

ROLM 9751 CBX

ComManager User Guide

Version 2.23 for the 9006 CBX Software Release

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Preface

This guide explains how to install and use ComManager and ROLM CallBridge for Desktops - TAPI. ComManager, with CallBridge - TAPI, enables a ROLMphone telephone and a personal computer (PC) running Microsoft Windows to use the voice capabilities of the ROLM 9751 CBX.

Who Should Read This Guide

This guide is for use by ComManager users, 9751 CBX system administrators, and those responsible for the installation of ComManager and CallBridge - TAPI.

To use this manual, you should already be familiar with ROLMphone telephones (600 series with Data Communication Option (DCO) installed), personal computers running the DOS (MS-DOS or PC-DOS) operating system, Microsoft Windows (Version 3.1), or Windows 95.

Organization of This Guide

This guide contains six chapters, two appendixes, and a glossary.

Chapter 1, “Introduction,” provides information about ComManager features, lists the software and hardware installation requirements, and tells how to use the Help feature.

Chapter 2, “Installing CallBridge for Desktops - TAPI,” describes how to install the CallBridge - TAPI telephony software, that is required for the Windows operation of ComManager.

Chapter 3, “Installing and Upgrading ComManager,” explains how to make an initial installation of ComManager, and how to upgrade ComManager from Release 2.1 to Release 2.23.

Chapter 4, “Getting Started,” explains how to start using ComManager. This section explains how to load the application, work with the application windows, originate and answer telephone calls, and add entries to a telephone directory.

Chapter 5, “Basic Operations,” describes how to work with directories, use reminder lists and the call log, and assign keys.

Chapter 6, “Troubleshooting ComManager,” provides information to locate and correct installation and operation problems.

Appendix A, “ComManager Features,” provides definitions for the telephone, ACD, and ComManager features supported by ComManager.

Appendix B, “DDE Support,” provides information about the Dynamic Data Exchange (DDE) features supported by ComManager.

This document contains a glossary and an index.

How to Use the Procedures in This Guide

This user guide assumes you already know how to use the pulldown menus, scroll bars, buttons, and text and check boxes found in typical Windows applications. You should also know how to use a mouse.

Note: All commands or information that you enter in Windows or ComManager are shown as follows: `A:Install`

Note: In this user guide, a telephone is always a ROLMphone (600 series with DCO installed) telephone.

For More Information

- *Microsoft MS-DOS (or IBM PC-DOS) User's Guide, Version 5.0 (or later)*
Provides complete descriptions of both basic and advanced features of the PC operating system.
- *Microsoft Windows User's Guide for the Microsoft Windows Operating System.*
This guide describes how to use basic features in the Windows environment.
- *ROLMphone 600 Series with DCO User Guide, GU30-1546.*
This guide describes how to use the basic features of ROLMphone 600 Series telephones. It also contains helpful attention (AT) commands you can use to diagnose problems with your telephone.
- *ROLM 7652 PhoneMail and 7653 PhoneMail SP Systems User Guide, Release 6.0, G341-1597-00.*
This guide describes how to use the basic features of the PhoneMail system.

Chapter 1 Introduction

This chapter lists the hardware and software requirements needed to operate and install CallBridge for Desktops - TAPI and ComManager. It also describes how to use the ComManager online Help feature.

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ComManager Features

ComManager, together with CallBridge - TAPI, allows a ROLMphone telephone and a personal computer (PC) running Microsoft Windows to use the voice capabilities of the Siemens Rolm telephone system.

Using the ComManager application, you can create:

- Multiple personalized telephone directories that you can use to automatically dial from your ROLMphone telephone.
- Timed reminders, with dialing capability.
- A call log (a list of telephone calls that you have made and received), with dialing capability.
- Note cards for entering personalized information about telephone directory entries, reminders, and logged calls.

The ComManager application allows you to configure:

- Telephone features assigned to the ComManager keys, such as one-touch autodialing.
- Telephone features for the ROLMphone telephone keys.

In addition, you can:

- Have your local directory automatically updated from a LAN directory.
- Use the telephone features of the 9751 CBX.
- Export data from, and import data into, ComManager, using a variety of file formats.
- Print the data in your telephone directories, reminder list, and call log.

Finally, the ComManager application provides:

- A dial pad for manual dialing or addressing PhoneMail messages.
- Context-sensitive, online help.
- Dynamic data exchange (DDE) with other applications.
- Access to ACD features on the ROLM 9751 CBX, Release 9006.2.
- PhoneMail integrated application.

Hardware Requirements

ComManager requires the following hardware for use with Release 9006:

- A ROLMphone 600 series telephone with the Data Communication Option (DCO) installed. The DCO Revision number must be 2.009.

Note: The revision number may be found on a label on the DCO module. After you have configured your telephone as described in “Configuration” on page 2-2, the DCO revision may also be found by clicking the More Info button in the CallBridge Configuration window, as described in “System Information” on page 2-5.

- One of the following supported ROLM 9751 CBX models:
 - Model 30
 - Model 30E
 - Model 80
- The connector on the ROLMphone DCO must be connected to one of the serial communication ports COM1 through COM4 on your PC using a standard PC EIA/TIA-232-E straight-through cable or a Siemens Rolm Y-cable. Both the 9-pin and the 25-pin serial ports found on most PCs are compatible with CallBridge - TAPI. The required EIA/TIA-232-E cables to connect the ROLMphone telephone to the PC serial ports are:

For simultaneous voice and data communication (2 channels)

- 25-pin to 25-pin Siemens Rolm Y-cable Model No. 46919 Part No. 51A3849, or
- 9-pin to 25-pin Siemens Rolm Y-cable Model No. 46918 Part No. 51A3847

For voice or data communication (1-channel)

- 25-pin to 25-pin straight-through cable Model No. 46917 Part No. 51A3848, or
- 9-pin to 25-pin straight-through cable Model No. 46916 Part No. 51A3846

Note: Requirements for 9-pin or 25-pin cables depend on whether the serial ports of the PC have 9-pin or 25-pin connectors. The ROLMphone end of each cable is a 25-pin connector.

- A PC with an Intel based or Intel based microprocessor (for example, IBM Personal Computer, PS/2, or compatible system) having the following features:
 - An 80386 or greater microprocessor
 - 4 MB memory minimum (Additional memory improves response time.)
 - A 3.5 inch, 1.4-MB diskette drive
 - A hard disk with 20 MB or more available free space
 - A graphics-capable display: VGA, or higher resolution
 - At least one available serial port (2 serial ports are required for simultaneous voice and data)
 - A Windows-compatible mouse or equivalent pointing device

Compatibility with Data Applications

CallBridge - TAPI allows the Data Communication Option (DCO) of your ROLMphone to be used for both telephony control and data communications. TAPI applications, such as ComManager, use the DCO for telephony control. Data applications, such as a terminal emulator, may use the DCO to access Data Switching on the 9751 CBX. Depending on the way that your ROLMphone DCO is connected to your PC, you may be able to access both telephony control and data switching concurrently.

If the ROLMphone DCO is connected to only one communication port on your PC with a straight through EIA/TIA-232-E cable, the DCO cannot be used concurrently by TAPI and Data applications. If the ROLMphone DCO is connected to two Communications Ports on the PC with a Siemens Rolm Y-cable, TAPI and Data applications may access the DCO concurrently. To do this, configure CallBridge to use the PC communication port connected to Channel 2 of the Y-cable, and configure your Data application to use the communication port attached to Channel 1 of the Y-cable. Channel 2 provides limited function, but is entirely suitable for telephony control. Channel 1 provides greater function and should be used for data applications. Channels 1 and 2 may be connected to any available communication ports, for example COM 1 and COM2.

Note: If you are using a Siemens Rolm Y-cable to connect your ROLMphone to your PC and you configure Channel 2 for use by CallBridge, the DCO Revision number is displayed incorrectly. The revision number is displayed as 2.255 instead of 2.009. The DCO is still completely functional and no problem exists; the revision number is just displayed incorrectly.

Software Requirements

ComManager 2.23 requires the following:

- ROLM 9751 CBX Release 9006.2 software
- In the CBX software configuration, your ROLMphone must be configured as a workstation with DCO. Contact your system administrator for information about the CBX and its configuration.
- One of the following PC software environment:
 - Microsoft Windows 3.1 running in the enhanced mode
 - Windows for Workgroups
 - Windows 95

ComManager Application Software Package

The ComManager application software package contains the following diskettes:

- CallBridge - TAPI.
- ComManager Version 2.23 program.
- ComManager Version 2.23 User Guide electronic document.
- Adobe Acrobat Reader electronic document reading program.

Loading the Software

CallBridge - TAPI

1. Insert the diskette into your diskette drive and read the *Readme.wri* file.
2. Follow the instructions given in Chapter 2 to make the installation.

ComManager Version 2.23 Program

1. Insert the diskette into your diskette drive and read the *Readme.txt* file.
2. Follow the instructions given in Chapter 3 to make the installation.

Adobe Acrobat Electronic Document Reader Program

Load the Adobe Acrobat Electronic Document Reader Program as follows:

1. Insert the diskette into the diskette drive.
2. From the File menu in the Windows Program Manager choose Run.

The Run dialog box appears.

3. In the Command Line text box, enter A:Install.
4. Click OK.
5. Follow the prompts to install the program.

Electronic ComManager Version 2.23 User Guide

Load the Electronic ComManager Version 2.23 User Guide as follows:

1. Click on the Adobe Acrobat icon, or use the Windows File Manager to open Acrobat.
2. Insert the ComManager Version 2.23 User Guide diskette.
3. Follow the instructions in Acrobat to install the User Guide on your hard disk or to view it from the diskette.

At any time, use the User Guide table of contents to find the topics that fit your requirements. Click on the underlined words to move to a specific topic in the guide. Use the other Acrobat viewer features to, for example, search for key words.

Using Online Help

ComManager has a useful help utility. You can use the help utility in three ways:

- **F1** - Press the F1 key for help on any active window.
- **Help Button** - click on the icon containing the large question mark to open a help window and view help contents, as shown in Figure 1-1.
- **File Menu** - Choose one of the items on this menu to access the help system, as shown in Figure 1-1.

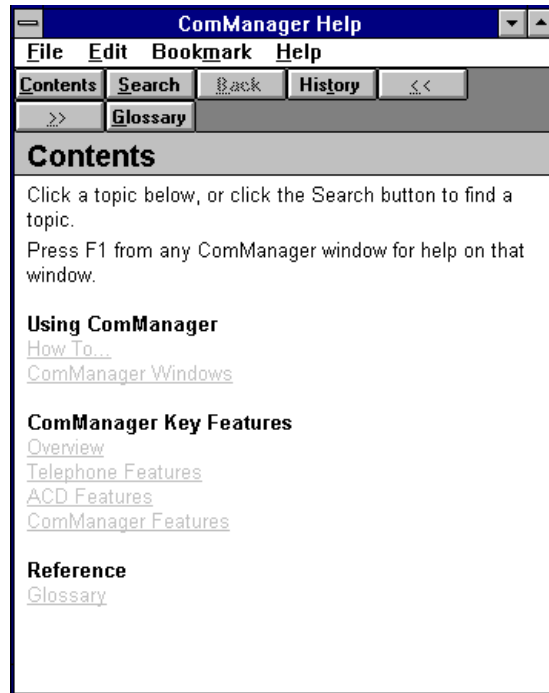


Figure 1-1. ComManager Help, Contents Page

To use the help facility:

- Select a *topic link* (underlined words in the body of the help text) to display information about a specific topic.
- Click Search (a button at the top of the window) to look for topics covering a specific subject.
- Click Back to display the last topic you viewed.
- Click History for a list of previously viewed topics.
- Click Contents to go to the help system's table of contents.
- Click the browse buttons (>> and <<) to move forward and backward to related topics.

You can also use the help system to print help topics, copy topics to the windows clipboard, and make annotations in the help file. For details on these features, from the Help menu in the Help window choose How to Use Help.

To quit the Help window:

- From the File menu, choose Exit, or
- Double click in the upper left hand corner of the window.

Chapter 2 Installing CallBridge for Desktops - TAPI

This chapter contains instructions for installing and configuring CallBridge for Desktops - TAPI. The CallBridge Setup diskette contains files for the CallBridge product as well as files for the Microsoft Windows Telephony product (TAPI). Both TAPI and CallBridge must be installed on the hard disk of your personal computer before TAPI applications can access your ROLMphone 600 series telephone with Data Communications Option (DCO).

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Preinstallation Requirements

- The ROLM 9751 CBX, Release 9006 hardware and software **must** be available as described in “Hardware Requirements” on page 1-2, and “Software Requirements” on page 1-3.
- A personal computer with the appropriate installed hardware and software **must** be available as described in “Hardware Requirements” on page 1-2, and “Software Requirements” on page 1-3.
- The ROLMphone with DCO **must** be connected to the serial ports of a personal computer using the appropriate EIA/TIA-232-E cables, as listed in “Hardware Requirements” on page 1-2.
- In the CBX software configuration, the ROLMphone must be configured as a *Workstation with DCO*. Contact your System Administrator for more information.

Installation

Note: CallBridge – TAPI must be installed before ComManager, or any other TAPI-compliant application, can run.

Installation for Windows 3.1 or Windows for Workgroups

To install CallBridge - TAPI, insert the CallBridge - TAPI Setup diskette into a disk drive on your computer and run the *setup.exe* program on the diskette. To run *setup.exe*, select Run from the File menu of the Windows Program Manager. At the prompt, type:

```
a:\setup
```

If your disk drive is not drive a:, type the proper drive letter in place of a:.

The setup program begins by displaying a Welcome! message. Click the OK button to proceed with installation or click the Cancel button to exit the setup program.

If you choose to proceed with installation, the CallBridge - TAPI and TAPI system files will be copied to your hard disk. When all files have been copied, a message is displayed that explains that the next step is to configure CallBridge - TAPI using the Telephony Control Panel.

Click the OK button and the Telephony Control Panel window is displayed.

In the Telephony window, click the Driver Setup button to bring up the Telephony Drivers window. A list of installed drivers is displayed.

If CallBridge for Desktops - TAPI:

- *is not* listed as an installed driver, click the Add button. A list of available telephony drivers is now displayed. Select the CallBridge for Desktops - TAPI driver and click the Add button.

- *is* listed as an installed driver, click the Setup button.

After you complete either of the above instructions, the CallBridge - TAPI Configuration window is displayed. Skip Installation for Windows 95 and continue with the configuration instructions in “Configuration” on page 2-2. When configuration is complete, click the OK button in the Setup Complete window to exit the setup program.

Installation for Windows 95

To install CallBridge - TAPI, insert the CallBridge - TAPI Setup diskette into a disk drive on your computer and run the *setup.exe* program on the diskette. To run *setup.exe*, push the START button and select Run from the Start menu. At the prompt, type:

```
a:\setup
```

If your disk drive is not drive a:, type the proper drive letter in place of a:.

The setup program begins by displaying a Welcome! message. Click the OK button to proceed with installation or click the Cancel button to exit the setup program.

If you choose to proceed with installation, the CallBridge - TAPI and TAPI system files will be copied to your hard disk. When all files have been copied, a Setup Complete message is displayed that explains that the next step is to configure CallBridge - TAPI using the Telephony Control Panel.

Click the OK button. The setup program is exited and the Telephony Control Panel window is displayed.

In the Telephony Properties window, click the Telephony Drivers tab, and a list of installed drivers is displayed.

If CallBridge for Desktops - TAPI:

- *is not* listed as an installed driver, click the Add button. A list of available telephony drivers is now displayed in the Add Driver window. Select the CallBridge for Desktops - TAPI driver and click the Add button.

- *is* listed as an installed driver, click Setup button.

The CallBridge - TAPI Configuration window is displayed. Continue with the configuration instructions in “Configuration” on page 2-2.

Configuration

CallBridge - TAPI supports the configuration of up to two telephones. Each telephone must be a ROLMphone 600 series telephone with DCO. The DCO of the telephone must be connected to one of the serial ports COM1 through COM4 of your personal computer in order to fully configure the telephone.

Using the CallBridge - TAPI configuration windows, you may add, remove or change telephone configuration.

CallBridge - TAPI Configuration

The CallBridge - TAPI Configuration window is displayed after Add or Setup is selected during Telephony Driver configuration (refer to “Installation” on page 2-1).

The CallBridge - TAPI Configuration window displays a list of telephones that are already configured. If no telephones are configured, the list box is empty.

To add a new telephone, click the Add button. To re-configure an existing telephone, select the telephone in the listbox and click the Setup button. Either action causes the CallBridge - TAPI Telephone Configuration window to be displayed.

To remove a configured telephone, select the telephone in the listbox and click the Remove button. CallBridge - TAPI will ask for confirmation before removing a configured telephone.

CallBridge - TAPI Telephone Configuration

The CallBridge - TAPI Telephone Configuration window is displayed when you click the Add or Setup button in the CallBridge - TAPI Configuration window. If an existing telephone is being re-configured, this window shows the current values of configurable parameters. If a new telephone is being added, the dialog shows default values. In the CallBridge - TAPI Telephone Configuration window you should:

1. Select the PC Communication Port to which the telephone is connected.
2. Enter (or change) the name of the Phone.
3. Enter (or change) the name of the Line.

Communication Port:

The telephone must be connected to the PC with either a standard EIA/TIA-232-E cable or with a Siemens Rolm Y cable. If the Siemens Rolm Y cable is used, you should use the communication port attached to branch 2 of the cable for CallBridge - TAPI. Communications parameters such as baud rate, parity, data bits and stop bits are selected by CallBridge - TAPI.

Phone Name and Line Name:

The Phone and Line Names may be any name of your choice, with a maximum of 50 characters. CallBridge - TAPI does not use these fields directly, but does pass these names on to telephony applications.

The Phone Name is useful for distinguishing between multiple telephones. If you have just one telephone, as is typically the case, use any name that is meaningful to you. For example, Fred's phone.

Each telephone has a line associated with it. The Line Name may be the same or different from the Phone Name. It is suggested that you configure the Line Name to be your extension number. For example, 5498. If your telephone has more than one Line Key, use the extension number of your primary line for the Line Name. If you are unsure which Line Key is your primary line, contact your System Administrator.

Click the Help button to display a help menu, the Cancel button to exit this window without making any changes, or the Continue button to continue configuring the telephone.

When the Continue button is clicked, CallBridge - TAPI attempts to open the specified Communication Port and read configuration information from the attached telephone. If the configuration information is read successfully, the CallBridge - TAPI Telephone Configuration window is replaced by the CallBridge - TAPI ROLMphone Line Keys window which depicts the telephone faceplate and shows all Line Keys that were detected by CallBridge - TAPI.

CallBridge - TAPI ROLMphone Line Keys

The CallBridge - TAPI ROLMphone Line Keys window shows the position of all Line Keys on your telephone. The number of Line Keys and the position of those Line Keys is determined by the configuration of the 9751 CBX.

Click each Line Key to configure the directory number for that Line Key. As you click each Line Key, the CallBridge - TAPI Address Configuration window will appear; this window displays the current directory number. If you have not previously configured the directory number for a Line Key, the value shown is a default value. Edit the directory number if necessary, and click OK to accept the entered number. Click the Cancel button to return to the CallBridge - TAPI ROLMphone Line Keys window without making any changes.

When all Line Keys have been configured as desired, click the Close button in the CallBridge - TAPI ROLMphone Line Keys window to save the configuration and return to the main CallBridge - TAPI Configuration window.

Directory Number: Enter the extension number assigned to this Line Key. For example, 5498.

Note: A Line Key is not the same as the line, whose name you configured in the CallBridge - TAPI Telephone Configuration window. Each telephone can have as many as 29 Line Keys, but a telephone always has just one line. Think of the line as the channel that carries voice conversations, and a Line Key as an address by which your telephone may be reached. Although you can place or receive calls on several addresses (Line Keys), you can have an active voice conversation on only one address at a time, because all addresses must share one voice channel.

The Close/Cancel button

The CallBridge - TAPI Configuration window contains a dual-purpose Close/Cancel button, which is used to exit the window. Before any reversible changes are made to the configuration data, the button is labeled Cancel, indicating that any changes will be discarded when the window exits. After a change has been made that cannot be reversed, the button label changes to Close, indicating that changes will be saved when you exit the window.

Restrictions

CallBridge - TAPI places some restrictions on when configuration may take place. A telephone may be added or removed even if it is in use by an application, but the changes will not take effect until all TAPI applications are stopped and restarted. Existing telephones may not be re-configured while the telephone is in use by any application. CallBridge - TAPI displays an error message if re-configuration is attempted while the telephone is in use. If this happens, stop all TAPI applications and then retry the configuration operation.

Removing and Re-installing CallBridge - TAPI

If you suspect that your CallBridge - TAPI executables have been accidentally deleted or corrupted, you may re-install the files without altering your configuration. Run the Setup program as described in “Installation” on page 2-1, and then click the Cancel button when the Telephony Control Panel is displayed. This will refresh the executable files but will not alter the configuration files.

If you wish to remove your current configuration and reconfigure, you may remove CallBridge - TAPI and then add it again.

For Windows 3.1 or Windows for Workgroups:

Start the Control Panel (usually found in the Main program group of Program Manager) and then start the Telephony Control Panel by double-clicking the Telephony icon. In the Telephony Control Panel, click the Driver Setup button. Select CallBridge for Desktops - TAPI in the list of installed drivers and then click the Remove button. This removes the configuration information about CallBridge - TAPI, but does not erase any program files from disk. Add the Service Provider by clicking the Add button, that adds the CallBridge for Desktops - TAPI driver, and then proceed with configuration as described in “Configuration” on page 2-2.

For Windows 95:

Start the Control Panel by selecting Settings->Control Panel from the Start button menu. Start the Telephony Control Panel by double-clicking the Telephony icon in the Control Panel. A Telephony Properties window / Telephony Drivers tab is displayed. Select CallBridge for Desktops - TAPI in the list of installed drivers and then click the Remove button. This removes the configuration information about CallBridge - TAPI, but does not erase any program files from disk. Add the Service Provider by clicking the Add button, that adds the CallBridge for Desktops - TAPI driver, and then proceed with configuration as described in “Configuration” on page 2-2.

System Information

The CallBridge - TAPI Configuration window contains two buttons that you can use to display information about CallBridge - TAPI and your configured telephones.

Click the About button to display the About CallBridge for Desktops - TAPI window. In addition to product information, this window provides the version numbers for three software components:

- The Telephony Service Provider DLL
- The Telephony Service Provider Applet
- The TAPI DLL

Note: Please provide these numbers when calling for assistance or reporting problems with CallBridge.

The More Info button in the CallBridge - TAPI Configuration window can be used to display information about the current configuration of CallBridge - TAPI. For each telephone that is configured, the CallBridge - TAPI Current Configuration window shows the model of ROLMphone, the communication port to which it is connected, the firmware versions for the telephone and its interface to the CBX, and the options that are installed on your telephone.

Note: Please provide this information when calling for assistance or reporting problems with CallBridge - TAPI.

Note: The information displayed for each telephone shows the configuration created the last time you configured the telephone using the procedures described in “Configuration” on page 2-2. If you add or remove installable options, or if your System Administrator changes the configuration of your ROLMphone in the CBX software, you must re-run the CallBridge - TAPI configuration procedure.

Chapter 3 Installing and Upgrading ComManager

This chapter describes procedures to initially install ComManager on your PC or upgrade from Version 2.1 to Version 2.23. For an initial installation refer to “Installing ComManager” on page 3-1, for an upgrade refer to “Upgrading” on page 3-13.

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Installing ComManager

Note: CallBridge – TAPI must be installed before ComManager, or any other TAPI-compliant application, can run. (See “Installation” on page 2-1 for details.)

The installation program for ComManager provides an easy-to-use interface to install ComManager on your PC within the Windows environment. To simplify installation, the program is designed to obtain as much configuration data as possible from the Windows operating system.

Note: For the latest ComManager updates, view the complete *readme.txt* file on the installation diskette before starting installation.

If you re-install ComManager on the same PC, you **must** specify the same directory as you did on the initial installation to retain any assigned key definitions and database entries.

The ComManager install program guides you through the following necessary steps:

1. Using the main window to start the installation

2. Setting a destination path

This process allows you to enter the destination path for the copy process.

3. Registering users

This information initializes the diskette. Enter your name and the name of your organization.

4. Monitoring the main window status during the copy process

This process performs the file transfer from the source diskette to the destination path you specify.

5. Adding ComManager to the Windows environment

This process creates a ComManager program group, with a ComManager icon, in the Windows Program Manager.

6. Ending the installation

Starting the Install Program

If you are installing ComManager directly onto a PC, start the install program by performing the following procedures. If you are installing ComManager from a network, follow the procedures in “Putting ComManager onto a Network File Server” on page 3-3

1. Make sure that your PC is connected to your ROLMphone telephone with the proper cable. Refer to “Hardware Requirements” on page 1-2, for more information on cable requirements.
2. Place the ComManager diskette in the A: or B: drive.
3. From the File menu in the Windows Program Manager, choose Run.

The Run dialog box appears (Figure 3-1).

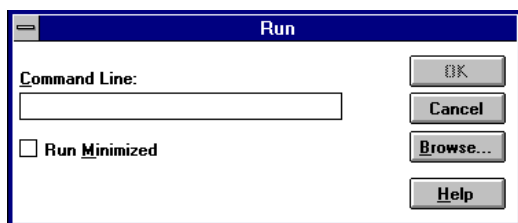


Figure 3-1. Windows Run Dialog Box

4. In the Command Line text box, enter A: Install if the installation diskette is in drive A.
Or enter B: Install if the installation diskette is in drive B.
5. Click OK.

The main installation window appears.

6. Go to “Using the Main Installation Window” on page 3-4 to continue the installation.

Distributing ComManager to Network Users for Multi-user Sites

If you have purchased the Multi-user Site License, ComManager may be installed directly from a network drive or it may be copied from a network to the users' PCs, and installed locally.

Putting ComManager onto a Network File Server

When using the Multi-user Site License you can install ComManager from the network to an individual PC. You must first install the ComManager application to a network file server directory, and from there you can install ComManager to individual PCs.

Note: You *cannot* install ComManager from your PC to the network, nor can you install ComManager from one network to another network.

Put ComManager onto the network file server as follows:

1. Place the ComManager diskette in the A: or B: drive.
2. In the network file server, create a subdirectory for the files (for example, X:\CM).
3. Copy the ComManager files to the network directory.

Once ComManager is on your network file server, you can install it or distribute it from the network file server.

Installing ComManager from a Network File Server

1. From the File menu in the Windows Program Manager, choose Run.
The Run dialog box appears (as shown in Figure 3-1).
2. In the Command Line text box, enter the path name to ComManager's install command (for example, X:\CM\install).
3. Click OK.
4. Go to "Using the Main Installation Window" on page 3-4 to continue the installation.

Distributing ComManager from a Network File Server

You may choose not to install ComManager from a network, but rather to distribute from a network drive and let each user install from their local drive. To do so, copy a previously uninstalled version of the ComManager diskette to a network drive for the number of users licensed.

1. Do not install any of the ComManager application's Site License diskettes.
2. Copy the diskette image to a network drive.
3. Place the original diskettes in a safe place as backup copies.
4. Each user can copy the disk image from the network drive to their local drive and install ComManager from there, following the instruction in "Starting the Install Program" on page 3-2.

Using the Main Installation Window

The main installation window (Figure 3-2) appears after you have started the install program. The installation window warns you if a version of ComManager or another copy of the install program is already running. In these cases, you must exit the install program. The system disables the Install button and you cannot use the install program to install ComManager. This feature prevents corruption of the installation. You have to either close the old version of ComManager or use the install program that is already running.

The main installation window has a Status box that informs you about the status of the installation. The Status box continually updates on the progress of the install program.



Figure 3-2. Main Installation Window

Use the main installation window as follows:

1. Click the Install button.

This starts the installation. It is disabled if the install program finds a concurrently running copy of ComManager or the install program.
2. After you start the installation, the button name changes from Install to Resume, and the Destination Path dialog box appears with Continue and Close button options, as shown in Figure 3-5 on page 3-6.
3. Go to “Setting a Destination Path” on page 3-5, to continue the installation.
4. If you click the Exit button instead of the Install button in step 1, the Install exit dialog box (Figure 3-3) appears.



Figure 3-3. Install Exit Dialog Box

5. Click the No button to continue the installation. This returns you to the main installation window shown in Figure 3-2. Return to step 1 to restart the installation.
6. Click the Yes button to exit the installation process. If you do this, no installation takes place and you *must* return to “Starting the Install Program” on page 3-2 to restart the installation process.

Setting a Destination Path

You use the Destination Path dialog box to enter the destination path where ComManager should be installed, as shown in Figure 3-4. The Destination Path dialog box contains a text box used to enter the destination path. Initially, this text box contains a default path that can be used for the installation of ComManager. However, you can enter any other valid destination path on your PC.

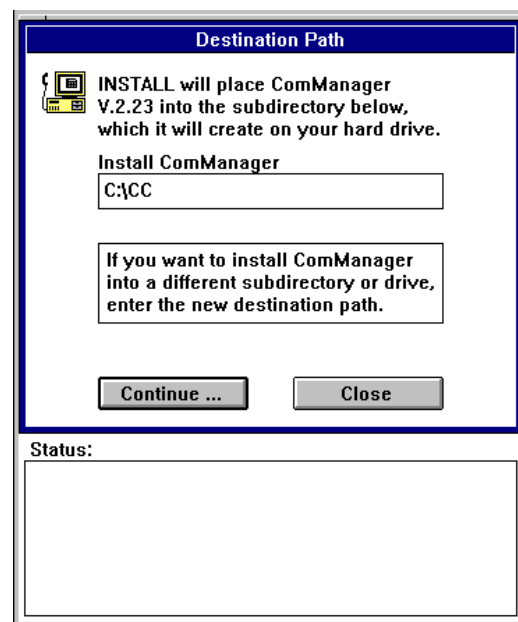


Figure 3-4. Destination Path Window

Set the destination path, as follows:

1. You can accept the default pathname, or enter a new valid pathname in the Destination Path text box.

The install program uses the path that was entered as the destination path to copy the files from the install diskette to the PC's hard drive.

Note: Enter a complete path as the destination. The install program does not allow the input of a path that does not specify the destination drive.

The install program checks and informs the user if the specified destination drive is a diskette or a remote drive (network). In Version 2.23 of ComManager, installation to a PC from a network drive is supported. However, installation from a PC onto a network drive is not supported. The installation of ComManager on a diskette drive is not recommended. Furthermore, the install program checks if the specified directory does already exist and if a version of ComManager is already installed.

2. Click the Continue button.

The User Registration dialog box appears and the Status box on the main installation window lists the destination path you entered. Go to “Registering Users” on page 3-6, to continue the installation. If you re-install ComManager from the original program diskette, the User Registration dialog box does not appear and you are taken directly to the “Monitoring the Main Window Status during Installation” on page 3-8.

Closing the Destination Path Dialog Box

If you need to stop installing the destination path, click the Close button to quit the destination Path dialog box.

The dialog box closes and the main installation window becomes the active window. In the main installation window, you can choose between resuming or exiting the installation.

Note: The Close button can be used to reinitialize the Edit field with the default destination path. Click the Close button in this dialog box and the Resume button in the main installation window. This step reinitializes the Edit field.

Registering Users

In the User Registration dialog box (Figure 3-5), the ComManager installation procedure requires you to enter your name and the name of your organization. ComManager uses these names to initialize the installation diskette. You *must* enter your company and user names when you install ComManager for the first time, either from a network drive or from a PC. When reinstalling ComManager, the User Registration dialog box does not appear because the installation diskette is already initialized with the registration information.

