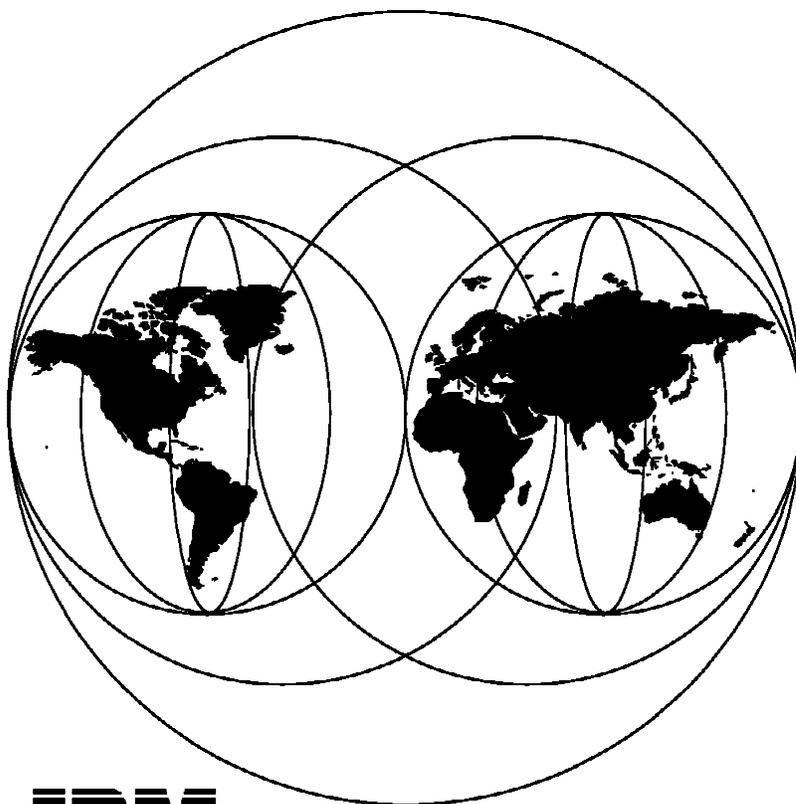


NetFinity V5.0 Database Support

January 1997



IBM

**International Technical Support Organization
Raleigh Center**



International Technical Support Organization

SG24-4808-00

NetFinity V5.0 Database Support

January 1997

Take Note!

Before using this information and the product it supports, be sure to read the general information in Appendix J, "Special Notices" on page 291.

First Edition (January 1997)

This edition applies to Version 5.0 of NetFinity for use with NT Server V3.51 and OS/2 Warp.

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Preface

This redbook describes some of the new functions in NetFinity V5.0. It focuses on database-related functions on NT and OS/2. In addition to DB2 and SQL the book also shows how to set up and use Lotus Notes databases with NetFinity.

This redbook was written for systems managers who work on the NT and OS/2 platforms who want to know more about systems management in a workgroup environment. Some knowledge of previous versions of NetFinity is assumed as well as knowledge about databases.

How This Redbook Is Organized

This redbook contains 316 pages. It is organized as follows:

- Chapter 1, "NetFinity V5.0 Project Overview"
This chapter provides an overview of general functions in NetFinity V5.0.
- Chapter 2, "Protocol Management"
This chapter provides details on all the transport protocols that NetFinity V5.0 uses on the NT and OS/2 platforms.
- Chapter 3, "Database Administration"
This chapter provides details on how to install the various database managers that NetFinity V5.0 uses and how to store systems management data in the databases. Examples are done on both NT and OS/2.
- Chapter 4, "The NetFinity Relational Database Tables"
This chapter provides examples of database queries to obtain reports on systems management data that has been stored in NetFinity V5.0 databases.
- Appendix A, "New Command Line Functions Specifications for NetFinity V5.0"
This appendix shows the syntax for the command line interface that was added with NetFinity V5.0.
- Appendix B, "Software Installation M95 Lab"
This appendix provides details on the installation and setup of the OS/2 Warp Server system used in this book.
- Appendix C, "Software Installation PC350 Lab"
This appendix provides details on the installation and setup of one of the NT Server systems used in this book.
- Appendix D, "Software Installation PC350 JJ"
This appendix provides details on the installation and setup of one of the NT Server systems and the Lotus Notes server used in this book.
- Appendix E, "Software Installation M77 JJ"
This appendix provides details on the setup of one of the lab machines used in this book.
- Appendix F, "The NetFinity Relational Database Tables"

This appendix shows the database structures for NetFinity V5.0-related tables.

- Appendix G, “NetFinity Wake-on-LAN Checklist”

This appendix describes the NetFinity V5.0 Wake-on-LAN feature.

- Appendix H, “System Information Tool”

This appendix shows examples of using the System Information tool from the command line.

- Appendix I, “System Information Tool Using the Graphical User Interface”

This appendix shows examples of using the System Information tool using the graphical user interface.

The Team That Wrote This Redbook

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Chapter 1. NetFinity V5.0 Project Overview

This chapter provides an overview of the book and the systems environment, as well as an overview of database functions that work in conjunction with NetFinity V5.0. Some of the new functions that are enabled with V5.0 are:

- NETFBASE hidden from task list - OS/2 only, other platforms complete
- Default groups provided (All and serial)
- Software inventory - selective volume search
- Unique SNMP trap IDs
- Coroner log for failed services/alert actions
- NetWare TCP/IP support
- Power down (Win95 APM)/Shut down (Win3.1/NW)
- Uninstall
- NT System Partition Access
- Disk space percentage monitors
- Monitor export - definable intervals
- Scheduled monitor export
- Scheduled Wake-On-LAN
- Scheduled power down/shutdown

The rest of this chapter provides an overview of some of the NetFinity V5.0 functions.

1.1 Security Manager

NetFinity features security functions that can restrict remote access to some or all services on your system. This service manages the incoming and outgoing security controls. By default, *no security* is enabled on any NetFinity system. By using the incoming passwords and outgoing passwords you can control which services are accessible to outside users.

If the SECIN.INI and SECOUT.INI files are deleted at the client, then once the NetFinity is restarted at the client, it will allow DEFAULT user access. Deleting the SEC*.INI files places you back to the default installation security. That means that everything is open for public use. Using the ATTRIB + h SEC*.INI command will prevent the files from being accidentally erased and does not appear to have any side effects.

1.1.1 Configuring Security Manager Using the Graphical User Interface

To define and configure the access profiles for accessing the workstations, open the **Security Manager** icon in the NetFinity Service Manager folder. An example of the folder follows:

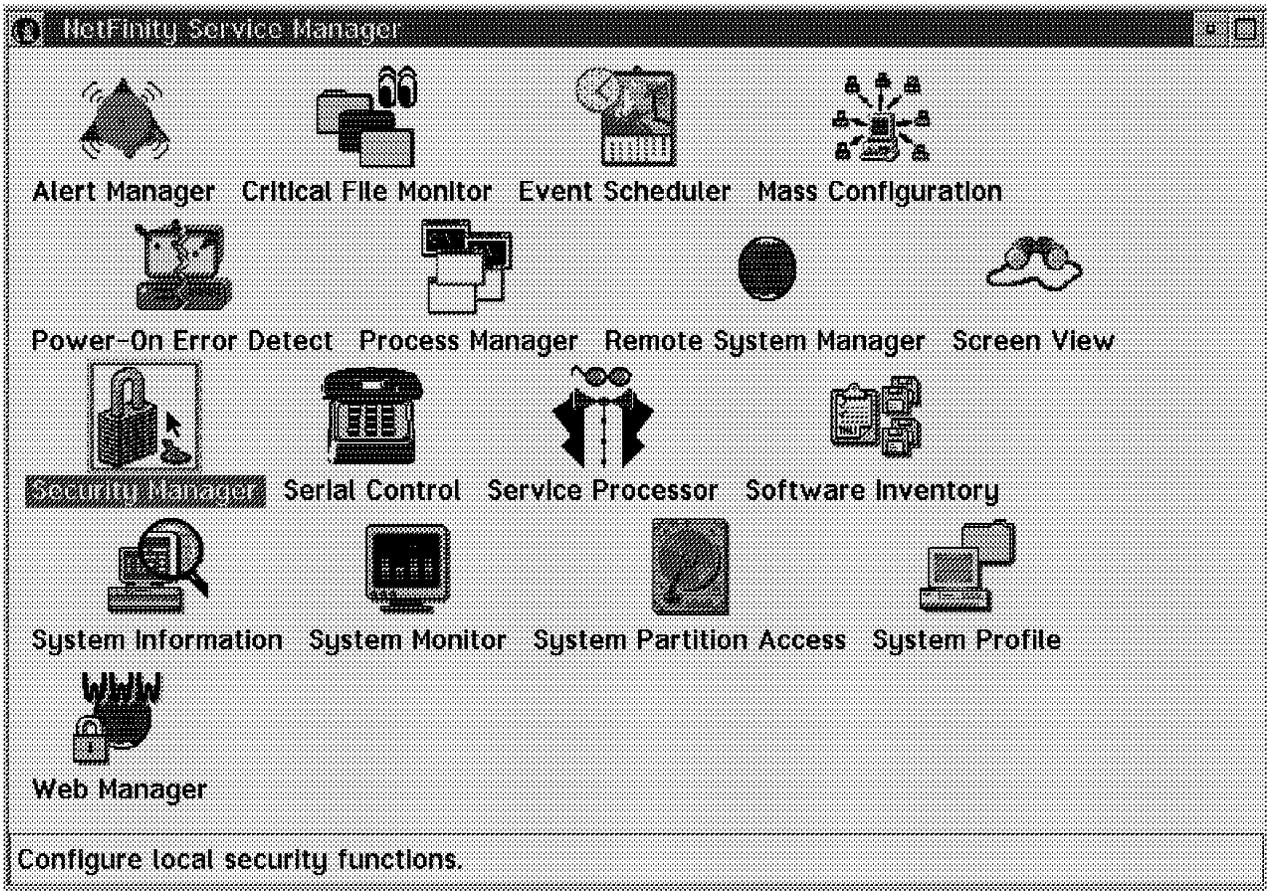


Figure 1. NetFinity V5.0 Service Manager

By double-clicking on the **Security Manager** icon the following window appears:

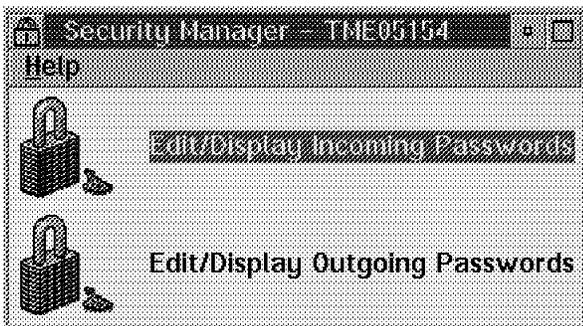


Figure 2. Security Manager

1.1.1.1 Incoming Passwords

To configure the incoming passwords select **Edit/Display Incoming Passwords** shown in Figure 2.

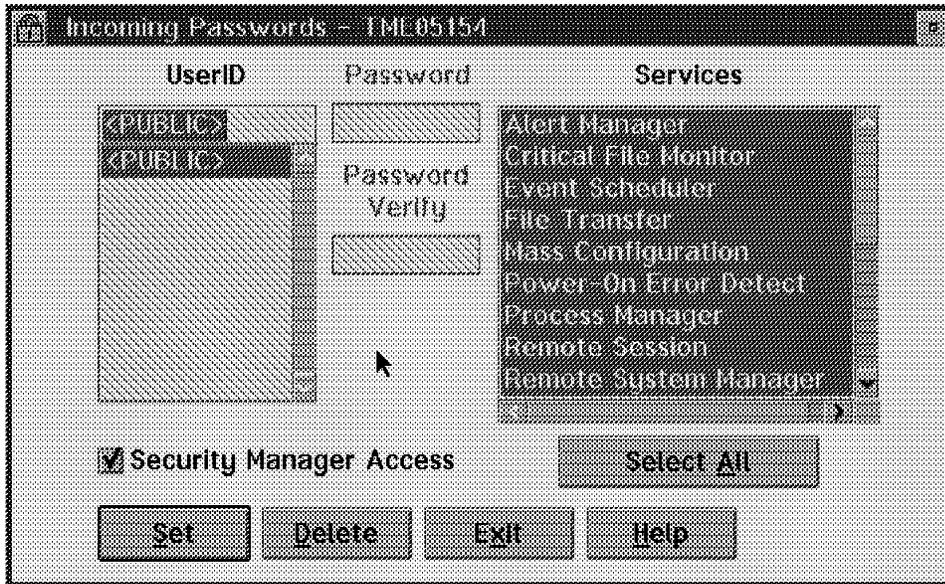


Figure 3. Incoming Passwords

Configuring incoming passwords enables you to control remote access to the services on your system. This is done by assigning passwords to specific user IDs, and then selecting which services this user ID/password combination will be allowed to access.

To add a new user ID/password combination:

1. Fill in/select the following fields:

User ID The user ID that you are allowing access to. You may select a user ID from the selection list or enter a new user ID in the entry field.

Password/Password Verify The password that will be used with the user ID to have access to the selected services.

Services Select one or more services that the user ID will have access to from the selection list.

Security Manager Access Allows Security Manager access to the user ID/password combination you are configuring.

2. Select **Set** to save the information you just entered.

Important

If the Security Manager has not been pre-configured, there will be a default user ID called <public>. This is a general security access default setting. It enables any system using the corresponding outgoing user ID/password default combination to access all NetFinity services on your system. Also, when a remote system user attempts to use the Remote System Manager's Login System action to access your system (that is, enters a non-configured outgoing user ID/password combination) and fails to match a corresponding incoming user ID/password combination, the remote user will receive access to any services allowed according to your <public> configuration by default. There are also security user ID implications when using the Webability function to access the NetFinity Manager's administrator functions.

Allowing access to the Security Manager enables the remote system to alter your incoming and outgoing user ID/password combinations, and will also enable the Remote System Manager's Restart System action on your system. This allows the remote user to restart your system on demand.

To delete a user ID:

1. Select the user ID you want to delete.
2. Select **Delete** to delete the user ID you just selected.

While you can disable the services that the public ID has access to you can not delete the public ID.

1.1.1.2 Outgoing Passwords

To configure the outgoing passwords select **Edit/Display Outgoing Passwords** in Figure 2 on page 2.

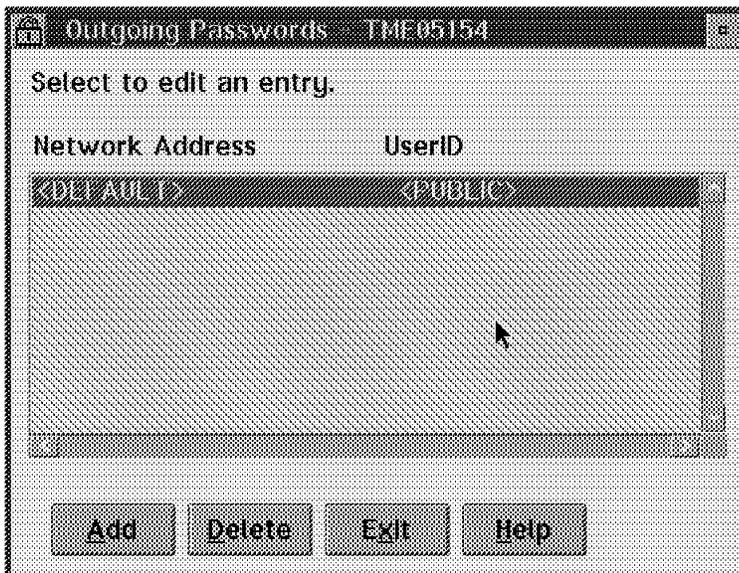


Figure 4. Outgoing Passwords

The *outgoing passwords* are a list of all network addresses and user IDs that your Security Manager is currently configured to use when attempting to connect to a remote system.

To add a new user ID/network address combination:

1. Select **Add** in the Outgoing Passwords window.
2. The Edit Outgoing Passwords window appears.

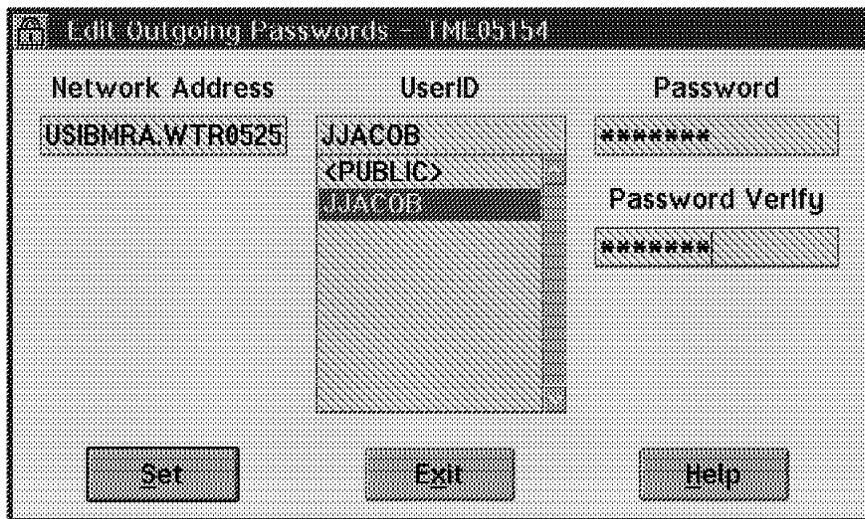


Figure 5. Edit Outgoing Passwords

3. Fill in/select the following fields:

User ID The user ID that will be used when you attempt to access the remote system.

Password/Password Verify The password that will be used with the user ID to have access to the remote system.

Network Address The network address of the system you want to access.

4. Select **Set** to save the information you just entered.

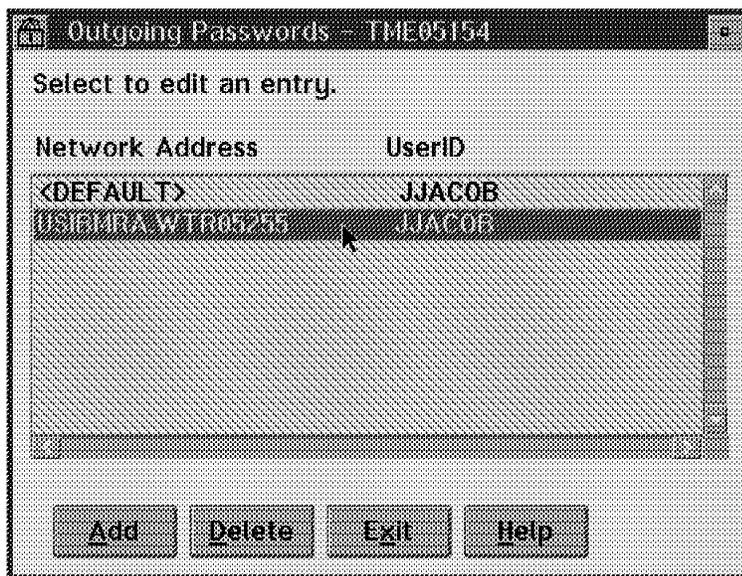


Figure 6. Outgoing Passwords

The new user ID/network address is in the list.

To delete a user ID:

1. Select the user ID you want to delete.
2. Select **Delete** to delete the user ID you just selected.

1.1.2 Command Line Interface for Security Manager

The command processor that is used for the Security Manager is NFSECCL. The format for it is as follows:

NFSECCL - CLI tool for security manager

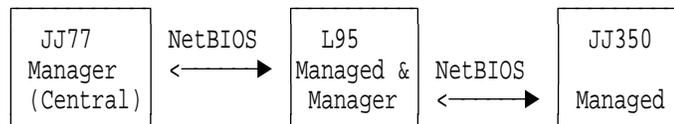
The following command line operations are supported:

```
/?          - Returns this command-line help
/LISTIN    - Returns information about inbound user IDs
/ADDIN     - Defines a new inbound user ID
/DELIN     - Deletes an inbound user ID
/EDITIN    - Modifies an inbound user ID
/LISTOUT   - Returns information about outbound host IDs
/ADDOUT   - Defines a new outbound host ID
/DELOUT   - Deletes an outbound host ID
/EDITOUT   - Modifies an outbound host ID
```

Important

NetFinity command line operations accept user IDs in either lower or uppercase. NetFinity Graphical User Interface (GUI) only accepts uppercase. To avoid problems, always use uppercase for user IDs when using command line operations.

1.1.2.1 Security Scenario #1



In this scenario, J77, L95 and JJ350 are all newly installed machines. By default, when NetFinity is installed, it creates a user ID called PUBLIC. It does not have a password and it has all privileges. It will accept any user ID/password combination. From a security point of view, the first thing to do is to set up a user ID with a password, and remove PUBLIC from the systems. We did all of the above using the NetFinity V5.0 command line from the central administrator machine (JJ77).

1.1.2.2 Things to Do in the Central Manager Machine (JJ77)

The first thing we did was change the SEC*.INI attribute to *hidden*.

```
nfproccl.exe /runcmd:"cmd /c attrib +h c:\netfin\sec*.ini"
```

Figure 7. Hidden Attributes

- Incoming user IDs and password:
 - List users

```

nfseccl.exe /listin /all

Output:
{ USERID="<PUBLIC>", PWD="*", SECMGR, SVC={ ALL } }

• Add user ID JJACOB:
  nfseccl.exe /addin:"JJACOB" /pwd:"xxxxxxx" /addsecmgr /addsvc:"all"

• List users:
  nfseccl.exe /listin /all

Output:
{ USERID="<PUBLIC>", PWD="*", SECMGR, SVC={ ALL } }
{ USERID="JJACOB", PWD="xxxxxxx", SECMGR, SVC={ ALL } }

• Delete user PUBLIC:
  nfseccl.exe /delin /userid:"<PUBLIC>"

• List users:
  nfseccl.exe /listin /all

Output:
{ USERID="JJACOB", PWD="xxxxxxx", SECMGR, SVC={ ALL } }

```

Figure 8. Incoming User IDs

- Outgoing user IDs and passwords:
 - List users

```

nfseccl.exe /listout /all

Output:
{ HOST="<DEFAULT>", USERID="<PUBLIC>", PWD="*" }

• Change DEFAULT from PUBLIC to JJACOB:
  nfseccl.exe /editout /host:"<DEFAULT>" /setuid:"JJACOB" /pwd:"xxxxxxx"

• List users:
  nfseccl.exe /listout /all

Output:
{ HOST="<DEFAULT>", USERID="JJACOB", PWD="xxxxxxx" }

```

Figure 9. Outgoing User IDs

1.1.3 Things to Do in the Managed/Manager Machine (JJ95)

The first thing we did was to change the SEC*.INI attribute to *hidden*.

```
nfproccl.exe /N:NETBIOS::WTR05255
            /runcmd:"cmd /c attrib +h c:\netfin\sec*.ini"
```

Figure 10. File Attributes

- Incoming user IDs and password:
 - List users:

```
nfseccl.exe /N:NETBIOS::WTR05255 /listin /all

Output:
{ USERID="<PUBLIC>", PWD="*", SECMGR, SVC={ ALL } }

Add user JJACOB:
nfseccl.exe /N:NETBIOS::WTR05255 /addin:"JJACOB"
            /pwd:"xxxxxxx" /addsecmgr /addsvc:"all"

List users:
nfseccl.exe /N:NETBIOS::WTR05255 /listin /all

Output:
{ USERID="<PUBLIC>", PWD="*", SECMGR, SVC={ ALL } }
{ USERID="JJACOB", PWD="xxxxxxx", SECMGR, SVC={ ALL } }

Delete user PUBLIC:
nfseccl.exe /N:NETBIOS::WTR05255 /delin /userid:"<PUBLIC>"

List users:
nfseccl.exe /N:NETBIOS::WTR05255 /listin /all

Output:
{ USERID="JJACOB", PWD="xxxxxxx", SECMGR, SVC={ ALL } }
```

Figure 11. Incoming User IDs

- Outgoing user IDs and passwords:
 - List users:

```
nfseccl.exe /N:NETBIOS::WTR05255 /listout /all

Output:
{ HOST="<DEFAULT>", USERID="<PUBLIC>", PWD="*" }
```

Figure 12. List Users

- Change DEFAULT from PUBLIC to JJACOB:

```
nfseccl.exe /N:NETBIOS::WTR05255 /editout
            /host:"<DEFAULT>" /setuid:"JJACOB" /pwd:"xxxxxxx"
```

Figure 13. Change Default User ID

- List users:

```

nfseccl.exe /N:NETBIOS::WTR05255 /listout /all

Output:
{ HOST="<DEFAULT>", USERID="JJACOB", PWD="xxxxxxx" }

```

Figure 14. List Users

1.1.3.1 Security Manager After Customization

As you can see in Figure 15 the new user ID JJACOB is set up with access to all services as well as to the Security Manager.

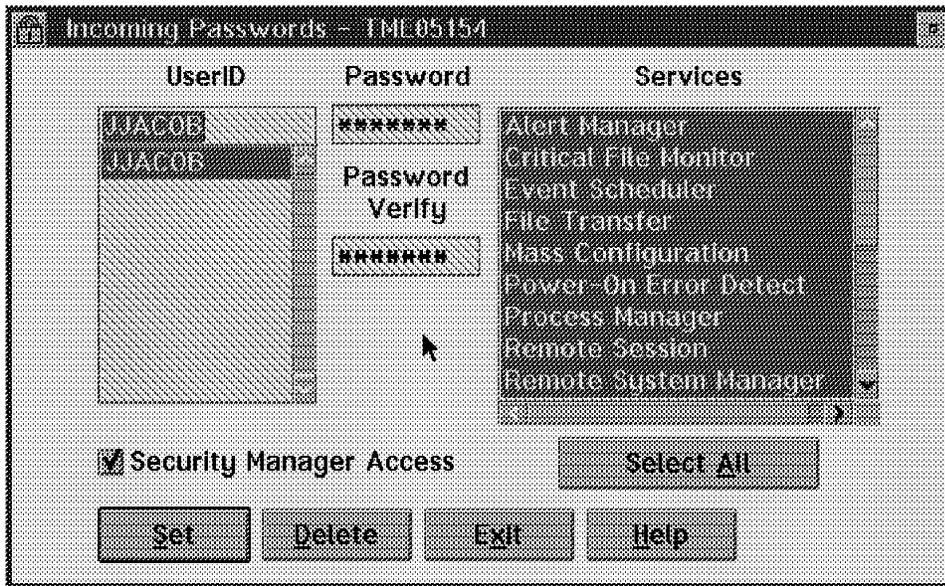


Figure 15. Incoming Passwords

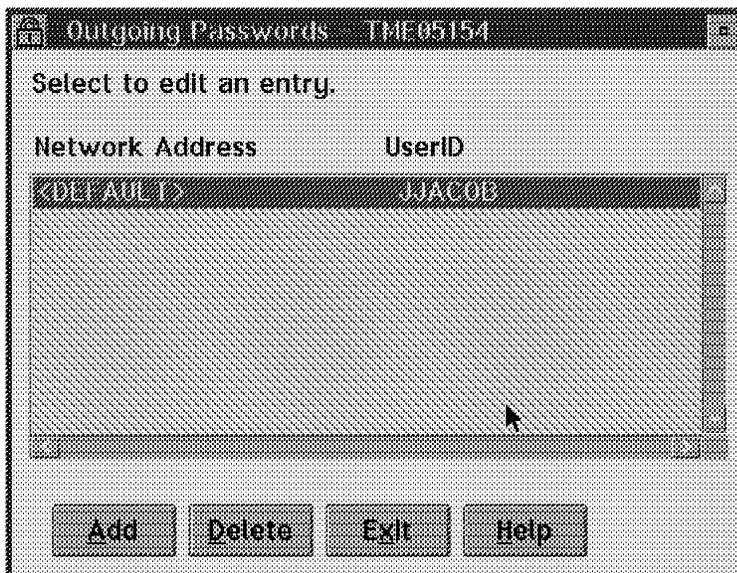


Figure 16. Outgoing Passwords

1.2 Critical File Monitor

The Critical File Monitor service enables you to be warned whenever critical system files on the systems in your network are created, deleted or altered. The Critical File Monitor service makes it simple for you to generate NetFinity V5.0 alerts when an important system file, such as the CONFIG.SYS file, changes date, time, size, or is deleted or created.

The Critical File Monitor can also be used to monitor any other files that reside on a NetFinity V5.0 system as well. For example, you might want the Critical File Monitor to generate an alert if a file named ERROR.LOG appears in a specific directory on a specific system.

Critical File Monitor can monitor:

- System files
- Additional files

1.2.1 Critical File Monitor via Graphical User Interface (GUI)

To configure the monitoring of critical files on your system, open the **Critical File Monitor** icon in the NetFinity Service Manager folder.

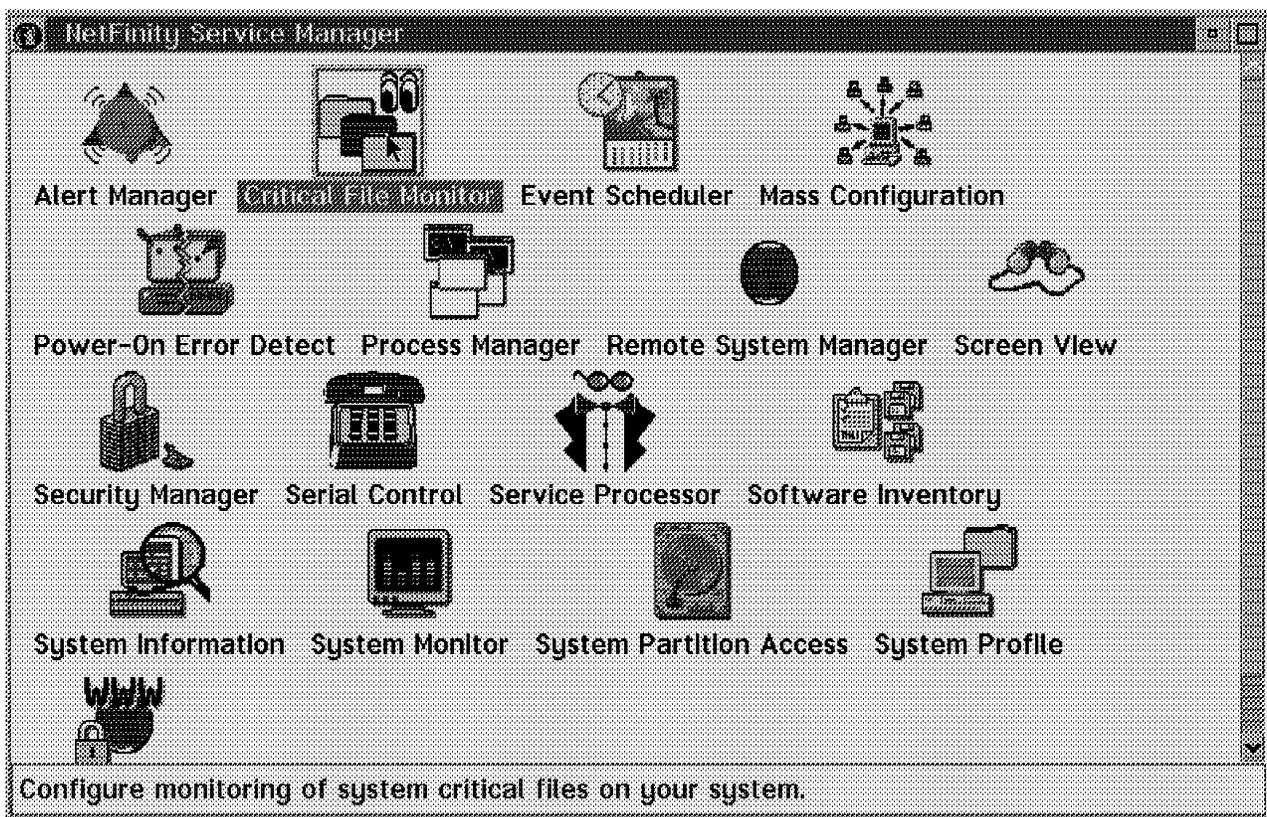


Figure 17. NetFinity Service Manager

Double-clicking on the **Critical File Monitor** icon causes the following window to appear:

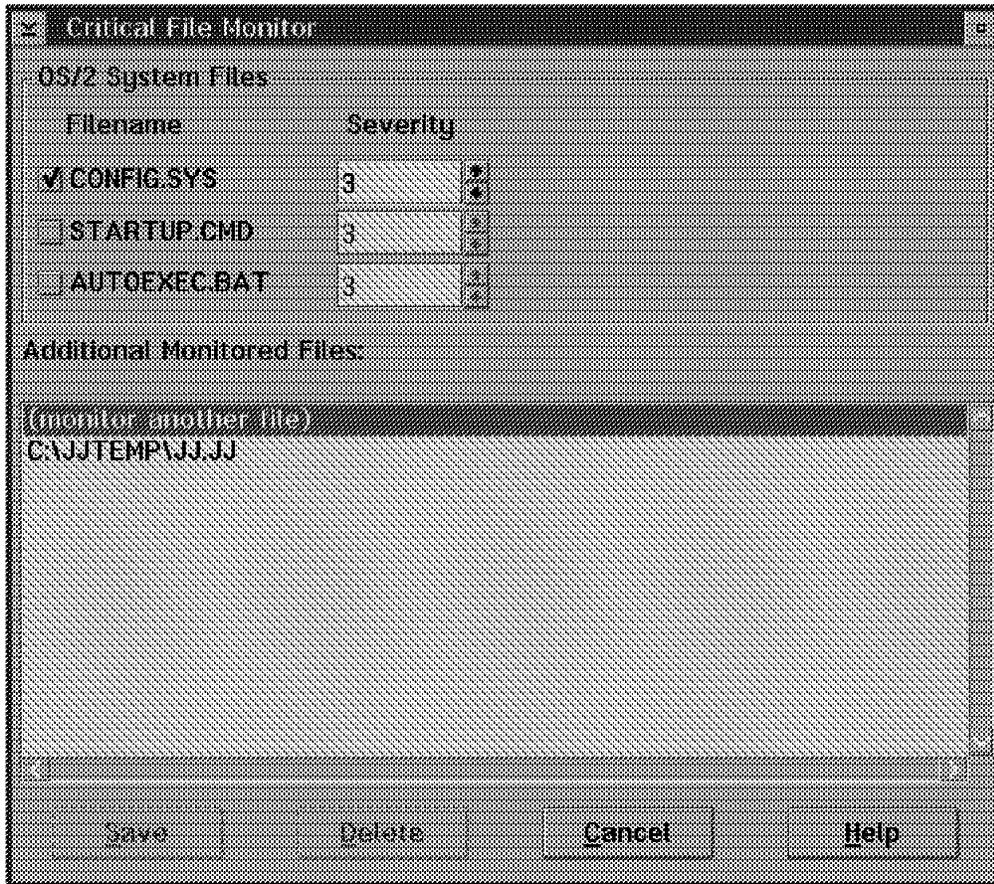


Figure 18. System File Monitor Panel

1.2.1.1 Monitoring System Files

To configure the system files to be monitored:

1. Check the check boxes beside the names of the system files you want to monitor.

The system files that can be monitored by the Critical File Monitor are operating system-specific:

- OS/2 system files:
 - CONFIG.SYS
 - STARTUP.CMD
 - AUTOEXEC.BAT
- Windows system files:
 - CONFIG.SYS
 - AUTOEXEC.BAT
 - WIN.INI
 - SYSTEM.INI
- NetWare system files:
 - AUTOEXEC.NCF
 - STARTUP.NCF
 - VOL\$LOG.ERR
 - SYS\$LOG.ERR

2. Select a severity using the spin button.

You can choose a severity value from 0 (most severe) to 7 (least severe), to set the severity of the NetFinity V5.0 alert that will be generated by the Critical File Monitor if this system file is created/changed/deleted.

3. Select **Save** to save your settings.

1.2.1.2 Additional Monitored Files

The Additional Monitored Files field contains a list of all other files that are currently being monitored. It also lets you add other files to the list.

To configure additional files to be monitored:

1. Double-click on the **(monitor another file)** field in the Additional Monitored Files scroll list.
2. The Additional Monitored Files window appears.

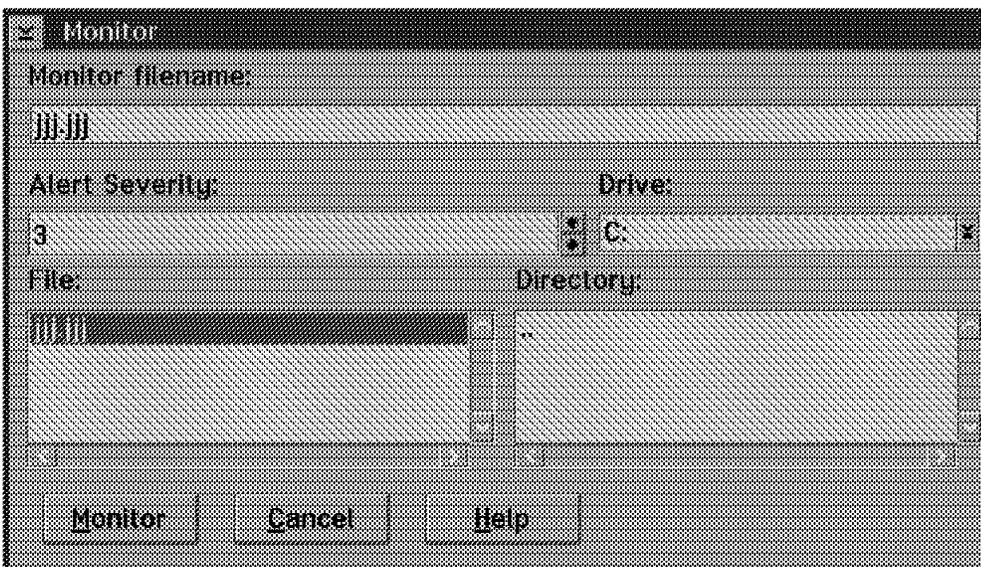


Figure 19. Additional File Monitor

3. Enter information into the following fields:

Monitor filename	This is the file that will be monitored.
Alert Severity	Use the spin button to set the severity of the alert that will be generated if the file is created/deleted/changed.
Drive	Select the drive from the Drive list.
File and Directory	Select the file and directory of the file to be monitored.

4. Click on **Monitor** to initiate the monitoring of the selected file.

To delete a file from the list of files to be monitored:

1. Select the file from the Additional Monitored Files scrolling list.
2. Click on the **Delete** button.

1.2.1.3 Alert Window

This is the alert window that pops up on the workstation when the standard file c:\jjtemp\jj.jj is deleted. As you can tell from the previous figure, we selected that file to be monitored.

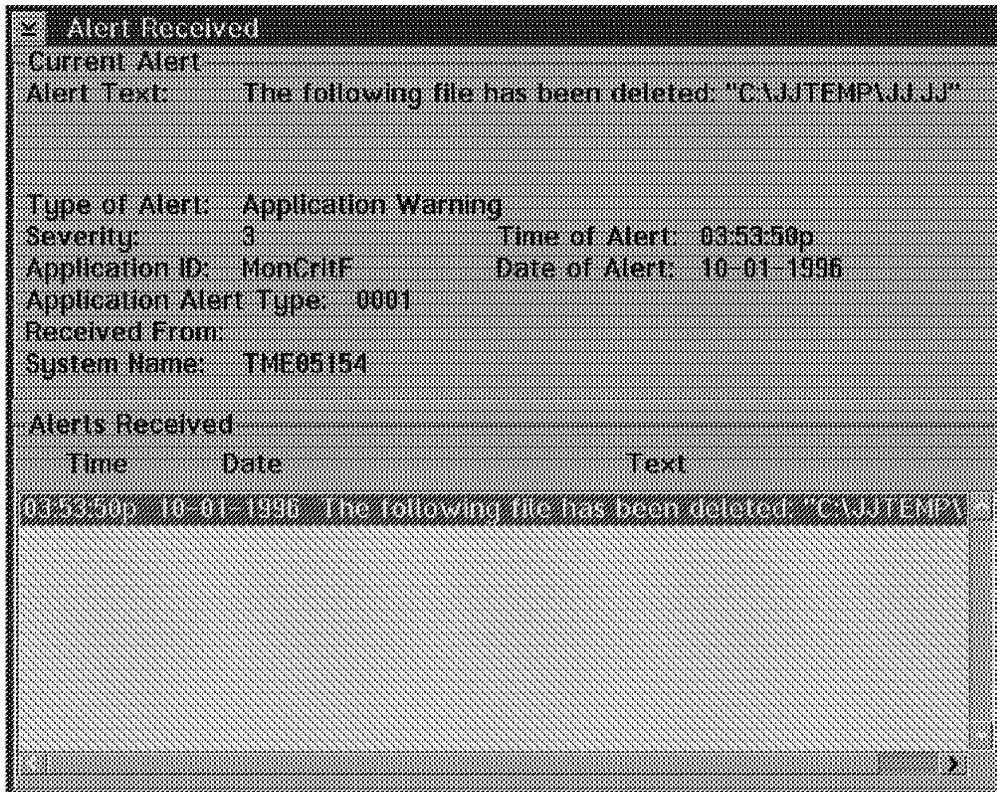


Figure 20. Alert Pop-Up Panel

1.2.2 Command Line Interface for Critical File Monitor

The command processor that is used for the Critical File Monitor is NFCRTFCL. The format of the command follows:

NFCRTFCL - CLI tool for critical file monitor

The following command line operations are supported:

- /? - Returns this command line help
- /LIST - Returns information about the monitored files
- /DELSYS:filename_without_path
 - Deletes a system file from the list of monitored files
- /DELSTD:fully_qualified_path
 - Deletes a standard file from the list of monitored files
- /SETSYS:filename_without_path /SEV:x
 - Adds a new system file to be monitored or change the alert severity (x = 0-7) of a system file already being monitored
- /SETSTD:fully_qualified_path /SEV:x
 - Adds a new standard file to be monitored or change the alert severity (x = 0-7) of a standard file already being monitored

1.2.2.1 Examples from a NetFinity V5.0 Manager

- Add a new system file:

```
nfcrtfcl.exe /setsys:config.sys /sev:3
```

- Add a new standard file:

```
nfcrtfcl.exe /setstd:c:\jjtemp\jj.jj /sev:3
```

- List information about the monitored files:

```
nfcrtfcl.exe /list
```

Output:

```
{ FILE="C:\CONFIG.SYS", SEV=3, TYPE=SYSTEM_FILE }  
{ FILE="C:\JJTEMP\JJ.JJ", SEV=3, TYPE=STANDARD_FILE }
```

- Delete a system file from the list of monitored files:

```
nfcrtfcl.exe /delsys:config.sys
```

- Delete a standard file from the list of monitored files:

```
nfcrtfcl.exe /delstd:c:\jjtemp\jj.jj
```

1.3 Alert Manager

The Alert Manager is an extendable facility that allows receiving and processing of application-generated alerts. A variety of actions can be taken in response to alerts, including alert logging, pop-up user notification, forwarding the alert to another system, program execution, or an application-defined action. Features of this service include:

- Simplifying application use and processing of alerts
- Providing standard responses to alerts, including:
 - Log the alert to a file
 - Display the alert in a pop-up window
 - Forward the alert to another workstation
 - Execute a program
 - Dial out to a digital pager
 - Generate an SNMP trap version of the alert
 - Play a waveform (WAV) file
- Provides extensively configurable alert management and action generation

1.3.1 Configuring Alert Manager Using the Graphical User Interface

To configure the alerts, the conditions and the associated actions, open the **Alert Manager** icon in the NetFinity Service Manager folder.

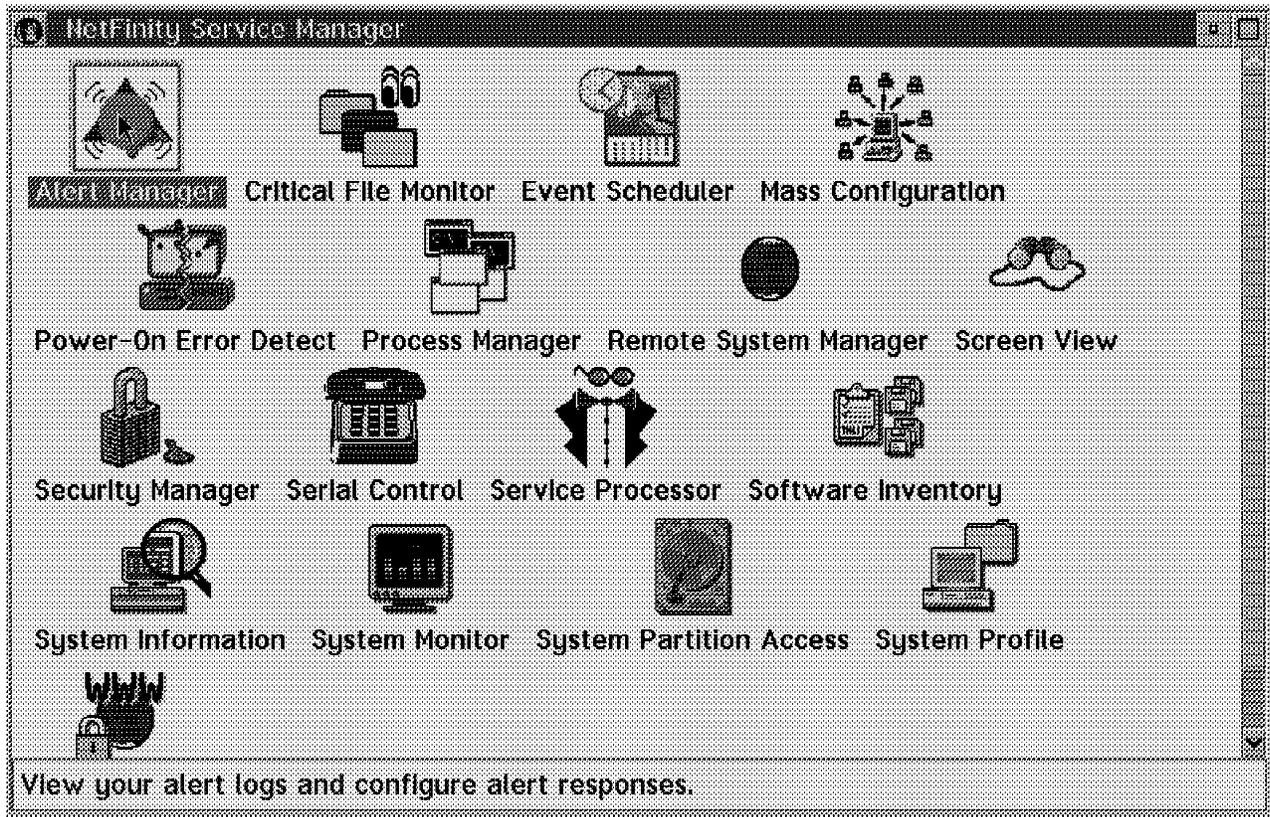


Figure 21. NetFinity Service Manager

The Alert Log window appears.

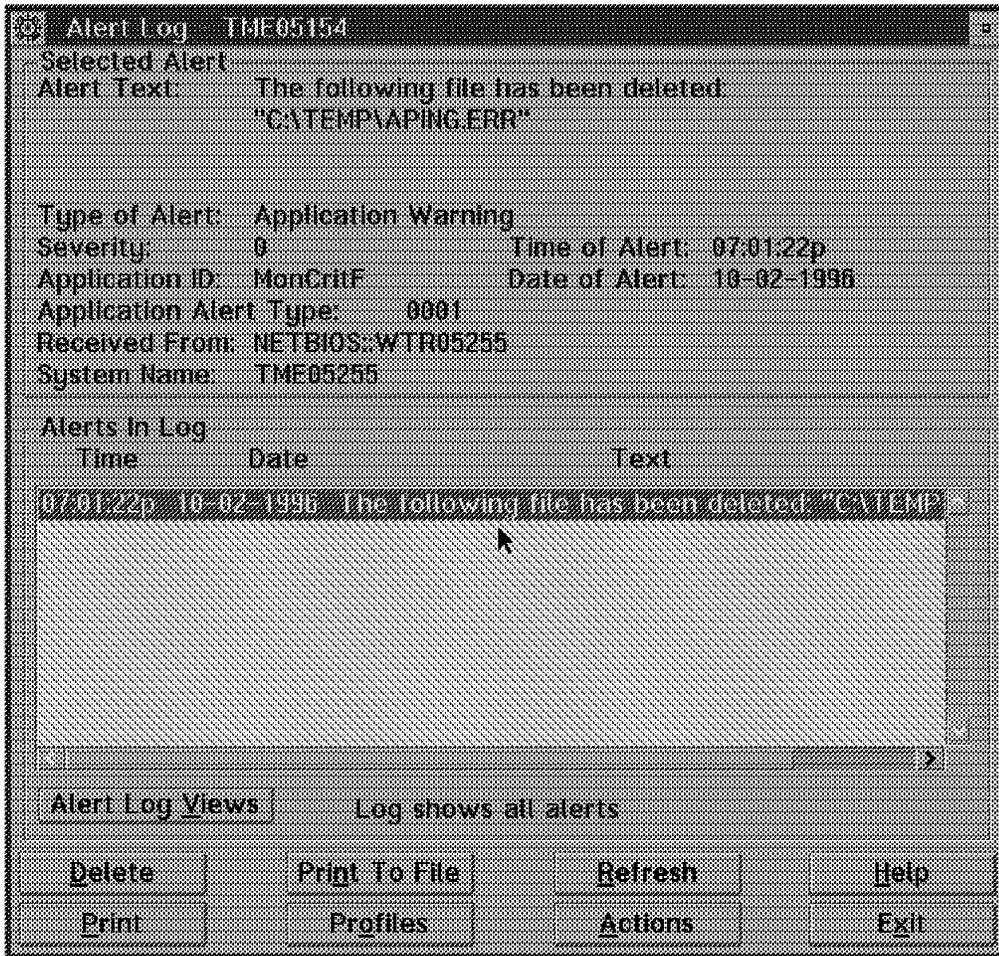


Figure 22. Alert Log

The Alerts In Log scrolling list shows you all the alerts that have been received by the workstation. If you select an alert, you will see in the upper half of the panel the complete text of the alert, the type of alert, the severity, the date/time of the alert, the application ID of the application that generated the alert, the application alert type, the network address of the system that sent the alert and the system name.

If you select the **Alert Log Views** button in Figure 22, the Alert Log Views window appears (see Figure 23 on page 17).

If you select the **Actions** button in Figure 22, the Alert Actions window appears (see Figure 24 on page 17).

If you select the **Profiles** button in Figure 22, the Alert Profiles window appears (see Figure 27 on page 22).

Select the **Refresh** button to update the alert log. The Alert Manager does not add alerts that it receives while the alert log is being accessed by a user until the Refresh button is selected.

You can delete, print or print to a file alerts from the alert log by selecting the Delete, Print or Print to File push buttons.

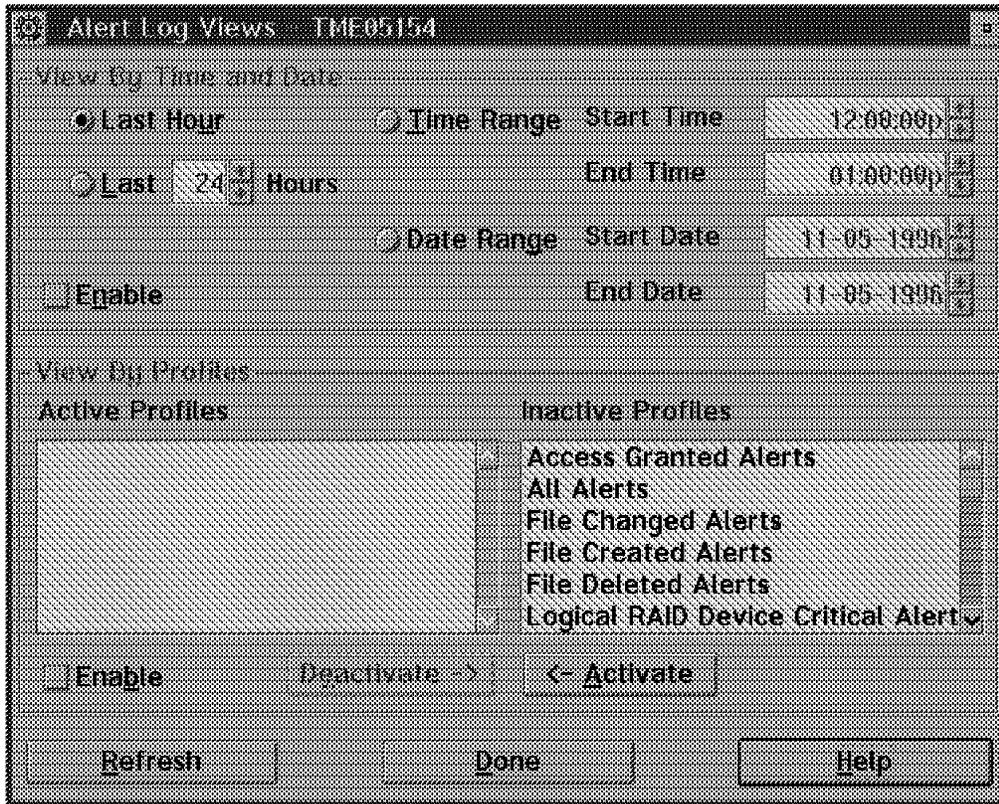


Figure 23. Alert Log Views

The Alert Log Views window is used to modify the way the alerts are shown within the Alert Log window. You can view the alerts in the Alert Log window by date/time and/or by profile. This facility became very useful when you need to review specific alerts from a large list of alerts.

If you select the **Actions** button in Figure 22 on page 16, the Alert Actions window appears (see Figure 24).

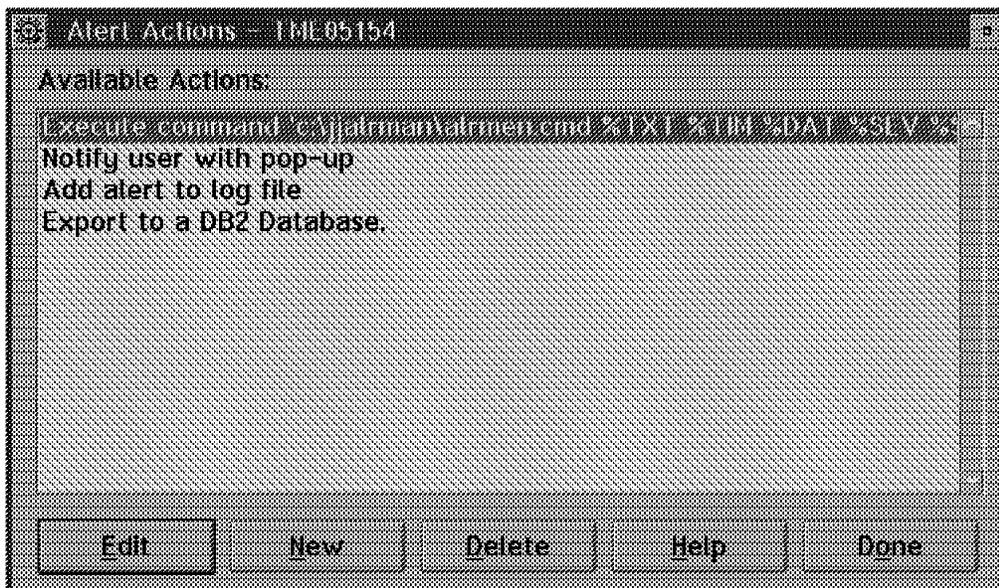


Figure 24. Alert Actions

The Alert Actions window displays a list of all available and configured *actions*. Using the control buttons you can create a new action or modify or delete an existing action.

An action is a program that performs a function in response to an alert that passes through the alert filter.

Figure 25 on page 19 shows you the alert action execute command. The action was created using the command line interface (see 1.3.2, “Command Line Interface for Alert Manager” on page 25).

To see how the action Export to a DB2 Database was created, see 4.4, “Export Alert Data to the NetFinity Database” on page 159.

The Action Editor enables the user to create and configure actions that the Alert Manager will take in response to specific alerts. It uses a series of user-defined triggering profiles or alert conditions to determine which alerts will trigger a defined action. When it receives an alert, the Alert Manager checks each of the alert's alert conditions to see if it meets the specifications for a defined action. A defined action is executed if either of the following is true:

1. The alert matches *a profile* to which the action is bound.
2. The alert meets *all* alert conditions to which the action is bound.

If you select the Edit or New button in Figure 24 on page 17, and select Alert Conditions from the Bind To top menu, the Action Editor by Alert Conditions window appears (see Figure 25 on page 19).

If you select the Edit or New button in Figure 24 on page 17, and select Profiles from the Bind To top menu, the Action Editor by Profiles window appears (see Figure 26 on page 21).

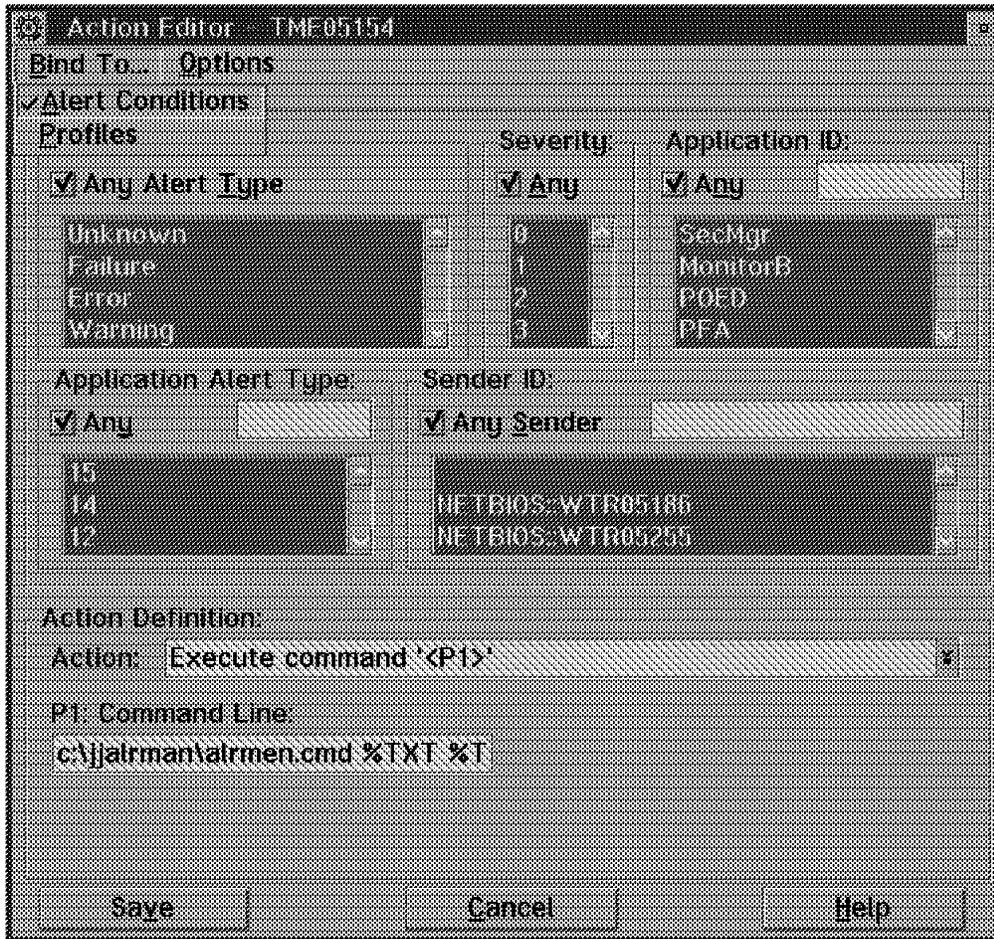


Figure 25. Action Editor by Alert Conditions

The Alert Conditions group consists of five individual alert conditions that are used by the Alert Manager to determine appropriate profile and action responses. For an alert to match a profile, the alert must meet all of the alert conditions for the particular profile, or it must match a profile included in the composition of the particular profile. For an alert to trigger an action, the alert must meet all of the alert conditions for the action, or it must match a profile that is bound to the action. The five alert conditions are as follows:

- **Alert Type**

The alert type is a brief description of the generated alert. It describes the nature of the alert (unknown, failure, error, warning, information), and can also contain a general description of the source of the alert (system, disk, network, operating system, application, device, or security). When creating or editing an action, you may decide what alert types will trigger the action. You may select one or more of the alert types that are listed in the Alert Type window. An alert will only trigger the alert you are configuring if its alert type matches one of the alert types you have selected. If the Any check box above the Alert Type window is selected, any alert type received by the Alert Manager will be considered a valid alert condition.

- **Severity**

The severity is a number from 0 through 7 that indicates how serious a generated alert is. A severity of 0 represents a very serious alert, while a

severity of 7 is relatively minor. When creating or editing an action, you may assign a specific severity value or severity range that will trigger the action. If the Any check box above the Severity window is selected, any alert severity value received by the Alert Manager will be considered a valid alert condition.

- **Application ID**

The application ID is the alphanumeric identifier of the application that generated the alert. You may select one or more currently available application IDs from the Application ID window. You may also enter a new application ID by moving the cursor to the small data entry field above the Application ID window, entering the new application ID, and pressing Enter. If the Any check box above the Application ID window is selected, any application ID received by the Alert Manager will be considered a valid alert condition.

- **Application Alert Type**

The application alert type is a numeric value assigned to an individual alert by the application that generated it. This value is often used by the application itself. You may select one or more currently available application alert types from the Application Alert Type window. You may also enter a new application alert type by moving the cursor to the small data entry field above the Application Alert Type window, entering the new application alert type, and pressing Enter. If the Any check box above the Application ID window is selected, any application alert type received by the Alert Manager will be considered a valid alert condition. For more information on individual application alert types, refer to the individual application's documentation.

- **Sender ID**

The sender ID is the network address of the system that generated the alert. You may select one or more currently available sender IDs from the Sender ID window. You may also enter a new sender ID by moving the cursor to the small data entry field above the Sender ID window, entering the new sender ID, and pressing Enter. If the Any check box above the Sender ID window is selected, any sender ID received by the Alert Manager will be considered a valid alert condition. The entries in the Sender ID field show the name of the network containing the sending system, followed by ::, and followed by the network address of the sender. For example, an alert sent by a system named SYSTEMA that is communicating using the NetBIOS protocol would be shown as NETBIOS::SYSTEMA.

The Action Definition group contains the available actions as well as entry fields for any action definition parameters that are required:

- The Action field contains the available actions.
- The Parameters field appears when additional information is required for an action to carry out its functions. Some actions require additional information to carry out their specified functions. If additional information is necessary, it will be identified as a parameter value (<P#>). Additional fields, called action definition parameters, will appear below the Action field along with a brief description of the information required.

Note: For more information on the available actions, see the *NetFinity Manager User's Guide*.

Once all alert conditions and action definition information has been entered, select the **Save** button to save the configured action. This action will now appear in the Available Actions window of the Alert Actions window.

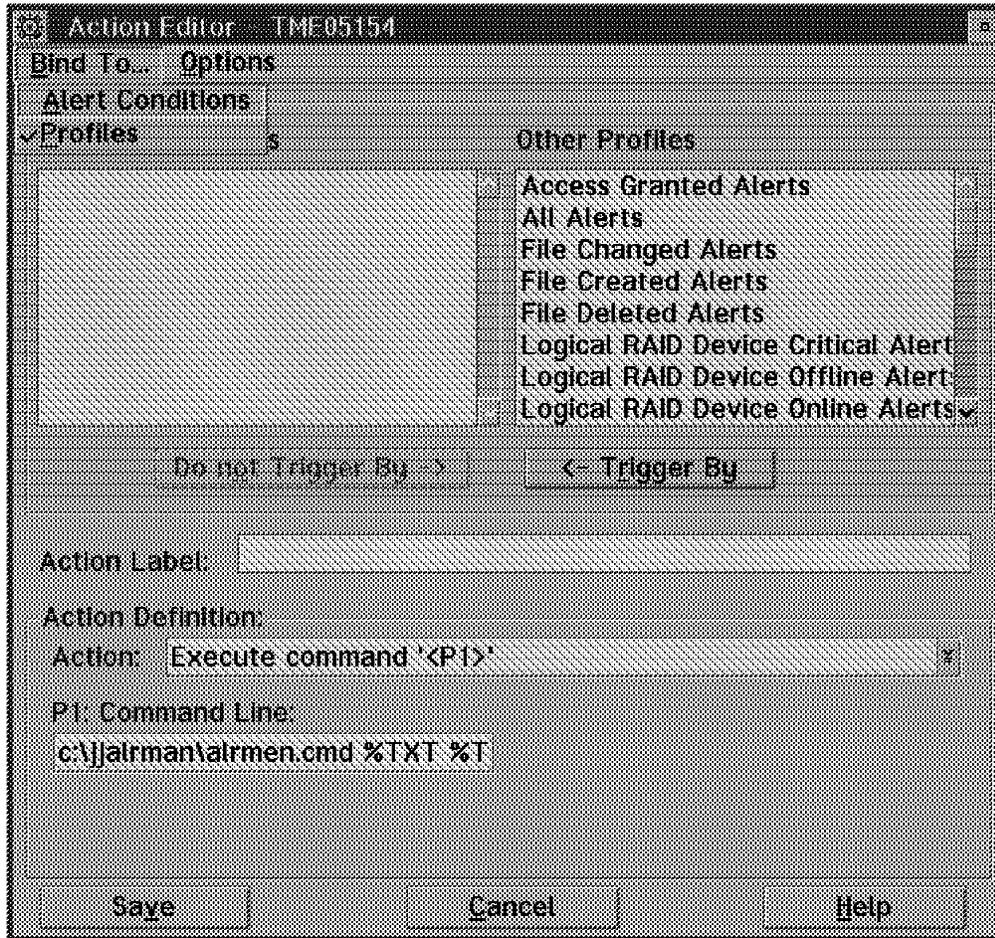


Figure 26. Action Editor by Profiles

The triggering profiles group consists of two selection boxes filled with defined profiles. It allows you to choose which profiles will trigger the defined action. All those profiles in the Triggering Profiles selection box when the new or edited action is saved will be used to trigger the action. To place profiles from one box into the other, select them from the box and click on the button beneath that box.

The Action Definition group contains the available actions as well as entry fields for any action definition parameters that are required:

- The Action Label text entry field allows you to give a name to an action that is bound to profiles. This name will appear in the Available Actions window. You are not required to name the action.
- The Action field contains the available actions.
- The Parameters field appears when additional information is required for an action to carry out its functions. Some actions require additional information to carry out their specified functions. If additional information is necessary, it will be identified as a parameter value (<P#>). Additional fields, called action definition parameters, will appear below the Action field, along with a brief description of the information required.

Note: For more information on the available actions, see the *NetFinity Manager User's Guide*.

Once all alert conditions and action definition information have been entered, select the **Save** button to save the configured action. This action will now appear in the Available Actions window of the Alert Actions window.

If you select the **Profiles** button in Figure 22 on page 16, the Alert Profiles window appears (see Figure 27).

