PathFinder

Voice Processing System

System Administrator Manual

Issue 4.5 - December 2003

Issue	Release Date	Changes	Page
2	04-99	Content contains revised material.	--
3	05-01	☐ Content has been updated with new screens and descriptions. ☐ Manual includes Optional Modules and Installation Forms.	--
3.1	06-01	Optional Module material has been moved to a separate book.	--
4.0	02-02	☐ Manual contains enhanced features and procedures. ☐ Content has been reorganized and reformatted.	--
4.5	12-03	Support for Caller ID has been added (refer to XTS documentation)	--
		The following feature/functions have been added or enhanced: Backup / Restore System	*3-10*
		Forwarding Mailbox Restrictions	*3-49*
		Deleting Users	*3-53*
		Message Length & Count	*3-59*
		Reply to more than one mailbox (refer to User Guide).	--
		Temporary Menu Greetings	*3-75*
		The MAINT program includes "Key Action Menus" for Homework Hotline and Q & A applications.	*3-76*
		Reports - "sort by" option	*4-4*

LIFE SUPPORT APPLICATIONS POLICY

VODAVI Technology, Inc. products are not authorized for and should not be used within Life Support applications. Life Support systems are equipment intended to support or sustain life and whose failure to perform when properly used in accordance with instructions provided can be reasonably expected to result in significant personal injury or death.

VODAVI Technology, Inc. warranty is limited to replacement of defective components and does not cover injury to persons or property or other consequential damages.

set/2003

Regulatory Information (U.S.A.)

The Federal Communications Commission (FCC) established rules to allow the direct connection of the *PathFinder* to a telephone network. Certain actions must be undertaken or understood before the connection of customer provided equipment is completed.

Incidence of Harm

If the telephone company determines that the customer provided equipment is faulty and possibly causing harm or interruption to the telephone network, it should be disconnected until repairs can be made. If this is not done, the telephone company may temporarily disconnect service.

Changes in Service

The local telephone company may make changes in its communications facilities or procedures. If these changes affect the use of the *PathFinder* or compatibility with the network, the telephone company must give written notice to the user to allow uninterrupted service.

Maintenance Limitations

Maintenance on the *PathFinder* System must be performed only by the manufacturer or its authorized agent. The user may not make any changes and/or repairs except as specifically noted in this manual. If unauthorized alterations or repairs are made, any remaining warranty and the software license for the system will be voided.

Notice of Compliance

The *PathFinder* System complies with rules regarding radiation and radio frequency emissions by Class A computing devices. In accordance with FCC Standard 15 (Subpart J), the following information is supplied to the end user:

"This equipment generates and uses RF energy and if not installed and used in accordance with the Instruction Manual, may cause interference to Radio Communications. It has been tested and found to comply with the limits for a Class A computing device, pursuant to Subpart J of Part 15 of the FCC Rules, which are designed to provide reasonable protection against such interference, when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user, at his own expense, will be required to take whatever measures may be required to correct the interference."

Toll Fraud and DISA Disclaimer

"While this device is designed to be reasonably secure against intrusions from fraudulent callers, it is by no means invulnerable to fraud. Therefore, no express or implied warranty is made against such fraud including interconnection to the long distance network."

"While this device is designed to be reasonably secure against invasion of privacy, it is by no means invulnerable to such invasions. Therefore, no express or implied warranty is made against unlawful or unauthorized utilization which results in the invasion of one's right of privacy."

Vodavi has made every reasonable effort to ensure that this product works in most business environments. However, there may be some environments (RFI and EFI) in which this product may not work properly. In such cases, it is the responsibility of the installer to take the necessary actions to correct the situation.

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1 Introduction

This manual is an instructional tool for System Administrators and others who work with PathFinder. It describes how to install, set up, design, monitor, and maintain various PathFinder applications.

How This Manual is Organized

Chapters 1-6 explain how to configure the PathFinder Voice Processing System to properly interface with your telephone system. They will also assist the System Administrator with operating and maintaining an efficient working system.

Chapters

The Appendices contain more specialized information that addresses specific situations. They also provide useful material that may be referenced on an as-needed basis.

Appendices

Overview

Product Description

PathFinder is an Internet-ready voice processing solution for voice mail and auto attendant applications. Running on Microsoft Windows 2000 operating system and using Dialogic voice boards, this platform offers exceptional capabilities, growth, and reliability. The PathFinder is enhanced with the integration capabilities that allows Client and Server-based applications.

Voice Processing

PathFinder is a voice processing system that combines sophisticated application software with the power of the PC to handle a wide variety of telecommunications tasks.

PathFinder helps people communicate more effectively. It provides a bridge between a telephone and a computer. PathFinder uses pre-recorded, digitized human speech, called voice prompts, to talk to a caller. Unlike a tape recorder, which stores recordings sequentially, PathFinder stores recordings on a computer hard drive. This storage system allows PathFinder to access any voice prompt or recording in any order. PathFinder can communicate information by stringing together multiple voice prompts to form sentences.

Auto Attendant

PathFinder is a modular system that allows it to be customized to suit the user's needs. The Auto-Attendant module comes standard and controls how calls are transferred from the PathFinder to other stations on the telephone system

Menu Routing

Menus are a list of predefined choices, generally designed to route callers to the appropriate location. A menu prompt is played for a caller indicating the options and what actions to take to complete the task, such as: *for Sales, press 1 … for Support press 2 …*

Mailbox / Extensions

PathFinder sees each user or Subscriber as having two parts; a mailbox and an extension. The mailbox section plays greetings and takes messages or forwards to another module. Whereas the extension section handles the type of transfer and what actions to take when interacting with the telephone system.

Optional Modules

The PathFinder system has been designed to interface with a variety of Optional Modules to meet different customer demands.

ChalkTalk - This application automates several common School Administrator functions such as: Absentee Calling, Substitute Teacher Locations or Question & Answer mailbox options for automated surveys.

Client Programs - These Client applications run on the Client PC and are accessible from their desktop. Any PC connected to PathFinder via TCP/IP can use these functions.

- *Desktop Call Control* allows the Subscriber to interface with calls, customize their mailboxes and send and receive voice mail messages using a visual interface.
- *Desktop Mail Editor* allows the Subscriber to modify a variety of mailbox features from their desktop: name/password, signatures/greetings, notification settings, and locator numbers.

Fax Support - codes have the ability to use dedicated fax resources, or for more efficiency, you can "pool" this resource using fax resource sharing.

Language Prompt Files - PathFinder is multi-lingual, which allows modules such as "ChalkTalk" to delivery or prompt in either Spanish or English … or both.

Networking PathFinder Systems - Using Voice Protocol Internet Mail (VPIM) standards, this application allows PathFinder to interface with an existing e-mail program to transfer voice and fax messages from one PathFinder system to another.

TTS E-mail Reading - Working in conjunction with Unified Messaging, the PathFinder can download standard e-mail messages and read them to the Subscriber. The file will be encryted once the download is complete.

Unified Messaging - PathFinder can be configured to deliver fax mail, voice mail, and messages to one location such as Outlook. Vodavi's OneLook Unified Messaging integrates standard "POP3" and "IMAP4" servers. Voicemail Messaging can be enabled or you can use a compressed file type known as VVM.

PathFinder Features

Auto Attendant
Audiotext
Broadcast Messages to all mailboxes
Call Screening
Caller ID Support
Class of Service
Company Directory
Confirmation on message delivery
Date/Time stamp on each message
Deleted message recovery
Dial by Name
Disk Storage
Distribution Lists
First Time Help (user tutorial)
Log Files
Mailboxes - unlimited
Menu Routing - unlimited menus
Message Cascading
Message Forwarding
Message Options (urgent, future, confirmation
Message Wait Light
Multiple Greetings per mailbox
Notification (Pager - unlimited digits)
Password Protection
Personal Operator
Port Upgrades
Program Interface - Microsoft Windows
Reply to Messages (with and without preamble)
Reports
Storage (70 + hours)
Timed Based Answering (chainable time controls up to 10)

Before You Begin

System Options

FIRST STEP … You must determine which type of PathFinder Voice Processing system will best suit the needs of your company. Vodavi offers a pre-built system or a kit that will allow you to build your own system.

1 - A *Turn Key* is a pre-built system that includes all the hardware/software needed, and can be configured as a stand-alone unit or for a Local Area Network (LAN). Refer to *Chapter 1, Getting Started*.

2 - A *Custom-built* system requires that you: build a computer using PathFinder specifications, configure the voice cards, and install the related software programs. Refer to *Appendix C, Building a PathFinder*.

FYI … The *PathFinder System Administrator* manual mainly addresses the "Turn Key" system unless "*Appendix C*" is referenced.

System Components

PathFinder is made up of five components:

1) Personal Computer (PC)
2) Operating System -- Microsoft Windows 2000 Professional
3) PathFinder Software -- The platform from which application modules operate (e.g., Auto-Attendant, Voice Messaging, etc.)
4) Hardware -- PBX integration hardware and Dialogic Voice Processing boards
5) Optional Software Modules -- Purchased separately (e.g., Desktop Call Control, Unified Messaging etc.)

PathFinder Configuration

In order to prepare, set up, and use PathFinder, the following three steps are required:

1. To start up and run PathFinder. Refer to *Chapter 1, ViewPort Application* for more information on running PathFinder.
2. To integrate your phone system to interface with PathFinder. Refer to *Chapter 2, Phone System Integration and Setup*.
3. To configure PathFinder. Refer to *Chapter 3, MAINT Application* for instructions on how to carry out the initial configuration of PathFinder. You must work through this entire configuration procedure before moving on.

Even though you may want to jump right in and begin using PathFinder immediately, it is strongly recommended that you carefully review this manual before proceeding. This will help orient you with the many features and options available as you work through the setup and operation of PathFinder.

Getting Started

» Make sure that your hardware is in proper working order. This may require that you open the computer that will run the PathFinder program to ensure that all boards and drivers are locked securely in place. For more information, refer to *"PC Requirements" on page C-3*.

» Plug in the PathFinder computer to an adequate power source. When you turn on the PC, the PathFinder will automatically *boot-up* and start running.

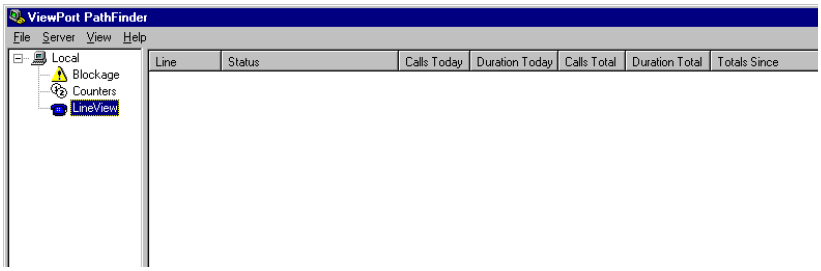
» The *boot*-up action will open the following application windows: ViewPort and PathFinder. (If Not ... Refer to *"Troubleshooting" on page 6-10*)

ViewPort Application

The ViewPort PathFinder application is a graphical interface that allows the System Administrator to view the status and settings of the PathFinder program. It also allows you to operate PathFinder locally as well as remote via TCP/IP connections (when set up on the same machine).

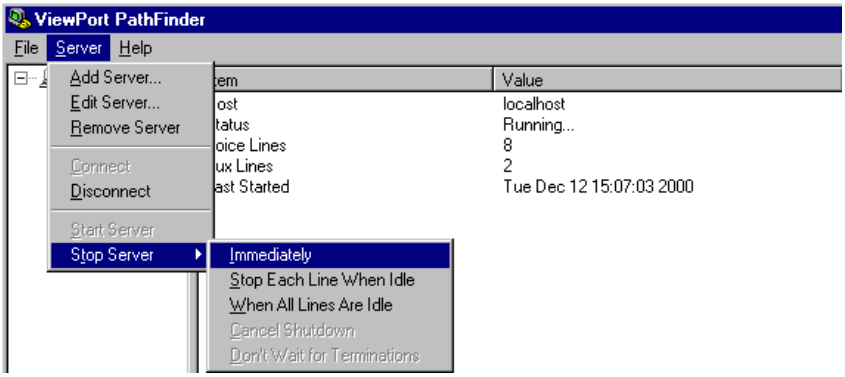
» After installing PathFinder, the ViewPort window will open and start the voice processing program automatically. By default, ViewPort will connect to whatever local voice processing parameters that have been set up.

» To start manually … click Start > Programs > PathFinder Voice Processing > PathFinder. Once selected, a window similar to the following will display:



Server Options

To properly Start or Stop PathFinder, select Server / Start Server or Stop Server as shown in the following window:



- Add or Remove Server
- Edit Server (You must disconnect before editing server information.)
- Connect / Disconnect
- Start Server
- Stop Server
  - » Immediately
  - » Stop Each Line When Idle
  - » When All Lines Are Idle
  - » Cancel Shutdown
  - » Don't Wait for Terminations

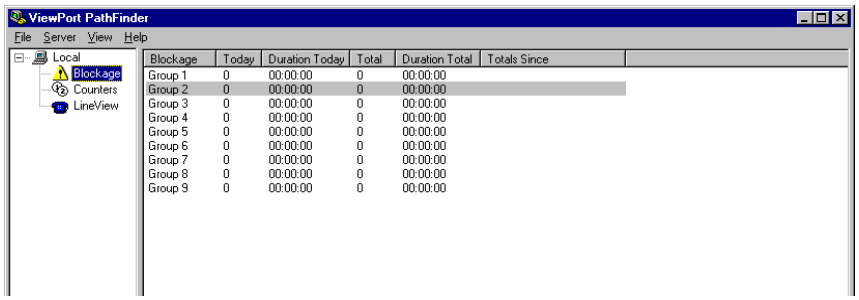
ViewPort Window

The ViewPort window has three sections: Blockage Groups, Counters, and Line View.

BLOCKAGE (Groups) -- Displays the number and total time a blockage occurred on the system. Refer to *"Setting Up Phone Lines" on page 3-85* for more information.

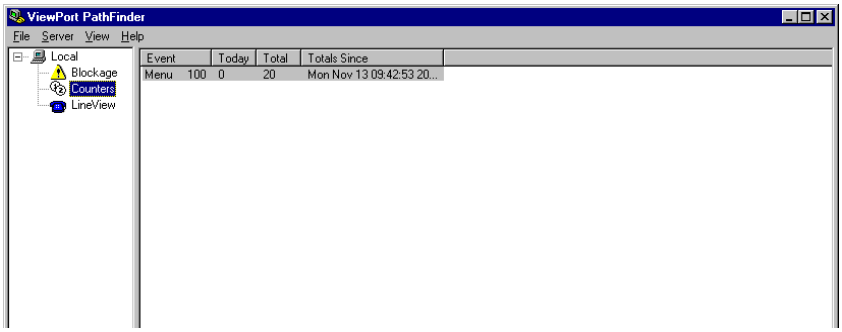
This window displays duration and counts for system blocks to monitor the voice mail traffic. Each line can be placed in a "Blockage" group so that when all of those line are busy, no new calls will be received. The information may be used to verify that voicemail has enough ports to support your company's call traffic.

» When the Blockage view is selected, a "View" menu will become available so that Blockage Counts may be *reset* when needed.



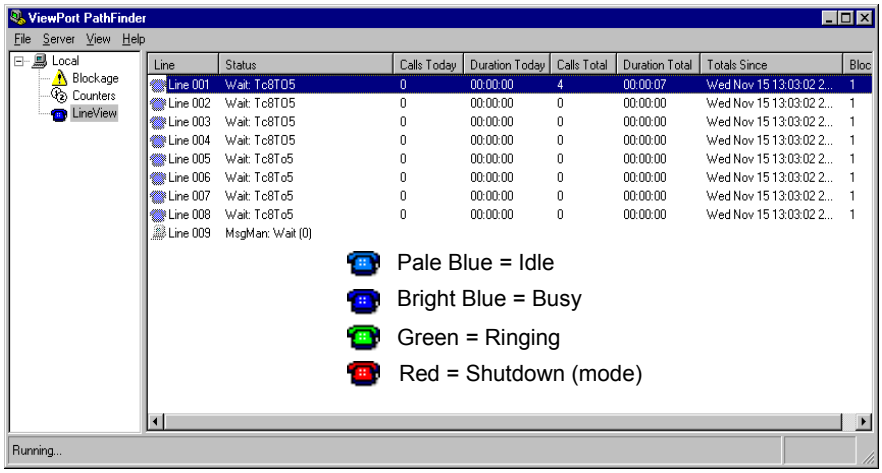
COUNTERS (Event) -- The *Event Counters* window allows you to view PathFinder event counters. Refer to *"Event Counters" on page 3-56* for more information.

» When the Counters view is selected, a "View" menu will become available so that Counters may be *reset* as needed.



LINE VIEW (Status) -- This window allows you to view the "real-time" status of your voicemail ports. Each line is represented by a "telephone icon" that will change colors as their current call status changes. This "color-coding" allows call identification to be viewed at a glance.

» When the Line view is selected, a "View" menu will become available so that Line counts may be *reset* as needed.

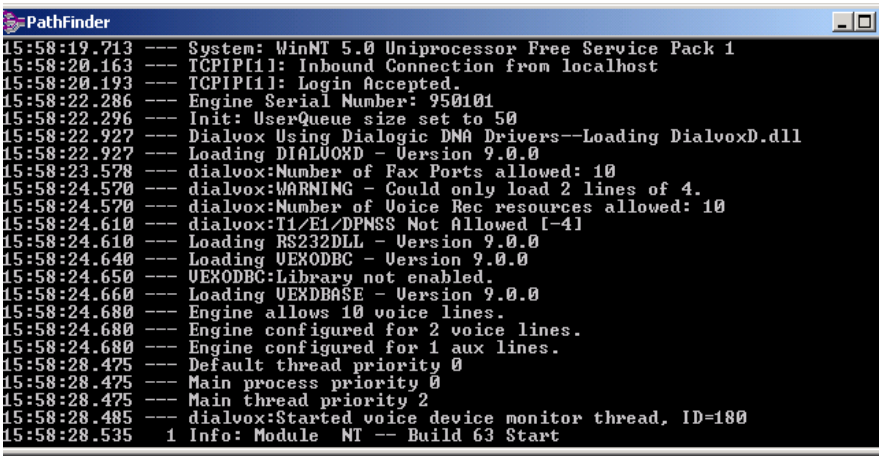


Line	refers to the voicemail port.
Status	refers to how or if the line (port) is answered.
Call *data*	displays the number of calls and the duration times for the types of calls specified. You can view today's totals as well as totals for the entire application.

PathFinder Application

The PathFinder screen is a window that displays the real-time data of the PathFinder system as it works with your phone system. All PathFinder activity can be viewed through this interface. The type of information that displays is directly related to the "Logging" output selected. By default, this screen shows the basic call processing information, however, you can customize this data using the MAINT application. (Refer to *"Logging" on page 3-20*.)

» This application must remain up and running for PathFinder to answer incoming telephone calls.



PathFinder Optional Programs

This section briefly describes ALL software applications that are currently available, to include any programs that were added to your PC during the *Installation Routine*.

You will only have access to certain programs:

» Depending on the optional modules purchased.

- and-

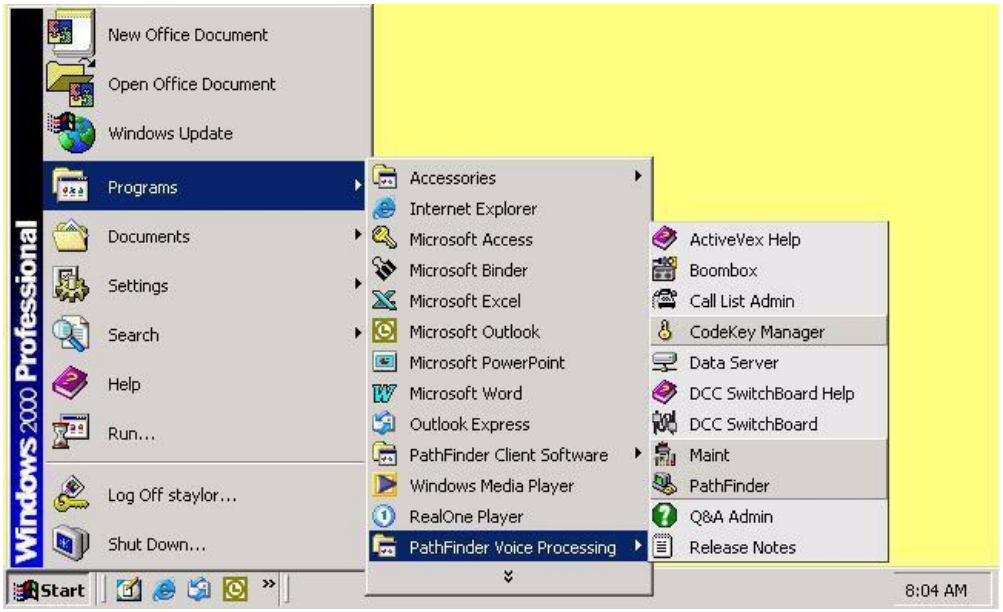
» If the program(s) have been activated on the software key you installed.

Startup Groups

The *Startup Group* will show the programs needed by PathFinder to integrate with your phone system.

The *PathFinder Voice Processing Group* will display the same programs as the Startup group, PLUS … additional utility applications and any optional modules that have been purchased.

Refer to *"Program Descriptions"* to see how each application can be used.



Program Descriptions

ActiveVex Help	This application allows you to create "interactive voice response" programs to be used by the Voice Server.
Boom Box	A utility used to record, edit, and play back PathFinder voice prompts.
Call List Admin	For administrative use relating to the *ChalkTalk* Optional Module.
CodeKey Manager	Shows what options are enabled on the software key. Allows you to upgrade PathFinder with an unlock code.
Data Server	This application provides secured cross-platform access to program and data files owned by the PathFinder.
DCC Switchboard Help	This program is used to access the following options: □ *DCC Switchboard* shows all registered DCC Clients that are currently connected. □ *DCC Switchboard Configuration* is used to define system parameters. □ *DCC Console* displays logged system data in real-time.
DCC Switchboard	This application controls the integration of DCC Clients to the PathFinder Server.
Maint	The module used to configure the voice processing engine.

PathFinder	The window that displays what function the PathFinder is performing. When PathFinder is selected from the Voice Processing Group, the Windows "Viewport" screen opens showing the status of the CO lines, calls received, and call durations.
Q&A Admin	This portion of the *ChalkTalk* Optional Module allows you to set the parameters that will query callers for multiple responses and to retrieve those answers from one mailbox location.
Release Notes	This "text file" shows the changes and system enhancements for the current software release.

What applications should be running?

When you start PathFinder … OR … one of the optional modules you may have purchased, certain server applications will automatically appear in your computer task bar.

The following chart indicates which application(s) **need to be running** for the programs listed to operate properly:

Server Applications	**PathFinder**	**DCC/DME & VVM**	**Networking Systems - VPIM**	**Text-to-Speech**	**Unified Messaging**
DataServer		✓			✓
DCC Switchboard		✓			
E-Mail Sync Server				✓	
Networking - *VPIM*			✓		
PathFinder and ViewPort	✓	✓	✓	✓	✓
Unified Messaging Server			✓		✓

2 Phone System Integration and Setup

This chapter describes the *STARPLUS*® and *infinite*® Telephone Systems and the Simplified Message Desk Interface (SMDI) integration process.

Configuration Preparation

To begin with, you must answer some first-time questions and set up basic voice functions in order to prepare PathFinder for configuration.

Defining Parameters

1. From the ***Start*** menu, select Programs > PathFinder Voice Processing > Maint.

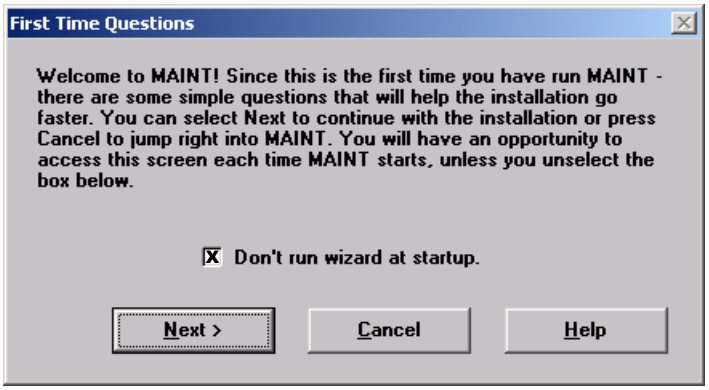
   The *Loading Key* window displays to tell you that your software key is being loaded.

   If the "Software Key Not Found" error message displays, make sure that your software key is installed properly. Refer to Appendix C , " Software Security Key" for more information.

2. When the MAINT application opens and the *First Time Questions* window displays:

   a. Click on the "*Don't run wizard at startup*" to prevent this window from displaying each time you access MAINT.

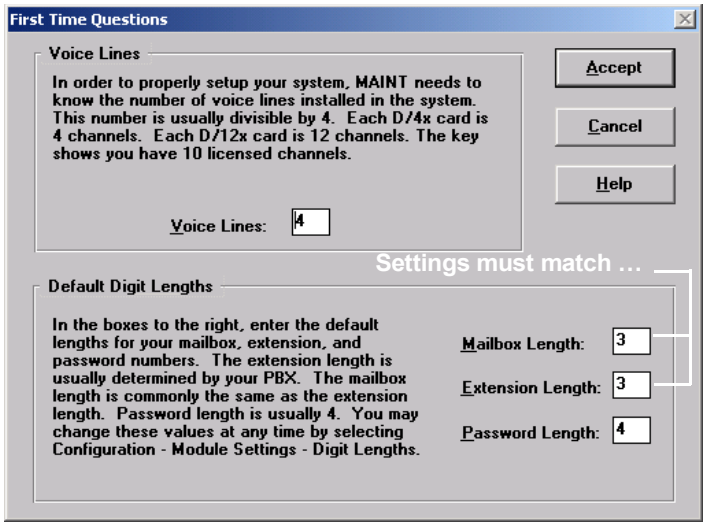
   b. Click **Next** to continue.



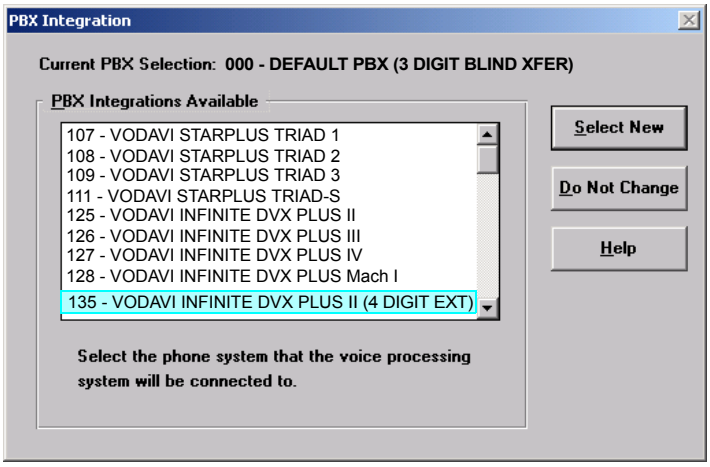
3. In the next *First Time Questions* window, enter the required parameters in the *Mailbox Length*, *Extension Length*, and *Password Length* fields.

   Important … The number of digits for mailboxes and extensions must match.

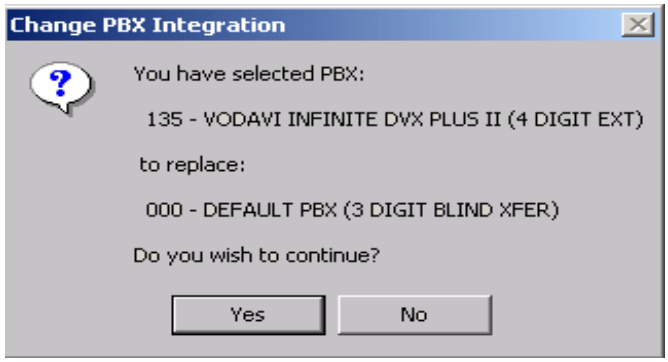
4. After completing this information, click **Accept**.



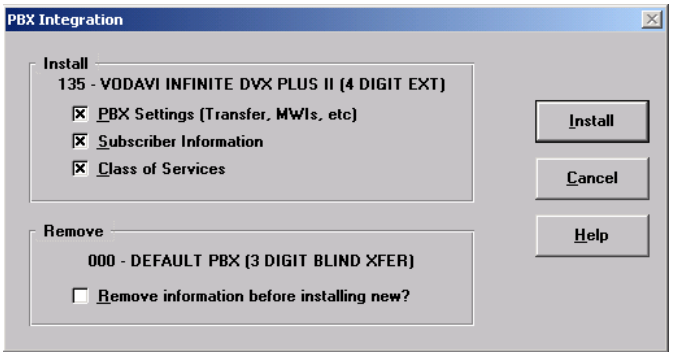
5. When the *PBX Integration* window displays, select (highlight) the Vodavi phone system you want to integrate and click **Select New**.



6. Click **Yes** to accept the PBX shown in the *Change PBX Integration* window to confirm the system selected.



7. When the next *PBX Integration* window displays, click **Install** to load the new parameters.



8. Click **OK** when the *PBX Installed* window displays to confirm that the phone system selected has been installed.
9. When the MAINT window returns, click File > Exit to close the application.

You are now ready to set up the voice functions for the system you selected.

Phone System Setup

Follow the integration instructions provided that pertain to your telephone system in order for it to work with PathFinder. The PathFinder connects to any digital port within the system. The ports could have flexible numbers.

Starplus Digital Systems

Supported Features

- Station forward to a personal greeting
- Message waiting on/off LEDs
- Stations transfer callers directly to mailbox
- Outdial (to pager or specific number)
- Multiple Returns to Operator

Triad Systems

Supported Features

- Station forward to a personal greeting
- Message waiting On/Off LEDs
- Stations transfer callers directly to mailbox
- Outdial (to a pager or specific number)
- Multiple Returns to Operator

infinite Systems

Supported Features

- Station forward to a personal greeting
- Message waiting On/Off LEDs
- Stations transfer caller directly to mailbox
- Outdial (to pager or specific number)
- Multiple Return to Operator

You can adjust the volume level on each port by plugging in a digital telephone an making an internal call, then adjust the volume. Make a CO call and repeat the process.

3 MAINT Application

The MAINT application allows you to configure and control the performance of the PathFinder Voice Processing system.

This chapter gives a detailed description of the PathFinder settings that can be modified using the MAINT application. The MAINT main menu was used as an organizational guide for presenting these system functions.

MAINT Menu Options

1) FILE - to control and access the system files for: Logins, Passwords, and Voice Prompts.

2) CONFIGURATION - to set up the operational functions for: Module, System, Telephony, PBX Integration, KSU Clock Control, VPIM (Networking) FAX, Locator, and Registry.

3) EDIT - to modify the settings for: Users, Class of Service, Menus, Time Control, Lines, and System Lists.

4) REPORTS - to collect and analyze statistical data for: tracking and troubleshooting.

5) HELP - to assist the System Administrator with setting up and maintaining the PathFinder system.

Overview

Prerequisites

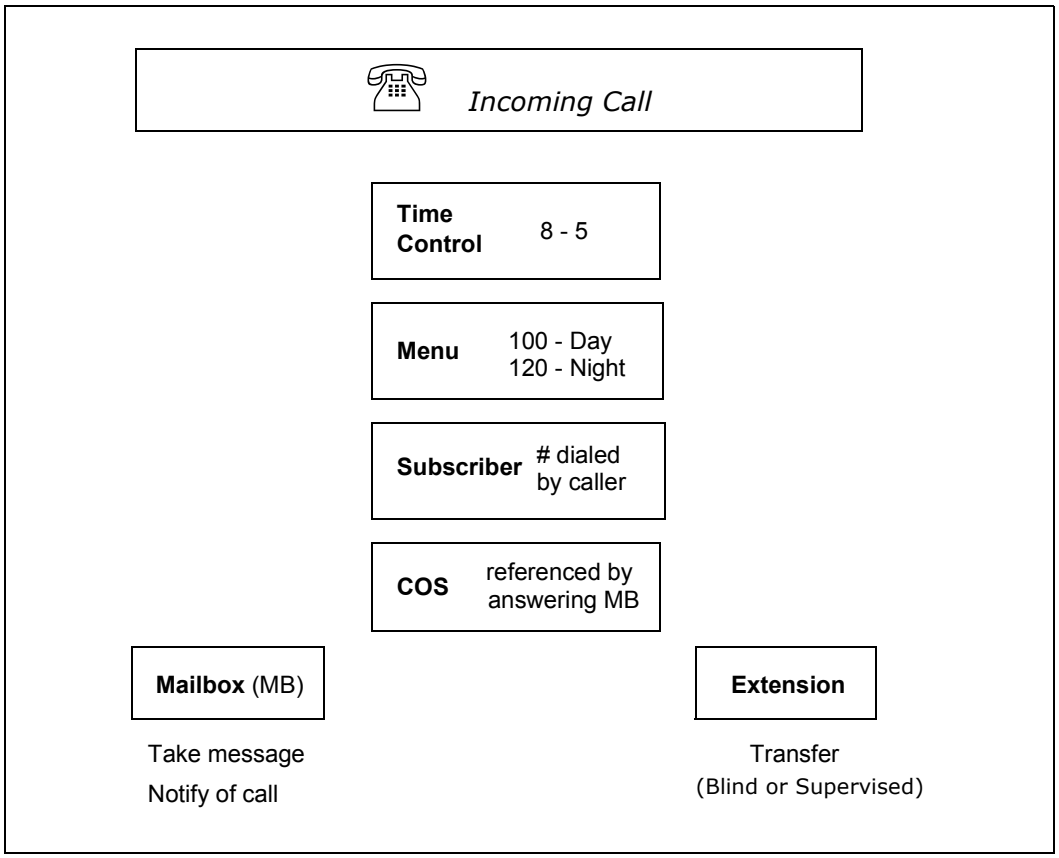
Before configuring PathFinder, make sure the following tasks have been completed:

✓ Installed the Dialogic voice card(s)
✓ Installed the PathFinder software
✓ Tested all voice channels
✓ Installed Software Key

Call Process Flow

By default, the PathFinder system has a predetermined "call flow" which is helpful to know when programming and trouble-shooting.

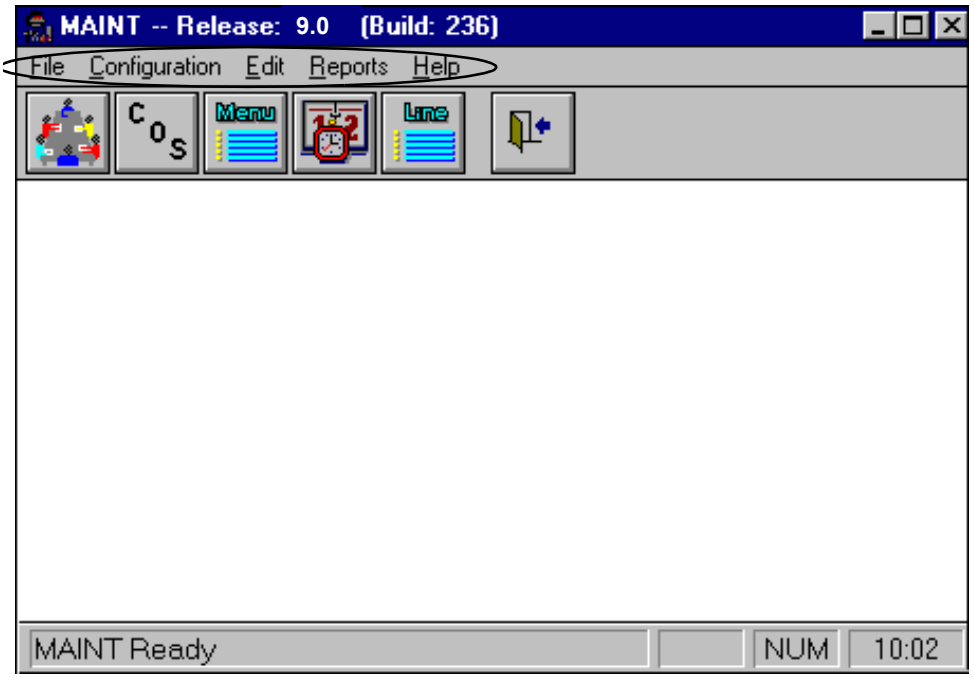
When an incoming is received, PathFinder will verify the call parameters in the order as illustrated before presenting the call:



Navigating in MAINT

MAINT Menu Options & Toolbar

The MAINT application is comprised of a series of menus to operate and maintain the PathFinder system:



FILE Menu	The *File* menu allows access to the MAINT Logins, Record Prompts, and Exit program functions.
MAINT Logins	The *MAINT Logins* option allows you to create a list of users that are authorized to perform PathFinder maintenance functions, and assign an access level to each of those users.
Record Prompts	The *Record Prompts* option allows voice messages to be recorded and modified for system and subscriber use.
Scan Databases	Selecting the *Scan Databases* option will automatically scan the PathFinder database files.
Clean Databases	Selecting the *Clean Databases* option will automatically clean the PathFinder database files.
Exit	 Choosing **Exit** from the *File* menu, or clicking the **Exit** button will close the MAINT application.

CONFIGURATION Menu	The *Configuration* menu provides access to functions that set parameters concerned with the general operation of PathFinder, such as "call transfer sequences" and "hang-up detection". Before putting PathFinder into service, you must configure Module, System, and Telephony Settings, along with any other modules you may have purchased.
Module Settings	Digit Lengths, Record/Playback, Auto-Attendant, Logging, Operators, Voice Mail, Language, and Retries/TimeOuts; controls how the voice processing system behaves, including languages on PathFinder.
System Settings	Directories, Auxiliary Tasks, LPT/COM Ports, and Time Periods; controls the auxiliary tasks on PathFinder.
Telephony Settings	Voice Lines, MWI/Notification, Rings, Transfer Settings, Hang Up Detection, and Perfect Call; controls transfer settings and hang-up detection parameters.
PBX Integrations	PBX Settings, Subscriber Information, Class Of Service; parameters identify the digit length within the telephone system to which the PathFinder will be connected.
VPIM (Networking)	Enable VPIM Messaging, Area Code Length, Remote Locations (local mailbox parameter and return address domain); controls PathFinder's ability to send and receive messages to other systems via TCP/IP connections through the Internet.
Locator Settings	Locator Feature Enabled, Use Vodavi Park Settings, Screen Callers, Default to Voice Mail, Transfer Settings; controls the Locator function for the *DCC Optional Module*.
Registry	Database of system parameters; stores and shows current PathFinder settings made through the *Configuration* menu.

EDIT Menu	You can further configure the PathFinder system by using the MAINT application's *Edit* menu. This is a summary of the cofiguration options described in the sections that follow:
User (Subscriber) Settings 	Subscribers are defined as PathFinder users who have both a mailbox and an extension. A User can be set up or modified by accessing the *Edit* menu … OR … by clicking the **Subscriber Settings** button.
Class of Service Settings 	A Class of Service (COS) defines the settings that apply to a group of user mailboxes. These items can be set up or modified by accessing the *Edit* menu … OR … by clicking the **COS** button.
Menu (Voice) Settings 	A Menu is made up of pre-defined actions that are executed through touch-tone keys. These actions can be set up or modified by accessing the *Edit* menu … OR … by clicking the **Voice Menu** button.
Time Control Settings 	This option will allow you to create or modify time controls that will activate or disable PathFinder features depending on time of day or day of week. These settings can be set up or modified by accessing the *Edit* menu … OR … by clicking the **Time Control** button.
Line Settings 	This option will allow you to assign modules or applications to different phone lines. Items can be set up or modified by accessing the *Edit* menu … OR … by clicking the **Line Settings** button.
System Lists	This option is used for creating automatic distribution of voice messages to lists of specific users.

REPORTS Menu — The *Reports* menu provides access to a complete range of administrative and management reports on PathFinder operation. Reports are grouped according to the immediate selections shown in the menu.

- ☐ Highlighting a menu item with an arrow to the right of it shows the types of reports which you can configure.
- ☐ Refer to *Chapter 4, PathFinder Reports* for more information on these report options.

Activity	lists call traffic information obtained from the PathFinder system logs.
Settings	display the configuration of each user (subscriber) and system-wide settings.
Directory	can display all or a specified portion of the Directory.
Logs	display general system activity, current changes to the MAINT application, and system error messages,
Messages	display mailbox conditions and statistical information.
Greetings & Signatures	show the total number of greeting messages being stored on the system and their file sizes.
Customized Report	can show specific conditions and to monitor system resource distribution.
Setup Reporting	determines the speed at which reports are generated and the viewer used to display reports.

HELP Menu — The *Help* menu provides access to standard help functions.

Search for Help on
- ☐ If you are unsure of a screen selection or any aspect of the PathFinder operation, select the *Contents* option for general orientation or choose *Search for Help on* for help related to a specific word, term, or search key.

Context-sensitive
- ☐ To display "context-sensitive" help, click on the *Help* button in the MAINT toolbar or press the ***F1* key** in most windows.

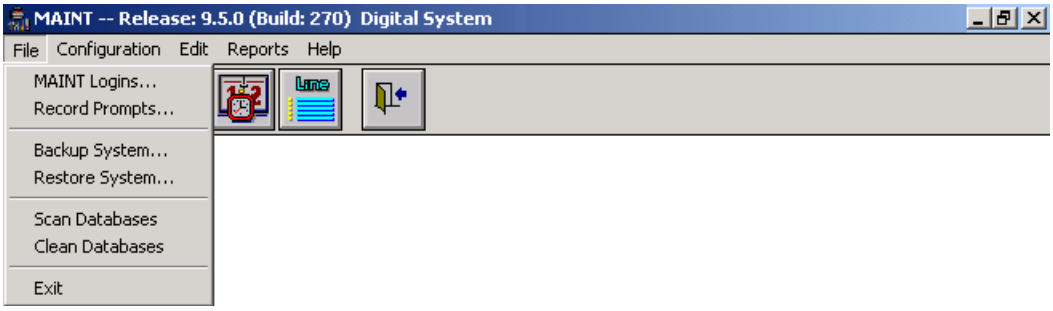
Special Characters & Strings

The special characters and strings supported throughout MAINT are:

Table 3-1: Special Characters & Strings

Character/String	Character Name	Definition
&	ampersand	Flash-hook
,	comma	Pause
✳	asterisk	DTMF star
#	number sign	DTMF pound
@Ext	--	At an extension
0 through 9	numbers 0 through 9	DTMF keys

File Menu Options



MAINT Logins and Passwords

The MAINT application allows you to configure the PathFinder for different levels of administrative programming using login passwords and access codes.

Setting MAINT User Passwords

To set user passwords:

1. Select **MAINT Logins** from the *File* menu. The *Edit MAINT Users* window displays.

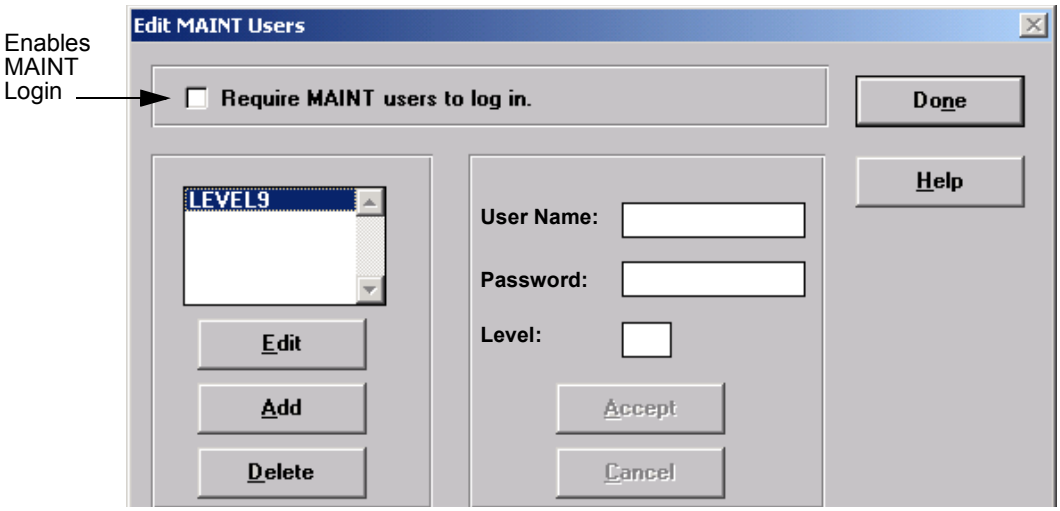


Figure 3-2: Edit MAINT Users Window

2. To *add* a new MAINT user, click on **Add**. To *edit* an existing MAINT user's password, click on **Edit**.
3. If you are adding a new MAINT user, enter the user's User Name, Password, and access Level, and click on **Accept**. If you are editing an existing MAINT user, change those items as needed and click on **Accept**.
4. Click on **Done** when you are finished with this function.

PASSWORDS Tips ... Once a password has been defined, you must enter it correctly every time you wish to access PathFinder. PathFinder *passwords are case-sensitive. For example,* `PassWord` *is not the same as* `PASSWORD`.

Access Levels

When "Require MAINT users to log in" is enabled, the System Administrator can create up to 9 different access levels. The higher the level (1-9), the more abilities are granted.

Access Level	Privileges
LEVEL 9 - Unlimited Supervisor Access	Level 9 users have access to all MAINT menus and options. Level 9 users also can view and change mailbox and/or extension passwords.
LEVEL 8 - Limited Supervisor Access	Level 8 users have access to all MAINT menus and options, with the following restrictions: ☐ Cannot edit MAINT logins ☐ Cannot write or confirm INI files ☐ Cannot re-index databases ☐ Cannot select phone system (PBX Integrations) ☐ Cannot configure Point-to-Point (an optional module) ☐ Cannot configure Engine detection ☐ Cannot edit INI settings ☐ Cannot edit the Registry
LEVELS 6 and 7 - Administrator Access	Users with Administrator Access have the same access privileges as level 8, with the following restrictions: ☐ Cannot modify any Module, System, or Telephony settings ☐ Cannot view mailbox and/or extension passwords, but *can* change them ☐ Cannot edit fax settings
LEVELS 1 to 5 - Limited Administrator Access	Users with Limited Administrator Access have the same access privileges as levels 6 and 7, with an additional restriction: users with Limited Administrator Access cannot view or change mailbox and/or extension passwords.

Record Prompts

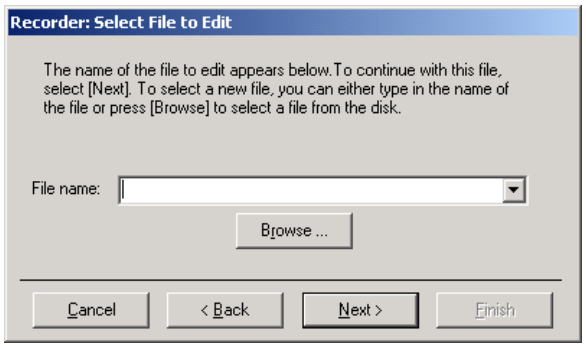
The Recorder application is used by the Administrator to setup basic voice and system prompts. The *Recorder* wizard will walk you through this function.

Recording a Voice Prompt

1. With the PathFinder running, select the Subscriber from the MAINT application and select: Mailbox > Record Prompts. The *Recorder: Welcome* window will open. Click **Next**.
2. When the *Select File to Edit* window displays, enter the directory path and filename, or press the Browse button if unknown.

   NOTE: Mailbox Signature & Greeting filenames are stored by their mailbox number, but "in reverse number order".

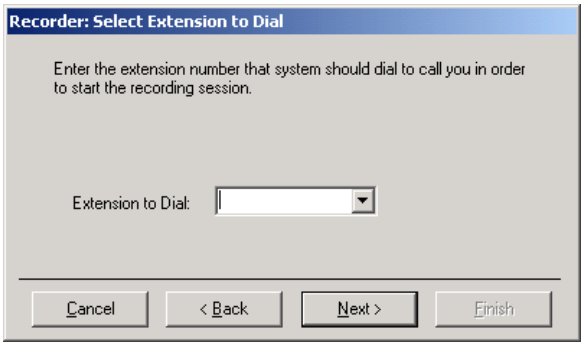
   For example … the greeting for mailbox 109 would appear as: *c:\PathFinder\Menus\9\0 mb109.grt*



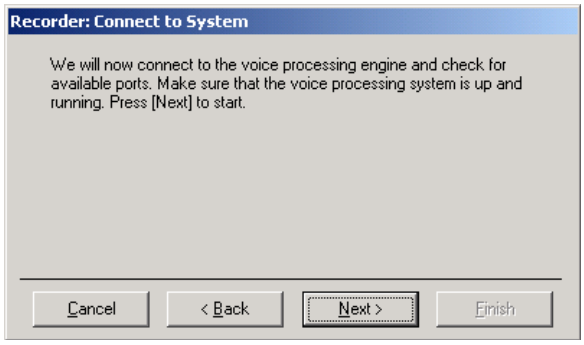
3. Once you have selected the file to be modified, type the number in the "Extension to Dial" field where you can be reached by the PathFinder system.

   Click **Next** to start the recording process.

   PathFinder will check for active ports, and verify the information you entered.



4. When the *Connect to System* window displays, click **Next**.



A *Recording Session* window will open to allow you to play and record the necessary voice prompts.

Remember … the Server PC must have a sound card, microphone and speakers to use this recording feature.

Backup / Restore System

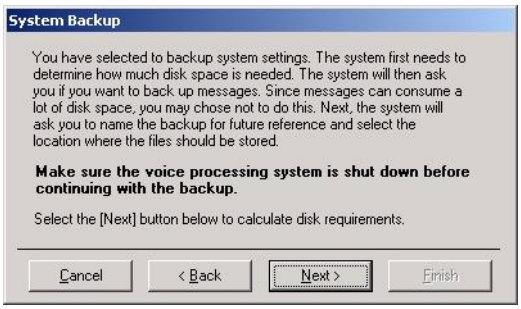
When you select either Backup or Restore from the MAINT/File Menu, an external application called BackRest.exe will start (*BackRest=BACKup + RESTore*).

BackRest is a wizard-based application that will guide you through the process of backing up and restoring your system data. These backup files are simply copies of the current system files that are stored for future use as needed. This feature will also allow you to restore individual files manually.

Using the MAINT Menu

When running System Backup from the Maint-NT application, make sure to shut down the voice processing system before you begin.

Backing Up the System



1. From the MAINT / File menu, select System Backup.
2. Click **Next** to allow the program to determine the size of the backup files.
3. Based on the disk space required, select one of the Data File backup options: "with or without messages" then click **Next**.
4. Click **Browse** to choose another destination folder where the backup files should be stored, or **Next** to select the PathFinder/Backups directory provided.
5. Enter a unique name for the Backup File, (ex: BackupSet_Full_2003_May_23) then click **Next**.
6. When the *Start Backup* window displays, verify the data you entered and click **Next** to start the backup process.
7. If no errors were found, the *Backup Complete* window will display. Click **Finish** to exit the program.

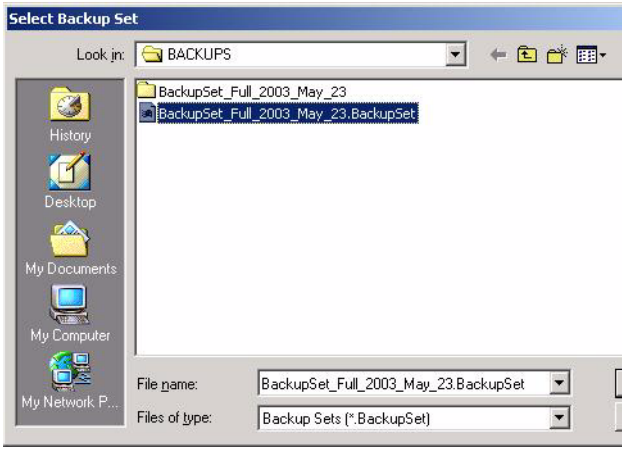
Restoring the System

The System Restore process will function in a similar fashion. Select one of the following restore options:

» **Restore from a Backup Set** -- a backup file must be present for this feature to operate as shown in the *Select Backup Set* window.

» **Restore from Default Settings** -- the system will return to the same default state as when it was first installed.

You will have the opportunity to confirm or cancel your selection.



Backup File Location

You can also start the Backup & Restore program from the Server machine's PathFinder directory by double-clicking the "BackRest.exe" file.

When using this method, select the type of operation you wish to perform (Backup or Restore) and click **Next**. The program wizard will guide you through the Backup/Restore process.

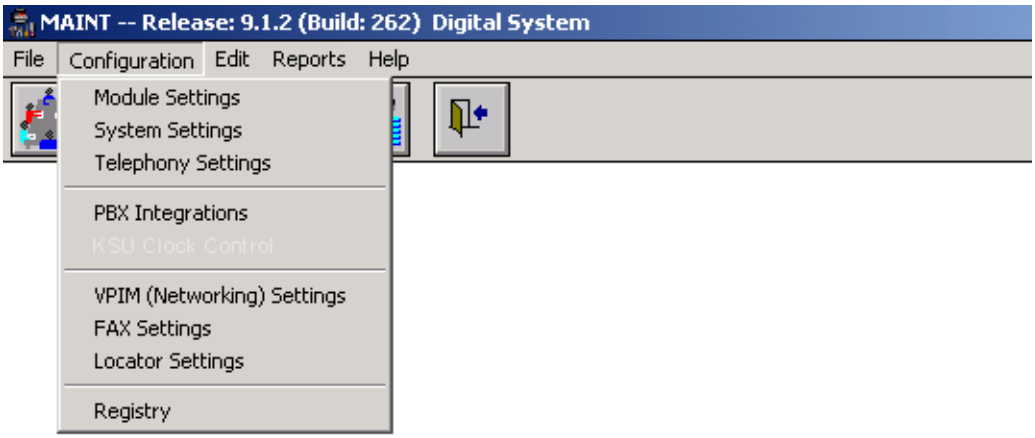
Scan / Clean Databases

To help with routine PathFinder maintenance, use the Scan Database and Clean Database options in the MAINT / File menu.

Both operations will run automatically when selected. Once completed, PathFinder will create a system log that shows the results, or display a "No Errors" system message.

PathFinder Configuration Options

The MAINT *Configuration* menu contains the parameters that will allow you to customize PathFinder to operate with your telephone system.



Module Settings

The *Configuration* menu provides access to module settings configuration, a group of functions used to control how PathFinder modules interact with the user.

To access the module configuration options, select **Module Settings** from the *Configuration* menu. The following buttons display near the top of the window:

Figure 3-3: Module Settings Toolbar

Click on any of the buttons on this *Module Settings* toolbar to access the corresponding configuration options.

Digit Lengths

The "Digit Lengths" settings determine the number of digits used in mailboxes, extensions, and passwords. PathFinder uses this information to determine how many digits to expect when asking a caller for a mailbox, extension number, or password.

This is usually loaded when you choose a PBX integration.

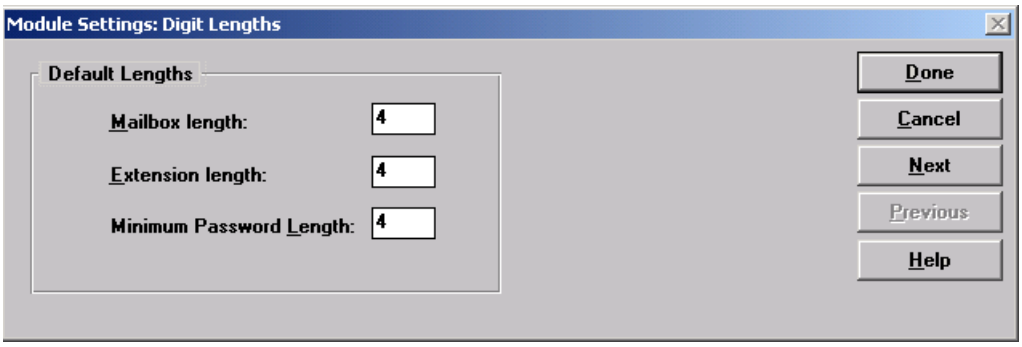


Figure 3-4: Module Settings: Digit Lengths Window

Mailbox Length	Mailbox Numbers (maximum 7 digits). This is usually set the same as the extension length.
Extension Length	Telephone Extension Numbers (maximum 7 digits).
Minimum Password Length	Password Digits (maximum 9 characters).

EXAMPLES -- Digit length for mailboxes, extensions, and passwords:

2 *digits -- from* 10 *to* 99
3 *digits -- from* 100 *to* 999
4 *digits -- from* 1000 *to* 9999
6 *digits -- from* 100000 *to* 999999

The PathFinder *may act erratically if you intermix mailboxes or extensions with different digit lengths. For example … you should not set up 100 and 3000.*

CONDITIONS -- IF the external number is the "same number of digits" as the internal extension numbers (i.e., 4-digits), PathFinder *will have a conflict and not be able to perform external notification.*

Operators

The Operators settings are used to specify the dialing sequence needed to transfer a call to the operator.

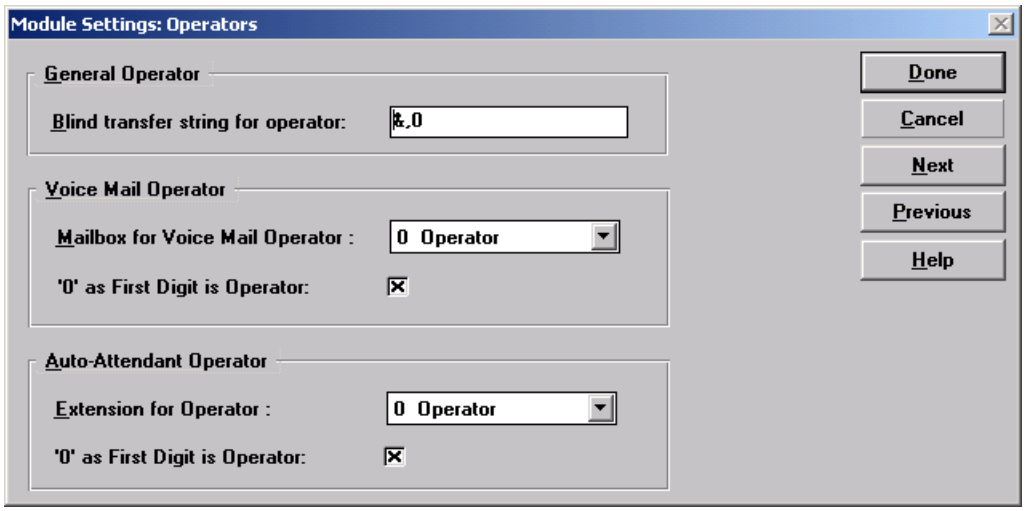


Figure 3-5: Module Settings: Operator Settings Window

There are 4 different operators used in the PathFinder. The operators are called when a caller dials 0 at different times during PathFinder operation. All operator settings are defined in the Registry, and described as follows:

General Operator	The General Operator is the global default operator for all operator functions. This is the dial sequence sent to the phone system to reach the operator (0). In most situations, this is the sequence dialed when the caller dials 0. You need to specify the entire blind transfer string, including flash-hook. Change the General Operator parameter only if necessary for your phone system. Although your implementation may differ, the normal string would be: "&, 0" (Hookflash, Pause, 0) *NOTE* -- Refer to *"Special Characters & Strings" on page 3-6* for information other special characters supported in MAINT.
Voice Mail Operator	The settings in the voice mail operator pane determine what happens when a caller presses 0 while using voice mail. If an operator is designated, a time-out or 0 key pad entry transfers the caller to the designated operator. The operator can then provide caller assistance. ☐ The **0 as First Digit is Operator** parameter is allowed here because some phone systems use 0 as the first digit for extensions. ☐ If **None** is indicated in the *Voice Mail Operator* field, PathFinder uses the **General Operator** setting for any 0 dialed *NOTE -- Most phone systems do not allow extension numbers to start with 0. Typically, the digit 0 should only be used for operator assistance.*

Auto-Attendant Operator	The Auto-Attendant Operator determines what actions are taken when a caller presses 0 while in the auto-attendant module. If an operator is designated, a time-out or 0 keypad entry transfers the caller to the designated operator. ☐ If **None** is indicated in the *Voice Mail Operator* field, PathFinder uses the **General Operator** setting for any 0 dialed. ☐ As with the Voice Mail Operator, the **0 as First Digit is Operator** parameter is allowed here because some phone systems use 0 as the first digit for extensions.
Personal Mailbox Operator	The Personal Mailbox Operator functions are defined in the **Mailbox Settings** options for each user/subscriber. To configure Personal Mailbox Operator options: ☐ Click on **Mailbox Settings**, then edit the *Operator* field. Refer to *"Mailbox Settings" on page 3-48* for more information.

Record/Playback

The Record/Playback settings are used to access PathFinder's recording and playback parameters.

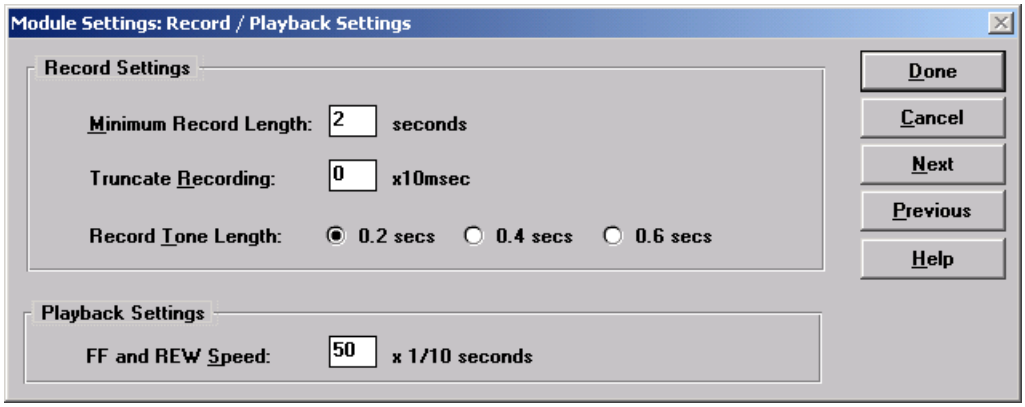


Figure 3-6: Module Settings: Record/Playback Settings Window

Minimum Record Length	This field determines the shortest allowable length of a recorded message. A value of 2 seconds is recommended as the minimum message length. The range for this field is 1 to 999. If minimum message length is set too short, you may receive a disconnect tone.
Truncate Recording	This parameter determines how much time PathFinder trims from the end of a mailbox message whose recording was terminated by a silence or tone detection. PathFinder automatically removes trailing tone and silence at the end of a message, so it is recommended to leave this value at 0 seconds. Increase this value if the end of your messages contain dial-tone noise or excessive silence. *NOTE* -- This setting is only used if PathFinder relies on silence or non-silence for hang-up detection, and is not used for phone systems that employ loop current hang-up.

Record Tone Length	This setting determines the duration of the beep tone that PathFinder gives callers before recording a message.
FF and REW Speed	The information in the *FF and REW Speed* field sets the time intervals that are skipped in a message when the designated REW (6+7) or FF (6+8) keys on the telephone key pad are pressed. The recommended interval is 50 to 100 tenths of a second. The range for this field is 0 to 999 tenths of a second.

Voice Mail

Voice Mail settings are used to configure the voice mail module.

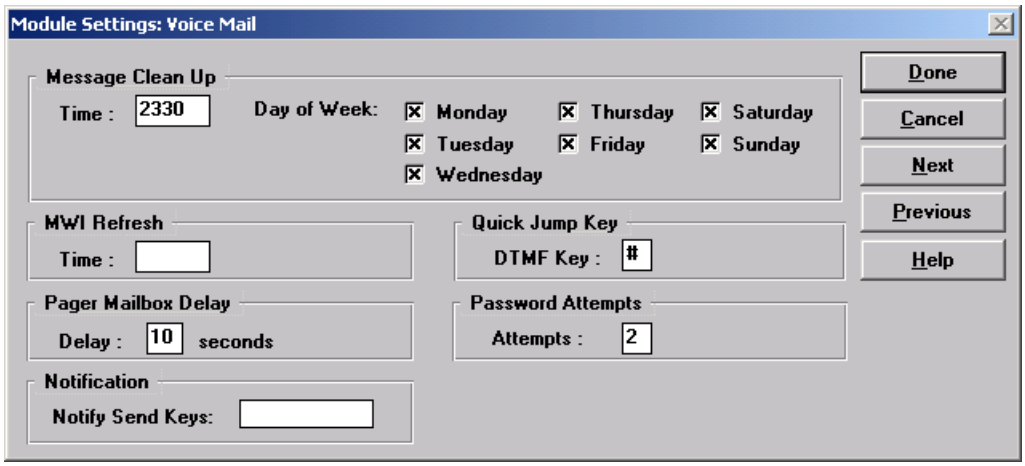


Figure 3-7: Module Settings: Voice Mail Settings Window

Message Clean Up	Specify when PathFinder is to delete messages that have exceeded the retention period. (Refer to *"Message Retention" on page 3-59*). PathFinder performs this housekeeping function at the time specified in this window for each day of the week selected. Message cleanup can be set for a specific day of the week or for every day, and should occur when the phone system is inactive, such as between midnight and 3:00 a.m.
MWI Refresh	The MWI Refresh setting should be set for a time to ensure all message waiting indicator lights are correct.
Quick Jump Key	Specify the touch-tone key a caller can press to bypass leaving a message once a mailbox greeting has begun. When a caller presses the defined key, PathFinder jumps to a menu of alternate options (e.g., "Press 1 to try another mailbox").
Pager Mailbox Delay	Specify the amount of time PathFinder delays when dialing a pager number for notification. This value defines the delay after dialing the pager number and before dialing the mailbox number. If using a command file for notification, this value is not used. ☐ Refer to *Appendix A, Command Files* for more information. ☐ Refer to *"Notification Settings" on page 3-64* for more information on pager notification.