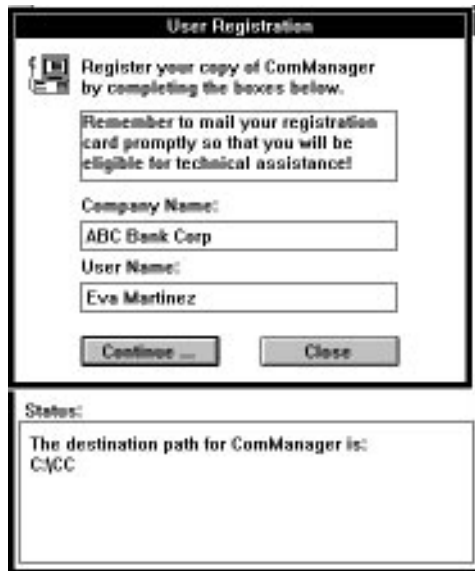
The image shows a 'User Registration' dialog box. At the top, it says 'Register your copy of ComManager by completing the boxes below.' Below this is a reminder: 'Remember to mail your registration card promptly so that you will be eligible for technical assistance!'. There are two input fields: 'Company Name:' with the text 'ABC Bank Corp' and 'User Name:' with the text 'Eva Martinez'. At the bottom of the main section are 'Continue' and 'Close' buttons. Below the main section is a 'Status:' section with a text box that says 'The destination path for ComManager is: C:\CC'.

Figure 3-5. User Registration Dialog Box

Registering when Installing from a PC

Register ComManager when installing from a PC as follows:

1. In the Company Name text box, enter the name of your company or organization.
2. In the User Name text box, enter your name.
3. Click the Continue button to continue with the installation.

The Close button allows you to close the User Registration window, and the main installation window then becomes the active window. In the main installation window, you can select between resuming or exiting the installation. It is not recommended that you exit without completing the installation.

4. After you register your name and company, and click the Continue button, the status window appears. Go to “Monitoring the Main Window Status during Installation” on page 3-8 to continue the installation.

Registering when Installing a Multi-user Site License on a Network

Register ComManager when installing on a network file server as follows:

1. In the Company Name text box, enter the name of your company or organization.
2. In the User Name text box, enter the following:

n User License # 1.

If you purchased more than 1 site license, enter # 1, # 2, or # 3 to correspond to the diskette you are initializing with the company name and the site license number.

3. Click the Continue button to continue with the installation. Go to “Monitoring the Main Window Status during Installation” on page 3-8 to continue the installation.

Note: If a copy of the ComManager application has been placed on a network drive that has not been initialized as described, the first user to install ComManager and register their name will initialize the Site License for all the other users. Each user’s ComManager is initialized with the information from the first installation.

Monitoring the Main Window Status during Installation

During installation, the progress of the file transfer is displayed in the Status box at the bottom of the main installation window (Figure 3-6). The install program displays the source and the destination path.



Figure 3-6. Main Installation Window During the Copy Process

In addition, the Status box uses two status gauges to display the progress of the individual file transfer and the progress of the installation:

- The upper gauge displays the progress of the file transfer.
- The lower gauge displays the progress of installation and reflects the number of copied files.

When the ComManager files have all been copied to the PC, the dialog box to add ComManager to the Windows environment appears as shown in Figure 3-9. Go to “Adding ComManager to the Windows Environment” on page 3-11, to continue.

Note: If you clicked the Cancel button to discontinue the installation, you should follow the procedures described in “Canceling the Copy Process” on page 3-8, and “Cleaning Up the ComManager Path” on page 3-10.

Canceling the Copy Process

If you have click on Cancel to cancel the copy process, the install program asks if the installation should be continued or if the install program should delete all files that have already been copied onto the destination drive.

The dialog box (Figure 3-7) is only visible if you have clicked on Cancel. This dialog box appears to give you the opportunity to clean up the installation. When you select the box *Cleanup the ComManager path*, the install program deletes all files and directories that were created during the installation.

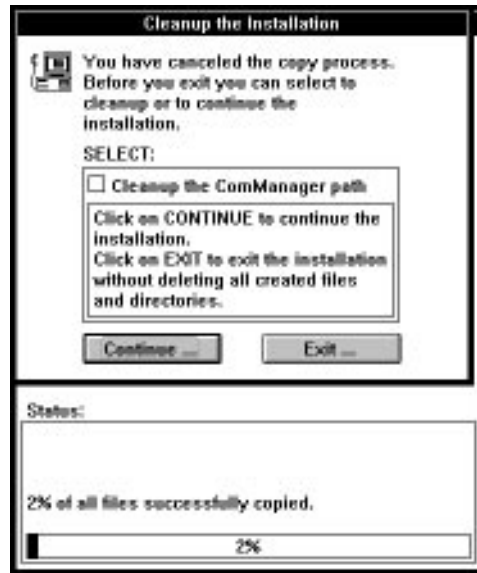


Figure 3-7. Cleanup the Installation Box

Cleaning Up the ComManager Path

If you have selected the Cancel button during copying of the file, and the Cleanup window (Figure 3-7) appears, do one of the following:

1. Click the Continue button to continue installation.

The normal installation process continues and the main install window shown in Figure 3-6 re-appears. Go back to “Monitoring the Main Window Status during Installation” on page 3-8 for instructions.

2. Click the Exit button to exit installation.

This should *only* be done if you intend to cancel the installation and do not wish to delete all the files and directories that have been created. It is recommended that you do not interrupt the installation process in this way. If you wish to start the installation again, go to “Starting the Install Program” on page 3-2 and repeat the entire installation.

3. Click the *Cleanup the ComManager path* box and then click on Continue.

Do this *only* if you wish to delete all the files and directories that have been created and end the installation.

If Cleanup has been selected, the Cleanup the ComManager path window changes to the window shown in Figure 3-8.



Figure 3-8. Cleanup the Installation Window

- Click the Exit button to close the Cleanup the Installation dialog box.

The Cleanup the Installation dialog box closes and the main installation window becomes the active window. In the main installation window you can select between resuming or exiting the installation.

- Click the Cleanup button to *delete* all the files and directories that have been created during the installation.

If you accidentally install to an existing directory that contains files, the install program deletes those files and directories that were created during the installation.

If you select Cleanup, the Cleanup the Installation dialog box closes and the installation window appears, showing that all files and directories that were created during the installation process have been deleted. The only available option now is to exit the installation process. If you wish to start the installation again, go to “Starting the Install Program” on page 3-2.

Adding ComManager to the Windows Environment

Use this dialog box (Figure 3-9) to add ComManager to the Windows environment. The Add ComManager to the Windows Environment dialog box also allows you to create a Program Manager's group file.



Figure 3-9. Adding ComManager to a Windows Environment

To add ComManager to the Windows environment, do the following:

1. Click on the *Create a ComManager Group* checkbox.

This checkbox is a default selection if the installation is successful up to this point. The install program creates a Program Manager's group. This group only contains an icon for the installed copy of ComManager.

2. Click the Continue button to continue the installation.

The main installation window (Figure 3-10) appears. Go to “Ending the Installation” on page 3-12 to conclude the installation.

Ending the Installation

If you successfully installed ComManager on your PC, the main window of the install program (Figure 3-10) appears. The text in the Status box can vary, depending on the selections in the previous dialog box.



Figure 3-10. Main Installation Window at End of Installation

End the installation as follows:

1. Exit the install program by clicking on the Exit button (the Resume button is disabled).

The main installation window disappears.

2. Remove the installation diskette from the diskette drive.

This diskette has been registered with the name and the company that you entered during the installation. You can use the diskette to re-install the ComManager program, but the Registration window does not appear during installation, as this information has already been recorded.

Note: If you chose to create a Program Manager's group file, you can start ComManager easily by selecting the ComManager icon in this group. The name of the group is ComManager Version 2.23 (Figure 3-11).

ComManager can be started immediately after the installation. It is not necessary to restart Windows or to reboot the PC.

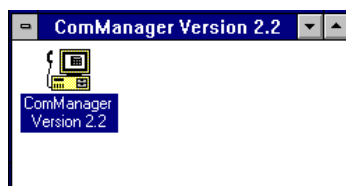


Figure 3-11. ComManager Icon after Installation

3. The ComManager installation is complete.

Upgrading

The upgrading program is similar to the installation program, but shorter since it uses information already included in the installed files.

Note: You must have the previous version of ComManager on your PC and know the name of the directory in which it is installed before you can use the upgrade program.

Upgrading ComManager from a Network

You can upgrade ComManager from the network to your PC. If the installation diskette has been copied to a network file server subdirectory and you want to upgrade ComManager from there, you must either use the Program Manager by entering the complete path of the copy of the upgrade program or you must start the copy of the upgrade program (File: Upgrade . exe) in the network file server subdirectory from the File Manager. However, you *cannot* upgrade ComManager from your PC to the network, nor can you upgrade ComManager from one network to another network.

Putting ComManager Onto the Network File Server

1. Place the ComManager diskette in the A: or B: drive.
2. In the network file server, create a subdirectory for the files (for example, X: \CM).
3. Copy the ComManager files to the network directory.

Upgrading From the Network File Server

1. From the File menu in the Windows Program Manager, choose Run.

The Run dialog box appears (Figure 3-12).

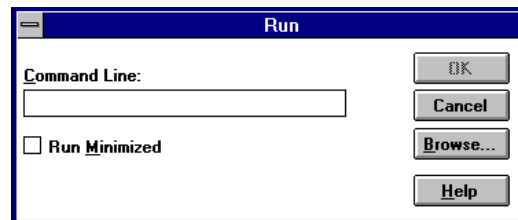


Figure 3-12. Windows Run Dialog Box

2. In the Command Line text box, enter the path to ComManager's upgrade command (for example, X: \CM\upgrade).
3. Click on OK.
4. Go to "Using the Main Upgrade Window" on page 3-14 to continue the upgrade.

Starting the Upgrade Program

Start the upgrade program as follows:

1. Make sure that your PC is connected to your ROLMphone telephone with the proper cable.
2. Place the ComManager floppy diskette in the A: or B: drive.
3. From the File menu in the Windows Program Manager, choose Run.

The Run dialog box (Figure 3-13) appears.

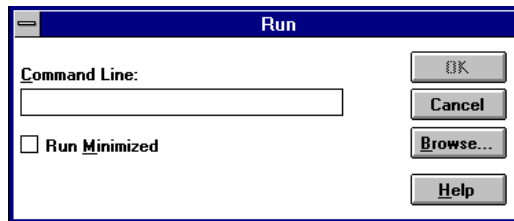


Figure 3-13. Windows Run Dialog Box

4. In the Command Line text box, enter A:\Upgrade if the installation diskette is in drive A.
Or enter B:\Upgrade if the installation diskette is in drive B.
5. Click OK.

The main installation window appears.

Using the Main Upgrade Window

The main upgrade window (Figure 3-14) appears after you have started the upgrade program. The window warns you that this program is for use only to upgrade from the previous version of ComManager.

The main upgrade window has a Status box that informs you about the status of the upgrade. The Status box continually updates on the progress of the installation.



Figure 3-14. Main Upgrade Window

Use the main upgrade window as follows:

1. Click the Upgrade button.

This button starts the upgrade.

After you start the upgrade, the button name changes from Upgrade to Resume.

2. After the Upgrade button is chosen and the program starts, the Destination Path dialog box appears.
3. Go to “Setting a Destination Path” on page 3-15, to continue the installation.

Setting a Destination Path

The Destination Path dialog box contains a text box used to enter the destination path. Use the Destination Path dialog box to enter the destination path where the previous version of ComManager was installed. The ComManager upgrade must be installed in the same directory.

Set the destination path as follows:

1. In the Destination Path text box, enter the valid pathname for the directory containing the previous version of ComManager.

Note: The install program checks the specified destination directory to make sure that it exists and that the previous version is already installed there. In ComManager Version 2.23, installation to a PC from a network drive is supported. However, installation from a PC onto a network drive is not supported.

2. Click the Continue button.

The Upgrade CM Keys window appears and provides information about differences between versions.

3. Choose the Continue button.

The status box shows that the upgrade program is checking the registration information from the previous installation. This information is incorporated into the new version’s data.

4. Continue the installation by following the procedures in “Monitoring the Main Window Status During an Upgrade” on page 3-15.

Monitoring the Main Window Status During an Upgrade

During installation, the progress of the file transfer is displayed in the Status box at the bottom of the main upgrade window. The program displays the source and the destination paths. In addition, the Status box uses two status gauges to display the progress of the individual file transfer and the progress of the upgrade:

- The upper gauge displays the progress of the file transfer.
- The lower gauge displays the progress of installation and reflects the number of copied files.

When the ComManager files have all been copied to the PC, the dialog box to add ComManager to the Windows environment appears as shown in Figure 3-15. Go to “Adding ComManager to the Windows Environment” on page 3-16 to continue.



Figure 3-15. Monitoring Upgrade Status

Adding ComManager to the Windows Environment

Use this dialog box (Figure 3-16) to add ComManager to the Windows environment. The Add ComManager to the Windows Environment dialog box also allows you to create a Program Manager's group file.



Figure 3-16. Adding ComManager to a Windows Environment

Add ComManager to the Windows environment as follows:

1. Click the *Create a ComManager Group* checkbox.

This checkbox is a default selection if the installation is successful up to this point. The upgrade program creates a Program Manager's group that contains an icon for ComManager.

2. Click the Continue button to continue the installation.

The main installation window appears. Go to “Ending the Upgrade” on page 3-17 to conclude the installation.

Ending the Upgrade

After a successful upgrade, the main window of the upgrade program appears. The text in the Status box can vary, depending on the selections in the previous dialog box. End the upgrade as follows:

1. Exit the upgrade program by clicking on the Exit button (the Upgrade button is disabled).

The main installation window disappears.

2. Remove the installation diskette from the floppy drive.

This diskette is initialized with the name and the company that you entered during the installation.

3. Delete the previous version’s icon and group using the Windows Program Manager.

Note: ComManager can be started immediately after the installation. It is not necessary to restart Windows or to reboot the PC.

4. The upgrade installation is complete.

Interrupting the Upgrade

The upgrade program takes only a few minutes to complete, and normally you should not exit the program during installation. If you press an Exit button before completion, the upgrade window appears.

Press the Resume button to continue with the upgrade installation. If you press the Exit button an additional “last chance” dialog window (Figure 3-17) appears.



Figure 3-17. Upgrade Exit Dialog Window

If you press No, you are returned to the upgrade installation process. If you press Yes, the upgrade installation is terminated.

Chapter 4 Getting Started

This chapter provides information for starting ComManager, using the ComManager windows, and making and answering telephone calls.

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Starting ComManager from Windows

Before you start using ComManager ensure that:

- Your PC is powered on.
- The Microsoft Windows software has been loaded.
- The ComManager software has been loaded as an active application icon or ComManager is running as an open window.

Note: If you want ComManager to monitor your incoming or outgoing telephone calls, ensure that ComManager is running as an open window or as an active application icon.

You can start ComManager from windows:

- Manually from the File Manager or Program Manager.
- Automatically as a window, as an active application icon (Figure 4-1) each time you start your PC, or as a program group icon.

Note: You can install ComManager as a program item icon in a program group of your choice so you can activate and deactivate ComManager at your discretion. Refer to “Creating a ComManager Icon” on page 4-4 for additional information.



Figure 4-1. ComManager Icon

For a detailed description of installation and start applications procedures in Windows, refer to your *Microsoft Windows User's Guide*.

Starting ComManager Manually

Start ComManager manually in one of the following three ways:

If ComManager is part of a Windows program group, double-click the ComManager icon. The ComManager Main window appears, along with the registration dialog box (see Figure 4-2 on page 4-3).

- or -

1. Open the File Manager.
2. Choose the CC.EXE file in the ComManager subdirectory (the default subdirectory is C:\CC).

The ComManager Main window appears, along with the ComManager registration dialog box.

- or -

1. From the File menu in File Manager or Program Manager, choose Run.
2. Enter CC . EXE in the Command Line text box if CC.EXE is on your path or enter the full path name, C:\CC\CC.EXE in the Command Line text box.
3. Choose the OK button.

The ComManager Main window appears, along with the registration dialog box.

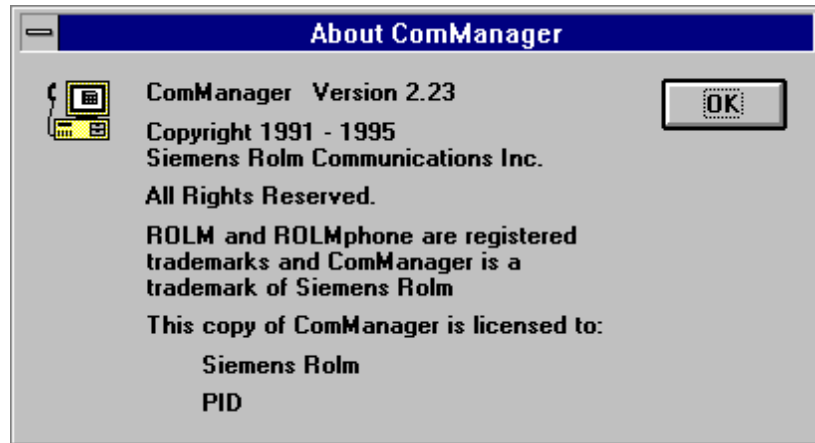


Figure 4-2. ComManager Registration Dialog Box

Starting ComManager Automatically as an Open Window

Start ComManager automatically as an open window each time you start your PC by doing the following:

- Put the ComManager icon in a startup group (for Windows 3.1).

Starting ComManager Automatically as an Active Icon

Start ComManager automatically as an active icon each time you start your PC by doing the following:

- Put the ComManager in a startup group and select RUN MINIMIZED.

Creating a ComManager Icon

Create a ComManager application icon that resides in a Program Group as follows:

1. Open the Program Group where you want the ComManager icon to reside.
2. From the File menu in Program Manager, choose New.
3. Activate the Program Item button, then choose the OK button.

The Program Item Properties dialog box appears.

4. Choose Browse.

The Browse dialog box appears.

5. Locate the subdirectory where ComManager is installed. The default location is C:\CC.
6. Choose CC.EXE from the files list, then choose the OK button.
7. The Program Item Properties dialog box appears.
8. Choose the OK button to install the ComManager icon in the existing dialog box.

Note: ComManager is not active when it only appears as an icon in a Program Group. ComManager **must** be loaded as an active icon or as an open window to be available for incoming or outgoing calls.

Using the ComManager Basic Windows

The 2 basic windows that are used by ComManager are:

- The Main window
- The Call Information window

Using the ComManager Main Window

The ComManager Main window consists of pulldown menus, buttons, scroll bars, and text boxes familiar to Windows users.

The ComManager Main window (Figure 4-3) is divided into the following areas:

- Menu Bar
- Tool Bar Icons
- Status Line
- Directory
- Telephone Display
- Assigned Keys

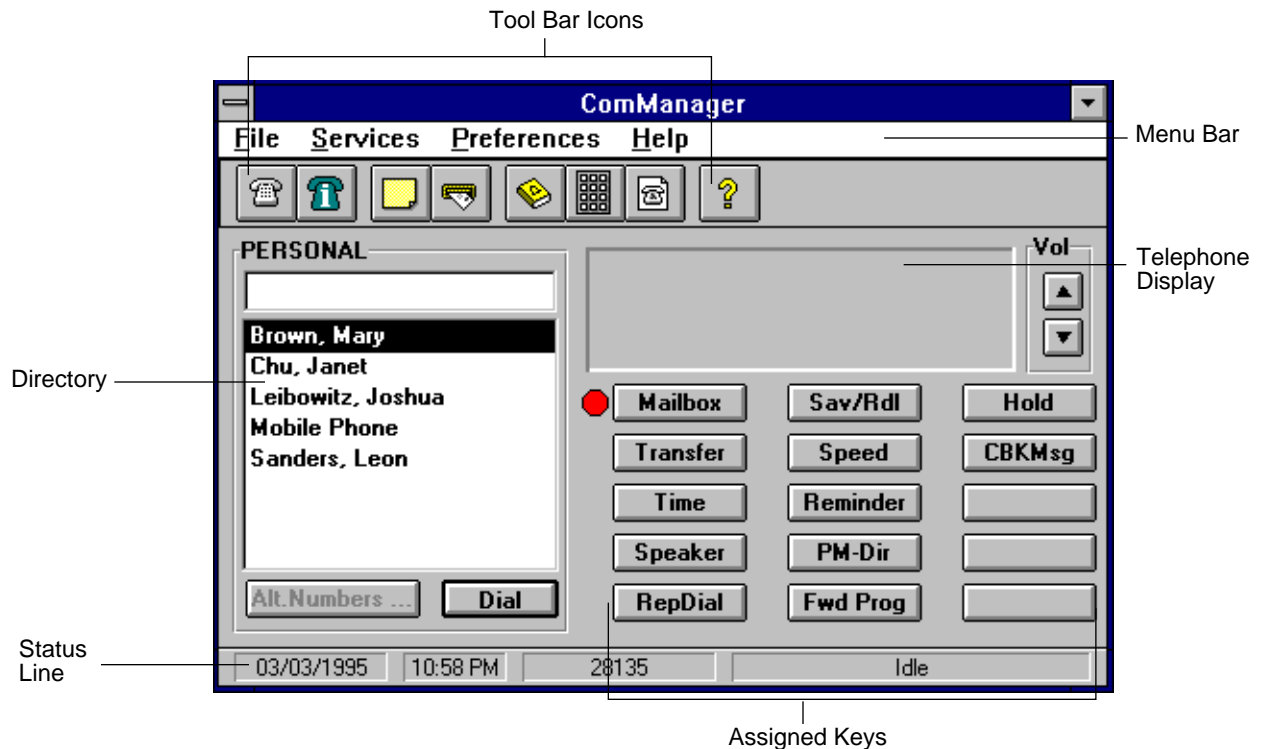


Figure 4-3. ComManager Main Window

Menu Bar

The Menu bar (Figure 4-4) provides access to the following pull-down menus and selections:

- File
- Services
- Preferences
- Help

File	Services	Preferences	Help
Select Directory	PhoneMail...	Assign Phone...	Contents
Import/Export...	Dial Pad... Ctrl+D	Assign Prime Line...	About...
Print...	Call Information...	Assign CM Keys...	
Exit	Call Log...	Assign Phone Keys...	
	Directory...	Date/Time Format...	
	Reminder List...	View Display Only	
	Alt. Keyset 1...	Set Default Directory...	
	Alt. Keyset 2...		
	Alt. Keyset 3...		
	Alt. Keyset 4...		
	Features...		
	Lines...		

Figure 4-4. Menu Bar Pull-Down Menus

Tool Bar Icons

The tool bar icons provide access to the following services:

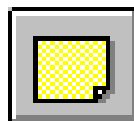


Non-alerting

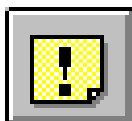


Alerting

When you have an incoming call, the telephone icon changes to an alerting appearance. Click on the icon to answer the call. Choosing this icon when it is not alerting has no effect.

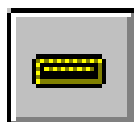


Non-alerting



Alerting

Click on the reminder icon to access the **Reminder List** window. When the icon is non-alerting, the Reminder List window opens. When the icon is alerting, the Reminder display window opens.



Non-alerting

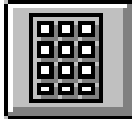


Alerting

Click on the mailbox icon to access the **PhoneMail** window. When a letter appears in the icon's mail slot, it indicates that a PhoneMail message, a fax message, or a station callback message is present.



Click the directory icon to access the **Directory** window and display a list of names and numbers in a selected directory.



Click the dial pad icon to access the **Dial Pad**. This allows you to place calls by dialing digits on the pad.



Click the information icon to access the **Call Information** window to display call status information



Click the call log icon to access the **Call Log** window and display a list of all calls logged based on the configured log parameters.



Click the help icon to access the **Help** function for this product.

Status Line

Status line displays the following:

- **Date** - the date set by the PC, in the format set by Date/Time Format from the Preferences menu (refer to “Setting Date and Time Format” on page 4-9).
- **Time** - the time set by the PC, in the format set by Date/Time Format from the Preferences menu (refer to “Setting Date and Time Format” on page 4-9).
- **Line Name** - the directory number of the currently active line; if no directory number is active the directory number of the prime line as defined by Assign Lines from the Preferences menu (refer to “Assigning the Prime Line” on page 5-51).
- **Call Status** - the status of the line name, such as Hold, Idle, In Use, or Ringing.

Directory

Directory displays abbreviated information from the active telephone directory. You choose telephone directories by choosing Select Directory from the File menu (refer to “Selecting the Current Directory” on page 5-11).

Unlike the Directory window, which appears when you choose Directory from the Services menu or as a tool bar icon, only the names are shown, not telephone numbers and comments (refer to “Creating a Directory” on page 5-13).

You cannot edit or add entries from the Main window. To locate an entry, enter the letters of the name into the text box located above the telephone directory.

Telephone Display

Telephone display shows information sent by the telephone system, including calling number and name, called number and name (if known), and elapsed time of an outgoing external call.

Assigned Keys

Assigned Keys provide quick access to ComManager assigned keys (refer to “Assigning ComManager Keys” on page 5-46). These keys can be assigned as:

- Line keys.
- Telephone system features (such as Do Not Disturb).
- Keys set up to dial frequently called numbers.
- ComManager application features (such as the Directory or Call Log).

Accessing the PhoneMail Extension Option

The PhoneMail Access Information dialog box allows you to define the PhoneMail extension to be dialed when you:

- Select the Mailbox icon on the Main window,
- Select the PhoneMail Direct Access feature from the Features window, **or**
- Press an Assigned Phone key defined for PhoneMail Direct Access.

When you initially access the Phonemail window, the PhoneMail Access Information window appears. You can also access this window from the Preferences menu of the PhoneMail window.

Define the PhoneMail extension for the Main window as follows:

1. From the Services menu, choose PhoneMail.

The PhoneMail Access Information dialog box appears (Figure 4-5 on page 4-9).

2. Enter the PhoneMail access extension number you want dialed.
3. Enter your personal telephone extension or # if you will always call from your own telephone.
4. Click OK.

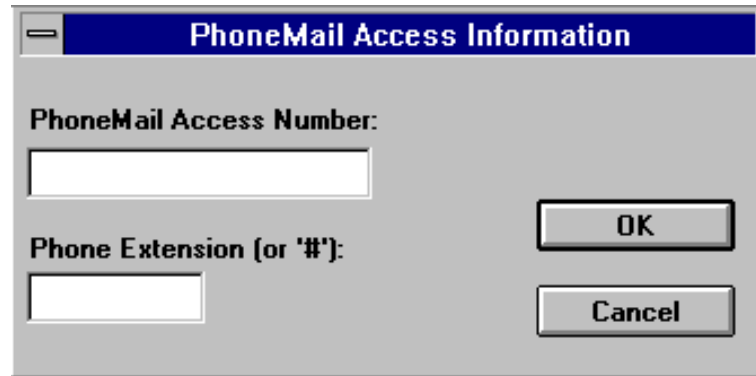


Figure 4-5. PhoneMail Access Information Dialog Box

Setting Date and Time Format

Set the date and time format for the Main window as follows:

1. From the Preferences menu, choose Date/Time Format.

The Date & Time Format dialog box appears (Figure 4-6).



Figure 4-6. Date/Time Format Dialog Box

2. Select the options you want to use.
3. Choose the OK button.

The format you selected appears in the following areas:

- The status line of the ComManager Main window (refer to “Using the ComManager Main Window” on page 4-5)
- The Call Log (refer to “Calling from the Call Log” on page 5-7)
- The Reminder List (refer to “Working with the Reminder List” on page 5-23)

Displaying the Call Information Window

The Call Information window (Figure 4-7) displays when:

- You click the Call Information tool bar icon
- An incoming or outgoing call meets the Alerting Preferences criteria (refer to “Alerting Preferences” on page 5-32).

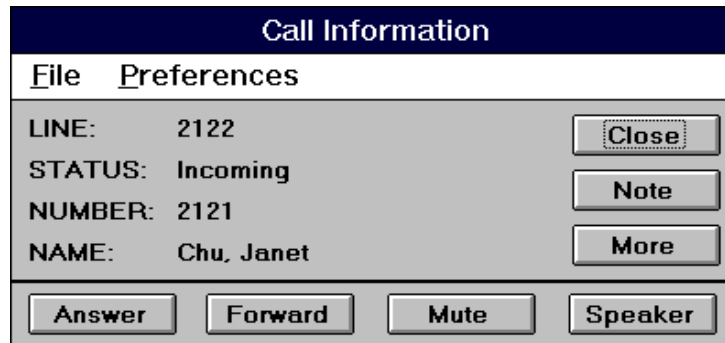


Figure 4-7. Call Information Window

The Call Information window displays the line, call status, number if known, name if known, note option if applicable, and a series of call management options based on the current call status.

Call Status Displays

The following indications are displayed on the current call status:

- **Incoming** indicates that a call is incoming.
- **Dial** indicates the presence of a dial tone.
- **Proceeding** indicates that the call has been placed.
- **Busy** indicates that the receiving end is not able to answer the call.
- **Ringing** indicates that the called station is ringing (with internal calls only).
- **Connected** indicates that the receiving end has answered the call.
- **Hold** indicates that the call is on hold.

Number Displays

The Call Information window displays the telephone number for the other party for all calls except incoming, external calls. However, if your telephone system supports Automatic Number Identification (ANI), the number can also be displayed for incoming, external calls.

Name Displays

The Call Information window displays a name if you have one of the following conditions:

- Your telephone system provides Calling Name Display for internal calls.
- The call has been placed from the current directory, or the dialed number matches a number field (excluding the access code) in the current directory.
- The incoming number is displayed and matches the number field (excluding the access code) associated with a name in the current directory.

Note Button

The Note button is enabled if the call has been placed from a directory, Call Log, or Reminder List, or if a match has been found in the current directory. The Note button lets you view, edit, or add a note to the associated entry. The Note window displays the location of the note (in a directory, the Call Log, or the Reminder List) and the name associated with the note.

Call Management Buttons

Call management buttons are located along the right and bottom edges of the Call Information window. These options provide a range of call features that vary according to the current call status. Refer to “ComManager Features” on page A-1 for information about the features supported by ComManager

More Button

Each time you click the More button, the next set of applicable option buttons is displayed in the Call Information window (Figure 4-8). The options you can scroll through depend on the current call status.

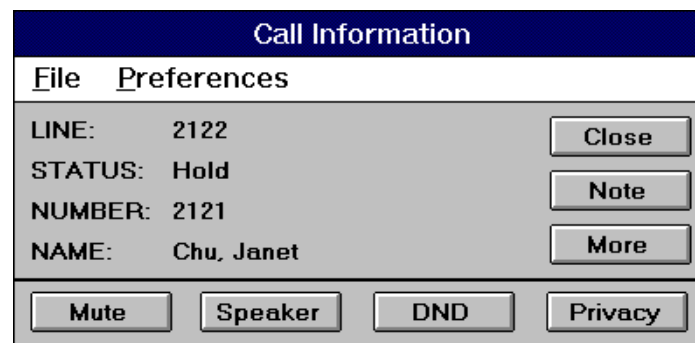


Figure 4-8. Call Information Window (with More Features Shown)

Chapter 5 Basic Operations

This chapter describes the basic operations of the ComManager features such as working with directories, using the reminder list and call log, importing and exporting data, using the PhoneMail window, assigning ComManager and telephone keys, and using optional telephone features.

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Making Telephone Calls

You can make telephone calls from the following windows:

- Telephone directory in the Main window
- Directory
- Dial Pad
- Call Log
- Reminder List

You can also click any ComManager application key (on the Main window) you have previously assigned to dial numbers.

