

Spectrum PrismTM

Technical Manual

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Revision History

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1.40	July, 2005	Wrapup announcement
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Table of Contents

INTRODUCTION.....	1
POWER UP AND ORDERLY SHUTDOWN	2
Powering Up the Prism:.....	2
Performing an Orderly Shutdown:.....	2
MASTER SELECTION AND LOG ON/OFF.....	4
The Master Selection Menu:	4
Logging On to the System:.....	5
Logging Off the System:.....	6
CREATING AND EDITING ACCOUNTS	7
Edit Accounts.....	7
Function Buttons.....	12
EDITING OUTDIAL PROPERTIES.....	15
Edit Outdial Properties.....	15
USER MANAGER.....	17
User Properties.....	17
DIAGNOSTIC SERVICES.....	18
Digital Trunk Status.....	19
SYSTEM SETTINGS.....	20
About Prism.....	20
Announcement Control.....	21
Dial Control.....	23
Music on Hold.....	25
External Recording and Voice Log Control.....	26

Configure Voice Logger	28
System Settings.....	29
Caller ID Reject List.....	31
Forward To Number List.....	32
VMail.....	33
Email Notification.....	34
ANNOUNCE SCHEDULES	36
EDIT HOLIDAYS	38
REMOTE ACCESS.....	39
System Components and Requirements.....	39
Set-Up.....	39
Voice Connection.....	40
Windows Remote Operation	40
TRUNK ACTIVITY DISPLAY.....	41
STATUS DISPLAYS.....	43
Station Status.....	43
Serial Status.....	44
Arcnet Status.....	44
SDM Status.....	45
REPORTS, SYSTEM INFORMATION & MAINTENANCE.....	46
Statistics.....	46
Directories.....	47
System Maintenance.....	48
HOLD MUSIC & ACCOUNT ADVERTISEMENTS.....	49
Account Setup:	49

Preparing the music and audio files:.....	50
Recording Advertisement Audio Files:.....	53
Programming Advertisement Audio Playback:.....	54
APPENDIX A : RESERVED DIAL GROUPS.....	55
APPENDIX B : PRISM TELEPHONE PORTS.....	56
Inbound Calls (from the telephone).....	56
Outbound Calls (to the telephone).....	56
APPENDIX C : ANNOUNCEMENT RECORDING	57
Announcement Recording.....	57
Voice File Maintenance.....	57
APPENDIX D : ANNOUNCEMENTS IN THE SPECTRUM PRISM SYSTEM.....	59
Microscan / SDM Settings.....	59
Prism Settings.....	59
APPENDIX E : LEAST COST ROUTING.....	63
Syntax.....	63
Activation.....	64
Notes.....	64
APPENDIX F : COOLEEDIT 96	65
System Requirements:.....	65
Installation:.....	65
Registration:.....	65
Recording Sound Files:.....	66
Saving Sound Files:.....	67
Transferring Sound Files:.....	68
System Voice Files:.....	68

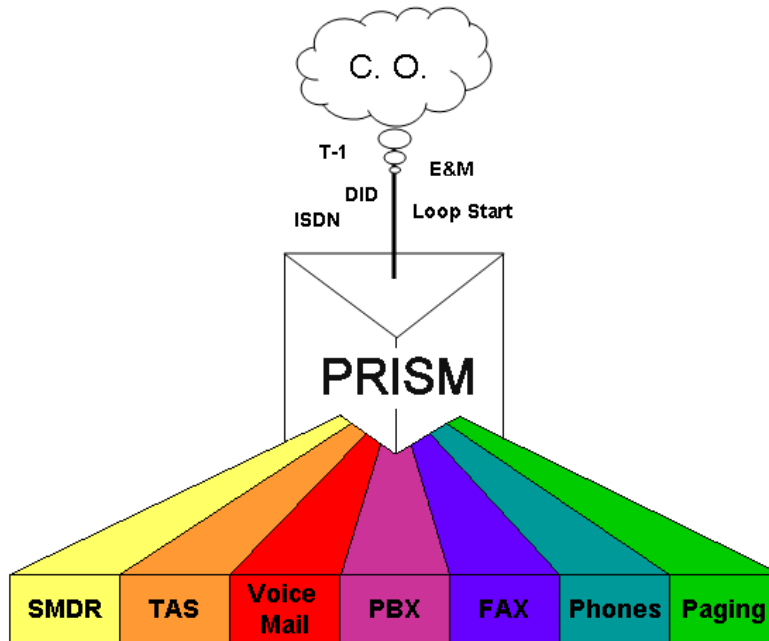
Converting Sound Files:..... 68

APPENDIX G : CRITICAL BACKUP 69

Introduction

Telescan is pleased that you have chosen the Spectrum Prism digital switching platform. The Spectrum Prism has an open-ended architecture with a fully digital backbone to provide unparalleled expansion and flexibility. Your company can now connect to a wide range of telephone services, using an easy-to-use Windows® graphical user interface. This manual will explain how to use the Spectrum Prism interface to setup your accounts, configure your ports, and monitor your system performance.

The name “Prism” has significance in terms of how the switch actually functions. You likely have been exposed to a prism as a child or in a science class. Traditionally, a “prism” is defined as a triangular, transparent body, often made of glass, which separates white light passing through it into a full spectrum of colorful beams of light. Think about this conceptual idea in terms of the Spectrum Prism.



The Spectrum Prism can accept any type of incoming signal, such as T-1, DID, ISDN, E&M, or a plain old telephone line. The switch can then route calls on that line using any of a wide range of telephony protocols to a variety of telecommunication devices, such as voice mail, a PBX, or paging terminal to name a few.



Power Up and Orderly Shutdown

Powering Up the Prism:

The Spectrum Prism is designed to run continuously, but there may be instances when the Prism needs to be shutdown — hardware upgrades or power outages, for example. When this is done, the Prism will need to be powered up again so that it can begin processing calls again. To do this, perform the following steps:

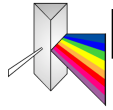
- Press the power button on the front panel of either the PC tower or rack cabinet. If you have dual redundant power supplies, turn on **both** power supply modules. Depending on the model, these will be located either in the front on the left side, or on the rear left side.
- On Prism, Windows® is normally set up to automatically boot and log on. If you are prompted to 'Log On', press **CTRL-ALT-DELETE**. When prompted for a user name and password, enter “Administrator” and “Prism” respectively and click **OK**. (Newer systems may use the password “spectrum”)
- The operating system will continue its boot sequence and the Prism Master Selection menu will appear on the screen. The Prism is operational at this point. If Prism needs to be started manually, double click the ‘Run Prism’ icon on the desktop.

Performing an Orderly Shutdown:

There may be instances when the Prism software and/or hardware need to be shutdown. For example, this may be necessary for upgrades or diagnostics. To protect the Prism, this should be done in an orderly manner by following these steps:

- Because this operation will stop the Prism from operating, **you must be logged on to the system with a user name that has permission to shut down the system**. The next chapter will discuss logging on to the system. Once you are logged on,
- Click the “**X**” button in the upper-right corner of the Master Selection menu (or **File**→**Exit**) (Or press **ALT-F4**).
- When prompted, confirm by clicking **OK** and the Prism program will close. To abort the shutdown, click **Cancel**. Because different parts of the Prism program shut down at different times, there may an ‘error box’ that opens during shutdown. Click the X in the upper right corner to close.

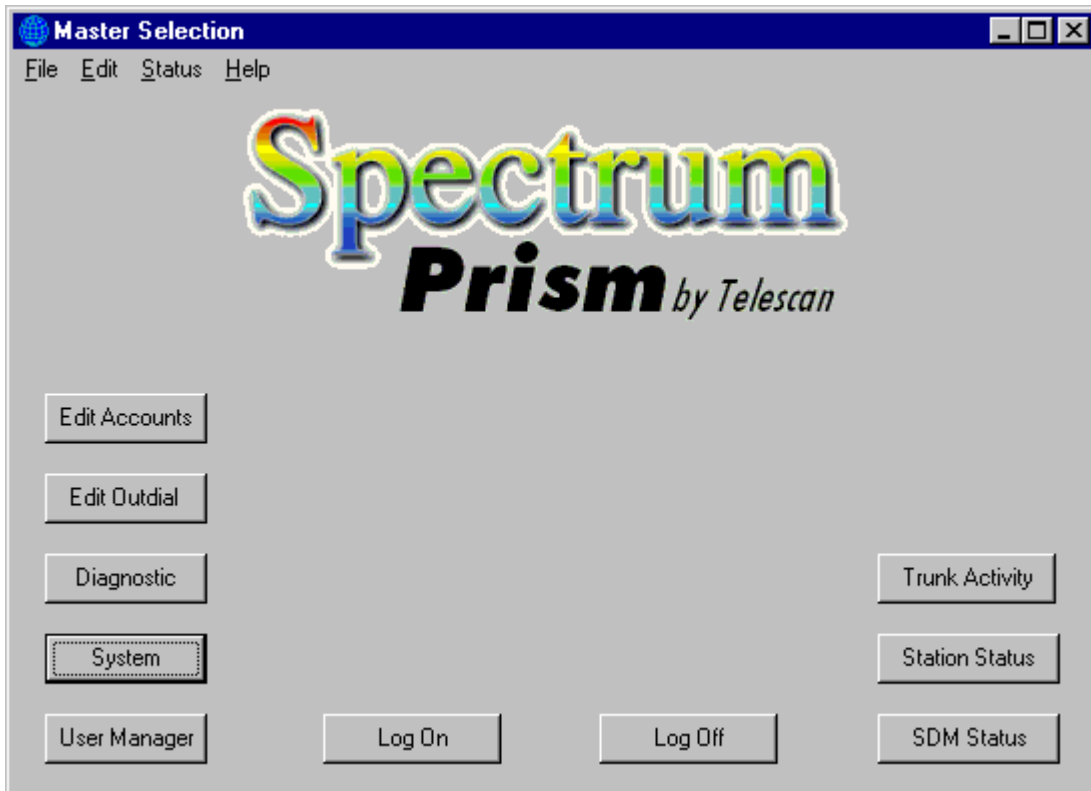
- If necessary, you can then shut down the Windows® operating system by clicking **Start → Shutdown**.
- When the dialog box appears, select the option “Shut down the computer?” and click **Yes**.
- When the prompt appears, “It is now safe to turn off your computer,” you can press the power button on the front of the PC tower or rack cabinet or turn off **both** of the dual power supply modules as described above.
- At this point, the Prism software and hardware have been shutdown in an orderly fashion.



Master Selection and Log On/Off

The Master Selection Menu:

When the Spectrum Prism is powered up, it will first present you with the Master Selection window.



This menu gives you access to both configuration screens and display screens to monitor the Prism's activity. The log-on you use will define which functions and menu options you can access. The Master Selection menu provides access to the following functions:

Edit Accounts: This allows you to program how incoming calls should be processed for each account.

Edit Outdial: This allows you to create/edit up to 26 different dial groups that define how outbound trunks are selected and how calls on these trunks are placed.

Diagnostic: This allows you to view a variety of system logs and statistics, and perform other diagnostic functions.

System: This allows you to program system-wide parameters and controls. These include function enables, variables, actions and edits.

User Manager: This enables you to set up user names and passwords, along with permissions to determine what each user can do and not do.

Log On: This allows you to log on to the system with a user name and password, allowing access to functions that your user name has permission to perform.

Log Off: This allows you to log off the system. Once logged off, any restricted functions are inaccessible until a valid log on is entered again.

Trunk Activity: This presents a display screen that presents the real-time activity of all the configured Prism trunks, along with some global system statistics.

Station Status: This presents a display screen that presents the real-time activity of the individual call agent stations.

Serial Status: This presents a display screen that presents the real-time status of the serial communication between the Prism and the Microscan or Spectrum Data Manager (the database server that presents account information and stores data entered by call agents). ***This button is not displayed if your system communicates using Ethernet.***

EarthNet Status / SDM Status: This presents a display screen that presents the real-time network communication status between the Prism and the EarthNet or Ethernet network.

Some buttons may be grayed out. This means these options are not available until a valid log-on user name and password have been entered or that your user name does not have permission to access these functions.

Logging On to the System:

When you need to modify account or configuration data or shut down the system, you must log on to the system with a valid user name and password that gives you permission to perform these functions. These permissions are programmed from the User Manager menu, which will be described later in this manual.

To log on to the system from the Master Selection menu:

Click **Log On** (or click **File** → **User Services** → **Log On**).

The following dialog box will appear:

Enter your user name and press Tab to access the Password field.

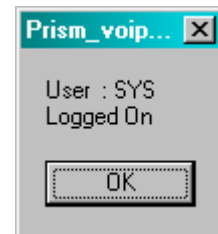
Enter your password (which will be echoed with '*' characters) and press **Enter** (Or click **OK**).



To abort the log on process, click **Cancel**. Any prior log on is retained.

Once entered, the user name will be confirmed, along with the log on status for that log-on name:

Depending upon your user permissions, you may now have access to additional menu buttons which are no longer grayed out.



Please note that there is a default user name and password that can be used to log on to the Prism for the first time, or if you have forgotten your current user name and password. This default user name and password should be given to you at your installation, or you can call Telescan customer service at 314.426.7662.

Logging Off the System:

When you have completed your session, it is important that you log off the system to prohibit others from having access to critical menus. To sign off,

Click **Log Off** (or click **File** → **User Services** → **Log Off**).

Once logged off, note that certain menus are no longer available, they will remain grayed out until a valid log on is entered.



Creating and Editing Accounts

This chapter details account maintenance. The Account Maintenance interface is used to define each account. Specifically, the Account Maintenance screen determines how each call for the account is routed, either to a Primary or Alternate call processing pathway based on the time of day or activity on the current call.

Edit Accounts

To access the Account Maintenance screen, click on the **Edit Accounts** button from the Master Selection menu (or click **Edit** → **Accounts**). The following screen will appear:

The screenshot shows the 'Account Maintenance' window with the following fields and controls:

- Account Index: 0000
- Comment: [Empty]
- Primary DID: 0000, No Annc File
- Alt DID: 0000, No Annc File
- Primary OD Group: T
- Alt OD Group: T
- Primary Dial String: 0000
- Alternate Dial String: 0000
- Client Time Zone: Local Time
- Primary Time Start: 12:00:00 AM
- Primary Time End: 11:59:00 PM
- Account Status: A
- Report Caller ID:
- Disable CID Blocking:
- Disable Patch:
- Patch Time Limit: 0
- Disable Hold:
- Transfer Tone:
- Priority: 0
- Hold Music: 0
- User Record Tone:
- Play Music Before Ad:
- Disable Ringback:
- Disable 2B Transfer:
- Client Fwd Msg:
- Revert DTMF:
- Ring Count: 0
- Ext Announce: N
- Ring after ann:
- Emergency Ann:
- Wrapup Prompt: 0
- Record Type: External Voice Mail, Integrated Record
- Record Dial Group: [Empty]
- Sun Sched: 0
- Mon Sched: 0
- Tue Sched: 0
- Wed Sched: 0
- Thu Sched: 0
- Fri Sched: 0
- Sat Sched: 0
- Hol Sched: 0
- W/E or Hol Start: 00:00
- W/E or Hol End: 00:00
- Client CID: 123456789
- Buttons: Next Account, Prior Account, Select Acct, Last Acct, List Accts, Delete Account, Create Block, Save Data, Restore Accts, Backup Accts

The following parameters allow you to program how calls should be processed for this account. A detailed description for each field follows. Depending on the configuration of your system, some fields may not be present.

Account Index: This index identifies inbound calls for this account. Typically, this index will match the numeric data received from the telephone service provider (i.e. the phone number or DID number for the account). Enter the alpha and/or numeric characters, up to 32 characters, to create the account index. This index is also used to access the account's database within the Prism.

Comment: This field is used for additional information about the account or number. For example: "PRI # 2, calls from St. Louis" or "Voice mail standalone". The field is limited to thirty characters and is copied to all new accounts during a block create.

Primary DID: This field specifies the four-digit internal account number specific to the primary call handling pathway. Incoming calls for the account will be routed using this number, unless the criteria for the alternate DID number are met. For TAS accounts, this number is the 'account number' referenced in the messaging account database. Enter the four-digit DID number appropriate for this account. ***To the right of this field is an unlabeled area to allow entry of a sub-account identifier for this account. This field will be ignored unless direct sub-account access is enabled on the System tab of System settings. You MUST be running a version of SDM compatible with direct sub-account access or results will be unpredictable.*** If applicable, there will be an indication if there has been an announcement recorded for this account. *If you have directed this account to a different 'mailbox' in the SDM or Microscan settings the announce file status may be inaccurate.* Settings in the Dial Group properties determine whether this number is used to generate an outbound number or the Primary Dial String number is used when processing calls for the account. If you desire to use this DID number, be sure your Outdial Group is programmed to "Use DID #."

Alt DID: This field specifies the four-digit internal account number specific to the alternate call handling pathway. In other words, calls will be routed using the primary DID number unless the criteria are met for the alternative DID. When met, calls will be routed using this number instead. Again, for TAS accounts, this number is the 'account' number referenced in the messaging account database. Enter the four-digit DID number appropriate for this account. ***To the right of this field is an unlabeled area to allow entry of a sub-account identifier for this account. This field will be ignored unless direct sub-account access is enabled on the System tab of System settings. You MUST be running a version of SDM compatible with direct sub-account access or results will be unpredictable.*** If applicable, there will be an indication if there has been an announcement recorded for this account. *If you have directed this account to a different 'mailbox' in the SDM or Microscan settings the announce file status may be inaccurate.* Settings in the Alternate Dial Group properties determine whether this number or the Primary Dial String number is used when processing calls for the account. So if you desire to use this DID number, be sure your Outdial Group is programmed to "Use DID #."

Primary OD Type: This field will accept a letter from “A” to “Z,” each representing an Outdial Group configuration. These groups each control how calls are processed for the account. Some of these Outdial Groups are reserved, and others can be user defined, using the Outdial Group Properties screen (See the following chapter). Enter the appropriate Outdial Group letter in this field to determine how calls should be handled when the primary call handling pathway is being observed. For Dial type eXtension, you will be presented with the option to dial additional information after a connection has been established. This is used primarily for certain voice mail systems. See Appendix A for a listing of the reserved, preprogrammed Outdial Groups.

Alt OD Type: This field will accept a letter from “A” to “Z,” each representing an Outdial Group configuration. These groups each control how calls are processed for the account. Some of these Outdial Groups are reserved, and others can be user defined, using the Outdial Group Properties screen (See the following chapter). Enter the appropriate Outdial Group letter in this field to determine how calls should be handled when the alternate call handling pathway is being observed. For Dial type eXtension, you will be presented with the option to dial additional information after a connection has been established. This is used primarily for certain voice mail systems. See Appendix A for a listing of the reserved, preprogrammed Outdial Groups.