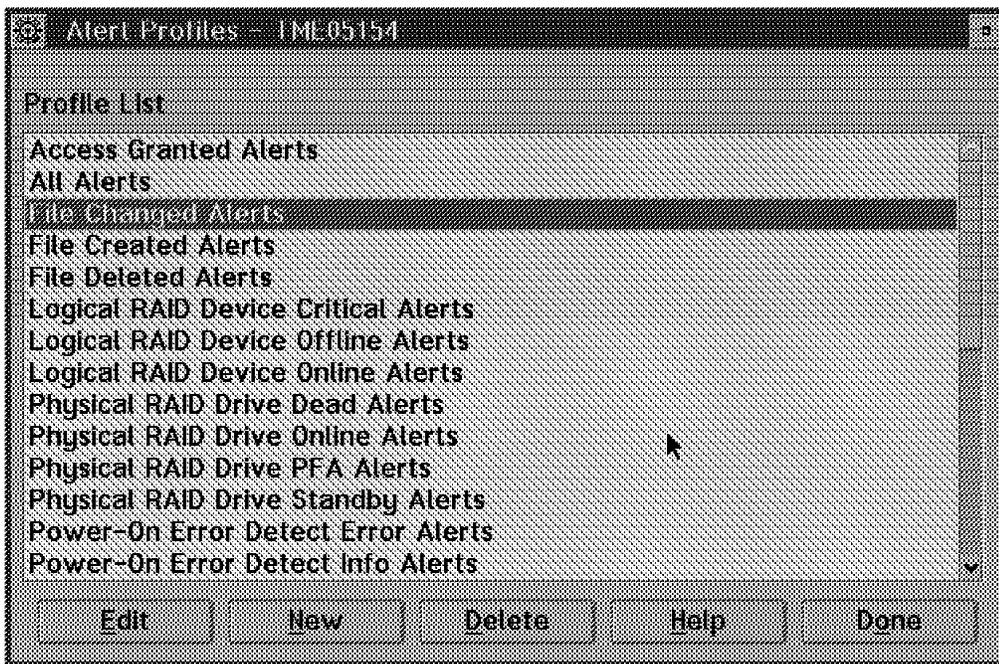


Figure 27. Alert Profiles

Alert profiles are objects that help the user better manage the alerts received by the system. A profile describes a class, or set of classes, of alerts. Through them, the user may classify alerts by service or application, by responsible person, or simply by urgency. Profiles in the Alert Manager may be used to trigger actions, to view the alert log, or to compose other profiles. Profiles give you the alert classification power of the action triggering mechanisms, but are, in fact, defined and usable apart from actions.

The Profile Editor enables the user to define profiles that match classes of alerts. A profile can be defined as a set of *alert conditions* or as a *profile composition*.

When defining a profile, you must first specify the alert conditions or profile composition that must be met for the Alert Manager to recognize an alert as matching this profile. As alerts are received, the Alert Manager checks each alert condition against the defined profiles. If *all* alert conditions are met, the profile matches the alert. If a composite profile includes a matching profile, it also matches the alert. Any actions bound to the matching profile will be triggered by the alert.

If you select the Edit or New button in Figure 27, and select Alert Conditions in the Define By top menu, the Profile Editor by Alert Conditions window appears (see Figure 28 on page 23).

If you select the Edit or New button in Figure 27, and select Profile Composition in the Define By top menu, the Profile Editor by Profile Composition window appears (see Figure 29 on page 24).

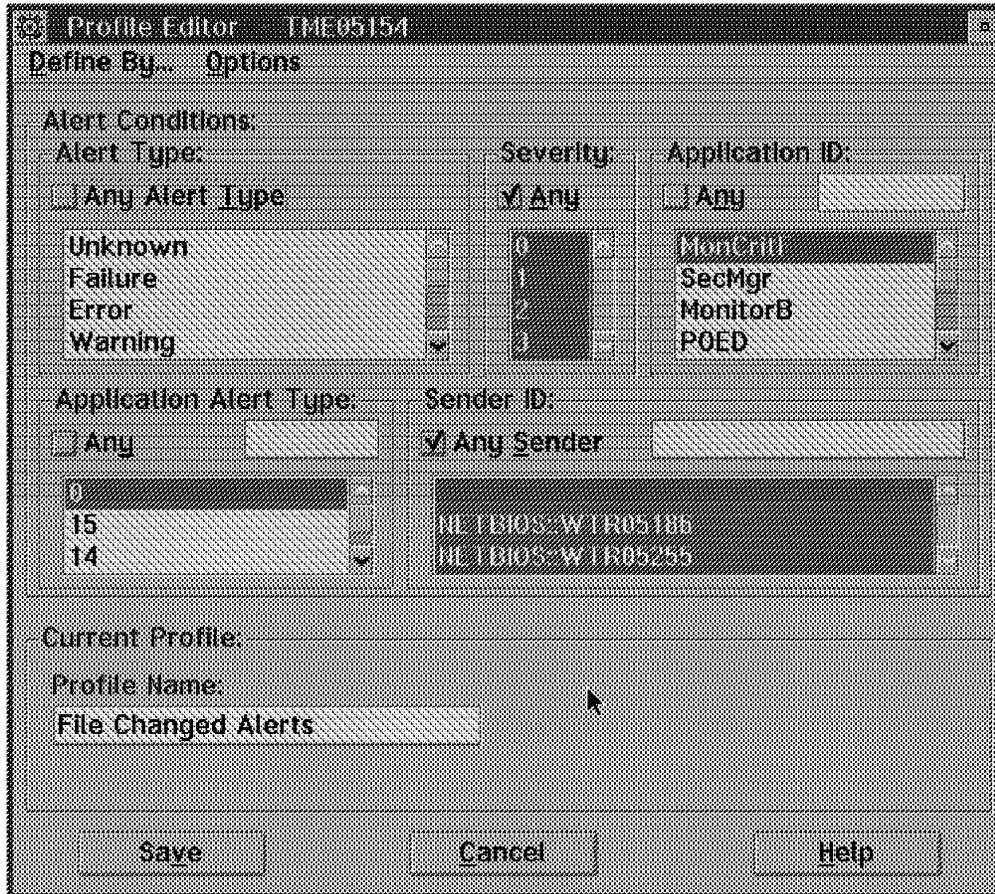


Figure 28. Profile Editor by Alert Conditions

To define the profile by alert conditions:

1. Configure the Alert Conditions as explained in Figure 25 on page 19.
2. Enter the name of your profile in the Profile Name field.
3. Select the **Save** push button.

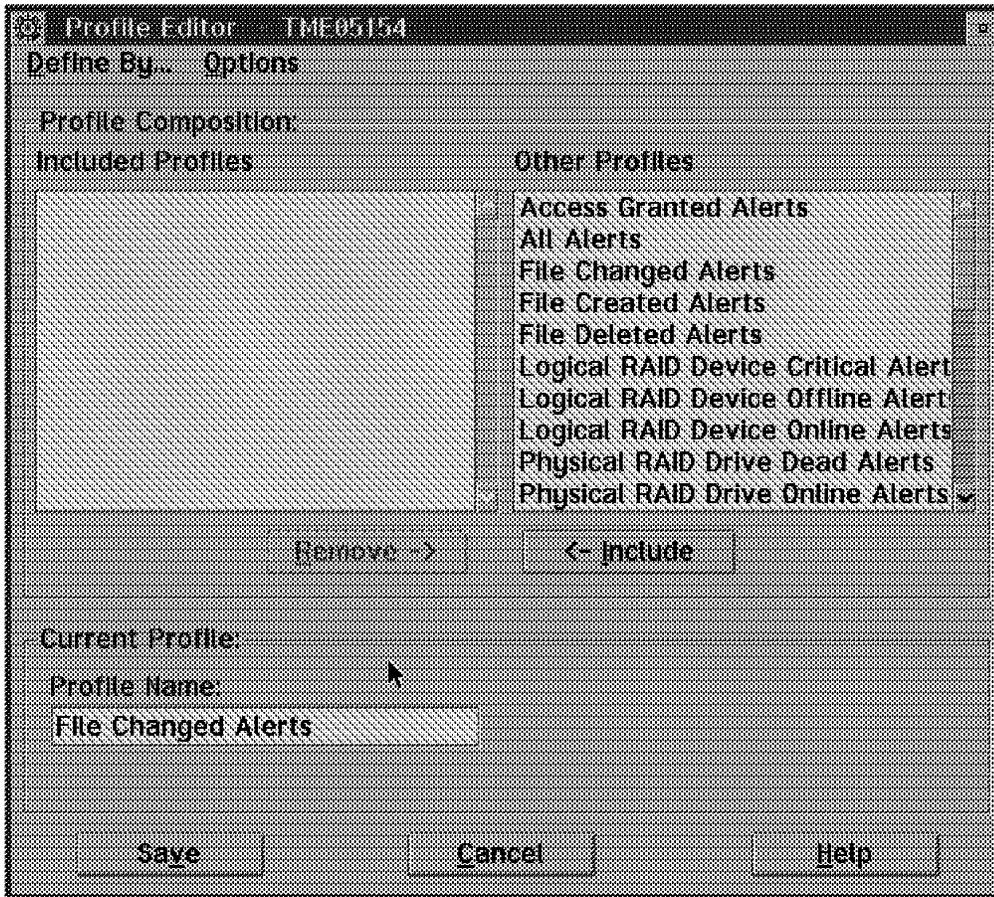


Figure 29. Profile Editor by Profile Composition

To define the profile by profile composition:

1. Place the desired profiles in the Included Profiles selection box by selecting them from the Other Profiles selection box and clicking on **Include**.
2. Enter the name of your profile in the Profile Name field.
3. Select the **Save** push button.

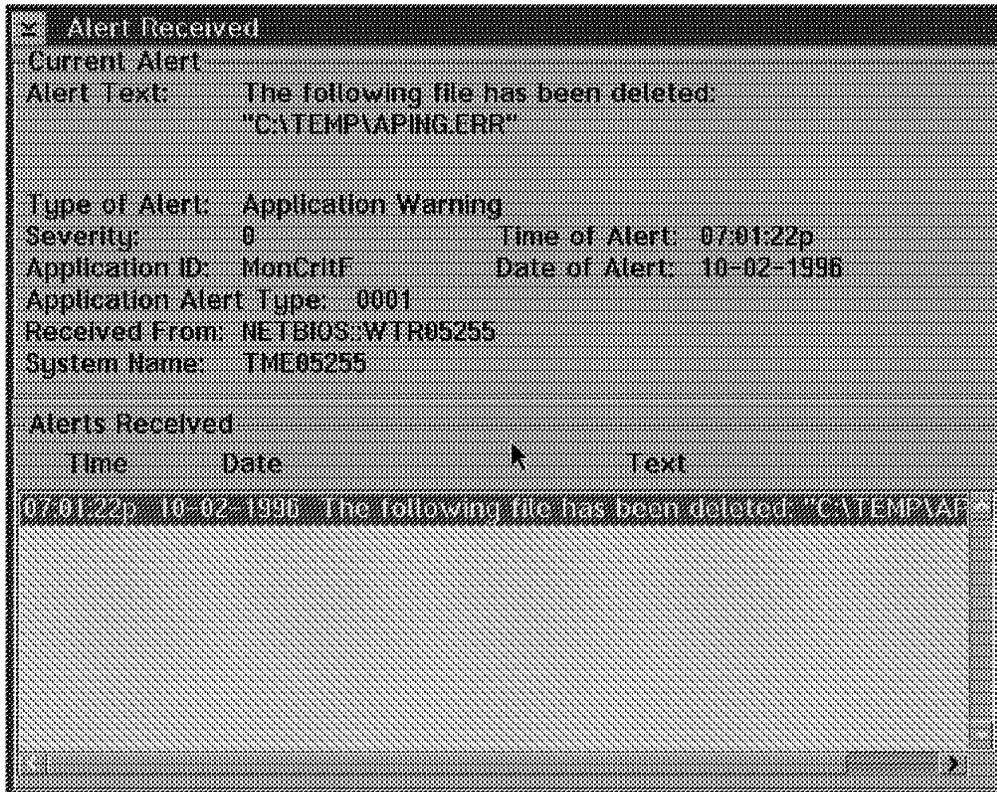


Figure 30. Alert Received Pop-Up Panel

1.3.2 Command Line Interface for Alert Manager

The command processor that is used for the Alert Manager is NFALRTCL. The format of the command follows:

NFALRTCL - CLI tool for alert manager

The following command line operations are supported:

```

/LOGLOG      - List alerts from alert log
/DELLOG      - Delete alerts from alert log
/LISTHAND    - List action handlers
/LISTACT     - List actions
/DELACT      - Delete actions
/ADDPACT     - Add action matching on profiles
/ADDACT     - Add action matching on attributes
/EDITPACT    - Edit actions matching on profiles
/EDITACT     - Edit actions matching on attributes
/LISTPROF    - List profiles
/DELPROFILE  - Delete profiles
/ADDPROFILE  - Add profile based on attributes
/ADDCPROF    - Add profile based on other profiles
/EDITPROFILE - Edit profile based on attributes
/EDITCPROF  - Edit profile based on other profiles

```

```

Select logs using /ALL or /TAG
Select actions using /ALL, /TAG, or /HASHAND
Select profiles using /ALL, /TAG, or /NAME
Select handlers using /ALL or /NAME

```

1.3.2.1 Examples

- List alerts from alert log:
 nfalrtcl.exe /listlog /all
- Delete alerts from alert log:
 nfalrtcl.exe /dellog /all
- List action handlers:
 nfalrtcl.exe /listhand /all

Output:

```
{ HANDLER="RUNMINCOMMAND", NAME="Execute minimized command '%s'",  
  PARMLAB0="Command Line:"  
}  
{ HANDLER="SETERRORCONDITION", NAME="Set error condition '%s' for sending system",  
  PARMLAB0="Error condition:"  
}  
{ HANDLER="CLEARERRORCONDITION", NAME="Clear error condition '%s' for sending system",  
  PARMLAB0="Error condition:"  
}  
{ HANDLER="ADDNTEVENTLOG", NAME="Add Event to Event Log"  
}  
{ HANDLER="ALTMAPI/0", NAME="Send to E-Mail via MAPI interface",  
  PARMLAB0="Mail System Password",  
  PARMLAB1="E-Mail Address",  
  PARMLAB2="Profile Name"  
}  
{ HANDLER="ALERTLOG", NAME="Add alert to log file"  
}  
{ HANDLER="EXPORTDB/1", NAME="Export to a DB2 Database.",  
  PARMLAB0="Database Name",  
  PARMLAB1="User ID",  
  PARMLAB2="Password"  
}  
{ HANDLER="ALERTFORWARD", NAME="Forward alert through network %s to system %s",  
  PARMLAB0="Network Type:",  
  PARMLAB1="Network Address:"  
}  
{ HANDLER="EXPORTDB/3", NAME="Export Database Information via ODBC."  
  PARMLAB0="Database Name",  
  PARMLAB1="User ID",  
  PARMLAB2="Password"  
}  
{ HANDLER="MMPMACT/0", NAME="Play waveform file '%s'",  
  PARMLAB0="Waveform file name"  
}  
{ HANDLER="NFSERIAL/0", NAME="Send alert to remote system through Serial Connection",  
  PARMLAB0="Connection name"  
}  
{ HANDLER="PAGERACT/0", NAME="Activate a numeric pager using a modem",  
  PARMLAB0="Modems Com port (EX:COM1)",  
  PARMLAB1="Pager number",  
  PARMLAB2="Digital pager display"  
}  
{ HANDLER="PAGERACT/1", NAME="Send alert to alphanumeric pager through TAP using a modem",  
  PARMLAB0="Modems Com port (EX:COM1)",  
  PARMLAB1="TAP access number",  
  PARMLAB2="Pager ID",  
  PARMLAB3="Additional text to send"  
}  
{ HANDLER="ALERTPOPUP", NAME="Notify user with pop-up"  
}  
{ HANDLER="RUNCOMMAND", NAME="Execute command '%s'",
```

- ```

 PARMLAB0="Command Line:"
 }

```
- List actions:
 

```

nfalrtcl.exe /listact /all

```
  - Delete actions:
 

```

nfalrtcl.exe /delact /hashand:"RUNCOMMAND"

```
  - Add action matching on attributes:
 

```

nfalrtcl.exe /addact:"RUNCOMMAND"
/PARM0:"c:\jjalrman\alrmen.cmd %TXT %TIM %DAT %SEV %SND %TYP
%APP %AT %P1 %P2 %P3 %P4 %P5 %P6 %P7 %P8 %P9"
/ADDTYPE:ANY /ADDAPP:ANY /ADDATYPE:ANY
/ADDSEV:ANY /ADDSENDER:ANY

```

---

## 1.4 Remote System Manager

NetFinity Remote System Manager enables a manager to link with and remotely access NetFinity services installed on client systems within the manager's network. Client systems consist of network administrator specified logical groups. For example, a manager could create a group called SERVICE for all customer service systems. Individual systems are then added to these logical groups using an informal system name (for example, John's System), network type (any system-supported and configured communication protocol, including NetBIOS, SNA, IPX, and TCP/IP), and the network address of the system. Managing and monitoring these systems is as simple as adding them to your network. Select the group you want to access from the System Group Manager that is located in the Remote Systems Manager and then select the system you want to connect with. Once connected, you can access any of the NetFinity Services displayed in the NetFinity Service Manager for that system. You can:

- Monitor system activity and anticipate system problems with System Monitor
- Use ScreenView to see what the remote users have on their display
- See alerts with Alert Manager and define problem resolution tasks
- Update and distribute software using File Transfer remotely
- Use ECC Memory Setup
- Use System Partition Access
- Establish a remote session to the client
- Restart remote systems
- Set up a presence check for when systems come online or go offline
- Log in to remote clients

### 1.4.1 Remote System Manager Using the Graphical User Interface

To create and configure the groups and clients to be accessed remotely using Remote System Manager, open the **Remote System Manager** icon in the NetFinity Service Manager folder.

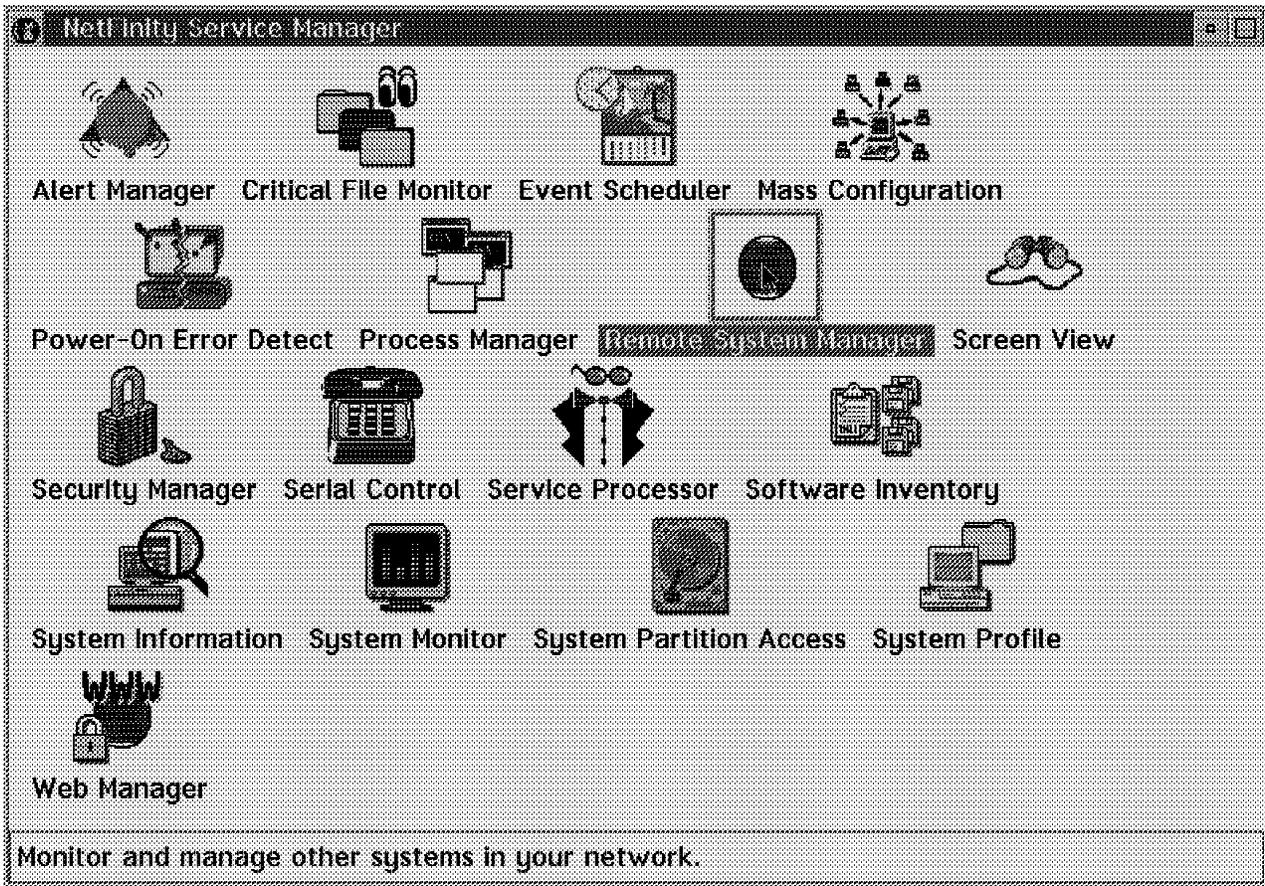


Figure 31. NetFinity Service Manager

The System Group Management window appears.

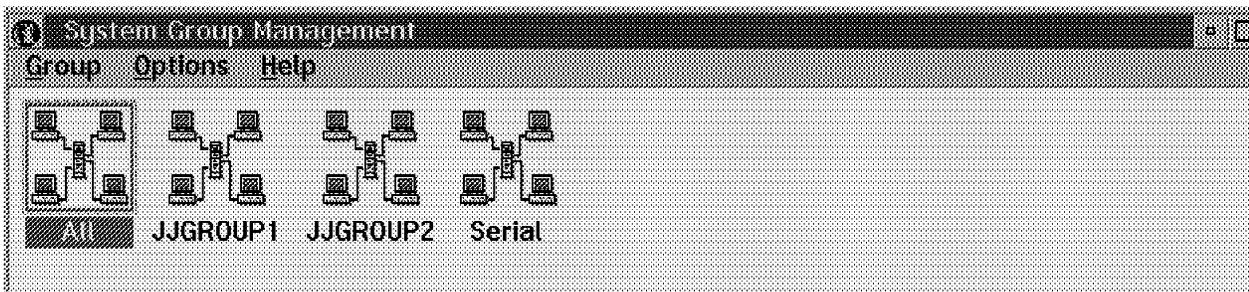


Figure 32. System Group Management

The System Group Management window displays all system groups that have been defined to Remote System Manager. To access a group, double-click on the group you want to access. A group window will open, displaying the names and system types of all systems currently defined within the group. See Figure 40 on page 33 and Figure 41 on page 34 to see how to display the systems within a group.

### 1.4.1.1 Network Management

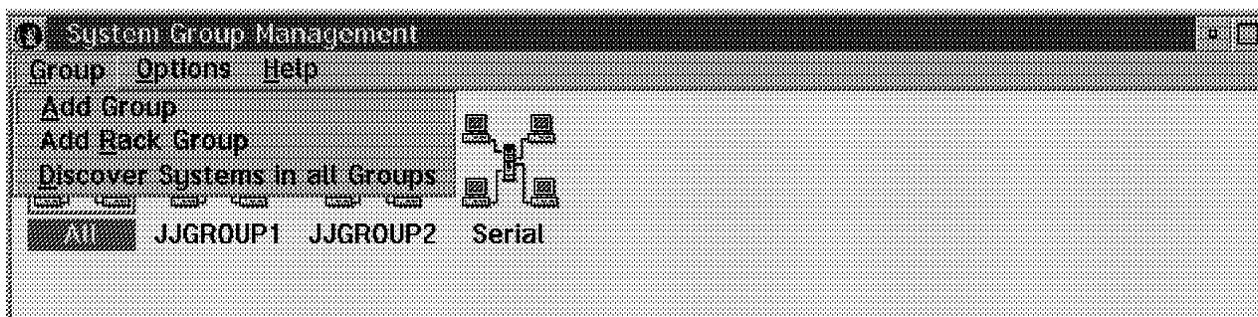


Figure 33. System Group Management - Group Menu

**Add Group:** To add a group to your network:

1. Select **Add Group** from the System Group Management window's Group pull-down menu.
2. The Add System Group window appears.

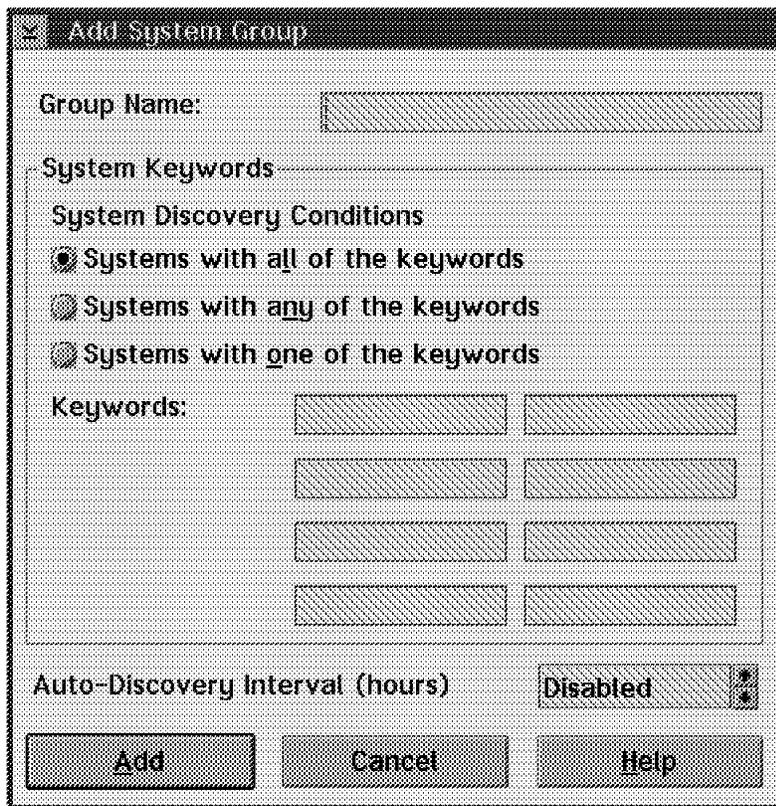


Figure 34. Add System Group

3. Enter a name for the group in the Group Name field.
4. Select a system discovery condition.

The system discovery conditions control how the discovery function automatically adds systems to a group.

When system discovery is initiated, this system discovery process only includes a system in the group if that system's keyword list (determined during installation of the NetFinity Services) contains Condition specified in

the group keyword list. There are three system discovery conditions, only one can be selected:

- Systems with all of the keywords
  - Systems with any of the keywords
  - Systems with only one of the keywords
5. Enter zero or more keywords. These will determine what systems from your network are to be added to the system group you are creating.

The group keywords define the keywords on all systems that will be considered when determining the systems added to a group during discovery. Which keywords are considered and how many keywords are considered is determined by the system discovery conditions. System keywords are typically set during NetFinity installation or configuration on each individual system.

6. Set the Auto-Discovery Interval to a number of hours or select **Disabled** to disable the auto-discovery feature.
7. Select **Add** to add the group to your network.

**Add Rack Group:** To add a rack group to your network:

1. Select **Add Rack Group** from the System Group Management window's Group pull-down menu.
2. The Add Rack Group window appears.

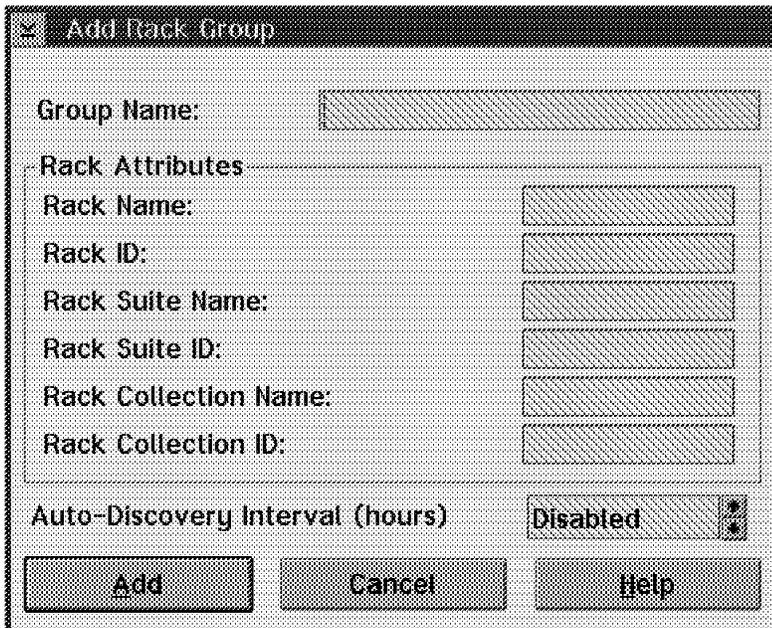


Figure 35. Add Rack Group

A rack group is a new type of system group definition, which appears in the System Group window in Remote System Manager. This is a special type of group that will only discover systems that are part of a rack, such as the PC Server Rack. It is basically the same as a regular system group, except that when you define a rack group, you have to specify the Rack Attributes (Rack Name, ID, Suite Name, Suite ID, Collection Name, and Collection ID). Then, once you define these values in the rack group, it uses them as keywords (more or less) to discover only systems that have those values. So, in other

words, a rack group is really just a system group with some special pre-defined keywords that ensure that only systems that are installed in a specific rack are discovered. All of the usual group discovery filters can be applied to a rack group, just like a system group.

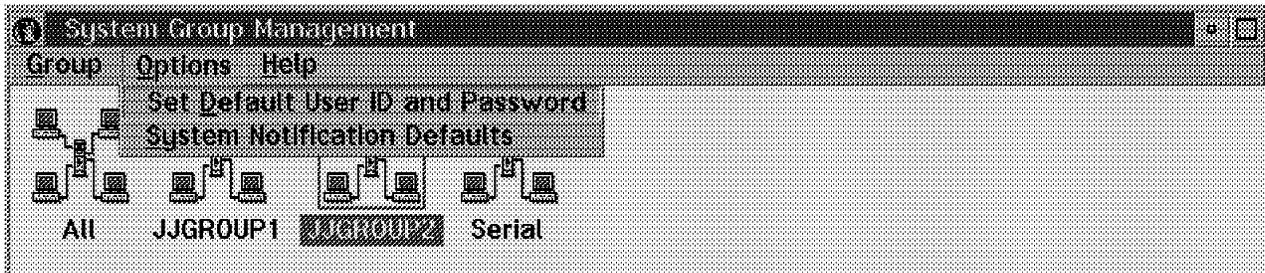


Figure 36. System Group Management - Options Menu

**Set Default User ID and Password:** To set the default user ID and password to be used when accessing systems that do not have a specific user ID and password set:

1. Select **Set Default User ID and Password** from the System Group Management window's Options pull-down menu.
2. The Set Default User ID and Password window appears.

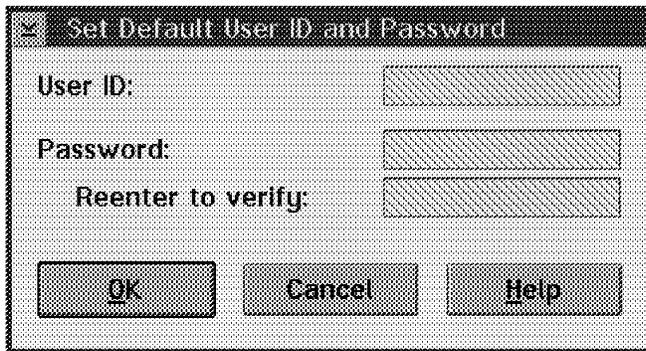


Figure 37. Set Default User ID and Password

3. Enter the default user ID to be used in the User ID entry field.
4. Enter the password to be used in the Password and Reenter to verify entry fields.
5. Select the **OK** button.

**Important**

Setting this user ID and password yields the same results as using the Set Outgoing User ID and Password option in the Security Manager service to set the user ID for the <DEFAULT> system name.

See 1.1.1.2, "Outgoing Passwords" on page 4 for how to configure outgoing passwords using Security Manager.

**Default System Notifications:** To set the default system notification values:

1. Select **System Notification Defaults** from the System Group Management window's Options pull-down menu.

2. The Set Default System Notification window appears.

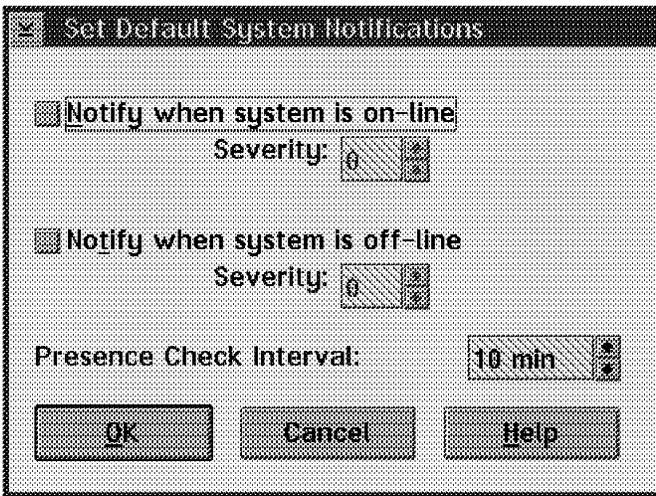


Figure 38. Set Default System Notifications

Default system notification values are applied to any newly added or discovered system that is placed in a group that does not have any previously configured group notification default values. Once these default values have been set, the Group Notification Default window defaults will reflect the Default System Notification settings. Therefore, if you set a Presence Check Interval of 5 minutes in the Set Default System notifications window, all Group Notification Default windows will have their Default value set to 5 minutes. However, only groups that have their Group System Notifications Presence Check value set to Default will notice a change in this value.

3. Notify when System is online.

If you select the Notify when system is online check box, the Remote System Manager will automatically configure newly added systems to generate an alert when the selected system comes online and is reachable. The alert that is generated will have an application ID of NetMgr, an application alert type of 10, and the severity value that you select from the Severity spin box below the check box.

4. Notify when system is offline.

If you select the Notify when system is offline check box, the Remote System Manager will automatically configure newly added systems to generate an alert when the selected system goes offline and is inaccessible. The alert that is generated will have an application ID of NetMgr, an application alert type of 11, and the severity value that you select from the Severity spin box below the check box.

5. Presence Check Interval.

The Presence Check Interval determines how often a newly added system is checked to determine if it has come online or gone offline. By default, a system will be checked once every 10 minutes. By setting the Presence Check Interval to a lower value, a system can be checked more frequently. Shorter intervals will allow a system that has gone online or offline to be noticed more quickly, but will also generate slightly more network traffic. The Presence Check Interval can be set from 15 seconds to 128 minutes.

6. Select the **OK** button to save your settings.

### 1.4.1.2 Group Management

The System Group Management window displays all system groups that the Remote System Manager has defined.

To select a group click with the right mouse button the group you want to access, the selected group pop-up menu appears.

To open a group select the group you want to open, then from the pull-down menu select **Open Group** or double-click the group you want to access. A Group window will open, displaying the names and system types of all systems currently defined within the group. See Figure 40 and Figure 41 on page 34 for how to display the systems within a group.

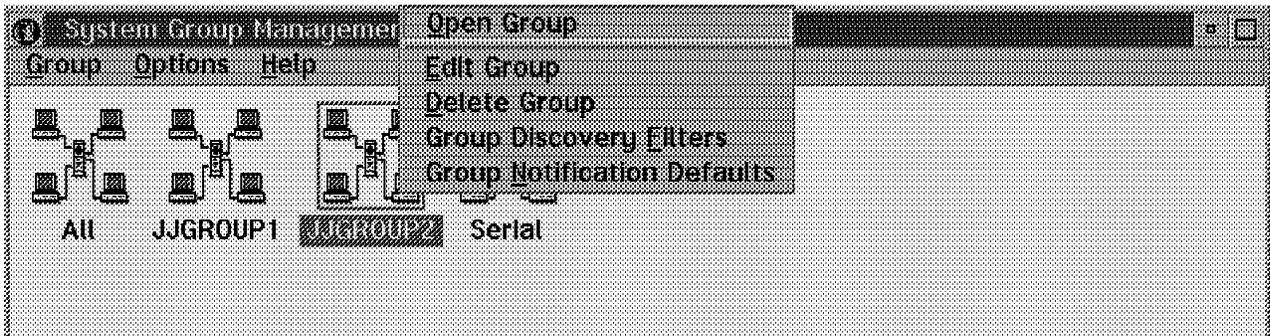


Figure 39. JJGROUP2 Options

Figure 40 shows the Group window when **Detail View** was selected from the View menu.

Figure 41 on page 34 shows the Group window when **Icon View** was selected from the View menu.

The screenshot shows the 'Group 'JJGROUP2' (2 systems)' window. The window title bar indicates it contains 2 systems. The main area is a table with the following data:

|  | System Name                   | Network Type | Network Address  | System Model       |
|--|-------------------------------|--------------|------------------|--------------------|
|  | TME05154<br>(Manager)         | SNA_APPC     | USIBMRA.WTR05154 | IBM PS/2 Model 77  |
|  | TME05255<br>(Server, Manager) | SNA_APPC     | USIBMRA.WTR05255 | IBM PS/2 Server 95 |

Figure 40. Group JJGROUP2 Detail View

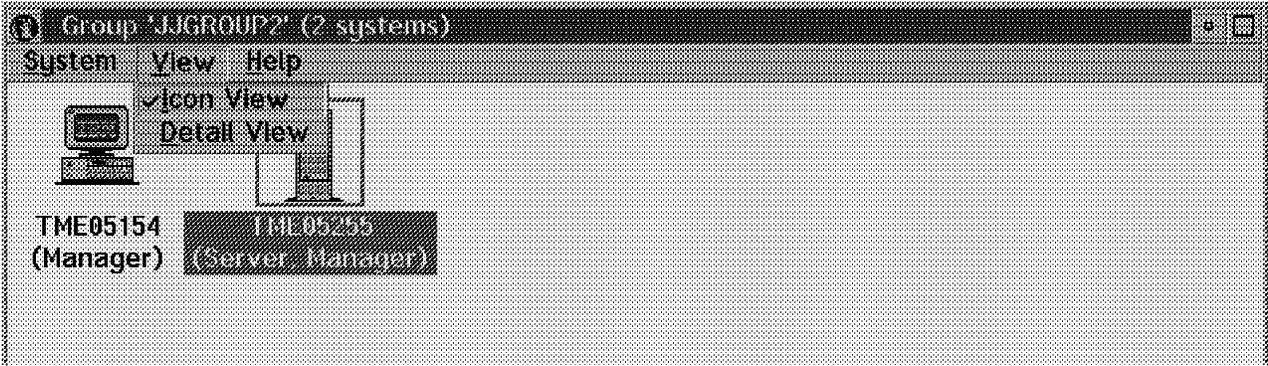


Figure 41. Group JGGROUP2 Icon View

**Edit System Group:** To edit a system group:

1. From the System Group Management window (see Figure 39 on page 33) select the **Edit Group** option from the selected group pop-up menu.
2. The Edit System Group window appears.

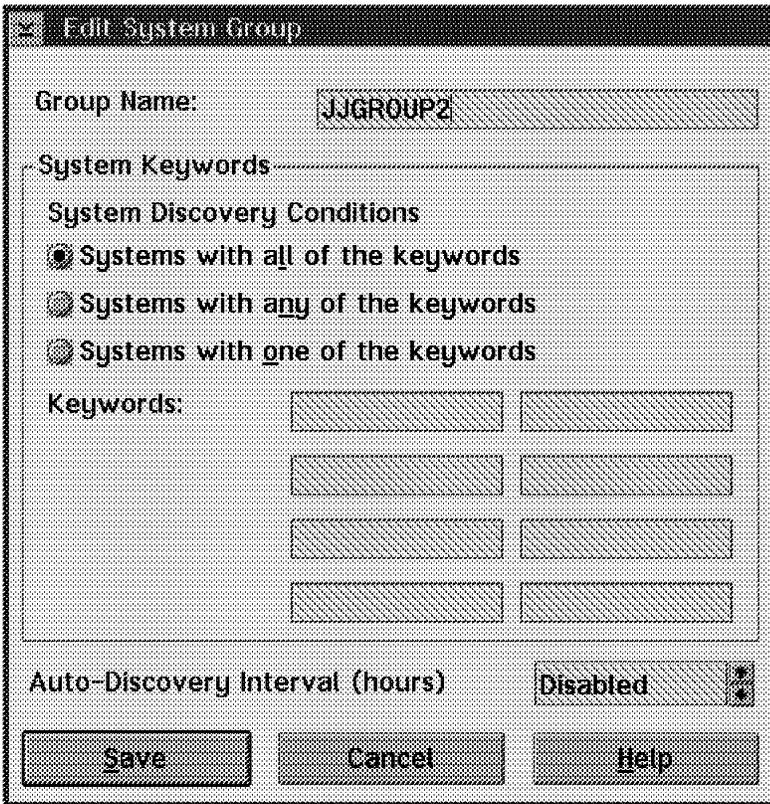


Figure 42. Edit System Group

3. If you want to change the group's name, enter a new name in the Group Name field.
4. If you want to alter the system discovery conditions for a group, select a new system discovery condition. There are three to choose from:
  - Systems with all of the keywords
  - Systems with any of the keywords

- Systems with only one of the keywords
5. If you want to alter the keywords that the discovery process will use, enter one or more group keywords. These, in conjunction with the system discovery condition you have selected, will determine what systems within your network are added to the system group when the discovery process is initiated.
  6. Select the **Save** button to save the changes you have made to the system group.

**Delete Group:** Select **Delete Group** to delete the selected system group.

**Note:** Remote System Manager will alert you if there are systems defined in this system group. If you choose to delete a group, the systems defined within that group are also deleted. These systems will have to be added individually or discovered by another system group to be accessed again.

**Group Discovery Filters:** To go to the Group Discovery Filters window:

1. From the System Group Management window (see Figure 39 on page 33) select the **Group Discovery Filters** option from the selected group pop-up menu.
2. The Group Discovery Filters window appears.

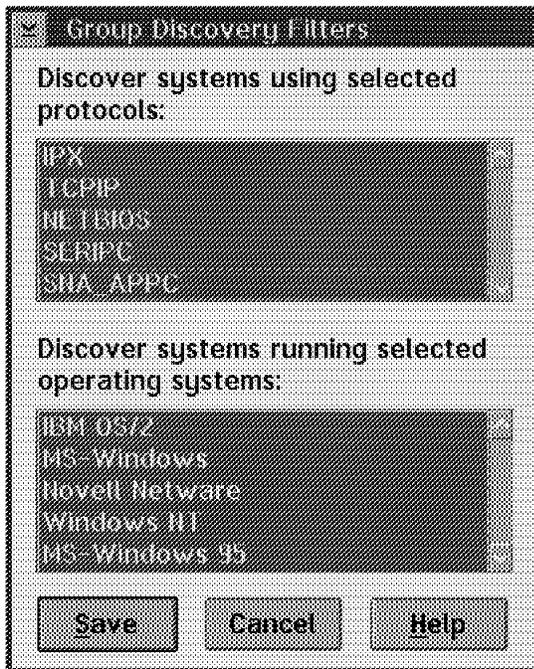


Figure 43. Group Discovery Filters

Use the Group Discovery Filters window to specify the operating system and communication protocol that must be in use on a specific system for it to be discovered and added to this group. By default, all operating systems and communications protocols are valid for inclusion in a group. You can filter specific operating system, specific communications protocols, or both.

3. Select from the Discover systems using selected protocols field the names of the communications protocols you want to include in your group. Note that all available communications protocols are selected initially.

4. Select from the Discover systems running selected operating systems field the names of the operating systems you want to include in your group. Note that all available operating systems are selected initially.
5. Select **Save** to save these filters.

**Note:** Although these filters will prevent systems that are not using the selected communications protocols or operating systems from being added to the group automatically during the discovery process, systems that do not get discovered can be added manually by selecting **Add System** from the System pull-down menu in the Group window.

**Group Notification Defaults:** To go to the Group Notification Defaults window:

1. From the System Group Management window (see Figure 39 on page 33) select the **Group Notification Defaults** option from the selected group pop-up menu.
2. The Group Notification Defaults window appears.

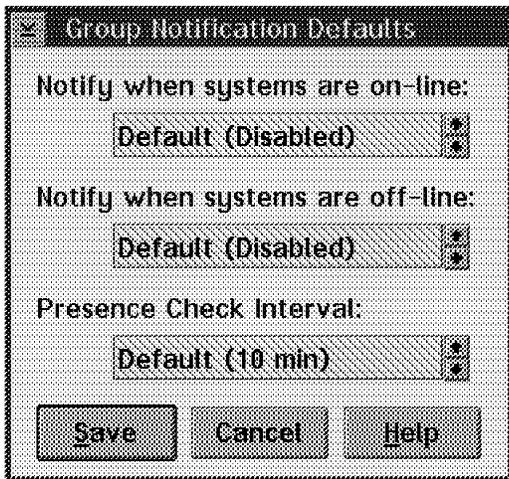


Figure 44. Group Notifications Defaults

Use the Group Notification Defaults window to specify a set of system notification settings for all systems contained in the group. Group notification defaults override the system notification defaults and the system notifications for any individual systems in the group.

3. Use the spin buttons to select a Notify when systems are online setting.  
Use the spin buttons beside this field to select the severity of the alert that will be generated when a system is online and reachable. Available selections include the numbers 0 (most severe) through 7 (least severe), Disabled (no alert will be generated), and the Default setting. The Default setting is the Notify when systems are online setting that is configured in the System Notification Defaults window.
4. Use the spin buttons to select a Notify when systems are offline setting.  
Use the spin buttons beside this field to select the severity of the alert that will be generated when a system is offline or unreachable. Available selections include the numbers 0 (most severe) through 7 (least severe), Disabled (no alert will be generated), and the Default setting. The Default setting is the Notify when systems are offline setting that is configured in the System Notification Defaults window.

5. Use the spin buttons to select a Presence Check Interval value.

Use the spin buttons beside the Presence Check Interval window to select how often a system is checked to determine if it has come online or gone offline. Available Presence Check Interval settings include 15 seconds, 30 seconds, 45 seconds, 1 to 128 minutes, and Default. The default settings are configured in the System Notification Defaults window.

6. Select **Save** to save these settings and apply them to all systems currently included in this group.

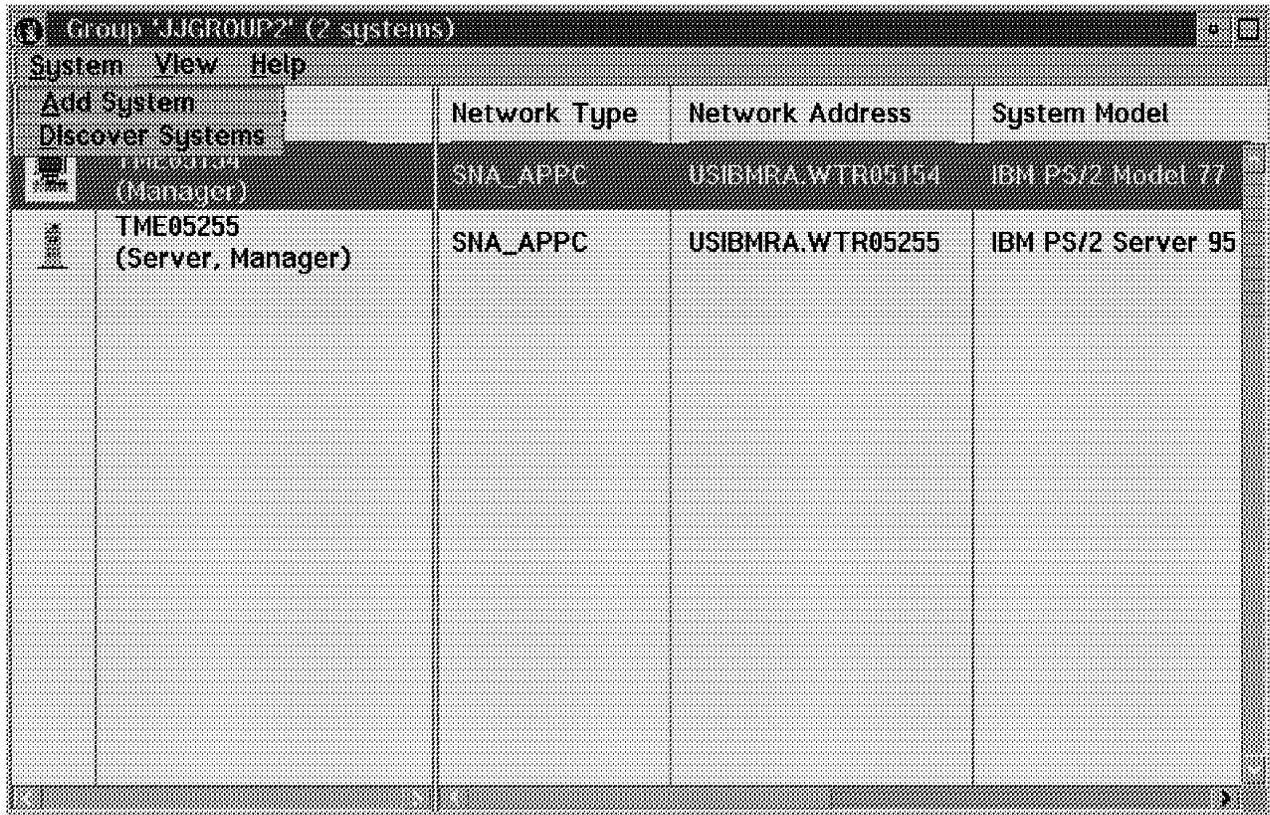


Figure 45. Group JJGROUP2 - System Menu

**Add System:** To add a system to a system group:

1. From the selected Group window (see Figure 45) select the **Add System** option from the System pull-down menu.
2. The Add System window appears.

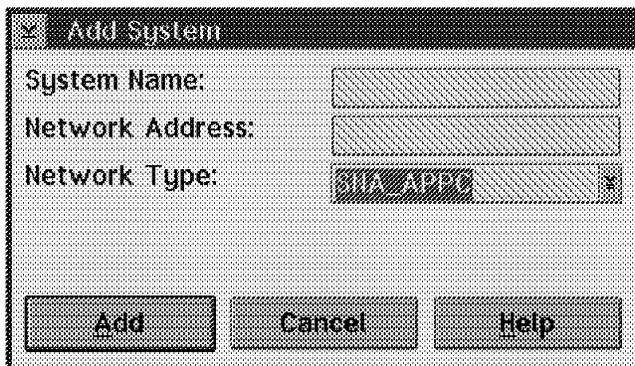


Figure 46. Add System

3. Choose a system name for the system and enter it in the System Name field. This name can be anything at all.
4. Enter a network address for the system you want to add. This must be the network address recognized by the network type you will be using.
5. Select a communications protocol from the Network Type field.
6. Select **Add** to add the system to your system group. A system icon will appear in the system panel. If the system is not online, the icon will be colored light-gray. To access the system, select the icon.

**Discover Systems:** Discover systems will initiate the discovery process for the individual system group. Which systems are discovered by each individual group is determined by the group's keyword list, the operating system filters and the transport protocols. In addition, a new feature of NetFinity is that you can automatically initiate the discovery process. It can be done on an hourly basis.

To discover systems within a system group, from the selected Group window (see Figure 45 on page 37) select the **Discover Systems** option from the System pull-down menu.

### 1.4.1.3 System Management

The selected group window displays all systems that were added to the group or systems that have been discovered within the group using the discovery process.

#### Important

**Note:** To gain access to a remote system, you have to comply with the security outgoing and incoming passwords.

See 1.1.1.1, "Incoming Passwords" on page 2 and 1.1.1.2, "Outgoing Passwords" on page 4 for how to configure passwords using Security Manager.

To select a system click with the right mouse button on the system you want to access and the selected system pop-up menu appears.

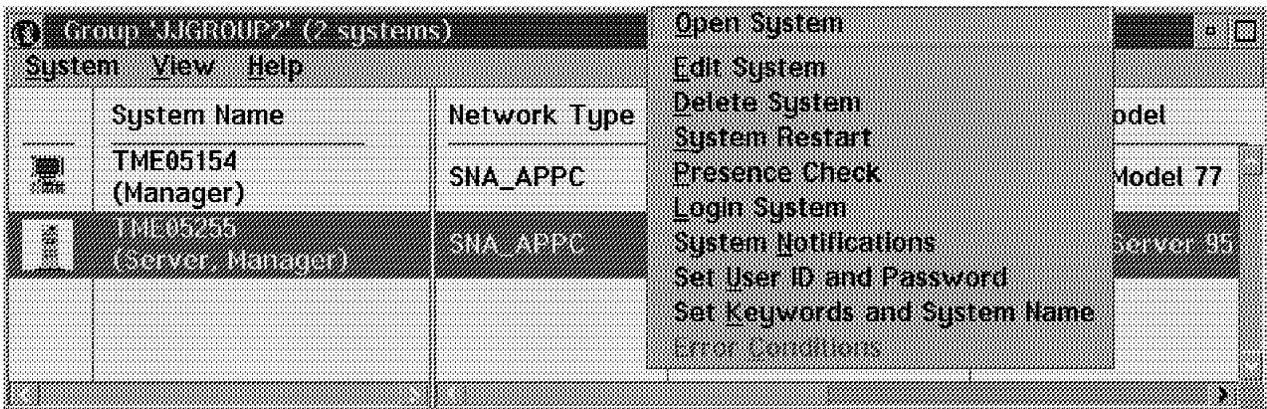


Figure 47. Group - Select a System

**Open System:** To open a system:

Select the system you want to open, then from the pull-down menu in Figure 47, select **Open System**, or double-click the system you want to access.

The NetFinity Service Manager window for the selected system appears.

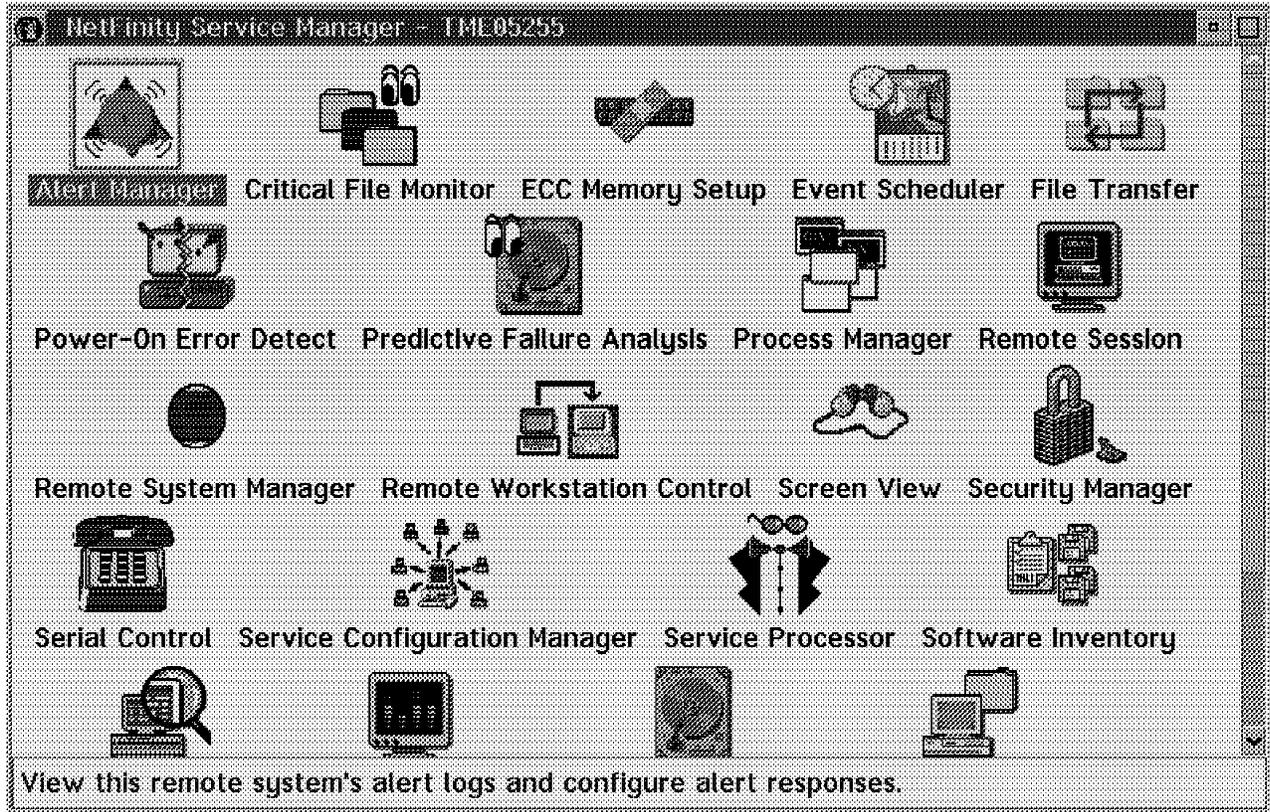


Figure 48. NetFinity Remote System Manager

You can now access any of the services displayed in the NetFinity Service Manager for the remote system.

**Edit System:** To edit a system that is already defined in a system group of your network:

1. Select the system you want to edit, then from the pop-up menu in Figure 47 on page 38, select **Edit System**.
2. The Edit System window appears.

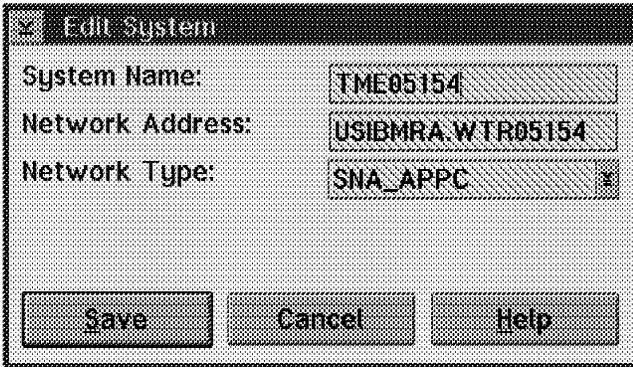


Figure 49. Edit System

3. If you want to change the system's name, enter a new system name in the appropriate field. This name can be anything at all.
4. If you want to change the network address of the system, enter the new address in the appropriate field. The new address must be the network address recognized by the network type the system will be using.
5. If you want to change the network type the system will be using, select a supported network protocol from the Network Type selection list.
6. Select **Save** to save the changes.

**Delete System:** Select the **Delete System** option to delete the selected system from the system group.

**System Restart:** Select the **System Restart** option from a selected system's pop-up menu to restart that system. You will not be able to perform this function unless you have access to the remote system's Security Manager or Remote Session services.

**Presence Check:** Select the **Presence Check** option from a selected system's pop-up menu to query the machine's presence on the network. If the machine is grayed out, it cannot be opened for communication. The system will be recognized eventually but this option will check for its presence immediately.

**Login System:** To log into a system select the system you want to log in, then from the pop-up menu in Figure 47 on page 38, select **Login System**.

The Login window appears.

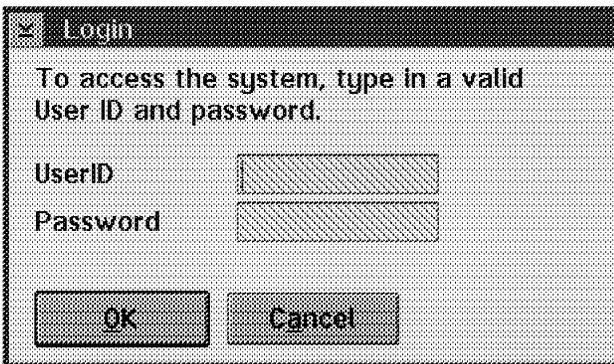


Figure 50. Login

Select the **Login System** option on a selected system to override an outgoing password for that system. If the system has more than one user ID/password combination to allow access to the system's services, this option can be used to try a combination without destroying the current outgoing password.

**System Notifications:** If you want to be notified when a selected system goes online or offline, follow these steps:

1. Select the system you want to edit, then from the pull-down menu in Figure 47 on page 38, select **System Notifications**.
2. The Set System Notifications window appears.

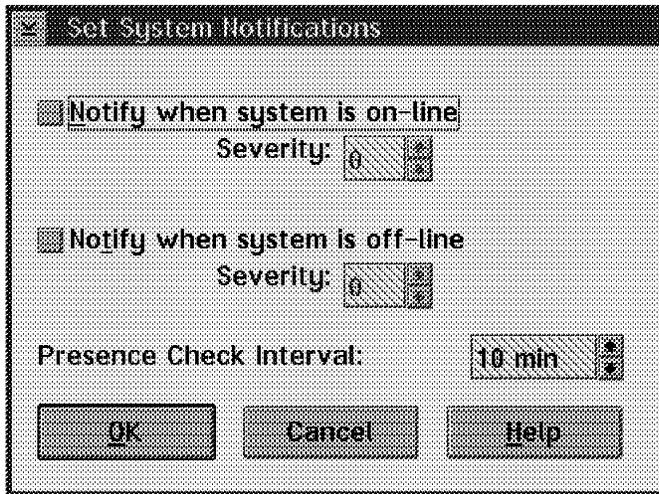


Figure 51. Set System Notifications

3. If you want to be notified when the selected system becomes active and accessible, select the **Notify when system is on-line** check box.
4. If you have selected the Notify when system is on-line check box, set a Severity value for the alert that will be generated when the system comes online. By default, severity 0 to 5 will be logged in the alert log, while severity 0 to 3 will also cause a pop-up display of the alert.
5. If you want to be notified when the selected system becomes inactive or inaccessible, select the **Notify when system is off-line** check box.
6. If you have selected the Notify when system is off-line check box, set a severity value for the alert that will be generated when the system goes offline. By default, severity 0 to 5 will be logged in the alert log, while severity 0 to 3 will also cause a pop-up display of the alert.
7. If it is important to be notified quickly of the system coming online or going offline, the Presence Check Interval field can be adjusted. By default, a system is checked every 10 minutes. This can be adjusted to be from 1 to 120 minutes.
8. Select **Save** to save the notification configuration for this system.

**Set User ID and Password:** To set the user ID and password to be used when accessing a specific system:

1. Select the system you want to edit, then from the pull-down menu in Figure 47 on page 38, select **Set User ID and Password**.
2. The Set User ID and Password window appears.

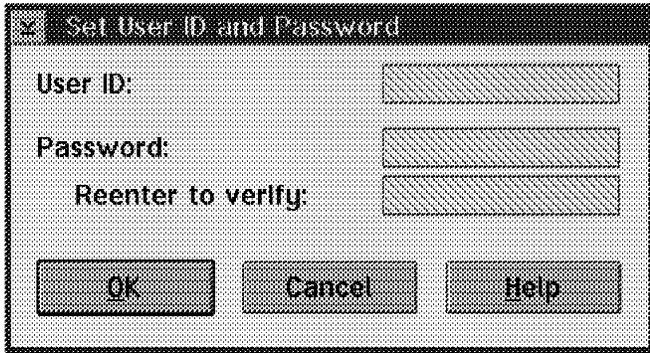


Figure 52. Set User ID and Password

3. Enter the user ID to be used for accessing the system in the User ID entry field.
4. Enter the password to be used in the Password entry field.
5. Enter the same password in the **Reenter to verify** entry field to confirm your selection.
6. Select **OK** to set the new user ID and password.

#### Important

Setting this user ID and password yields the same results as using the Set Outgoing User ID and Password option in the Security Manager service to set the user ID for the <DEFAULT> system name.

See 1.1.1.2, "Outgoing Passwords" on page 4 for how to configure outgoing passwords using Security Manager.

**Set Keywords and System Name:** This option enables you to change the system name and keywords on the selected remote system. The remote system's name and any currently assigned keywords (if any) are shown in the System Name and Keywords fields.

To set a new system name or assign new keywords:

1. Select the system you want to edit, then from the pull-down menu in Figure 47 on page 38, select **Set Keywords and System Name**.
2. The Set Keywords and System Name window appears.

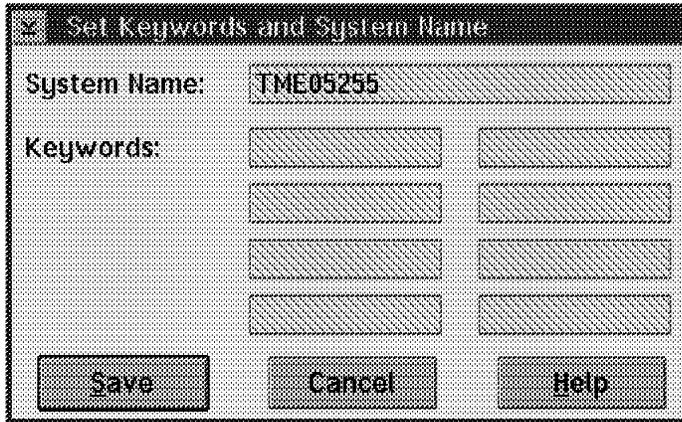


Figure 53. Set Keywords and System Name

3. Type in the System Name field a new name for the selected remote system.
4. Type in the Keywords fields any keywords you want to assign to the selected remote system. If you want to remove a previously assigned system keyword, select the keyword and then delete it by pressing the Backspace or Delete key on your keyboard.
5. Select **Save** to save these changes to the remote system.

## 1.4.2 Discovery Using LAN Protocols (NetBIOS, TCP/IP, IPX)

From a NetFinity point of view the architecture has no explicit limitation. Any limitation is imposed by the design of the network, also known as routers, bridges or hubs that block, filter or lose packets. In the discovery process a common single route broadcast packet is sent to the broadcast address in TCP/IP. Whether or not the packet reaches all the clients is really up to the network topology. NetFinity itself is not aware of any bridges or routers. NetFinity sends out a broadcast packet for discovery and then contacts the clients directly after it figures out their locations.

For TCP/IP, it is the local subnet you are on, unless you add a seed file called TCPADDR.DSC that says go find all of the IP addresses on a different subnet. TCPADDR.DSC goes in the \BIN directory.

The format is TCP/IP address SUBNET MASK with one entry per line. For example:

```
9.19.111.122 255.255.255.0
```

You only need to have one entry for a workstation on each subnet you want to reach. The IP and subnet are logically added together with a Boolean AND function to produce the broadcast address. You need one valid address and its subnet for this to work. The address and the subnet mask are not required to be a NetFinity system; NetFinity just needs them to determine the broadcast address for that subnet. The discovery works by pinging the broadcast address. If you can not manually ping the broadcast address and get a response from all the workstations on your different subnet, then NetFinity will not be able to reach them either. When you do a discovery, NetFinity sends a packet to the broadcast address, which in turn should go to every workstation. NetFinity must be up and running and the keywords that you set up in the group edit must match. If there are problems, you can check the following:

1. Did you type the IP address and subnet mask correct?
2. Did you shut down and restart netfbase so it uses the TCPADDR.DSC file?
3. Is your group requiring a keyword match?
4. Is netfbase running on the all the clients you expect a response from?
5. Is netfbase running on the all the clients you expect a response from?

If all of the above answers are *yes*, and the discovery of systems on that subnet shows no systems, look to your router blocking broadcasts.

**Note**

Do not use leading zeroes in your addresses. IBM's OS/2 TCP/IP does not use leading zeroes.