Password Attempts	Enter the number of times a caller is allowed to try entering a valid password. After this number is exceeded, the PathFinder can be programmed to take a programmable option. PathFinder keeps track of such attempts in its logs, which can help determine if an unauthorized user is attempting to gain access to PathFinder.
Notification	PathFinder can accidentally become connected to itself and create a repeating loop. For example, assume that PathFinder is attempting to notify an extension owner of new messages: When it dials the extension, that extension is busy; therefore, ☐ PathFinder is forwarded to the extension's mailbox (in other words, PathFinder calls itself). ☐ PathFinder leaves a message in the extension's mailbox. ☐ As a result, PathFinder attempts to once again notify the mailbox owner of the new notification message in his or her mailbox, creating a repeating loop. An example of how this could happen … The Notify Send Keys are a series of DTMF key signals that PathFinder sends with the message notification that cancel the incoming channel and end the loop. Since the keys are sent for all voice notifications, some users may find this a nuisance, and the recommended setting is blank.

Auto-Attendant

The Auto-Attendant settings provide access to caller-related Call Queue Interval and Directory configurations.

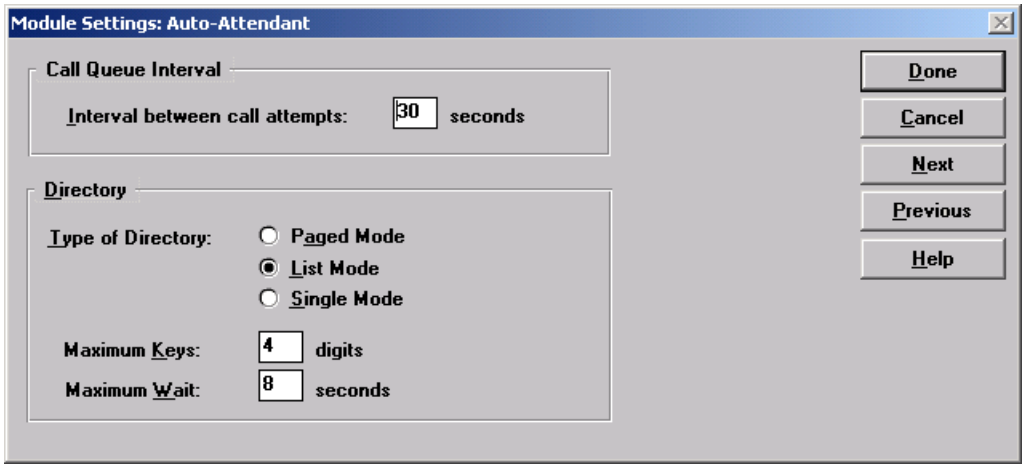


Figure 3-8: Module Settings: Auto-Attendant Window

Call Queue Interval

The Call Queue Interval specifies the amount of time before PathFinder retries an extension when a caller is in queue. A 10 to 20 second interval is recommended. The range for this field is 1-999.

- Call Queue Interval is dependent on the extension's class of service.
- Call Queue Interval is disabled unless it is manually enabled in the Class of Service configuration.
- To activate the Call Queue Interval:

  Change the setting to "Enable" in the COS.

  Enable "System Visible Transfer" (default = disabled).

Directory

The Directory (also called the System Directory) is a list of users in PathFinder. Directory functions describe how the company directory should be played back to a caller that requests the directory.

PAGED Mode -- Gives the caller several matching entries, then a caller must press a key to go to the next page, or set, of entries.

- This is a hybrid between List and Single mode.
- PathFinder presents only eight matches at a time, and the caller presses a number one through eight to choose a match.
- The caller can press 9 to go to the next page, or set, of eight matches.

LIST Mode -- This default mode provides a caller with all matching entries in a complete list.

- Each matching name and extension (or mailbox) is played in order.
- At the end of the list, PathFinder prompts the caller to enter the selected extension number.
- If there are 100 matches, all 100 names and extensions are played.
- The caller can enter the desired extension or mailbox number at any time during the list playback.

  NOTE -- List mode can reveal the entire list of extensions and/or mailboxes.

SINGLE Mode -- Provides the caller with a list of all matching entries, one at a time.

- Callers must press a key to indicate whether they want to select the most recently read name or hear the next matching entry.
- Single mode presents only two options to the caller for each match.

NOTE -- To prevent Extension/Mailbox numbers from being presented to callers, change the "DirPlayExtension" registry setting to "0".

Maximum Keys

This is the maximum number of digits that the caller can enter before PathFinder begins to look up directory entries.

- The range for this field is 1 to 999.
- If fewer digits are entered, PathFinder will attempt to search for those entries.

  For example: if you enter "86" and wait, you will receive a list of names that begin with "VO".

Maximum Wait

This is the maximum amount of time that PathFinder waits for the Maximum Keys while a caller is entering numbers (to spell the user/subscriber's name on the keypad).

- By default, the maximum time is set to 8 seconds.
- The range is variable from 1 to 999.

Language

PathFinder provides optional language support modules for both English and Spanish.

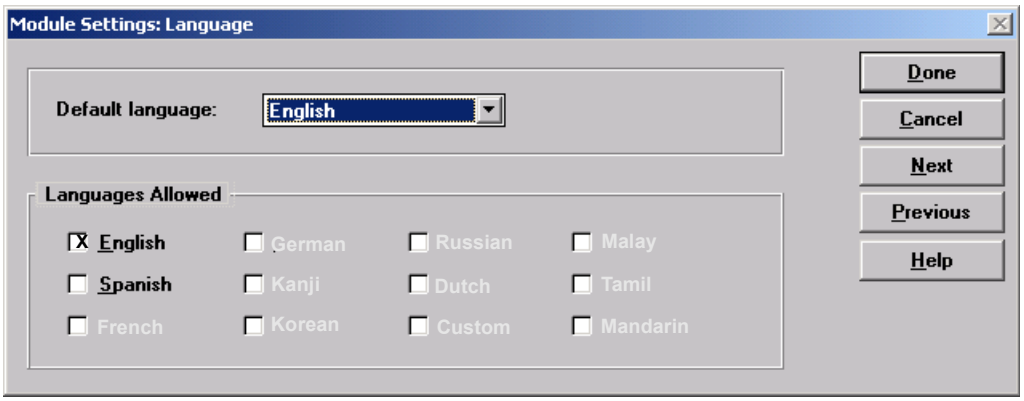


Figure 3-9: Module Settings: Language Window

Default Language	Use this menu to select the language that PathFinder uses as the default language.
Languages Allowed	To use this feature, the optional multilingual module and language prompts must be purchased separately.

Logging

PathFinder continuously generates detailed information on its operation.

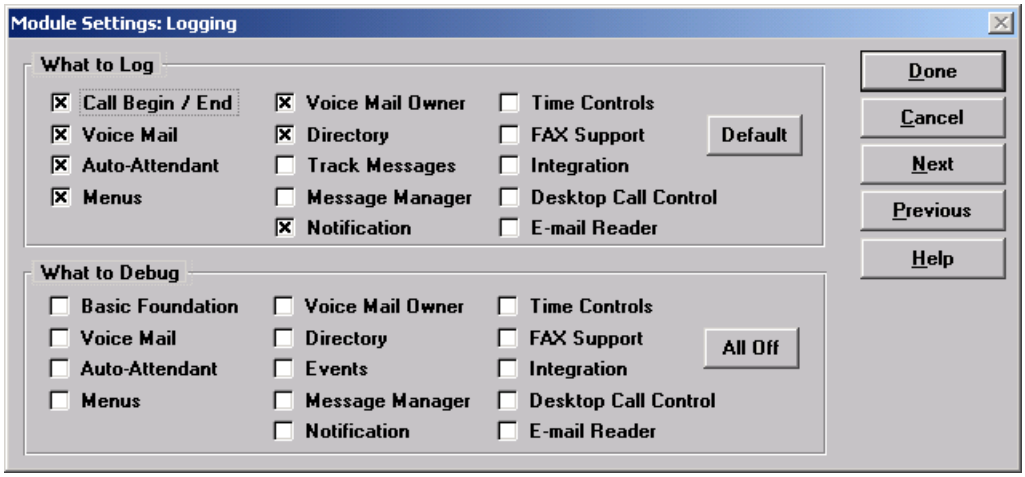


Figure 3-10: Module Settings: Logging Window

What To Log

The raw data is a chronological history of all events that occur in PathFinder and can be used to evaluate real-time performance. Raw data include time, date, line, module, and a description of each event. These raw data can be formatted into a variety of reports that help measure performance. Changing these selections may alter certain reports. Refer to *"Logs Reports" on page 4-23* for more information on these reports.

Log Files -- The Logging settings allow you to select which modules send information to the log files.

- The fewer modules selected, the less disk storage space needed and the faster PathFinder operates.
- The more modules selected, the greater the amount of information available to help diagnose problems and to generate reports.

Each day's activity log output to the disk is stored in a unique file in the log sub directory (\PATHFINDER\LOGS). The file name of each daily activity log has the following format: DL<YY><MM><DD>.LOG

EXAMPLE -- The log file for February 23, 2003 would be called `DL032302.LOG`

Call Begin/End*	The start and end of calls.
Voice Mail*	All voice mail activities, except owner activities.
Auto-Attendant*	All call transfer activities.
Menus*	All menu selections.
Voice Mail Owner*	Mailbox owner activities.
Directory	Accesses of the company directory.
Track Messages	Complete logging of message file names and when messages are deleted, created, saved, etc. Used to track complaints of lost messages, etc.
Message Manager	Turns on logging of message manager activities.
Notification*	PathFinder notification actions.
Time Controls*	Actions controlled by time control files.
Fax Support*	All fax support activities, if enabled.
Integration*	Tracks information received from the phone system (In Band Signal).
Desktop Call Control	All Desktop Call Control activities.
E-mail Reader	All E-mail Reader activities.
Default	The Default button activates the Log Option settings indicated with an asterisk (*).

What To Debug

The Logging settings also include debugging options. Module debugging is a sophisticated diagnostic tool used to resolve problems with PathFinder. DO NOT run PathFinder with Module Debugging on, as it can slow performance. Use debugging only as needed.

Once debugging has been activated, it generates large amounts of data that can potentially fill up the disk drive. Select specific module debugging options only at the request of Vodavi Technical Support.

Module debugging parameters include the following:

Basic Foundation	Tracks basic information from the system, including which modules are loaded into memory.
Voice Mail	Tracks all voice mail activities, including length of message and hang-up type.
Auto-Attendant	Logs information regarding transfers, including call results.
Menus	Detects what menu prompt is played and what keys each caller presses.
Voice Mail Owner	Tracks mailbox owner activities, including what messages are played, saved and deleted.
Directory	Oversees directory activities, including what keys are pressed when a caller accesses the directory.
Events	Tracks events, including pager and message waiting indicator notification.
Message Manager	Tracks events as the message manager processes them.
Notification	Tracks notification of messages, including notification strings and retries.
Time Controls	Provides detailed information regarding time control processing.
Fax Support	Monitors the fax support module.
Integration	Tracks information packets received from the telephone system regarding transfers.
Desktop Call Control	Monitors the Desktop Call Control module.
E-mail Reader	Monitors the E-mail Reader module.
All Off	Clicking this button deactivates all debugging options.

Retries/Timeouts

The Retries/Timeouts settings determine how PathFinder handles erroneous input from callers.

Some modules use these settings, but basic PathFinder *does not. Menus have their own retries and time-out settings that take precedence when they are active.*

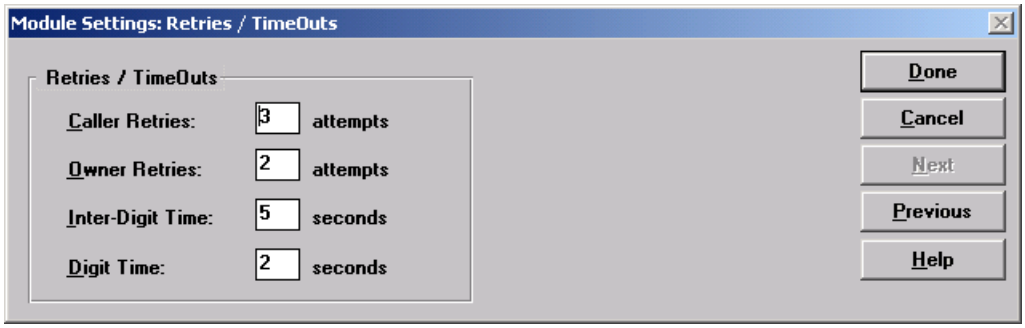


Figure 3-11: Module Settings: Retries / TimeOuts Window

Caller Retries	Number of times a caller can retry entering an option. The range for this field is 1 to 999. If numbers are exceeded, the caller will be prompted to enter a new mailbox number.
Owner Retries	Number of times a mailbox owner is permitted to retry entering an option. The range for this field is 1 to 999. If numbers are exceeded, the caller will be prompted to enter a new mailbox number.
Inter-Digit Time	Length of time between digits. Used in cases where the length of the entry is unknown. PathFinder assumes the caller is finished entering digits if this length of time passes after the most recent digit is entered. The range for this field is 1 to 999.
Digit Time	Digit Time is the length of time that a caller can press a digit before PathFinder assumes that the digit is being repeated. The range for this field is 1 to 999. *Example* … By default, Digit Time is set to 2 seconds. ☐ If a caller presses and holds the 7 key for less than 2 seconds, PathFinder will assume that the caller has entered 7. ☐ If a caller presses and holds the 7 key for more than 2 seconds, PathFinder will assume that the caller has entered 77. ☐ If a caller presses and hold the 7 key for more than 6 seconds, PathFinder assumes that the caller has entered 777.

System Settings

The PathFinder *Configuration* menu provides access to System Settings configuration, a group of functions used to maintain the PathFinder directory structure, identify communications and printer ports, and define the use of non-voice channels. To access the module configuration options:

- Select **System Settings** from the *Configuration* menu.
- Click on any of the buttons on this *System Settings* toolbar to access the corresponding configuration options.

Figure 3-12: System Settings Toolbar

Directories

The Directories function defines paths so that PathFinder can locate system files if they are placed in directories other than the defaults.

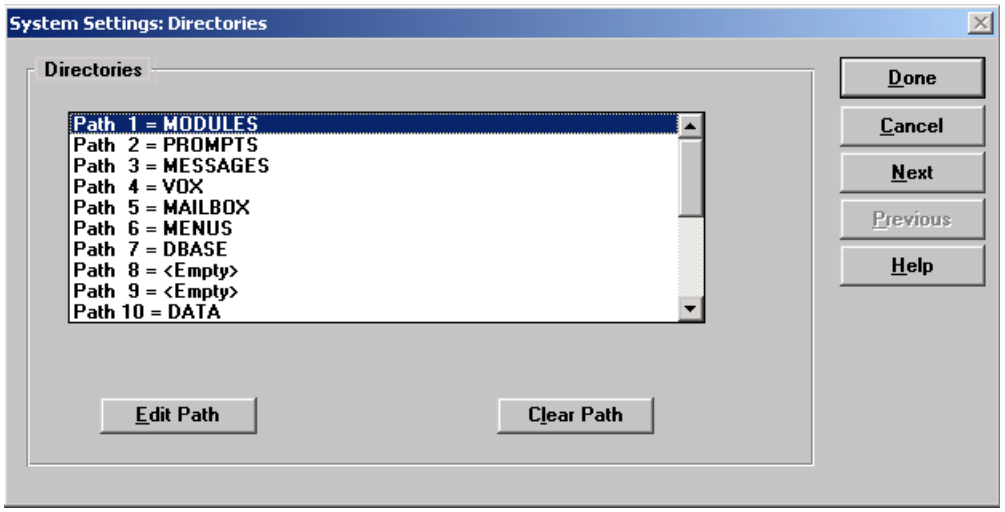


Figure 3-13: System Settings: Directories Window

DO NOT alter these subdirectories unless instructed to do so by Vodavi Technical Support.

Auxiliary Tasks

The Auxiliary Tasks function provides for definition of auxiliary channels. Auxiliary channels are used to pass non-voice data as in a telephone integration setting (Message Manager or SMDI integration controller).

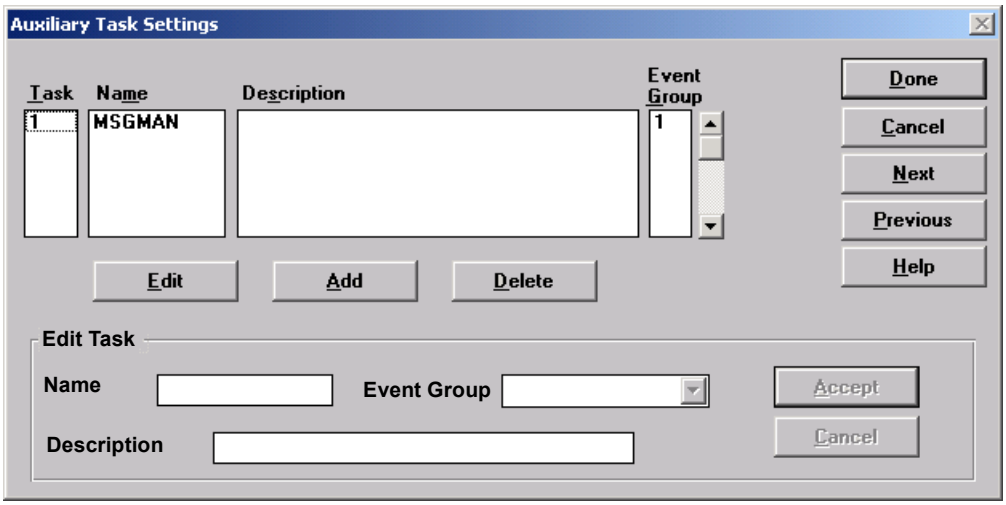


Figure 3-14: Auxiliary Task Settings Window

Making Changes

You can alter the Auxiliary Task settings by highlighting the task and selecting the appropriate action: Edit / Add / Delete.

When editing or adding a task (with a maximum of fifteen tasks), complete fields at the bottom of the window as follows:

Task	The system assigns the next available task number.
Name	Select or type the appropriate name.
Description	Enter a description for this auxiliary task, to identify it in the application and in reports.
Event Group	Select the group for which this line is to handle the action. Note that any event group you specify must have at least one line assigned to it in the Line Settings configuration (refer to *"Line Settings" on page 3-84*). ☐ If Task is **Message Manager**, *Event Group* must be **1**. ☐ If Task is other than **Message Manager**, define *Event Group* as **6** or higher.

LPT / COM Ports

The LPT/COM Ports window is used to identify which printer port and which COM port are used by the system.

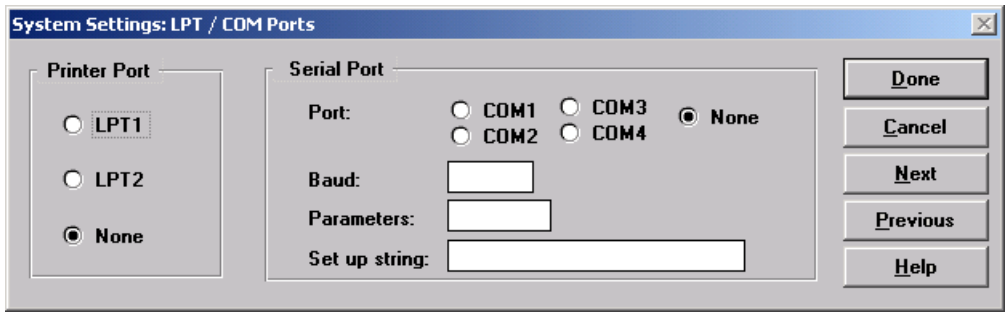


Figure 3-15: Module Settings: LPT/COM Port Settings Window

Printer Port	Select the proper printer port - LPT1, LPT2, or None. Use LPT1 if a printer is connected to your system, the Software Key can be on the same port.
Serial Port	Select the proper COM port - COM1, COM2, COM3, or None.

Time Periods

The Time Period settings provide definitions of the time periods for PathFinder.

Voice Mail, Auto-Attendant, & Menu Time Periods

Time Periods are not used in the voice mail, Auto-Attendant or menu modules. To control how the voice mail, Auto-Attendant, and menus process a call, use the *"Time Control Settings" on page 3-79* to override these parameters.

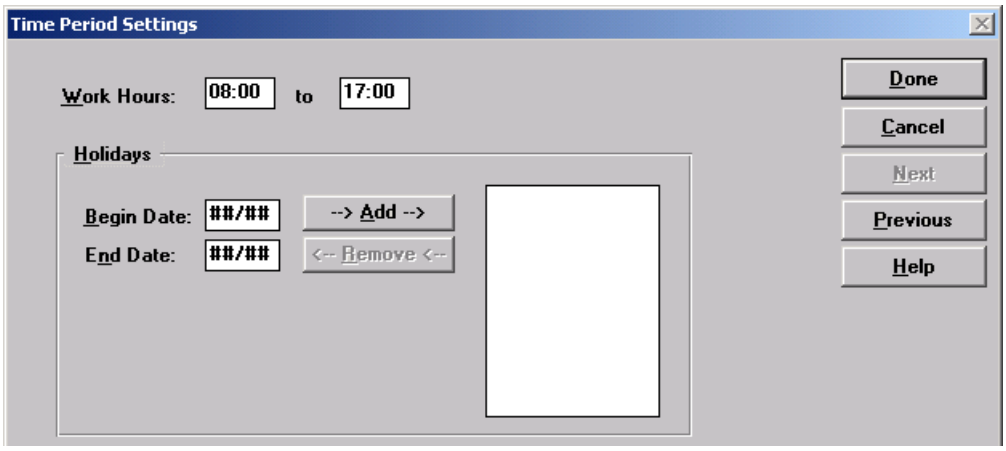


Figure 3-16: Module Settings: Time Period Settings Window

Work Hours	Defines the start and end of a business day. Enter hour and minutes using a 24-hour clock. *Example* … 1:30 p.m. is entered as `13:30`.
Holidays	Define start and end dates for holidays. You can add and remove dates from this list. You can define a maximum of 20 holidays.

Telephony Settings

The PathFinder Configuration menu offers access to Telephony Settings configuration, a group of functions used to control general telephony operation of PathFinder. Telephony Configuration options are displayed in the buttons near the top of the screen when you select **Telephony Settings** from the *Configuration* menu.

Figure 3-17: Telephony Settings Toolbar

Click on any of the buttons on this *Telephony Settings* toolbar to access the corresponding configuration options.

Refer to "Special Characters & Strings" on page 3-6 for a listing of special characters that are supported by PathFinder.

Voice Lines

The Voice Lines function displays the number of voice lines for which your PathFinder installation is configured.

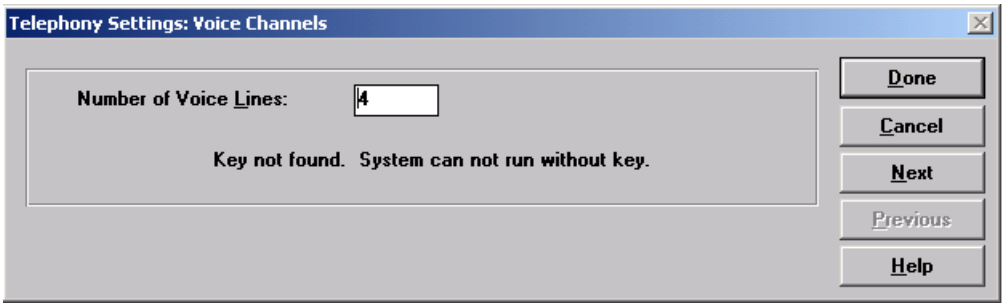


Figure 3-18: Telephony Settings: Voice Channels Window

The number of voice lines that are displayed is the number of active voice lines on your PathFinder. The text below the *Number of Voice Lines* field ("The key is licensed for X ports") indicates how many ports the software key allows.

MWI/Notification

The MWI / Notification function provides for control over message waiting indicator and message notification functions.

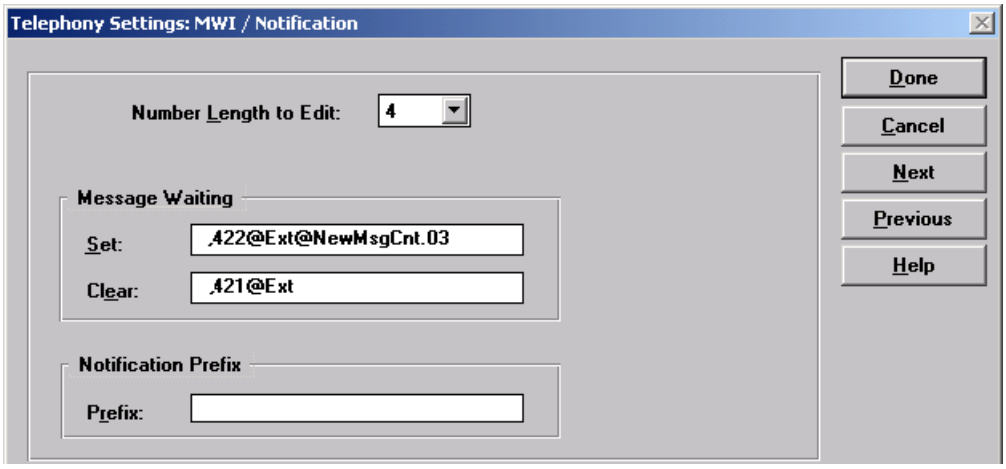


Figure 3-19: Telephony Settings: MWI/Notification Window

Number Length to Edit	Use the dropdown menu to select the length of digits the PathFinder will dial for notification.
Message Waiting	The *Message Waiting Set* and *Clear* settings define how PathFinder notifies a station of a waiting message. These numbers are defined by the PBX or Key System. *NOTES* -- MWI sequences can be controlled by COS. Refer to *"MWI Strings" on page 3-65* for more information. If your phone system does not support message waiting indicators, leave these fields blank.
Set	Enter the dialing sequence necessary to activate a message waiting indication. ☐ Message waiting indication must be accessible by dialing a sequence of numbers from a single line telephone for PathFinder to make use of this capability. ☐ Use the command `@Ext` to specify where the extension should be located. *For example* … with the Vodavi telephone system you would use 422 or 422 to set the lamp on extension 345. Note that `@Ext` is case-sensitive. ☐ If the phone system supports message count (as opposed to just a message waiting light), use the command `@NewMsgCnt` to send the number of messages followed by the length of the digits dialed (.03 or .04).
Clear	Enter the sequence that turns off the message waiting light. ☐ Use the command `@Ext` to specify where the extension should be located. *For example* … use [,420 `@Ext`] to clear the lamp on extension 345. Note that `@Ext` is case-sensitive. ☐ If the phone system supports message count (as opposed to just a message waiting light), use command , `422@Ext@000` to clear the MWI.

Notification Prefix	Type the command string required by the telephone system prior to dialing a notification number. ☐ Refer to *"Mailbox Settings" on page 3-48* for more information on configuring notification in the Users Settings. ☐ Refer to *Appendix A, Command Files* for more information. This setting is used in a command file when using the DialPrefixforWhereField; otherwise, it is not called when a command file is being used for notification. Refer to *"Notification Settings" on page 3-64* for more information. It is recommended that the access code is placed here, but do not put the long distance "1" because the PathFinder could inadvertently dial "911".

Hang Up Detection

Hang-up Detection allows PathFinder to detect when callers hang-up during a call. Unless properly set, PathFinder is unable to detect a hang-up condition.

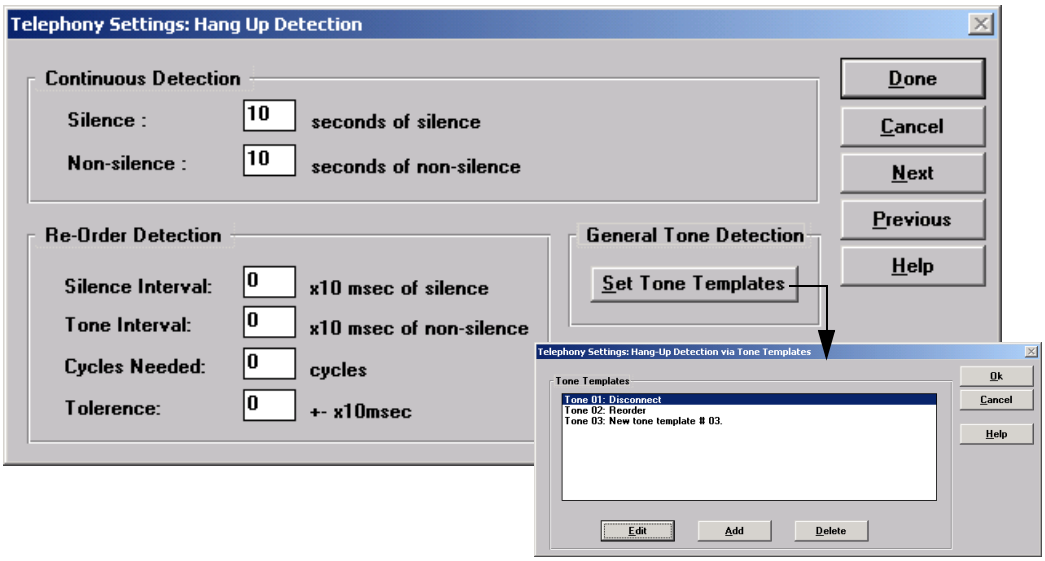


Figure 3-20: Telephony Settings: Hang-Up Detection Window

Types of Disconnect Tones

Loop Current Supervision	Loop Current disconnects are always activated by default. If available on your telephone system, activate Loop Current Supervision. When a drop in loop current is detected on a line, PathFinder will disconnect. This is the preferred method for detecting hang-ups and is the most reliable.
Tone or Silence Disconnect	Some telephone systems provide a continuous tone or silence to tell the voice processing system the call should be disconnected. These are not as reliable as Loop Current disconnects and may cause a line to remain connected longer than necessary or result in false hang-ups and callers being disconnected.

Re-Order Tone	Still other telephone systems send Re-Order tone to the voice processing system for disconnect. This is a reliable method but require some configuration in the PathFinder voice processing system.
General Tone Detection	Some telephone systems send a tone that is not continuous and is not a Re-Order Tone. In this instance, you would use General Tone Hang-ups. This General Tone can be learned via PBXpert and will generate disconnects as reliably as Re-Order disconnect.

Determining Tone Type

To determine what type of disconnect your telephone system provides, consult your telephone system manual. If the manual does not provide this information, follow these steps to determine your hang-up type:

1. Have someone call an extension.
2. Answer the extension.
3. Have the caller hang-up.
4. Listen to the system.

If you hear …	*Then your telephone system …*
silence	provides Silence Hang-Ups.
a continuous tone	provides Tone Hang-Ups.
re-order tone	may provide Loop Current supervision -or- Re-Order Tone detection.

You must know the type of hang-up detection your phone system supports before you alter any hang-up detection parameters.
Refer to your phone system documentation if necessary.

Hang-Up Detection Settings

Loop Current Drop	Adding or editing the Registry parameter "`minlcoff`" will enable this option if your telephone system provides "Loop Current" Supervision. PathFinder will automatically recognize a drop in loop current as disconnect with no configuration. The "`minlcoff`" parameter can be adjusted for PathFinder to reliably detect loop current disconnects.
Tone Interval	Specify a number between zero and ninety-nine that represents the detection interval. This interval defines the length of time, in seconds, for the tone that sounds before PathFinder disconnects or hangs up a call. *For example* … Entering `5` for the *Non-silence* interval instructs PathFinder to listen for a steady tone that is five seconds long and, upon detection, to treat the call as a disconnect. ☐ If the interval is set too short, any pause could be interpreted as a tone, signaling a false hang-up. ☐ If the interval is too long, PathFinder can be tied up longer than necessary. The recommended interval for both silence and non-silence intervals is five to seven seconds.
Silence Interval	Specify a number between 0-99 that represents the detection interval. The silence interval defines the length of time, in seconds, for the silence that elapses before PathFinder disconnects or hangs up a call. *For example …* entering `5` for the *Silence* interval instructs PathFinder to listen for a silence that is five seconds long and upon detection to treat the call as a disconnect. ☐ If the interval is set too short, any long noise (such as cellular phone static) could be interpreted as a tone, signaling a false hang-up. ☐ If the interval is too long, PathFinder can be tied up longer than necessary. *NOTE* -- The recommended interval for both silence and non-silence intervals is five to seven seconds.
Re-Order Tone	Use this option if there is a cadence of silence and non-silence after a disconnect. Your telephone system documentation should provide the exact cadence of silence and non-silence (tone). If not, use PBXpert (refer to *Appendix C, Building a PathFinder*) to learn the Re-Order tone. *NOTE* -- To use this function, you must refer to your phone system documentation regarding tone frequency for hang-up.

General Tone Detection — Some telephone systems send a tone that is not continuous and is not a Re-Order Tone. In this instance, you would use General Tone Hang-ups which can be learned via *PBXpert,* and will generate disconnects as reliably as Re-Order disconnect.

» » » "General Tone Detection" is not usually needed for Vodavi phones systems.

Click on **Set Tone Templates** to perform any the following tasks:

- Delete a tone template: Highlight the template and click on **Delete**. No further action is necessary.
- Modify a tone template: Highlight the desired tone template, then click on **Edit**.
- Add a new tone template: Click on **Add**.

Add or Edit Tone Template

If you select to edit or add a template, the following window is displayed:

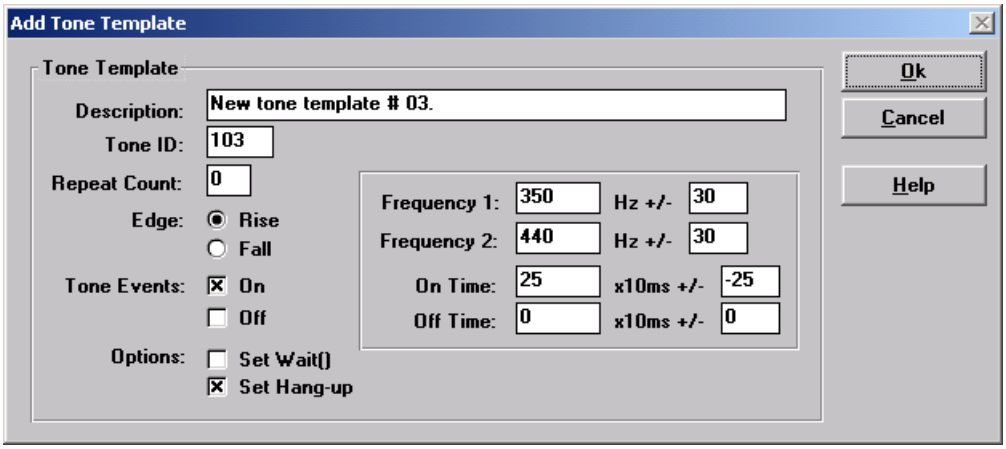


Figure 3-21: Telephony Settings: Voice Channels Window

To determine the Tone Template settings, use *PBXpert* to learn the disconnect tone.

For each tone template you edit or add, complete the fields in this window as follows:

Description — Type a description that can help you remember this tone template's purpose.

Tone ID — Enter a number from 101 to 120, following the previous tone template in numeric sequence.

Repeat Count — Should be set to 0 for continuous tones. For cadences, it should be the number of times that the pattern should cycle on/off.

Edge — Select **Rise** if this is a leading-edge tone; select **Fall** if this is a trailing edge tone. Typically, this value will be set to **Rise**.

Frequency 1 — Specify the first frequency of the tone (always included) in Hz.

Hz+/- — Specify the maximum deviation from the first frequency, in Hz.

Frequency 2	Specify (in Hz) the second frequency if the tone is a dual tone; if the tone is a single tone, set this field to `0`.
Hz+/-	Specify the maximum deviation from the second frequency, in Hz. *NOTE* -- Single tones have zero values for Frequency 2; dual tones have non-zero values.
On Time	For cadences, enter the length of time (in 10ms units) tone is **on**. For continuous tones, enter 1/2 of debounce time (in 10ms units).
x 10 ms + / - for On Time	For cadences, enter the plus-or-minus deviation (in 10ms units) for on time. For continuous tones, enter 1/2 of debounce time (in 10ms units).
Off Time	For cadences, enter the length of time (in 10ms units) tone is **off**. For continuous tones, enter `0`.
x 10 ms + / - for Off Time	For cadences, enter the plus-or-minus deviation (in 10ms units) for off time. For continuous tones, enter `0`. *NOTES*: ☐ Continuous Tones have zero values for On Time and Off Time deviations. ☐ To debounce leading edge continuous tones to prevent talk-off -- Set the On Time to 1/2 of the desired debounce time (in 10ms units) and the On Time deviation to -1/2 of the desired debounce time (in 10ms units). ☐ Cadence Tones have non-zero values for On Time and Off Time deviations.
Tone Events	Check **On** to activate this tone template. Check **Off** if you need to disable this tone.
Options	Unless otherwise instructed by Vodavi Technical Support, ensure that the **Set Wait** check box is cleared and that the **Set Hang-Up** check box is selected. ☐ **Set Wait** determines whether a tone occurrence should generate events to wait function. ☐ **Set Hang-up** determines whether a tone occurrence should set hang-up (H7) and terminate Dialogic® operations.

Transfer Settings

Transfer Settings function provides control over call transfer activities.

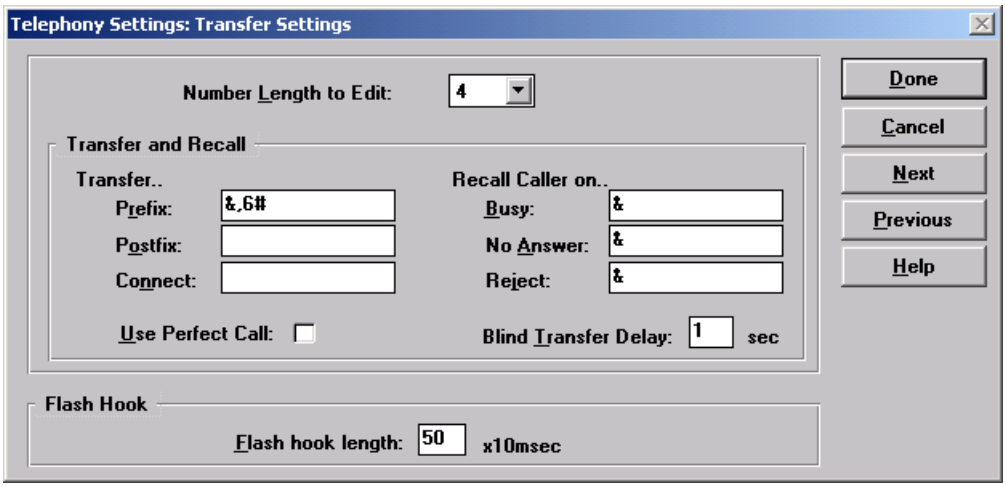


Figure 3-22: Telephony Settings: Transfer Settings Window

When addressing the following fields, refer to your phone system manual as needed for the appropriate codes.

Number Length to Edit	This setting shows the defined extension length you are editing. Use the drop-down menu to select the length of the extension setting that will be transferred. For example … if you want to transfer to a 7-digit telephone number, you must choose "7".
Transfer …	Transfer Prefix and Postfix settings can be controlled by the Class of Service. Refer to *"Transfer Strings" on page 3-69* for more information. A typical transfer prefix is [&]. The transfer prefix for: □ 3 and 4 digits = **&**, **6**, or **#** □ 7, 8, 10, and 11 digits = **9,**
Prefix	Enter the flash-hook and/or tone dialing sequence that starts a call transfer. On most phone systems this feature is completed with a flash-hook and pause. If this is the case, enter &, (the comma provides the pause) in this field. PathFinder will automatically dial the extension number after dialing the prefix.
Postfix	Enter the flash-hook and/or tone dialing sequence needed to end a call transfer (usually, this entry is not required).
Connect	Enter anything required to connect a transferred call. Most phone systems do not require anything for this feature.
Use Perfect Call	Selecting "Use Perfect Call" indicates that PathFinder should use the Perfect Call settings. Refer to *"Perfect Call" on page 3-37*.

Recall Caller On …	These settings are only used in Supervised Transfers. A typical transfer prefix is [&]. If you are not using Supervised Transfers, leave these settings as they are. Complete the *Recall Caller On* fields as follows:
Busy	Enter the value needed to abort a transfer to a busy number and reconnect the caller to PathFinder. The typical value for this field is [&] which is a flash hook. Sometimes a tone dialing sequence is needed in addition; for example: [&,*1].
No Answer	Enter the value needed to abort a transfer to an unanswered number and reconnect the called party. On most phone systems, this value is the same as for Recall a Caller on Busy.
Reject	This feature allows PathFinder to retrieve a call if the extension to which the call was transferred rejects it. This feature is used during Auto-Attendant call screening. It can be viewed as "Abort a Connected Transfer." Typically, the dialing sequence is the same as for "*Recall Caller on Busy"* field.
Blind Transfer Delay	Enter the number of seconds the system should pause after dialing the transfer sequence and extension number, but before going on hook. The maximum value for this field is 999. By default, *Blind Transfer Delay* is set to zero (0) and should not be changed.
Flash Hook	The default length of 1/2 second is appropriate for most phone systems.
Flash-Hook Length	If DTMF tones are audible when attempting a transfer, this setting needs to be increased. If the phone system hangs up when attempting a transfer, this setting needs to be shorter.

Rings

The Rings function determines how PathFinder processes ring detection on incoming calls.

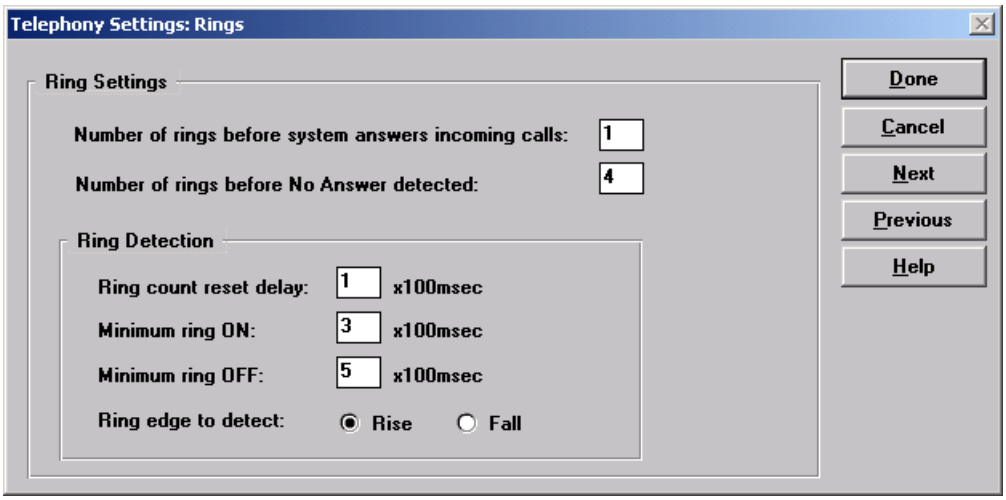


Figure 3-23: Telephony Settings: Rings Window

Ring Settings

Number of Rings Before System Answers	This parameter determines the number of times PathFinder rings before answering an incoming call. One ring is a typical setting.
Number of Rings Before No Answer Detected	This parameter is used during supervised transfers to determine how many rings must elapse before PathFinder terminates the activity. If the line is not connected after the number of rings specified, the action is aborted. Three rings is usually adequate.

Ring Detection

Ring Count Reset Delay	This setting is used in particular telephone system integrations and typically should not be modified.
Minimum Ring ON	This setting describes the ring cadence from the phone system when an incoming call is received.
Minimum Ring OFF	This setting describes the ring cadence from the phone system when the system is idle and there is no ring from the phone system.
Ring Edge to Detect	If parameter is set to ***Rise***, PathFinder detects inbound rings more quickly. Set this to ***Fall*** to slow it down if you occasionally get false rings.

Perfect Call

Perfect Call specifies the exact tones that make up the different telephony signals (dial tone, busy signal, ringing, do not disturb, etc.). Typically, these values are pre-programmed when you select your telephone system. If these values are not defined, you can use *PBXpert* to learn the tones. Refer to *Appendix C , " Building a PathFinder"*.

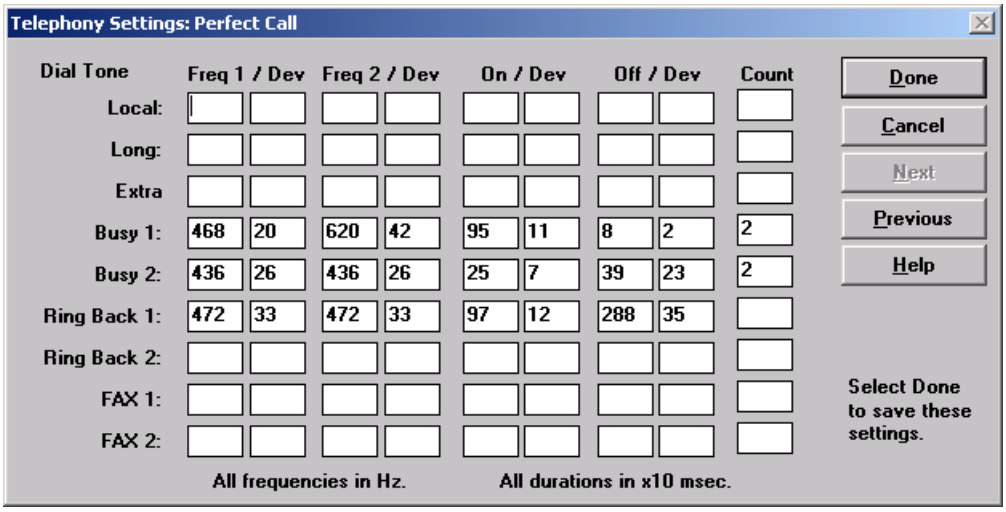


Figure 3-24: Telephony Settings: Perfect Call Window

PBX Integrations

When you start PathFinder for the first time and have gone through the *First Time Questions* window, you will be prompted to configure your PBX integration.

PBX Integration Select List

The *PBX Integration* selection window (located in the *Configuration* menu), allows you to select what phone system the voice mail system will be connected to. Select the phone system from the list that best matches your phone system. If you currently have settings loaded for a particular PBX, that phone system is displayed at the top.

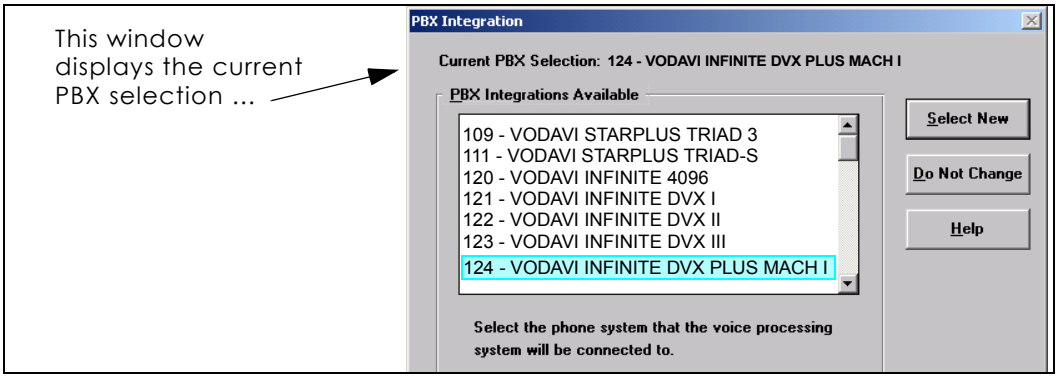


Figure 3-25: PBX Integration Window

PBX Install / Remove

After you have selected a PBX from the list, the following window, which allows you to select what options to install, is displayed.

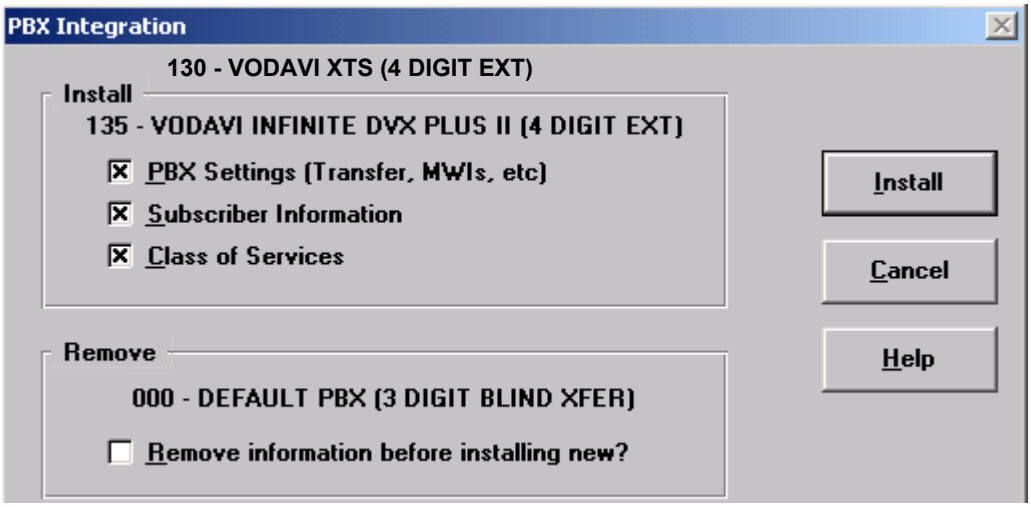


Figure 3-26: PBX Integration (next) Window

When changing your PBX Selection ...
» It is strongly recommended that you perform the install & remove process at the same time, as shown in the "PBX Integration" window (instead of separately).
» Some mailboxes may not get deleted. If desired, you will need to remove them manually.

VPIM (Networking) Settings

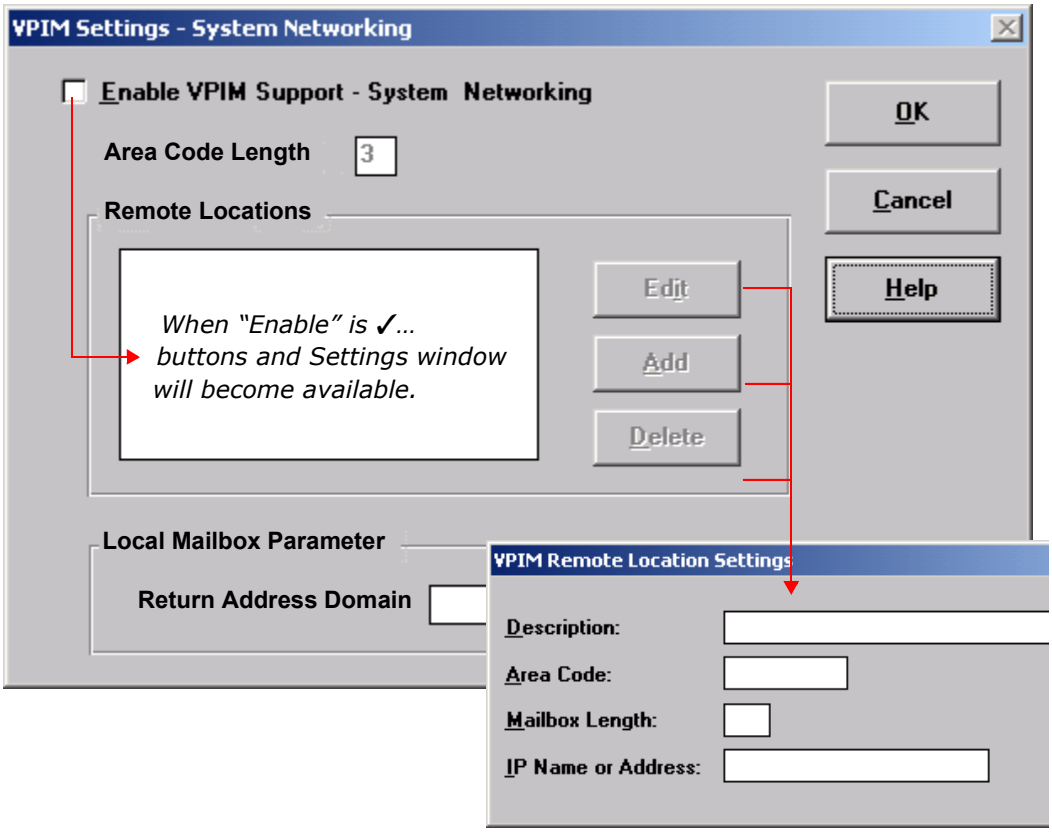
The VPIM Settings dialog controls the voice mail systems ability to send and receive messages to other systems via TCP/IP connections. Systems enabled for VPIM messaging can exchange voice and fax messages without incurring voice line charges. This is possible because the systems use the Internet to send and receive messages.

Remote Locations List

Once a remote system is added to the Remote Location's list, voice mail users can send messages to those systems by entering the "area code" followed by the mailbox number on the remote system.

Since the mailbox doesn't actually exist on the local system, the Class Of Service "VPIM_xxx" (xxx = area code) is used to determine the type and settings used to record the message.

Make sure you have created a COS named "VPIM_xxx" and that it's settings are correct for your needs.



Enable VPIM Messaging	This check box turns on VPIM messaging. Since the system will now accept longer mailboxes numbers, callers may notice a delay from the time entering the actual box number to the time the greeting is played. Only enable VPIM messaging if you are going to use it.
Area Code Length	This numeric value sets the length for the "area codes" for this system. Each system in a VPIM network can use different lengths for area codes. A typical value is 3. Settings from 1 to 9 are valid. *(This is not your local "area code" number.)*
Remote Locations	This list box holds all remote locations configured for this system. A remote location must be configured before message may be sent. The list does NOT control systems that can send messages to this local system. Use the Add, Edit, and Delete buttons to manage the locations. You may "Copy" a location by selecting the location and pressing Edit. Then change the area code and press OK. See VPIM Location Settings for more information.
Local Mailbox Parameter	When a VPIM message is sent from this system to a remote system, the remote system needs to know the address of this system so that replies can be sent.
Return Address Domain	Enter the IP name of this machine so that remote systems can connect to this system. Typically the name will be "pathfinder.ourdomain.com"

FAX Settings

Sets various configuration options for the Fax option. Displayed by selecting Fax Settings from the Configuration menu.

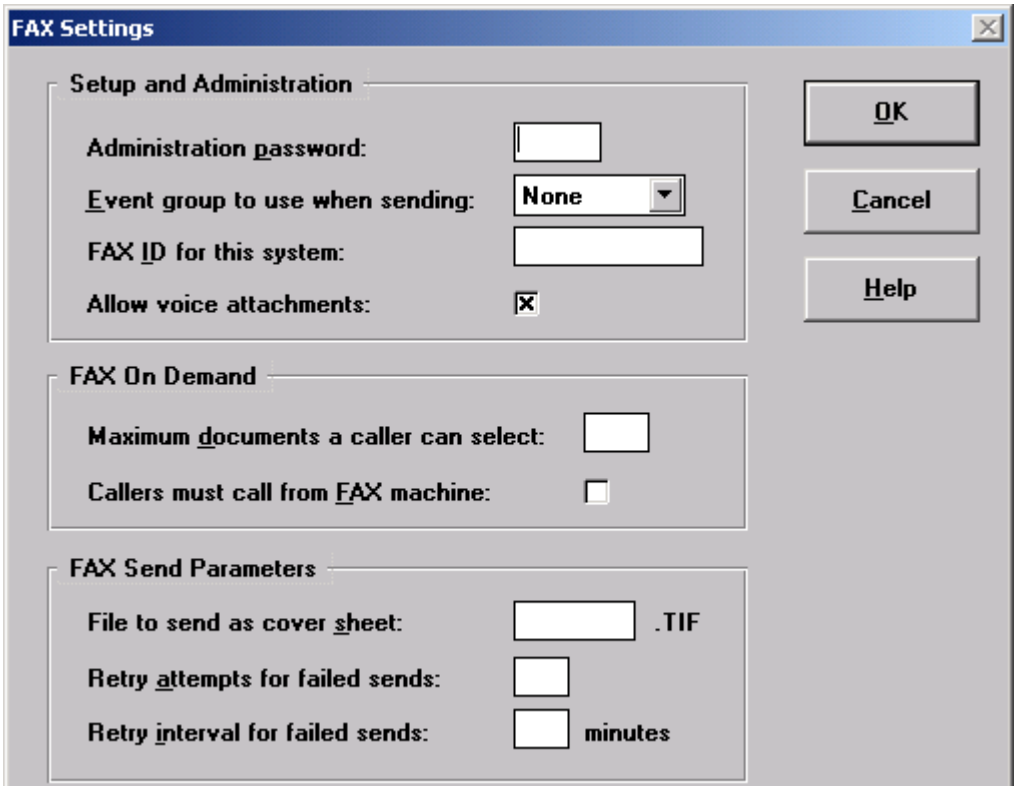


Figure 3-27: FAX Settings Window

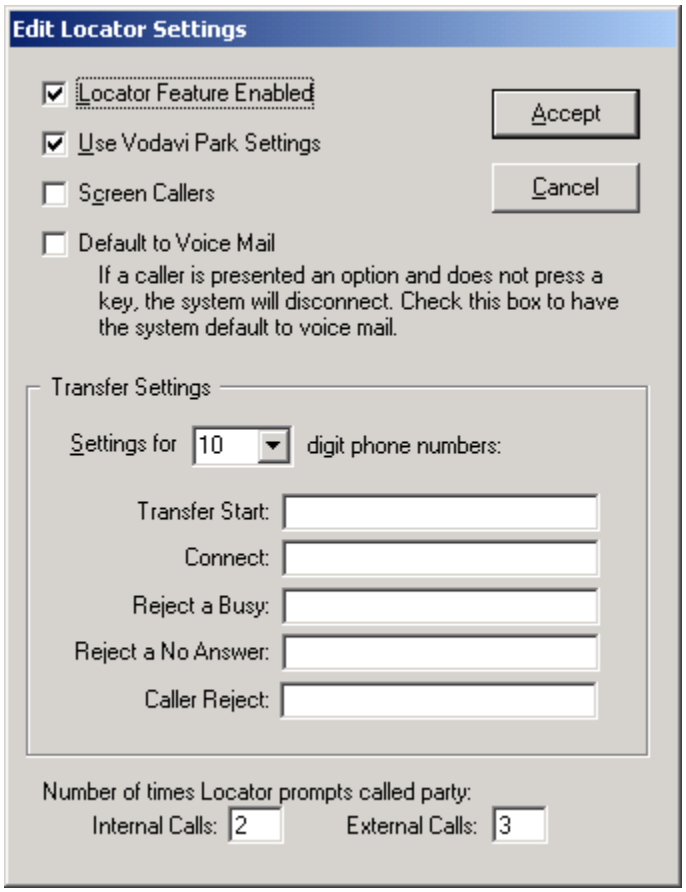
Setup and Administration

Administration Password	Specify the password to be used for administrative access to the fax system (used when adding fax documents to the fax database).
Event Group to use when sending	Enter the event group that handles outbound faxes. Event group 6 (six) is commonly used for fax purposes. Note that any event group you specify must have at least one line assigned to it. See Setting Up Lines.
FAX ID for this system	Enter an identifier for your company's fax system. Maximum documents a caller can select - enter any limit you want to set for the number of documents a caller can access during one phone call.
Allow Voice Attachments	Checkmark this option to enable voice files to be sent with faxes.

Fax-On-Demand	
Maximum documents a caller can select	Click this if you want to disable outbound faxing capabilities for fax-on-demand.
Callers must call from FAX machine	Callers must call from a fax machine and will be prompted to turn control over to the fax machine to receive the fax, making the caller responsible for any long-distance charges.
Fax Send Parameters	
File to send as cover sheet	Enter the name of the .tif file to be sent as a cover page with each fax document.
Retry attempts for failed sends	Enter the number of times The system should try to re-send a fax if the call results in a busy signal or no answer, or disconnects in the middle of a send. A typical value is 3.
Retry interval for failed sends	Enter the number of minutes the system should wait between retry attempts.

Locator Settings

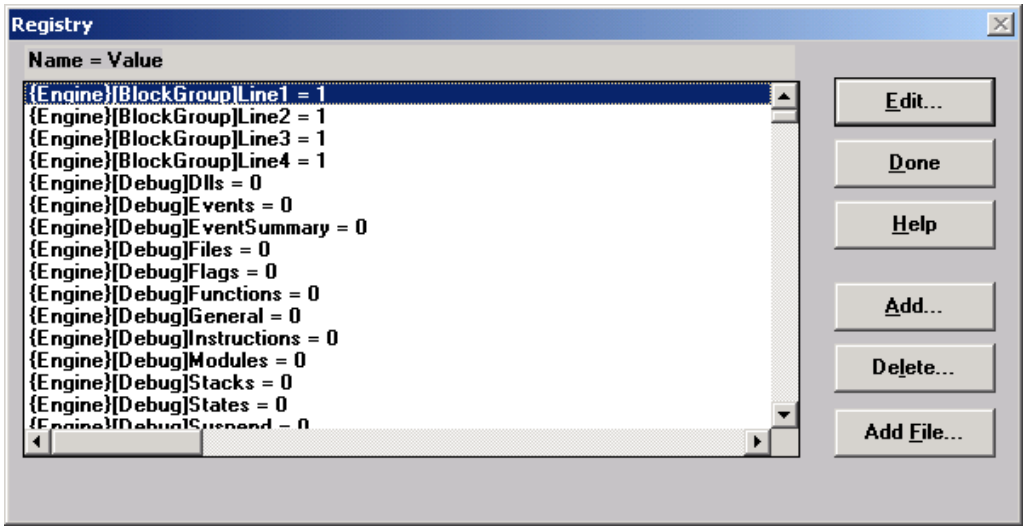
The Locator module is a feature of the optional Desktop Call Control program. This function allows the Subscriber to set up the parameters to have specified callers be able to locate them when they are not at their designated extension. Refer to *Optional Modules* manual for more detailed information.



Registry

The PathFinder Registry is a database of parameters. All changes, settings, and parameters set through the *Configuration* menu are stored in the Registry.

To display the Registry, select *Configuration* > *Registry*. PathFinder will display a window with all the current Registry parameter entries. This provides a helpful overview of all PathFinder settings should troubleshooting be required.



Registry Maintenance

Buttons in the *Registry* window provide you with the ability to modify various Registry parameters, both for hardware and software.

*You **should not** make changes to these options. Incorrect entries made to the Registry can cause serious system problems.*

Delete Registry Item -- The Delete function allows you to select a specific item from the Registry list and delete it. After you select the item, click on Delete. PathFinder prompts you to confirm that you want to delete the item.

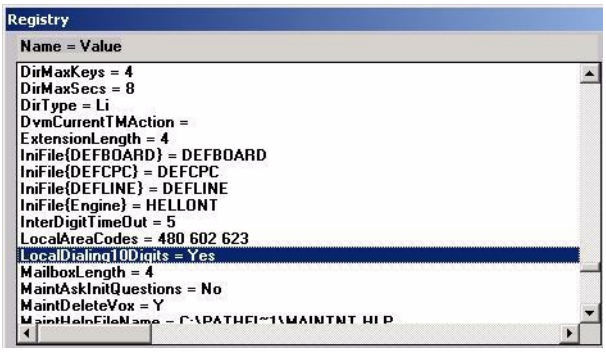
Add or Edit Registry Item -- The Edit function of the *Registry* window provides you with the ability to select a specific item from the Registry list and edit it.

Occasionally, it becomes necessary to add an item to the Registry. This may occur if new applications are added through new software modules, or if existing modules are changed or upgraded.

ADD -- To add a Registry item, click on **Add** in the *Registry* window. PathFinder displays the *Add Registry Item* window, where the changes can be made.

