

UC for Enterprise (UCE) Application Platform (UNIVERGE OW5000)

Dialer

Installation Manual

NEC NEC Corporation

March 2010
NDA-30114, Revision 11

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1

Introduction

Welcome to the *UC for Enterprise (UCE) Application Platform (UNIVERGE) Dialer Installation Guide*. This guide provides the information you need to install and configure the Dialer application.

- Chapter Topics*
- [About Dialer](#)
 - [How This Guide is Organized](#)
 - [Using This Guide](#)

About Dialer

Dialer is an OW5000 Windows service that enables Dterm users to access a corporate-wide directory on their telephone display. With OW5000 Dialer, you can search the entire corporate directory for a telephone number or search the directory of a specific division or department.

Once OW5000 Dialer locates the name or location that you are looking for, it displays the information on your NEC Dterm telephone. You can then place or transfer a call to the telephone number corresponding to that entry.

Database entries are stored in the same database used by other OW5000 applications such as the UA5200 Client. Queries to the database are dynamic. Any changes to directory items will immediately be available in OW5000 Dialer.

How This Guide is Organized

- | | |
|---|--|
| Chapter 1
Introduction | This chapter outlines how to use the manual, including the organization, chapter layout, and conventions used in the OW5000 Dialer Installation Guide. |
| Chapter 2
Installing Dialer | This chapter details the procedures required to install the Dialer application. |

Chapter 3
Configuring Dialer This chapter describes the functions and associated screen displays for configuring Dialer in OW5000 Administrator.

Chapter 4
NEAX Command Assignments This chapter specifies the procedures to configure the PBX settings required by the Dialer application.

2

Installing Dialer

This chapter provides step-by-step procedures to install and configure the components of the Dialer software.

- Chapter Topics
- [Before Starting the Installation Procedure](#)
 - [Installing Dialer](#)

Before Starting the Installation Procedure

This section describes the required components that must be in place before installing the OW5000 Dialer software.



NOTE

Each PBX must be configured for use with OAI before installing the application software.

OW5000 Server

Prior to installing any OW5000 software, please refer to the Requirements section in the *UC for Enterprise (UCE) Application Platform (UNIVERGE OW5000) Getting Started Guide* to verify that your system meets the Application Environment requirements for the OW5000 Platform and specific OW5000 application software you purchased.

The OW5000 Platform must be installed before you install the Dialer application. For instructions on how to install the OW5000 Platform, refer to the *UC for Enterprise (UCE) Application Platform (UNIVERGE OW5000) Installation Guide*.

Installing Dialer

Use the following steps to install the Dialer software.

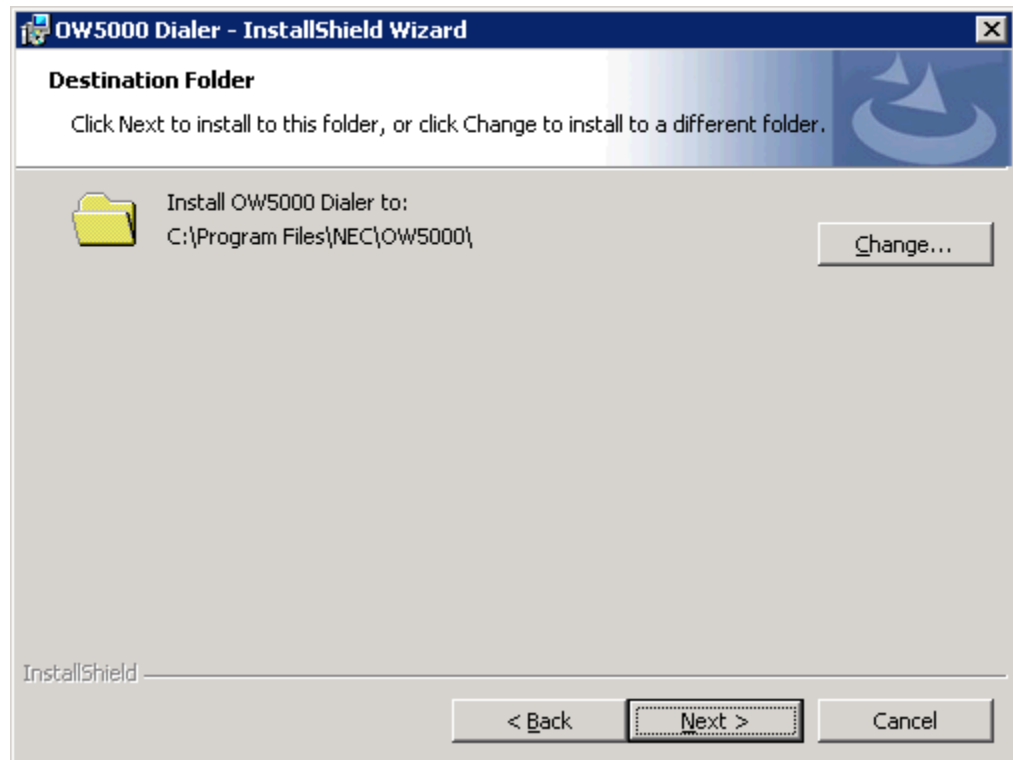
- Step 1** Place the UCE DVD into the computer's DVD ROM drive. On most computers, setup will automatically start when the DVD is loaded. Exit the main menu, then do the following:
- After placing the UCE DVD into the computer's DVD ROM drive, open Windows Explorer and double-click the **DVD-ROM drive** icon.
 - Open the Dialer folder and double-click the **Setup.exe** file.
- Step 2** A Welcome Dialer dialog box displays (Figure 2-1).