Calling from a Telephone Directory in the Main Window

Call from a telephone directory in the Main window (Figure 4-3 on page 4-5) as follows:

1. Locate the entry you want to dial in one of the following ways:

- Scrolling through the list using the scroll bar until you locate the entry. Then select an entry, hold the mouse-button down, and drag the cursor up or down to move the list cursor.
- Typing the name you are searching anywhere in the Main window to find a matching entry.

Note: Type the name of the person you are searching for in the box located above the list of names. As you type the characters of the name, the list cursor narrows in on the entry choices. For example, if you enter an **M**, ComManager narrows the list to all names beginning with **M**. Then if you enter **C**, ComManager further narrows the list to all names beginning with **Mc**, and so on.

2. Place the call by performing one of the following:

- Double-click on the directory entry.

Note: If you double-click on an entry with an alternate number, the Alternate Phone Numbers dialog box appears (Figure 5-10 on page 5-4).

- Choose the Dial button.
ComManager dials the number.

Choosing Another Directory

Choose another directory as follows:

1. From the File menu, choose Select Directory.

The Select Directory dialog box (Figure 5-9) appears.

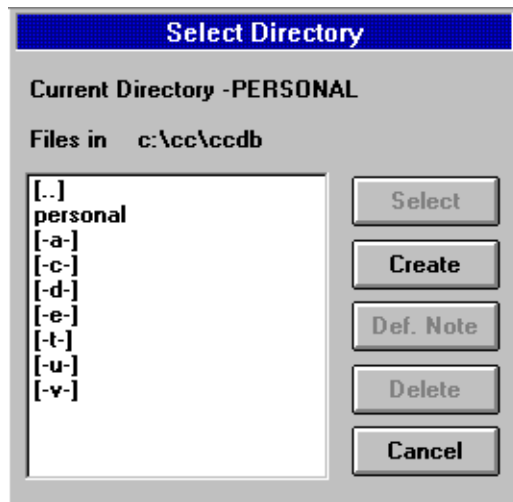


Figure 5-9. Select Directory Dialog Box

2. Choose a directory and click Select.

The directory appears in the Directory portion of the main window.

Calling from the Directory Window

To open the Directory window, either click the Directory tool bar icon or select Directory from the Services menu.

The Directory window (Figure 5-10) appears.

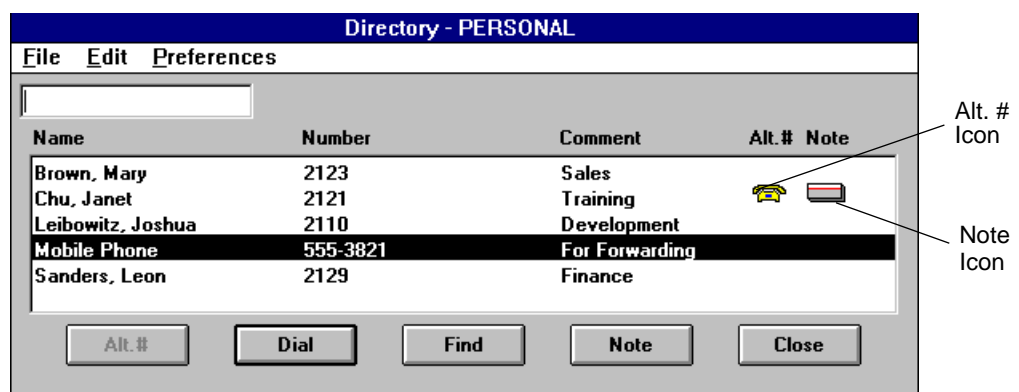


Figure 5-10. Directory Window

The name of the current directory displays in the title bar of the Directory window. Use the features of the Directory dialog box to locate and dial an entry. You can search the directory by name, number, or comment. (Refer to “Working with a Directory” on page 5-9 for more information.)

When you have searched and selected the correct entry, click the Dial button.

ComManager dials the number.

Note: If you double-click on a directory entry, ComManager automatically dials the number or brings up a list of alternate numbers.

The alternate number icon that appears in a directory listing indicates that more than one number is associated with the name (see Figure 5-10 on page 5-4). The note icon indicates that an informational note is associated with the name. If you double-click on an entry with an alternate number, the Alternate Phone Numbers dialog box appears. Refer to “Using Alternate Telephone Numbers” on page 5-5 for additional information in using this dialog box.

Using Alternate Telephone Numbers

Many users have more than one telephone number associated with their name. FAX numbers, beeper numbers, car telephone numbers, home numbers, or other alternate numbers (up to 10) can be associated with a single directory entry. You can observe when alternate numbers are available by checking the status of the Alt.# option. If there are no alternate numbers, this button is disabled. If alternate numbers have been added to the entry, you can choose this button to open the alternate numbers list.

If you double-click on the highlighted entry in a directory and there are one or more alternate numbers associated with the entry, the Alternate Phone Numbers dialog box appears (Figure 5-11) to let you choose a number to dial.

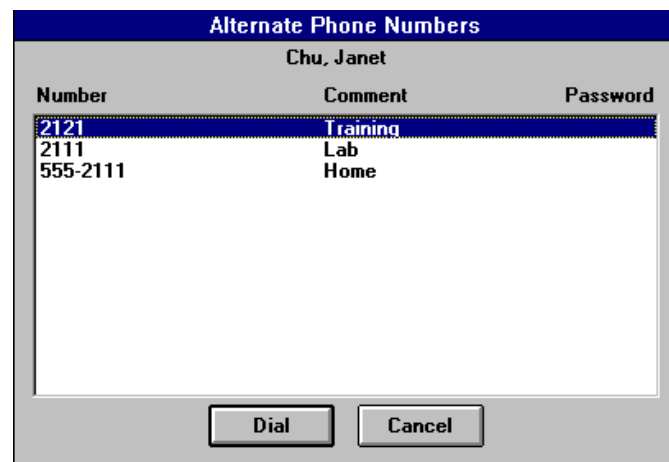


Figure 5-11. Alternate Phone Numbers Dialog Box

Dial alternate phone numbers as follows:

1. Select the number you want to dial.
2. Choose the Dial button. ComManager dials the number.

Note: If you double-click on an entry, ComManager automatically dials the number.

Note: If you paste a directory entry that has alternate numbers into your Reminder List, you must select which number you choose to have displayed in the Reminder window. Choose the entry, then select the Paste option (the Paste option is only displayed in this circumstance). The comment data associated with the alternate number is copied to the reminder comment area.

Making Conference Calls

You can also use your telephone directory to simplify conference or consultation calls. Make a conference call as follows:

1. While on an active connection, double-click on the desired directory entry.

The system automatically puts the caller on hold before dialing the number (if you already have a call active and the selected number does not have the password option activated).

2. After the party has answered, press the Conference button.

Calling from the Dial Pad

You can place calls using the ComManager dial pad. With the dial pad, you can use the mouse or keyboard (numbers or letters) to dial a number.

Call from the dial pad as follows:

1. From the Services menu, choose Dial Pad or click the Dial Pad tool bar icon.

The dial pad window (Figure 5-12) appears.



Figure 5-12. Dial Pad

Note: The dial pad window can be opened by pressing the key combination Ctrl + D, or by pressing a key that has been assigned a dial pad feature (refer to “Assigning Keys” on page 5-46 for more information about assigning features to keys).

The + between key names means that the keys must be pressed and held down in the order shown and released together.

2. Dial the number.

To make a call when the telephone is in the idle condition and the dial pad is displayed, click on the dial pad digits or enter the digits or associated alphabetic characters using your computer keyboard.

If the dial pad window is opened during any call status *except* idle, the digits are immediately processed as they are entered.

Note: If you make a mistake and need to change a number *when the call status is idle*, use the mouse and keyboard to edit the number.

3. Choose the Dial button.

ComManager dials the number.

Calling from the Call Log

You can place calls using the ComManager Call Log. To make a telephone call from the Call Log, you must first locate the entry you want to dial. Several options are available. Call Log entries can be located using the scroll bar or scroll arrows. Or choose the Find option to locate the entry using the name or number.

To make a call from the Call Log, do the following:

1. From the Services menu, choose Call Log or click the Call Log tool bar icon.

The Call Log window (Figure 5-13) appears.


Call Log					
File Edit Preferences					
Name	Number	Date	Time	Duration	Sum
		03/06/1995	01:10 PM	00:00:13	↑
Chu, Janet		03/07/1995	09:02 AM	00:00:14	
Sanders, Leon		03/07/1995	09:02 AM	00:00:07	
	95553333	03/07/1995	09:03 AM	00:00:22	
	95553333	03/07/1995	09:05 AM	00:00:09	
Brown, Mary		03/07/1995	09:06 AM	00:00:09	
	95551111	03/07/1995	09:07 AM	00:00:14	
Sanders, Leon		03/07/1995	09:07 AM	00:00:20	↓
< Left		Right >			
		Find		Note	
				Close	

Figure 5-13. Call Log Window

2. Choose the number you want to dial.
3. Highlight the entry; then choose the Dial button, or double-click at the number.

ComManager dials the number.

Calling from the Reminder List

The Reminder List allows you to:

- Place calls
- Search by name, number, comment, or date and time.
- Create and view entries.

Make a telephone call from the Reminder List as follows:

1. From the Services menu, choose Reminder List or click the Reminder List tool bar icon.

The Reminder List window (Figure 5-14) appears.

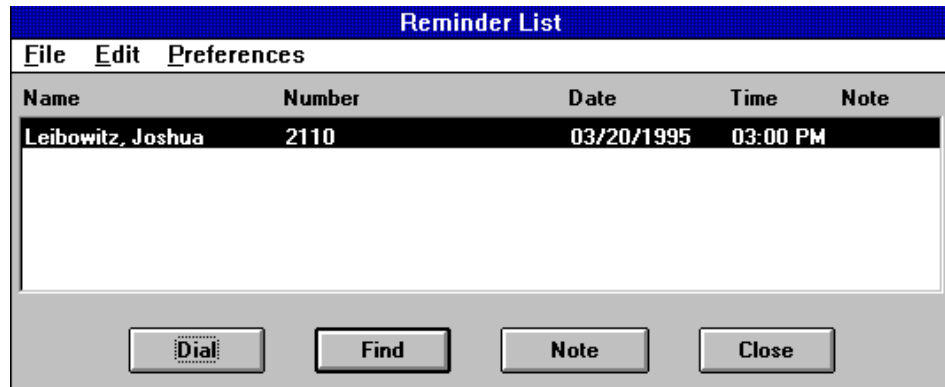


Figure 5-14. Reminder List

2. Choose the number you want to dial.

Use the scroll bar or scroll arrows or choose the Find option to locate the entry by name, number, comment data, or date and time.

3. Choose the Dial button.

ComManager dials the number.

Calling from an Assigned Key

You can also make a call by selecting a ComManager application key that is assigned to dial a number you previously defined. Refer to “Assigning ComManager Keys” on page 5-46 for more information.

After you have assigned a key, simply dial the number by clicking on the previously defined key.

Answering Telephone Calls

ComManager has several signaling features to answer incoming telephone calls.

When the Main window of ComManager is open and you receive an incoming telephone call, the Telephone icon changes appearance (refer to “Tool Bar Icons” on page 4-6) and the Call Information window opens.

You can then perform one of the following to answer the call:

- Click on the alerting telephone icon on the tool bar, **or**,
- Choose Answer on the Call Information window.

Working with a Directory

The directory window provides a helpful list of names and telephone numbers. Use the Directory window options to:

- Locate entries in the current directory.
- Automatically dial the highlighted entry.
- Add, delete, or edit entries.
- Create and view note data associated with a directory entry.
- Add or view alternate telephone numbers associated with an entry.

Note: Directories can have up to 8000 entries. However, large directories take longer for ComManager to initialize and access.

The Directory window displays the following data:

- **Name** - up to 20 characters. Enter the last name, followed by first name to ensure proper sorting of names in the directory.
- **Number** - up to 22 digits. The number appears formatted, that is, it has parentheses and a dash, only if it has 7 or 10 digits. For example: (555)123-4567 **or** 123-4567
- **Comment** - up to 16 characters. The data entered into the Comment area can be used to locate directory entries.
- **Note** - a note icon indicates there is an informational note associated with the entry.
- **Alternate Numbers** - a telephone icon indicates that more than one telephone number is associated with the entry.

Open the Directory window by performing one of the following:

- Pull down the Services menu and choose Directory.
- Click the Directory tool bar icon.

The Directory window (Figure 5-1) appears. The name of the current directory is displayed in the title bar of the Directory window.

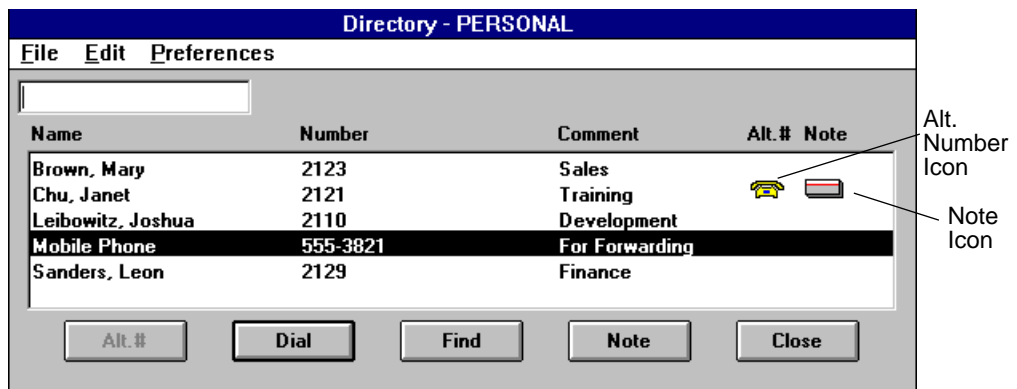


Figure 5-1. Directory Window

To activate a different directory, create a new directory, or delete an existing directory, open the File menu and select the Select Directory command. Refer to “Selecting the Current Directory” on page 5-11 for more information.

Directory Window Options

The following options are available using the Directory window buttons:

- Alt.#** Choose the Alt.# button to view or dial alternate telephone numbers associated with a directory entry. A telephone symbol is displayed in the Alt.# column of the entry if alternate numbers are present.
- Dial** Choose the Dial button to dial the highlighted directory number.
- Find** Choose the Find button to locate entries in the current directory.
- Note** Choose the Note button to create a note or open an existing note for the highlighted directory entry (Figure 5-2).

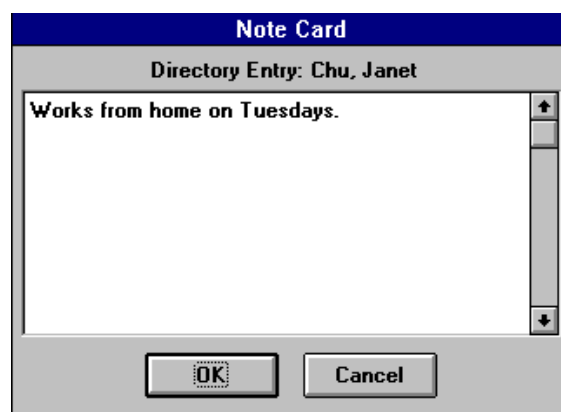


Figure 5-2. Note Card Dialog Box

Notes are limited to 800 characters. A Note symbol is displayed for each directory entry having a note. To put a return in a note, use Ctrl + Enter. To put a tab in a note, use Ctrl + Tab.

- Close** Choose the Close button to quit the Directory window.

Selecting the Current Directory

ComManager allows you to select from a list of directories to make one directory the current directory. Only the information in the current directory is available.

Select the current directory as follows:

1. Pull down the File menu and choose Select Directory.

The Select Directory dialog box (Figure 5-3) appears. (When you first load ComManager, a default directory named PERSONAL is created and selected as the current directory.)

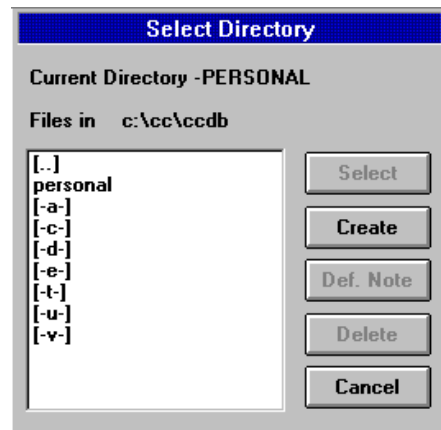


Figure 5-3. Select Directory Dialog Box

2. Highlight the directory you want to be the current directory.
3. Click the Select button.

Setting the Default Directory

Use this text box to identify the path and name of the telephone directory as the current directory each time you start ComManager:

1. From the Preferences menu, choose Set Default Directory.

The Set Default Directory window (Figure 5-4) appears.

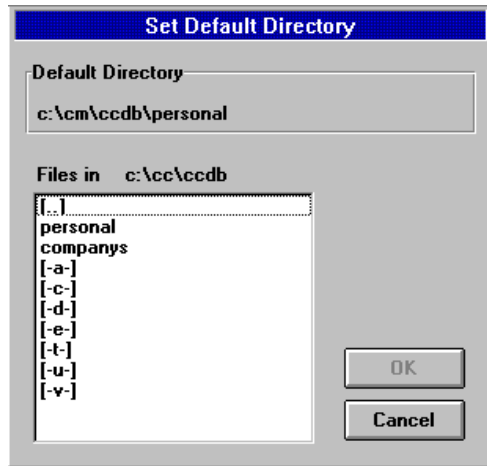


Figure 5-4. Windows Options Dialog Box

2. Click on the directory you want to be the default current directory.
3. Click the OK button (or click Cancel to exit the window with no changes).

Creating a Directory

You can create as many directories as you require. For example, you might create a separate telephone directory for each company whose employees you frequently call.

Create a directory as follows:

1. From the File menu, choose Select Directory.

The Select Directory dialog box (Figure 5-3) appears.

2. Choose the Create button.

The New Directory dialog box (Figure 5-5) appears.

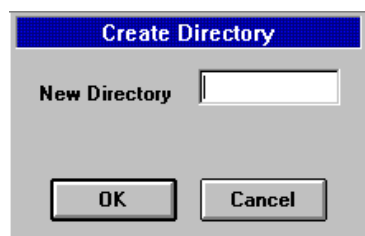


Figure 5-5. New Directory Dialog Box

3. Enter the name of a new directory (for example, “Company’s”), then click the OK button.

The Select Directory dialog box reappears (Figure 5-3) and the new directory name is in it.

Note: Only proper DOS filenames can be used to identify a telephone directory (eight characters maximum).

4. Select the new directory from the directory list and click Select. The ComManager Main window reappears showing the new directory’s name. There are no entries in this directory list.
5. From the Services menu, choose Directory.

The new Directory window (Figure 5-6) appears. The name of the new directory appears in the title bar of the Directory window.

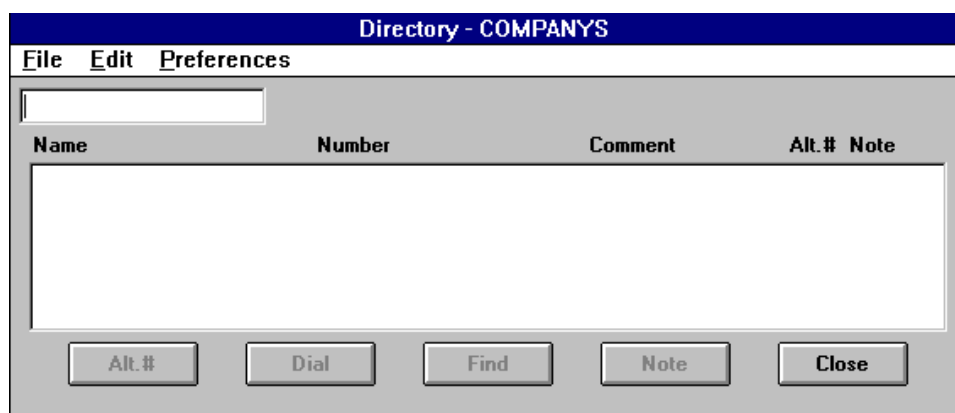


Figure 5-6. New Directory Window

To add entries to your new directory, refer to “Adding Entries to a Directory” on page 5-14.

Deleting a Directory

Delete a directory as follows:

1. From the File menu, choose Select Directory.

The Select Directory dialog box (Figure 5-3 on page 5-11) appears.

2. Choose the directory name you want to delete, then choose the Delete button.

Note: You cannot delete the current or PERSONAL directory or your local copy of a directory configured for automatic update.

The Delete Directory dialog box (Figure 5-7) appears with a warning.

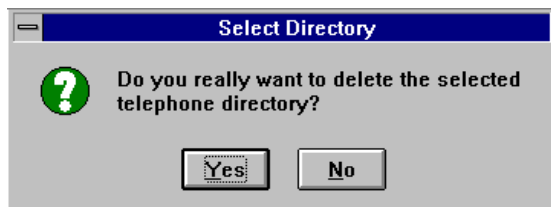


Figure 5-7. Delete Directory Warning

3. Choose the Yes button (or choose No to close the window without deleting).

Adding Entries to a Directory

Entries can be added only to the current directory. (Use the Select Directory command on the File menu to choose the current directory.)

Add an entry to a telephone directory as follows:

1. From the Services menu, choose Directory.

The Directory window appears (see Figure 5-1, "Directory Window," on page 5-10).

2. From the Directory Edit menu, choose Add Item.

The Add Entry window (Figure 5-8) appears.

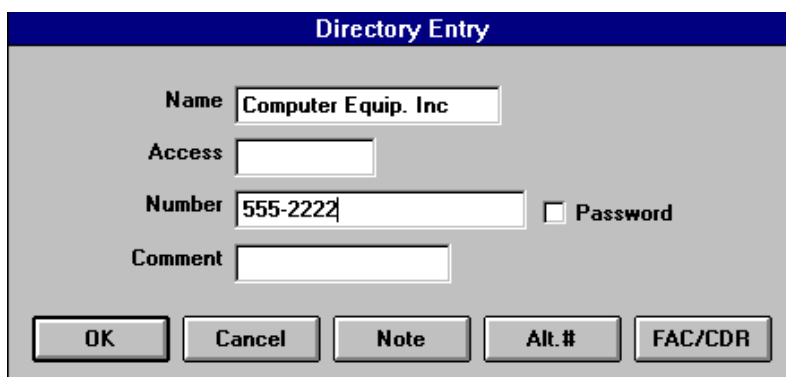
A dialog box titled "Directory Entry" with a blue header bar. It contains several text input fields: "Name" (with "Computer Equip. Inc" entered), "Access", "Number" (with "555-2222" entered), and "Comment". To the right of the "Number" field is a checkbox labeled "Password". At the bottom, there are five buttons: "OK", "Cancel", "Note", "Alt. #", and "FAC/CDR".

Figure 5-8. Add Entry Dialog Box

3. Enter information into the text boxes.

- **Name** - up to 20 characters. Enter the last name first, then the first name to ensure proper sorting of names in the directory.

- **Access** - up to 10 digits can be entered but are not displayed in the list of directory entries. The access code consists of the digit or digits required to connect your telephone with the proper line.

For example, a typical access code to get an outside line (9) for a long-distance call (1) is 91.

The access field lets you separate the access code from the area code and telephone number. This enables ComManager to locate incoming external calls in your directory.

For example, if your telephone system has automatic number identification (ANI), the area code and seven digit telephone number of an external caller is automatically passed to your system. However, if the defined directory entry dial string that calls the number from your telephone directory includes an access code, the access code has to be separated from the telephone number or ComManager does not find a match for the incoming call.

Using the access field can also make a telephone number more readable. Since the telephone number does not have to contain the access code, a seven or ten digit telephone number appears with parentheses around the area code (if present) and a dash after the first three digits, for example, (415)123-4567

Note: You can use access codes to dial a telephone number in 2 different ways:

- You can add an access code to a telephone number in the directory, either in the Access text box or in the Number text box (see Figure 5-8).
- You can also add an access code to a telephone number you define in an repdial key.

However, if you define an access code separately from the number in the directory and if you use a repdial key to dial the number, ComManager displays only the number, *because the repdial string includes access code information in the dial string that did not match the number in the directory entry exactly*. If you want the repdial string and directory entries to match exactly, add the access code to the number in the Number text box instead of in the Access text box.

- **Number** - up to 22 digits. The number only appears formatted if it has 7 or 10 digits.
- **Password** - select this check box to identify the number as a string of digits to be sent without sending a flash signal. This feature has many uses. For example, you can enter the password as an alternate number for PhoneMail. After you dial the number to access the PhoneMail system, you can select the alternate number to automatically enter your password if the password box is activated.
- **Comment** - up to 16 characters. The data entered into the Comment area can be used to locate directory entries.

4. Optional: Select any of the following options.

- Add a note for the entry by clicking the Note button. Refer to “Directory Window Options” on page 5-10 for more information.
- If you choose the Alt.# button, a dialog box appears that lets you add or delete numbers on an alternate numbers list. To add or delete alternate numbers, see “Adding or Deleting Alternate Numbers to a Directory Entry” on page 5-17.
- If you choose the FAC/CDR button, the following dialog box appears (Figure 5-9).

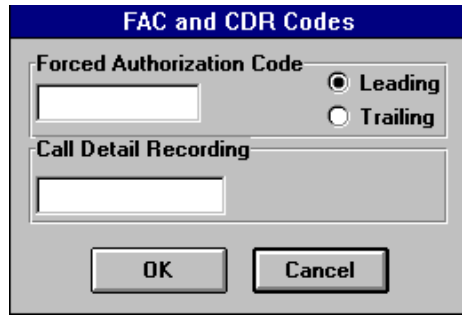
The image shows a dialog box titled "FAC and CDR Codes". It has a blue header bar with the title in white. Below the header, there are two main sections. The first section is labeled "Forced Authorization Code" and contains a text input field and two radio buttons: "Leading" (which is selected) and "Trailing". The second section is labeled "Call Detail Recording" and contains a text input field. At the bottom of the dialog box are two buttons: "OK" and "Cancel".

Figure 5-9. FAC/CDR Dialog Box

Enter the forced authorization code (FAC) and call detail recording (CDR) codes in the text boxes provided. FAC codes can be up to 12 characters and they can proceed or follow the dialed number. Select the appropriate option (Leading or Trailing) and click OK.

The FAC feature lets you access an outside line from any extension regardless of the Class of Service assigned to that extension.

The CDR feature records the start time, length of call, your extension number, and the number called under the specified account code. Your system administrator can provide you with one or more account numbers that you can use to report costs. For example, once you have identified specific outgoing calls with an account number, the costs may be charged to a department or client.

You can only use FAC or CDR features if your telephone system has been configured with these features. Ask your system administrator for additional information about your FAC and CDR codes.

5. Click the OK button in the Add Entry window, or click the Cancel button to exit the window without adding the entry.

You can change a directory using the copy and paste commands. Refer to “Using the Editing Commands” on page 5-34 for information about using these commands.

Adding or Deleting Alternate Numbers to a Directory Entry

Use the Alternate Numbers dialog box to add or delete alternate numbers associated with the selected telephone directory entry.

Use the Alternate Numbers dialog box to add or delete alternate numbers as follows:

1. From the Services menu, choose Directory.

The Directory window appears (see Figure 5-1 on page 5-10). The name of the current directory is displayed in the title bar of the Directory window.

2. Choose a directory entry. From the Edit Menu, chose Edit Item. From the Edit Entry dialog box, choose the Alt # button

The Alternate Numbers dialog box (Figure 5-10) appears. This dialog box lets you add or delete numbers on an alternate numbers list.

Number	Comment	Password
555-2111	Home	

Figure 5-10. Alternate Numbers Dialog Box

- To add an entry:
 - a. Enter information into the following text boxes:
 - **Number** - up to 22 digits. The number is formatted only if it has 7 or 10 digits.
 - **Comment** - up to 10 characters (optional).
 - **Password** - select this check box to identify the number as a string of digits to be sent without sending a flash signal (optional). This feature has many uses. For example, you can enter the password as an alternate number for PhoneMail. After you dial the number to access the PhoneMail system, you can select the alternate number to automatically enter your password if the password box is activated.
 - b. Click the Add button (or click Close to exit the window without adding an entry).
- To delete an existing entry:
 - a. Select the entry you want deleted.
 - b. Click the Delete button (or click Close to exit the window without deleting an entry).

Note: It is not possible to edit an existing alternate number, so you must delete the entry you wish to change and then add the changed entry to the list.

3. Choose the Close button to exit from the window.

Finding a Directory Entry

Find an entry as follows:

1. Click the Find button. The Find Entry dialog box (Figure 5-12) appears.

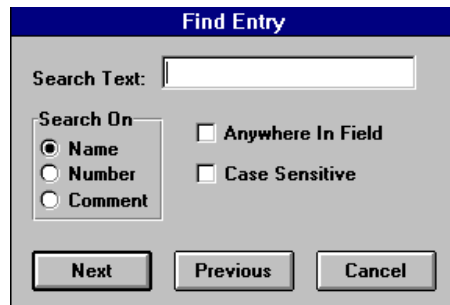
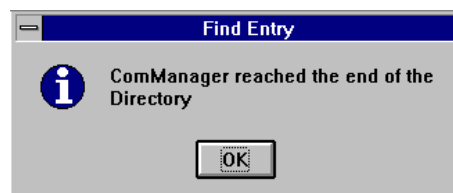


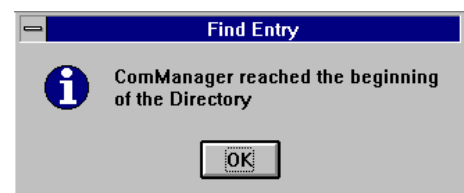
Figure 5-11. Find Entry Dialog Box

2. Activate the desired Search On option (to find a name, number, or comment).
3. Enter the alphabetic or numeric text you want to find in the Search Text box.
4. Select any other search criteria you want:
 - Anywhere In Field searches for any character string that matches your search text.
 - Case Sensitive looks only for entries that match your search text's upper and lowercase letters exactly.
5. Press the Next button if you want to search for text forward from the cursor, or press the Previous button to search for text backward from the cursor.

Note: You may have to run some directory searches twice. If the cursor is located on M and you are looking for a name that begins with S, a Next-button search finds the name you are looking for (because ComManager searches the directory from M to Z). However, if you click the Previous button, ComManager does not find the name (because it searched from M to A). If the string is not found, one of the not-found messages shown in Figure 5-12 appears. Click OK to close the message.



Text Not Found Using Next Button



Text Not Found Using Previous Button

Figure 5-12. Find Entry Not-Found Messages

Editing Directory Entries

You can edit existing data for a highlighted entry in the current directory.

Edit an entry in a directory as follows:

1. From the Services menu, choose Directory.

The Directory dialog box appears (see Figure 5-1 on page 5-10).

2. Select the directory entry that you want to change.
3. From the Directory Edit menu, choose Edit Item.

The Edit Entry dialog box (Figure 5-13) appears.




Figure 5-13. Edit Entry - Directory Dialog Box

4. Make any changes to the following:

- Name
- Access
- Number
- Password
- Comment

For information on these text boxes, refer to “Adding Entries to a Directory” on page 5-14.

5. Choose any of the options:

- Note (see Figure 5-2 on page 5-10)
- Alt.# (see Figure 5-10 on page 5-17)
- FAC/CDR (see Figure 5-9 on page 5-16)

6. Choose the OK button.

Deleting Directory Entries

Delete a telephone directory entry as follows:

1. From the Services menu, choose Directory.

The Directory window appears (see Figure 5-1 on page 5-10).

2. Select the directory entry that you want to delete.
3. From the Directory Edit menu, choose Delete Item.

The Delete Entry - Directory dialog box (Figure 5-14) appears. This window confirms if you really want to delete the selected telephone directory entry.