Primary Dial String: This field is used for applications requiring a variable number of digits in an outbound call identifier, as opposed to the four-digit DID number. Enter the appropriate numeric digits, up to 32 digits, that should be used when the primary pathway is being observed.

The Primary Outdial Group Type determines whether this number or the Primary DID number is used when processing calls for the account. So if you desire to use this dial string, be sure your Outdial Group is programmed to “Use Dial String.”

If the Primary OD Type is ‘T’ (TAS) this field will be used for the ‘passcode’ required for announcement recording.

If the Primary OD Type is ‘S’ (Station audio) this field will be used for the ‘passcode’ required for audio connection.

Alternate Dial String: This field is used for applications requiring a variable number of digits in an outbound call identifier, as opposed to the four-digit DID number. Enter the appropriate numeric digits, up to 32 digits, that should be used when the alternate pathway is being observed.

The Alternate Outdial Group Type determines whether this number or the Primary DID number is used when processing calls for the account. So if you desire to use this dial string, be sure your Outdial Group is programmed to “Use DID #.”

Primary Time Start: is the start of the time period any call should be directed to the primary call processing pathway. (24 hour format)

Primary Time End: is the end of the time period any call should be directed to the primary call processing pathway. (24 hour format)

Note: *For the primary call processing pathway to be used always:*

Primary Time Start: 00:00

Primary Time End: 23:59

Account Status: is entered as **A** for an active account or any other letter for an inactive account. A call with an inactive status will be given a recorded message indicating the call cannot be completed.

Report Caller ID: If this box is unchecked, caller ID will not be reported to SDM / Microscan.

Disable CID Blocking: If this box is checked, calls for this account will be accepted from any caller ID. (See [#CID Blocking](#))

Disable Patch: Check this box if you want to disable patching for this account. An error message will be displayed if an operator attempts to start a patch on the account.

Patch Time Limit: If non-zero, this field controls the maximum length of time for a patched call. At the end of the programmed time, both inbound and outbound calls will be cleared. The time can be set to a maximum of 75 minutes, and will be rounded to the nearest 5 minutes.

Disable Hold: If you need to prevent an account from being placed on hold or priority hold by an operator, check this box. This may be required for particular analog trunk lines or might be desirable if the account requires special handling.

Transfer Tone: is a number 0-9, '*' or '#'. To disable transfer on tone input, enter an X. The Spectrum Prism routes the caller to the alternate pathway if the programmed tone is detected. *Example:* Set transfer tone to 0 so a caller can press 0 to transfer to an operator. ***This tone is also used for operator revert during announcement.*** If used for this purpose, the letter 'C' can be used to Clear the inbound call after playing the announcement.

Priority: is a number determining the order in which a call is presented to agents by Prism. Higher Priority calls are presented before those of lower priority. ***For priority levels to be activated, the account must be marked as priority in the Microscan / SDM Account Master Record.***

Hold Music: you may choose any of ten sources for Music-On-Hold on a per account basis. Music source 0 is an external music source, 1 through 8 will attempt access to separate music 'files' on Prism's disk, and source 9 will use a music file custom to the account. See the Chapter titled 'Hold music and Account Advertising'.

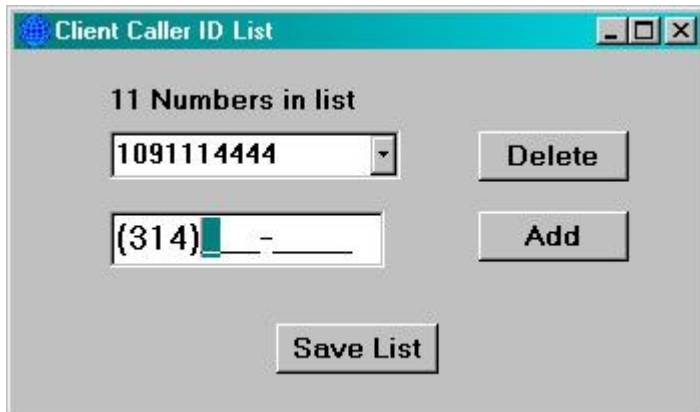
Use Alt on W/E or Hol: If this box is checked, the alternate call processing pathway will be used for this account on Saturday, Sunday and holidays.

User Record Tone: is a number 0-9, '*' or '#'. To disable, enter an X. Announcement Record Mode is started when this option is enabled and the programmed tone is detected. The Primary dial string will be used as a security code for announcement recording. ***Note that when enabled, User Record Tone key and Transfer Tone key must be different.***

Play Music Before Ad: If this box is checked, and the account has advertising on hold, the caller will be presented with an interval of music before the advertisement is played.

Disable Ringback: Check this box to disable audible ringback. This may be desirable if calls for this account are transferred to another system that provides audible ringback.

Disable 2B Transfer: Check this box to disable 2B Transfer for this account. This may be desirable to facilitate the accounting of “patch” time within the system. Two-B transfer is only available on PRI circuits.



Client Fwd Msg: Check this box to enable automated handling of check in calls. If a call for this account is received from any of the programmed caller IDs, a special announcement will be played. The text of this check in validation announcement should inform the caller that their telephone has been successfully forwarded. If checked, two additional fields that are used to control this feature will be visible.

Revert DTMF: Enter the touch tone Prism should listen for to abort the check in validation message. (or the letter 'X' to disable abort).

Client CID: Enter the caller ID for this client. Calls received for this account from this caller ID will activate the automated check-in function. If your client forwards more than one number to this account, *double-click* in this field to open a utility window for editing a list of forwarded caller ID numbers.

To add client caller ID numbers, enter each into the entry field, then click the “Add” button to enter the number into the drop-down list.

Click the down arrow to drop down and view the numbers currently in the list.

To remove a number from the list, highlight the number in the drop down list, then click the “Delete” button.

To save any changes you have made to the list, click the “Save List” button.

No changes to the list will be saved unless the “Save List” button is clicked.

To return to the main account setup window click the “X” in the upper right corner of the utility window.

Ring Count: indicates the number of times the call is allowed to ring before primary call processing is aborted, and the call is transferred to the alternate processing pathway. Each ring = six seconds. For accounts with Dial Type 'T' (TAS) this value is used to delay presentation of the call to an operator. The caller will hear audible ringback tones during this delay.

Ext Announce: Activates custom announcement *via* outbound dial to an external voice mail system. It is preferable for announcements to be handled internally in Prism since external voice mail requires dedicated analog connections.

Ring after annc If checked, calls for this account will go to the ring list after announcement.

Emergency Annnc: This option enables or disables the use of an emergency announcement for this account. Emergency Announcement is controlled system wide using the System Settings screen. If this box is not checked, emergency announcements will **never** be played for the account.

Wrapup Prompt: This option enables the playback of a voice file to the caller when the call is cleared by the operator. Typically, this file will have instructions for the caller (for example: how to disable caller ID blocking) related to follow up activity for the call. ***The function must also be activated for the current call by execution of a hypertext command by the operator.*** The values 0 – 8 are used to select system wide wrapup instructions while selection 9 specifies wrapup instructions specific to the account.

Record Type: If you have integrated Prism Vmail this option will allow you to select between internal record and an external voice mail system.

Record Dial Group: This selection will allow connection to more than one third-party voice mail system. Each external system will be assigned to a separate dial group. If 'Ext Announce' is set to 'Y' for this account, this dial group will be used for external announcements as well as recording. Leave this field blank to use the default record dial group assigned in the system settings.

Client Time Zone: The announcement schedule can be 'shifted' based on the time zone of your client's office. If no adjustment is needed, select 'Local Time' from the drop down list.

Sun...Hol Sched: If the 63 Schedules option is checked on the Announce Schedules panel a different announce schedule can be selected for each day of the week.

Weekend Start: Enter the time the schedule for a weekend (Sat or Sun) or holiday schedule should begin on the *prior* day. If this time is equal to the Weekend End time, the weekend or holiday will begin at midnight.

Weekend End: Enter the time the schedule for a weekend (Sat or Sun) or holiday schedule should end on the *following* day. If this time is equal to the Weekend Start time, the weekend or holiday will end at midnight.

Function Buttons

Next Account moves you to the next account. The account list will be accessed in ASCII sort sequence (not numeric sequence). If a data entry field is currently active, the 'Page Down' key will also move to the next account.

Prior Account moves you to the prior account. The 'Page Up' key will also move to the prior account.

Note: When you move to another account record, you will be asked to confirm any changes to the current account.

Select Account allows you to manually enter the index of the account that you would like to view. You can go directly to a specific account without stepping through intervening entries in the database. If the Account Index you have entered does not exist, you will be asked if you wish to create a new account.

Last Account will display the last account in the database. After this function is activated, the button will display 'First Account' and can be used to move to the first account in the database.

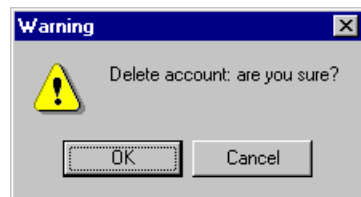
List Accounts will write a comma delimited ASCII text file for report and analysis. The file written is C:\Prism\Log\Accounts.txt (for Win2003, D:...). The first line of this file is a list of column names that will be understood by most spreadsheet programs.

Restore Accounts Will restore your account database from a prior backup. You will be given an opportunity to select from a list of files in the backup folder. Prism retains the last 30 backup files in this folder.

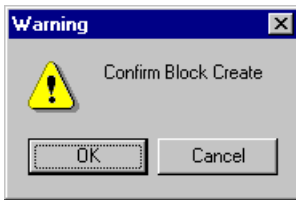
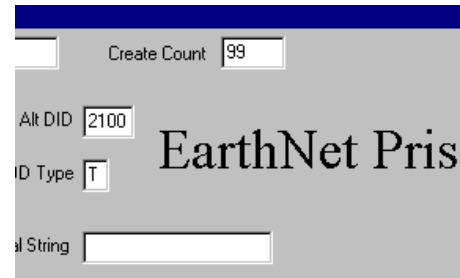
Backup Accounts will write a backup of your account database to the folder D:\Prism\Dat. (Or D:\Prism\Dat\Backup on Windows2003 systems) Do not perform this operation during a period of high call activity, since there may be brief delays in call processing during this function. Automatic backups are enabled by default but may be deactivated on the System tab of the 'System' settings window.

Save Data Allows you to save any changes you have made without moving to another account record. While in a data entry field, the <Enter> key serves the same function.

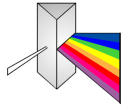
Delete Account deletes the account that is displayed. You will receive a confirmation dialog asking *Delete Account: Are You Sure?* Click "OK" to delete or "Cancel" to keep the account.



Create Block allows you to create multiple accounts in sequential order in a single operation. Every account created in the same block will share basic settings with the currently displayed account used as a template. You will be prompted for the number of accounts to create. The block created starts with the Account Index that is currently being displayed so the create count should be one less than the total number of accounts desired. Press Enter or Tab to initiate block creation. Default DID numbers will be generated from the last four digits of the Account Index, and if there is data in the template 'Dial String' fields, sequential data will be automatically filled in. After creation of a block, you may go back and modify individual accounts as necessary.



You will be asked to confirm block creation.



Editing Outdial Properties

Edit Outdial Properties

Select **Edit Outdial** from the Master Selection Window.

Outdial Group Properties window displays.

Outdial Group Properties

Dial Group: C

Outdial Prefix:

Outdial Suffix:

Outbound CID: 3144261357

Busy Action:

- Busy Tone
- Play Message
- Use Alternate
- Camp On Ring

ACD Algorithm:

- Sequential Ascending
- Sequential Descending
- Circular Clockwise
- Circular Counterclockwise
- Longest Idle

Dialout Number:

- Use DID #
- Use Dial String

Local Dial Tone

Dial Times:

Comma time:

DTMF On:

DTMF Off:

Spectrum Prism by Telescan

The Spectrum Prism supports 26 different outbound dial Groups. Prefixes and suffixes to dial operations can be defined, as well as the group's Busy Action, ACD Algorithm (method of selecting lines within the group), and Dialout Function. Once outbound dial groups are programmed, they can be assigned to individual accounts. Navigate up and down through the list of dial groups with the arrow buttons next to the group identifier.

Dial Group is a letter from A to Z representing an outbound dial group. Each outbound dial group's properties determines how the Spectrum Prism processes an associated call. Refer to Appendix A for special dial group handling.

Outdial Prefix permits you to enter a control string that will be dialed prior to the DID number from the account record. 0 – 9, # and * are allowed. Comma = pause. The prefix is not used for variable length dial string.

Outdial Suffix allows you to enter a control string that will be dialed after the DID number. The suffix is not used for variable length dial string.

Busy Action determines what action is performed when there is no line available at that time. Choose from the following four actions:

- **Busy Tone:** Busy tone is presented to the caller. This rejects the incoming call.
- **Play Message:** User defined voice recording. This rejects the incoming call.
- **Use Alternate:** Prism uses the alternate call processing pathway. This action requires that the alternate pathway use a different outbound dial Type.
- **Camp On Ring:** Prism allows the call to ring until a line is available in this dial group.

Dialout Number determines whether to use the four digit DID, or the variable length Dial String. Choose from the following:

- **Use DID #:** Prism uses the four digit DID. The dial prefix and suffix will be applied to the DID number to create a dial string.
- **Use Dial String:** Prism uses the variable length Dial String.

ACD Algorithm decides what method is used to select an outgoing line within the dial group. Choose from the following five options:

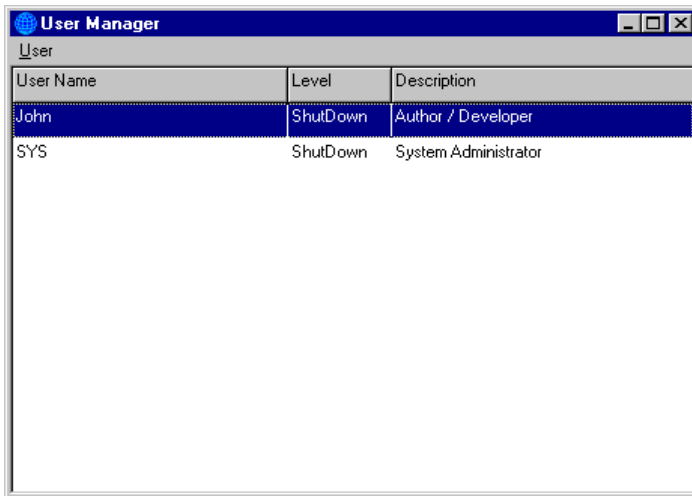
- **Sequential Ascending:** Prism looks for the first available line starting with the *first* port in the dial group each time a dialout is initiated.
- **Sequential Descending:** Prism looks for the first available line starting with the *last* port in the dial group each time a dialout is initiated.
- **Circular Clockwise:** Prism searches in a clockwise direction from the last port used. The search 'wraps' to the first port in the group.
- **Circular Counterclockwise:** Prism searches in a counterclockwise direction from the last port used. The search 'wraps' to the last port in the group.
- **Longest Idle:** Prism chooses the port that has been idle for the longest amount of time.

Local Dial Tone: Certain outbound trunks do not provide dial tone during call setup. Check this selection to have Prism provide dial tone to the operator headset.

Outbound CID if your system supports the feature, this field can be used to specify the caller ID sent for calls on the dial group selected. This feature is only available for Windows2003 Prism systems.

User Manager

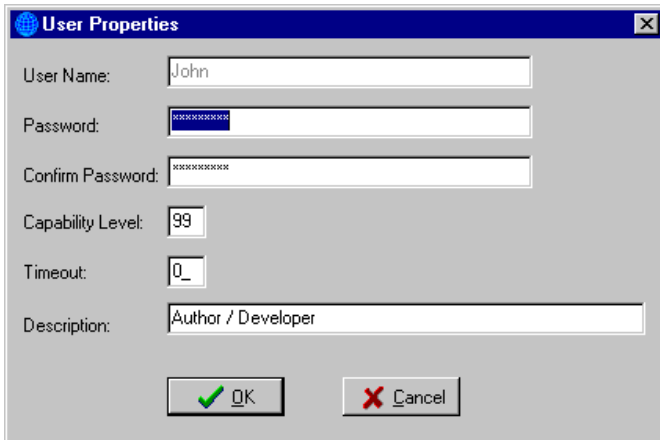
Select **User Manager** from the Master Selection Window. The user manager screen will open. You can control access to critical data within your Prism system with user capabilities.



Use the pull-down User menu to create new users.

User Properties

Select a user, then access **Properties** from the pull-down menu to update an existing user.



User Name: John

Password: [REDACTED]

Confirm Password: [REDACTED]

Capability Level: 99

Timeout: 0_

Description: Author / Developer

OK Cancel

Capability Level 0 is **Read Only**: data within the system may be viewed but nothing can be altered by a user at this level.

Capability Level 1 is **Modify**: account and outbound dial information can be changed by a user at this level and above.

Capability Level 2 is **Create**: new accounts may be created by a user at this level and above.

Capability Level 3 is **Delete**: accounts may be deleted by a user at this level and above.

Capability Level 4 or higher is **System Shutdown**: a user at this level is allowed to perform any operation, including shutdown of the Prism program.

Diagnostic Services

Select **Diagnostic** from the master selection window and the **Diagnostic Services** window will open.



The screenshot shows the 'Diagnostic Services' window with a teal title bar. The interface is divided into several sections:

- Left Panel:** A vertical column of buttons: 'Show Trunk', 'Reset Trunk', 'Block Calls', 'Allow Calls', 'Show Receive', 'Show Transmit', 'Show Station', 'Reset Station', and 'Answer Stats'.
- Trunk/Station Controls:** Two checkboxes labeled 'Trunk' and 'Station' are positioned to the right of the 'Block Calls/Allow Calls' and 'Show Station/Reset Station' buttons, respectively.
- Central Area:** A large, empty white rectangular box.
- Bottom Buttons:** A row of buttons including 'Save Data', 'SWS_Status', 'CDI Test', 'Digital Trunk Status', and 'SDS_Status'.
- Logging Section:** A section at the bottom containing a list of checkboxes and a spinner box:
 - Disable Logging
 - Log Announce
 - Log Recording
 - Log PRI detail
 - Log VCEHD
 - Log MOH
 - Log Connections
 - Log Disconnect
 - Show Errors
 - Log validations
 - Log Extension Calls
 - Enable External Announce
 - Enable Annc Record
 - Log Level
 - Disable Audio Monitor
 - Log Patch

You may be asked to activate services available in this panel by Telescan technical personnel. Some functions in this window may be duplicated in the System window.

Do not activate these services without first contacting Telescan.



Digital Trunk Status

If enabled on your system, the 'Digital Trunk Status' button will open a summary display for the digital trunks (PRI, T1) in your system.