Figure 2-1 Welcome dialog box



- Step 3** Click **Next**. The Destination Folder dialog displays (Figure 2-2).

Figure 2-2 Destination Folder dialog box



Step 4 Do one of the following:

- To install to the default folder, click **Next**.
- To select a different location, click **Change**, select the desired location from the following dialog box, then click **Next**. A Database Server dialog box displays (Figure 2-3).

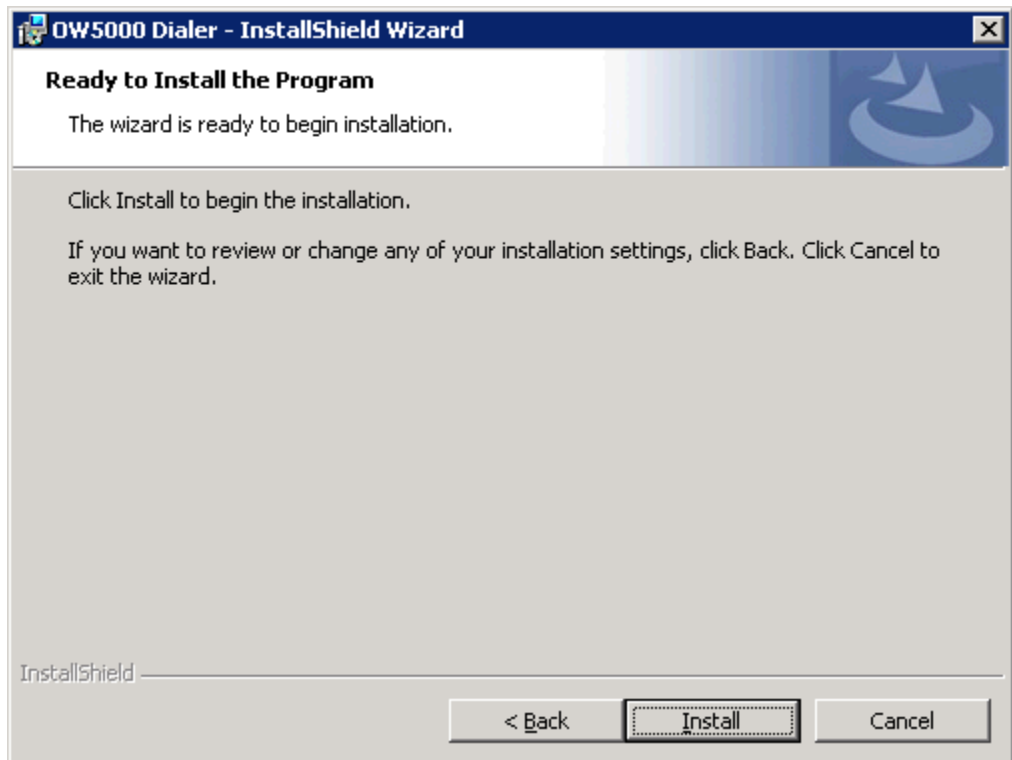
Figure 2-3 Database Server dialog box

- Step 5** Select the database server where the installation will occur using the **Database server that you are installing to** field drop-down, or by clicking **Browse** to select the server.
- Step 6** Specify the authentication method by selecting one of the options listed under the **Connect using** section.
- Step 7** Enter the name of the database catalog, or use **Browse** to select the catalog.
- Step 8** Click **Next** when finished. A Logon Information dialog box displays [\(Figure 2-4\)](#)

Figure 2-4 Logon Information dialog box