Figure 5-14. Delete Entry Dialog Box

4. Click the Yes button to delete the entry or click the No button to close the dialog box without making any changes.

Creating a Default Note Card Template for Directories

ComManager allows you to add notes to directories, the Call Log, and the Reminder List. The default note card template is displayed whenever you create a new note for directory, Call Log, or Reminder List entries. For example, if you want to create a standard note card template that includes the company name and address associated with that directory, you can create a note card template that looks like Figure 5-15:

Create a default note card template as follows:

1. From the File menu, choose Select Directory.

The Select Directory dialog box appears (see Figure 5-3 on page 5-11).

2. Choose the directory for which you are making the note card template.
3. Choose the Def. Note button to create a default note card template.
4. The blank Note Card Template dialog box appears (a completed note card template example is shown in Figure 5-15).

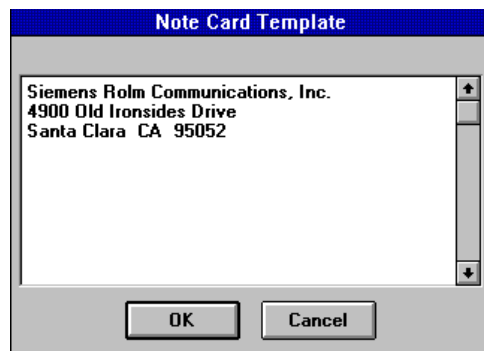


Figure 5-15. Note Card Template Dialog Box

The data included in the template appears whenever you add a note to an entry. To put a return in the template, use Ctrl + Enter. To put a tab in the template, use Ctrl + Tab.

Printing Directory Entries

Print all or part of the entries in the current directory, Reminder List, or Call Log as follows:

1. From the File menu, choose Print.

The File Print dialog box (Figure 5-16) appears.

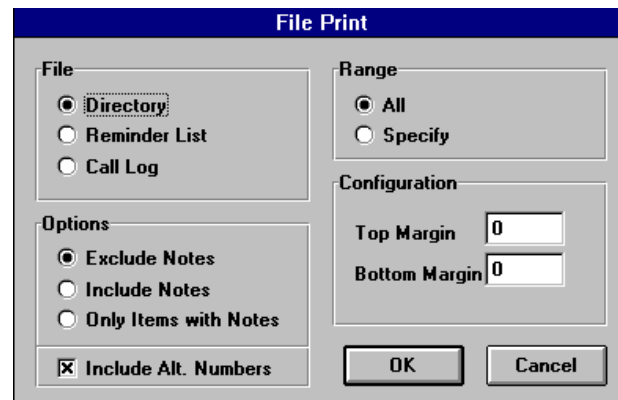


Figure 5-16. File Print Dialog Box

2. Specify the characteristics you want for the printout by selecting one option button each for File, Options, and Range.
 - **File** - lets you choose entries in the Directory, Reminder List, or Call Log.
 - **Options** - lets you print entries that include Notes.
 - **Range** - lets you print all entries or choose specific entries.
3. In configuration, specify the number of blank lines you want at the top and bottom of each printed page.
4. Select the Alt. Numbers check box to print alternate numbers in Directory entries.
5. After making your selections, choose the OK button to start printing.

Depending on your selections, you may be prompted for additional range information. The range window lets you determine which portion of the file to print. The file prints on the Windows default printer.

Automatic Directory Updates from a Network

Many organizations use a local area network (LAN) to exchange and distribute information. A LAN provides a means of sharing common tools and information among networked users. LAN support for ComManager refers to Automatic Directory Update.

If you are connected to a LAN that supports DOS file copies, you can have local directories automatically updated from the LAN every time you start ComManager. To update your directories automatically, add the following entries to the [auto dir update] topic of your COMMGR.INI file in the directory where ComManager is installed:

```
LocalCommonDir=<directory name>
LANCommonDir=<full path specification of common directory>
```

For example, the entries

```
LocalCommonDir=Common
LANCommonDir=i:\landir\common
```

cause the date and time of the ComManager directory i:\landir\common to be compared with the date and time of the last automatic update. If the LAN directory has been changed since the last update, ComManager uses that information to replace the directory common (located off the cddb subdirectory). ComManager uses the additional entry

```
LastUpdate=nnnn (where nnnn is a decimal number)
```

to date the local directory *and should not be modified by the user*.

The common LAN directory *should not* be an active directory; any user who is logged-on to this directory and then attempts to update the directory creates a DOS Sharing Violation error. Instead, the directory administrator should maintain a separate shared or personal directory, copying the entire DOS subdirectory to the common location on a regular basis. For example, a personal directory can be copied from the default installation subdirectories to the common LAN directory in the previous example with the following DOS command:

```
copy c:\cc\ccdb\personal i:\landir\common
```

When updating a directory, if the specified local common directory does not exist, an error results. If there is not enough disk space on the updated machine for both the old and new directories, an error results. Space for both directories is required because, to ensure data integrity, the new directory is completely copied to the updated machine first, then the old directory is deleted. If an error is encountered during the copy, the new (temporary) image is deleted. If there is no error, the old files are replaced with new ones, and the new update time is recorded in the COMMGR.INI file.

Note: During update, the entire local directory database is updated from the network. Any changes made locally since the last update (including changes to notes attached to records in that directory) are lost. To avoid data loss, the directory administrator should make all changes to common directories.

Working with the Reminder List

The ComManager Reminder List provides a listing of names, numbers, dates, times, and notes that remind you of important telephone calls you need to make.

The Reminder List consists of 2 different reminder windows:

- **Reminder List window** - this window is displayed when you pull down the Services menu and select the Reminder List option. Use the buttons in this window to view, create, edit, and delete reminder list entries.
- **Reminder window** - this window displays the reminder data at the preset date and time you specify.

Open the Reminder List window using one of the following methods:

- Click the Reminder tool bar icon on the Main window.
- Pull down the Services menu and select Reminder List.
- Press a preset ComManager key on the Main window (see “Assigning ComManager Keys” on page 5-46 for more information).

The Reminder List window (Figure 5-17) appears.

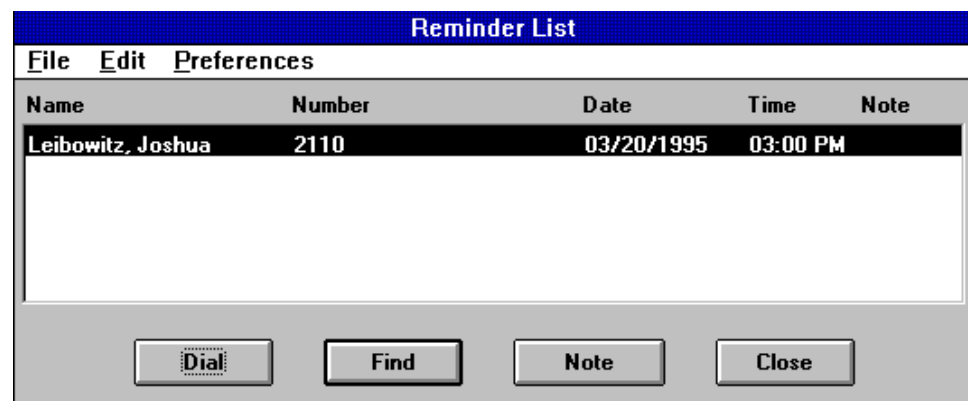


Figure 5-17. Reminder Window

The following data is displayed in the Reminder List window:

- **Name** - the other party's name (up to 20 characters).
- **Number** - the other party's telephone number (up to 22 digits).
- **Date** - the date on which you want the reminder to occur.
- **Time** - the time of day you want the reminder to occur.
- **Note** - a note symbol indicates the presence of an informational note.

The Reminder List entries are arranged by date and time, with the earliest entries appearing at the top of the list.

Reminder List Window Options

The following option buttons are displayed at the bottom of the Reminder List window:

- **Dial** - choose the Dial button to dial the number associated with the highlighted entry.
- **Find** - choose the Find button to locate an entry in the Reminder List. This action opens the Find Entry window.
- **Note** - choose the Note button to view or add note data to the highlighted reminder entry. Note data is limited to 800 characters. The note icon is displayed for each entry that has a note. To put a return in a note, use Ctrl + Enter. To put a tab in a note, use Ctrl + Tab.
- **Close** - choose the Close button to close the window.

Setting Up Reminder List Parameters

Set the maximum number of Reminder List entries and set an alarm threshold to alert you when a specified number of entries has been reached as follows:

1. Pull down the Reminder List Preferences menu.
2. Choose File Parameters.

The File Parameters dialog box (Figure 5-18) appears.

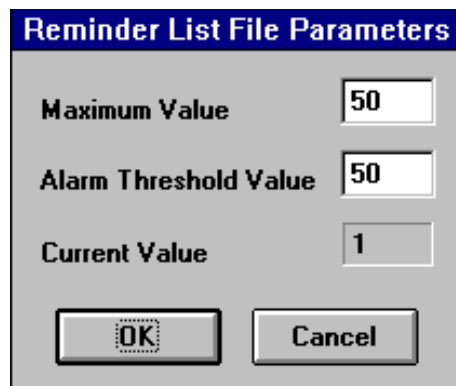


Figure 5-18. File Parameters Dialog Box

Finding a Reminder List Entry

The procedure for finding a Reminder List entry is similar to the procedure for finding a directory entry.

One difference is that the Reminder List Find Entry window gives you the additional option to search for a date or time, along with the regular search on options for name, number, or comment.

When you click on the Find button of the Reminder List window, the Find Entry window (Figure 5-19) appears. Note the additional Search On option for Date/Time.

To find a Reminder List entry, use the procedure in “Finding a Directory Entry” on page 5-18.

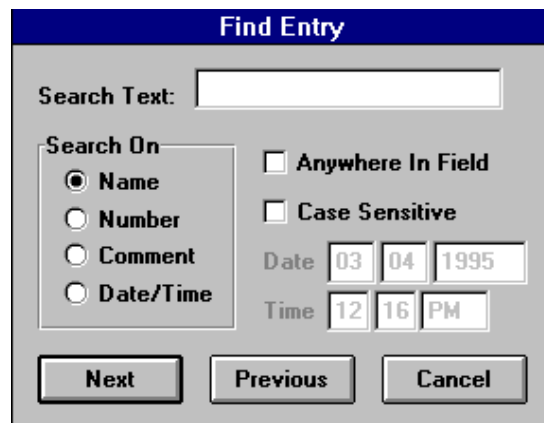
The image shows a dialog box titled "Find Entry" with a blue header bar. Inside, there is a "Search Text:" label followed by a text input field. Below this is a "Search On" section with four radio button options: "Name" (selected), "Number", "Comment", and "Date/Time". To the right of these are two checkboxes: "Anywhere In Field" and "Case Sensitive". Below the checkboxes are date and time input fields. The date field is split into three boxes containing "03", "04", and "1995". The time field is split into three boxes containing "12", "16", and "PM". At the bottom of the dialog are three buttons: "Next", "Previous", and "Cancel".

Figure 5-19. Find Entry (Reminder List) Dialog Box

Adding or Editing Reminder List Entries

Add or edit the reminder list entries as follows:

1. From the Service menu, choose Reminder List.
The Reminder List window appears.
2. Select the entry you want to change.
3. From the Edit menu, choose Edit Item.

The Edit Entry dialog box appears (Figure 5-20 on page 5-26).

Note: If you want to add an item, choose Add Item from the Edit menu. The Add Entry dialog box, which looks almost exactly like the Edit Entry dialog box, appears.

Figure 5-20. Edit Entry Dialog Box

4. Make any changes in the Edit Entry (or Add Entry) dialog box. Reminder List entries have the following fields:
 - **Name** - up to 20 characters. Enter the last name, followed by the first name to ensure proper sorting of names in the directory.
 - **Access** - up to 10 digits can be entered but are not displayed. The access code consists of the digits required to connect your telephone with the other line. For example, a typical access code to get an outside line (9) for a long-distance call (1) is 91.
 - **Number** - up to 22 digits. The number only appears formatted if it has 7 or 10 digits.
 - **Comment** - up to 16 characters. The data entered into the Comment area can be used to locate reminder entries.
 - **Date** - the date on which you want the reminder to occur.
 - **Time** - the time you want the reminder to occur.
5. Optional: Click the Note button to add or view note data associated with the listing.
6. Click the OK button to confirm the changes or click the Cancel button to exit without making any changes.

Deleting Reminder List Entries

Delete a Reminder List entry as follows:

1. From the Services menu, choose Reminder List.
The Reminder List window appears (see Figure 5-17 on page 5-23).
2. Select the Reminder List entry that you want to delete.
3. From the Reminder List Edit menu, choose Delete Item.
The Delete Entry dialog box (Figure 5-14 on page 5-20) appears. This dialog box confirms that you really want to delete the selected Reminder List entry.

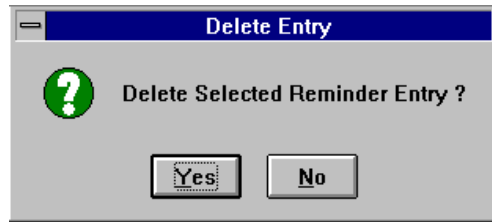


Figure 5-21. Delete Entry Dialog Box

4. Choose the Yes button to delete the entry or choose the No button to close the dialog box without making any changes.

Printing Reminder List Entries

To print all or part of the contents of a Reminder List, open the ComManager Main window File menu and select the Print command (use the procedure in "Printing Directory Entries" on page 5-21).

The Reminder Window

The Reminder tool bar icon of the Main window changes appearance (refer to the section "Tool Bar Icons" on page 4-6) at the specified time and date assigned to a reminder entry. To view the reminder, click on the Reminder icon. The Reminder window (Figure 5-22) opens.

The Reminder window can also be configured to open automatically at the specified time and date of a reminder entry (refer to "Reminder Alerting Preferences" on page 5-28).

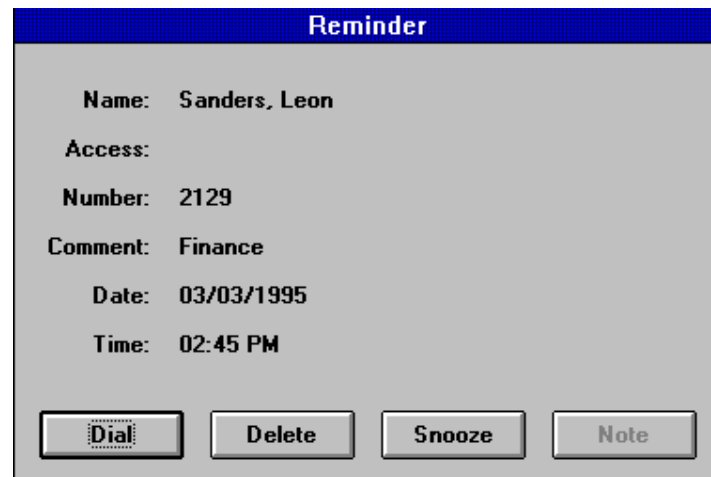


Figure 5-22. Reminder Window

The following options are available when the Reminder window is open:

- **Dial** - click the Dial button to dial the number associated with the reminder and delete the reminder from the Reminder List.
- **Delete** - click the Delete button to delete the reminder from the Reminder List and close the Reminder window.
- **Snooze** - click the Snooze button to delay the reminder for the number of minutes indicated in the Reminder Snooze Time (refer to "Reminder Snooze Time" on page 5-28).

- **Note** - click the Note button to view or change the contents of an existing note associated with the reminder. A note cannot be created from the Reminder window (create it instead from the Reminder List window).

Reminder Snooze Time

The Snooze button lets you define the amount of time, in minutes, to delay a reminder notice. You activate the snooze delay by clicking the Snooze button on an active Reminder window.

1. From the Reminder List Preferences menu, choose Snooze Time.

The Snooze Time dialog box (Figure 5-23) appears.

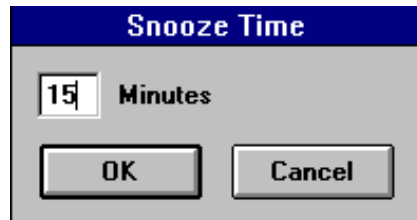


Figure 5-23. Snooze Time Dialog Box

2. Enter any number of minutes between 1 and 999 in the Minutes text box.
3. Click the OK button (or the Cancel button to close the window with no changes).

Reminder Alerting Preferences

The Reminder alerting preferences allow you to choose how ComManager informs you that a reminder's preset time has passed - by blinking the ComManager icon, or by automatically opening the Reminder window.

If ComManager is minimized, the ComManager icon will blink if the Blink ComManager Icon option is checked.

If the Open Reminder Window option is checked, the window automatically opens when the reminder expires, as long as ComManager is not minimized.

1. From the Reminder List Preferences menu, choose Alerting Preferences.

The Alerting Preferences window (Figure 5-24) appears.

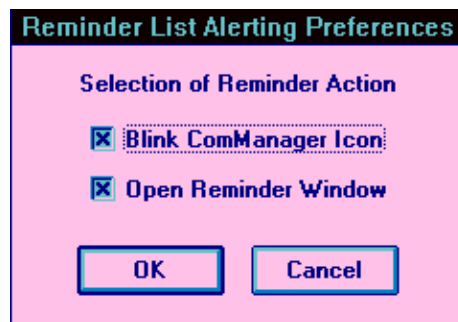


Figure 5-24. Alerting Preferences Dialog Box

2. Click to mark the box next to each selection you want.
3. Click the OK button (or the Cancel button to close the window with no changes).

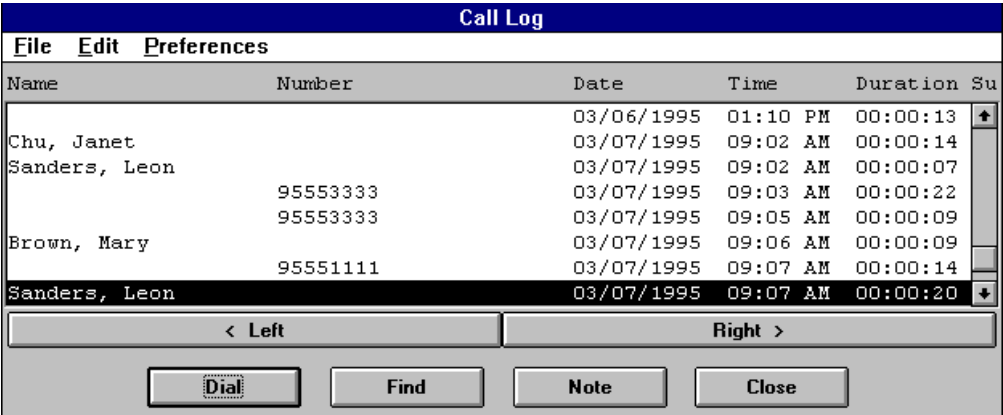
Working with the Call Log

The Call Log lists information about all the calls you have made or received at your telephone while using ComManager.

Open the Call Log window using one of the following methods:

- Click on the Call Log tool bar icon on the Main window.
- Pull down the Services menu and select Call Log.
- Press a preset ComManager key on the Main window (see “Assigning ComManager Keys” on page 5-46 for more information).

The Call Log window (Figure 5-25) opens.



File Edit Preferences					
Name	Number	Date	Time	Duration	Su
		03/06/1995	01:10 PM	00:00:13	↑
Chu, Janet		03/07/1995	09:02 AM	00:00:14	
Sanders, Leon		03/07/1995	09:02 AM	00:00:07	
	95553333	03/07/1995	09:03 AM	00:00:22	
	95553333	03/07/1995	09:05 AM	00:00:09	
Brown, Mary		03/07/1995	09:06 AM	00:00:09	
	95551111	03/07/1995	09:07 AM	00:00:14	
Sanders, Leon		03/07/1995	09:07 AM	00:00:20	↓
< Left			Right >		
Dial		Find	Note	Close	

Figure 5-25. Call Log Window

Each Call Log entry contains the following data:

- **Name** - the name of the other party, as displayed in the Call Information window.
- **Number** - the telephone number shown in the Call Information window.
- **Date** - the date of the call in the format specified with the Date/Time Format command on the Preferences menu (see “Setting Date and Time Format” on page 4-9 for more information).
- **Time** - the time of the call in the format specified with the Date/Time Format command on the Preferences menu (see “Setting Date and Time Format” on page 4-9 for more information).
- **Duration** - the length of the call, listed in hours, minutes, and seconds.
- **Success** - a record of whether or not the call was completed.
- **In/Out** - a record of whether the call was incoming or outgoing.
- **Note** - the note icon is displayed if a note has been added to the entry. The note data associated with an entry in a directory or Reminder List is *not* copied to the Call Log when a call is made from the directory or Reminder List.
- **Line ID** - the directory number assigned to the selected line. To assign a line name, open the Preferences menu and select the Assign Lines command (see “Assigning the Prime Line” on page 5-51 for more information).

The entries in the Call Log are sorted by date and time with the earliest entries appearing at the top of the list. *When the window is opened, the bottom of the list is displayed to show the most recent entries.*

Call Log Window Options

The following buttons are displayed at the bottom of the Call Log window:

- **Dial** - choose the Dial button to dial the number for the highlighted Call Log entry.
- **Find** - choose the Find button to locate entries in the Call Log. This action opens the Find Entry dialog box, which works exactly as it does for finding Directory entries.
- **Note** - choose the Note button to create a new note or view an existing note for the highlighted entry. A note is limited to 800 characters. The note symbol is displayed for each Call Log entry that has a note. To put a return in a note, use Ctrl + Enter. To put a tab, use Ctrl + Tab.
- **Close** - choose the Close button to quit the Call Log window.
- **Left/Right** - choose to scroll to the left or right.

Setting Up the Call Log

This section contains four setup procedures for the Call Log:

- Setting display items (which fields are displayed in the Call Log)
- Setting log parameters (the types of calls and events to be logged)
- Setting file parameters (the maximum number of entries)
- Setting alerting preferences (how you are notified when your Call Log entries have exceed the file parameters threshold)

Log Parameters

Log Parameters defines which type of calls are recorded in the Call Log. Events that can be logged include the following:

- Incoming or outgoing calls
- Successful or unsuccessful calls
- Prime lines or other lines that appear on your telephone

Log Parameters allows you to view or change the currently logged events. All calls matching the selected criteria are recorded in the Call Log until the maximum number of log entries is reached. After the maximum number of log entries is reached, the oldest call data is overwritten with new call data.

Set the log parameters as follows:

1. From the Call Log Preferences menu, choose Log Parameters.

The Log Parameters dialog box (Figure 5-26 on page 5-31) appears.

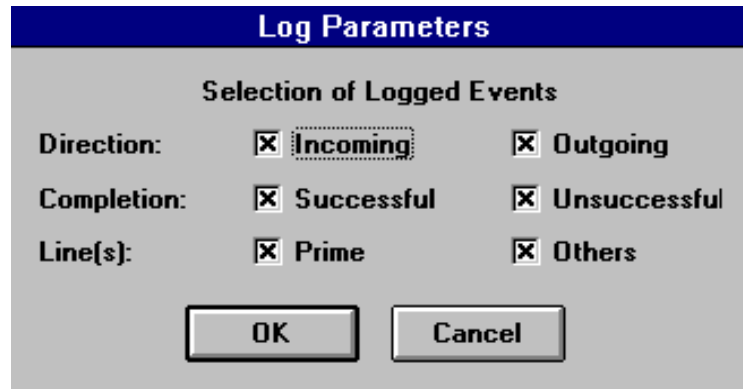


Figure 5-26. Log Parameters Dialog Box

2. Choose from the following optional check boxes:

- Under Direction, specify whether or not to log voice telephone calls that originate from your telephone (outgoing) and terminate at your telephone (incoming).
- Under Completion, specify whether or not to log telephone calls where a connection was established (successful) and calls where no connection was established (unsuccessful).
- Under Line[s], specify whether or not to log telephone calls that originate or terminate on your prime telephone line and any other lines available on your telephone.

3. After making your selections, click the OK button to confirm the changes, or the Cancel button to close the window and exit without making any changes.

You can select and change the combination of logged events that suits your needs. For example, if you only want to log who called you while you were away from your telephone, activate the incoming, unsuccessful, and prime options. You can then leave ComManager active on your computer while you are away. The Call Log lists the unsuccessful attempts to reach you while you were away.

File Parameters

File Parameters specifies the maximum number of entries for the Call Log.

However, if the maximum number value is exceeded for your Call Log, new entries overwrite the oldest calls in your log. To get a warning when the Call Log threshold is reached, activate the Call Log Threshold options (see “Alerting Preferences” on page 5-32). Then when the threshold is reached, the Call Log automatically appears every time a new entry is logged, depending on the Alerting Preferences configured.

Set the file parameters as follows:

1. From the Call Log Preferences menu, choose File Parameters.

The File Parameters dialog box appears (Figure 5-27 on page 5-32).

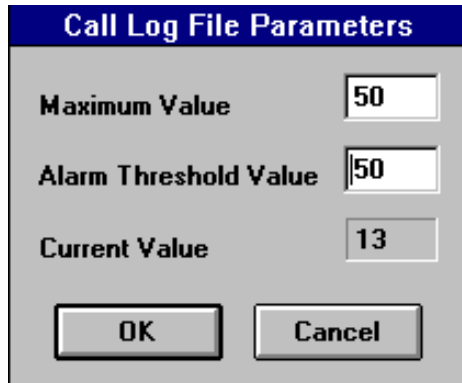


Figure 5-27. File Parameters Dialog Box

2. Choose from the optional text boxes:

For example, set an alarm threshold value equal to the expected number of calls of the type you are logging for the reporting period. Then determine the largest value that is manageable for your use and set the maximum number.

Note: Call logs can have up to 3000 entries. However, large call logs take longer for ComManager to initialize and access.

3. Click the OK button or the Cancel button to close the window with no changes.

Alerting Preferences

Alerting Preferences specifies the method of alert for your Call Log features. Figure 5-28 shows the default configuration of the Alerting Preferences.

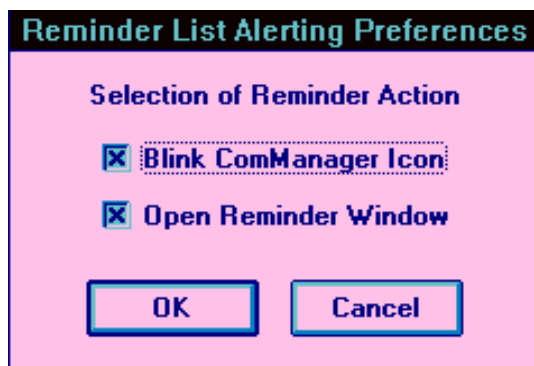


Figure 5-28. Alerting Preferences Dialog Box

Change the default preferences, as follows:

1. From the Call Log Preferences menu, choose Alerting Preferences.
The Alerting Preferences dialog box appears.
2. Under Selection of Call Log Threshold, choose either the Blink ComManager Icon or Open Call Log Window when the number of entries in your Call Log exceeds the specified threshold.
3. Click the OK button or the Cancel button to close the window with no changes.

Finding a Call Log Entry

The procedure for finding a Call Log entry is the same as that for finding a directory entry. To find an entry, use the procedure in “Finding a Directory Entry” on page 5-18.

Editing Call Log Entries

You can edit or delete Call Log entries using the Edit menu commands when the Call Log is open. The name, number, access code, and note data are the only fields you can change in a Call Log entry.

The procedure for editing or deleting entries in the Call Log is the same as that for editing entries in a directory. To edit Call Log entries, use the procedure in “Editing Directory Entries” on page 5-19.

Deleting Call Log Entries

The procedure for deleting Call Log entries is the same as that for deleting directory entries. To delete Call Log entries, use the procedure in “Deleting Directory Entries” on page 5-20.

You can also delete multiple entries in the call log, in one of several ways:

- Hold down the shift key while you click and drag the mouse to highlight a contiguous range of entries.
- After clicking on one entry, hold down the shift key and click on another entry to highlight a contiguous range of entries between (and including) the entries you selected.
- To highlight multiple non-contiguous entries, click on the first entry normally and then hold down the control key while you click on the remaining entries.

Printing Call Log Entries

The procedure for printing Call Log entries is the same as that for printing directory entries. To print all or part of the Call Log, use the procedure in “Printing Directory Entries” on page 5-21.

Using the Editing Commands

You can make use of editing commands (Cut, Copy, Paste, Delete, Edit, and Add) in the Edit menus on the Directory, Reminder List, and Call Log windows. For example, you use Edit Item to edit entries in the Directory, Reminder List, and Call Log; you use Add Item to create new entries in the Directory or Reminder List.

All of the commands apply to whole entries, not to specific fields. Cut or copied entries are not stored in the Windows clipboard.

Table 5-1. Using the Edit Menu

Edit Menu Item	Description
Cut Item	Choose Cut to remove and store a highlighted entry. The entry can be copied to another location until the next Cut or Copy command.
Copy Item	Copy stores a copy of the highlighted entry. This information can then be pasted into another location. For example, you can copy an entry in the Call Information window and paste it into the current directory or Reminder List. The stored data remains intact until the next Cut or Copy command.
Paste Item	Paste copies the data that was stored using a Cut or Copy command to the location indicated by the cursor. Source data remains stored until the next Cut or Copy command. Note: Paste cannot be used in the Call Log.
Delete Item	Delete erases the highlighted entry.
Edit Item	Choose Edit Item to change existing data for the highlighted entry in the current Directory, Call Log, or Reminder List. Edit Item is disabled until you select an entry.
Add Item	Choose Add Item to create a new entry in the current Directory or Reminder List. Note: Add cannot be used in the Call Log.

Note: When you are using the Windows clipboard with ComManager, the clipboard can only be used for text. Standard Ctrl + Ins, Shift + Del, or Shift + Ins commands manipulate text from ComManager to the clipboard and other Windows applications, or from the clipboard to ComManager.

Importing or Exporting Data

Import/Export lets you do the following:

- Export data from the Call Log
- Import data to the Reminder List or current directory
- Export data from the Reminder List or current directory

Several different file formats are supported.

Import or export data as follows:

1. From the File menu, choose Import/Export.

The Import/Export dialog box (Figure 5-29) appears.

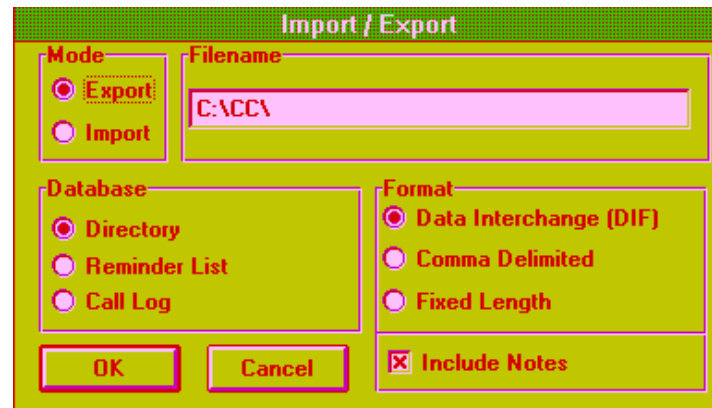


Figure 5-29. Import/Export Dialog Box

2. Select the desired option buttons for Mode, Database, and Format.
3. Identify the source (import) or destination (export) file by entering a filename of up to eight characters with up to a three-character file extension.

Note that default path information is provided. To use a different subdirectory, change the path information when entering the filename.

4. Select the Include Notes check box to export data (with certain limitations) associated with an entry.

Note: ComManager only enables the Include Notes check box when you choose Export. If you choose Import, ComManager accepts any data from the files that you import.

