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**Service Processor Manager for Netfinity
User's Guide**

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User's Guide**



Note

Before using this information and the product it supports, be sure to read the general information under "Notices" on page 43.

First Edition (October 1997)

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About This Book

This book provides instructions for installing, starting, and using Service Processor Manager. It is intended for anyone who will be installing and using Service Processor Manager with Netfinity Manager or Client Services for Netfinity.

Service Processor Manager

Use Netfinity Service Processor Manager to configure and monitor many features of your system's Advanced Systems Management Adapter. You can connect to, and directly access and control a remote system's Advanced Systems Management Adapter. With Service Processor Manager you can configure Service Processor events (such as POST, loader, and operating-system timeouts; critical temperature, and voltage failures). If any of these events occurs, the Service Processor Manager can be configured to automatically forward a Netfinity alert in one of three ways:

- Alert forwarded to another Netfinity system
- Alert forwarded to a standard numeric pager
- Alert forwarded to an alphanumeric pager

In addition with Service Processor Manager you can remotely monitor, record, and replay all textual data generated by a remote system during POST. While monitoring a remote system during POST, you can enter key commands on your keyboard that will then be relayed to the remote system.

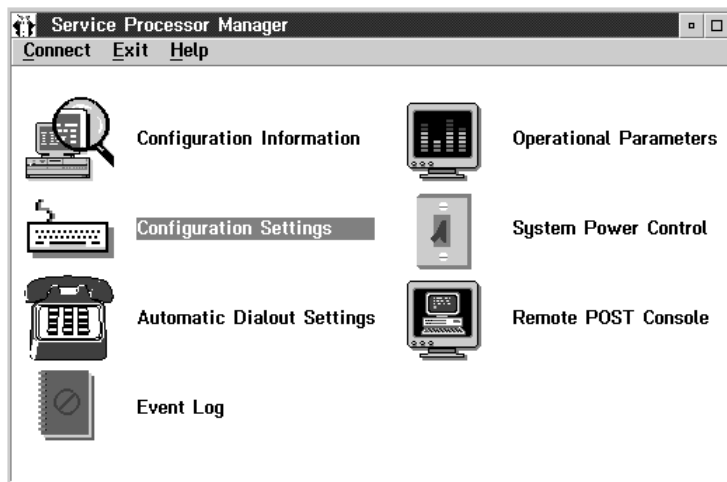


Figure 1. The Service Processor Manager

System Requirements

The minimum system requirements for Service Processor Manager are:

- Advanced System Management Adapter (microcode revision 10 or later) installed in a supported system

Note: See “Supported Servers” on page 40 for a list of supported servers.

- One of the following Netfinity products:
 - NetFinity Manager for OS/2, Windows 95, or Windows NT version 5.0
 - NetFinity Services for OS/2, Windows 95, or Windows NT version 5.0
 - Netfinity Manager for OS/2, Windows 95, or Windows NT version 5.02 or later
 - Client Services for Netfinity for OS/2, Windows 95, Windows NT, or NetWare version 5.02 or later
- 2 MB of available hard disk space.

Starting the Installation Program

The Netfinity installation program is identical for all operating systems. However, the process used to start the installation program differs depending on which operating system is running.

- If OS/2 is running, see “OS/2 Installation” on page 3.
- If Windows 95 or Windows NT 4.0 is running, see “Windows 95 and Windows NT 4.0 Installation” on page 4.
- If Windows NT 3.51 is running, see “Windows NT 3.51 Installation” on page 5.
- If NetWare is running, see “NetWare Installation” on page 6.

OS/2 Installation

To start the Service Processor Manager installation program on a system that is running OS/2:

1. Start the computer with the OS/2 operating system.
2. Open an OS/2 full-screen or OS/2 window session.
3. Place the *Service Processor Manager for OS/2 or NetWare Installation Diskette* into your system's diskette drive.
4. Make the diskette drive the active drive.

For example, if the diskette drive is drive letter A, type

A:

at the command prompt and then press **Enter**.

5. Make the OS/2 directory on the diskette the active directory.

Type

CD OS2

and then press **Enter**.

6. Start the installation program.

Type

INSTALL

and then press **Enter**.

To continue the installation, see "Installing Service Processor Manager" on page 7.

Windows 95 and Windows NT 4.0 Installation

To start the Service Processor Manager installation program on a system that is running Windows 95 or Windows NT 4.0:

1. Start the computer with the Windows 95 or Windows NT 4.0 operating system.
2. Place the *Service Processor Manager for Windows 95 or Windows NT Installation Diskette* into your system's diskette drive.
3. Click on the **Start** button.
4. Click on **Run...** from the Start button menu.
5. Type in the **Command Line** field

A:\directory\NETFINST

where A is the drive letter of the diskette drive and *directory* is the directory that corresponds to the operating system running on the computer (WIN95 or WINNT for Windows 95 and Windows NT, respectively); and then select **OK**.

To continue the installation, see "Installing Service Processor Manager" on page 7.

Windows NT 3.51 Installation

To start the Service Processor Manager installation program on a system that is running Windows NT 3.51:

1. Start the computer with the Windows NT 3.51 operating system.
2. Place the *Service Processor Manager for Windows 95 or Windows NT Installation Diskette* into your system's diskette drive.
3. Click on the **Start** button.
4. Click on **Run...** from the Start button menu.
5. Type in the **Command Line** field

A:\WINNT\NETFINST

where A is the drive letter of the diskette drive; and then select **OK**.

To continue the installation, see "Installing Service Processor Manager" on page 7.

NetWare Installation

To start the Service Processor Manager installation program on a system that is running NetWare:

1. Start the computer with the NetWare operating system.
2. Place the *Service Processor Manager for OS/2 or NetWare Installation Diskette* into your system's diskette drive.

3. Type

```
LOAD A:\NETWARE\NETFINST
```

where A is the drive letter of the diskette drive; and then press **Enter**.

Because systems running Client Services for Netfinity for NetWare must be managed remotely using Netfinity Manager, you do not need to select an installation configuration or provide any additional information. The installation program automatically installs all program files that are needed to remotely access and manage an Advanced Systems Management Adapter in this system. No additional actions will be needed to install Service Processor Manager on this system.

Installing Service Processor Manager

After you have started the installation program from your operating system (see “Starting the Installation Program” on page 2), the Netfinity Install window appears.

1. In the **Install From** field, type the drive letter and directory name that contain the Service Processor Manager program files. The default drive and directory for this field are the drive and directory that the Service Processor Manager installation program was started from.
2. In the **Install To** field, type the drive letter and directory name where the Service Processor Manager installation program will copy the Service Processor Manager program files. The default drive and directory for this field is **C:\NETFIN**, but be sure to install Service Processor Manager in the directory where Netfinity was previously installed. If you did not install Netfinity in the default drive and directory, be sure to specify the new drive letter and directory name.
3. Select **OK** to save this information and continue with your installation.
4. Select the installation configuration that is appropriate for your system.