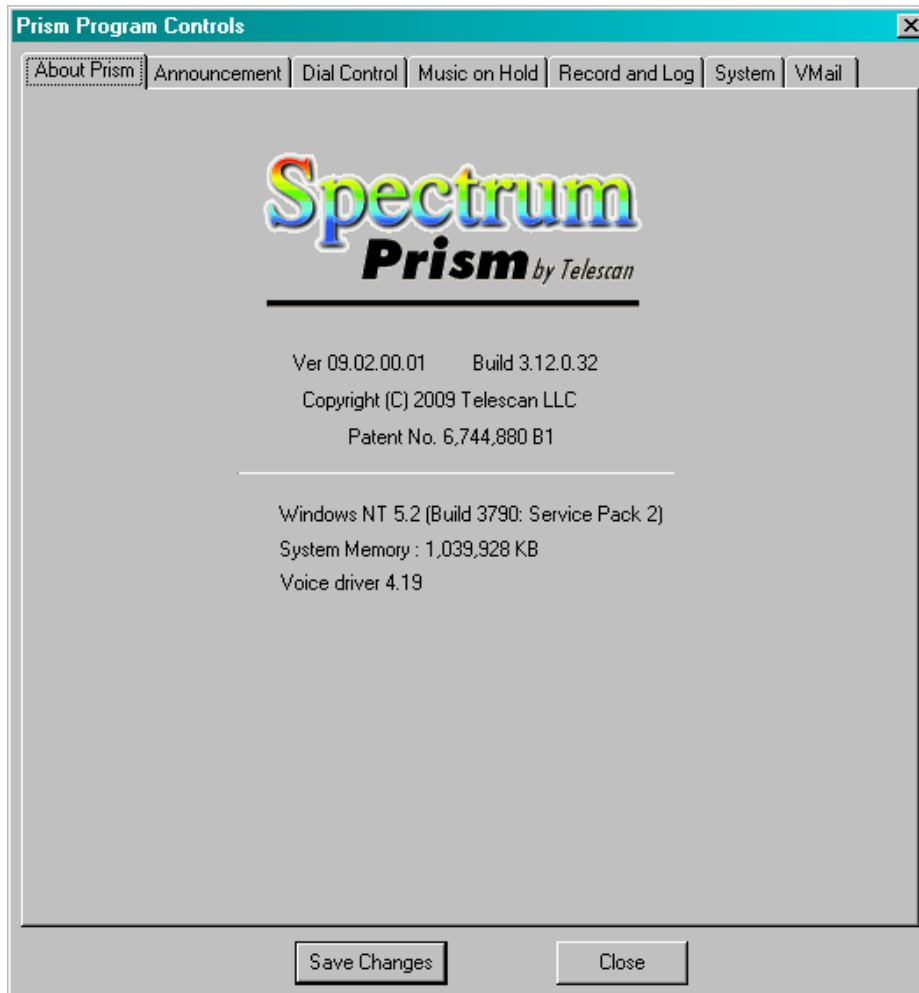
If there are multiple digital trunks in your system, a radio button selection group will be shown to allow selection of which trunk to display. Changes in trunk status will be written to a log file even if this window is not active

System Settings

Select **System** from the Master Selection Window.

The **System Settings** screen allows control of system features. Not all features will be accessible on all systems. The features are grouped into a number of tabbed pages.

About Prism

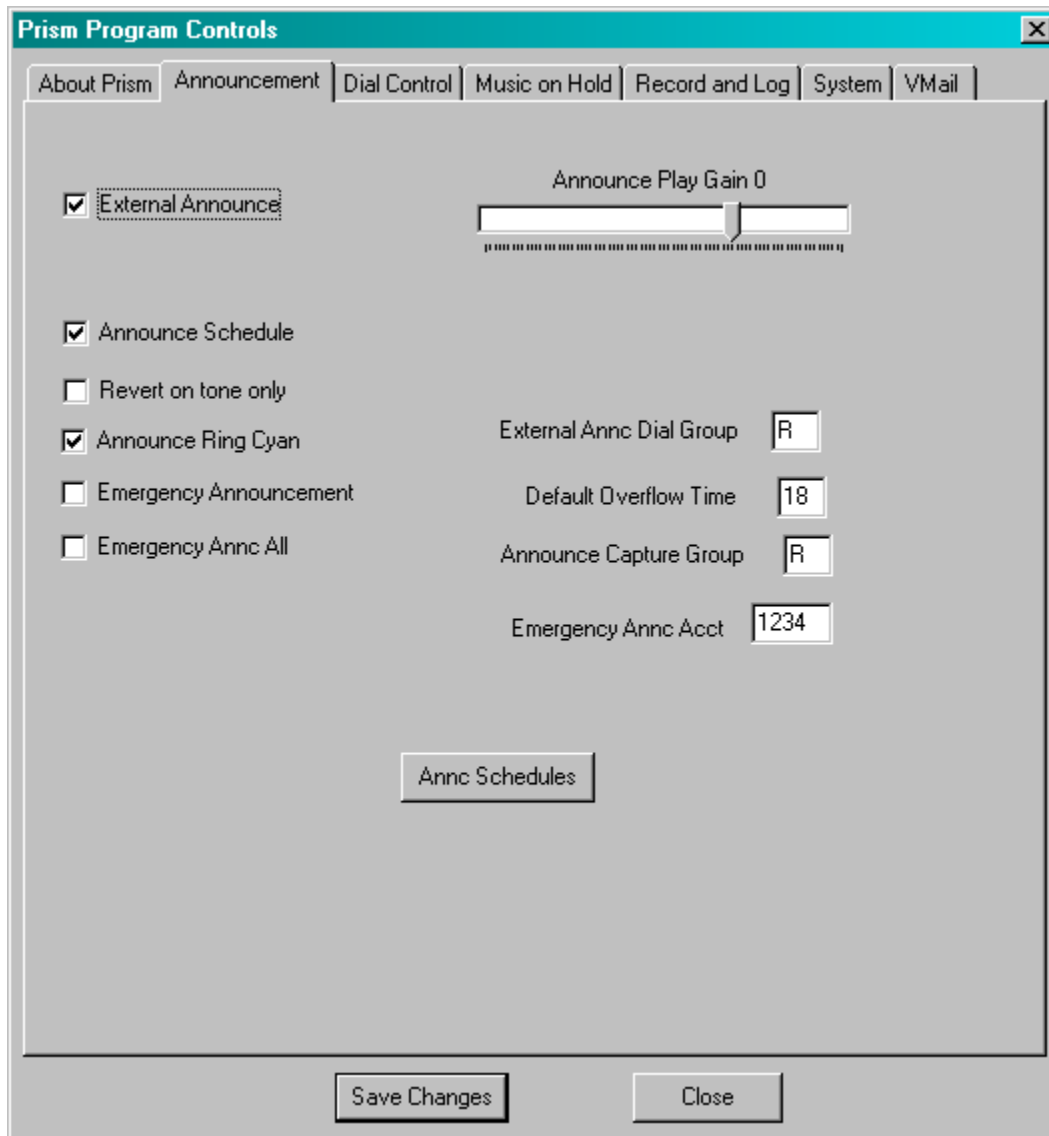


This tab displays basic information about your Prism system. You may be asked to report some of this information to Telescan personnel.

The **Save Changes** activity button can be clicked to save settings to disk. If not saved, any changed settings will be restored to the previously saved settings when the system is re-started.

You can exit the System settings screen with a click of the **Close** button.

Announcement Control



Check **External Announce** to enable dial to an external voice mail system for announcement. **This setting is NOT saved and must be re-checked or unchecked if Prism has been restarted.** The setting will be restored from the the Prism configuration file on the next restart.

Check **Announce Record** to allow recording of Prism announcement files from an operator workstation running the record utility program. **This setting is NOT saved and must be re-checked if Prism has been restarted.** This function is active only for Arcnet based systems.

Check **Announce Schedule** to enable announcement schedules on a system wide basis.

Check **Revert on Tone Only** if you do not want callers to automatically be presented to your operators after announcement. This will only apply to accounts with a zero in the messaging announcement length field.

Check **Announce Ring Cyan** if you want calls placed on the ring list after announcement to be displayed on your workstations with a cyan (pale blue) background. **Do NOT check this box if you are using DOS workstations.**

Check **Emergency Announcement** if you want to activate this feature. If “Emergency Annc All” is not checked, the emergency announcement will not be played to those accounts that are not programmed to receive an announcement.

Check **Emergency Annc All** if you want the emergency announcement to go to all accounts which have their respective Emergency Annc checkbox checked.

Click the **Annc Schedules** button to define the system wide announcement schedules.

The **Announce Play Gain** slider can be used to control the playback level for internal announcement files. This control has a range from -54 to +24 dB. Changes to this parameter take effect beginning with the next call.

The dial group used for announcements from an external voice mail system is selected with the **External Annc Dial Group** field. The default for this is dial group ‘R’.

For ‘overflow’ and ‘generic’ announcements the call validation message can have a ring time that specifies the number of 6 second ring periods to wait before announcing. If this information is absent from the validation, the time specified in **Default Overflow Time** will be used. Typically, a value of 18 seconds (3 rings) is used.

The dial group used to copy announcements from an external voice mail system is selected with the **Announce Capture Group** field. The default dial group is ‘Z’.

The **Emergency Annc Acct** is the account number to be used for emergency announcements for any account without a previously recorded emergency announcement. The recording for this account is activated when the Emergency Annc All option is checked.

Dial Control

The screenshot shows the 'Prism Program Controls' window with the 'Dial Control' tab selected. The window has a title bar with a close button (X) and a menu bar with options: 'About Prism', 'Announcement', 'Dial Control', 'Music on Hold', 'Record and Log', 'System', and 'VMail'. The main area contains several settings:

- Dial DTMF ON Time: 82
- Dial DTMF OFF Time: 81
- Dial Comma Pause Time: 1008
- DTMF out on Inbound:
- Forward Caller ID:
- Allow Dial Recording:
- Disable Select with Talk Key:
- Allow Select by Letter:
- Operator Dial Prefix: (empty text box)
- Outbound Caller ID: 3144267662
- Auto Pass Thru Prefix: 999
- Use Least Cost Rtg:
- Dial Group: R

At the bottom, there is a 'Connect Call' section with two radio buttons: 'When Call Placed' (selected) and 'When Call Answered'. At the very bottom of the window are two buttons: 'Save Changes' and 'Close'.

You can program the dial timing for operator initiated dialout. The DTMF 'on' time, the DTMF 'off' (inter digit) time and the length of time to pause for a comma can be individually set. (In a future release, these settings may be moved to the Dial Properties window).

Check **DTMF out on Inbound** to allow touch tones to be sent out on an inbound call. This functionality is used to activate gates, turn off alarms, accept toll charges and the like.

For inbound calls that automatically generate an outbound call, the 'forwarding' of any caller ID received to the outbound call can be enabled by checking the **Forward Caller ID** box. **This is only guaranteed to be functional for Windows 2003 systems.**

If you have Prism Vmail, live operator record of outbound calls can be enabled with the **Allow Dial Recording** checkbox.

Any valid touch tones programmed into the **Operator Dial Prefix** field will be automatically dialed prior to any speed dial or manually entered dial information. This is typically used to trigger specific actions or provide billing information to other equipment.

A 10 digit number entered into the **Outbound Caller ID** field will be sent as ANI information for every call placed from the system. **This is only guaranteed to be functional for Windows 2003 systems.**

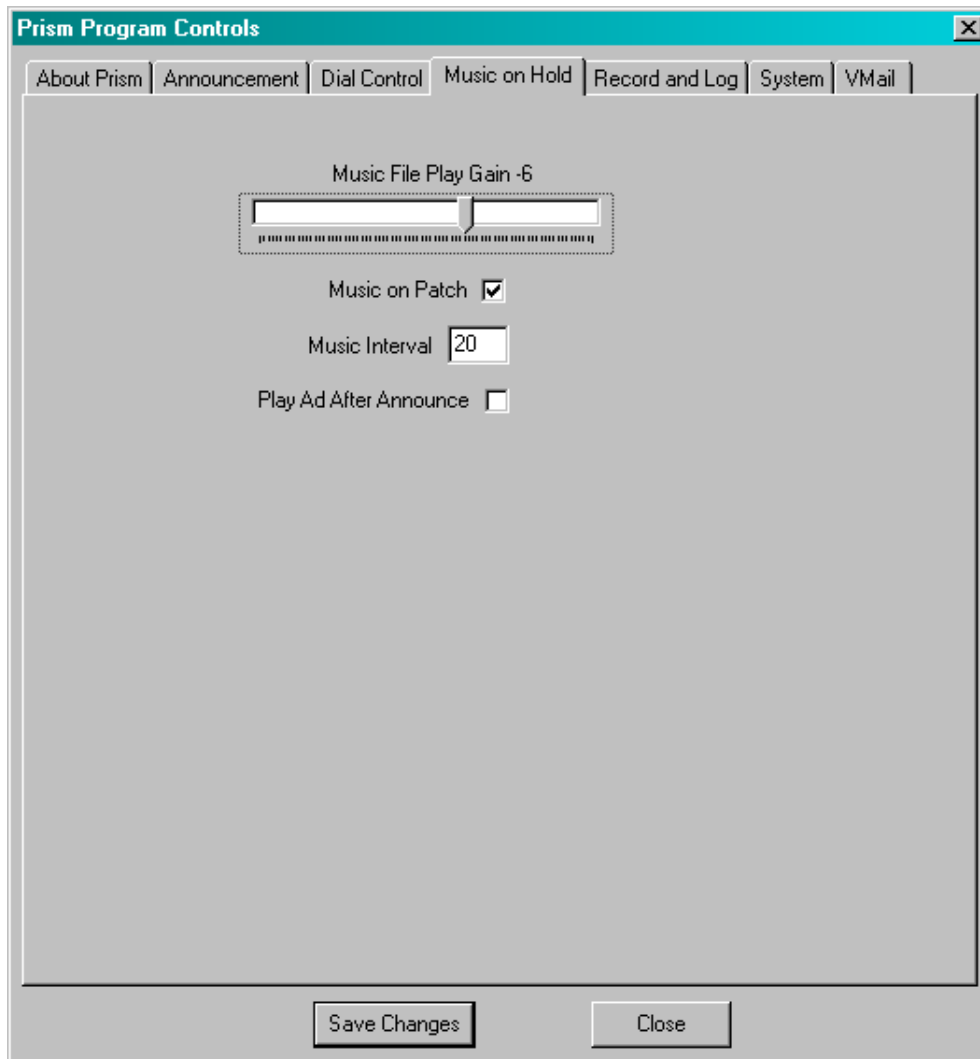
If your system uses least cost routing to determine which dial group will be used for outbound calling, manual selection of the dial trunk by operators can be disabled by checking the **Disable Select with Talk Key** checkbox.

If you have a need for operator access to more than the default dial groups A – D, check the selection labeled **Allow Select by Letter**. If checked, outbound lines can be selected by following the “Dial” key with a letter (A – Z). If there is no available circuit within the requested dial group, the key will be ignored. Hypertext speed dial syntax has been enhanced to allow the same selection mechanism.

You can select whether to connect outbound call audio immediately after the call has been placed, or wait until the remote end has answered by selecting the appropriate radio button from the **Connect Dialed Call** selection box. This may be needed if audible call progress tones are not provided by the telephone company on your trunk. **This is only functional for Windows 2003 systems.**

Pass through of calls originating in third party telephony equipment connected to Prism to the external phone network is controlled by settings in **Auto Pass Thru Prefix, Use Least Cost Routing** and **Dial Group** fields. This feature allows Prism's trunk resources to be shared by the external equipment. Any inbound call whose leading digits match the prefix will be passed through as an outbound call to an available outbound channel. Outbound trunk selection can be made either using least cost routing or to a specified dial group.

Music on Hold



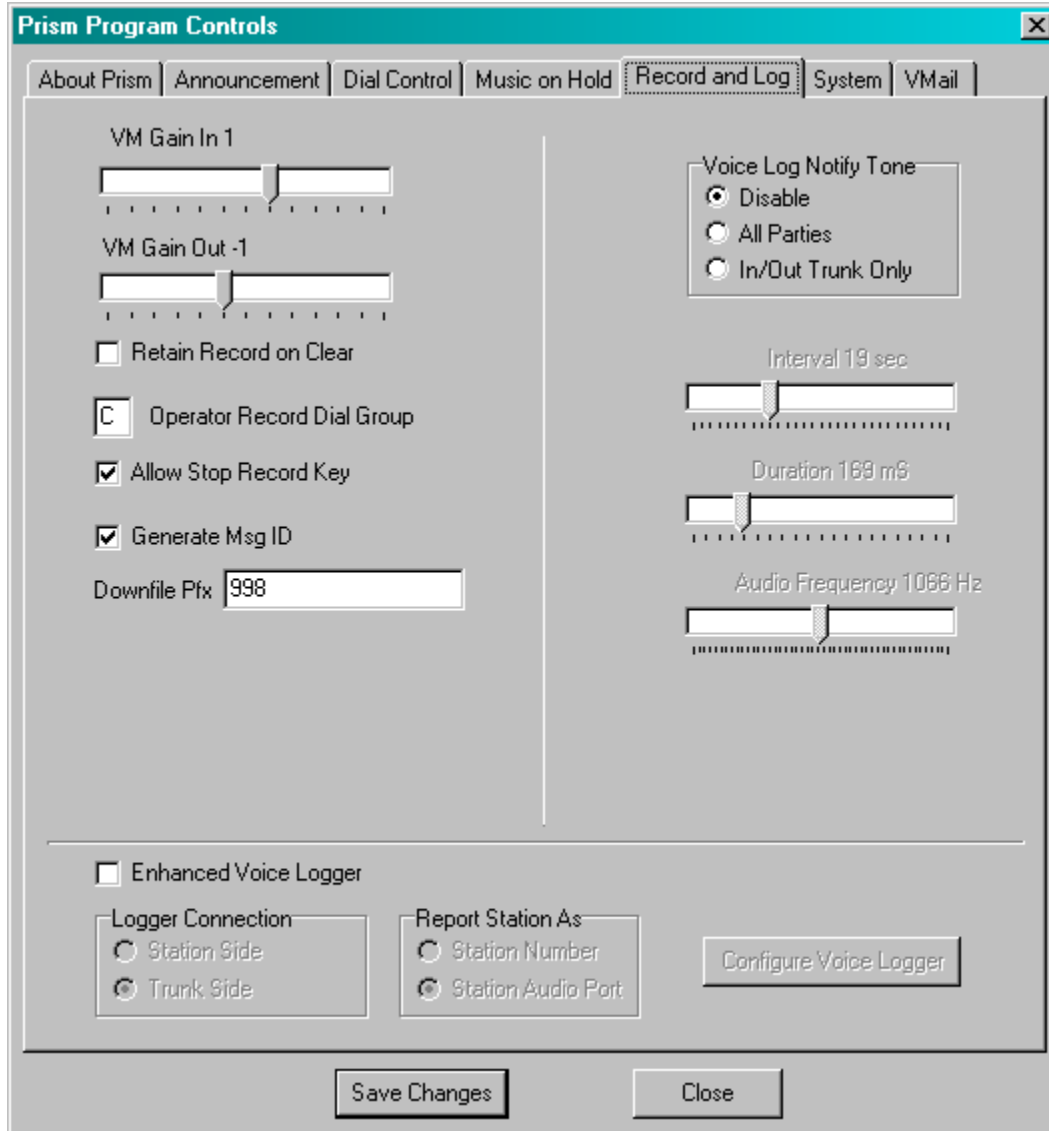
The **Music File Play Gain** slider can be used to control the playback level for internal Music On Hold files. This control has a range from -54 to $+24$ dB. Changes to this parameter take effect on the next call that receives hold music.