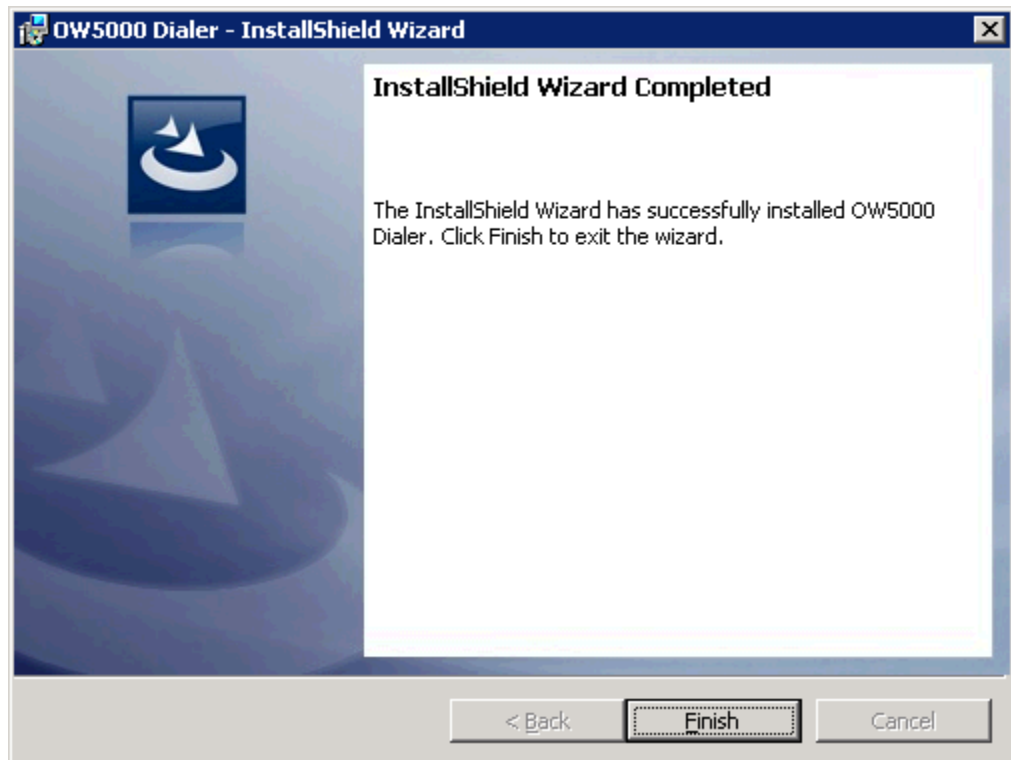
- Step 9** Enter your OW5000 account user name in the User name field. The **User name** format is **domain\Username** or **Username** if the account is on the local machine. This User name must have administrator rights on the target machine.
- Step 10** Enter the password associated with this user name in the **Password** field.
- Step 11** (Optional) Select **New User Information** to enter information about a new user during installation.
- Step 12** Click **Next** to continue the installation. A Ready to Install Program dialog box displays (Figure 2-5).

Figure 2-5 *Ready to Install Program dialog box*



Step 13 Click **Install** to begin the installation.

Figure 2-6 Completed Dialer Installation dialog box



Step 14 Click **Finish** to complete the Dialer installation program.

3

Configuring Dialer

OW5000 Administrator is an OW5000 Platform utility used to configure OW5000 applications and tools. It also provides a graphical user interface to modify OW5000 user account information.