There are up to three installation configurations available:

- Service Processor Installation - Client

Click on **Service Processor Installation - Client** to install only the Service Processor Manager base program. Select this installation configuration if you are installing Service Processor Manager on a system that has an Advanced Systems Management Adapter installed and you want to be able to manage this system remotely. This installation configuration does not allow for local access to the Service Processor Manager. To manage this system, you will need to install Service Processor Manager on the managing system (a system that has Netfinity Manager for OS/2, Windows NT, or Windows 95 installed) as well.

Note: **Service Processor Installation - Manager** is the only installation configuration available for systems running Windows 95.

- Service Processor Installation - Manager

Select **Service Processor Installation - Manager** to install only the Service Processor Manager graphical user interface (GUI). Select this installation configuration if you want to use the Netfinity Manager to remotely access and manage any systems that have an Advanced Systems Management Adapter and the Service Processor Manager installed. You must have Netfinity Manager for OS/2, Windows NT, or Windows 95 installed on your system to remotely access other Netfinity systems on your network.

- Service Processor Installation - Local Management

Select **Service Processor Installation - Local Management** to install both the Service Processor Manager base program and GUI. Select this installation configuration if you want to be able to access Service Processor Manager both locally and from a remote manager's system, or if the system is not connected to a network.

5. After you've chosen an installation configuration, click on **Install** to begin installing the program files to your chosen drive and directory. To stop the installation process, select **Cancel**. Selecting **Cancel** will stop the installation, clean up any files that are open, and then exit from the Service Processor Manager installation program.

Using Service Processor Manager

To start Service Processor Manager, double-click on the Service Processor Manager icon in the Netfinity Service Manager window. Then double-click on any of the selections available in the Service Processor Manager window to access the function or configuration information you need.

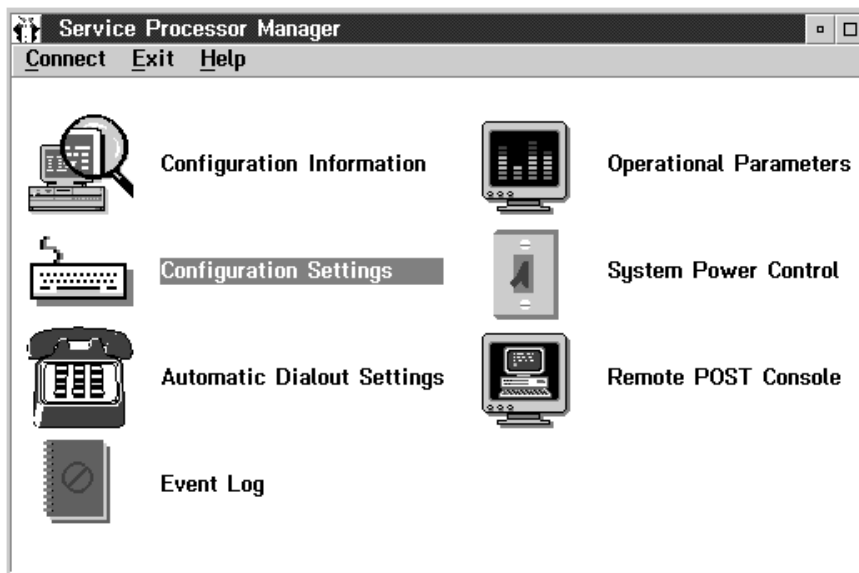


Figure 2. The Service Processor Manager service

- Select **Configuration Information** to view detailed information about the Advanced Systems Management Adapter, including RAM Microcode, ROM Microcode, and device driver information. For more information on Configuration Information, see “Configuration Information” on page 37.

- Select **Configuration Settings** to configure many features of the Advanced Systems Management Adapter. These features include system identification data, dial-in security settings, the time and date reported by the Advanced Systems Management Adapter clock, timeout and delay values, and advanced modem settings. For more information on Configuration Settings, see “Configuration Settings” on page 11.
- Select **Automatic Dialout Settings** to configure the Advanced Systems Management Adapter's automatic dialout functions. For more information on Automatic Dialout Settings, see “Automatic Dialout Settings” on page 21.
- Select **Event Log** to view the contents of the Advanced Systems Management Adapter Event Log. Information about all remote access attempts and dialout events that have occurred is recorded in the Advanced Systems Management Adapter Event Log. For more information on the Event Log, see “Event Log” on page 33.
- Select **Operational Parameters** to view the current values or status of many system components monitored by the Advanced Systems Management Adapter. For more information on Operational Parameters, see “Operational Parameters” on page 20.
- Select **System Power Control** to instruct the Advanced Systems Management Adapter to power off the system, restart the system, or power on the system. For more information on System Power Control, see “System Power Control” on page 31.
- Select **Remote POST Console** to use the Service Processor to remotely monitor, record, and replay all textual output generated during POST on a remote system. For more information on using Remote POST, see “Remote POST Console” on page 35.
- Select **Serial Connection Control** from the Connect pull-down menu to use your system's modem to dialout and remotely access a remote system's Advanced Systems Management Adapter. For more information on Serial Connection Control, see “Service Processor Serial Connection Control” on page 38.

Note: Before using the Service Processor Manager Serial Connection Control functions, you must use Netfinity's Serial Control service to create serial connection control entries. After you have created one (or more) entries, close the Serial Control service and then start the Service Processor Manager service. All Serial Connection Control entries that you have created using the Serial Control service will now be available for your use.

Configuration Settings

Use the selections available in the Configuration Settings window (see Figure 3 on page 12) to configure many features of the Advanced Systems Management Adapter. These features include system identification data, dial-in security settings, the time and date reported by the Advanced Systems Management Adapter clock, timeout and delay values, and advanced modem settings.

This window contains:

- System Identification group
- Dial-in Settings group
- Service Processor Clock group
- POST Timeout, Loader Timeout, O/S Timeout, and Power Off Delay fields

This window also includes the **Modem** button. Select **Modem** to open the Modem Settings window (see "Modem Settings" on page 27).

The System Identification Group

The System Identification group contains two fields to help you identify the system that contains the Advanced Systems Management Adapter.

Field	Description
Name	Can be used to provide a name for the system, the name of the system's user, or the name of a contact.
Number	Can be used to identify the system with a specific serial or identification number, to record the phone number used to dial into the system, or to provide the phone number of a contact.