Add Registry items only under the direction of Vodavi technical support staff or your PathFinder *dealer.*

Caller ID - Owner Call Back Feature



To allow users access this "calll back" function, two variables must be added to the Registry. These parameters control how the system will dial Caller ID digits when the user wants to return a call. The variables are:

LocalAreaCodes

LocalDialing10Digits

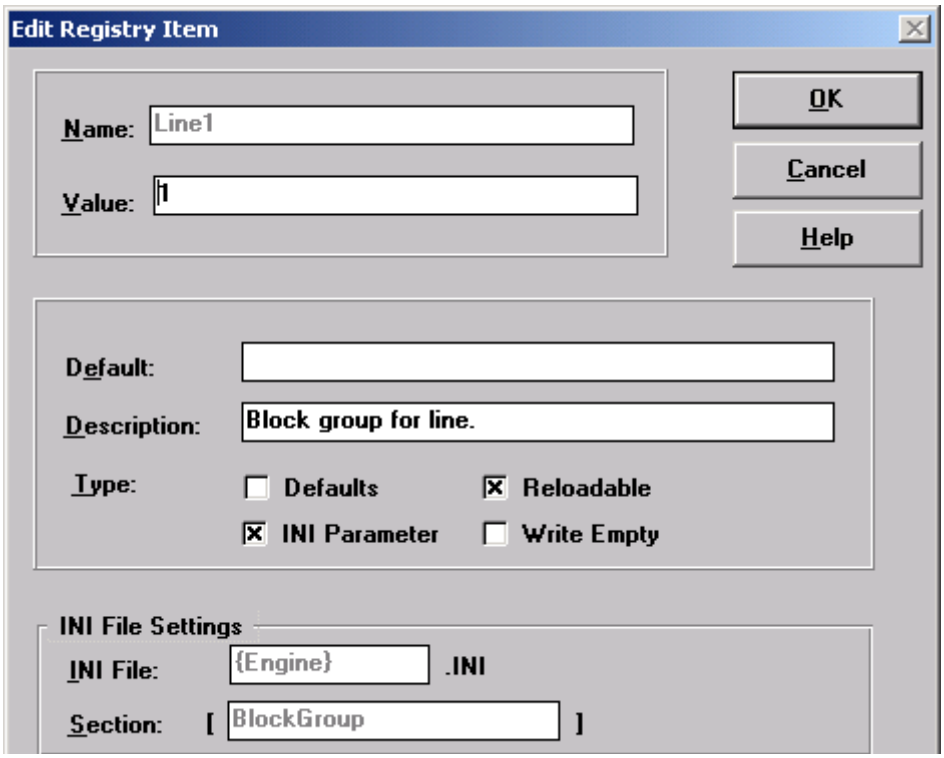
» The LocalAreaCodes variable should contain 1 or more area codes separated by spaces that are the local dialing area codes for your area.

For example … in the Phoenix area, "480 602 623". In cases where only one area code is used, then it should be entered.

» In areas where multiple area codes are considered "local", most areas use 10-digit dialing. If the location of the PathFinder system uses 10-digit dialing, set the variable "LocalDialing10Digits=Yes".

When the user presses [6]+[0] during message call back, the system will modify the stored Caller ID number and transfer the user to the calling party. The user will hear the prompt, "Please hold while I transfer you."

EDIT -- After you select the item, click on **Edit**. PathFinder displays the *Edit Registry Item* window, where the changes can be made.

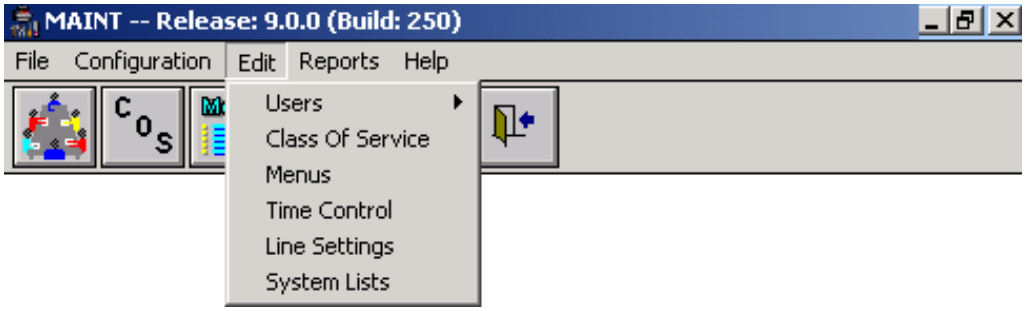


Registry Item Fields

The following fields are used to add or edit Registry items:

Name	The Registry item to add or modify. This entry is case sensitive.
Value	The current value for the setting.
Default	Specifies a default value for this setting.
Description	A general description of the setting.
Type	Select the options that apply to this Registry item. ☐ **Defaults** -- if you assigned a value in the *Default* field ☐ **Reloadable** -- to indicate that PathFinder should be reloaded when this parameter changes ☐ **INI Parameter** -- if the value is to be written to an INI file ☐ **Write Empty** -- if the value is to be written to even if empty
INI File Settings	Select the options that apply: ☐ **INI File** -- If INI Parameter was checked above, use this field to enter the name of the INI file to write to. ☐ **Section** -- If writing to an INI file, specify the section in which to write.

Edit Options



User Settings

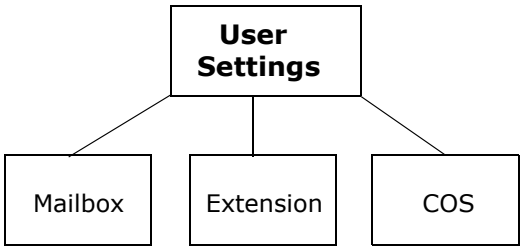
Overview

This section describes the Users (*also known as Subscribers*) functions available through the *Edit* menu.

The System Administrator will be able to create, modify, and delete user settings, both general and specific.

These functions can also be accessed by clicking the **User** icon on the toolbar.

A Subscriber has a primary area called "User Settings". This module is password dependent and contains the following Subscriber information:



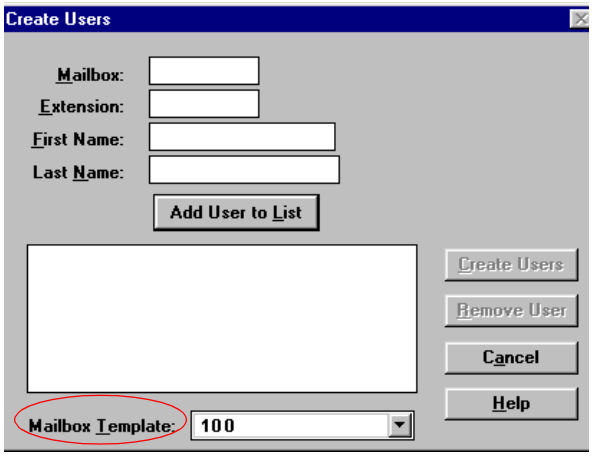
The **Mailbox** number allows the Subscriber to play personalized greetings, store recorded messages, and choose how to be notified of a new message.

The **Extension** number allows the Subscriber to interface with the PBX system.

The **COS** will verify all call transactions prior to taking any action.

Creating Users

Subscribers may be set up individually or in groups, referred to as ranges. Any time you define a subscriber, you will create a mailbox and a corresponding extension. Generally, the mailbox number will match their extension number.



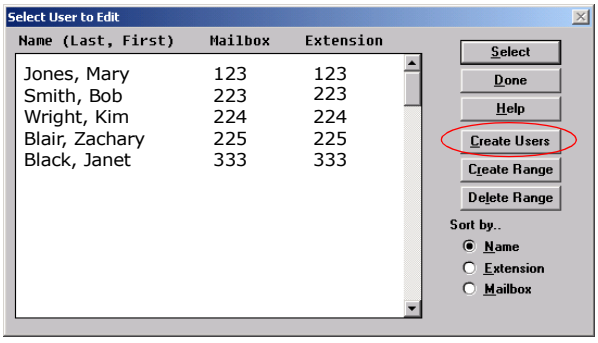
Before creating a new Subscriber, or a group of Subscribers, you should create a "template" Subscriber. A template Subscriber should be set up for each group that you want to create.

This will allow you to customize group parameters such as passwords, class of service, or types of transfers.

For your convenience, Mailbox 100 is set up as the default template mailbox. However, each group, e.g. Sales and Accounting) should have its own template.

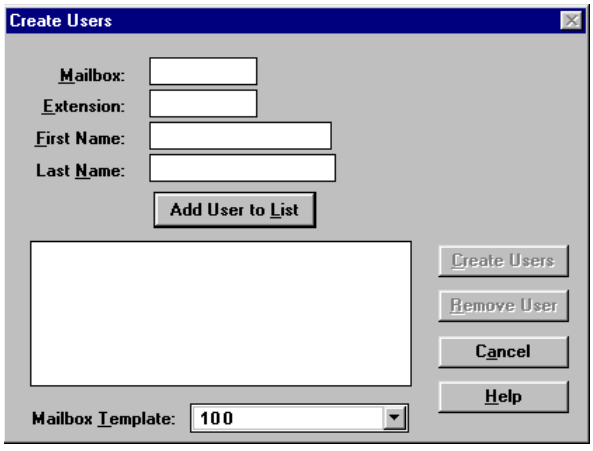
To create a template … click the Users icon on the toolbar. When the "Select User to Edit" window displays … click Create Users or Create Range to set up a mailbox template from the "Create Users" window.

Single Mailbox



To set up a single subscriber, perform the following steps.

1. Click on the **Users** icon in the toolbar. or select from the menu bar Edit > Users > Show List from the menu bar.
2. When the "Select User to Edit" window displays, click the **Create Users** button.



3. Enter the following information about this subscriber:

   Mailbox -- subscriber's mailbox number.

   Extension -- extension to which this mailbox is linked.

   First Name -- subscriber's first name.

   Last Name -- last name of the subscriber. The data in this field will be use to create the company directory.

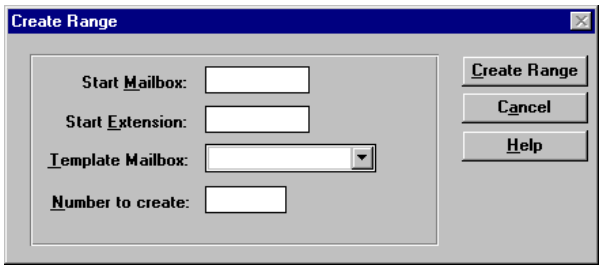
   (To use first names for the company directory, reverse the order of the Subscriber's name: last name in first name field, first name in last name field.)

   Mailbox Template -- If you have already created a subscriber whose mailbox definition can serve as a template for this subscriber, select that mailbox number in the *Mailbox Template* drop-down list.

4. Once all the information is entered, click on **Add User to List**.
5. Repeat this process for any additional subscribers you need to establish.
6. When you have identified the last subscriber you need to create, click on **Create Users** to return to the *Select User to Edit* window.
7. To further define mailbox parameters for a subscriber, refer to *"Editing User Setups" on page 3-47*.

Multiple Mailboxes

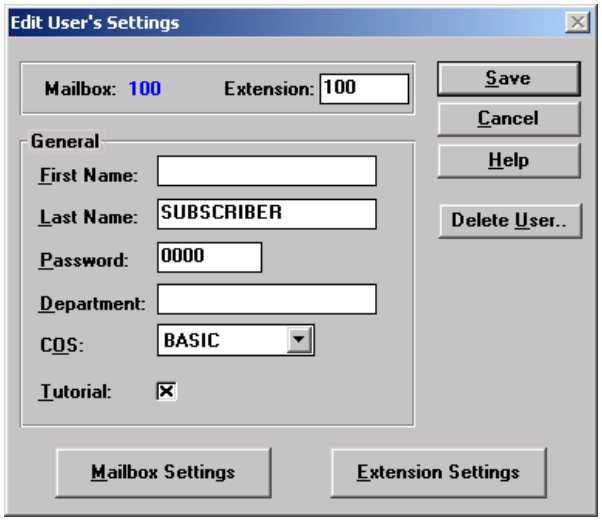
The **Create Range** option provides you with the ability to set up multiple subscribers without the need to set them up individually. To create a range of subscribers, perform the following steps.



1. In the *Select User to Edit* window, click on **Create Range** to display that window.
2. In the *Start Mailbox* field, enter the first mailbox number in the mailbox range.
3. In the *Start Extension* field, enter the a corresponding extension number to be used for the first extension in the mailbox range (*for example* … 110).
4. Select a template for default settings from the drop-down list.
5. For *Number to create*, enter the number of mailboxes you want to create. (For example … if you want to create mailboxes 110-120, you would enter 11.)
6. Click on **Create Range**.

Editing User Setups

The **Edit Mailbox** function is used to make changes to the settings and parameters of existing mailboxes. To edit general user/subscriber settings, perform the following:



1. From the "*Select User to Edit*" window, highlight the subscriber to edit and click on **Select**. The "Edit User's Settings" window will display.

   The Edit User's Settings window shows the Subscriber's mailbox and extension number.
2. Complete the fields for this Subscriber as follows:

   First Name and Last Name -- The names can be changed as needed.

   Password -- The default password is four zeros (0000). This password is changed by the Subscriber when they first log in.

   Department -- Enter the department or area in which the employee works (this field is used to provide additional information in reports).

Class of Service (COS) -- To change the Class of Service, click on the drop-down list and select the COS to associate with this mailbox.

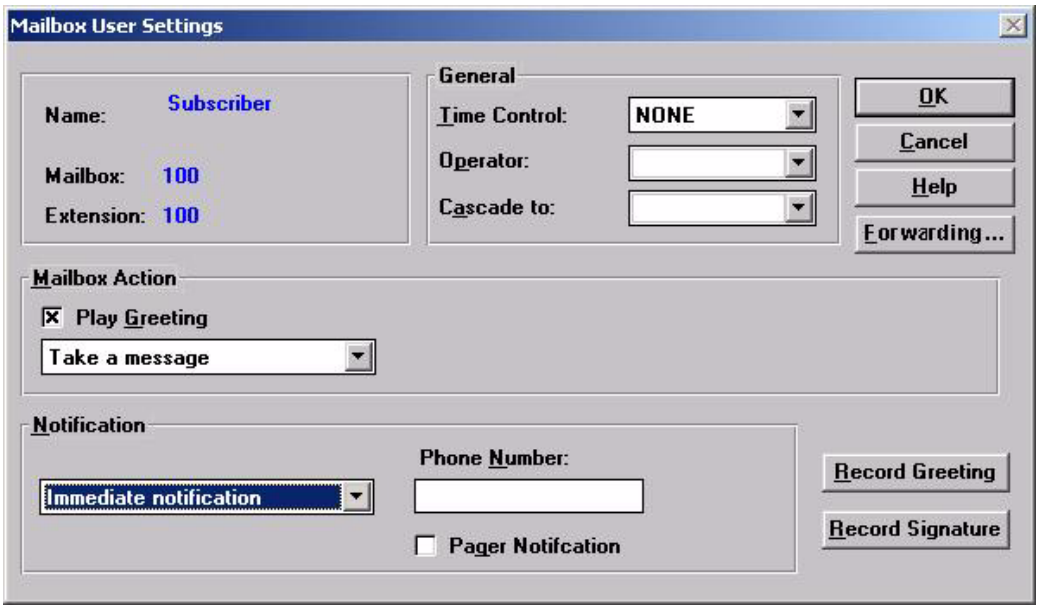
Tutorial **--** Determines if the tutorial is played when the mailbox owner accesses PathFinder.

- If option is disabled, the subscriber's COS does not allow for a first-time tutorial.
- If option is enabled and not checked, the subscriber has probably already heard the tutorial.
- If option is enabled and is checked, on the next call into PathFinder, the mailbox owner will access the tutorial.

3. Click on **Save** to add this definition to PathFinder.

Mailbox Settings

To adjust Mailbox Settings, click on **Mailbox Settings** from the *Edit User's Settings* window. The following window will display:



Name, *Mailbox*, and *Extension* are "read only" fields that allow you to verify the mailbox you are editing. Complete the fields in this window using the following guidelines.

Time Control

Unless there is a special circumstance, leave this value as **None**. Time controls provide time-oriented call routing instructions (for example, route unanswered calls to an extension during the day and a mailbox at night). Refer to *"Time Control Settings" on page 3-79* in this chapter for additional information.

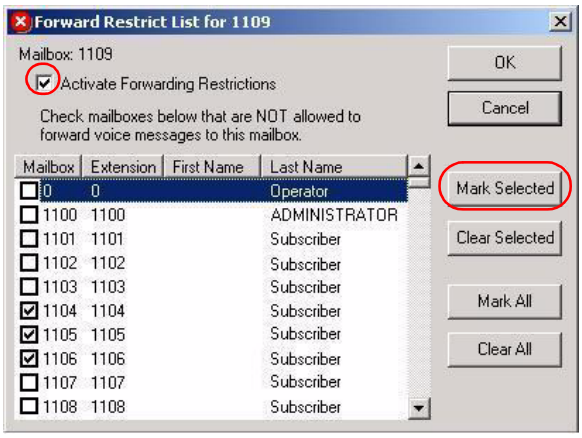
Operator

Enter a personal operator for the mailbox. If a caller presses 0 while in the mailbox, the call is transferred to the extension entered in this field. This setting overrides the system-wide operator setting.

Cascade To

Message cascading is a feature that copies or moves messages left for the originating mailbox to another mailbox. To use message cascading, the originating mailbox's COS must be configured to allow this feature (refer to *"Message Cascading" on page 3-65*).

Forwarding ... Mailbox Restrictions



From the *Forward Restrict List* window, the Administrator can select which mailboxes ARE NOT allowed to forward voice messages to the mailbox indicated.

» After the Mailbox Settings option is selected for the desired subscriber, clicking the [Forwarding ...] button will display a mailbox/extension list of 100 entries.

» When the "Activate Forwarding Restrictions" box is checked, click the "Mark Selected" button, and then place a check next to each mailbox/ extension you want to limit forwarding privileges.

» Sort Option-- Depending on the column tab selected, you can sort the entries displayed by mailbox, extension, or name.

Mailbox Action

Play Greeting - This is the greeting that will be played when a call enters this mailbox. The drop-down list shows the various actions that the mailbox can perform after the greeting is played. These actions function as follows:

Take a Message	Records the messages in the mailbox for later retrieval.
Forward to another Mailbox	Sends the caller to an alternate mailbox where a message will be left. The mailbox to which the caller was forwarded dictates which Notification and MWI settings apply.
Forward to Extension	Sends the caller to an extension. The mailbox to which the caller was forwarded dictates which Extension settings apply.
Forward to Menu	Sends the call to a menu where further options may be provided to the caller. (*Refer to "Menu Settings" on page 3-70.*)
Forward to Time Control	Causes PathFinder to execute the assigned time control and take the appropriate action. (*Refer to "Time Control Settings" on page 3-79.*)
Forward to Module	Automatically runs another module when the mailbox is accessed. (For special applications only.)

Mailbox is Off	Disables the mailbox's ability to take messages. This option plays the "Mailbox is off" prompt to the caller.
Mailbox is Full	Plays a message to the mailbox owner stating: "the mailbox cannot record any new messages until old ones are deleted." This option plays the "Mailbox is full" prompt to the caller.

Notification

Notification refers to external numbers such as: cell phones.

Select the type of notification PathFinder is to use when a message has been left in the mailbox.

Notification options include the following:

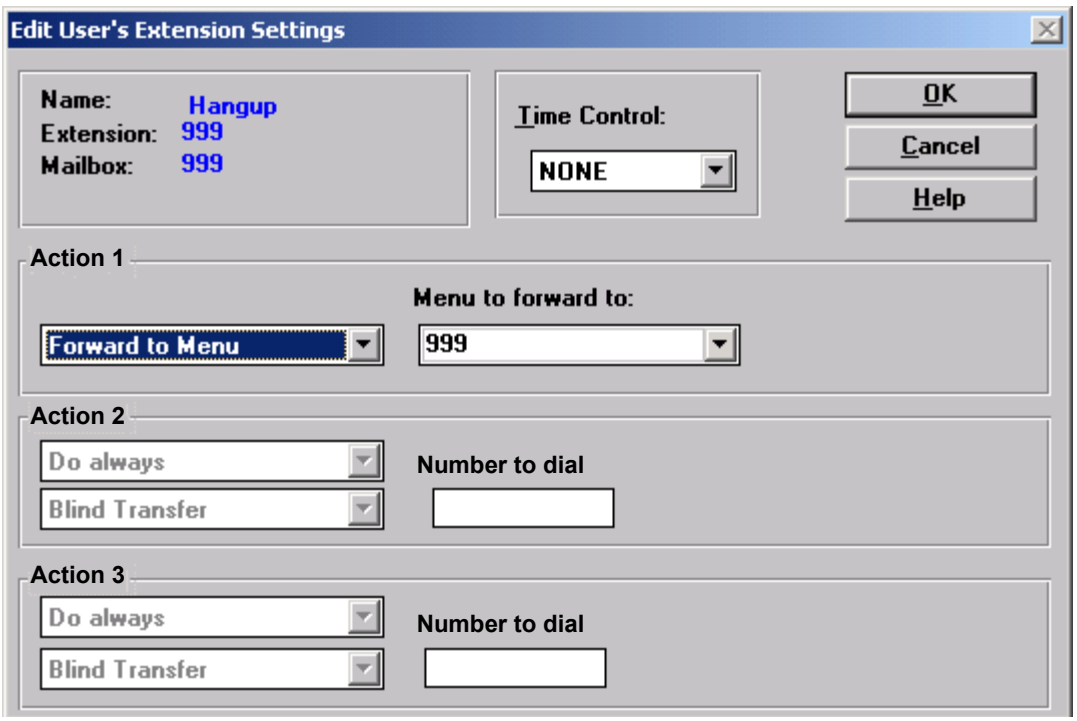
- No notification -- Disables external message notification. However, this option will light the desktop PBX phone.
- Immediate notification -- Sends notification immediately upon receiving messages.
- Timed notification -- Notifies the mailbox owner of new messages at a specific time.
- Urgent notification -- Notifies only when new messages are marked Urgent.
- Phone number -- Enter the phone number to dial for notification. (*For example …* 480-443-6000 or 1-480-443-6000.) Do not enter dialing prefixes for outside line access such as "9".

If you have an integrated system, do not set notification to call an internal extension, because the notification message could end up being left in the extension owner's mailbox. This would cause PathFinder *to send another notification message, creating a loop.*

- Pager notification -- Select this checkbox if the notification number you have indicated is a pager.
- Record Greeting & Record Signature buttons -- Refer to *Record Prompts*, *page 3-9*.

Extension Settings

These Settings allow you to edit the actions taken when an extension number is dialed. To edit Extension Settings, click on **Extension Settings** from the *Edit User's Settings* window. The *Edit User's Extension Settings* window will display.



Name, *Extension*, and *Mailbox* are "read only" fields that allow you to verify you are editing the correct extension.

Time Control

Unless there is a special circumstance, leave this value as **None**. Time controls provide time-oriented call routing instructions (for example, route unanswered calls to an extension during the day and a mailbox at night). Refer to *"Time Control Settings" on page 3-79* in this chapter for additional information.

Actions

PathFinder provides three *Action* fields that determine how PathFinder process incoming calls. PathFinder refers to the three options in a cascading order. That is, the first field has precedence over the second, and the second field has precedence over the third.

EXAMPLE ACTION SCENARIO

1 - An incoming call is answered by PathFinder

2 - PathFinder checks the first Action option for instructions on how to process the call. The supervised transfer has been selected.

3 - PathFinder is instructed to perform a supervised transfer to the extension.

4 - The extension is busy. PathFinder pulls the call back from the extension.

5 - PathFinder checks the second Action option for instructions on what to do next. The option Forward to Voice Mail has been selected.

6 - PathFinder sends the call to the appropriate voice mailbox.

The fields associated with each Action field change to reflect the Action selected.

For example … if Forward to Extension is selected in the *Action* field, the field to the right of it changes to Extension to forward to. If the Action selection is set to Forward to Menu, the field changes to Menu to forward to and is used to enter the name of the menu to which calls are sent.

ACTION OPTIONS AVAILABLE

Blind Transfer -- An unsupervised transfer to the requested extension. Commonly used to free up voicemail ports, or with phones that are forwarded to another destination. Only one transfer type (Blind or Supervised) can be selected at a time.

Supervised Transfer -- Allows PathFinder to monitor call transfers to determine whether the called extension is busy or not. If the call is not answered, PathFinder refers to the subsequent Action entries for instructions on processing the call.

Screen Caller -- When a person dials an extension through the Auto-Attendant, the Call Screening feature prompts the caller to state his name. PathFinder lets the called party hear this name before the call is actually transferred. The called party can either accept or reject the call. This option works only with Supervised Transfer.

Holding Allowed -- Gives the caller the opportunity to hold when the called party is busy. This option works only with Supervised Transfer. The caller hears the following prompt: "I'm sorry, <extension name> is busy. If you would like to hold press 1. To try another extension or leave a message for this extension, press 2."

Forward to Extension -- Forwards calls to the extension entered in the Extension field.

Forward to Mailbox -- Forwards calls to the mailbox entered in the Mailbox field. This is frequently used when the mailbox owner does not have a physical extension.

Forward to Menu -- Forwards calls to the specific menu entered in the *Menu* field.

Forward to Module -- Forwards calls to a custom script module (*not currently used*).

Forward to Time Control -- Runs the designated time control file and takes the actions designated for the current time. Refer to *"Time Control Settings" on page 3-79*.

COMPLETING THE ACTION FIELDS

After selecting the desired *Action 1*, complete any fields shown for *Action 1*.

» When Supervised Transfer is selected in the *Action 1* field, the *Action 2* field becomes active and can be edited.

» When *Action 1* is set at Supervised Transfer, and the transfer results in a busy or no answer situation, the setting in the *Action 2* field specifies what should happen next.

You may conditionally invoke *Action 2* when the following conditions exist after the *Action 1* transfer:

» Do always -- The action always takes place. Only available for Action 2 and Action 3.

» Only on busy -- Instructs PathFinder to use this option if the transfer results in a busy signal. This option must be used in conjunction with the Only on no answer or Do always options. Only available for Action 2 and Action 3.

» Only on no answer -- Instructs PathFinder to use this option if the transferred call is not answered. Only available for Action 2 and Action 3.

You may also conditionally invoke *Action 3* when the above conditions exist for the *Action 2* transfer.

Deleting Users

Users may be deleted individually or in ranges. Before PathFinder processes the Delete action, you will be able to "Backup" user messages and greetings if desired. The Backup User options are:

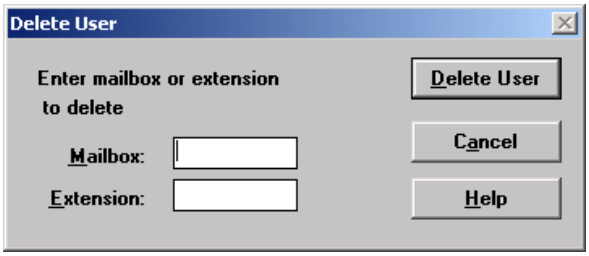
[Yes] to backup files
[No] to skip backup
[Cancel] to abort delete

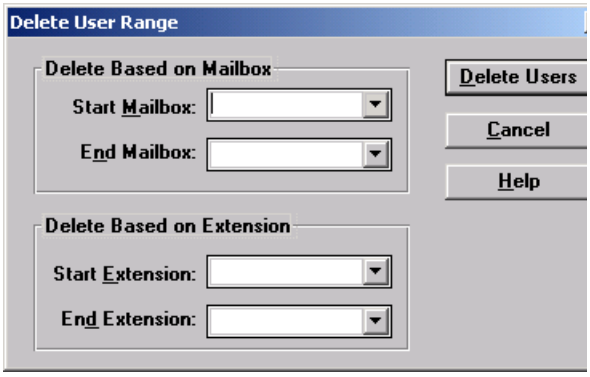
If you select YES and the "MaintDeleteVox" registry parameter is set to "Yes", PathFinder will copy the files for each user to be deleted into a separate directory under c*:\PathFinder/Backups/nnn*.

After a subscriber has been deleted, the corresponding mailbox/extension parameters and settings are erased. When the mailbox is deleted, all associated voice files are also deleted.

To Delete a User Mailbox -- When the *Select User to Edit* window displays, scroll through the list to highlight the user to delete and click SELECT. Once the user's settings display, click DELETE USER. When the *Backup User* message displays, select YES, NO, or CANCEL.

To Delete a Range of Mailboxes -- Click on DELETE RANGE, and select the Start and End Mailbox or Extension from the appropriate pull-down menus. Then click on DELETE USER, the *Backup User* window will display the Backup options.





Class of Service Settings

Each subscriber (or mailbox and extension pair) is associated with a COS that defines its attributes. Grouping mailboxes and extensions into classes of service lets you change options for all the mailboxes and extensions in the same class simultaneously, simply by editing the COS record.

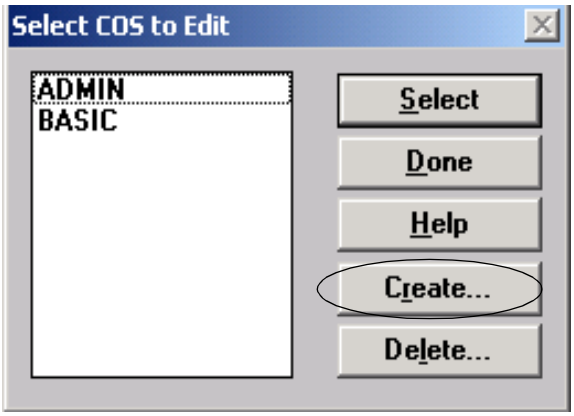
This section instructs you how to create, edit, and delete a COS. Instructions are also provided for creating a COS *template*, which can come in handy if you are creating a number of COSs that are similar in definition.

Template Guidelines

If you are creating several classes of service, you probably have many parameters that are the same for each. Using a template class of service is a convenient way to create identical classes of service, each having the same settings. You can then select the COS when creating subsequent classes of service that should share these settings.

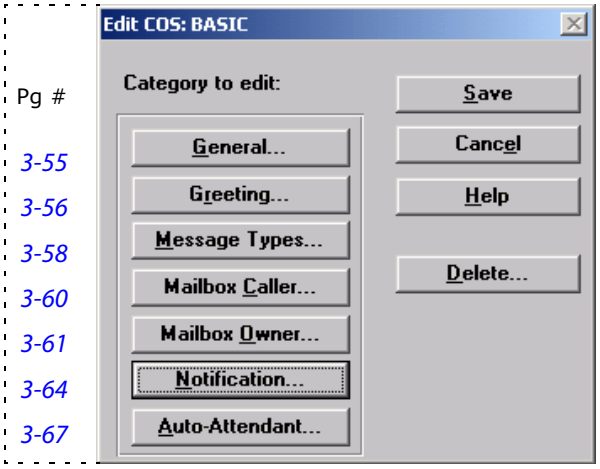
Creating a Class Of Service Template

1. Click on the **COS** icon … the *Select COS to Edit* window will display:
2. Then click on **Create** to access the *Create Class Of Service* window.
3. Enter a name for the COS template, using any combination of alphanumeric characters. Choose a name that describes the group of users in this COS.
4. When finished, click on **Create** to return to the *Select COS to Edit* window.
5. Highlight the new COS you created, and click on **Select**.



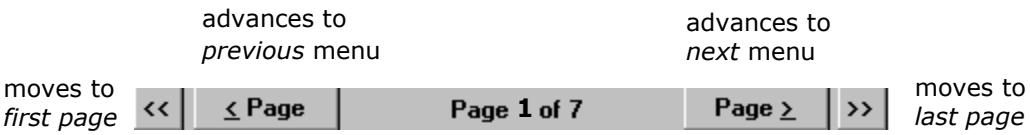
When the "*Edit COS: BASIC*" window displays, you can define the parameters for the COS template using the "Category to edit" options listed in the window.

For more details, refer to the page numbers shown …



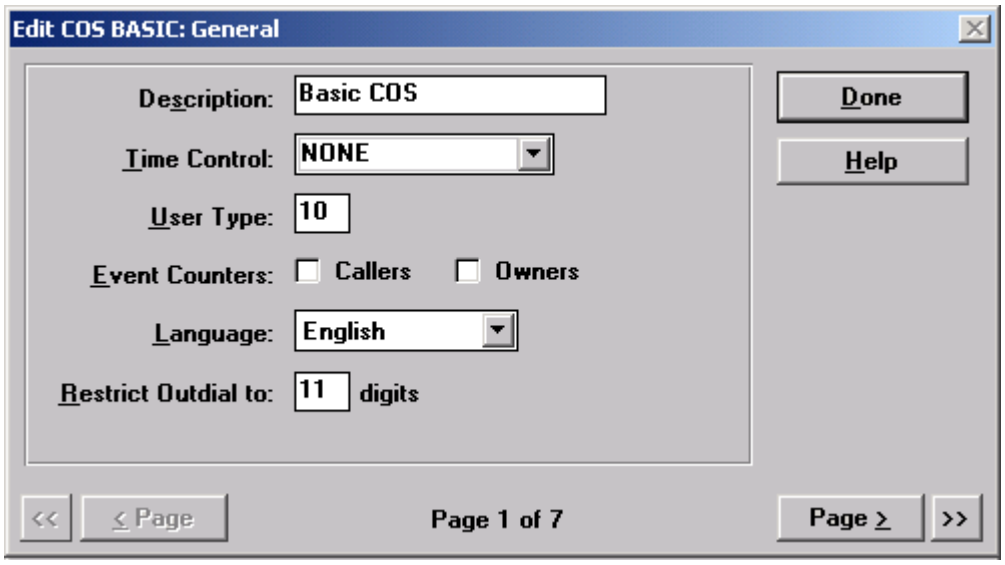
Navigating in COS Windows

Click on the **Page** controls at the bottom of the COS windows to move to the other class-of-service categories.



General Settings

Click on **General** in the *Edit COS* window to begin defining general options for the COS. The following window is displayed:



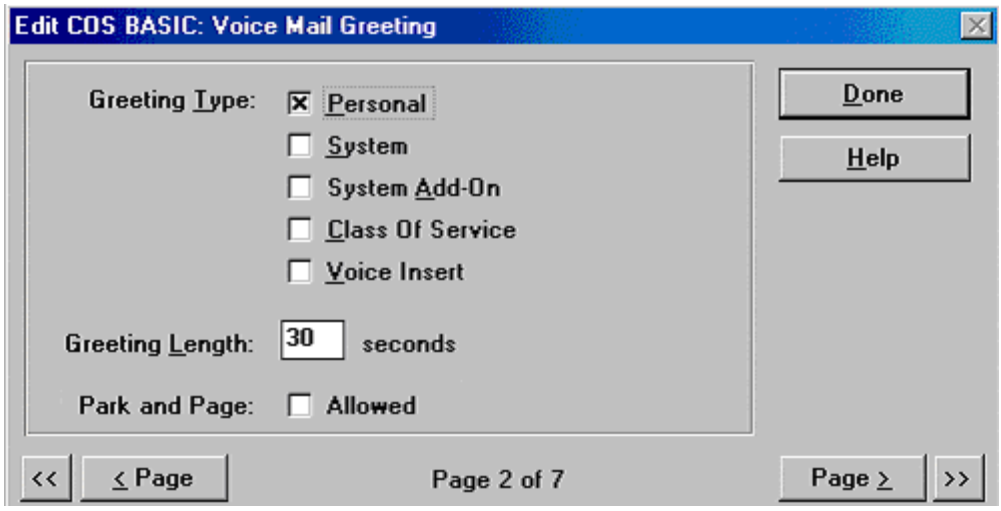
General COS - Field Definitions

Description	Enter a brief description of the COS (up to 20 characters) to help identify it in other operations.
Time Control	Calls are often processed differently in the evening, during the weekend, or on holidays than during regular business hours. The time control function lets you define a set of alternative actions that PathFinder performs for a given time setting. Refer to *"Time Control Settings" on page 3-79* for more information.
User Type	There are 2 user types: 01 (Normal) and 99 (Administrator). ☐ The Normal user will only have access to their own mailbox and extension information. ☐ Administrators will have access to additional features such as: adding/deleting Subscribers, and recovering deleted messages.

Event Counters	This "Reports" parameter provides an overview of how PathFinder is used. ☐ Select the **Callers** check box if you want to maintain a count of mailbox/extension access by callers (non-owners). ☐ Select **Owners** if you want to maintain a count of mailbox/extension maintenance accesses by the mailbox owner.
Language	Mailbox and extension prompts can be played in an alternate language. This parameter defines what language prompts will be used for each subscriber. *For example* … when an owner accesses their mailbox, a prompt tells the subscriber how many messages are in the mailbox. This parameter defines the language for such prompts. Languages other than English are optional modules and must be purchased separately.
Restrict OutDial to	You can use this field to disable long distance dialing from the extension or from mailbox notification by entering the number of digits required for local calls (typically 7 or 10). This setting determines how many digits PathFinder can outdial for notification or from an extension. » *This will also affect the Locator and E-mail Reading features.*

Greeting Settings

Click on the **Greeting** button in the COS Edit window to begin defining greeting options for the COS. The following window is displayed:



COS Voice Mail Greeting - Field Definitions

Greeting Type	Select from the following types of pre-recorded messages, or prompts, to be used when greeting a caller.
Personal	The **Personal** greeting option plays a greeting recorded by the mailbox owner. If the owner does not record a personal greeting, the **System** (default) greeting is used.

System	The **System** greeting is a generic message used when no personal greeting has been recorded. If both the **Personal** and **System** greetings are activated, PathFinder plays the personal greeting when one has been recorded.
System Add-on	The **System Add-on** is a smaller version of the **System** (default) greeting that follows a personal greeting. This greeting plays, "Begin recording at the tone. To stop recording, press any key … " and so on, whereas the regular **System** greeting plays, "The person you have tried to reach is unavailable. Begin recording … " and so on.
Class of Service	The **Class of Service** greeting plays a single greeting for all mailboxes that share the same COS. This is done to conserve disk space by eliminating the need for each mailbox to have its own greeting prompt. *For example …* Com-Tel Corporation has a COS called **SUPRT** for all technical support staff. The COS greeting file SUPRT.GRT might sound like this: "The technical support representative you are trying to reach at Com-Tel Corporation is not available. Please leave a message at the tone." Only one COS greeting can be recorded for each COS. Its file is stored in the \PATHFINDER\VOX directory. By default, the greeting file is called <COS Name>.GRT, where <COS Name> is the name given to the COS and .GRT is the COS greeting identifier file extension.
Voice Insert	A **Voice Insert** greeting plays a COS prefix prompt followed by a name prompt, which in turn is followed by COS postfix prompt. This is often done to personalize a COS greeting while limiting the amount of disk space used. *For example …* Com-Tel Corp. set up a COS for all sales people called SALES. The COS prefix file SALES.VI1, name prompt, and postfix file SALES.VI2, might sound like this: "Thank you for calling the Com-Tel Corp. sales department. (Sam Smith) is not available. Please leave a message after the tone." Only one COS prefix and postfix prompt can be recorded for any specific COS. These files are stored in the \PATHFINDER\VOX sub directory. □ By default, the prefix file is called <COS Name>.VI1, where <COS Name> is the eight-character name given to the COS and .VI1 is the identifier for the first part of the voice insert greeting. □ The suffix file is called <COS Name>.VI2, where <COS Name> is the eight-character name given to the COS and .VI2 is the identifier for the second portion of the voice insert greeting.
Greeting Length	Enter the maximum length, in seconds, for personal mailbox greetings created by users assigned to this COS. Maximum value for this field is 999.

Park and Page

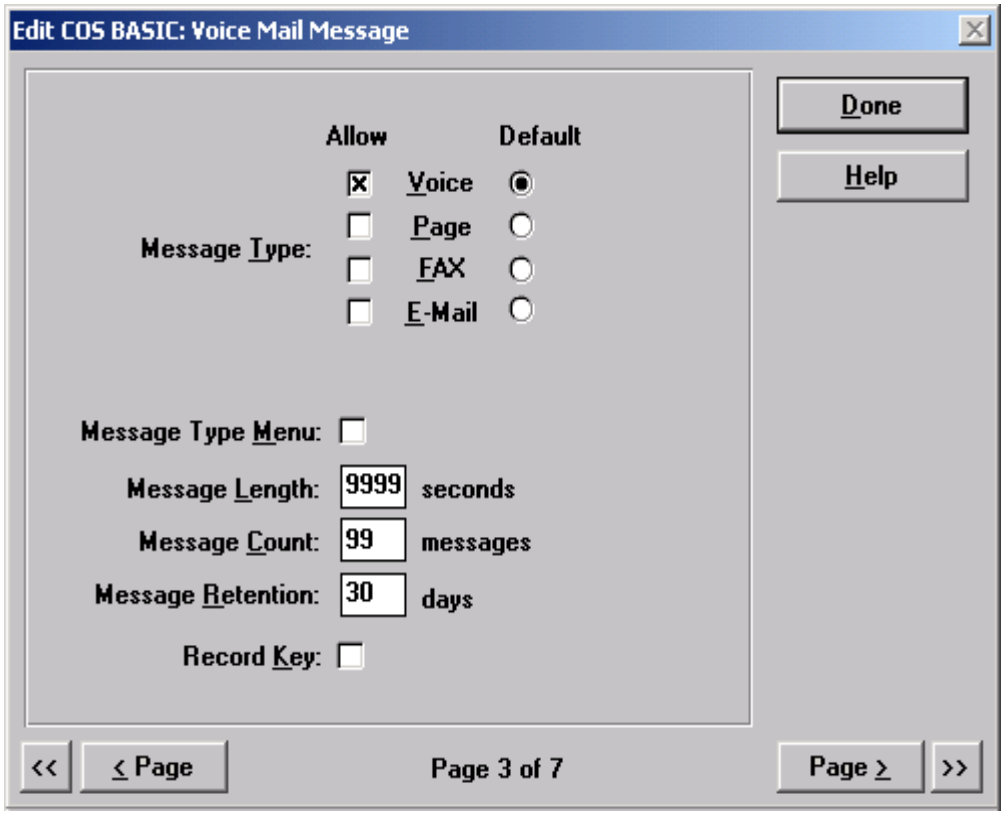
This setting must be enabled in each COS to allow Park and Page to be used by a caller placed in a mailbox.

Once this feature is turned on, callers listening to a mailbox greeting can press the "7" key to start the Park and Page process.

NOTE … To inform the caller of this Park and Page option, each user must change their mailbox greeting(s) to include this information.

Message Types Settings

Click on **Message Types** in the *Edit COS* window to begin defining message type options for the COS. The following window is displayed:



COS Voice Mail Message - Definitions

Message Type

PathFinder mailboxes can be used to store a variety of messages. Select the types of messages to be allowed in mailboxes for this COS.

A single mailbox can store any combination of message types.

If more than one type of message is selected, specify one as the default. This setting applies only to inbound messages, not to the notification type. The types of messages that are allowed are as follows:

Voice

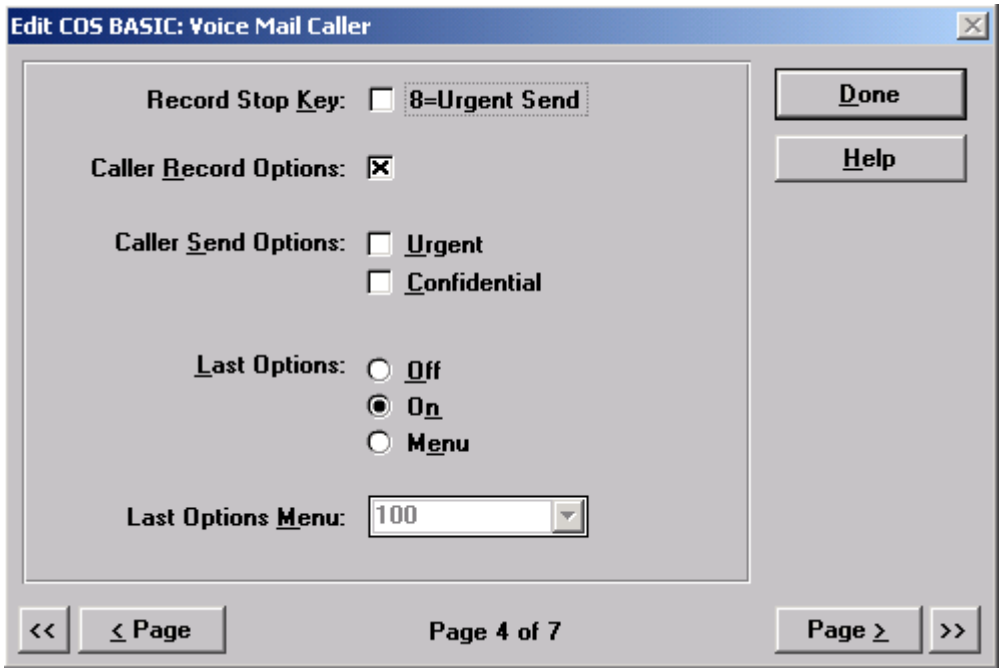
Callers can record voice messages, and the mailbox owner can listen to recorded voice messages.

Page	A caller can enter DTMF digits. The mailbox owner can listen to the DTMF digits converted to regular speech, or the DTMF digits can be displayed on a pager. For example: *For example* … a caller leaves a page message of 5557890. □ If the subscriber tries to retrieve this message, PathFinder plays: "Five, five, five, seven, eight, nine, zero." □ If a subscriber has a pager for notification of new messages (and is not using a notification command file), PathFinder sends the DTMF digits to the paging company and the mailbox owner is notified on the pager rather than via the voice mailbox.
Fax	A caller can leave a fax directly in a subscriber's mailbox. In order to retrieve a fax message, a subscriber must send it to a fax machine for printing. PathFinder must have fax ports in order to receive fax messages. If using OneLook Unified Messaging … messages can be delivered to the Subscriber's Desktop E-mail Client.
E-mail	If the Software Key is enabled for *Text-To-Speech*, this option will allow these Subscribers to receive e-mail messages for TTS E-Mail Reading. If this function is not enabled, the Subscriber will not have access to their e-mail messages.
Message Type Menu	Select this option if you want PathFinder to present the caller with a menu such as: "To leave a voice message, press 1; To send a fax, press 2." Leave this option off if mailbox owners are offering access to different message type options in their individual mailbox greetings.
Message Length	This option determines the amount of time allocated to a message. After the specified number of seconds has elapsed, the caller is presented with the normal *Send* menu as if the caller had pressed a key to stop recording. Max = 9999 secs
Message Count	This option determines the maximum number of messages that can be stored in a mailbox. When the number of messages in a mailbox exceeds this parameter, the mailbox plays a *Full* message. No further messages are accepted until the number of messages in the mailbox is reduced. A maximum of fifty messages is recommended. Max = 99 msgs
Message Retention	PathFinder can automatically delete messages that have been stored for a specified amount of time. Thirty days is the recommended default retention period. The maximum value for this field is 999.
Record Key	Leave this off if you want PathFinder to automatically begin recording a voice message. When this is turned on, the caller must first press a key to start recording.

Mailbox Caller Settings

Mailbox caller options are choices given to a caller when leaving a message. These options are available only after the caller presses a key to terminate recording a message.

Click on **Mailbox Caller** in the *Edit COS* window to begin defining mailbox caller options for the COS. The "Edit COS: Voice Mail Caller" window will display:



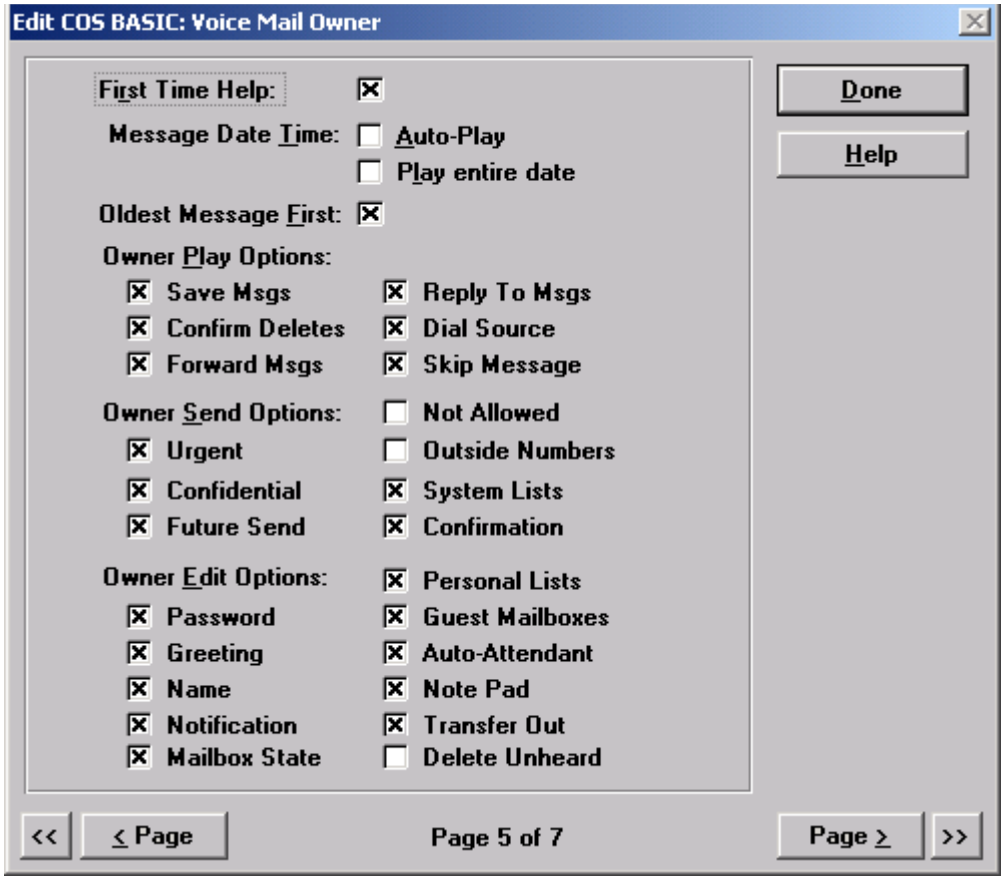
COS Voice Mail Caller - Definitions

Record Stop Key	Select this option to activate the one-key urgent message send feature. With this option turned on, if an outside caller presses 8 to end the voice message recording, the message is marked as urgent, sent, and the caller proceeds to *Last Options*.
Caller Record Options	If this option is selected and the caller presses a key after leaving a voice message, the caller hears the following options: Press 1 to send the message Press 2 to play the message Press 3 to cancel Press 4 to append the message Press 5 to re-record the message
Caller Send Options	Select **Urgent**, **Confidential**, or both if you want callers to be able to specify those options for the messages they leave. ☐ Urgent messages are preceded by an *Urgent* prompt and are played as the first of a group of messages. ☐ Confidential messages cannot be forwarded.

Last Options	Select according to what you want PathFinder to do once the caller has left a message. □ If set to **On**, PathFinder's default menu options are played. □ If set to **Off**, PathFinder says, `Thank you` and hangs up. Setting this to **Off** limits a caller's ability to navigate PathFinder.
Last Options Menu	This determines what menu PathFinder plays if *Last Options* is set to **Menu** (see above). For more information on menus, refer to *"Menu Settings" on page 3-70*.

Mailbox Owner Settings

Mailbox owner options determine the modifications individual subscribers can make to their personal mailboxes. Click on **Mailbox Owner** in the *Edit COS* window to begin defining mailbox owner options for the COS. The following window is displayed:



COS Voice Mail Owner - Field Definitions

First Time Help	Check this option if you want each new subscriber prompted to record such essential parameters as a greeting, a mailbox name, and a password.

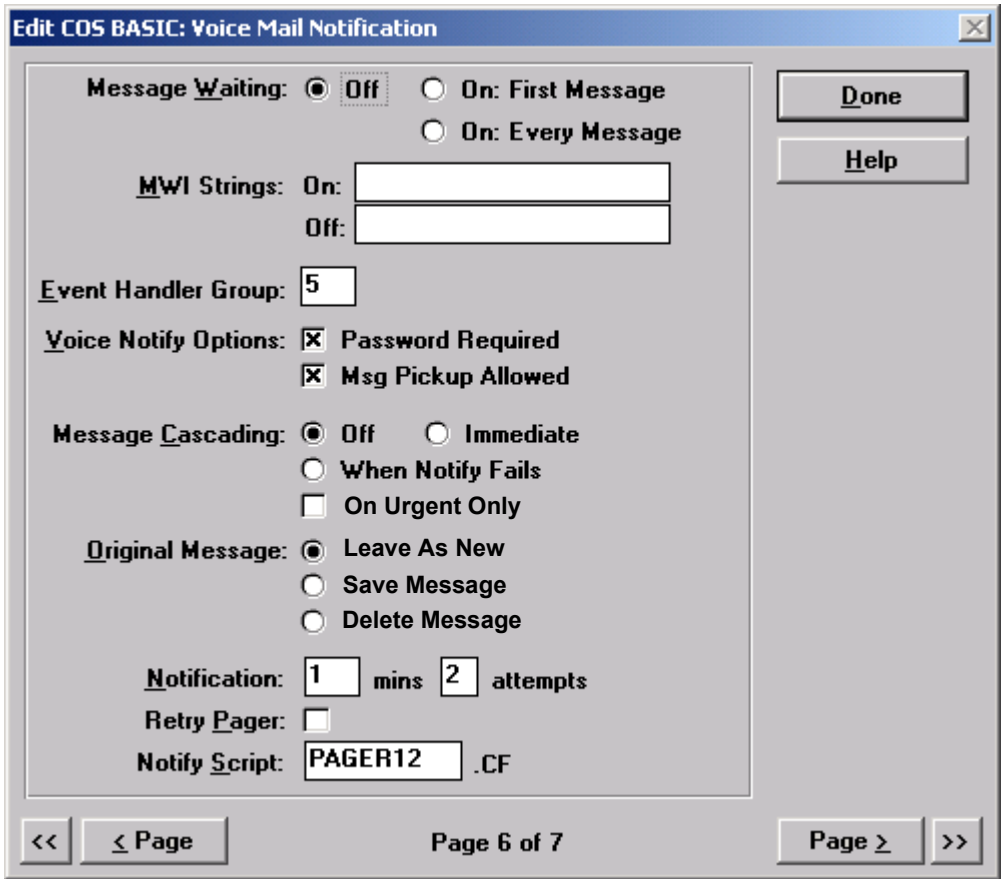
Message Date Time	PathFinder can announce the date and time that a message was received at the beginning of a message. ☐ Select **Auto-play** to have the date and time announced automatically at the beginning of every played message. If you leave this option off, the subscriber must press 8 at the end of the message to check the date and time. ☐ Select **Play entire date** to have the month, date, and time included in every date announcement. If you leave this set to off, for messages received today, only the time is repeated; messages received yesterday include the word "yesterday" and the time; messages received during the current week include the day of the week (e.g., Wednesday) and the time. Messages received more than a week earlier include the month and date of the message as well as the time it was received.
Oldest Message First	If this option is selected, messages are played in chronological order, starting with the oldest message in the mailbox. If this is left off, the newest message in the mailbox is played first when a subscriber checks the mailbox, with remaining messages played in the reverse of order received. Subscribers typically prefer that this option be left off.
Owner Play Options	Mailbox owners can be given several options for processing played messages, making mailbox management as simple or as sophisticated as desired. Detailed instructions on using these options are included in the PathFinder *User's Manual* and on the Quick Reference Card. The following options are available.
Save Msgs [2]	Allows subscribers to save messages for later retrieval.
Confirm Deletes [3 + #]	Requires subscribers to press the [#] key after pressing [3] to delete a message, as a safeguard against accidental deletion.
Forward Msgs [4]	Allows subscribers to forward messages to other mailboxes or to an outside number.
Reply To Msgs [5]	Allows subscribers to press [5] while listening to a message and reply to the message.
Dial Source [6 + 0]	Allows the subscriber to connect to the person responsible for sending the message. This can also include outside numbers if the originating phone number is known (digital only).
Skip Message [6 + 3]	Allows subscribers to skip messages by pressing [6] and [3] while listening to a message.
Owner Send Options	These parameters determine the functions available to subscribers when sending messages. Detailed instructions on using these options are included in the PathFinder *User's Manual* and on the Quick Reference Card. The following options are available.

Not Allowed	Used for creating simple mailboxes to which none of the following options can apply.
Urgent	Allows the subscriber to assign urgent status to a message. Urgent messages are preceded by an *Urgent* prompt and are played as the first of a group of messages.
Confidential	Allows the subscriber to specify that a message cannot be forwarded.
Future Send	Allows delivery of messages at a future time and date.
Outside Numbers	Allows the subscriber to send a message to an outside number.
System Lists	Allows the subscriber to send messages to a system-wide list (the list is maintained by the administrator).
Confirmation	Enables the subscriber to request receipt information for a marked massage, so PathFinder notifies the sender when a message has been heard.
Owner Edit Options	These parameters determine the mailbox customization available to subscribers within this COS. Detailed instructions on using these options are included in the PathFinder *User Guide* and the Quick Reference Card. The following options are available.
Password	Enables the mailbox owner to change the mailbox password. This is typically turned off when a mailbox is for temporary use, as with hotel guests.
Greeting	Allows mailbox owners to edit their own greetings; this option typically is enabled.
Name	Allows the owner to change the mailbox name, which is used in prompts associated with the mailbox.
Notification	Allows the owner to change such notification settings as the extension or phone number to call, and the time of notification (such as for a pager).
Mailbox State	Allows the owner to turn the mailbox off, set it to greeting only, forward calls to an extension, forward calls to a mailbox, or forward calls to menu. Typically this is not allowed as it may cause system problems.
Personal Lists	Allows the subscriber to create up to ten personal distribution lists, and maintain them over the telephone.
Guest Mailboxes	Allows the owner to communicate with a guest who does not have a mailbox on PathFinder.
Auto-Attendant	Allows the mailbox owner to edit extension settings.
Note Pad	Grants the mailbox owner access to a personal voice note pad. The voice note pad is similar to a note pad referenced with an index. The index can be any eight-digit number with an associated voice file.

Transfer Out	Allows the mailbox owner to transfer to other extensions or mailboxes. This option should be turned off in a service bureau application or when the Auto-Attendant is not used.
Delete Unheard	Allows the mailbox owner to pull back messages that were sent to another local mailbox. PathFinder prompts the owner for the destination mailbox, and then check to determine if any unheard messages from the owner are still in the mailbox. PathFinder plays each message and allows the owner to selectively delete them.

Notification Settings

PathFinder has a variety of notification options that are used to tell mailbox owners when they have received a new message. Click on **Notification** in the *Edit COS* window to display these options. The following window is displayed:



COS Voice Mail Notification - Definitions

Message Waiting	PathFinder can send message waiting commands to telephone systems that support message waiting indicators or similar notification devices.
Off	PathFinder does not send message waiting to an ancillary device such as a pager or telephone.

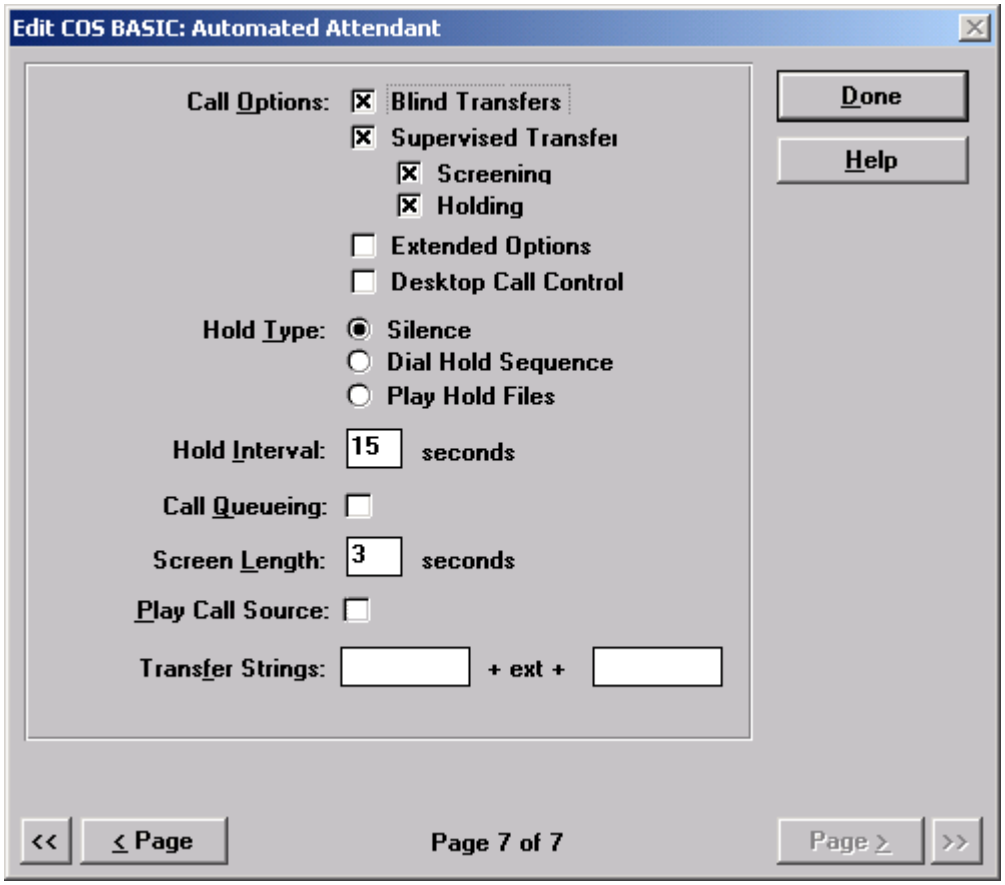
On: First Message	PathFinder sends message waiting indicators only when the first message is received.
On: Every Message	PathFinder sends a message waiting indicator for each new message received by the subscriber.
MWI Strings	Normally, a phone system defines the Message Waiting Indicator strings by the length of the extension in MWI/ Notification. On some phone systems, it is necessary to define MWI strings on a per COS basis. The COS message MWI string settings take precedence over the system COS. Default MWI settings are defined in the *Configuration* menu. Refer to *"MWI/Notification" on page 3-28*.
Event Handler Group	The Event Handler facility is used to program PathFinder's notification lines. The default Event Handler Group is **5**. For notification to work, at least one of the phone lines must be assigned an event handler. Refer to *"Setting Up Phone Lines" on page 3-85* to complete configuration of the event handler.
Voice Notify Options	These options apply when PathFinder plays messages to the caller during notification. Refer to *Appendix A* for more information on how to configure PathFinder to play messages to the caller during notification.
Password Required	To force the owner to enter a password to retrieve messages.
Msg Pickup Allowed	To allow message retrieval without password entry. NOTE … Allowing message pick up without a password can undermine the privacy/security of the mailbox.
Message Cascading	This powerful option gives PathFinder great flexibility in delivering a message. Any incoming message, depending on the cascade setting, can be copied or forwarded to other mailboxes. NOTE … Refer to *"Cascade To" on page 3-49* for more information about configuring cascading options. When *Message Cascading* is activated, either the message itself or a copy of the message also automatically "cascades" to another mailbox. Refer to *"Original Message" on page 3-66* for selecting options to decide what happens to the original message in the primary mailbox.
Off	To turn off the Message Cascading option.
Immediate	To cause cascading to begin immediately, allowing the message to be copied or forwarded to another mailbox. *For example* … if the *Message Cascading* option is set to Immediate notification, then the following process occurs: ☐ Mailbox gets a message wait. ☐ Notification is activated. ☐ Message immediately cascades to another Mailbox.

When Notify Fails	To allow the message to be copied or forwarded to another mailbox or other mailboxes only when the notification has failed and a mailbox owner has not retrieved the message. *For example* … if the *Message Cascading* option is set to When Notify Fails, then the following process occurs: □ A mailbox gets a message wait. □ Notification is activated: the complete notification takes 30 minutes. □ If the owner of the Mailbox does not save or delete the message within 30 minutes, the message will cascade to another Mailbox.
On Urgent Only	Check box to activate either When Notify Fails or Immediate cascading only for messages marked Urgent.
Original Message	These options are available when *Message Cascading* is set to Immediate or When Notify Fails.
Leave as New	Leaves the original message as a new message in the original mailbox. Remember that all new messages in the original mailbox will be cascaded. *For example* … □ Subscriber receives a new message at 9:00 a.m., and that message is cascaded. □ Mailbox owner does not save or delete the message. □ Subscriber receives a new message at 4:00 p.m. □ Both new messages will be cascaded.
Save Message	To cause the message to be saved in the original mailbox once the forwarding is completed.
Delete Message	To cause the original message to be deleted from the original mailbox once the forwarding is completed.
Notification	This option determines the time interval between each notification attempt until the owner retrieves message.
mins (time interval)	The time is measured in minutes, with a maximum interval of 999 minutes.
attempts (notify retries)	This parameter determines how many times PathFinder attempts to notify a mailbox owner after receiving a new message. The maximum number of attempts is 99.
Retry Pager	This option only applies to pager notifications. It allows notifications to a pager to be repeated if PathFinder detects a busy or no answer when calling a paging company. In other words, if PathFinder detects a busy or no answer, PathFinder does not consider that an attempt to notify the paging company has been made and retries later.
Notify Script	Notify script is a command file if notification is active. This powerful feature allows complex notification scripts to be created on a per COS basis. This option can only be used if a notification script has already been written. Refer to *Appendix A* for creating notification scripts.

Auto-Attendant Settings

These options determine the handling of several automated operations with PathFinder.

Click on **Auto-Attendant** in the *Edit COS* window to display these options. The following window is displayed:



COS Automated Attendant - Definitions

Call Options	Call options describe what extension settings the subscriber can change via their mailbox. Typically, these options should be disabled as the subscriber could significantly alter the behavior of their mailbox and extension settings.
Blind Transfer	To allow unsupervised call transfer where PathFinder forwards the call to the requested extension. This option is commonly used with hunt groups.

