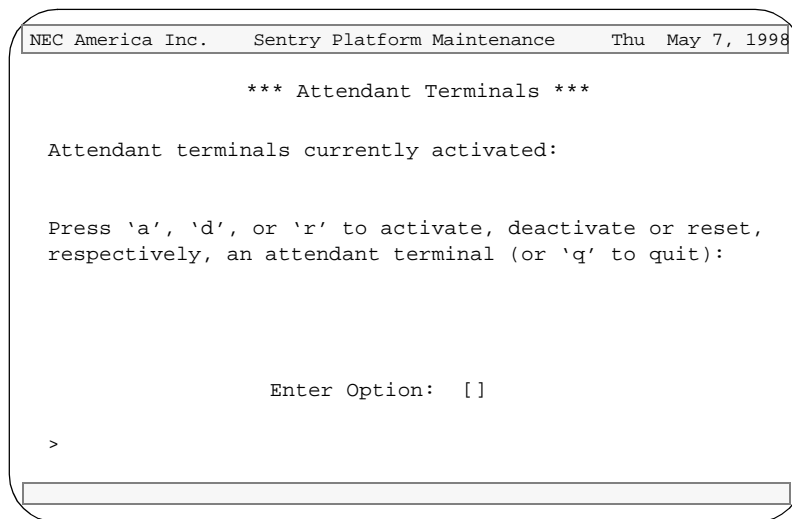
Attendant Terminals
Error Log File
UNIX
Logout

Enter Option: []

>
```

2. Type **a** and press **Enter** to select the Attendant Terminals option.

The Attendant Terminals screen displays, as illustrated below:



```
NEC America Inc.   Sentry Platform Maintenance   Thu May 7, 1998

*** Attendant Terminals ***

Attendant terminals currently activated:

Press 'a', 'd', or 'r' to activate, deactivate or reset,
respectively, an attendant terminal (or 'q' to quit):

Enter Option: []

>
```

3. Do one of the following:
  - To activate an attendant terminal, type **a** and press **Enter**.
  - To reset an attendant terminal, type **r** and press **Enter**.
  - To deactivate an attendant terminal, type **d** and press **Enter**.
4. At the “Enter name of terminal” prompt, type the tty that you want to activate, reset, or deactivate (such as tty12) and press **Enter**. The tty name must match a tty file name in the “/dev” directory, but does not include the “/dev/” prefix (tty01, tty02, etc.). If an invalid tty name is entered, an error message displays which indicates that the tty that you entered is not a valid device.

If you are activating or deactivating the terminal, the “Please enter su/root Password” prompt displays.

5. Type the root password and press **Enter**, if necessary. If an invalid password is entered the message “su: Sorry” is displayed; otherwise, the procedure continues.

A series of prompts display at the bottom of your screen while the terminal is being activated, reset, or deactivated. These prompts may include: “Updating system files”, “Terminal started”, “Terminal updated”. When the process you selected is complete, the Attendant Terminals screen displays, listing the active terminals, as shown in the following example:

```
NEC America Inc.   Sentry Platform Maintenance   Thu May 7, 1998

*** Attendant Terminals ***

Attendant terminals currently activated:

Press 'a', 'd', or 'r' to activate, deactivate or reset,
respectively, an attendant terminal (or 'q' to quit):

Enter Option:  []