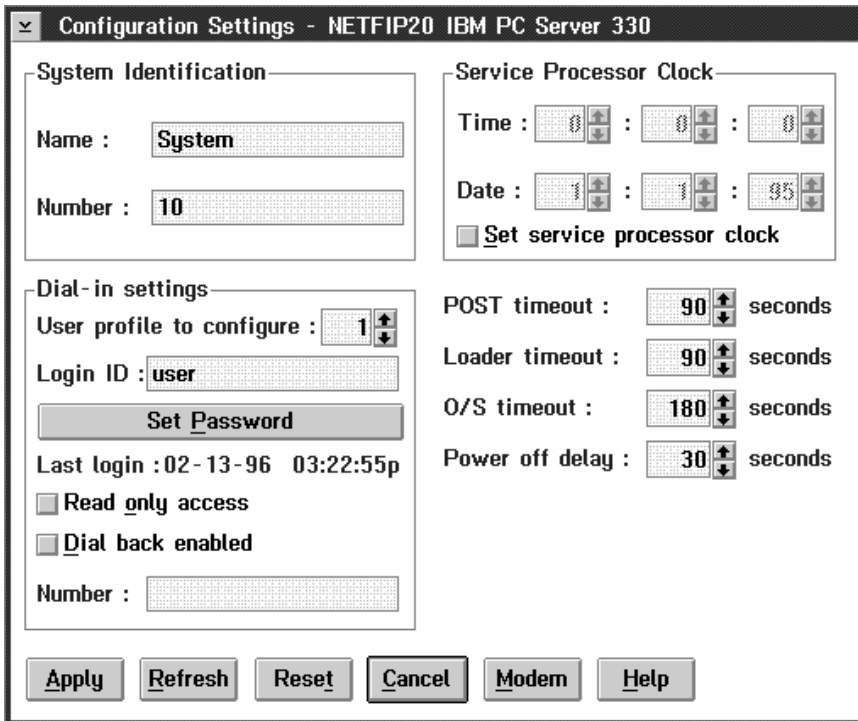


Figure 3. The Configuration Settings window

To change the information provided by these fields:

1. In the **Name** or **Number** field, type the system information you want to record.
2. Select **Apply** to save this information.

The Dial-In Settings Group

Use the selections available in the Dial-In Settings group to enable or disable dial-in support, and to enable users to dial in and access the Advanced Systems Management Adapter. The Dial-In Settings group contains the following items.

Item	Description
User profile to configure	Use the spin buttons to select the user profile you want to configure. This service supports up to six separate user profiles.
Login ID	Type in this field the login ID that will be used by the remote user. Up to six Login IDs can be configured. (This field is case sensitive.) Note: A Login ID <i>must</i> be specified to remotely access the Advanced Systems Management Adapter.
Set Password	A password must be provided along with the Login ID to allow a remote user to access the Advanced Systems Management Adapter. After providing a Login ID, click on Set Password to open the Set Password window. (This field is case sensitive.)
Last login	Shows the date and time of the last successful login by a remote user.
Read only access	If the Read only access check box is checked, the users whose profile is selected will not be able to alter any of the Advanced Systems Management Adapter settings when access is granted. The user will, however, be able to see all currently configured settings and values except passwords.
Dial back enabled	If the Dial back enabled check box is checked, the Advanced Systems Management Adapter will automatically terminate the connection as soon as the user whose profile is selected logs in, and will then use the telephone number that is entered in the Number field to dial out and attempt to connect with a remote system.

If necessary, select **Modem** to access the Modem Settings window (see “Modem Settings” on page 27). From the Modem Settings window you can specify modem settings and dialing settings.

To create a new Login ID for a remote user:

1. In the **Login ID** field, type the ID that will be used by the remote user. This ID can be up to 8 characters.
2. Remote users must provide a password along with a Login ID in order to access the Advanced Systems Management Adapter. Select **Set Password** to open the Set Password window.

From the Set Password window:

- a. In the **Enter Password** field, type a password.
Note: This password must be 5–8 characters in length and must contain at least one (1) non-alphanumeric character.
 - b. In the **Re-enter Password** field, type the same password that you typed in the **Enter Password** field.
 - c. Click on **OK** to save this password and close the Set Password window.
3. Click on **Apply** to save the new user ID.

To delete the currently selected Login ID:

1. Use the spin buttons beside the **User ID to configure** field to select a previously configured User profile.
2. Click on the **Login ID** field.
3. Using the **Backspace** or **Delete** key, delete the currently displayed Login ID.
4. Click on **Apply** to remove the user ID.

The Service Processor Clock Group

Use the selections available in the Service Processor Clock group to set the time and date that is reported by the Advanced Systems Management Adapter.

To change the currently set time or date:

1. Verify that there is a check in the **Set Service Processor clock** check box. This check box **must** be checked to enable the Service Processor Manager to change the currently stored time and date values.
2. Use the spin buttons beside each field to set the time or date.
 - The **Time** fields represent, when viewed from left to right, hours, minutes, and seconds.
 - The **Date** fields represent, when viewed from left to right, month, date, and year.
3. Click on **Apply** to save the new time and date.

POST Timeout

The **POST Timeout** field shows the number of seconds that the Advanced Systems Management Adapter will wait for the system's power-on self test (POST) to complete before generating a POST Timeout event. If POST takes longer than the configured amount of time to complete and the **POST timeout** check box (found in the **Enabled Alerts Dialout group** on the Automatic Dialout Settings window) is checked, the Advanced Systems Management Adapter will automatically restart the system one time and will attempt to forward an alert to all enabled Dialout Entries. Once the system is restarted **POST timeout** is automatically disabled.

To set the POST timeout value, use the spin buttons beside the **POST Timeout** field to set the number of seconds that the Advanced Systems Management Adapter will wait for POST to complete. Then, click on **Apply** to save this value.

For more information on the Automatic Dialout Settings window, see "Automatic Dialout Settings" on page 21.

Note: This function requires a specially architected POST routine and is available only on some IBM systems. For a list of systems that support this feature, see "Supported Advanced Functions" on page 41.

Loader Timeout

The **Loader Timeout** field shows the number of seconds that the Advanced Systems Management Adapter will wait for the system's loading process to complete before generating a Loader Timeout event. The Loader Timeout measures the amount of time that passes between the completion of POST and the end of operating system (O/S) startup. If this takes longer than the configured amount of time to complete and the **Loader timeout** check box (found in the **Enabled Alerts Dialout group** of the Automatic Dialout Settings window) is checked, the Advanced Systems Management Adapter will automatically restart the system one time and will attempt to forward an alert to all enabled Dialout Entries. Once the system is restarted **Loader Timeout** is automatically disabled.

To set the Loader timeout value, use the spin buttons beside the **Loader Timeout** field to set the number of seconds that the Advanced Systems Management Adapter will wait between POST completion and O/S startup before generating a timeout event. Then, click on **Apply** to save this value.

For more information on the Automatic Dialout Settings window, see "Automatic Dialout Settings" on page 21.

Note: This function requires a specially architected POST routine and is available only on some IBM systems. For a list of systems that support this feature, see "Supported Advanced Functions" on page 41.