Supervised Transfer	If you want PathFinder to monitor the transfer to determine whether the called extension is busy or is not being answered. If you select Supervised Transfer, you can check either or both of the following: □ Screening -- When a caller dials an extension, Call Screening prompts for a name. This information is given to the called party before the call is actually transferred. The called party can either accept or reject the call. □ Holding -- This allows the caller to hold if the called party is busy. PathFinder plays: "I'm sorry, <subscriber's name> is busy. If you would like to hold, press 1. To try another extension or leave a message for this extension, press 2."
Extended Options	This option provides the mailbox owner with more control over the forwarding of the mailbox and extension. Without this option on, the owner can only modify extension settings. With this option on, the owner can specify a destination mailbox or extension.
Desktop Call Control	This *Optional Module* setting enables the DCC Subscriber (Client) feature to receive and answer calls on their PC desktop.
Hold Type	This setting determines what callers hear if an extension is busy and they elect to be put on hold.
Silence	Keeps the call connected, but the caller hears nothing while on hold.
Dial Hold Sequence	Causes PathFinder to execute a flash-hook when the caller is placed on hold (if provided by the phone system, the flash-hook activates music-on-hold).
Play Hold Files	If set to, the caller hears recorded messages prepared for PathFinder. Up to nine hold files can be recorded. Hold files are saved in the VOX subdirectory, and have the following naming convention: □ PATHFINDER\VOX\AAHOLD.0 □ PATHFINDER\VOX\AAHOLD.1 □ PATHFINDER\VOX\AAHOLD.2
Hold Interval	This setting determines how long PathFinder waits before retrying a busy extension. *For example* … if PathFinder attempts to ring a busy extension, and if the hold interval is set to ten seconds, it retries the extension every ten seconds until a connection is made or until the retry limit is reached. The time is measured in seconds, with a maximum interval of 999 seconds.
Call Queuing	This option allows multiple calls to be placed on hold for a single extension. Turning on call queueing causes PathFinder to hold the calls in a queue until they are answered. Queued calls are answered in the order received. Refer to *"Auto-Attendant" on page 3-18* for more information on Call Queue Intervals. *CAUTION* -- When option is enabled, each queued voicemail port is considered busy and will be unable to answer another call. *Call Holding* must be enabled in the subscriber's Extension settings for Call Queueing to function properly. Refer to *"Extension Settings" on page 3-51* for more information.

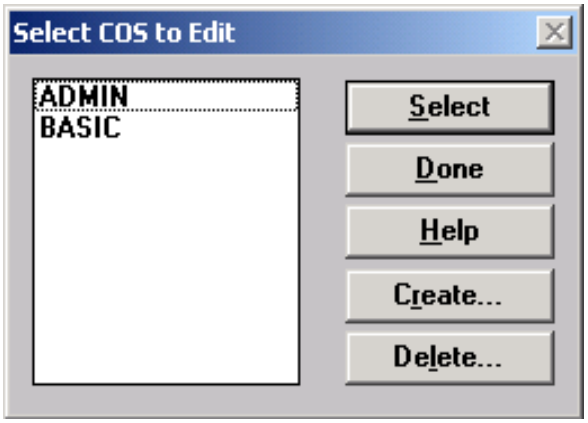
Screen Length	This option determines the amount of time by which a caller must respond with a name when prompted to do so through Call Screening. The time is measured in seconds, with a maximum value of 999 seconds.
Play Call Source	Activating this option means that if a message is left in a mailbox to which an extension was forwarded, the originally dialed extension is identified at the start of the message with a prompt (e.g., "Message from John Smith," if the call was originally intended for John Smith's extension, which was forwarded to the extension from which the message is retrieved).
Transfer Strings	Default transfer strings are typically configured in the telephony settings. Refer to *"Transfer Settings" on page 3-34* for more information. Any setting configured here overrides the default configuration. Configure the transfer prefix and postfix for any subscriber using this class of service.

Creating a COS

A class of service provides an easy way to modify an entire group of mailboxes or extensions. By supporting multiple COSs, PathFinder provides you the ability to provide subscribers with options to features on an as-needed basis.

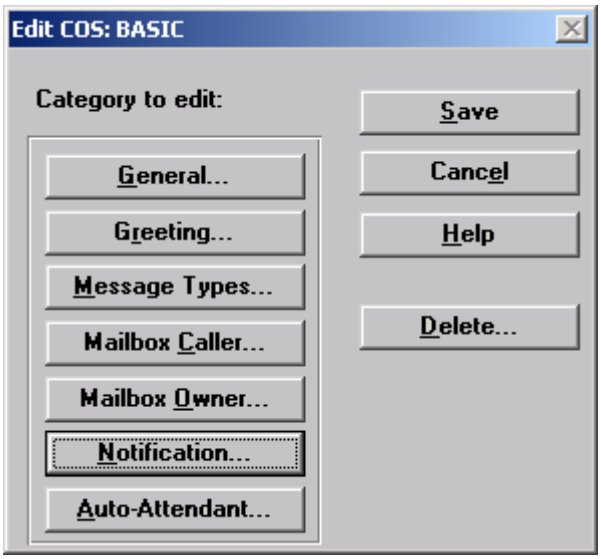
To create a new COS:

1. Click on the **COS** icon.
2. When the *Select COS to Edit* window displays, click on **Create**.
3. If you are using a template COS, select the template from the drop-down list.
4. Enter a name for the COS (up to 20 characters), using any combination of alphanumeric characters. The name should describe the group of users in this COS.
5. Click on **Create** to return to the *Select COS to Edit* window.



6. Highlight the COS you created, and click on **Select**. The *Edit COS* window is displayed, from which you can begin defining the COS.

7. Edit the parameters for this COS. There are seven edit categories, listed at the left of this window. Once you have selected a category, you can reach another by clicking on the page controls that display at the bottom of the window.



Modifying a COS

If you need to make adjustments to the COS you've defined, follow these steps:

1. Start up PathFinder MAINT.
2. Click on the **COS** button on the toolbar.
3. Highlight the COS to modify, then click on **Select**.
4. Click on the button that corresponds to the category of function to be changed. If you need to move from one category to the next, use the page controls that appear at the bottom of the window after you select a category.

Deleting a COS

To delete a COS entirely, perform the following steps:

1. Start up PathFinder MAINT.
2. Click on **COS** on the toolbar.
3. Highlight the COS to delete, then click on **Delete**.

Menu Settings

The MAINT application allows you to configure PathFinder. This section describes the menu functions available through the *Edit* menu in MAINT.

PathFinder provides sophisticated multi-level menuing capabilities that can be used to direct users and callers to information, assist them in performing tasks, and guide them in their use of PathFinder.

Menus combine other modules and features to create sophisticated call processing applications. Before going into a detailed description of the menu module, two terms must be defined:

- **Menu**: A list of actions executed through touch-tone keys. For example, "Press 1 for sales. 2 for support. 3 for administration...." A menu can invoke up to fourteen actions, with each action corresponding to a key on a standard telephone keypad (including * and **#**), plus two actions as defaults.
- **Action**: An instruction that is selected from the *Menu Action* List. It tells PathFinder how to respond when a specific key is pressed. An action can invoke another module (transfer a call to an extension through the Auto-Attendant) or perform a special feature (play a prerecorded message).

Before setting up complicated, multi-level menus, read through this section. It is important that you understand the mechanics of building a menu before you begin.

Designing a Menu

A good way to begin creating a menu is to draft it on paper. Initially, ideas may not seem sufficiently organized to warrant flow charting; if this is the case, just jot them down. Don't worry about the specific order of menu items at this stage; it is more important to get all the ideas down so that alternatives won't be forgotten. Once this is done, begin the process of building a menu flowchart.

Menu Flowchart

The flowchart below illustrates the design of a typical multi-level menu. As you create your own menu, you should include as much detail as possible to avoid menu conflicts.

Once you have generated a flowchart, you are ready to begin creating your menus.

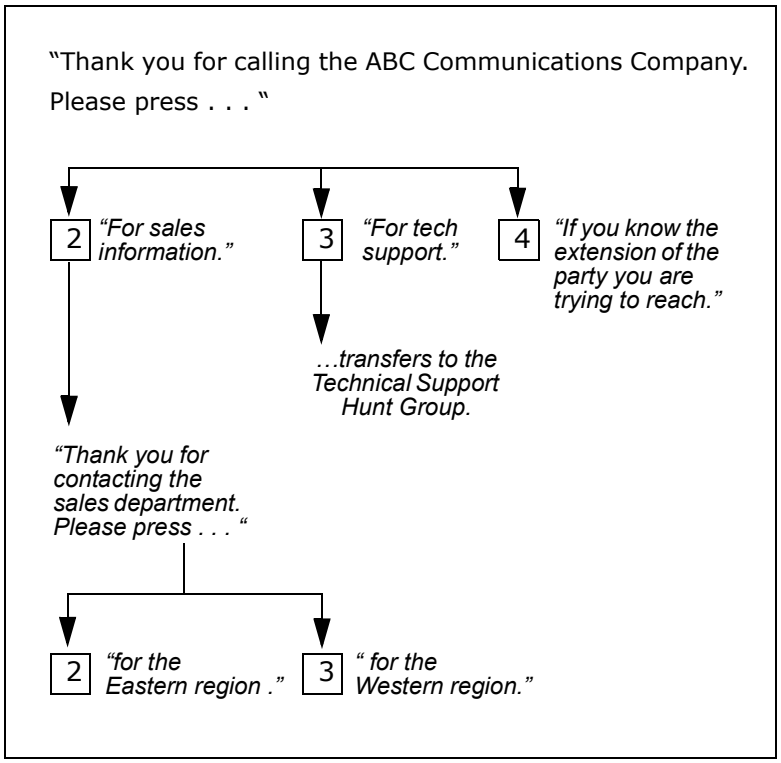
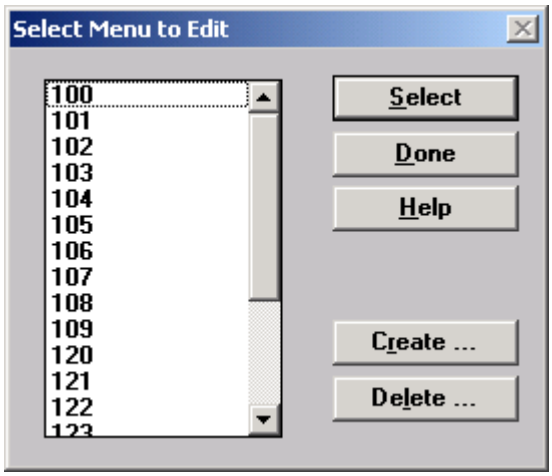


Figure 3-28: Sample Flow Chart for Menu Design

A menu must be created before you can add commands to it or make changes to it. To work with menus, click on **Menu** on the tool bar. The following window displays:

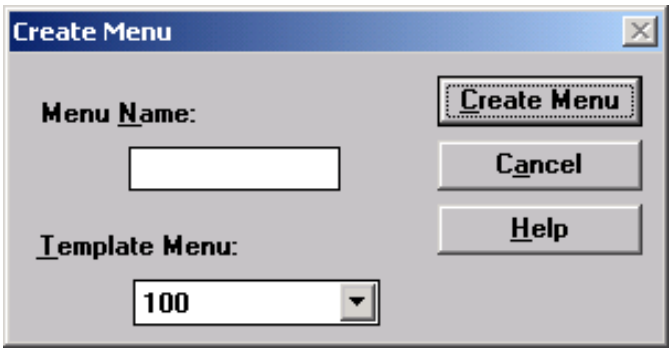


From here, you can create a menu, delete a menu, or select a menu to edit.

Creating a Menu

To create a menu, perform the following steps:

1. In the *Select Menu to Edit* window, click on **Create**. The following window will display:



2. Enter a name for the menu, up to eight characters such as: *Day* or *Night*.
   - A Day Menu will usually transfer to a digital station.
   - A Night Menu will usually transfer directly into a mailbox.
   - By default, Menus 100-119 are pre-defined as "Day", 120-139 are "Night".
3. Click the *Template* field's drop-down list to select a template menu upon which the new menu can be based.

   For example … menu 100 already exists and you want to create a new menu called 200 which is similar to menu 100. You can select 100 as the template menu, or leave the *Template* field blank and no key actions will be defined.
4. Click on **Create Menu** to return to the *Select Menu to Edit* window, highlight the new menu name, and click on **Select** to move to the *Edit Menu* window.

Deleting a Menu

To delete an old or unneeded menu:

1. In the *Select Menu to Edit* window, highlight the menu to remove.
2. Click on **Delete**, then click on **OK** when the confirmation prompt is displayed.

Prompts that are associated with the deleted menu remain on PathFinder *so that other menus can use them. The* PathFinder *clean-up procedures will delete unused prompts.*

Editing a Menu

The **Edit Menu** function is used to edit both new and existing menus.

To edit a menu, perform the following steps:

1. In the *Select Menu to Edit* window, highlight the desired menu, then click on **Select**. The "Edit" window for the menu selected will display:

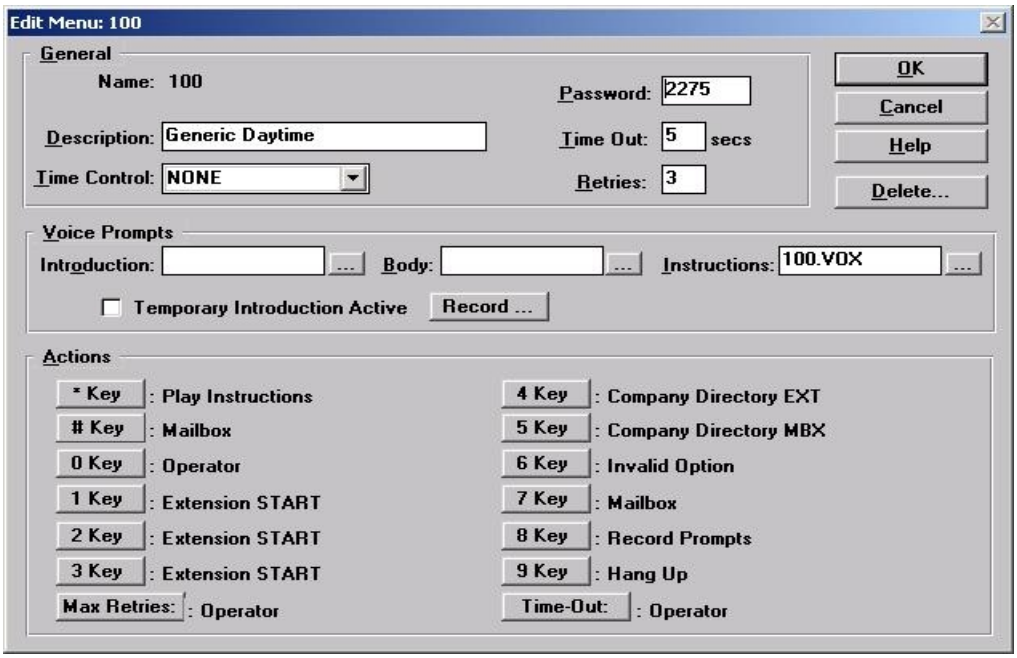


Figure 3-29: Edit Menu (100) Window

2. Configure the edit menu fields and options as described in the following table:

Edit Menu - Field Definitions

General	The General settings describe the basic control functions for accessing a mailbox or extension.
Description	Enter a brief description of the menu's function to remind you of its purpose. *For example* … "Sales Main Menu".
Time Control	Calls are often processed differently in the evening, during the weekend, or on holidays than they are processed during regular business hours. ☐ The time control function lets you define a set of alternative actions that PathFinder performs for calls during defined time periods. Refer to *"Time Control Settings" on page 3-79*. ☐ If you do not intend to use time controls, set this value to `None`. Use caution when configuring this option, as it may cause unexpected behavior.
Password	Specify a password to protect online recording actions. It will be required when a caller accesses the **Record Prompts** action.
Time Out	Specify the length of time after which, if the caller presses the no key, the specified action is to run.
Retries	Specify the number of times a caller can initiate an invalid option. If the caller initiates more than the maximum number of allowed invalid options, the **Max Retries** key action is taken. The maximum value for this field is 999.
Voice Prompts	The voice prompts settings describe information played for callers to assist them in deciding which keys to press. ☐ Menu prompts may be recorded as a single message, -or- they can be divided into 3 sections that will be played in the following order: *Introduction*, *Body*, then *Instructions*. ☐ If no voice prompt is defined, PathFinder plays the next prompt in the sequence. ☐ To the caller, the sequential voice prompts play as a single prompt.
Introduction	Type or select the prompt file to be played first. Typically, only the first menu accessed for a caller plays an Introduction prompt. *For example* … "Thank you for calling ABC Communications."
Body	Type or select the prompt file to be played after the introduction prompt. This prompt is not used in most menus. *For example* … "ABC Communications is a company that specializes in high-tech telephone systems … "
Instructions	Type or select the prompt file to be played after the body prompt (if there is one). The instructions prompt should contain information the caller needs to decide which keys to press. *For example* … "For sales, press 1; for support, press 2 … " and so on.

Temporary Introduction Active

This option allows the System Administrator to call into the PathFinder system, from a remote location, to activate and record a temporary introduction greeting when needed (snow days, emergencies, etc.).

- If the **Record Prompts** key is part of the menu, you will be able to enable or modify a temporary greeting for the menu selected.
- In the MAINT / *Edit Menu* window for the specified menu, you will see the "TEMPORARY.VOX" entry in the Voice Prompts - Introduction field until you decide it is no longer needed.

The Temporary Greeting options are:

To edit introduction, press 1.

To edit main greeting, press 2.

To edit instructions, press 3.

To edit temporary greeting, press 4. This option will play the following prompts, based on your selection:

To hear greeting, press 1.

To re-record greeting, press 2.

To erase, press 3.

To activate greeting, press 4.

To deactivate to greeting, press 5.

To go back, press #.

(**. . .**)

The "Ellipses" buttons display a list of all user-recorded prompts. This allows you to select a pre-recorded prompt.

Actions

Key actions determine the response invoked when a specific key is pressed. Each dial-pad key has an accompanying key action field.

Clicking any **Key Action** button displays the list of options. When you select an option, further options display in the right side of the window, when appropriate.

***** Key	Play Instructions
# Key	Mailbox
0 Key	Operator
1 Key	Extension START
2 Key	Extension START
3 Key	Extension START
4 Key	Company Directory Aa
5 Key	Company Directory Vm
6 Key	Invalid Option
7 Key	Mailbox
8 Key	Record Prompt
9 Key	Hang Up

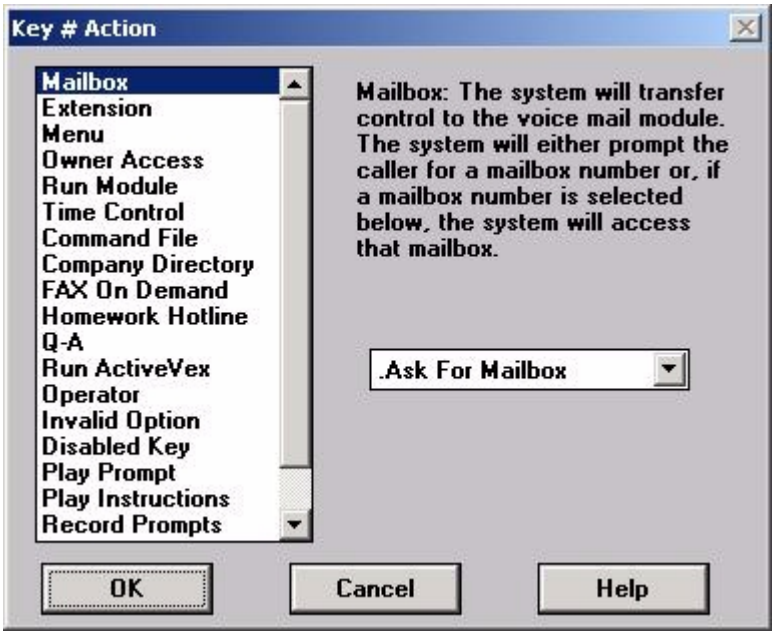
(Each KEY Action is defined below …)

The **Max Retries** setting indicates what happens when the caller presses an invalid key one time more than the retries setting.

The **Time-Out** field indicates what happens when the caller does not press any keys before the time-out period elapses.

Key Action Definitions

Define key actions in the *Edit Menu* window by clicking the corresponding **Key Action** button. Fields in the resulting window can be configured as described in the following tables.



Mailbox Action Commands

These key actions will send the caller to a specific mailbox.

Ask for Mailbox	PathFinder prompts the caller to enter a mailbox number. For example, if the 1 Key is set to **Ask for Mailbox**, then callers press 1, they hear, "Enter the mailbox number of the person you are trying to reach. Press zero for the operator. Press the star key for the directory."
Start Key	The first digit of the mailbox you are trying to access. For example, if the 2 Key is set to **Start Key**, then when the caller presses 2, they will not hear a prompt, and the system will wait for more digits. NOTE -- If you assign 2 as the mailbox Start Key, then you must have mailbox numbers that start with the digit 2.
Specific Mailbox Number	The caller is transferred directly to the mailbox indicated. For example, if the 3 Key is set to send to **Specific Mailbox Number**, then when callers press 3, they are transferred directly to that mailbox.

Extension Action Commands

These key actions will send the caller to a specific extension.

Ask for Extension	PathFinder prompts the caller to enter an extension number. For example, if the 1 Key is set to **Ask for Extension**, then callers press 1, they hear "Enter the extension number of the person you are trying to reach. Press zero for the operator. Press the star key for the directory."
Start Key	The first digit of the extension you are trying to access. For example, if the 2 Key is set to **Start Key**, then when the caller presses 2, they will not hear a prompt and the system will wait for more digits. If you assign 2 as the extension Start Key, then you must have extension numbers that start with the digit 2.
Specific Extension Number	The caller is transferred directly to the extension indicated. For example, if the 3 Key is set to send to **Specific Extension Number** `123`, then when callers press 3, they are transferred directly to extension 123.
Menu	Executes the selected menu.
Owner Access	Gives access to mailbox owner menus. This is used with in-band integration or to provide access through a hidden key on a menu. The caller will enter this key followed by their mailbox number.
Run Module	Runs other modules that PathFinder supports.
Time Control	Enter the time control to run. This option takes actions based on time, date, and day of week settings. Refer to *"Time Control Settings" on page 3-79* for more information on time controls.
Command File	Runs the command file script. Refer to *Appendix A* for additional information on command files.
Company Directory	Provides a company directory listing, for either mailboxes or extensions.
Fax On Demand	Refer to the Fax-related sections of the *Optional Modules* manual for more information on this option. Fax modules are optional and are sold separately. If enabled, the following choices are available: ☐ May be left blank to have the caller select fax documents ☐ May contain a document number ☐ May contain `ADMIN` to allow the caller to access fax-on-demand administrative functions
Homework Hotline	Homework Hotline is part of the "optional" ChalkTalk application that allows teachers to record school assignments. When activated, students and parents can call in and listen to the assignments. For more details, refer to the *"Homework Assignments" on page 2-27* in the *Optional Modules* manual.
Q-A	Q-A is part of the "optional" ChalkTalk application that allows an administrator to design Questionnaires using the QA Admin program. Refer to *"Questionnaires" on page 2-31* in the *Optional Modules* manual for more information.

Run ActiveVex	Runs an *ActiveVex* module such as: *AvDCC.run* for Desktop Call Control or *AVOutDial.main* for ChalkTalk.
Operator	Transfers caller to the General Operator. Refer to *"Operators" on page 3-14* for more information on Operator settings.
Invalid Option	Plays the message "Invalid option" and repeats the instructions.
Disabled Key	Pressing a key with this action has no affect at all. It is as if the key were never pressed.
Play Prompt	Plays the indicated voice prompt file. Alternatively, you can select a prompt based on its directory location (directory number listed below) and the specific file name, such as `4:help.vox`. The available directories include: 1: Modules 4: VOX 7: dBase 2: Prompts 5: Mailbox 10: Data 3: Messages 6: Menus 20: Data For example, to have PathFinder play the mailbox greeting for mailbox 345, type `3:345.GRS` as the prompt name.
Play Instructions	Replays the instructions prompt, such as, "To hear this menu again press...". Only the instruction prompt associated with the menu is played.
Record Prompts	Allows a caller to re-record prompts for a menu. The caller, after pressing the key associated with this action, is prompted for the menu password. The Introduction, Body, Instructions, or any play prompt file attached to a particular key can then be recorded or edited.
Change Language	Changes the prompt files for those recorded in the selected language. Only languages you have purchased are available.
Hang Up	Plays the hang up message "Thank you for calling" prior to disconnecting the caller. For example, a menu might include this option at the end of a list, "Press 1 for sales, 2 for support, # to return to the previous menu, and 9 to hang up". If the caller presses `9`, the hang up message plays.
Max Retries	This field determines the number of incorrect attempts that callers are given when entering key presses.
Time-Out	The amount of time the caller has in which to enter a response after all menu prompts have been played. PathFinder executes the Time-Out action once this time limit has been exceeded. 5 seconds is usually sufficient. The max value for this field is 999.

Time Control Settings

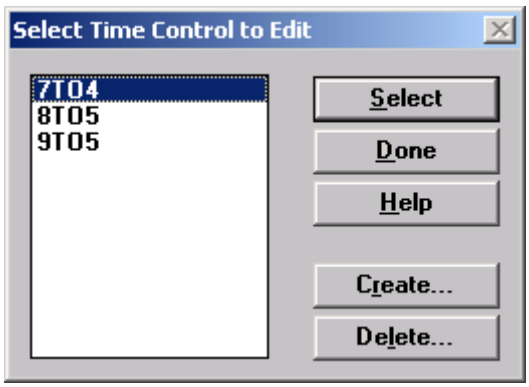
The MAINT application allows you to configure PathFinder. This section describes the time control functions available through the *Edit* menu in MAINT. Time controls are settings that allow PathFinder to activate or disable extension and mailbox features depending on date, day, and/or time settings.

Time controls can be used to route calls, send callers to voice mail, and play menus, among other things based on time and day settings.

- Up to ten distinct time periods can be defined within a time controls setting, allowing you to make a time control as simple or as complex as needed.
- Time Controls are searched sequentially, beginning with the first defined action. When an action is proven to be true, it is executed, otherwise the next rule is searched and verified.
- Time control searches by date, then by day, then by time.
- Time controls can be chained together to allow more than ten day/time options.
- You can use the time control function to create a new control, and edit or delete an existing control.

Setting Up Time Control Parameters

To work with time controls, click on the **Edit Time Control Records** icon on the toolbar. The following window displays:



Creating a Template Time Control

If you are creating multiple time controls with similar settings, the use of a template time control is helpful. The template time control is a time control with the basic settings defined and is copied when creating new time controls. Typically, you would use the **8-5** time control as the template time control.

However, if you would like to create a specific template time control, perform the following steps:

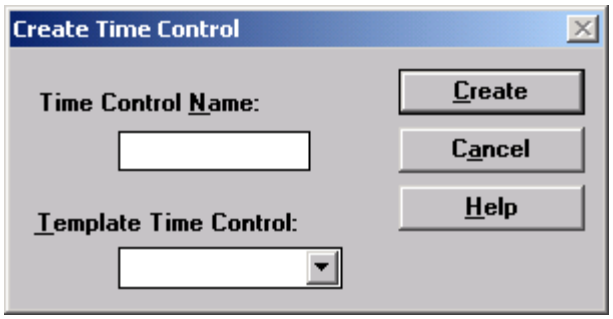
1. In the *Select Time Control to Edit* window, click on **Create**. This displays the *Create Time Control* window.
2. Enter a name of up to eight characters in the *Time Control Name* field.
3. Click on **Create** to return to the *Select Time Control to Edit* window.
4. Edit the new template time control; refer to *"Editing a Time Control" on page 3-80*.

Creating a Time Control

A time control must be created before it can be edited. Creating a time control is the process of assigning the time control a name and entering a description.

To create a new time control, perform the following steps.

1. In the *Select Time Control to Edit* window, click on **Create**. The following window displays:

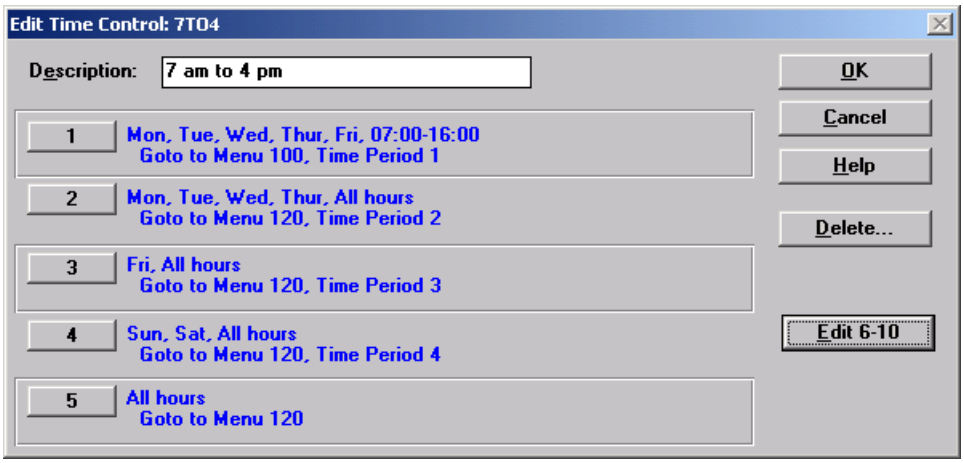


2. Enter a name of up to eight characters in the *Time Control Name* field.
3. If you want to use an existing time control as a template for the one you're creating, select it from the *Template Time Control* pull-down list. If no template is selected, the Time Control will be blank.
4. Click on **Create** to return to the *Select Time Control to Edit* window.

Editing a Time Control

The edit time control function is used to edit both new and existing time controls. If the *Select Time Control to Edit* window is not displayed, click on the **Edit Time Control Records** icon on the toolbar. To edit the time control, perform the following steps.

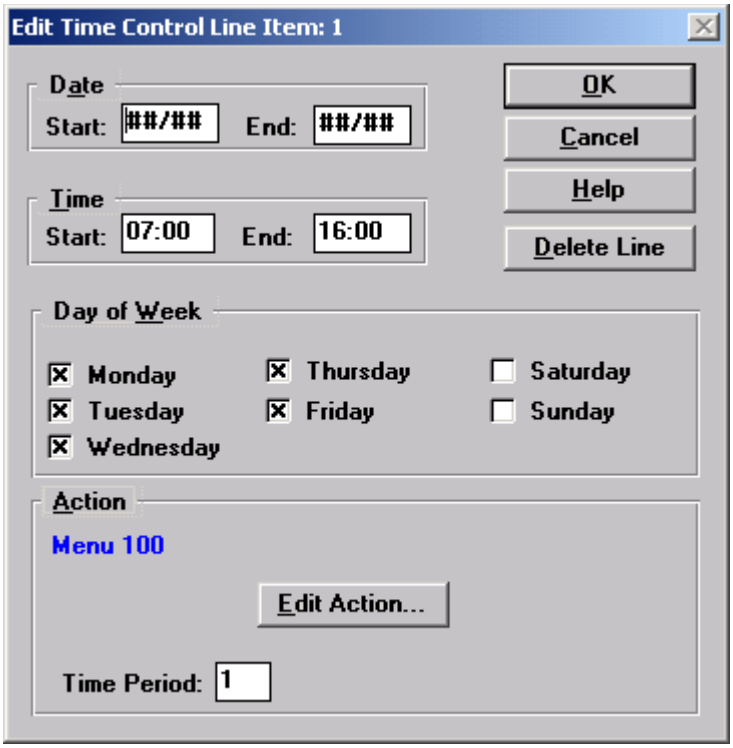
1. Highlight the time control to edit and click **Select**. The following window displays:



The window illustrated above shows a newly created time control, with all fields blank. When you edit an existing time control, the fields already have options entered and displayed.

2. If necessary, type a description for the time control.

3. To define the time control parameters, click on **1**. The following window displays:

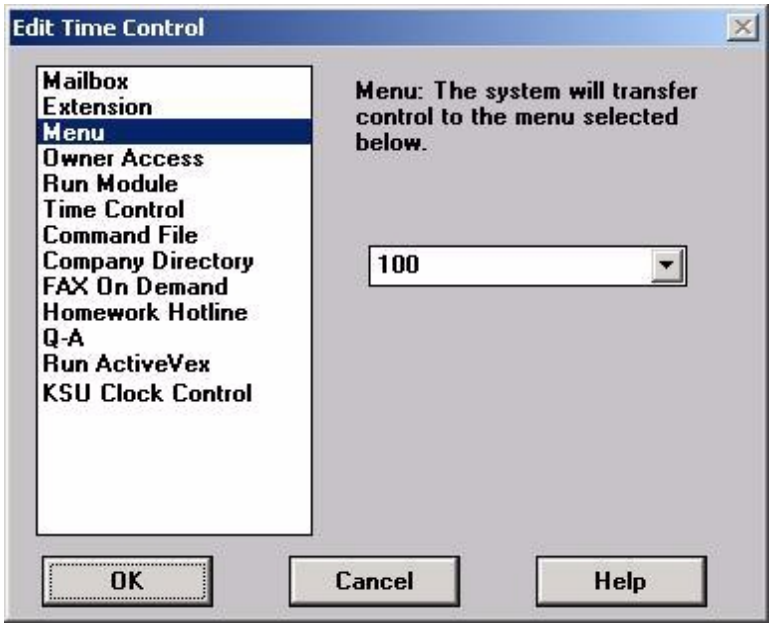


4. In the date fields, enter a *Start* and *End* date, using `MM/DD` format (`01/01` through `12/31`), to indicate specific starting and ending dates to which this line item in the time control applies.
5. In the time fields, enter a *Start* and *End* time, using twenty-four hour format (00:00 through 24:59), to indicate the specific times during the day that this line item in the time control is active.

   When specifying start and end dates and times, the following guidelines apply:

   - Leaving the Start field blank will cause PathFinder to assume the lowest value, i.e. 01/01 or 00:00.
   - Leaving the End field blank will cause PathFinder to assume the highest value, i.e. 12/31 or 23:59.
   - Leaving both fields blank will cause PathFinder to assume all dates or times, i.e. 01/01 to 12/31 or 00:00 to 23:59.
   - The Start date/time must always be earlier than the End date/time. A Start Time of 17:00 and an End Time of 08:00 (i.e., 5:00 p.m. to 8:00 a.m.) is INVALID and may cause PathFinder to behave erratically.
6. In the day of week fields, select the checkbox for each day to which this line item in the time control applies, and clear the checkbox for each day to which this line item in the time control does not apply.
7. In the *Time Period* field, enter a number from 1 to 9 to distinguish different time-related events within a time control. *Time Period* is most often used to control what mailbox greeting is played when a mailbox is reached. Typically, PathFinder uses 1 for daytime, 2 for evening, and 3 for weekend. If in doubt, set the *Time Period* field to 1.

8. Click on **Edit Action** to select the specific action to be performed during the indicated dates, days of the week, and hours during the day. The following displays:



9. Click on the action key that you want to configure. A brief description of each action appears to the right of the window as it is selected.

If you do not select any action, no time control action is performed.

10. Select options from the time control action list as described in the following table:

Edit Time Control - Field Definitions

Mailbox	Sends the caller to the specific mailbox you select from a drop-down list. Selecting Ask for Mailbox causes PathFinder to prompt the caller for a mailbox number.
Extension	Sends the caller to the specific extension you select from a drop-down list. Selecting Ask for Extension causes PathFinder to prompt the caller for an extension number.
Menu	Executes the selected menu.
Owner Access	Prompts the caller for a mailbox number and password, or a password only if you select the mailbox from the drop-down list.
Run Module	Runs other PathFinder modules.
Time Control	Loads a time control and executes the time control action for the computed time period.
Command File	Runs the indicated command file. Refer to *Appendix A* for more information on command files.

Company Directory	Provides a company directory listing according to your selection for Mailbox mode or Extension mode.
Fax on Demand	Provides a choice of entries: □ blank (caller select document to be faxed) □ a document number to be faxed to the caller □ ADMIN (allow caller to access Fax on Demand administrative functions) This option functions only if you have purchased the optional Fax-On-Demand module and have enabled it on the software key.
Homework Hotline	Homework Hotline is part of the "optional" ChalkTalk application that allows teachers to record school assignments. When activated, students and parents can call in and listen to the assignments. For more details, refer to the *"Homework Assignments" on page 2-27* in the *Optional Modules* manual.
Q-A	Q-A is part of the "optional" ChalkTalk application that allows an administrator to design Questionnaires using the QA Admin program. Refer to *"Questionnaires" on page 2-31* in the *Optional Modules* manual for more information.
Run ActiveVex	Runs an *ActiveVex* module such as: *AvDCC.run* for Desktop Call Control or *AVOutDial.main* for ChalkTalk.
KSU Clock Control	For Digital systems only.

11. Click on **OK** until you return to the *Edit Time Control* window.

Repeat steps 3. through 11. of the above process until all lines of the time control have been defined. Clicking **Edit 6-10** in the *Edit Time Control* window provides access to a second series of lines.

Once all options have been set and saved, you can begin to use the time control. Time controls can be used in mailbox, extension, and menu settings.

Refer to the following sections for details on using time controls.

- *"Voice Mail, Auto-Attendant, & Menu Time Periods" on page 3-26*
- *"Mailbox Settings" on page 3-48*
- *"Extension Settings" on page 3-51*
- *"General Settings" on page 3-55*
- *"Editing a Menu" on page 3-73*
- *"Setting Up Phone Lines" on page 3-85*

Deleting a Time Control

The delete time control function is used to remove any time control that is no longer of use. To delete a time control, perform the following steps.

1. Click on the **Edit Time Control Records** icon on the toolbar.
2. Highlight the time control to delete, then click on **Delete**.
3. When prompted if you want to proceed with the deletion, click on **OK**.

Line Settings

The modular nature of PathFinder allows you to assign a specific module or application function to each telephone line (also referred to as a port or channel). When a caller dials a specific line, PathFinder runs the module that has been assigned to that port.

Setting Line Parameters

Set the initial module for each line according to PathFinder's use and configuration.

The following are suggestions on appropriate uses of various options:

- If all calls to PathFinder are processed the same manner, regardless of time or date, use the same menu option for all ports.
- If calls are processed differently based on the time or date the call is received, select the **Time Control** option, along with the appropriate time control file.
- If you want callers to leave a voicemail message, select the **Mailbox** option.
- The **Extension** option is used when PathFinder is running as a simple Auto-Attendant setup. However, this setting could cause erratic operations. It may not allow callers to enter a mailbox.
- If you are running a custom module, consult with Vodavi Technical Support before selecting the **Run Module** option.
- Choosing **Command File** allows you to control the call more directly, through the use of a script, or through special functions of the PBX. This option requires some programming. Refer to *Appendix A* for more information.

Assigning Port Modules

You should read this section before actually assigning any modules to a line. Then, read the sections of the manual that describe the modules you plan to install. When you have finished, return to this section to complete setup for your PathFinder phone lines.

System Partitioning

It is important to note that each line is independent from the other lines and can be programmed to perform a unique function. This is referred to as system partitioning. It allows you to run multiple telephone automation applications with a single PathFinder installation.

To program system partitioning, perform the following procedure for each line:

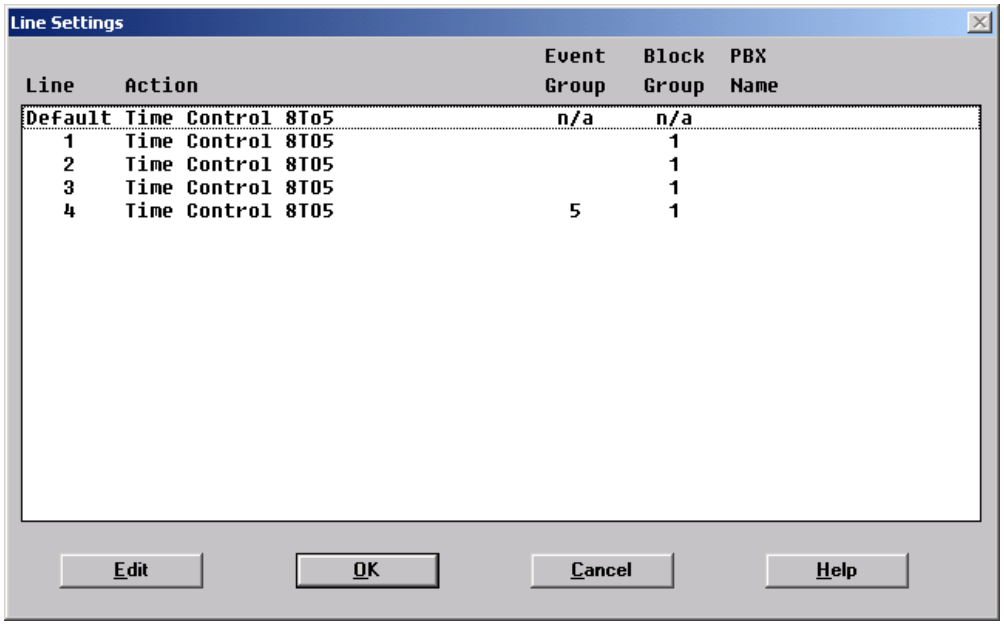
- Select the line
- Select a module to install on the line
- Define parameters, if any, that regulate how the installed module functions

Setting Up Phone Lines

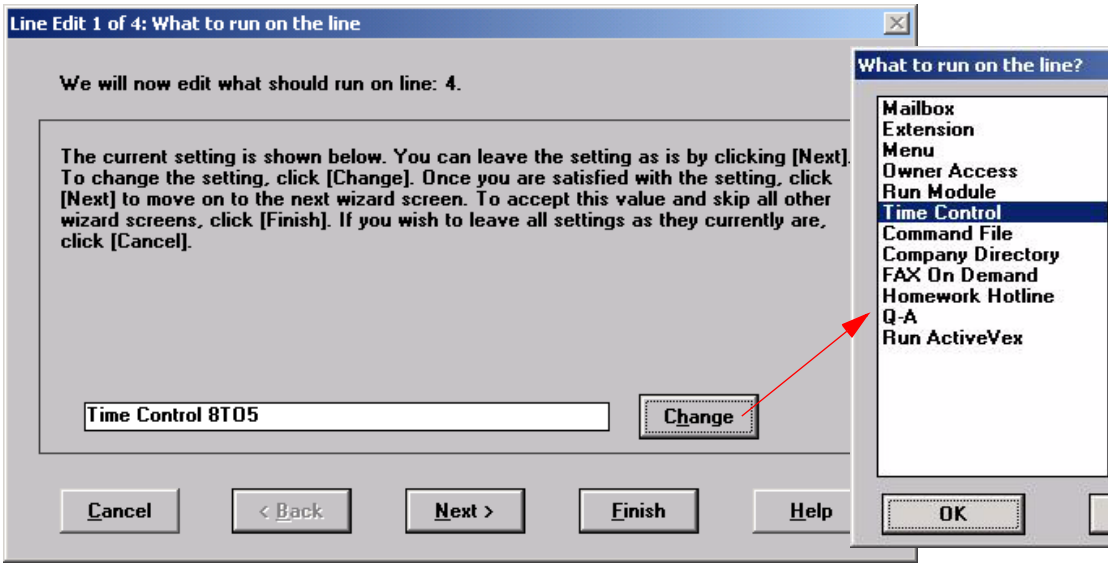
Each phone line must be set up to run an initial module when PathFinder starts. This is the process of selecting a starting function for each line and assigning any needed parameters to that line. You can selectively define separate functions for every phone line.

To set up phone lines, perform the following steps:

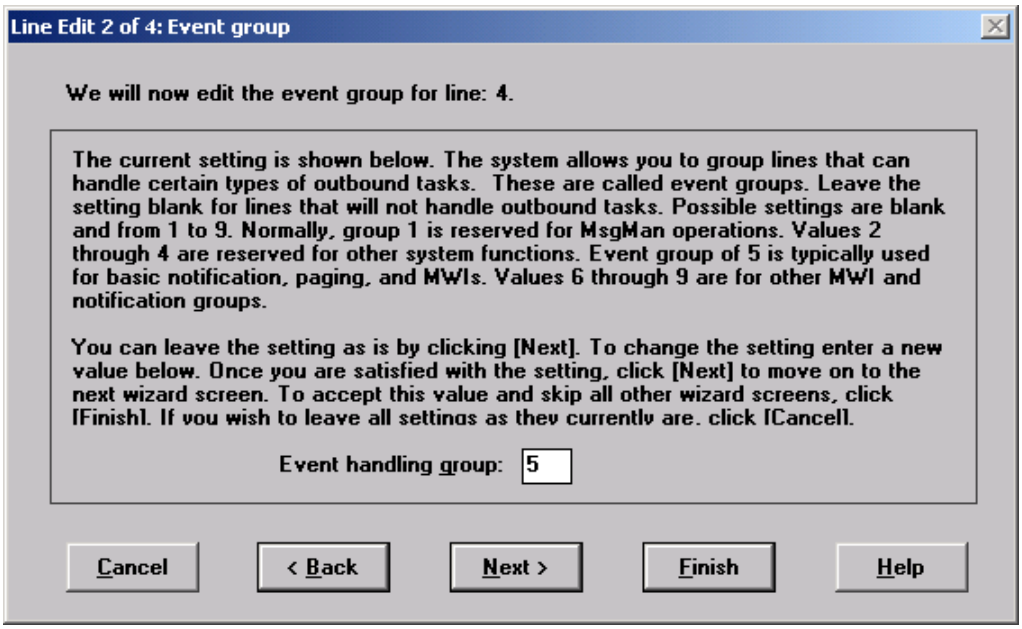
1. Click on the **Line** icon in the toolbar. A window similar to the following displays:



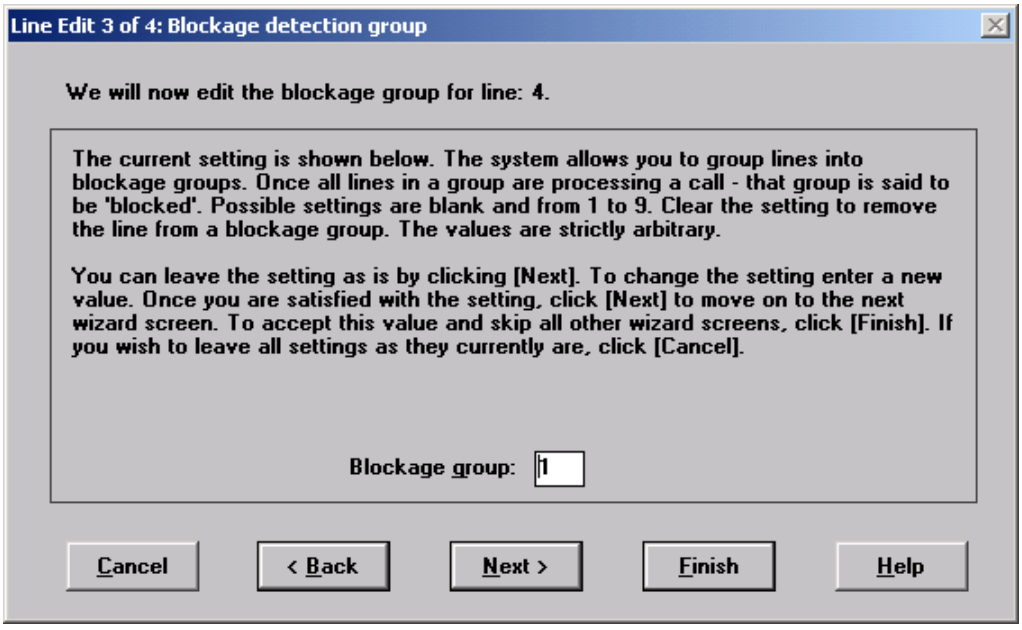
2. Highlight the line to configure in the *Line* field, then click on **Next**. The following window displays:



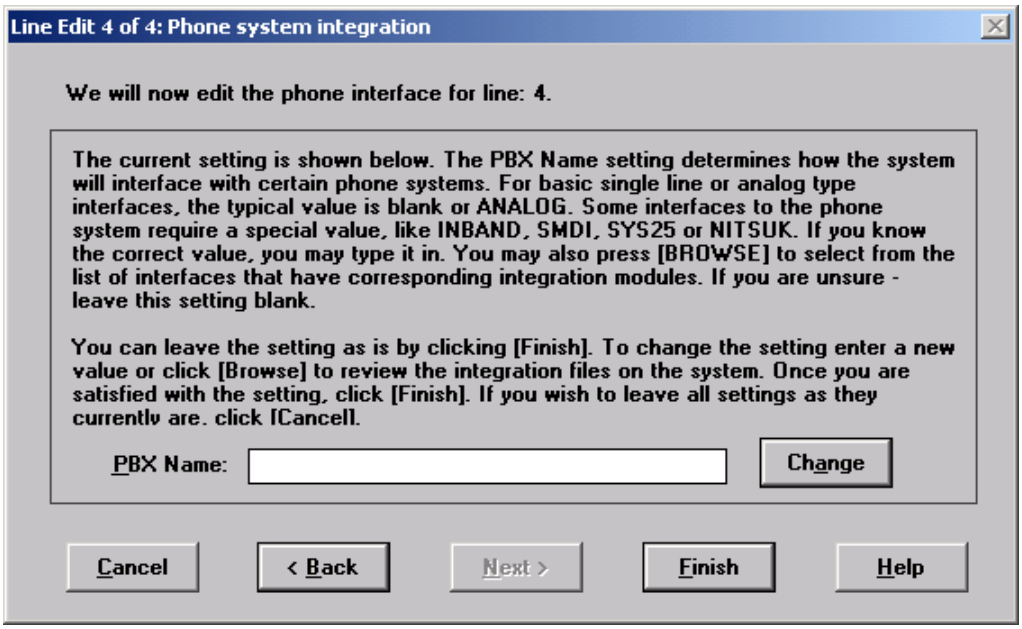
3. Click on **Next** to display the *Event Handling Group* window:



4. Click on **Next** to display the *Blockage Group* window:



5. Click on **Next** and the *Phone system integration* window will display:

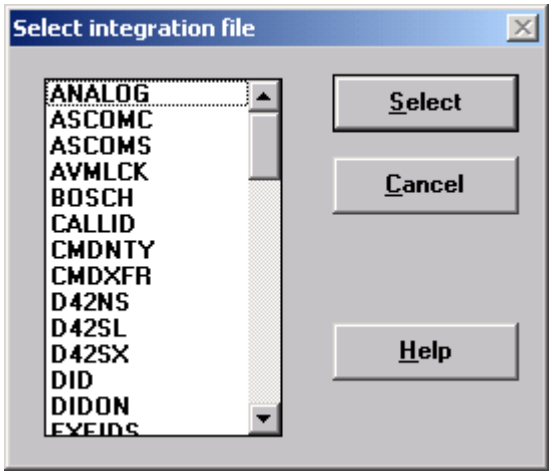


6. To accept the current settings, click **Finish**,

   -or-

   Enter a new name in the PBX Name field for any lines that do not have a PBX name explicitly defined. Then click **Change** to select the integration file to be used.

   In most configurations, you can leave this value blank or set it to ANALOG.



Refer to *"Setting Line Parameters" on page 3-84* for more information on configuring these fields:

Mailbox	Prompts the caller to select a voice mailbox or sends caller to a specific mailbox, depending on your selection from the drop-down list.
Extension	Prompts the caller to select an extension or sends caller to a specific extension, depending on your selection from the drop-down list.
Menu	Plays the selected PathFinder menu.
Owner Access	Grants access to mailbox owner privileges for a specific mailbox, or prompts the caller for a mailbox, with password prompting in either case.
Run Module	Activates the selected module.
Time Control	Loads a time control file and takes the menu action specified in the current time period.
Command File	Runs the specified command file. Refer to *Appendix A* for information on command files.
Company	Sends the caller to the company directory, in your choice of mailbox mode or extension mode.
Fax On Demand	Provides a choice of entries including blank (caller select document to be faxed), a document number to be faxed to the caller, or ADMIN (allow caller to access Fax on Demand administrative functions). The Fax-On-Demand option is available only if you have purchased the optional Fax-On-Demand module and have enabled it on your software key.

7. Once you have selected the module and clicked on **OK**, you are returned to the *Edit Line Settings* window.

System Lists

One of the easiest ways to send a single message to many different mailboxes is through a system distribution list. PathFinder supports two types of distribution lists:

- System lists: Set up by the System Administrator
- Personal lists: Set up by individual users

For example … a system distribution list could be created for the Sales department. The Sales Manager (or any other PathFinder subscriber) could use this system distribution list to send one message that would be received simultaneously by each Sales employee in the list.

System distribution lists have the following characteristics:

- The number of lists that can be created is limited only by disk space.
- System lists are not associated to a specific mailbox.
- System lists can be maintained over the telephone by the Administrator.
- System lists can contain up to 200 entries. An entry may be a mailbox number or another list number, allowing you to chain lists together.

System lists allow users to route messages simultaneously to groups of mailboxes. In addition to mailbox numbers, system lists can contain other list numbers, making it possible to create unlimited distribution lists.

Creating a System List

To create a system distribution list:

1. Select **System Lists** from the *Edit* menu.

   The following window displays

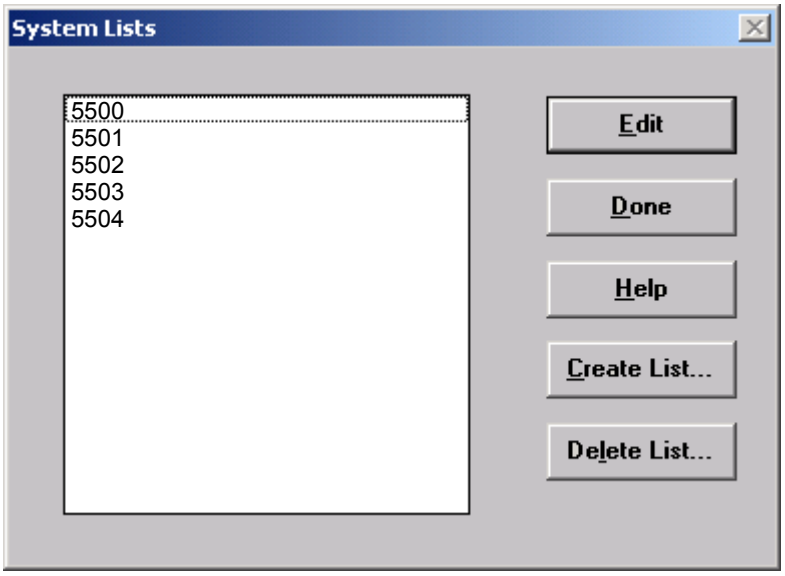


Figure 3-30: *System Lists* Window

2. Click on **Create List** to display the following window:

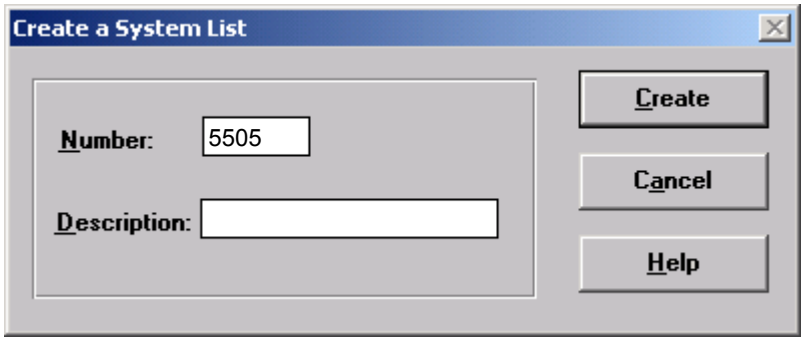


Figure 3-31: *Create a System List* Window

3. Assign a number for the list and type a description to describe the list's purpose. Click on **Create** to return to the *System Lists* window.

Do not enter a number that is also used as a mailbox number. Doing so will cause any message intended for the distribution list to be sent instead to the mailbox.

4. In the *System Lists* window, highlight the name of the list you are creating, then click **Edit** to display the following window:

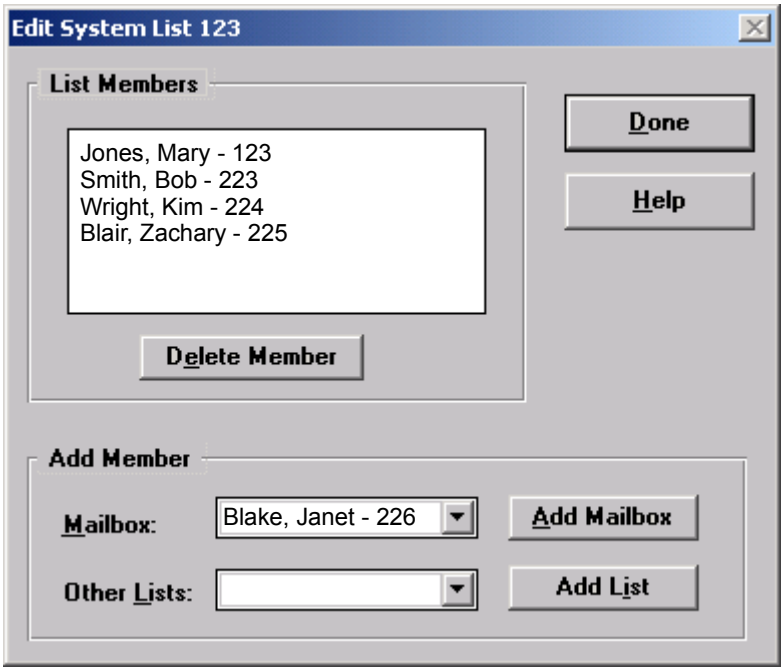


Figure 3-32: *Edit System List* Window

5. You have created a system list. You can edit your new system distribution list to add mailbox numbers, list numbers, and other numbers.

Editing a System List

To edit a system distribution list by adding or deleting mailbox users or system list numbers, perform the following steps.

1. From the main MAINT window, select Edit > System Lists from the menu bar.
2. Select the system list that you need to edit, then click **Edit**.

You must first create a list before you can edit it. Refer to "Creating a System List" on page 3-89 for more information.

3. For each mailbox user you want to add, select the mailbox user from the *Mailbox* pull-down menu and click on **Add Mailbox**. Repeat this process for each mailbox user you want to add.
4. For each previously-created system distribution list you want to add, select the from the system distribution list from the *Other Lists* pull-down menu and click on **Add List**. Repeat this process for each system distribution list you want to add.
5. To delete a user from the list, highlight that user in the list members pane at the top of the window, then click on **Delete Member**.
6. When you are finished editing the distribution list, click on **Done**.

Deleting a System List

To delete a system list, perform the following steps.

1. From the main MAINT window, select Edit > System Lists from the menu bar.
2. Highlight the list to be deleted.
3. Click **Delete List**.
4. When prompted to confirm the deletion, click **OK**.

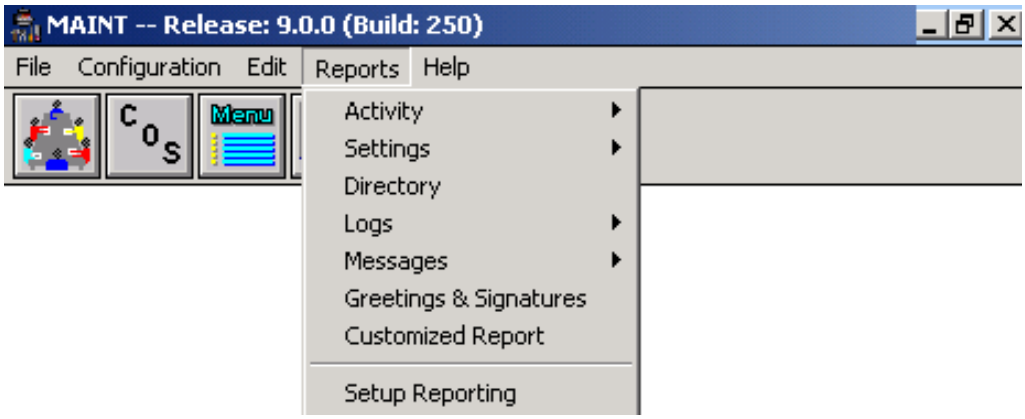
4 PathFinder Reports

PathFinder has the ability to generate a variety of reports for diagnostic and information purposes. This chapter discusses the various reports that can be output by PathFinder and how best to utilize them.

Overview

These system reports can help diagnose problems, allocate resources, and improve PathFinder's efficiency. The following sections describe the *Reports* menu which is located in the MAINT application, and includes options related to the following topics:

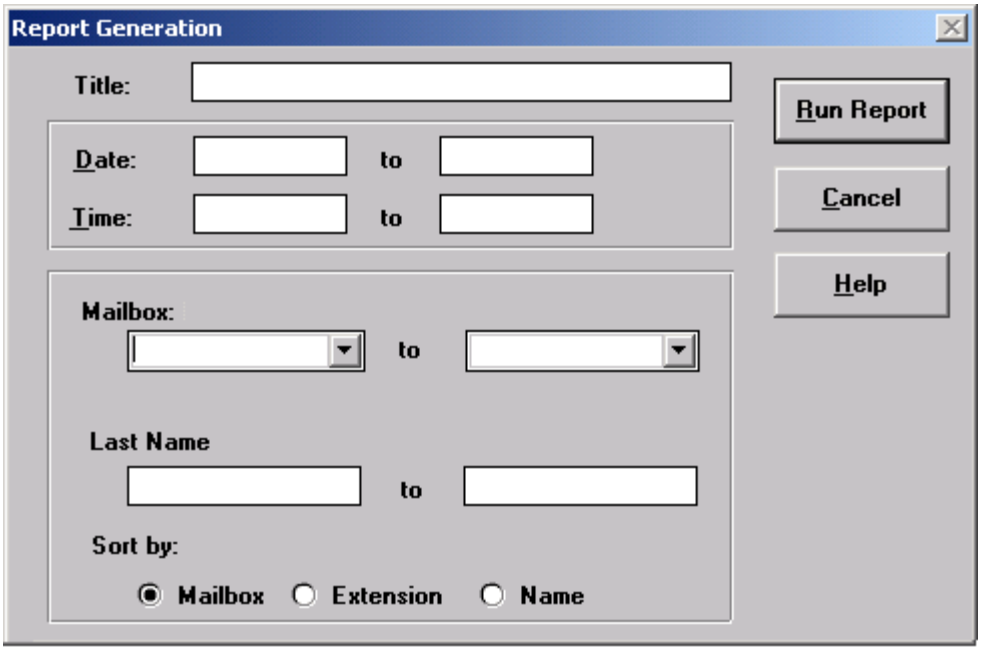
- PathFinder activity
- Reports settings
- PathFinder directory
- PathFinder logs
- Messages
- Greetings & Signatures
- Customized reports
- Reporting setup



Reports Criteria

Reports criteria are used to select specific data when generating a report. To generate any of the PathFinder reports:

- Select the report type from the *Reports* menu.
- A window displays in which you select the criteria appropriate to the particular report.
- The active fields available for selection criteria depend upon the report being generated.



Dialog Box Options

Title	The type of report you selected from the *Report* menu will appear in this field.
Date	Enter the complete start and stop dates, which must be in MM/DD/YY format (e.g., for November 21, 2001, enter 11/21/01). If the date fields are left blank, Maint selects all records with any date.
Time	Enter the complete start and stop times in 24-hour format (HH:MM:SS). If left blank, Maint selects all records with any time.
Mail Box, Extension, Menu, COS, or Time Control	Use the dropdown lists to select the appropriate first and last items for selection criteria.
LastName, Fax Documents, or Look For	Enter the appropriate selection criteria range for the report you want to generate.
Sort by	When this option is available, select the order you want to see for that report: Mailbox, Extension, or Name.

Dialog Box Guidelines

- All reports are viewed with *WordPad*. If you wish to print or save a report, use *WordPad* to do this.
- In the *Settings* reports, if no data is available for a particular field, that field is not shown in the report. For example: If the *Department* field is blank, no *Department* field appears in the report.
- When entering selection criteria for a report, PathFinder remembers the last criteria entered in any report and offers that as a default selection. *For example* … if you run a mailbox settings report, the mailbox range used in that report appears when you run a different report with a mailbox range criterion.

The windows shown in the Reports chapter are intended to illustrate report structures, and may not reflect actual information or data.

Report Setup Options

The **Setup Reporting** item in the *Reports* menu is used to select the lines you want printed per page, header options, and the speed at which reports are generated. The *Report viewer* field allows you to indicate what application is used to display reports.

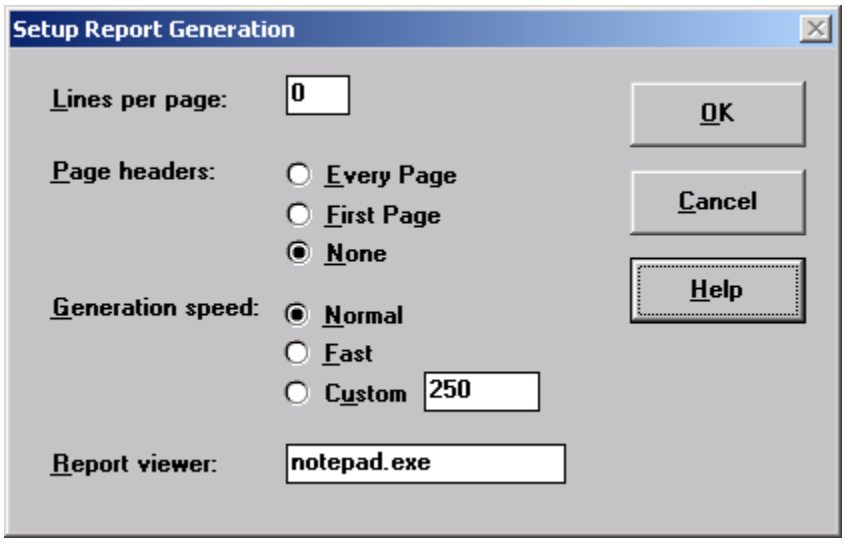


Figure 4-1: Setup Report Generation Window

For the *Generation speed* setting, select one of the following options:

- Select **Normal** if MAINT is running on the same computer as the PathFinder engine.
- Select **Fast** if MAINT is running on a separate computer.
- Select **Custom** and enter a value only if instructed to do so by Vodavi Technical Support.