For LAN protocols such as IPX or NetBIOS, as long as the protocols are passed through bridges then the LAN will appear as one logical LAN and all the clients should get discovered. If you have a router, then NetBIOS would need to be passed explicitly. Each segment is not normally connected across routers in WANs as NetBIOS is an unruly broadcast protocol, so you would not get discovery of the discreet LAN segments.

#### **1.4.2.1 Discovery Using SNA APPC Protocol**

You must configure the software that provides the SNA protocol (for example, Communications Manager or PCOMM) to define the links. NetFinity SNA protocol uses only those links which are configured to attempt discovery. No broadcast mechanism is involved.

The SNA discovery function implemented in NetFinity will dynamically search for partner logical units (LUs) in your network from a NetFinity OS/2 manager. The LUs may either be explicitly configured or they must be present as a result of an implicit definition. In either case, target nodes to be discovered must have NetFinity active and running. When invoking the SNA discovery function, the controlling node will establish APPC sessions and it will issue *allocates* to explicitly or implicitly defined LUs. Implicit LUs are dynamically defined in Communications Server for OS/2 when a conversation needs to be established with an undefined partner LU.

NetFinity will not be able to discover an SNA node if one the following occurs:

1. The target node is powered off or not available.
2. NetFinity is not active in the target node.
3. The partner LU for the target node is not implicitly or explicitly defined in the NetFinity controlling workstation.

**Note**

If you are not certain about what partner LUs are defined in the controlling workstation, you may want to issue the DISPLAY command or use Communication Server Subsystem Management to display the explicit and implicit partner LUs previously defined.

### 1.4.3 Command Line Interface for Remote System Manager

The command processor that is used for the Remote System Manager is NFRSYSCL. The format of the command follows:

NFRSYSCL - CLI tool for Remote System Manager

The following command line operations are supported:

```
/? - Returns this command-line help
/GETGRP - Returns information about selected groups
/GETSYS - Returns information about selected systems
/RUNSYS - Executes another tool on selected systems
/DELSYS - Deletes selected systems
/ADDSYS - Creates a new system
/EDITSYS - Modifies attributes of selected systems
/DELGROUP - Deletes selected groups
/ADDGROUP - Creates a new group
/EDITGRP - Modifies attributes of selected groups
/BOOTSYS - Restarts selected systems
/SHUTSYS - Shuts down selected systems
/WAKESYS - Attempts wake-on-LAN on selected systems
/PWRSYS - Powers-down selected systems
/RESETERRSYS - Resets error conditions on selected systems
/DODISC - Initiates discovery in selected groups
```

#### 1.4.3.1 Examples Using Command Line Interface

- Add a new group JJGROUP1:

```
nfrsyscl.exe /addgroup:"JJGROUP1" /addkwd:"JJ1"
```

Output:

```
GRPTAG=0x0327C184
```

- Get group JJGROUP1 information:

```
nfrsyscl.exe /getgrp /grp:"JJGROUP1"
```

Output:

```
{ GRPTAG=0x0327C184, GRPNAME="JJGROUP1", COMBO=ALL,
 KWD={ "JJ1" },
 OS_MASK={ }, AUTODISC=DISABLED,
 PROTO_MASK={ },
 DEFONLN=NONE, DEFOFFLN=NONE, DEFPING=NONE
}
```

- Add system TME05186 to group JJGROUP1 using NetBIOS:

```
nfrsyscl.exe /addsys:"TME05186" /proto:NETBIOS
 /addr:WTR05186 /addgrp:"JJGROUP1"
```

Output:

```
SYSTAG=0x00128B30
```

- Add system TME05187 to group JJGROUP1 using NetBIOS:

```
nfrsyscl.exe /addsys:"TME05187" /proto:NETBIOS
 /addr:WTR05187 /addgrp:"JJGROUP1"
```

Output:

```
SYSTAG=0x0AD6E4EC
```

- Add system TME05255 to group JJGROUP1 using NetBIOS:

```
nfrsyscl.exe /addsys:"TME05255" /proto:NETBIOS
 /addr:WTR05255 /addgrp:"JJGROUP1"
```

Output:

```
SYSTAG=0x0046F566
```

- Get system TME05186 information:

```
nfrsyscl.exe /getsys /sys:TME05186
```

Output:

```
{ SYSTAG=0x00133961, SYSNAME="TME05186", PROTO=IPX,
 ADDR="9.400052005186",
 ONLINE=TRUE, ONLN=DISABLED, OFFLN=DISABLED, PING=600,
 GRPLIST={ 0x000238F7 },
 ERRORCOND={ },
 OS=WINDOWS_NT, OS_VER=3.51, MANAGER, MAC=400052005186
}
{ SYSTAG=0x0012893C, SYSNAME="TME05186", PROTO=TCPIP,
 ADDR="NTDOM79.itso.ral.ibm.com",
 ONLINE=TRUE, ONLN=DISABLED, OFFLN=DISABLED, PING=600,
 GRPLIST={ 0x000238F7 },
 ERRORCOND={ },
 OS=WINDOWS_NT, OS_VER=3.51, MANAGER
}
{ SYSTAG=0x00128B30, SYSNAME="TME05186", PROTO=NETBIOS,
 ADDR="WTR05186",
 ONLINE=TRUE, ONLN=DISABLED, OFFLN=DISABLED, PING=600,
 GRPLIST={ 0x000238F7, 0x0327C184 },
 ERRORCOND={ },
 OS=WINDOWS_NT, OS_VER=3.51, MANAGER, MAC=865100520040
}
```

- Reboot WTR05187:

```
nfrsyscl.exe /bootsys /sys:TME05187
```

Output:

```
{ SYSTAG=0x0AD6FA68, RC=0 }
{ SYSTAG=0x0AD6E3F2, RC=0 }
{ SYSTAG=0x0AD6E4EC, RC=0 }
```

- Reboot systems in group JJGROUP1:

```
nfrsyscl.exe /bootsys /grp:JJGROUP1
```

Output:

```
{ SYSTAG=0x00128B30, RC=0 }
{ SYSTAG=0x0AD6E4EC, RC=0 }
{ SYSTAG=0x0046F566, RC=0 }
```

### 1.4.3.2 Groups After Running the Examples

After using the command line interface to set up the groups, we can then use the graphical user interface to verify that the groups were set up as we wanted them to be.

After adding JJGROUP1 you see the following results:

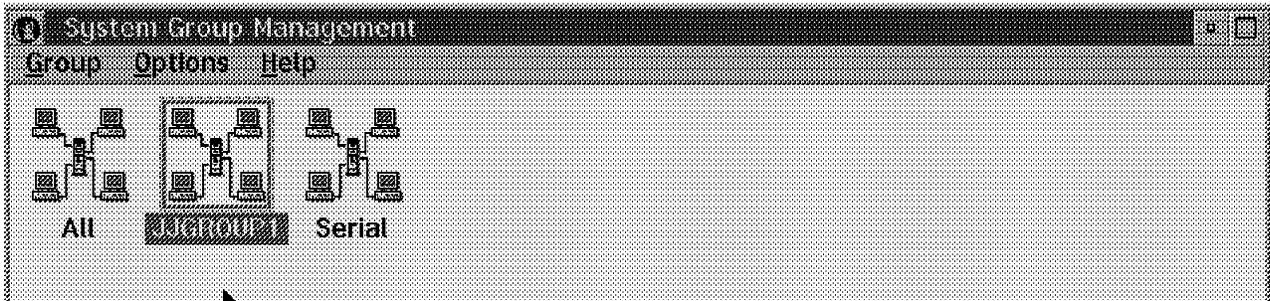


Figure 54. NetFinity V5.0 System Group Management

After adding systems to JJGROUP1 you see the following results:

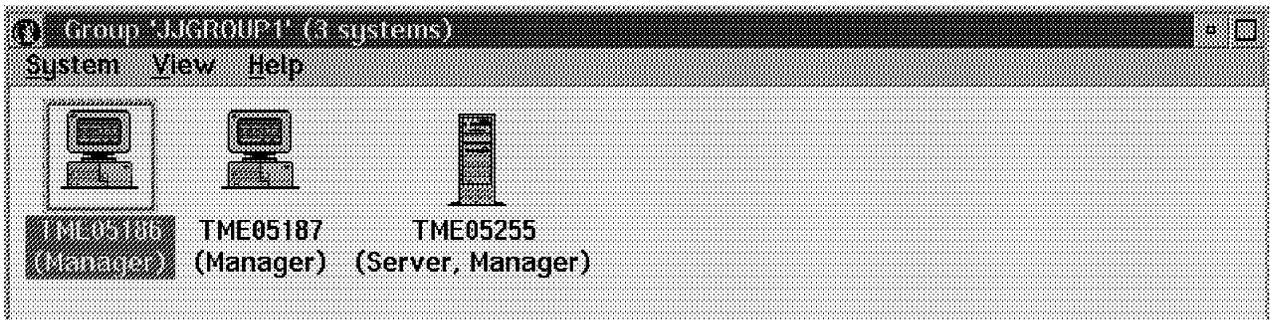


Figure 55. NetFinity V5.0 Group JJGROUP1 Icon View

The detail view of the group shows the following:

|  | System Name                   | Network Type | Network Address | System Model        |
|--|-------------------------------|--------------|-----------------|---------------------|
|  | TME05186<br>(Manager)         | NETBIOS      | WTR05186        | IBM Personal Comput |
|  | TME05187<br>(Manager)         | NETBIOS      | WTR05187        | IBM Personal Comput |
|  | TME05255<br>(Server, Manager) | NETBIOS      | WTR05255        | IBM PS/2 Server 95  |

Figure 56. NetFinity V5.0 Group JJGROUP1 Detail View



## Chapter 2. Protocol Management

This chapter shows examples of managing networks over the transport protocols that are supported by NetFinity V5.0: IPX, TCP/IP, NetBIOS, Serial and SNA.

### 2.1 Network Driver Configuration

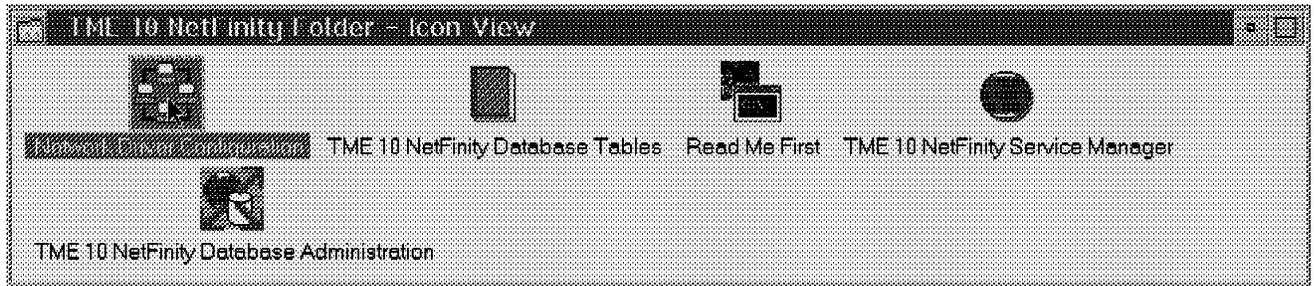


Figure 57. NetFinity Folder for an OS/2 Workstation

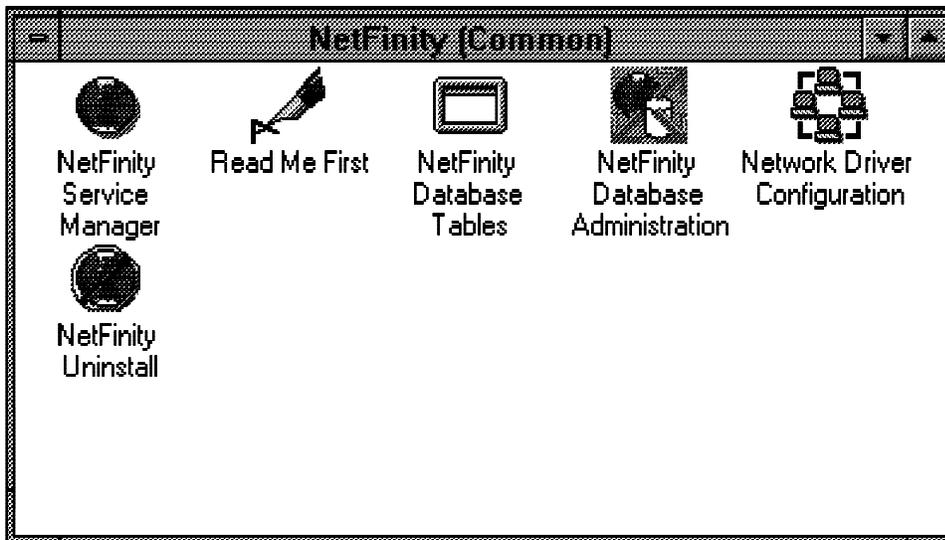


Figure 58. NetFinity Folder for a Windows NT Workstation

To configure the supported protocols that NetFinity will use to communicate among workstations with NetFinity installed, double-click on the **Network Driver Configuration** icon in the NetFinity folder.

#### Important

In NetFinity Rel 4.1, SNA APPC protocol is only available for OS/2 workstations. There is no support for SNA APPC protocol for Windows NT workstations. See Figure 59 on page 50 for supported OS/2 protocols. See Figure 60 on page 51 for supported Windows NT protocols.

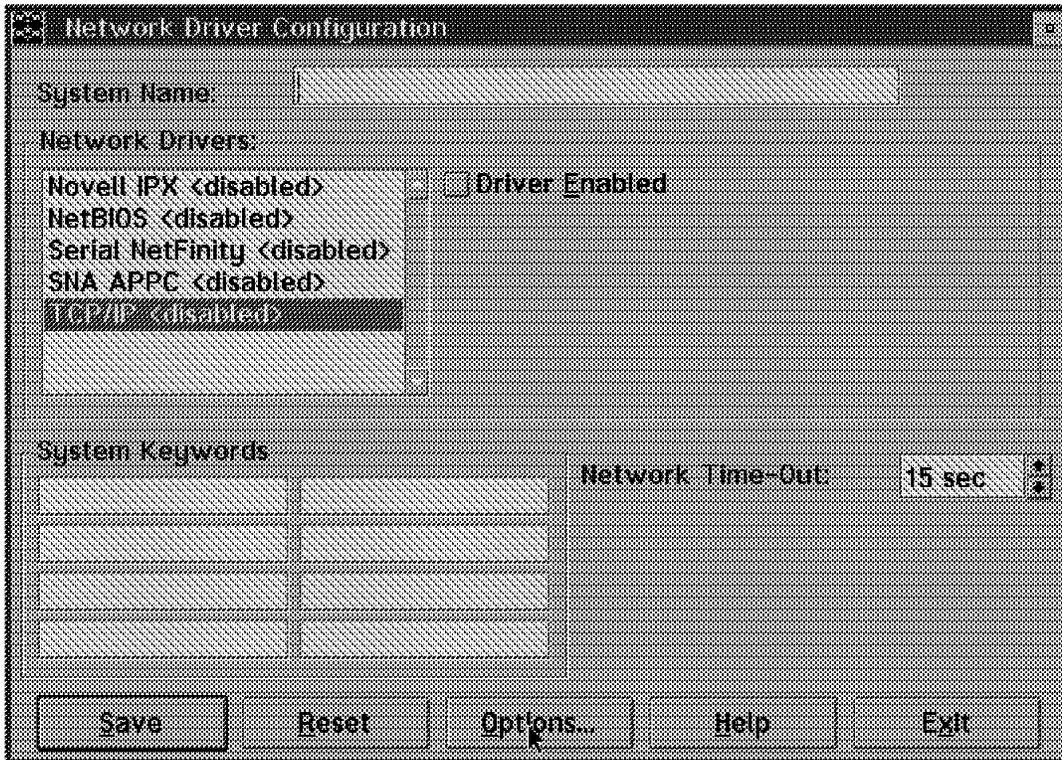


Figure 59. Network Driver Configuration Panel for an OS/2 Workstation

In Figure 59 none of the transport protocols have been enabled yet. The list is just a list of which protocols NetFinity has discovered during its install process. If you add a new transport protocol (or remove one), NetFinity will update this panel next time you go into it. To enable a transport protocol, just select the protocol and click on the **Driver Enabled** check box.

Notice that in Figure 60 on page 51 there is no driver for SNA APPC. This is because that is the configuration box for an NT system.

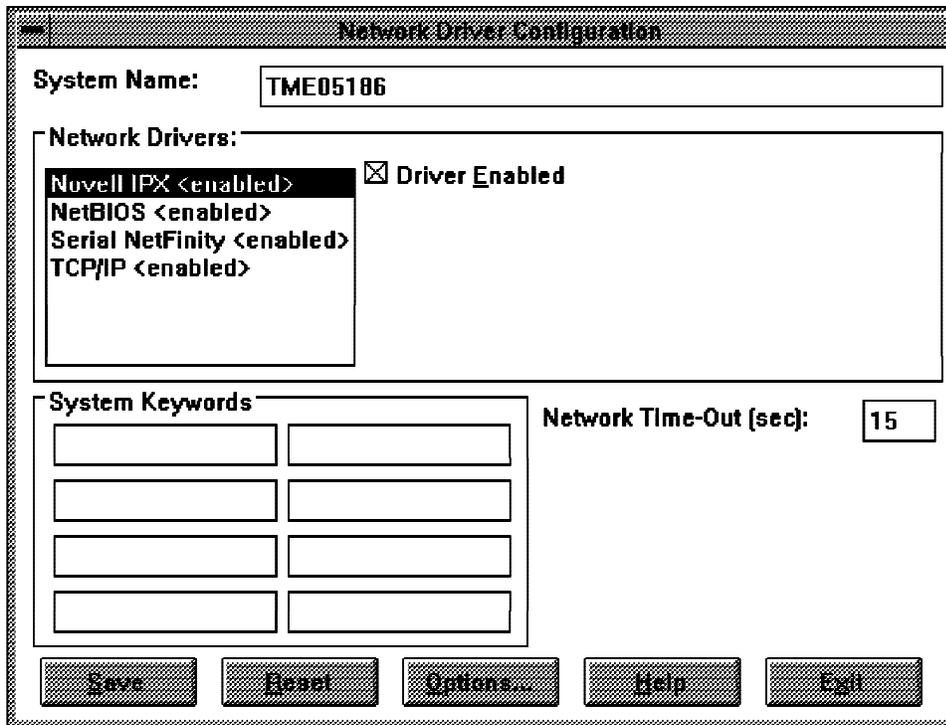


Figure 60. Network Driver Configuration Panel for a Windows NT Workstation

This program allows the user to configure NetFinity V5.0 to use any available and supported network interface. To configure the network drivers of this system:

1. Enter a name for your system.
2. Select a network driver.
3. Enter additional information (if necessary).
4. Enable the network driver.
5. Repeat for other network drivers.
6. Enter System Keywords (optional).
7. Select NetFinity V5.0 Options (optional).
8. Set your Network Time-Out.
9. Save your configuration.

### 2.1.1 System Name

The system name helps the Remote System Manager identify your system. This name can be anything at all. The name will be used later on in other NetFinity services to identify which system you will access.

### 2.1.2 Network Drivers

The Network Driver field displays all available network drivers supported by NetFinity V5.0. To select drivers for configuration, use the mouse or keyboard to select one of the available drivers.

### 2.1.3 Driver Enabled Check Box

The Driver Enabled check box determines whether the selected and configured network driver is activated during startup of the NetFinity V5.0 Services. If the box is checked and the configuration is saved, then the driver will be activated during startup.

### 2.1.4 Network Timeout

The Network Time-Out field enables you to set the default timeout period for NetFinity V5.0 applications. The timeout period determines how long an application will typically wait for a response to a request sent to a remote application before a "communication error" is declared. The default network timeout value is 15 seconds. If you have a particularly loaded system or network, setting the network timeout to a higher value can help correct application timeout problems. Normally, this value should be left at the default of 15 seconds.

### 2.1.5 System Keywords

The system keywords identify your system on your network. These keywords can be used during the NetFinity V5.0 Remote System Manager discovery process, and can help the discovery process to function optimally.

### 2.1.6 NetFinity V5.0 Options



Figure 61. NetFinity V5.0 Options - OS/2 Workstation

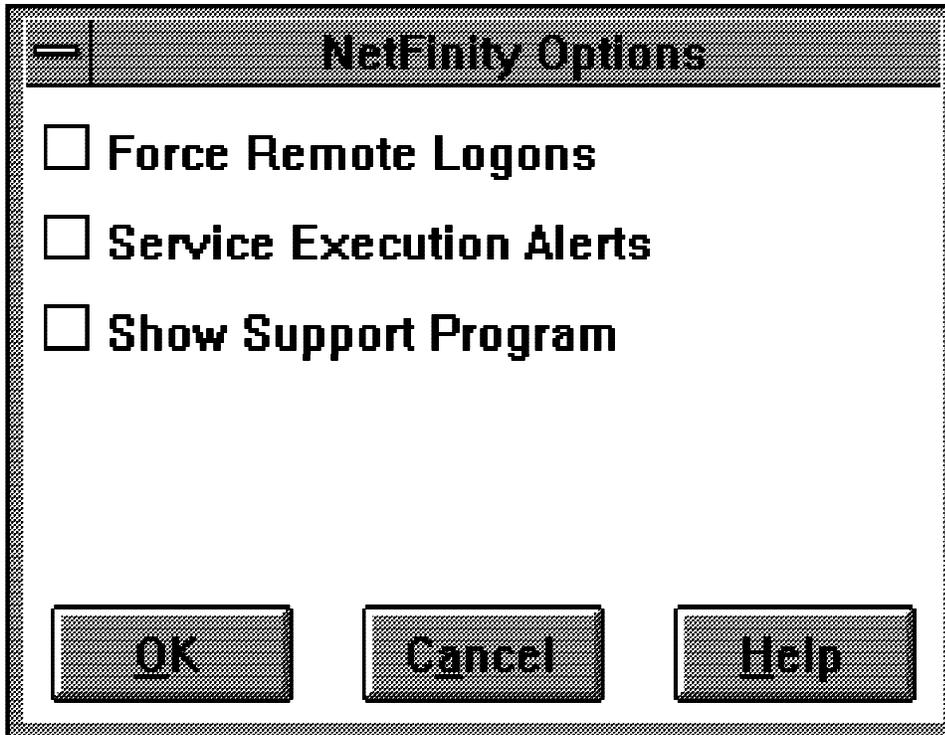


Figure 62. NetFinity V5.0 Options - Windows NT Workstation

The NetFinity Options window lets you activate a variety of special NetFinity V5.0 options that affect NetFinity V5.0's network operations and are not available with the default installation. Available options include:

- Force Remote Logons
- Service Execution Alerts
- Show Network Support (available only for systems running Windows 3.1, Windows for Workgroups, Windows 95, or Windows NT)

Select the NetFinity V5.0 options that you want to enable and then select **OK** to save these options and continue with your network driver configuration. Select **Cancel** at any time to close this window without saving any options.

#### 2.1.6.1 Force Remote Logons

If you enable the Force Remote Logons option, your system will not be able to save the user ID/password combinations that you use when accessing remote systems. This will force you to manually log on to any remote system that you want to access each time you access that system.

#### 2.1.6.2 Service Execution Alerts

If you enable the Service Execution Alerts option, the NetFinity V5.0 Service Manager will generate a NetFinity V5.0 alert whenever one of your NetFinity services is started by a remote user that is accessing your system. The alert includes the name of the service that was run and information about the user that started the service.

### 2.1.6.3 Show Network Support

If you enable the Show Network Support option, the NetFinity V5.0 Network Interface will be visible as a minimized icon at the bottom of the display (Windows 3.1, Windows for Workgroups, or Windows NT only) or as a minimized process in the Windows 95 task bar. This enables the user to shut down the NetFinity V5.0 Network Interface. If you want the NetFinity V5.0 Network Interface to remain invisible to the user, do not enable this option. This option is available only on systems that are running Windows 3.1, Windows for Workgroups, Windows 95, or Windows NT.

---

## 2.2 Network Driver Configuration Novell IPX

In Figure 63 the check box for Novell IPX support is enabled. This means that this NetFinity V5.0 Manager can manage a NetWare environment over IPX. If you are running a NetWare Server and only using TCP/IP, there is a patch that is available for NetFinity V4.0 as well.

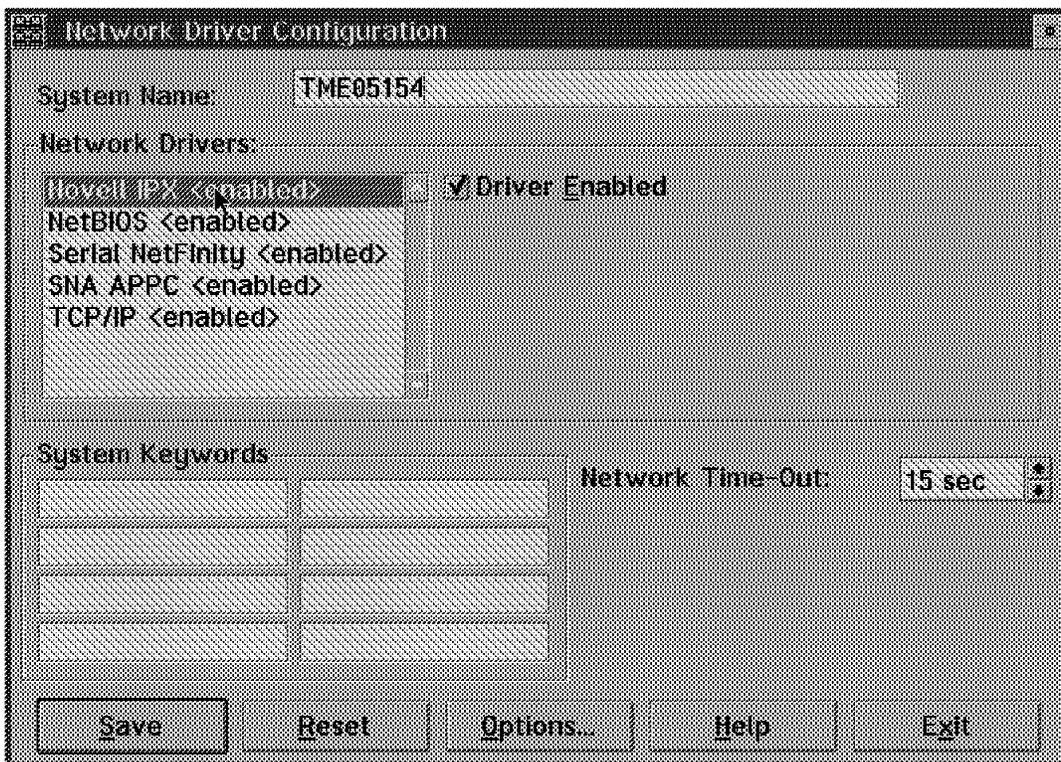


Figure 63. Network Driver Configuration Novell IPX

Additional information is not required. The driver depends on the existing protocol configuration.

---

## 2.3 Network Driver Configuration NetBIOS

Figure 64 on page 55 shows that the network driver for NetBIOS is not yet enabled. The network address is taken from a pre-configured value. For an OS/2 system, it gets the value from the IBMLAN.INI file.

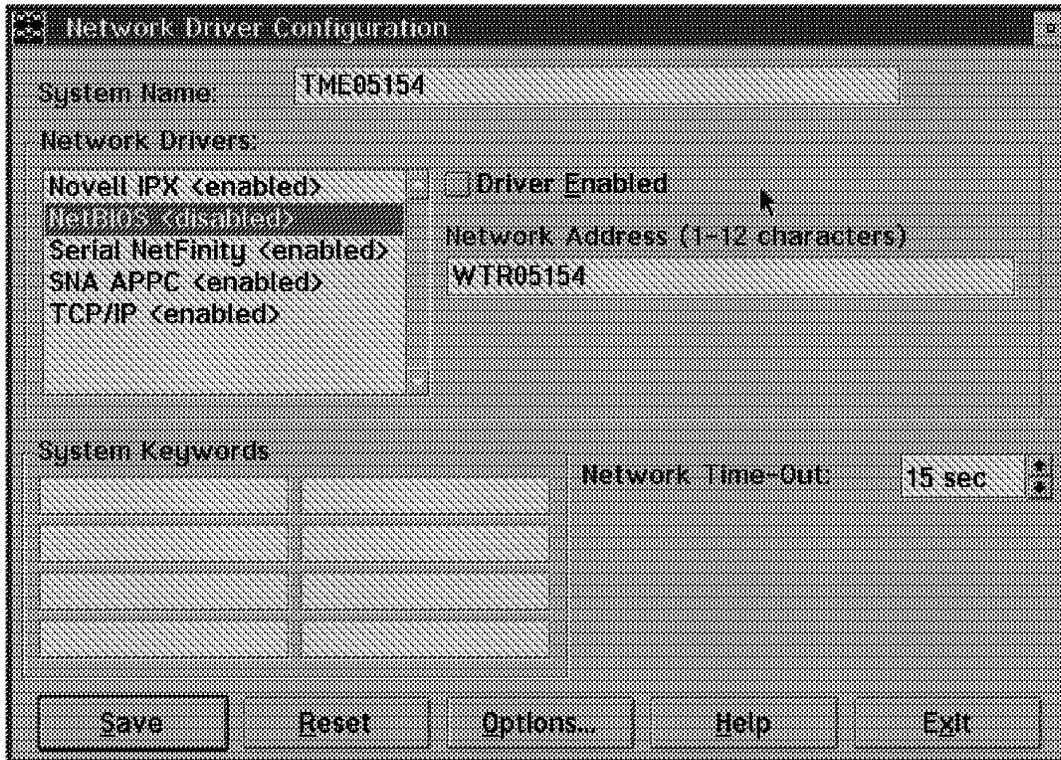


Figure 64. Network Driver Configuration NetBIOS

The System Name (1-12 characters) field is required. Enter the information to continue, or accept the default value which is the LAN Requester machine name or the last 8 characters of the burned-in address of the adapter.

**Note:** NetFinity NetBIOS requirements are two names, one session and five network control blocks (NCBs) for manager and services.

## 2.4 Network Driver Configuration Serial NetFinity V5.0

The serial driver in Figure 65 on page 56 is enabled. This means that the manager can dial into clients to perform some management tasks.

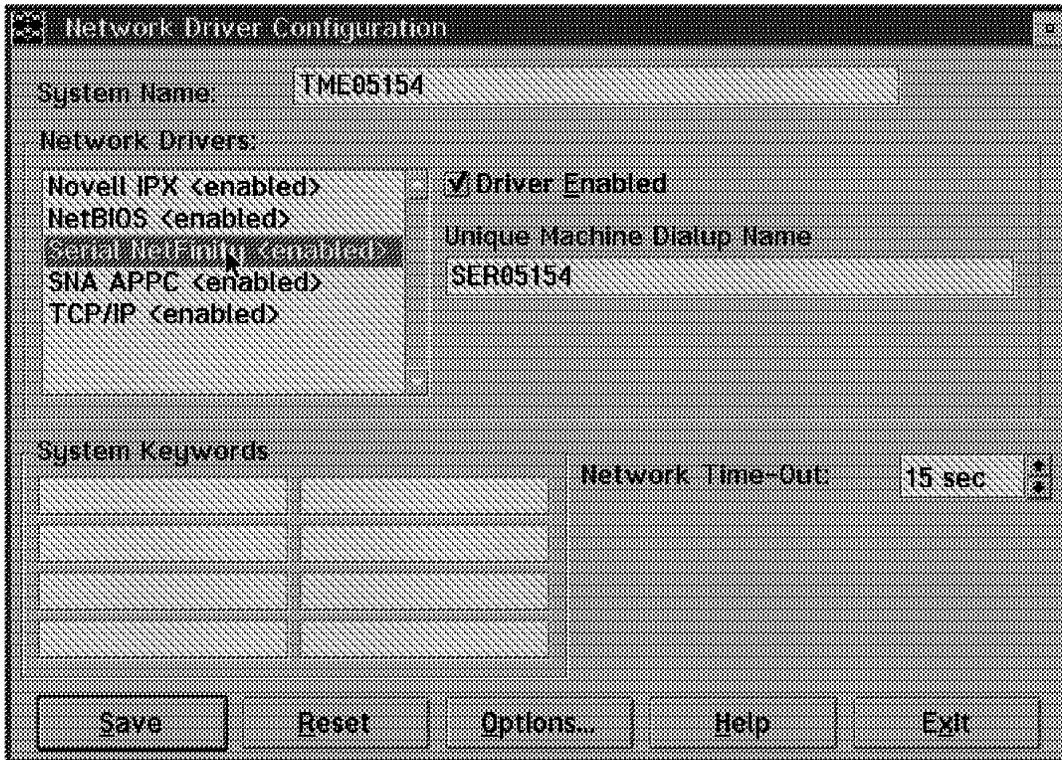


Figure 65. Network Driver Configuration Serial NetFinity V5.0

You have to provide a unique machine dial-up name.

## 2.4.1 NetFinity V5.0 Serial Connection Control

To configure the serial connection, double-click on the **Serial Control** icon in the NetFinity V5.0 Service Manager folder.

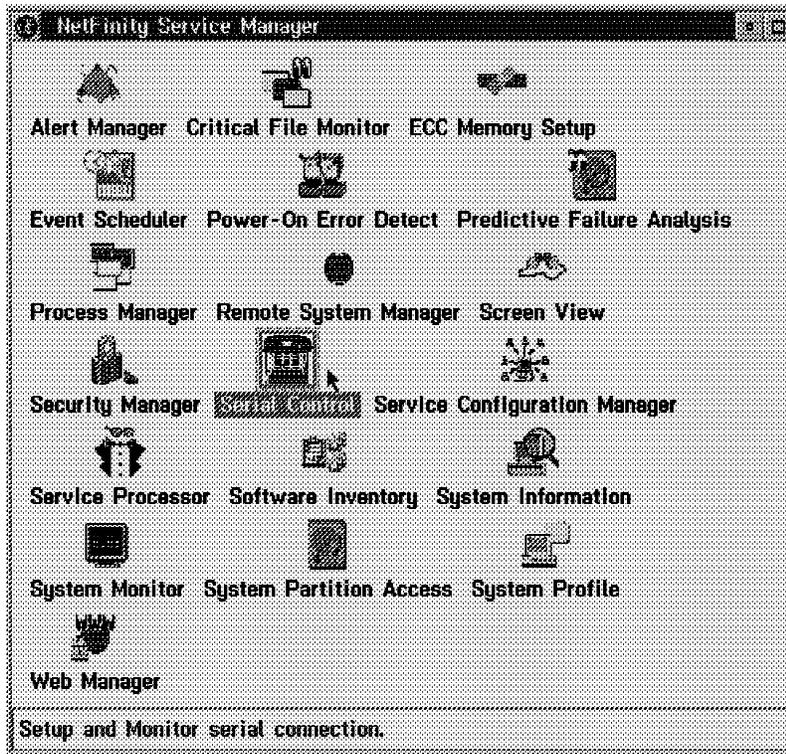


Figure 66. Network Driver Configuration Serial Connection

**Note:** NetFinity Serial Connection requires a 9600 baud or greater modem. Use the NetFinity V5.0 Serial Connection Control window to:

- Apply to add or change a serial connection entry
- Change the name of a serial connection entry
- Delete a serial connection entry
- Start a serial connection
- Change the modem settings
- Exit this service

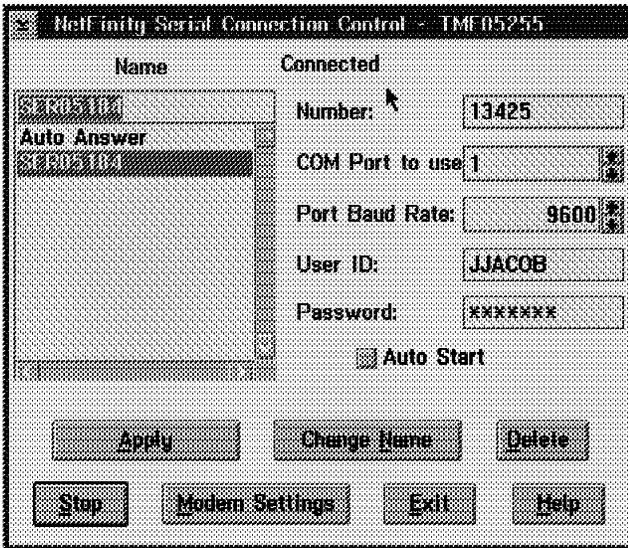


Figure 67. Serial Connection Control Caller

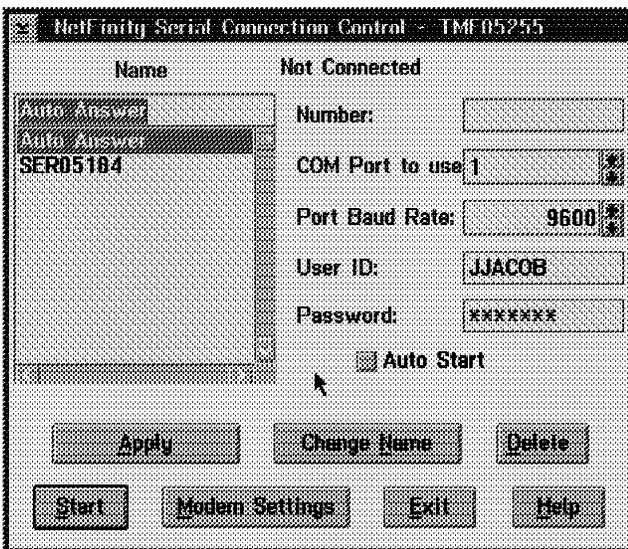


Figure 68. Serial Connection Control Receiver

### 2.4.1.1 Adding/Changing a Serial Connection Control Entry

To add a new Serial Connection Control entry:

1. Assign a name to the entry.
2. Type in the Number field the telephone number of the system that you will be accessing.
3. Select the COM port of the modem that you will be using to access the remote system.
4. Select the baud rate of the modem that you will be using to access the remote system.
5. Type in a user ID that will allow access to the remote system.
6. Type in a password that will allow access to the remote system.

7. Select **Apply** to save this entry.

To change a previously configured serial connection control entry:

1. Select from the Name field the name of the Serial Connection Control entry that you want to modify.
2. Modify the Serial Connection Control entry's settings as necessary.
3. Select **Apply** to save your changes.

#### **2.4.1.2 Name**

Use the Name field to assign a unique name to the Serial Connection Control entry that you are creating for an individual system. For example, the system name of the system that you are configuring for Serial Connection access would be a good entry. However, the Name entry is purely descriptive, and can be anything at all.

#### **2.4.1.3 Number**

Type in the Number field the telephone number of the system that you want to use Serial Connection Control to access.

**Note:** The system that you are dialing in to must be in AutoAnswer mode for a connection attempt to be successful.

#### **2.4.1.4 COM Port**

Set the COM Port field to the number of the COM port that will be used to dial out to the remote system. Since any modem can be attached to any COM port, be sure that the modem settings that will be used are properly configured.

#### **2.4.1.5 Baud Rate**

Set the Baud Rate field to the data transfer rate that will be used by the modem during communications between your system and the remote NetFinity V5.0 system that you access.

**Note:** Many modems have built-in data compression, and therefore are capable of transmitting data at a rate higher than which they are rated for. You should set the baud rate as high as a successful connection will permit.

Setting the baud rate lower than your modem's rating will force a lower data transmission rate. This may be necessary if telephone line conditions are poor.

#### **2.4.1.6 User ID**

Type in the User ID field the user ID that when used in conjunction with a password will enable you to access the remote system that you are dialing in to.

**Note:** You must provide a user ID and a password that matches the user ID and password on the remote systems Serial Connection Control for the Serial Connection Control to allow access to a remote system. Once connected, all normal Security Manager rules apply for access to both local and remote systems.

### 2.4.1.7 Password

Type in the password field the password that when used in conjunction with a user ID, will enable you to access the remote system that you are dialing in to.

**Note:** You must provide a user ID and a password that matches the user ID and password on the remote systems Serial Connection Control for the Serial Connection Control to allow access to a remote system. Once connected, all normal Security Manager rules apply for access to both local and remote systems.

### 2.4.1.8 Auto Start

Select Auto Start to enable one selected Serial Connection Control entry to be activated automatically when NetFinity V5.0 is started. Only one entry can be set to start automatically. For example, if you select the AutoAnswer entry from the Name field and then select the Auto Start check box, this system will automatically go into AutoAnswer mode when NetFinity V5.0 is started. This would enable other NetFinity V5.0 Manager's to use their own Serial Connection Control services to dial into your system. However, if you selected a Serial Connection Control entry that enables you to dial into another system and then selected the Auto Start check box, your system would automatically attempt to access the remote system when NetFinity V5.0 was started.

### 2.4.1.9 Start

Select Start to initiate the currently selected Serial Connection Control entry. If the currently selected entry is AutoAnswer, the Serial Connection Control service will wait for a remote NetFinity V5.0 Manager to attempt to access the system via the modem. If the currently selected entry is a configured remote system access entry, the Serial Connection Control will initialize the modem, dial the specified telephone number, and attempt to connect to the remote system.

**Note:** If Stop is displayed, select Stop to end the current connection. This will hang up and reset the modem. If the service was waiting for a call, this will disable AutoAnswer and reset the modem.

### 2.4.1.10 Modem Settings

Click on Modem Settings to configure your system's modem for use by the Serial Connection Control service, or to change previously saved configuration information.

### 2.4.1.11 NetFinity V5.0 Modem Settings

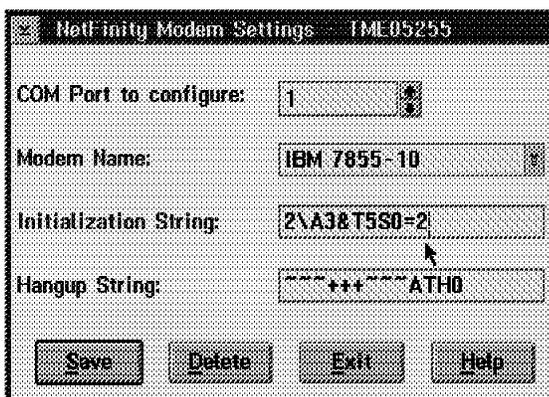


Figure 69. NetFinity V5.0 Modem Settings

To configure your system's modem:

1. Select the COM port for the modem that you are configuring.
2. Select a modem name or type in a new one.  
**Note:** Selecting a pre-configured modem name or default will automatically fill in the other modem configuration information.
3. Type in the proper initialization string for your system's modem.
4. Type in the proper hangup string for your system's modem.
5. Select **Save** to save these settings and enable this modem to be used by the Serial Connection Control service.

To change previously configured modem settings:

1. Select from the Modem Name field the name of the modem that you want to modify.
2. Modify the modem's settings as necessary.
3. Select **Save** to save these changes and enable this modem to be used by the Serial Connection Control service.

#### **2.4.1.12 Modem Name**

Select from the Modem Name field the name of your system's modem or type in a new one. If you do not know what kind of modem your system has, select Default.

**Note:** Selecting a preconfigured modem name or Default will automatically fill in the other modem configuration information.

#### **2.4.1.13 Initialization String**

Type in the Initialization String field an initialization string that will enable your modem to function properly with the Serial Connection Control service.

#### **2.4.1.14 Required Initialization Codes**

Although most modems share similar initialization string codes, there are variances from modem to modem. Therefore, it is very difficult to provide appropriate initialization strings for all modems. In some cases you might need to create your own initialization string for your modem. In this case, consult the documentation that came with your modem for the appropriate initialization strings codes. For a modem to operate correctly with the NetFinity V5.0 Serial Connection Control service, the initialization string must configure the 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 hangup, 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
- Autoanswer OFF

Example: The initialization string for a US Robotics Sportster modem using only the settings required for correct operation would be:

```
E0F1Q0V1X4&A3&C1&D2&H1&R2&Y3S0=0
```

#### 2.4.1.15 Recommended Initialization Codes

In addition to the required initialization codes, you can optimize the operation of the NetFinity V5.0 Serial Connection Control service by configuring your modem with the following additional settings:

- Speaker ON until carrier detected
- Software flow control disabled
- Auto-error control
- Variable data rate

Example: The initialization string for a US Robotics Sportster modem using all the required and recommended settings would be:

```
E0F1M1Q0V1X4&A3&C1&D2&H1&I0&K1&M4&N0&R2&Y3S0=0
```

#### Important

The initialization strings for the modems that come with NetFinity V5.0 use the value of 0 for S0, which means don't pick up the line when it rings. We changed the value to 2, which means pick up the line after two rings. The value to change is the last character in the initialization string.

#### 2.4.1.16 Hangup String

The Hangup String field contains the command that will be sent to the modem to instruct it to close the connection to the telephone line. This string will function properly on most modems. If your modem does not respond correctly to the default hangup string, please consult the documentation that came with your modem for more information.

## 2.4.2 System Group Management

When you define the serial it will automatically add a group called *serial* to your Remote System Manager system group as shown in Figure 70.

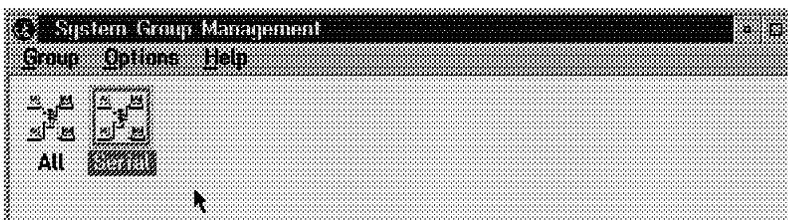


Figure 70. System Group Management

The initial member of the serial group is the machine that we defined the serial connection driver on.



Figure 71. Group - Serial

## 2.5 Network Driver Configuration TCP/IP

To enable the TCP/IP driver all you have to do is click on the **Driver Enabled** and the **TCP/IP** field in the list of network drivers.

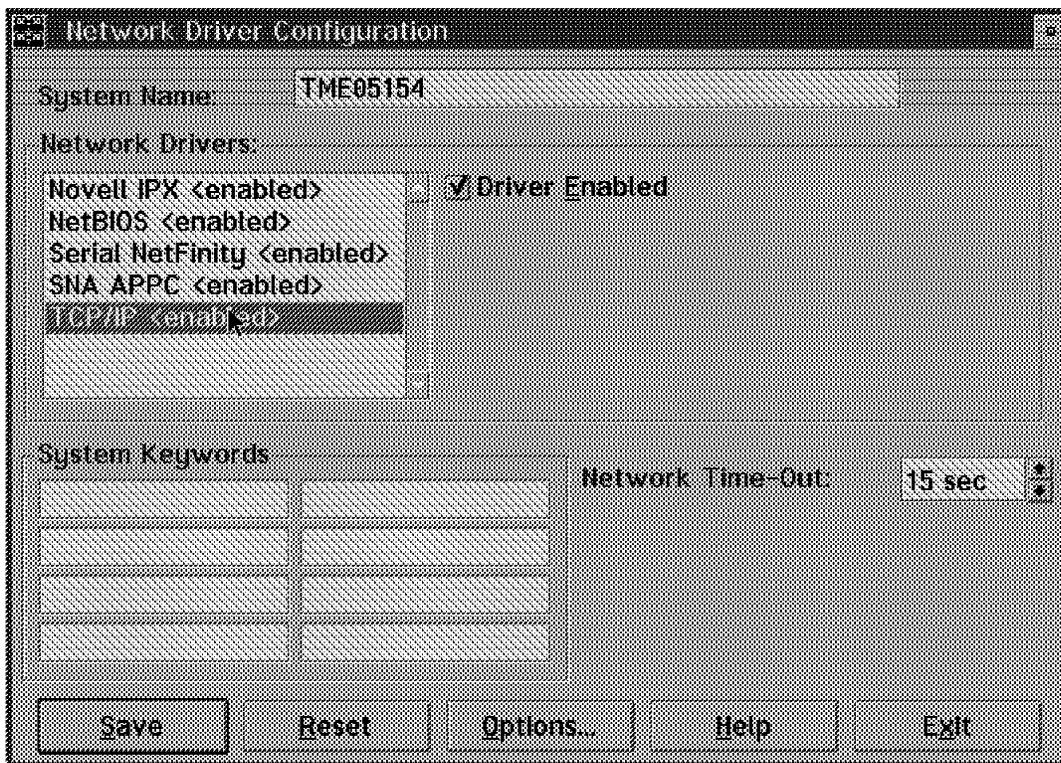


Figure 72. Network Driver Configuration TCP/IP

Additional information is not required. The driver depends on the existing protocol configuration.

### 2.5.1 NetFinity TCP/IP Stacks Supported and Tested

|      |       |           |       |       |       |       |       |         |
|------|-------|-----------|-------|-------|-------|-------|-------|---------|
| OS/2 | ----- | Windows   | ----- | Win95 | ----- | WinNT | ----- | NetWare |
| IBM  |       | IBM       |       | Win95 |       | WinNT |       | NetWare |
|      |       | Chameleon |       |       |       |       |       |         |
|      |       | Soliton   |       |       |       |       |       |         |
|      |       | FTP       |       |       |       |       |       |         |

Figure 73. TCP/IP Stacks

Windows has a WINSOCK standard. The other operating systems do not have a standard, so all suppliers must pick and choose what vendor's TCP/IP stack they will support. Lotus, for example, has some features and functions that only work with FTP's stack.

## 2.6 Network Driver Configuration SNA APPC

For the new SNA APPC support on OS/2 you will need to provide a Mode table. The default is BLANK, provided by Communications Manager/2. Only OS/2 workstations support SNA APPC. All partners to this system must use the same Mode table.

See Figure 41 on page 34 for an example of discovered systems using SNA APPC protocol.

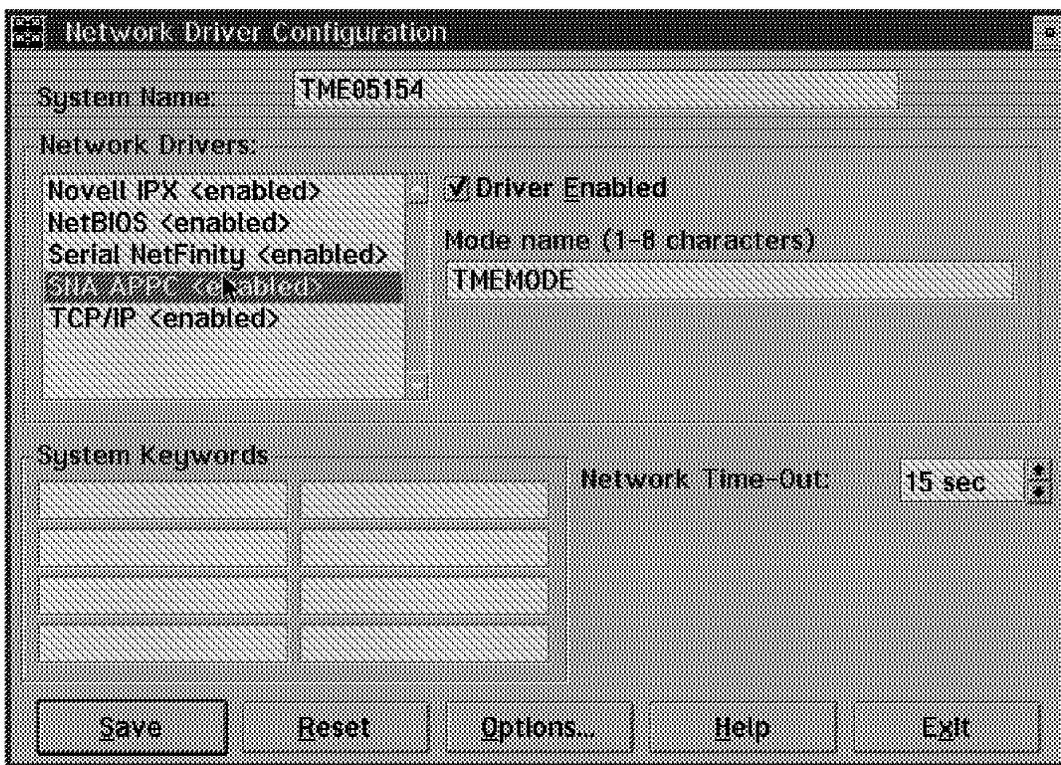


Figure 74. Network Driver Configuration SNA APPC

### 2.6.1 Communications Manager/2 Configuration WTR05255

Figure 75 on page 65 through Figure 77 on page 65 show the key Communications Manager/2 panels that are necessary to set up APPC support for NetFinity V5.0.

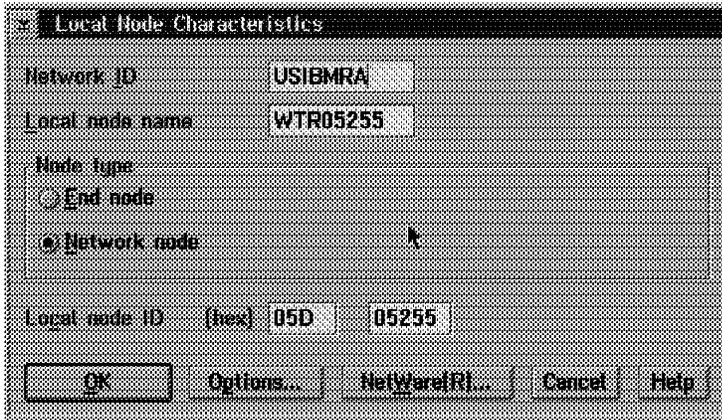


Figure 75. Local Node Characteristics WTR05255

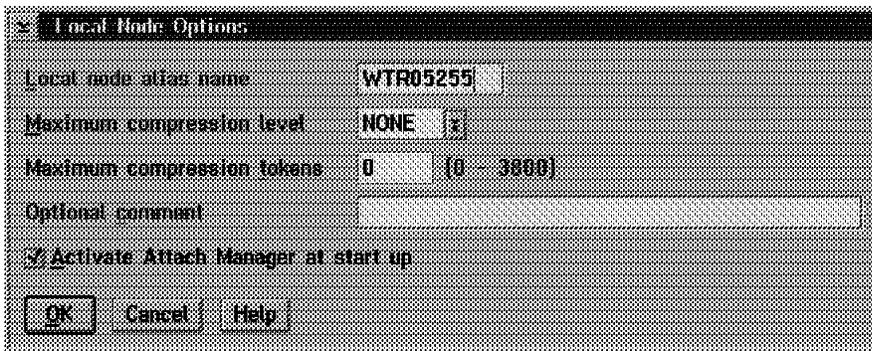


Figure 76. Local Node Options WTR05255

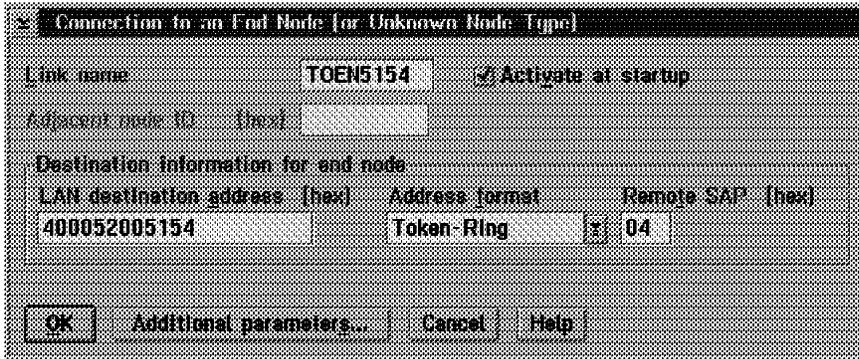


Figure 77. Connection to a Network Node WTR05255

### 2.6.1.1 Network Definition File (NDF) WTR05255

Even though you define the configuration using the panels, it will create an NDF file. Normally, all changes to the NDF file should be made using the GUI. There may be some cases though, where you write some REXX programs to make changes to some of the fields if you are going to be building definitions for many different systems. Key fields in the definition below are highlighted.

```

DEFINE_LOCAL_CP FQ_CP_NAME(USIBMRA.WTR05255)
 CP_ALIAS(WTR05255)
 NAU_ADDRESS(INDEPENDENT_LU)
 NODE_TYPE(NN)
 NODE_ID(X'05D05255')
 NW_FP_SUPPORT(NONE)
 HOST_FP_SUPPORT(YES)
 DLUR_MULTISUBNET_SUPPORT(YES)
 FREE_UNUSED_SESSIONS(NO)
 FREE_UNUSED_SESSIONS_TIME(10)
 MAX_COMP_LEVEL(NONE)
 MAX_COMP_TOKENS(0);

DEFINE_LOGICAL_LINK LINK_NAME(TOEN5154)
 ADJACENT_NODE_TYPE(LEARN)
 DLC_NAME(IBMTRNET)
 ADAPTER_NUMBER(0)
 DESTINATION_ADDRESS(X'40005200515404')
 ETHERNET_FORMAT(NO)
 CP_CP_SESSION_SUPPORT(YES)
 SOLICIT_SSCP_SESSION(NO)
 MAX_ACTIVATION_ATTEMPTS(USE_ADAPTER_DEFINITION)
 USE_PUNAME_AS_CPNAME(NO)
 ACTIVATE_AT_STARTUP(YES)
 LIMITED_RESOURCE(NO)
 LINK_STATION_ROLE(USE_ADAPTER_DEFINITION)
 EFFECTIVE_CAPACITY(USE_ADAPTER_DEFINITION)
 COST_PER_CONNECT_TIME(USE_ADAPTER_DEFINITION)
 COST_PER_BYTE(USE_ADAPTER_DEFINITION)
 SECURITY(USE_ADAPTER_DEFINITION)
 PROPAGATION_DELAY(USE_ADAPTER_DEFINITION)
 HPR_SUPPORT(NO)
 LIMITED_RESOURCE_TIMEOUT(USE_ADAPTER_DEFINITION)
 INACTIVITY_TIMEOUT(USE_ADAPTER_DEFINITION)
 AUTO_REACTIVATE(NO_RETRY)
 USER_DEFINED_1(USE_ADAPTER_DEFINITION)
 USER_DEFINED_2(USE_ADAPTER_DEFINITION)
 USER_DEFINED_3(USE_ADAPTER_DEFINITION);

DEFINE_DEFAULTS IMPLICIT_INBOUND_PLU_SUPPORT(YES)
 DEFAULT_MODE_NAME(BLANK)
 MAX_MC_LL_SEND_SIZE(32767)
 DIRECTORY_FOR_INBOUND_ATTACHES(*)
 DEFAULT_TP_OPERATION(NONQUEUED_AM_STARTED)
 DEFAULT_TP_PROGRAM_TYPE(BACKGROUND)
 DEFAULT_TP_CONV_SECURITY_RQD(NO)
 MAX_HELD_ALERTS(10)
 DEFAULT_ROUTING_PREFERENCE(NATIVE_FIRST)
 IMPLICIT_LINK_HPR_SUPPORT(YES)
 RETRY_COUNT(6)
 ALIVE_TIMER(60)
 PATH_SWITCH_TIMER_LOW(480)
 PATH_SWITCH_TIMER_MEDIUM(240)
 PATH_SWITCH_TIMER_HIGH(120);

START_ATTACH_MANAGER;

SET_DISCOVERY_SERVER ADAPTER_NUMBER(0)
 GROUP_NAMES(IROUTSNA)

```

ROUTING\_CAPABILITIES(NN);

### 2.6.1.2 NetFinity Transaction Program

The transaction program is defined by NetFinity. No Communications Manager/2 customization is necessary.

This is the output from the Communications Manager/2 command display -tp after NetFinity is started:

```

* Communications Manager *
* DISPLAY Sample Program *

This workstation is running APPN.

* Active Transaction Programs *

Active transaction programs 4

1>Transaction program name PCSVSEND
Transaction program ID X'0A18F7733D7A649C'
User ID JJACOB
Transaction program initiated Locally
LU alias WTR05154
Logical unit of work name USIBMRA.WTR05154
Logical unit of work instance X'AD8504F7138B'
Logical unit of work sequence X'0001'
Number of conversations 1

1.1>Conversation ID X'74071750'
Conversation state Send
Session ID X'103CF773407A649C'
Synchronization level None
Conversation type Mapped
Conversation group ID X'9C647A48'
Conversation source Partner LU
Conversation style Two-way alternate
Bytes sent by source 3608
Bytes sent by target 0

2>Transaction program name PCSVRCV
Transaction program ID X'144CF7734A7A649C'
User ID JJACOB
Transaction program initiated Remotely
LU alias WTR05154
Logical unit of work name USIBMRA.WTR05154
Logical unit of work instance X'AD8504F7138B'
Logical unit of work sequence X'0001'
Number of conversations 1

2.1>Conversation ID X'74071D8A'
Conversation state Receive
Session ID X'1244F773427A649C'
Synchronization level None
Conversation type Mapped
Conversation group ID X'9C647A45'
Conversation source Local LU
Conversation style Two-way alternate
```

```

Bytes sent by source 3608
Bytes sent by target 0

```

### 2.6.1.3 Mode Table

There are three ways to specify the Mode table:

- Take the default in NetFinity customization (BLANK). BLANK is provided by Communications Manager/2.
- Code your own in customization. If you want values other than BLANK, you have to code it in Communications Manager/2 configuration.
- If the mode table you specified doesn't exist, and the NDF file says:

```
DEFAULT_MODE_NAME(BLANK)
```

then Communications Manager/2 will dynamically create a mode table with the values of BLANK.

This is the output from the Communications Manager/2 command DISPLAY -MD after NetFinity is started:

```

* Communications Manager *
* DISPLAY Sample Program *

This workstation is running APPN.

* Mode Definition Information *

Number of modes 13

13>Mode name TMEMODE
 Class of service name #CONNECT
 Max RU size, upper limit 2048
 Receive pacing window 3
 Default RU size Yes
 Max negotiable session limit 8
 Current session limit 8
 Min negotiated winner limit 4
 Compression need Prohibited
 PLU to SLU compression level None
 SLU to PLU compression level None

```

## 2.6.2 Communications Manager/2 Configuration WTR05154

Figure 78 on page 69 through Figure 80 on page 70 show the key Communications Manager/2 panels that are necessary to set up APPC support for NetFinity V5.0 on WTR05154.

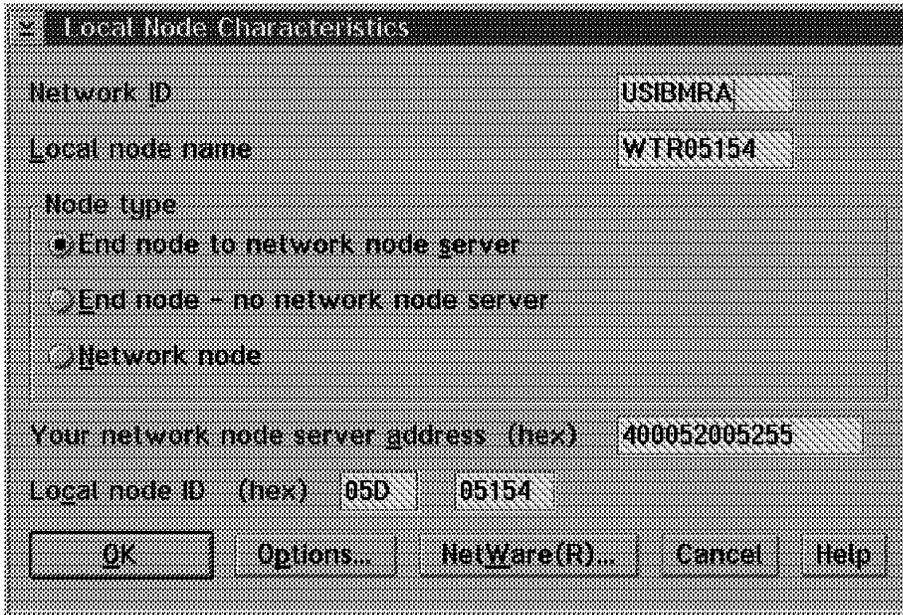


Figure 78. Local Node Characteristics WTR05154

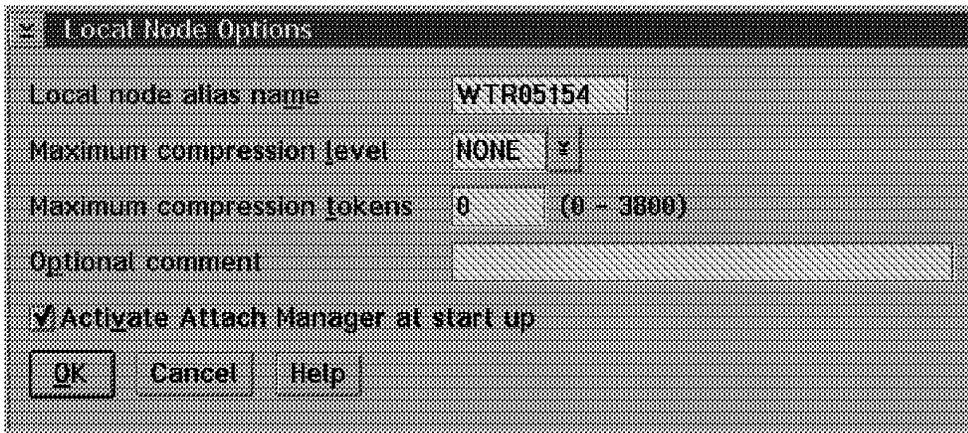


Figure 79. Local Node Options WTR05154

**Connection to a Network Node**

Link name **TONN5255**  **Activate at startup**

| LAN destination address (hex) | Address format    | Remote SAP (hex) |
|-------------------------------|-------------------|------------------|
| <b>400052005255</b>           | <b>Token Ring</b> | <b>04</b>        |

Adjacent node ID (hex)

Partner network ID

Partner node name  (Required for partner LU definition)

**Use this network node connection as your preferred server**

**Solicit SSCP-PU Session**

Optional comment

Figure 80. Connection to a Network Node WTR05154

### 2.6.2.1 Network Definition File (NDF) WTR05154

```

DEFINE_LOCAL_CP FQ_CP_NAME(USIBMRA.WTR05154)
 CP_ALIAS(WTR05154)
 NAU_ADDRESS(INDEPENDENT_LU)
 NODE_TYPE(EN)
 NODE_ID(X'05D05154')
 NW_FP_SUPPORT(NONE)
 HOST_FP_SUPPORT(YES)
 FREE_UNUSED_SESSIONS(NO)
 MAX_COMP_LEVEL(NONE)
 MAX_COMP_TOKENS(0);

DEFINE_LOGICAL_LINK LINK_NAME(TONN5255)
 ADJACENT_NODE_TYPE(NN)
 PREFERRED_NN_SERVER(YES)
 DLC_NAME(IBMTRNET)
 ADAPTER_NUMBER(0)
 DESTINATION_ADDRESS(X'40005200525504')
 ETHERNET_FORMAT(NO)
 CP_CP_SESSION_SUPPORT(YES)
 SOLICIT_SSCP_SESSION(NO)
 NODE_ID(X'05D05154')
 ACTIVATE_AT_STARTUP(YES)
 USE_PUNAME_AS_CPNAME(NO)
 LIMITED_RESOURCE(NO)
 LINK_STATION_ROLE(USE_ADAPTER_DEFINITION)
 MAX_ACTIVATION_ATTEMPTS(USE_ADAPTER_DEFINITION)
 EFFECTIVE_CAPACITY(USE_ADAPTER_DEFINITION)
 COST_PER_CONNECT_TIME(USE_ADAPTER_DEFINITION)
 COST_PER_BYTE(USE_ADAPTER_DEFINITION)
 SECURITY(USE_ADAPTER_DEFINITION)
 PROPAGATION_DELAY(USE_ADAPTER_DEFINITION)

```

```

USER_DEFINED_1(USE_ADAPTER_DEFINITION)
USER_DEFINED_2(USE_ADAPTER_DEFINITION)
USER_DEFINED_3(USE_ADAPTER_DEFINITION);

DEFINE_LOGICAL_LINK LINK_NAME(HOST0001)
 ADJACENT_NODE_TYPE(LEARN)
 DLC_NAME(IBMTRNET)
 ADAPTER_NUMBER(0)
 DESTINATION_ADDRESS(X'400008220210')
 ETHERNET_FORMAT(NO)
 CP_CP_SESSION_SUPPORT(YES)
 SOLICIT_SSCP_SESSION(YES)
 NODE_ID(X'05D05154')
 ACTIVATE_AT_STARTUP(NO)
 USE_PUNAME_AS_CPNAME(NO)
 LIMITED_RESOURCE(USE_ADAPTER_DEFINITION)
 LINK_STATION_ROLE(USE_ADAPTER_DEFINITION)
 MAX_ACTIVATION_ATTEMPTS(USE_ADAPTER_DEFINITION)
 EFFECTIVE_CAPACITY(USE_ADAPTER_DEFINITION)
 COST_PER_CONNECT_TIME(USE_ADAPTER_DEFINITION)
 COST_PER_BYTE(USE_ADAPTER_DEFINITION)
 SECURITY(USE_ADAPTER_DEFINITION)
 PROPAGATION_DELAY(USE_ADAPTER_DEFINITION)
 USER_DEFINED_1(USE_ADAPTER_DEFINITION)
 USER_DEFINED_2(USE_ADAPTER_DEFINITION)
 USER_DEFINED_3(USE_ADAPTER_DEFINITION);

DEFINE_DEFAULTS IMPLICIT_INBOUND_PLU_SUPPORT(YES)
 DEFAULT_MODE_NAME(BLANK)
 MAX_MC_LL_SEND_SIZE(32767)
 DIRECTORY_FOR_INBOUND_ATTACHES(*)
 DEFAULT_TP_OPERATION(NONQUEUED_AM_STARTED)
 DEFAULT_TP_PROGRAM_TYPE(BACKGROUND)
 DEFAULT_TP_CONV_SECURITY_RQD(NO)
 MAX_HELD_ALERTS(10);

START_ATTACH_MANAGER;

```

### 2.6.2.2 NetFinity Transaction Program

The transaction program is defined by NetFinity. No Communications Manager/2 customization is necessary.