O/S Timeout

The **O/S Timeout** field shows the number of seconds that the Advanced Systems Management Adapter will wait for the system's operating system to stop responding before generating a O/S Timeout event. If the O/S takes longer than the configured amount of time to respond and the device driver is installed and running correctly, the Advanced Systems Management Adapter will attempt to restart the system, and if the **O/S timeout** check box (found in the **Enabled Alerts Dialout group** of the Automatic Dialout Settings window) is checked, the Service Processor will automatically restart the system one time and will attempt to forward an alert to all enabled Dialout Entries.

To set the O/S timeout value, use the spin buttons beside the **O/S Timeout** field to set the number of seconds that the Advanced Systems Management Adapter will wait for the system's operating system to stop responding before generating a O/S Timeout event. Then, click on **Apply** to save this value.

For more information on the Automatic Dialout Settings window, see "Automatic Dialout Settings" on page 21.

Power Off Delay

The **Power Off Delay** field shows the number of seconds that the Advanced Systems Management Adapter will wait for the system's operating system shutdown process to complete before powering off the system.

When the Advanced Systems Management Adapter initiates a power down procedure and the **Power off** check box (found in the **Enabled Alerts Dialout group** of the Automatic Dialout Settings window) is checked, the Advanced Systems Management Adapter will automatically attempt to forward an alert to all enabled Dialout Entries. This alert is forwarded after the system is powered off and the **Power Off Delay** time has passed.

To set the Power off delay value, use the spin buttons beside the **Power Off Delay** field to set the number of seconds that the Advanced Systems Management Adapter will wait for the system's operating system shutdown to complete before powering off the system. Then, click on **Apply** to save this value.

For more information on the Automatic Dialout Settings window, see "Automatic Dialout Settings" on page 21.

Other Configuration Settings Functions

The Configurations Settings window also includes three additional buttons:

Button	Description
Refresh	Select Refresh to update all data that is shown on the Service Processor Configuration Settings window, including date, time, and last login.
Reset	Select Reset to set <i>all</i> Service Processor Manager settings back to their default values, including configuration settings, dialout settings, and advanced dialout settings. Important: All previously configured service processor settings will be permanently lost.
Cancel	Select Cancel to close this window without saving any changes.

Operational Parameters

The Operational Parameters window (see Figure 4 on page 21) shows the current values or status of many system components monitored by the Advanced Systems Management Adapter.

Available values include:

- Power supply voltages (for +5 Volt, +12 Volt, and -12 Volt).
- Current temperatures and threshold levels for far-end adapter card, center adapter card, and microprocessor.
- System state (including O/S started, O/S running, POST started, POST stopped (error detected), and system powered off/state unknown).
- System power status (on or off).
- Power on hours, total number of hours that the system has been powered on. (This is a cumulative count of all powered-on hours, not a count of hours since the last system restart).

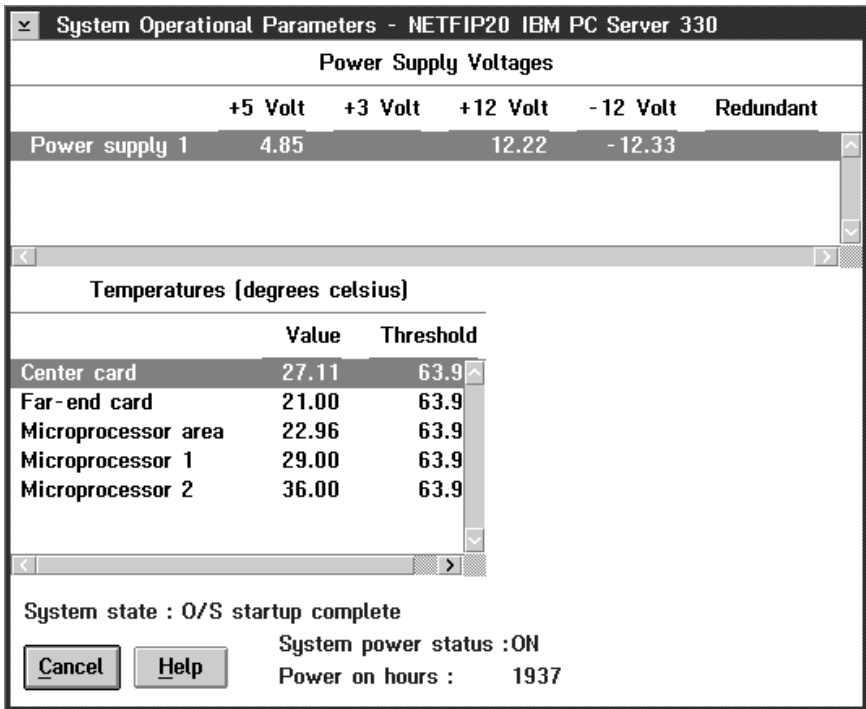


Figure 4. The Operational Parameters window

Note: Some temperature monitors are available only on some IBM systems. For a list of systems that support additional temperature monitors, see "Supported Advanced Functions" on page 41.

Automatic Dialout Settings

Use the Automatic Dialout Settings window (shown in Figure 5 on page 22) to configure the Advanced Systems Management Adapter's automatic dialout functions. When you've configured a Dialout Entry, the Advanced Systems Management Adapter will attempt to forward an alert to a remote Netfinity system, a numeric pager, or an alphanumeric pager when any of the events selected from the **Enabled Alerts Dialout group** occur. This alert will contain information about the nature of the event that occurred, the time and

date at which the event occurred, and the name of the system that generated the alert.

If the Advanced Systems Management Adapter is currently performing a dialout function, the **Dialout Status** text will read DIALOUT ON. If you want to halt a currently active dialout function, click on **Stop Dialout**.

Your Advanced Systems Management Adapter can be configured with up to six separate Dialout Entries.