5. Click the OK button or the Cancel button to close the window with no changes.p

Import and Export Modes

ComManager lets you decide the mode of importing or exporting data.

Import Modes

ComManager provides three modes for importing data into a telephone directory.

Choose a mode as follows:

1. From the File menu, choose Import/Export.

The Import/Export dialog box (Figure 5-29 on page 5-35) appears.

2. Select the Import Mode option button, then click the OK button.

The Import Mode dialog box (Figure 5-30) appears.

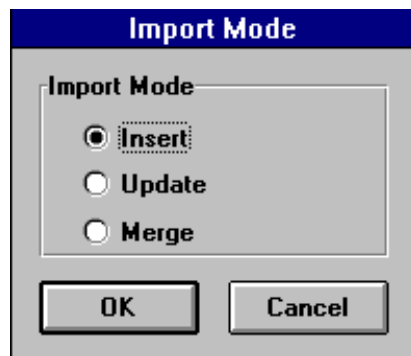


Figure 5-30. Import Mode Dialog Box

3. Select one of the following option button modes:

- **Insert** - creates a new database record for each import data entry encountered.
- **Update** - searches the names in the current directory and, if only one match is found, updates the record. If more than one match is found, a new directory entry is created. If no match is found, the new entry is ignored.
- **Merge** - is the same as Update except that, if no match is found, a new data record is created.

4. Click the OK button or the cancel button to close the window with no changes.

Note: If you are importing from another ComManager directory, be aware that alternate numbers will not be imported.

Export Mode

When exporting data, you are prompted for whether or not you want to choose a range of entries to export. This feature lets you determine what data to export based on an alphabetic range of directory entries.

When exporting data, you have the option of deleting the entries as they are being exported.

Note: Data associated with an entry (such as an informational note) can be exported by selecting the Include Notes check box.

Import and Export File Formats

ComManager supports Data Interchange Format (DIF), Comma Delimited, and Fixed Length import and export file formats.

Choose a format as follows:

1. From the File menu, choose Import/Export.

The Import/Export dialog box appears (Figure 5-29 on page 5-35).

2. Select one of the following option button formats:

- **Data Interchange Format (DIF)** - DIF is a program-independent method of storing ASCII data files. This format is useful when importing files to or exporting files from various applications, especially spreadsheets.

Use this format if you want to create a telephone directory in a spreadsheet and import the entries into ComManager. To determine how to structure your spreadsheet with regard to labels, numbers, and column widths, select the DIF format and export a small portion of an existing telephone directory to a file. Then import that file into your spreadsheet and use it as a model. Note that many spreadsheets provide a utility to convert data between the DIF file format and the spreadsheet file format.

EXAMPLE:

```

BOT
1,0
"McKeever Chris"
1,0
"9"
1,0
"14155551234"
1,0
""
1,0
"F"
1,0
"F"
1,0
""
1,0
""
1,0
""
-1,0
BOT
```

- **Comma Delimited** - The Comma Delimited file format is an ASCII data file where the data for each field is surrounded by quotes and the fields are separated by commas. This file format is commonly used to import data into database applications such as dBase. If more data is supplied for a field than the field accommodates, the excess data is discarded. Fields for which no data is supplied are left empty.

EXAMPLE:

```
"Abbott, Frank", "", "1136", "Development", "F", "F", "1234", "5
6789", ""
```

- **Fixed Length** - The simplest of the three formats is the pure ASCII, fixed length, System Data Format (SDF). However, please note that you cannot import or export note data using this format.

The data for each field is left-justified to the first column of the defined field size.

EXAMPLE:

```

Name                               Access
Code                               Phone Number
Comment
|-----20-----| |---10---| |-----22-----| |-----
--16 ----->
Abbot, Frank                        1136
Development

Password
|FAC Trail/Lead
| |FAC Code      CDR
>11|----12----| |-----14-----|
FF1234          56789

```

Data Field Limits

The data field limits for the import/export file formats are defined as follows:

- Directory (import or export)

Table 5-2. Directory Data Field Limits

Data Field	Character Limits
Name	20
Access Code	10
Phone Number	22
Comment	16
Password	1 (T = no password, F = password)
FAC trail/lead	1 (T = trail, F = lead)
FAC Code	12
CDR	14
Notes	800

- Call Log (export only)

Table 5-3. Call Log Data Field Limits

Data Field	Character Limits
Name	20
Phone Number	22
Date	10
Time	5
Duration	8
Incoming/Outgoing	5
Success/Not Success	8
Line ID	8
Notes	800

- Reminder List (import or export)

Table 5-4. Reminder List Data Field Limits

Data Field	Character Limits
Name	20
Access Code	10
Phone Number	22
Comment	16
Date	10
Time	5
Notes	800

Note: The time format is hh:mm (using a 24 hour clock). The date format is mm/dd/yyyy.

Using PhoneMail with ComManager

You can easily access the PhoneMail system using the ComManager PhoneMail window. From this window, you can work in the PhoneMail system.

Accessing PhoneMail from ComManager

Access the PhoneMail system from ComManager as follows:

- Click on the Mailbox tool bar icon on the Main window, or
- Click on PhoneMail in the Services Menu of the Main window.

The PhoneMail window (Figure 5-31) appears.



Figure 5-31. PhoneMail Window

The first time you access the PhoneMail system, you are prompted to enter your PhoneMail access number and access phone extension number. Once those numbers are entered, ComManager saves the information.

The PhoneMail window provides an optional PhoneMail Logon window so you can enter your password privately. Type in your password and then press Enter on the PC keyboard, or click OK in the PhoneMail Logon window to put your password in the system. If you use this window, it displays each time PhoneMail is accessed.

Changing Your PhoneMail Access Number and Extension

To change your PhoneMail access number and the access phone extension number:

1. Select Preferences in the PhoneMail menu.
2. Select PhoneMail Access. When PhoneMail Access is selected, the PhoneMail Access Information window appears (Figure 5-32).

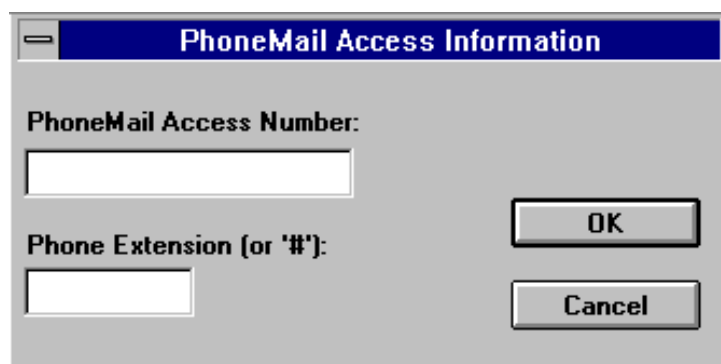


Figure 5-32. PhoneMail Access Information Window

3. Type the numbers or letters you want to use for the access number.

You can type up to 22 digits in the PhoneMail Access Number field. You can type the numbers 0 to 9, as well as the pound (#), asterisk (*), and comma (.). Use the comma to indicate a pause in the number string. You may also enter letters of the alphabet, which ComManager converts to digits 0 to 9.

Note: Do not include your password as part of the digit string. Doing so could allow others access to your PhoneMail system.
4. Type the number of the extension of the PhoneMail box to be accessed in the Phone Extension field. If you enter a pound (#) the system defaults to the extension number of the prime line. If you do not enter an extension, the system defaults to the prime line extension number.
5. Click OK to save the numbers you enter. If you click Cancel, the system uses the previously saved numbers.

PhoneMail Functions

The PhoneMail window (Figure 5-31) is divided into several different sections:

- **Playback Control Panel** controls the playback, volume, speed, and recording functions of PhoneMail.
- **Message Disposition and Delivery Control** controls the disposition and delivery of messages.
- **PhoneSpell/Dial Digits Control** allows you to enter letters and digits from the PC keyboard to dial the phone.










Also, four buttons appear at the bottom of the PhoneMail window:

- **Dial Pad** allows you to dial from your PC keyboard.
- **Redial** reconnects you to the PhoneMail system.
- **Hangup** and **Close** disconnect you from the PhoneMail system. Hangup disconnects without closing the window.



Playback Control Panel

The Playback Control Panel in the PhoneMail window has icons that control the playback, volume, speed, and recording functions of PhoneMail.

Use these icons to do the following:

	Stop the message and replay the message header and message.
	Skip back to the previous message.
	Skip back to the beginning of the current message.
	Skip back a few words in the current message.
	Pause or stop play of the message.
	Record a message.
	Play (listen to) a message.
	Move forward a few words in the current message.
	Skip to the next message.

Use these icons to:

	Increase or decrease volume while listening to a message.
	Increase or decrease speed while listening to a message.

Message Disposition and Delivery Control

The Message Disposition and Delivery Control panel contains function keys and an action list box that are used to control disposition and delivery of PhoneMail messages.

Disposition Control

1. After you listen to a message, determine if you want to save or delete the message.
2. Click Save or Delete. When you click Save or Delete, the list box (Figure 5-33) is enabled.



Figure 5-33. Message Disposition and Delivery Control Showing List Box for Disposition

3. Select what you want to do next from the list box.
 - **Enter** moves you to the next message in your mailbox.
 - **Record** sends an answer to the message you just saved or deleted.
 - **Forward** allows you to send the message you just saved or deleted to another user.
 - **Call Sender** transfers you to the person who sent you the message you just saved or deleted.

Delivery Control

1. When you are sending a message, determine if you want to send it Regular delivery or Special delivery.
2. Click Regular or Special. When you click Special, the list box (Figure 5-34) is enabled.



Figure 5-34. Message Disposition and Delivery Control Showing List Box for Special Delivery

3. Select the kind of message delivery you want from the list box.
 - **Urgent** marks the message you are sending urgent.
 - **Return Receipt** marks the message you are sending for a return receipt.
 - **Private** marks the message you are sending private.
 - **Future** enables the future delivery dialog with PhoneMail so that you can indicate when you want the message you are sending to be delivered.

PhoneSpell and Dial Digits Control Panel

The PhoneSpell/Dial Digits control panel allows you to dial from the PC keyboard or from the PhoneMail window dial pad. You can enter the numbers 0 to 9, as well as the pound (#) and asterisk (*). You may also enter letters of the alphabet, which ComManager converts to digits 0 to 9.

Numbers are dialed immediately as they are entered, and they are displayed as they are dialed. Pressing Enter is not required to dial the digits. However, if Enter is pressed while the cursor is in the dial pad field, a # dial digit is generated.

Press Clear to erase the contents of the PhoneSpell/Dial Digits input box.

Dial Pad

Click Dial Pad to open the Dial Pad window (Figure 5-35).



Figure 5-35. Dial Pad Window

The Dial Pad window is a standard telephone dial pad. Use it as you would the dial pad of your telephone to dial digits and letters or to enter PhoneMail control features. Refer to your *PhoneMail Quick Reference Guide* for details about PhoneMail control commands.

After you enter the digits or letters to be dialed, click Dial. To close the Dial Pad window, click Cancel.

Addressing PhoneMail Messages

Address PhoneMail messages using the following methods:

- Type the extension using the dial pad of the PhoneMail window.
- Type the name of the person you wish to call on your PC keyboard while the PhoneMail window is active.

The PhoneMail window translates the letters you typed into information that PhoneMail understands.

After you are in PhoneMail, you can use a redial button on the Main window to enter frequently dialed numbers. (To assign a redial key, refer to “Assigning ComManager Keys” on page 5-46.)

Exiting the PhoneMail Window

Exit PhoneMail in one of the following ways:

- Click Close to close the PhoneMail window
- Click Hangup to end your connection to the PhoneMail system.

Note: Exiting ComManager also exits PhoneMail.

Changing the Display

You can change ComManager so that the Main window only displays telephone status information. In this mode, the Main window can be resized from the normal Main window (shown in Figure 4-3, “ComManager Main Window,” on page 4-5) down to a small display area such as that shown in Figure 5-36:

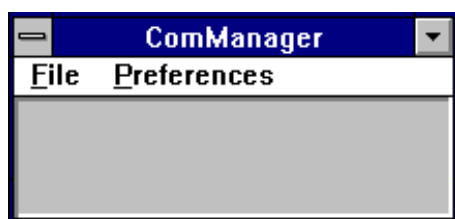


Figure 5-36. ComManager's Display Only view, after resizing

To switch to the Display Only view:

- From the Preferences menu, choose View Display Only.

To switch back to the normal display:

- From the Preferences menu, choose View Normal.

Assigning a Phone

If you have more than one phone, you can choose which one to assign to ComManager with the Assign Phone dialog box shown in Figure 5-37.

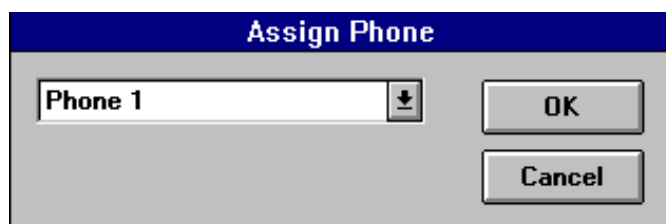


Figure 5-37. Assign Phone Dialog Box

To use this function:

- From the Preferences menu, choose Assign Phone.
- Click on the list box to see a list of available phone lines.
- Select the phone.
- Click OK.

Assigning Keys

The following section describes how to assign ComManager and telephone keys.

Assigning ComManager Keys

You can assign the lines, features, or redial telephone numbers you use most to the keys displayed on the ComManager Main window (see “Calling from an Assigned Key” on page 5-9). Up to five sets of keys can be defined (the Main window and four alternate key sets). Each key set has 15 keys that can be assigned. The alternate key sets are accessed using the Alternate Keyset x feature (where x represents the number of the key set).

Once defined, the features, lines, or redial telephone numbers can be activated by selecting the desired key set and choosing the appropriate key. Once alternate key sets are assigned, the alternate key-set windows are accessed by pressing the appropriate feature key or by selecting an alternate key set from the Services Menu.

Each of the keys has a key cap that provides up to eight characters to identify the assigned function. Although all features and line names have default abbreviations, you may define the contents of the key cap.

Note: Key caps are keys that you can assign features and functions to.

Assign a feature to a key as follows:

1. From the Preferences menu, choose Assign CM Keys.

The Assign CM Keys dialog box (Figure 5-38) appears.

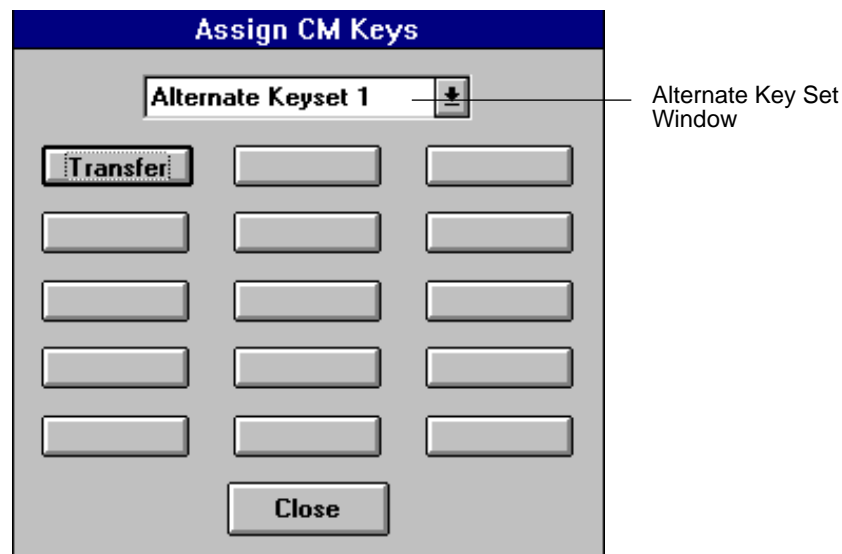
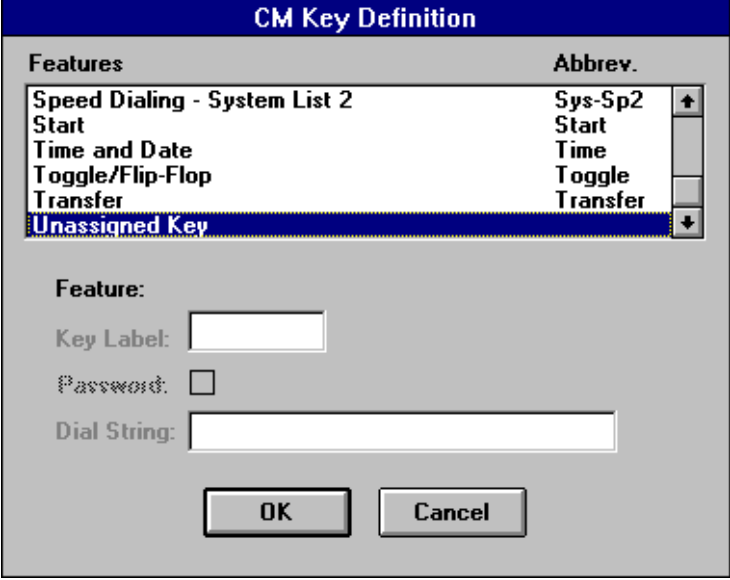


Figure 5-38. Assign CM Keys Dialog Box

2. Use the drop-down box at the top of the window to highlight and select the key *set* you want to define (the main set or one of the four alternate key sets).

3. Select the key you want to change.

The Key Definition dialog box appears (Figure 5-39). You can also click the Close button to close this dialog box.



The image shows a dialog box titled "CM Key Definition". It contains a table with two columns: "Features" and "Abbrev.". The table lists several features: "Speed Dialing - System List 2", "Start", "Time and Date", "Toggle/Flip-Flop", "Transfer", and "Unassigned Key". The "Unassigned Key" row is highlighted. To the right of the table is a vertical scroll bar. Below the table, there are three input fields: "Feature:" (which is empty), "Key Label:" (which is empty), and "Dial String:" (which is empty). There is also a "Password:" checkbox which is unchecked. At the bottom of the dialog box are two buttons: "OK" and "Cancel".

Features	Abbrev.
Speed Dialing - System List 2	Sys-Sp2
Start	Start
Time and Date	Time
Toggle/Flip-Flop	Toggle
Transfer	Transfer
Unassigned Key	

Feature:

Key Label:

Password: ☐

Dial String:

OK Cancel

Figure 5-39. Key Definition Dialog Box

4. Use the scroll bar to find the desired feature.

For a description of the features, see "Feature Descriptions" on page A-1.

5. Highlight the feature to be assigned.

The feature abbreviation appears in the Feature and Key Label fields. You can change the text in the Key Label field to whatever you want to appear on the key cap.

6. To search for a features key, enter the first letter of the feature you are looking for.

For example, if you enter T, ComManager scrolls to the features that begin with T. Enter T again, and it scrolls to the next entry that begins with T, and so on. Enter a different letter, for example, O, and ComManager scrolls to features that begin with O.

The features name appears in the Key Label text box. If needed, use the Key Label text box to modify key labels. For example, instead of using a repdial key label, you can re-label a key with a person's name.

7. Enter the number to be dialed in the Dial String field. (A dial string is a telephone number to be dialed by pressing the repdial key.) Be sure to include any required access codes.

If a feature does not allow use of a dial string, the Dial String field is not available.

Some features, such as repdial, require a dial string. Others, such as Transfer, also can be used with dial strings. The dial string can consist of any numbers or characters supported by your model of telephone. (Refer to the manual for your telephone for additional information.) For example, to put a delay in the dial string, include a comma in the position where the delay is to occur.

8. Choose the OK button to complete the assignment, or Cancel to exit without making any changes.

Assigning Telephone Keys

ComManager allows you to assign the features you use most to the DDSLoc keys on your telephone. See “Feature Descriptions” on page A-1 for more information about the features.

Once defined, the features can be activated by selecting the appropriate key on your telephone.

Assign a feature to a telephone key as follows:

1. From the Preferences menu, choose Assign Phone Keys.

The Assign Phone Keys dialog box (Figure 5-40) appears. The dialog box varies according to the type of telephone you have and the type of telephone system you are connected to.

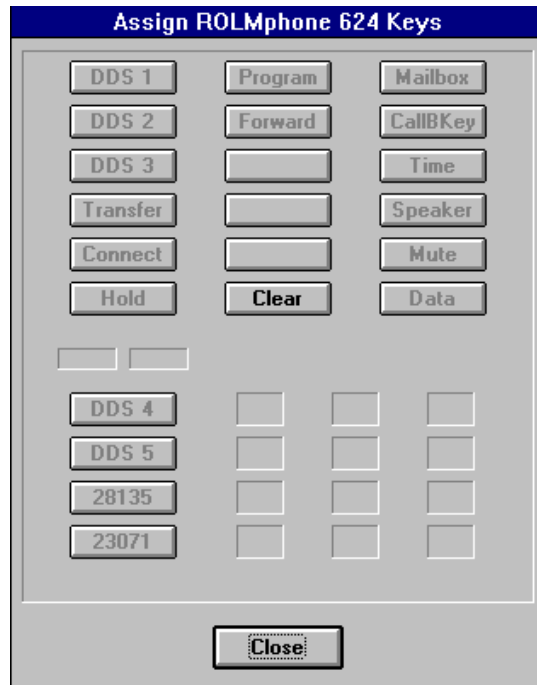


Figure 5-40. Assign Phone Keys Dialog Box

2. Select the key you want to define. (Only DDSLoc keys are enabled.)

The Key Definition dialog box (Figure 5-41) appears.

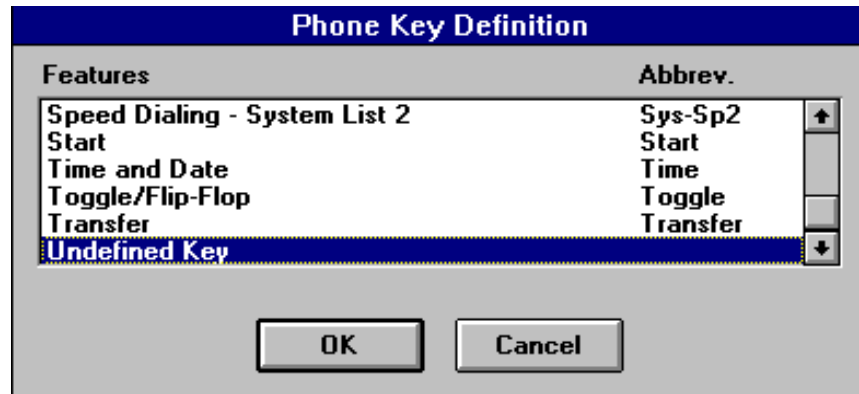


Figure 5-41. Phone Keys Definition Dialog Box

3. Use the scroll bar to locate and highlight the feature to be assigned.
4. Choose the OK button to complete the assignment or the Cancel button to exit without making any changes.

Using Optional Telephone Features

ComManager allows you to select telephone lines and view or select telephone features according to the telephone services available on your telephone system.

Viewing Available Features

View the features available on your telephone as follows:

1. From the Services menu, choose Features.

The Features dialog box (Figure 5-42) lists the features available to your telephone. The window also identifies active features and displays the abbreviation associated with each feature name. An active feature is any feature with an X next to it in the Features dialog box.

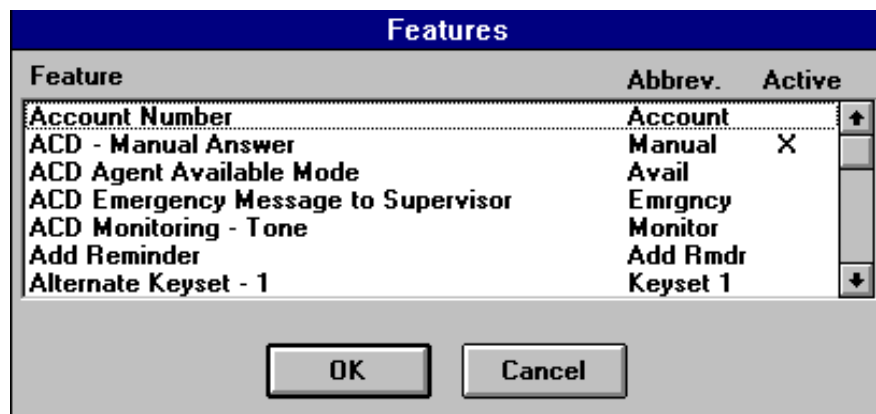


Figure 5-42. Features Dialog Box

2. To search for a feature, enter the first letter of the feature you are looking for.

For example, if you enter T, ComManager scrolls to the features that begin with T. Enter T again, and it scrolls to the next entry that begins with T, and so on. Enter a different letter, for example, O, and ComManager scrolls to features that begin with O.

You can also search for features using the scroll bar or the arrow keys.

3. To activate or deactivate a feature, highlight the feature and choose the OK button.

The results of your search depend on the characteristics of the feature and your current call status. For definitions of the features, refer to “Feature Descriptions” on page A-1.

You can also assign a Features option to a key. Refer to “Assigning ComManager Keys” on page 5-46 and “Assigning Telephone Keys” on page 5-48 for more information.

Selecting Available Line Keys

ComManager displays the Line keys in the Lines dialog box:

Select the lines available on your telephone as follows:

1. From the Services menu, choose Lines.

A dialog box appears that lists the lines assigned to your telephone and the current status of each (Figure 5-43). Use this box to select the lines you want to be active. These line keys are programmed into the telephone system by your system administrator.

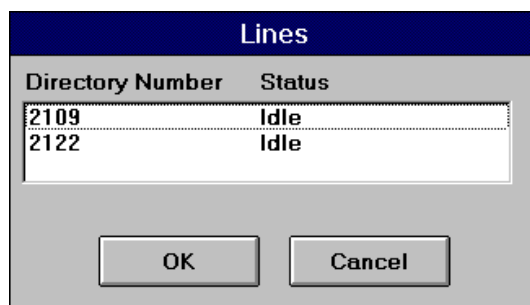


Figure 5-43. Lines Dialog Box

2. To activate a line, highlight the line entry and choose the OK button. This action is equivalent to pressing a line key on the telephone.

The name and status of the selected line appear in the Line Name and Line Status fields of the ComManager Main window (refer to “Using the ComManager Basic Windows” on page 4-5).

Assigning the Prime Line

Assign or change the prime line associated with your telephone as follows:

1. From the Preferences menu, choose Assign Prime Line.

The Assign Prime Line dialog box (Figure 5-44) appears.



Figure 5-44. Assign Prime Line Dialog Box

2. To change the prime line, click on the arrow button to pull down a list of available lines for your telephone; then highlight the desired line.
3. Choose the OK button to confirm the changes or the Cancel button to exit the dialog box without making any changes.

Call Forwarding

ComManager lets you define, activate, or deactivate the program call forward feature for a specific line.

Open the Call Forwarding window as follows:

1. From the Services menu, choose Features.

The Features dialog box appears (see Figure 5-42 on page 5-50).

2. Select the Forward Program feature, then click OK.

The Call Forwarding dialog box (Figure 5-45) appears. The line being forwarded appears in the Line to Forward box.

The screenshot shows the 'Call Forwarding' dialog box. At the top is the title bar 'Call Forwarding'. Below it, on the left, is the 'Forwarding Destination' section with three text boxes: 'Name:', 'Number:' (containing '5553821'), and 'Comment:'. To the right of these are three buttons: 'Clear Fwd', 'Set Fwd', and 'Close'. Below the 'Forwarding Destination' section is the 'PERSONAL' section, which contains a list box with the following items: 'Brown, Mary', 'Chu, Janet', 'Leibowitz, Joshua', 'Mobile Phone' (which is highlighted), and 'Sanders, Leon'. Below the list box is a button labeled 'Alt. #'. To the right of the 'PERSONAL' section is the 'Line to Forward' section, which has a dropdown menu currently showing '2122'. Below that is the 'Forwarding Mode' section, which contains six radio buttons: 'Unconditional' (selected), 'Uncond Interna', 'Uncond Externa', 'Busy', 'No Answer', and 'Busy No Answer'.

Figure 5-45. Call Forwarding Dialog Box

3. Change the line by pulling down the list of available lines from the Line to Forward box.
4. Select the Forwarding Mode that you want.
5. To activate the Program Call Forward feature, enter a forward destination into the Number text box.

Note: You cannot change the contents of the Name or Comment fields.

6. Choose the Set Fwd button.

Note: To deactivate the Forward Program feature, open the Call Forwarding dialog box and choose the Clear Fwd button.

Chapter 6 Troubleshooting ComManager

This chapter provides information for correcting problems that might occur when using ComManager.

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General Troubleshooting Guidelines

Most problems generate self-explanatory error messages from ComManager or Windows. For problems requiring additional assistance, read through this chapter to become familiar with the common problems and error messages described.

For additional assistance consult with your telephone system administrator.

If these troubleshooting procedures do not resolve your problem, contact Siemens Rolm Technical Support for further assistance (**1-800-334-9379**).

If you are unable to install and configure CallBridge - TAPI, it may be that the telephone is not correctly connected to your PC, one or more parameters may be incorrect, or one or more parts of your telephony system may not be compatible with CallBridge - TAPI. The following are general trouble-shooting guidelines.

1. Verify that the telephone can be used manually. The Line Keys and Feature Keys should all work normally. If not, contact your help desk or system administrator.
2. Verify that the Communication Port that you specified in the Telephone Configuration Dialog is connected to the DCO of the ROLMphone.
3. If trouble persists, reset the ROLMphone by unplugging the telephone line to the CBX, either where it connects to the jack on the bottom of the telephone, or where it connects to the wall jack. Leave it unplugged for a couple of seconds and then reconnect it.
4. Verify that the System Requirements, described in Chapter 1, are met. If trouble persists, contact your system administrator or Siemens Rolm Service for assistance.

Error Messages

Error messages may be displayed while installing or configuring CallBridge - TAPI. Table 6-1 lists the error messages, a brief explanation of each message, and suggested actions.

Table 6-1. Error Messages while Installing CallBridge - TAPI (1 of 2)

Error Message	Explanation and Suggested Corrective Action
<p>The following error messages may be displayed during installation, that is when executing <i>a:setup</i> to copy files from the diskette to the user's hard disk. In all cases, the name of the file in question is displayed in the header of the message box.</p> <ul style="list-style-type: none">• <i>The existing file is newer than the one being installed. Do you want to install anyway?</i>• <i>The new and existing files use different language or Code Pages. Do you want to install anyway?</i>• <i>The new file requires a Code Page that is not installed. Do you want to install anyway?</i>• <i>The new and existing files are of different types. Do you want to install anyway?</i>• <i>Unknown mismatch between new and old file. Do you want to install anyway?</i>	<p>Each of these messages indicates a mismatch between the file being installed and the current configuration of your PC. If an existing file is newer than the one being installed, you should answer No unless you are specifically instructed otherwise. The CallBridge - TAPI installation diskette contains some common Windows support files that may have been installed previously, by some other application. Generally, it is best to keep the newest version of a file.</p> <p>The other errors should only occur if you are installing CallBridge - TAPI on a PC that is configured for a language or country other than U.S. English. Consult your PC documentation.</p>
<p>The following error message may be displayed during installation.</p> <ul style="list-style-type: none">• <i>The file <filename> is in use and cannot be installed. Please exit all other applications and retry. Press Ignore to not install the file and Abort to cancel the installation.</i>	<p>Explanation not needed.</p>

Table 6-1. Error Messages while Installing CallBridge - TAPI (2 of 2)

Error Message	Explanation and Suggested Corrective Action
<p>The following messages may also be displayed during installation. They indicate that the CallBridge setup program cannot copy a file to the hard disk for the stated reason. User intervention is required if the file is to be copied. Again, the name of the file in question is displayed in the header of the message box.</p> <ul style="list-style-type: none"> <i>The destination file is write protected.</i> <i>Out of disk space.</i> <i>Out of memory.</i> <i>Access violation.</i> <i>Sharing violation.</i> <i>Internal error XXXXXXXX.</i> 	<p>The following instruction is appended to each of these messages:</p> <ul style="list-style-type: none"> <i>Correct the situation and press Retry to try again. Press Ignore to skip this file and continue. Press Abort to cancel the installation.</i>

Table 6-2 lists the error messages that apply only during configuration, when you are using the Microsoft Telephony Control Panel.