OW5000 Administrator provides a view of database information, login settings, installed machines, installed applications under each machine, and application settings. You may browse and request modifications to the system repository by clicking on the desired application in the navigation pane.

The functions and associated screens that display for configuring Dialer in OW5000 Administrator are described in this chapter.

The following topics are included in this chapter.

Chapter Topics

- [Configuring the General Options](#)
- [Configuring the PBX Settings Options](#)
- [Configuring Dialing Properties](#)

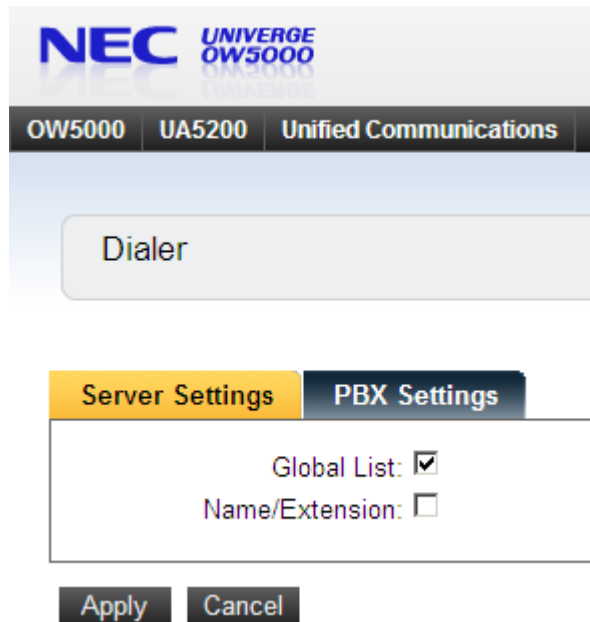
Configuring the General Options

You must login to the OW5000 Administrator in order to configure Dialer. Refer to the *UC for Enterprise (UCE) Application Platform (UNIVERGE OW5000) Configuration Guide* for information on how to login to the OW5000 Administrator. When you have finished configuring the application, you can either log out or just close your browser.

Dialer options may be configured through OW5000 Administrator by completing the following steps.

- Step 1** Login to the OW5000 Administrator program. Once you are logged in to the OW5000 Administrator, follow this path to open Dialer's configuration options: **OW5000 > Applications > Dialer**. [Figure 3-1](#) displays.

Figure 3-1 Dialer Manager dialog box



- Step 2** Select the **Name/Extension** check box to configure Dialer to display the station extension with the name found by Dialer on the user's Dterm LCD.



NOTE

Unchecked is the recommended configuration for the Name/Extension option. If unchecked, the name of the queried person will not be truncated to accommodate the extension, giving the user the benefit of seeing a full 16 characters. The extension can then be displayed by scrolling to the right to view the next LCD screen of information. See the OW5000 Dialer User Guide for more information.

- Step 3** Select the **Global List** check box to configure Dialer to allow users to search with the name only. If this option is not selected, Dialer will prompt the user to query divisions, departments, and finally the name.

- Step 4** Click **Apply** after you have completed your changes.



NOTE

In order for the changes to become active, you must stop the Dialer application via the WatchDog Helper and allow WatchDog to restart the application. (See the UNIVERGE OW5000 Configuration Guide for more information.) Because the application will not be accessible during this process, it is best to wait until off hours to stop the application.

Configuring the PBX Settings Options

Select the **PBX Settings** tab located on the Dialer Manager dialog box (Figure 3-1). The PBX Settings dialog displays (Figure 3-2). This dialog is used to assign the PBX to which Dialer will connect.

Figure 3-2 PBX Settings Configuration Options dialog box

The screenshot shows the 'PBX Settings' configuration dialog for NEC UNIVERGE OW5000. The dialog has a header with the NEC logo and 'UNIVERGE OW5000'. Below the header are three tabs: 'OW5000', 'UA5200', and 'Unified Communications'. A 'Dialer' button is visible below the tabs. The main content area has two sub-tabs: 'Server Settings' and 'PBX Settings', with 'PBX Settings' being the active tab. The configuration fields are as follows:

- PBX: *NECPBX1 (dropdown menu)
- IP Address: 172.24.142.20
- PBX ID: 20
- RMI Bind Name: OAIserver.NECPBX1
- Client Server Port: 44000
- PBX Type: UNIVERGE SV7000
- Split Call Forward: No
- Port: 60030
- Force Port: yes no
- Heartbeat: yes no
- Selected:
- Incremental Retry Delay: 30 seconds (dropdown menu)
- OAI Timeout: 15 seconds (dropdown menu)
- Max Retry Delay: 10 minutes (dropdown menu)
- Use OAI Server: No
- Data Mode: 132 | Dialer (dropdown menu)
- LED Number: 3 | Dialer (dropdown menu)

At the bottom of the dialog are two buttons: 'Apply' and 'Cancel'.