By default, the *WordPad* application is used to view reports. If you want to use a different viewer, specify it in the *Report viewer* field, along with the complete path.

Activity Reports

Activity reports reflect PathFinder use. Data for the reports are obtained from the PathFinder system logs.

Call Traffic Usage

This "Usage" report displays call traffic information.

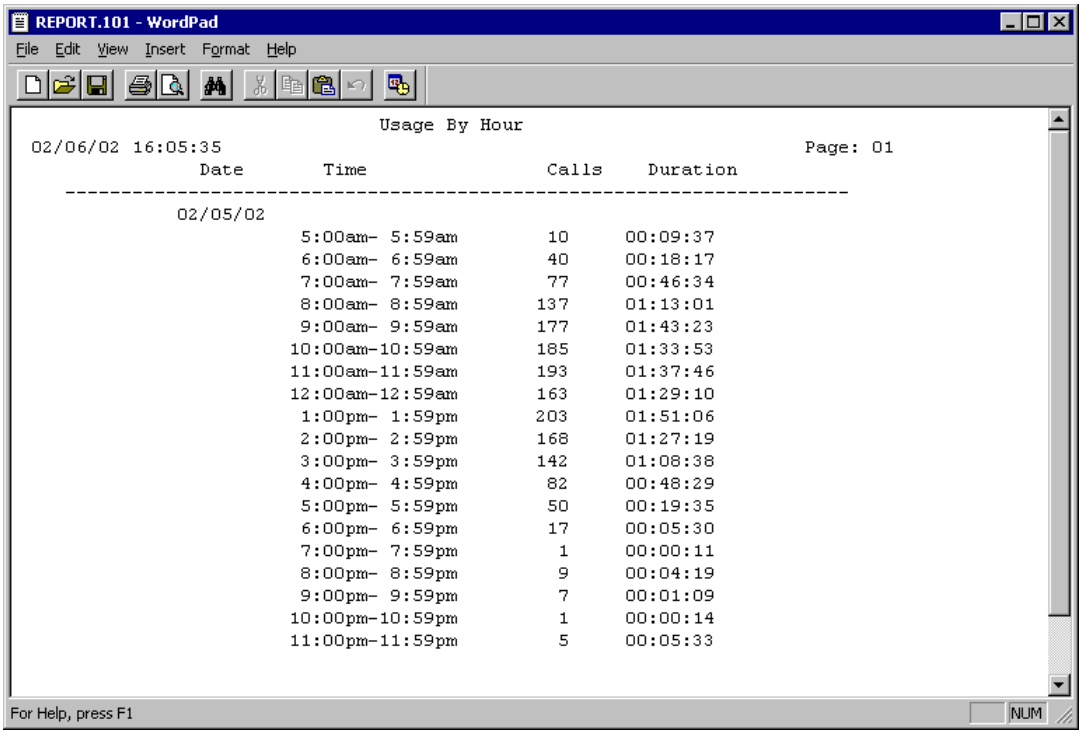


Figure 4-2: Usage Report Example

Report Data	Use
The data are sorted by date and time (hour) and display the total number of calls (inbound and outbound) as well as the combined duration of all calls.	This report demonstrates when PathFinder is the most and least active. Its uses include: ☐ Determining staffing requirements ☐ Determining volume of after-hours calls

Mailbox Usage

The *Mailbox Usage* report provides the log lines related to mailbox activity. The report (sorted by date): tracks each time the mailbox was accessed, the length of the message left, and the number of times that the owner accessed the mailbox.

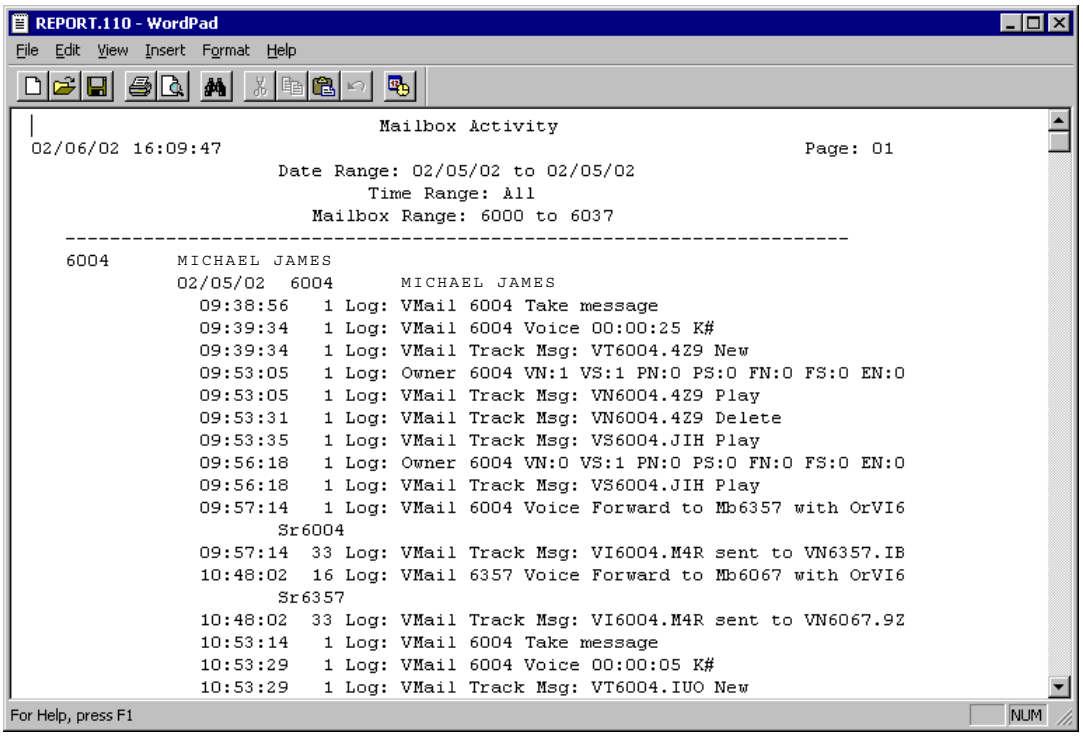


Figure 4-3: Mailbox Usage Report Example

Report Data

- Mailbox number and name of mailbox owner
- Message Length (elapsed time of recording)
- Line call came in on
- Number of messages recorded (Msg Left)
- Time of mailbox entry
- Out-dial/Notification events
- Number of messages retrieved (MAINT)
- Total Trunk Access
- Duration between the caller's initial connection to PathFinder and subsequent hang-up after leaving a message or time required for mailbox owner to retrieve messages

Use

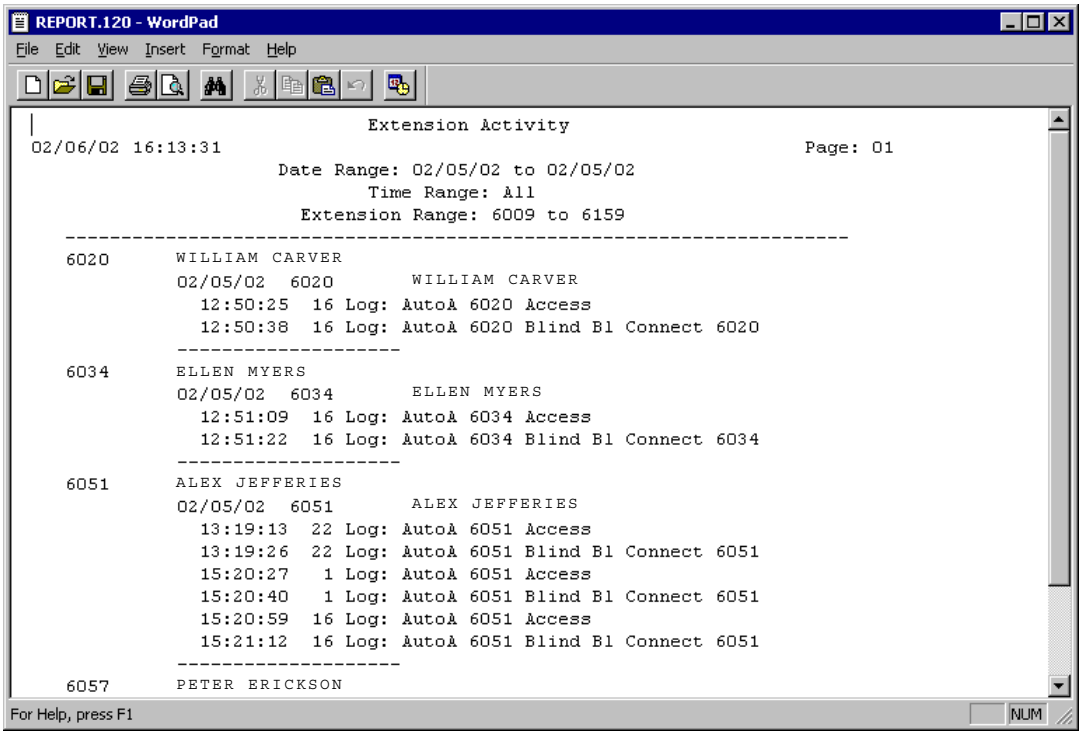
A review of the Mailbox Usage report reveals the amount of activity of each mailbox on PathFinder. Owners of mailboxes with *low activity* may not fully understand how to use PathFinder and may need more instruction. Users with *high activity* should be reminded to remove messages.

Take note of the average length of a call. When the average length approaches the maximum message length, the max message length may need to be increased.

This report can also be used in client bill-back situations (like shared tenant environments) executive suites, or hotels. The report can be output to disk, then imported into a billing program.

Extension Usage

The *Extension Usage* report identifies inbound call activity to a specific extension and describes the results of a call transfer initiated by PathFinder. The call can either be connected or dropped. A dropped call (either a busy or unanswered extension) may route to a mailbox, operator, or menu.



MARGARET JONES

Figure 4-4: Extension Usage Report Example

The report, sorted by date, documents inbound calls and their results. The report documents the time that the call was made as well as its duration. Duration is defined as the elapsed time between the initial connection and the subsequent hang-up from PathFinder. In addition, the report documents specific call activity.

Report Data

Possible data includes:

- Answered -- Call was answered
- No Answer -- Extension did not answer
- Busy -- Extension was busy
- Connect -- Call was connected
- No Ring Back -- Extension did not respond
- Blind Transfer -- Call transfer type

Use

A review of the Extension Usage report can help with the following:

- Scheduling agents or operators more effectively
- Determining a need for additional phone lines
- Identifying subscribers who miss a large number of calls

Menu Activity

The *Menu Activity* report identifies user traffic within menus, indicating what information callers are most interested in by the number of times specific menus are accessed. This can help determine a menu's usefulness and whether the number of channels that allow access to it are sufficient to support the traffic.

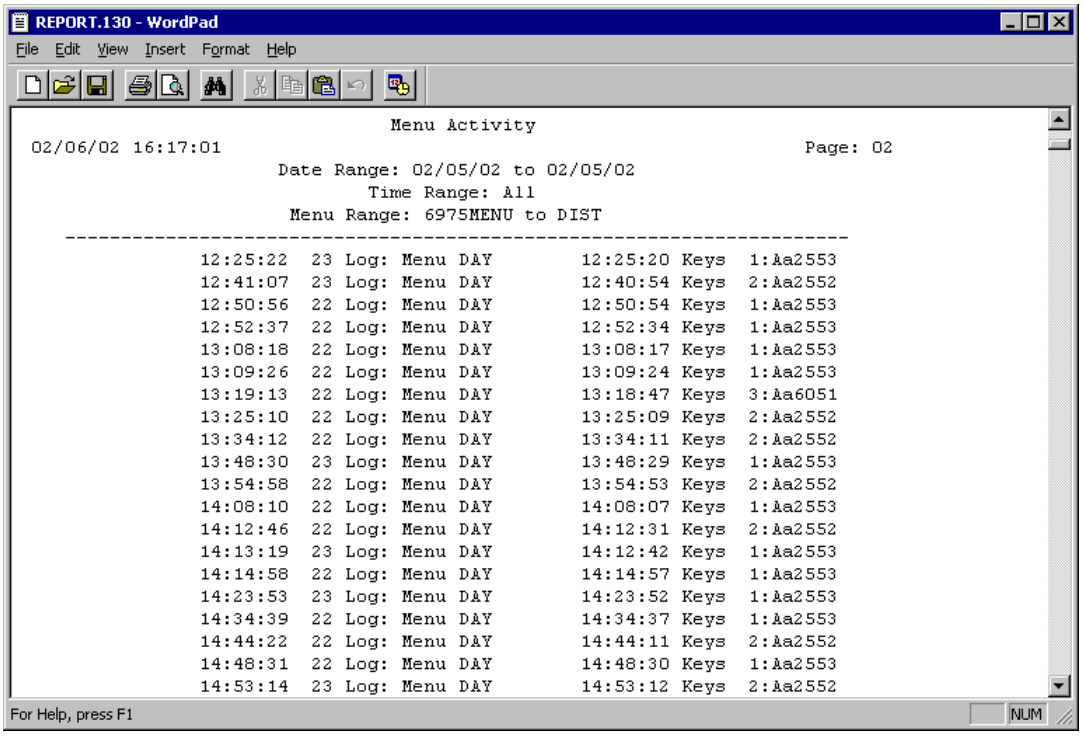


Figure 4-5: Menu Activity Report Example

Report Data

- Date -- The selected reporting period
- Menu -- The selected menu that is the subject of the report
- Time -- The time of day that the menu was accessed
- Key Pressed -- The caller's key selection while in the menu

Use

This information may be useful to others besides the system administrator.

For example, with the following menu: "Press 1 for information on product X; press 2 for information on product Y …", the sales manager may be interested in the number of requests for each option.

The Menu Activity report includes the total number of requests for each menu key.

Fax Documents

If your PathFinder implementation has the optional fax support module installed and you have created a Fax-On-Demand application, you may have discovered how confusing it can be keeping track of the fax documents. The *Fax Documents* report handles this chore for you.

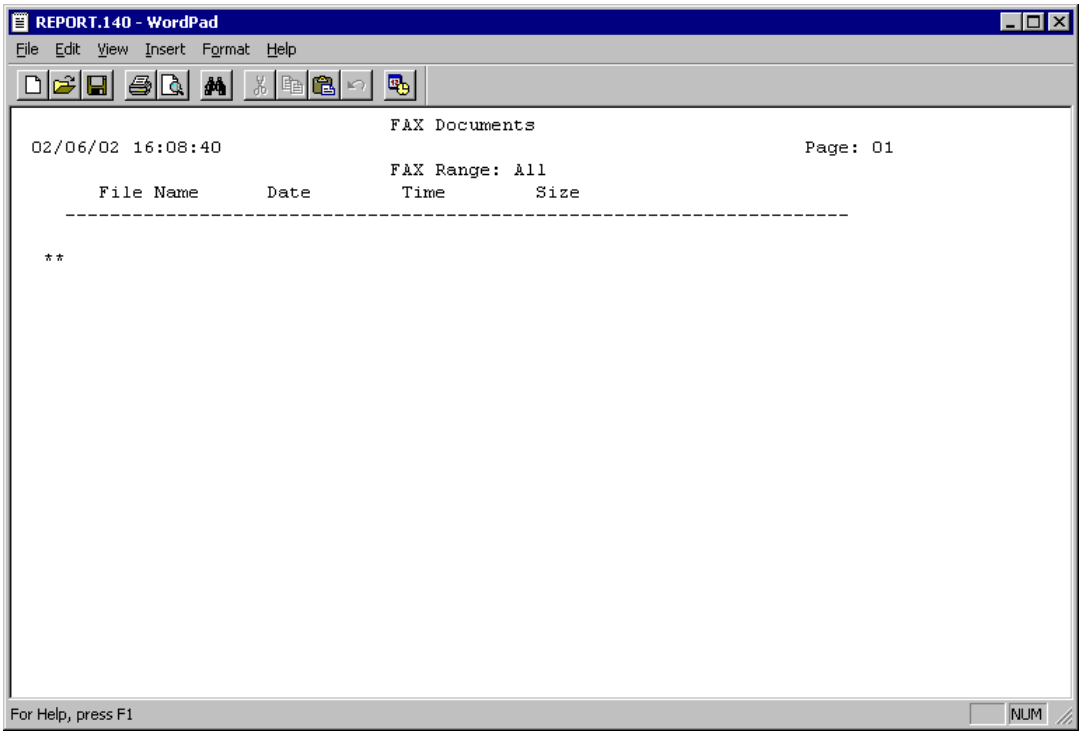


Figure 4-6: Fax Documents Report Example

Report Data	Use
File Name -- A list of all fax documents on PathFinder Date -- The date each fax was sent or received Time -- The time each fax was sent or received Size -- The size of the fax file created	This information can be used by the system administrator to keep track of all fax documents currently on PathFinder. This can be helpful in maintaining a Fax-On-Demand application.

Notification Usage

The *Notification Usage* report indicates the number of times a mailbox was notified.

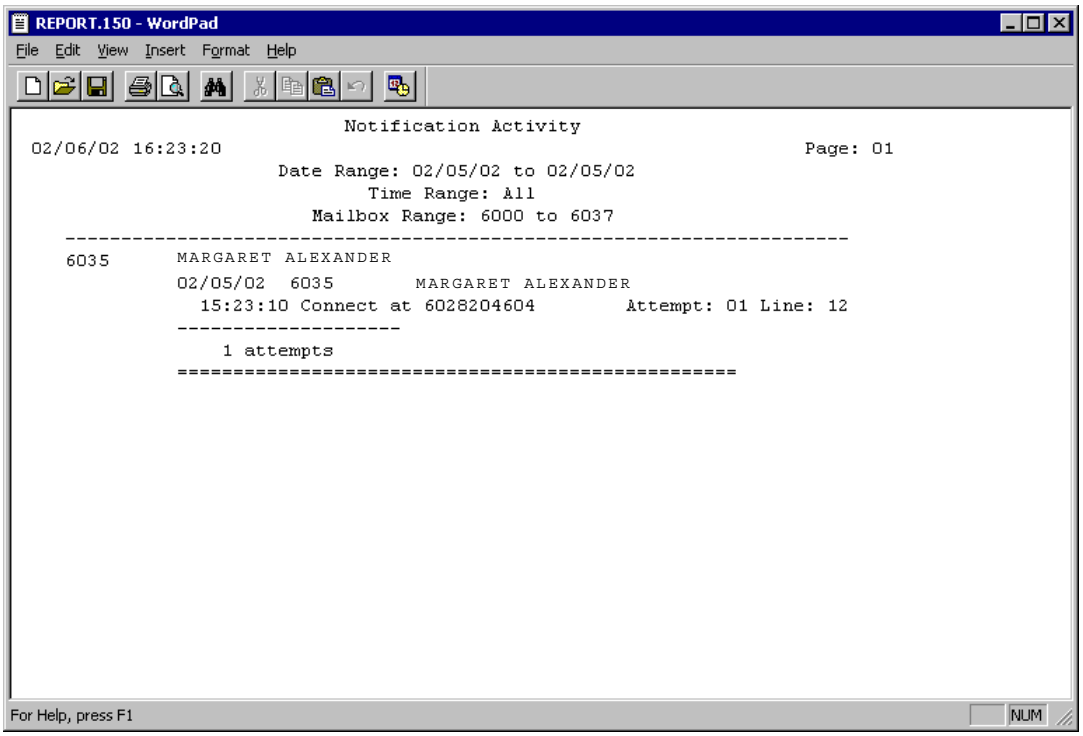


Figure 4-7: Notification Usage Report Example

Report Data	Use
Date -- The selected reporting period Mailbox -- The selected mailbox for the report Time -- The time of day that the notification was executed Attempt -- The number of notification attempts Line -- The line number where the notification went out Retries -- The number of times a caller can initiate an invalid option	» This information can be used to determine if notifications are being executed in a timely fashion. » The Notification Activity report may be sorted by username, extension, or mailbox.

Setting Reports

This section describes the **Settings** reports functions available through the *Reports* menu in the PathFinder MAINT application.

Settings reports identify various PathFinder settings that were entered during configuration. Information is available for mailboxes, extensions, and menus.

Mailbox Settings Summary

The *Mailbox Settings Summary* report summarizes the configuration of each mailbox in PathFinder.

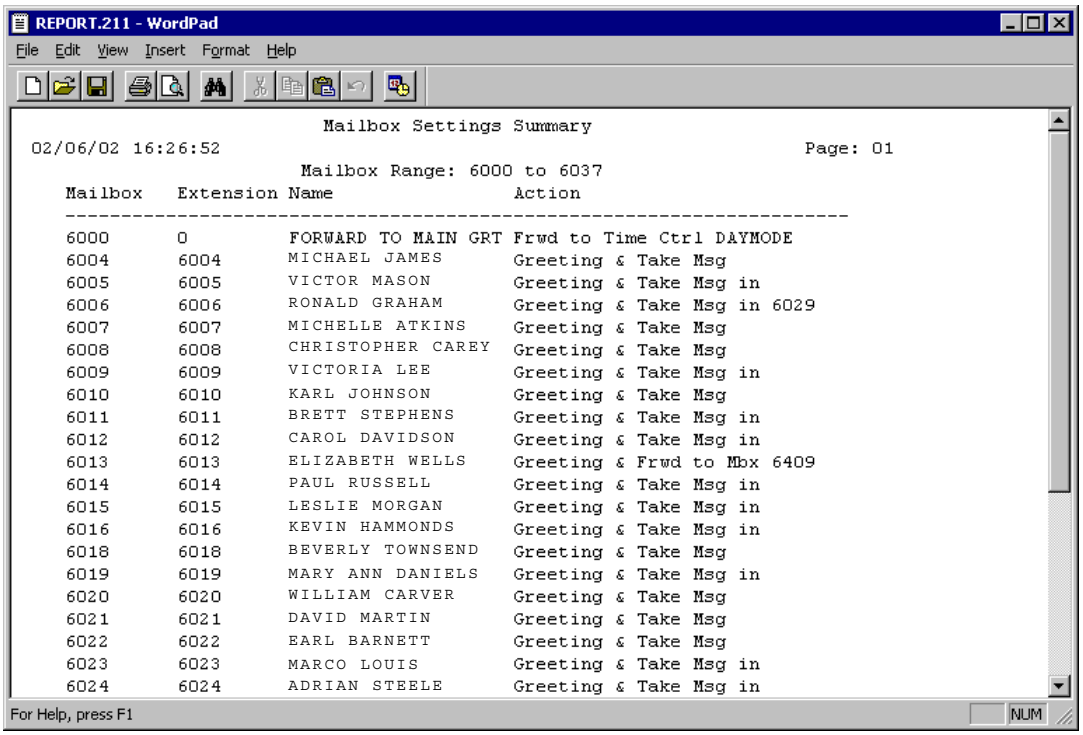


Figure 4-8: Mailbox Settings Summary Report Example

Report Data

- ☐ Mailbox number
- ☐ Associated extension number
- ☐ Mailbox owner's name
- ☐ Mailbox state

Use

- » This information can be used to keep track of all mailboxes on PathFinder.
- » The data may be helpful in maintaining mailboxes in a dynamic work environment.
- » The Mailbox Settings Summary report may be sorted by username, extension, or mailbox.

Mailbox Settings Detail

The *Mailbox Settings Detail* report provides an in-depth review of the configuration of each mailbox in PathFinder.

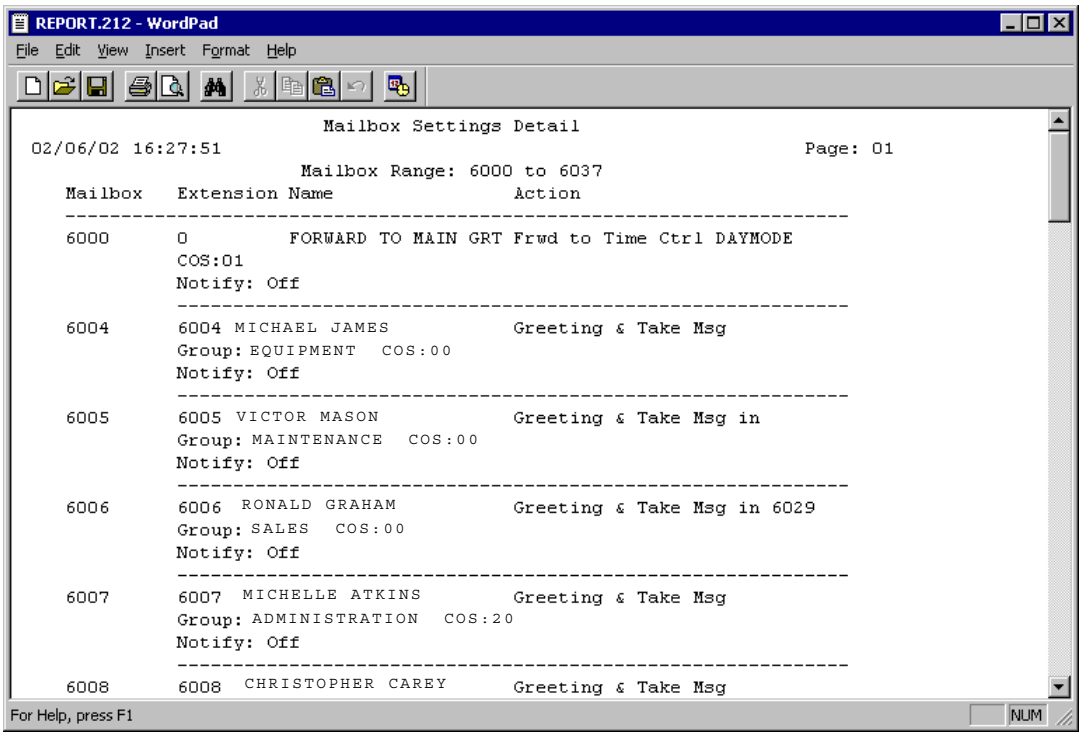


Figure 4-9: Mailbox Settings Detail Report Example

Report Data

- ☐ Mailbox number
- ☐ Associated extension number
- ☐ Mailbox owner's name
- ☐ Mailbox state
- ☐ Class of service for which the mailbox is a member
- ☐ Group (Department)
- ☐ Notification state
- ☐ Password

Use

- » This information is helpful in resolving problems with mailboxes.
- » The Mailbox Settings Detail report may be sorted by username, extension, or mailbox.

Extension Settings Summary

The *Extension Settings Summary* report summarizes the configuration of each extension in PathFinder.

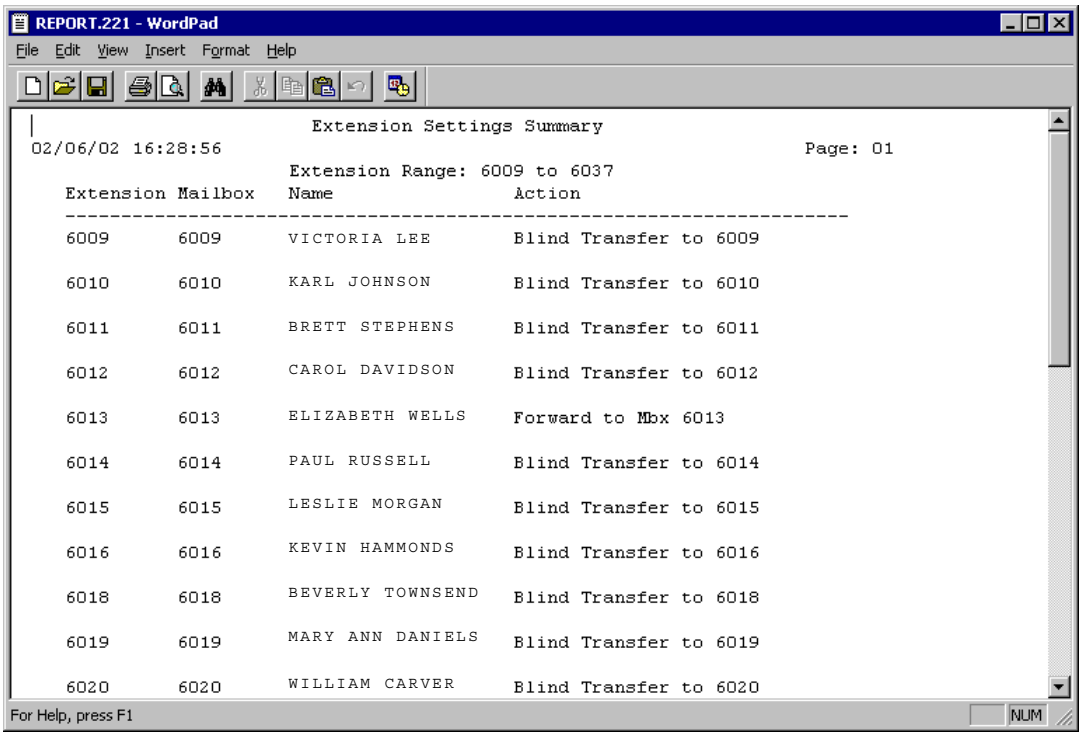


Figure 4-10: Extension Settings Summary Report Example

Report Data

- ☐ Extension owner
- ☐ Associated mailbox number
- ☐ User name
- ☐ Transfer options
- ☐ Action options

Use

- » This information is helpful in resolving problems with extensions, such as transfer and forwarding problems.
- » The Extension Settings Summary report may be sorted by username, extension, or mailbox.

Extension Settings Detail

The *Extension Settings Detail* report provides more detailed information about each extension in PathFinder.

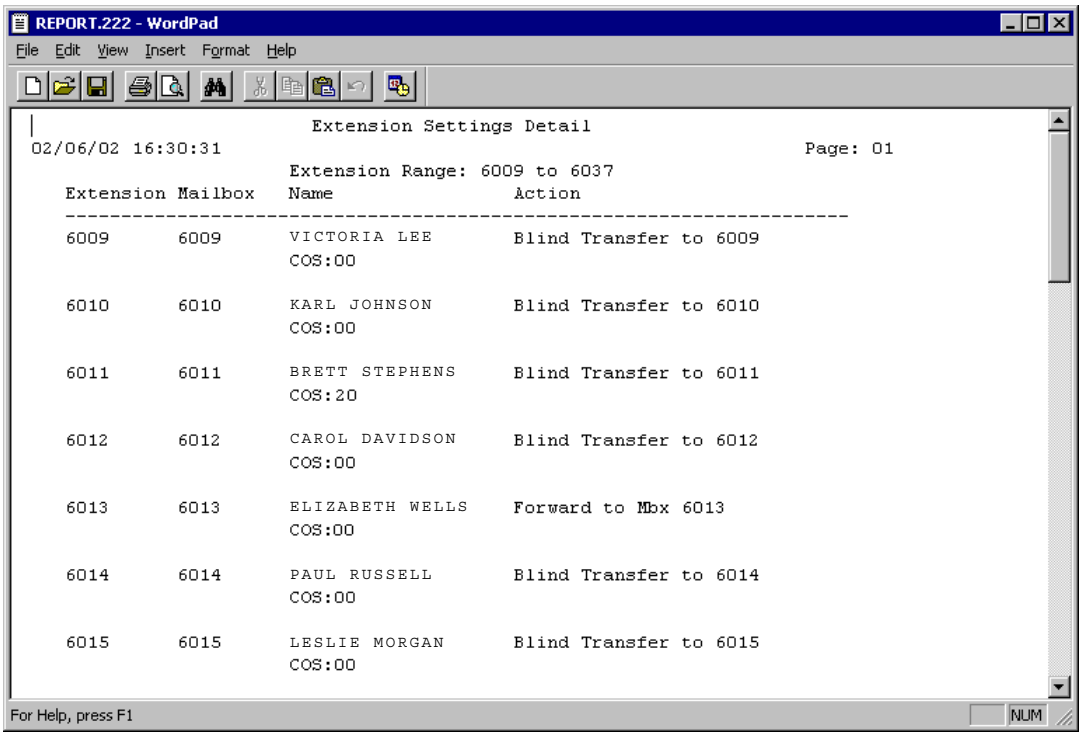


Figure 4-11: Extension Settings Detail Report Example

Report Data

In addition to the information contained in the *Extension Settings Summary* report, the *Extension Settings Detail* report provides the class of service assigned to the extension.

Use

- This information is helpful in resolving problems with extensions, such as transfer and forwarding problems.
- The Extension Settings Detail report may be sorted by username, extension, or mailbox.

Class of Service Settings

You can run a report for details on each defined class of service.

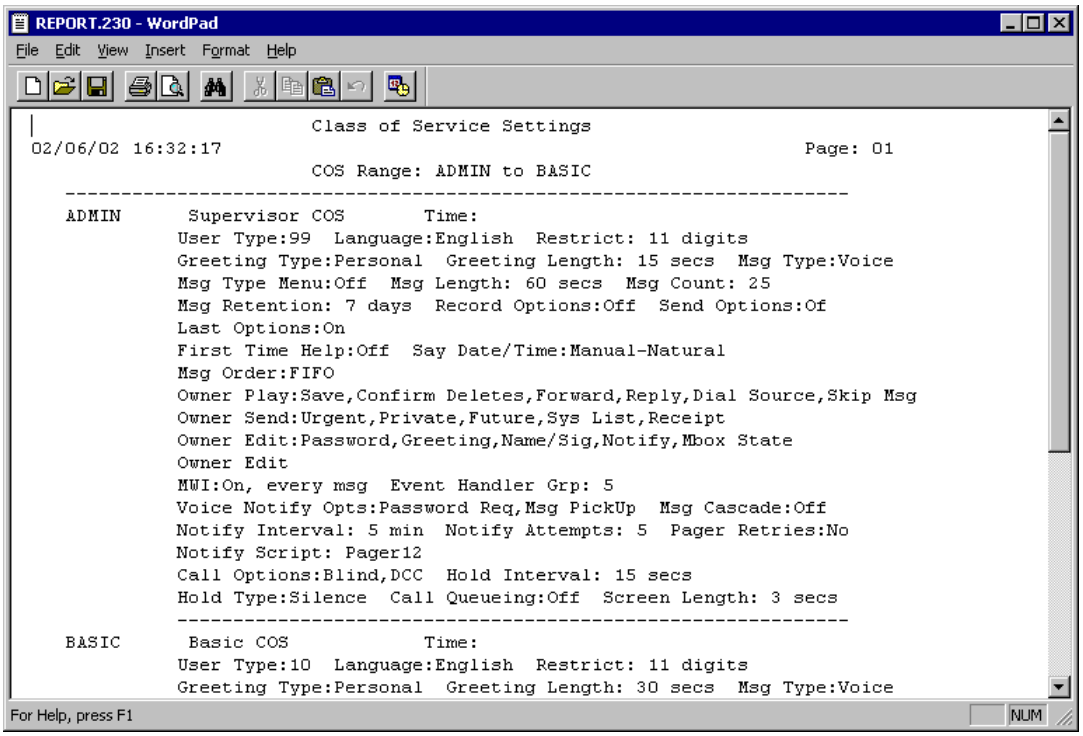


Figure 4-12: Class of Service Settings Report Example

Report Data	Use
☐ The class of service name and description ☐ General settings ☐ Voice mail and Auto-Attendant settings, including notification settings	Use the COS report to review and maintain class of service options.

Menu Settings

The *Menu Settings* report provides a complete description of each menu and the action programmed for each key.

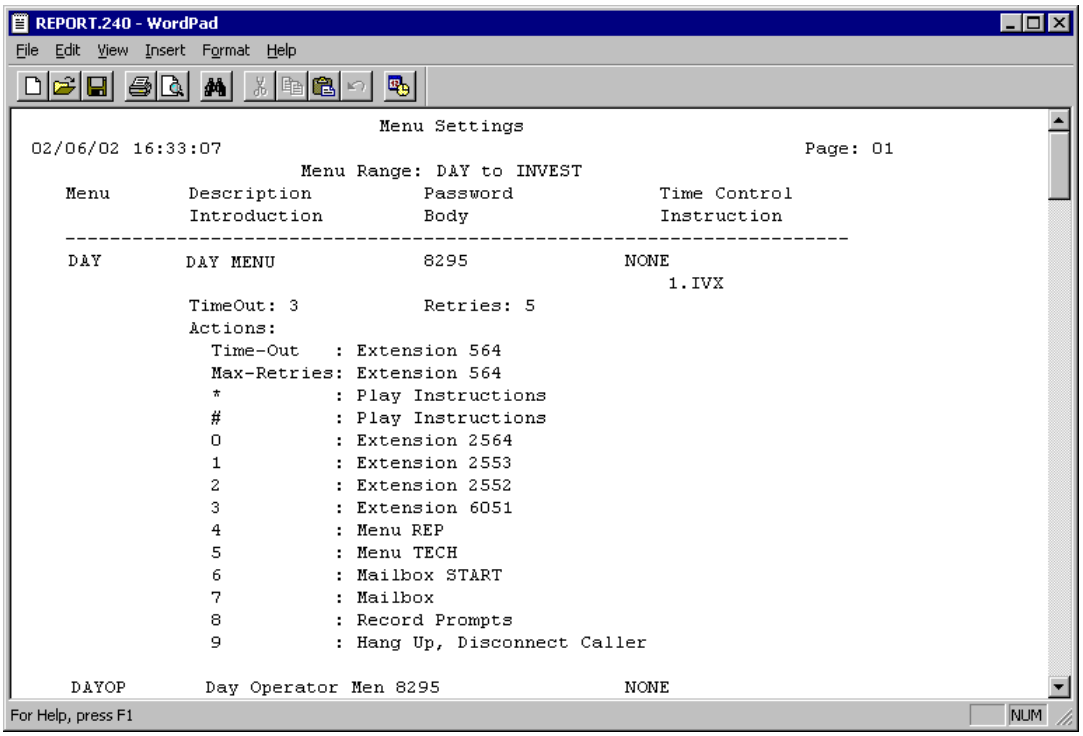


Figure 4-13: Menu Settings Report Example

Report Data

- Menu name
- Key actions: The action assigned to each key on the telephone keypad (refer to *"Key Action Definitions" on page 3-76* for more information)

Use

The purpose of this report is to describe all of the menu settings in a simple and easy format.

You can easily determine how the key actions of your menus are configured.

Time Control Settings

The *Time Control Settings* report lists options for the selected time controls.

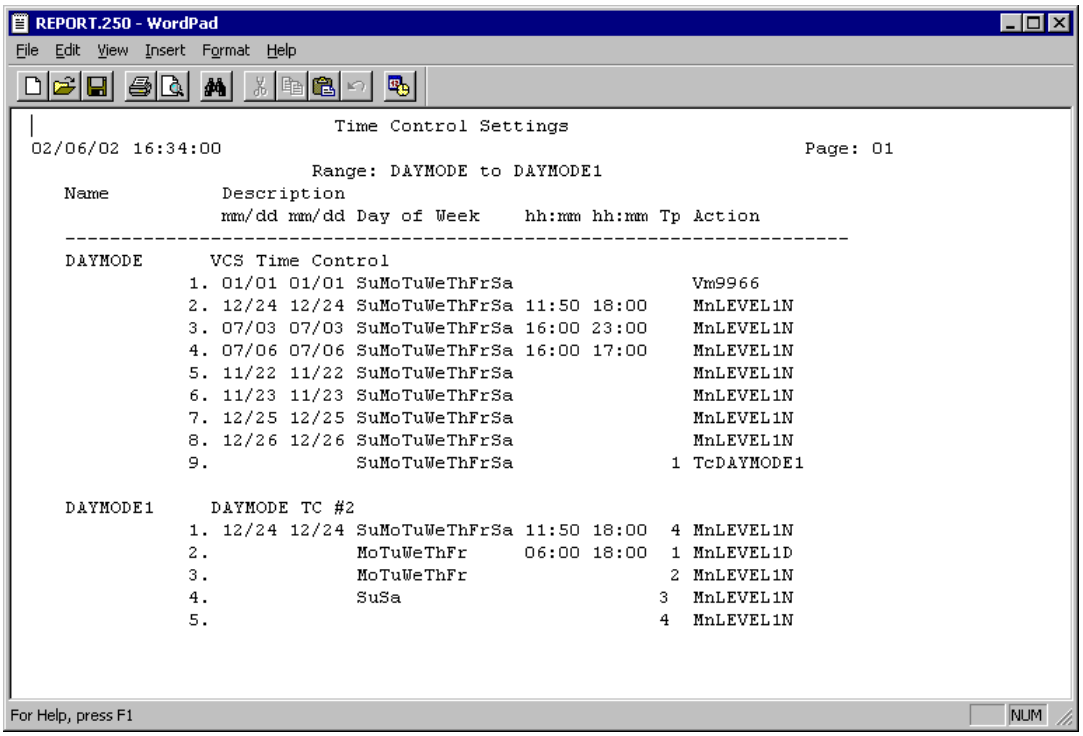


Figure 4-14: Time Control Settings Report Example

Report Data	Use
☐ Time Control name ☐ Description ☐ Date ☐ Day ☐ Time ☐ Action	Use this report to review the various time control settings. It can be helpful in planning new time controls and maintaining those currently on PathFinder.

Registry Settings Summary

The *Registry Settings Summary* report identifies the various registry settings.

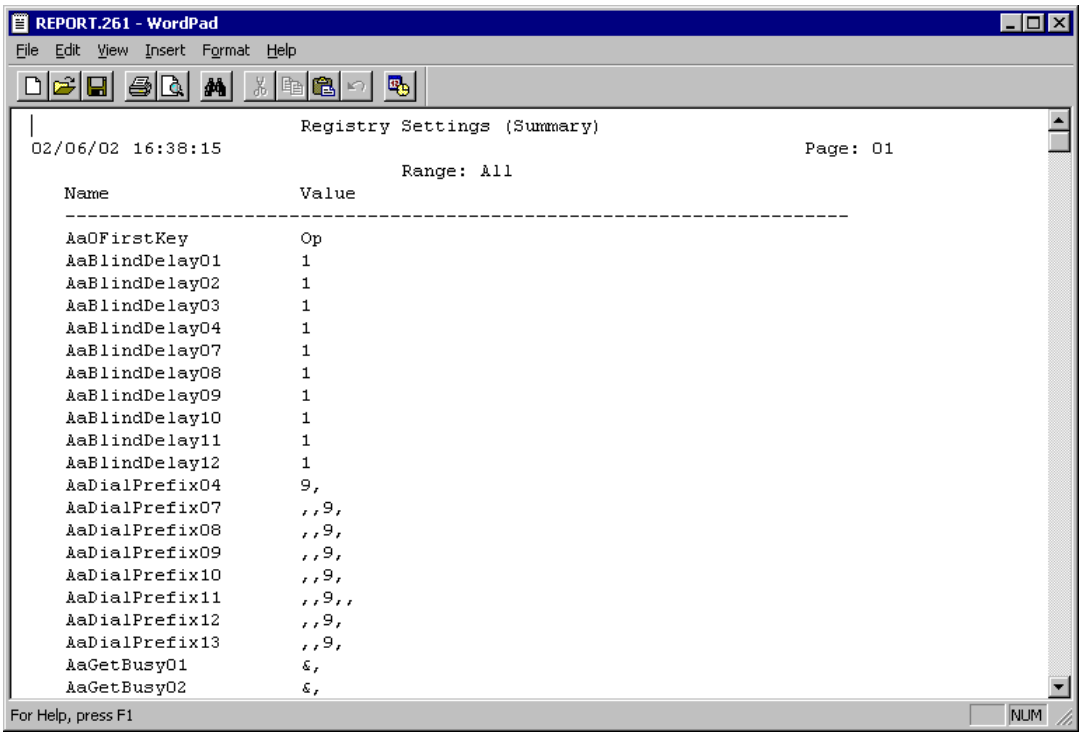


Figure 4-15: Registry Settings (Summary) Report Example

Report Data	Use
This report provides a system-wide overview of current Registry settings.	This is a comprehensive report that includes all system settings. As such, it is a powerful troubleshooting and supervisory tool for maintaining PathFinder.

Registry Settings Detail

If you need more information than what is included on the *Registry Settings Summary* report, you can run a *Registry Settings Detail* report.

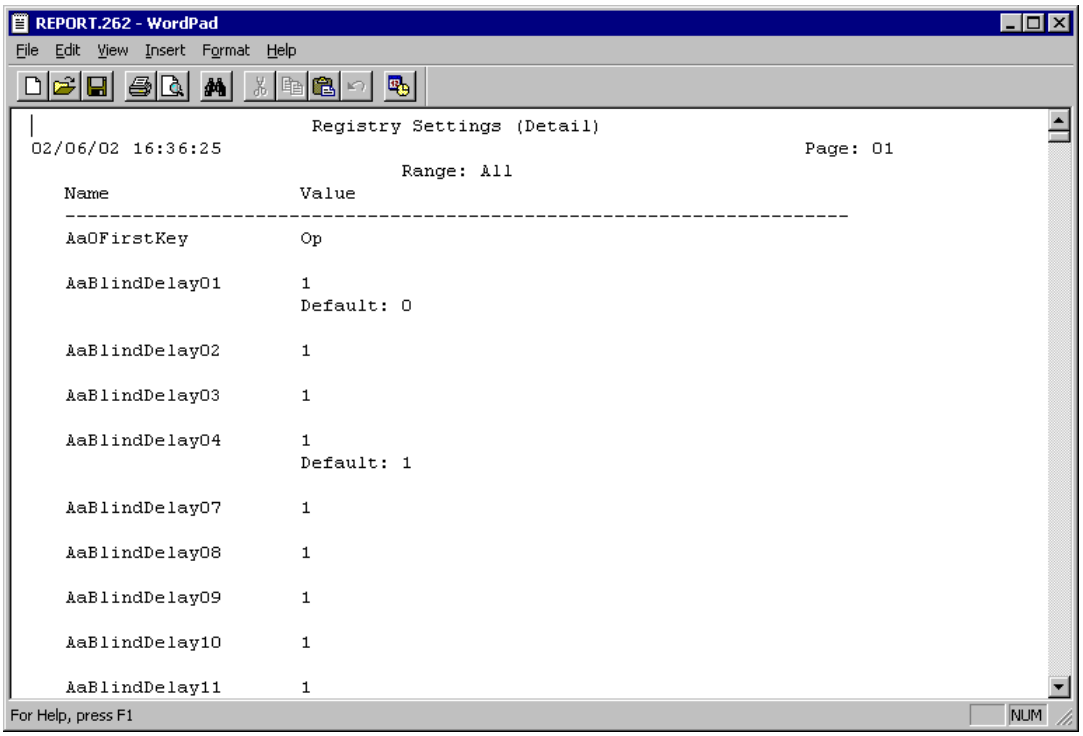


Figure 4-16: Registry Settings (Detail) Report Example

Report Data	Use
The *Registry Settings Detail* report provides the same information as the *Registry Settings Summary* report, but also includes an explanation of each setting, default values, and the type of registry variable.	This is a comprehensive report that not only includes all system settings, but a description of each. As such, it is a powerful troubleshooting and supervisory tool for maintaining PathFinder.

System Distribution Lists

The *System Distribution Lists* report provides a listing of each system distribution list used on PathFinder.

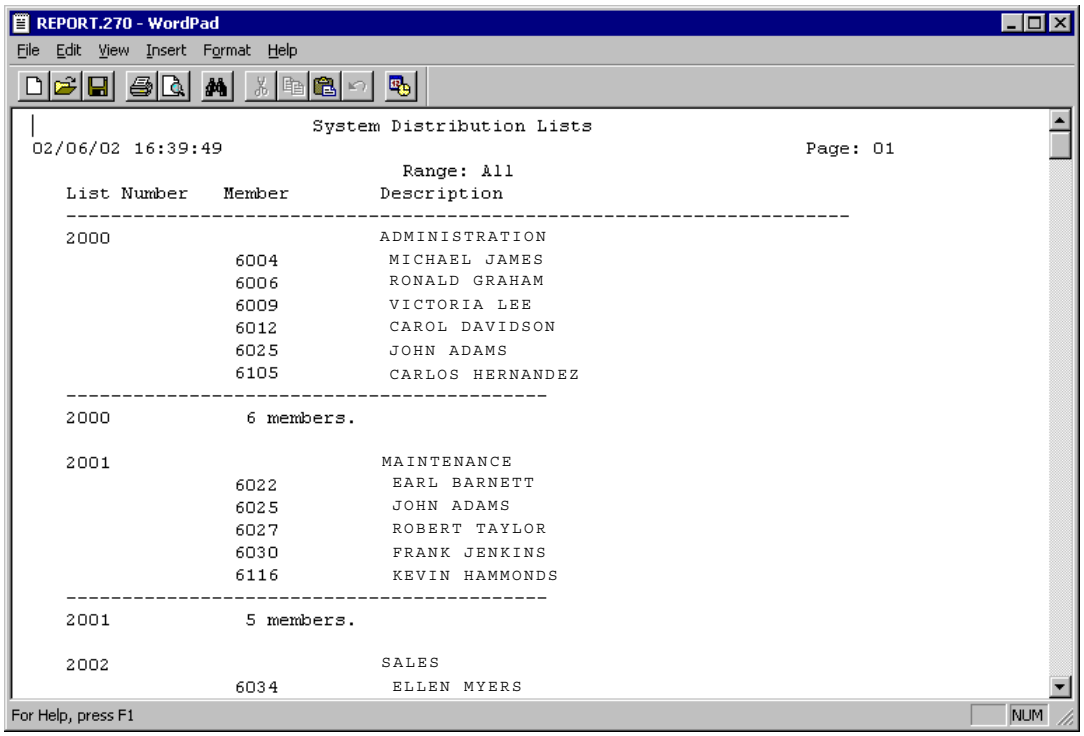


Figure 4-17: System Distribution Lists Report Example

Report Data	Use
☐ List Number ☐ Members' extension numbers ☐ Members' names	This is a comprehensive report that lists all current system lists. As such, it is a powerful evaluation and supervisory tool for maintaining PathFinder.

Directory Reports

This section describes the **Directory** reports function available through the *Reports* menu in the PathFinder MAINT application.

There is only one directory report. It gives a listing of all subscribers with their first name, last name, extension number and mailbox number.

Directory Report

Directory reports can be generated for the entire directory, or specific name ranges can be designated.

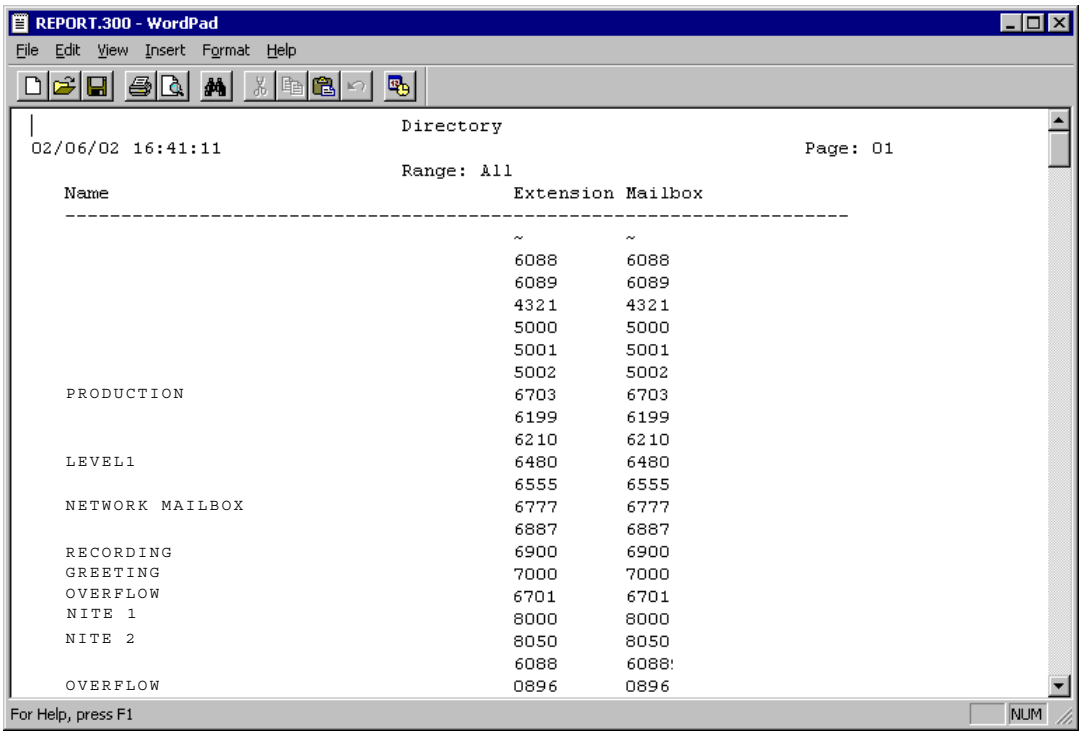


Figure 4-18: Directory Report Example

Report Data	Use
The *Directory* report associates subscribers with specific mailboxes and extensions.	Print this report regularly and reference it for maintenance. The *Directory* report also can be used to create company telephone lists.

Logs Reports

This section describes the **Logs** report functions available through the *Reports* menu in the PathFinder MAINT application.

Log reports provide information about PathFinder and error messages. Logs are used as diagnostic tools to trace PathFinder activity, and are primarily used for debugging and technical support functions.

For more information on Log Files, refer to "What To Log" on page 3-20.

Daily Log

The *Daily Log* report provides a detailed listing of general PathFinder activity.

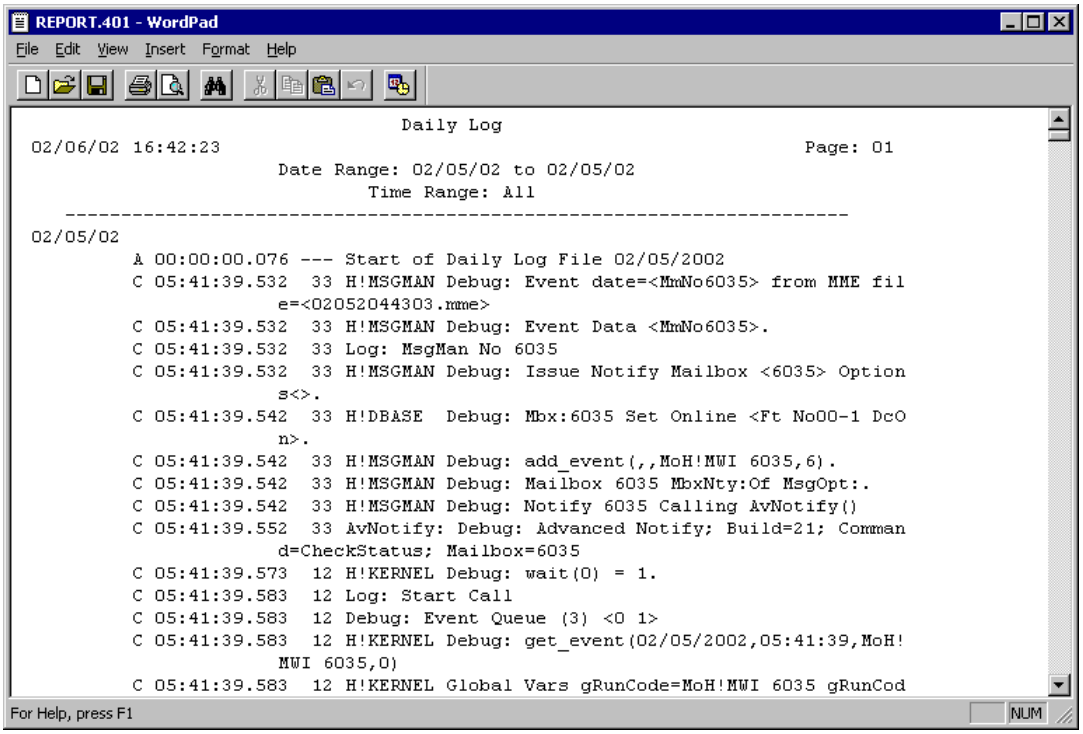


Figure 4-19: Daily Log Report Example

Report Data	Use
All entries are listed by time of occurrence and by line number.	Review this report to check on daily PathFinder activity. This report should not be confused with the Error Log. There are instances, however, when both are used together for diagnostic purposes.

Maintenance Log

The *Maintenance Log* report tracks all activity within MAINT.

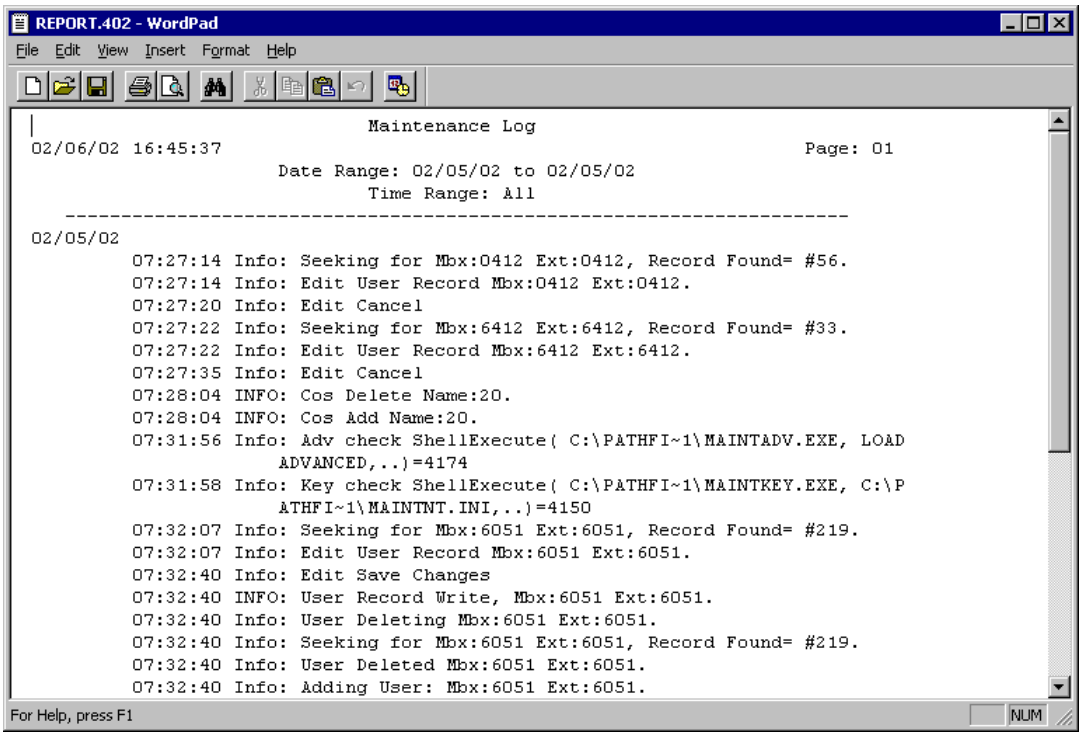


Figure 4-20: Maintenance Log Report Example

Report Data	Use
Any time a report is run, a mailbox is created, or a menu is modified, a line is added to the Maintenance log.	Review this report to see what changes have been made in MAINT. Each line of the report lists a specific action or activity initiated during a MAINT session. ☐ This can be used to track system administration functions and to verify who is accessing MAINT and what they are doing. ☐ This can be very helpful in troubleshooting PathFinder problems.

Error Log

The *Error Log* report lists any error messages resulting from the operation of PathFinder.

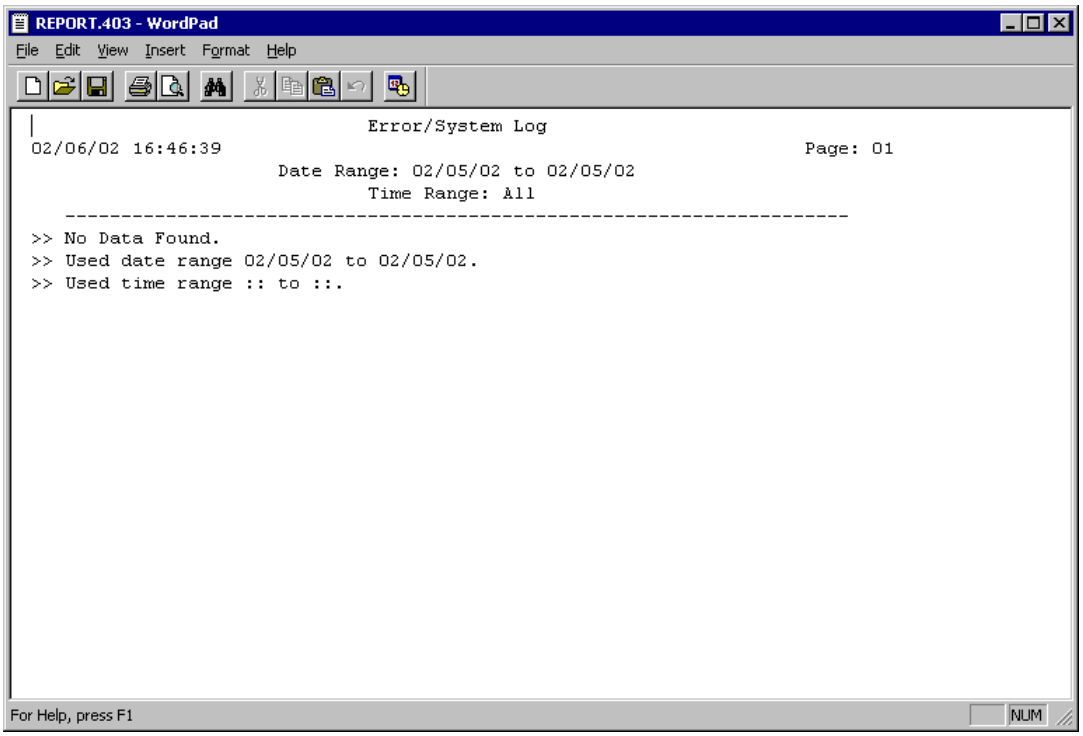


Figure 4-21: Error/System Log Report Example

Report Data	Use
Both hardware and software malfunctions are reported.	Review this report to check on errors in PathFinder activity. Each line of the report specifies a specific error condition that has occurred. Each error condition is listed by time of occurrence.

Messages Reports

This section describes the **Messages** reports functions available through the *Reports* menu in the PathFinder MAINT application.

Message reports provide the system administrator with a means to determine the current status of messages in PathFinder mailboxes.

Message Summary

The *Message Summary* report summarizes various status conditions for PathFinder mailboxes.

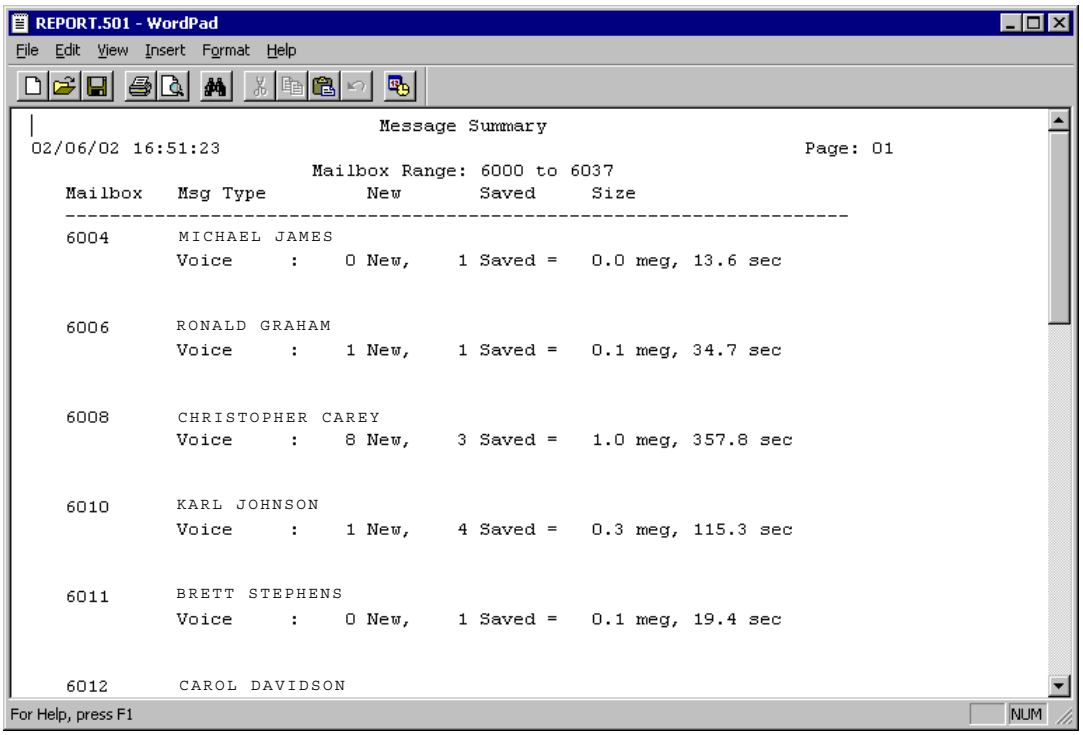


Figure 4-22: Message Summary Report Example

Report Data

- ☐ Mailbox -- The name and mailbox number of the mailbox owner
- ☐ New -- Total number of new messages
- ☐ Saved -- Total number of saved messages
- ☐ Time -- Total time for all messages
- ☐ Disk Space Used -- Total occupied disk space per owner

Use

This report shows the total messages stored on the hard drive for each mailbox.