This is the output from the Communications Manager/2 command display -tp after NetFinity is started:

```

* Communications Manager *
* DISPLAY Sample Program *

This workstation is running APPN.

* Active Transaction Programs *

Active transaction programs 4

1>Transaction program name PCSVSEND
 Transaction program ID X'0A18F7733D7A649C'

```

```

User ID JJACOB
Transaction program initiated Locally
LU alias WTR05154
Logical unit of work name USIBMRA.WTR05154
Logical unit of work instance X'AD8504F7138B'
Logical unit of work sequence X'0001'
Number of conversations 1

1.1>Conversation ID X'74071750'
Conversation state Send
Session ID X'103CF773407A649C'
Synchronization level None
Conversation type Mapped
Conversation group ID X'9C647A48'
Conversation source Partner LU
Conversation style Two-way alternate
Bytes sent by source 3608
Bytes sent by target 0

2>Transaction program name PCSVRCV
Transaction program ID X'144CF7734A7A649C'
User ID
Transaction program initiated Remotely
LU alias WTR05154
Logical unit of work name USIBMRA.WTR05154
Logical unit of work instance X'AD8504F7138B'
Logical unit of work sequence X'0001'
Number of conversations 1

2.1>Conversation ID X'74071D8A'
Conversation state Receive
Session ID X'1244F773427A649C'
Synchronization level None
Conversation type Mapped
Conversation group ID X'9C647A45'
Conversation source Local LU
Conversation style Two-way alternate
Bytes sent by source 3608
Bytes sent by target 0

```

### 2.6.2.3 Mode Table

There are three ways to specify the mode table:

- Take the default in NetFinity customization (BLANK). BLANK is provided by Communications Manager/2.
- Code your own in customization. If you want values other than BLANK, you have to code it in Communications Manager/2 configuration.
- If the mode table you specified doesn't exist, and the NDF file says:

```
DEFAULT_MODE_NAME(BLANK)
```

then Communications Manager/2 will create dynamically a mode table with the values of BLANK.

This is the output from the Communications Manager/2 command DISPLAY -MD after NetFinity is started:

```

* Communications Manager *
* DISPLAY Sample Program *

```

This workstation is running APPN.

```

* Mode Definition Information *

```

Number of modes 13

|                              |            |
|------------------------------|------------|
| 13>Mode name                 | TMEMODE    |
| Class of service name        | #CONNECT   |
| Max RU size, upper limit     | 2048       |
| Receive pacing window        | 3          |
| Default RU size              | Yes        |
| Max negotiable session limit | 8          |
| Current session limit        | 8          |
| Min negotiated winner limit  | 4          |
| Compression need             | Prohibited |
| PLU to SLU compression level | None       |
| SLU to PLU compression level | None       |



---

## Chapter 3. Database Administration

This chapter shows how to store information into the following databases that NetFinity V5.0 supports:

- Lotus Notes Database 4.1
- DB2 for NT 2.1
- ODBC for OS/2
- SQL 6.0

---

### 3.1 NetFinity V5.0 Database Support

NetFinity V5.0 supports the collection and export of a vast amount of system-specific data to its databases. The databases can be created on database management systems using DB2, Lotus Notes, or Microsoft SQL. Microsoft SQL is supported using ODBC, and is available only on systems running NetFinity V5.0 Manager for Windows NT. If your system supports ODBC, you can access and export DB2 data using ODBC as well.

This is a summary of the NetFinity supported databases:

- Non-ODBC
  - Lotus Notes
  - DB2 for Windows NT
  - DB2 for OS/2
- ODBC
  - Microsoft SQL
  - DB2 for Windows NT
  - DB2 for OS/2

Once support for one or more of these databases has been installed along with NetFinity V5.0 Manager, you will be able to export data from these NetFinity V5.0 services:

- Alert Manager
- Software Inventory
- System Information Tool
- System Profile
- System Monitor

#### 3.1.1 Open Database Connectivity (ODBC)

Open Database Connectivity (ODBC) drivers allow you to access many different Database Management Systems (DBMS) through a standardized interface. These drivers provide an additional layer between your application and the data source. A data source is an application server such as an SQL or DB2/2 server or a data file such as a DBASE file; with ODBC you can change your data source just by selecting another driver. This means that the application does not have to be changed to be run. Instead, all you have to do is export the database from your SQL or DB2/2 server to another supported data source.

With the implementation of the ODBC interface in NetFinity, a much wider range of databases is supported. Theoretically, any database that provides an ODBC driver for Windows NT is accessible from NetFinity.

### 3.1.2 NetFinity Database Administration

You select the NetFinity Database Administration icon to install support for ODBC data export.



Figure 81. NetFinity Folder

Double-click on the NetFinity V5.0 Database Administration icon.

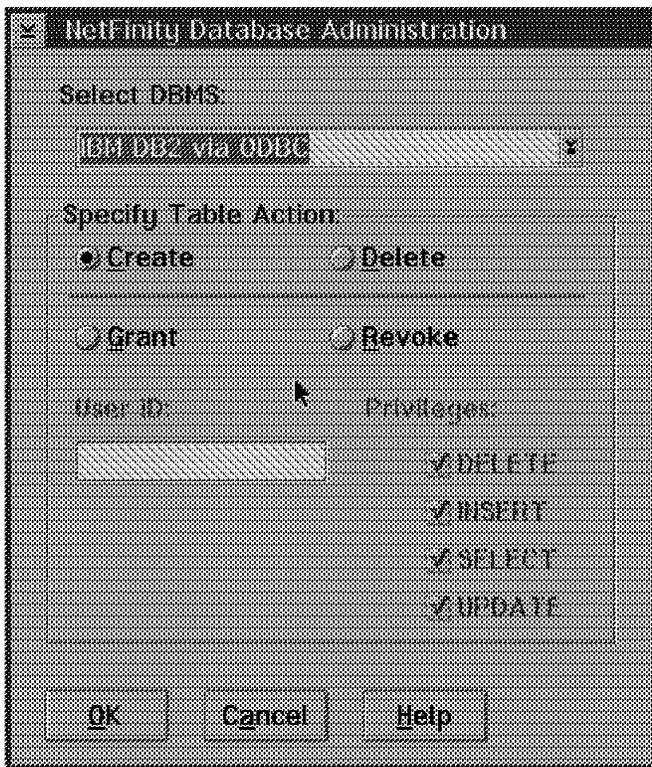


Figure 82. NetFinity Database Administration

The NetFinity V5.0 Database Administration utility provides the following four functions:

1. Create

Creates all of the tables required for the database export functions in NetFinity V5.0 to work.

2. Delete

Deletes all of the NetFinity V5.0 database tables from an existing database.

### 3. Grant

Grants table privileges on all tables associated with a NetFinity V5.0 database.

### 4. Revoke

Revokes table privileges on all tables associated with a NetFinity V5.0 database.

Prior to executing these functions, the following conditions must be met:

- The Database Management System (DBMS) must be properly installed and configured on the database server system.
- The target database must exist on the database server.
- A database user ID with sufficient authority to execute these functions must be defined on the database server.

For Grant and Revoke functions, you have to enter the user ID for which privileges are to be granted or revoked. This is not the user ID used to connect to the database for executing the grant/revoke request.

For administration from a remote client, the following additional conditions must be met:

- The database server must be accessible to the client over the network.
- The DBMS client software must be properly installed and configured on the client system.
- The database server and target database must be properly defined to the client system.

---

## 3.2 Setup of Lotus Notes Server V4.1 Database Support for NetFinity

To install Lotus Notes Server for Windows NT follow these steps:

1. Start the Lotus Notes installation program. The Welcome window appears.

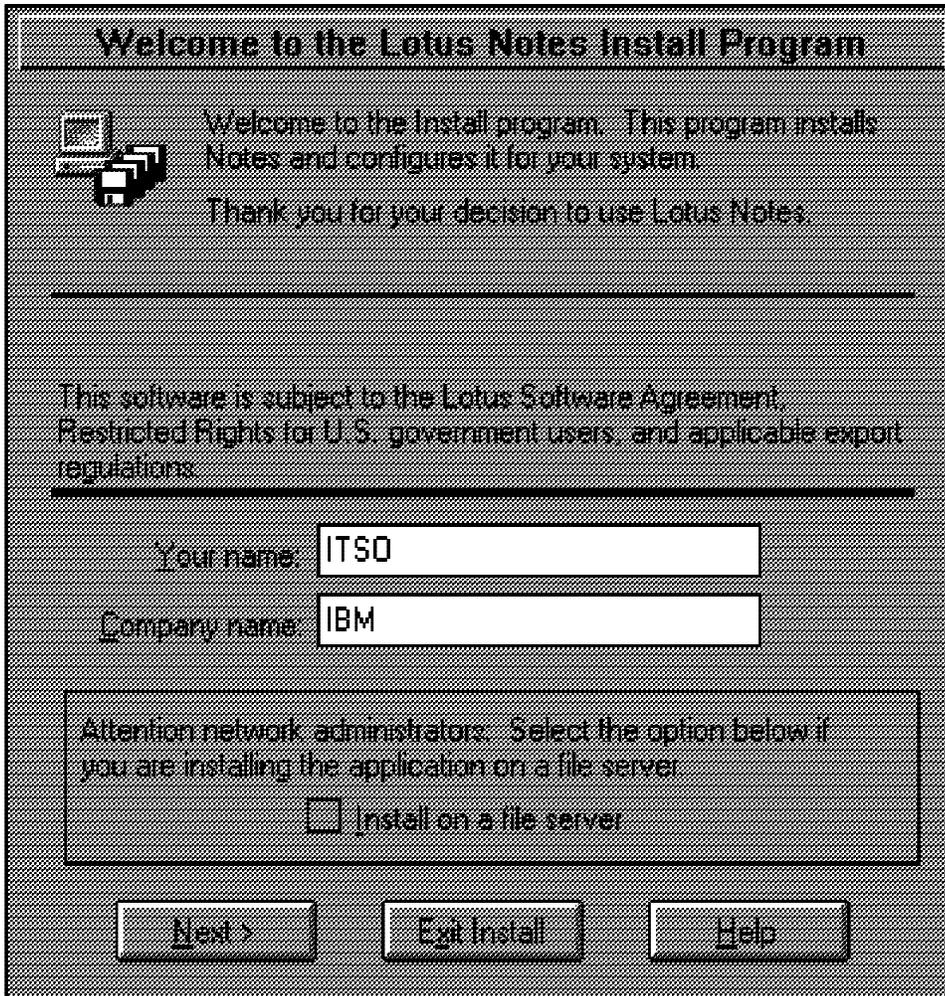


Figure 83. Lotus Notes Install Welcome Window

2. Enter your name in the Your Name field.
3. Enter your company name in the Company name field.
4. Click **Next** and you will get a confirmation panel.

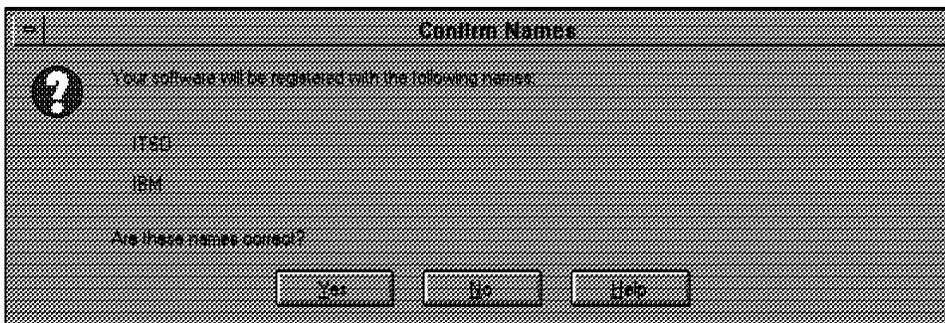


Figure 84. Confirm Names

5. Confirm that you entered the correct name and company name.
6. Click **Yes**. The Install Option window appears.

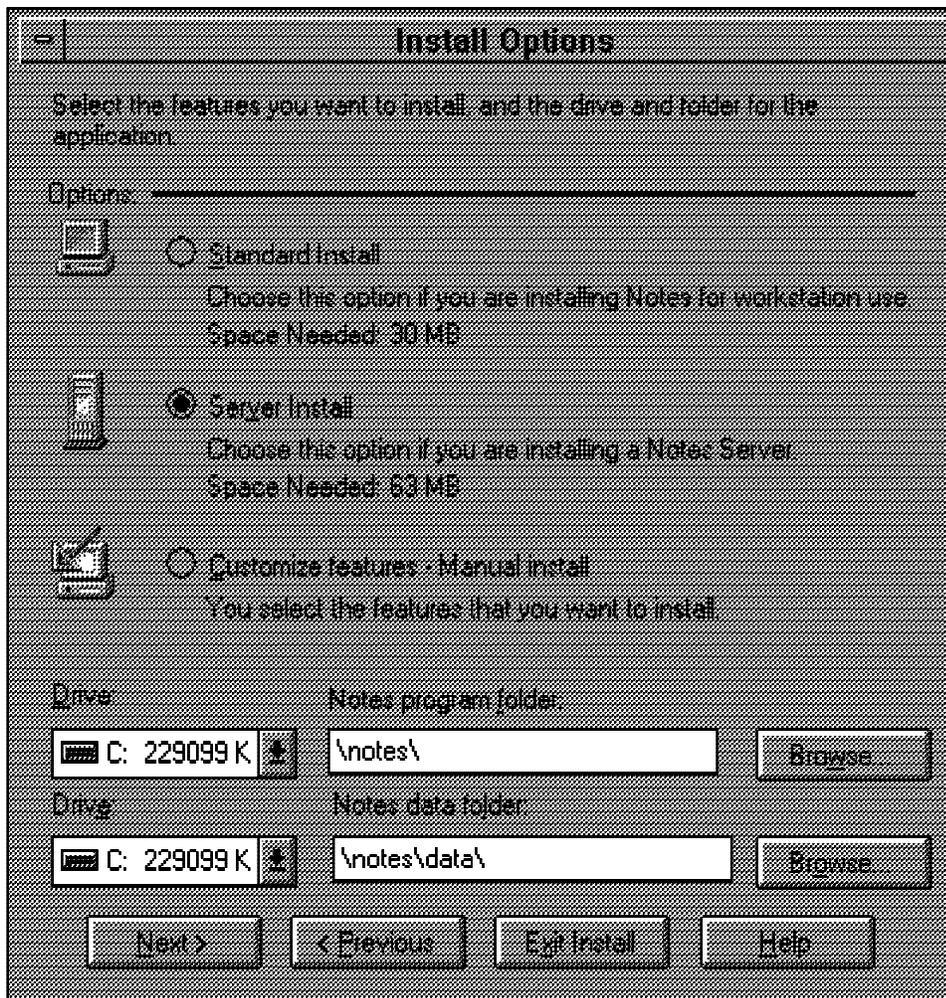


Figure 85. Install Options

7. Select the desired Installation option. You can choose the drive and directories as well.
8. Once you select your options, click **Next**. The Select Program Group window appears.

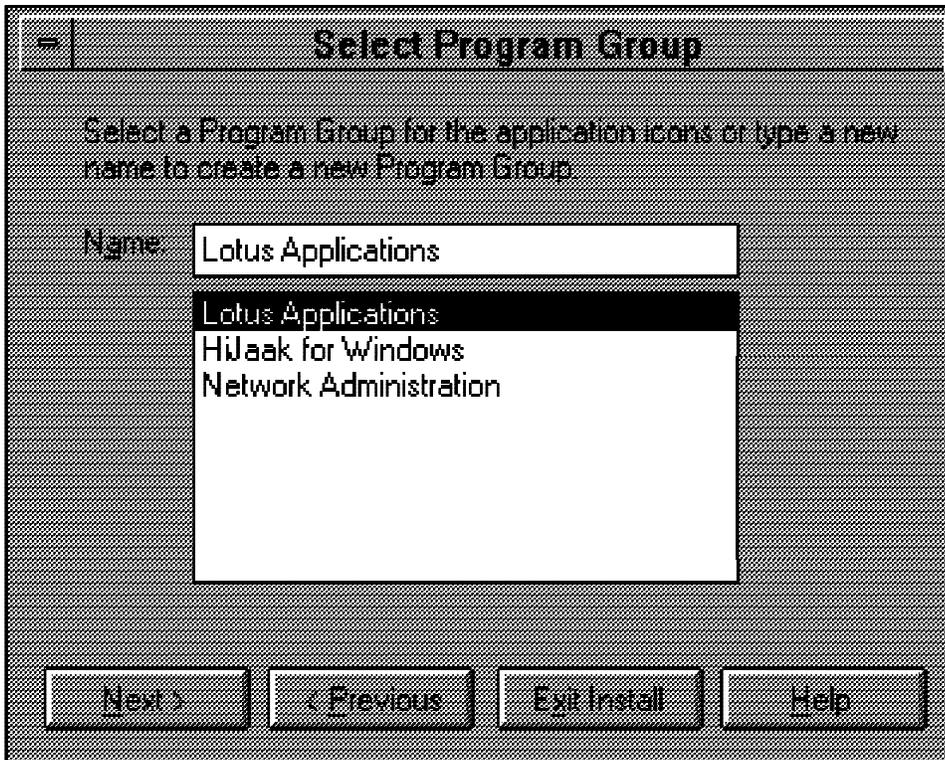


Figure 86. Select Program Group

9. Select the program group for the application icons from the scroll list. Click **Next** to continue.



Figure 87. Begin Copying Files

10. Click **Yes** to start the installation process. Wait until the Install Complete message window appears.



Figure 88. Install Complete

11. The install is finished. Click **Done** to end.

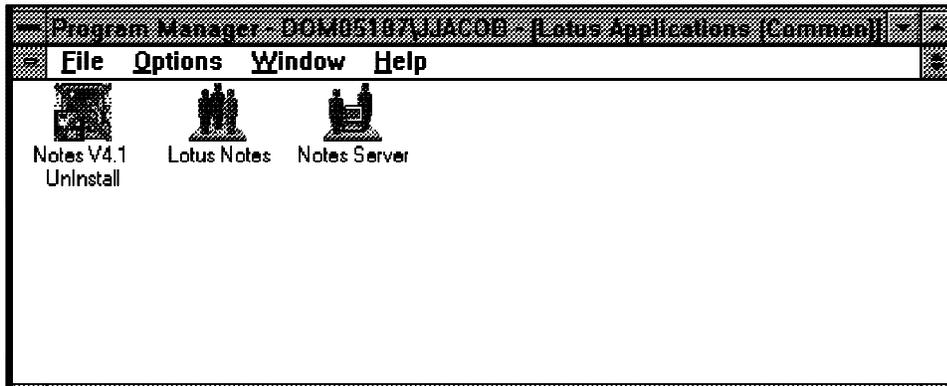


Figure 89. Lotus Applications Group

12. The Lotus Applications program group is now set up and ready to use.

### 3.2.1 Installing the Lotus Notes Database

To enable your NetFinity V5.0 Manager to export system data to a Lotus Notes database, you must do the following:

1. Install the NetFinity V5.0 database template on your Lotus Notes server.
2. Enable NetFinity V5.0 Managers to export to the Lotus Notes server.

#### 3.2.1.1 Install the NetFinity V5.0 Database Template

To enable NetFinity V5.0 to export system data to a Lotus Notes database, you must first install the NetFinity V5.0 database template on your Lotus Notes server. During NetFinity V5.0 Manager installation, a Lotus Notes database template file, named NETFINDB.NTF, was copied to your NetFinity V5.0 program directory. To install the database template on your Lotus Notes server follow these steps:

1. Open a command prompt window.
2. Type the following command and press Enter:  
`COPY C:\WNETFIN\NETFINDB.NTF C:\NOTES\DATA\*.*`

3. Start Lotus Notes on your server by clicking on the **Lotus Notes** icon in the Lotus Applications Group. This starts the Notes client.

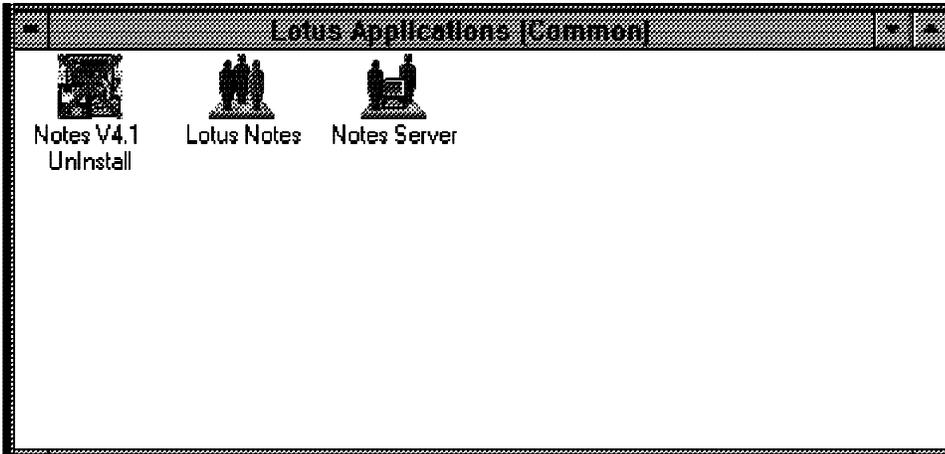


Figure 90. Lotus Notes Group

4. If this is the first time you are starting Lotus Notes, you have to provide information for the initial Notes server setup:

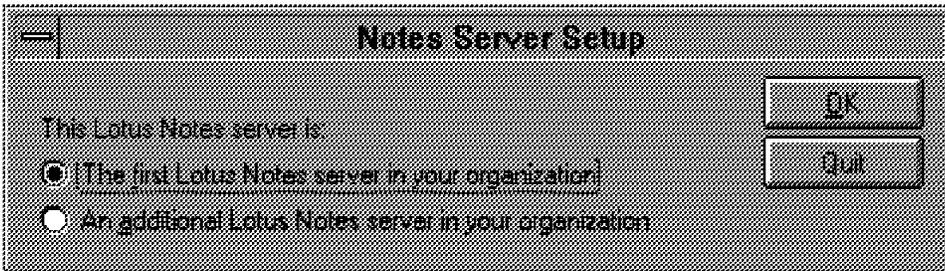


Figure 91. Notes Server Setup

5. Select if this Lotus server is the first server in your organization or if you are adding an additional one and then click **OK**.

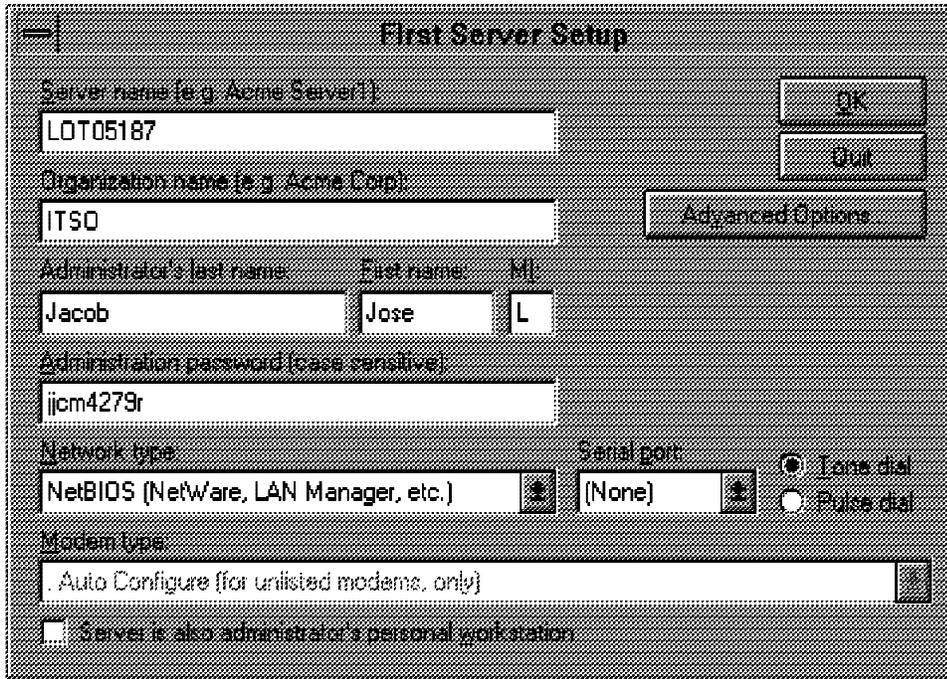


Figure 92. First Server Setup

6. Fill in information related to the Lotus Note Server.

**Note**

Remember to check the box at the bottom if this is also going to be your workstation. If your network type is TCP/IP, make sure you have set up your access to your domain name server. In addition, if your initial password will be less than eight characters you will need to click on the **Advanced Options** button to allow for that.

Click on the **OK** button to continue.

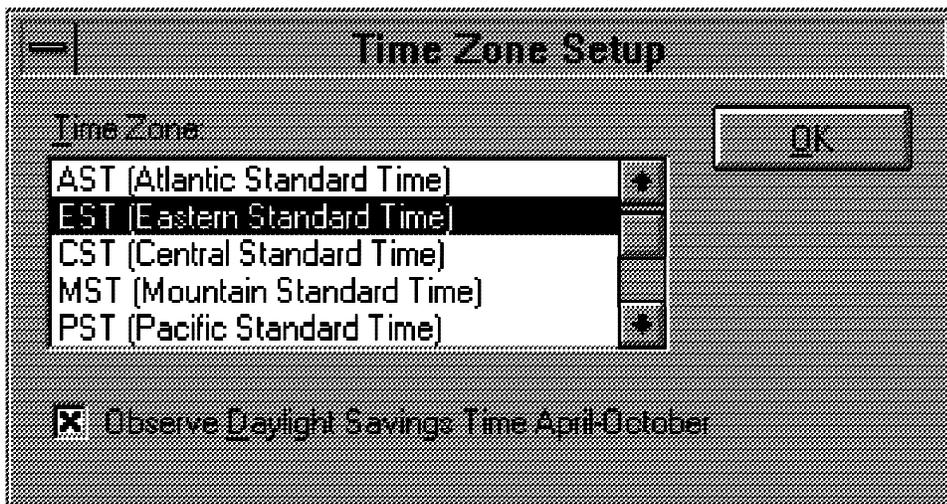


Figure 93. Time Zone Setup

7. Choose the time zone from the Time Zone scroll list and then click **OK**.

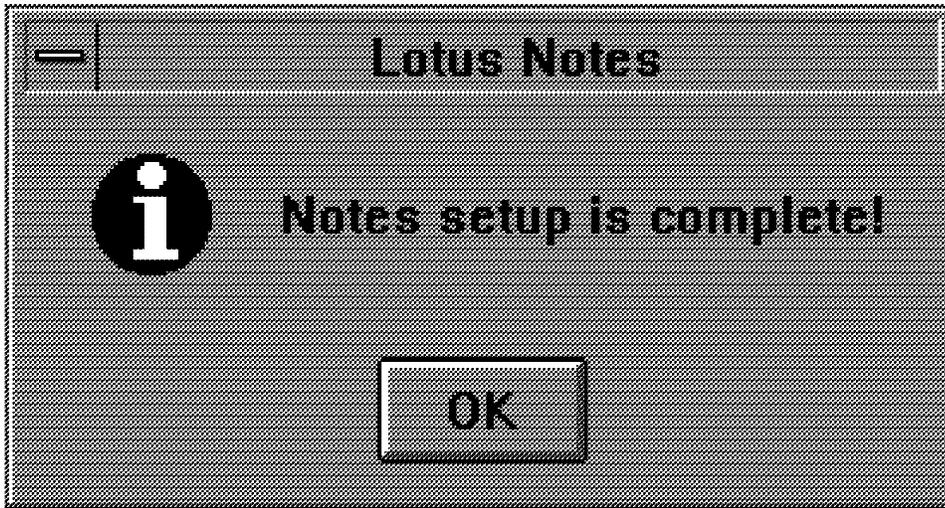


Figure 94. Setup Complete Panel

8. Click the **OK** button. The Lotus Notes Workplace window appears.

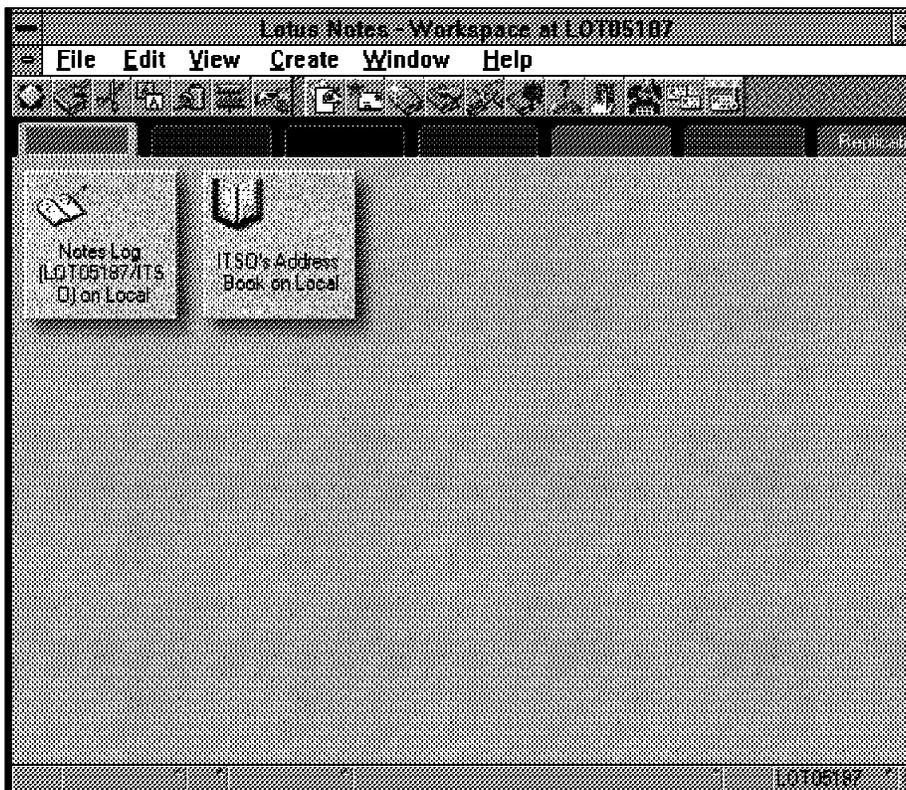


Figure 95. Lotus Notes Workplace

9. Select **New** from the Lotus Notes Workplace File and Database pull-down menu. This opens the New Database window.

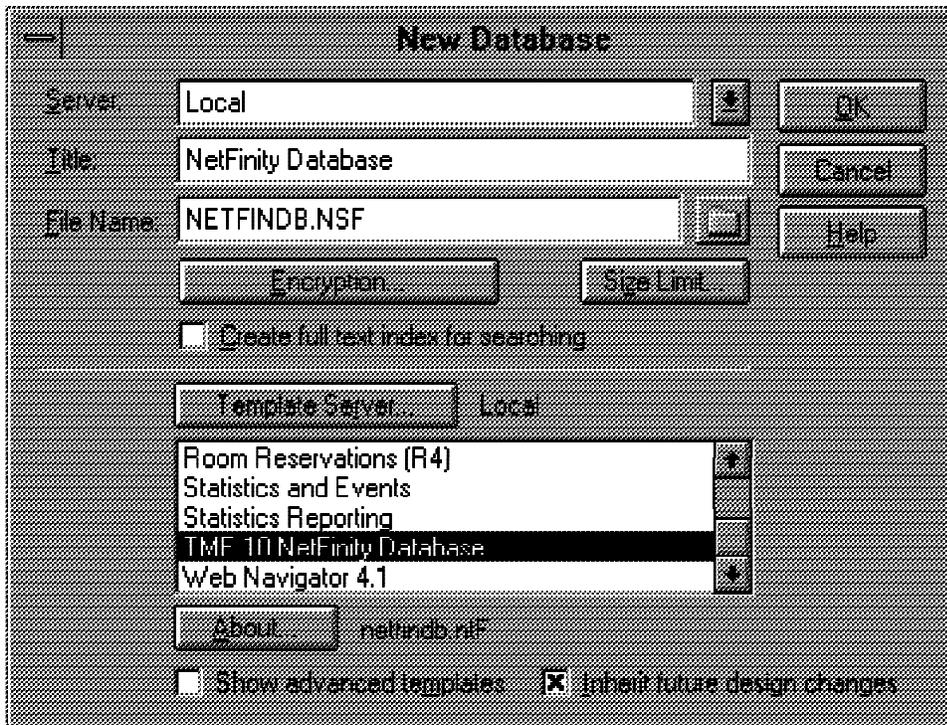


Figure 96. New Database

10. Select **NetFinity Database** from the Template Server selection list.
11. Select the **Inherit Future Design Changes** check box. This enables future releases of NetFinity to automatically apply changes to this NetFinity database.
12. Select your server from the Servers selection list.  
**Note:** If you want to install the database on a remote server, select the name of the remote server from the Servers list.
13. In the File Name field enter the following:  
NETFINDB.NSF
14. In the Title field enter the following:  
NetFinity Database
15. Click on the **OK** button. The About the NetFinity Database informational window appears.

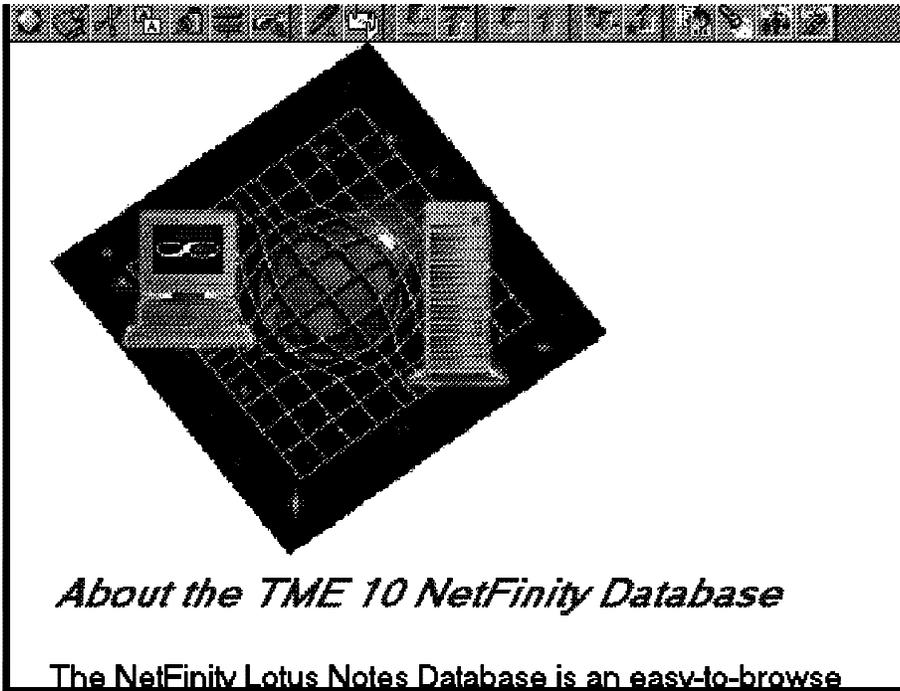


Figure 97. About the NetFinity Database 1 of 3

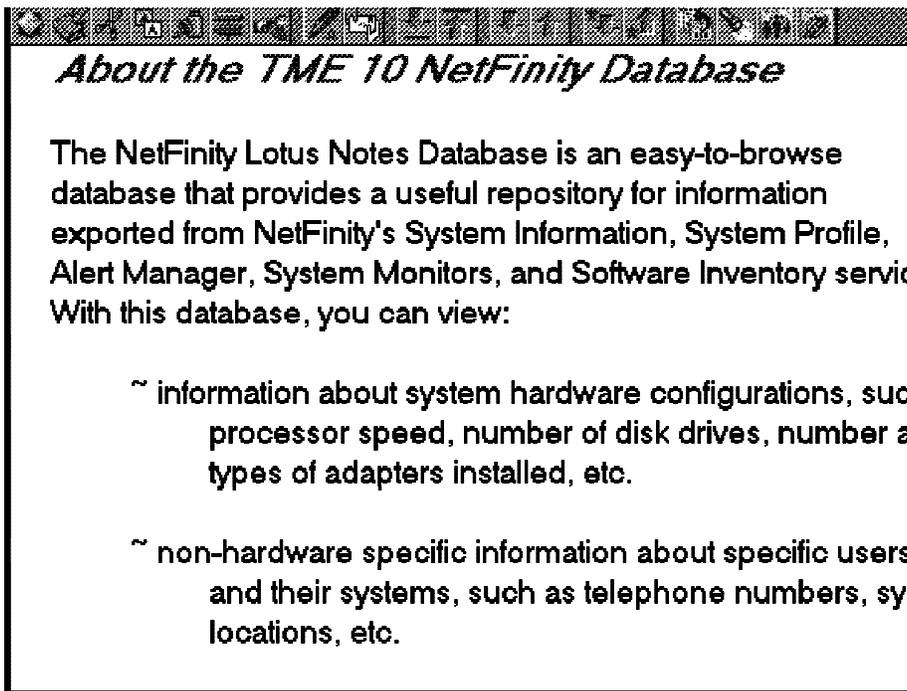


Figure 98. About the NetFinity Database 2 of 3

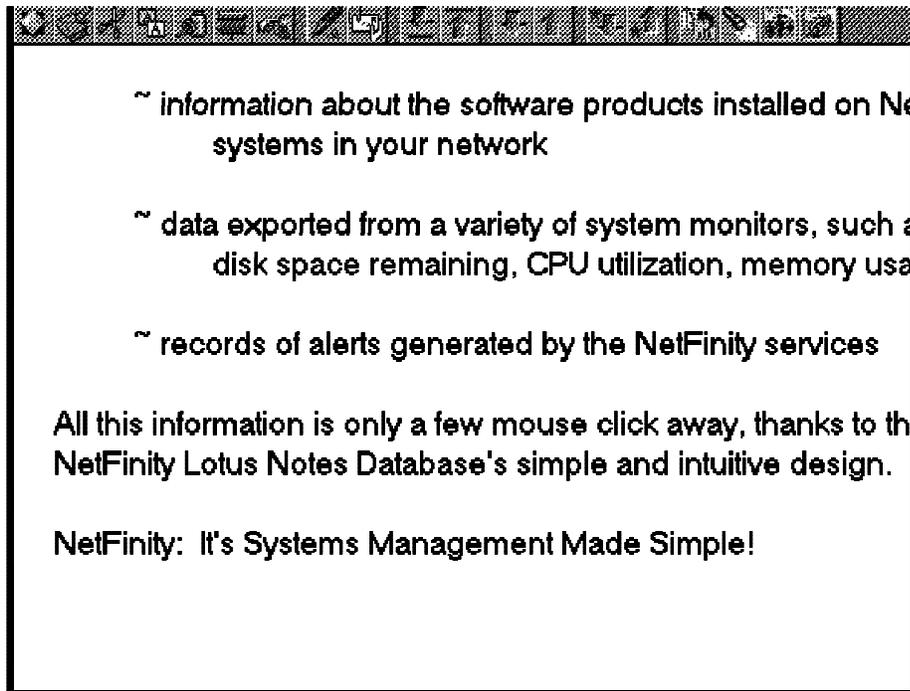


Figure 99. About the NetFinity Database 3 of 3

16. Select **New** to create the database and close the New Database window. Click **OK**.
17. The Workplace window appears. There is a new NetFinity V5.0 Database icon.

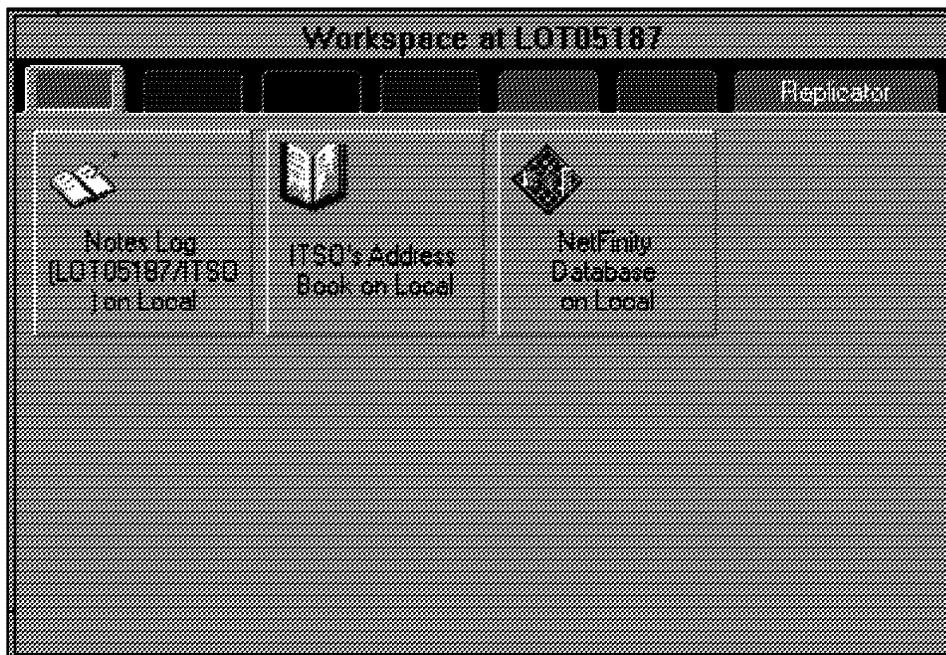


Figure 100. Lotus Notes Workplace

### 3.2.1.2 Enable NetFinity V5.0 Managers to Export to a Notes Server

Once the Lotus Notes database is installed, you need to enable the NetFinity V5.0 Managers to export to the Lotus Notes server. Follow these steps:

1. Select the **NetFinity Database** icon from the Lotus Notes workspace.
2. Select **Database** from the File pull-down menu in the Lotus workplace.
3. Select **Access Control...** from the Database pull-down menu. The Access Control window appears.

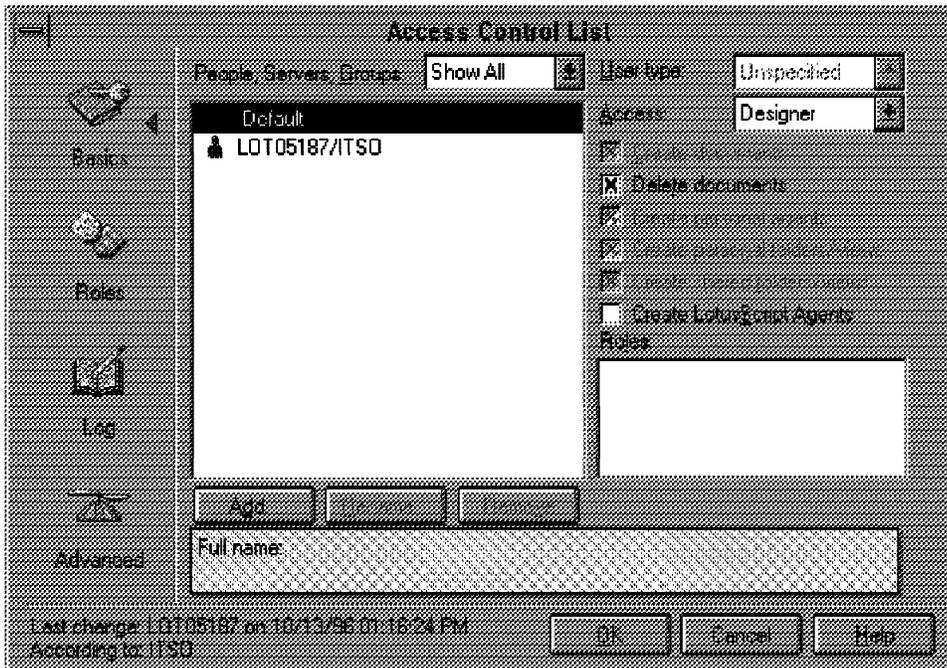


Figure 101. Access Control List

4. Select the **Can Delete Documents** check box.
5. Select **OK**.
6. Add the following statement to the PATH statement in the AUTOEXEC.BAT file:  

```
C:\NOTES;C:\NOTES\DATA;C:\NOTES\DBCS;C:\NOTES\VDKHOME;
```
7. Reboot the workstation to activate the changes.

## 3.2.2 Exporting Data to Lotus Notes Database

This is an example of exporting data from NetFinity to a Lotus Notes database. We use the System Information Tool.

To save System Information Tool data to a Lotus Notes database do the following:

1. Run the System Information Service from the NetFinity folder.
2. From the System Information pull-down menu choose **File** and select **Database**.

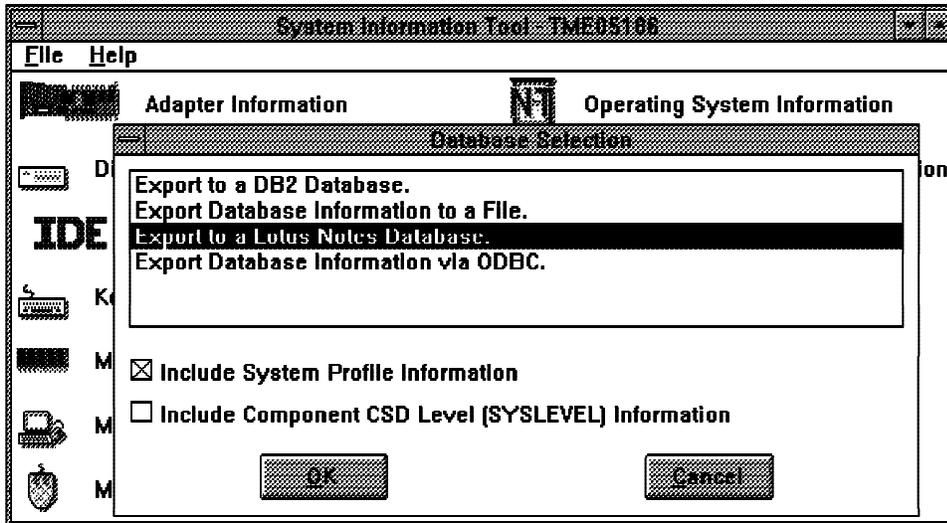


Figure 102. System Information Tool/Database Selection

3. Select **Export to a Lotus Notes Database** from the Database Selection scrolling list and check the boxes if you want to include System Profile and/or CSD level information.
4. Click the **OK** button. The Server Selection window appears.

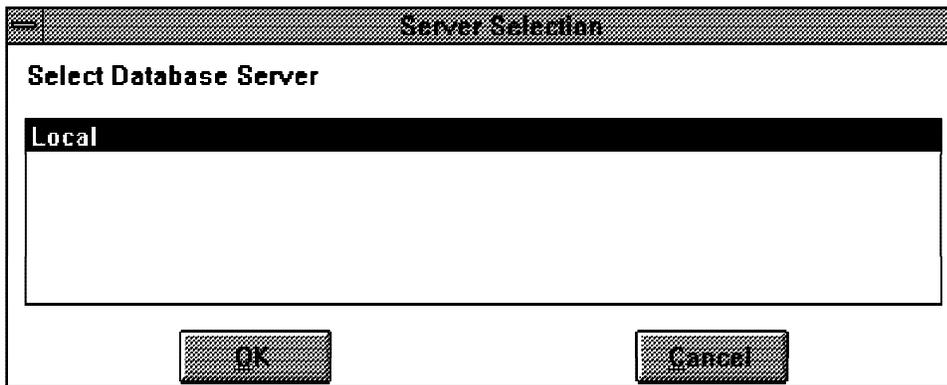


Figure 103. Server Selection

5. Select Database Server from the scrolling list. Click the **OK** button to save the data.
6. Wait until the Export Completed Successfully window appears.



Figure 104. Database Status

7. The data is saved. Click **OK** to end.

### 3.2.3 Browsing the NetFinity Lotus Notes Database

To browse the data contained in the NetFinity Lotus Notes database:

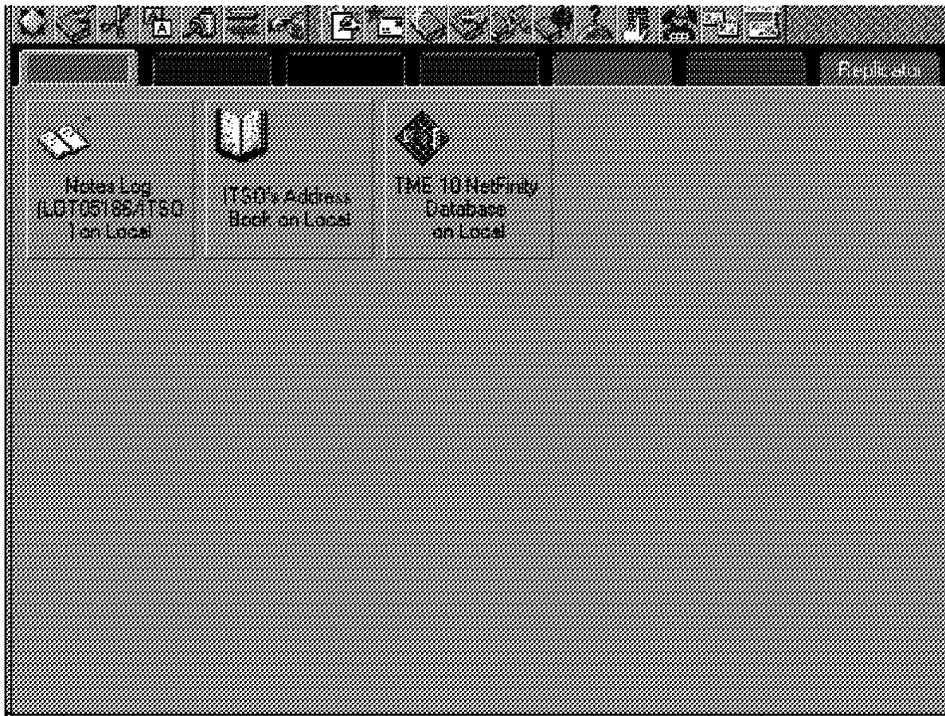


Figure 105. Lotus Notes Workplace

1. Open the **NetFinity Database** object in the Lotus Notes workspace.
2. The NetFinity Database window appears.

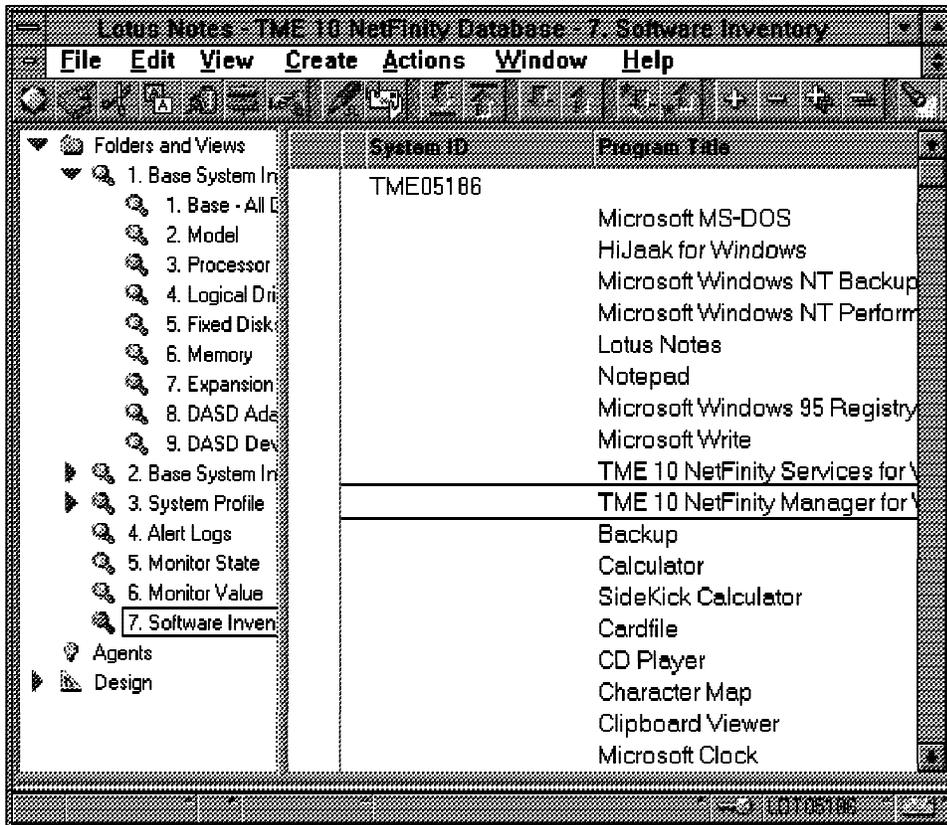


Figure 106. NetFinity Lotus Notes Database

- From the View pull-down menu select the section of the NetFinity database that you want to browse. The NetFinity database is divided into sections that contain data gathered by specific NetFinity services. Select the name of the service that gathers the data that you want to view (for example, Alert Logs).

**Note:** Some menu selections may contain submenus.

- Information contained in the part of the NetFinity database that you selected is now listed in the window. For more detailed information about any displayed data item, double-click on the data item.

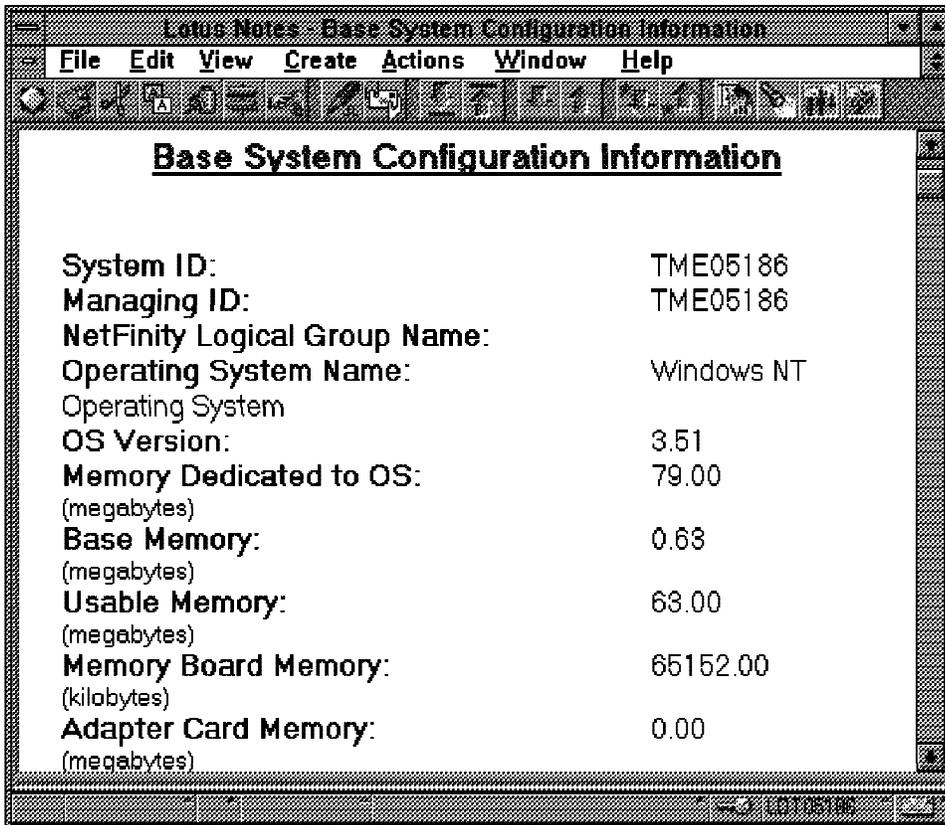


Figure 107. NetFinity Lotus Notes Database

5. Some data items can be expanded to reveal additional information. These items are identified by a plus sign (+) in the left side border of the Notes window, beside the name of the data item. To expand the data item, select the item and then select **Expand** from the View pull-down menu.

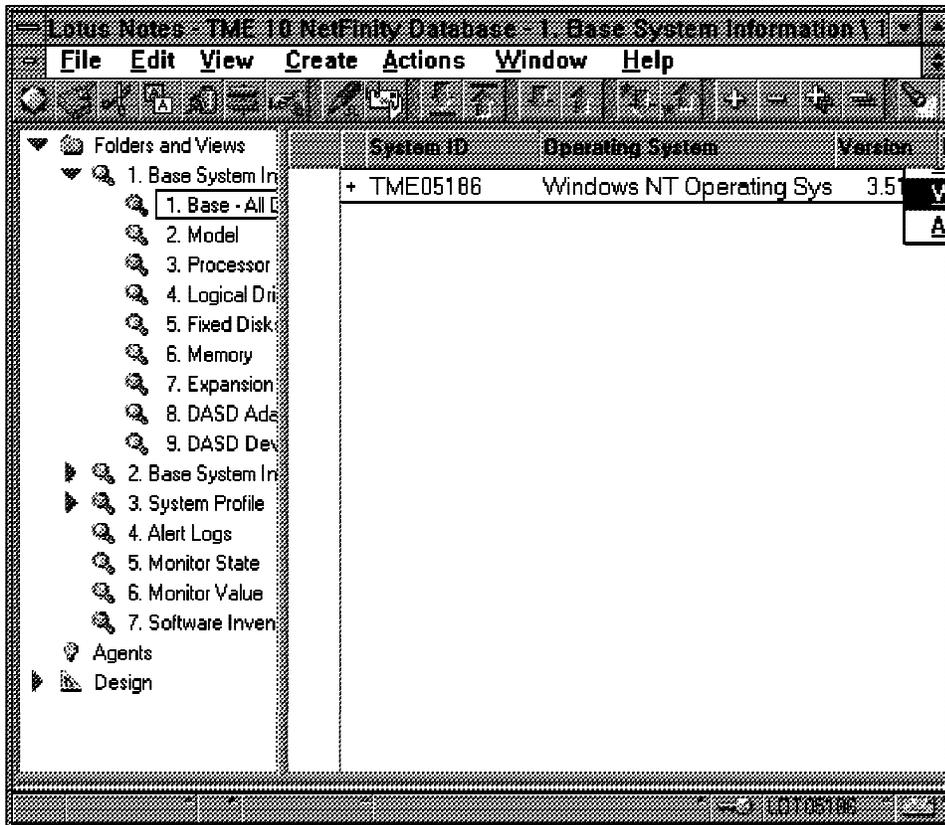


Figure 108. NetFinity Lotus Notes Database

### 3.3 Setup of IBM Database/2 for OS/2 Support for NetFinity

Support for the DB2 database is automatically configured during installation of NetFinity Manager. However, you must configure the database system itself.

#### 3.3.1 Installing and Configuring the Database

To install and configure the DB2 database on your DB2 database system:

##### 3.3.1.1 Install the Database

- Insert Diskette 1 of NetFinity Manager for OS/2.
- Type a: and press Enter.
- Enter the following command:

```
NETFINDB CREATE /DBNAME=NFDBASE /DRIVE=C
```

Where NFDBASE is the name of the NetFinity database. C is the drive where the NetFinity database will be installed. If prompted for a local logon, log on with a administrator user ID. In our case, we used:

```
Userid: USERID
Password: PASSWORD
```

### 3.3.1.2 Bind the Package and the Database

- Go to the NETFIN directory. In our case C:\NETFIN.
- Type the following command:

```
SQLBIND DB2SQLC0.BND NFDBASE /I=CS /F=DEF
```
- Type the following command to connect to the database:

```
DBM CONNECT TO NFDBASE
```
- Type the following command to enable access to the database:

```
DBM GRANT EXECUTE ON PACKAGE NETFIN.DB2SQLC0 TO PUBLIC
```
- Type the following command to disconnect current users from the database:

```
DBM CONNECT RESET
```
- Insert Diskette 1 of NetFinity Manager for OS/2.
- Type a: and press Enter.
- Type the following command to grant or revoke database access to a user ID:

```
NETFINDB GRANT /ID=JJACOB PUBLIC /DBNAME=NFDBASE /PRIV=ALL
```

## 3.3.2 Exporting Data to a OS/2 DB2 Database

This is an example of exporting data from NetFinity to an OS/2 DB2 database. We use the System Information Tool.

To save System Information Tool data to an OS/2 DB2 database do the following:

1. Run the System Information Service from the NetFinity folder.
2. From the System Information pull-down menu choose **File** and select **Database**. The Database Entry Selection window appears.

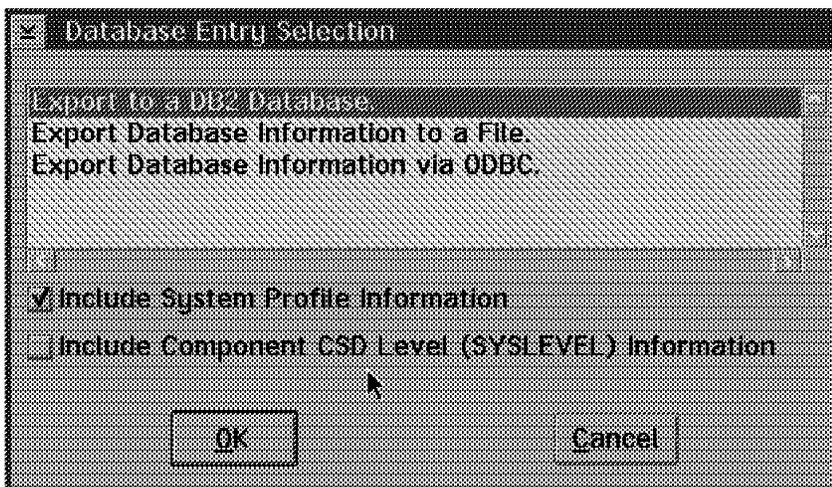


Figure 109. Database Entry Selection

3. Select **Export to a DB2 Database** from the Database Selection scrolling list and check the boxes if you would want to include system profile and/or CSD level information.
4. Click on the **OK** button. The Database Selection window appears.

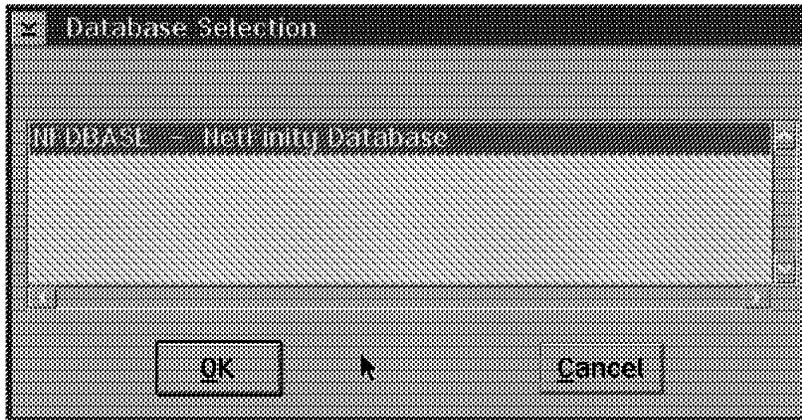


Figure 110. Database Selection

5. Select the database from the scrolling list. Click on the **OK** button to save the data.

You may see a prompt for a user ID and password.

6. Wait until the Export Completed Successfully window appears.

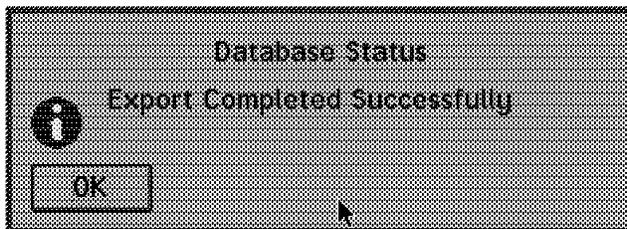


Figure 111. Database Status

7. The data is saved. Click on **OK** to end.

---

### 3.4 ODBC Support for IBM Database/2 for OS/2 with NetFinity

This section shows you the steps required to enable exporting data from NetFinity into an IBM DB2 for OS/2 database through the ODBC interface driver.