Step 1 From the PBX Settings dialog box, select the PBX you want to modify from the **PBX** drop-down menu.

Step 2 Verify the desired value for **Port**

This field specifies the TCP/IP port number that the application uses when connecting to the PBX. Use the following port values for the PBX in use:

—NEAX 2000 IPS PBX, NEAX 2400 IPX PBX, and UNIVERGE SV7000, SV8300, and SV8500 ports are always 60030.

Step 3 Verify the value for **Force Port**.

This field has the following settings:

—**Yes** specifies that the application uses the same port each time it runs. This should be selected to avoid problems with clearing Dterm displays and monitoring equipment.

—**No** specifies that the application will retry one of the other port numbers when the application fails to connect to the PBX because the port may be in use by another application. This setting has no effect when the PBX Type is NEAX 2400 IPX, UNIVERGE SV7000, SV8300, and SV8500, or NEAX 2000 IPS.

You should normally select **Yes** for the Force Port field.

Step 4 Verify the setting for **Heartbeat**.

This field has the following settings:

—**Yes** specifies that the application checks approximately every 20 seconds to make sure the PBX connection is still alive and operational.

—**No** specifies that the application will not check the PBX connection.

You should normally select **Yes** for the Heartbeat field.

Step 5 Check the **Selected** checkbox if you would like Dialer to attempt to connect to this PBX the next time it is restarted.

Step 6 You can change the **Data Mode** that Dialer uses to communicate with Dterm users by selecting an available Data Mode from the drop down list. The data mode you select must be programmed for use with OAI in the PBX, and it must be assigned to a function key button on each user's Dterm in order for Dialer to be available to the user.

The value ranges from 128 to 191 and should match the OPCODE in the AOKC command on the NEAX 2400 IPX or the D70 command if using the NEAX 2000 IPS.

Step 7 You can change the **LED Number** that Dialer lights when active on the Dterm.

The value ranges from 1 to 14 and corresponds to the KEYCODE in the AOKC command on the NEAX 2400 IMS or the OAI Function Key number of the D70 command if using the NEAX 2000 IPS. This value

has nothing to do with the actual function key assigned on the user's Dterm.

- Step 8** You can modify the amount of time that Dialer waits for user input before exiting on that person's Dterm.
- Step 9** If needed, you can modify the **Incremental Retry Delay**. The **Incremental Retry Delay** designates the amount of time the application waits to attempt to reconnect to the PBX after the connection is lost. If the connection to the PBX is lost, Dialer waits for the amount of time specified in the Incremental Retry Delay field before attempting the first attempt to reconnect. If the connection still cannot be made, the specified amount of time will be added to the delay period before the next attempt. For example, if the Incremental Retry delay is set to 30 seconds, Dialer waits 30 seconds before attempting to reconnect. If that first attempt fails, the application waits 60 seconds before making a second attempt to connect, then waits 90 seconds before making a third attempt, and so on. When the application successfully reconnects to the PBX, the delay time goes back to the amount of time set in the Incremental Retry Delay Value field. Incremental Retry Delay Value is typically set to 30 seconds.
- Step 10** The **Max Retry Delay** specifies the maximum amount of time the application waits between attempts to reconnect to the PBX after the connection is lost. This is used in conjunction with the Incremental Retry Delay and ensures that the application will try to re-establish a connection to the PBX within a certain amount of time. The Max Retry Delay Value is typically set to 10 minutes to make sure that the application will attempt to reconnect to the PBX at least once an hour.
- Step 11** Click the **Apply** button.