It can help determine if messages are being stored too long or if PathFinder resources are being monopolized by any one user.

Message Detail

The *Message Detail* report allows the system administrator to select a mailbox and view its current status.

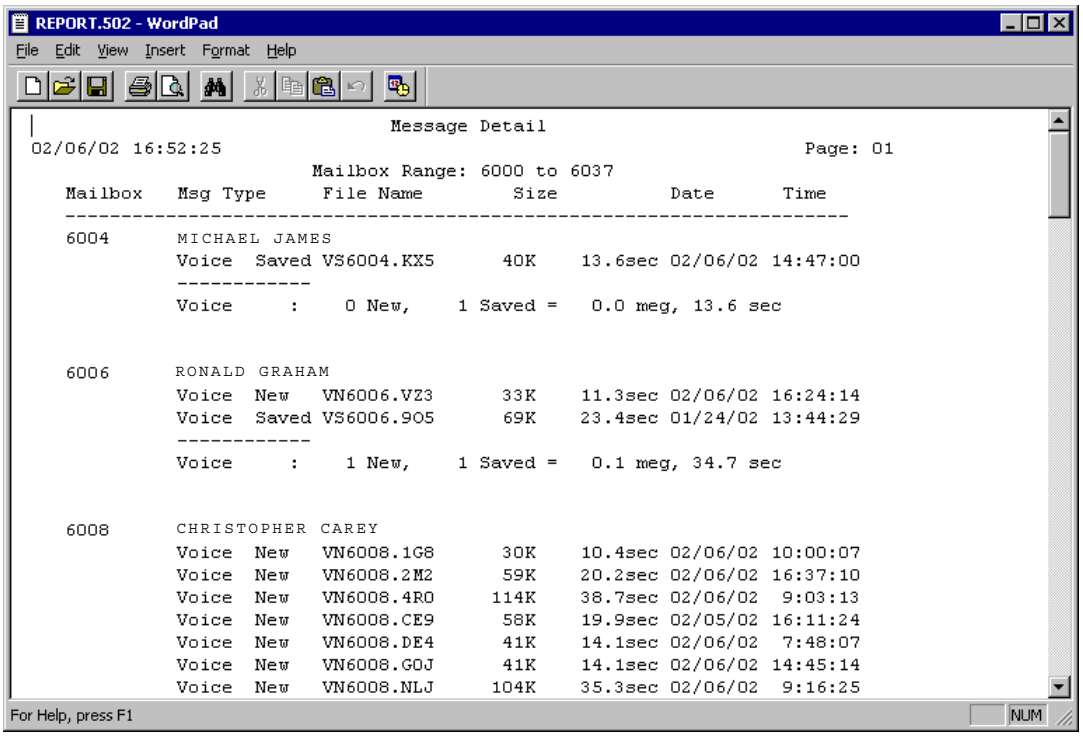


Figure 4-23: Message Detail Report Example

Report Data

- Mailbox -- The name and mailbox number of the mailbox owner
- New -- *N* for new message
- Saved -- *S* for saved message
- From Mbx -- Mailbox message was sent from
- Size -- Message size in seconds
- Date/Time -- Date and time message left
- File -- The filename of the message

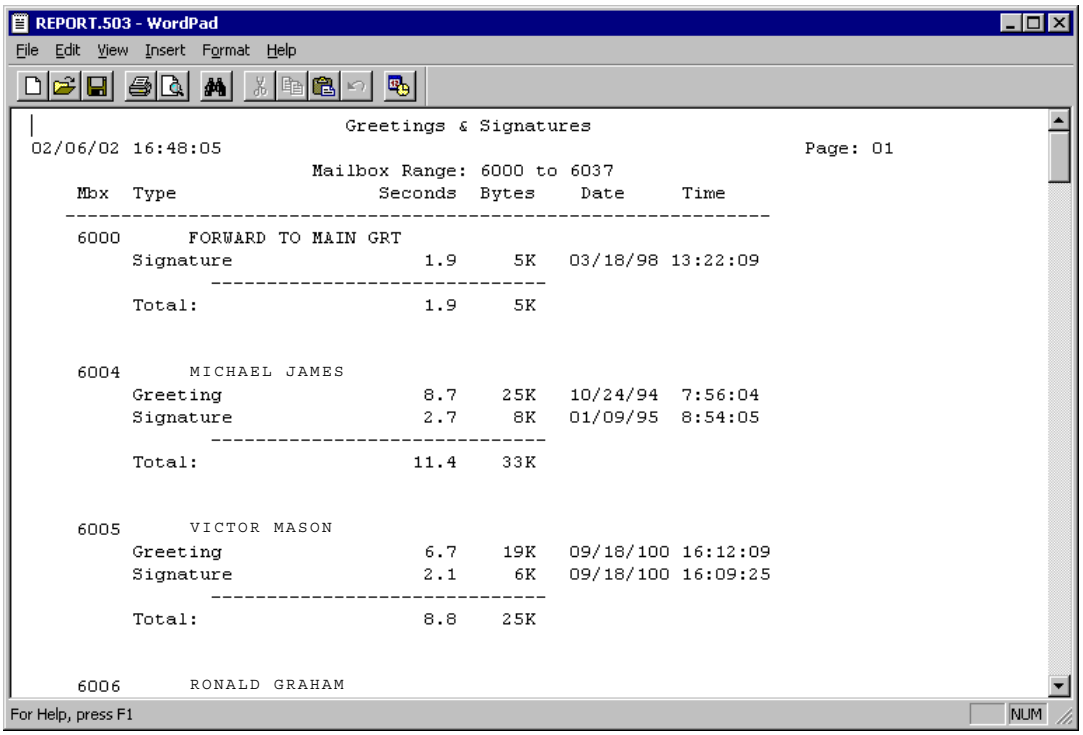
Use

This report shows all messages that are stored on the hard drive.

It can help determine if messages are being stored too long or if PathFinder resources are being monopolized by any user.

Greetings & Signatures

The *Greetings & Signatures* report allows the system administrator to determine the total amount of greetings & signatures recorded by mailbox holders. Each mailbox holder can have multiple greetings or signatures recorded.

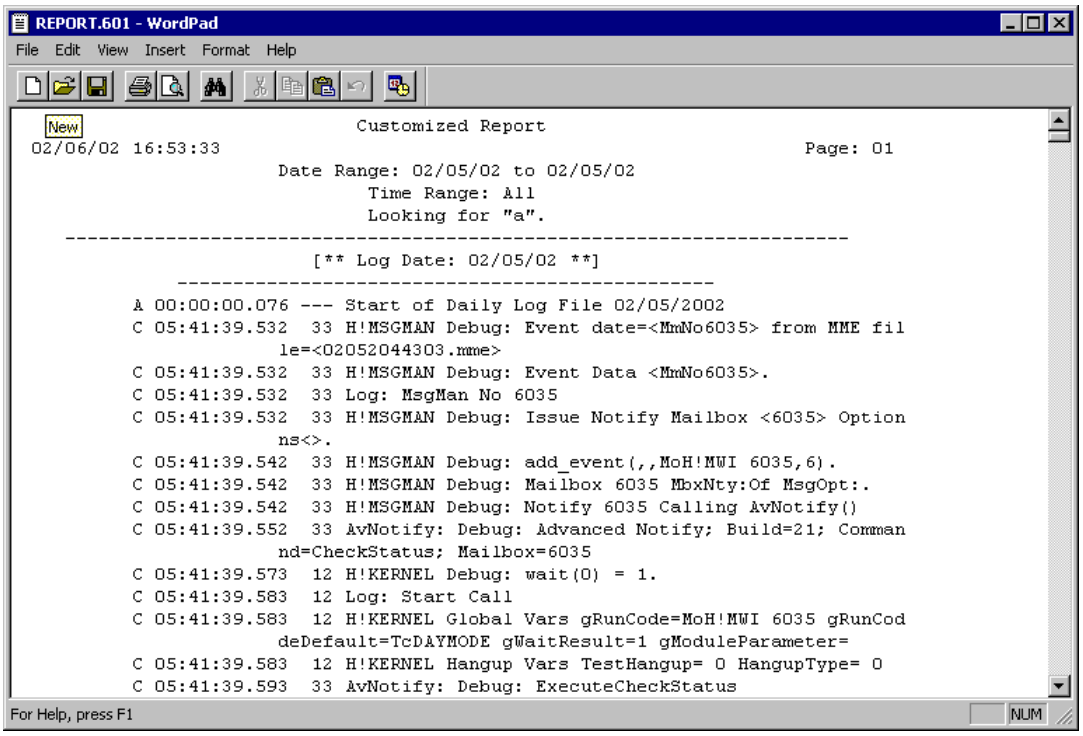


Use

This report is another tool that the system administrator has to analyze and control proper distribution of PathFinder resources.

Customized Reports

Customized reports provide flexibility to isolate certain assurances within the log and provide detail information.



Example

Using customized reporting, the system administrator can report on all “track messages” log lines and actually display the life of a message as it moves through the system. In addition, some IVR systems can use customized reporting to show information about the IVR that is not available through standard reports.

Use

This report is another tool that the system administrator has to analyze and control proper distribution of PathFinder resources.

5 Boom Box Application

This chapter provides an introduction to this application and details on its installation as well as an introduction to the prompts that can be created and used in conjunction with the *Boom Box* application.

The *Boom Box* application allows you to create and edit voice prompt files used by PathFinder.

Boom Box Application

Boom Box can be used on any machine that has either Dialogic® voice ports configured **or** a WAV device with speakers and a microphone. This application is normally used on the same PC where PathFinder is running. However, *Boom Box* can be used on another PC that has another Dialogic voice port or a WAV device, and then the prompt file(s) can be copied to PathFinder.

Boom Box can work on the following:

- Standalone single prompt files (VOX), or
- Multiple voice prompts combined into one voice prompt file (VOX) with a matching index file (VDX).

The VOX files used by PathFinder are in the Dialogic 8-bit ADPCM format at 24khz. *Boom Box* can produce these same ADPCM files and can also produce WAV files.

Requirements

Boom Box requires the following:

- Windows NT® 4.0 (Service Pack 5) or Windows 2000
- A Dialogic card, or a WAV device with microphone and speakers

Installation

Boom Box is automatically installed when running the install PathFinder software.

After installing your PathFinder software, you can access the *Boom Box* application by selecting from the *Start* menu the following path: Programs > PathFinder Voice Processing > *Boom Box*. The *Boom Box* main window is shown below:

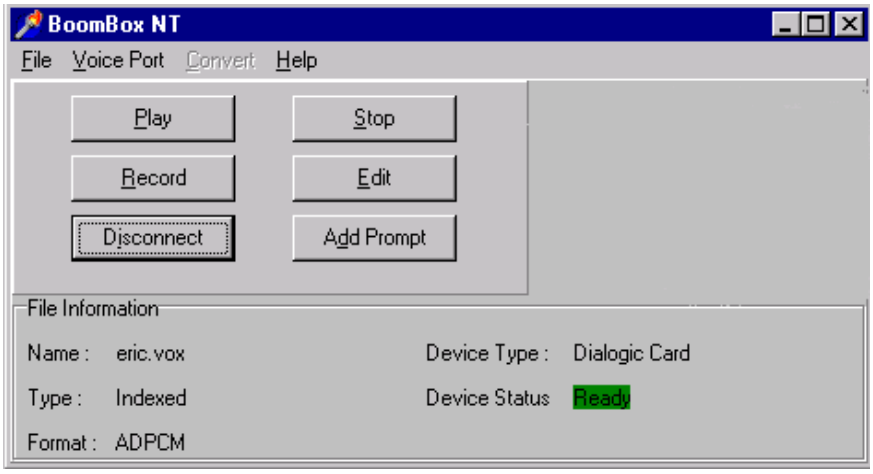


Figure 5-1: *Boom Box* **Main Window**

It is recommended that the PathFinder *voice engine be shut down to record voice prompts using Boom Box. If you would like to record prompt files while the* PathFinder *engine is running, use the Record Prompts option on a menu.*

Menu Bar Options

The *Boom Box* application has four menus available in the menu bar.

- File
- Voice Port
- Convert
- Help

File Menu

The *File* menu allows you to create, access, and save *Boom Box* files as well as exit the *Boom Box* application.

File > New

The File > New option allows you to create either indexed or non-indexed prompt files. If you create a new indexed file, you can only create VOX file types.

You cannot change a non-indexed prompt file into an indexed prompt file.

File > Open

The File > Open option allows you to open prompt files. It does not matter if the files are indexed or not-- *Boom Box* determines that for you.

File > Save

This option saves the current prompt file that you are working on.

File > Save As

This option saves the current file you are working on as another file.

The File > Save As *option cannot save VOX files as WAV files or WAV files as VOX files.*

Voice Port Menu

The Voice Port menu allows you to manipulate lines and ports.

The Voice Port menu can only be used when you're playing VOX files. It is used only through the Dialogic voice port device, not through the WAV device.

Voice Port > Answer

With this option, call into the phone lines and select the extension you want to reach. Then select **Answer** to answer the phone.

Voice Port > Disconnect

This option disconnects the phone line.

Voice Port > Change Port

This allows you to set the port (phone line) that you want *Boom Box* to answer.

Do not set the port to a port being used by PathFinder *while* PathFinder *is running.*

The *Set Port* window is shown below:

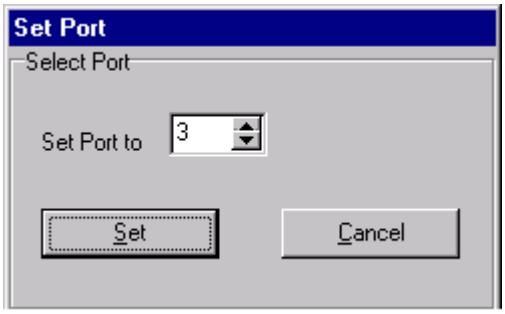


Figure 5-2: Set Port Window

Convert Menu

The *Convert* menu allows you to convert WAV files to VOX files. The *Convert* menu can only be accessed when you have a WAV file open.

Help Menu

The *Help* menu allows you to access the Help files for *Boom Box*. These files can be accessed at any time.

Buttons

The following buttons can be accessed from the main *Boom Box* window:

Table 5-3: *Boom Box* **Window Buttons**

Button	Description
Play	Plays the current file (non-indexed) or prompt (indexed).
Record	Records the current file (non-indexed) or prompt (indexed).
Stop	Stops playing or recording.
Edit	Clicking the Edit button allows you to edit any type of prompt. Refer to *"Edit Options" on page 5-6* for more information on these options.
Disconnect	Disconnects the phone line. This is only available if working with a VOX file.
Add Prompt	Clicking the Add Prompt button allows you to add a prompt. Refer to *"Add Prompt" on page 5-7* for more information on this option.

Edit Options

Clicking the **Edit** button from the main *Boom Box* window allows you to edit any type of prompt.

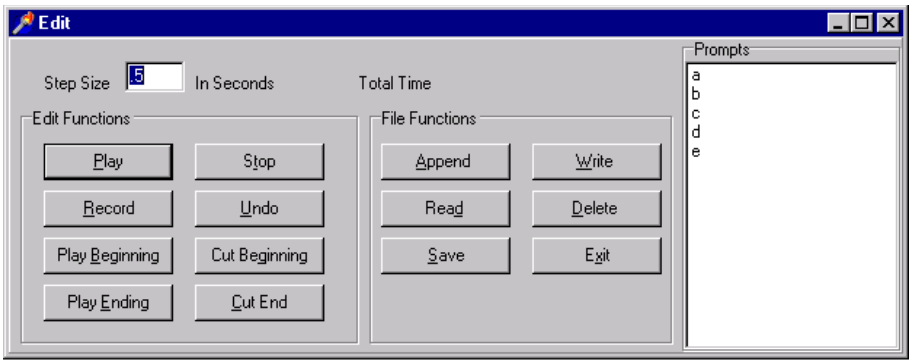


Figure 5-4: *Boom Box* **Edit Window**

Edit Functions Buttons

The following buttons are available in the edit functions area in the *Edit* window.

Button	Definition
Play	Plays the current file (non-indexed) or prompt (indexed).
Stop	Stops recording or playing.
Record	Records the current file (non-indexed) or prompt (indexed).
Undo	Undoes most of the changes made to the current file or prompt. If you make a change that cannot be undone, a prompt displays saying that you cannot undo this change unless you do not save.
Play Beginning	Plays the first (x) seconds of current file (non-indexed) or prompt (indexed), where (x) is the number in the text box.
Play Ending	Plays the last (x) seconds of current file (non-indexed) or prompt (indexed), where (x) is the number in the text box.
Cut Beginning	Cuts the first (x) seconds of current file (non-indexed) or prompt (indexed), where (x) is the number in the text box.
Cut End	Cuts the last (x) seconds of current file (non-indexed) or prompt (indexed), where (x) is the number in the text box.

The Step Size field at the top left of the screen determines the number of seconds of the file or prompt to play or cut from the beginning or end. You can set the step size to larger or smaller values depending on how much you need to play or cut from the prompt.

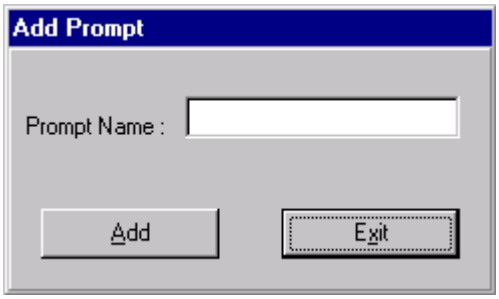
File Functions Buttons

The following buttons are available in the file functions area in the *Edit* window.

Button	Definition
Append	This appends a non-indexed prompt file to the current file or prompt.
Write	This writes the current prompt to a non-indexed prompt file. This does not save the currently opened file.
Read	This reads in a non-indexed prompt file on top of the current file or prompt.
Delete	This option deletes a prompt from an indexed file.
Save	This saves the changes made to the current file or prompt.
Exit	Exits the Edit window and returns you to the main *Boom Box* window.

Add Prompt

Clicking the Add Prompt button from the main *Boom Box* window allows you to add a new prompt to the current file.This option is only visible if working on an indexed prompt. The *Add Prompt* window is shown below:



File Information

At the bottom of the main menu is the file information pane. Please note that you do not type or otherwise enter this information; instead, it automatically displays based on specific information relevant to your file. The five *File Information* fields are as follows.

Name -- The name of the file you are working on.

Type -- Either indexed or non-indexed.

Format -- Either ADPCM for VOX file type or WAV for WAV file type.

Device Type -- Specifies how the file is played or recorded. There are two options:

» A sound card if you open a WAV file, or

» A Dialogic card if you open a VOX file.

Device Status -- Specifies whether you can play or record (or edit). If this is green, you can play, record, or edit. If it is red, you cannot play, record, or edit. This is green when you answer (VOX) or when you have a sound card. It is red when you first open the VOX file or when you disconnect it.

Troubleshooting

You can carry out Dialogic-based or WAV-based *Boom Box* troubleshooting.

Dialogic-based Troubleshooting

- Make sure that the Dialogic voice board is installed correctly.
- Be sure that the Dialogic voice drivers are correctly configured and started.
- Make sure the phone extension (or phone through extension simulator) is connected to a voice port. Note that you cannot plug a phone directly into a dialogic port.
- Make sure *Boom Box* is configured to use the correct voice port phone extension connected to.
- Make sure *Boom Box* is not using a voice port already in use by PathFinder or other Dialogic-based application.

WAV-based Troubleshooting

- Be sure that the WAV device is installed correctly.
- Be sure the speakers are connected correctly, turned on, and are loud enough.
- Make sure the microphone is installed correctly.

Make sure the microphone gain (sensitivity) is not set too soft or too loud (often an optional setting).

Boom Box System Prompts

The *Boom Box* application allows you to create and edit voice prompt files used by the PathFinder voice processing system. In this section, the system prompts that are used with the *Boom Box* application are discussed in detail.

System Prompts

PathFinder uses a group of pre-recorded messages and phrases called voice prompts to communicate with callers. PathFinder constructs understandable messages by selecting different prompts and playing them together as a single message. PathFinder uses two types of prompts: Indexed and Non-Indexed. Indexed prompts are located in a single indexed file that contains many prompts. Non-Indexed prompts only contain one prompt per file. All files are stored in the C:\PATHFINDER\VOX directory unless otherwise noted.

Indexed vs. Non-Indexed Prompts

Non-Indexed prompt files are of type VOX only. Indexed prompts can be either VOX or VDX file pairs.

Non-Indexed Prompts

Many prompts used by the standard PathFinder modules are simple non-indexed prompt files. This means there is only one prompt recorded in each VOX file, and there is no index associated with that VOX file. To play the prompt, PathFinder simply plays the entire file.

Non-indexed prompts are good for applications in which there are just a few prompts, or in which these prompts may need to be re-recorded while PathFinder is in use.

Indexed Prompts

Many prompts used by the standard PathFinder modules are stored in indexed prompt files (matching VOX and VDX files). This means there are one or more individual prompts recordings in the VOX file, with named segments in the VDX index file that indicate where each prompt begins and how long it is. To play an indexed prompt segment, PathFinder looks up the segment name in the VDX file to get the start location and length, and plays just that portion of the prompt from the VOX file.

Indexed prompt files are good for applications in which there are a large number of prompts and it helps organization on the disk to keep them all together in two files instead of in many. They are also beneficial when the prompts are *not* going to need to be re-recorded while PathFinder is in use.

Non-Indexed Prompts

The list below outlines the customizable (non-indexed) prompts that are used in PathFinder. All prompts should be located in the VOX directory. You can create a blank prompt (with 1 byte of data) to suppress certain prompts. But more commonly, you would record new information to replace the default prompt.

Replacement Prompts

All prompts below can be recorded using *Boom Box*.

Table 5-5: Non-Indexed (Customizable) Prompts

File Name	Description	Replaces Indexed File ...	Sample(s)
VOPGPRE.VOX	Preamble prompt that plays in front of a numeric page	H!VO0.VOX: VoPagePreamble	"Page message is . . ." "You have a message to call ..."

Table 5-5: Non-Indexed (Customizable) Prompts (Continued)

File Name	Description	Replaces Indexed File ...	Sample(s)
FXDMND1.VOX	Prompt played before FxInstruct1 or FXDMND2.VOX that can be used to give the caller more information	N/A	"You have reached the Vodavi fax-on-demand line. Please note that document 411 is a catalog of available fax documents."
FXDMND2.VOX	Tells callers how many fax prompts they can select	H!FAX0.VOX: FxInstruct1 *and* FxInstruct2	"You will be prompted to select which documents should be faxed. You may select up to X fax documents."
VMINSTR.VOX	Voice mail instructions prompt	H!XX0.VOX: VmInstructions	"Enter the mailbox number of the person you are trying to reach. Press zero for the operator. Press the star key for the directory."
VMSYSGRT.VOX	First system greeting. Played if selected in COS	H!XX0.VOX: VmSysGreeting	"The person you have tried to reach is not available. Please leave a message after the tone."
VMSYSGR2.VOX	Second system greeting. Played if selected in COS	H!XX0.VOX: VmSysGreeting2	"Begin speaking at the tone. When you are finished recording you may hang-up or press any key for more options."
VMRECKEY.VOX	Asks caller to press a key to start recording	H!XX0.VOX: VmRec Key	"Press one to start recording."
VMRECOPT.VOX	Record option prompt	H!XX0.VOX: VmRecordOption	"To send message, press one; to play, press two; to cancel, press three."
<COS>.PBG	Numeric message begin prompt. Played when mailbox is set to take numeric messages	N/A	beep-beep-beep
<COS>.PDN	"Numeric message done" prompt. Prompt played after the caller enters the numeric page	N/A	Busy signal or some type of completion tone
<COS>.GRT	COS Greeting. Played if COS is set to play the COS greeting	N/A	"You have reached the sales department. Please leave a message after the tone."
<COS>.VI1	COS Voice Insert - played before mailbox name	N/A	"You have reached the voice mailbox of . . . "

Table 5-5: Non-Indexed (Customizable) Prompts (Continued)

File Name	Description	Replaces Indexed File ...	Sample(s)
<COS>.VI2	COS Voice Insert - played after mailbox name	N/A	“ . . . Please leave a message after the tone.”
<COS>.LOP	COS Last options	H!XX0.VOX: VmLastOptions	“Press one to reach another mailbox. Press nine to disconnect.”
DIRGETDI.VOX	Prompt asking for lookup digits in directory	H!XX0.VOX: DirGetDigits	“Enter the first four characters of the person's last name. For Q press seven. For Z press nine.”
AAINSTR.VOX	Auto-Attendant instructions	H!XX0.VOX: AaInstructions	“Enter the extension number of the person you are trying to reach. For the company directory press the star key. To reach an operator, press zero.”
AAHVCALL.VOX	Prompt announcing that an extension has a call	H!XX0.VOX: AaHaveCall	“You have a call.”
AAHOLD.0 to AAHOLD.999	Hold files played when the system needs to put a caller on hold and the COS says use hold files	N/A	AAHOLD.0: “Please hold. We appreciate your patience . . . ” AAHOLD.1: “Please continue to hold . . . ”
AACALLFO.VOX	Announces that the extension has a call for a particular extension	H!XX0.VOX: AaCallFor	“Call for . . .”
AASCNASK.VOX	Prompt asking callers to say their names	H!XX0.VOX: AaScreenAsk	“Whom may I say is calling?”
AAXFRMSG.VOX	Prompt telling callers you are going to be transferred	H!XX0.VOX: AaTransfer1 *and* AaTransfer2	“Please hold while I transfer you to . . . ”

6 Back-Ups / Logs / Errors and Troubleshooting

This chapter contains the information needed to help you maintain the PathFinder system by providing: a system back-up procedure, samples of statistical logs, and answers to the most common system problems.

Backing Up *PathFinder*

PathFinder allows you to back up important files in case of a catastrophe. Backups can be very important and we recommend backing up often. There are several ways that PathFinder can be backed up.

Method	Description
Network	If the network is backed up periodically and PathFinder is a node on the network, then network backups are sufficient. Consult your network administrator for more information.
Tape	If there is a tape drive on the PathFinder PC, Windows NT supports periodic automatic backups of PathFinder. Consult your Windows NT manual on how to perform tape backups.
Manual	PathFinder can be backed up when there is a change made to PathFinder in order to protect the data. Typically, these backups are performed manually as described: ☐ *Level One* is to back up all of the vital programming of PathFinder. Back up the \PATHFINDER\DBASE directory and all its subdirectories. ☐ *Level Two* includes the first level, and subscriber greetings, menu greetings and other static voice prompts. Back up the following directories, and all their sub-directories: \PATHFINDER\DBASE \PATHFINDER\VOX \PATHFINDER\MESSAGES*.SIG \PATHFINDER\MESSAGES *.GR? ☐ *Level Three* contains the first and second levels, and all mailbox messages. This is a complete backup of PathFinder, and depending on the number of messages on PathFinder, it could involve a large amount of data. Back up the following directories, and all their sub-directories: \PATHFINDER\DBASE \PATHFINDER\VOX \PATHFINDER\MESSAGES*.*

Log Files & Error Messages

PathFinder outputs three types of logs:

- System Error
- Maintenance Access
- Daily System Activity

All log files are in ASCII text format, which allows them to be printed or viewed with a simple text editor, like *Notepad* or *Write*.

System Error Log

The PathFinder Error log is directed to a file named ERROR.LOG. The Error log file is stored in the \PATHFINDER\LOGS directory. The Error log file contains general PathFinder information. The Error log file is a cumulative file. Once PathFinder is initialized the Error log file is written. Each time PathFinder is reset or there is a general problem, the new log information is appended to the existing Error log file.

Data Fields

Each line in the Error log file contains four data fields:

Field	Indicates ...
First	what type of log line is listed. Column contains an alpha character.
Second	the date the Error log line was generated.
Third	the time the Error log was generated in a `hh:mm:ss.ttt` format.
Fourth	the error condition (text varies in length).

Sample System Data

Several lines appearing in the Error log do not indicate any errors as shown:

```
B 07/30/03 10:51:03.568 --- Pathfinder Startup -
Version 9.0.1
B 07/30/03 10:51:03.658 --- Logging State is 4
B 07/30/03 10:51:03.788 --- Engine Serial Number:
900680
B 07/30/03 10:51:17.969 --- enabling tcp/ip inbound
telnet
B 07/30/03 10:51:17.979 --- tcpip: you are known as
esivmail
B 07/30/03 10:51:18.009 --- Fast function trigger rate
is 50
```

The first ten lines ... indicate the voice-processing engine was started correctly.

The last three lines ... indicate the voice-processing engine was terminated correctly.

System Maintenance Log

The maintenance log is made up of separate files. Each day that the MAINT application is accessed, it generates a separate file. The files are stored in the \PATHFINDER\LOGS directory. The name of the file is `MTyymmdd.LOG`, where `yy` is the year, `mm` is the month, and `dd` is the day. *For example* … the log for May 7, 2003 would be named: `MT030507.LOG`

The maintenance log file can keep track of unauthorized user access to MAINT. Each time MAINT is accessed, it generates log lines indicating what the maintenance user did. MAINT outputs maintenance activity log lines similar to those found in the Error log.

In general, each log line has three fields:

Field	Indicates …
First	the time the Error log line that was generated.
Second	the type of log generated: INFO or DEBUG. ☐ INFO data typically consists of logins, logouts, and actions on the database. ☐ DEBUG data typically consists of specific actions on the databases.
Third	the message describing why the line was generated.

System Activity Log

The System Activity log is made up of separate files. Each day PathFinder runs, it generates a separate file. The files are stored in the \PATHFINDER\LOGS directory. The name of the files is `DLyymmdd.log`, where `yy` is the year, `mm` is the month, and `dd` is the day. *For example* … the log for May 7, 2003 would be named `DL030507.LOG`.

The System Activity log is more complicated than the Error log. Every phone call PathFinder takes generates log lines indicating what the caller did. PathFinder outputs system activity log lines similar to those found in the Error log (refer to *"System Error Log" on page 6-4*).

In general, each log line has four fields:

Field	Indicates …
First	the type of log line generated.
Second	the time the line was generated, in `hh:mm:ss.ttt` format.
Third	the channel (line) that output of the line. A line number of three hyphens (`---`) indicates a system message from PathFinder.
Fourth	the log message which can be very simple or very complex.

Activity Log - Sample #1

Below is an excerpt from a daily log file representing a typical blind transfer call into PathFinder. The call was generated with default logging options enabled.

```
C 11:06:56.833 1 Log: Start Call
C 11:06:59.677 1 Log: Menu MAIN9711  11:06:57 Keys 2:AaSTART
C 11:07:00.729 1 Log: AutoA 242 Access
C 11:07:06.537 1 Log: AutoA 242 Blind Bl Connect 242
C 11:07:06.537 1 Log: Stop Call 11:06:56
C 11:08:35.074 1 Log: Start Call
C 11:08:36.767 1 Log: Menu MAIN9711  11:08:35 Keys 8:Vm
C 11:08:40.252 1 Log: VMail 242 Take message
C 11:08:41.754 1 Log: Stop Call 11:08:35
```

- Extension 242 is set to forward on busy or no answer to voice mail.
- The call was placed into PathFinder and the caller was transferred to extension 242.
- Then, extension 242 either did not answer or was busy.
- Therefore, the call was forwarded to mailbox 242.

Activity Log - Sample #2

Below is an excerpt from a daily log file representing a typical supervised transfer call into PathFinder. The call was generated with default logging options enabled.

```
C 08:19:54.687 1 Log: Start Call
C 08:19:59.985 1 Log: Menu NITE9608    08:19:55 Keys 2:AaSTART
C 08:20:00.796 1 Log: AutoA 260 Access
C 08:20:25.201 1 Log: AutoA 260 Call 260 NoAnswer Ca
C 08:20:25.211 1 Log: AutoA 260 To mailbox 260
C 08:20:36.487 1 Log: VMail 260 Take message
C 08:22:18.604 1 Log: VMail 260 Voice 00:01:41 K#
C 08:22:20.186 1 Log: Stop Call 08:19:54 H7
```

- The call was started at 08:19:54.687.
- The NITE9608 menu was accessed, and the caller pressed the 2 key (which is assigned the Extension/Auto-Attendant Start Key).
- Then, they entered 60. This is apparent because the caller was transferred to extension 260.
- PathFinder detected a no answer condition.
- Because PathFinder received a No Answer condition, the caller was transferred to mailbox 260.
- The caller recorded a message for 1:41 minutes and then pressed the # key.
- The last line shows that the call ended.

Ca represents the Supervised Transfer option, and Ho represents the Call Holding option when using supervised transfers.

Debugging

PathFinder can give more or less information depending on the level of debugging enabled on PathFinder. Refer to *"Logging" on page 3-20* for more information on logging and debugging options. Below is a sample of the <$paratext>, but with all debugging options enabled.

Notice the line at `08:20:05.853` … it describes the transfer string sent to the telephone system in order to transfer the call to extension 260.

(This data is often used by technical support for troubleshooting.)

```
C 08:19:54.687   1 Log: Start Call
C 08:19:55.248   1 H!KERNEL Debug: gRunCode <TcESIMAIN>
C 08:19:55.268   1 H!KERNEL Debug: gRunCode <MnNITE9608>
C 08:19:59.985   1 Log: Menu NITE9608   08:19:55 Keys  2:AaSTART
C 08:19:59.985   1 H!KERNEL Debug: gRunCode <Aa>
C 08:20:00.796   1 Log: AutoA 260 Access
C 08:20:00.796   1 H!AUTOA Debug AutoA 260 Action=<Ca> Data=<260>
C 08:20:00.876   1 H!AUTOA Debug: Before prompt H0 Key?0
E 08:20:05.853   1 dialvox:call: <&,6#260> entered
E 08:20:22.347   1 dialvox:call: <&,6#260> result=8(8:1:0) drvrst=Idle
C 08:20:22.347   1 H!AUTOA  Debug:   Transfer (Call) Result=8
C 08:20:22.357   1 H!AUTOA  Debug:   Connect=[8]: No Answer
C 08:20:22.357   1 H!AUTOA  Debug:   HangUp=0
C 08:20:22.367   1 H!AUTOA  Debug:   HangUp Type=H0
C 08:20:22.367   1 H!AUTOA  Debug:   Processing (Call) Result [8].
C 08:20:22.377   1 H!AUTOA  Debug:   Telephony Type [].
C 08:20:22.377   1 H!AUTOA  Debug:   gFncResult [8].
C 08:20:25.201   1 Log: AutoA 260 Call 260 NoAnswer Ca
C 08:20:25.211   1 Log: AutoA 260 To mailbox 260
C 08:20:25.211   1 H!KERNEL Debug: gRunCode <Vm260>
C 08:20:36.487   1 Log: VMail 260 Take message
E 08:22:18.394   1 dialvox:DialVox/record:
D:\PATHFINDER\MESSAGES\0\6\V260.L01:8302:180 s=300 m=0 result=0 oh=5 sh=5
C 08:22:18.604   1 Log: VMail 260 Voice 00:01:41 K#
C 08:22:19.044   1 H!KERNEL Debug: gRunCode <Aa>
C 08:22:19.655   1 Log: AutoA 999 does not exist.
C 08:22:20.186   1 Log: Stop  Call 08:19:54 H7
C 08:22:18.644   6 H!KERNEL Debug: wait(0) = 1.
C 08:22:18.644   6 Log: Start Call
C 08:22:18.654   6 Debug: Event Queue (3) <0 1>
C 08:22:18.664   6 H!KERNEL Debug: get_event(10/06/
1998,08:22:18,MmNmVT260.NJ9,0)
C 08:22:18.674   6 H!KERNEL Debug: gRunCode <MmNmVT260.NJ9>
C 08:22:18.704   6 Log: MsgMan Nm VT260.NJ9
C 08:22:18.744   6 H!DBASE  Debug: Mbx:260 Set Online <Ft No00-1>.
C 08:22:18.764   6 Log: Stop  Call 08:22:18
```

Multiple Line Calls

There may be several telephone calls active on PathFinder with each line behaving differently. Below is a log line indicating telephone calls on lines one, two, and three.

This complete log shows a call placed on line three with several calls placed before the call on line three was completed.

```
C 09:50:27.474   1 Log: Start Call
C 09:50:34.123   3 Log: Start Call
C 09:50:34.234   2 Log: VMail 230 Take message
C 09:50:34.274   2 Log: VMail 230 To operator mailbox 0
C 09:50:34.324   2 Log: VMail 0 To time control OPERATOR
C 09:50:34.364   2 Log: AutoA 00 Access
C 09:50:38.690   3 Log: Menu MAIN9711   09:50:34 Keys  8:Vm
C 09:50:38.690   3 H!KERNEL Debug: gRunCode <Vm>
C 09:50:39.641   1 Log: Menu MAIN9711   09:50:28 Keys  *:Aa
C 09:50:40.252   1 Log: AutoA 160 Access
C 09:50:41.254   2 Log: AutoA 00 Blind Bl Connect 0
C 09:50:41.254   2 Log: Stop  Call 09:49:36
C 09:50:47.383   1 Log: AutoA 160 Blind Bl Connect 160
C 09:50:47.383   1 Log: Stop  Call 09:50:27
C 09:50:49.796   3 Log: VMail 249 To owner
C 09:50:55.815   3 Log: Owner 249 VN:0 VS:5 PN:0 PS:0 FN:0 FS:0
C 09:51:19.318   1 H!KERNEL Debug: wait(0) = 3.
C 09:51:19.328   1 Log: Start Call
C 09:51:22.723   1 Log: Menu MAIN9711   09:51:19 Keys  2:AaSTART
C 09:51:22.723   1 H!KERNEL Debug: gRunCode <Aa>
C 09:51:22.964   1 Log: AutoA 212 Access
C 09:51:32.838   1 Log: AutoA 212 Blind Bl Connect 212
C 09:51:32.838   1 Log: Stop  Call 09:51:19
C 09:52:11.303   1 Log: Start Call
C 09:52:22.319   2 Log: Start Call
C 09:52:28.758   2 Log: Menu MAIN9711   09:52:22 Keys  #:Pi #:Pi 9:Hu
C 09:52:28.758   2 Log: Stop  Call 09:52:22
C 09:52:28.999   3 Log: VMail 260 To owner
C 09:52:32.894   3 Log: Owner 260 VN:0 VS:21 PN:0 PS:0 FN:0 FS:0
C 09:52:36.950   1 Log: Menu MAIN9711   09:52:11 Keys  #:Pi #:Pi 9:Hu
C 09:52:36.950   1 Log: Stop  Call 09:52:11
C 09:52:37.942   2 Log: Start Call
C 09:52:44.391   2 Log: Menu MAIN9711   09:52:38 Keys  #:Pi #:Pi 9:Hu
C 09:52:44.391   2 Log: Stop  Call 09:52:37
E 09:55:38.201   3 dialvox:DialVox/record:
D:\PATHFINDER\MESSAGES\0\6\VI260.M0C:8302:180 s=300 m=0 result=0 oh=5 s
C 09:55:40.534   3 Log: Stop  Call 09:50:34
```

Menu Logs

The third line of this log shows which menu was picked (`Demo`), the time the call was made (`10:25:08`), which key the caller pressed for options 2, and where the menu forwards (`Salesmnu`), after menu has finished.

```
10:25:08 04 Log: Start Call
10:25:08 04 Log: Vmail 304 Access
10:25:27 04 Log: Menu Demo 10:25:08 Keys 2:
MnSALESMNU
```

No Answer Log

This log shows that there was no answer at extension 621 when the call came through.

```
08:13:07 11 Log: Notify (1) 621 NoAnswer at 621
```

Auto-Attendant Logs

General Call Data

This is an example of someone calling extension 624. The extension is busy as written in the first line. The abbreviations CaScHo stand for (Ca) Supervised Transfer, (Sc) Screening, and (Ho) Holding.

In other words, the supervised attendant transferred the call; it was then screened, and put on hold. The second line shows that it was held only once. The third line shows that the phone system tried the line once again. The last shows that the phone system sent the caller to mailbox 1624.

```
09:23:16 05 Log: AutoA 624 Call 624 Busy CaScHo
09:23:25 05 Log: AutoA 624 Hold Holding 1
09:23:46 05 Log: AutoA 624 Call 624 NoAnswer
09:23:46 05 Log: AutoA 624 To mailbox
```

Main Menu (No Action) Log

This log shows that the caller reached the MAINMENU and did not do anything. The menu took the Maximum Silence action which, was to hang up.

```
14:23:37 01 Log: Stop Call 15:00:55 H2: Max Silence
```

Operator (Blind Transfer) Call Log

This example shows that the caller pressed 0 at the menu and was transferred to the operator as a blind transfer.

```
08:55:21 05 Log: Menu DEMO 08:55:20 Keys 0:0p
08:55:24 05 Log: Menu DEMO Transfer to Operator
```

Voice Mailbox Directory Log

This line shows that the caller pressed V for a directory of voice mailboxes.

```
11:07:23 04 Log: Directory   Run:Vm
```

Troubleshooting

This section gives technical information on how to diagnose problems that could occur on PathFinder. The information in this section is highly technical, and unless the procedures are performed as instructed, PathFinder may fail to operate. A good working knowledge of Windows 2000 Professional, DOS, NetMeeting, and PC-based systems is essential.

Technique

The most important troubleshooting technique is isolating problems. Typically, problems fall into four categories:

- Problems with the telephone system
- Malfunctions in the PC hardware
- Problems with the operating system
- Problems with PathFinder

Problems with the Telephone System

Problems with the telephone system will cause problems in PathFinder during call transfers. The best way to determine if the problem is with PathFinder is to eliminate the possibility that the telephone system is the problem, as follows:

1. Pull a telephone list from PathFinder and plug it into either an analog telephone or a test set.
2. Simulate the action PathFinder should take.
   - If the problem remains on the analog telephone, then the problem is within the telephone system.
   - If the problem is solved by the analog telephone, then the problem may be within PathFinder.

Problems with the PC Hardware and/or Operating System

Problems with the PC hardware or operating system manifest themselves in various ways. Depending on the type of BIOS in the system, hardware problems may appear at the boot-up level or as an error reported by the operating system. The Event Viewer, Windows NT Diagnostics, and Control Panel programs are useful troubleshooting tools within the Windows NT Operating System.

Problems with *PathFinder*

Problems with the voice processing software are typically related to time control configuration, message waiting indicators, message cascading and supervised transfers. The logs from the voice processing engine are vital to troubleshooting these types of problems.

PathFinder Won't Start

1. Check the error log file (*C:\PathFinder\Logs\Error.Log*) for the following error:

```
Please make sure the Sentinel key is
attached and the drivers are loaded.
```

   ViewPort displays the following error:

```
Failed to wait for startup signal event.
```

2. Attach the software key (activator) to LPT1 on the PC. Refer to *"Software Security Key" on page C-7* for more information.

How Can I Be Certain I Configured My Dialogic Boards Correctly?

The best way to determine if your Dialogic boards are configured correctly is to use the Universal Dialogic Diagnostic Utility (UDDU). Run the Dialogic Configuration Manager (DCM) to edit configurations.

Do not start the UDDU while any PathFinder *software is running.*

1. Access the UDDU program by selecting from the *Start* menu Programs > Dialogic System Software > Universal Dialogic Diagnostic Utility.
2. The system warns you that all Dialogic boards will be stopped; select **Yes**.
3. Select the type of board and type of tests that you would like to run. Consult your Dialogic documentation for details on available tests.
4. Investigate any failure.
5. If you get a failure in the *PC Interrupt* test, double check your IRQ settings on the board and in the Dialogic software.

Questions & Answers

Q… Each time I try to start the voice processing engine, I get the following error: "TCP/IP Connectivity is not set up correctly on this machine. I am unable to determine your host name and address. Please install TCP/IP and related services before using Monitor."

A… The TCP/IP protocol has not been correctly installed.

Q… Each time I try to start the voice processing engine, I get the following error: "Could not start Dialogic service: Please reload drivers."

A… The Dialogic® Board configuration software has not been run or has not been installed properly. Consult the Event Viewer in the Administrative Tools program group to give more information on the error. Please correctly configure your Dialogic board. Refer to *"Install and Configure Hardware" on page C-7*.

Q… Message Waiting Indicators are not lighting on my system. What is wrong?

A… There could be several reasons, follow these steps when troubleshooting MWI:

Verify that you can set and clear message waiting indicators from an analog telephone.

Verify the MWI settings are correct. Access the MAINT application. Select from the menu bar Configuration > Telephony Settings > MWI/Notification. Verify the Message Waiting Set and Clear settings are accurate for your telephone system. Verify that the correct Number Length is defined in the Number Length to Edit selection box is chosen.

Verify the `E` in `@Ext` is capitalized in the Message Waiting Set and Clear settings.

Verify there is no setting in the Class of Service > Notification > MWI Strings On and Off.

Verify the Message Waiting setting is not **Off**.

Verify there is at least one line (Line Settings) set to service the Event Group defined in the Class of Service > Notification > Event Handler Group.

Verify that there is at least one task defined as MSGMAN for services event group one under: Configuration > System Settings > Auxiliary Tasks.

Q… Calls are not being routed to extensions properly.

A… First, replace PathFinder with a single line telephone set and verify that transfers work properly without PathFinder. If you are unable to do hook-flash transfers with the single line telephone then check all phone system settings and retry the test.

Start with Lines, verify the answer method, then check the Time Control menu that is programmed to answer.

Verify the entire path by which a call is handled. Typical problems include incorrect Time Control and Menu settings. Compare your Time Control and Menu settings with the default Time Control and Menu settings described in this manual. Use the defaults described in this book as a template to configure your Time Control and Menu settings.

Q… Call transfers are not working correctly.

A… Follow the steps below to troubleshoot call transfers.

Verify the transfer is works properly with either a single line telephone or test set, then attempt the transfer. If the transfer does not work properly with the single line telephone, verify the telephone system settings, then retest. If this does not work, the problem is within the telephone system.

Check to make sure that you have the correct prefix settings to perform a transfer. Select from the menu bar Configuration > Telephony Settings > Transfer Settings. Make sure the Transfer Prefix and Transfer Postfix are set correctly. Consult your telephone system documentation for the correct settings.

Check the flash hook length setting is correct. To check this setting, select from the menu bar Configuration > Telephony Settings > Transfer Settings. The setting should match what is configured in your telephone system.

Q… Caller hears DTMF during an attempted transfer.

A… The flash hook setting is probably too short. To check this setting select Configuration - Telephony Settings - Transfer Settings. The setting should match what is configured in your telephone system.

Q… PathFinder seems to answer the call, but then hangs up almost immediately. What is wrong?

A… Check your time control settings. PathFinder may be approaching the end of a time control setting. If there is no definition for the current date and time, PathFinder doesn't know what to do and hangs up. Additionally, review the logs for Hx settings to determine the type of hang-up PathFinder is performing.

Q… Supervised transfers are not working on my system.

A… There could be many causes of the problem. See below for possible solutions:

When you select a telephone system, PathFinder creates a series of subscribers. The default subscribers are programmed to use blind transfers. We recommend using blind transfers unless required by the customer.

PathFinder may require the ring and busy tones to be learned by PBXpert. Refer to *Appendix B , " PBXpert for Call Analysis"*.

If you are using Supervised Transfers, the extensions using supervised transfers should not be set to **Forward on Busy or No Answer**. Also, any recall times in the telephone system are disabled.

Q… Call Queuing does not work.

A… For call queuing to work, you must use supervised transfers and call holding must be enabled. Additionally, call queuing must be enabled in the Class of Service.

Q… PathFinder does not answer calls.

A… There could be many causes of the problem. See below for possible solutions:

Verify the calls are routed to the voice mail system by substituting an analog telephone or test set for PathFinder. If the phone does not ring, check your Hunt Group or Phone system settings.

If the line is ringing, move the phone line to another voice processing port. If PathFinder does answer, the problem is likely with the voice processing board. First run the Universal Dialogic Diagnostics program found in the Dialogic System Software program group. If any errors occur, correct the problem and re-test.

Check the *Number of rings before system answers incoming calls* field in the Configuration > Telephony Settings > Rings window. It should be set to a number between one and three. If the number is too high, it may give the impression that PathFinder is not answering.

If PathFinder occasionally does not answer calls during heavy traffic periods, it is possible that the hunt group on the telephone system is not configured correctly. Check all telephone system programming.

Q… It takes a long time to release the line after a caller has hung up.

A… PathFinder detects a loop current disconnect by default. The telephone system you are using may not use loop current disconnects. Consult your telephone system manual to verify the telephone system does not use loop current disconnects. If the telephone system does not support loop current disconnects, PBXpert needs to be run to learn the tones. Refer to *Appendix B , " PBXpert for Call Analysis"*.

Q… How do I record prompts for the Menus I created?

A… There are two ways to record Menu prompts:

Boom Box allows you to record menu prompts via the sound card in your computer or via the Dialogic board on PathFinder.

Record Prompts, when set as a Key Action in a Menu, allows access to prompts in that Menu level. Refer to *"Key Action Definitions" on page 3-76*.

A Command Files & Notification Scripts

Command Files are used in PathFinder to expand the basic capabilities to meet the needs of special notification/paging systems, phone systems, TIE lines, and special installations. Command files can be used in many places, such as:

- Mailbox notification (refer to *"Notification Settings" on page 3-64*)
- Extension / Mailbox forwarding (refer to *"Setting Up Phone Lines" on page 3-85*)
- Time controls (refer to *"Time Control Settings" on page 3-79*)
- Directly from a menu (refer to *"Editing a Menu" on page 3-73*)

Command Files

A command file is an ASCII text file with one command per line. An ASCII text file is also known as a plain text file. You can use any editor, including Microsoft Word, Notepad, or Edit to create a Command File. Be certain when using any editor to save the file in a "Text Only" format. One command per line means that each command should be on a single line.

For example … to dial a number and Quit, the file must look like this:

```
Dial=9,17701234567
Quit
```

When typed as follows, the file does not work:

```
Dial=9,17701234567 Quit
```

Guidelines

Only the commands listed below may be used. Any other lines are discarded.

- If a line starts with the ";" (semicolon) character then the rest of the line is ignored. For example, this command is ignored by PathFinder because of the semicolon in the beginning of the line. (`;Dial 9,17701234567`)
- In the list below, items in brackets (< and >) are variables and represent strings that you must supply. In the Command Descriptions below we describe what type of variable to use. For example, `Call=<DTMFString>` means that the command string uses a DTMF String to determine what number to call. A DTMF string is a series of DTMF tones, like pressing keys on a telephone key pad.
- Anytime a `<Mailbox>` or `<Extension>` appears, leaving it out causes the command file to use the global mailbox and extension. Typically, the global mailbox or extension is the last mailbox or extension accessed by PathFinder.

Command Descriptions

Command / String	Action	Description
`<0-6>=<Command...>	Executes the <Command..>. Sunday=0, Monday=1, …, Saturday=6.	if today's day of week matches *Related Commands:* Time
AbortIfNoNewVoMsgs	Aborts command file…	if no new messages, or new urgent messages are in the global mailbox.
AbortIfNoPages	Aborts (Quits) the command file…	if no paging messages exist.

Command / String	Action	Description
Call=<DtmfString>	Calls the number.	Using the Call feature is like using supervised transfers when transferring an Auto-Attendant call to an extension. The voice mail system remains on the line and listen to the Call Result. This command is not complete until a Connect, Busy, or NoAnswer is detected. *NOTE*: The "Call" command works in conjunction with the CallResult command. *Related Commands:* CallResult, OffHook, Sleep
CallExtension	Calls the global extension.	Using the Call feature is like using supervised transfers when transferring an Auto-Attendant call to an extension. The voice mail system remains on the line and listen to the Call Result. *NOTE*: The "Call" command works in conjunction with the CallResult command. *Related Commands:* CallResult, OffHook, Sleep
CallMailbox	Calls the global mailbox.	Using the Call feature is like using supervised transfers when transferring an Auto-Attendant call to an extension. The voice mail system remains on the line and listen to the Call Result. *NOTE*: The "Call" command works in conjunction with the CallResult command. *Related Commands:* CallResult, OffHook, Sleep
CallMailboxWhere	Calls the number in the Notification Number setting of the global mailbox.	Using the Call feature is like using supervised transfers when transferring an Auto-Attendant call to an extension. The voice mail system remains on the line and listen to the Call Result. *NOTE*: The "Call" command works in conjunction with the CallResult command. *Related Commands:* CallResult, OffHook, Sleep

Command / String	Action	Description
CallResult<07-12>=<Command...>	Branch on result of a call; 7=busy, 8=no answer, 10=connect.	The command in the <Command…> field is executed if the CallResult<07-12> is true. You can enter a block of commands to run if a specific call result is met. *For example* … you can have the following commands executed if the CallResult is a connect: - CallResult10=DialMailbox - CallResult10=OnHook - CallResult10=Quit If the call is connected then we dial the mailbox number, go on hook, and quit the file. *NOTE*: CallResult does not work when used in conjunction with the Dial command. You must use the Call command. *Related Commands:* Refer to example below for additional information.
CancelPendingNotifies	Cancels all pending notifications for the global mailbox.	The command deletes all queued notification requests. It does not modify paging files.
CommandFile= <NewCommandFile>, <Path>	Runs another command file.	The <NewCommandFile> variable is the name of the alternate command file. The <Path> variable tells the exact path to find the <NewCommandFile>. The command is typically called: CommandFile=CFILES/000.CF,0 The <Path> is a numeric value and matches the path settings in the Registry. The command file listed in <NewCommandFile> executes all commands and terminates It does not return control to the originating command file.
Debug=<On|Off>	Turns CommFile debugging on/off.	This writes debugging information to the daily log files.
DebugOff	Turns CommFile debugging on/off.	This writes debugging information to the daily log files.
DeleteAllNewMessages	Deletes all new messages…	for the global mailbox.
DeleteAllPages	Deletes all pager messages…	associated to the global mailbox.

Command / String	Action	Description
DeliverNewFax=<Dtmf String>	Delivers new faxes…	to the number specified or to the mailbox Notification Number field if none specified. Always uses the global mailbox.
Dial=<DtmfString>	Dials the number in the <DtmfString>.	Using the Dial command is like using blind transfers in the Auto-Attendant. PathFinder only dials the number and immediately execute the next command. It does not listen on the line to check if the call was connected. *NOTE*: The Dial command does not work with the CallResult command. *Related Commands:* Sleep, Dial
DialExtension	Dials global mailbox.	Using the Dial command is like using blind transfers in the Auto-Attendant. PathFinder only dials the global mailbox number and execute the next command. It does not listen on the line to check if the call was connected. *Related Commands:* Sleep, Dial
DialMailbox	Dials global mailbox and mailbox number.	Using the Dial command is like using blind transfers in the Auto-Attendant. PathFinder only dials the global mailbox number and execute the next command. It does not listen on the line to check if the call was connected. *Related Commands:* Sleep, Dial
DialMailboxBeeperFile DialPagerFile	Dials the digits found in the latest page or message.	Dials the digits left as a pager message in the mailbox. For example, if you call this command in the Command File and there was a pager message in the mailbox, PathFinder would outdial the DTMF tones left as a pager message. If no page message is sent, then PathFinder dials the mailbox number. *Related Commands:* PreventMboxAsPage
DialMailboxWhere	Dials the number in the Notification Number setting of the global mailbox.	Using the Dial command is like using blind transfers in the Auto-Attendant. PathFinder only dials the number and executes the next command. It does not listen on the line to check if the call was connected. *NOTE*: The Dial command does not work with the CallResult command.

Command / String	Action	Description
DialMsgSource	Dials digits in Msg Source…	if a message is forwarded to your mailbox, the Command file sends the originating mailbox number.
DialNewMsgCount DialSavedMsgCount DialNewOnlyMsgCount DailUrgentMsgCount	Dials DTMF digits…	representing the New or Saved voice message counts for the global mailbox.
DialPrefixForWhereField	Dials the dialing prefix defined in the Registry based on the length of the number in the Notification number field of the global mailbox.	For example, the registry contains the variable "AaDialPrefix07=9,". The notification number from the global mailbox has 7 digits. When sending the DTMF for the Call or Dial commands, we first dial <AaDialPrefix07>, then the number defined in the Notification number for the global mailbox. More specifically, we are sending a notification for mailbox 1221 with a notification number of "1234567". The command file is written as: - OffHook - Sleep=1 - DialPrefixForWhereField - DialMailboxWhere PathFinder would go off-hook, sleep for 1 second, dial "9," and then "1234567". *Related Commands* -- DialMailbox
DoMessageRetrieval=<Mailbox>	Allows message retrieval.	Allows the caller to retrieve and manipulate messages as if they were calling into PathFinder accessing their voice mail box as an owner.
Dtmf <String>=<Command...>	Reads Branch on Dtmf…	if the <String> value matches the value received in DtmfRead, then perform the <Command>. Dtmf 34567=Dial=7701234567 If PathFinder receives the string "34567" from the "DtmfRead" command, it dials the DTMF number "7701234567". *Related Commands:*DtmfRead, WriteDtmf

Command / String	Action	Description
DtmfRead= <count>, <terminate>, <time>	Reads DTMFs.	PathFinder either waits for these digits or if the digits are already in the buffer (the caller has already entered the digits) PathFinder does not have to wait. The command waits for 3 terminating conditions: <count> digits are read, one of the digits specified in the <terminate> parameter is read or <time> seconds passes. An example of a command is: DtmfRead=5, 7, 10 Where PathFinder waits for 5 digits, 7 is the terminating digit and PathFinder waits 10 seconds. *Related Commands:* Dtmf<String>, WriteDtmf
Echo=<On|Off>	Turns Status on/off.	Echo toggles command line debugging on and off.
Extension=<Extension>	Transfers to the <Extension>.	Takes the action defined in the <Extension>'s actions. If no extension is defined, it uses the global extension.
GlbMailbox=<mailbox number>	Changes the global mailbox to a new mailbox.	Normally, when command files are used to do mailbox notification (or in paging systems), GlbMailbox is set to the mailbox number doing the notify. This command could be used to change the global mailbox. This is common for cascaded pagers.
HangUp=<Command...|Off>	On hangup does (DtmfRead only).	If you receive a HangUp command while reading DTMF digits with the "DtmfRead" command, then perform the command in <Command>. HangUp=DialMailboxWhere If Hangup=Off, PathFinder does not look for a hangup event and continues to wait for DTMF digits. *Related Commands:* DtmfRead
Line <00-32>=<Command...>	Checks current line.	It is a command used to branch based on if the current channel is "correct". *For example* … to change something on line 5, you would use: Line05=Call=9,7706621503

Command / String	Action	Description
LoadMailboxBeeperFile	Loads the next page message into memory…	when DialMailboxBeeperFile is called, PathFinder does not have to hit the disk. Helps speed up the notification process. *Related Commands* -- DialMailboxBeeperFile
Log=<LogString>	Logs the string to the daily log file in the <LogString>.	The <LogString> variable can be anything you would like. The <Path> is a numeric value and matches the path settings in the Registry.
LogCallResult	Logs call results in the daily log file.	The log line looks similar to this: *Related Commands:* CallResult
Mailbox=<Mailbox>	Opens the mailbox defined in <Mailbox>.	Takes the action defined in <Mailbox>'s actions. If no mailbox is defined, it uses the global mailbox.
Menu=<Menu Name>	Runs the Menu…	Defined in <Menu Name>.
Module= <ModulesName>, <glb_parameter>	Runs module in <ModulesName>.	If the Module requires any parameters use the <glb_parameter> to define the parameters.
MsgSourceOk=<Command…>	Branch to run <Command>…	if a new message has been forwarded to your mailbox. *Related Commands:* DialMsgSource
NewMessagesXXX-XXX= <Command..>	Executes the command based on the new message count.	Indicates different commands to be executed based on the number of new messages.
Notify	Does notification for the global mailbox.	This is used to restart notification for the global mailbox if PathFinder has not extinguished the notification retries. This is similar to the "Pager Uses Retries" field in the COS record. Pager Uses Retries is not active for command file paging. Use the Notify command to force using retries.
OffHook[=Delayed]	Takes phone off-hook.	If "=Delayed" is specified, then the phone is not placed off- hook until a dial or call is actually executed. This is useful when the time between the Off-Hook and Dial is too long. Except for notification, the phone line is typically already off-hook. Doing a second off-hook does not affect anything.

Command / String	Action	Description
OnHook	Puts phone on-hook.	Typically, this command is used to place the line On-hook after completing a call. *CAUTION*: In a very active system, this command could cause PathFinder to answer an incoming call before PathFinder is ready. *Related Commands:* OffHook, Quit
PlayFirstMessage= [New | Save | Kill | Delete]	Plays the first message.	Without a parameter, the message is left as a new message. You may also specify Save, Delete, or Kill to act on the message. *New* leaves the message as new in the mailbox. *Save* marks the message as saved in the mailbox. Use *Kill* or *Delete* to remove the message after playing. The person receiving the call is not able to manipulate the message after listening to the message. In other words, they are not able to save, delete, or forward the message. *Related Commands:* Dial, Call
PlayMailboxGreeting	Plays the Standard mailbox greeting…	for the global mailbox.
PlayVoicePage	Plays the next voice message file.	Should only be used on voice pagers. *Related Commands:* PlayFirstMessage.
PreDialDelay=xx PostDialDelay=xx	Uses the pre and post dial delays to pause between taking the phone off-hook and dialing.	These statements are only useful if OffHook=Delayed is also used. Normally, these are only used when the execution of the command file is progressing too slowly to use the Sleep=X command. *Related Commands:* OffHook, Sleep
PreventMboxAsPage	Prevents the mailbox number from being sent as a page message.	If a page message is left in the mailbox and the pager notification is initiated, you typically would want the page message sent. If the caller didn't leave a page message, but left a voice message, then you can use this command to continue the execution of the command file. *Related Commands:* DialMailboxBeeperFile

Command / String	Action	Description
ProcessNextEvent	Processes the next event for this channel group.	This is used to speed up the event handling because the channel does not have to go back to the wait state. If the next event is a notification event, then PathFinder can process it much more quickly than if the command file did a "Quit" and returned to the main loop. If no events are due for this channel, then the next instruction in the command file after "ProcessNextEvent" is executed.
Quit	Quits this command file.	PathFinder then puts the line on-hook and prepares for another call. Typically, this is the last line in the file because it ends the command file. If PathFinder reaches the end of a command file, a "Quit" command is implied. *Related Commands:* OnHook
RestartIfNewMessage	Restarts command file (with the same global mailbox)…	if new voice messages exist.
Say=<FileName>, <Path>	Says a file.	Plays the prompt file listed in <FileName>. The <Path> variable tells the exact location to find the <FileName>.
Sleep=<SecondsToSleep>	Pauses for the specified seconds.	This allows PathFinder to wait for a number of seconds before performing the next command. *Related Commands:* Dial, Call
Status=<StatusString>	Shows string in status box.	Status allows you to change the run-time status associated with a line. This is what you see in monitor in Windows NT voice mail systems.
Time<HH:MM>-<HH:MM>= <Command...>	Executes the command…	if the current time falls between the times. First time must be the lowest and you cannot wrap around to the next day. For example: - Time10:00-00:30=DialMailboxWhere - Is not valid. To accomplish the same thing use: - Time10:00-11:59=DialMailboxWhere - Time00:00-00:30=DialMailboxWhere
Version	Sets a local variable…	indicates the version of the Command File.

Command / String	Action	Description
WaitForEvent=<Seconds>	Waits the specified number of seconds for an event.	An event is defined as an incoming call, hangup, interline message, etc.
WaitResultX=<Command..>	Uses WaitResultX to break out the message.	Waits for the result of the event in the "WaitForEvent" and execute the <Command> based on the result. The "WaitResultX" has a similar function to "CallResult" *Related Commands:* WaitForEvent
WriteDtmf=<FileName>, <path>	Appends Dtmf contents to file.	Write the DTMF string received in <DtmfRead> to the <FileName>. The <FileName> is in the <path>. WriteDtmf=Kelly.txt *Related Commands:* DtmfRead, Dtmf<String>

Quick Commands

```
QuickCommand=<command sequence>
```

Quick commands allow you to substitute the longer command strings with the shorter mnemonic replacements described. Additionally, processing of the command file is much faster when using mnemonics.

Quick Command List & Descriptions

The Dw, Tw and Dp commands are preloaded so that certain commands will execute quickly (i.e., page file or the mailbox's Where field).

Table A-1: Quick Command Descriptions

Command	Description
Ap	Abort if no pages
Dp	DialMailboxBeeperFile, dials pager file
Dw	DialMailboxWhere
Ne	ProcessNextEvent
No	Notify
Of	OffHook
On	OnHook
Pm	PlayFirstMessage, followed with d=Delete, s=Save n=New
Qu	Quit
Rn	Restart if new messages.
Rp	Restart if pages exist
Sl	Sleep, requires one digit seconds, Sl5 = Sleep=5,Sl5Sl5=Sleep=10
Tw	Where field is timed. (placed before Dw)
Za	Zap (erase) all messages

Quick Command Example

`QuickCommand=OfSl1DwSl3DpSl1OnNeQu` is equivalent to:

```
OffHook
Sleep=2
DialMailboxWhere
Sleep=3
DialMailboxBeeperFile
Sleep=1
OnHook
ProcessNextEvent
Quit
```

Even though this is not as quick, it works.