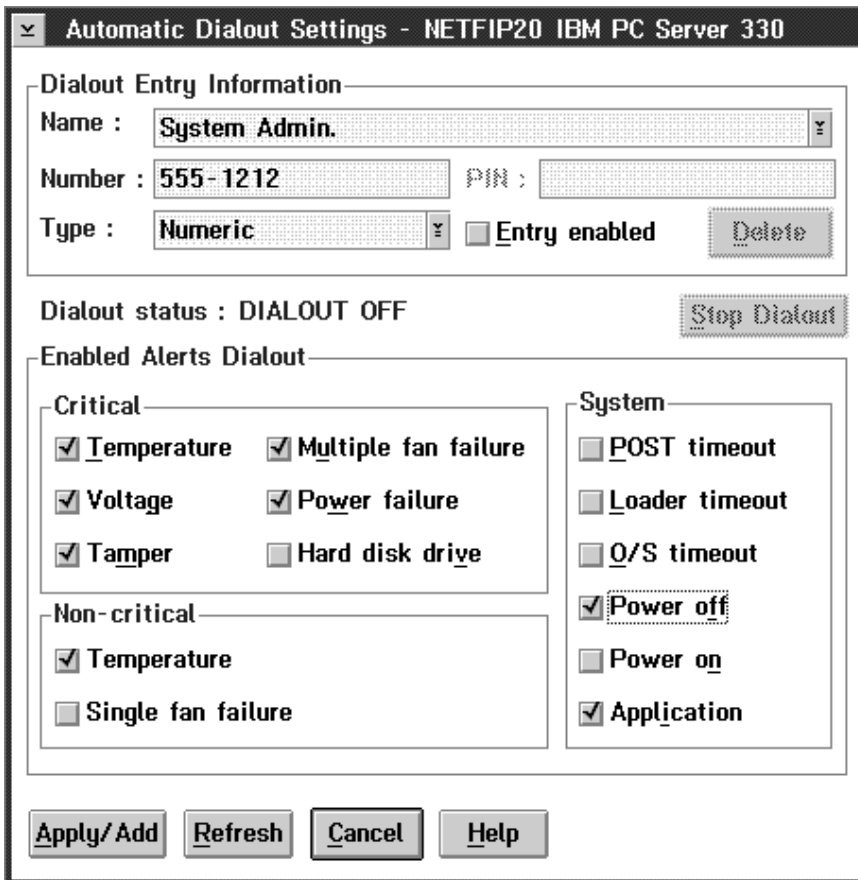


Figure 5. The Automatic Dialout Settings window

Dialout Entry Information Group

To edit or create a Dialout Entry:

1. In the **Name** field, type the name of the person or system that the alert will be forwarded to. The information in the **Name** field is strictly for your use in identifying the Dialout Entry. If you are editing a previously configured Dialout Entry, select the entry that you want to edit from the **Name** selection list.
2. In the **Number** field, type the telephone number that will be dialed by the Advanced Systems Management Adapter.
3. In the **PIN** field, type the personal identification number required by your alphanumeric pager provider. This field will be active only if you select Alpha-numeric in the **Type** field.
4. From the **Type** selection list, select the type of connection the Advanced Systems Management Adapter will attempt to make in order to forward the event notification. You can select Numeric (for standard pagers), Alpha-numeric (for alphanumeric pagers), or Netfinity (for connecting to a remote Netfinity system).
5. Check the **Entry Enabled** check box to activate this Dialout Entry. If the **Entry Enabled** check box is not checked, no dialouts will be made to this entry.
6. Select dialout events from the **Enabled Alerts Dialout** group. If any of the checked events occur, the Advanced Systems Management Adapter will dial out to the telephone number specified in the **Number** field and forward an alert describing the event using the method selected in the **Type** field. For more detailed information about dialout events, see "Enabled Alerts Dialout Group" on page 24.
7. Click on **Apply/Add** to save these settings.

To remove a previously configured Dialout Entry, select the name of the entry from the **Name** selection list and then select **Delete**.

Enabled Alerts Dialout Group

Use the selections available in the Enabled Alerts Dialout group to specify which Advanced Systems Management Adapter events will result in all currently configured Dialout Entries being contacted by the Advanced Systems Management Adapter. Any selected items will, if detected by the Advanced Systems Management Adapter, result in an alert describing the event being forwarded, using the method selected in the **Type** field, to the recipient specified by the Dialout Entry. The Enable Alerts Dialout group is divided into **Critical**, **Non-Critical**, and **System** groups.

The **Critical** Enabled Alerts Dialout group contains the following items.

Item	Description (if checked)
Temperature	The Advanced Systems Management Adapter will dial out if any monitored temperatures exceed their threshold values and will then automatically initiate a system shutdown.
Voltage	The Advanced Systems Management Adapter will dial out if the voltages of any monitored power sources fall outside their specified operational ranges.
Tamper	The Advanced Systems Management Adapter will dial out if six consecutive remote login attempts fail.
Multiple fan failure	<p>The Advanced Systems Management Adapter will dial out if two (or more) of the system's cooling fans fail and will automatically initiate a system shutdown.</p> <p>Note: This function is available only on some IBM systems. For a list of systems that support this feature, see "Supported Advanced Functions" on page 41.</p>
Power failure	<p>The Advanced Systems Management Adapter will dial out if the system's power supply fails.</p> <p>Note: This function is available only on some IBM systems. For a list of systems that support this feature, see "Supported Advanced Functions" on page 41.</p>

Item	Description (if checked)
Hard disk drive	<p>The Advanced Systems Management Adapter will dial out if one or more of the hard disk drives in the system fail.</p> <p>Note: This function is available only on some IBM systems. For a list of systems that support this feature, see “Supported Advanced Functions” on page 41.</p>

The **Non-critical** Enabled Alerts Dialout group contains the following items.

Item	Description (if checked)
Temperature	<p>The Advanced Systems Management Adapter will dial out if any monitored temperatures exceed their threshold values. However, unlike the Critical Temperature event, this Alerts Dialout will <i>not</i> initiate a system shutdown automatically.</p> <p>Note: This function is available only on some IBM systems. For a list of systems that support this feature, see “Supported Advanced Functions” on page 41.</p>
Single fan failure	<p>The Advanced Systems Management Adapter will dial out if one of the system's cooling fans fail.</p> <p>Note: This function is available only on some IBM systems. For a list of systems that support this feature, see “Supported Advanced Functions” on page 41.</p>

The **System** Enabled Alerts Dialout group contains the following items.

Item	Description (if checked)
POST timeout	The Advanced Systems Management Adapter will dial out if the POST timeout value (specified in the Service Processor Configuration Settings window) is exceeded.
Loader timeout	The Advanced Systems Management Adapter will dial out if the Loader timeout value (specified in the Service Processor Configuration Settings window) is exceeded.
O/S timeout	The Advanced Systems Management Adapter will dial out if the O/S timeout value (specified in the Service Processor Configuration Settings window) is exceeded.
Startup failure	The Advanced Systems Management Adapter will dial out if the system failed to start properly.
Power off	The Advanced Systems Management Adapter will dial out if the system is powered off.
Power on	The Advanced Systems Management Adapter will dial out if the system is powered on.
Application	The Advanced Systems Management Adapter will dial out if it receives a Netfinity alert (Netfinity can forward alerts directly to the Advanced Systems Management Adapter using the Alert Manager <i>Forward Alert to Service Processor</i> action)

Modem Settings

Use the Modem Settings window to specify advanced modem and dialing settings. To open this window, click on **Modem** from the Configuration Settings window (see “Configuration Settings” on page 11).

To apply settings to a selected Dialout Entry:

1. Specify Modem Settings.
2. Specify Dialing Settings.
3. Click on **Apply** to save these settings and return to the Automatic Dialout Settings window.