#### 3.4.1 Install of ODBC Drivers

To install ODBC support to IBM Database/2 for OS/2:

1. Open the IBM Database/2 main folder.

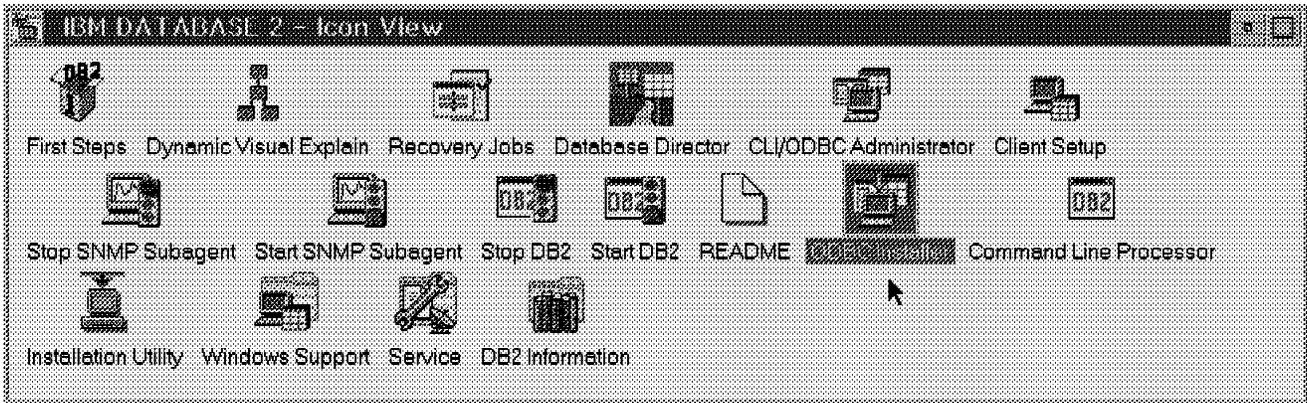


Figure 112. IBM Database/2

2. Click on the **ODBC Installer** icon.

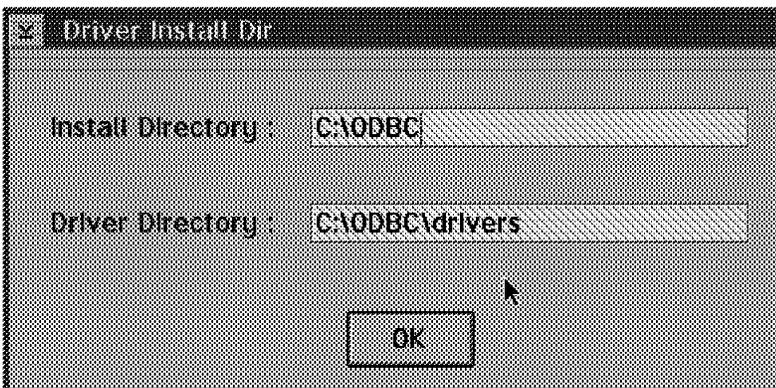


Figure 113. Install of ODBC Drivers

3. The Drive Install Dir window appears. You can enter the install directory and the drivers directory or take the defaults. Click on **OK**.
4. Reboot the workstation when you are asked to.

### 3.4.2 Create the NETFIN User

There are two rules to create the NETFIN user:

1. The user ID must be NETFIN.
2. The user account must be User Type Administrator.

To create the account follow these steps:

1. Log on locally to a user ID with administrator capabilities.
2. Open the **User Account Management** in the UPM Services folder. The User Profile window appears.

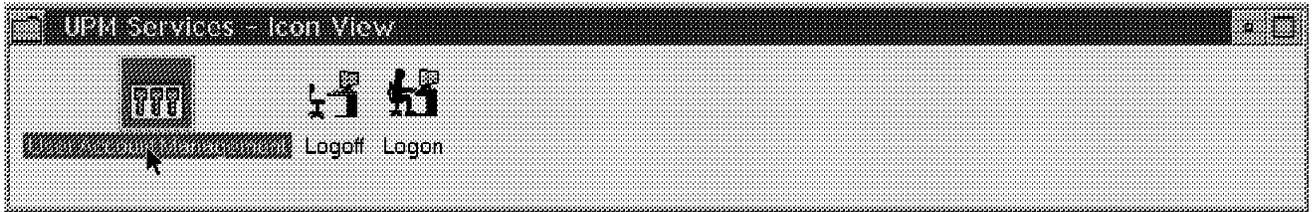


Figure 114. UPM Services

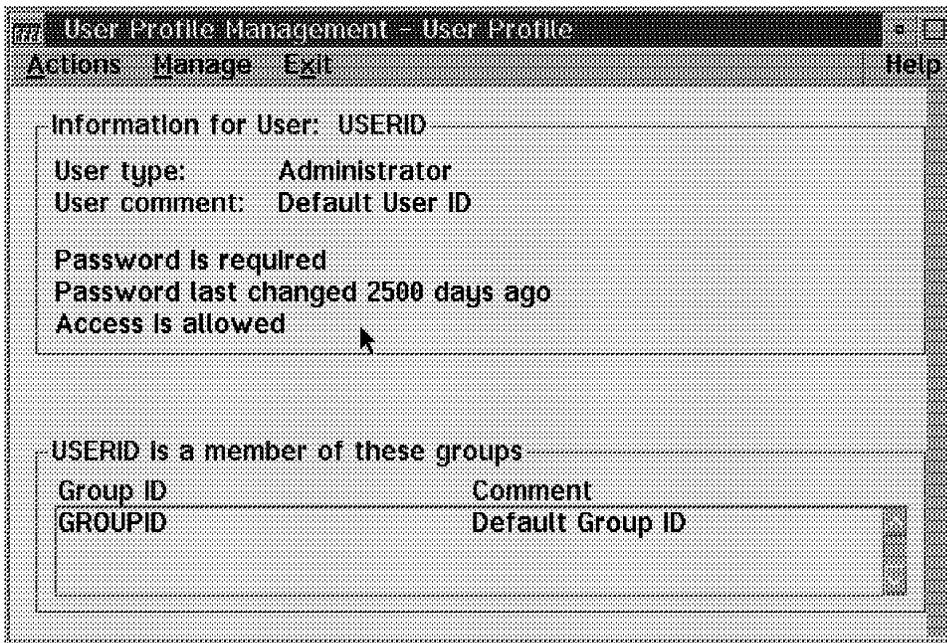


Figure 115. User Profile Management

3. From the Manage menu select **Manage Users**.

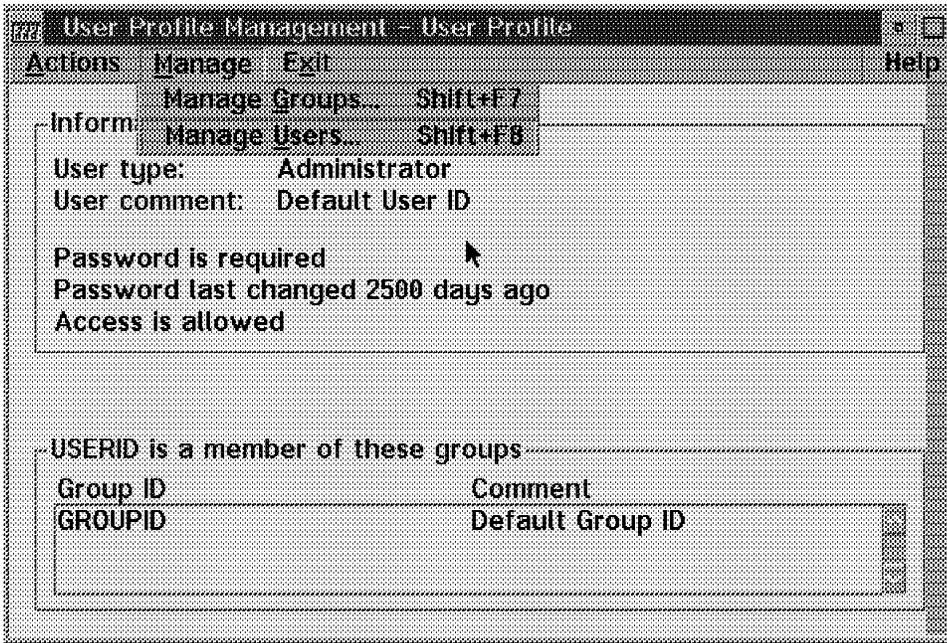


Figure 116. User Profile Management - User Profile

4. The User Management window appears.

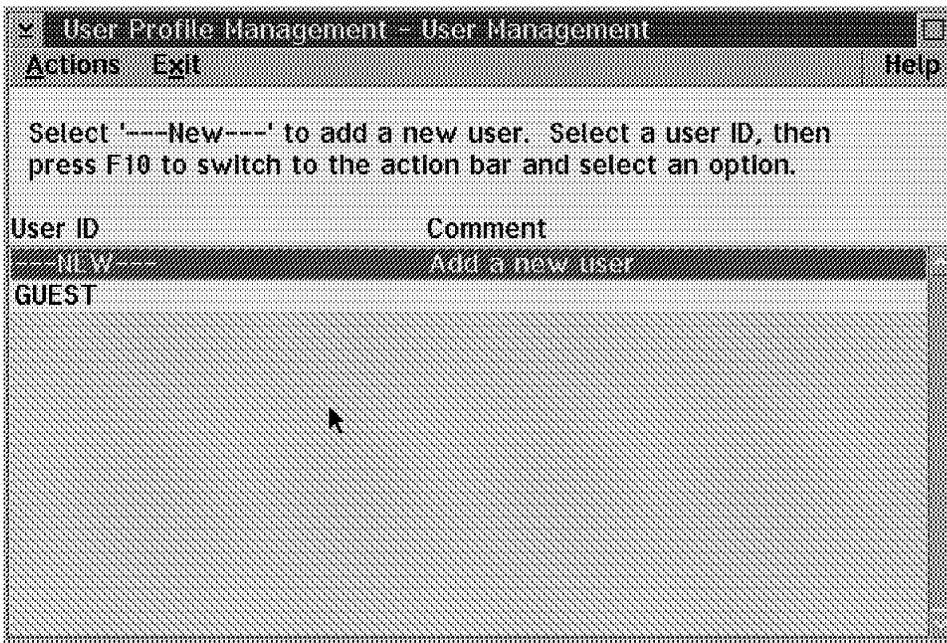


Figure 117. User Profile Management - User Management

5. Select **---NEW---** from the User ID scroll list and select **Add a new user ID** from the Actions menu.
6. The Add a New User window appears.

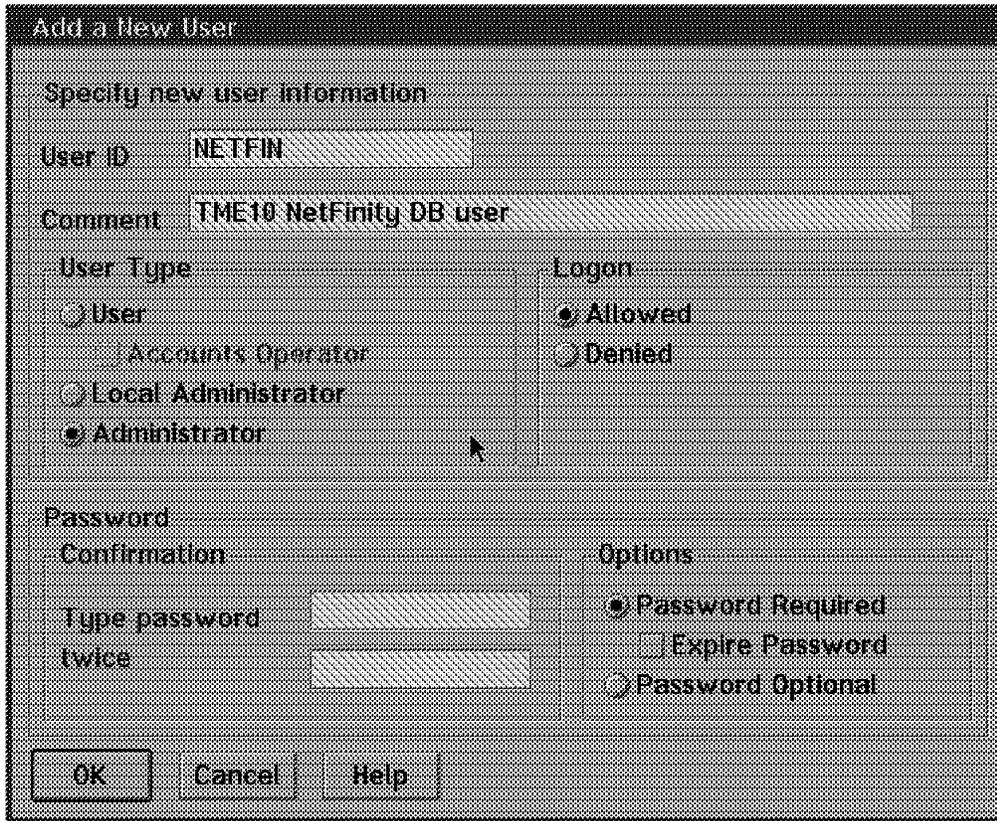


Figure 118. Add a New User

7. In the User ID field enter a name for the account (NETFIN).
8. In the Comment field enter a description (NetFinity DB User).
9. Enable Administrator in the User Type check box.
10. Enable Allowed in the Logon check box.
11. Enable Password Required in the Options check box.
12. Disable Expire Password in the Options check box.
13. In the Type password twice field enter the password for the account.

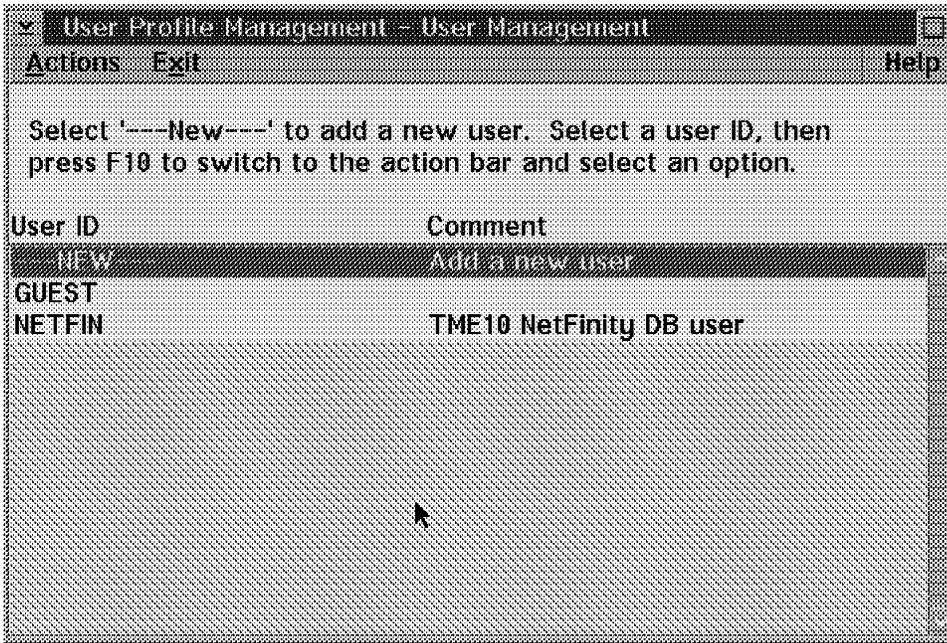


Figure 119. User Profile Management

14. The newly created user ID appears now in the User ID scroll list.
15. Click on **Exit** to close User Profile Management.

### 3.4.3 Create a Data Source

To create a data source, follow these steps:

1. Make sure that you have started DB2.
2. Click on the **CLI/ODBC Administrator** icon located in the IBM DATABASE/2 folder to display the DB2 CLI/ODBC Administrator window.

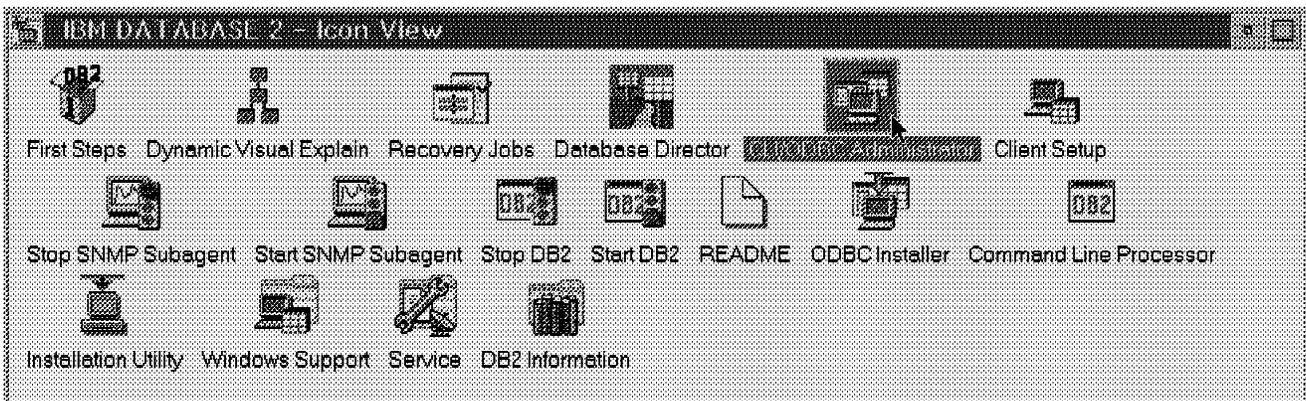


Figure 120. IBM Database/2

3. The DB2 CLI/ODBC main window appears.

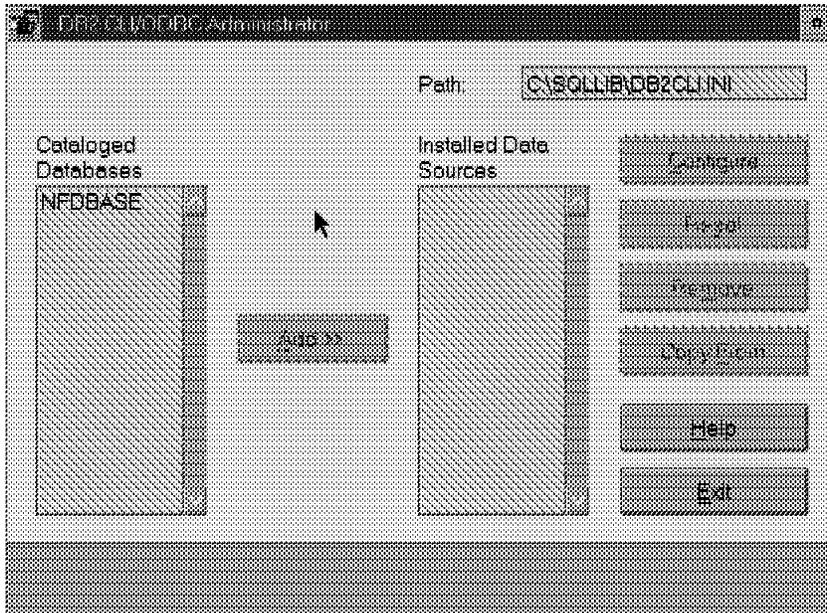


Figure 121. DB2 CLI/ODBC Administrator

4. Select the NetFinity database entry from the Cataloged Databases scroll list and click on the **Add** button.

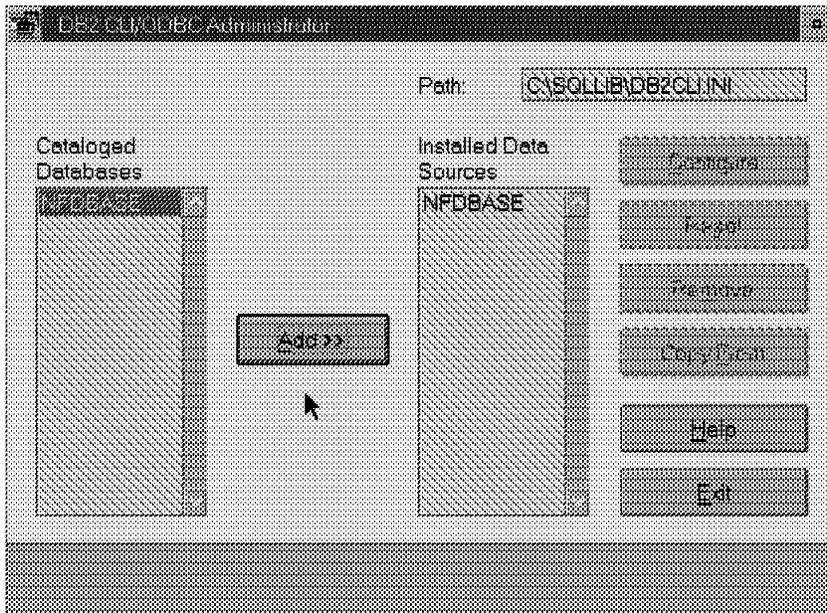


Figure 122. DB2 CLI/ODBC Administrator

5. The selected database is now in the list of Installed Data Sources.
6. Click on the **Configure** button.

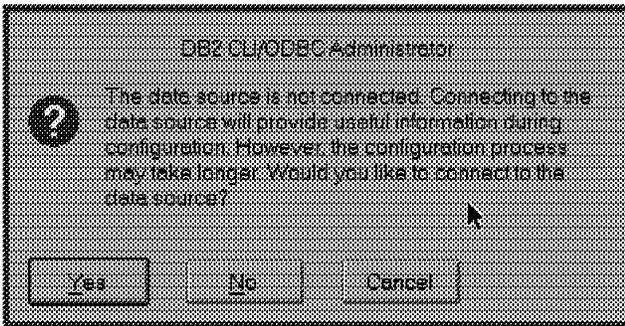


Figure 123. DB2 CLI/ODBC Administrator

7. Click **Yes** to connect the data source.

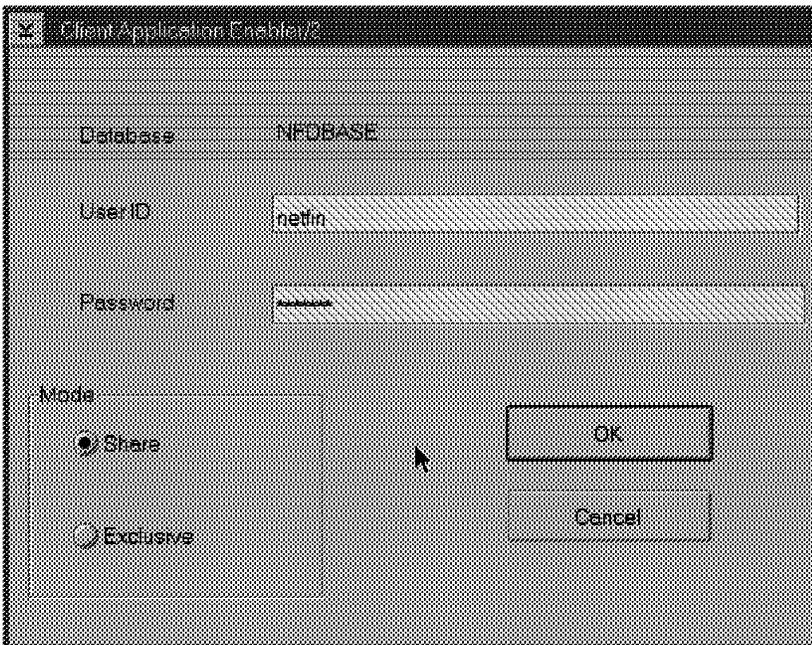


Figure 124. Client Application Enabler

8. The Client Application Enabler/2 panel appears. Enter the NETFIN user ID and the password. Click on the **OK** button.

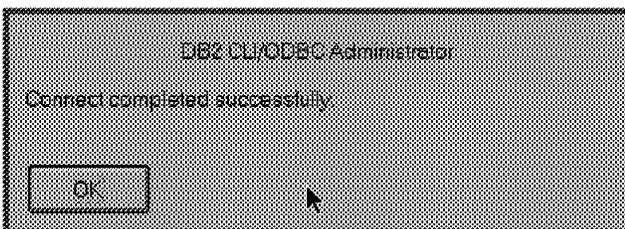


Figure 125. DB2 CLI/ODBC Administrator

- 9. Click **OK** after the Connect completed successfully message box appears.
- 10. Next, you may want to configure the data source. You can fill in a description, add a system scheme, or as can be seen in Figure 126 on page 103, there are many tabs with configuration options.

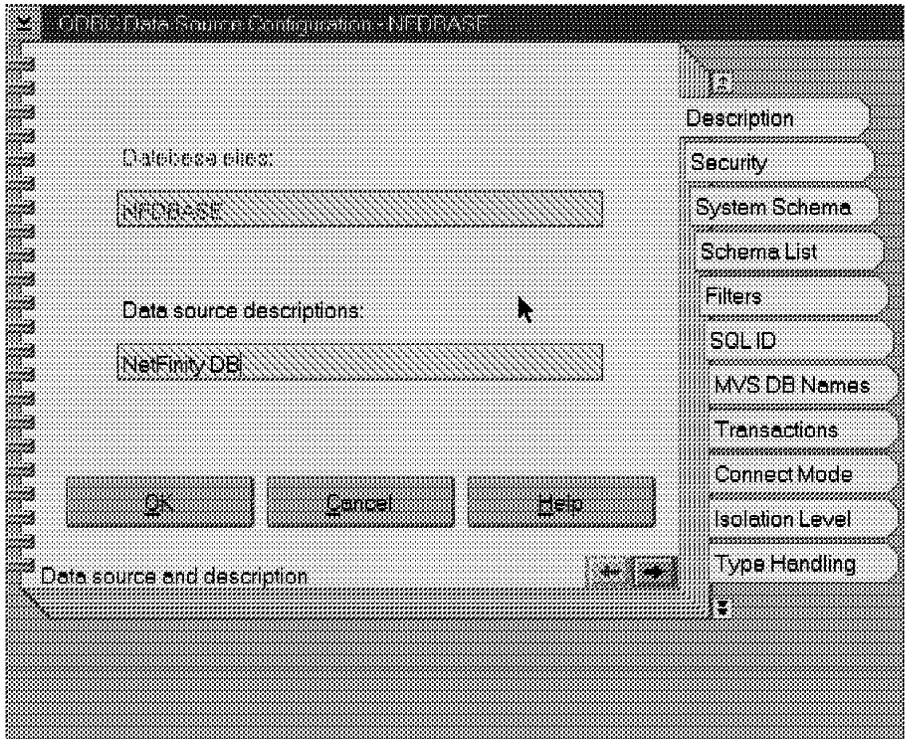


Figure 126. ODBC Data Source Configuration

Click on the **System Schema** tab. The first time you select it the field will be blank. You will need to click on the scroll list to see the entries. Select **NETFIN** and then click on **OK**.

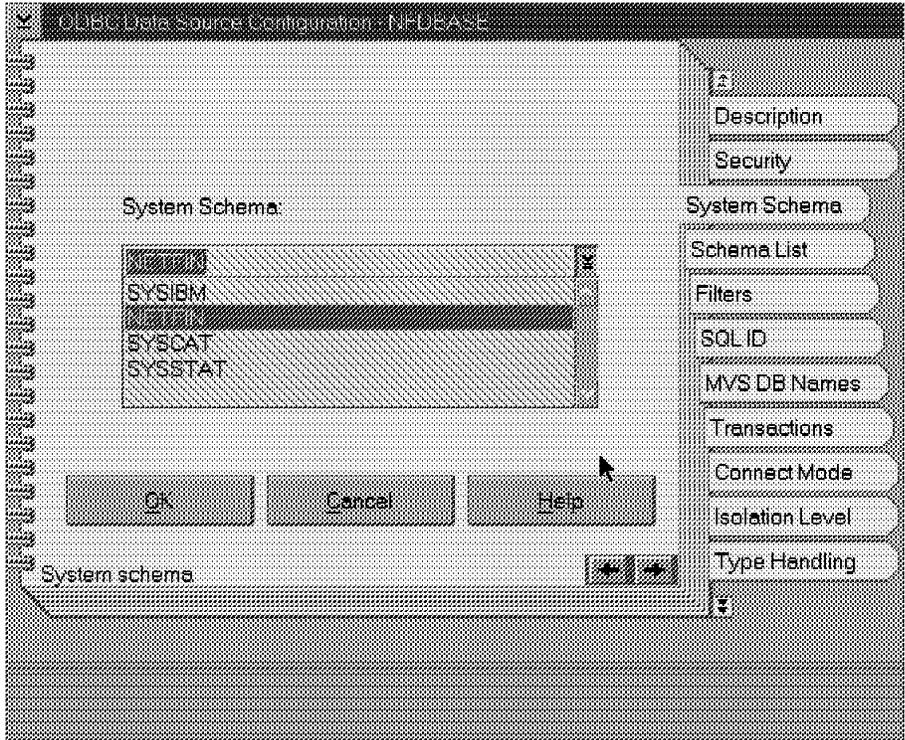


Figure 127. ODBC Data Source Configuration

11. When you finish configuring, close the configuration notebook and exit the ODBC Administrator process.

### 3.4.4 Exporting Data to an OS/2 DB2 Database ODBC

This is an example of exporting data from NetFinity to an OS/2 DB2 database. We use the System Information Tool.

To save System Information Tool data to an OS/2 DB2 database do the following:

1. Run the System Information Service from the NetFinity folder.

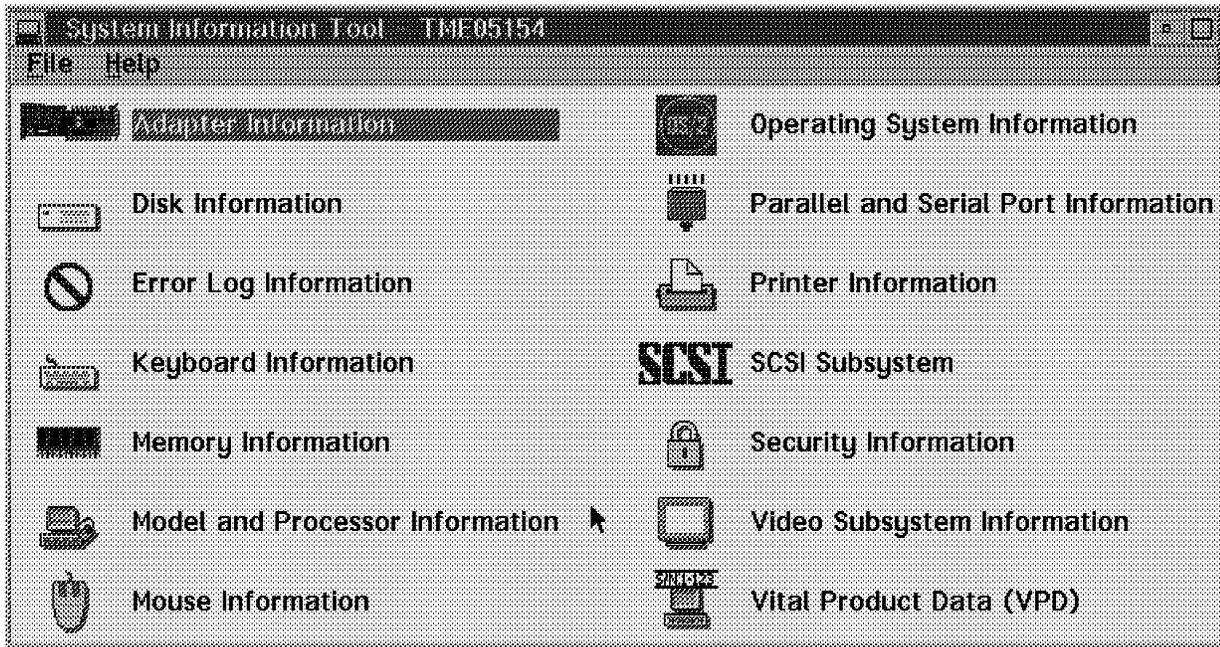


Figure 128. System Information Tool

2. From the System Information pull-down menu choose **File** and select **Database**. The Database Entry Selection window appears.

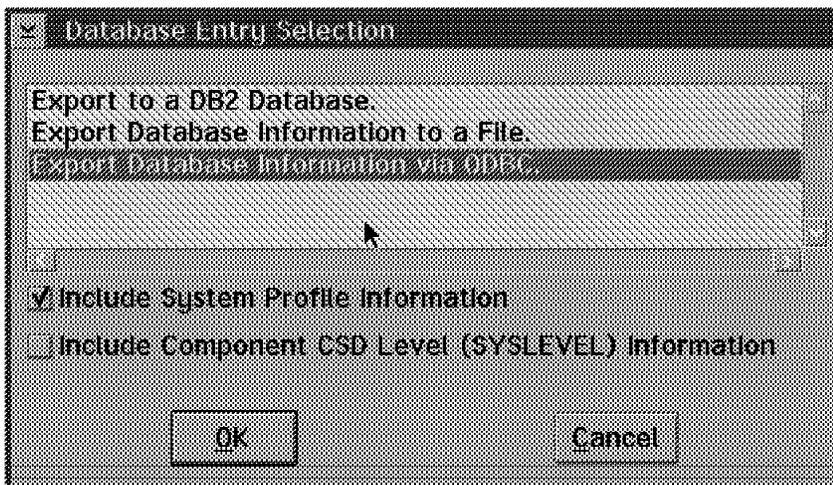


Figure 129. Database Entry Selection

3. Select **Export Database Information via ODBC** from the Database Entry Selection scrolling list and check the boxes if you want to include system profile and/or CSD level information.
4. Click on the **OK** button. The Database Selection window appears.

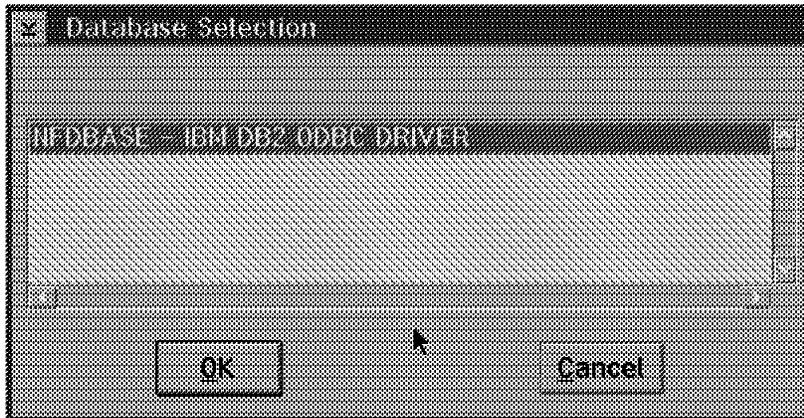


Figure 130. Database Selection

5. Select the database from the scrolling list. Click on the **OK** button.

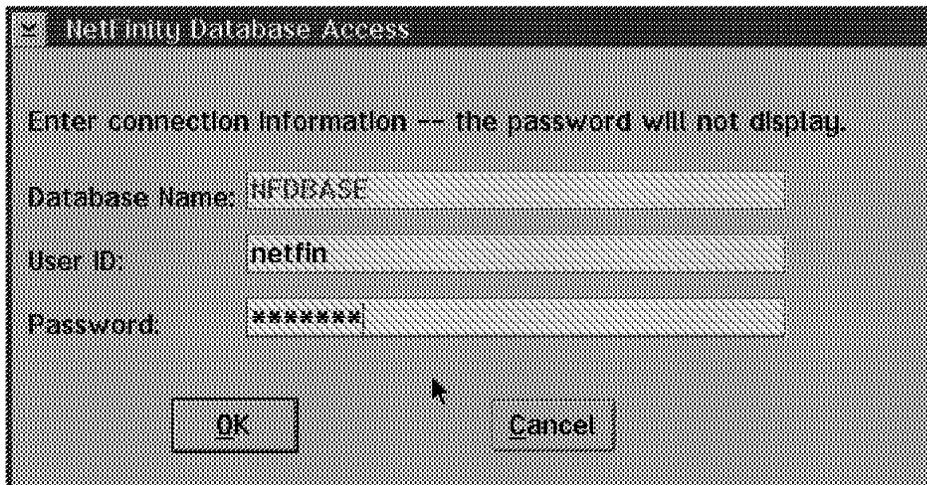


Figure 131. NetFinity Database Access

6. Enter NETFIN in the User ID field and the password in the Password field. Click on the **OK** button to save the data.
7. Wait until the Export Completed Successfully window appears.

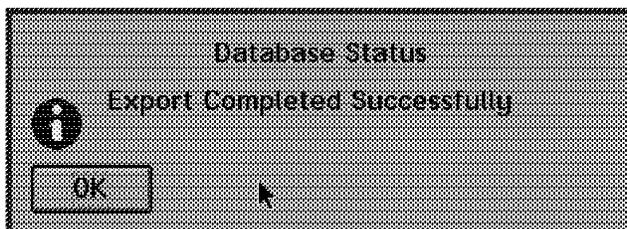


Figure 132. Database Status

8. The data is saved.

9. Click on the **OK** button to end.

---

### 3.5 SQL 6.0 Database Support for NetFinity

To install SQL Server on Windows NT, follow these steps:

1. You will need to run setup.exe.

You can find SQL 6.0 on either the BackOffice CD, or on the SQL 6.0 CD. On the BackOffice CD (#2), you would enter `D:\SQL60\I386\SETUP.EXE`.

The Welcome dialog box appears as follows:

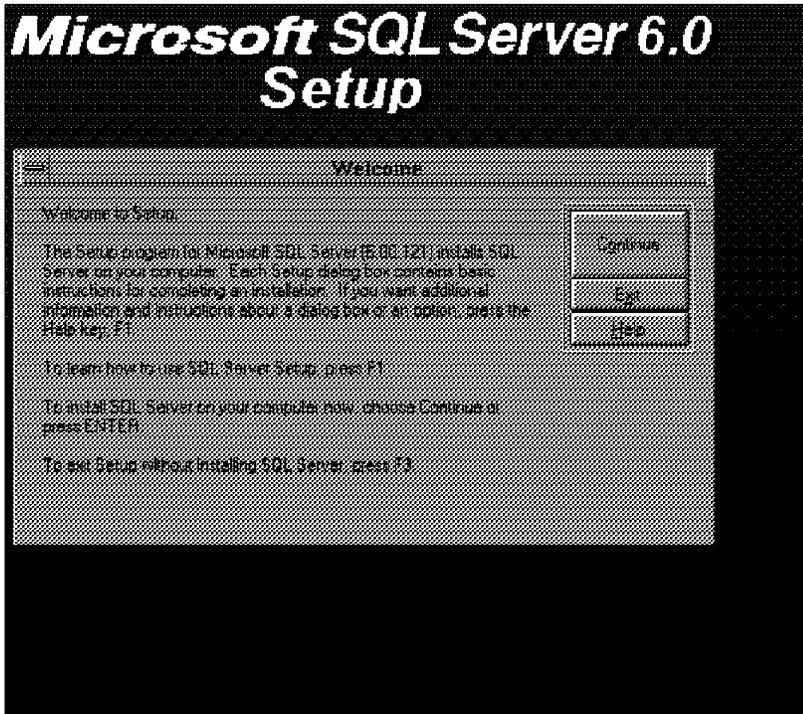


Figure 133. SQL Server Setup Welcome Panel

2. Click on the **Continue** button to begin the installation.
3. After you select the Continue button, you are prompted to enter your name, company name and the product identification number. Click on the **Continue** button, and click **Continue** again at the confirmation dialog.

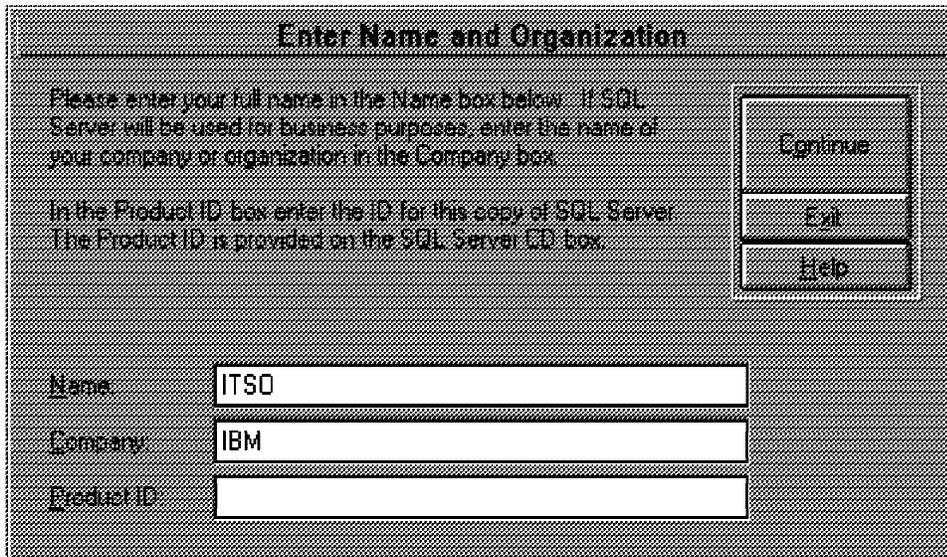


Figure 134. Enter Name and Organization

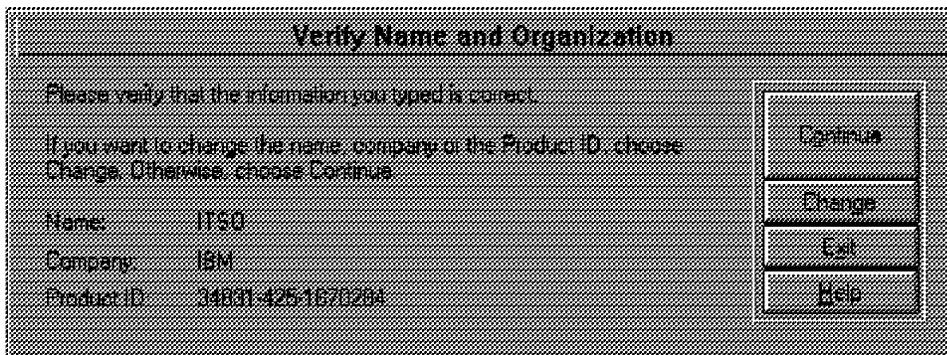


Figure 135. Verify Name and Organization

- The SQL Server Setup Options dialog appears. Select the default **Install SQL Server and Utilities** and click on the **Continue** button.

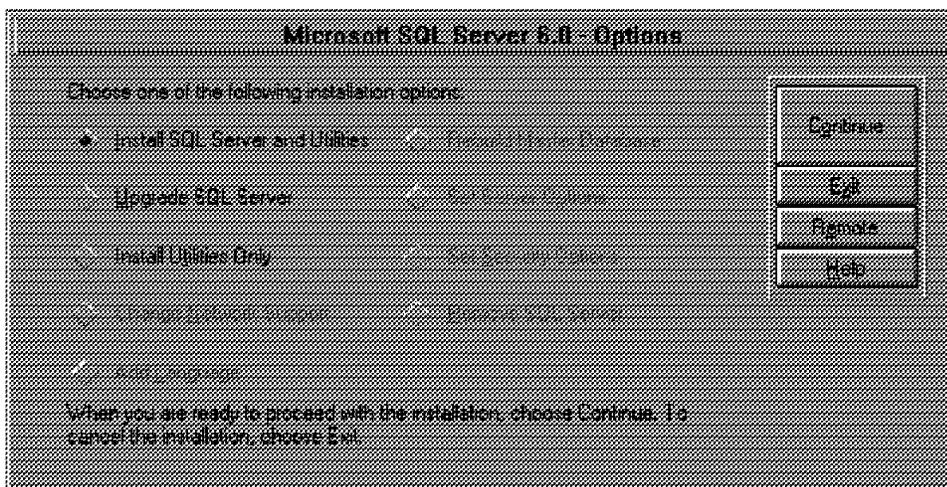


Figure 136. Microsoft SQL Server 6.0 - Options

- The next option is to select a license mode. We used the Per Server, 10 concurrent connections option. Click on the **Continue** button.

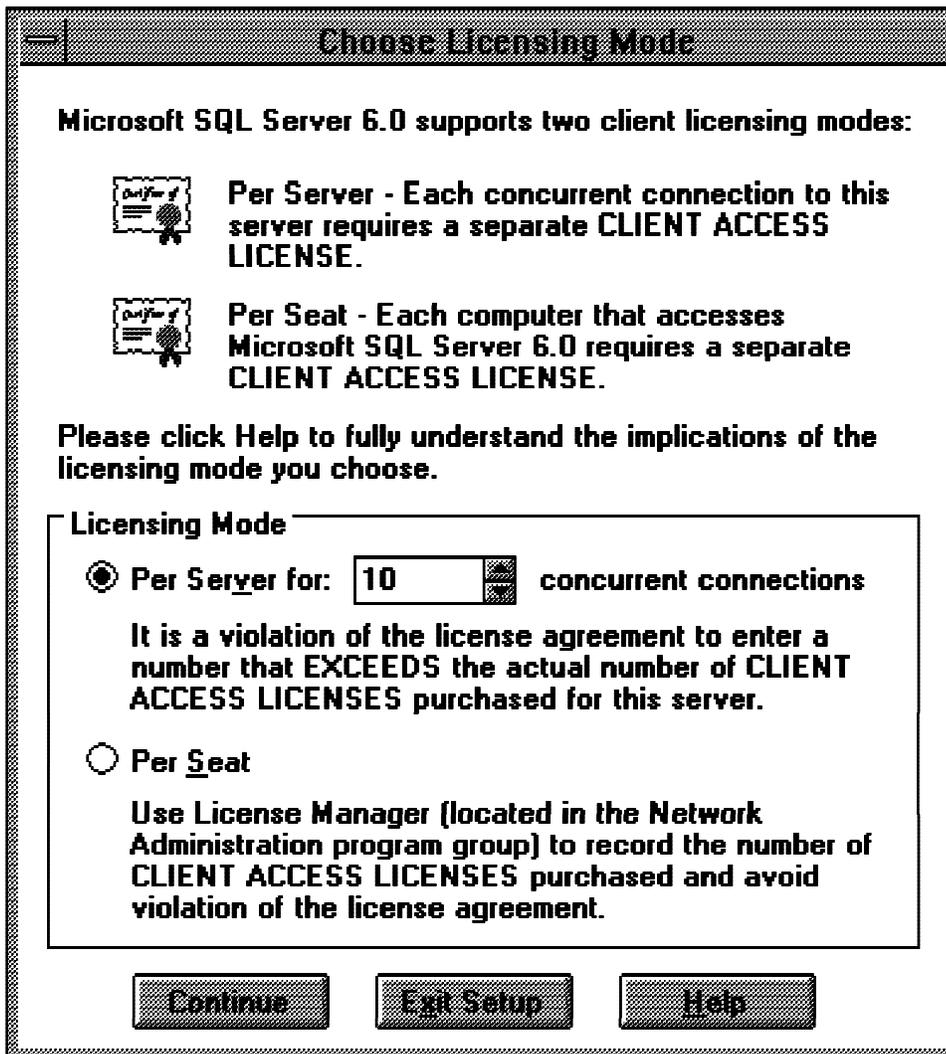


Figure 137. Choose Licensing Mode

- You are then prompted to agree to the licensing agreement before you can continue. Enable the **I agree** check box and click on the **OK** button.

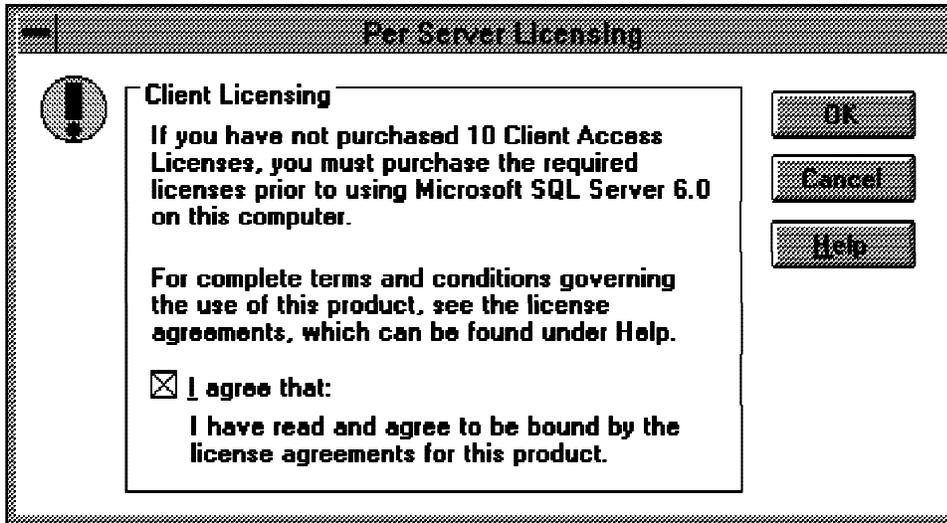


Figure 138. Per Server Licensing

7. The SQL Server Installation Path dialog box appears.

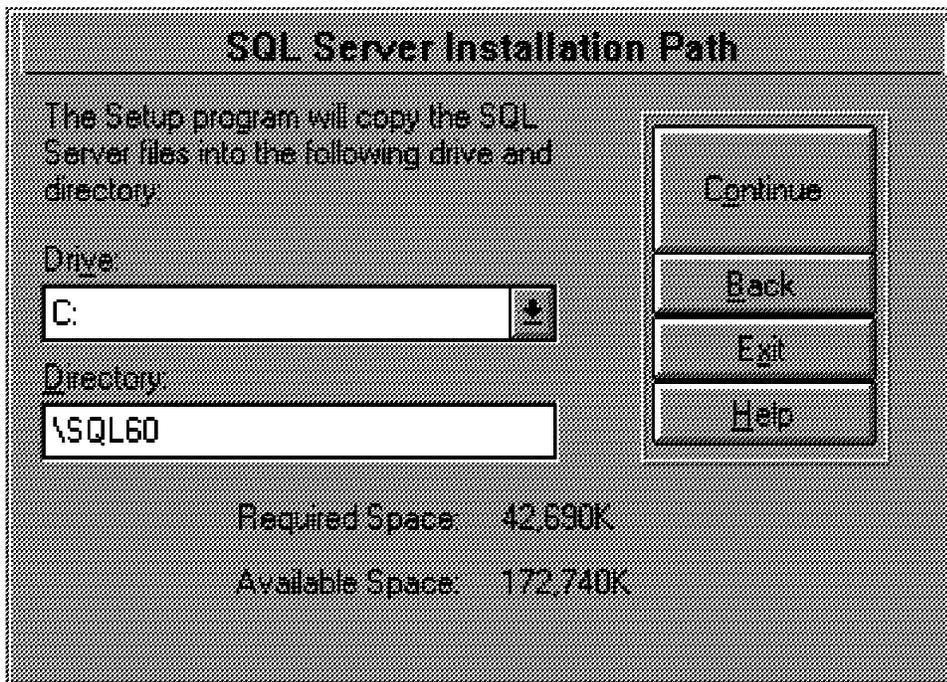


Figure 139. SQL Server Installation Path

8. This panel shows the available space in the chosen drive and the required space for the SQL Server. After you specify a drive and system path, click on the **Continue** button and the Master Device Creation window appears.

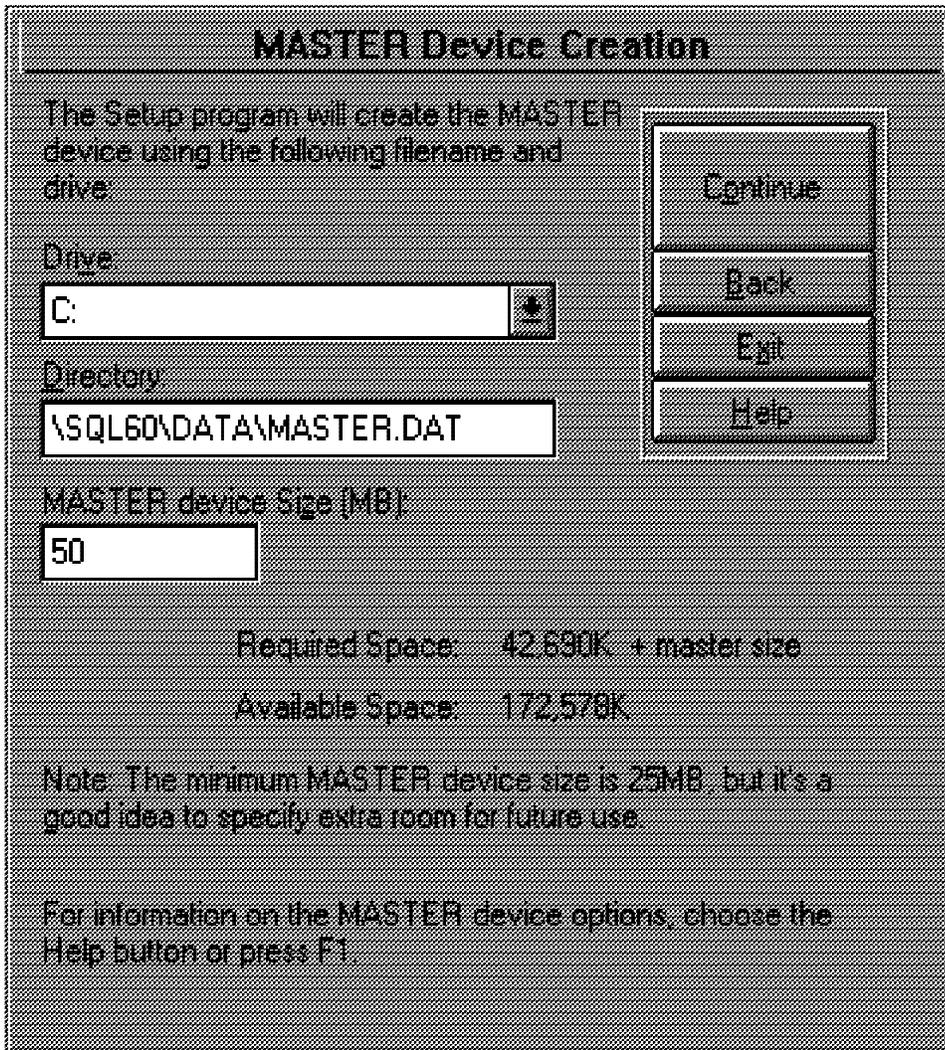


Figure 140. MASTER Device Creation

9. You use the next dialog box to specify the drive, path, file name and size of the SQL master device. We left the drive, path and name with the default values, but we increased the size from 25 (the default) to 50. After you make your choices, click on the **Continue** button.
10. The next dialog box allows you to choose if you want the online books installed and where to place them.

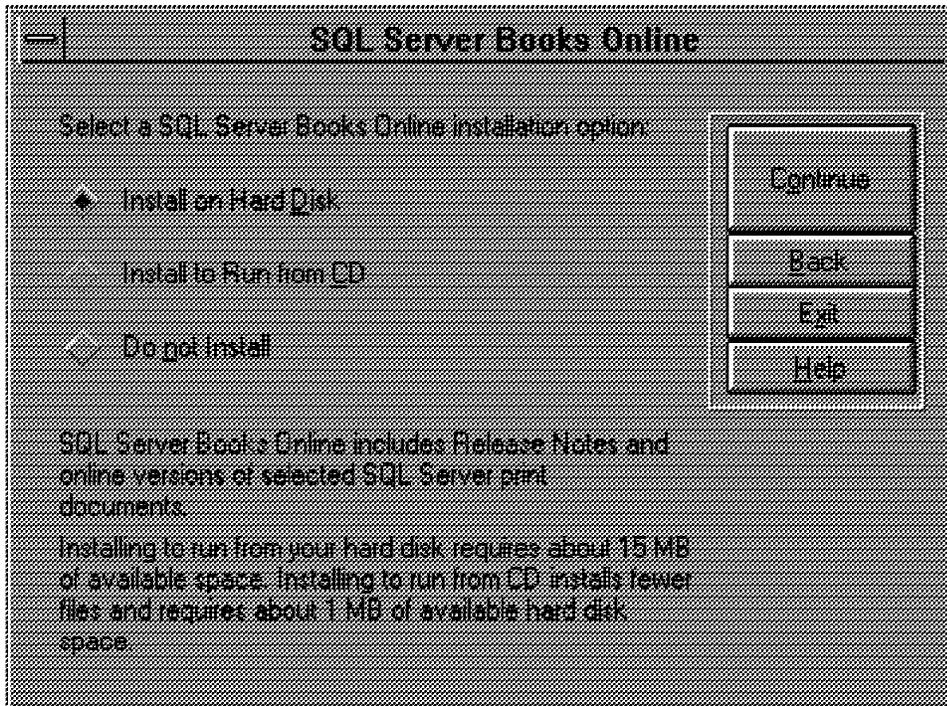


Figure 141. SQL Server Books Online

11. After you make your choices and click on the **Continue** button the Installation Options dialog box appears.

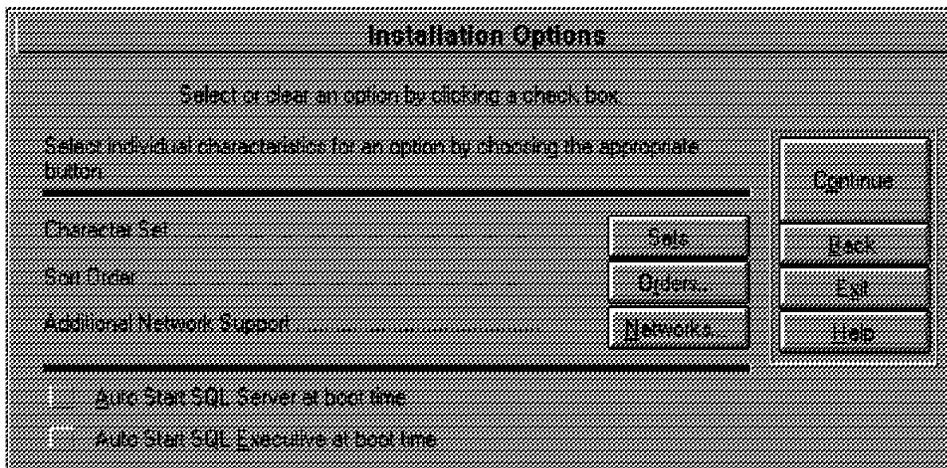


Figure 142. Installation Options

12. Click on the **Sets** button to select the character set.

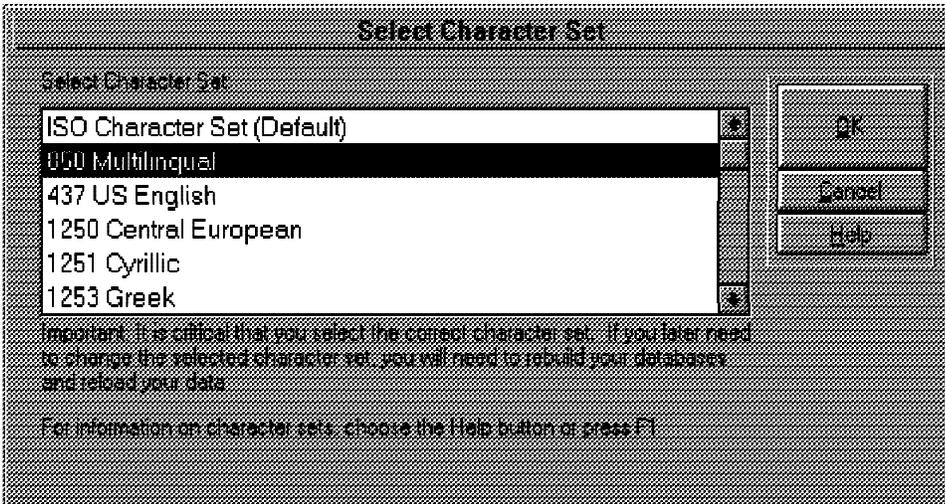


Figure 143. Select Character Set

13. Click on the **Orders** button to select the sort order.

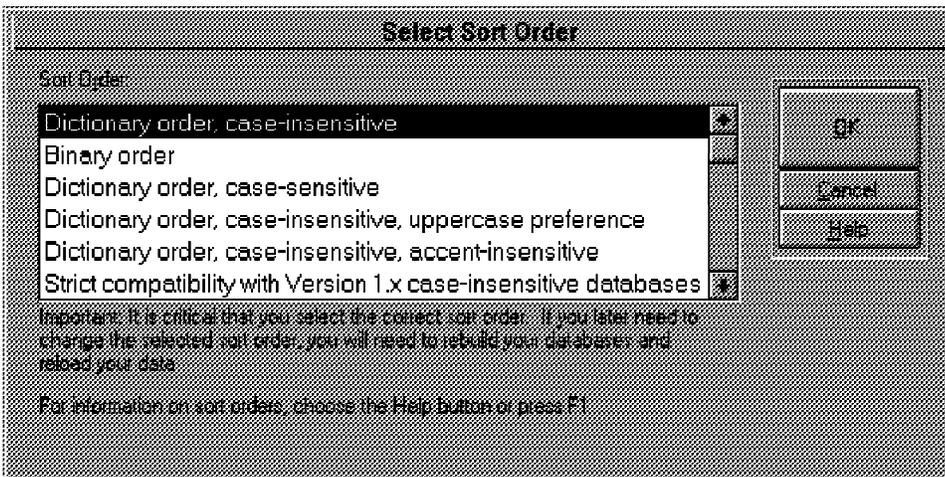


Figure 144. Select Sort Order

14. Click on the **Networks** button to select the network protocols.

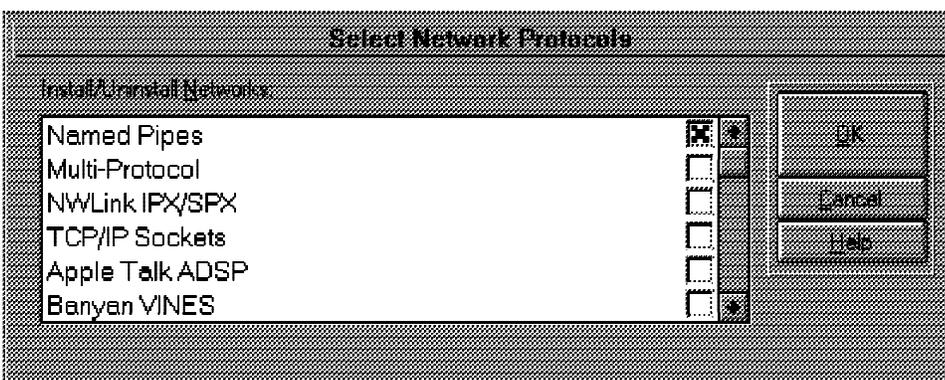


Figure 145. Select Network Protocols

15. After you specify all the installation options, click on the **Continue** button to copy the SQL Server system files.

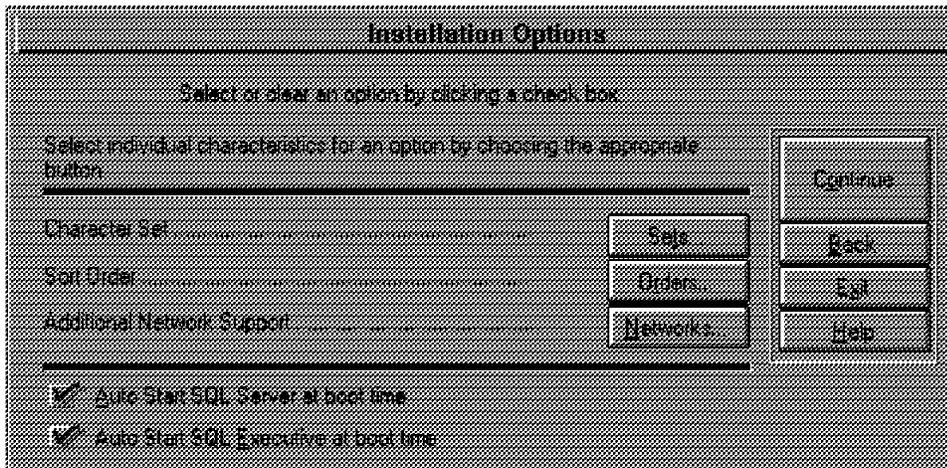


Figure 146. Installation Options

16. After copying the files, the SQL Executive Log On Account window appears.

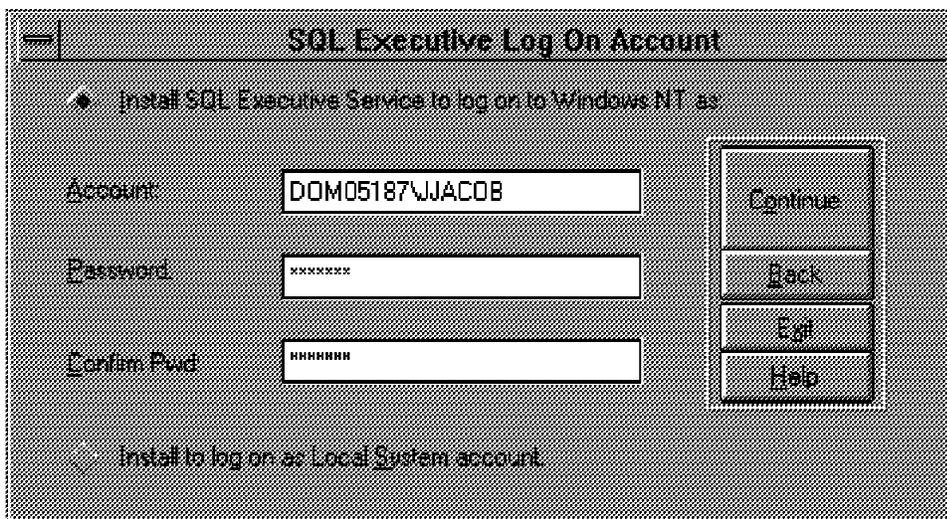


Figure 147. SQL Executive Log On Account

17. This dialog box is used to select the user account that will be used by the SQL Executive. The recommendation is to have created this account previously using the User Manager function. You should create and use this user account, even though you can use the local system account. If you do use the local system account, however, you will be unable to use the additional functions provided by the SQL Executive to access domain-wide resources.
18. Click on the **Continue** button.

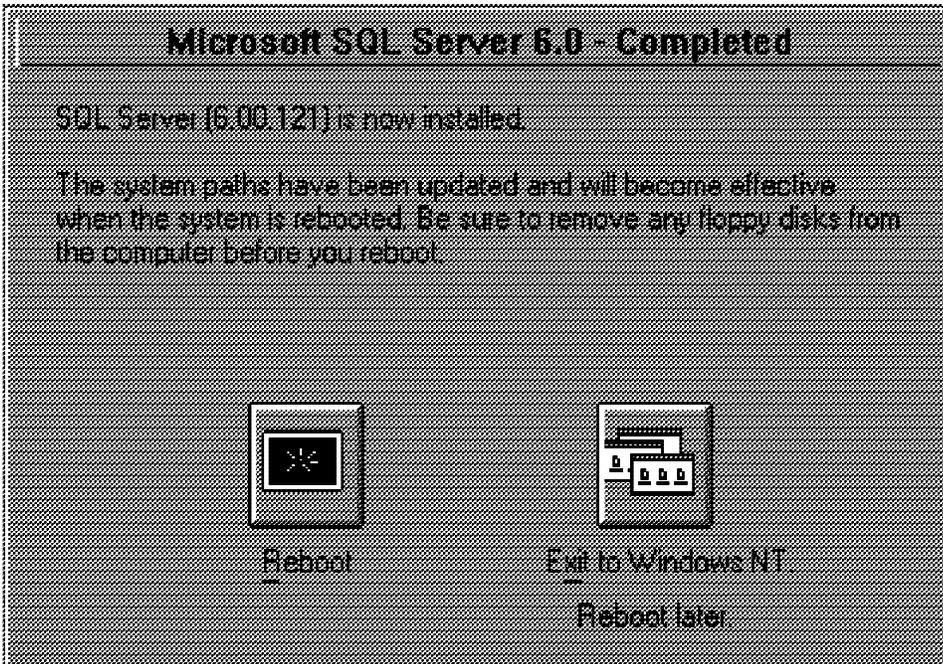


Figure 148. Microsoft SQL Server 6.0 - Completed

19. The SQL Server for Windows NT group has been created. You are now prompted to reboot your computer or to return to Windows NT by the setup program. Before you can start SQL server, you must restart the computer.