Combining Quick Commands

You may also combine Quick Commands and regular commands as follows:

```
QuickCommand=OfSl1DwSl3
DialMailboxBeeperFile
Sleep=1
QuickCommand=OnNeQu
```

Pre-Defined Command Files

File Names & Location

The self-contained voice mail unit has several pre-defined command files located in the \PATHFINDER\CFILES subdirectory. They have the following file names:

PAGER10.CF	006.CF	106.CF
PAGER12.CF	008.CF	108.CF
PAGER14.CF	010.CF	110.CF
PAGER16.CF	012.CF	112.CF
PAGER18.CF	014.CF	114.CF
PAGER20.CF	016.CF	116.CF
PAGER22.CF	018.CF	118.CF
PAGER24.CF	020.CF	120.CF
PAGER6.CF	022.CF	122.CF
PAGER8.CF	024.CF	124.CF

The numeric portion of the name describes the number of seconds after dialing the pager number (but before sending the mailbox digits to the paging company).

Pager Notification

When creating a command file for pager notification, the timing of the digits to be sent from the voice mail system to the pager is critical. The command file must be synchronized with the timing of the pager being used.

When determining the timing of the pager:

1. Call the pager company.
2. Calculate the amount of time from when you dialed the last digit to the pager company and the time the pager company asks for the digits to be sent to the pager.
3. Modify the Sleep time to be the time you calculated for the digits to be sent to the pager.
4. Contact Technical Support if more information is needed.

Sample Pager Files

The following examples illustrate how these two pager files might be set up:

PAGER10.CF
(similar to PAGERXX.CF and 0XX.CF files)

```
OffHook
Sleep=2
DialPrefixForWhereField
Sleep=3
DialMailboxWhere
Sleep=10
DialMsgSource
MsgSourceOk=Dial=*
Dial=*
DialUrgentMsgCount
Dial=*
DialNewOnlyMsgCount
Dial=*
DialSavedMsgCount
Dial=#
OnHook
Notify
Quit
```

110.CF
(similar to 1XX.CF files)

```
OffHook
Sleep=2
DialPrefixForWhereField
Sleep=3
DialMailboxWhere
Sleep=10
DialMailbox
Dial=*
DialUrgentMsgCount
Dial=*
DialNewOnlyMsgCount
Dial=*
DialSavedMsgCount
Dial=#
OnHook
Notify
Quit
```

Modifying Command Files

Use a text editor such as Notepad.exe to view or modify a command file.

Command File Example

A sample command file that mailbox 232 would use for notification is listed below.

The file first takes the phone off-hook and dials a beeper number.

- If a connect is detected (*CallResult=10*), mailbox number is sent and the file Quits.
- If we do not get a connect, the file calls another phone number and, upon a connect, sends the last message received.
- If the last number does not answer, we schedule another notify.

The *sleep=* commands are used to give the phone line time to settle.

```
; Mailbox 232's notification file
OffHook
Sleep=1
Call=9,#
Sleep=2
; If connected - then send the mailbox and hang-up
CallResult10=DialMailbox
CallResult10=OnHook
CallResult10=Quit
; If connection fails - try another number.
OnHook
Sleep=1
OffHook
Call=9,011241230909
Sleep=2
; If we got a connect then play the message and hang-up.
CallResult10=PlayFirstMessage
CallResult10=OnHook
CallResult10=Quit
; Still no connect, so re-schedule notification.
OnHook
; The next two lines are simple time of day services.
DayOfWeek0=Console=Today is Sunday
Time10:00-14:00=Console=Time us between 10am and 2pm.
; The next 2 lines demonstrate linking of time of day
;    commands.
DayOfWeek3=Time10:00-10:30=Status=Wed 10:00-10:30am
DayOfWeek6=Time08:00-17:00=Menu=SAT_WORK
; Re-issue another notify
Notify
; Quit this command file
Quit
```

Figure A-2: Command File - Sample

B PBXpert for Call Analysis

PBXpert allows the voice processing boards to learn the ring back, busy, do not disturb, and other tones relevant to voice processing.

Overview

This section covers the configuration of PBXpert software.

The PBXpert software learns the tones and creates a tone set file for your telephone system. PBXpert configuration involves walking through a Wizard program.

You only need to configure PBXpert if you are using supervised transfers AND you are not running on a phone system that appears in the certified list.

Requirements

To configure PBXpert, you need the following:

- Telephone system with 2 analog lines plugged into the Dialogic boards and extension numbers for those ports
- Dialogic voice board loaded into the PC with the memory address and IRQ configured correctly
- PathFinder software installed
- Dialogic drivers installed
- PBXpert software installed

Start Up Mode

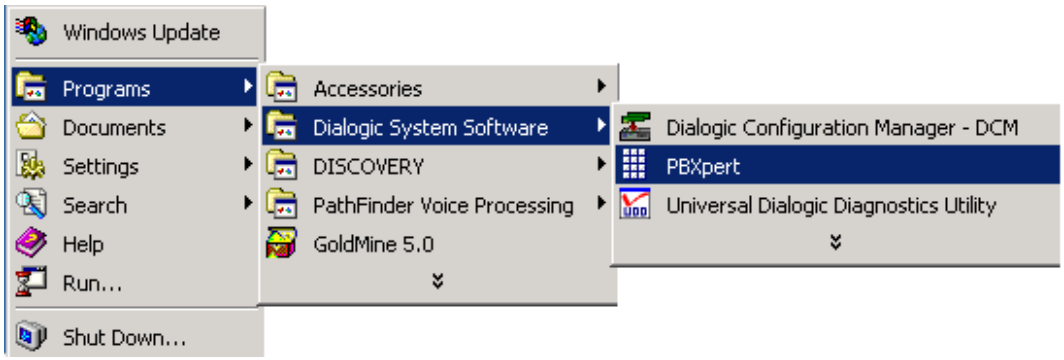
Before running the PBXpert Wizard, the Dialogic drivers need to be started. Either run the PathFinder Engine and then stop the PathFinder Engine, or perform the following steps:

1. Select from the *Start* menu Programs > Dialogic System Software > Dialogic Configuration Manager - DCM.
2. Click on the *Start Service* icon in the toolbar (identified by the green dot).

PBXpert Software

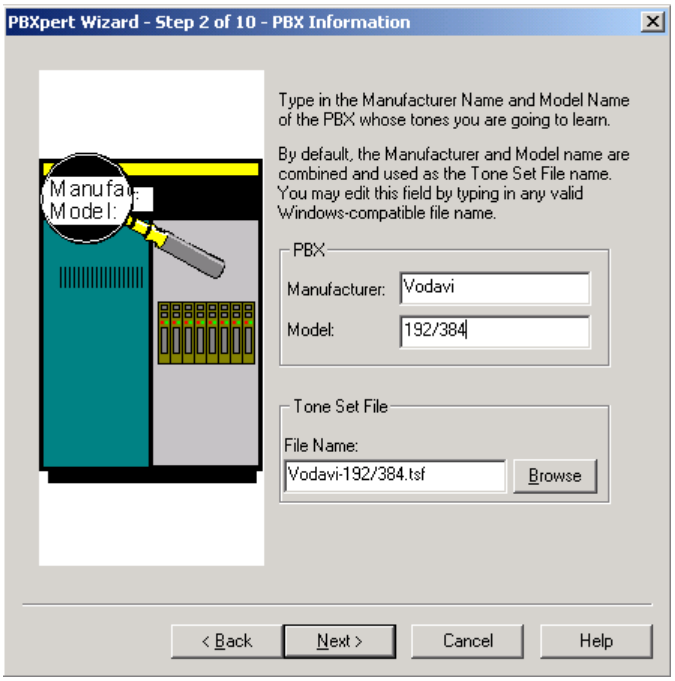
Using the Wizard

1. Select from the *Start* menu Programs > Dialogic System Software > PBXpert.

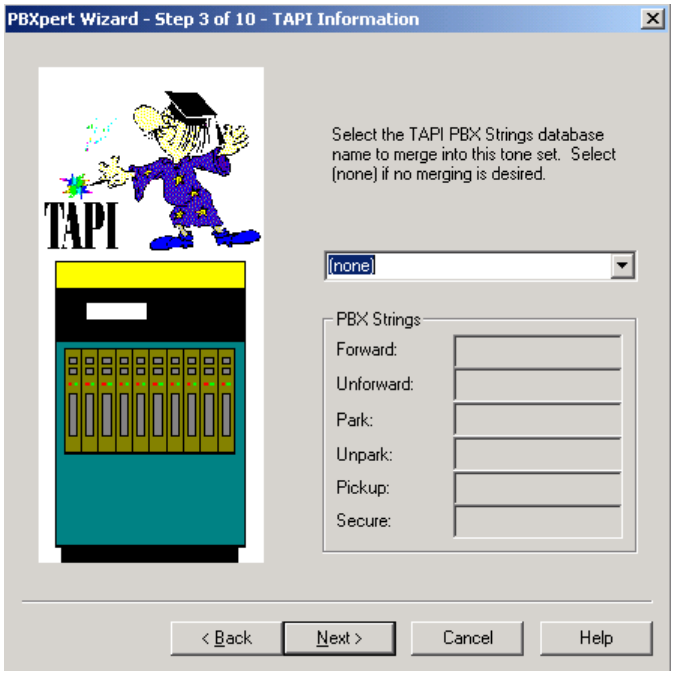


2. The PBXpert Wizard "Welcome" window will display.

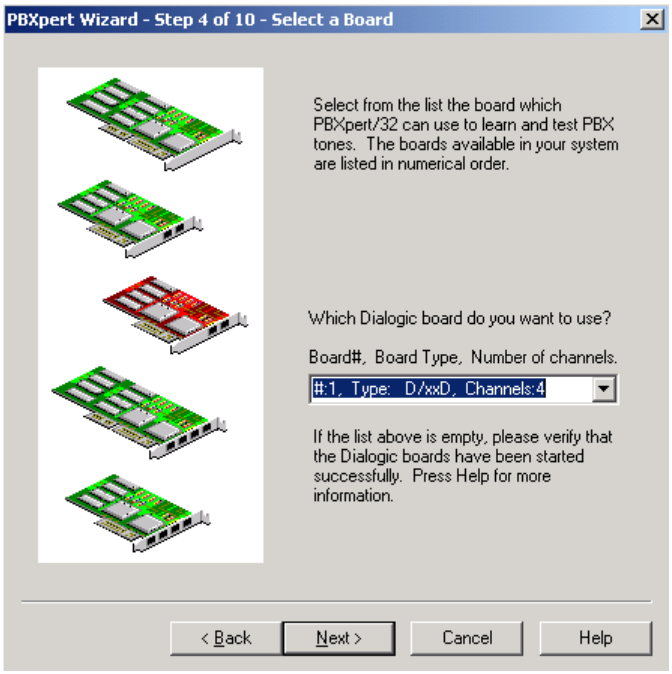
3. Click **Next** to display the "PBX Information" window.



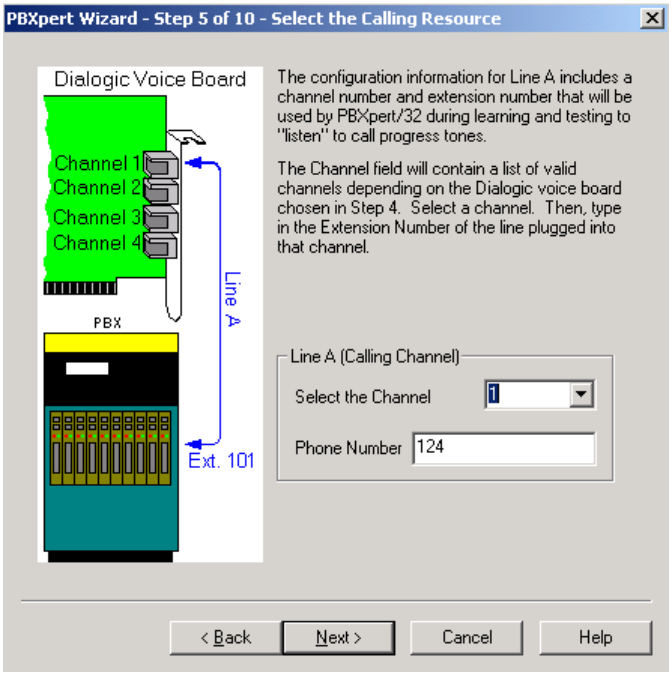
4. Type in the PBX Manufacturer and PBX Model number. The Tone Set file name is created automatically from the Manufacturer and Model number.
5. Click **Next** to display the "TAPI Information" window.



6. Leave the TAPI PBX strings set to `None`, and click **Next** to display the "Select a Board" window.

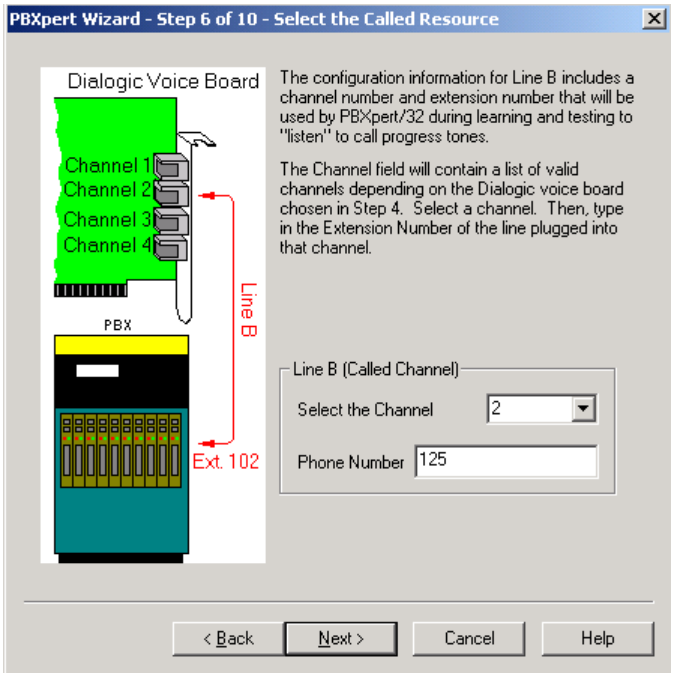


7. Choose the Dialogic Board Type to match the board you are going to use for testing, then click **Next.** The "Select the Calling Resource" window will display.



8. Select the first channel to use for testing.
9. Type in the extension number that this channel is using.

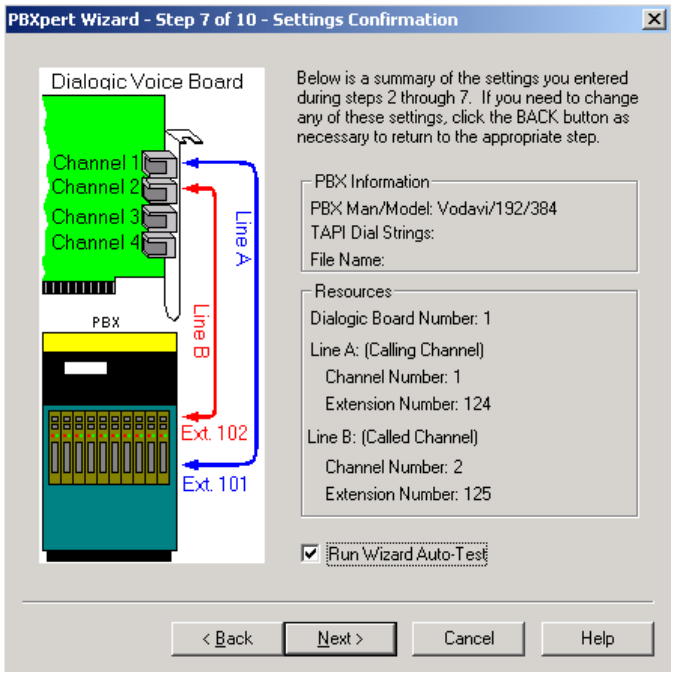
10. Click **Next** and a second "Resource Selection" window will display.



11. Select the second channel to use for testing.
12. Type in the extension number that this channel is using, and click **Next**. The "Settings Confirmation" window will display.

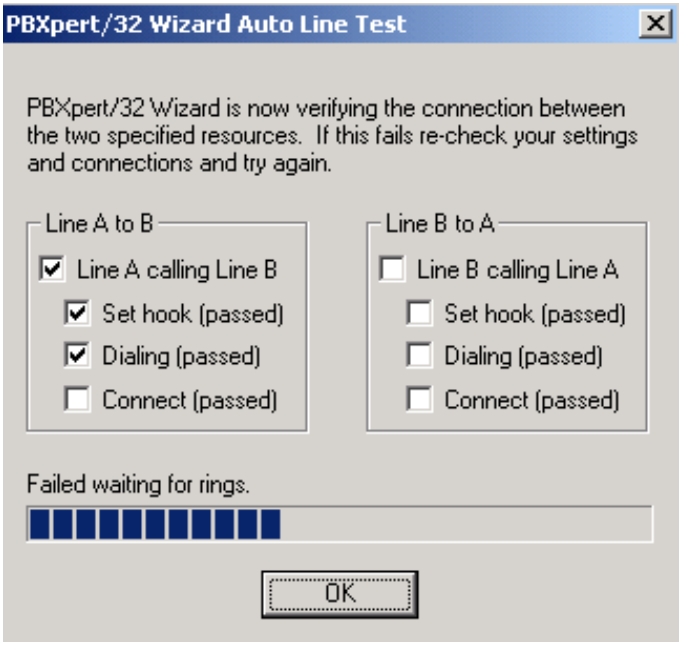
Channels 1 & 2 are in one port,

Channels 3 & 4 are in the next port.

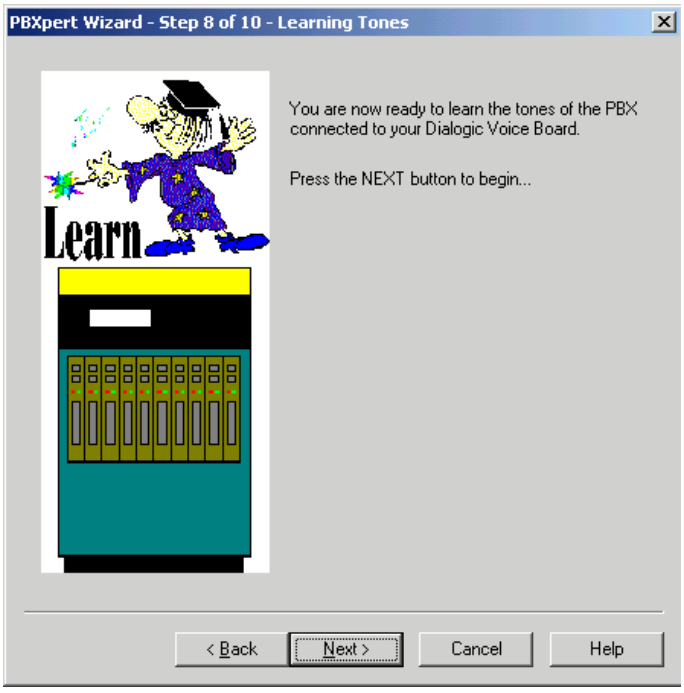


13. Confirm your settings, then make certain that **Run Wizard Auto-Test** is selected. *Auto Test* will verify that the correct channel is plugged into the correct extension. If you get an error during the Wizard Auto Test, confirm your settings and re-test.

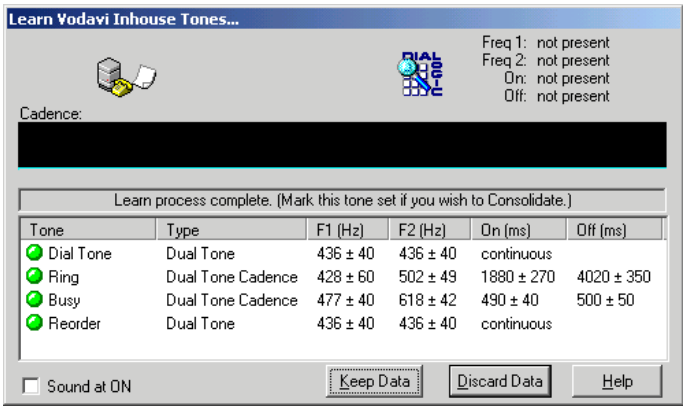
14. Click **Next** to display the "Auto Line Test" window.



15. When the *Wizard Auto Test* is successful, click **OK**. The "Learning Tones" window will display.



16. Click **Next** to start the test, a "tone activity" window will display.



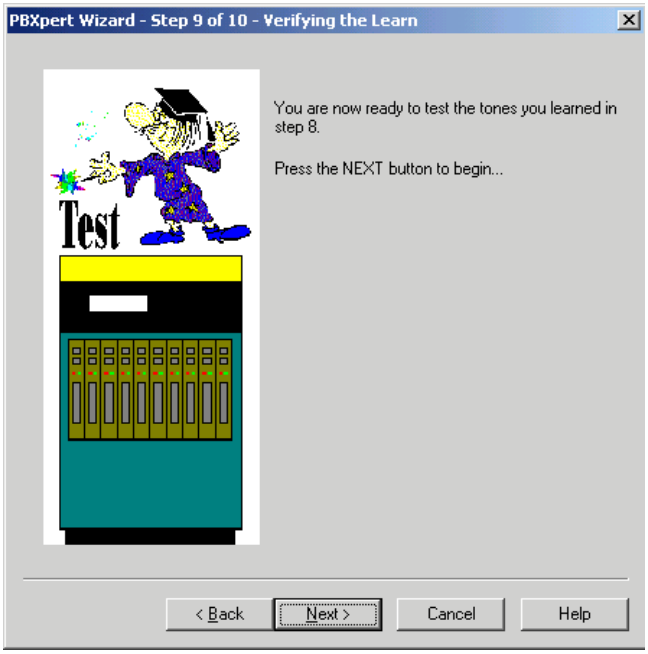
The *Wizard* will run a series of tests to learn the tones of the phone system. This learning process will take several minutes.

» » » To hear the test, check the "Sound at ON" box

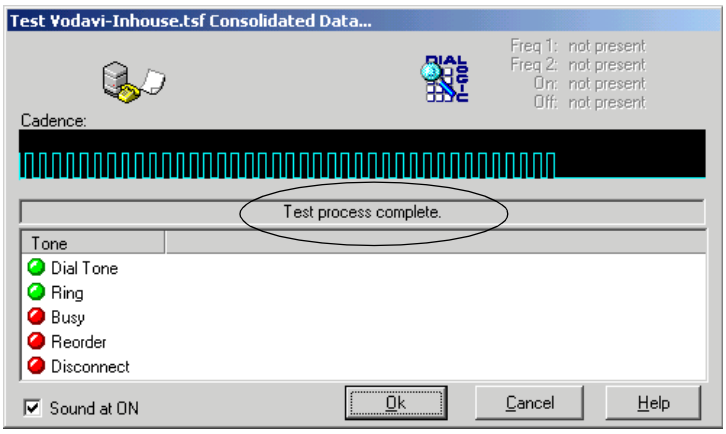
17. If the data registers all green lights in the "Tone" column, click **Keep Data**.

If there are any red lights, re-run the test.

18. When the "Verifying the Learn" window displays, click **Next** to start the tone verification process.



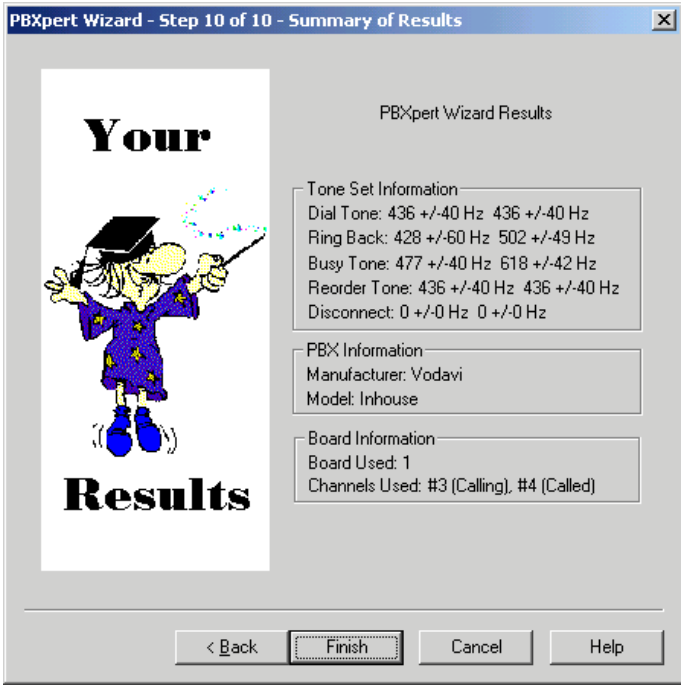
The "Consolidated Data" window will display during the process.



WARNING -- This portion of the test does not perform as you might expect, however, it will not affect the tone frequencies that are reported.

For example … if "Sound" is checkmarked, you will also hear other tests being run that do not relate to the tone frequencies being tested for your system.

19. Wait for the "Test process complete" message to appear, then click **OK** … *regardless of the results (red or green)*.
20. When the "Summary of Results" window displays, click **Finish** to see the raw data presented in a useful table.

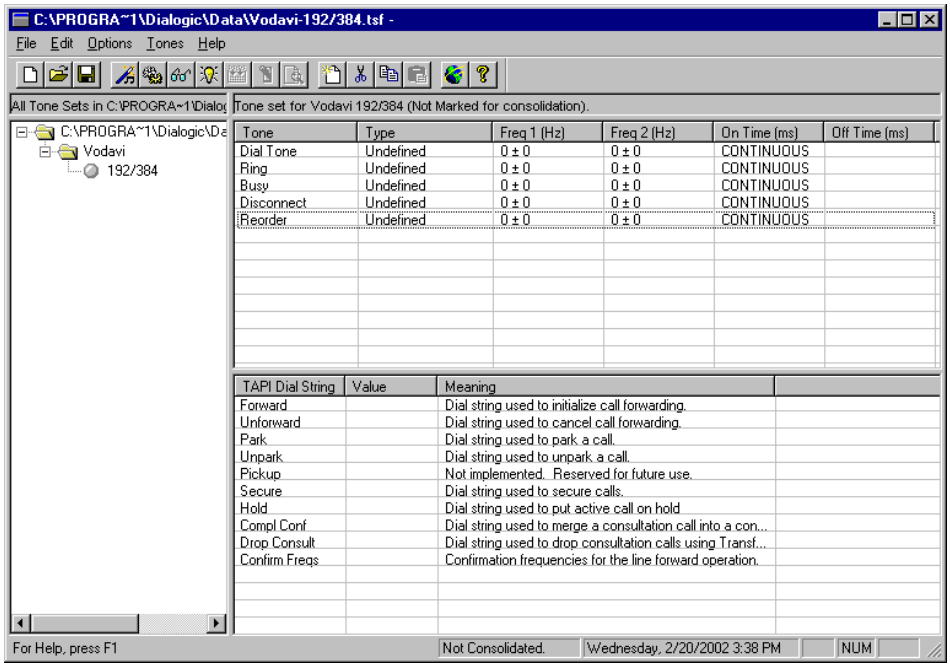


21. To close the PBXpert program, select File > Exit from the menu bar.

Frequency Comparison

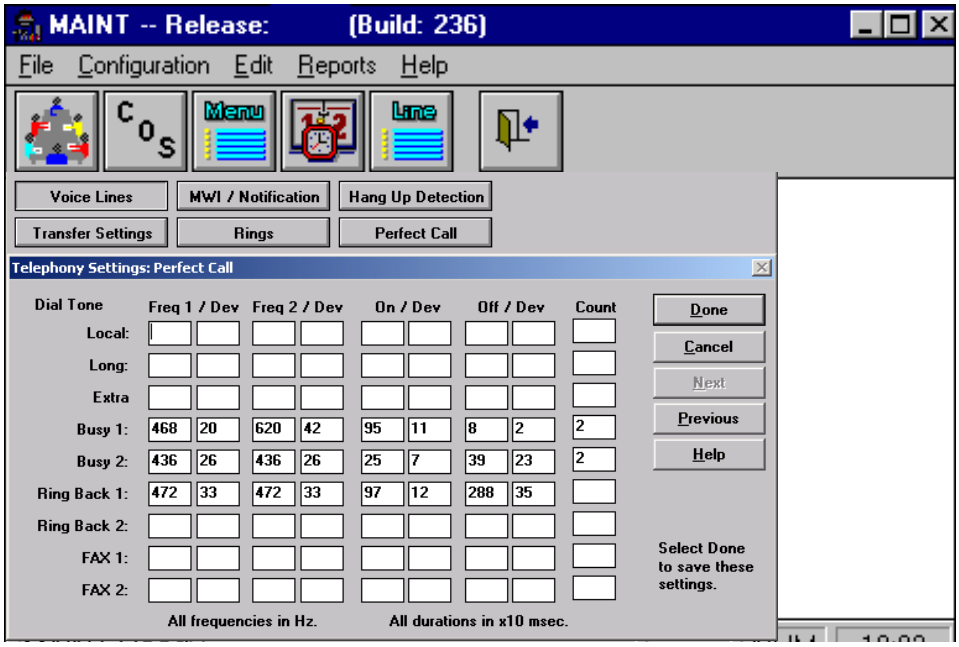
PBXpert - Summary of Results

This chart shows the final results from the frequency tone tests generated by PBXpert.



PathFinder - Perfect Call

This chart shows the PBXpert test results for the Perfect Call settings to be entered into the PathFinder MAINT application.



Advanced Tone Features & INI File

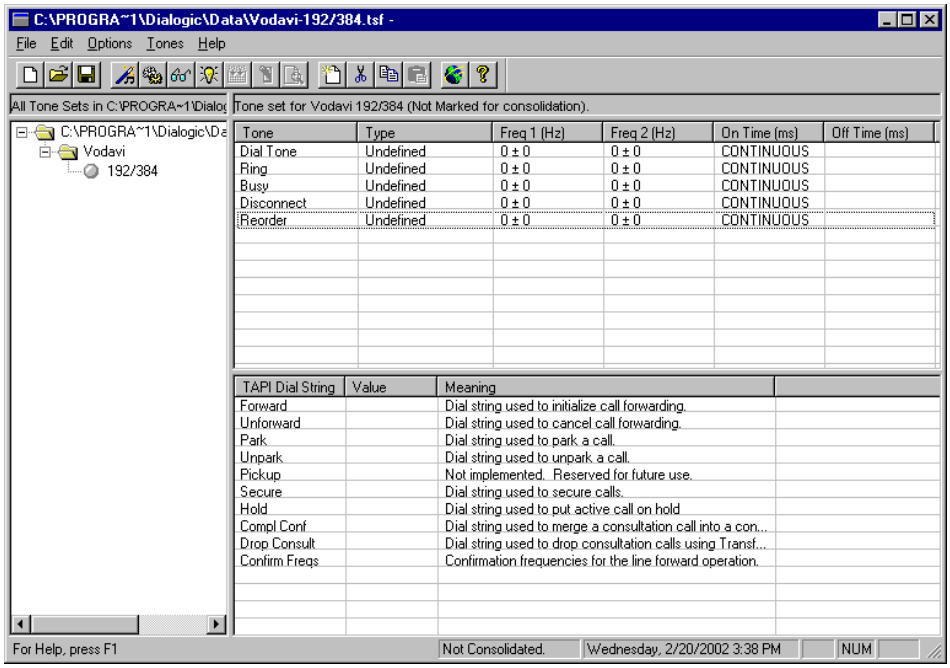
1. Select from the *Start* menu, Programs > Dialogic System Software > Tone Features.
2. Make certain **Disconnect Tone Supervision** and **Tone Set File Enabled** are selected.
3. Choose the correct tone file from the `\Dlgcdev\Dialogic\Data` directory. The TSF (Tone Set File) name is a combination of the PBX Manufacturer and Model number.
4. Click **OK**.
5. Select from the *Start* menu, Programs > Windows NT Explorer.
6. Double-click on the PATHFINDERNT directory.
7. Double-click on **PATHFINDERNT.INI**. This opens the **PATHFINDERNT.INI** file in *Notepad*.
8. Find the `[VoiceHardware]` section. Go to the bottom of the section and type `use_perfect_call=1`.
9. Save the file and exit.

PBXpert Data Transfer

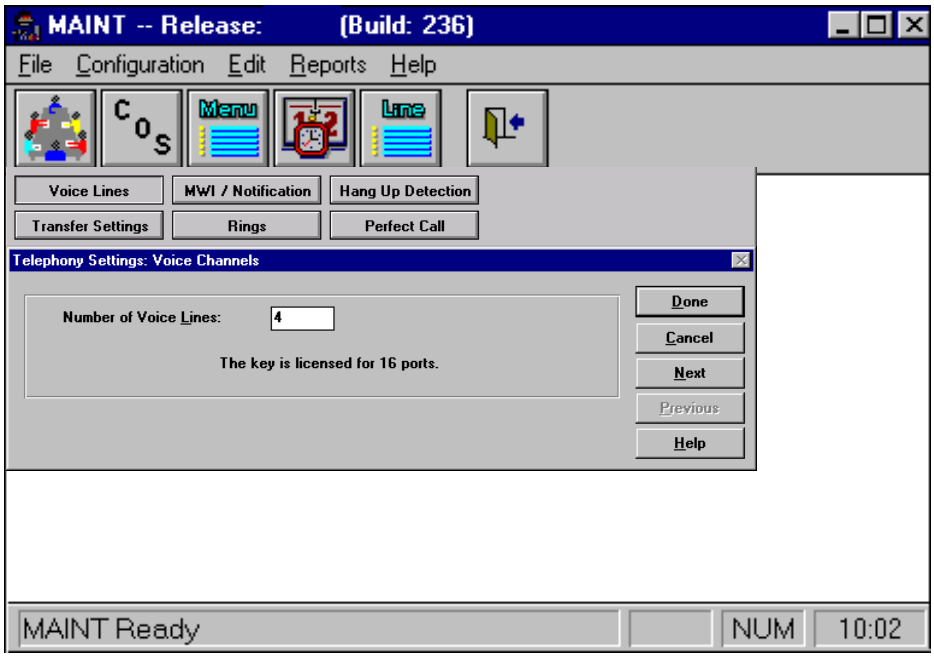
Entering New Call Settings in MaintNT

1. PBXpert is a Dialogic software tool that learns the different tone frequencies and durations that a PBX generates during different parts of a phone call to indicate what is happening, and is used with Pathfinder/MaintNT in order to enable Dialogic's "PerfectCall" call analysis, and to enable certain types of hang-up supervision.
2. The following tones are learned by PBXpert, entered with MaintNT, and used by Pathfinder:
   - Dial Tone
   - Busy
   - Ring
   - Fax [optional]
3. MaintNT is a Vodavi software program used to configure Pathfinder. This documentation is intended to help you understand how to use the information you learn in PBXpert to configure Pathfinder to correctly understand the tones your PBX generates.
4. PBXpert results MUST be installed manually using MaintNT, you cannot install them using Dialogic's PBXpert or DCM programs as .TSF files. It does NOT work correctly with Pathfinder that way.
5. Use the Dialogic PBXpert documentation to configure and run PBXpert connected to your PBX in order to learn the tones for your PBX. You MUST successfully run PBXpert tests on your PBX in order to succeed in configuring PerfectCall on your Pathfinder to make any type of supervised transfers or outbound calls.

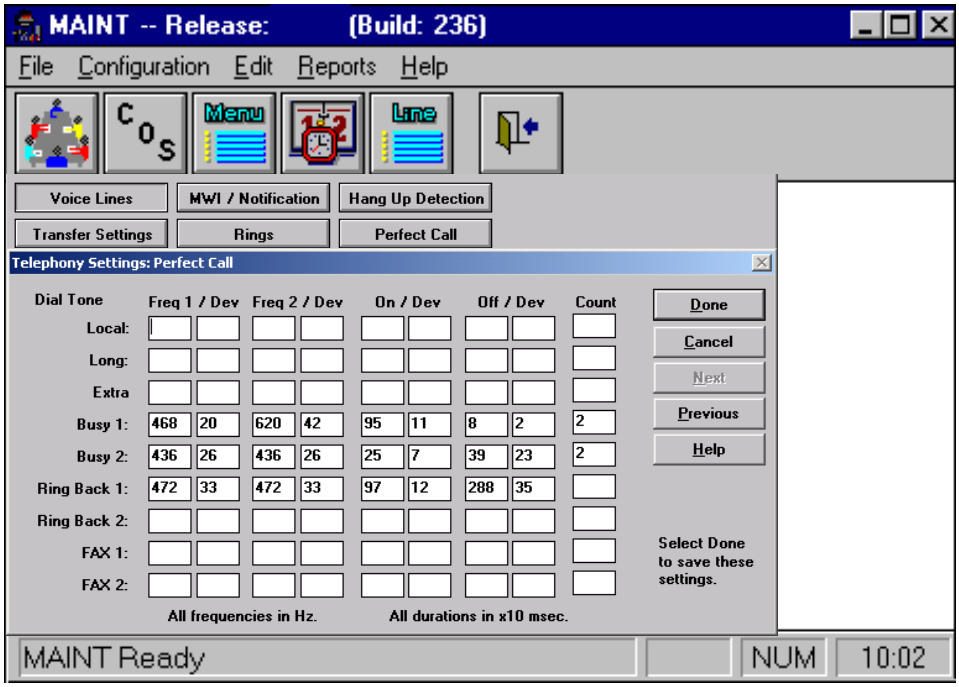
6. Look at the tone information on the PBXpert screen:



7. Run Pathfinder MaintNT.
8. Click on Configuration and select Telephony Settings.



9. Click on Perfect Call.



10. Input the values for Ring in the Ring Back 1 values, Busy in Busy1 and Dial tone in Local, in the MaintNT screen. "Freq" stands for frequency, "Dev" stands for Deviation (+/- from target frequency).

    If you have a single frequency tone, do not enter Freq2 and Dev2.

<on_time>
For cadences, length of time (in 10ms units) tone is "on".
For continuous tones, 1/2 of debounce time (in 10ms units).

<on_time_deviation>
For cadences, +/- deviation (in 10ms units) for on time.
For continuous tones, -1/2 of debounce time (in 10ms units).

<off_time>
For cadences, length of time (in 10ms units) tone is "off".
For continuous tones, 0.

<off_time_deviation>
For cadences, +/- deviation (in 10ms units) for off time.
For continuous tones, 0.

The Count value for CONTINUOUS tones should be 0 and for cadences, it should be the number of times that the pattern should cycle on/off. (rule of thumb, 2-3, more if you get false tone detections, especially for disconnect tones).

***Note, the time values in the PBXpert form are shown in units of ms and the values in Maintenance are shown in units of x10ms. For example, an on time of 450+/- 50 in PBXpert should be input into the MaintNT screen as 45 with a deviation of 5.*

11. To input Reorder or Disconnect tones:
    a. Click on Configuration > Telephony Settings > Hang Up Detection Templates.
    b. Next click on Set Tone Templates
    c. At the Telephony Settings: Hang-up Detection via Tone Templates dialog window, click on Add.
    d. At the Add Tone Template dialog window, fill in the values in the TSF file. (Again, the time values are different in PBXpert and in Maintenance.

    Once finished, click OK and then OK at the next dialog window and finally Done at the Telephony Settings dialog window.

The time values in the PBXpert form are shown in units of ms and the values in Maintenance are shown in units of x10ms. For example, an on time of 450+/-50 in PBXpert should be input into the MaintNT screen as 45 with a deviation of 5.

12. Finally, to implement the tones that you have now entered, click on Configuration, Telephony Settings, and click on the Transfer Settings button. Check the Use Perfect Call check box for all appropriate number lengths.

An excerpt about entering disconnect and other non-PerfectCall tones in Pathfinder…

Q: Tell me about tones on NT…

A: Tone Definitions 100

```
Syntax of Tone Definition Parameters:
=====================================
toneN=<tone_id> <repeat_count> <edge> <freq1> <freq1_deviation> <freq2> <freq2_deviation> <on_time> <on_time_deviat
<off_time> <off_time_deviation> <event_enable_mask> <wait_association> <hangup_association>
```

There can be up to 10 tones defined in a line definition file.

Tone Definitions 101
(*pre-requisite: Tone Definitions 100*)

Summary of Parameters:
==========
<tone_id>
<repeat_count>
<edge>
<freq1>
<freq1_deviation>
<freq2>
<freq2_deviation>
<on_time>
<on_time_deviation>
<off_time>
<off_time_deviation>
<event_enable_mask>
<wait_association>
<hangup_association>

Description of Parameters:
==========
<tone_id>
Unique ID (>0) for each tone. Avoid MFR2 tone IDs on E1/MFR2 systems!

<repeat_count>
For continuous tones, this should be 0. For cadences, it should be the number of times that the pattern should cycle on/off.

<edge>
For continuous tones, this can be LEADING(2) or TRAILING(4) edge. For cadences, this is ignored.

<freq1>
First frequency (in Hz)

<freq1_deviation>
Allowable +/- deviation (in Hz) for the first frequency.

<freq2>
Second frequency (in Hz)

<freq2_deviation>
Allowable +/- deviation (in Hz) for the second frequency.

<on_time>
For cadences, length of time (in 10ms units) tone is "on".
For continuous tones, 1/2 of debounce time (in 10ms units).

<on_time_deviation>
For cadences, +/- deviation (in 10ms units) for on time.
For continuous tones, -1/2 of debounce time (in 10ms units).

<off_time>
For cadences, length of time (in 10ms units) tone is "off".
For continuous tones, 0.

<off_time_deviation>
For cadences, +/- deviation (in 10ms units) for off time.
For continuous tones, 0.

<event_enable_mask>
Specify which tone events should be generated by Dialogic.,
0x01 TONE_ON
0x02 TONE_OFF
NOTE: Current H!NT implementation only supports TONE_ON.

<wait_association>
Flag indicating whether to generate events to wait() function if tone occurs.
0=No
1=Yes

<hangup_association>
Flag indicating whether to set hangup (H7) and terminate Dialogic operations if tone occurs.
0=No
1=Yes

Tone Definitions 102
(*pre-requisite: Tone Definitions 100 & 101*)

Single vs. Dual Frequency Tones
==========

Single tones have zero values for <freq2> and <freq2_deviation>.

Dual tones have non-zero values for <freq2> and <freq2_deviation>.

Continuous vs. Cadence Tones
==========

Continuous tones have zero values for <off_time> and <off_time_deviation>. To "debounce" leading edge continuous tones to prevent "talk-off", set the <on_time> to 1/2 of the desired debounce time (in 10ms units) and set the <on_time_deviation> to -1/2 of the desired debounce time (in 10ms units).

Cadence tones have non-zero values for <off_time> and <offf_time_deviation>.

C Building a PathFinder

This chapter describes the PathFinder installation procedure, the initial analysis and preparation of your system prior to installing hardware and software. If you purchased a turnkey system, refer to *"PathFinder Configuration" on page 1-5*

Hardware Configuration

Before You Begin

PC Requirements

These guidelines should help reduce the possibility of hardware-related problems with PathFinder.

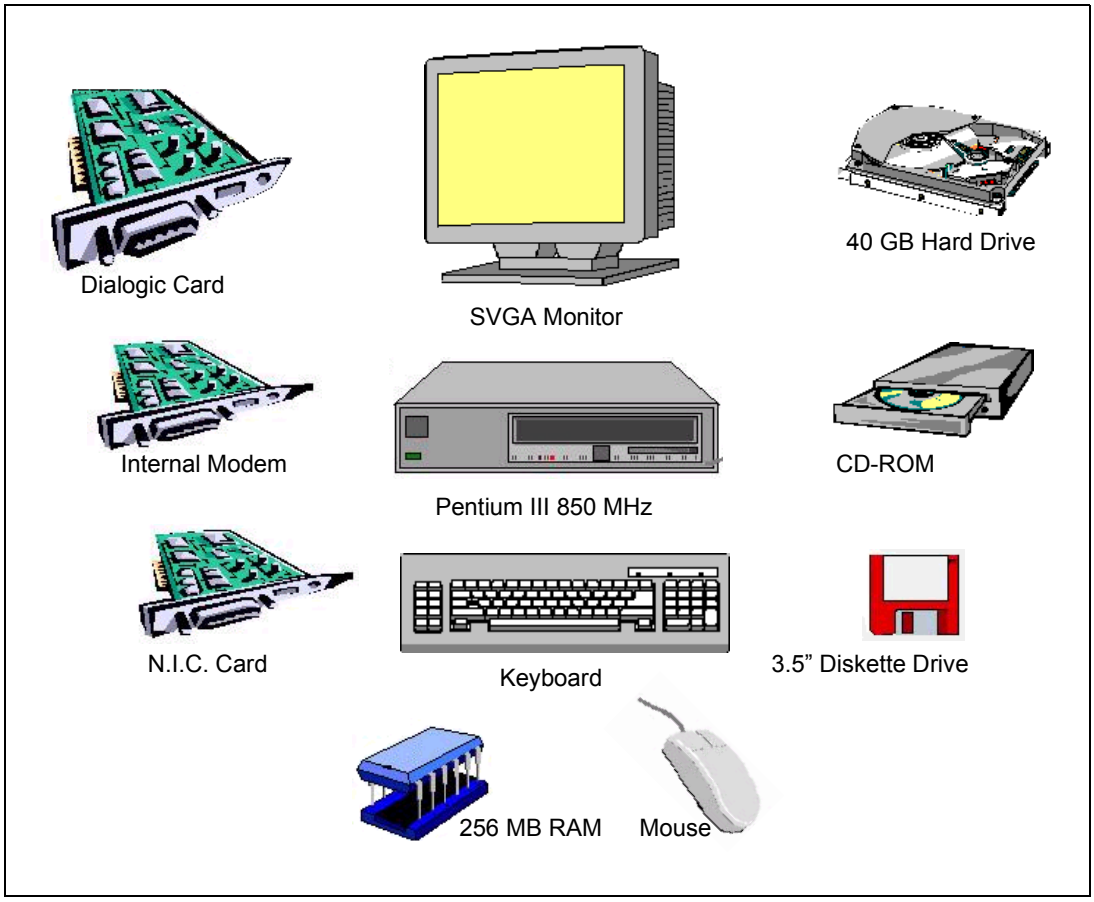


Figure C-1: Minimum Computer Requirements

Server Requirements

The following table lists the minimum hardware and software requirements for the PathFinder Server application.

Basic Server Application	
Hardware	
Processor	*Recommended*: Pentium IV - 2.4 Ghz or higher *Minimum*: Pentium III - 850 Mhz
Motherboard	4 PCI slots or higher
Memory	*Recommended*: 512 MB or higher *Minimum*: 256 MB
Drives	40-Gig Hard Drive CD ROM and Floppy Drive
Cards	Voice Card(s) - Dialogic (*refer to hardware list on page C-6*) Video Card - High Resolution (1024x768) Network Interface Card (must be listed on the Windows HCL)
Modem	33.6 bps or faster (must be listed on the Windows HCL)
Software *(installed prior to* PathFinder *installation)*	
Operating System	Windows 2000 Professional (Service Pack 4) Windows 2000 Server
Browser	Internet Explorer 6.0
Remote Diagnostics	PC Anywhere ver. 10

Installation/Configuration Process

1. Build a PC in accordance with the Windows 2000 Hardware Compatibility List (HCL).
   Refer to the HCL hardware database at the following Internet address … *https://winqual.microsoft.com/download/default.asp.* Then click on "Win2000HCL".
2. Install Microsoft Windows 2000 at a workstation with Service Pack 4 or higher and ensure that there are no errors in the error log files.
3. Install Network Interface Card (NIC).
4. Configure TCP/IP.
5. Configure AutoAdminLogon for PathFinder to automatically log in and start taking calls in the case of a power outage.
6. Install Dialogic card.
7. Install PathFinder software key.
8. Load PathFinder software CD
9. Configure "first-time" load.
10. Configure PathFinder settings.

Performing a System Analysis

You must perform an initial analysis and prepare your system prior to installation of hardware and software.

Before starting the installation of PathFinder, you need to consider certain hardware requirements and recommendations. Having the proper hardware configuration is a key factor in PathFinder's performance and reliability.

Determining System Size

The size of PathFinder can be measured in two ways:

- Amount of disk storage
- Number of ports

Once PathFinder is up and running, it generates a number of reports that allow you to accurately monitor use. In the meantime, the following guidelines will help you determine the proper hardware configuration.

Hard Disk Storage Size

Voice processing can require a large amount of disk space. Many applications are disk intensive, meaning they continually access information on the hard drive. For this reason, it is vital that you incorporate quality components in your system, especially in the case of the disk drive. The size of the drive depends on two factors: the application and the number of users.

GUIDELINES:

» » » 1 hour of message storage can support 30 users.

» » » 1 hour of voice storage requires 10 MB of disk space.

Storage Size Factors

Factors affecting the amount of storage needed include the following:

- Number of extensions and mailboxes required
- Number of messages received and accessed per day
- Average message length
- Message retention period

Number of Ports

The number of ports required depends on several factors, such as:

- Application size
- Time of day
- Average length of a transaction
- Average traffic and peak traffic loads
- Grade of service (the number of acceptable busy calls received)

GUIDELINES:

» *Each port supports 25 users.*

» *If using Text-to-Speech or Desktop Call Control … allow 1 port for every 20 users to avoid the port from being used as a primary communication interface.*

PC System Placement

Consider the following when choosing the location for the PathFinder PC:

- The PathFinder is a server, so it should be placed in the same room or close to the area where the phone system is located.
- Provide a clean, relatively dust free space with adequate ventilation.
- The room should have a stable temperature and comply with the manufacturer's specifications.
- The PathFinder computer needs to be connected to a reliable source of power. Fluctuations in line voltage and power surges can impede operation and damage the PC or its components. An un-interruptible power supply (UPS) is recommended.

Systems with RS-232 hookup for telephone integration or host connection must be located less than 50 feet from the source equipment. A short-haul modem is required if the distance spanned by the RS-232 hookup is greater than 50 feet.

Telephony Hardware Compatibility

The following Dialogic cards are the currently supported interface boards for the PathFinder system:

4 Port - D/4PCI (Voice Card)

4 Port - D/41JCTLS (Voice/Fax Card)

4 Port - VFX/41JCTLS (Voice/Fax Card)

12 Port - D/120JCTLS (Voice/Fax Card)

Install and Configure Hardware

Installation Overview

The steps necessary to set up system hardware depend upon the number of telephone lines (ports) your telephone system is designed to support, and any additional software modules (such as Fax Support) that have been purchased with PathFinder.

Some of the information contained in the rest of this chapter may not be applicable to you or your specific system setup. Check the section headings to determine which information in this chapter pertains to your specific hardware configuration.

All cards are configured with default settings at the factory. However, you must confirm these settings prior to running PathFinder.

Work Table -- should be located in a well-lit area with adequate space to remove the computer chassis. It should also provide adequate space to unpack and inspect the voice cards. An anti-static floor mat in the area in front of and under the worktable is highly recommended.

The following tasks must be completed to install and configure your system hardware:

1. Open the PC designated as the PathFinder server.
2. Install the Network board.
3. Install the Modem board.
4. Check the power connections of the floppy, harddrive, and memory boards.
5. Install the Dialogic boards.
6. Install the Software Key on an active parallel port.

Software Security Key

Included with PathFinder is a software security key. It is designed to unlock the various optional features of PathFinder.

PathFinder *will not function properly if the security key hardware is not installed.*

The security key hardware resembles a male/female parallel connector that plugs into the parallel port on the back of the PC. If you have a parallel printer or other device attached to that port:

1. Remove the printer cable from the PC port, if attached.
2. Install the security key hardware on the printer port.
3. Attach the printer to the software key (in other words, re-attach the printer to the PC through the software key).

If attaching a printer to the software key, any errors from the printer (e.g., out of paper or off-line) may cause PathFinder *to go offline.*

4. Reassemble the computer and prepare to load the software.

Turnkey Systems

Before powering up the PathFinder system, make sure:

- all cards are properly seated,

  -and-

- the disk drives are plugged in.

Dialogic® Products

Refer to *"Telephony Hardware Compatibility" on page C-6* for more information on compatible voice cards.

Current Drivers

The PathFinder application uses Dialogic System Release 5.1.1 drivers.

Telephony Hardware Configuration

When using a PathFinder Kit, configuration instructions are included with the cards provided. It is important to configure these voice cards prior to installation.

Channels

The "D/4PCI" card, for example, supports up to four independent voice I/O channels each with a telephone line interface.

Each channel has the following capabilities:

- Record, digitize, and compress audio in real-time
- Play back previously recorded files
- Detect DTMF tones
- Generate DTMF and pulse tones for dialing
- Initiate and receive calls through the loop start telephone interface

Phone Line Assignments -- Boards are assigned phone lines as follows:

- The board with the lowest address is designated as the first board in the system and is assigned phone lines one through four.
- The next lowest address is the second board in the system and contains lines five through eight.

PathFinder can have up to six voice cards in a turnkey PC. The number of available slots may vary for a customer-provided PC.

Telephony Hardware Installation

After the cards are configured properly, install the voice card(s) in the PC.

PC Preparation

1. Turn the power off and disconnect the AC power cord.
2. Unplug any other cables from the PC including any peripheral device cables.
3. Remove the cover according to the manufacturer's instructions.

Physical Board Installation

Use an anti-static wrist strap and, if possible, an anti-static floor mat when installing voice cards.

1. Remove the screw that secures the expansion slot cover and remove the cover.
2. Insert the board, modular jacks facing the back of the PC, into an available PCI slot on the motherboard, using care not to apply excessive pressure on any of the components.
3. Gently press on the edge of the board and the bracket to securely seat it in the slot. Rocking the board forward and backward while applying pressure on its top edge helps seat it properly.
4. Align the notch in the board's bracket with the hole in the rear panel of the PC. Fasten it into place with the screw that was removed in Step 1.

Do not put the cover back on the PC without securely fastening the voice card to the chassis. Severe damage to the card could result if it is operated without being securely fastened to the PC chassis!

Telephone Connection

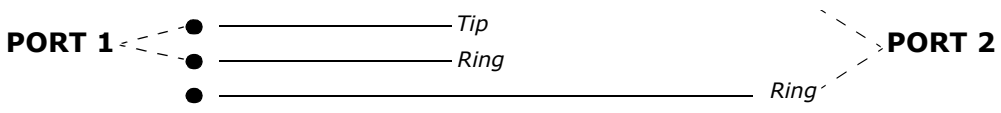
Four-line or twelve-line voice cards (D/4PCI and D/120JCTLS models) use standard two-line RJ-14 modular jacks to connect to the phone system. The RJ-14 jacks on the four-line cards support two telephone lines or extensions per jack.

On the D/41JCTLS, each RJ-11 jack on the rear bracket of the voice board supports a single voice channel. Use RJ-11 connectors and phone cable to connect each voice channel jack to a PBX or Central Office (CO).

Telephone connections are located on the right side of the four-line voice card. When connecting phone lines to four-line cards, follow these steps:

1. With the board components face up and the jacks on the right side, connect lines one and two to the top connector.
2. Connect lines three and four to the bottom connector.

Lines one and three are inside pairs, and lines two and four are outside pairs.



Voice Network Attachment

Network connectivity is very important to the PathFinder advanced features. Some systems have a network interface built in to the motherboard which only requires software driver installation that is normally performed during the o/s installation. If a built-in interface is not available, you will need to insert the network card into an available slot. This will reduce the number of slots that can be used for Dialogic cards.

Direct Attachment to the Central Office

In this configuration, PathFinder is connected directly to the telephone company's central office. However, with this configuration, PathFinder is unable to transfer callers to other extensions. The one exception is a *Centrex/Essex* connection. PathFinder can be connected to the central office using any of the following lines.

Analog Line

Analog lines are standard 48-v DC central office telephone transmission lines that use an RJ-14 connector.

Centrex/Essex Line

A Centrex/Essex line is a business telephone service offered by a local telephone company from a local central office. Centrex lines, like a PBX, provide such features as call transfer, call forwarding, call hold, and others, and they use an RJ-14 connector.

PBX Attachment

In the PBX (Private Branch Exchange) configuration, PathFinder is attached to the phone system through single line extension ports. This provides the greatest flexibility for running PathFinder modules and must be configured this way to process call transfers.

Analog Line

Your phone system must support analog (single-line) telephone sets with hunt group functionality, so that one line is busy, the call will roll over to the next line in the group. An analog line uses an RJ-14 connector, and must have the following capabilities:

- Flash-hook transfer
- Dial-out
- Place call on hold
- Re-connect
- Loop current disconnect

Proprietary Connections

Many phone systems have proprietary connection methods that require a special card to access their integration features. These include the SL1, NorStar, NEC, and Mitel switches. The type of connector used depends on the phone system.

For PBX integration, refer to *Chapter 2, Phone System Integration and Setup*.

Dialogic is no longer updating these drivers, which means that Vodavi support may be limited.

Install and Configure Operating System

This section covers installing and configuring your Windows 2000 operating system.

Before you can install the PathFinder software, you must install and configure the operating system in order to optimize conditions for running PathFinder.

Configuration

Before installing the PathFinder software, you must optimize your PC operating system for running PathFinder. This overall procedure consists of the following tasks:

- Setting up a Windows administrator account
- Configuring the operating system for automatic logon

Log On - Windows 2000

To set up a Windows 2000 administrator account, perform the following steps:

1. From the *Start* menu, select Settings > Control Panel.
2. Double-click **Users and Passwords Control Panel**.
3. Click Advanced tab.
4. Click Advanced button.
5. Click Users Folder in left explorer window pane.
6. Click Action > New User...
7. Type `Pathfinder` in the Username field.
8. In the *Password* field, type the serial number for your PathFinder software, then re-enter the serial number a second time in the Confirm P/W field.
9. Clear the **User must change password at next logon** check box.
10. Select the **Password never expires** check box.
11. Click Create.
12. Click Close.
13. Click Groups Folder in the left explorer window pane.
14. Double-click Administrators group in the right Explorer window pane.
15. Click Add...
16. Select the local domain in the look-in bar, if not already selected.
17. Double-click the **Pathfinder** account.
18. Click **OK**.
19. Click **OK**.
20. Close the Local Users and Groups window.
21. Click **OK** on Users and Passwords window.

Automatic Administration Logon

Create an Emergency Repair Disk before creating the Automatic Administration Logon account.

It is highly recommended that you set up the system to automatically log on to Windows. If you do not create an Automatic Administration Logon account, the system may not function correctly when shut down unexpectedly.

Auto Log On - Windows 2000

To allow the system to automatically log on to Windows 2000 each time the system reboots, do the following:

1. From the *Start* menu, select Run.
2. In the *Open* field, type `Regedt32`, then click **OK**.
3. Select HKey_Local_Machine/Software/Microsoft/Windows NT/Current Version/ Winlogon/DefaultUserName.
4. Type in the username (`Pathfinder`) that you created in *"Log On - Windows 2000" on page C-11*, then press **Enter** when you finish typing.
5. Click **Edit**.
6. Choose **Add Value**.
7. In the *Value Name* field, type `DefaultPassword`, then press **Enter** when you finish typing.
8. In the *String* field, type the password for the user name you created in *"Log On - Windows 2000" on page C-11*, then press **Enter** when you finish typing.
9. Double-click **AutoAdminLogon**.
10. Change the value to `1`, then click **OK**.
11. Double-click **DefaultDomainName** and verify that the value is the name of the local domain or the desired logon domain. Change it if necessary, then click **OK**.
12. Click **OK**.
13. Close `Regedt32.`

Install Adapter

If you have a network adapter card (NIC) in your system, confirm that it is properly configured and operates within normal parameters (If an NIC is installed, you must enable TCP/IP protocol). To install a network adapter, follow the instructions provided by the network card manufacturer.

Software Installation

This section describes how to install the PathFinder software and the programs needed to run this Voice Processing application.

Prerequisites & Preparation

You will install PathFinder software from the installation CD. You must also install helper applications, such as Adobe® Acrobat Reader® and Dialogic drivers.

Before you attempt to install the PathFinder software, ensure that you perform the following tasks:

- Install the software key and install and configure the voice cards. (Refer to *"Install and Configure Hardware" on page C-7* for details.)
- Install and configure Windows 2000.

Once you have performed these tasks, you are ready to install PathFinder software.

Do not run other applications on the voice processing machine. Other applications may disable PathFinder features or functions.

Dialogic Drivers

Any new PathFinder installation requires the Dialogic drivers installation.

If you are upgrading an existing PathFinder application, you must first disable and uninstall the existing drivers to install the new Dialogic drivers.

Sentinel Drivers

It is recommended that you always install or upgrade the Sentinel drivers. This ensures that the latest drivers are always loaded. Existing drivers do not need to be uninstalled prior to installation.

PBXpert

If you have a non-standard PBX, the *PBXpert* utility can train PathFinder for your phone system by learning tones such as busy, ringback, and disconnect.

For more information, refer to *Appendix B , " PBXpert for Call Analysis"*.

Install Software

All the required software, utilities, and drivers to install the PathFinder are located on the PathFinder CD provided.

» » » Make sure the software key is installed. Refer to "Software Security Key" on page C-7 for more information.

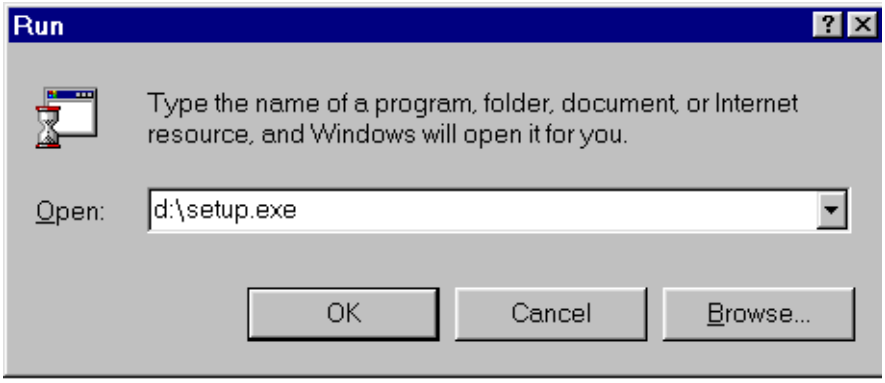
Installation Setup Routine

1 - Starting the Installation Process

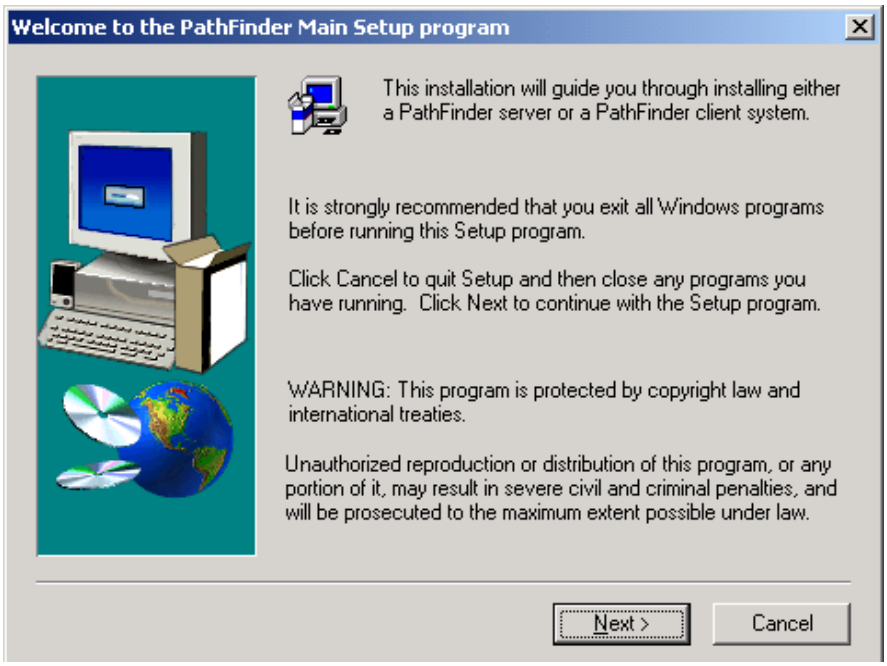
a. Insert the PathFinder CD into your CD-ROM drive.

b. From the *Start* menu, select **Run . . .** .