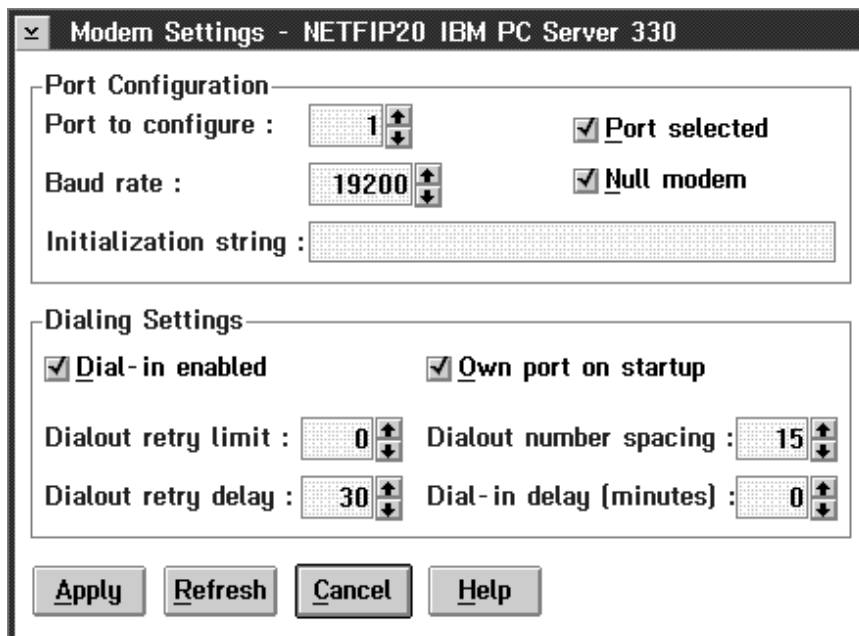


Figure 6. The Modem Settings window

The Port Configuration Group

Use the Modem Settings group to specify and configure the modem that will be used to forward the alert when a Service Processor Dialout Event occurs. The Port Configuration group contains the following items.

Item	Description
Port to configure	Use the spin buttons to select the number of the port that your modem is configured to use. This spin button will show only values that are available for use by your Advanced Systems Management Adapter.
Baud rate	Use the spin buttons to specify the the baud rate of the modem.
Initialization string	Type the initialization string that will be used for the specified modem. A default string is provided (ATE0). Do not change this string unless your dialout functions are not working properly. If you need to change the initialization string, see "Initialization String Guidelines" on page 31.
Caller ID string	This field is not used.
Port selected	This check box indicates whether the port number currently displayed in the Port to configure field is the port that is currently designated for use by the Advanced Systems Management Adapter. Check this check box if you want to configure the Service Processor to use the currently displayed port number.
Null modem	Check this check box to use a null modem connection to allow access from a remote Netfinity system. Note: If the Null Modem checkbox is checked you cannot send dialout alerts to other systems using a modem or receive dialout alerts from other systems.

The Dialing Settings Group

Use the Dialing Settings group to specify settings related to the modem, and to configure the modem that is used to forward an alert when a Service Processor Dialout Event occurs. The Dialing Settings group contains the following items.

Item	Description
Dial-in enabled	Check this check box to enable remote users to dial into and access the Advanced Systems Management Adapter. If this box is unchecked, remote users will be unable to remotely access the Advanced Systems Management Adapter. Click on Apply after checking or unchecking this check box to save the new setting.
Dialout retry limit	Use the spin buttons to select the number of additional times that the Service Processor Manager will attempt to forward the alert.
Dialout retry delay	Use the spin buttons to specify the number of seconds that the Service Processor Manager will wait before retrying a dialout attempt.

Item	Description
Own port when startup	<p>Check this check box to reserve a serial port for exclusive use by the Advanced Systems Management Adapter. If the Advanced Systems Management Adapter is built into your system, checking this box will reserve one of your system's serial ports. If the Advanced Systems Management Adapter is an adapter, checking this box will reserve one of the adapter's integrated communications ports. Click on Apply after checking or unchecking this check box to save the new setting.</p> <p>Note: This checkbox should be checked if you are configuring your system for dial-in access. If this checkbox is not checked, you will be unable to dial-in to this system unless the Advanced Systems Management Adapter has reclaimed the port for a dialout. If you want to configure the Advanced Systems Management Adapter to always be dial-in enabled, regardless of whether the system is currently powered up, you must check this check box. When this check box is checked, you cannot configure the specified port for use by your system.</p>
Dialout number spacing	<p>If you have configured more than one Dialout Entry to forward alerts, the Advanced Systems Management Adapter will attempt to contact each of these entries sequentially. Use the spin buttons to specify the number of seconds for the Advanced Systems Management Adapter to wait between dialout attempts for separate Dialout Entries.</p>

Item	Description
Dial-in delay (minutes)	The Dial-in delay (minutes) field shows the number of minutes that must pass after an incorrect User ID or Password has been used in 5 successive dial-in attempts to the Advanced Systems Management Adapter, before valid dial-in access will be permitted. After the fifth successive login failure dial-in access is disabled for the number of minutes you specify, the Advanced Systems Management Adapter adds an entry in the Event Log noting that dial-in access was suspended due to 5 successive login failures, and the Advanced Systems Management Adapter will attempt to forward an alert if the Tamper Enabled Alerts Dialout checkbox has been checked.

Initialization String Guidelines

If you need to provide a new initialization string, refer to the user's guide that came with your modem. Your initialization string must contain commands that configure your modem as follows:

- Command echoing OFF
- Online character echoing OFF
- Result codes ENABLED
- Verbal result codes ENABLED
- All codes and Connect messages with BUSY and DT detection
- Protocol identifiers added - LAPM/MNP/NONE V42bis/MNP5
- Normal CD operations
- DTR ON-OFF hang-up, disable AA and return to command mode
- CTS hardware flow control
- RTS control of receive data to computer
- Queued and nondestructive break, no escape state

System Power Control

Use the System Power Control window to instruct the Advanced Systems Management Adapter to power off the system, restart the system, or power on the system. To initiate any of the power control options, you must first check the **Enable power control options** check box. If this check box is unchecked, the **Power Control Options** field will not be available.

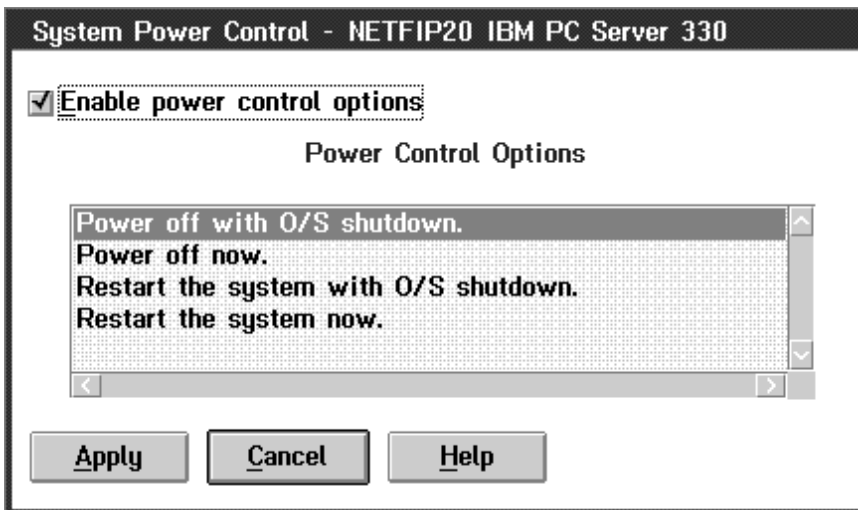


Figure 7. The System Power Control window

The following System Power Control functions are available at all times.