Check **Music on Patch** if you want music to be played to inbound callers while the outbound patch call is being placed.

The **Music Interval** field defines the length of time music on hold will be played between the playback of advertising files.

When a call goes to hold after an announcement, the default is to play an interval of music prior to playing the account's advertisement. Check **Play Ad After Announce** if you want to override this behavior.

External Recording and Voice Log Control



The **VM Gain In** and **VM Gain Out** sliders will allow control of these parameters *for external voice mail systems*. The range for these controls is -6 to $+6$ dB in 1 dB steps. Changes to gain will be activated on next program restart. If the Prism interface ports connected to the voice mail do not have adjustable gain, these parameters will be ignored.

Check **Retain Record on Clear** if you want voice mail recording to continue after the inbound caller has hung up.

The 'Dial Group' for operator recording can be programmed in the **Operator Record Dial Group** field. This may be required for certain third party voice mail systems. The default is dial group 'R'.

Allow stop record key should be checked if you do not want your operators to terminate recording manually with the Stop Record key. **Do not check this box if “Retain Record on Clear” is checked.**

Check **Generate Msg ID** to generate and send to an external voice mail system a unique message identifier. This ID is also reported to SDM and can later be used to automatically downfile a text message associated with the voice message.

The **Downfile Pfx** field is used to identify calls into Prism from an external voice mail system as “downfile requests”. Typically, this will be done when the voice message is played or deleted. The called number must include the voice message identifier.

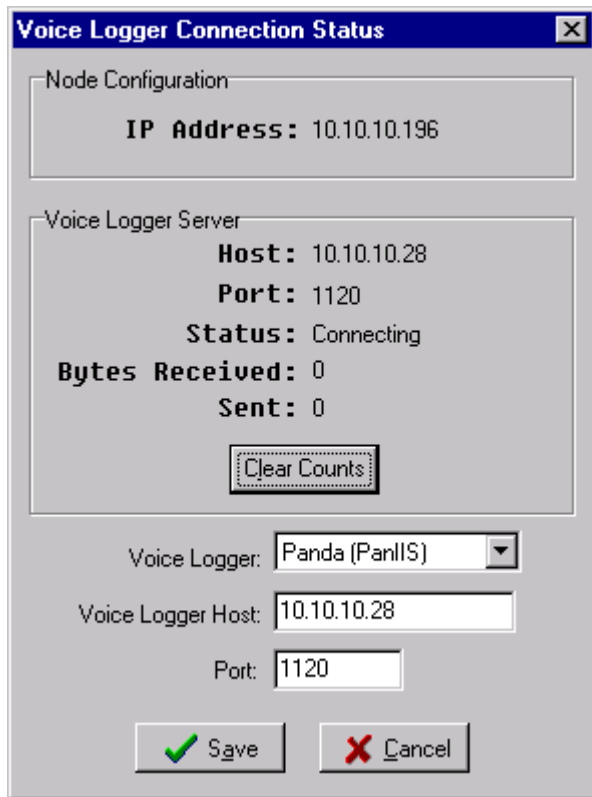
Check **Enhanced Voice Logger** to enable Prism to control and provide additional data to external voice logging systems. Activate the proper radio button depending on whether the logger is connected to the station audio paths or to the telephone company ‘trunks’. If this box is checked, the following additional functions will be activated.

- The **Logger Connection** radio button selection selects whether the voice logger will be connected to the station audio ports, or to the ports connected to the telephone ports. Typically, station ports will be analog and the telephone ports will be digital.
- For connections to the station ports, the **Report Station As** radio button selection determines how Prism informs the logger about what to log.
- The **Configure Voice Logger** button opens a separate window for logger setup (see next page).

Use the **Voice Log Notify Tone** radio buttons to control whether and how Prism will generate a ‘notification’ tone during voice logging. If enabled, the audio frequency, duration and interval between notification tones can be programmed.

Configure Voice Logger

Click the **Configure Voice Logger** button to open the enhanced logger configuration window.



Select your logger from the drop down list of currently supported voice loggers. The host address and port number will be determined at the time your logger is installed. This window can also be used to monitor the status and activity of the communications path between Prism and the voice Logger.

System Settings

The screenshot shows the 'Prism Program Controls' dialog box with the 'System' tab selected. The dialog has a title bar with a close button and a menu bar with options: 'About Prism', 'Announcement', 'Dial Control', 'Music on Hold', 'Record and Log', 'System', and 'VMail'. The main area contains various settings:

- Workstation Prefix:
- Remote Audio Group:
- Keep Meet Me at Station:
- Allow Account Off:
- Auto Database Backup:
- Patch Time Limit: (with up/down arrows)
- Call Time Limit Active:
- 3 Way Patch DK:
- Auto Increment Primary OD:
- Trunk Error Memo to Stn:
- Conference Gain 3:
- Caller Gain -3:
- Ringback On (mS): (with up/down arrows)
- Ringback Off (mS): (with up/down arrows)
- Auto Clear Remote Audio:
- Two B Transfer:
- Direct SubAccount Access:

At the bottom, there are three buttons: 'Forward To List', 'CID Reject List', and 'Edit Holidays'. At the very bottom of the dialog are 'Save Changes' and 'Close' buttons.

The 'thousands' digit for generating the account for extension calls to a workstation is programmed in the **Workstation Prefix** field.

If you have purchased remote workstation capabilities for your system, the dial group used to connect and configure the audio accounts can be set in the **Remote Audio Group** field.

Check the **Keep Meet Me at Station** box to allow inbound calls for a Meet-Me-Patch waiting account to be presented only to the operator who placed the caller on Meet-Me-Patch wait.

Check the **Allow Account Off** box to activate the ability to 'turn off' individual accounts from a workstation with the Alt-Answer key.

Check **Auto Database Backup** for the system to activate automatic backup of Prism's account database. If there have been changes, a new backup will be created daily at 2 AM. The most recent thirty (30) backup files will be retained in the folder D:\Prism\Dat. (D:\Prism\Dat\Backup for Win2003 systems) **The contents of this folder can be copied to alternate media if a second level of backup is required.**

The **Conference Gain** slider can be used to control the gain applied to each member of a conference. Conferencing is used during live operator record, during patch setup or meet me patch setup. The conferencing function is also used to provide a local connection to a voice logger for remote operators. This control has a range from -12 to +12 dB. Changes to this parameter take effect for all subsequent conferences.

The **Caller Gain** slider allows you to set the level of the inbound caller portion of a conference to a different level than the other members of the conference. This control has a range from -12 to +12 dB. Changes to this parameter take effect for all subsequent conferences.

Audible ringback (the 'ringing' sound an inbound caller hears) timing can be adjusted within a limited range with the **Ringback On** and **Ringback Off** scroll boxes. The values set are in mS (1/1000 second).

For versions of Prism running on Windows 2003, two B channel transfer is enabled with the **Two B Transfer** check box. This function is only available on ISDN trunks, and may not be available from your central office.

The check box **Direct SubAccount Access** should be checked to enable this function. ***You MUST be running a version of SDM compatible with direct sub-account access or results will be unpredictable.*** See the chapter "Creating and Editing Accounts" (pg 7) for per-account sub-account assignment.

Click **Edit Holidays** to show or change the list of currently defined holidays.

The **Patch Time Limit** field serves to set a system wide maximum length for patched calls. If set to zero, no time limit will be applied. Any non-zero value in the account's Patch Time Limit will override the value programmed here.

The **Call Time Limit Active** checkbox is used to control the maximum length of **all calls** in Prism. If checked, any call that lasts longer than the time programmed into the Patch Time Limit will be cleared.

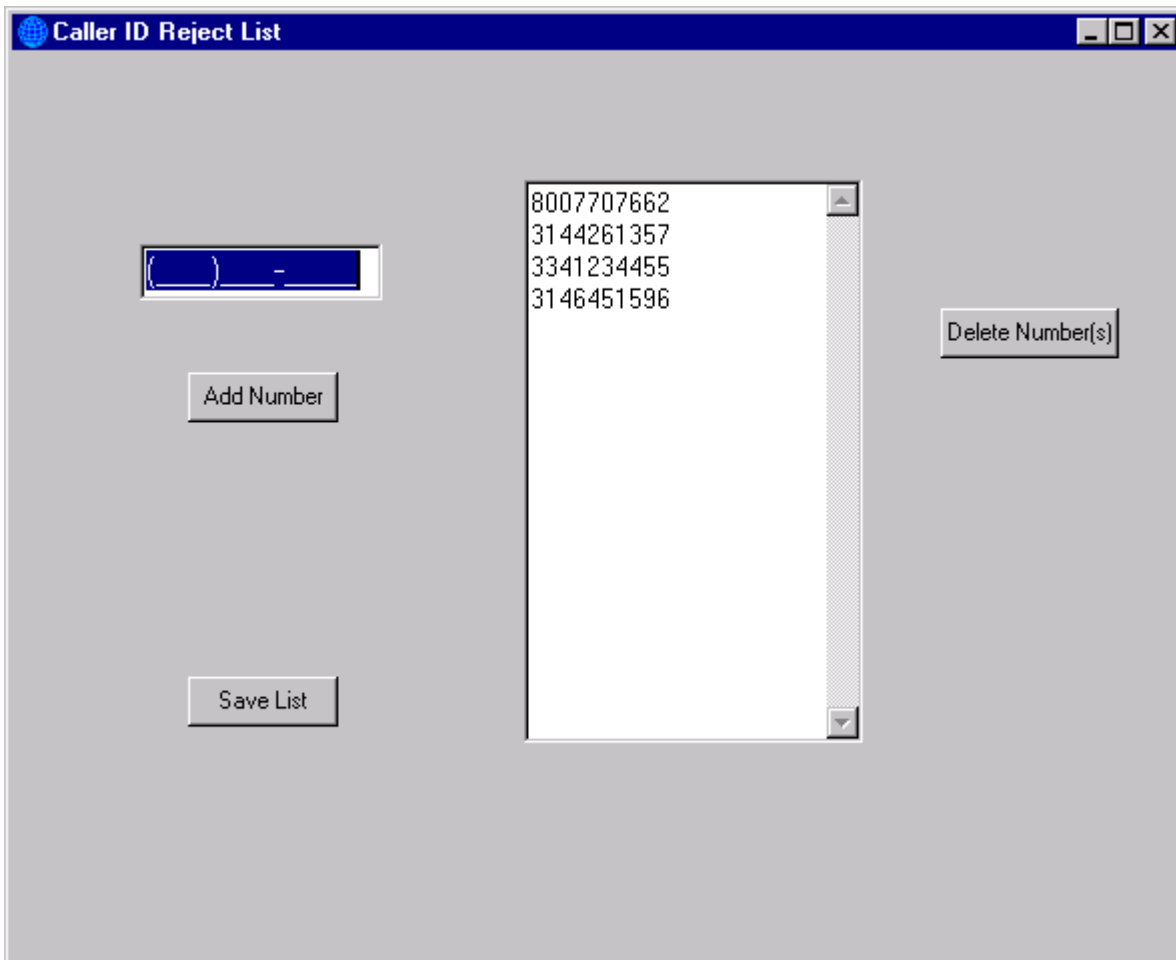
If the **3 Way Patch OK** checkbox is NOT checked, the inbound and outbound legs of a patch call will be connected immediately when the patch key is pressed during the outbound call. You will NOT get a 3-way connection caller – operator – called.

The **Auto Increment Primary OD** should be checked unless you wish to program a block of accounts with the same Primary Outdial number. This applies *only* to TAS (dial group T) accounts. Since the primary Outdial number is used for the announce recording password, you might want to program a block of accounts, all with the same password for announcement recording.

For systems that include SDM, errors on digital trunks can be alerted *via* error 'memos' to operator workstations by checking the **Trunk Error Memo to Station**. Use this function with care, if there are many errors on the digital trunks in the system the stations can be “swamped” with error memos.

Caller ID Reject List

Click the **CID Reject List** button to open this window:



If you wish to block calls from known sources, the caller IDs for those sources are programmed using this utility window.

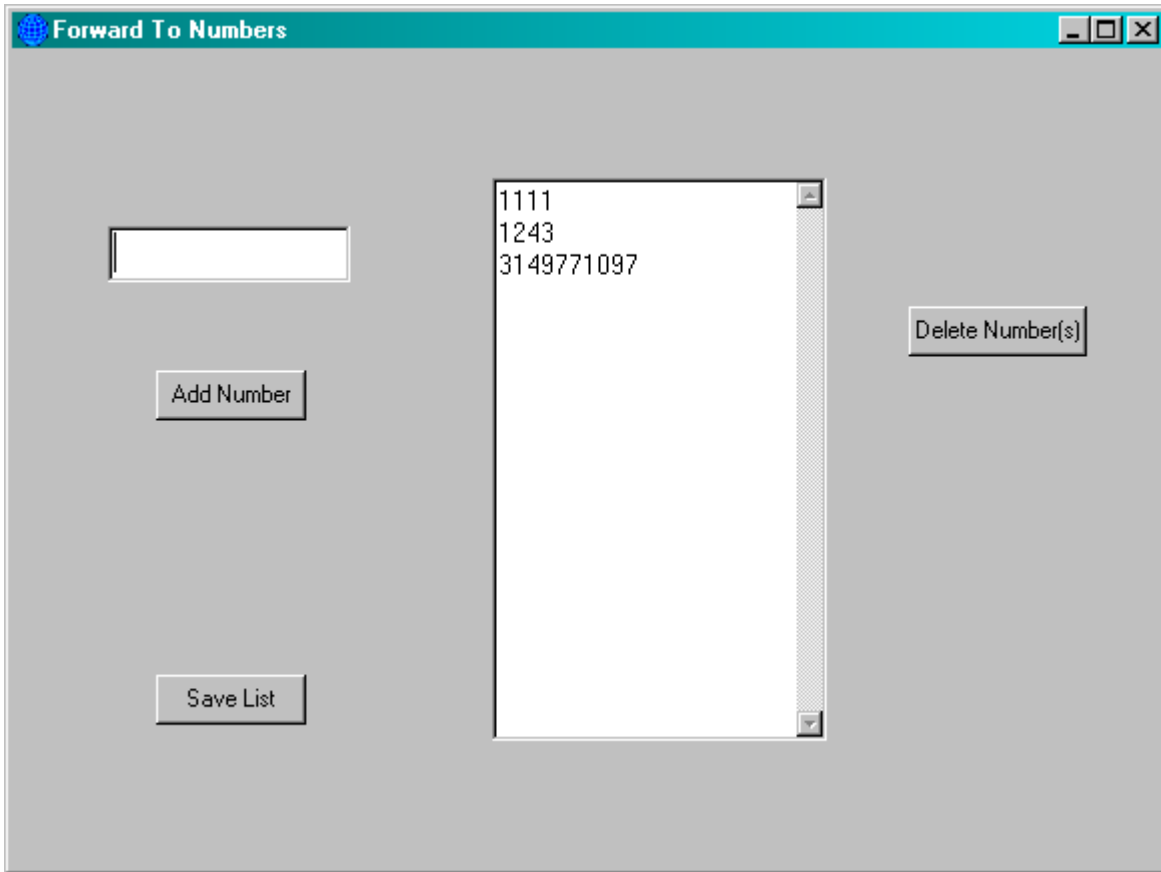
Enter the full ten digit number into the phone number field, and click the **Add Number** button. Repeat until all the sources you wish to block have been entered, then click the **Save List** button to activate the list and save it to a file. The list will be restored from the file each time Prism is started.

To remove numbers from the list, highlight them with the mouse, click the **Delete Number(s)** button and click **Save List** to activate and save the changes.

When calls are received by Prism, the caller ID will be compared to the entries in this list. Any call from one of these numbers will be rejected with the voice message “I am sorry, the call cannot be completed”.

Forward To Number List

Click the **Forward To** button to open this window:



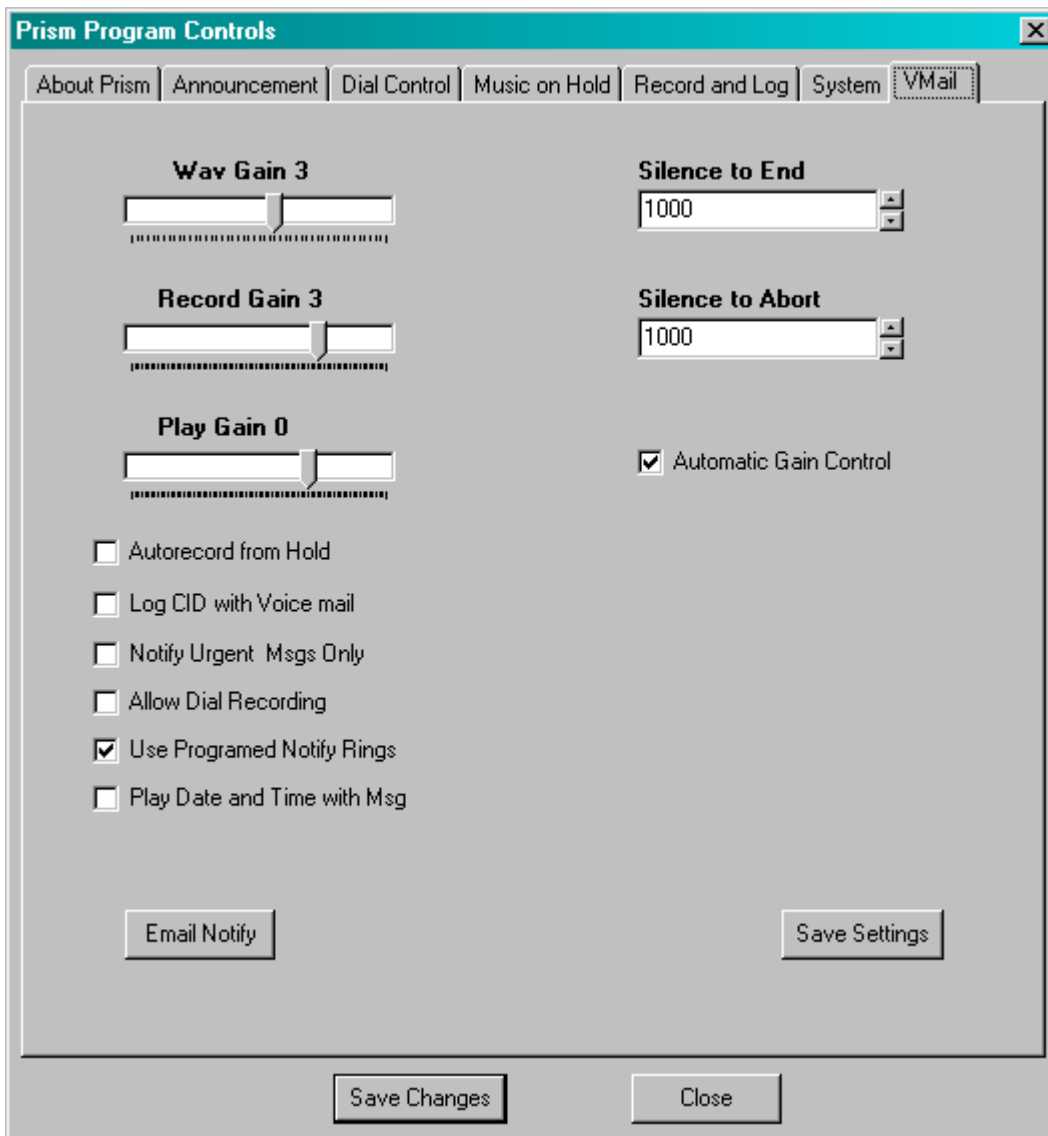
This utility will help you maintain the list of primary numbers used for “Single Number Forwarding”. Calls received for numbers in this list will use the client's telephone number (the number of the telephone that was forwarded) to identify the correct account.