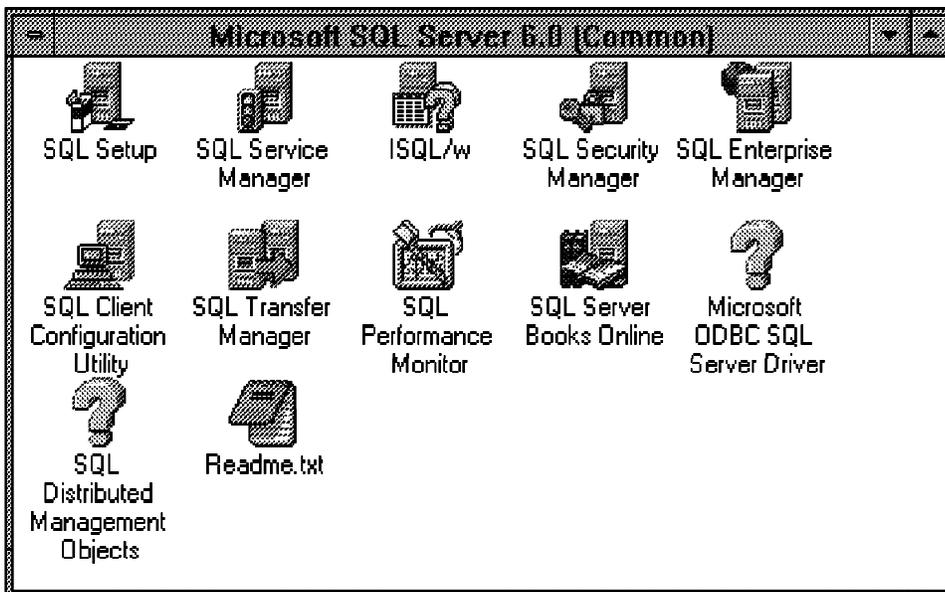


Figure 149. Microsoft SQL Server 6.0 Group

### 3.5.1 Creating the NetFinity Logon Account

There are three rules to creating the NetFinity logon account:

- The user ID must be NETFIN.
- The user account must be a member of the local administrators account or preferably, the domain admins account, which automatically includes this account in every local administrators account.
- The account must be assigned the Log on as Service right.

To create the account, follow these steps:

1. Select **User Manager for Domains**, which is located in the Administrative Tools group.

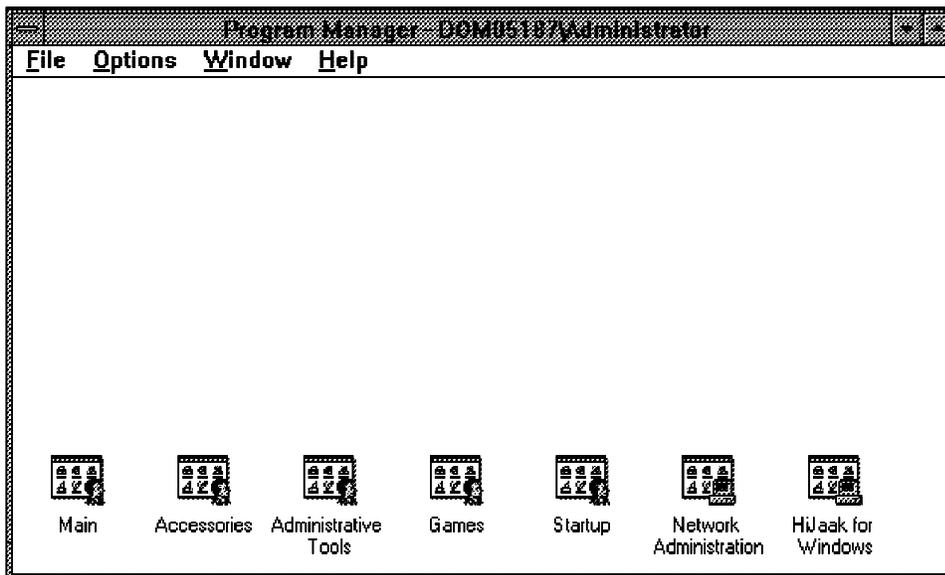


Figure 150. Program Manager

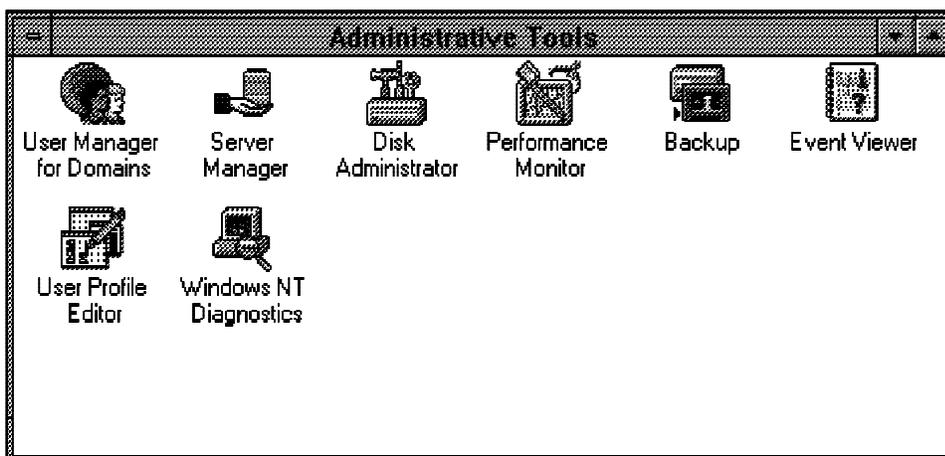


Figure 151. Administrative Tools

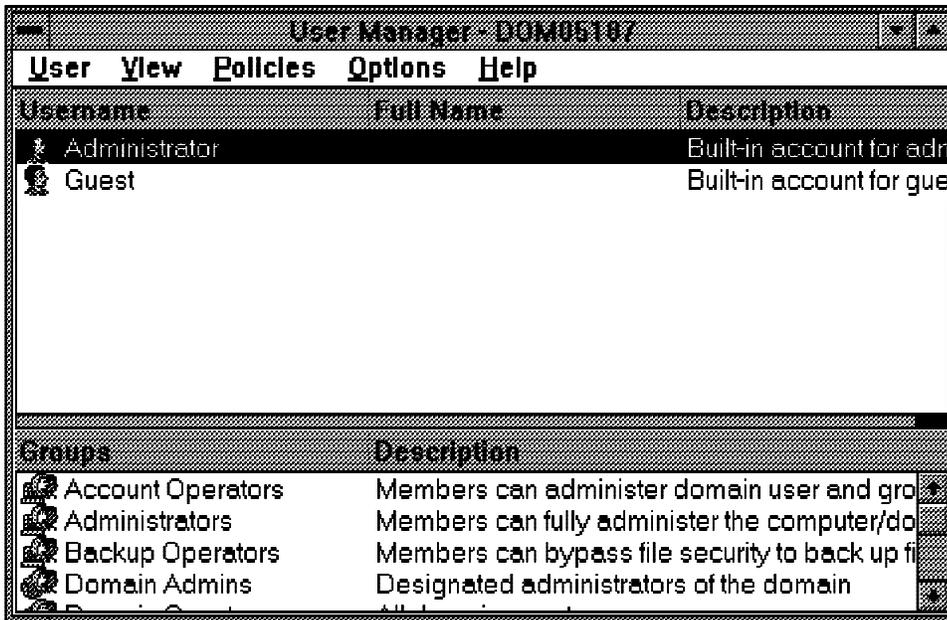


Figure 152. User Manager for Domains

2. Choose **New User** from the User menu to display the New User dialog box.

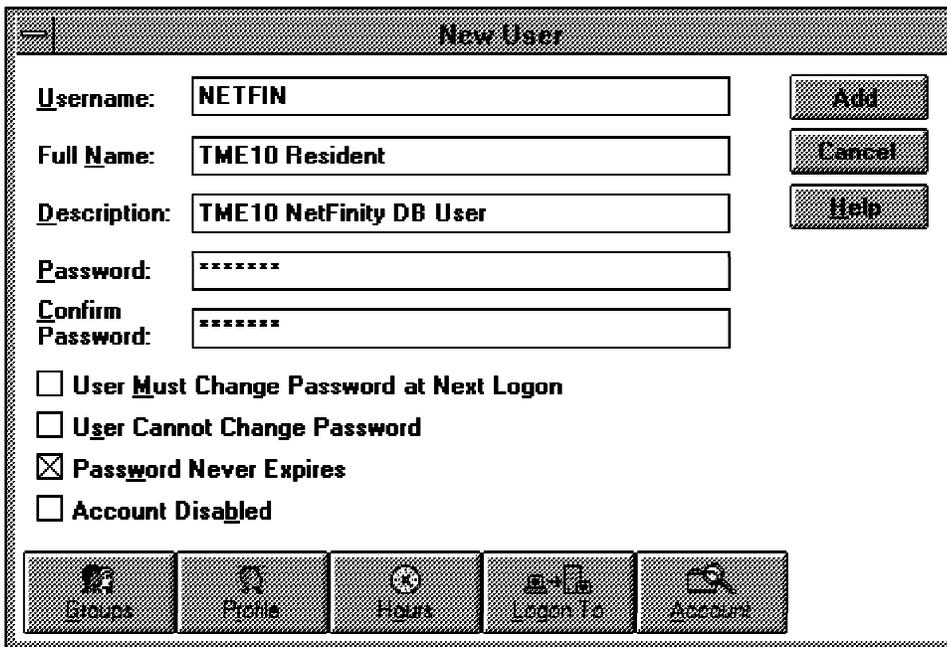


Figure 153. New User

3. In the Username field, enter a name for the account (NETFIN).
4. In the Full Name field, enter a value (NetFinity Resident).
5. In the Description field, enter a comment (NetFinity DB User).
6. In the Password and Confirm Password fields, enter the password for the account.
7. Enable the Password Never Expires check box, and disable the User Must Change Password at Next Logon check box.

8. Click on the **Groups** button.

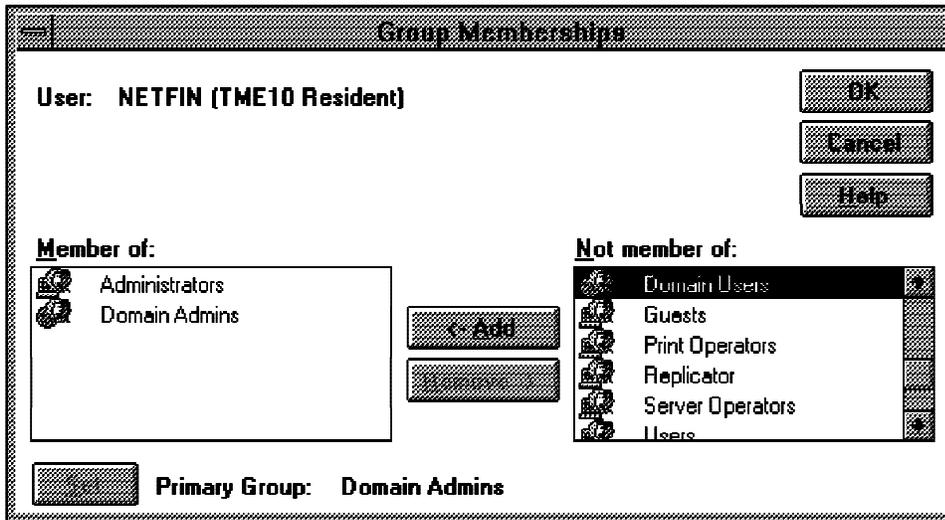


Figure 154. Group Memberships

9. Add the Domain Admin account. Remove any other group. Then click on the **OK** button.
10. Click on the **Add** and **Close** buttons to return to the main User Manager for Domains window.

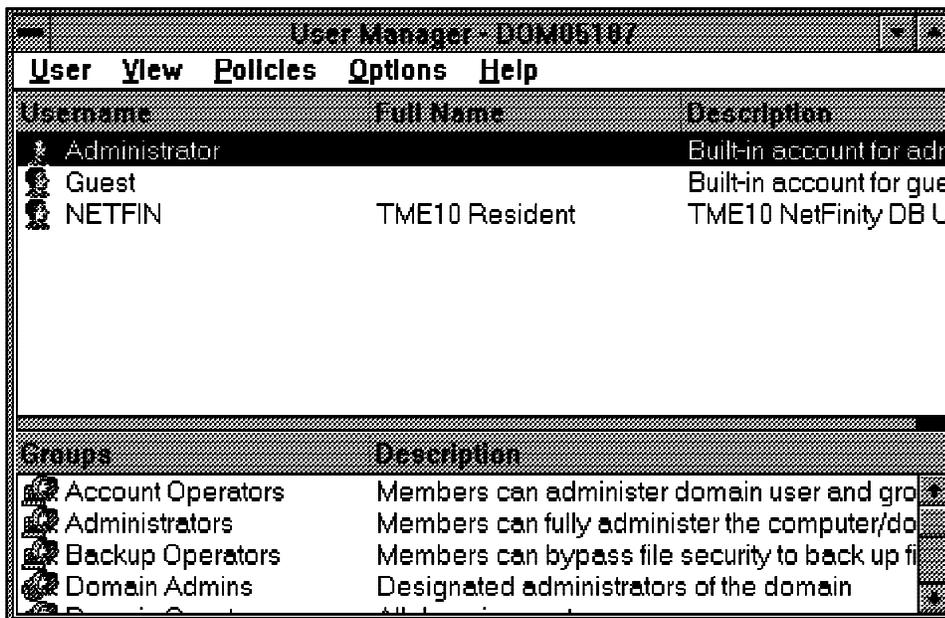


Figure 155. User Manager for Domains

11. Choose **User Rights** from the Policy menu to display the User Rights Policy dialog box.

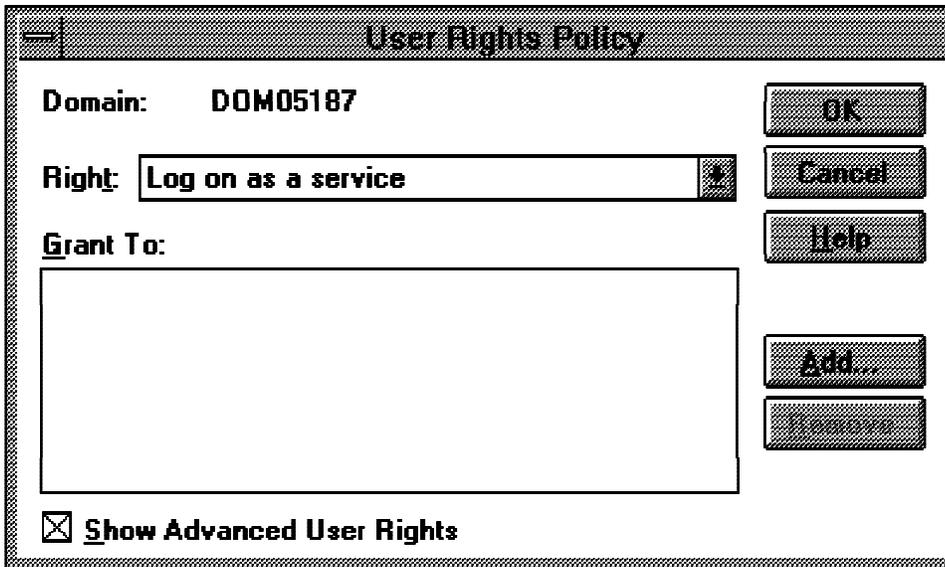


Figure 156. User Rights Policy

12. Enable the **Show Advanced User Rights** check box. Then select the **Log on as a service** in the Right drop-down list box.
13. Click **Add** to display the Add Users and Groups dialog box. Then select the user account you just created and click on the **Add** button.

**Note:** If the user account is not in the list, click on the **Show Users** button.

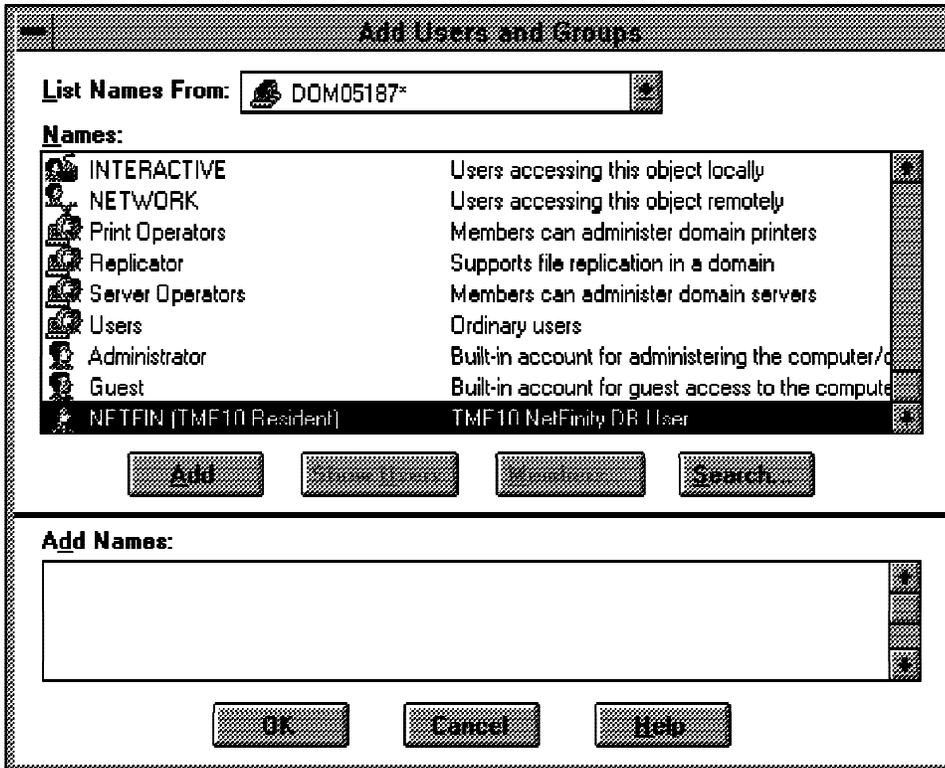


Figure 157. Add Users and Groups

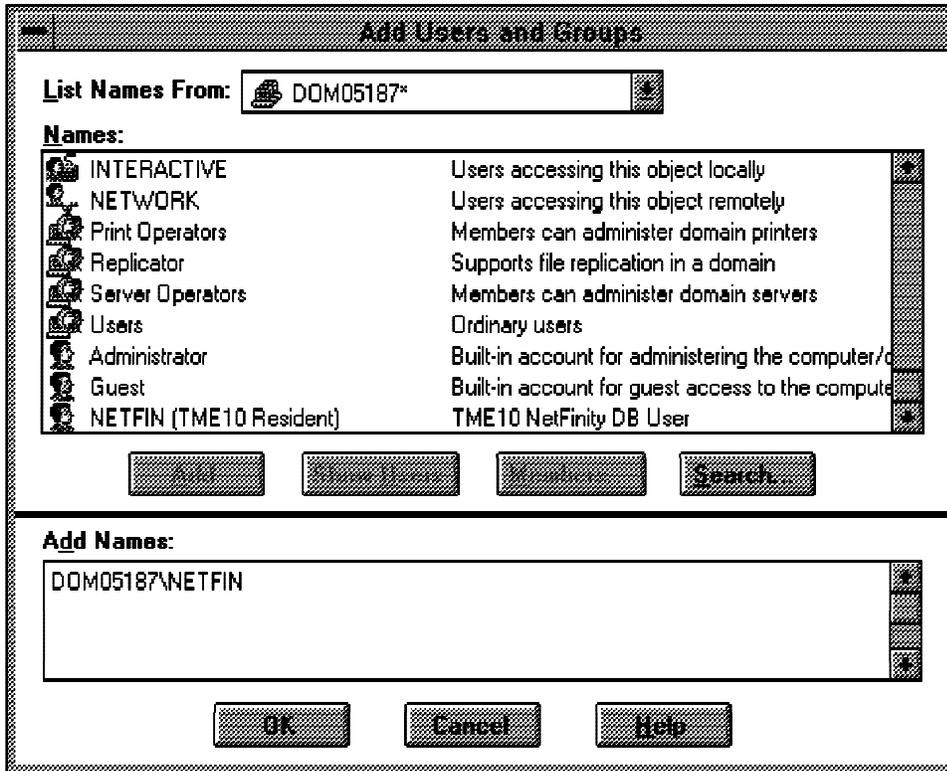


Figure 158. Add Users and Groups

14. Click on the **OK** button and the user account should be displayed in the Grant To field.

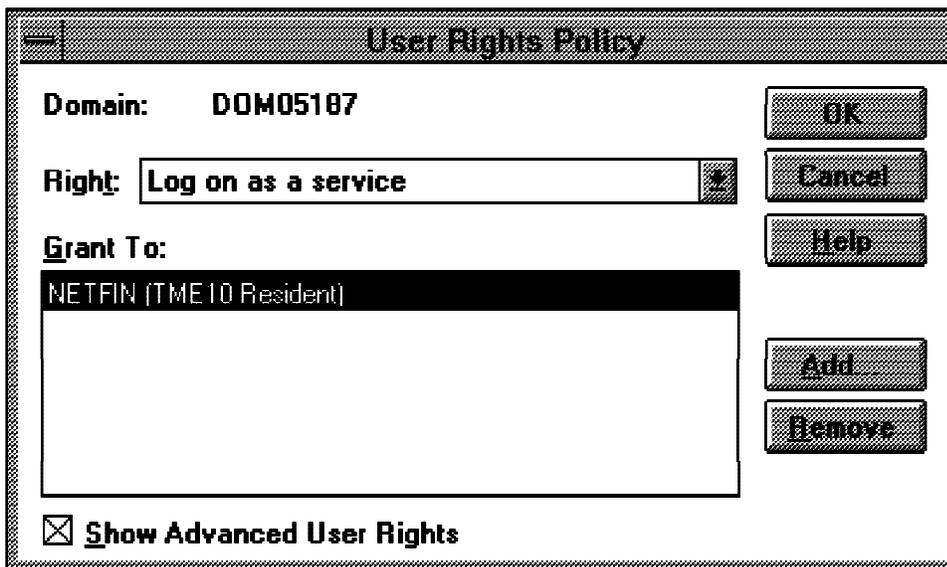


Figure 159. User Rights Policy

15. Click on the **OK** button.

### 3.5.2 Create NetFinity Database SQL

1. On the SQL Server System, start **SQL Enterprise Manager**.

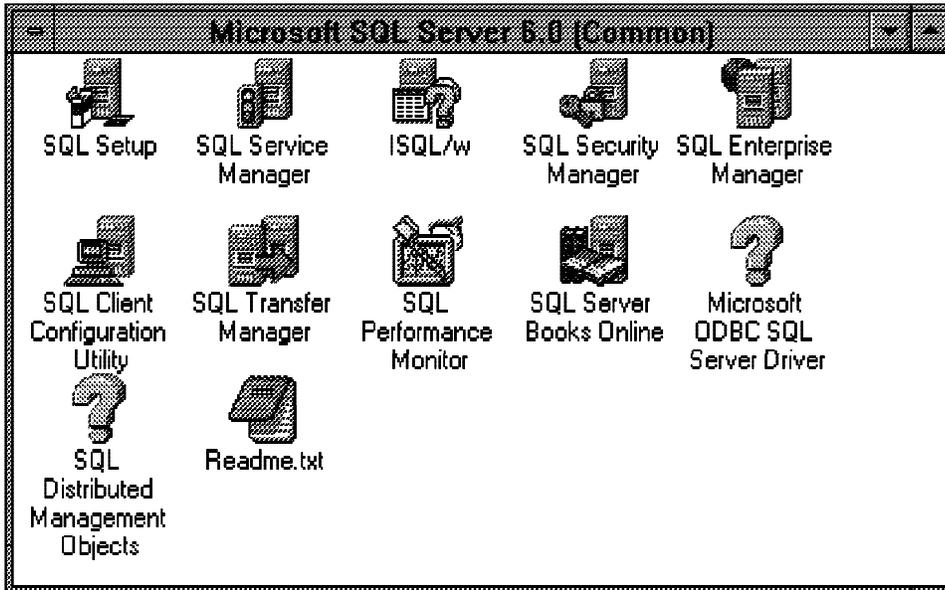


Figure 160. Microsoft SQL Server

2. The Register Server window appears.

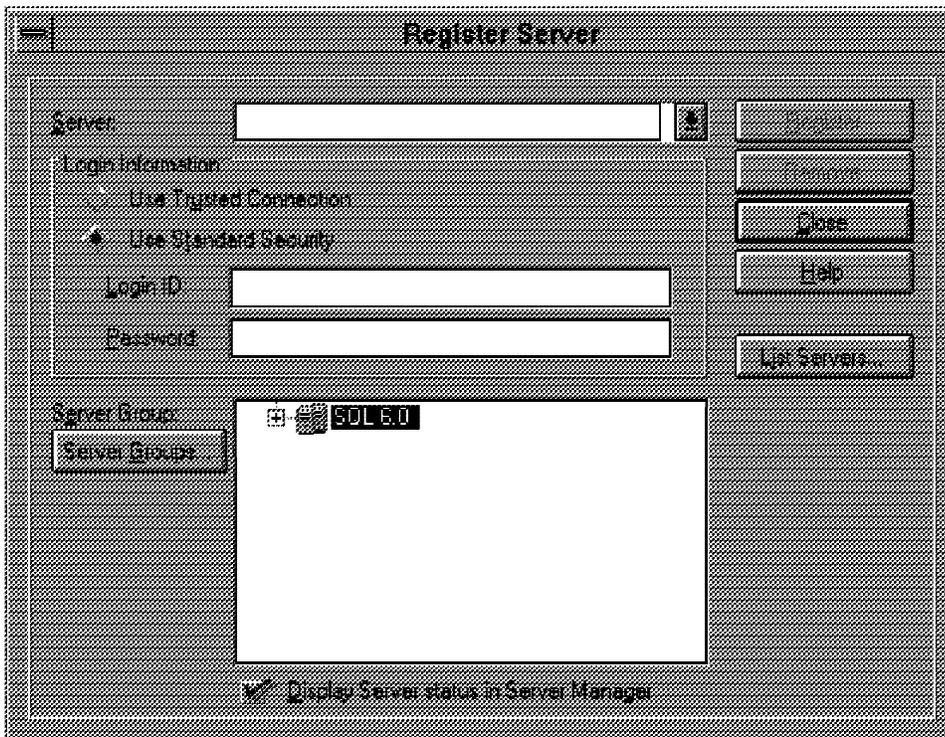


Figure 161. Register Server

3. If your server does not appear in the tree, you have to register it.

4. Click on **List Servers**. The Select Server window appears.

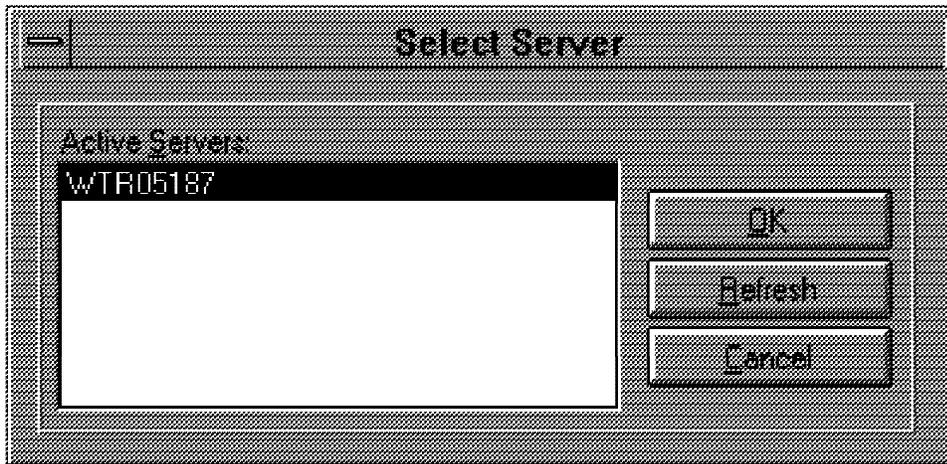


Figure 162. Select Server

5. Select your server and click **OK**.
6. The Register Server panel will appear again with the server name you selected.

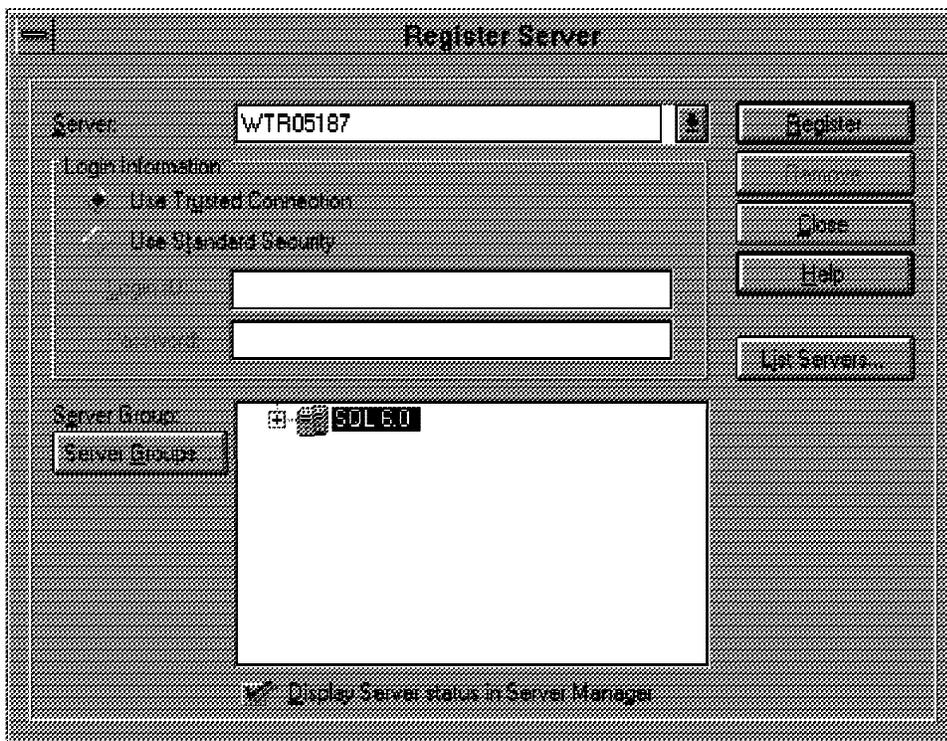


Figure 163. Register Server

7. Enable the **Use Trusted Connection** check box.
8. Click **Close** to end.

### 3.5.2.1 Configure Server

From the Server Manager window:



Figure 164. Server Manager

1. Click on your server in the tree, choose **Server** from the top menu and select **Configurations** to open the Server Configuration window.

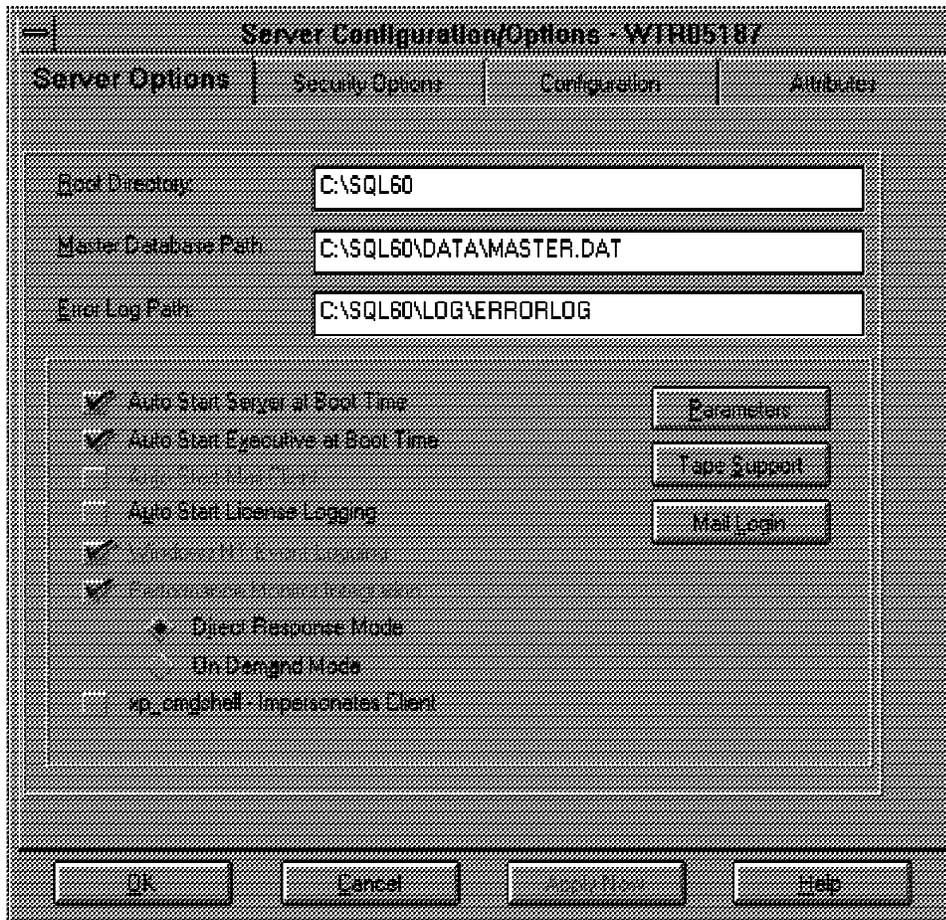


Figure 165. Server Configuration/Options

2. On the Server Options page enable the following check boxes:
  - Auto Start Server at Boot Time
  - Auto Start Executive at Boot Time

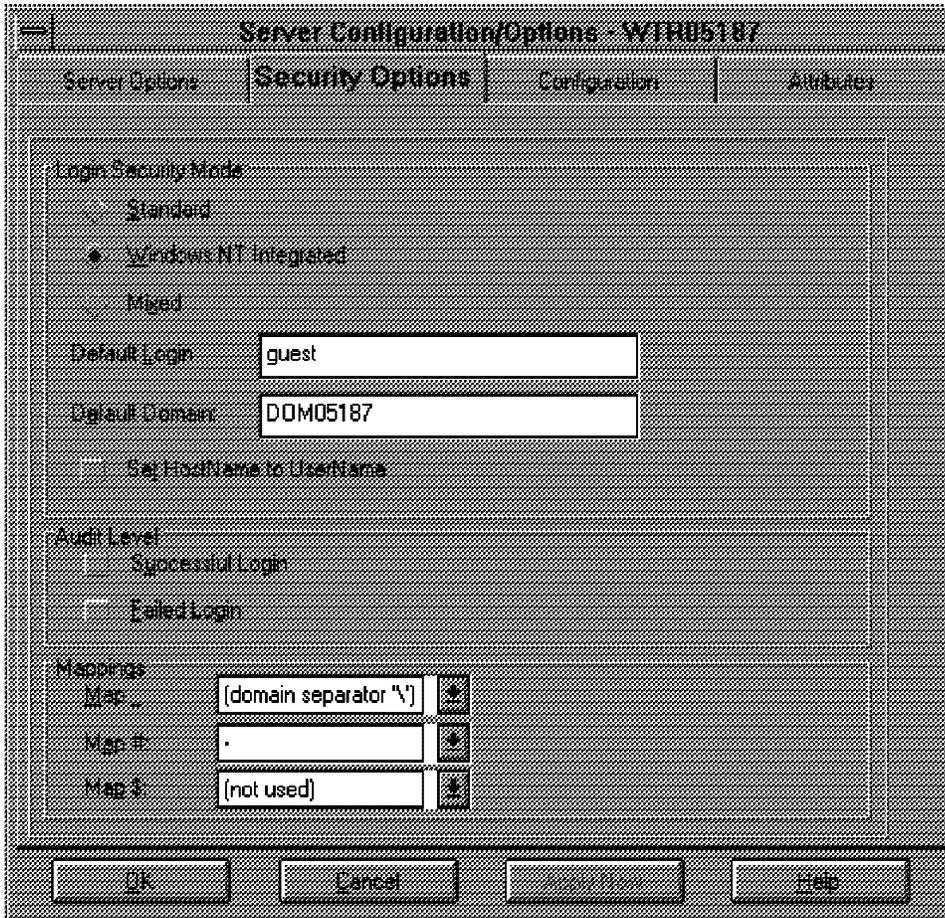


Figure 166. Server Configuration/Options

3. On the Security Options page set Login Security mode to Windows NT integrated. This will allow all users defined in the domain or locally on the system to access the database. Click **OK** to save your changes.

### 3.5.2.2 Create a Database

Next you can create the NetFinity Database:

1. To create the database, highlight the server in the tree and choose **Manage** from the top menu. Then select **Databases** and the Manage Databases window appears.

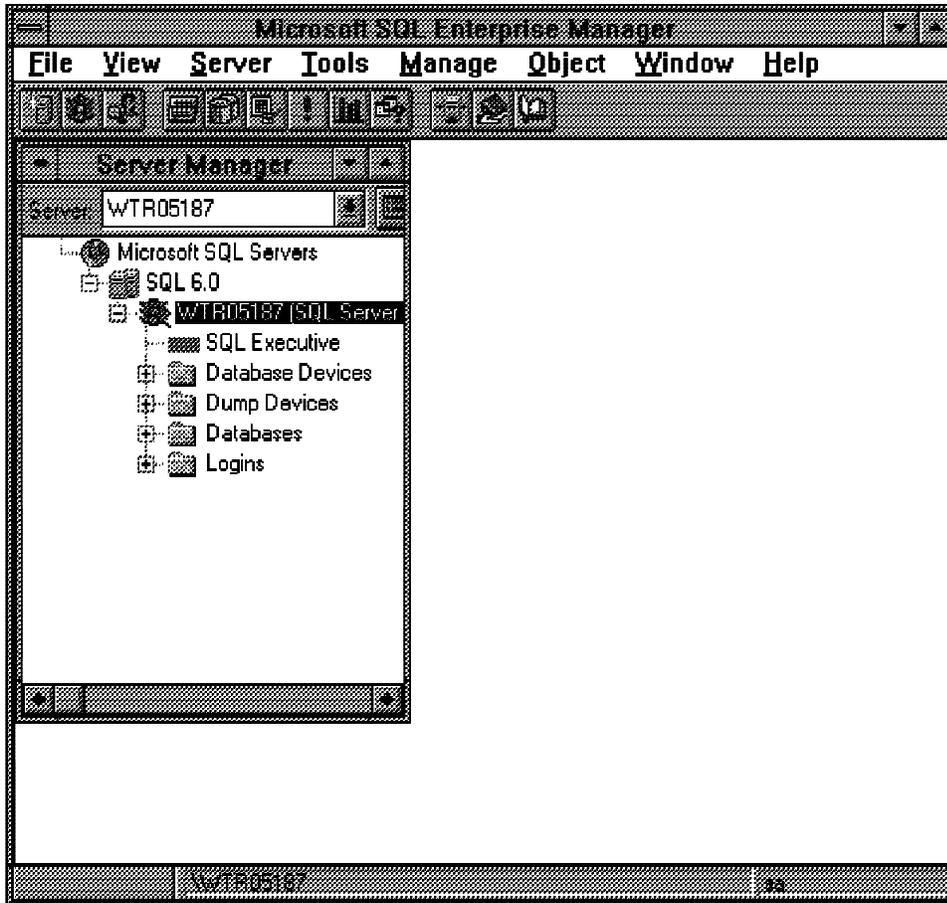


Figure 167. Server Manager

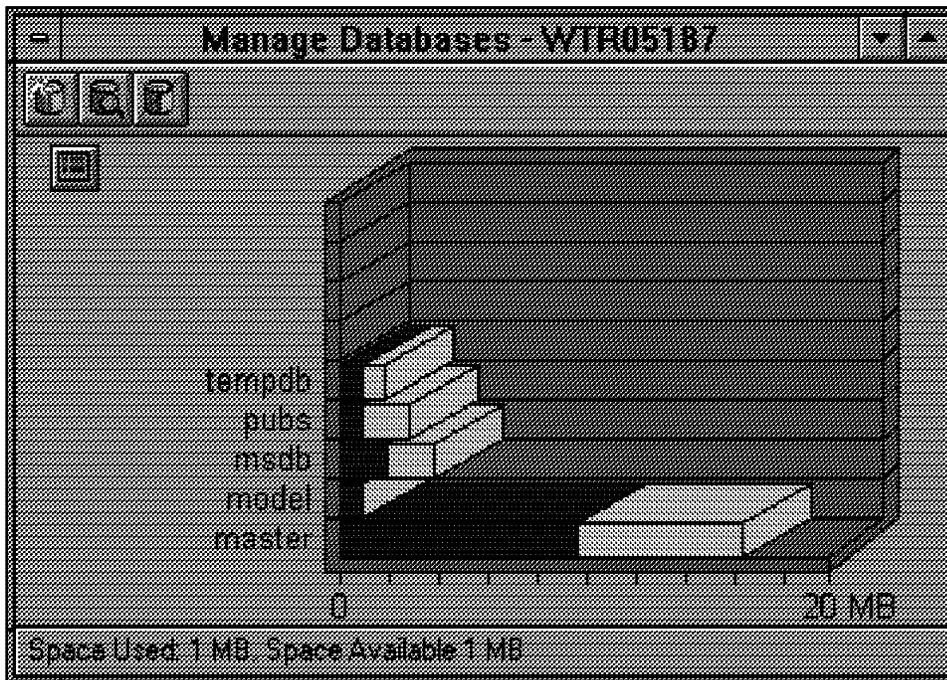


Figure 168. Manage Databases

- Click the **New Database** icon (the left of the three icons in the upper left corner) to open the window to create a new database.

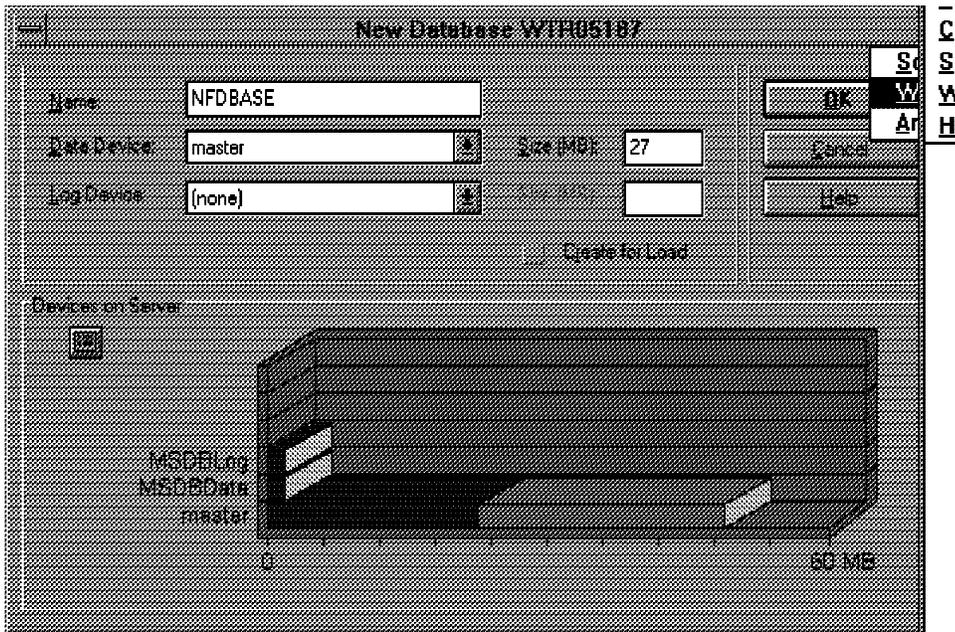


Figure 169. New Database

- Choose **New** in the Data Device drop-down box and a window to create a new database device will appear.

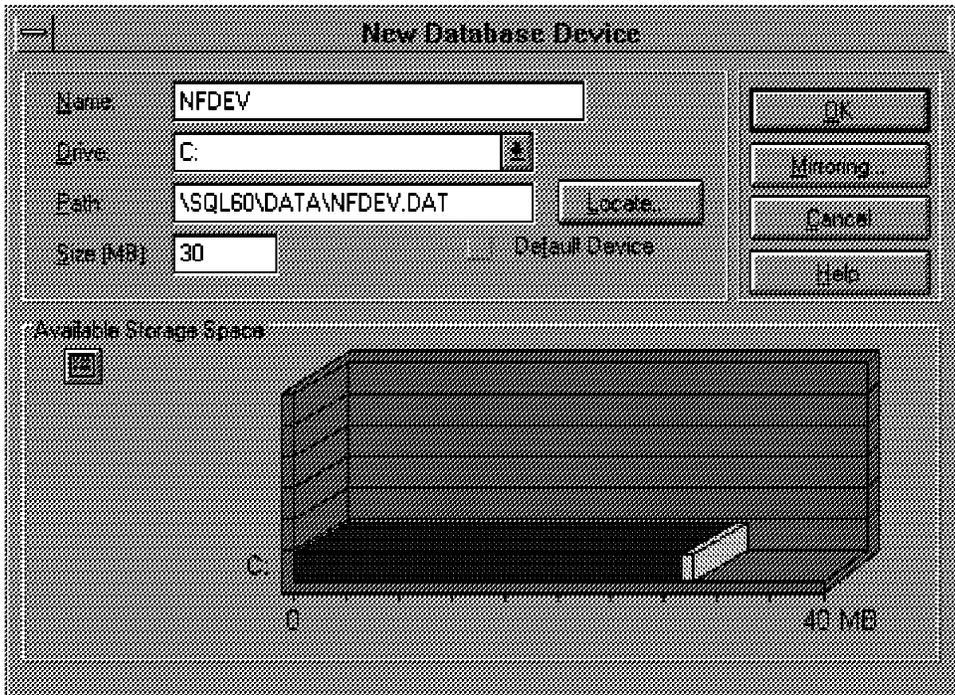


Figure 170. New Database Device

- In the lower half of the window, the local drives with the available disk space for new devices is shown. Enter the name, drive, path and size of the new device in the appropriate fields and click **OK** to create the device.



Figure 171. Database Device Created

5. Back in the New Database window, your newly created device is shown. Enter now the name and size for the NetFinity database. Choose the same device for the Log Device drop-down box and assign at least 15% of the database size to the log database.

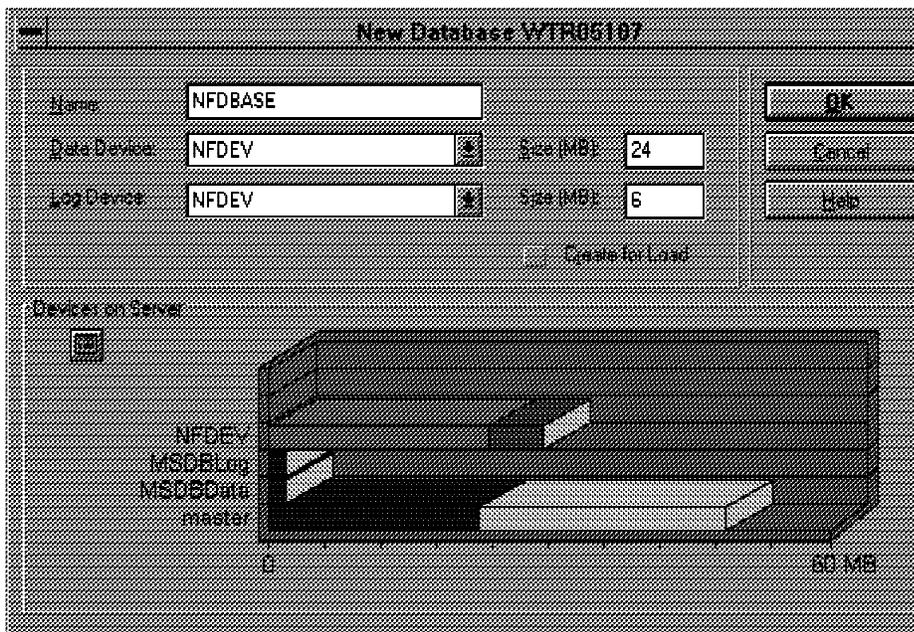


Figure 172. New Database

6. Click **OK** to create the database. The NetFinity database will show in the Manage Databases window.

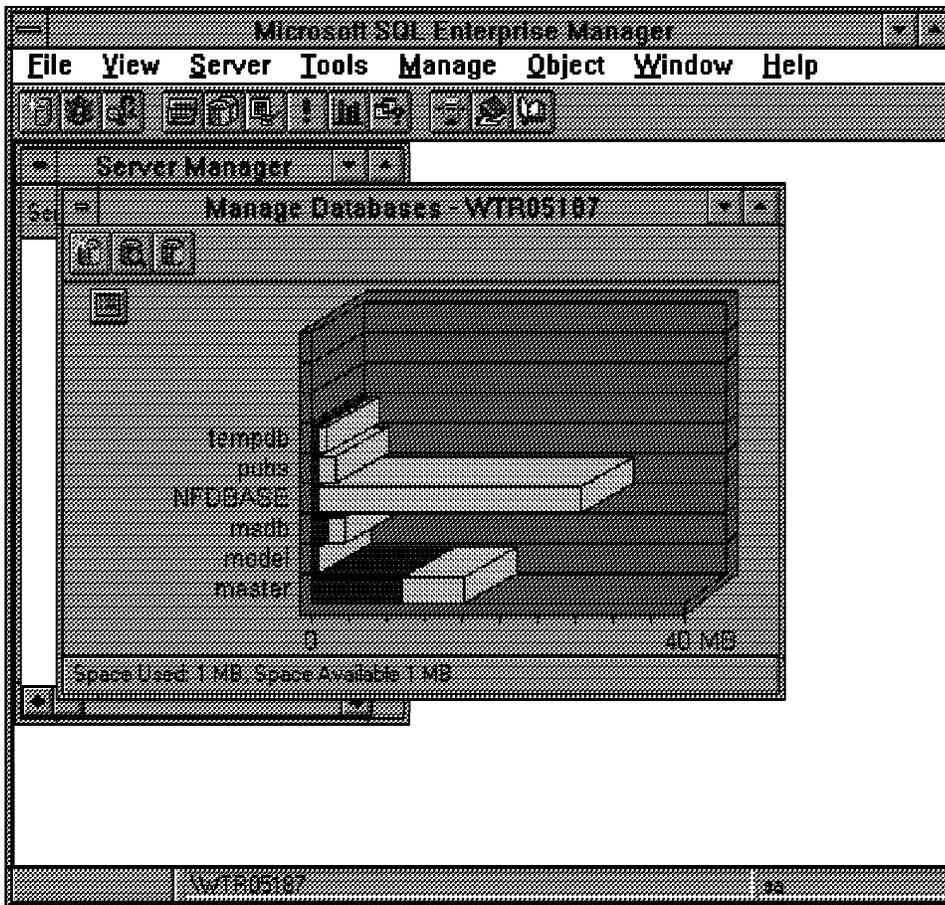


Figure 173. Manage Databases

### 3.5.2.3 Create Database User

To enable NetFinity to use the new database, a specific database user must be created with all access rights to the database. The user must be named NETFIN.

1. Choose **Manage** and **Logins** from the top menu.

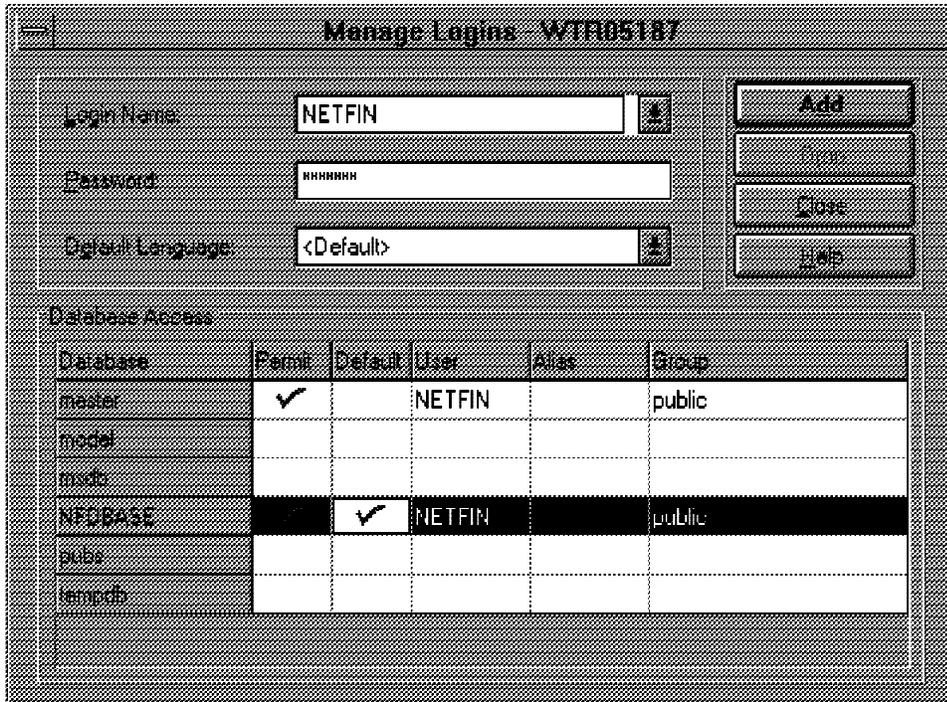


Figure 174. Manage Logins

2. Fill out the fields as shown and click on **Add**. Make sure you have Permit and Default checked for the NetFinity database and the Permit box for the master database in the Database Access box.

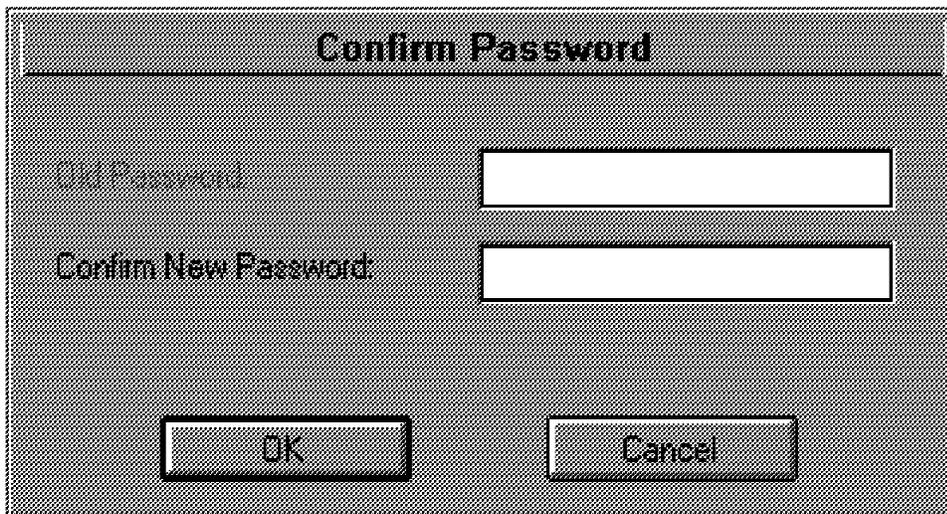


Figure 175. Confirm Password

3. Confirm the password you entered in the previous panel and click **OK**.
4. After creating the user, appropriate rights must be granted to it. Again select **Manage** and **Databases**. Double-click on the NetFinity database name in the graphic to edit the database properties.

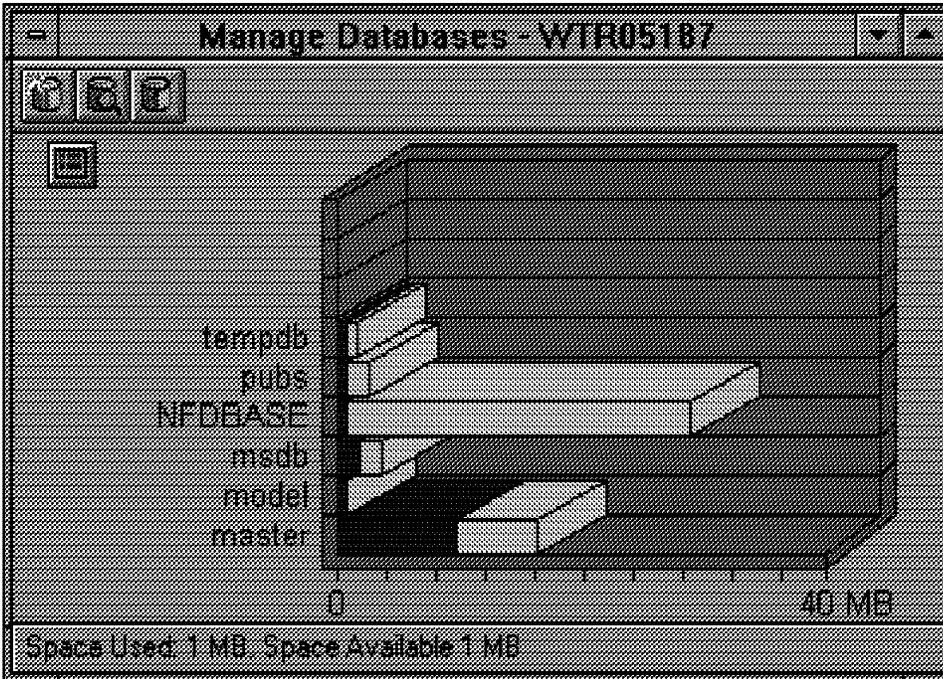


Figure 176. Manage Databases

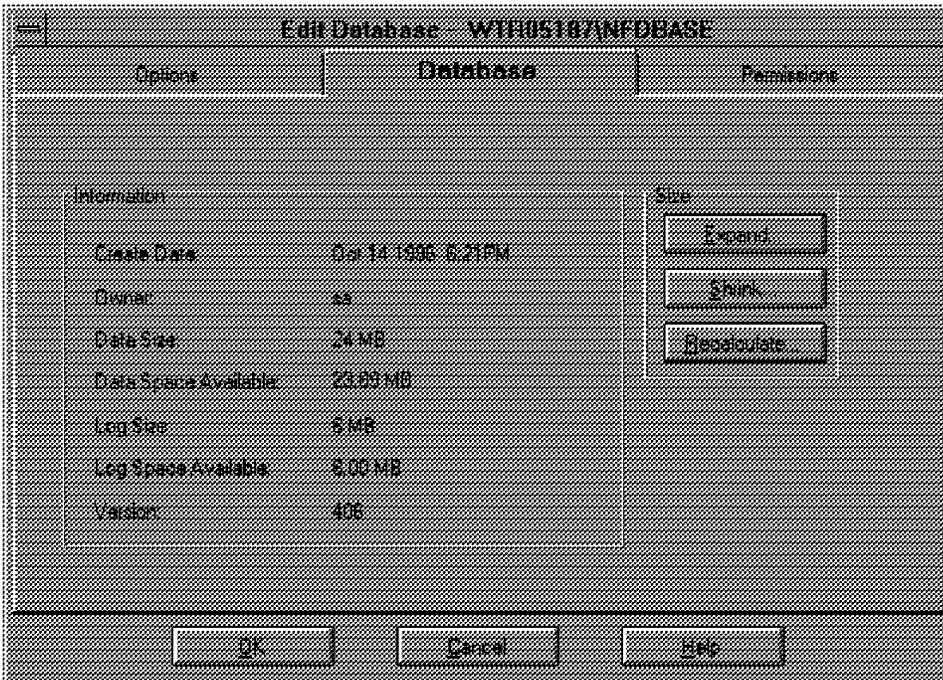


Figure 177. Edit Database - Database

5. Select the **Permissions** page.

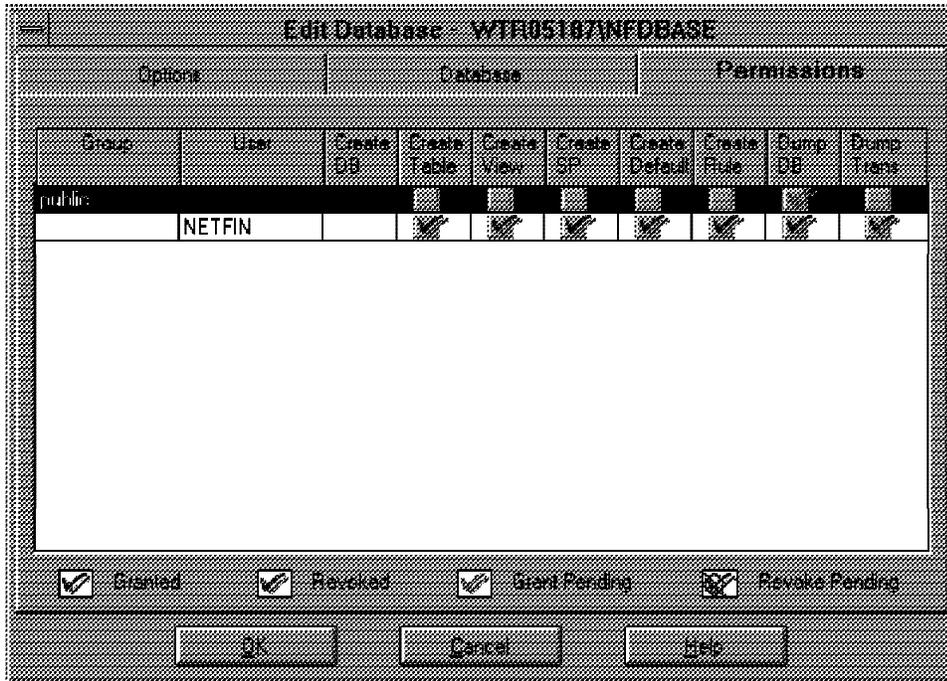


Figure 178. Edit Database - Permissions

6. Grant all rights to the NETFIN user by checking all the permission boxes.
7. Click **OK** to close the Edit Database window.