NOTE

In order for the changes to become active, you must stop the Dialer application via the WatchDog Helper and allow WatchDog to restart the application. (See the UNIVERGE OW5000 Configuration Guide for more information.) Because the application will not be accessible during this process, it is best to wait until off hours to stop the application.

Configuring Dialing Properties

Before using Dialer, you must specify the properties that the server uses to dial calls. These settings can be configured in the OW5000 Administrator. See the *UC for Enterprise (UCE) Application Platform (UNIVERGE OW5000) Configuration Guide* for more information.

4

NEAX Command Assignments

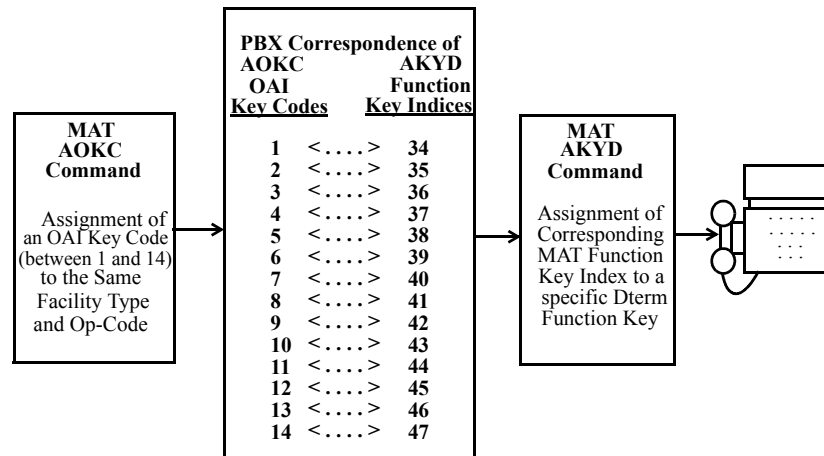
This guide assumes that data settings that affect the operation of all OAI software on a system-wide basis have already been assigned on the NEAX 2400 and the NEAX 2000. Such settings include, for instance, system index values. For more information about the system data settings and about the Dialer settings discussed in this section, refer to the following technical manuals for the specific NEAX system in use:

- OAI System Manual
- Command Manual
- Job Specification
- Feature Programming Manual
- UNIVERGE OW5000 Configuration Guide

The following topics are included in this chapter.

- Chapter Topics*
- [NEAX 2400 Commands](#)
 - [NEAX 2000 Commands](#)

Dialer requires assignment of the Mode Set Facility (MSF) to an OAI-assigned function key on any Dterm affected by an application. This process involves assigning the MSF and its Operation Code (Op-Code), configured for Dialer to one of the 14 OAI Key Codes. (The MSF Op-Codes range from 128 to 191.) Each of the OAI Key Codes corresponds to an AKYD Function Key Index (FKI) value which is then assigned to the specific Dterm function key. [Figure 4-1](#) illustrates this process.

Figure 4-1 OAI Function Key Assignment


NEAX 2400 Commands

Use the NEAX 2400 Maintenance Administration Terminal (MAT) to enter these commands.

A knowledge of the Dterm stations in the NEAX system and which ones will have access to Dialer is necessary to use the following commands:

AOKC Command: (Assignment of OAI Key Codes)

This command is used to associate the MSF facility and its Op-Code that was configured for Dialer to one of the 14 OAI Key Codes in the MAT.

- 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.
- Enter MSF as the facility to be assigned to the selected Key Code, using the values on the screen.

AKYD Command: (Assignment of Dterm Function Key)

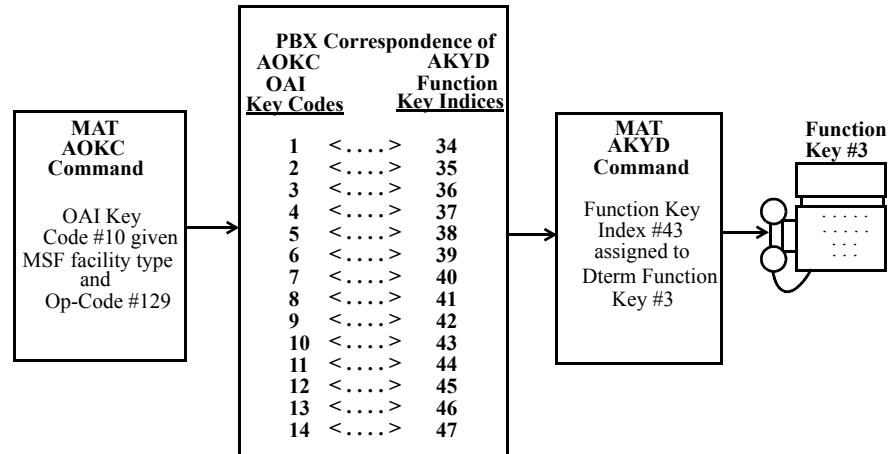
This command is used to assign key data to the Dterm telephones that are to be used to access Dialer.