Data entered into this table should match the account indexes for each of the DID numbers to which you have your clients forward their phones.

Adds, deletes and changes operate the same as for the *CID Reject List*.

VMail

If your system includes the integrated VMail system, additional configuration settings are available on the VMail tab.



Autorecord from Hold should be checked to re initiate recording for a call answered from hold.

Log CID with Voice Mail activates storage of the inbound caller ID in the voice mail database.

Notify Urgent Msgs Only forces the requirement that a voice message be marked “Urgent” to activate notification.

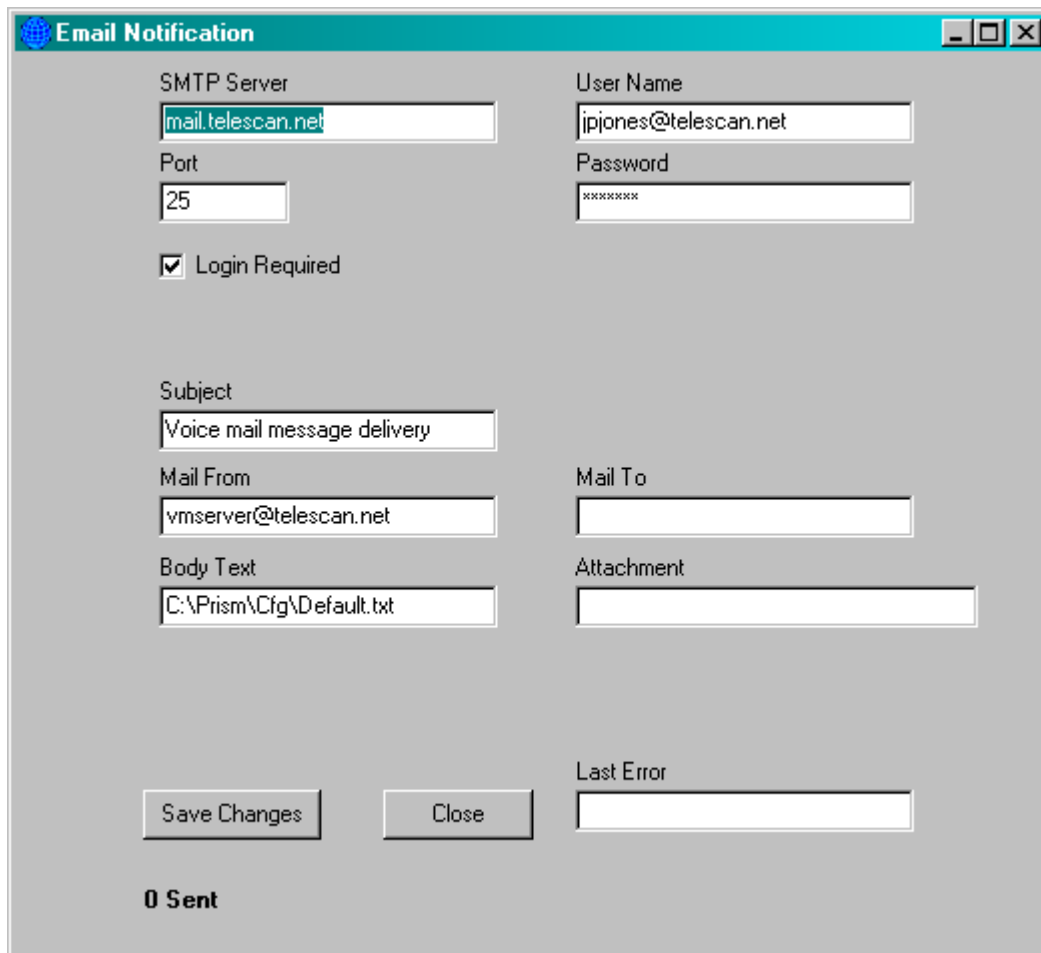
Allow Dial Recording must be checked for live recording of outbound as well as inbound calls.

Use Programmed Notify Rings allows each entry in the notify cascade to have a different 'ring count' before abandoning an unanswered notification call. (Integrated voice mail)

Play Date and Time with Msg forces Prism to play the date and time a voice message was recorded every time the message is played. If not checked, the date and time can be played through a menu selection during message retrieval.

Email Notification

If you have set up any mailboxes to automatically deliver voice mail messages *via* email, click “**Email Notify**” to configure the feature.



The screenshot shows a window titled "Email Notification" with a teal header. It contains several input fields and a checkbox. The "SMTP Server" field is filled with "mail.telescan.net". The "Port" field is filled with "25". The "Login Required" checkbox is checked. The "User Name" field is filled with "jpjones@telescan.net" and the "Password" field is filled with "*****". The "Subject" field is filled with "Voice mail message delivery". The "Mail From" field is filled with "vmsserver@telescan.net". The "Body Text" field is filled with "C:\Prism\Cfg\Default.txt". The "Mail To" and "Attachment" fields are empty. At the bottom, there are "Save Changes" and "Close" buttons, and a "Last Error" field. A status bar at the bottom left shows "0 Sent".

Enter the URL or IP address of your outgoing email server in the **SMTP Server** field. The **Port** field will not usually need to be changed but can be if the server uses a non standard port.

Check **Login Required** if your server requires authentication. If this box is checked the **User Name** and **Password** fields are required.

The contents of the **Subject** field will be used for the subject line of the email sent, and the **Mail From** field is inserted as the sender.

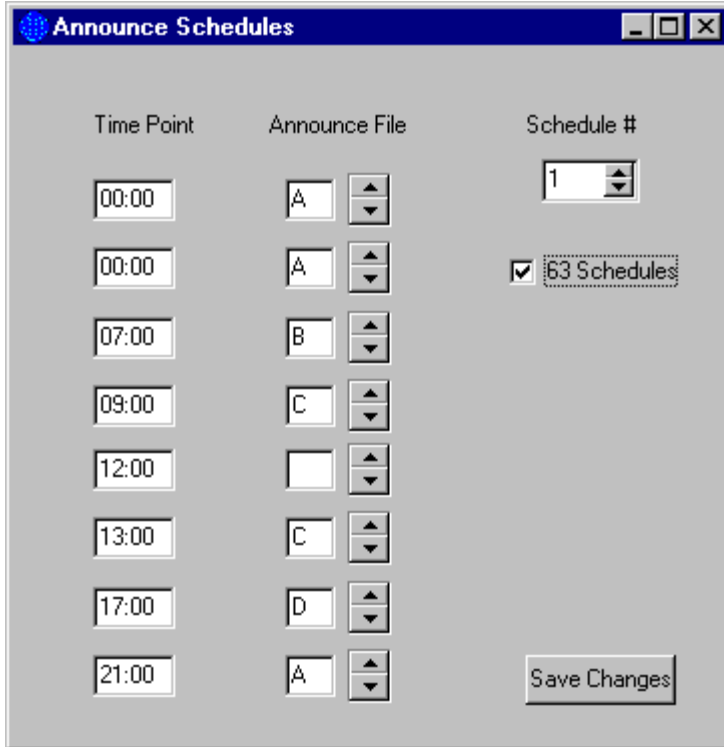
The body or content of the email is copied verbatim from the file specified in the **Body Text** field. The file should be a standard text file and can be easily created or modified with notepad.

This screen can be used to monitor transmission of voice messages. The voice messages are sent individually as email attachments. As each is sent, the recipient email address will be placed in the **Mail To** field, and the attached message file name will be entered into the **Attachment** field.

A verbal description of any transmission error will be displayed in the **Last Error** field, and also to an email log file.

Announce Schedules

The **Announce Schedules** panel is used to define the system's announcement schedules. This panel can only be accessed through the 'System' panel. *These schedules are active only for internal announcements.*



Time Point	Announce File	Schedule #
00:00	A	1
00:00	A	<input checked="" type="checkbox"/> 63 Schedules
07:00	B	
09:00	C	
12:00		
13:00	C	
17:00	D	
21:00	A	

Use the up/down arrow control associated with the **Schedule #** field to select which of the system announcement schedules to modify. There are currently fifteen or sixty-three schedules.

Each **Time Point** in a schedule represents the starting time for the associated announcement file. The Time Point will be rounded to the nearest quarter hour. These times should be set to the proper time **in the client's time zone** as programmed on the Account Setup screen.

Each **Announce File** for a Time Point is specified with a letter from A – E or a blank for no announcement.

When **63 Schedules** checkbox is checked the schedule number selection can be from 1 to 63.

You must **Save Changes** to write new data to disk.

There can be five announcement files associated with each account, distinguished in this panel by the letters A to E. All announcement files will be stored on disk in the folder C:\Prism\Prompts (D:\Prism\Prompts for Win2003 systems) and will be named for the Primary DID of the account. (e.g. 1234B.vce, 1234D.vce) To maintain backward compatibility, the A announcement filename does NOT have the letter A appended to the DID account number.

After data entry, each schedule is sorted ascending by time point. If the earliest time point is greater than 00:00 (midnight) there is an implied time point of 00:00 with an A announcement prior to the earliest time point.

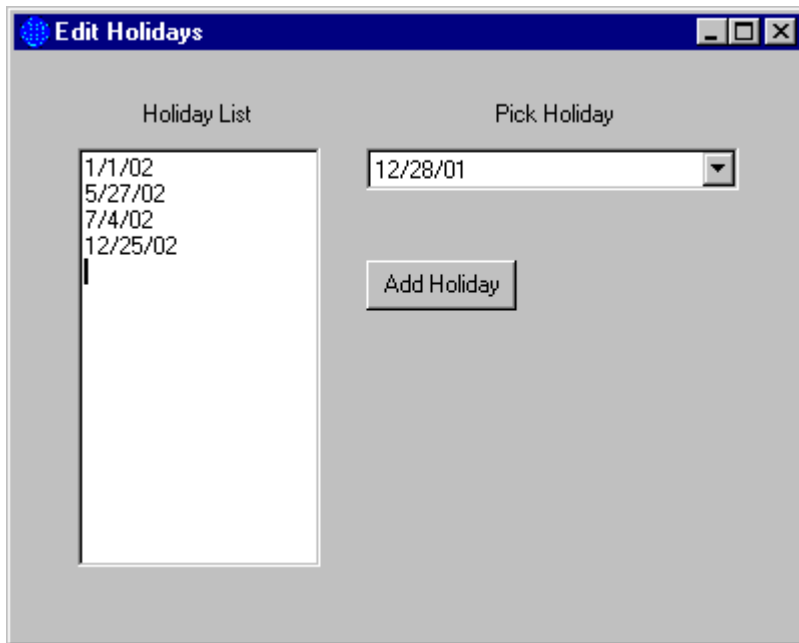
To select the proper announcement at runtime, the schedule active for the current account is searched from the latest time point toward the earliest time point to find the time point less than or equal to the current time. If the file exists, the announcement associated with that time will be played.

If no valid announcement file associated with the account can be found, the generic announcement will be played.

A space or blank in the *Announce File* field specifies 'no announcement' and the call will be presented to the operators without announcement.

Edit Holidays

The Edit Holidays panel is used to view or define the system's holiday schedule. This panel can only be accessed through the 'System' panel. This schedule is used in announcement schedule day selection and also to route calls to the alternate pathway if the 'Use Alt on W/E or Hol' is enabled for the account. (See the Edit Account Chapter)



The box lists the currently defined holidays.

The Add Holiday button will add the date in the 'Pick Holiday' box to the holiday list.

If you click the arrow to the right of the Pick Holiday box, a scrollable calendar date picking utility will open. A left click on any date will place it in the Pick Holiday box.

To remove a date from the Holiday List, highlight it with the mouse and press the Delete key.

The schedule will be written to disk and become active when the window is closed.

Remote Access

Prism remote access allows you to have a fully functional workstation from anywhere in the world.

System Components and Requirements

You will need an analog telephone line or VoIP connection at the remote location for the audio connection. For the data connection, you can use Windows XP remote desktop through an internet connection, or direct TCP/IP connection on ethernet based Spectrum systems (recommended). One DID trunk, loop start line, or B channel will be required at the Prism for the audio connection. If you are connecting *via* Windows XP Remote desktop, you will need a workstation located at the service running some version of the agent software.

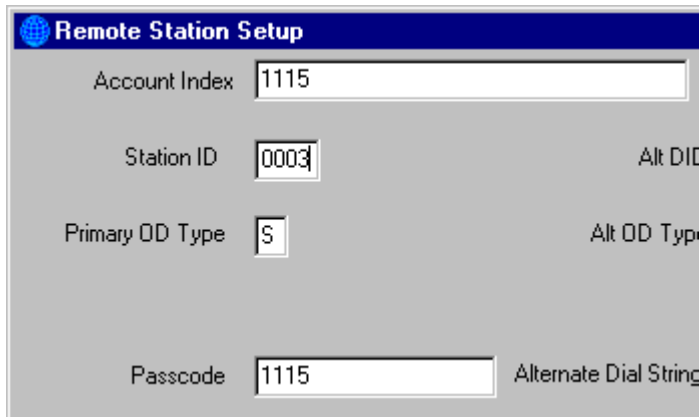
You will need to set up one DID account in the Prism for each remote workstation audio.

At the remote location you will need a PC to run either XP Remote Desktop or the Agent program for the data connection. You will also require a telephone to place the call for the audio connection.

Set-Up

Setup the DID account for audio access through the Account Maintenance window.

The **Remote Access** window is used to set up the account for audio connection to a workstation. If remote access is enabled for your system, when the Primary OD Type field is set to 'S' (remote Station audio), two of the data fields change function. The Pri DID field now serves to define the Station ID for this 'audio account'. If this field does not match the host station's id, function will be unpredictable. The Primary dial string will be used for a security passcode for audio setup.



The screenshot shows a window titled "Remote Station Setup" with a blue header bar. It contains several input fields and labels:

- Account Index: 1115
- Station ID: 0003 (with "Alt DID" label to its right)
- Primary OD Type: S (with "Alt OD Type" label to its right)
- Passcode: 1115 (with "Alternate Dial String" label to its right)

Station ID is the ID of the host console audio to be linked into.

Primary OD Type must be "S" for Station, unless re-assigned in the 'System Settings' window.

Passcode is the security code assigned to the user of the Prism's Remote Access Account.

Voice Connection

The voice connection is made by dialing the DID number for the 'audio' account from a telephone at the remote site. You will hear a voice prompt, "Please enter your passcode for remote audio connection". At any time after the start of the prompt, enter the passcode and wait for the "go ahead" tone.

- If there is an error or timeout, you will hear a voice error message. *If you hear this message you must hang up and dial again.*
- Do NOT hang up the telephone until the end of the session. *Always use the station keyboard for call control.*

If the voice connection is lost while the workstation is connected to an active client call, the client call will be made available to all operators.

You will probably want to use a telephone equipped with a 'hands free' headset for convenience.

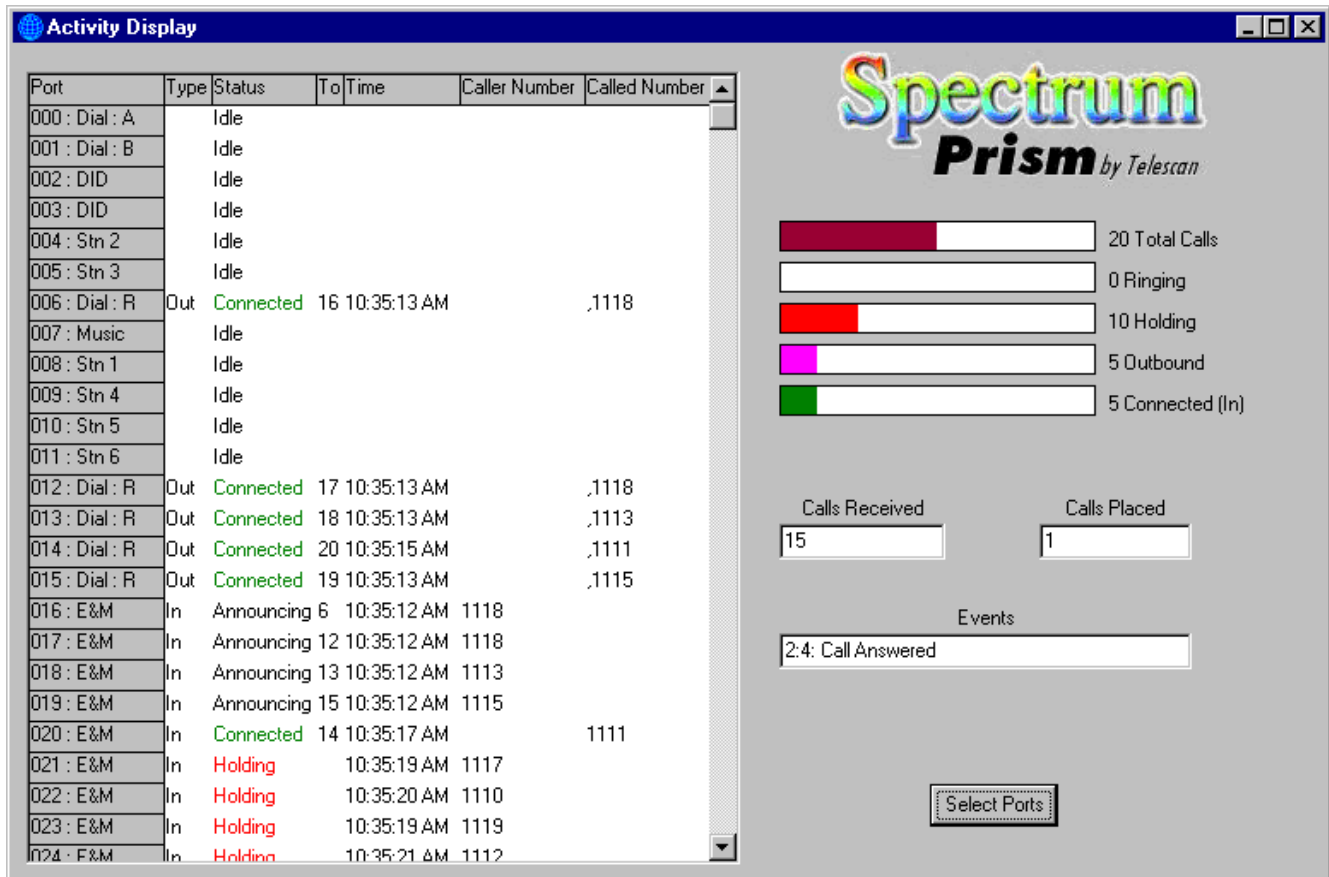
Windows Remote Operation

For the data connection, use direct TCP/IP connection or XP Remote Desktop from the remote site to connect to the host end. Once connected, the remote PC's keyboard and screen function as if they were directly connected to the host PC. For security, Remote Desktop has the ability to secure connections through user ID's and passwords.