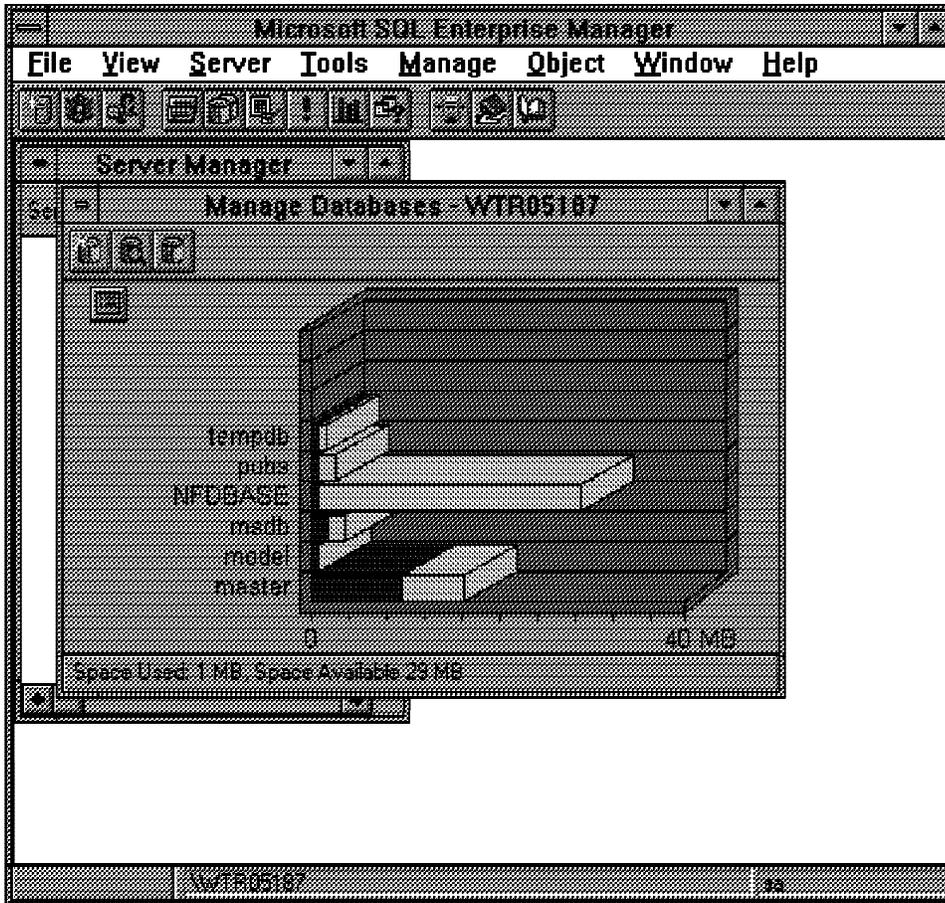


Figure 179. Server Manager

8. Close the Manage Databases window.
9. The new server tree follows:

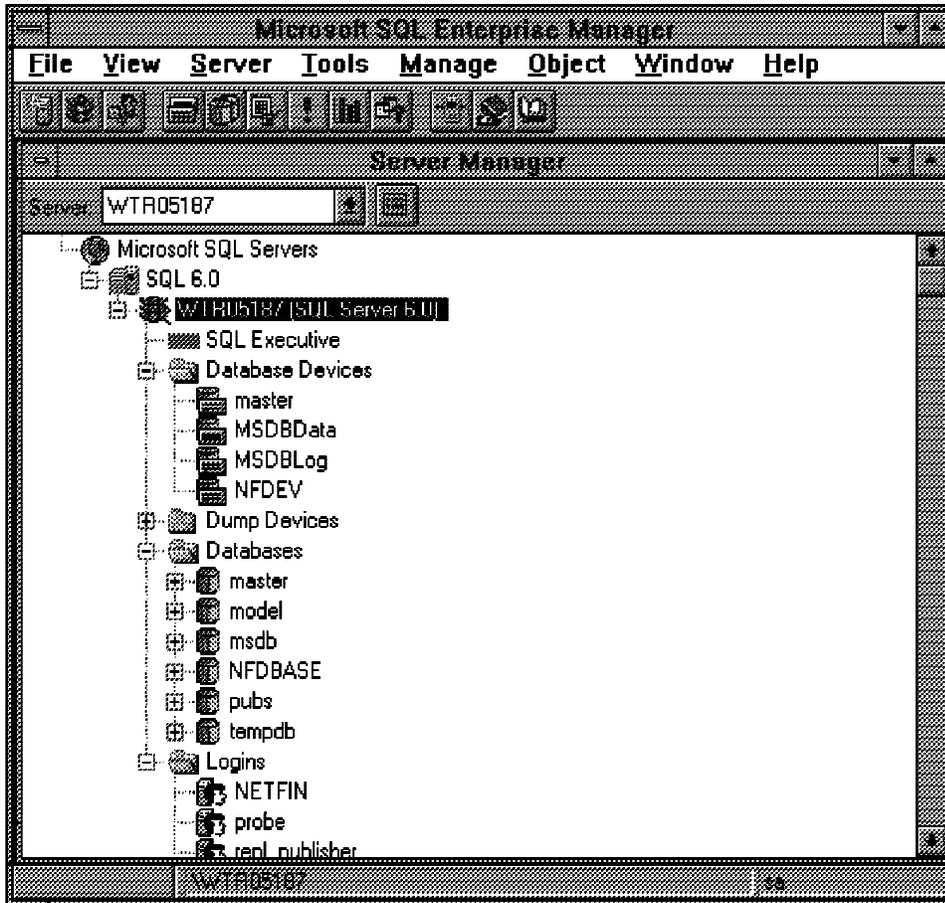


Figure 180. Server Manager - Server Tree

### 3.5.3 Installing and Configuring Microsoft ODBC Support

In order to set up the system for ODBC support, you need to perform the following steps:

1. Open the Windows NT **Control Panel** from the Main group.

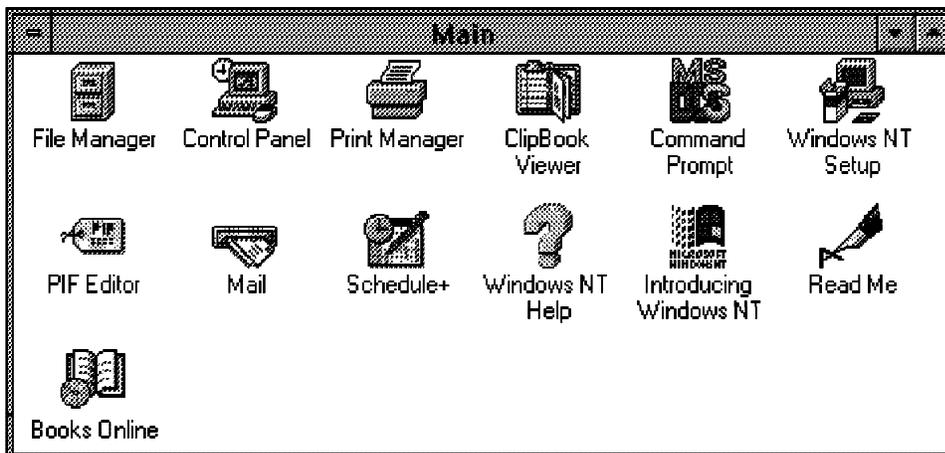


Figure 181. Main

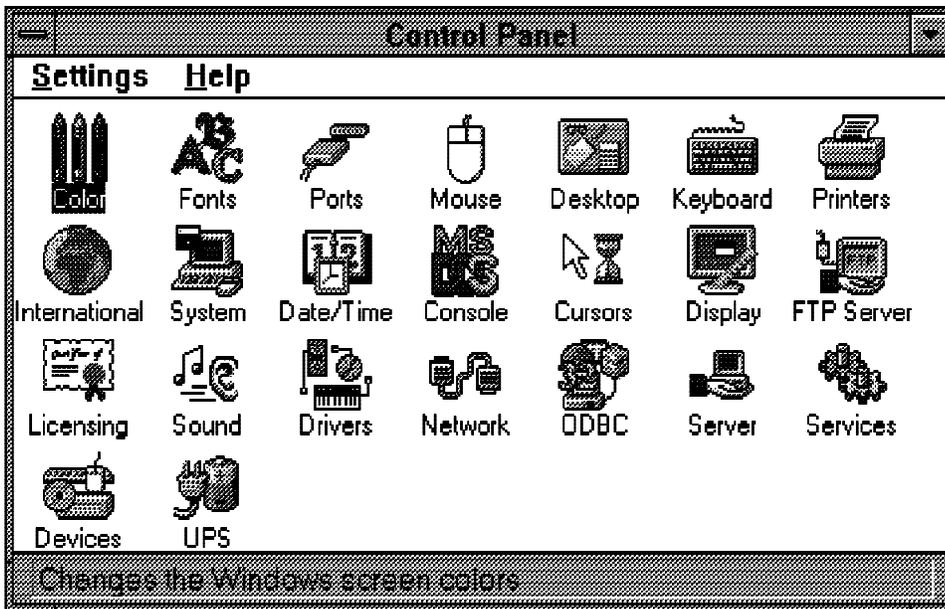


Figure 182. Control Panel

2. Double-click on **ODBC** and the Data Sources window appears.

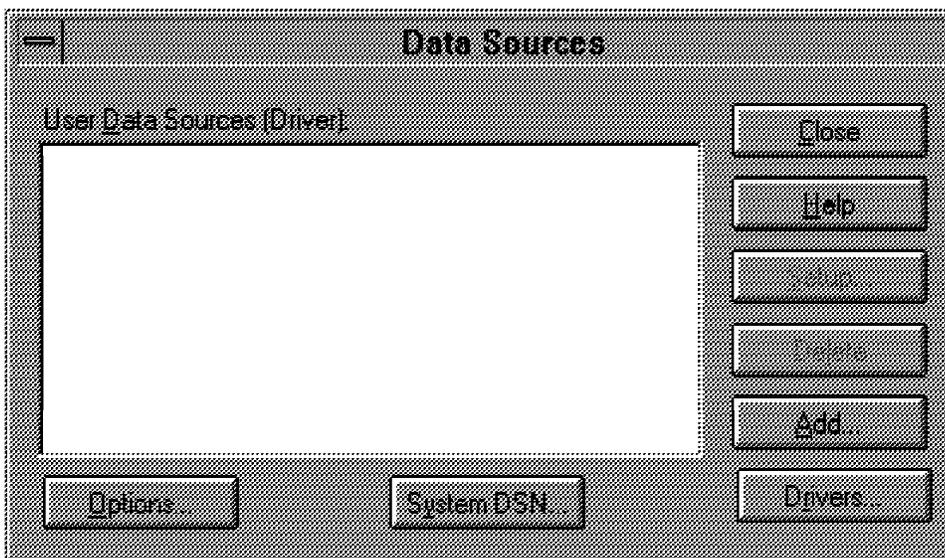


Figure 183. Data Sources

3. Click the on **Add** button in the Data Source dialog box. The Add Data Source dialog box appears.

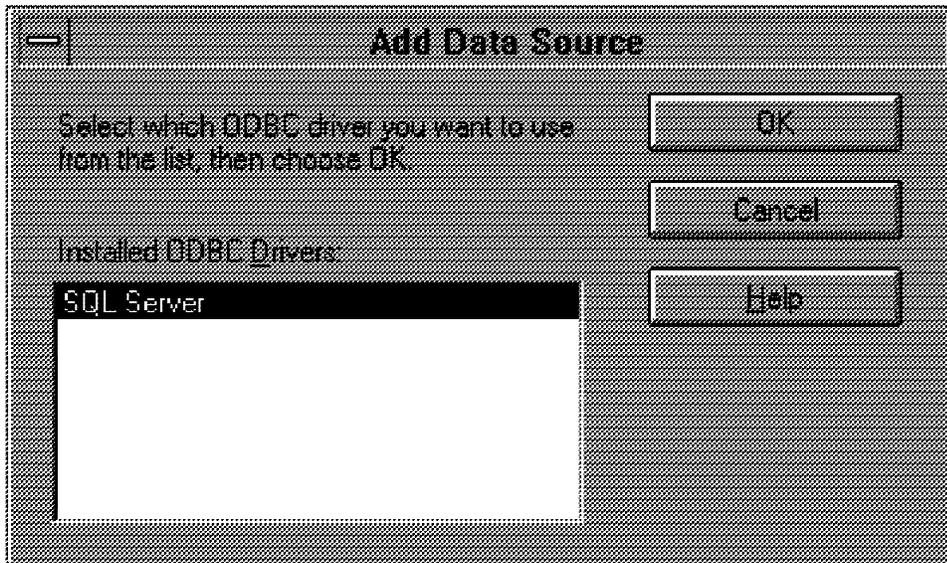


Figure 184. Add Data Source

4. Select the SQL Server entry from the installed ODBC drivers scrolling list and click on **OK**. This displays the ODBC Server Setup dialog box.

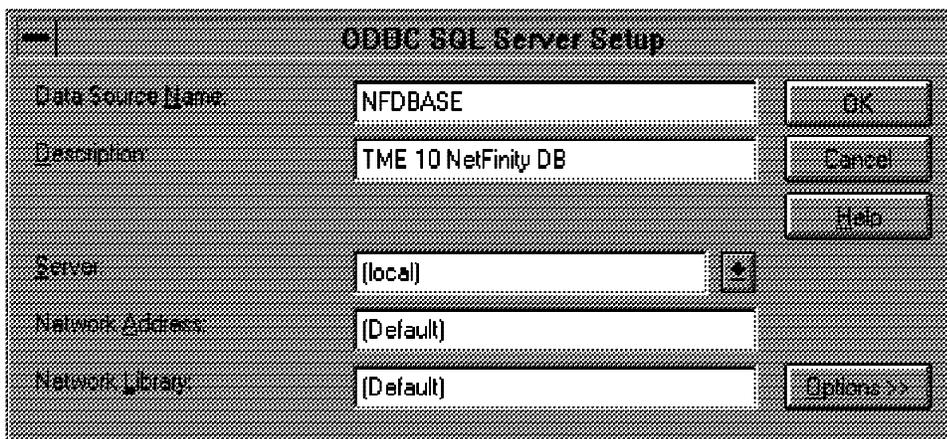


Figure 185. ODBC SQL Server Setup

5. Click on the **Options** button to expand the dialog box.
6. Fill the fields as follows:

|                         |                                                                                                                                    |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>Data Source Name</b> | Alias or name of the NetFinity database.                                                                                           |
| <b>Description</b>      | A brief description of the database.                                                                                               |
| <b>Server</b>           | LOCAL. (Select the server name if you have Microsoft SQL Server running on another system and are connecting through the network.) |
| <b>Database Name</b>    | Name of the NetFinity database in the SQL Server.                                                                                  |

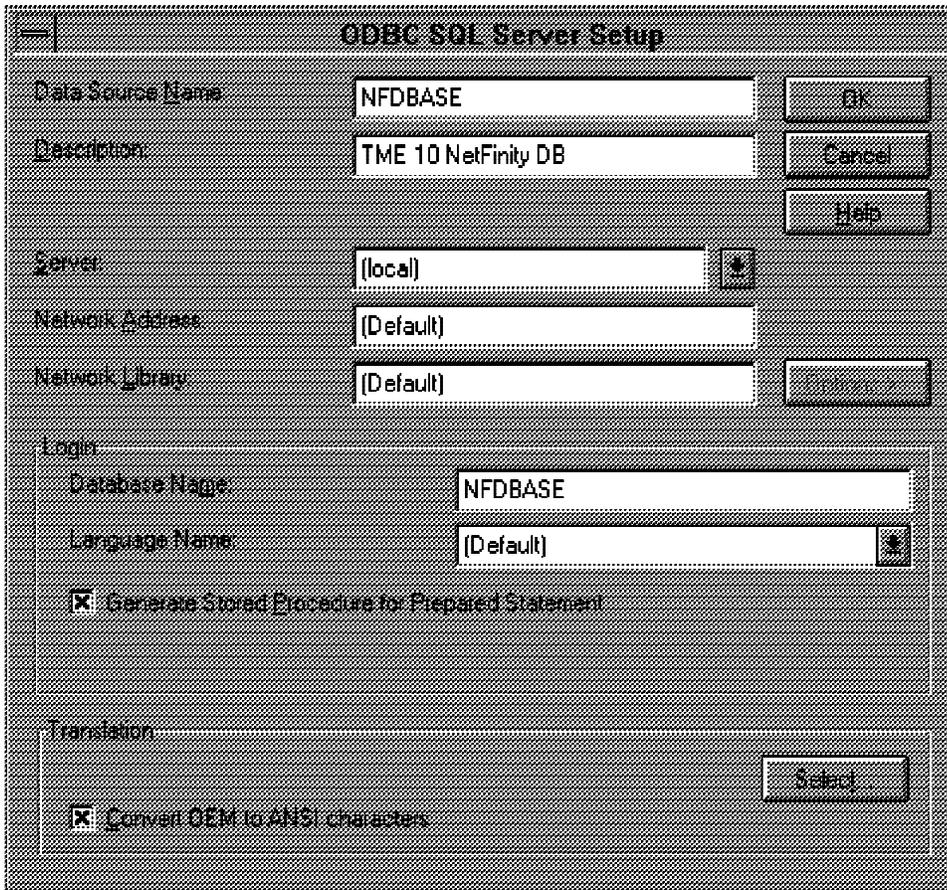


Figure 186. ODBC SQL Server Setup Expanded

7. The Data Sources windows appears. The NetFinity database is now on the list. Click on **Close** to close all windows and return to Program Manager.

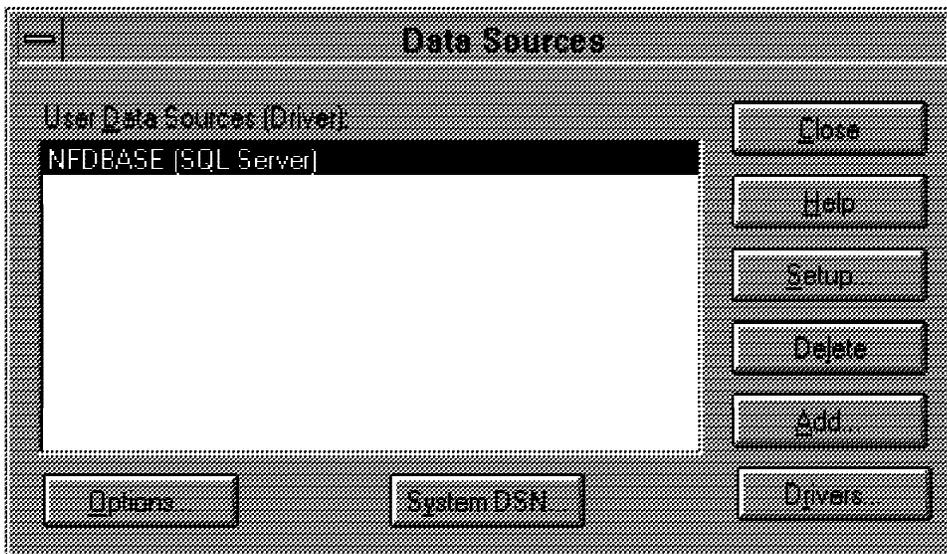


Figure 187. Data Sources

### 3.5.4 Create NetFinity Tables Using the ODBC Driver

NetFinity Database Administration is used to add or delete tables needed for NetFinity and to grant or revoke user's rights to the database.

1. Start NetFinity **Database Administration** from the NetFinity window.

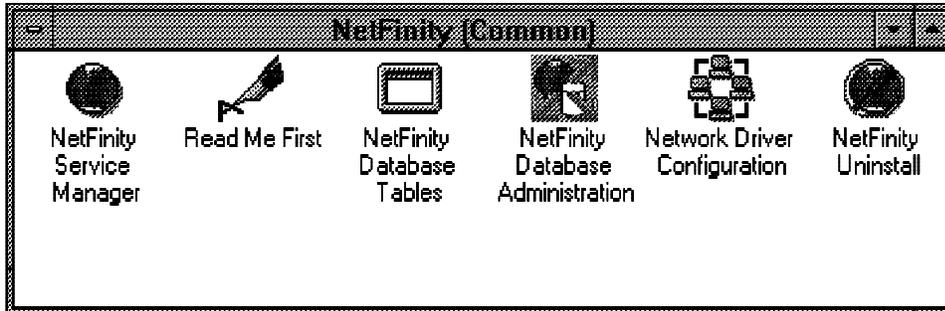


Figure 188. NetFinity Window

2. Select **MS SQL Server via ODBC** from the Select DBMS selection list. Enable **Create** in the check box and then click **OK**.

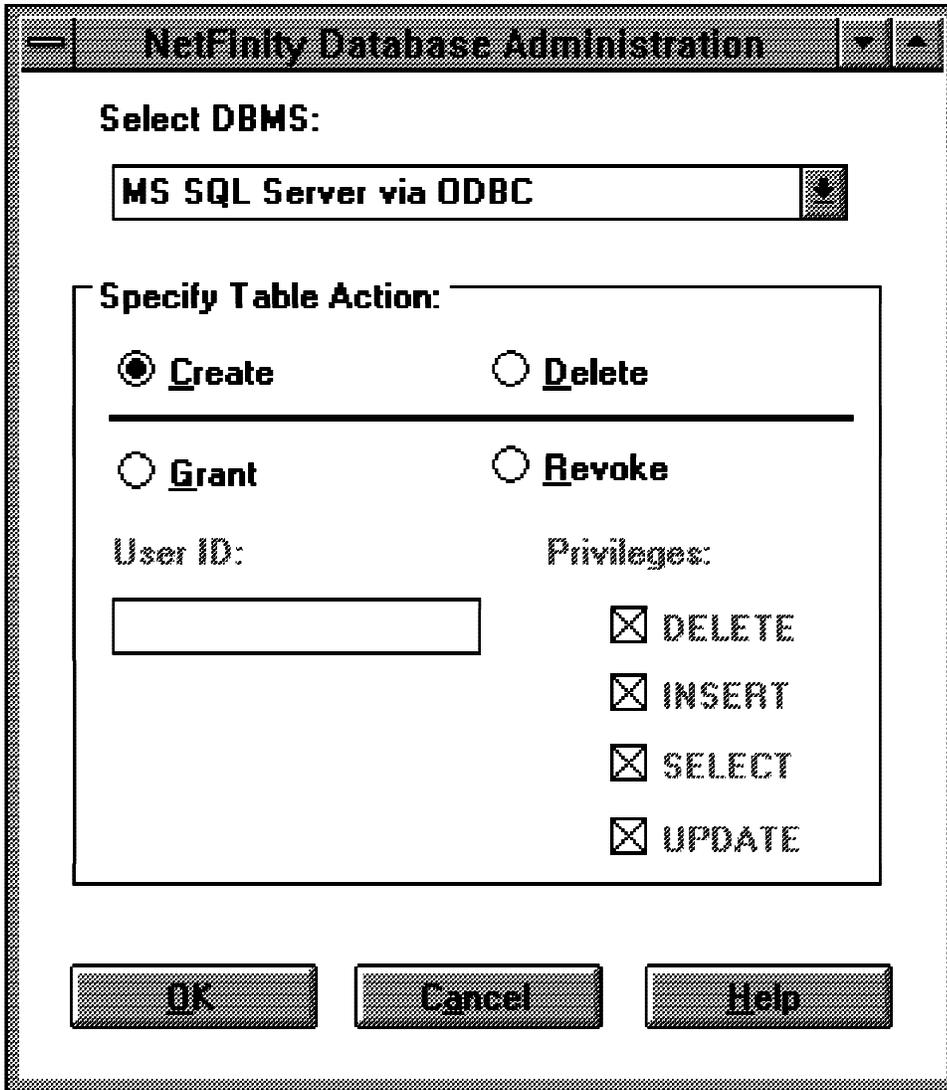


Figure 189. NetFinity Database Administration

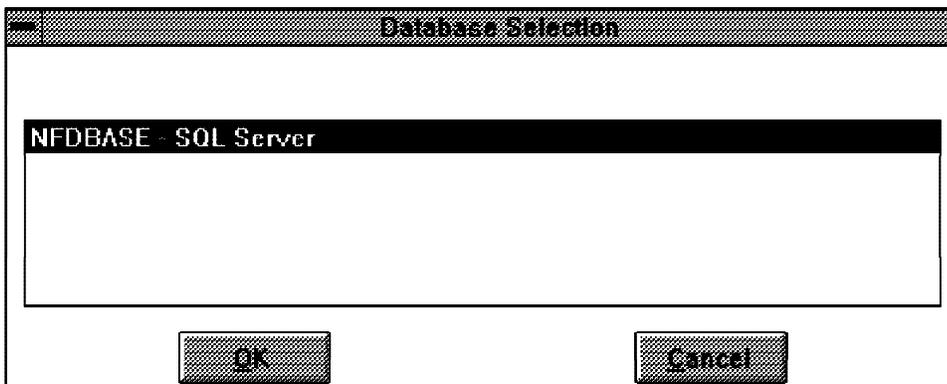


Figure 190. Database Selection

3. Choose the database to use with NetFinity.

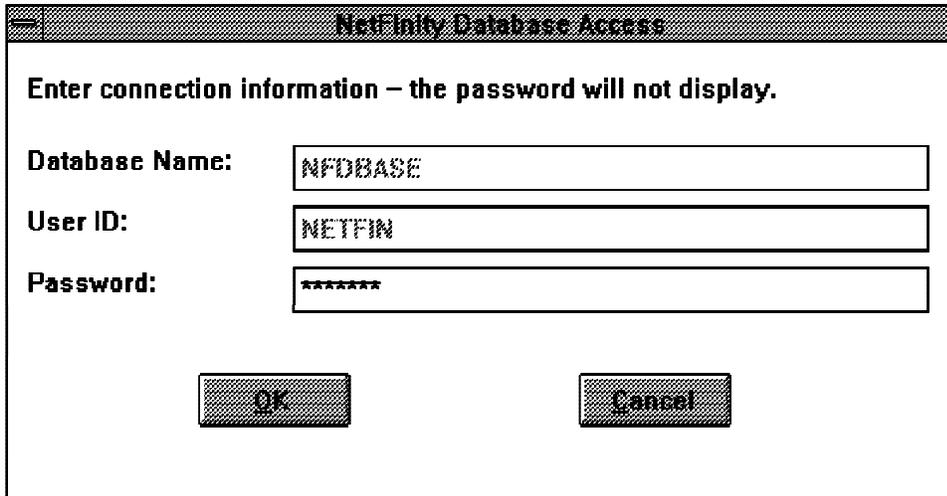


Figure 191. NetFinity Database Access

4. Enter the user ID and password to log on to the database. The user ID must be NETFIN. Click **OK** to proceed.
5. Check the results window for any errors. If no error occurred, the system will show the following window.

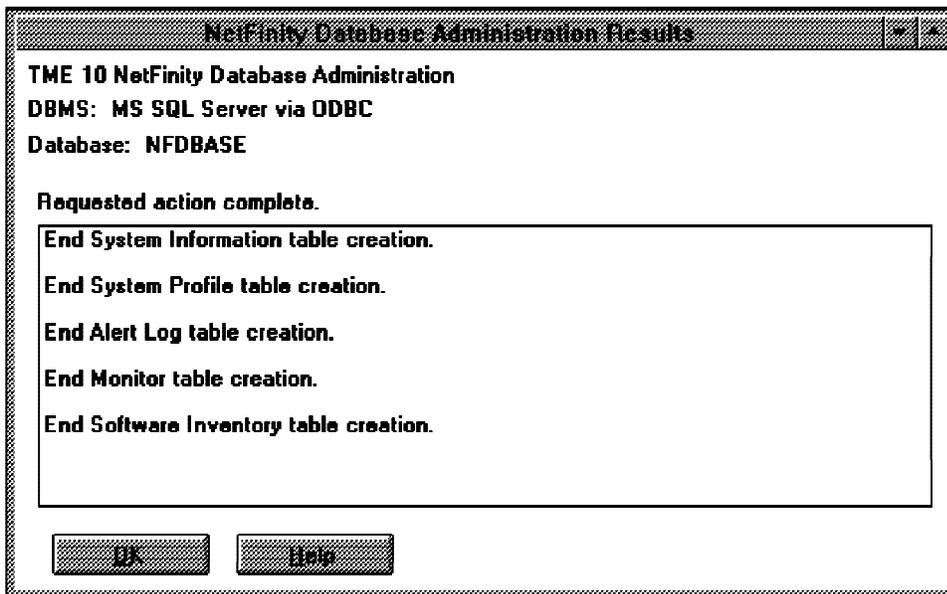


Figure 192. NetFinity Database Administration Results

6. Click **OK** to end the table creation.

### 3.5.5 Exporting Data to an MS SQL Server Database ODBC

This is an example of exporting data from NetFinity to an MS SQL Server database. We use the System Information Tool.

To save System Information Tool data to an MS SQL Server database do the following:

1. Run the System Information Service from the NetFinity folder.

2. From the System Information top menu choose **File** and select **Database**. The Database Entry Selection window appears.

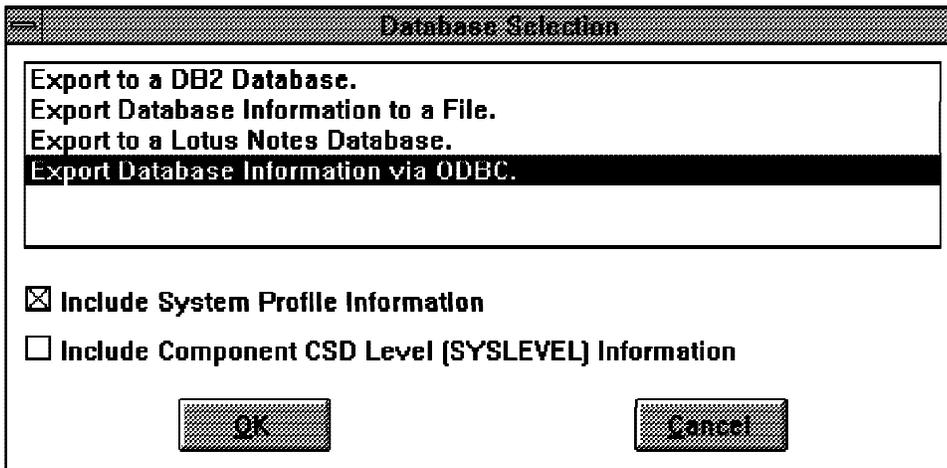


Figure 193. Database Selection

3. Select **Export Database Information via ODBC** from the Database Selection scrolling list and check the boxes if you want to include System Profile and/or CSD level information.
4. Click on the **OK** button. The Database Selection window appears.

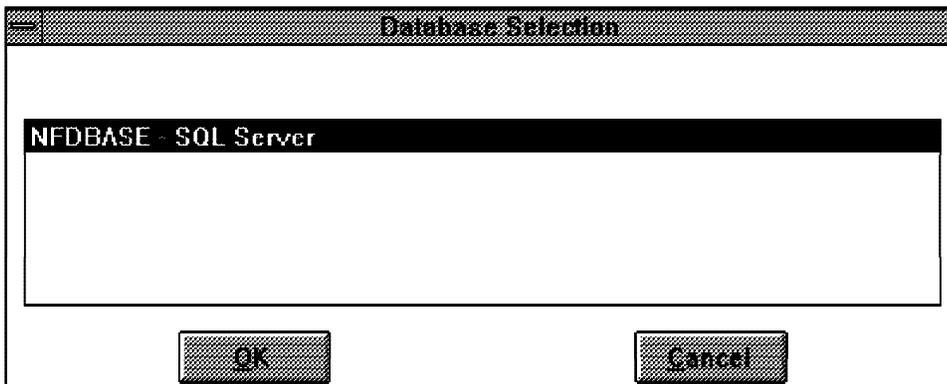


Figure 194. Database Selection

5. Select the database from the scrolling list. Click on the **OK** button to save the data.
6. Wait until the Export Completed Successfully window appears.

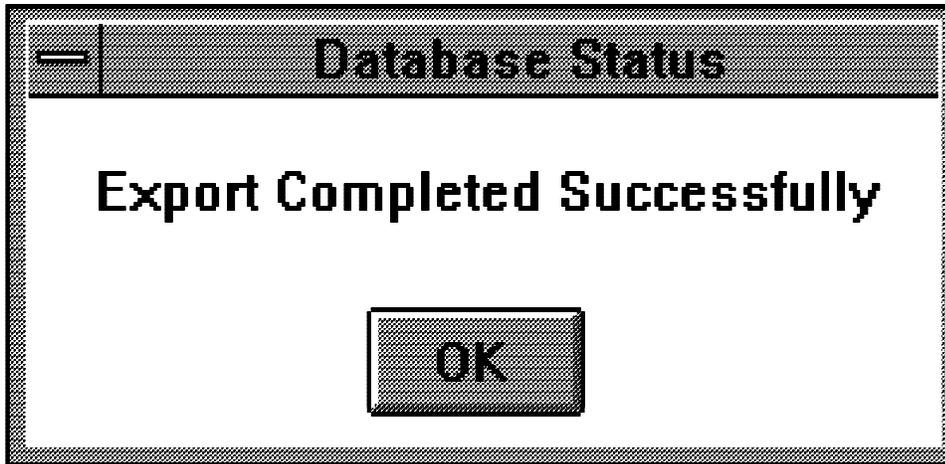


Figure 195. Database Status

7. The data is saved. Click **OK** to end.

## 3.6 ODBC Support for IBM DATABASE 2 for Windows with NetFinity

This section shows you the steps required to enable exporting data from NetFinity into an IBM DB2 for Windows NT database through the ODBC interface driver.

### 3.6.1 IBM DATABASE 2 for Windows Installation

To install IBM DB2 for Windows NT follow these steps:

1. Execute SETUP.EXE from the source installation directory.

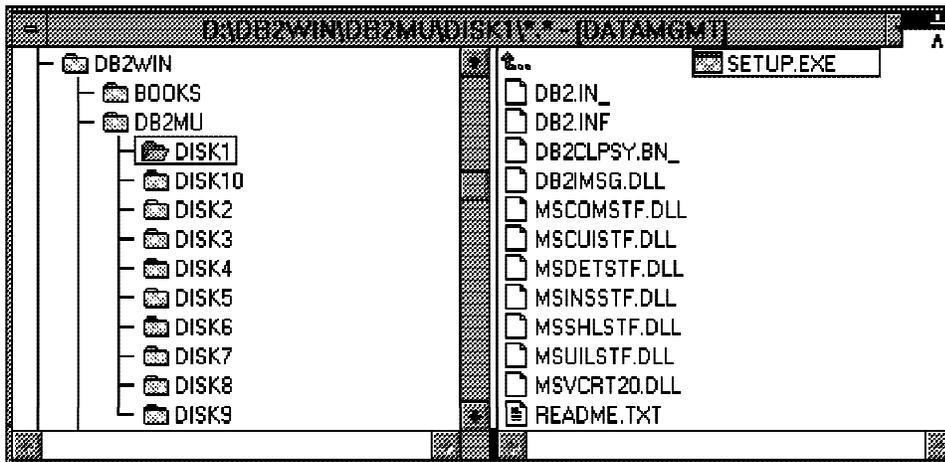


Figure 196. IBM DATABASE 2 for Windows

2. The Welcome dialog box appears.

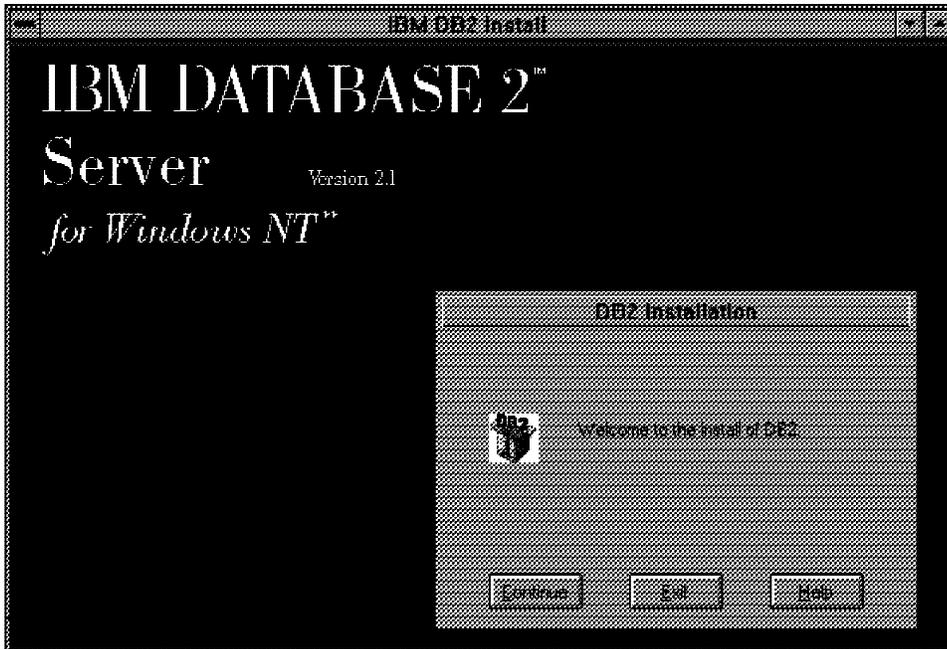


Figure 197. IBM DB2 Install

3. Click on the **Continue** button to begin the installation.
4. The Destination Path Dialog window appears.



Figure 198. Destination Path Dialog

5. This window shows the available space in the chosen drive and the required space for DB2. After you specify a drive and a system path, click on the **Continue** button and the Product License Key dialog box appears.



Figure 199. Product License Key

6. Enter the product key in the Key field and select the **Continue** button to start copying the files.
7. Wait until the DB2 Restart System Dialog appears.



Figure 200. DB2 Restart System Dialog

8. DB2 for Windows NT is successfully installed. You can reboot now.
9. Two program groups are created, DB2 Information and DB2 for Windows NT.

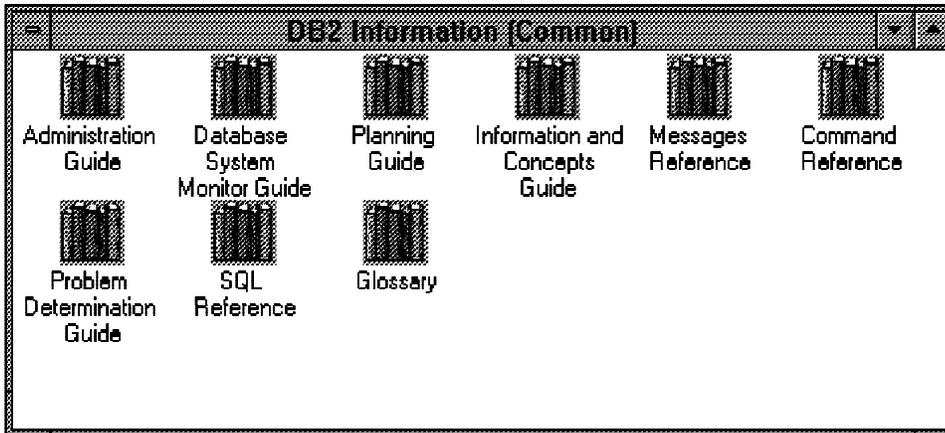


Figure 201. DB2 Information Folder

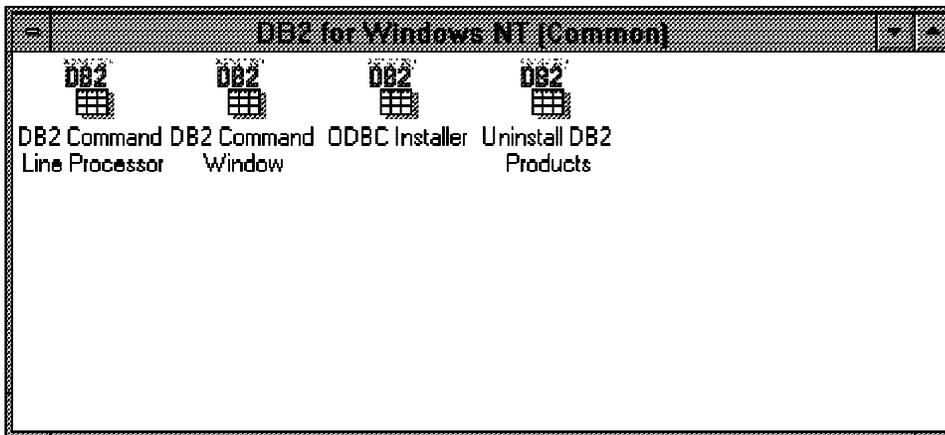


Figure 202. DB2 for Windows NT Folder

### 3.6.2 Setup DB2 for Windows NT and Create the Database

Before you start the installation, make sure you are logged on to the NT Server with administrators rights and with a user ID that is less than eight characters long. Therefore, using the administrator user ID would not be a valid choice. You may need to create a new user ID with administrators rights.

To set up the ODBC support, follow these steps:

1. Create the database instance.

To start the database automatically on a server, it must be defined as a unique *instance* to the system. Use the DB2ICRT.EXE DB2 tool to create this instance with the instance name. This name must not interfere with Windows NT service names and must follow the directory name convention (without extension). Use the format DB2nnnn, where nnnn is your chosen name. The following command will create a DB2 instance with the name DB2NETFD:

```
DB2ICRT DB2NETFD
```

2. Configure DB2 services to start automatically.

For production environments, the DB Services must start automatically. To achieve this, set the Start Type in the Service Manager for the Services DB2 - Instance name (DB2NETFD) and DB2 Security Server to Automatic.

3. From Program Manager, click **Control Panel** and then **Services**.

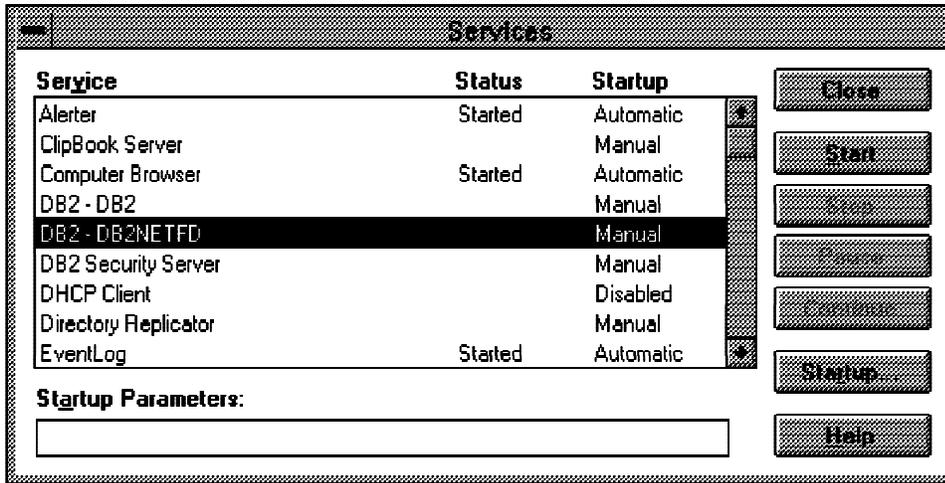


Figure 203. Services

4. Select DB2-Instance name (DB2-DB2NETFD) from the scrolling list and click **Startup**. The Service window for DB2-DB2NETFD appears.

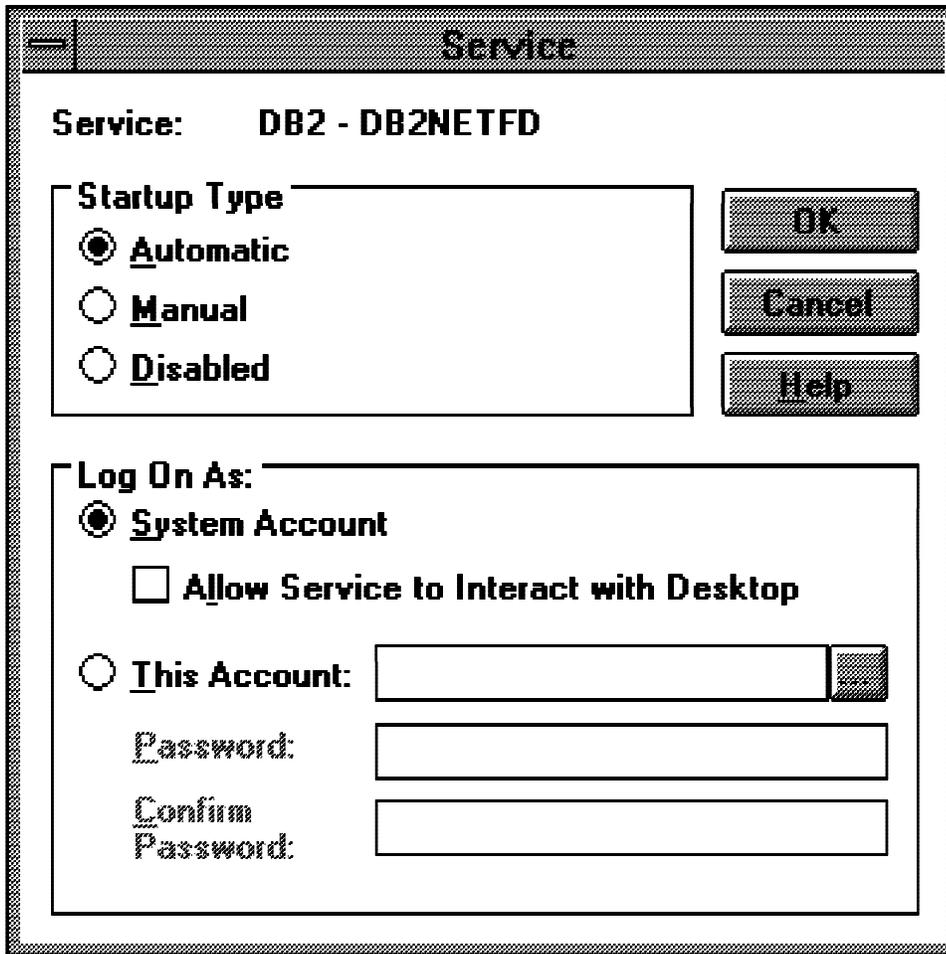


Figure 204. Service

5. Enable **Automatic** in Startup Type.
6. Click **OK** to come back to the Services window.
7. Repeat the last two steps for DB2 Security Server.

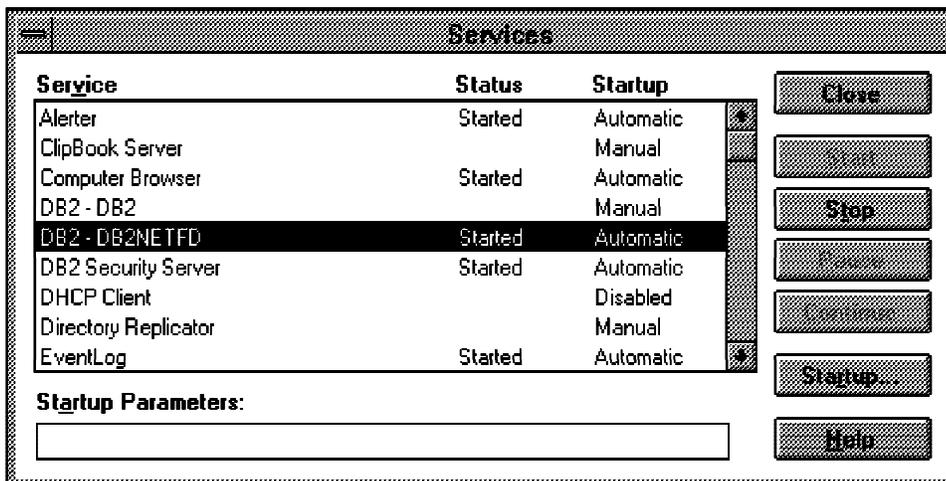


Figure 205. Services

8. Start the DB2 Command Line Processor by double-clicking on the **DB2 Command Line Processor** icon in the DB2 for Windows NT group.

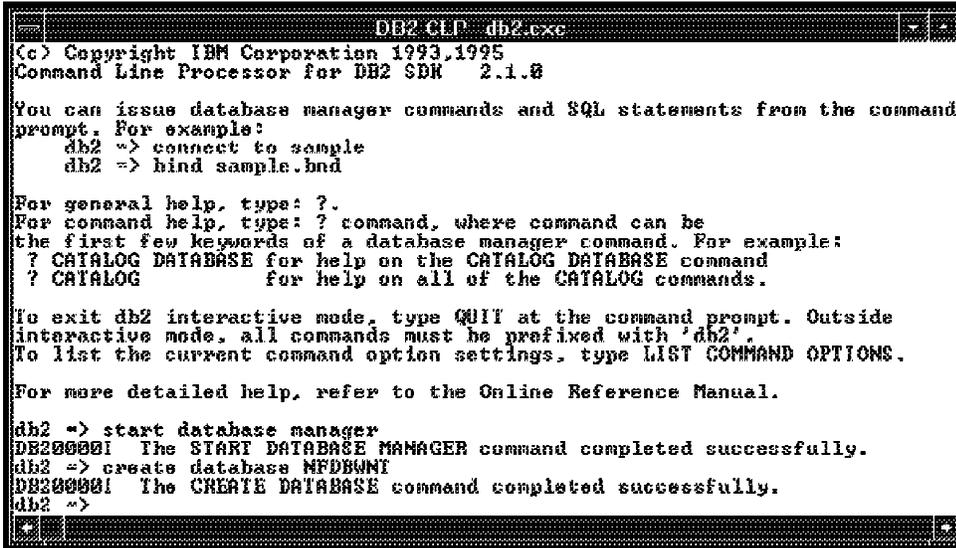


Figure 206. DB2 Command Line Processor

9. Enter the following commands to create the database **NFDBWNT**:
  - db2 => start database manager
  - db2 => create database NFDBWNT

### 3.6.3 Install and Configure DB2 for Windows ODBC Support

1. Start ODBC Installer from the DB2 for Windows NT window by double-clicking on the **ODBC Installer** icon.

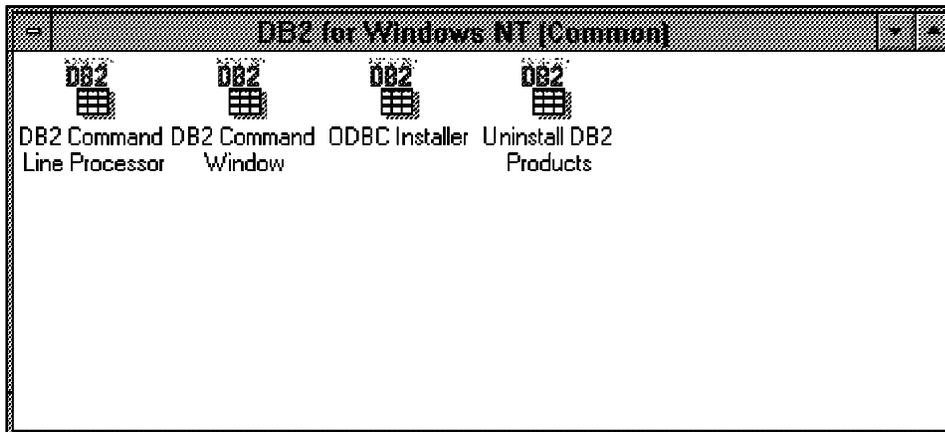


Figure 207. DB2 for Windows NT Group



Figure 208. ODBC Installer

2. This installs the IBM DB2 ODBC driver and creates a new Program Manager group with the name ODBC and puts the 32-bit ODBC Administrator icon in it.

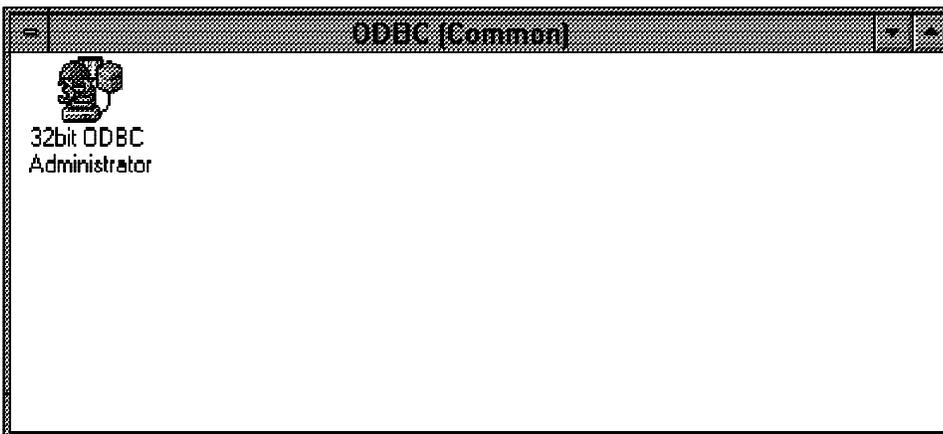


Figure 209. 32-Bit ODBC Administrator

3. Start the **ODBC Administrator** from the newly created ODBC group by double-clicking on its icon. The Data Source window appears.

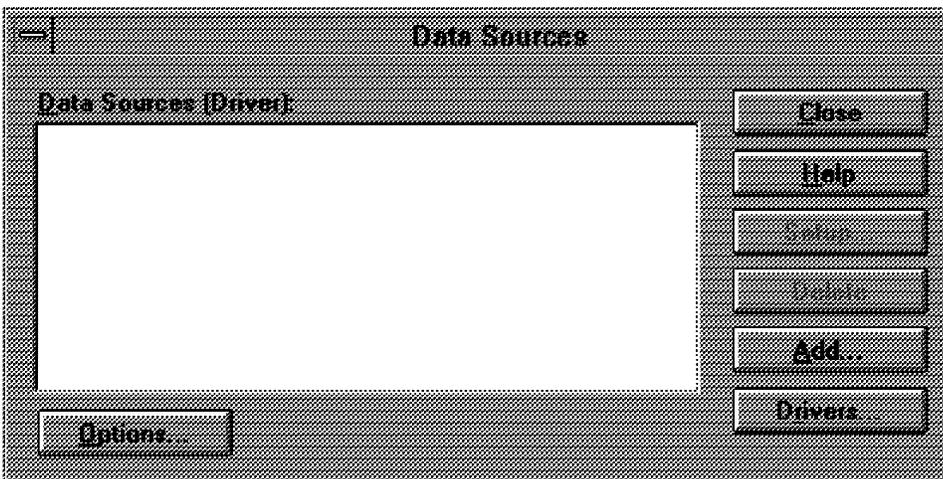


Figure 210. Data Sources

4. In the Data Sources window, click on the **Add** button.

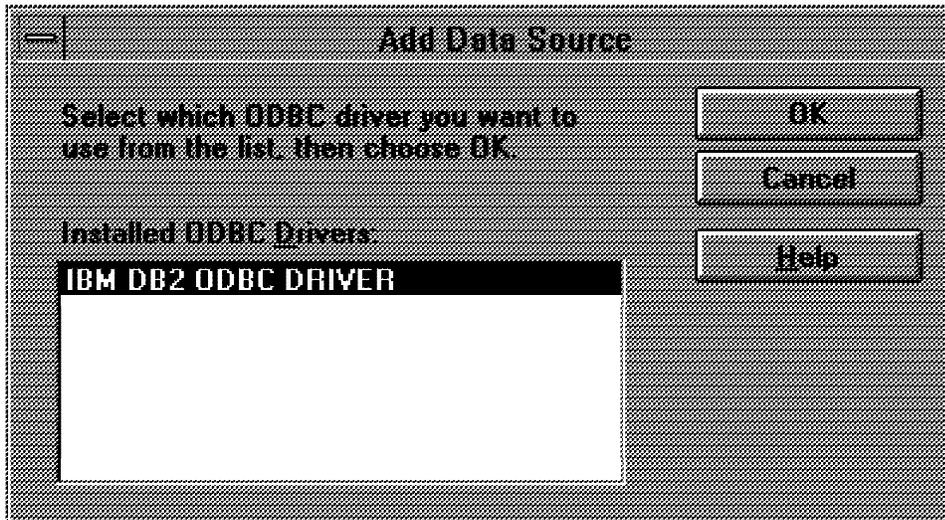


Figure 211. Add Data Source

5. From the installed ODBC drivers, choose **IBM DB2 ODBC DRIVER** and click on the **OK** button.

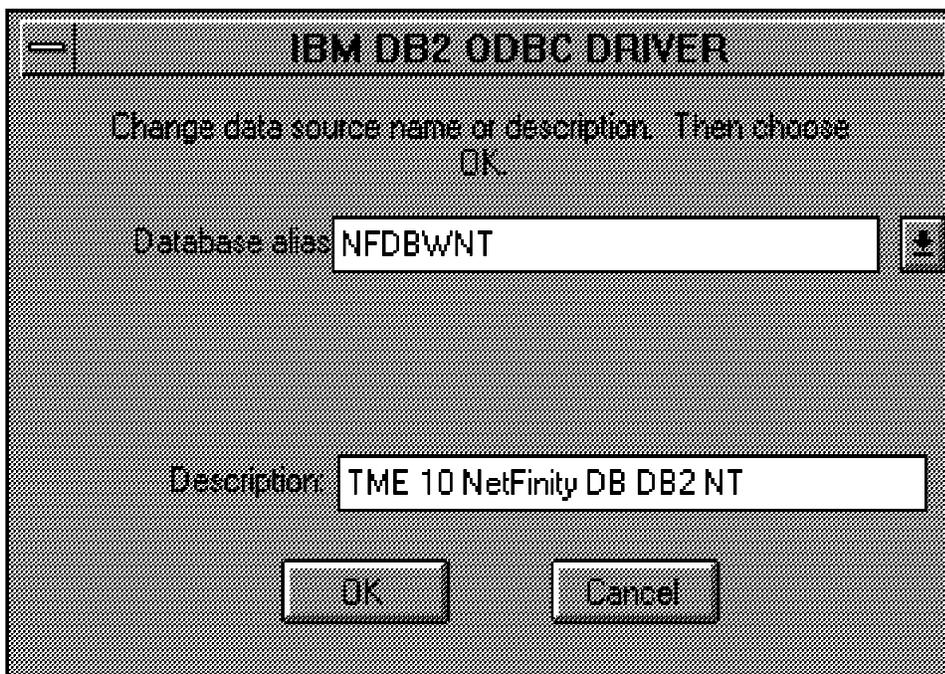


Figure 212. IBM DB2 ODBC Driver

6. Select the newly created database in the Database Alias field and add a description in the Description field. Click on the **OK** button.
7. Close the Data Source window.
8. The IBM DB2 ODBC driver is now installed and the defined databases are available to the applications using the ODBC interface.

### 3.6.3.1 Create Database User

To enable NetFinity to use the new database, a specific database user must be created with all access rights to the database. The user must be named NETFIN.

See 3.5.2.3, “Create Database User” on page 128 for more information on how to create the NETFIN user ID.

### 3.6.4 Create NetFinity Tables through the DB2 for Windows ODBC Driver

Now you have to create the tables using the ODBC drivers for the newly created database:

1. Start **NetFinity Database Administration** from the NetFinity window.

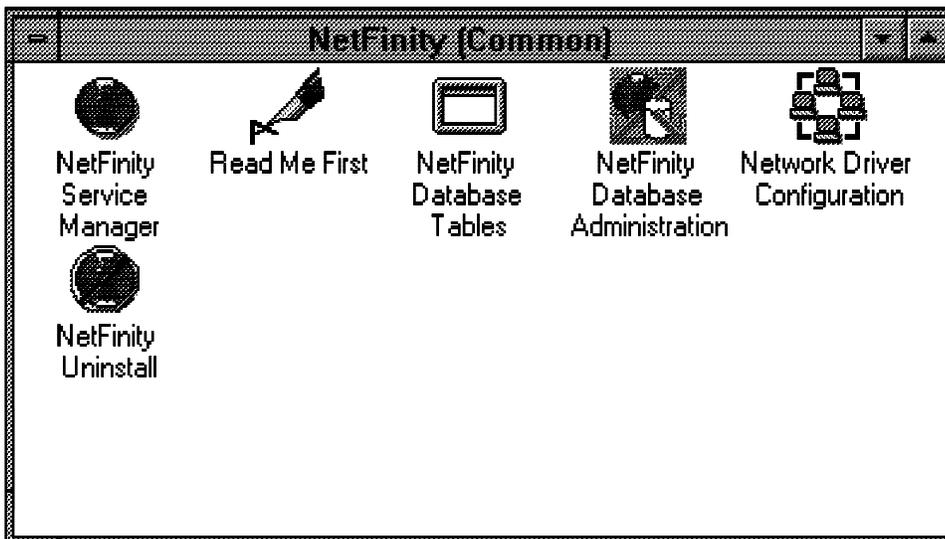


Figure 213. NetFinity Group

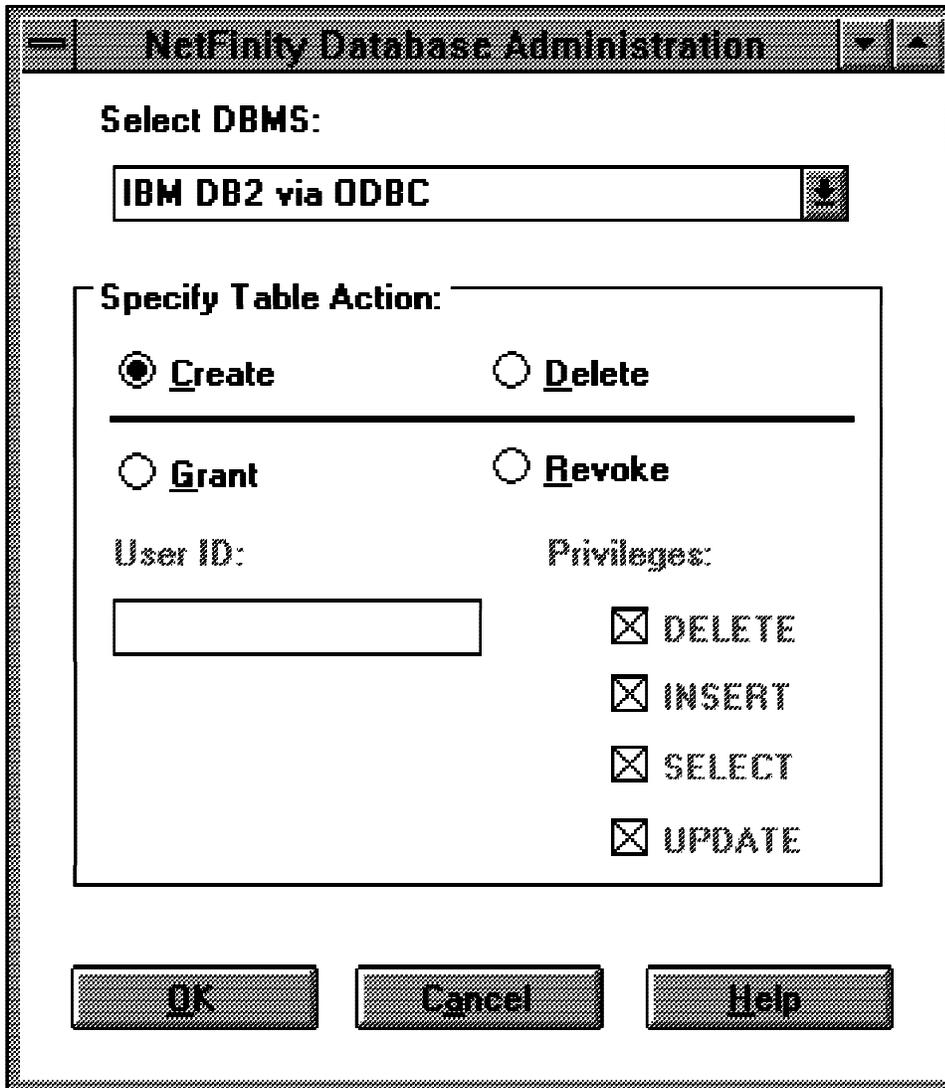


Figure 214. NetFinity Database Administration

2. Select **IBM DB2 via ODBC** in the Select DBMS selection list. Enable **Create** and click on **OK**. That will bring you to the following window.

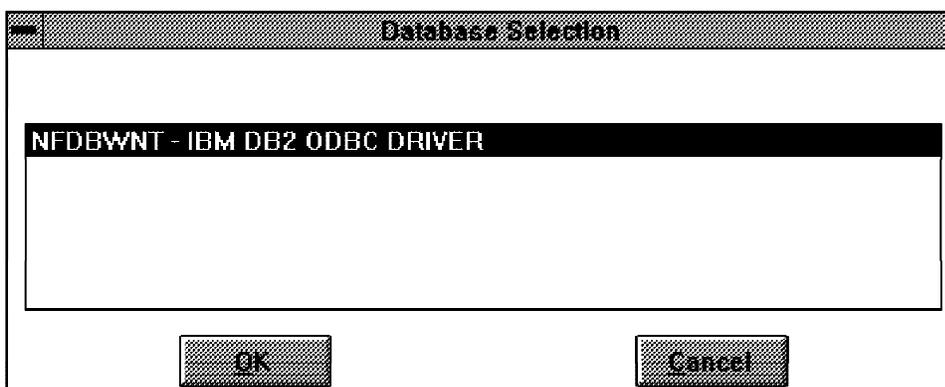


Figure 215. Database Selection

3. Choose the database to use with NetFinity.

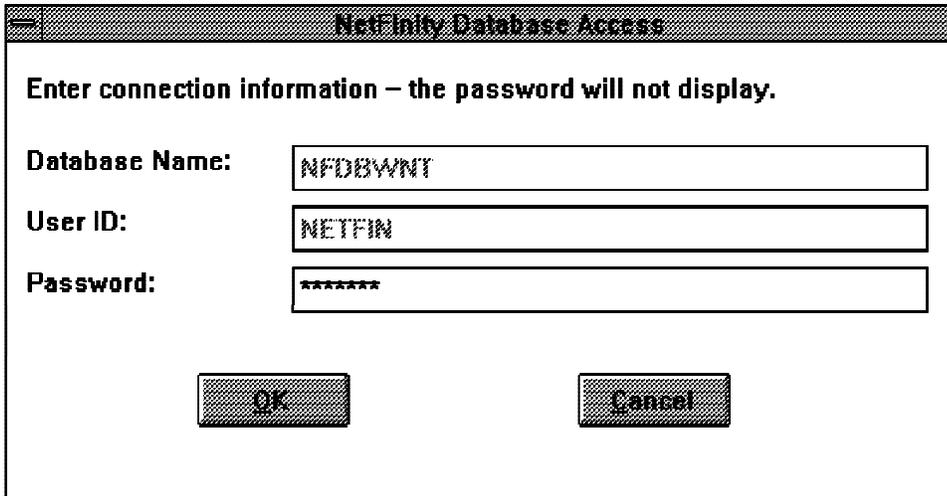


Figure 216. NetFinity Database Access

4. Enter the user ID and password to log on to the database. The user ID must be NETFIN. Click **OK** to proceed.
5. Check the results window for any errors. If no error occurred, the system will show the following window.

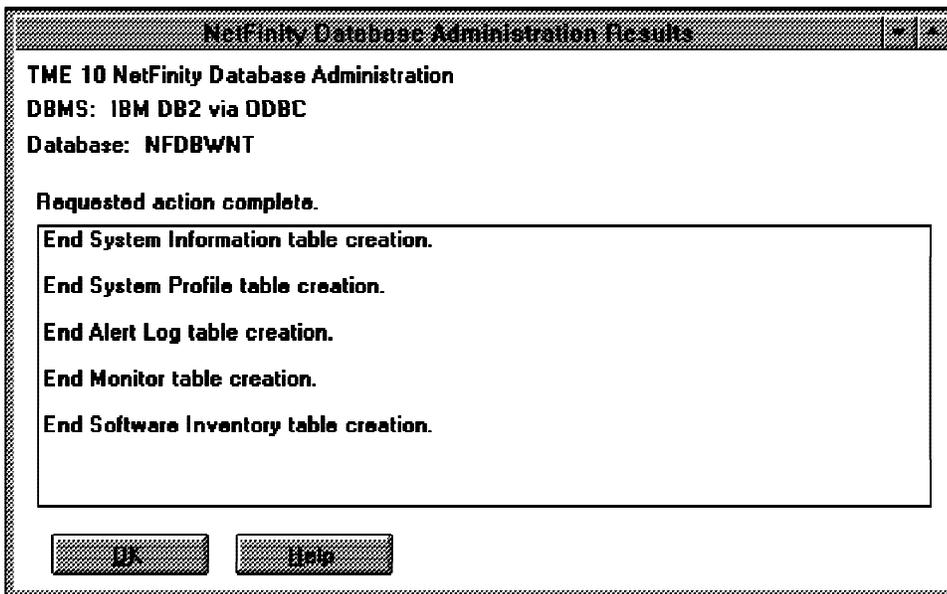


Figure 217. IBM Database/2 for Windows

6. Click **OK** to end the tables creation and you will be ready to export data to the database.

### 3.6.5 Exporting Data to an IBM DB2 for Windows NT Database ODBC

This is an example of exporting data from NetFinity to a DB2 for Windows NT database. We use the System Information Tool.

To save System Information Tool data to a DB2 for Windows database do the following:

1. Run the System Information Service from the NetFinity folder.

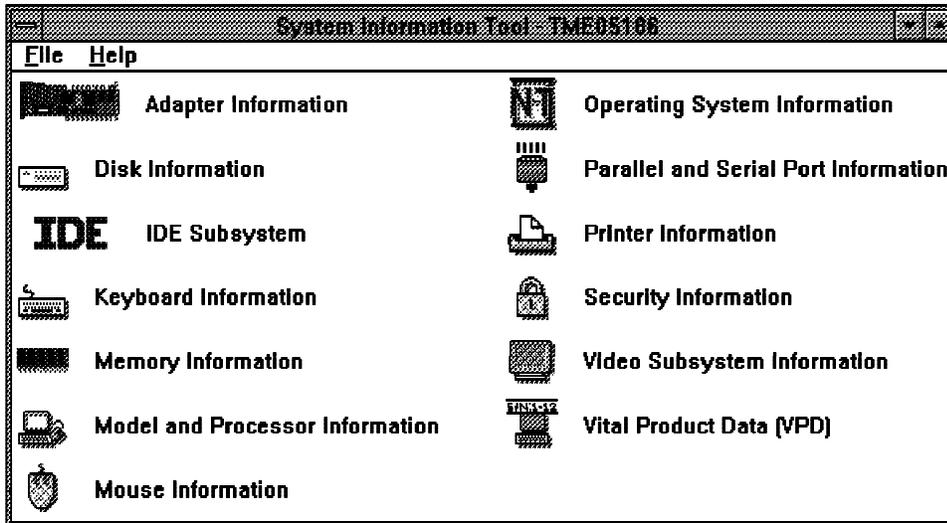


Figure 218. System Information Tool

- From the System Information top menu choose **File** and select **Database**. The Database Selection window appears.

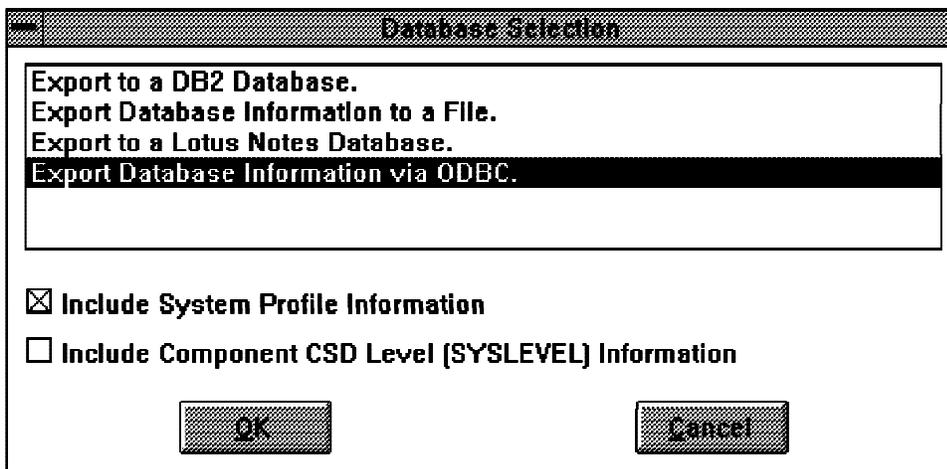


Figure 219. Database Selection

- Select **Export Database Information via ODBC** from the Database Selection scrolling list and check the boxes if you would want to include system profile and/or CSD level information.
- Click the **OK** button. The Database Selection window appears.

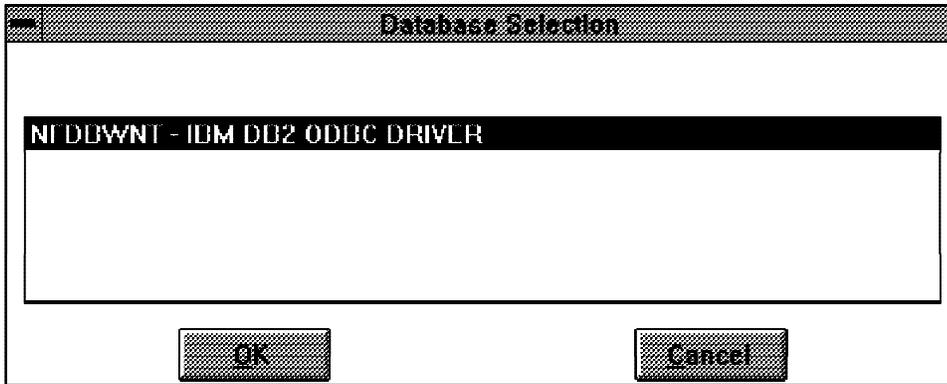


Figure 220. Database Selection

5. Select the database from the scrolling list. Click on the **OK** button to save the data.  
You may get prompted for the user ID and password for the NETFIN ID.
6. Wait until the Export Completed Successfully window appears.