Table 6-2. Error Messages while Configuring CallBridge - TAPI (1 of 2)

Error Message	Explanation and Suggested Corrective Action
<p><i>Your current configuration file contains inconsistent data. Do you wish to erase your current configuration? Select 'Yes' to proceed with new data. Select 'No' to quit and keep your current data.</i></p>	<p>Information in the <i>telephon.ini</i> file about CallBridge - TAPI has been corrupted. Configuration cannot continue unless the corrupted data is erased. You should save a copy of <i>telephon.ini</i> for diagnostic purposes before answering Yes. <i>telephon.ini</i> is found in the directory where Microsoft Windows is installed, such as <i>C:\windows</i>.</p> <p>If you answer Yes, CallBridge deletes your current configuration information and displays the CallBridge Configuration window. You need to select Add to re-create configuration information for your telephones.</p> <p>If you answer No, the Microsoft Telephony Control Panel responds: <i>The file telephon.ini may be corrupt or missing. Would you like to reset to the default values?</i>. If you answer Yes to this second question, the Telephony Control Panel removes all information about CallBridge - TAPI. You then need to re-install CallBridge - TAPI as described in the section "Removing and Re-installing CallBridge - TAPI" on page 2-5.</p>
<p><i>The comma character (,) is not allowed in a Line or Phone name. Please change the name.</i></p>	<p>Change the Phone or Line name so that it does not contain a comma.</p>
<p><i>The Line or Phone name, or Directory Number is blank. Please enter the name or number.</i></p>	<p>Names and directory numbers must contain at least one non-space character. Verify that none of the entry fields in the window are empty.</p>

Table 6-2. Error Messages while Configuring CallBridge - TAPI (2 of 2)

Error Message	Explanation and Suggested Corrective Action
<i>A telephone is already configured for this Com Port. You must move the other telephone to a new port before configuring a new telephone on this port.</i>	Only one telephone can be configured to use a particular communication port on your PC. CallBridge - TAPI has detected that a telephone is already configured to use the Communication Port that you specified in the CallBridge Telephone Configuration window. Change the port assignment of one of the telephones, or remove the configuration for one of the telephones if it is no longer needed.
<i>The configuration information received from the telephone contains errors.</i>	The information received from the telephone is not correct. This error is unlikely to occur, but data may have been garbled by a momentary communication problem. Try the configuration again. If the problem persists, contact your system administrator or Siemens Rolm Service.
<i>Unable to find a supported telephone on the selected Com Port. Please check the cable connections between your telephone and PC COM port, verify that the proper port is selected, and try again.</i>	When you click on the Continue button in the CallBridge Telephone Configuration window, CallBridge - TAPI tries to read information from a supported ROLMphone on the communication port specified in the window. The serial connection may be faulty, the communication port specified may not be the one that is actually connected, the communication port may be in use by some other application, or the attached telephone may not be one of the supported ROLMphones.
<i>The selected Com Port is currently in use. Please close all telephony applications and try again.</i>	The telephone attached to the selected PC communication port is currently being used by a telephony application. CallBridge - TAPI must have exclusive access to the communication port in order to complete the configuration process. Close all telephony applications in order to free the communication port.
<i>The telephone attached to COM Port X has DCO Firmware Version YYY. Version ZZZ is required. Please contact your PBX Administrator to have your DCO upgraded.</i>	The revision number of the Data Communication Option module is incorrect. Note that this message displays only the minor revision level (such as '009'). The major revision level is assumed to be '2'. In this example, the complete revision number is '2.009'.
<i>Are you sure you want to remove '<phone_name>' and all of its Line definitions?</i>	You have clicked Remove in the CallBridge Configuration window. If you answer Yes, all configuration information for the selected telephone is removed. This action cannot be undone. Select No to cancel the operation.
<i>The telephone attached to COM Port X does not match the telephone previously configured. Please shutdown this application, and then use the Telephony Control Panel to reconfigure your telephone.</i>	<p>This message may be displayed when a telephony application attempts to use a previously configured telephone. (It is not displayed during the configuration process). It indicates that the telephone, or its configuration in the PBX, has changed since you last executed the CallBridge - TAPI configuration process. For example, the system administrator may have changed one or more feature key assignments for your telephone.</p> <p>After this message has been displayed, CallBridge - TAPI does not allow any telephony application to access the ROLMphone. To correct the situation, re-configure CallBridge - TAPI using the procedure described in the section "CallBridge - TAPI Configuration" on page 2-3.</p>

Communication Problems Between ComManager and Your ROLMphone Telephone

If an error message appears with the warning that communication between ComManager and your ROLMphone telephone have failed (for example, *ComManager failed to establish communication to the ROLMphone*), the problem is probably caused by one of the following:

- Loose or disconnected cables (EIA/TIA-232E, telephone line, or power supply)
- Another communications program is attempting to use the same communication or serial ports as ComManager
- Temporary communication error
- PC or asynchronous card problem
- Incorrect configuration of the CallBridge - TAPI driver
- Telephone failure

Note: If you receive a *Communication to the ROLMphone has not been established. Please Wait.* message immediately after loading ComManager, you tried to use the telephone before ComManager finished loading and checking its status. Choose the OK button, wait a few seconds, and retry the operation.

Resolve the first four problems by making sure that all cables are connected. Then exit ComManager, exit Windows, restart Windows, and restart ComManager.

If this does not resolve the problem, try the following:

1. Unload all applications and turn the PC off.
2. Restart the PC, without loading Windows.
3. Verify the correct operation of your telephone. For more information, see your *ROLMphone User's Manual*.
4. If no problems are found, load Windows and restart ComManager.
5. If the problem persists, contact Siemens Rolm Technical Support.z

Common ComManager Error Messages

If you receive an error message while using ComManager, check the following table for an explanation of the message and a suggested corrective action.

Starting ComManager Error Messages

Table 6-3. Error Messages while Starting ComManager

Error Message	Explanation and Suggested Corrective Action
<i>There are no ROLMphones currently installed on this computer. Please run the Control Panel Telephony installation program to install the Siemens Rolm Service Provider.</i>	Use the Windows Control Panel Telephony program to check the installation and setup of the CallBridge - TAPI driver. Follow the instructions given in "Configuration" on page 2-2.
<i>There is no phone assigned in ComManager. Under Preferences, please use the Assign Phone menu item to assign an installed phone to ComManager.</i>	On the ComManager Main menu click on Preferences, then select Assign Phone from the menu and assign a telephone to ComManager. Note: This condition is normal on first startup.
<i>ComManager failed to establish communication to the ROLMphone. Please check your computer and phone and restart ComManager.</i>	Exit ComManager, exit Windows, restart Windows, and restart ComManager.
<i>The ComManager assigned phone was not found. Under Preferences, please use the Assign Phone menu item to assign an installed phone to ComManager.</i>	Install the previously configured telephone using the Windows Control Panel Telephony program, or on the ComManager Main menu click on Preferences, then select Assign Phone from the menu and assign an already-installed telephone to ComManager.
<i>There was no prime line assigned in ComManager. ComManager has assigned a new prime line. To change the ComManager assigned line, under Preferences use the Assign Prime Line menu item.</i>	ComManager requires a prime line to be configured to operate correctly. Since there was no assignment, ComManager assigned a prime line. To change the assigned line, on the ComManager Main menu click on Preferences, then select Assign Prime Line from the menu and assign a prime line. Note: This condition is normal on first startup.
<i>The ComManager assigned prime line was not found. ComManager has assigned a new prime line. To change the ComManager assigned line, under Preferences use the Assign Prime Line menu item.</i>	ComManager could not find the previously assigned prime line. Since ComManager requires a prime line to be configured to operate correctly, ComManager assigned a prime line. To change the assigned line, on the ComManager Main menu click on Preferences, then select Assign Prime Line from the menu and assign a prime line.

Using ComManager Error Messages

Table 6-4. Error Messages while Using ComManager

Error Message	Explanation and Suggested Corrective Action
<i>Communications to the ROLMphone has not been established. Please wait.</i>	Wait until ComManager establishes communications with the ROLMphone. (Status bar shows <i>Idle</i> .)
<i>The selected feature is not allowed in the current call state, or The selected feature is not allowed in the current line address state.</i>	The telephone line or call is not in a state in which the selected feature works.
<i>The phone is currently busy processing a previous command. Please try again.</i>	Only one command can be processed at a time. Wait and try the command again.

Exiting ComManager Error Messages

Table 6-5. Error Message while Exiting ComManager

Error Message	Explanation and Suggested Corrective Action
<i>Closing ComManager will drop all current calls. Do you still want to close ComManager?</i>	Exiting ComManager during an active call drops the call. Respond with yes if you still want to exit. Otherwise, respond with no and complete the call before exiting ComManager.

Common Problems

Start-Up Problems

Table 6-6 lists the start-up problems and suggestions.

Table 6-6. Start-Up Problems

Problem	Suggestion
<i>Bad command or filename or Cannot find file</i> error message.	Make sure that the PATH command in your AUTOEXEC.BAT file has been updated to include the ComManager application subdirectory and that you have restarted DOS to bring the change into effect.
When starting ComManager, initialization is not completed and the Primary Line status remains <i>in use</i> .	This is probably due to an incorrect data line configuration of the ROLMphone in the CBX. The ROLMphone type must be set to <i>WSDCO</i> , otherwise this problem always occurs. Report this problem to your 9751 CBX administrator.
On a multi-line telephone, if the first call activity after the telephone-to-PBX connection is plugged in is an incoming call to a line other than the primary line, the call may not be able to be answered via the TAPI application.	<p>The user may lift the telephone handset or depress the line key on the telephone to answer the call.</p> <p>To prevent this problem, go offhook then on-hook on the telephone just after it is reset (the telephone-to-PBX connection is plugged in) so that the first call activity after reset will not be an incoming call.</p>

Call Information Window Problems

Table 6-7 lists the call information problems and suggestions.

Table 6-7. Call Information Window Problems

Problem	Suggestion
When you are dialing from the telephone, the name of the party you are dialing is not displayed in the Call Information window even though the number is in your directory	Directory searches compare the dialed number with the number field in directory entries. If the access code is separated from the telephone number in the directory entry and you included an access code when you dialed the number, the dialed number does not match the directory entry. Therefore the directory information does not appear in the Call Information window
When ComManager is in the In Use state with the Call Information window open, the user cannot select any other directory.	The user should close the Call Information window and select another directory.

Menu Item Problems

Table 6-8 through Table 6-11 on page 6-10 list the menu problems and suggestions.

Table 6-8. File Menu Problems

Problem	Suggestion
You can't delete a directory from the Select Directory window.	You cannot delete the current or PERSONAL directory or your local copy of a directory configured for automatic update.
When trying to import or export, you receive the error message "Error opening file."	Make sure that you have typed in a valid path and filename. The default specifies a subdirectory name, but not a filename.

Table 6-9. Services Menu Problems

Problem	Suggestion
When you have an active telephone call, you cannot use directory or the ComManager application redial keys to send a string of digits. For example, you cannot call your bank and then use directory or the ComManager application redial entries to send in your password or account code.	Since the ComManager application automatically imbeds the Flash feature in these situations, you should dial the string of digits manually using the dial pad or activate the password check box for dial string entries in the directory or Reminder List.
The Call Log window appears after each telephone call.	The Open Call Log Window option on the Alerting Preferences window is activated and the Call Log threshold has been reached. Either deactivate the option or increase the Call Log alarm threshold value using the File Parameters command on the Preferences menu.
Call log entries contain corrupted data. They cannot be selected, called from, deleted, imported or exported.	<p>You should make periodic backups of your call log database files (<i>cldbase.dat</i>, <i>cldbase.dbd</i>, and <i>cldbase.key</i>) found in the <i>\ccdb</i> subdirectory of your ComManager directory (default is <i>C:\cc\ccdb</i>).</p> <p>If the database files are corrupted, delete them and restore the latest copies of the files from your backup.</p> <p>If you do not have a backup, copy these files from the ComManager installation diskette. This deletes all the call log entries, and only new entries are saved.</p>
The Call Log has blank entries.	The telephone system did not provide the information.
The Call Log does not log calls.	Check the log parameters.

Table 6-10. Options Menu Problems

Problem	Suggestion
Some features do not appear in the list on the Features window.	The features in the list are based on the Class of Service of your telephone and the features on your telephone system. If your Class of Service or telephone system does not include a feature, that feature does not appear in the list.

Table 6-10. Options Menu Problems

Problem	Suggestion
When you are trying to find an entry in the list on the Features window by typing letters, the ComManager application treats each letter as the beginning of a new search.	In the list of features, the ComManager application only searches by the first letter of the feature's name. Type the first letter of the entry you want to find and then use the scroll bar or arrows to refine your search.
On the Features List, the active indicator is not on, even though the feature is active.	An active indicator only appears for a feature that lights an LED on your telephone.
The Lines window does not display DND for a line in that state.	Since DND applies to the whole telephone and not just to individual lines, it is never displayed on the Lines window.

Table 6-11. Preferences Menu Problems

Problem	Suggestion
Using a combination of ComManager keys and phone keys (such as Mailbox and Start) is not possible.	Any activity using the program feature must be invoked at either ComManager or the phone but not both in combination.
Some features are not available for Assign CM Keys or Assign Phone Keys.	The features available are based on the Class of Service of your telephone and the features on the telephone system.
ComManager features, such as Directory or Call Log, cannot be assigned to keys through Assign Phone Keys.	Features such as Directory and Call Log are not supported on the ROLMphone telephone.

DDE Log Problems

Table 6-12. DDE Log Problems

Problem	Suggestion
The ComManager log parameters are not flagged to accept incoming or outgoing call, yet the DDE log records these calls.	ComManager ignores the log settings when logging to a DDE application. Use a DDE application that is capable of more selective filtering on the data passed by ComManager, to meet your needs.

Determining Causes to Problems

For problems not discussed above, you need to determine the cause of the problem. The easiest way to eliminate ComManager as the cause of a problem is to try the operation without using ComManager. For example:

- If a telephone feature is not working in ComManager, try using that feature from the telephone.
- If you are having problems printing something, try printing something from Windows without having ComManager loaded.

Using the Windows Terminal

Windows offers an additional resource in troubleshooting problems, the Windows Terminal, that is especially useful for isolating problems (for example, finding if the problem is ComManager, the telephone, or the PC).

Use the Windows Terminal (for example, to check if the telephone connection is good), as follows:

1. Quit ComManager.
2. In the Windows Program Manager's Accessories group, choose the Terminal icon.

The Terminal Window appears (Figure 6-1).

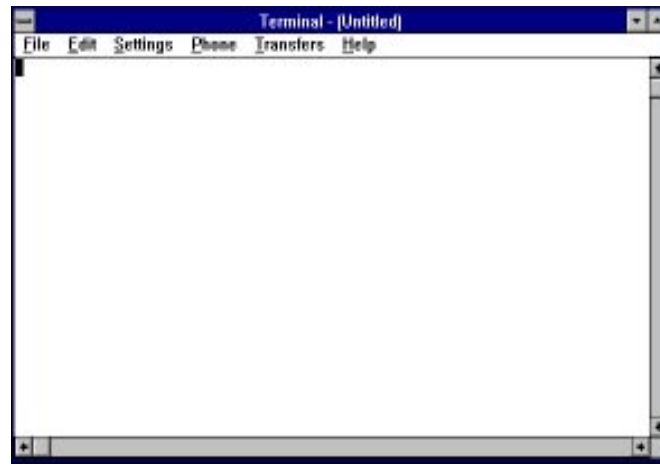


Figure 6-1. Terminal Window

3. From the Settings menu, choose Communications.

The Communications dialog box appears (Figure 6-2).

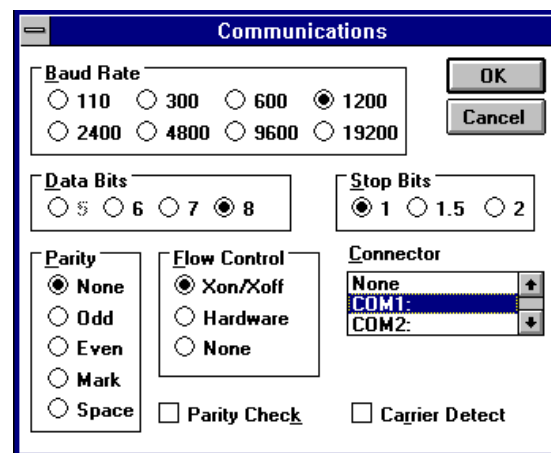


Figure 6-2. Communications Dialog Box

4. In the Connector options, select the communications port that you want to check, make sure the different settings are correct (for example, baud rate), then choose the OK button.

The Terminal Window re-appears (Figure 6-3).

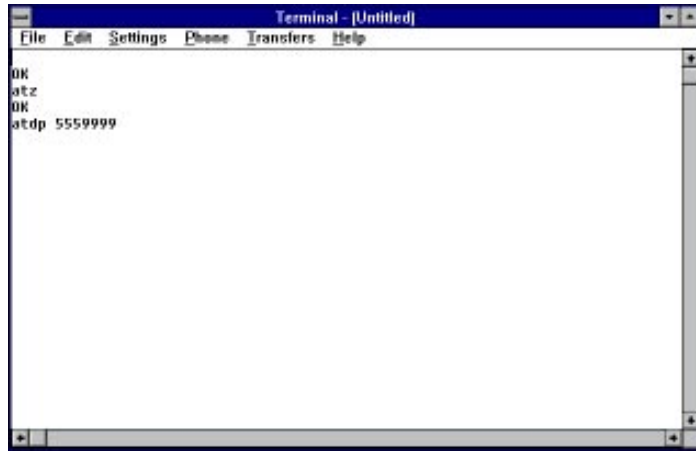


Figure 6-3. Terminal Window (with AT Commands)

5. In the Terminal Window, enter AT commands to check connections.

For example, enter `atz` to reset the telephone's default values. Or enter `atdp`, then enter a dial string to check the connection.

If the telephone connection is good, the message `OK` appears in the Terminal Window.

Note: For a listing of AT commands you can use, see the *ROLMphone 600 Series with DCO User Guide*.

Appendix A ComManager Features

This appendix lists and defines the features supported by ComManager, Release 2.23.

Feature Descriptions

Note: In this section the word “feature” is used to also describe a telephone key.

Table A-1 alphabetically lists and defines the features supported by ComManager Release 2.23. It also provides the abbreviation and button text. The types of ComManager key features described in this section are:

- ACD
- ComManager (CM)
- Telephone

ComManager features may be accessed in several ways:

- Many features can be invoked directly by selecting the feature in the Features window on the Services pulldown menu. The set of available features is determined by the static configuration of your telephone.
- Many features can be assigned to a CM key by selecting the Assign CM Keys window on the Preferences pulldown menu. A feature that has been assigned to a CM key can be activated or deactivated by clicking the CM key. The set of features that may be assigned to a CM key is determined by the static configuration of your telephone.
- Some features appear as icons on the toolbar in the main window of ComManager.
- Some features appear as buttons on the Call Information window.

When you assign a feature to a CM key, the Button Text that appears on the face of the CM key initially is set to the abbreviation name of the feature, but you may change the button text to another value. For example, you may assign the repdial feature to a CM key, set the associated digit string to be your home phone number, and set the Button Text to Home.

For additional information about features used as ROLMphone repdials, refer to your *ROLMphone User Guide*.

Table A-1. Feature Descriptions (1 of 17)

Feature	Telephone Abbreviation	Default CM Button Text	Description
ACD Acknowledge Message From Agent	ACK	ACK	This ACD feature allows an ACD supervisor to clear the agent message queue and deactivate the MSG-SUP LED on the telephone of the ACD agent.
ACD Agent Available Mode	AVAIL	Avail	This ACD feature allows an ACD agent to put himself or herself in the available mode.

Table A-1. Feature Descriptions (2 of 17)

Feature	Telephone Abbreviation	Default CM Button Text	Description
ACD Agent ID Logon	AGENTID	AgentID	<p>This ACD feature allows an ACD agent to logon or logoff an ACD group.</p> <p>To use this feature:</p> <ol style="list-style-type: none"> 1. Get dial tone. 2. Press the AGENTID key. 3. Enter your Agent ID from the dial pad or the telephone directory. <p>To log off, press the AGENTID twice.</p>
ACD Agent Unavailable Mode	UNAVAIL	Unavail	This ACD feature allows an ACD agent to put himself or herself in the unavailable mode. This prevents them from receiving ACD calls but they can still receive non-ACD calls.
ACD Agent Work Mode	WORK	Work	This ACD feature allows ACD agents to put their telephone in the work mode. The agent can receive non-ACD calls.
ACD Emergency Message to Supervisor	EMRGNCY	Emrgncy	This ACD feature allows an ACD agent to send the preset emergency message to the ACD supervisor.
ACD - Manual Answer	MANUAL	Manual	This ACD feature allows users with headsets to answer their telephones automatically, without lifting the handset. When deactivated, pressing the Manual button activates the automatic answering mode.
ACD Message Scrolling	SCROLL	Scroll	This ACD feature allows an ACD supervisor to retrieve and display messages in the message queue. When this feature is used, the feature indication activates.
ACD Message to Agent	MSG-AGT	Msg-Agt	This ACD feature allows an ACD supervisor to send 1 of 8 preset messages to an ACD agent or an ACD group.
ACD Message to Supervisor	MSG-SUP	Msg-Sup	This ACD feature allows an ACD agent to send 1 of 8 preset messages to the ACD supervisor. The messages contain the agent's extension and the agent's log-on ID and are displayed on the supervisor's telephone.
ACD Monitoring - Silent	MONITOR	Monitor	<p>This ACD feature allows an ACD supervisor to listen to a call on an agent's telephone without being heard. This feature does not provide any warning tones.</p> <p>Note: This feature is permitted only to properly classmarked ACD supervisors and potential targets for such monitoring.</p>
ACD Monitoring - Tone	MONITOR	Monitor	This ACD feature allows an ACD supervisor to listen to a call on an agent's telephone without being heard. A short tone is sent to the parties in the call to indicate that the call is being monitored.
ACD Primary Queue Display	ACDPQ	ACDPQ	This ACD feature allows an ACD agents or an ACD supervisor to display the ACD primary-group queue status information, such as the number of calls in queue and the age of the next call to be processed.

Table A-1. Feature Descriptions (3 of 17)

Feature	Telephone Abbreviation	Default CM Button Text	Description
ACD Primary Status Display	ACDPS	ACDPS	This ACD feature allows an ACD supervisor to display the ACD primary group agent status information.
ACD Secondary Queue Display	ACDSQ	ACDSQ	This ACD feature allows an ACD Agent or an ACD supervisor to display the ACD secondary group queue status information.
ACD Secondary Status Display	ACDSS	ACDSS	This ACD feature allows an ACD supervisor to display the ACD secondary group agent status information.
Account Number	ACCOUNT	Account	If your 9751 CBX has CDR, this telephone feature can be activated to record details of incoming or outgoing external calls for monitoring or billing. This feature can be activated before an outside call is placed or during a call. You can enter a specific account number when the Account feature is assigned to a key, or press Ctrl+D to open the Dial Pad window to manually enter an account number after activating the feature.
Add Reminder	Add Rmdr	Add Rmdr	This ComManager (CM) feature allows you to create a reminder. If this feature is accessed from the Call Information window, the name and number currently displayed in the Call Information window are inserted in the reminder.
Alternate Keypad1	Keypad 1	Keypad1	This CM feature allows you to display an alternate keypad. Each key set has 15 keys that can be defined.
Alternate Keypad 2	Keypad 2	Keypad2	This CM feature allows you to display an alternate keypad. Each key set has 15 keys that can be defined.
Alternate Keypad 3	Keypad 3	Keypad3	This CM feature allows you to display an alternate keypad. Each key set has 15 keys that can be defined.
Alternate Keypad 4	Keypad 4	Keypad4	This CM feature allows you to display an alternate keypad. Each key set has 15 keys that can be defined.
Answer Call	Answer	Answer	This CM feature allows you to answer an incoming call.
Bad Line Reporting	BADLINE	Badline	This telephone feature allows you to report a poor quality trunk connection for service by maintenance personnel. Using this feature causes the trunk number to be displayed and logged in the system error log. Your call is not interrupted when you use this feature.
Busy Override	OVERIDE	Override	This telephone feature allows you to enter into a conversation on a busy extension or where the telephone is on Ringer Cutoff (DND).
Buzz	BUZZ	Buzz	This telephone feature allows you to signal another person (for example, a secretary) with a special tone that has been assigned as your buzz target in the 9751 CBX.

Table A-1. Feature Descriptions (4 of 17)

Feature	Telephone Abbreviation	Default CM Button Text	Description
Call Log	Call Log	Call Log	<p>This CM feature allows you to display a log of telephone calls according to characteristics (such as direction, type, completion, or line) specified on the Call Log window. The Call Log window is accessed by one of the following three methods:</p> <ul style="list-style-type: none"> • Select Call Log under Services on the menu bar, • Select the Call Log icon on the toolbar on the Main window, or • Assign the Call Log feature to a CM key by selecting Assign CM Keys on the Preferences menu.
Call Park - Individual	PARK	Park	<p>This telephone feature allows you to transfer a call to an extension and hold it there. The call does not ring at the extension. This feature is used when you want to continue a conversation at a different extension or transfer a call to a busy extension.</p> <p>Refer to Call Park - System for additional information.</p>
Call Park - System	PARK	Park	<p>A user can park (or hold) a call by placing it into a “hold slot” and later retrieve that held call from the same or another telephone in the same switch as the holding party. From a digital telephone with a display, calls may be held to a slot by pressing the SYSHOLD (PARK) key, whereupon the system automatically selects an available slot and displays the system hold slot number.</p> <p>To retrieve a call from a hold slot, the user selects a line key and presses the SYSHOLD key followed by the slot number (0 through 9) of the held call.</p> <p>This feature is also known as Hold - System.</p> <p>Refer to Call Park -Individual for additional information.</p>
Call Waiting Status	Call Wtg	Call Wtg	<p>This telephone feature allows you to see a status indicator that indicates that a call is waiting. This indicator lights when you are in the process of transferring a call. It also lights if a call is parked on your extension while you are using the telephone.</p>

Table A-1. Feature Descriptions (5 of 17)

Feature	Telephone Abbreviation	Default CM Button Text	Description
Callback Key	CALLBCK	Callback	<p>This telephone feature performs one of three functions:</p> <ol style="list-style-type: none"> 1. If you call a line that is busy or that does not answer, you can press the Callback key, hang up, and continue with other work. The next time the called party hangs up, your telephone rings. Then, when you pick up your phone, the system automatically calls that party again. <p>During the time you are waiting, the Callback lamp is lit to remind you that a callback request is outstanding. To clear the request, you can press CANCEL or CLEAR.</p> <p>See also: Cancel, Clear</p> <ol style="list-style-type: none"> 2. If someone tries to call you while you are on the line or away from the phone, and they press the Mailbox key, a “callback message” is left on your phone. The Mailbox lamp lights up to indicate that you have a message. Pressing Mailbox on your phone then cycles through the messages, showing the station that originated the call. You can then press Callback to call the originating party. <p>See also: Mailbox</p> <ol style="list-style-type: none"> 3. When someone leaves you a Phonemail message, the Mailbox lamp is also lit. In this case, pressing the Mailbox key shows “PhoneMail,” instead of a calling station’s telephone number. Pressing Callback in this case calls the PhoneMail system. <p>See also: PhoneMail</p>
Cancel Request	Cancel	Cancel	<p>This telephone feature allows you to release an existing telephone call. It also allows you to delete information that you input or that is currently displayed when you are in program mode.</p> <p>In a conference call, this feature releases the last party added without disconnecting the telephone call.</p> <p>In a consultation call, this feature releases the second party without disconnecting the telephone call.</p>
Class of Service - Changeover	COS Chg	COS Chg	<p>This telephone feature allows you to toggle between two classes of service assigned to your telephone</p> <p>Each telephone may be assigned two COSs as well as two different voice and two different data least cost routing classes of service (CCOS).</p>
Clear	CLEAR	Clear	<p>This telephone feature allows you to release an existing telephone call. It also allows you to delete information that you input or that is currently displayed when you are in program mode.</p> <p>In a conference call, this feature releases the last party added without disconnecting the telephone call.</p> <p>In a consultation call, this feature releases the second party without disconnecting the telephone call.</p>

Table A-1. Feature Descriptions (6 of 17)

Feature	Telephone Abbreviation	Default CM Button Text	Description
Conference	CONF	Conf	<p>This telephone feature allows you to have up to eight parties (including yourself) in a telephone conversation. Two of the parties can be outside lines. This feature requires you to set up the Transfer feature as a separate key.</p> <p>To use this feature:</p> <ol style="list-style-type: none"> 1. Press the TRANSFR key to put the first party on hold. 2. Dial the next party, and after that party answers, press the CONF key to join all parties. 3. To add another party, press the TRANSFR key again, dial that party, and press the CONF key. <p>If you are adding a person who is in your directory or on an assigned CM key, you do not need to transfer. Simply click on the CM key (or double-click on the directory entry) and ComManager automatically selects the feature.</p>
Conference - Remove Last Party	ConfRem	ConfRem	<p>This telephone feature allows you to remove the last party added to the conference call. To do this, you must first place the conference on consultation hold (see Transfer) before pressing the ConfRem key.</p>
Connect	CONNECT	Connect	<p>This telephone feature allows you to toggle between two calls (see Hold Toggle). You can also answer a waiting call (see Call Waiting Status) with this feature.</p>
Data	DATA	Data	<p>This telephone feature allows you to see a status indicator on your telephone to indicate that a data call is in progress. Pressing this key will activate or deactivate the Data Communication interface.</p>
Dialpad	Dialpad	Dialpad	<p>This CM feature allows you to use an alternate means of opening the Dialpad window.</p> <p>To use this feature, do one of the following:</p> <ul style="list-style-type: none"> • Select the Dialpad command on the Services menu, • Select the Dialpad icon from the toolbar on the ComManager Main window, or • Pressing Ctrl+D. <p>This feature allows you to enter dial pad digits from the personal computer (PC) keyboard.</p>

Table A-1. Feature Descriptions (7 of 17)

Feature	Telephone Abbreviation	Default CM Button Text	Description
Direct Destination Select	DDS	DDS n where n is 1 through the number of DDS keys configured for the telephone	<p>This CM feature represents a DDS key on your telephone. This is also known as a Repdial key, but it is not the same as the Repdial - Local feature described elsewhere in this table. Selecting the ComManager DDS feature is the same as pressing the respective DDS key on the telephone.</p> <p>The number of DDS keys that appears on a telephone is configured in the CBX. The digit string that is assigned to each DDS key is configurable by using the Program feature. The configured value is stored in the CBX.</p> <p>These keys cannot be modified by ComManager.</p> <p>To view the list of available DDS keys, pull down the Services menu and select the Features menu item. A graphical representation of the DDS keys may be viewed by selecting Assign Phone Keys on the Preferences menu. A DDS key may also be assigned to a CM key.</p>
Direct Destination Select - Local	DDSLOC	DDSLoc	<p>This CM feature represents a DDS Local key on your telephone. Invoking the CM DDS Local feature is the same as pressing the respective DDS Local key on the telephone. A DDS Local key may be configured so that it invokes some other feature when you press it. For example, if your telephone does not have a DND button but does have a DDS Local Key, you may program the DDS Local key to invoke DND.</p> <p>DDS Local keys are like DDS keys except that the configured value of the key is defined and stored locally in the telephone rather than in the PBX. The number of DDS Local keys that appear on a telephone is configured in the CBX.</p> <p>To assign a function to a particular DDS Local key from ComManager, select the Preference menu, then select the Assign Phone Keys menu item. CM displays a dialog that shows the function of each telephone key. All keys are disabled (“grayed out”) except for DDS Local keys. If a DDS Local key has a function assigned to it, the key label indicates the name of that function; otherwise the key is labeled DDSLoc. Press the key to change the feature assigned to the key.</p>
Direct Station Select	DSS	DSS	<p>This CM feature represents a DSS key on your telephone, allowing you to emulate DSS keys. A DSS key is associated with another local telephone and it must be configured on the telephone before ComManager can access the DSS information. Each DSS key is associated with a single extension (station) on the CBX.</p> <p>The DSS key allows you to monitor the associated station for idle, ringing, and busy states based on the flashing state of the LED next to the DSS key. It allows the user to monitor or connect directly to extensions other than lines assigned to the users’ phones. You can originate a call to the associated station when it is idle, or answer calls ringing at the associated station, by pressing the DSS key.</p> <p>Activating the DSS feature in ComManager is the same as pressing the DSS key on the telephone.</p>

Table A-1. Feature Descriptions (8 of 17)

Feature	Telephone Abbreviation	Default CM Button Text	Description
Direct Trunk Select	DTS	DTS	<p>This telephone feature allows you to access a specific trunk to place an external call. You may invoke the DTS telephone feature and then enter the trunk number manually, or you may set up one or more CM keys to always select a particular trunk. Select Assign CM Keys on the Preferences menu. Select a CM key, assign the DTS feature to it, and enter the trunk number in the edit box. Optionally, change the Button Text to indicate the name of the trunk.</p> <p>To use the DTS key:</p> <ol style="list-style-type: none"> 1. Press the DTS key or click on the CM key that has been defined to be DTS. 2. Dial the trunk number (if you did not define the trunk number in the CM key definition). 3. Dial the outside number.
Directory	Directry	Directry	<p>This CM feature allows you to open the active telephone directory window.</p> <p>To use this feature, you can either:</p> <ul style="list-style-type: none"> • Select the Directory command on the Services menu or • Select the Directory icon from the tool bar on the ComManager Main window.
DND			See Ringer Cutoff.
Enter/Store	Store	Store	This telephone feature is used in telephone programming sequences.
Features	Features	Features	<p>This CM function allows you to activate the Features dialog box. You may then invoke a feature from that dialog box.</p> <p>To activate the Features dialog box, do one of the following:</p> <ul style="list-style-type: none"> • Select the Features command on the Services menu. • Select the Assign CM Keys on the Preferences menu and assign Features to a CM key. Once configured, clicking the CM key activates the Features dialog box.