When the session is complete, exit the Agent program (if using direct TCP/IP connection) or Remote Desktop to release the host station for possible use at the host site and also hang up the telephone used for audio to release the inbound DID trunk and station audio.

Trunk Activity Display

Select **Trunk Activity** from the Master Selection Window. The **Activity Display** screen shows the user the status of every port in real time. This detailed display lists each port, how it is configured, its type, current status, the time of the last status change, and the inbound and/or outbound number.



Port	Type	Status	To Time	Caller Number	Called Number
000 : Dial : A		Idle			
001 : Dial : B		Idle			
002 : DID		Idle			
003 : DID		Idle			
004 : Stn 2		Idle			
005 : Stn 3		Idle			
006 : Dial : R	Out	Connected	16 10:35:13 AM		,1118
007 : Music		Idle			
008 : Stn 1		Idle			
009 : Stn 4		Idle			
010 : Stn 5		Idle			
011 : Stn 6		Idle			
012 : Dial : R	Out	Connected	17 10:35:13 AM		,1118
013 : Dial : R	Out	Connected	18 10:35:13 AM		,1113
014 : Dial : R	Out	Connected	20 10:35:15 AM		,1111
015 : Dial : R	Out	Connected	19 10:35:13 AM		,1115
016 : E&M	In	Announcing	6 10:35:12 AM	1118	
017 : E&M	In	Announcing	12 10:35:12 AM	1118	
018 : E&M	In	Announcing	13 10:35:12 AM	1113	
019 : E&M	In	Announcing	15 10:35:12 AM	1115	
020 : E&M	In	Connected	14 10:35:17 AM		1111
021 : E&M	In	Holding	10:35:19 AM	1117	
022 : E&M	In	Holding	10:35:20 AM	1110	
023 : E&M	In	Holding	10:35:19 AM	1119	
024 : F&M	In	Holding	10:35:21 AM	1112	

Spectrum Prism by Telescan

- 20 Total Calls
- 0 Ringing
- 10 Holding
- 5 Outbound
- 5 Connected (In)

Calls Received: 15 Calls Placed: 1

Events: 2:4: Call Answered

Select Ports

Trunk Detail Panel

Port shows the user a listing of each port number followed by the type of line that it represents. Additional information may be present based on port type.

Type indicates the *direction* of the current call and will display 'In' or 'Out'.

Status indicates the current activity for each port:

Idle No activity on a port

Ringing There is a new inbound call active on the port.

Answered By operator

Holding General hold.

Priority Hold Hold associated with specific station

Dialing For an outbound port, a call is being placed. For an operator station, is in 'Dialing Out' mode.

Invalid The Account Index is not in the database or the account is not active

Clearing Waiting for the telephone company to 'hang up'

Connected	This port is connected to another port
Announcing	This port is currently being presented with an account specific message.
Rejecting	Caller hears a busy tone or recorded message
Patched	Operator initiated inbound to outbound connection
Dial Select	Operator station dial line select mode
Patch Select	Operator station patch line select mode
Transfer	Operator to Operator
Rmt Audio	The port is being used for remote station audio (shown when idle)
Setup	Digits are being gathered from an 'extension'
IVR	The call is being processed by the internal voice mail / IVR system

To indicates the port a call is connected to. This field will only show the port if the status involves a port to port audio connection.

Time indicates when the call status last changed.

Caller Number displays information about the inbound number.

Called Number displays information about the outbound number.

Summary Display

The **Activity Display** screen also contains activity bars depicting Total Calls, Ringing Calls, Outbound Calls, Holding Calls, and Connected Calls. The exact number of calls represented by each bar is displayed to right of the bar.

Total Calls represents the number of incoming and outgoing calls that are currently in progress.

Ringing Calls displays the number of inbound calls that have not yet been answered or otherwise connected.

Outbound Calls indicates the number of ports that have currently active outbound calls.

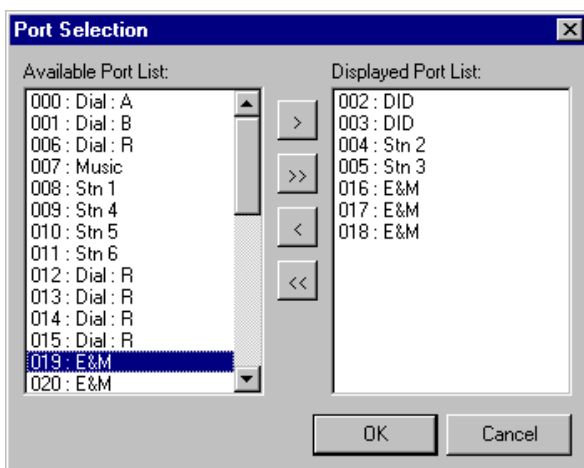
Holding Calls is the number of calls on hold.

Connected Calls represent the number of inbound calls that Prism has currently connected to other ports.

Calls Received displays the number of calls that have been received by the Prism. This number will reset at midnight or if the program is restarted.

Calls Placed displays the number of outbound dials that have been performed by the Prism. This number will reset at midnight or if the program is restarted.

Events represent system actions and events.



The **Select Ports** button activates a dialog that allows selection of which ports/trunks will be included in the trunk activity display.

Highlight a port with a mouse click in either list box and transfer it to the other box by clicking the single direction arrow.

If you select while you hold the Ctrl key down you can highlight a number of individual ports and move them all when you click the direction arrow.

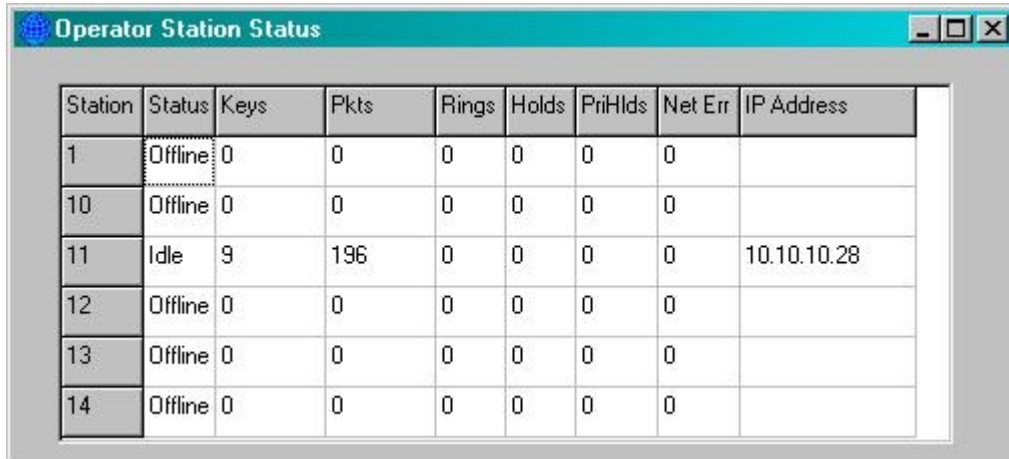
To highlight a range of ports, click on the first then click the other end of the range while holding down the Shift key. Move the block with the direction arrow.

To move all ports, click the appropriate double direction arrow.

Click **OK** to accept the changes or **Cancel** to abandon any changes. If there are no ports in the Displayed Port List, all ports will be displayed.

Status Displays

Station Status



Station	Status	Keys	Pkts	Rings	Holds	PriHlds	Net Err	IP Address
1	Offline	0	0	0	0	0	0	
10	Offline	0	0	0	0	0	0	
11	Idle	9	196	0	0	0	0	10.10.10.28
12	Offline	0	0	0	0	0	0	
13	Offline	0	0	0	0	0	0	
14	Offline	0	0	0	0	0	0	

The **Operator Station Status** screen display represents an overview of the current individual station activity. This panel is specific to TAS functions.

Station indicates the station number

Status indicates the current station status. Possible values are:

Offline – no network activity for station

Idle – Network activity, no call activity

Dial – Active in dial mode

Talk – On an answered call

Keys indicate the number of keystrokes received from a workstation.

Pkts is the number of messages sent from the Prism to the workstation. Examples are button activity and call counts.

Rings is the number of ringing calls that are available to the station.

Holds displays how many of the calls that are on general hold and are available to the station.

PriHlds displays how many calls are on hold and available to only this station

Net Err displays the number of failed transmissions to the station. This can be a very useful troubleshooting tool.

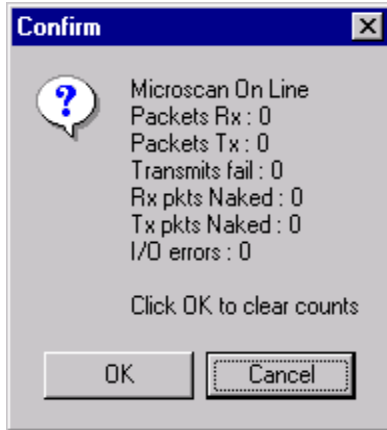
A *right* mouse click anywhere in this panel opens a popup menu that allows you to clear selected counts (for all stations). Keys received, Pkts sent and Net Err are the available selections.

Audio Status if your system uses VoIP over PRI for station audio, this column will show its status.

IP Address if your system uses TCP/IP for station communication, this column will show the station's network address.

Serial Status

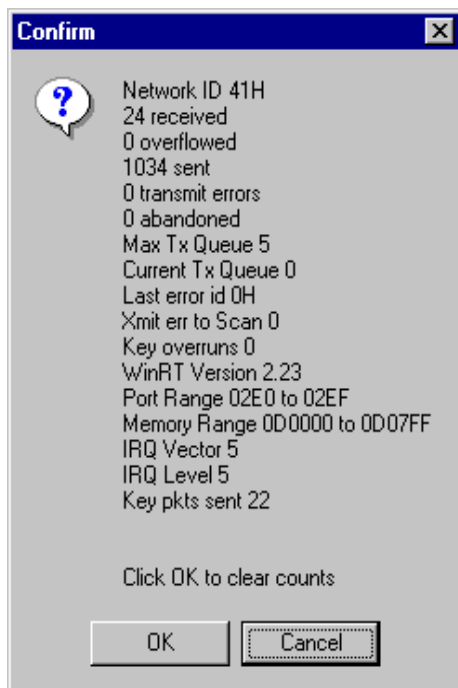
Select **Serial Status** from the Master Selection Window. An information screen appears displaying current event status from the messaging network. **If your system uses Ethernet communications, this button will not be present.**



Microscan On Line or Off Line indicates the current communication status
Packets Rx refers the current number of messages received since the last Clear.
Packets Tx refers the current number of messages transmitted since last Clear.
Transmits fail indicates the current number of failed transmissions.
Rx packets Naked indicates the number of times there were errors in reception. (Sender will normally retransmit)
Tx packets Naked indicates the number of messages that the receiver indicated had errors. (Retransmit is normally done)
I/O Errors is the count of hardware input and outputs errors
If you click OK to clear counts, you will be asked to confirm that action.

Arcnet Status

Select **Arcnet Status** from the Master Selection Window. An information screen appears detailing the current communication status between the Prism and the rest of the Earthnet Network. **If your system uses Ethernet communications, this button will not be present.**



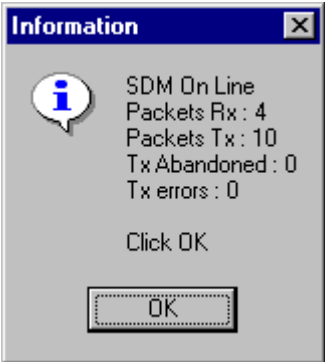
Network ID Prism's ID, displayed in hexadecimal
Received refers the current number of messages received since the last Clear.
Overflow refers the current number of messages lost to transmit queue filled.
Transmits errors indicates the current number of failed transmission attempts.
Abandoned refers to the number of transmits lost.
Max Tx Queue indicates the largest number of messages lined up in the transmit queue.
Current Tx Queue shows the current depth of the transmit queue. This value is constantly changing and represents the depth at the time of the display request.
Last error ID refers to the destination of the last transmit error. It is displayed in hexadecimal.
Xmit err to Scan is a separate tally of errors to Microscan.
Key Overruns indicates the number of keystrokes lost because the prior key was not transmitted.

Network Card & Driver Information follow.

Key Packets Sent indicates the number of collected keystroke packets assembled and sent to Microscan.

If you click OK to clear counts you will be asked to confirm the action.

SDM Status



For systems with Spectrum Data Manager, select **SDM Status** to display information about communication between Prism and SDM. This panel is not updated real-time, it displays the status at the time of the request.



Reports, System Information &

Maintenance

Statistics

Prism writes statistics for each call to a log file. Each log entry is written when the call completes. To facilitate backup and analysis, a new file is written for each calendar day. The log files are written to the folder D:\Prism\Log. Within this folder will be a folder for each year, and within each year's folder will be a folder for each month. Files are named for the date written in the format: `yyyymmdd.log`. Calls will be included in the file for the date the call *begins*, so a call that crosses midnight will be written to the earlier log. The file is comma delimited ASCII text, and includes these fields in order:

- Account Index
- Account status, or action taken (B = busy sent, P = Patched)
- Number dialed, in quotations
- Inbound port
- Outbound port
- Start Time (HH:MM:SS)
- End Time (HH:MM:SS)
- Duration (HH:MM:SS)
- Ring Time (Seconds)
- Answer Time (Seconds)
- Hold Time (Seconds)
- Connect Time (Seconds)
- Calling number (if available)
- Calling name (if available)
- Forwarding Number (if available)
- Forwarding Reason

Not all fields will be available for all calls and may be empty.

Example data:

```
9036,V,"",8,1,00:02:56,00:03:07,00:00:10,0,11,0,0,7023278747,,U
1553,V,"",7,1,00:02:07,00:03:48,00:01:40,0,37,63,0,7026165000,,U
Oper Dial,O,"47098091.6165076",1,29,00:03:50,00:04:10,00:00:19,0,0,0,19,,
47098091.6165076,O,"",1,29,00:03:55,00:04:10,00:00:15,0,0,0,15,,
Oper Dial,O,"47098091.6165076#",1,25,00:04:12,00:04:38,00:00:25,0,0,0,25,,
47098091.6165076#,O,"",1,25,00:04:16,00:04:39,00:00:23,0,0,0,23,,
1160,V,"",7,-1,00:08:29,00:09:04,00:00:34,0,0,35,0,7022614028,,U
7876,V,"",7,1,00:11:01,00:11:15,00:00:13,0,13,0,0,7027403400,,U
1118,V,"",7,-1,00:11:50,00:11:50,00:00:00,0,0,0,0,,U
1139,V,"",7,1,00:12:51,00:13:43,00:00:51,0,52,0,0,7024573066,,U
```

Directories

The directory structure of Prism is straightforward. Application specific files will be found in the C:\Prism directory or the D:\Prism directory, and all 'low-level' files will be found in C:\NMS. These directories have the following structure.

C:\Prism or D:\Prism for Windows 2003

- \Bin - the Prism program will be found here. The name of the executable varies with the installation.
- \Cfg - the system and port configuration file 'Telescan.cfg', the outdial property file 'Outdial.cfg' and the Least Cost Routing file 'LCRTTable.dat' are here
- \Dat - the account database file 'expamr.qdb' is here
- \Log - informational log files are written here. 'Debuglog.txt' contains diagnostic information for Telescan personnel.
- \Prompts - all announcement voice files and system prompt voice files reside here. Announce files are named for the DID style account 'nnnn.vce'.
- \Temp - used by Telescan personnel
- \Doc - information about the Prism system.
- \Backup - this folder will have backups of the Prism program or other critical files.
- \Update - staging area for updates
- \Wrapup - voice files for the wrapup instructions are stored here
- \Names - audible account name files are stored here

D:\Prism

- \Log - log files are written here. For each calendar day, two files will be written. For each year, a new directory under this directory is created. Within the year's directory, will be a directory for each month. In addition to the log detailed above, the file yyyyymmdd.err may be written. This file contains information about errors and critical events.
Example: D:\Prism\Log\2003\Jan\20030115.log
- \Music - Music files for music on hold are located here.
- \Ads - 'Advertising' files for playback during hold are located here.
- \Dat - account database backup files are written here. These files can be freely copied to external media for off site storage.

C:\NMS

- \Ag\Cfg - (NT systems) the configuration file 'Ag.cfg' will be found here **Do NOT modify this file without contacting Telescan or your system may not operate correctly!**
- \Oam\Cfg - (Win2003 systems) Several files defining the NMS cards within the system will be found here. **Do NOT modify these files without contacting Telescan or your system may not operate correctly!**
- \Ctaccess\cfg - the configuration file 'Cnf.cfg' will be found here **Do NOT modify this file without contacting Telescan or your system may not operate correctly!**

You should have backup copies of all configuration files stored in a safe location.