MAT Function Key Indexes range from 34 to 47, have been designated for use in the OAI system, and correspond to the 14 OAI Key Codes as illustrated on the previous page. The AKYD command is used to assign a Dterm 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 Dterm that is to be set up with access to Dialer.

- Enter the station number of the Dterm on which the function key is being assigned.
- Enter in the Dterm function key field the MAT Function Key Index that corresponds to the previously assigned OAI Key Code.

Figure 4-2 OAI Function Key Assignment Example



Example:

The example in Figure 4-1 indicates that MSF #129 is configured for Dialer and is assigned through the AOKC command to OAI Key Code 10. OAI Key Code 10 corresponds in the PBX to MAT Function Key Index 43. Each Dterm in the system that is to access Dialer has function key 3 assigned to MAT Function Key Index 43 via the AKYD command. Now, whenever a phone user presses function key 3 on any assigned Dterm, MSF 129 initiates communication with Dialer.

ASYD Command: (Assignment of System Indices)

Use ASYD to assign certain bits in System Index data as indicated below.

Index 27	Bit 6	
	0	Enable OAI
Index 63	Bit 6	
	1	Enable SMFN Call Forward Detail
	Bit 7	
	1	Internal OAI

Index 79	Bit 6	
	0	Enable OAI/ACD
Index 241	Bit 2	
	1	LP sends SMFNs to IP
	Bit 3	
	1	Enable Detail Error Codes
Index 370	Bit 0	
	1	Send expanded SMFNs including CCIS Link reconnect SMFNs needed

ASYDL Command: (Extended Assignment of System Indices)

This command is used to set system index bits as needed by most OW5000 applications. This command is not available on earlier versions of the PBX, such as the HDS or ICS.

Index 533		The FPC of the OAI node (or ACD if it exists) for all systems in the network
Index 864	Bit 0	
	1	
	Bits 2 & 3	
	Never 1 at same time	
	Bit 4	
	1	Enable 8-port mode to allow more than two applications to monitor the same device
Index 865		The FPC of the OAI node
Index 867	Bit 0	
	1	Send OAI SMFNs for Call Forward No Answer
	Bit 4	
	1	Enable 16 digit extensions

Dialer is now installed and ready to be initialized on the NEAX 2400.

NEAX 2000 Commands

Use the NEAX 2000 Customer Administration Terminal (CAT) or the NEAX 2000 Maintenance Operations Console (MOC) to enter these commands. (Refer to the NEAX 2000 System Manuals for more information.)

Phone in CAT mode: (Assignment of CAT Mode)

Use this command to place the phone in CAT mode:

Trans + Conf + * + Trans + Conf + #

Once you are in CAT mode, the Buttons on the Dterm perform the actions listed in [Table 4-1](#).

Table 4-1 Dterm Buttons—CAT Mode

Button	Action
LNR/SPD or Redial	Sets the PBX to command mode.
Conf	Writes the data to memory.
Recall	Acts like the Enter key to accept a selection.

CMD79 Command: (Assignment of IP Address)

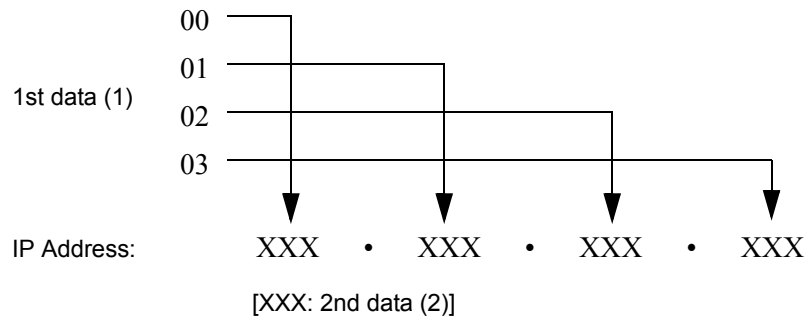
Use this command to assign the IP Address of TCP/IP-Ethernet.