Table A-1. Feature Descriptions (9 of 17)

Feature	Telephone Abbreviation	Default CM Button Text	Description
Forward Program	FWD PROG	Fwd Prog	<p>This CM feature allows you to open the Call Forwarding window. The options in the Call Forwarding window are used to identify the forwarding mode and the telephone number to which you want to forward your calls. After locating the destination number for your calls, select the Set Fwd button option.</p> <p>To cancel this feature, select the Clear Fwd button.</p> <p>Forwarding modes include:</p> <ul style="list-style-type: none"> • Unconditional • Unconditional internal calls • Unconditional external calls • Busy • No Answer • Busy/No Answer
Forwarding	FORWARD	Forward	<p>This telephone feature allows you to temporarily redirect your incoming calls to another extension or an outside number.</p> <p>To use this feature:</p> <ol style="list-style-type: none"> 1. Get dial tone. 2. Press the FORWARD key. <p>Dial the extension number that you want your calls to forward to.</p> <p>Your line key status light flickers to indicate that your extension has been forwarded.</p> <p>Refer to Forward Program feature for additional information.</p>
Forwarding - Fixed Activate	FwdFixA	FwdFixA	<p>This telephone feature allows you to automatically forward telephone calls to a destination that is assigned in the 9751 CBX. Generally, this feature is used to forward your calls to the PhoneMail system.</p> <p>Refer to Forward Program feature for additional information.</p>
Forwarding - Fixed Deactivate	FwdFixD	FwdFixD	<p>This telephone feature allows you to deactivate the Forward Fixed feature.</p> <p>Refer to Forward Program for additional information.</p>

Table A-1. Feature Descriptions (10 of 17)

Feature	Telephone Abbreviation	Default CM Button Text	Description
Forwarding - Variable All Activate	FwdVAllA	FwdVAllA	<p>This telephone feature allows you to immediately forward all calls to another extension.</p> <p>To use this feature:</p> <ol style="list-style-type: none"> 1. Get a dial tone. 2. Press the FwdVAllA key. 3. Dial the extension number from the dial pad or the telephone directory. <p>Your line key status light flickers to indicate that you extension has been forwarded.</p> <p>Refer to Forward Program feature for more information.</p>
Forwarding - Variable All Ext. Activate	FwdVExtA	FwdVExtA	<p>This telephone feature allows you to redirect all calls from outside your local private network to another extension.</p> <p>To use this feature:</p> <ol style="list-style-type: none"> 1. Get dial tone. 2. Press the FwdVExtA key. 3. Dial the extension number from the dial pad or the telephone directory. Your line key status light flickers to indicate that your extension has been forwarded. <p>Refer to Forward Program for more information.</p>
Forwarding - Variable All Int. Activate	FwdVIntA	FwdVIntA	<p>This telephone feature allows you to redirect all calls from inside your local private network to another extension.</p> <p>To use this feature:</p> <ol style="list-style-type: none"> 1. Get dial tone. 2. Press the FwdVIntA key. 3. Dial the extension number from the dial pad or the telephone directory. Your line key status light flickers to indicate that your extension has been forwarded. <p>Refer to Forward Program feature for additional information.</p>
Forwarding - Variable Busy Activate	FwdVBsyA	FwdVBsyA	<p>This telephone feature allows you to redirect calls to another extension when your telephone is busy.</p> <p>To use this feature:</p> <ol style="list-style-type: none"> 1. Get dial tone. 2. Press the FwdVBsyA key. 3. Dial the extension number from the dial pad or the telephone directory. Your line-key status light flickers to indicate that your extension has been forwarded. <p>Refer to Forward Program feature for additional information.</p>

Table A-1. Feature Descriptions (11 of 17)

Feature	Telephone Abbreviation	Default CM Button Text	Description
Forwarding - Variable Busy/Noans. Activate	FwdVBNoA	FwdVBNoA	<p>This telephone feature allows you to redirect calls to another extension when your telephone is busy or when the call is not answered within a preset time.</p> <p>To use this feature:</p> <ol style="list-style-type: none"> 1. Get dial tone. 2. Press the FwdVBNoA key. 3. Dial the extension number from the dial pad or the telephone directory. Your line key status light flickers to indicate that your extension has been forwarded. <p>Refer to Forward Program feature for additional information.</p>
Forwarding - Variable Cancel	FwdVCan	FwdVCan	<p>This telephone feature allows you to cancel an active forward variable feature.</p> <p>To use this feature:</p> <ol style="list-style-type: none"> 1. Get dial tone. 2. Press the FwdVCan key. You receive confirmation that the feature is canceled and the line key status light stops flickering. <p>Refer to Forward Program feature for additional information.</p>
Forwarding - Variable Noanswer Activate	FwdVNoaA	FwdVNoaA	<p>This telephone feature allows you to redirect all calls outside your local private network to another extension.</p> <p>To use this feature:</p> <ol style="list-style-type: none"> 1. Get dial tone. 2. Press the FwdVNoaA key. 3. Dial the extension number from the dial pad or the telephone directory. Your line key status light flickers to indicate that your extension has been forwarded. <p>Refer to Forward Program feature for additional information.</p>
Hang-Up Telephone	Hang-Up	Hang-Up	This CM feature allows you to disconnect an active call.
Headset	HEADSET	Headset	<p>The ROLMphone 600 series telephone has a separate headset/recorder option (HRO) that supports the use of a headset without affecting the use of the handset.</p> <p>When a headset is plugged into a phone, indicate that the headset is being used by pressing the HEADSET key. The user can then switch between manual and automatic answering by pressing the MANUAL key. This toggles AICS mode.</p>
Hold	HOLD	Hold	This telephone feature allows you to place any call on hold.
Hold - Private	HOLDPVT	HoldPvt	This telephone feature allows you to put a call on hold so that you can receive or make a call on another line. You can return to the call on hold, or toggle between the two calls. This feature differs from Hold in that other telephones with appearances of the held line are not allowed to retrieve the call.

Table A-1. Feature Descriptions (12 of 17)

Feature	Telephone Abbreviation	Default CM Button Text	Description
In-Use Indication	IN-USE	In-Use	This telephone feature provides you with an indication of the line to which your telephone is currently connected or will be connected when it goes off-hook.
Intercom - Com Group Speaker Call	INTRCOM	Intercom	<p>This telephone feature allows you to call and automatically activate and speak through the speaker of another telephone in the same com group.</p> <p>To use this feature:</p> <ol style="list-style-type: none"> 1. Press the INTRCOM key. 2. Dial the com-group member number of the telephone you want to call. The speaker and microphone are automatically activated on the telephone you are calling.
Line	TAPI Line Address	TAPI Line Address	<p>This CM feature represents a Line Key on your telephone. The number of line keys that appears on a telephone is configured in the CBX. The Directory Number for each line key is configured in CallBridge for Desktops -- TAPI, the telephony service provider. To view the list of available lines and associated directory numbers, pull down the Services menu and select the Lines menu item. A graphical representation of configured lines may be viewed by selecting Assign Phone Keys on the Preferences menu. A line key may also be assigned to a CM key.</p> <p>Activating a Line is the same as pressing the associated Line Key on the telephone.</p>

Table A-1. Feature Descriptions (13 of 17)

Feature	Telephone Abbreviation	Default CM Button Text	Description
Mailbox	MAILBOX	Mailbox	<p>This telephone feature allows you to leave messages in the mailbox of another extension and retrieve messages left in your mailbox. The messages you receive may be message waiting messages, fax server messages, notices about the number of PhoneMail messages, or other messages that use the Message Wait feature to alert you.</p> <p>To leave a callback message at another extension, press the MAILBOX key when the extension you call is ringing and there is no answer, or if the extension is busy.</p> <p>The light on your MAILBOX key indicates that you have one or more messages waiting.</p> <p>There may also be a separate PHMAIL key, and associated LED, for PhoneMail messages, in which case the MAILBOX key is used for ROLMfax and reminder messages only.</p> <p>To retrieve a message:</p> <ol style="list-style-type: none"> 1. Press the MAILBOX key. 2. Scroll (using the MAILBOX key) to the message you wish to retrieve. 3. Press the Start or Callback Message Wait key to automatically dial the station or device that left the Message Waiting indication on your telephone. <p>Note: To retrieve a PhoneMail message, you must access PhoneMail. This display only shows the number of PhoneMail messages.</p> <p>To cancel a message:</p> <ol style="list-style-type: none"> 1. Press the MAILBOX key. 2. Scroll (using the MAILBOX key) to the message you wish to cancel. 3. Press the Clear key. 4. Press the Program key. <p>Note: The Clear key is not applicable for fax messages. Also PhoneMail messages are not erased; only the CBX indication that you have PhoneMail messages will be erased. You can retrieve canceled PhoneMail messages by accessing PhoneMail.</p>
Mute	MUTE	Mute	<p>This telephone feature silences the handset and speakerphone microphone. This feature prevents the connected party from hearing you but you can hear them.</p>

Table A-1. Feature Descriptions (14 of 17)

Feature	Telephone Abbreviation	Default CM Button Text	Description
Open Call Information Window	Open CI	Open CI	<p>This CM feature allows you to open the Call Information window. This may be useful, for example, if you closed the Call Information window during a telephone call and wish to reopen it. This feature appears as an icon on the toolbar and in the Features window on the Services menu. You may also assign this feature to a CM key.</p> <p>The Call Information window may be configured to open automatically in various call scenarios. To configure this automatic CI option, select the Preferences menu on the Call Information window and select the Alerting Preferences menu item.</p>
PhoneMail	PhMail	PhMail	<p>This telephone feature is used to retrieve PhoneMail messages. Pressing the key initiates a call to the PhoneMail system. The user then follows prompts to retrieve, answer, forward, save or delete the PhoneMail voice messages.</p> <p>Model 30 and 80 systems notify users that PhoneMail messages are waiting by lighting the LED next to the PHMAIL key.</p>
PhoneMail Direct Access	PM-Dir	PM-Dir	<p>This CM feature automatically dials your PhoneMail extension. The extension is defined using the Phonemail command on the Services menu.</p> <p>Selecting this option opens a special PhoneMail window.</p>
Pickup	PICKUP	Pickup	<p>This telephone feature allows you to:</p> <ol style="list-style-type: none"> 1. Group telephones into a pickup group. Users in a pickup group can answer incoming (ringing) telephone calls or calls on hold at any station in the pickup group by pressing the PICKUP key twice. 2. Answer a call parked at another extension by selecting PICKUP, dialing the extension, and receiving the call. <p>You may define a CM key to always pick up the same extension.</p> <ol style="list-style-type: none"> 1. Select Assign CM Keys on the Preferences menu. 2. Assign the feature PICKUP to a CM key. 3. Put the extension number in the Digit String field on the dialog box or change the Button Text.
Privacy	PRIVACY	Privacy	<p>This telephone feature prevents anyone from interrupting your call with Busy Override or Park features. It also prevents someone who shares the your extension from entering your call by mistake,</p>
Program	PROGRAM	Program	<p>This telephone feature allows you to initiate a programming sequence for features like Call Forwarding and DDS keys on the telephone. The Program mode can be used on the phone or on ComManager but not on both at the same time.</p>
Redial - Saved Number	SAV/RDL	Sav/Rdl	<p>This telephone feature allows you to save a number that you have just dialed so that you can redial it later by pressing the key.</p>

Table A-1. Feature Descriptions (15 of 17)

Feature	Telephone Abbreviation	Default CM Button Text	Description
Reminder	Reminder	Reminder	This CM feature allows you to activate the Reminder List dialog box.
Redial - Local	RepDial	RepDial	This CM feature allows you to assign a digit string to a CM key and then make a call to that number by clicking on the CM key. It is very similar to a DDS key, except that the programmed number is stored within ComManager rather than in the PBX. This feature allows you to set up a CM key for the dialing of a frequently called number.
Repeat ID	RepeatID	RepeatID	This feature allows the user to recall to the phone display the identification of the connected party.
Restore CM	Restore	Restore	This CM feature appears only on the Call Information window when the ComManager Main window is iconized. Selecting the Restore button on the Call Information window causes the ComManager Main window to be restored.
Ringer Cutoff	DND	DND	This telephone feature allows you to temporarily block incoming calls. If you set up a DND key, the status light for the key comes on when you activate the feature. Note: Do Not Disturb applies to all lines on the telephone. This feature was called Do Not Disturb in earlier releases of the 9751 CBX software.
Send Digits	SDigits	SDigits	This CM feature allows you to send dial pad digits to the telephone without initiating a telephone call. This may be used for programming DDS keys or to send a string of digits to an IVR system, such as sending calling card numbers. Note: It is not wise to assign passwords or confidential account numbers to a CM key due to the security risk.
Speaker Call - Fixed One-Way	SPK	SPK	This telephone feature allows you to make a one-way call to the speaker phone of an extension that is set up on the 9751 CBX as your voice call target. The other person can hear you but cannot answer.
Speaker Call - Rejection	SPK-REJ	Spk-Rej	This telephone feature is used to prevent another telephone from calling you by using Speaker Call. The SPK - REJ LED lights when the feature is active.
Speaker Call - Two-Way	SPK2WAY	Spk2Way	This telephone feature allows you to make a two-way call to the speakerphone of a dialed extension. To use this feature: 1. Press the SPK2WAY key. 2. Dial the extension number from the dial pad or the telephone directory. The other party hears a short ring burst and the connection is made without any action required by the called party.
Speakerphone	SPEAKER	Speaker	This telephone feature allows you to convert a call from the handset to the speaker during a conversation.

Table A-1. Feature Descriptions (16 of 17)

Feature	Telephone Abbreviation	Default CM Button Text	Description
Speed Dialing - Station	SPEED	Speed	<p>This telephone feature allows you to set up to 10 station speed dialing numbers.</p> <p>To use this feature:</p> <ol style="list-style-type: none"> 1. Press the PROGRAM key. 2. Press the SPEED key. 3. Press one of the digits 0 through 9. 4. Press the number to be associated with that station speed index. 5. Press the PROGRAM key to end the station speed programming and to store the number you entered.
Speed Dialing - System List 1	SYS-SP1	Sys-Sp1	<p>This telephone feature allows the configuration of up to 16 groups of system speed dialing numbers, each of which can have up to 1000 numbers. Each user can be assigned access to 2 of these groups. SYS-SP1 allows you access to one of these groups when the 9751 CBX is configured.</p> <p>To use this feature:</p> <ol style="list-style-type: none"> 1. Press the SYS-SP1 key. 2. Enter the index of the number to be dialed.
Speed Dialing - System List 2	SYS-SP2	Sys-Sp2	<p>This telephone feature allows the configuration of up to 16 groups of system speed dialing numbers, each of which can have up to 1000 numbers. Each user can be assigned access to 2 of these groups. SYS-SP2 allows you access to one of these groups when the 9751 CBX is configured.</p> <p>To use this feature:</p> <ol style="list-style-type: none"> 1. Press the SYS-SP2 key. 2. Enter the index of the number to be dialed.
Start	START	Start	<p>This telephone feature allows you to initiate a callback to the telephone or device that left a message waiting on your telephone. Refer to the Mailbox feature for additional information.</p>
Time and Date	TIME	Time	<p>This telephone feature allows you to see the current system time and date on your display.</p>
Toggle/Flip-Flop	Toggle	Toggle	<p>This telephone feature allows you to toggle between two parties that you have been consulting with.</p>
Transfer	TRANSFR	Transfer	<p>This telephone feature allows you to transfer a call to another extension. You can enter a telephone number to transfer the call when you define the key.</p> <p>This feature is used to consult with another party before transferring a call. The calling party is placed on consultation hold while the transferring party consults. You can also transfer the call to a ringing station.</p>

Table A-1. Feature Descriptions (17 of 17)

Feature	Telephone Abbreviation	Default CM Button Text	Description
Unassigned Key	Not applicable	Not applicable	This is not a feature, but it may be assigned to a CM key to clear that ComManager key. To remove a feature assignment from a CM key, open the Assign CM Keys window and set the value of the key to Unassigned. When a CM key has no feature assigned to it, it has the value of Unassigned. Keys indicated as Unassigned are blank and provide no function.
Universal Night Answer	NightAns	NightAns	This telephone feature allows you to answer an incoming call to your off-duty company operator.
Volume Down	Not applicable	Not applicable	This telephone feature allows you to lower the volume of your ROLMphone. It is available as a down arrow key on the ComManager Main window.
Volume Up	Not applicable	Not applicable	This telephone feature allows you to raise the volume of your ROLMphone. It is available as an up arrow key on the ComManager Main window.

Appendix B DDE Support

Microsoft Windows provides a method for exchanging data between Windows applications. The method is a messaging protocol called Dynamic Data Exchange (DDE).

This appendix contains instructions for activating DDE and the messages to which ComManager responds. It also contains a general overview of DDE and programming examples.

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What is DDE?

DDE (Dynamic Data Exchange) is a form of inter-process communication for Microsoft Windows that allows applications to exchange data with one another. DDE conversations take place between a *client* and a *server*. A client application initiates a request to interact with another Windows application. The server is the application that recognizes and can respond to the client request.

ComManager 2.23 is a DDE Server. It provides a programming interface that conforms to the DDE standard. Using this interface, a DDE Client application can activate or terminate telephone calls, activate telephone features, or obtain call-related information from ComManager.

Client/Server Interactions

DDE is suited to a variety of applications, ranging from the simple to the highly complex. There are three basic classes of DDE Client/Server interaction:

- Simple applications using application program macro languages (for example, in word processors and spreadsheets)
- Moderately complex applications using visual programming environments like Visual Basic

- Highly customized applications using system programming languages like 'C' and 'C++'

Macro Languages

Nearly all Windows office applications can be DDE Clients. For example, most word processors and spreadsheets provide macro languages and other tools to assist you in writing simple applications that interface with ComManager.

For example, you might want to select a telephone number in a Microsoft Word for Windows document and click on a tool bar to have ComManager dial that number. Or you may want to display the latest ComManager call-log entry in a cell of a Microsoft Excel spreadsheet. Both of these examples can be easily accomplished by writing simple macros.

Such applications require substantial amounts of Windows resources, however, so they should not be used to create an elaborate telephony application. You could experience erratic behavior in ComManager if you use one of these applications to establish many DDE conversations. In particular, automatic links ("hot links") created by these applications may place heavy burdens on Windows resources and may prevent ComManager from operating correctly.

Visual Programming Environments

More elaborate DDE Client applications can be written using "visual programming environments" such as Microsoft Visual Basic 3.0. Programming environments such as Microsoft Visual Basic require somewhat more effort to create a DDE Client application, but the resulting application can be more efficient as well as more elaborate. This kind of environment is a good choice for implementing moderately complex DDE Client applications.

System Programming Languages

Highly customized DDE Client applications that exploit the full range of DDE capabilities are usually written by experienced programmers using system programming languages such as 'C' or 'C++'. This procedure requires substantially more work and programming expertise, but it also offers substantially more power.

TAPI—An Alternative To Consider

If your application requirements are complex enough that you need to use a system programming language, you may wish to consider the relative merits of designing your application to use the Microsoft TAPI interface. TAPI is the application programming interface (API) for Telephony in Microsoft Windows. It provides the programmer with far greater control than does the ComManager DDE Server interface, but it requires far more effort on the part of the programmer.

ComManager 2.23 uses TAPI to control, and read information from, the telephone. It also uses CallBridge for Desktops-TAPI to access feature functions of the ROLM 9751 CBX release 9006.2I. The ComManager DDE Server supports a small subset of the TAPI/CallBridge function in a simplified form.

Application Design Concepts

DDE is a general programming interface available to all Windows applications that are designed to take advantage of it. In most cases, the applications are not real-time programs and Microsoft Windows is able to control synchronization. For example, when you embed part of a spreadsheet in a word-processor document, the word processor waits and displays the 'hourglass' while data is being transferred.

ComManager, in contrast, is a control program connected to a telephone, which is connected to a PBX, which in turn may be connected to a network of PBXs. None of these external devices is under the control of Microsoft Windows. The amount of time required to complete an action in the PBX, such as 'dial a number', is often much greater than the few milliseconds required to issue the command from a Windows program.

The ComManager DDE Server returns control immediately after it issues a command, but before the command has completed execution in the PBX. It is quite possible for a DDE Client to issue a new command before the previous command has completed, in which case the new command fails. For example, consider the following code segment, which programs the third DDS key on an idle phone:

```
[SendFeatureCode(-211)]    // activate the Program feature
[SendFeatureCode(39,3)]    // push the DDS 3 key
[SendDigits(65498)]        // assign "65498" to the DDS key
[SendFeatureCode(-211)]    // deactivate the Program feature
```

This sequence of commands is correct, but it fails if all four commands are issued in rapid succession. A simple technique for handling this situation is to insert a 'pause' of, say, one second between commands to simulate the amount of time that a person would use to press the equivalent sequence of buttons on the telephone.

Another technique is to examine the DDE Server's `ERROR_STATUS` field after each command. This field indicates whether ComManager was able to issue a command, and is updated before the DDE Server returns control. The `ERROR_STATUS` field is fully described in "DDE Error Interface" on page B-11. While this technique works in most cases, it is not foolproof. Even if ComManager issues a command successfully, it may take longer than expected to execute in the PBX, or it may fail in the PBX.

Another technique for serializing commands is to examine call-progress indicators after each command. In the above example, after the first statement has executed correctly in the PBX, the `PROGRAM LED` should be active. Use the `PHONE_STATUS_LED_STATE` request to verify that the `PROGRAM LED` is active before sending the next command in the sequence.

How DDE Works

DDE support is always available in ComManager. The DDE Server is ready to respond to requests from a client any time ComManager is running. This section provides a brief overview of DDE operations. Details on the ComManager interface are provided in "DDE Functions Supported by ComManager" on page B-5.

Identifying the DDE Server

A client program must first identify the server and the kind of operations to be performed by specifying the following:

Application Class	Uniquely identifies the server. The ComManager's identifier is CC .
Topic Class	Identifies an action category. ComManager recognizes only one topic named PhoneControl .

Requesting an Action

The DDE Client can then communicate to the DDE Server by the following:

Item Class	Identifies the specific action to be performed. The specific commands and data requests are given in the next section. DDE Servers respond to two kinds of messages: one telling the server to Execute a command, and one that is a Request for information.
-------------------	--

DDE Conversations

There are three types of DDE conversations. ComManager supports them all:

- | | |
|------------------|--|
| Hot link | A "permanent" link that updates the client with new data each time the server data changes. The conversation is continuous until the data link is terminated. In the OLE standard, a hot link is referred to as an automatic link. |
| Warm link | Also a permanent link. However, when the server notifies the client that data has changed, it does not send the new data until requested by the client. |
| Cold link | A temporary link that is used to initiate a data request or execute a command. The link is then terminated. |

DDE Functions Supported by ComManager

ComManager supports the following DDE functions

- Five executable commands
- Fifteen requests for different types of telephone-related information
- One DDE error interface command

DDE Executable Commands

An executable command is a character string that has the following characteristics:

- The string must begin with the left square bracket character [.
- The command name must begin immediately following the left square bracket, with no intervening spaces.
- The command name is case-sensitive and must be spelled exactly as described.
- The command parameter must be enclosed in parentheses, and must immediately follow the command name. Multiple parameters are separated by commas, and all are contained within a single set of parentheses. If there are no parameters, the parentheses may be omitted.
- The string must end with the right square bracket character].
- The entire string, including the square brackets, must be no longer than 79 characters. Longer strings are truncated.

The ComManager DDE Server checks each command for proper format, issues the command to the phone if it is able to do so, and returns to the DDE Client. The result code indicates whether or not ComManager was able to issue the command to the PBX. It does not indicate whether the command was ultimately successful. Table B-1 details the executable commands.

Table B-1. DDE Executable Commands

Command Name	Command	Explanation
Send Digits	[SendDigits(<digit string>)]	Send digits (that is, press the keypad buttons) without initiating a call. Useful for programming Redial keys.
Initiate Call	[DialDigits(<destination digits>)]	Use this command to initiate a call (if your telephone is idle) and to dial the destination digits. Any characters supported by your model of telephone can be used. Example: [DialDigits(5551212)]
Toggle Feature	[SendFeatureCode(<feature code>)]	Use this command to initiate a feature by sending the numeric value assigned to the feature. This command is usually used to change the status of a feature from idle to active, or active to idle. The feature numbers are listed in the manual that accompanies your model of telephone. Refer to “ComManager’s DDE Parameter Values” on page B-15 for feature information. Example: [SendFeatureCode(26)]
Toggle Line	[SelectLine(<line number>)]	Up to 29 different lines, numbered from 1 to 29, can be assigned to your telephone. If your telephone has multiple lines, use this feature to activate the line you want to use. Example: [SelectLine(2)]
Terminate Call	[DisconnectCall]	Use this command to disconnect the active call. No action is performed if the line is already idle.

Descriptions

This section contains detailed descriptions of the executable commands.

SendDigits

This command issues the given digit string without taking any additional action, which allows digits to be dialed on an idle telephone without initiating a call. This is useful for programming DDS (Redial) keys, or for certain ACD messaging situations. For example, the following sequence programs the third DDS key on an idle phone:

```
[SendFeatureCode(-211)] // activate the Program feature
[SendFeatureCode(39,3)] // push the DDS 3 key
[SendDigits(65498)]     // assign "65498" to the DDS key
[SendFeatureCode(-211)] // deactivate the Program feature
```

See the description of SendFeatureCode, below, for more information about this example.

The digit string may be optionally enclosed in double-quotes ("). This is required only if the digit string contains parentheses or a comma (,).

For example:

```
[SendDigits("9,7671234")]
```

DialDigits

This command dials the given digit string, and may take other actions depending on the state of the phone. If the phone is idle, this command initiates a call using the Prime Line defined for ComManager. If any Line is already in the dial tone state, this command dials the digits on that Line. If a call is already active, this function generates the digits without attempting to make a new call. This allows a DDE Client to send, for example, a PhoneMail password. This command cannot be used to dial digits on an idle phone, such as to program a DDS (Redial) key.

The dial string may be optionally enclosed in double-quotes ("). This is required only if the dial string contains parentheses or a comma (,).

Examples:

```
[DialDigits(65498)]
[DialDigits("(415)555-1212")]
[DialDigits("9,767-1234")]
```

SendFeatureCode

This command is conceptually the same as pressing a telephone button for a given feature, although the feature does not need to be assigned to a physical telephone button in order to use this command. Table B-6, "Phone Feature Codes," on page B-15 describes the features that may be invoked with the SendFeatureCode command.

Some feature code values are positive decimal numbers, and some are negative decimal numbers. The positive numbers are standard TAPI-defined functions. The negative numbers are ROLM extensions to the TAPI feature set. The numbers must be used as shown, including the minus sign when appropriate.

Four of the features in this table require two parameters. The second parameter is a one-based button index. For DDS (Redial), DDSLocal, and DSS keys, the desired index number may be determined by looking at ComManager. Under the Preferences menu, select Assign Phone Keys.... This generates a graphic representation of the telephone with all the feature keys named. For example, you might see keys labeled "DDS 1", "DDS 2", and "DDS 3". To press the "DDS 3" key, start SendFeatureCode as shown below. Note that the second parameter is separated from the first by a comma. Both parameters are enclosed within the parentheses.

```
[SendFeatureCode(39,3)]
```

The number 39 is the feature code for DDS (Redial). The number 3 indicates key "DDS 3". DDSLocal and DSS keys are numbered similarly. To determine the button index for line keys, use the logic described for the "SelectLine" feature, below. For example, the following two commands are equivalent:

```
[SelectLine(2)]  
[SendFeatureCode(-246,2)]
```

The first command selects Line Key 2. The second command sends feature code '-246' (LINEKEY) with the button index = 2. The action is identical.

SelectLine

This command is conceptually the same as pressing the given line button. The action of this command depends on the state of the line. For example, if the line is idle, this command puts the given line in the "dial tone" state. If there is an active call on the line, this command may drop the call and put the line in "idle" state.

The parameter passed to this command is a line number on the telephone. Lines are numbered by scanning the telephone faceplate starting at the top of the leftmost column of buttons and ending at the bottom of the rightmost column of buttons. Scanning wraps from the bottom of each column to the top of the next column immediately to the right. While scanning in this order, the first line button encountered is Line 1, the next line button encountered is Line 2, and so on. A telephone may have as many as 29 lines.

Note: This ordering is dependent on CallBridge - TAPI.

DisconnectCall

This command drops the currently active call. This command may not be available in all call states, such as when a call is on hold or when there is no active call. The result code indicates if the command is possible. DDE Client applications should be tolerant of errors.