System Maintenance

There is no required maintenance for your Prism system, however periodic backup of critical system files is strongly recommended. (See appendix G) These will be invaluable in the event of a catastrophe. The most secure backups are those that can be moved off-site for storage. Ideally, a complete image of the 'C' drive in an easily restored format should be made. If this is not possible, backup copies of the entire C:\NMS and [C:\Prism \(D:\Prism on Windows 2003 systems\)](#) folders will ease the creation of an identical system. Among the subfolders in the [Prism](#) folder, the \Log folder is probably least critical, since it contains only report data. In the absence of a backup, re-creation of the files in \Prompts would probably be the most time consuming.



Hold Music & Account Advertisements

The Prism enables you to provide customized hold music and/or recorded advertisements to your clients. This chapter explains how to prepare these different audio files for playback on the Prism.

Account Setup:

The Account Maintenance screen has a field, “Hold Music,” that controls the type of hold music each caller hears when placed on hold for the account.

Specifically, this field will accept a numeric character, ranging from “0” to “9.” The numerals represent the following:

- 0** Play music originating from the physical music port (i.e. an external tape or CD player connected to the system.)

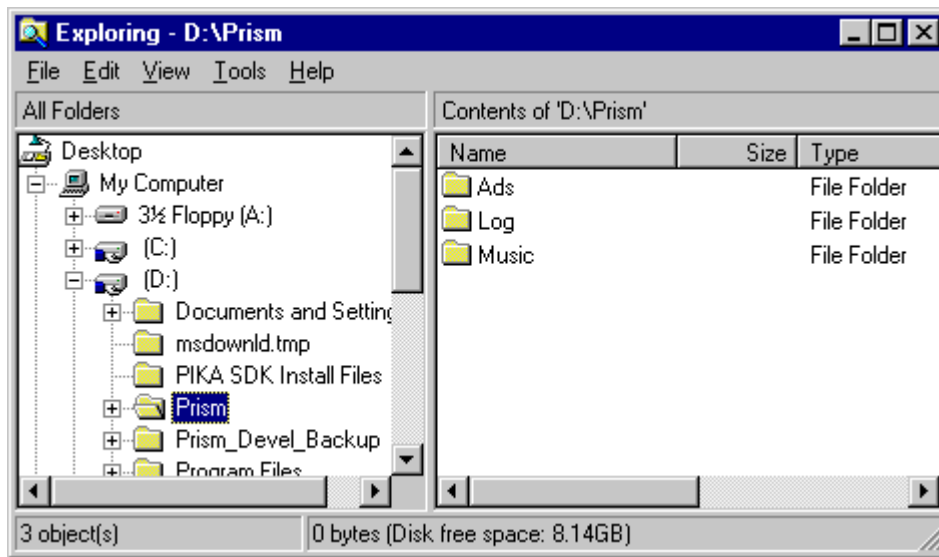
- 1 – 8 Play the designated generic music file. Prism accommodates up to 8 generic music files. Each of these could represent a different style of music or artist, for example.
- 9 Play an account-specific music file. This is a music file created to be played for this account only.

The **Play Music Before Ad** checkbox insures the caller will hear an interval of music before any advertisement is played. This overrides the default behavior for calls placed on hold by an operator.

Preparing the music and audio files:

In addition to programming the appropriate account setting, you also need to prepare the music and/or audio files that will be played for holding callers.

To accommodate these files, there are two folders on your Prism hard drive which are shown here:



On the “D” drive partition, there is a “Prism” folder that contains two sub-folders: “Ads” and “Music.” The hold music files and advertisement audio files are stored in the “Music” and “Ads” folders respectively.

Recording hold music:

If you have selected hold music “1-8” or “9” on the Account Maintenance screen for an account, the Prism will expect to find an associated hold music audio file in the “Music” folder. (If “0” is selected for the account, the Prism will not look for an audio file, but rather for some external music source, such as a CD player, radio, or cassette player.)

In short, preparing hold music audio files involves two steps:

1. Creating a .wav file
2. Compressing the .wav file to a .vce file

Creating a .wav file:

A .wav file is the Microsoft standard audio file format. Consequently, most PCs with sound capability can play .wav files. There are typically three ways to create a .wav file:

1. Record a .wav file onto the PC from an external source
2. “Rip” a music CD to .wav files
3. Convert .mp3 files (or other compressed audio files) to .wav files.

Record a .wav file onto the PC from an external source:

Most multimedia Windows PC systems offer some type of sound recording application that allows you to record a .wav file, provided your PC has a sound card with input capability. If this is the case, you can connect an external CD player, cassette player, microphone, or stereo, for example, to your PC. Then you can record from the input source and save the output as a .wav file on the PC hard drive. Typically, you only want to record 5 to 10 minutes worth of music, just enough for your holding callers to hear before they are routed to an operator. Also, once a music file has been played in its entirety by the Prism, it will loop and begin again.

Please note, that .wav file sizes can also be quite large. Be sure that your hard drive has sufficient space to store any .wav files you create.

“Rip” a music CD to .wav files:

There is also a wide range of commercial software products that offer “ripping” capability. This type of software allows you to take any music CD and covert designated music tracks directly to .wav files. This method is often preferred to recording from an external source because there will be no “noise” introduced in the conversion. The .wav file will sound as clean as the original CD music track.

Convert .mp3 files to .wav files:

.mp3 files are sound files that are compressed to smaller file sizes, but still offer excellent sound fidelity. Because these types of sound files are relatively small, they are more easily downloaded from the Internet. There are many websites that offer free and legal .mp3 music file downloads of all music genres. Once you have downloaded .mp3 files that contain music that you would like to use, you can then use a variety of commercial or free software applications to convert .mp3 files to .wav files. Again, this conversion causes no loss of fidelity or unwanted “noise.”

CoolEdit is highly recommended for converting from .wav to .vce formats. Basic instructions for installation and use of CoolEdit can be found in Appendix F.

If you wish to convert the sound files directly on Prism, use the following procedures.

Move the .wav files to the Prism PC:

When you create .wav files, you will need to give each file a name. Give them any filenames you wish so you can properly identify them. Then you will need to move the .wav files from your multimedia PC to the Prism PC. Because of the large file size of .wav files, you will either have to move the files over your internal network to the Prism PC or by burning the .wav files to a CD-ROM so they can be copied onto the Prism PC.

It is suggested that you create a folder to hold your .wav files on the Prism PC. This can easily be done using Windows Explorer. This document will assume that you have created a sub-folder called “Wav” in your “D:\Prism” folder. This is the same folder that contains the “Ads” and “Music” sub-folders.

Compressing the .wav file to a .vce file

Once you have copied your desired .wav files to the Prism PC, you use a software utility, “vcecopy.exe,” located on the Prism to convert and compress the .wav file to a .vce file. It is the .vce file that the Prism will play back for your holding callers.

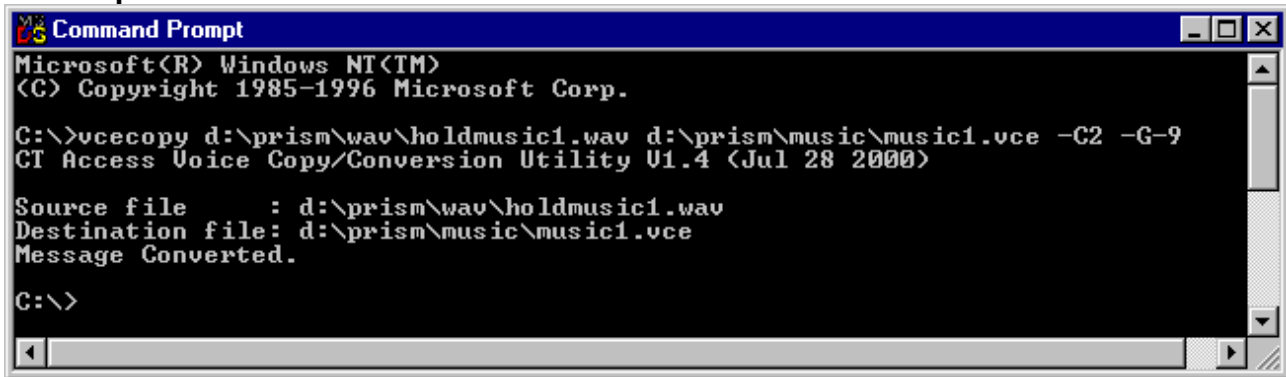
Follow these steps to compress a .wav file to a .vce file:

- Click **Start** → **Programs** → **Command Prompt**.
- Type the compress command, using the following syntax:
- vcecopy [.wav source file location] [.vce destination file location] –C2 –G-9

For example, the command below converts a .wav file called “holdmusic1.wav” to “music1.vce.” Once you have typed the proper command line statement,

- Press **ENTER** to initiate the conversion. If successful, you will see the prompt, “Message converted” and the C:\> prompt will appear.

The conversion command must be constructed exactly as shown or results will be unacceptable.



When converting files, the destination filename is important. Depending upon the .vce file that you are creating, you will need to follow a certain naming convention so the Prism can identify the file correctly. A number of prerecorded, royalty free music files are provided with Prism.

Type of Music	Account Maintenance "Hold Music" Setting	Designation Filename Syntax	Provided with System
Generic music #1	1	music1.vce	No
Generic music #2	2	music2.vce	No
Generic music #3	3	music3.vce	Yes
Generic music #4	4	music4.vce	Yes
Generic music #5	5	music5.vce	Yes
Generic music #6	6	music6.vce	Yes
Generic music #7	7	music7.vce	Yes
Generic music #8	8	music8.vce	No
Account specific music	9	####_mus.vce (#### = 4 digit account no.)	No

Recording Advertisement Audio Files:

In addition to generic or personalized hold music for an account, you can also record advertisement audio. This voice recorded audio can be any advertisement or announcement narration that your client desires.

You record these audio files just as you would any personalized announcement, using the Announcement Recording Utility. See Appendix C in the Prism manual for detailed instructions.

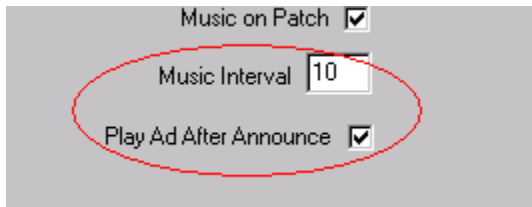
Once you have recorded the audio file, you need to copy it to the "D:/Prism/Ads" folder on the prism and rename the file so it follows this syntax:

XXXX_ad0.vce

(XXXX represents the account's four-digit account number)

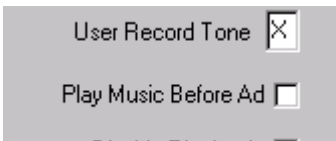
Programming Advertisement Audio Playback:

Once recorded, the advertisement audio will play back first for any callers placed on hold by an operator. Subsequently, the advertisement will alternate with the designated hold music for the account. How frequently the Prism alternates between the hold music and the advertisement audio depends upon a setting on the **“Music on Hold” tab of the System screen:**

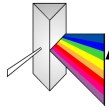


Enter a two-digit number to designate the number of seconds to play hold music before the advertisement audio plays. As soon as advertisement audio playback is complete, Prism will play hold music again. It will continue to alternate playing these two audio files until the caller is answered by a call agent.

When a call goes to hold from an announcement, the default is to play an interval of music first. The **Play Ad After Announce** checkbox will override this behavior.



When a call is placed on hold by an operator, the default is to play the advertisement first. The **Play Music First** checkbox on the **account setup screen** will override this behavior.



Appendix A : Reserved Dial Groups

There are a number of outbound dial groups that are either reserved for a specific function, or will be processed in a particular way based on call circumstances.

A – D : These dial groups are used for operator initiated outdial functions. When an operator presses the 'Dial' key (or the 'Patch' key while on an active call) the availability of outbound ports for these groups is indicated in the on screen trunk activity windows. Talk1 corresponds to dial group A, Talk2 represents dial group B, etc. These dial groups are **NOT** used exclusively for operator dial, other outdial processes can also use these ports.

R : This group is the default group for connections to external voice mail systems. Live operator record uses this group, and external announcements default to this group. The dial group for external announcement can be user programmed in the 'System' panel.

T : This dial group is used *exclusively* to indicate the call should be handled as a 'TAS' call. A call directed to this group will be processed as a standard EarthNet call.

S : This is the default group for remote operator workstation audio connections. This group assignment can be user programmed in the 'System' panel.

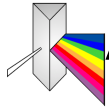
V : This dial group is assumed to be used for external voice mail access. Outbound calls on this group have an arbitrary 15 minute time limit.

X : This group is used exclusively for 'telephone' or eXtension style ports on the Prism. Actual telephones, modems and FAX machines are examples of the type of device that might be connected to these ports. Refer to Appendix B for details about this type port

Z : Although not exclusive to the function, this group is the default for announcement capture from legacy voice mail systems.

I : If your system has the integrated Voice mail / IVR this dial group is used to trigger activation of voice mail / IVR processing for this call

For convenience, you may want to assign particular functions to specific dial groups. For instance, you may want to use dial group 'P' for non-TAS access to a paging terminal.



Appendix B : Prism Telephone Ports

Telephone or 'eXtension' ports require different handling than other type ports on the Prism system. In particular, the mechanisms for call placement and reception are unique.

Inbound Calls (from the telephone)

When a telephone is taken off hook, dial tone is presented and the system enters a dialed digit capture mode. If there is no inbound dial digit activity for ten seconds, reorder (fast busy) is played and all activity on the port is ignored until the phone has been placed on-hook. If least cost routing is not in effect, calls placed from a telephone port are 'steered' based on the first digit received.

0 : Request to connect to an operator workstation. Two additional digits are expected which represent the station number. Currently 01 through 32 are valid.

- If there is no station with the dialed ID defined or active in the system, busy is presented.
- If the station ID is valid, the call is presented as a 'Ring' call exclusive to that station and can be handled as any other TAS call.

1 : Request to connect to another extension. Three additional digits are expected, to make a four digit extension number with a first digit of '1'. These numbers are either automatically assigned on startup, or defined in the system configuration file.

- If the extension exists and is on hook, ring the telephone. When answered, connect and wait for either to hang up before returning to the idle state.
- If target extension is off hook, send busy.
- If there is no extension defined for that number, play reorder and ignore the call.

2 – 5 : No current function, play reorder and ignore.

6 – 9 : Request for 'outside' line. Each value from 6 – 9 can be associated with an outbound dial group in the system configuration file.

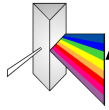
- If outdial port is available, place a call on outbound and connect to inbound.
- If all ports of the programmed group are in use, play busy and ignore the call.
- If no ports are defined for that group, play reorder and ignore.

Outbound Calls (to the telephone)

Calls can be placed to a telephone on Prism either internally or from the outside network. For internal calls, refer to digit steering '1' above.

If a call received from the outside network is routed to dial group 'X', the DID number programmed in the AMR for that account is interpreted as an extension number. This allows direct dial to a 'house' telephone from the outside network.

- If the extension is currently busy, the inbound call is rejected with busy tone.
- If idle, ring the extension telephone and connect to the inbound on answer.
- If the destination extension is not defined, reject with busy. (A future enhancement will be to route the call to an extension in the range 1000-1009 to provide 'front desk' or receptionist functions.)



Appendix C : Announcement Recording

Announcement Recording

With the March 2005 release of Prism, and all later releases, custom announcements can be recorded through the telephone network.

Activating Announcement Recording:

- In the Prism 'Edit Account' screen, set the 'User Record Tone' field to a valid touch tone (0 – 9, # or *). **Do not use the same touch tone programmed into 'Transfer Tone'** or callers will not be able to abort the announcement.
- In Microscan or SDM, program the account to play an announcement.
- Place a call to the account.
- *While the announcement is playing*, enter the touch tone programmed to activate recording. You will hear the voice prompt "To record a greeting, please enter your security code".
- Using the touch tone keypad, enter the security code programmed into the 'Primary Dial String' field for the account. If this number is not entered correctly, you will hear a voice message directing you to the supervisor, and you must call back.
- If the security code is validated, you will hear: "Please enter the appropriate greeting number". Values from 1 – 5 correspond to greetings A – E, and 9 is used to record the custom emergency greeting for the account. Incorrect values will select the A or default greeting. Note: For backward compatibility, the voice file name for the 'A' announcement does **not** have the letter A appended to the account number.
- You will hear the prompt "Begin recording at the tone, when finished press any key".
- After the recording is finished, it will be played back, a farewell message is played, and Prism will clear the call.

During Record:

- If there are problems any time during this process, any previously recorded announcement will be retained and the call will be cleared.
- If the announcement you wish to record is playing on another call, it cannot be replaced. You will receive an error prompt and will need to try the recording at another time.

Voice File Maintenance

No additional facilities are built in to the Prism program, all other prompt file maintenance is done using Windows file functions.

Prompt files are all stored in the folder: C:\Prism\Prompts (D:\Prism\Prompts for Win 2003)

Prompt files are all named with the account number: xxxx.vce (e.g. 1234.vce). Alternate schedule announcements are named with a one character suffix to the account number (e.g. 1234E.vce, 1234B.vce).

Copy the prompt files to another folder or to removable medium for backup purposes. To remove a prompt, simply delete the prompt file. *You may need to manually delete a prompt file in this way if an extremely short announcement has been recorded. (A very short announcement will not allow the activation of recording with a touch tone.)*

It is possible to use this utility to record new 'system' prompts. Record the new system prompt into an unused account, and replace the original system prompt by copying or moving the newly recorded file.

The System Prompts; all in **C:\Prism\Prompts (D:\Prism\Prompts for Win 2003)**

sorry.vce - 'I am sorry, but your call cannot be completed'. This is the 'invalid' announcement. It will be played to the caller if the account is invalid in either Prism's database or for TAS accounts if it is invalid in the Microscan / SDM database.

hangup.vce - 'Your call cannot be completed, please hang up and try again'. This message is played if there are no available outdial channels, and the outbound dial group is programmed to 'play message'.

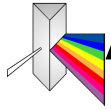
connect.vce - 'Your call is being connected'. If there is no conferencing on your system, this is played to the caller just before the final patch connection between the inbound and outbound calls.

transfer.vce - 'Your call is being transferred'. Played to the caller when a call is transferred from an external outbound connection to the TAS operators.

allbusy2.vce - 'All our operators are busy, please hold for an available operator' (this is the generic announcement)

pmptwarn.vce - 'That prompt is in use...'

ConfirmFwd.vce - 'If you are calling to forward your telephone, you may hang up at any time. If you need to speak to an operator for any reason, stay on the line'. This message is played if the call for the current account has been received from the client's caller id or from any of the telephones in the client caller id list.



Appendix D : Announcements in the Spectrum Prism System

Spectrum Prism provides an extremely flexible system for automated announcements. There are a number of controls which interact to determine if and what announcement will be played for an individual account.

Microscan / SDM Settings

With the exception of “Emergency” announcements, whether or not announcement is desired is always controlled by the Microscan or Spectrum Data Manager. There are four fields in the Account Master Record (AMR) accessed through System Manager or SDM Account Setup : Voice Mail tab that are used by the system.