Function	Description
Power off with O/S shutdown	Performs an O/S shutdown before removing power from the system.
Power off now	Immediately removes power from the system.
Restart the system with O/S shutdown	Performs an O/S shutdown, removes power from the system, and then restores power to the system.
Restart the system now	Immediately removes and then restores power to the system.

If you are connected to the Advanced Systems Management Adapter through a modem, the **Power on now** will also be available. This function powers up the system and allows the microprocessor to perform POST, loading, and O/S startup procedures.

To initiate a Power Control Option:

1. Check the **Enable power control options** check box.

Note: To initiate any of the power control options, you must first check the **Enable power control options** check box. If this check box is unchecked, the **Power Control Options** field will not be available.

2. From the **Power Control Options** field, select the Power Control Option you want to activate.
3. Click on **Apply**.

Event Log

Use the Event Log window (shown in Figure 8 on page 34) to view the contents of the Advanced Systems Management Adapter Event Log. Information about all remote access attempts and dialout events that have occurred is recorded in the Advanced Systems Management Adapter Event Log.

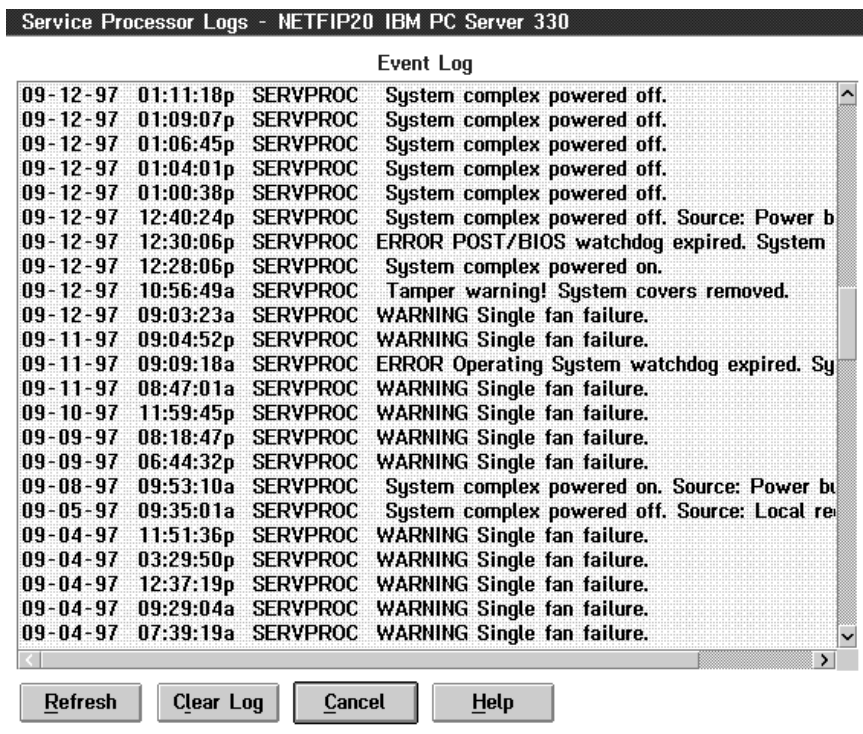


Figure 8. The Event Log window

Note: If the Advanced Systems Management Adapter is installed in a Netfinity 7000 system, your Event Log might contain entries that begin with the text “I2C Message.” These messages are normal and are intended for use by IBM Service Personnel in the event of system problems.

Select **Clear Log** to erase all entries that are currently stored in the Advanced Systems Management Adapter Event Log. Selecting **Clear Log** completely erases the contents of the Event Log (including any entries that are not currently visible in the **Event Log** field).

Note: Once you use **Clear Log** to erase the entries in the Advanced Systems Management Adapter Event Log, they are permanently erased and cannot be retrieved.

Remote POST Console

You can use the Service Processor Manager Remote POST Console function to remotely monitor, record, and replay all textual output generated during POST. To monitor and record the POST data on a remote system:

1. Connect to the remote system's Advanced Systems Management Adapter
2. Open the Remote POST window
3. Then restart the remote system (using the Service Processor Manager's System Power Control functions).

All POST data will be displayed in and recorded by the Remote POST window as the remote system completes POST. While you are monitoring POST on a remote system all local keystrokes are relayed automatically to the remote system, enabling you to interact with the POST process on the remote system.

To review data after POST completes, disconnect from the remote system and use the Replay functions.



Figure 9. The Remote POST window

Use the selections available in the Replay pull-down menu to replay the textual output that was captured during the last Remote POST operation. All text that was displayed by the remote system during POST will be displayed as it appeared on the remote system.

- To begin playing the recorded POST data, or to resume playing the recorded POST data after stopping playback, click on **Replay Last POST**.
- To halt playback of the recorded POST data, click on **Stop**.
- To resume viewing the recorded POST data from the beginning, click on **Restart**.
- Select **Fast**, **Medium**, or **Slow** to specify the speed at which the recorded POST data is displayed in the Remote POST window.

Notes:

1. Remote POST data can be replayed only when you are **not** connected to a remote system's Advanced Systems Management Adapter.
2. Remote POST playback is slower than realtime POST operations.
3. This function requires a specially architected POST routine and is available only on some IBM systems. For a list of systems that support this feature, see "Supported Advanced Functions" on page 41.

Configuration Information

The Configuration Information window (shown in Figure 10) contains detailed information about the Advanced Systems Management Adapter, including RAM Microcode, ROM Microcode, and device driver information.