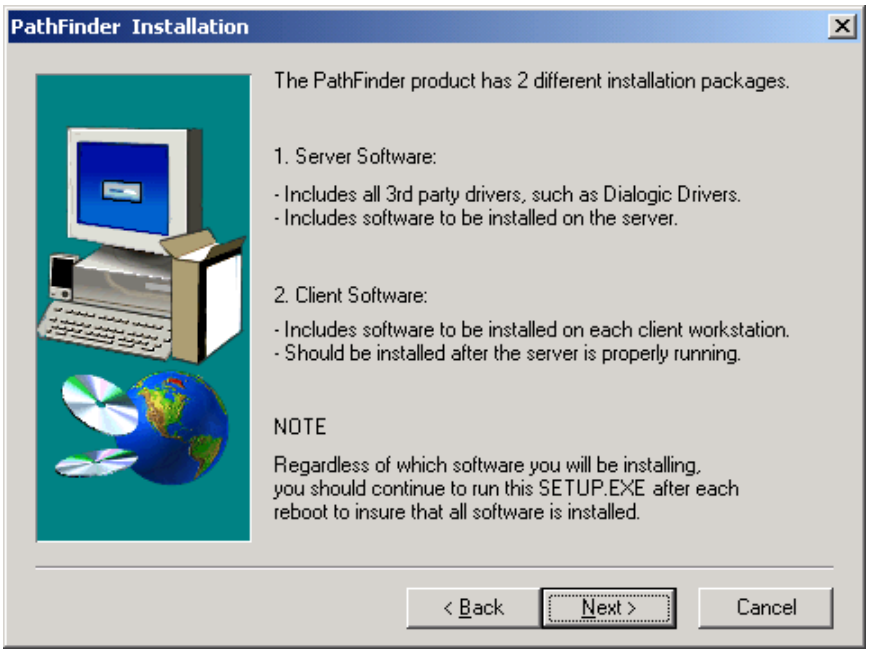
c. In the *Open* field, type `<Your CD-ROM Drive Letter>:\setup.exe` and click **OK**. (*Example … If CD-ROM drive letter = d … type* ***d:\setup.exe***)



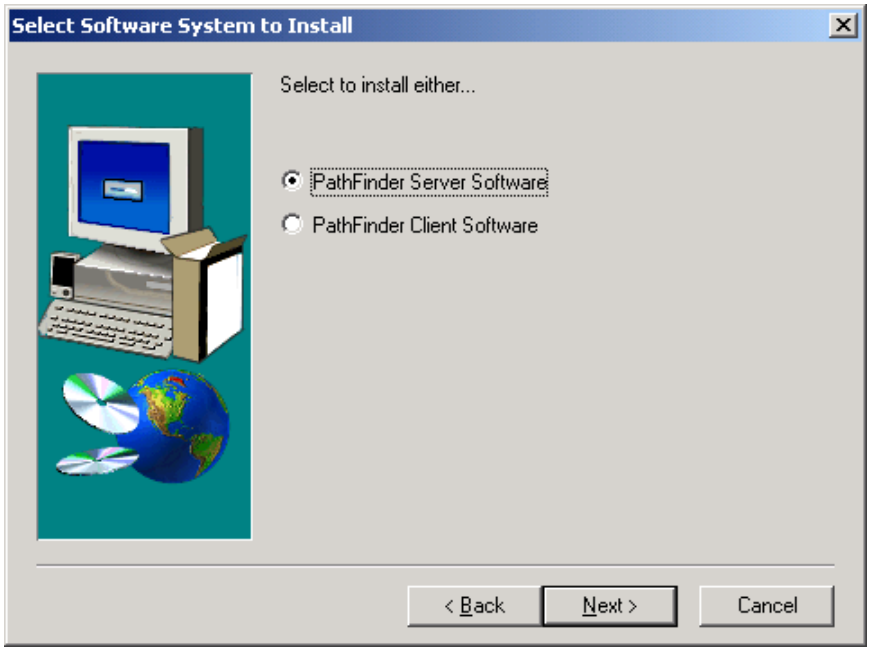
d. To start the Installation process, click **Next** when the *Welcome Main Setup* window displays.



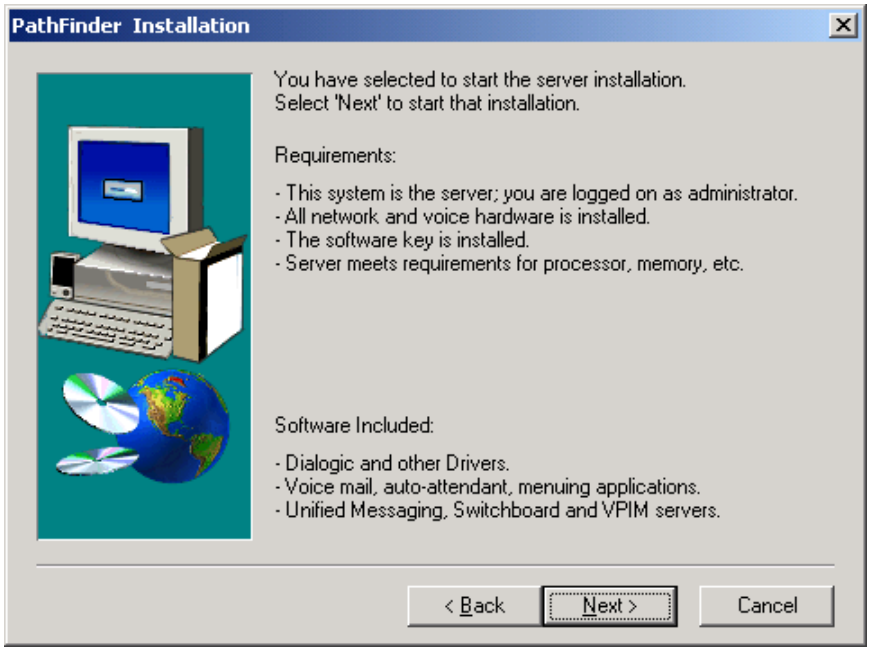
e. When the *PathFinder Installation* window displays the two installation package options, click **Next**.



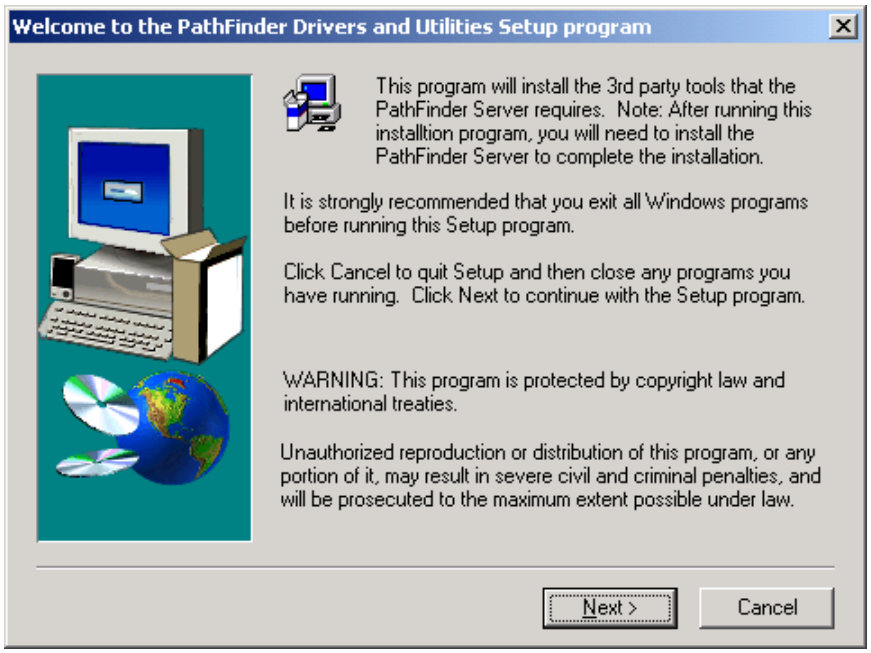
f. Click **Next** when the *Select Software System to Install* window displays.The PathFinder Server Software is selected as it must be installed prior to the Client software (*if purchased*).



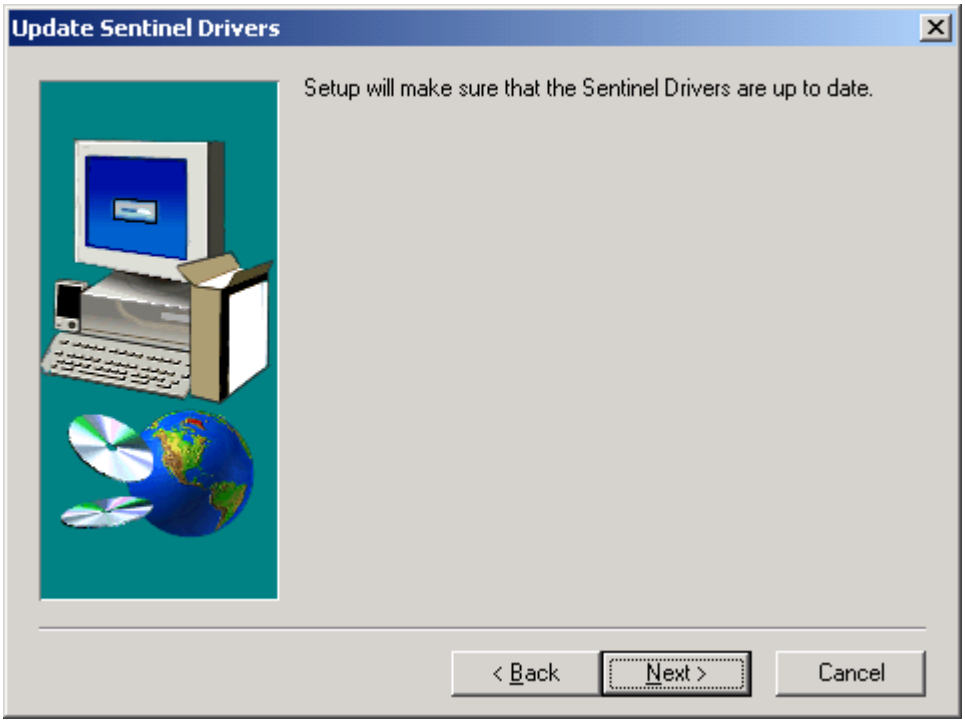
g. Review the server software requirements when the new *PathFinder Installation* window displays, then click **Next**.



h. Click Next to install the necessary tools when the *Drivers and Utilities Setup* window displays.

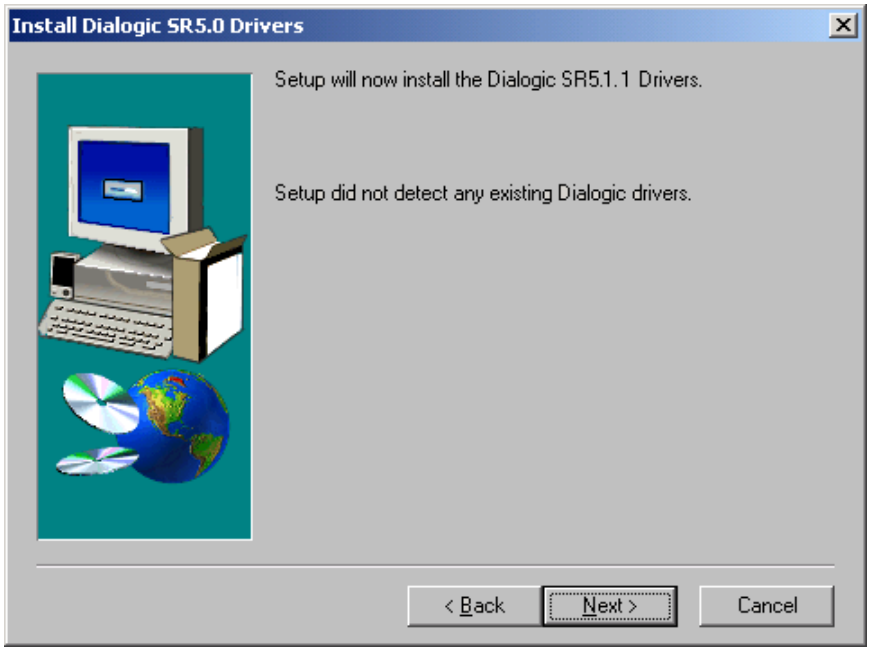


i. Click **Next** to continue when the *Update Sentinel Drivers* window displays.



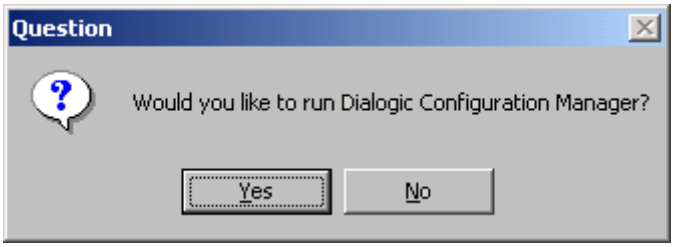
j. If the software key has been installed, click **OK** when this *Information* window appears. *(If current Dialogic drivers were previously installed, skip to Step 3.*)

k. Click **Next** to install *Dialogic SR.5.1.1 Drivers*, the installation setup will continue automatically.



l. Click **OK** when the *Information* window confirms that the Dialogic drivers have been installed.

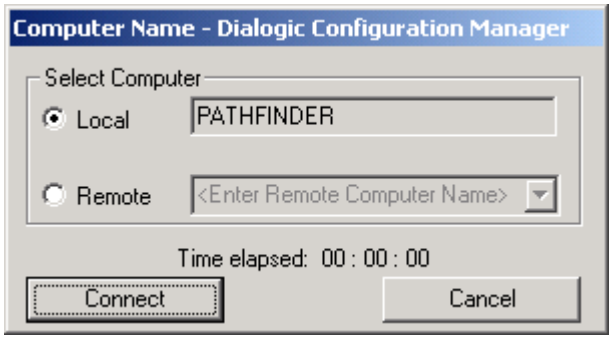
m. Click **Yes** when the *Question* window displays: "Run Dialogic Configuration Manager?".



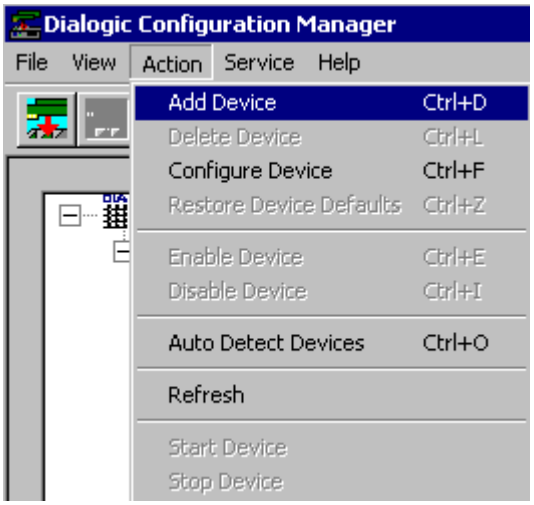
2 - Dialogic Configuration Manager Installation

For PathFinder to work properly, you must configure the Dialogic software to match the installed Dialogic hardware.

a. Click **Connect** when the *Computer Name* window displays to accept the default "Local" setting.

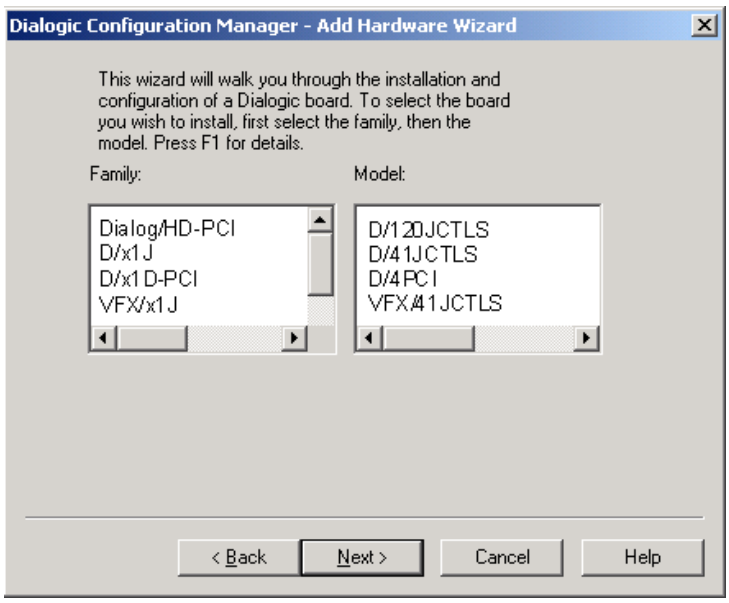


b. Select *Action* > *Add Device* when the *Dialogic Configuration Manager* window displays as shown.



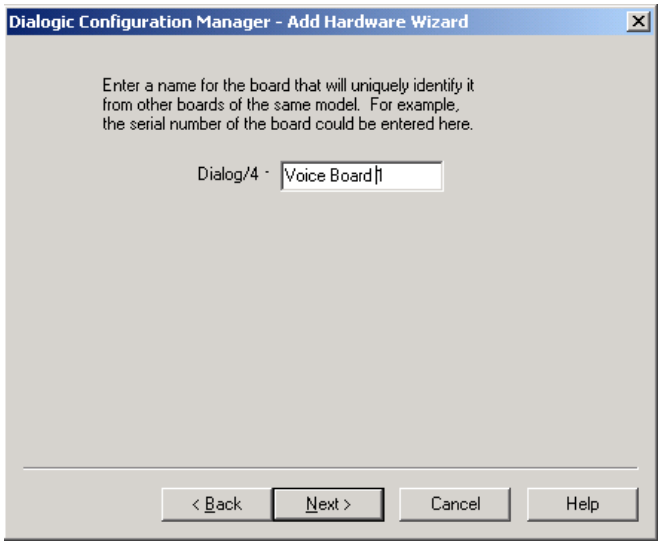
c. From the *Add Hardware Wizard* window, select the "*Family and Mode*l" of the Dialogic board you want to install, then click **Next**.

(The typical board selections are shown in this example.)

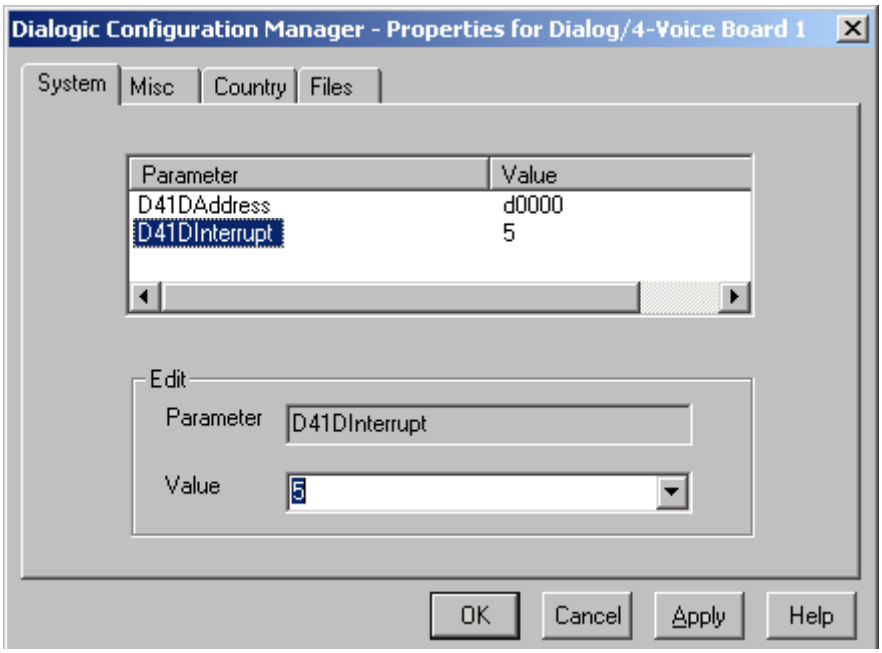


d. When the 2nd *Add Hardware Wizard* window displays, enter a name that will identify this board from other boards of the same model (i.e., serial number), then click **Next**.

e.

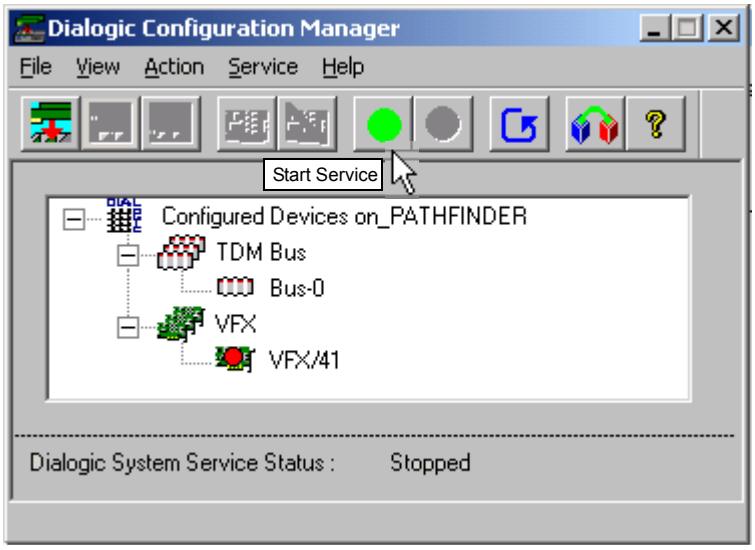


f. When the *Properties for "the selected card"* window displays, click **OK** if the automatic values are acceptable (recommended).



g. The *Dialogic Configuration Manager* main window will return, showing the board settings selected. If you have multiple cards, repeat this procedure starting at Step 2.c. until all cards are configured.

h. Click the *green* "Start Service" button to make sure that the Dialogic cards have been set up properly.



i. When finished, select **File/Exit** to close this window.

The *Drivers and Utilities Setup* window will return.

3 - Acrobat Reader Installation

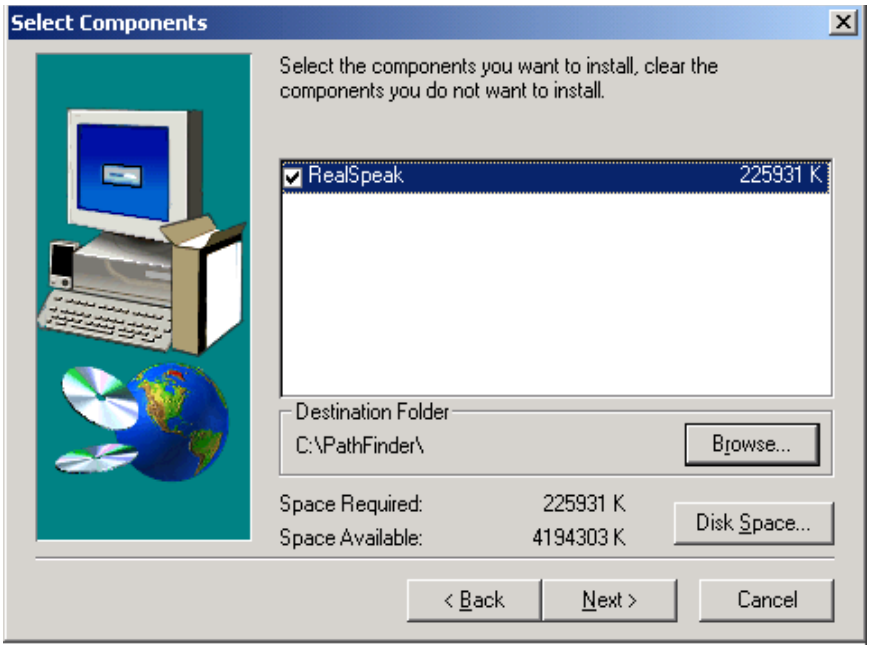
a. If you do not have *Adobe Acrobat Reader* ***4.0*** or higher, click **Yes** to install this program. (*Reader* will allow you to view the *.PDF* files included with the PathFinder software.)

b. Click **Next** when the *Reader Setup* window displays.

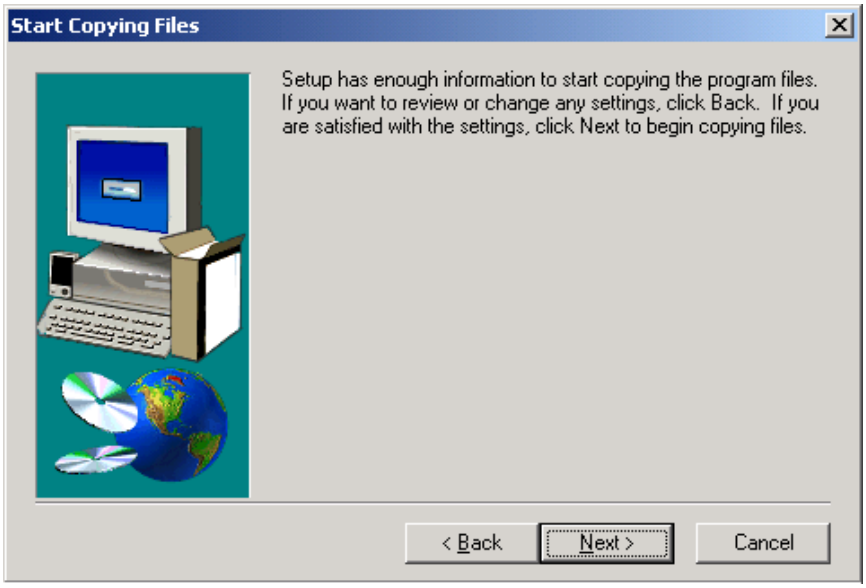
c. Click **Next** to select the default destination folder, then click **OK** to continue the installation process.

4 - RealSpeak & File Installation

a. Click **Next** to install the *RealSpeak* utility in the default "PathFinder" folder.

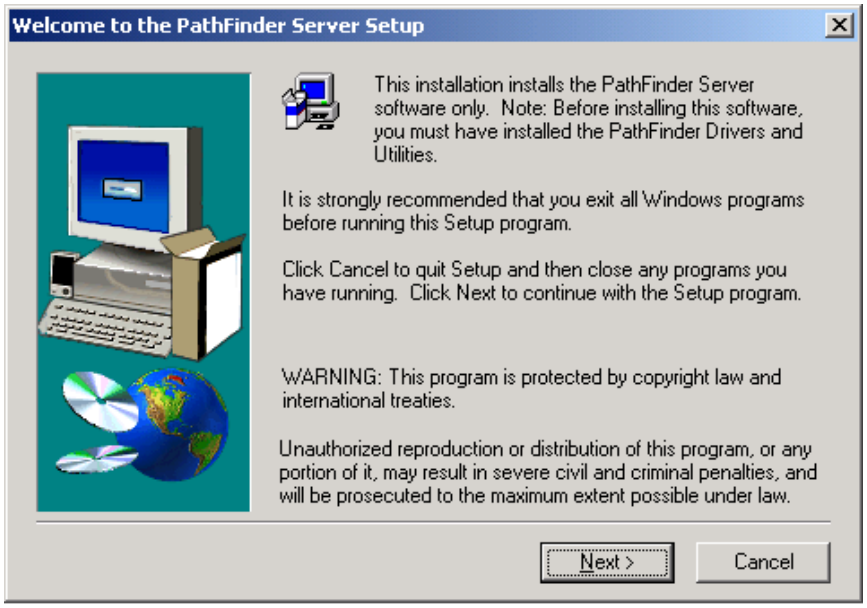


b. Click **Next** to finish installing the necessary program files.

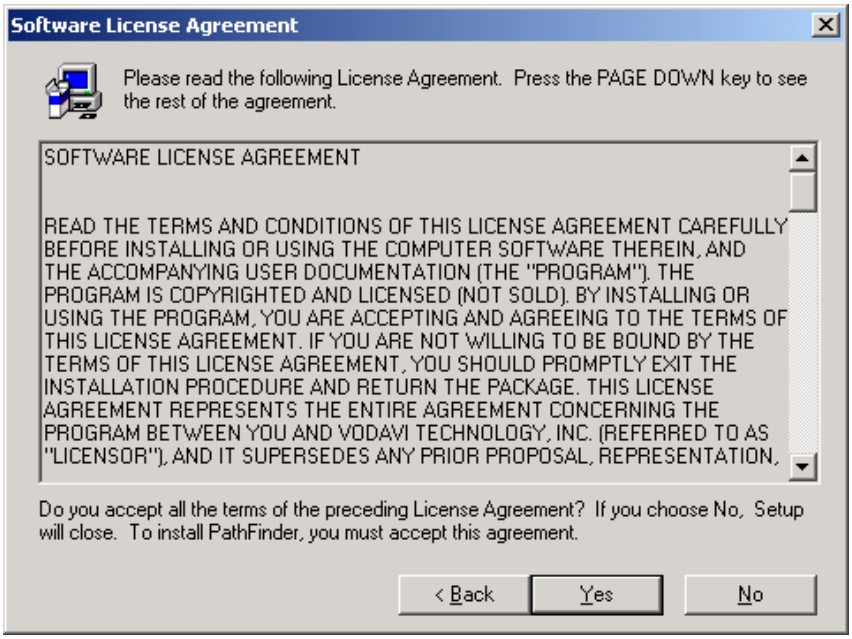


5 - PathFinder Voice Server Installation

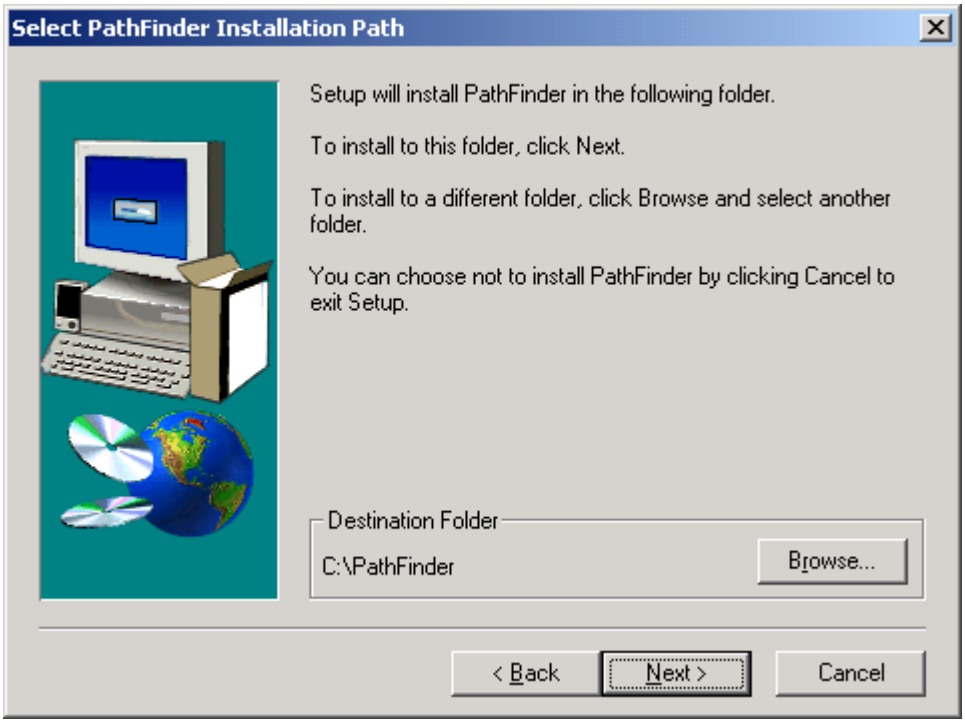
a. Click **Next** when the *PathFinder Server Setup* window displays.



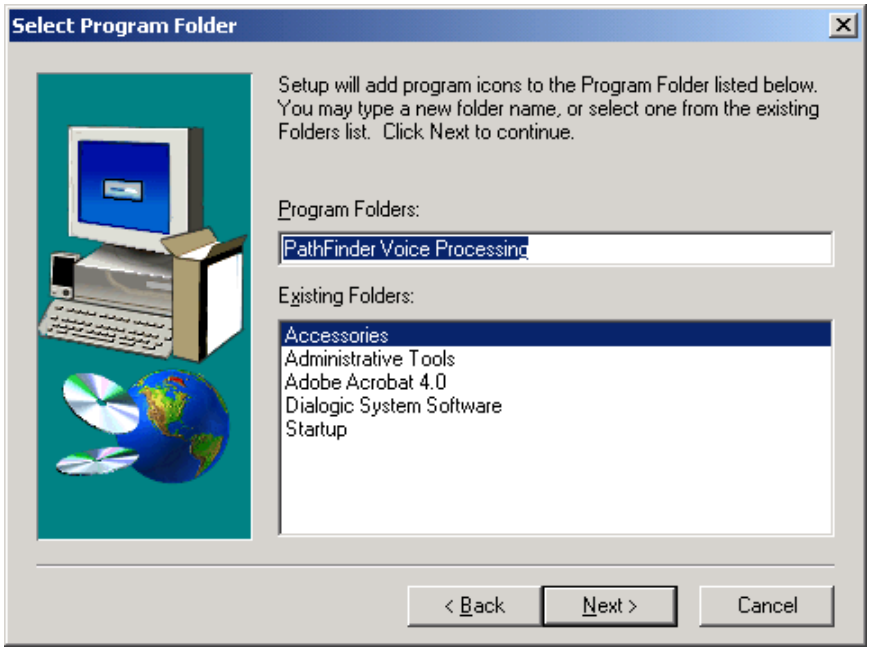
b. Review the information in the *Software License Agreement* window, then click **Yes**.



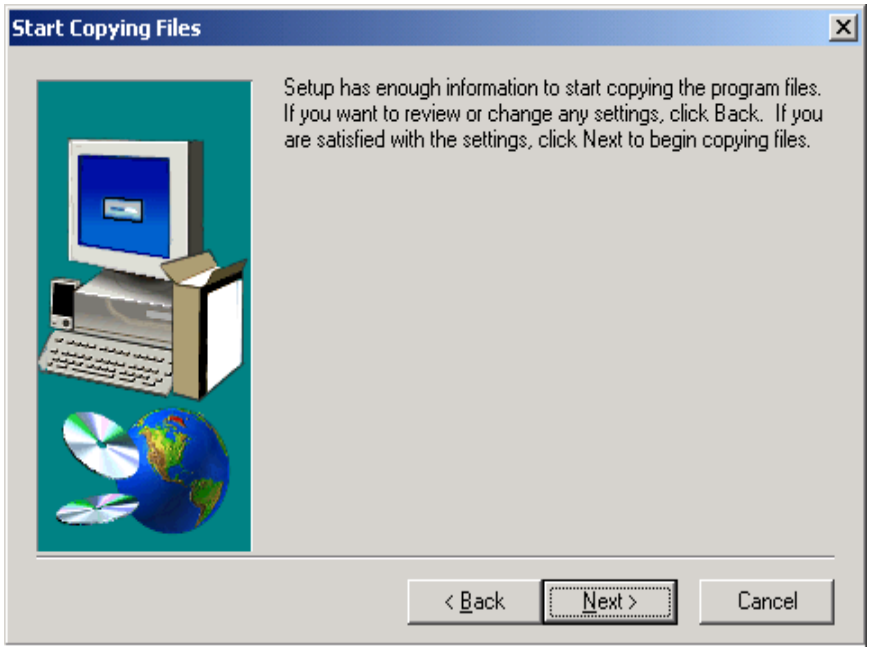
c. Click **Next** when the *Select PathFinder Installation Path* window displays.



d. To create the default destination folder "PathFinder Voice Processing", click **Next** when the *Select Program Folder* window displays.

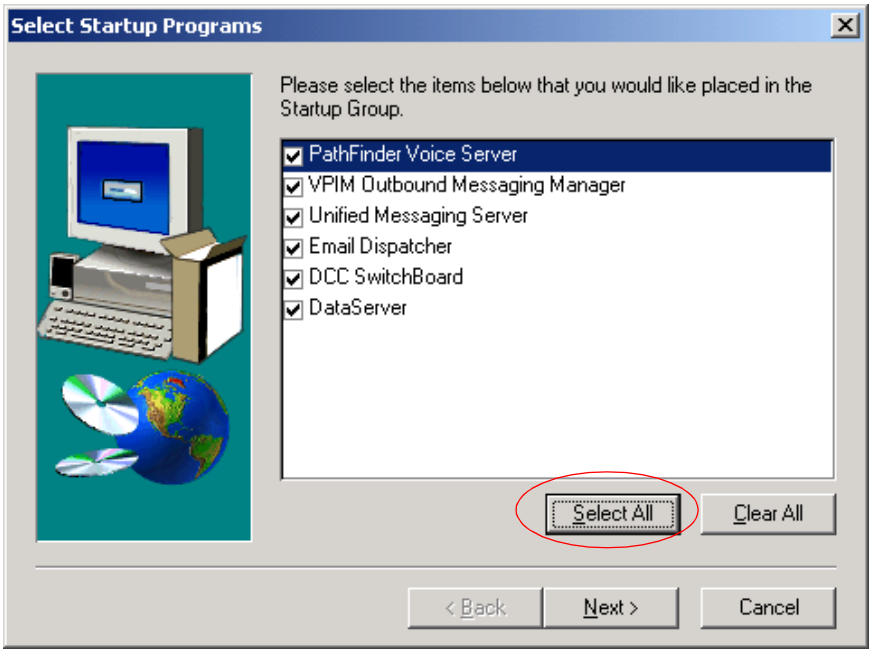


e. When the Setup routine has enough information to continue, the *Start Copying Files* window will display … click **Next**.

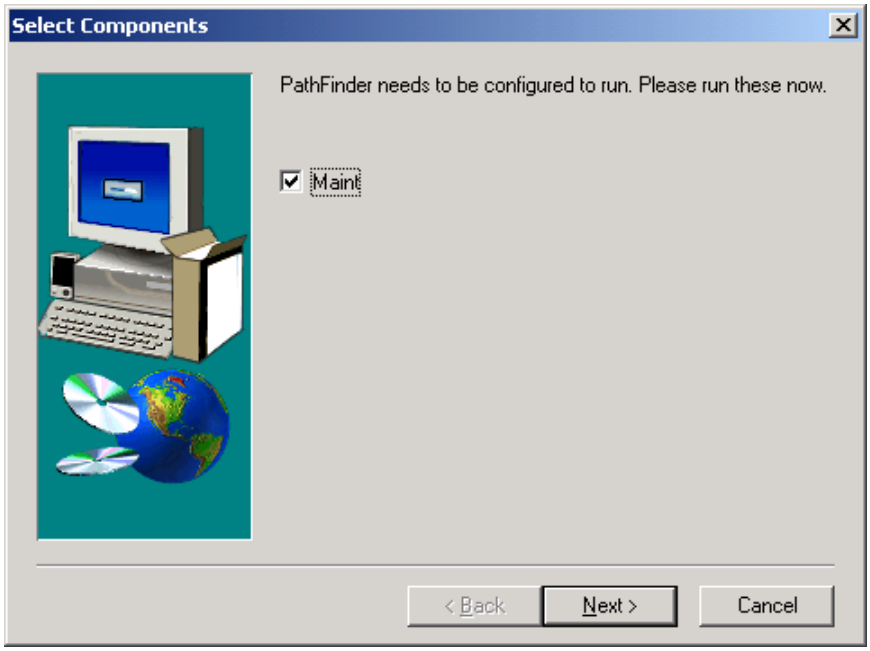


f. If ALL listed program options have been purchased, click **Select All** to place them in the "Startup Group" for easy access. Then click **Next**.

If all items have not been purchased, select only those program options that pertain or system errors may occur. Then click **Next**.



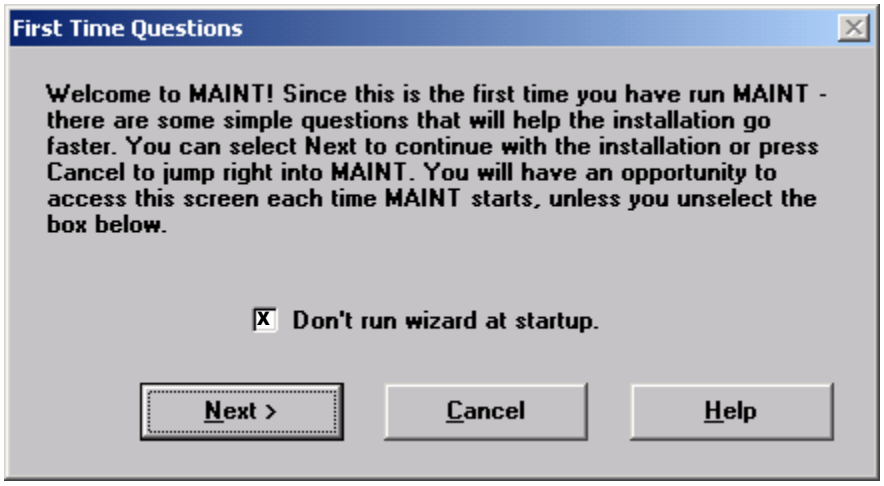
g. The MAINT program option will be checked when the *Select Components* window displays … click **Next** to open the MAINT program and start the PBX Integration routine.



6 - Phone System Integration

a. When the *First Time Questions* window displays, **select** the "Don't run wizard at startup" to prevent the wizard from reappearing each time you access the MAINT application.

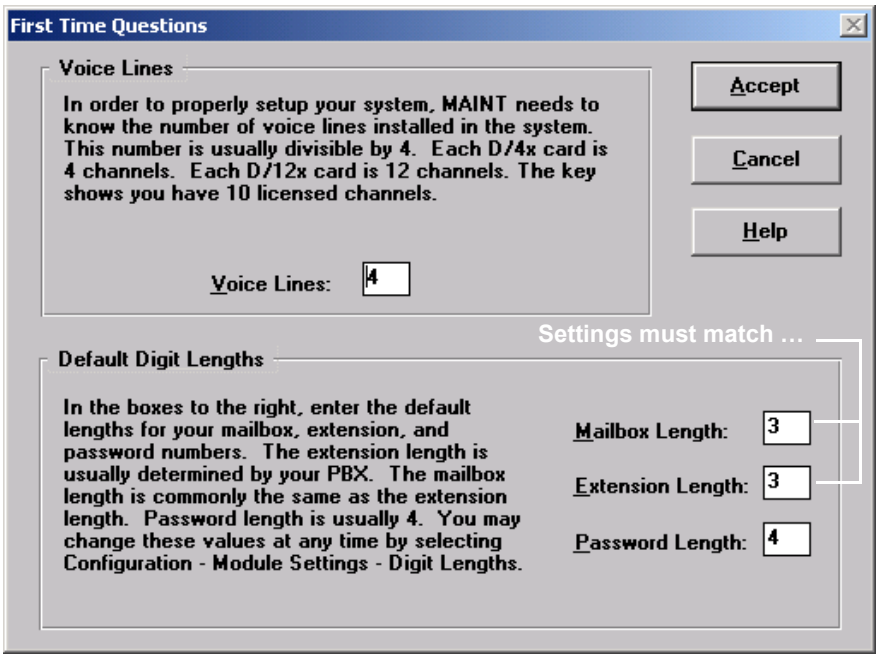
b. Click **Next** to continue.



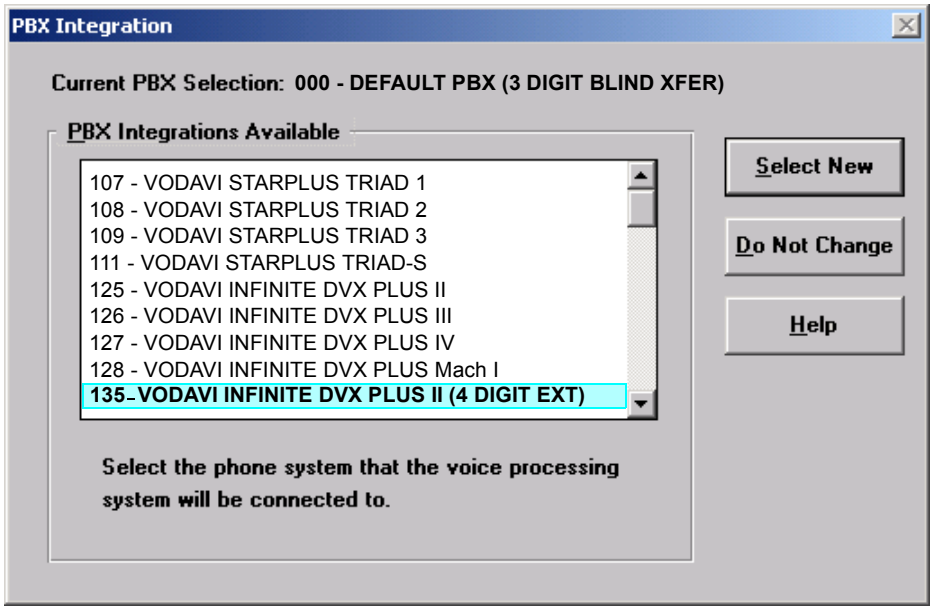
c. In the next *First Time Questions* window, enter the required parameters in the *Mailbox Length*, *Extension Length*, and *Password Length* fields.

Important … The number of digits for mailboxes and extensions must match.

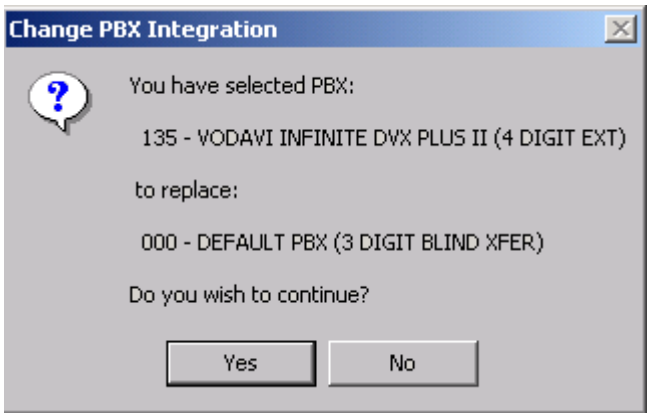
d. After completing this information, click **Accept**.



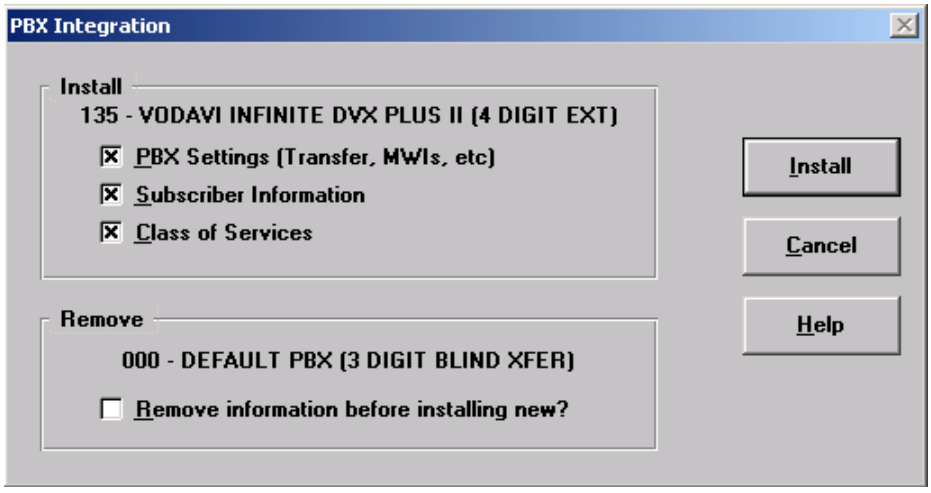
e. Select the phone system that PathFinder will be connected to, then click **Select New**.



f. Click **Yes** to accept the PBX shown in the *Change PBX Integration* window to confirm your selection.



g. When the next *PBX Integration* window displays, click **Install** to load the new parameters.



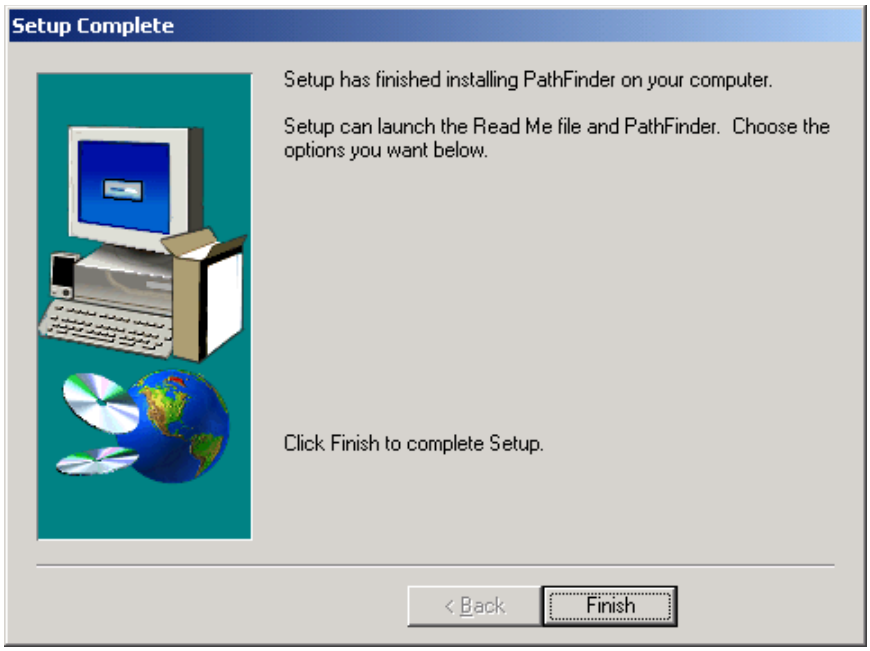
h. Click **OK** when the *PBX Installed* window displays to confirm that the phone system selected has been installed.

i. When the MAINT window returns, click File > Exit to close the application.

7 - Exit Installation Routine

a. When the *Setup Complete* window displays, click **Finish** to end the software installation process.

b. The software program will close and your Desktop will appear.



8 - Follow PathFinder Operating Guidelines

Is PathFinder running?

Once your computer reboots, the PathFinder system and all the programs placed in the startup group will open and appear in your PC taskbar.

You will be able to verify that PathFinder is working by checking the Viewport window to see call activity going to your CO lines.

What other application(s) should be running?

The following chart indicates which application(s) "need to be running" for PathFinder and the optional module programs to interface properly:

	Data Server	DCC Swtchbrd	E-Mail Sync Server	Networking (VPIM)	PathFinder/ ViewPort	Unified Messg Server
DCC / DME / VVM	✓	✓			✓	
Networking - *VPIM*				✓	✓	✓
PathFinder					✓	
Text-to-Speech			✓		✓	
Unified Messaging	✓				✓	✓

How should you close the PathFinder program?

To avoid possible system problems, use the following method to close the PathFinder application:

» First … stop the server (PathFinder window/Server/Stop Server Immediately)

» Second … exit PathFinder (ViewPort window/File/Exit)

(*Shortcut Keys* … Pressing ALT+F3 will stop the server AND close the window.)

If you try to close the PathFinder window using the ✕ in the right-hand corner, the program will appear to be closed, but continue running in the background. It will then be necessary to boot your computer in order to restart PathFinder.

What could cause the PathFinder program to appear stalled (not responding)?

If you happen to click inside the PathFinder program window with you mouse … this may cause the system to "Pause".

To restart PathFinder … right-click in the program window and select "Resume".

D Installation Forms & Part Numbers

Forms -- This appendix provides detailed Installation Forms that could be helpful when setting up the PathFinder application. These forms can be used to record current system settings, and referred to as needed in the case of multiple PathFinder systems and troubleshooting purposes. These forms contain the following types of information:

Parts -- A list of PathFinder Part Numbers is located at the end of this section. It can be useful when placing an order to upgrade your system, purchasing an optional module, or if replacement parts are needed. Contact your Inside Sale Representative if you have any questions regarding any of the PathFinder parts.

PathFinder Install Guidelines

BASIC INFORMATION

Job Name: _____ Sales Rep: _____

End User Contact (Administrator): _____ Phone: _____

End User Contact responsible for recording custom prompts: _____

Installer: _____ User Trainer: _____

Installation Dates: Start: _____ Complete: _____

End User Training: _____

Telephone System Information

Type of telephone system (brand & model): _____

How many digits are there in the telephone system's station or extension numbers? _____

Is the telephone system capable of supporting In-Band Integration? Yes ☐ No ☐

If YES, is the telephone system equipped to support In-Band Integration? (this includes both telephone system hardware and software) Yes ☐ No ☐

What DTMF Digits does the telephone system use to turn on voice mail indicators: _____

What DTMF Digits does the telephone system use to turn off voice mail indicators: _____

Does the telephone system use a Hook Switch Transfer on Single Line Ports? Yes ☐ No ☐

Number of CO Lines or Trunks connected to the telephone system: _____

Number of telephones (extensions) connected to the telephone system: _____

List the single line port extension numbers that are to be used for Voice Mail Ports:

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____ 8 _____

Will the Single Line Ports be placed in a voice mail group (hunt group)? Yes ☐ No ☐

What is the telephone system's voice mail group number or numbers? _____

BASIC INFORMATION (continued)

Voice Mail Functions

Number Of Voice Mailbox Users (Subscribers): _____

Number of Internal Subscribers (who have a phones in the telephone system): _____

Number of External Subscribers (who do not have a phones in the telephone system): _____

Are internal subscribers going to forward their phones to their mailboxes? Yes ☐ No ☐

Will the telephone system provide Preset Call Forwarding to voice mail? Yes ☐ No ☐

Will Subscribers use Pager Notification? Yes ☐ No ☐

Automated Attendant Functions

When is Auto Attendant to be used? Daytime _____ Night _____ Both _____ Never _____

Will Auto Attendant be used as overflow answering point (to help live system operator)? Yes ☐ No ☐

Number of CO Lines to be directly answered by Auto Attendant: _____

FAX Detection - Will the system be set to automatically route Fax calls? Yes ☐ No ☐

Fax Transfer Prefix:_____ ("&" = flash and a "," [comma] = pause)

Fax phone number or extension number: _____

Operator - What do telephone system users normally dial to reach the system Operator? _____

Voice Mail Equipment Considerations

Where is the voice mail system to be located? _____

Is this location environmentally stable (air conditioned & heated)? Yes ☐ No ☐

Will the systems be connected to a dedicated and grounded 120 volt, 60 Hz AC outlet? Yes ☐ No ☐

WARNING: Questions on this page answered as NO represent less than ideal conditions, and may cause immediate or delayed malfunctions, or may disrupt certain voice mail and telephone system capabilities.

SUBSCRIBER INFORMATION

Complete one copy of this form for each Subscriber or group of Subscribers

Subscriber Name or Group Description: _____

Mailbox/Extension Number(s): Department: _____

Class Of Service (COS)? _____

Mailbox Settings

Operator: _____ Cascade: _____ Mailbox Time Control (special use): _____

Mailbox Action Play Greeting: Yes ☐ No ☐

Action: Destination: _____

Notification: _____ Phone Number: _____

Pager Notification: Yes ☐ No ☐ Time (if timed notification): _____

Extension Settings

Extension Time Control (special use): _____

Action 1 - when calls are <u>first</u> transferred to the extension

Action: _____ Destination: _____
(*If Blind Transfer option will be used, skip Actions 2 and 3.*)

Supervised Transfer Options (circle one) : Screen Caller ☐ Allow Holding ☐

Action 2 - ☐ Do Always ☐ Only On Busy ☐ Only On No Answer

Action: _____ Destination: _____

Supervised Transfer Options (circle one) : Screen Caller ☐ Allow Holding ☐

Action 3 - ☐ Do Always ☐ Only On Busy ☐ Only On No Answer

Action: _____ Destination: _____

Supervised Transfer Options (circle one) : Screen Caller ☐ Allow Holding ☐

CLASS OF SERVICE (COS) INFORMATION

Complete 1 copy of this form for each Class Of Service

COS Name (number): _____ Description: _____

General Settings

Time Control (special use): _____ Restrict Outdial - Number of digits: _____

User Type: (01 = normal, 99 = Administrators) Event Counter (circle one): ☐ Owners ☐ Callers

Message Settings

Message Type: ☐ Voice ☐ Page ☐ E-Mail ☐ Fax

Default Msg Type: ☐ Voice ☐ Page ☐ Play Message Type Menu

Message Properties: Length: _____ (sec.)Count:_____ (messages)Retention: _____ (days)

Record Key - Wait for key press before recording messages? Yes ☐ No ☐

Greeting Types: ☐ Personal ☐ System ☐ Class Of Service ☐ Voice Insert
☐ System Add On Greeting Length: _____ (sec.)

Callers: Stop Record Key: _____ Record Options On? Yes ☐ No ☐

Send Options: ☐ No Options ☐ Urgent ☐ Confidential ☐ Last Option On or Off:_____

Maintenance Settings

First Time Help (circle one)? Yes ☐ No ☐ Say Date and Time type:_____

Message Order: ☐ First in - First Out ☐ Last In - First Out

Owner Play Options: ☐ Save Messages ☐ Forward Messages ☐ Dial Source
☐ Confirm Delete ☐ Reply To Messages ☐ Skip Messages

Owner Send Options: ☐ Not Allowed does not allow the following: ☐ Future Delivery ☐ Urgent
☐ Confidential ☐ Outside Number ☐ Confirmation ☐ System List

CLASS OF SERVICE (COS) INFORMATION (continued)

COS Name (number): _____ Description: _____

Owner Edit Options: ☐ Password ☐ Delete Message Sent ☐ Auto Attendant
☐ Greeting ☐ Mailbox State ☐ Notepad
☐ Name/Signature ☐ Personal Lists ☐ Transfer Out
☐ Notification ☐ Guest Mailboxes

Notification Settings

When will the system set Message Waiting? _____

Message Wait Set Sequence: (special use) _____

Message Wait Clear Sequence: (special use) _____

Event Handler Group: _____ (special use - default is set to 5)

Voice Notification Options: ☐ Password Required ☐ Message Pick-Up Allowed

Cascading: When will Cascade occur: _____ ☐ Urgent Only Option

Cascade Message Save & Delete Options: ☐ Save as New ☐ Delete Original ☐ Save Original

Notification Interval: _____ (minutes) Notification Attempts: _____ (number of tries)

Pager Retries? Yes ☐ No ☐ Notification Script: _____
(special use - default is Pager12.CF)

Auto Attendant Settings

Call Options: ☐ Blind Transfers ☐ Supervised Transfer ☐ Call Screening ☐ Call Holding
☐ Extended Options ☐ Desktop Call Control (enable)

Hold Type: _____ Hold Interval: _____ (sec.)

Call Queueing? Yes ☐ No ☐

Screen Length: _____ (sec.) Play Call Source?: Yes ☐ No ☐

Transfer Prefix: _____

Transfer Postfix: _____

MENU INFORMATION -- Day

Complete one copy of this form for each Menu

Description: _____

Number: _____ Password: _____ Time Control: _____ (special use)

Instructions: _____
(*special use - This is the Menu's number .VOX file name for prompts.*)

Time Out: _____ (sec.) Max Retries: _____ (number of retries before hangup)

Keys Actions (including additional parameters: mailbox numbers, menu numbers, etc.)

* _____

\# _____

0 _____

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

7 _____

8 _____

9 _____

Prompt script for this mailbox - to be recorded via Administrator

_____

_____

_____

_____

_____

MENU INFORMATION -- Night

Complete one copy of this form for each Menu

Description: _____

Number: _____ Password: _____ Time Control: _____ (special use)

Instructions: _____
(*special use - This is the Menu's number .VOX file name for prompts.*)

Time Out: _____ (sec.) Max Retries: _____ (number of retries before hangup)

Keys Actions (including additional parameters (mailbox numbers, menu numbers, etc.)

* _____

\# _____

0 _____

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

7 _____

8 _____

9 _____

Prompt script for this mailbox - to be recorded via Administrator

_____

_____

_____

_____

_____

Time Control Settings

Complete one copy of this for each Time Control

Time Control Name (Number): ________________

Description: ____

System Searches for a match, sequentially starting at item 1 (use military format, i.e., 18:00 = 6pm)

Item Number: ____________

Start Time: _____________ Mark active days for these hours:

	MO	TU	WE	TH	FR	SA	SU
End Time: _____________	☐	☐	☐	☐	☐	☐	☐

Action (the menu or mailbox calls are to go to): _____________

Time Period Number: _____________ (enter 1 to 9, for users to select time sensitive greetings)

Item Number: ____________

Start Time: _____________ Mark active days for these hours:

	MO	TU	WE	TH	FR	SA	SU
End Time: _____________	☐	☐	☐	☐	☐	☐	☐

Action (the menu or mailbox calls are to go to): _____________

Time Period Number: _____________ (enter 1 to 9, for users to select time sensitive greetings)

Item Number: ____________

Start Time: _____________ Mark active days for these hours:

	MO	TU	WE	TH	FR	SA	SU
End Time: _____________	☐	☐	☐	☐	☐	☐	☐

Action (the menu or mailbox calls are to go to): _____________

Time Period Number: _____________ (enter 1 to 9, for users to select time sensitive greetings)

Item Number: ____________

Start Time: _____________ Mark active days for these hours:

	MO	TU	WE	TH	FR	SA	SU
End Time: _____________	☐	☐	☐	☐	☐	☐	☐

Action (the menu or mailbox calls are to go to): _____________

Time Period Number: _____________ (enter 1 to 9, for users to select time sensitive greetings)

** Up to 10 items can be assigned to a Time Control - use additional sheets for more items.*

Voice Line Settings

	Action To Perform When Calls Ring In	Additional Parameters
Line 1	_____	_____
Line 2	_____	_____
Line 3	_____	_____
Line 4	_____	_____
Line 5	_____	_____
Line 6	_____	_____
Line 7	_____	_____
Line 8	_____	_____

List of Parts

Table 4-1: PathFinder Part Numbers

Part Number	Hardware / Software	
900-01	Turnkey Integration	Windows 2000 PC
Voice / Fax Kits		
912-04	4-Port Kit	Voicemail with 1 D/4PCI Voice Card
912-08	8-Port Kit	Voicemail with 1 D/4PCI Voice Card
913-04	4-Port Kit	Voicemail with 1 D/41JCTLS Voice Card
913-08	8-Port Kit	Voicemail/Fax with 1 D/120JCTLS Voice Card
913-12	12-Port Kit	Voicemail/Fax with 1 D/120JCTLS Voice Card
913-24	24-Port Kit	Voicemail/Fax with 2 D/120JCTLS Voice Cards
913-48	48-Port Kit	Voicemail/Fax with 4 D/120JCTLS Voice Cards
914-04	4-Port Kit	Voicemail with 1 VFX/41JCTLS Voice/Fax Card
914-08	8-Port Kit	Voicemail with 2 VFX/41JCTLS Voice/Fax Cards
914-12	12-Port Kit	Voicemail with 3 VFX/41JCTLS Voice/Fax Cards
914-24	24-Port Kit	Voicemail with 6 VFX/41JCTLS Voice/Fax Cards
Voice / Fax Cards		
940-04V	4-Port PCI Voice	D/4PCI Voice Card
940-04	4-Port PCI Voice/Fax	D/41JCTLS Voice/Fax Card
940-04F	4-Port PCI Voice/Fax	VFX/41JCTLS Voice/Fax Card
940-12	12-Port PCI Voice/Fax	D/120JCTLS Voice/Fax Card
Software & Upgrades		
632-40	Chalk Talk	Includes Call List Admin, Homework Hotline, & Q/A
632-05	Onelook Unified Messaging	5 seats - includes DCC & DME
632-25	Onelook Unified Messaging	25 seats - includes DCC & DME
632-20	Text-to-Speech	True Voice - each port
632-100	Unified Messaging	100 seats - includes DCC & DME
632-199	Unified Messaging Site License	Includes DCC & DME
632-30	VPIM (Networking)	Per system
931-78	Upgrade from v7 to v9.5	Hardware upgrade required
931-89	Upgrade from v8 to v9.5	Hardware upgrade required
950-14	Pathfinder Documentation CD	Includes manuals, user guides, and quick reference

E FAQs

This appendix shows some of the Frequently Asked Questions that could be helpful when configuring the PathFinder system.

PathFinder Integration

How do I set up "One Touch Record" to work with PathFinder?

To operate this feature requires a change to a PathFinder menu key and to your system VM Outpulsing Table.

Programming a Vodavi XTS or STS System

Enter Admin Programming and go to FLASH 66 - Button 8. Change the "Suffix" to **6P** (6 + Pause).

» One-Touch Record uses Table 7 from the Voice Mail Outpulsing Table.
(Table 7) 8P Pre=P7; Suf = 6P

» Voice Mail One Touch Recording (requires a flexible button) 649+[VVV].

Use of this feature when the One-Touch Recording Warning Tone is disabled may be interpreted as a violation of federal, state or local laws, and an invasion of privacy. Check applicable laws in your area before recording calls using this feature.

» » » For more details on using "Voice Mail One-Touch Recording", refer to the XTS or STS Programming and Operations manual.

Maximum Recording Length

The "Recording Time" allowed is too short, how do I change it?

The longest recording that PathFinder/Dialvox will make without modifying HELLONT.INI is 60 minutes (3600 seconds). This default parameter controls the recording length, regardless of the settings entered in MaintNT, a VoiceMail module, or any custom module. To extend the recording time, the maximum length setting in the HELLONT.INI system file must be changed to exceed 60 minutes. This is a practical protection scheme to prevent runaway recordings from filling the disk.

To allow for longer recordings, add the following parameter to the HELLONT.INI file.

1. Use Notepad to edit the .ini file.
2. Scroll down to the section called "[DIALVOX]".
3. After this line, add the following line (*example: for 2 hours=7200 seconds*):
   RecordLongerAbsoluteMaxLength=7200

Recording Parameters -- The following parameters are allowed in HELLONT.INI to further control how the system extends the recording time.

[DIALVOX] Parameter	Default	Max	Comments
RecordLongerAbsoluteMaxLength	3600	715827	No recording will be longer than this.
RecordDialogicMaxSecs	3600	715827	No Dialogic recording will be longer than this.
RecordSciTelMaxSecs	3600	715827	No SciTel recording will be longer than this.
RecordLongerSubstituteLength	1800	715827	Substituted recordings will be this long.
RecordLongerTriggerLength	0	715827	Use SubstituteLength when recordings requested this long (Default=0=Disabled)

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