1st data 00-03: Division No. of IP Address

2nd data 0-255: Address Data (1-3 digits)

The IP Address must be assigned to the 1st data 00-03 as listed in [Figure 4-3](#).

Figure 4-3 Assignment of IP Address—CMD79



CMD7 Command: (Assignment of MSF Operation Code)

Y=0: When pressing the OAI function key to start up MSF, assign the operation code to the OAI function key assigned by CM90.

1st data: F1033 Function Key Number 1
 F1047 OAI Function Key Number 15
 2nd data: 128–191: Operation Code for MSF

Y=0: When dialing a digit code (1–3 digits) after pressing OAI function key to start up MSF, assign the digit number of digit code, then assign the operation code to the digit code.

1st data: F1033 Function Key Number 1
 F1047 OAI Function Key Number 15
 2nd data: DCX (X=1–3) Operation Code for MSF

CM90 Command: (Assignment of the OAI Function Key for MSF)

Use this command to assign the OAI function key for starting up MSF to a Dterm.

1st data My line number +, + Key Number
 2nd data F1033 Function Key Number 1
 F1047 OAI Function Key Number 15

CM65 Command: (Camp Recall)

The following settings should be applied to IPS F2 5.0.0 and above to prevent camped calls from recalling to the operator's extension.

<u>yy</u>	27	
1st data	1:	Tenant number
2nd data	0:	Send OAI SMFN-9 (Dialed Digits) for calls placed from an analog single line station

CM08 Command: (System Data)

The following settings should be configured to ensure proper behavior of OW5000 applications.

<u>1st data</u>	117	
2nd data	0:	When Station A is talking to Station B with external call on consultation hold screened transfer, and Station B hangs up, reconnect Station A to the held trunk call.

<u>1st data</u>	177	
2nd data	0:	Send OAI SMFN-9 (Dialed Digits) for calls placed from an analog single line station

<u>1st data</u>	460	
2nd data	0:	Send OAI SMFN-1 (Incoming) STS=7 (Blind Transfer) after a blind transfer

<u>1st data</u>	461	
2nd data	0	Send OAI SMFN-2 (Answer) STS=2 (Held Call) when unholding a held call

<u>1st data</u>	462	
2nd data	0	Send ANI/Caller ID/CPN to OAI terminal

<u>1st data</u>	464	
2nd data	0:	Do not send SMFN Off hook notification after SCF

<u>1st data</u>	465	
2nd data	0:	Send SCF error detail
<u>1st data</u>	804	
2nd data	0	Send station type (0=single line, 1=PS terminal) in OAI SMFNs
<u>1st data</u>	805	
2nd data	0	Send OAI SMFN-3 (Release) STS=5 (Abandon Call Forward) and SMFN-1 (Incoming) STS=6 (Call Forward No Answer) when a monitored extension call forwards no answer
<u>1st data</u>	808	
2nd data	0	Send OAI SMFN-2 (Answer) STS=5,6,7 for answering Call Forward All/Busy/No Answer
<u>1st data</u>	809	
2nd data	1	When answering a held call by SCF11, exchange the line information
<u>1st data</u>	811	
2nd data	0	Send OAI SMFN-1 (Incoming) STS=4,5 for incoming call that is Call Forward All/Busy
<u>1st data</u>	815	
2nd data:	0	Send OAI SMFN-1 (Incoming), STS=2 (Recall) when held call recalls
<u>1st data</u>	817	New in R9
2nd data	0	Send OAI SMFN-1 (Incoming) and SMFN-2 (Answer), STS=4,5,6/5,6,7 (Call Forward All/Busy/No Answer) when CF-All Calls/Busy Line/No Answer call via CCIS is ringing/answered
<u>1st data</u>	818	New in R9
2nd data	0	Send OAI SMFN-6 (Hold), STS=2 (Exclusive Hold) when call is put on exclusive hold

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