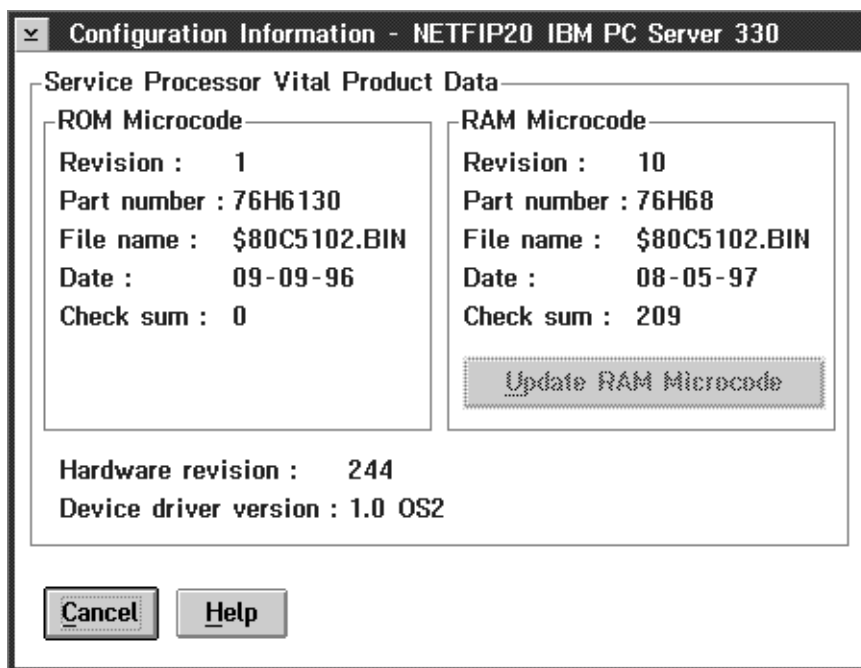


Figure 10. The Configuration Information window

You can use the Configuration Information window to automatically update (flash) the RAM microcode of the Advanced Systems Management Adapter.

Note: The required update (flash) file *must* be located in the Netfinity directory.

To update the Advanced Systems Management Adapter's RAM microcode, click on **Update RAM Microcode**.

Service Processor Serial Connection Control

From the Service Processor Serial Connection Control window (shown in Figure 11 on page 39) you can use your system's modem to dial out and remotely access a remote system's Advanced Systems Management Adapter. The **Name** field contains names for previously configured dialout entries. For information on how to configure a Serial Control entry, see *Netfinity Manager User's Guide* or refer to the Serial Control online help.

Notes:

1. Before using the Service Processor Manager Serial Connection Control functions, you must use Netfinity's Serial Control service to create serial connection control entries. After you have created one (or more) entries, close the Serial Control service and then start the Service Processor Manager service. All Serial Connection Control entries that you have created using the Serial Control service will now be available for your use.
2. When using Serial Control to configure a Dialout Entry for use by the Service Processor Manager, be sure to enter the Login ID and Password for access to the remote system's Advanced Systems Management Adapter, not the User ID and Password for access to Netfinity services on the remote system.

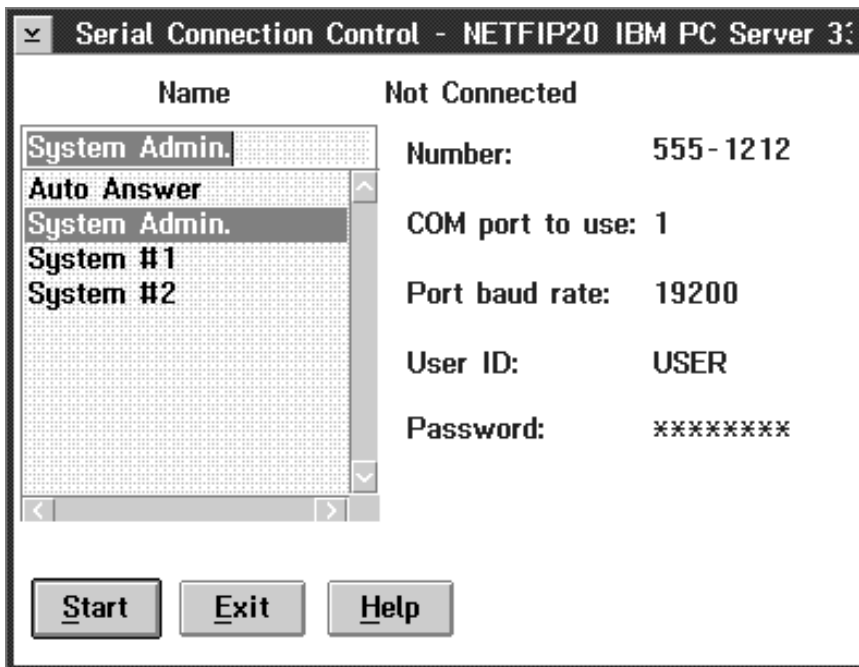


Figure 11. The Serial Connection Control window

To dial out and connect to a remote system's Advanced Systems Management Adapter:

1. Select the remote system entry from the **Name** field.
2. Select **Start** to initiate a serial connection between your system and the Advanced Systems Management Adapter of the system you selected from the **Name** field.

When the serial connection has been established, the **Connected** message appears in the top of the Serial Connection Control window. Once you have established a connection, you can use the Service Processor Manager to control the remote system's Advanced Systems Management Adapter.

Supported Servers

Service Processor Manager will function with an Advanced Systems Management Adapter (with microcode revision 10 or later) that is installed in any of the following IBM servers:

- PC Server 310 (all ISA models)
- PC Server 315
- PC Server 320 (all EISA models)
- PC Server 325
- PC Server 330
- PC Server 520 (all EISA models)
- PC Server 704 with PC Server Systems Management Cable (94G6970)
- Netfinity 7000

Supported Advanced Functions

Some advanced Service Processor Manager functions require specially architected microcode or hardware to be present on the server. Unless noted in the following sections, a Service Processor Manager function is available for use on **all** supported servers that have an Advanced Systems Management Adapter installed.

Note: Check the IBM PC Server World Wide Web page at <http://www.pc.ibm.com/servers/> for the latest information about supported servers and supported advanced functions.

POST Timeout

POST Timeout is available for use only on the following systems:

- PC Server 325
- PC Server 330
- Netfinity 7000

Loader Timeout

Loader Timeout is available for use only on the following systems:

- PC Server 325
- PC Server 330

Power Supply Failure Automatic Dialout Setting

Power Supply Failure dialout is available only on the Netfinity 7000.

Fan Failure Automatic Dialout Setting

Fan Failure dialout is available for use only on the following systems:

- PC Server 325
- PC Server 330
- Netfinity 7000

Hard Disk Drive Failure Automatic Dialout Setting

Hard Disk Drive Failure dialout is available only on the Netfinity 7000.

Non-Critical Temperature Automatic Dialout Setting

Non-Critical Temperature dialout is available only on the Netfinity 7000.

Remote POST Console, Replay, and Remote Diagnostics

Remote POST console, replay, and remote diagnostics are available for use only on the following systems:

- PC Server 325 (remote diagnostics available on models PTO, PTW, PBO, and RBO)
- PC Server 330 (remote diagnostics available on models PTO, PTW, and PBO)
- Netfinity 7000 (remote diagnostics not available)

Additional Temperature Monitors

Temperature monitors for the system board, microprocessor area, microprocessor 1, and microprocessor 2 are available for use only on the following systems:

- PC Server 325
- PC Server 330

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