DDE Requests for Data

A client can obtain specific data from ComManager by posting a REQUEST message and one of the requests described in Table B-2:

Table B-2. DDE Requests for Data

Request Name	Request	Returns
Phone Display Contents	PHONE_STATUS_DISPLAY	Contents of the telephone display.
LED (Feature) States	PHONE_STATUS_LED_STATE	Status of feature indicators: a string of digits. Refer to Table B-7, "LED Status Values," on page B-17.
Number of Lines/Line Status	PHONE_STATUS_NUM_LINES	Number of lines and status of each line: a series of numbers. Refer to Table B-3, "Line LED Status," on page B-9.
Last Call Log	PHONE_STATUS_CALL_LOG	Contents of the last call log entry.
Current Phone/Call States	PHONE_STATUS_CALL_STATE	Current call state. Refer to Table B-4, "Call Status," on page B-9.
Name	PHONE_STATUS_NAME	Name displayed in ComManager's "Call Information" window.
Number	PHONE_STATUS_NUMBER	Number displayed in ComManager's "Call Information" window.
Connected Party Name	PHONE_STATUS_CONNECTED_NAME	Name of the currently connected party.
Connected Party Number	PHONE_STATUS_CONNECTED_NUMBER	Number of the currently connected party.
Caller Party Name	PHONE_STATUS_CALLER_NAME	Name of the caller party for an incoming call.
Caller Party Number	PHONE_STATUS_CALLER_NUMBER	Number of the caller party for an incoming call.
Called Party Name	PHONE_STATUS_CALLED_NAME	Name of the called party for an outgoing call.
Called Party Number	PHONE_STATUS_CALLED_NUMBER	Number of the called party for an outgoing call.
Redirection Party Name	PHONE_STATUS_REDIRECTION_NAME	Number of the final destination after a call has been redirected (for example, by forwarding).
Redirection Party Number	PHONE_STATUS_REDIRECTION_NUMBER	Number of the final destination after a call has been redirected (for example, by forwarding).

Descriptions

This section contains detailed descriptions of the data requests.

PHONE_STATUS_DISPLAY

This request returns a string containing contents of the telephone's display.

PHONE_STATUS_LED_STATE

This request returns a character string that contains space-delimited numbers. Each number is the Feature Code of one currently active feature. The string reflects all the "active" features.

For example, if the user has activated "Do Not Disturb" and is engaged in a conference call, the resulting string returned by the request might be

26 1

The feature values may appear in any order in the output string. Feature values are described in Table B-7, "LED Status Values," on page B-17.

PHONE_STATUS_NUM_LINES

This request returns a string containing a series of numbers separated by spaces. The first number is the total number of lines on the phone, maximum of 29. Each subsequent number, up to 29, gives the LED state for a line. Table B-3 lists the possible values for line LED states.

Table B-3. Line LED Status

LED State	Numeric Value	Explanation
OFF	2	The line is idle
STEADY	4	The line is in use
WINK	8	The line is on hold
FLASH	16	The line is ringing
FLUTTER	32	The line is idle and forwarded

For example, the returned string "3 32 2 4" means 3 lines are on the telephone. Line 1 is idle and forwarded, Line 2 is idle, and Line 3 is active.

PHONE_STATUS_CALL_LOG

This request returns a string containing the last Call Log Entry. All calls are logged via this command without regard to the ComManager Call Log log parameters .

PHONE_STATUS_CALL_STATE

This request returns a character string that gives the state of the current call. Possible return values are given in Table B-4. The Status terminology is from Windows TAPI documentation. Table B-9, "Windows TAPI Call State Descriptions," on page B-19 provides detailed definitions.

Table B-4. Call Status (1 of 2)

Status	Numeric Value
IDLE	1
OFFERING	2
DIALTONE	8
RINGBACK	32
BUSY	64
CONNECTED	256
PROCEEDING	512

Table B-4. Call Status (2 of 2)

Status	Numeric Value
ONHOLD	1024
CONFERENCED	2048
ONHOLDPENDCONF	4096
ONHOLDPENDTRANSFER	8192
DISCONNECTED	16384

**PHONE_STATUS_NAME ,
PHONE_STATUS_NUMBER**

These requests return the Name and Number that is displayed in the ComManager Call Information window. It selects the CALLED party information for outbound calls, and the CALLER party information for inbound calls.

This data is generally available when a call is ringing or connected, but may not be available in certain call scenarios. The DDE Server reports this data as it becomes available from the CBX.

**PHONE_STATUS_CALLER_NAME ,
PHONE_STATUS_CALLER_NUMBER**

These requests return a string containing the Name or Number that originated an incoming call. The Caller name and number reflect the name and number of the primary line on the phone that originated the call, even if the call originated on a non-primary line.

This data is generally available when the incoming call is ringing or connected, but may not be available in certain call scenarios. The DDE Server reports this data as it becomes available from the CBX.

**PHONE_STATUS_CALLED_NAME ,
PHONE_STATUS_CALLED_NUMBER**

Each of these two requests returns a string containing the Name or Number of the called party. This is the party that was dialed, and may be different from the party actually connected to if the call was diverted.

This data is generally available when the outgoing call is ringing or connected, but may not be available in certain call scenarios. The DDE Server reports this data as it becomes available from the CBX.

**PHONE_STATUS_CONNECTED_NAME ,
PHONE_STATUS_CONNECTED_NUMBER**

Each of these two requests returns a string containing the Name or Number of the currently connected party. For an outgoing call, this is the party actually connected to, and may be different than the called party if the call was diverted. For an incoming call, the connected name and number reflect the name and number of the primary line on the phone that originated the call, even if the call originated on a non-primary line.

This data is generally available when a call is connected, but may not be available in certain call scenarios. The DDE Server reports this data as it becomes available from the CBX.

**PHONE_STATUS_REDIRECTION_NAME ,
PHONE_STATUS_REDIRECTION_NUMBER**

Each of these two requests returns a string containing the Name or Number of the party toward which an outgoing call was diverted.

This data is generally available when the redirected call is ringing or connected, but may not be available in certain call scenarios. The DDE Server reports this data as it becomes available from the CBX.

DDE Error Interface

A client application can use a REQUEST message to query the error status of ComManager. This command is used to ensure that a command was properly interpreted. The error status is cleared after being retrieved.

Table B-5. DDE Error Interface Command

Command Name	Command	Explanation
Error Status	ERROR_STATUS	Post this message to query the error status.

The ERROR_STATUS request returns a string containing the numeric value of the result code. The result code indicates whether ComManager was able to issue the Command; it does not indicate whether the command was ultimately accepted by the PBX. The value zero "0" indicates that the command was successfully issued. Non-zero values indicate an error, as described in Table B-8, "DDE Error Values," on page B-18.

The ERROR_STATUS may be obtained by REQUEST or by an "Advise Loop" (hot or warm link). When a DDE Client sets up an Advise Loop for ERROR_STATUS, ComManager notifies the client only when an Executable Command returns a non-zero value, and not when a command is successful. Thus, the Advise Loop can be used as an ON ERROR handler; it is activated only when an error occurs.

Each time the ERROR_STATUS is returned to a DDE Client, whether by REQUEST or by an Advise Loop, ComManager clears its internal value of the error status to zero. Subsequent requests for the error status return the value zero ("0") until an Executable Command encounters an error.

Note: ComManager saves exactly one error code for the last command executed by any client. It does not save independent error codes for each client. Therefore, if multiple DDE clients have created conversations with ComManager, one client's Command may overwrite the error status of another client's Command. In a similar manner, if multiple clients have Advise Loops on error status, only one client sees any errors reported. The act of reporting the error to the first client clears the error status before the second client can get it.

DDE Examples

The following examples have been included to provide a sample of how to use the DDE protocol with specific applications

Microsoft Word for Windows Examples

Microsoft Word for Windows (WinWord), Versions 2.0 and 6.0, has a facility to initiate DDE commands using macro commands.

Example: Macro for Dialing Selected Text

An example of a macro to dial the currently selected text (for example, a telephone number in a document) is:

```
Sub MAIN
dcl = DDEInitiate("CC","PhoneControl")
q$ = Chr$ (34)
DDEExecute(dcl,"[DialDigits("+Selection$()+ q$ + ")]")
DDETerminate dcl
End Sub
```

Example: Macro to Invoke DND

An example of a macro to invoke the DND feature (26) on your telephone is:

```
Sub MAIN
dcl = DDEInitiate("CC","PhoneControl")
DDEExecute(dcl,"[SendFeatureCode(26)]")
DDETerminate dcl
End Sub
```

To establish an automatic ("hot") link between ComManager Call Log information and a text field in a WinWord document:

1. With the document window active, position the cursor in the desired location, select Insert/Field.
2. Scroll to the DDE Automatic field.
3. Enter <CC PhoneControl PHONE_STATUS_CALL_LOG> following DDEAUTO.

For Word for Windows 6.0 the DDEAUTO is no longer valid. For the above example, a macro has to be written as follows:

```
Sub MAIN
dcl = DDEInitiate("CC","PhoneControl")
a$ = DDERequests$(dcl,"PHONE_STATUS_CALL_LOG")
MsgBox a$
Insert a$
End Sub
```

Asymetrix Toolbook Examples

Asymetrix Toolbook is an object-oriented application development environment. DDE capabilities are built into its scripting language (called OpenScript) in much the same way as Word for Windows. Therefore, ComManager DDE functionality is implemented in Toolbook through OpenScript commands, as illustrated by the following general examples.

The following script fragments (called *handlers*) provide access to ComManager DDE command and data functions, respectively:

```
to handle execCC execstr
  ExecuteRemote execstr application CC topic PhoneControl
end execCC

to get getCC getstr
  GetRemote getstr application CC topic PhoneControl
  return it
end getCC
```

These handlers are normally implemented in the book script. Once defined, they may be invoked by handlers in other object scripts. For example, the script for a button to dial a fixed number looks similar to the following:

```
to handle buttonDown
  send execCC("[DialDigits(5551212)]")
end buttonDown
```

Similarly, you can define a button to get display data from ComManager and display it in a text field named <DDEdata>. The button script looks similar to the following:

```
to handle buttonUp
  get getCC("PHONE_STATUS_CALL_LOG")
  set text of field DDEdata to it
end buttonUp
```

Microsoft Excel 3.0 Examples

Using Microsoft Excel 3.0, you can initiate a DDE conversation using macro commands or a remote reference formula.

Note: For Excel 4.0, the REQUEST macro function works differently. Use the following remote reference syntax instead to access data from ComManager.

Enter the following remote reference formula into a cell to include the most recent Call Log information in the cell. The cell is only updated when the call is completed.

```
=CC|PhoneControl!PHONE_STATUS_CALL_LOG
```

Enter the following remote reference formula into a cell to include the contents of the telephone display in the cell.

```
=CC|PhoneControl!PHONE_STATUS_DISPLAY
```

Visual Basic Example

The following Visual Basic code sets up a hot link to ComManager to receive the number of the person calling. You can use this number to launch a program or pull up a database entry.

```
Test.LinkMode = 0
Test.LinkTopic = "CC|PhoneControl"
Test.LinkItem = "PHONE_STATUS_NUMBER"
Test.LinkMode = 1
```

The following code uses the Visual Basic "Change" method to invoke code that parses the ComManager call log entry into its individual pieces of information. A NewCallLog text box is hotlinked to ComManager. All calls are sent through DDE to the linked application. The following example illustrates the code used to set up a hot link for the call log information:

```
NewCallLog.LinkMode = 0
NewCallLog.LinkTopic = "CC|PhoneControl"
NewCallLog.LinkItem = "PHONE_STATUS_CALL_LOG"
NewCallLog.LinkMode = 1
```

When the call is received in the NewCallLog text box, the following code is executed to parse out the different pieces of information:

```
Sub NewCallLog_Change()

NewCallLogName = Left$(NewCallLog.Text, 15)
NewCallLogNumber = Mid$(NewCallLog.Text, 34, 11)
NewCallLogNumber = LTrim$(NewCallLogNumber)
NewCallLogTime = LTrim$(Mid$(NewCallLog.Text, 58, 8))
NewCallLogDate = LTrim$(Mid$(NewCallLog.Text, 45, 12))
NewCallLogDirection = LTrim$(Mid$(NewCallLog.Text, 78, 3))
NewCallLogType = LTrim$(Mid$(NewCallLog.Text, 83, 9))

end sub
```

The following code sends a telephone number or digits to ComManager. If a telephone call is in progress, ComManager sends the telephone number across the line. If a telephone call is not in progress, ComManager initiates a call to the number requested:

```
Sub Diall_Click ()
    Static number As String

    Number = "555-1212"
    OldCallLog.LinkMode = 0
    OldCallLog.LinkTopic = "CC|PhoneControl"
    OldCallLog.LinkMode = 2
    OldCallLog.LinkExecute "[DialDigits("+ Number +")]"
    OldCallLog.LinkMode = 0

end sub
```

ComManager's DDE Parameter Values

Feature Codes

These phone feature codes can be invoked using ComManager's SendFeatureCode DDE Command. Positive number feature codes are standard TAPI-defined functions, while negative feature codes are ROLM extensions to the TAPI feature set.

Table B-6. Phone Feature Codes (1 of 2)

Code	Feature	Code	Feature
1	CONFERENCE	-235	PVTHOLD
2	TRANSFER	-234	FIXFWDCAN
4	HOLD	-233	FIXFWDACT
7	CONNECT	-232	VARFWDCANCEL
12	FORWARD	-231	VARFWDBUSYNA
13	PICKUP	-230	VARFWDNA
15	PARK	-229	VARFWDBUSY
18	MUTE	-228	VARFWDBOTH
19	VOLUMEUP	-227	VARFWDALLEXT
20	VOLUMEDOWN	-226	VARFWDALLINT
21	SPEAKERON	-225	COSCHANGE
26	DONOTDISTURB	-224	BUZZPRESET
27	INTERCOM	-223	ACDMSGSCROLL
28	DATETIME	-222	ACDMSGACK
36	NIGHTSRV	-221	AGTLOGON
39	REPDIAL (DDS) (requires 2 parameters)	-220	ACCTNUM
41	SYSTEMSPEED	-219	DDSLOCAL (requires 2 parameters)
42	STATIONSPEED	-218	DATAKEY
44	SAVEREPEAT	-217	TOGGLE
-255	CALLWTG	-216	PRIVACY
-254	CONFREMLAST	-215	PHONEMAIL
-253	ROLMPARK	-214	CALLBACKKEY
-252	REPEATID	-213	HEADSET
-251	INUSEKEY	-212	MAILBOX
-250	DTS	-211	PROGRAM

Table B-6. Phone Feature Codes (2 of 2)

Code	Feature	Code	Feature
-249	CANCEL	-210	ACDSECQUE
-248	CLEAR	-209	ACDPRIQUE
-247	OVERRIDE	-208	ACDSECGRP
-246	LINEKEY (requires 2 parameters)	-207	ACDPRIGRP
-245	SYSSPEEDGP2	-206	ACDMONTONE
-244	SYSSPEEDGP1	-205	ACDMONSLNT
-243	CALLBACKREQ	-204	ACDEMERMSG
-242	CALLBACKMSG	-203	ACDSUPMSG
-241	START	-202	ACDAGTMSG
-240	SPKRREJECT	-201	MANANS
-239	SPKRTWOWAY	-200	AGTMODEWRK
-238	SPKRFXONE	-199	AGTMODEUNAV
-237	BADTRUNK	-198	AGTMODEAVL
-236	STORE	-197	DSSKEY (requires 2 parameters)

LED Status Values

These are phone feature codes that may be reported in response to ComManager's PHONE_STATUS_LED_STATE DDE Request. Positive number feature codes are standard TAPI -defined functions. Negative feature codes are ROLM extensions to the TAPI feature set. Only active LED values are returned.

Table B-7. LED Status Values

Value	Feature	Value	Feature
1	CONFERENCE	-215	PHONEMAIL
12	FORWARD	-214	CALLBACKKEY
13	PICKUP	-213	HEADSET
18	MUTE	-212	MAILBOX
21	SPEAKER	-211	PROGRAM
26	DONOTDISTURB	-210	ACDSECQUE
-255	CALLWTG	-209	ACDPRIQUE
-233	FIXFWDACT	-208	ACDSECGRP
-231	VARFWDBUSYNA	-207	ACDPRIGRP
-230	VARFWDNA	-206	ACDMONTONE
-229	VARFWDBUSY	-205	ACDMONSLNT
-228	VARFWDBOTH	-204	ACDEMERMSG
-227	VARFWDALLEXT	-203	ACDSUPMSG
-226	VARFWDALLINT	-202	ACDAGTMSG
-221	AGTLOGON	-201	MANANS
-218	DATAKEY	-200	AGTMODEWRK
-217	TOGGLE	-199	AGTMODEUNAV
-216	PRIVACY	-198	AGTMODEAVL

For example, if the user has activated "Do Not Disturb" and is engaged in a Conference call, the resulting string returned by the request might be:

26 1

Note that the feature values may appear in any order in the output string.

DDE Error Values

These are the possible error codes that can result from ComManager operations. It is possible that some of these error values may never be returned to a DDE Client. Descriptions are provided for the more common errors.

Table B-8. DDE Error Values (1 of 2)

Name	Value	Description
errNone	0	No error
errNoPhone	1	
errPhoneNotFound	2	
errNoLine	3	
errPrimeLineNotFound	4	
errPhoneNotUp	5	
errPhoneNoDisplay	6	
errPhoneShutDown	7	
errInvalidVirtualBtnID	8	
errPhoneBtnFuncNotFound	9	
errLineNotUp	10	
errLineShutDown	11	
errNoPhoneConfigured	12	
errNoPrimeLineConfigured	13	
errFuncServerBusy	14	ComManager is busy executing a previous command and cannot execute this one. Only one command may be executed at a time, but commands typically complete within a fraction of a second. Therefore, this error should be encountered rarely.
errFeatureDoesNotExist	15	The feature code value given in a "SendFeatureCode" statement is not supported by ComManager. For example, "[SendFeatureCode(211)]" causes this error. Note that ROLM extended functions are given as negative numbers.
errFeatureNotAllowed	16	The feature or command is supported by ComManager, but cannot be executed in the current call state. For example, "[DisconnectCall]" cannot be executed while a call is on hard hold.
errPhoneDisconnected	17	
errLineDisconnected	18	
errPhoneClosed	19	
errLineClosed	20	
errAddressNotFound	21	
errDdeUnknownCommand	22	The command name given in an Execute statement is not supported as a DDE command.

Table B-8. DDE Error Values (2 of 2)

Name	Value	Description
errDdeParameterError	23	The command parameters are missing or not in the correct format. For example, "SendFeatureCode(39)]" causes this error, because feature 39 (Repdial) requires two parameters.
errDdeCmdFormatError	24	The Command String is not in the correct format. Exceeding the number of characters allowed in a command string or failing to enclose the command string in square brackets causes this error. For example, "DialDigits(12345)" causes this error.
errGeneralTapiError	25	Any error not described that is returned directly from the Microsoft TAPI layer.

Windows TAPI Call State Descriptions

Table B-9. Windows TAPI Call State Descriptions

Call State	Description
idle	This corresponds to the "null" state: No "activity exists" on the call, which means that no call is active.
offering (inbound)	When the switch informs the computer of the arrival of a new incoming call, that call is in the offering state. Note that offering is not the same as causing a phone or computer to ring. When a call is offered, the computer is not necessarily instructed to alert the user. Example: An incoming call on a shared call appearance is offered to all stations that share the appearance, but typically only the station that has the appearance as its primary address is instructed to ring. If that station does not answer after some amount of time, the bridging stations may be instructed to ring as well.
dial tone (outbound)	Indicates that the switch is ready to receive a dialable number. In most telephony environments, this state is entered when audible dial tone is detected by the line device.
proceeding (outbound)	The call is proceeding through the network. This occurs after dialing is complete and before the call reaches the dialed party, as indicated by ringback, busy, or answer.
busy (outbound)	The call is receiving a busy signal. Busy indicates that some resource is not available and the call cannot be completed normally at this time.
ringback (outbound)	The station to be called has been reached and the destination's switch is generating a ring tone back to the originator. A ringback means that the destination address is being alerted to the call.
connected (inbound and outbound)	Information is being exchanged over the call.
on hold (inbound and outbound)	The call is currently held by the switch. This frees the physical line, which allows another call to use the line.
conferenced (inbound and outbound)	The call is a member of a conference call and is logically in the connected state (to the conference bridge). A call in the conferenced state refers to a conference call (in the connected, on Hold,... state).
on hold pending conference (inbound and outbound)	The conference call is currently on hold and waiting for the user to add another party.
on hold pending transfer (inbound and outbound)	The call is on hold in preparation for being transferred.
disconnected (inbound and outbound)	The call has been disconnected by the remote party.

Glossary

This glossary defines terms and abbreviations as they are used in this manual.

If you do not find the term you are looking for, refer to the index or the table of contents.

For glossary definitions that are specific to Windows, consult the *Microsoft Windows User's Guide*.

A

access code. A preassigned number a user enters to get an external line or to access certain system features.

ACD. See *automatic call distribution*.

alphanumeric. Pertaining to a character set that contains letters, digits, and other characters, such as punctuation marks.

alternate numbers. Telephone numbers or password numbers (dial strings without a flash signal), other than the primary listing, that are associated with a telephone directory entry.

ANI. See *automatic number identification*.

AT commands. Attention (AT) commands are used by most modems to place and answer data calls. The ROLMphone 600 series with DCO supports the AT command set.

automatic call distribution (ACD). A telephone system feature that permits a high volume of incoming calls to be distributed efficiently among a group of agents. Automatic call distribution queues calls and distributes them to agents as agents become available.

automatic number identification (ANI). A service provided by facility providers in which the telephone number of the calling party is passed along to the called party.

B

backup (n.adj) back up (v). The duplication of relevant data on a backup device (such as a hard disk or a diskette). This protects against information loss by providing the ability to easily recover, and supplies a reference point for future changes.

backup device. Either a hard disk or a 3.5 inch diskette used to store copies of data.

baud. A transmission rate in units per second; these units are usually bits.

bits per second (bps). The speed at which bits are transmitted. In serial transmission, the instantaneous bit speed with which a device or channel transmits a character.

bps. See *bits per second*.

buttons. Features that can be clicked using the mouse, such as the tool bar icon buttons, all the window buttons, and configurable ComManager buttons.

C

call detail recording (CDR). A 9751 CBX feature that identifies outgoing calls from internal stations and records information such as start time, elapsed time, digits dialed, trunk used, account codes, and date of call.

caller. A person who calls a telephone or PhoneMail subscriber or mailbox.

CBX. See *computerized branch exchange*.

CDR. See *call detail recording*.

class of service (COS). A numerical index to a set of shared capabilities and privileges. It is shared because subscribers of the same telephone system can belong to the same COS. Subscribers belonging to a COS exercise all the capabilities and privileges associated with that COS.

comma delimited. A format for storing ASCII data files in which the data for each field is surrounded by quotes and the fields are separated by commas.

communication application. Any Windows compatible data communication program that is used to control and define the communication protocol and data transfer characteristics for the exchange of data between computer systems.

communications port. See *serial port*.

computerized branch exchange (CBX). A digital communications controller governed by computer instruction and providing telephone communications between internal stations and external networks.

configuration. (1) A specific hardware and software arrangement that determines a system's functional characteristics and operation. (2) The software that contains the databases with customer-specific information.

COS. See *class of service*.

D

data. A representation of information that is suitable for processing by human or computerized means.

database. A set of related information that is available for processing by a computer system.

database backup. The ability to copy the system database to a backup file periodically, after the data is entered initially, or after substantial changes are made to the database.

data call. The transmission of data between two digital resources, such as a terminal and a computer, through a switched network.

data carrier detect (DCD). A data communications feature that tracks the state of the data connection.

data communications. The transfer of information between two locations over a data line.

data communications option (DCO). An option for some ROLMphone telephones that provides an access to the data and voice telephony features of the telephone.

data interchange format (DIF). A program-independent method of storing ASCII data files.

data set ready (DSR). A data communications feature (DCF) that is used to set a ROLMphone telephone with data to either follow or ignore a data connection.

DCD. See *data carrier detect*.

DDD. See *direct distance dialing*.

DDE. See *dynamic data exchange*.

default. The attribute, value, or option that is assumed when none is explicitly specified.

default note. The data associated with a template that can be created to structure the content and appearance of Note windows.

dial tone. A signal that the telephone provides to initiate a call.

DID. See *direct inward dialing*.

DIF. See *data interchange format*.

digital signal. An electrical signal made up of discrete pulses coded to represent information. Contrast with *analog signal*.

direct destination select (DDS) keys. Keys that give a station user access to one-key dialing of a preprogrammed internal or external number, or function. Also referred to as *redial keys*.

direct distance dialing (DDD). Permits long-distance calls to be made from a telephone without operator assistance.

direct inward dialing (DID). A system feature that permits an incoming caller from the public telephone network to reach specific extensions without going through the operator.

direct inward system dialing (DISA). A service permitting a person to call the ROLM host telephone system from any off-system location that has a dual-tone multifrequency keypad and uses system features and capabilities.

direct station select (DSS) keys. A data communications feature (DCF) that allows you to monitor and automatically dial or answer an extension.

diskette. A thin magnetic disk, enclosed permanently in a protective jacket, used to store data.

disk operating system (DOS). Also known as MS-DOS or PC-DOS. Operating system designed to run with Intel-based PCs.

DND. See *do not disturb*.

do not disturb (DND). A feature that allows you to route calls to your forwarding number under certain conditions.

DOS. See *disk operating system*.

DSR. See *data set ready*.

dynamic data exchange (DDE). A messaging protocol for exchanging data between Windows applications.

E

EIA. Electronics Industries Association.

EIA-232-D cable. A standard serial interface between computers and communications equipment. It is used throughout the United States.

executable file. A file that contains programs that can be run under DOS. An executable file has a .EXE extension.

extension number. A group of numbers from one to seven digits in length that identifies a subscriber mailbox, or call processing mailbox, or is associated with a telephone.

F

FAC. See *forced authorization code*.

fax. (1) Hardcopy received from a facsimile (fax) machine. (2) To transmit an image using a telephone system and fax machine.

facsimile machine. A functional unit that converts images to signals for transmission over a telephone system or that converts received signals back to images. Synonymous with fax machine.

fax number. The telephone number of a fax machine.

field. A unit of data in a record or message designated for a purpose.

file parameters. Maximum number of entries for the Call Log, directories, and Reminder List.

FIFO. See *first-in-first-out*.

first-in-first-out (FIFO). A queuing technique in which the next item to be retrieved is the item that has been in the queue for the longest time.

fixed length. A format for storing ASCII data files in which the data for each field is left justified to the first column of the defined field size and all data fields have a fixed length. Also referred to as system data format (SDF).

forced authorization code (FAC). A software feature that requires a user to enter a numeric code before placing a long distance call.

forwarding. Redirecting an incoming call to another extension or, with special software, to an off-site telephone. ROLM telephone system forwarding is available as system forward, station forward, or off-system forward.

G

ground. A conducting connection, whether intentional or accidental, by which an electric circuit or equipment is connected to the earth or to some conducting body that serves the place of the earth.

H

hard disk backup. The use of hard disk drives to make copies of nonmessage data. Subscriber profiles, name headers, call processing greetings, call processing paths, distribution lists, parameters, and network profiles may be backed up to a hard disk. The original and copy are stored on different disks; therefore, if a disk fails, the data is still available and data does not have to be reentered. See *backup device*.

hard disk drive. A sealed storage unit used for storing large amounts of data.

hardware. (1) Physical equipment used in data and call processing, as opposed to programs, procedures, rules, and associated documentation. (2) The equipment, as opposed to the programming, of a system. Contrast with *software*.

hold. The status of a line when it is in use, but in a waiting state.

K

Kbps. See *kilobits per second*.

KEO. See *keyboard extension option*.

keyboard extension option (KEO). A device that can be attached to certain ROLMphones to provide additional programmable redial keys.

keys. Units that can be pressed on the PC keyboard, the ROLMphone keypad, and the dial pad.

kilobits per second (Kbps). One thousand bits per second; used in specifying the modulation rate of a digital transmission system.

L

LAN. See *local area network*.

LED. See *light-emitting diode*.

light-emitting diode (LED). A solid-state device that lights under certain electrical conditions; generally used as an indicator lamp.

line keys. Programmable keys you use to define individual lines (telephone numbers or extensions) in ComManager.

local area network (LAN). A group of electronically controlled computers that can exchange data and share devices using a common communication protocol.

log parameters. Type of calls that are going to be saved in the Call Log. Events that can be logged are incoming or outgoing, successful or unsuccessful, prime line, or other lines that appear on a ROLMphone telephone.

M

main window. The primary ComManager window used to interact with ComManager. This window displays the command menu bar, status bar, current telephone directory, ComManager programmable buttons, and a telephone display.

N

network. See *local area network*.

O

online. The state that occurs when a functional unit, such as a terminal, is under direct, continuous control of a processor.

P

parameter. A variable that is given a value for a specified application.

parity. A method of checking for errors when data is transmitted using a data communications application.

password. A sequence of alphanumeric characters that must be entered to gain access to PhoneMail features.

PBX. See *private branch exchange*.

PC. Personal computer.

personal computer (PC). A desk-top, floor-standing, or portable microcomputer that usually consists of a system unit, a display monitor, a keyboard, one or more diskette drives, internal fixed-disk storage, and a printer.

PhoneMail. ROLM's voice-processing system, which provides station users with a personal voice mailbox.

port. A connection or interface point on a computer or other data device.

private branch exchange (PBX). An automatic or manual private telephone exchange for transmission of calls to and from the public telephone network.

prompt. A message that requests input from the user or gives operational information.

Q

queue. A list of items waiting to be processed. Queued calls are generally handled on a first-in-first-out basis.

R

repdial (repertory dial) keys. See *direct destination select (DDS) keys*.

ROLMphone telephone. A digital telephone with multiple line and feature buttons that provides maximum flexibility for a variety of applications.

S

scroll. To move a display image vertically or horizontally to view data that otherwise cannot be viewed in the boundaries of the display screen.

SDF. System data format. See *fixed length*.

serial port. Port or connection, usually communications port 1 (COM1), used to attach serial devices like a printer, a modem, or a mouse. Windows supports COM1 through COM4.

server. A Windows application that responds to a request from a client application (another Windows application) in a DDE conversation. Server applications create objects that can be linked and embedded in other documents.

snooze. Feature used to close a reminder window without deleting the reminder. The reminder is displayed again when a specified amount of time elapses.

software. Any of the routines, programs, and instructions required to use computers. A written statement of procedures and format of the data. Contrast with *hardware*.

speakerphone. A microphone (transmitter) and loudspeaker (receiver) associated with a telephone, permitting hands-free conversation for the user.

switch. A digital communications controller governed by computer instruction and providing telephone communications between internal stations and external networks.

system administration. The process of setting up, monitoring, and maintaining the telephone system as done by the system administrator.

system administrator. The customer employee who configures, monitors, and maintains the telephone system. Also responsible for generating reports and communicating with ROLM service providers.

system data format (SDF). See *fixed length*.

T

telecommunication. Any transmission, emission, or reception of signs, writing, images, and sounds or information of any nature by wire, radio, visual, or other electromagnetic systems.

trunk. A telephone channel between two central offices or switching devices that supplies a voice connection.

W

Windows. Microsoft operating system, characterized by a distinctive graphical user interface (GUI) that uses windows, buttons, dialog boxes, and pull-down menus. Windows also describes the different types of software, like ComManager, that share the Windows GUI, and run on the Windows operating system.

Y

Y-cable. A cable that either splits a signal to 2 separate outputs or combines 2 signals into a single input. A Y-cable is used to connect a telephone and PC to provide simultaneous access to ComManager and a data communications application.

Numerics

3.5 inch diskette. A small magnetic portable diskette.

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