The **AA** field has two components, an announcement type and a ring count.

- Announcement type (“Auto-Announce” field on SDM)
 - 'A' = always, the call will go to the announcement immediately
 - 'O' = overflow, the call will go to the announcement if not answered within 'ring count' rings.
 - 'S' = standalone, the call will not be presented to operators (this is often used with external voice mail)
 - 'G' = generic, the generic system announcement will be played if the call is not answered within 'ring count' rings.
 - Any other character disables announcement
- Ring count (“Overflow Ring Count” on SDM) – this field defines the number of ring cycles (6 seconds per cycle) to wait before the call is sent to the announcement. The call is available to be answered by an operator during this time.
- The **AD** (“Announcement Duration” on SDM) field has a dual function. A value of 1 to 7 will be used to 'time' a connection to an external voice mail announcement. A zero is used to indicate that this call should remain connected to the announcement until either a touch tone is heard, or the inbound call clears. This interacts with Prism’s 'Revert tone only' described later.

Normally, the announcement or mailbox is the same as the account number. Calls can be associated with another announcement or mailbox with the **MBX** (Mailbox) field in the AMR. The **AMB** (Alternate Mailbox) field can route the call to another announcement or mailbox during 'off hours' with optional revert on touch tone.

Prism Settings

Once it has been decided that the current call should be routed to an announcement, additional controls are used to determine the call's activity. In the Prism Account Record there are six controls related to announcements.

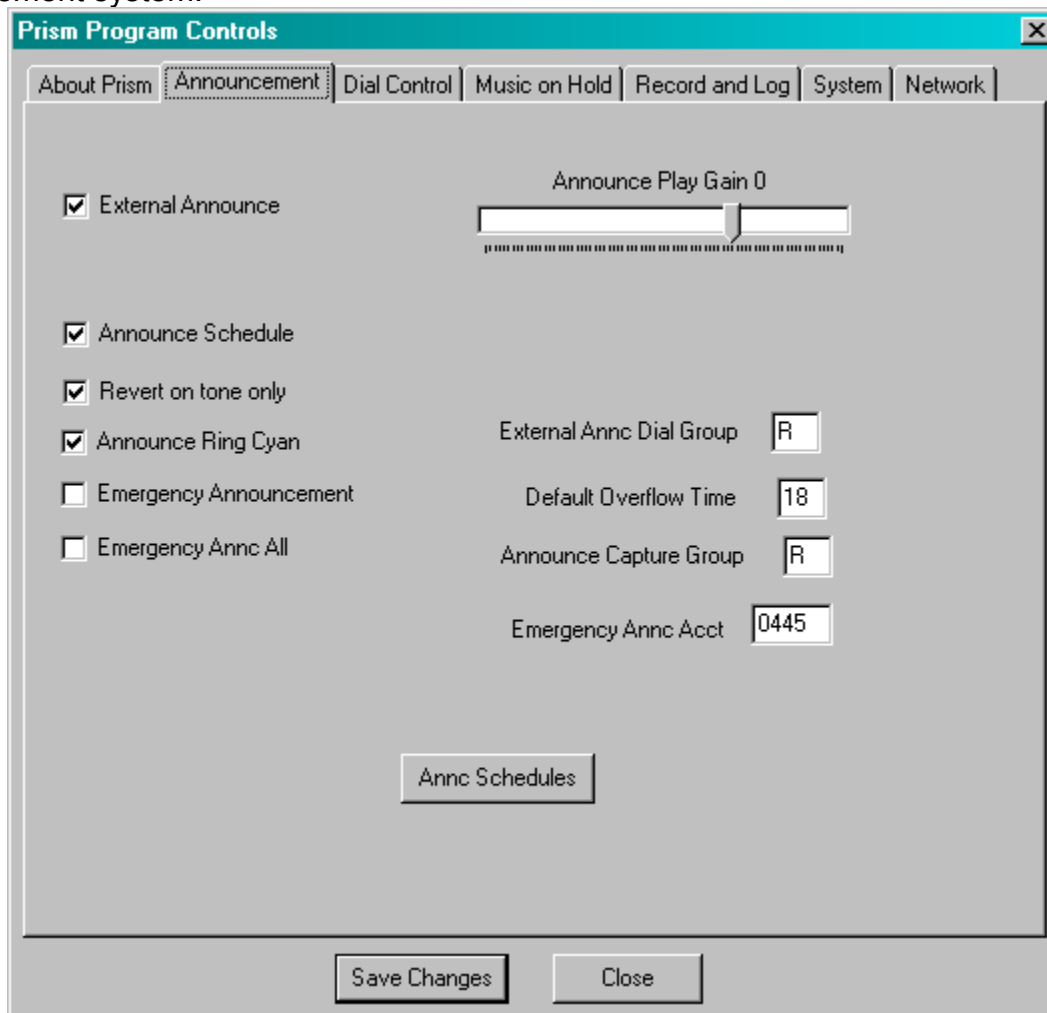
- **Transfer Tone** – This field defines the touch tone that will be used to stop the announcement and present the call to the operators. Values 1 – 9, * and # are allowed in this field. The letter 'X' is used to disable revert on tone. (The letter 'C' can be used if you want the call to be cleared after the announcement. If cleared, the call will never be presented to an operator.)
 - **User Record Tone** – This field defines the touch tone that will be used to stop the announcement and activate announcement recording. Values 1 – 9, * and # are allowed in this field. The letter 'X' is used to disable announcement recording from the telephone network. **Do not use the same touch tone as programmed as Transfer Tone** or callers will not be able to exit the announcement.
 - **Ext Announce** – This field controls whether the call should be connected to an external voice mail system for the announcement. 'Y' enables this function, any other letter selects the internal announcement system.
 - **Ring after annc** – after the announcement completes, calls will be presented to the operators on the ring list rather than the hold list if this box is checked.
- If you *are not* using the expanded announcement schedules, the following fields may be active (see screen on page 7).
- **Annc Sched** – if the value in this field is not zero, one of up to five announcements will be played for this account based on the schedule selected by this field.

- **Annc Sched 2** - if the value in this field is not zero, one of up to five announcements will be played for this account based on the schedule selected by this field.

If you are using the expanded announcement schedules

Sun Sched – Hol Sched – Allows you to select a different schedule for each day of the week as shown above.

There are several controls on the System Settings screen that are related to the announcement system.



- **External Announce** – This checkbox enables the use of an external voice mail system for announcements. If not checked, the Ext Announce field in the AMR is ignored. An entry in the master configuration file is required for this setting to be restored on restart.
- **Announce Schedule** – This must be checked to enable announcement schedules.
- **Revert tone only** – If this is not checked, the system will present calls to the operators after the announcement is finished **regardless of the value in the AD field**. If checked, and the AD field is 0, a call will be presented to the operators **only if the proper touch tone is detected**.

- **Emergency Announcement** – To turn on emergency announcements, check this box. If this box is not checked no emergency announcements will be played. This setting is not saved.
- **Emergency Annc All** – This check box enables emergency announcements for all accounts, whether or not they have been programmed for announcements in Microscan/SDM. This setting is not saved.
- **Emergency Annc Acct** – Each account can have a custom emergency announcement. If none has been recorded for a particular account, Prism will look for an announcement recorded for the account programmed in this field.

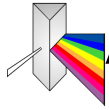
Understanding How Emergency Announcements Work:

The Emergency Announcement checkbox is the ‘Master Switch’ for this feature. Check this box to activate emergency announcements for the entire system. The feature will remain active until this box is unchecked or Prism is restarted. ***There is also a checkbox that is part of each account's settings in Prism which must also be checked for each account to get emergency announcements.***

The processing sequence for an individual call is this:

1. If the system Emergency Announcement checkbox is not checked, use standard announcement logic.
2. If the Emergency Announce checkbox for this account is not checked, use standard announcement logic.
3. If the system Emergency Annc All is checked, play either the custom or the generic emergency announcement for this call.
4. Otherwise, play an emergency announcement only if Microscan / SDM have indicated this call is enabled for announcement.

Prism will always try to play an announcement to the caller if directed to do so. If the account is programmed to use an external source for announcement and no path to the external source is available, the system will attempt to play a custom internal announcement. If no custom announcement can be found, the generic will be played.



Appendix E : Least Cost Routing

If enabled with the proper entry in the configuration file, the Prism program will read data for Least Cost Routing from the file 'C:\Prism\Cfg\LCRTTable.dat' (This file and folder will be found on the 'D' drive of Windows 2003 systems).

Syntax

Each line in the LCR data file consists of three elements.

- A single character representing the dial group to be used for the table entry. The dial group character can be any of the letters 'A' through 'Z' representing any of the possible Prism dial groups. For operator initiated outdial, this **must** be in the range 'A'-'D'.
- A single character that defines the type of table entry.
- ' ' (space) – this is a 'simple' entry. The dialed prefix must match the following value *exactly*
- '<' - This entry defines the *beginning* of a range of prefixes
- '>' - This entry defines the *end* of a range of prefixes
- The digit string that will be used in table lookup. Although the digit string can have any length, only the number of digits defined in the configuration file will be used in lookup.

The following are typical entries:

H 1303	<i>Simple entry</i>
A 1800	
J 1866	
A 1877	
B<1888	<i>Begin range</i>
B>1899	<i>End range</i>
J 310	
B 314	
K<320	
K>345	
B 645	

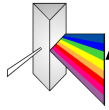
Activation

If enabled, Least Cost Routing is automatically activated on outbound dial by the first character following the 'Dial' or 'Patch' key. If one of the 'Talk' keys is pressed, standard manually selected outbound dial is used. If however, a digit follows the 'Dial' key LCR is activated. Digits will be collected up to the number defined in the configuration file, and a table lookup will be performed. If there is either a range or simple match, the proper outbound dial group will be selected and the remainder of the dial proceeds normally. If there is *no match*, the default dial group defined in the configuration will be used. Finally, if there is a match, but no port is available in the group defined, dial will be aborted.

Notes

There is no special utility for maintaining the LCR table definition file. Any text editor that allows saving in simple ASCII text format (such as notepad) can be used.

The data from the definition file will be sorted by dial prefix but otherwise there is no error checking performed on the data. **Whoever maintains the Least Cost Routing file is responsible for its accuracy.**



Appendix F : CoolEdit 96

CoolEdit96 is a full featured voice editor with play, record and utility functions for a number of voice file formats. Natural Microsystems .vce format (as used on Prism announcement and system prompts) is supported in the version distributed with Prism. This program can be used as an alternative method for announcement recording and can also be used to convert music on hold files. Installation files for CoolEdit are provided on your Prism Installation Files CD-ROM.

System Requirements:

- A sound card device (e.g., SoundBlaster) with microphone and speakers
- Windows 98, NT or XP

Installation:

- Insert the CD into your CD-ROM drive
- Open Windows Explorer and open the folder 'CoolEdit' on the CD-ROM
- Double click the installation program 'c96setup.exe' to begin installation
- You can accept the defaults during installation

Registration:

- The first time you run CoolEdit, when the 'Unregistered Copy' window displays, click the **Register Now** button
- Enter 'Natural Microsystems' for user name and 'OATGPSDP' for registration number (do not type the quotation marks).

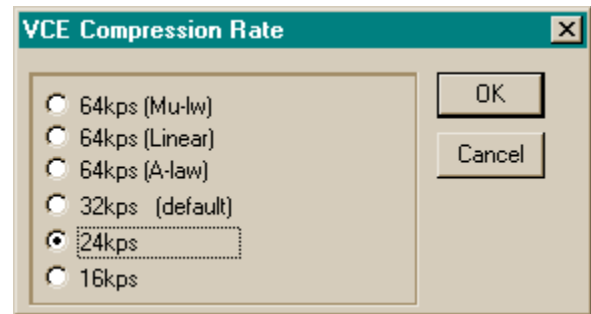
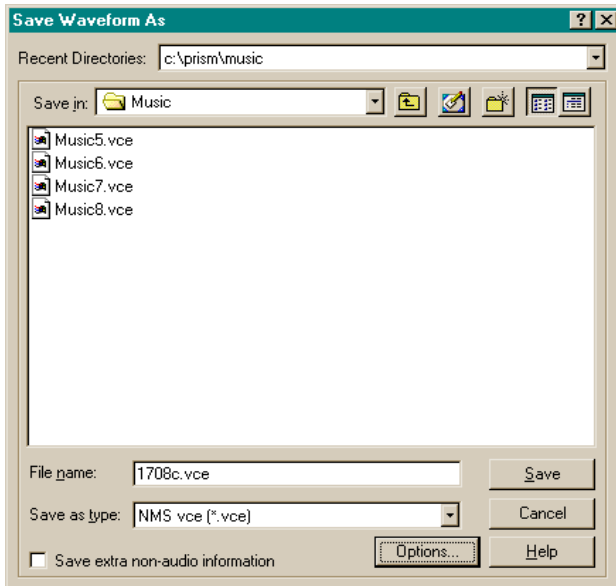
Recording Sound Files:

- Run CoolEdit96 using the desktop icon or with Start Menu | Programs | Syntrillium | Cool Edit 96
- Click 'Record', you can accept default parameters
- Speak clearly into the microphone, when finished click the 'Stop' button
- Listen to your recording with a click of the 'Play' button

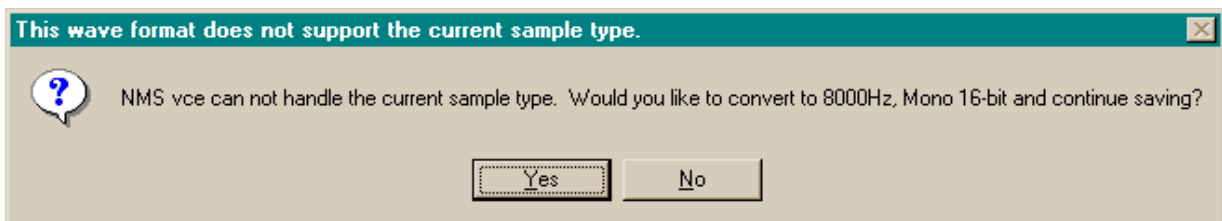


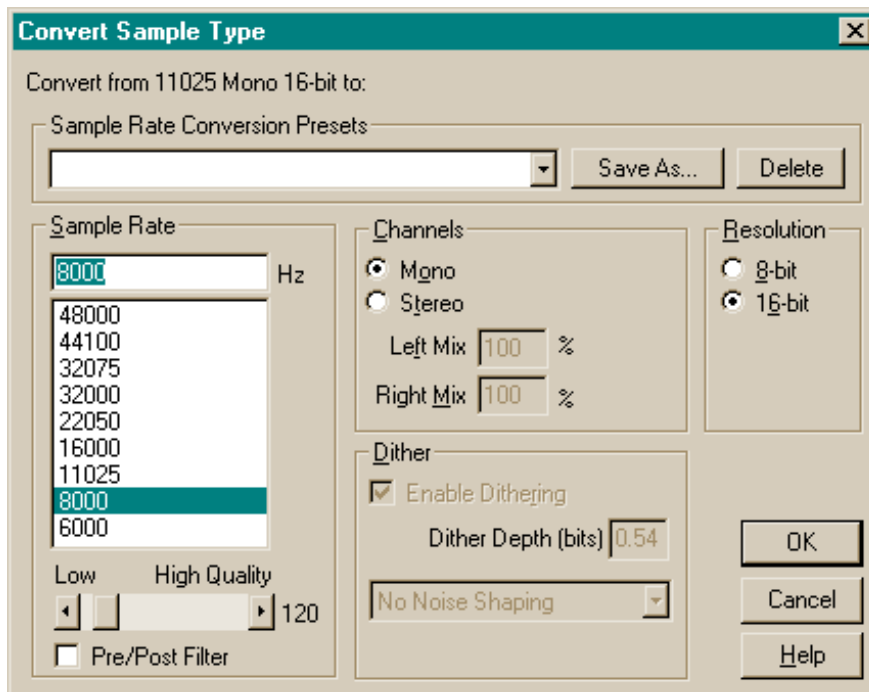
Saving Sound Files:

- When you are satisfied with your recording, click File | Save As
- In the 'Save as Type' box, select NMS vce (*.vce)



- Click the 'Options' button, and be sure the 24kps radio button is selected
- Select the folder you wish to save in. If the recording PC has a network connection to Prism, the destination folder can be the final destination folder. (see Transferring Sound Files, below)
- Enter the file name in the proper box, announcements are named for their 4 digit account number. (E.g., 1234.vce or for the alternate announcements 1234B.vce to 1234E.vce)
- Finally, click the 'Save' button
- If you get a dialog box asking if you want to convert the file before saving, answer 'Yes' and accept the defaults in the following windows.





Transferring Sound Files:

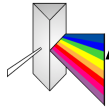
Prism announcements are kept in the folder C:\Prism\Prompts (or D:\Prism\Prompts for Windows 2003). If you have not saved the newly recorded file directly to the Prism folder, use floppy disk, CD-ROM or the network to transfer the newly created voice files to this folder.

System Voice Files:

You can use this same technique to record your versions of the system voice files. Refer to Appendix C of this manual for the names of these files.

Converting Sound Files:

CoolEdit can be used to convert between any of the voice file formats it supports and is therefore ideal for converting professionally recorded advertisement, announcement or music files. Open the file with CoolEdit in the file's native format, then do a "Save As" to the NMS .vce format. Be sure to follow the instructions in the section **Saving Sound Files** to insure playback compatibility on Prism.



Appendix G : Critical Backup

Sean McCoy has written a command file that eases the backup of critical Prism files. He has made this utility available to all Prism users. The utility creates copies of all files that are unique to your Prism system and include:

1. The Prism program
2. Prism configuration files
3. Account database backups
4. Announcement files
5. Telephony adapter configuration files

The file "prism_backup.cmd" is normally installed in the Prism runtime folder. For NT systems this will be C:\Prism\Bin and for Win 2003 systems, D:\Prism\Bin.

To create a shortcut to the backup utility:

- Right click on the desktop of the Prism and choose 'New'|'Shortcut'
- Type "C:\Prism\Prism_Backup.cmd *remote_path*" (without the quotes) in the field that is presented
 - **NOTE:** In the prior step, *remote_path* should be the path to the location where you want the backup data to go. This can be a UNC path to a network resource ("\\SERVERNAME\SharedFolder"), a path with a drive letter of a mapped network resource ("L:\Backup") or a local folder on Prism.
- Click 'Next'
- Type a user-friendly name for the shortcut such as "Prism Backup"
- Click 'Finish'

To run the backup, simply double click the shortcut on the Prism's desktop. After the utility is run, the remote folder will have a folder hierarchy that mirrors the folder structure of the Prism. A text file is also generated with the date/time of the last time the backup batch file was run.

We highly recommend that a copy of the backup folder be written to a medium that can be stored off site.