>
```

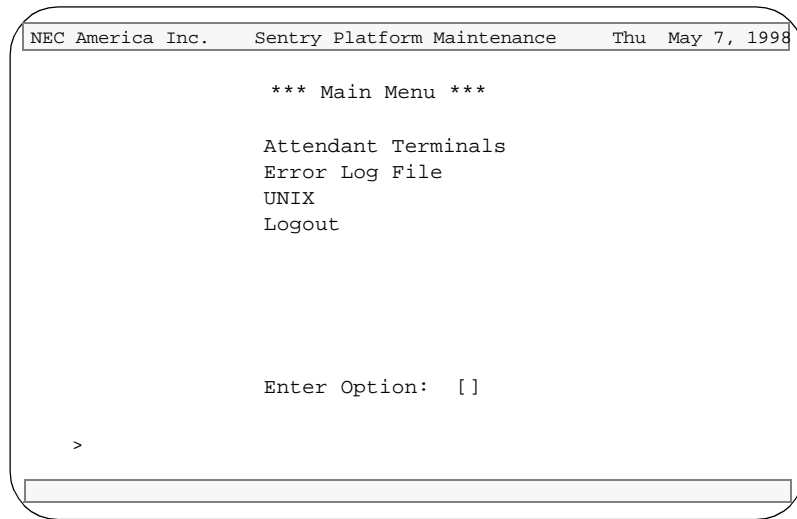
## Error Log File Browser

This option will be supported in later versions of the software.

## UNIX Prompt

You can use this option to display the UNIX prompt in order to perform UNIX commands, such as *cat* and *ls*. To display the UNIX prompt:

1. Log in to the Sentry Platform Maintenance Main Menu, as described in [Logging In on page 105](#). After a successful login, the main menu displays, as illustrated below:



```
NEC America Inc.      Sentry Platform Maintenance      Thu May 7, 1998

      *** Main Menu ***

Attendant Terminals
Error Log File
UNIX
Logout

Enter Option:  [ ]

>
```

2. Type **u** and press **Enter**.  
The screen clears and the UNIX prompt displays.
3. To return to the Platform Maintenance Main Menu, type **sentryadm** and press **Enter**.

## Log Out

You may log out of the platform maintenance application by doing the following:

1. At the Sentry Platform Maintenance Main Menu, type **l** and press **Enter**.  
The screen clears and the UNIX log in prompt displays.
2. You may return to the platform maintenance main menu by logging in as described in [Logging In on page 105](#).

## Appendix A History Logging

History Logging is controlled through configuration files located in the “/oai/app/sentry/cfg/history” directory. Events can be logged to one or more serial printers and/or UNIX text files. Unique message formats can be specified for each printer or file.

### Master Configuration Files

Each Sentry OAI Application has a master configuration file located in the “oai/app/sentry/cfg/history” directory. The master configuration file contains the path names of each configuration file used by the application.

The “oai/app/sentry/cfg/history/Mannoy.cfg” master configuration file is created during the Annoyance Trap installation. It contains the following lines:

- /oai/app/sentry/cfg/history/printDb.cfg
- /oai/app/sentry/cfg/history/printers.cfg
- /oai/app/sentry/cfg/history/annoyDb.cfg
- /oai/app/sentry/cfg/history/annoyLog.cfg

The “oai/app/sentry/cfg/history/Mconf.cfg” master configuration file is created during the Emergency Conference installation. It contains the following lines:

- “/oai/app/sentry/cfg/history/printDb.cfg”
- “/oai/app/sentry/cfg/history/printers.cfg”
- “/oai/app/sentry/cfg/history/confDb.cfg”
- “/oai/app/sentry/cfg/history/confHist.cfg”

The “oai/app/sentry/cfg/history/Movr.cfg” master configuration file is created during the Executive Override installation. This file may be shared with all Executive Override installations, or it may be copied to allow different history logging configurations for each application. It contains the following lines:

- ./“oai/app/sentry/cfg/history/printDb.cfg”
- “/oai/app/sentry/cfg/history/printers.cfg”
- “/oai/app/sentry/cfg/history/overDb.cfg”
- “/oai/app/sentry/cfg/history/overHist.cfg”

These files are discussed in greater detail in the following sections.

### Printer Configuration Files

Serial printer links are configured using the printDb.cfg and printers.cfg files which are shared with all Sentry database applications. The printDb.cfg file contains baud rate, parity, data bits, and stop bits configuration constants. This file is created during installation and does not require any modification.

The printers.cfg file contains unique definitions for each printer tty. A template version of this file is created during installation, but printer definitions must be entered after installation. Printer configuration variable names use the format `PRINTER_X_????`, where `X` is a sequential number (1, 2, 3, etc.) and the `????` is the variable type (NAME, BAUD, PARITY, etc.).

Printer configuration variable names must occur in sequential order, starting with 1. For example, if there are 3 printers in the system, the configuration variables for the first would be called `PRINTER_1_????`, the second `PRINTER_2_????`, and the third `PRINTER_3_????`.

The following sections describe the configuration variables defined in printers.cfg.

### Printer Count

The configuration variable `PRINTER_COUNT` specifies the number of printers and uses the following syntax:

```
INTCONST PRINTER_COUNT X
```

where `X` is the number of printers connected to the system (1, 2, etc.).

### Printer Device Name

The printer tty device name is specified with the `PRINTER_X_NAME` variable, which uses the following syntax:

```
STRCONST PRINTER_X_NAME
"/dev/tty????"
```

where `X` is the sequential printer number (1, 2, etc.) and the name contained in quotes is the tty device name that is connected to the printer (/dev/tty1a, /dev/tty2a, etc.).

### Printer Device Baud Rate

The printer device baud rate is specified with the `PRINTER_X_BAUD` variable, which uses the following syntax:

```
INTCONST PRINTER_X_BAUD BAUD_????
```

where `X` is the sequential printer number (1, 2, etc.) and `BAUD_????` is one of the following baud rate constants defined in printDb.cfg:

```
BAUD_0    BAUD_50    BAUD_75
BAUD_134  BAUD_150  BAUD_200
BAUD_300  BAUD_600  BAUD_1200
BAUD_1800 BAUD_2400  BAUD_4800
BAUD_9600 BAUD_19200 BAUD_38400
```

### Printer Device Parity

The printer device parity is specified with the `PRINTER_X_PARITY` variable, which uses the following syntax:

```
INTCONST PRINTER_X_PARITY PARITY_????
```



where X is the sequential printer number (1, 2, etc.) and PARITY\_???? is one of the following parity constants:

PARITY\_NONE PARITY\_ODD PARITY\_EVEN

### Printer Device Data Bits

The printer device data bits is specified with the PRINTER\_X\_DATA\_BITS variable, which uses the following syntax:

```
INTCONST PRINTER_X_DATA_BITS DATA_BITS_?
```

where X is the sequential printer number (1, 2, etc.) and DATA\_BITS\_? is one of the following data bits constants:

DATA\_BITS\_5 DATA\_BITS\_6

DATA\_BITS\_7 DATA\_BITS\_8

### Printer Device Stop Bits

The printer device stop bits is specified with the PRINTER\_X\_STOP\_BITS variable, which uses the following syntax:

```
INTCONST PRINTER_X_STOP_BITS STOP_BITS_?
```

where X is the sequential printer number (1, 2, etc.) and STOP\_BITS\_? is one of the following data bits constants:

STOP\_BITS\_1 STOP\_BITS\_2

## Format Configuration Files

Each Sentry OAI application has its own set of two format configuration files which control the logging formats. The first file contains data field constant configurations and does not require any modification. The second file contains unique definitions for each history log file or printer and may be modified.

The following files are created during the Annoyance Trap installation:

```
annoyDb.cfg    data field constants
annoyLog.cfg   history log definitions
```

The following files are created during the Emergency conference installation.

```
confDb.cfg     data field constants
confHist.cfg   history log definitions
```

The following files are created during the Executive Override installation.

```
overDb.cfg     data field constants
overHist.cfg   history log definitions\
```

The overDb.cfg file is shared by all Executive Override configuration. This overHist.cfg may also be shared, or it may be copied to allow different history logging configurations for each application.

History log configuration variable names use the format LOG\_X\_???, where X is a sequential number (1, 2, 3, etc.) and the ??? is the variable type (TYPE, NAME, STARTED, etc.).

History Log configuration variable names must occur in sequential order, starting with 1. For example, if there are 3 history log files and/or printers in the system, the configuration variables for the first would be called LOG\_1\_???, the second LOG\_2\_???, and the third LOG\_3\_???

The following sections describe common configuration variables defined in the annoyLog.cfg, confHist, cfg, and overHist.cfg files.

### History Log Count

The configuration variable LOG\_COUNT specifies the number of history log definitions and uses the following syntax:

```
INTCONST LOG_COUNT X
```

where X is the number of history log definitions (1, 2, etc.). If x=0, then no history will be written to a file or printer.

### History Log Type

The history log type is specified with the LOG\_X\_TYPE variable, which uses the following syntax:

```
INTCONST LOG_X_TYPE LOG_???
```

where X is the sequential history log number (1, 2, etc.) and LOG\_??? is one of the following log type constants:

- **LOG\_FILE:** history log messages are written to a Unix File
- **LOG\_PRINTER:** history log messages are written to a serial printer

## History Log Name

The history log name is specified with the LOG\_X\_NAME variable, which uses the following syntax:

```
STRCONST LOG_X_NAME
"/oai/log/sentry/override"
```

where X is the sequential history log number (1, 2, etc.) and the name contained in quotes is either a Unix File path (if LOG\_X\_TYPE is set to LOG\_FILE) or a tty device (if LOG\_X\_TYPE is set to LOG\_PRINTER).

## History Log Message Formats

Each message format is defined using a configuration variable called a STRDEF, which has the following syntax:

```
STRDEF <name>
  FLDDDEF <field> <position> <length> <attributes> <munge>
  .
  .
  FLDDDEF <field> <position> <length> <attributes> <munge>
DEFEND
```

The keyword STRDEF identifies the start of the variable. The following <name> specifies the name of the variable. The following names are used by the Annoyance Trap History Log Configuration files.

- **LOG\_X\_STARTED:** History Logging is started
- **LOG\_X\_STOPPED:** History Logging is started
- **LOG\_X\_LOGIN:** A user has logged in
- **LOG\_X\_LOGOUT:** A user has logged out
- **LOG\_X\_STA\_STA:** An event occurred between two stations
- **LOG\_X\_STA\_TRK:** An event occurred between a station and a trunk
- **LOG\_X\_TRK\_STA:** An event occurred between a trunk and a station
- **LOG\_X\_STA\_STA:** An event occurred between two trunks.

The following names are used by the Emergency Conference History Log configuration files:

- **LOG\_X\_STARTED:** History Logging is started
- **LOG\_X\_STOPPED:** History Logging is started
- **LOG\_X\_LOGIN:** A user has logged in
- **LOG\_X\_LOGOUT:** A user has logged out
- **LOG\_X\_EVENT:** An event has occurred

The following names are used by Executive Override History Log configuration files:

- **LOG\_X\_STARTED:** History Logging is started
- **LOG\_X\_STOPPED:** History is started
- **LOG\_X\_EVENT:** An event has occurred

where X is the sequential history log number (1, 2, etc.).

After the STRDEF line is one or more FLDDEF lines. Each FLDDEF specifies the position and appearance of a data field. The keyword DEFEND identifies the end of the variable.

Each FLDDEF line contains a <field> value which specifies the name of a DBFIELD. All DBFIELD are contained in the data field constant configuration file associated with the application.

The <position> value specifies the field's starting position within the message (1 specifies the first character in the message), <length> specifies the maximum size of the field, <attributes> specifies the color attributes (this value should always be set to NONE), and the optional <munge> values may be used to append one or more text constants or DBFIELD values to the message field.

Munge values always occur in pairs. The first value is the munge keyword (MUNGE\_TXT or MUNGE\_FLD), the second is the munge value. If MUNGE\_TXT is specified as the keyword, then a text constant enclosed in quotes must follow. If MUNGE\_FLD is specified, then a DBFIELD name must follow.

Munge pairs can be strung together as shown in the following FLDDEF example:

```
FLDDEF HOURS_24 1 5 NONE MUNGE_TXT ":" MUNGE_FLD MINUTES
```

This FLDDEF creates a message with the format "HH:MM" if the DBFIELD variables HOURS\_24 and MINUTES have been defined. Note that the length value is set to 5 to include the length of the munge fields.

## History Log Message Formats (Continued)

All history log messages can use the following date and time DBFIELD values to display time stamp information:

- **MONTH\_NUM**: Numeric Month (1-12, where 1 = January, 12 = December)
- **MONTH\_ABRV**: Abbreviated Month Names (Jan, Feb, etc.)
- **MONTH\_FULL**: Full Month Names (January, February, etc.)
- **DAY\_NUM**: Numeric Data (1-31)
- **WEEK\_DAY\_ABRV**: Abbreviated Weekday Names (Mon, Tue, etc.)
- **WEEK\_DAY\_FULL**: Full Weekday Names (Monday, Tuesday, etc.)
- **YEAR\_ABRV**: Last two digits of the year (95 = 1995, 96 = 1996, etc.)
- **YEAR\_FULL**: Full year (1995, 1996, etc.)
- **HOURS\_24**: 24 Hour Time (0 = midnight, 12 = noon, 23 = 11:00 PM)
- **HOURS\_12**: 12 Hour Time (1-12)
- **MINUTES**: Minutes (0-59)
- **SECONDS**: Seconds (0-59)
- **AM\_PM**: AM / PM string (AM for midnight to 11:59 AM, PM for noon to 11:59 PM)

## Annoyance Trap Messages

User Login, User Logout, and Annoyance Trap Event Messages can use the following DBFIELD values:

- **APPLICATION:** Application Type, will always be “Trap” to indicate Annoyance Trap
- **MONITORED\_NUM:** The Monitored Number used to trigger the Annoyance Trap

User Login and User Logout Messages can use the following DBFIELD values:

- **TERMINAL\_NAME:** The name of the terminal the user is accessing
- **USER\_NAME:** The name of the user

Annoyance Trap Event Messages can use the following DBFIELD values:

- **CALLER\_EXT:** The caller’s extension number
- **CALLER\_RT:** The caller’s route number
- **CALLER\_TK:** The caller’s trunk number
- **CALLER\_LOC:** The caller’s location obtained from the APM Buildings database
- **CALLER\_STAT:** The caller’s status (Ringing, Answered, etc.)
- **CALLER\_CLASS:** The caller’s class (Operator or Caller)
- **CALLER\_CONNECT:** The extension that is connected to the caller
- **CALLER\_CON\_RT:** The route that is connected to the caller
- **CALLER\_CON\_TK:** The route that is connected to the caller

## Emergency Conference Messages

User Login, User Logout, and Conference Event Messages can use the following DBFIELD values:

- **APPLICATION:** Application Type, will always be “Conf” to indicate Conference
- **MONITORED\_NUM:** The Monitored Number used to trigger the conference
- **CONF\_NAME:** The Conference Name obtained from the APM Conference database

User Login and User Logout Messages can use the following DBFIELD values:

- **TERMINAL\_NAME:** The name of the terminal the user is accessing
- **USER\_NAME:** The name the user

Conference Event Messages can use the following DBFIELD values:

- **CALLER\_EXT:** The caller’s extension number
- **CALLER\_LOC:** The caller’s location obtained from the APM Buildings database
- **CALLER\_STAT:** The caller’s status (Ringing, Answered, etc.)
- **CALLER\_CLASS:** The caller’s class (Operator or Caller)

## Executive Override Messages

Executive Override Event Messages can use the following DBFIELD values:

- **OVERRIDE\_TYPE**: The override type (Basic, Auto, Moni)
- **WARNING\_FLAG**: The warning tone flag (None, Tone1, Tone2)
- **JOIN\_METHOD**: The override join method (2-Way, 3-Way)
- **EVENT\_ABVR**: The two character override event abbreviation (AI, CF, CO, CT, DF, DI, DP, DR, DU, IU, JC, MF, NA, OC, OR, OU, SF, TF, UT).
- **EVENT\_FULL**: The long override event description (AuthInv, ConfFail, CampOn, CampOnTO, DirectFail, DestInv, DestProt, DestRel, DestUnkn, InitUnkn, JoinConv, MoniFail, NoAnswer, OvrComplt, OvrReqst, OvrUnkn, SmfrFail, TimerFail, UserTerm)
- **INTIATOR**: The extension that initiated the override
- **DESTINATION**: The destination extension to override
- **PARTY\_2**: The extension of the party connected to the destination
- **AUTH\_CODE**: The authorization code entered by the user
- **AUTH\_NAME**: The authorized user's name
- **AUTH\_EXT**: The authorized user's extension

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