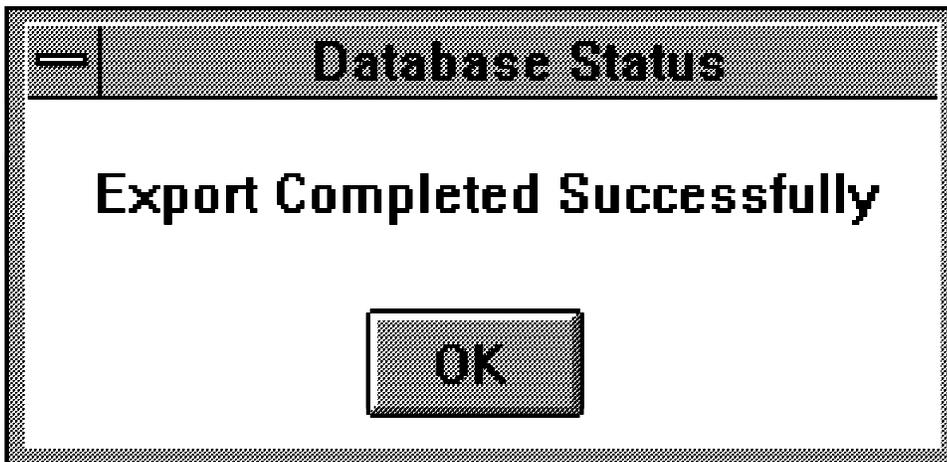


Figure 221. Database Status

7. The data is saved. Click **OK** to end.

---

## Chapter 4. The NetFinity Relational Database Tables

This chapter shows examples of exporting data to the NetFinity database and examples of queries of the NetFinity relational database.

---

### 4.1 Export System Profile Data to the NetFinity Database

The system profile service can be used to add personal information to the inventory data.

You can not save information directly from the System Profile Service into the database; you need to use the System Information Tool. After you have done all the data entry to update all the fields in the System Profile Service, you should run the System Information Tool.

From the System Information Tool, use the pull-down menu File and Database. The resulting window will have an option to Include System Profile Information. Check that box to store the information in the database.

An example of this is shown in Figure 224 on page 156.

The screenshot shows a window titled "System Profile Service" with a sub-header "Options". The main area contains a form with the following fields:

|                              |                              |
|------------------------------|------------------------------|
| System                       |                              |
| Model Name                   | Model 77                     |
| Model Number                 | 8577                         |
| Serial Number                | 9577DNG23TNGXW               |
| Board Serial Number          | B10Z63090TP                  |
| Processor Card Serial Number |                              |
| Date Purchased               | Month: 10 Day: 30 Year: 1996 |

At the bottom left are "Undo" and "Help" buttons. At the bottom right is a status bar that reads "System - Page 1 of 3". On the right side of the window is a vertical navigation pane with the following items:

- System
- User
- Location
- Contacts
- Miscellaneous

Figure 222. System Profile Service

## 4.2 Export System Information Data to the NetFinity Database

The System Information facility is used to gather information about the hardware and software configuration of the workstations.

To export System Information data to the NetFinity database follow these steps:

1. From the NetFinity Services folder click **System Information**.
2. The System Information Tool window appears.

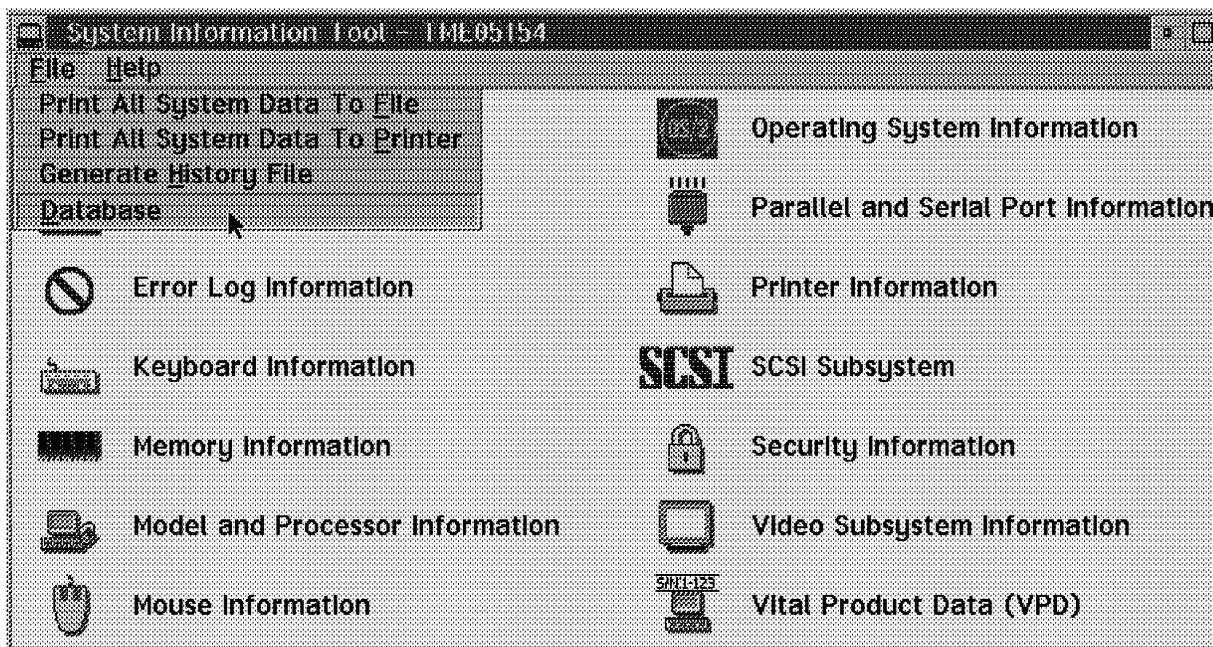


Figure 223. System Information 1 of 2

3. From the System Information top menu choose **File** and select **Database**.
4. The Database Entry Selection window appears.

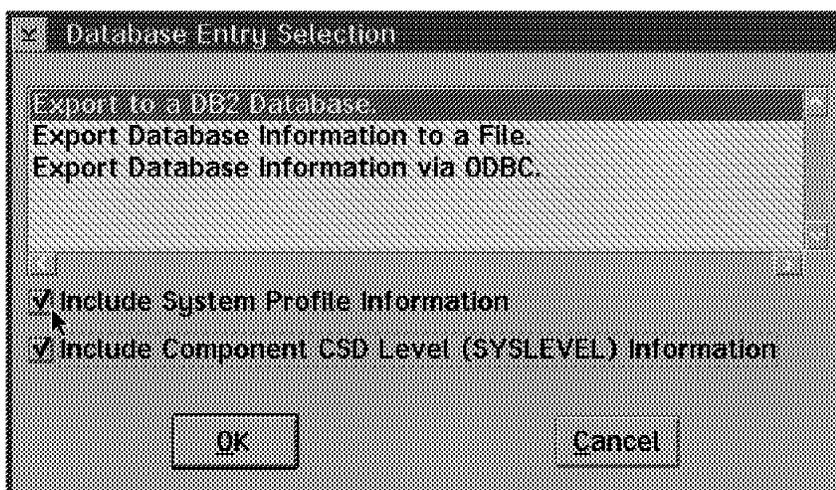


Figure 224. System Information 2 of 2

5. Select one of the options to export to a database from the Database Selection scrolling list.

6. Check the **Include System Profile Information** box to include system profile data to be exported along with the system information data.
7. Click the **OK** button.

### 4.3 Export Software Inventory Data to the NetFinity Database

The Software Inventory service is used to collect information about the installed software products on the workstations or servers.

To export software inventory data to the NetFinity database follow these steps:

1. From the NetFinity Services folder click on **Software Inventory**.
2. The Software Inventory window appears as follows:

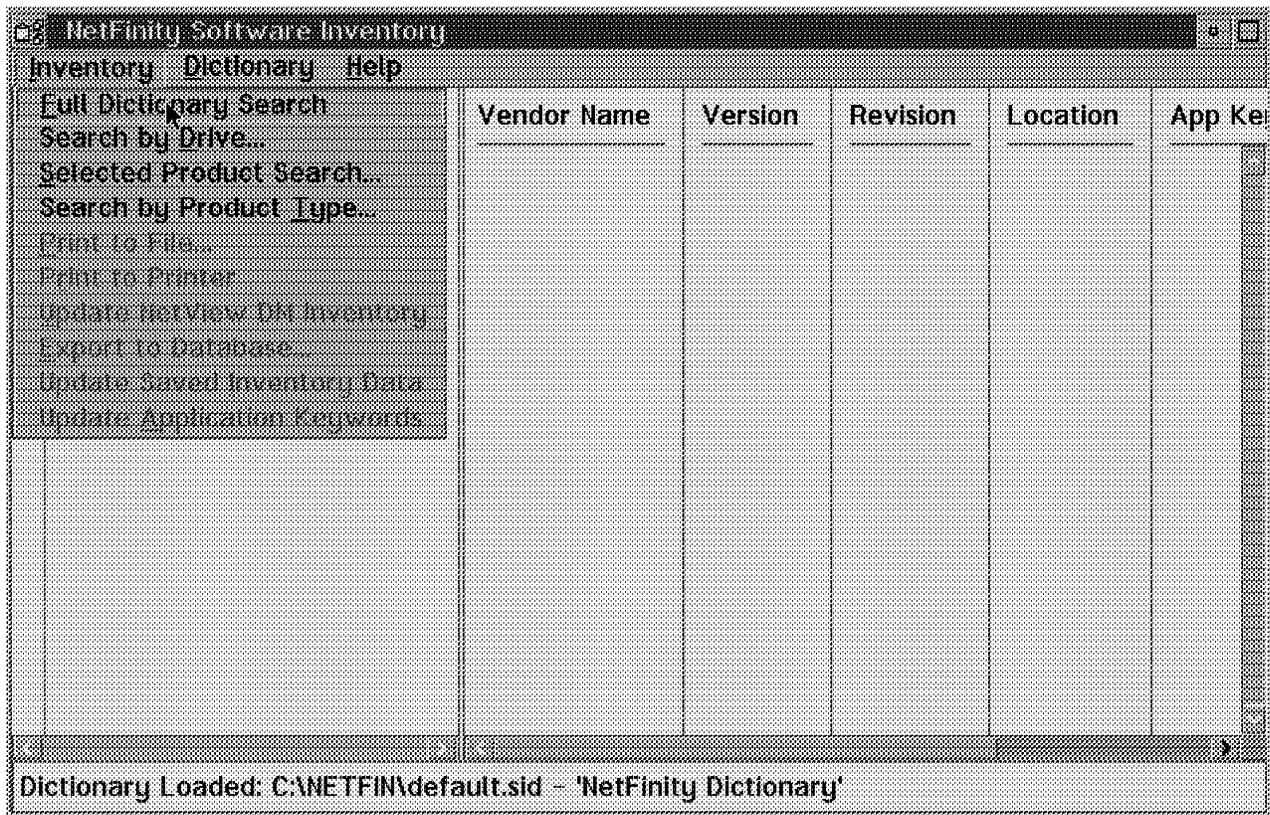


Figure 225. Software Inventory 1 of 3

3. Select **Inventory** from the top menu and select the search method. We chose **Full Dictionary Search**.
4. The window will then show the installed software products:

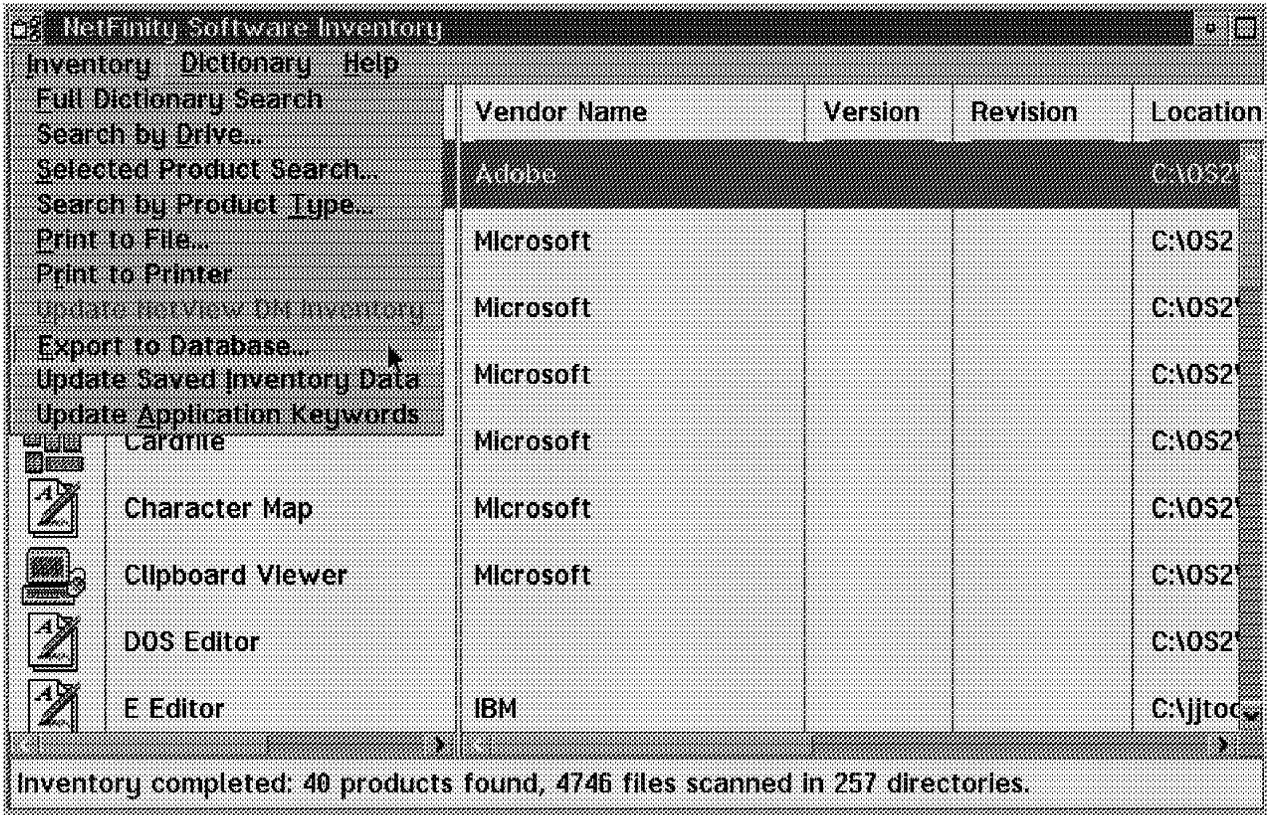


Figure 226. Software Inventory 2 of 3

5. From the top menu choose **Inventory** and select **Export to Database**.
6. The Database Entry Selection window appears.

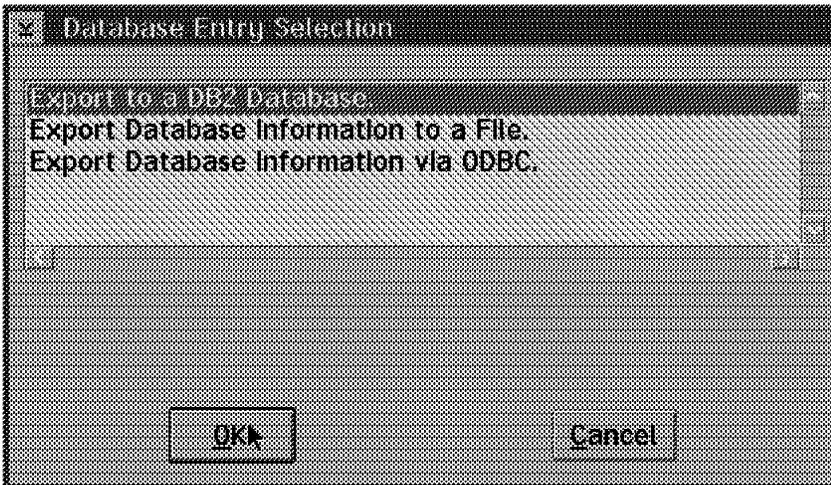


Figure 227. Software Inventory 3 of 3

7. Select one of the options to export to a database from the Database Selection scrolling list.
8. Click on the **OK** button.

## 4.4 Export Alert Data to the NetFinity Database

The Alert Manager enables you to create and react to alerts that are being created by different services and applications. One of the *actions* that can be taken as a result of an alert is to store the alert information into the NetFinity database.

In this section the Alert Manager and Critical File Monitor are used.

To find more information on the Alert Manager see 1.3, "Alert Manager" on page 14. To find more information on the Critical File Monitor see 1.2, "Critical File Monitor" on page 10.

To create the action that will export an alert to the database follow these steps:

1. Open the **Alert Manager** from the NetFinity Services folder.
2. The Alert Log Menu appears.

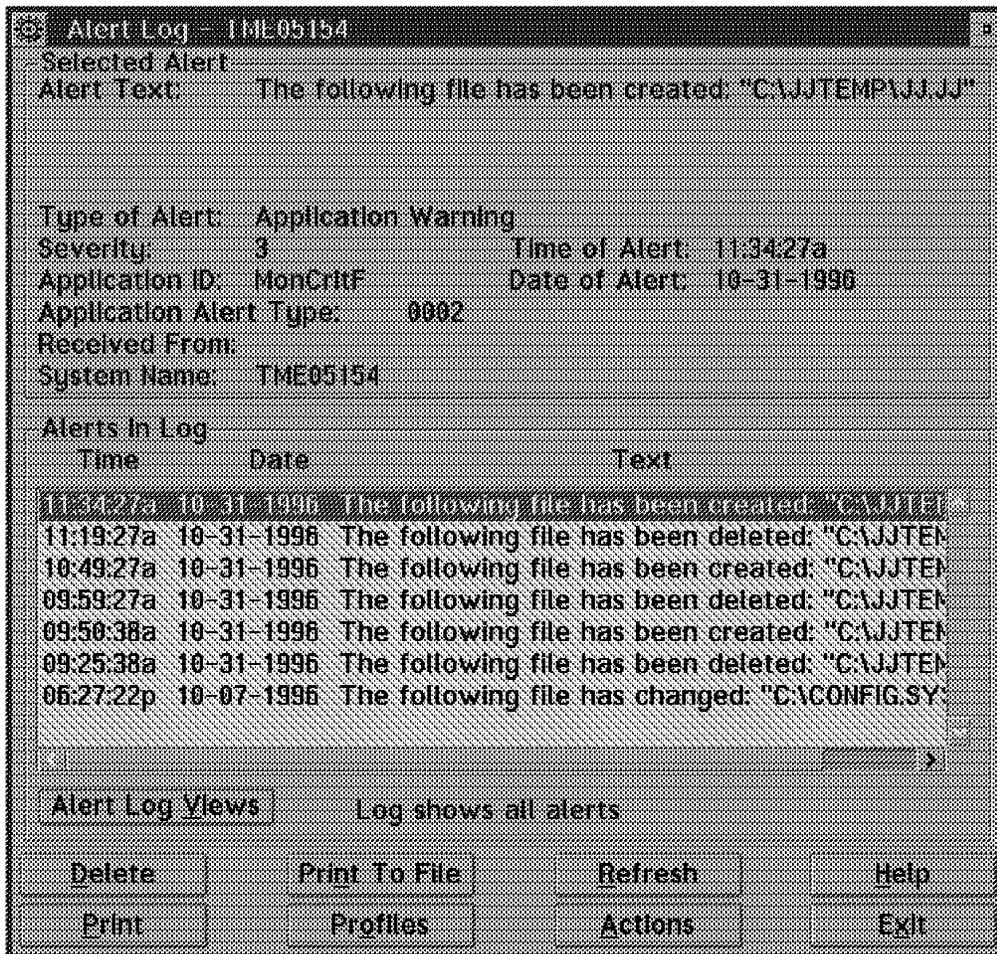


Figure 228. Alert Log

3. Select **Actions** from the Alert Log menu.
4. The Alert Actions Menu appears.

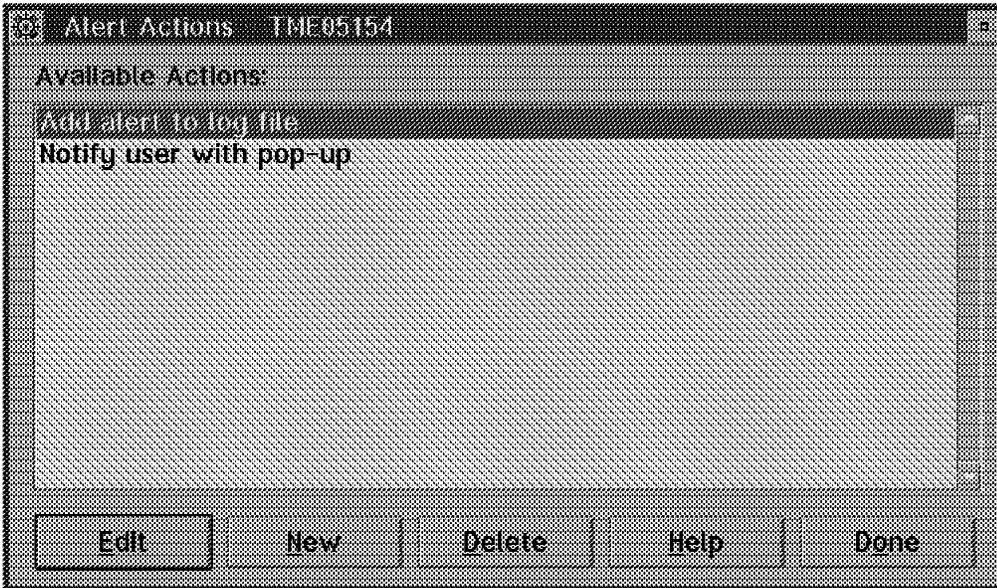


Figure 229. Alert Actions

5. Select the **New** button.
6. The Action Editor window appears.

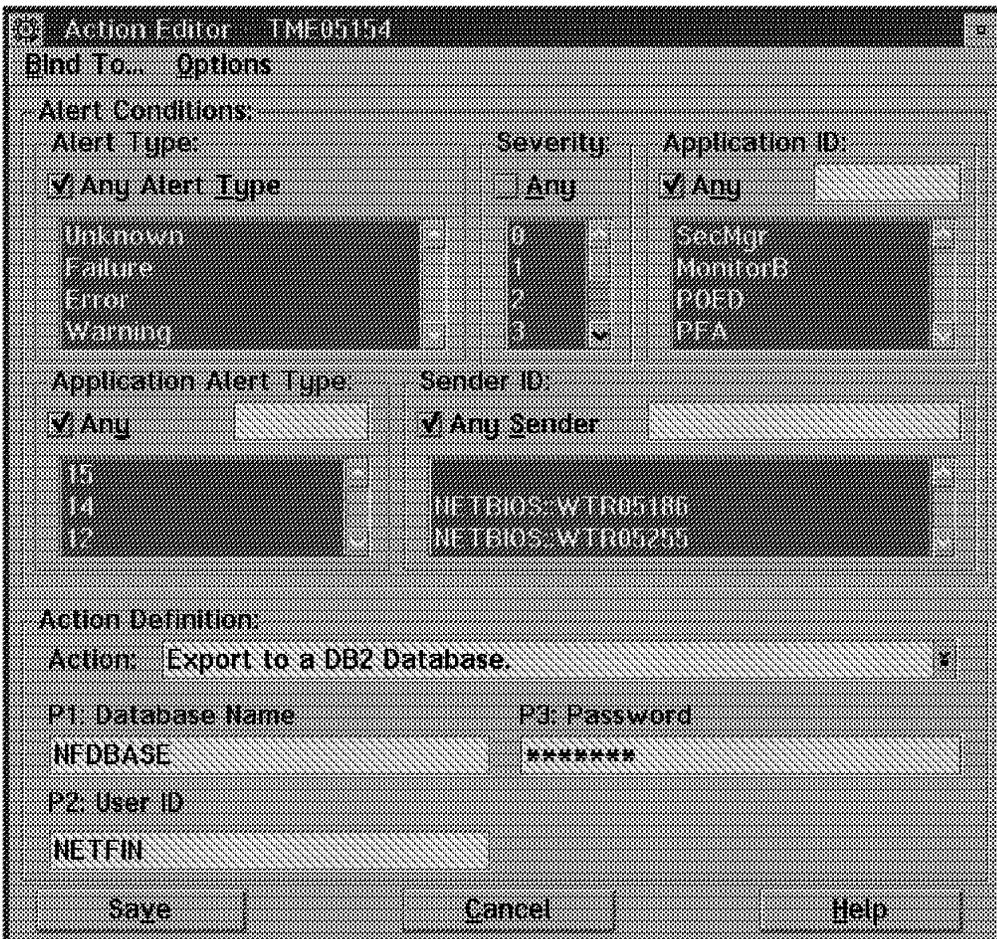


Figure 230. Action Editor

7. For this example, select the **Any** boxes.
8. Select **Export to a DB2 Database** from the Action scrolling list.
9. Enter NFDBASE in the Database Name field.
10. Enter NETFIN in the User ID field.
11. Enter the password in the Password field.

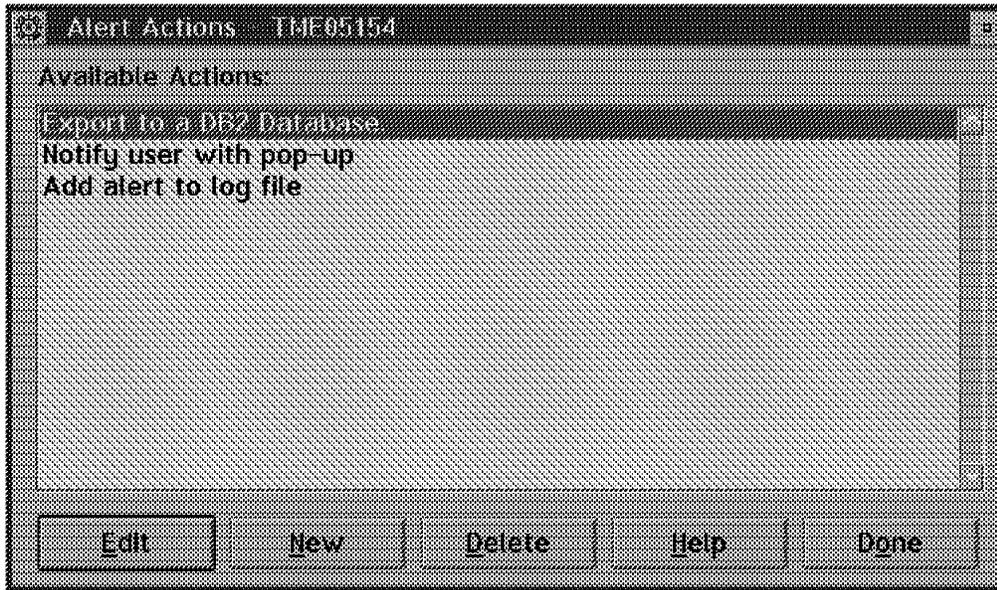


Figure 231. Alert Actions

12. The newly created action appears in the Alert Actions window.

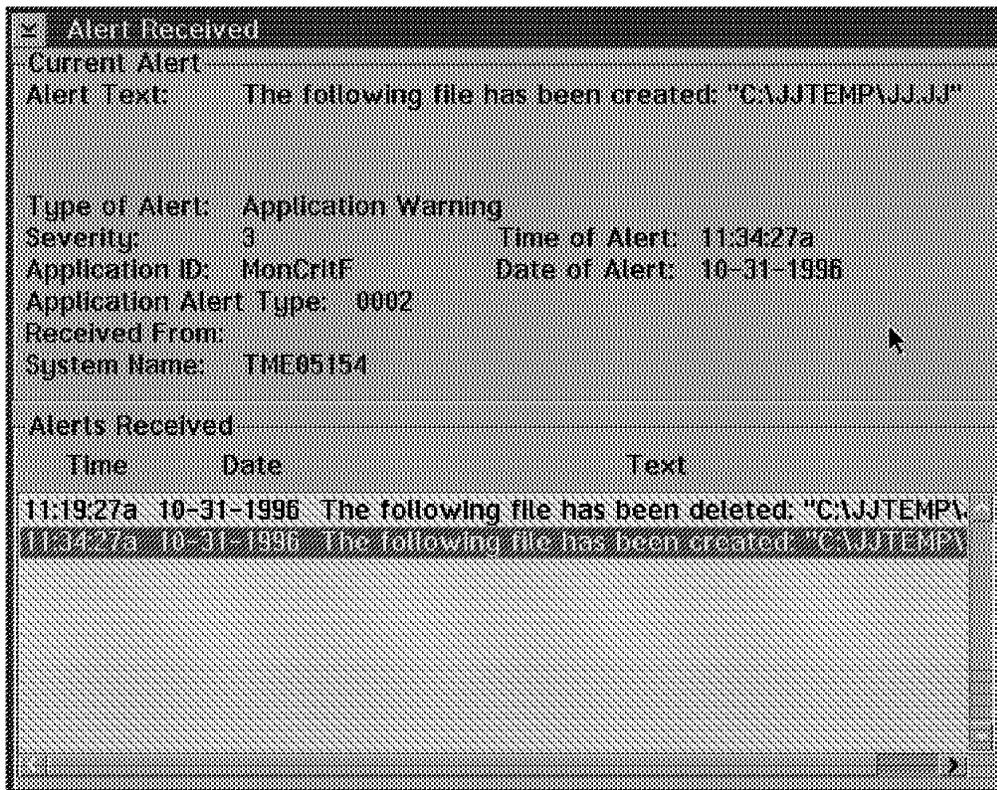


Figure 232. Alert Received

13. When an alert is generated using the Critical File Monitor, it shows up in the Alert Received window and is saved in the NetFinity database.

---

## 4.5 Export Monitor Data to the NetFinity Database

The System Monitor provides a method to monitor the activities of different resources within a system. System Monitor lets you collect data during a certain period of time and store it into the NetFinity database.

To export monitor data to the NetFinity database follow these steps:

1. Open the **System Monitor** from the NetFinity Services folder.
2. The System Monitor Service window appears as well as a window for each of the active monitors.

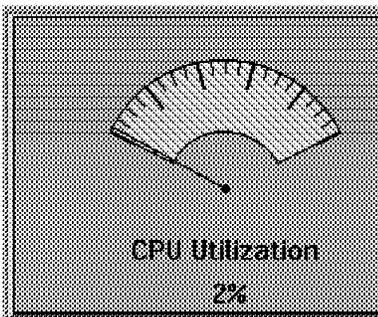


Figure 233. Monitor

3. Click the right mouse button against each monitor you want to collect data and check **Record Data** from the menu to allow the monitor to record the data that you will export later.
4. There are two ways to export monitor data. You can select the monitor by clicking its window with the right mouse button and selecting **Export to Database** from the menu. The Database Selection window appears.  
Or from the System Monitor Service top menu choose **Windows** and select **Export to a database**.

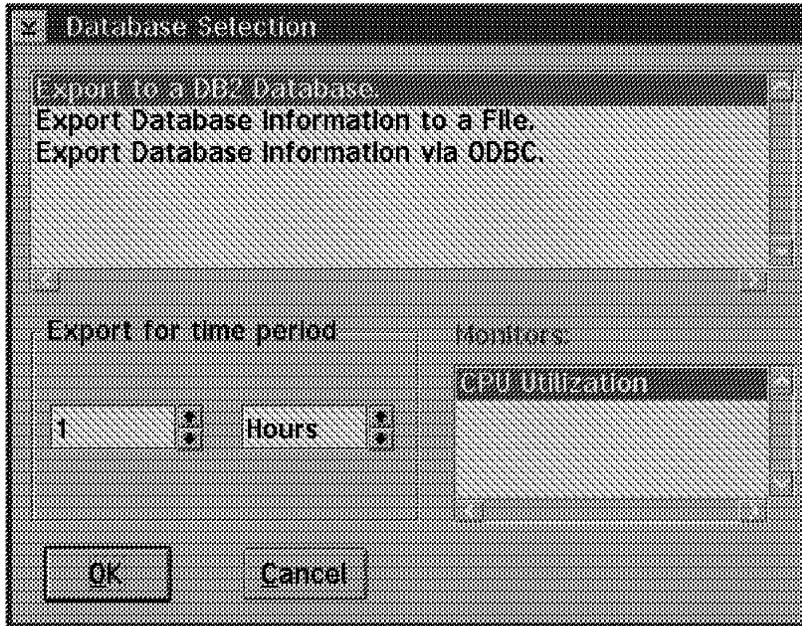


Figure 234. Database Selection

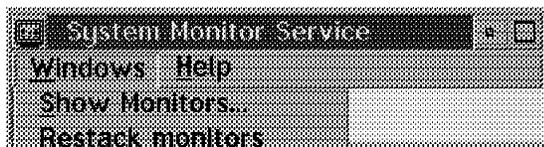


Figure 235. System Monitor Service

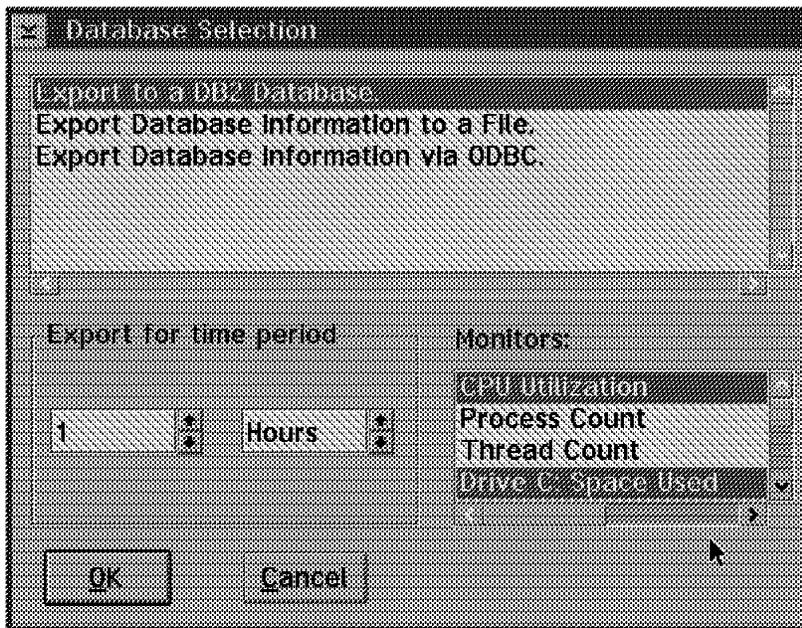


Figure 236. Database Selection

5. Select the monitors to export data from the Monitors scrolling list.
6. Select the database from the scrolling list and click **OK**.

## 4.6 Sample NetFinity Database Queries

You can use any query tool that has the ability to access relational database tables to retrieve information from the NetFinity. NULL is used to represent the absence of any value for a column. The presence of a NULL value usually means that the information is not available from the system in question. This section shows some query examples using several tables.

Before executing the queries, you have to be sure the DBM is active and the database is connected. On OS/2 Warp, we just clicked on the **Start DB2** icon in the DB2 folder.

To connect to the database use the following command:

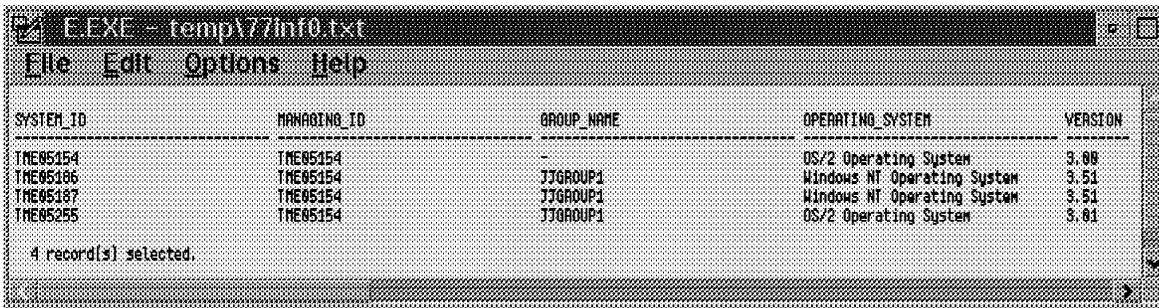
```
DBM CONNECT TO nfdbase
```

### 4.6.1 BASE Table

- Select all columns from the BASE table sorted by SYSTEM\_ID:

```
dbm select * from netfin.base order by system_ID > 77info.txt
```

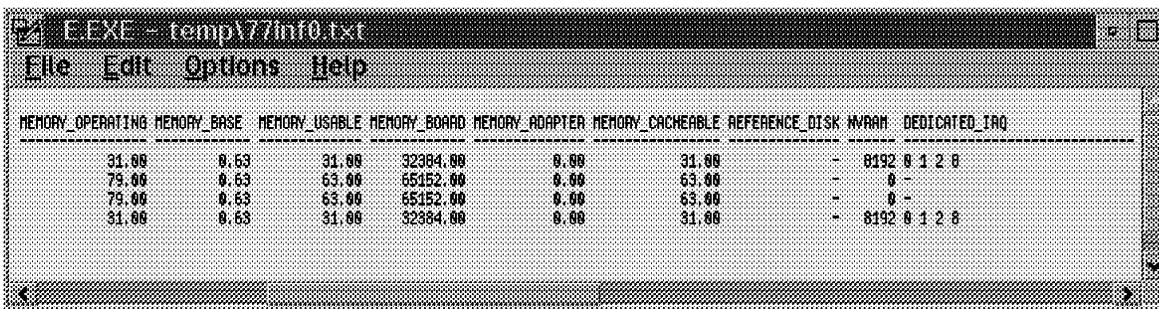
We redirected the output to a file so we could more easily read it.



| SYSTEM_ID | MANAGING_ID | GROUP_NAME | OPERATING_SYSTEM            | VERSION |
|-----------|-------------|------------|-----------------------------|---------|
| THE05154  | THE05154    | -          | OS/2 Operating System       | 3.00    |
| THE05186  | THE05154    | JTGROUPl   | Windows NT Operating System | 5.51    |
| THE05187  | THE05154    | JTGROUPl   | Windows NT Operating System | 5.51    |
| THE05255  | THE05154    | JTGROUPl   | OS/2 Operating System       | 5.01    |

4 record(s) selected.

Figure 237. BASE Table 1 of 4



| MEMORY_OPERATING | MEMORY_BASE | MEMORY_USABLE | MEMORY_BOARD | MEMORY_ADAPTER | MEMORY_CACHEABLE | REFERENCE_DISK | MVRAM | DEDICATED_IRQ |
|------------------|-------------|---------------|--------------|----------------|------------------|----------------|-------|---------------|
| 31.00            | 0.63        | 31.00         | 32384.00     | 0.00           | 31.00            | -              | 8192  | 0 1 2 0       |
| 79.00            | 0.63        | 63.00         | 65152.00     | 0.00           | 63.00            | -              | 0     | -             |
| 79.00            | 0.63        | 63.00         | 65152.00     | 0.00           | 63.00            | -              | 0     | -             |
| 31.00            | 0.63        | 31.00         | 32384.00     | 0.00           | 31.00            | -              | 8192  | 0 1 2 0       |

Figure 238. BASE Table 2 of 4

| SHARED_IRQ     | PARALLEL_PORTS | SERIAL_PORTS | SYSTEM_SERIAL  | PLANAR_ID | PLANAR_SERIAL | PROCESSOR_CARD_SER |
|----------------|----------------|--------------|----------------|-----------|---------------|--------------------|
| 6 7 9 12 13 14 | 1              | 2            | 9577DNG23TNGHW | -         | B18Z63998TP   | -                  |
| -              | 1              | 2            | 23ARZPK        | -         | SAZARZ7FSAR   | -                  |
| -              | 1              | 2            | 23ARZYD        | -         | SAZARZ7YSDM   | -                  |
| 6 7 9 12 13 14 | 2              | 2            | 9595QJ23U0881  | 9FF5      | B12B5410A58   | 00000000           |

Figure 239. BASE Table 3 of 4

| BASE_DATE  | BASE_TIME |
|------------|-----------|
| 10/28/1996 | 18:44:14  |
| 10/28/1996 | 18:46:22  |
| 10/28/1996 | 18:47:15  |
| 10/28/1996 | 18:48:17  |

Figure 240. BASE Table 4 of 4

- Select all columns in GROUP\_NAME = JJGROUP1 sorted by SYSTEM\_ID:

```
DBM select * from netfin.base where group_name = 'JJGROUP1'
order by system_id"
```

| SYSTEM_ID | MANAGING_ID | GROUP_NAME | OPERATING_SYSTEM            | VERSION |
|-----------|-------------|------------|-----------------------------|---------|
| TNE05186  | TNE05154    | JJGROUP1   | Windows NT Operating System | 3.51    |
| TNE05187  | TNE05154    | JJGROUP1   | Windows NT Operating System | 3.51    |
| TNE05255  | TNE05154    | JJGROUP1   | OS/2 Operating System       | 3.01    |

3 record(s) selected.

Figure 241. BASE Table 1 of 4

| MEMORY_OPERATING | MEMORY_BASE | MEMORY_USABLE | MEMORY_BOARD | MEMORY_ADAPTER | MEMORY_CACHEABLE | REFERENCE_DISK | MYRAM | DEDICATED_IRQ |
|------------------|-------------|---------------|--------------|----------------|------------------|----------------|-------|---------------|
| 79.00            | 0.63        | 63.00         | 65152.00     | 0.00           | 63.00            | -              | 0     | -             |
| 79.00            | 0.63        | 63.00         | 65152.00     | 0.00           | 63.00            | -              | 0     | -             |
| 31.00            | 0.63        | 31.00         | 32384.00     | 0.00           | 31.00            | -              | 8192  | 0 1 2 8       |

Figure 242. BASE Table 2 of 4

| SHARED_IRQ     | PARALLEL_PORTS | SERIAL_PORTS | SYSTEM_SERIAL | PLANAR_ID | PLANAR_SERIAL | PROCESSOR_CARD_SER |
|----------------|----------------|--------------|---------------|-----------|---------------|--------------------|
| -              | 1              | 2            | 23ARZFH       | -         | SAZARZ7F5HR   | -                  |
| -              | 1              | 2            | 23ARZYD       | -         | SAZARZ7Y3DR   | -                  |
| 6 7 9 12 13 14 | 2              | 2            | 9595Q123W0001 | 9FF5      | B12B5410050   | 00000000           |

Figure 243. BASE Table 3 of 4

| BASE_DATE  | BASE_TIME |
|------------|-----------|
| 10/28/1996 | 10:46:22  |
| 10/28/1996 | 10:47:15  |
| 10/28/1996 | 10:48:17  |

Figure 244. BASE Table 4 of 4

- Select some columns in JJGROUP1 with Windows NT:  
 DBM select system\_id , group\_name , operating\_system , version ,  
 from netfin.base where group\_name = 'JJGROUP1'  
 and operating\_system = 'Windows NT Operating System'

| SYSTEM_ID | GROUP_NAME | OPERATING_SYSTEM            | VERSION |
|-----------|------------|-----------------------------|---------|
| TNE05186  | JJGROUP1   | Windows NT Operating System | 3.51    |
| TNE05187  | JJGROUP1   | Windows NT Operating System | 3.51    |

2 record(s) selected.

Figure 245. BASE Table

- Delete all rows from the BASE table over 30 days old:  
 DELETE FROM NETFIN.BASE  
 WHERE BASE\_DATE < CURRENT DATE - 30 DAYS

## 4.6.2 DISKETTE Table

- Select all columns from the DISKETTE table:  
 DBM SELECT \* FROM NETFIN.DISKETTE

| SYSTEM_ID | LOGICAL_DRIVE | DEVICE_TYPE                    |
|-----------|---------------|--------------------------------|
| THE05154  | A:            | 2.88MB 3.5-inch Diskette Drive |
| THE05186  | A:            | 1.44MB 3.5-inch Diskette Drive |
| THE05187  | A:            | 1.44MB 3.5-inch Diskette Drive |
| THE05255  | A:            | 2.88MB 3.5-inch Diskette Drive |

Figure 246. DISKETTE Table

- Select all columns for a system from the DISKETTE table:

```
SELECT * FROM NETFIN.DISKETTE
WHERE SYSTEM_ID = XXXXXX
ORDER BY LOGICAL_DRIVE
```

- Delete a row from the DISKETTE table:

```
DELETE FROM NETFIN.DISKETTE
WHERE SYSTEM_ID = 'XXXXXX'
```

### 4.6.3 DISPLAY Table

- Select all columns for a system from the DISPLAY table:

```
SELECT * FROM NETFIN.DISPLAY
WHERE SYSTEM_ID = XXXXXX
ORDER BY VIDEO_SUBSYSTEM
```

- Select all columns from the DISPLAY table:

```
DBM SELECT * FROM NETFIN.DISPLAY
ORDER BY VIDEO_SUBSYSTEM
```

| SYSTEM_ID | DISPLAY_ADAPTER     | DISPLAY_TYPE    | VIDEO_MEMORY | COLORS |
|-----------|---------------------|-----------------|--------------|--------|
| THE05186  | Phoenix             | Unknown Display | 1824.00      | 256    |
| THE05187  | Phoenix             | Unknown Display | 1824.00      | 256    |
| THE05255  | Super VGA           | Color Display   | 512.00       | 256    |
| THE05154  | VGA-2 Video Adapter | IBM 9517        | 1824.00      | 256    |

Figure 247. DISPLAY Table 1 of 2

| HORIZONTAL_RES | VERTICAL_RES | HORIZONTAL_SIZE | VERTICAL_SIZE | VIDEO_SUBSYSTEM | SLOT_LOCATION |
|----------------|--------------|-----------------|---------------|-----------------|---------------|
| 640            | 480          | 320             | 240           | 0               | 0             |
| 640            | 480          | 320             | 240           | 0               | 0             |
| 640            | 480          | 299             | 179           | 0               | 0             |
| 1024           | 768          | 300             | 225           | 0               | 1             |

Figure 248. DISPLAY Table 2 of 2

- Delete a row from the DISPLAY table:

```
DELETE FROM NETFIN.DISPLAY
WHERE SYSTEM_ID = 'XXXXXX'
```

## 4.6.4 EXPANSION\_SLOT Table

- Select all columns for a system from the EXPANSION\_SLOT table:

```
SELECT * FROM NETFIN.EXPANSION_SLOT
WHERE SYSTEM_ID = XXXXXX
ORDER BY SLOT
```

- Select all columns from the EXPANSION\_SLOT table:

```
DBM SELECT * FROM NETFIN.EXPANSION_SLOT
ORDER BY SYSTEM_ID
```

| SYSTEM_ID | SLOT | BUS_TYPE         | BUS_NUMBER  | ADAPTER_ID | ADAPTER_TYPE                                          |
|-----------|------|------------------|-------------|------------|-------------------------------------------------------|
| TNE05154  | 1    | {32-bit Micro Ch |             | 8FDA       | VGA-2 Display Adapter/A                               |
| TNE05154  | 3    | {32-bit Micro Ch |             | E001       | IBM Token-Ring Network 16/4 Adapter/A                 |
| TNE05186  | 0    | PCI              | 0 8086 122D |            | INTEL CORPORATION - Host/PCI bridge - Class Code=0006 |
| TNE05186  | 0    | PCI              | 0 8086 122E |            | INTEL CORPORATION - PCI/ISA bridge - Class Code=0006  |
| TNE05186  | 0    | PCI              | 0 5333 8811 |            | S3 INC. - VGA-compatible controller - Class Code=0003 |
| TNE05187  | 0    | PCI              | 0 8086 122D |            | INTEL CORPORATION - Host/PCI bridge - Class Code=0006 |
| TNE05187  | 0    | PCI              | 0 8086 122E |            | INTEL CORPORATION - PCI/ISA bridge - Class Code=0006  |
| TNE05187  | 0    | PCI              | 0 5333 8811 |            | S3 INC. - VGA-compatible controller - Class Code=0003 |
| TNE05255  | 1    | {32-bit Micro Ch |             | 0EFC       | IBM PS/2 SCSI-2 Adapter                               |
| TNE05255  | 3    | {32-bit Micro Ch |             | 0FA2       | IBM Auto LANStream MC 32 Adapter                      |
| TNE05255  | 5    | {32-bit Micro Ch |             | 90EE       | S/VGA Adapter/A                                       |

11 record(s) selected.

Figure 249. EXPANSION\_SLOT Table

- Delete a row from the EXPANSION\_SLOT table:

```
DELETE FROM NETFIN.EXPANSION_SLOT
WHERE SYSTEM_ID = 'XXXXXX'
```

## 4.6.5 FIXED\_DISK Table

- Select all columns for a system from the FIXED\_DISK table:

```
SELECT * FROM NETFIN.FIXED_DISK
WHERE SYSTEM_ID = XXXXXX
ORDER BY PHYSICAL_DRIVE
```

- Select all columns from the FIXED\_DISK table:

```
DBM SELECT * FROM NETFIN.FIXED_DISK
ORDER BY SYSTEM_ID
```

| SYSTEM_ID | DISK_CAPACITY | DISK_CYLINDERS | SECTORS_PER_CYL | DISK_HEADS | DISK_TOTAL_SECTORS | PHYSICAL_DRIVE |
|-----------|---------------|----------------|-----------------|------------|--------------------|----------------|
| THE05154  | 536.00        | 517            | 2048            | 64         | 1050016            | 1              |
| THE05186  | 1272.00       | 620            | 4032            | 64         | 2499840            | 1              |
| THE05187  | 1272.00       | 620            | 4032            | 64         | 2499840            | 1              |
| THE05255  | 1048.00       | 1000           | 2048            | 64         | 2048000            | 1              |

4 record(s) selected.

Figure 250. FIXED\_DISK Table

- Delete a row from the FIXED\_DISK table:

```
DELETE FROM NETFIN.FIXED_DISK
WHERE SYSTEM_ID = 'XXXXXX'
```

## 4.6.6 LOGICAL\_DRIVE Table

- Select all columns for a system from the LOGICAL\_DRIVE table:

```
SELECT * FROM NETFIN.LOGICAL_DRIVE
WHERE SYSTEM_ID = XXXXXX
ORDER BY LOGICAL_NAME
```

- Select all columns from the LOGICAL\_DRIVE table:

```
DBM SELECT * FROM NETFIN.LOGICAL_DRIVE
ORDER BY SYSTEM_ID
```

| SYSTEM_ID | LOGICAL_NAME | VOLUME_NAME | FILE_SYSTEM | FILE_ATTACH        | DRIVE_TYPE SE |
|-----------|--------------|-------------|-------------|--------------------|---------------|
| THE05154  | A:           | NONE        | -           | -                  | L             |
| THE05154  | C:           | DRIVE-C     | HPFS        | -                  | L             |
| THE05154  | D:           | NONE        | -           | -                  | L             |
| THE05154  | K:           | F_DRIVE     | LAN         | \\WTRAS1K\NT_CODE  | R             |
| THE05154  | L:           | SYS         | NETWARE     | -                  | R             |
| THE05154  | N:           | PCDOS_7     | LAN         | \\WTR05187\HTWIN   | R             |
| THE05154  | V:           | IBM237MM465 | LAN         | \\WTRDCNLANCDIS    | R             |
| THE05154  | W:           | IBM237MM465 | LAN         | \\WTRDCNLANDLLS    | R             |
| THE05186  | A:           | NONE        | -           | -                  | L             |
| THE05186  | C:           | NONE        | NTFS        | -                  | L             |
| THE05186  | D:           | NONE        | -           | -                  | L             |
| THE05186  | E:           | F_DRIVE     | LAN         | \\Wtrras1k\nt_code | R             |
| THE05187  | A:           | NONE        | -           | -                  | L             |
| THE05187  | C:           | PCDOS_7     | NTFS        | -                  | L             |
| THE05187  | D:           | NONE        | -           | -                  | L             |
| THE05255  | A:           | NONE        | -           | -                  | L             |
| THE05255  | C:           | OS2         | HPFS        | -                  | L             |
| THE05255  | D:           | NONE        | FAT         | -                  | L             |
| THE05255  | E:           | NONE        | -           | -                  | L             |
| THE05255  | K:           | F_DRIVE     | LAN         | \\WTRAS1K\NT_CODE  | R             |
| THE05255  | L:           | SYS         | NETWARE     | -                  | R             |
| THE05255  | V:           | IBM237MM465 | LAN         | \\WTRDCNLANCDIS    | R             |
| THE05255  | W:           | IBM237MM465 | LAN         | \\WTRDCNLANDLLS    | R             |

23 record(s) selected.

Figure 251. Logical\_drive Table

- Delete a row from the LOGICAL\_DRIVE table:

```
DELETE FROM NETFIN.LOGICAL_DRIVE
WHERE SYSTEM_ID = 'XXXXXX'
```

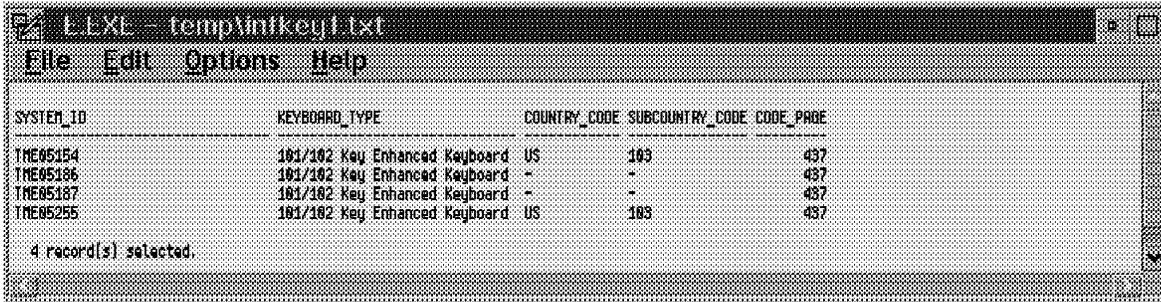
## 4.6.7 KEYBOARD Table

- Select the column for a system from the KEYBOARD table:

```
SELECT * FROM NETFIN.KEYBOARD
WHERE SYSTEM_ID = XXXXXX
```

- Select all columns from the KEYBOARD table:

```
DBM SELECT * FROM NETFIN.KEYBOARD
ORDER BY SYSTEM_ID
```



The screenshot shows a window titled "E:EXE - temp\inikeyj.txt" with a menu bar (File, Edit, Options, Help). The main area displays a table with the following data:

| SYSTEM_ID | KEYBOARD_TYPE                 | COUNTRY_CODE | SUBCOUNTRY_CODE | CODE_PAGE |
|-----------|-------------------------------|--------------|-----------------|-----------|
| TNE05154  | 101/102 Key Enhanced Keyboard | US           | 103             | 437       |
| TNE05186  | 101/102 Key Enhanced Keyboard | -            | -               | 437       |
| TNE05187  | 101/102 Key Enhanced Keyboard | -            | -               | 437       |
| TNE05255  | 101/102 Key Enhanced Keyboard | US           | 103             | 437       |

4 record(s) selected.

Figure 252. KEYBOARD Table

- Delete a row from the KEYBOARD table:

```
DELETE FROM NETFIN.KEYBOARD
WHERE SYSTEM_ID = 'XXXXXX'
```

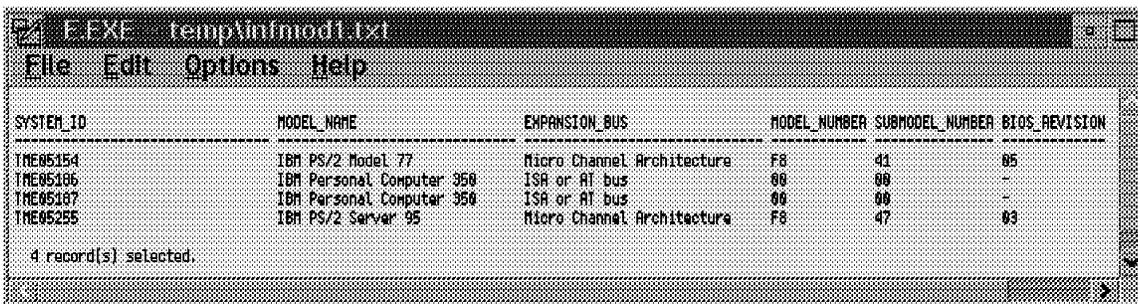
## 4.6.8 MODEL Table

- Select the column for a system from the MODEL table:

```
SELECT * FROM NETFIN.MODEL
WHERE SYSTEM_ID = XXXXXX
```

- Select all columns from the MODEL table:

```
DBM SELECT * FROM NETFIN.MODEL
ORDER BY SYSTEM_ID
```



The screenshot shows a window titled "E:EXE - temp\ini\modl.txt" with a menu bar (File, Edit, Options, Help). The main area displays a table with the following data:

| SYSTEM_ID | MODEL_NAME                | EXPANSION_BUS              | MODEL_NUMBER | SUBMODEL_NUMBER | BIOS_REVISION |
|-----------|---------------------------|----------------------------|--------------|-----------------|---------------|
| TNE05154  | IBM PS/2 Model 77         | Micro Channel Architecture | F8           | 41              | 05            |
| TNE05186  | IBM Personal Computer 350 | ISA or AT bus              | 00           | 00              | -             |
| TNE05187  | IBM Personal Computer 350 | ISA or AT bus              | 00           | 00              | -             |
| TNE05255  | IBM PS/2 Server 95        | Micro Channel Architecture | F8           | 47              | 03            |

4 record(s) selected.

Figure 253. MODEL Table 1 of 2

The screenshot shows a text editor window titled 'E:EXE - temp\infmod1.txt'. The window contains the following text:

```

BIOS_DATE

10/26/1992
12/20/1995
12/20/1995
09/15/1994

```

Figure 254. MODEL Table 2 of 2

- Delete a row from the MODEL table:

```

DELETE FROM NETFIN.MODEL
WHERE SYSTEM_ID = 'XXXXXX'

```

#### 4.6.9 MOUSE Table

- Select the column for a system from the MOUSE table:

```

SELECT * FROM NETFIN.MOUSE
WHERE SYSTEM_ID = XXXXXX

```

- Select all columns from the MOUSE table:

```

DBM SELECT * FROM NETFIN.MOUSE
ORDER BY SYSTEM_ID

```

The screenshot shows a text editor window titled 'E:EXE - temp\infmou1.txt'. The window contains the following text:

```

SYSTEM_ID MOUSE_TYPE MOUSE_BUTTONS

TNE05154 PS/2 Mouse 2
TNE05166 Microsoft, or 2
 IBM PS/2
TNE05167 Microsoft, or 2
 IBM PS/2
TNE05255 PS/2 Mouse 2

```

4 record[s] selected.

Figure 255. MOUSE Table

- Delete a row from the MOUSE table:

```

DELETE FROM NETFIN.MOUSE
WHERE SYSTEM_ID = 'XXXXXX'

```

#### 4.6.10 PRINTER Table

- Select all columns for a system from the PRINTER table:

```

SELECT * FROM NETFIN.PRINTER
WHERE SYSTEM_ID = XXXXXX

```

- Select all columns from the PRINTER table:

```

DBM SELECT * FROM NETFIN.PRINTER
ORDER BY SYSTEM_ID

```

| SYSTEM_ID | PRINTER_PORT | PRINT_QUEUE | PRINTER_DRIVER | PRINTER_MODEL             |
|-----------|--------------|-------------|----------------|---------------------------|
| TNE05154  | LPT1         | IBM4029L    | IBM4019        | IBM 4029 LaserPrinter 10L |
| TNE05295  | LPT1         | IBM4201P    | IBM420X        | IBM 4201 Propr.intar      |
| TNE05295  | DEFA         | DEFAULT     | PHAFP          | AFP300, PHAFP, AFP240     |

3 record(s) selected.

Figure 256. PRINTER Table

- Delete a row from the PRINTER table:

```
DELETE FROM NETFIN.PRINTER
WHERE SYSTEM_ID = 'XXXXXX'
```

#### 4.6.11 PROCESSOR Table

- Select all columns for a system from the PROCESSOR table:

```
SELECT * FROM NETFIN.PROCESSOR
WHERE SYSTEM_ID = XXXXXX
```

- Select all columns from the PROCESSOR table:

```
DBM SELECT * FROM NETFIN.PROCESSOR
ORDER BY SYSTEM_ID
```

| SYSTEM_ID | PROCESSOR     | CO_PROCESSOR  | PROCESSOR_SPEED | INTERNAL_CACHE | EXTERNAL_CACHE | PLANAR_SPEED | PROCESSOR_NUMBER |
|-----------|---------------|---------------|-----------------|----------------|----------------|--------------|------------------|
| TNE05154  | 80486DX2      | 80486DX2      | 66 E            |                | U              | 33           | -                |
| TNE05186  | Pentium( tm ) | Pentium( tm ) | 133 E           |                | U              | 133          | -                |
| TNE05187  | Pentium( tm ) | Pentium( tm ) | 133 E           |                | U              | 133          | -                |
| TNE05295  | Pentium( tm ) | Pentium( tm ) | 66 E            |                | E              | 66           | -                |

4 record(s) selected.

Figure 257. PROCESSOR Table 1

- Find the fastest processors from PROCESSOR table:

```
DBM SELECT * FROM NETFIN.PROCESSOR
WHERE PROCESSOR_SPEED =
(SELECT MAX(PROCESSOR_SPEED)
FROM NETFIN.PROCESSOR)
```

| SYSTEM_ID | PROCESSOR     | CO_PROCESSOR  | PROCESSOR_SPEED | INTERNAL_CACHE | EXTERNAL_CACHE | PLANAR_SPEED | PROCESSOR_NUMBER |
|-----------|---------------|---------------|-----------------|----------------|----------------|--------------|------------------|
| TNE05186  | Pentium( tm ) | Pentium( tm ) | 133 E           |                | U              | 133          | -                |
| TNE05187  | Pentium( tm ) | Pentium( tm ) | 133 E           |                | U              | 133          | -                |

2 record(s) selected.

Figure 258. PROCESSOR Table 2

- Delete a row from the PROCESSOR table:

```
DELETE FROM NETFIN.PROCESSOR
WHERE SYSTEM_ID = 'XXXXXX'
```

#### 4.6.12 SYSLEVEL Table

- Select all columns for a system from the SYSLEVEL table:

```
SELECT * FROM NETFIN.SYSLEVEL
WHERE SYSTEM_ID = XXXXXX
ORDER BY PRODUCT_ID
```

- Select all columns from the SYSLEVEL table:

```
DBM SELECT * FROM NETFIN.SYSLEVEL
ORDER BY SYSTEM_ID
```

| SYSTEM_ID | PRODUCT_NAME                                          | PRODUCT_VERSION | COMPONENT_ID |
|-----------|-------------------------------------------------------|-----------------|--------------|
| THE05154  | IBM OS/2 Socket/Multi-Protocol Transport Services     | 2.00            | 562200700    |
| THE05154  | IBM OS/2 LAN Adapter and Protocol Support             | 2.60            | 562200700    |
| THE05154  | IBM OS/2 LAN Requester                                | 4.00            | 562246101    |
| THE05154  | IBM OS/2 User Profile Management                      | 4.00            | 562246104    |
| THE05154  | IBM OS/2 User Profile Management - Extended           | 4.00            | 562246105    |
| THE05154  | IBM OS/2 First Failure Support Technology/2           | 1.20            | 562119400    |
| THE05154  | IBM Communications Manager/2 IBM Internal Use Only    | 1.11            | 2207000      |
| THE05154  | IBM OS/2 32-bit Graphics Engine                       | 3.00            | 562274700    |
| THE05154  | IBM OS/2 Base Operating System                        | 3.00            | 562274700    |
| THE05154  | Distributed SOM Framework                             | 2.01            | 96F0647DS    |
| THE05154  | SOM Event Management Framework                        | 2.01            | 96F0647EM    |
| THE05154  | SOMobjects Interface Repository Framework             | 2.01            | 96F0647IR    |
| THE05154  | SOM Run-time Kernel                                   | 2.01            | 96F0647RK    |
| THE05154  | SOMobjects Taligent Collection Classes                | 2.01            | 96F0647UC    |
| THE05154  | SOMobjects Utility Classes                            | 2.01            | 96F0647UT    |
| THE05154  | IBM TCP/IP Version 3.0 for OS/2                       | 3.00            | 562201300    |
| THE05154  | IBM Ultimedia Mail Lite Client for OS/2               | 2.10            | 562206112    |
| THE05154  | IBM DB2 Client Application Enabler for OS/2           | 2.11            | 562212900    |
| THE05154  | IBM DB2 for OS/2 Server                               | 2.11            | 562204001    |
| THE05154  | THE 10 NetFinity Manager for OS/2                     | 4.00            | 564202000    |
| THE05154  | THE 10 NetFinity Services for OS/2                    | 4.00            | 564201000    |
| THE05255  | IBM OS/2 Dynamic Host Configuration Protocol Services | 3.10            | 562290900    |
| THE05255  | IBM OS/2 Socket/Multi-Protocol Transport Services     | 5.00            | 562290900    |
| THE05255  | IBM OS/2 LAN Adapter and Protocol Support             | 5.00            | 562290900    |
| THE05255  | IBM OS/2 LAN Requester                                | 5.00            | 562294000    |
| THE05255  | IBM OS/2 LAN Server                                   | 5.00            | 562200900    |
| THE05255  | IBM OS/2 User Profile Management                      | 5.00            | 562200902    |
| THE05255  | IBM OS/2 User Profile Management - Extended           | 5.00            | 562200903    |
| THE05255  | IBM OS/2 First Failure Support Technology/2           | 1.20            | 562119400    |
| THE05255  | IBM Personal Communications AS/400 and 3270           | 4.10            | 562276202    |
| THE05255  | IBM Communications Server for OS/2 Warp               | 4.00            | 562207000    |
| THE05255  | IBM OS/2 32-bit Graphics Engine                       | 3.01            | 562274700    |
| THE05255  | IBM OS/2 Base Operating System                        | 3.01            | 562274700    |
| THE05255  | Distributed SOM Framework                             | 2.01            | 96F0647DS    |
| THE05255  | SOM Event Management Framework                        | 2.01            | 96F0647EM    |
| THE05255  | SOMobjects Interface Repository Framework             | 2.01            | 96F0647IR    |
| THE05255  | SOM Run-time Kernel                                   | 2.01            | 96F0647RK    |
| THE05255  | SOMobjects Taligent Collection Classes                | 2.01            | 96F0647UC    |
| THE05255  | SOMobjects Utility Classes                            | 2.01            | 96F0647UT    |
| THE05255  | IBM TCP/IP Version 3.1 in Warp Server                 | 3.10            | 562259100    |
| THE05255  | IBM Ultimedia Mail Lite Client for OS/2               | 2.10            | 562206112    |
| THE05255  | THE 10 NetFinity Manager for OS/2                     | 4.00            | 564202000    |
| THE05255  | THE 10 NetFinity Services for OS/2                    | 4.00            | 564201000    |
| THE05255  | IBM OS/2 Warp Server with WINOS2                      | 4.00            | 562205100    |
| THE05255  | IBM OS/2 LAN Server - Advanced                        | 5.00            | 562200901    |

Figure 259. SYSLEVEL Table 1 of 2

| CURRENT_CSD | PREVIOUS_CSD |
|-------------|--------------|
| WR00000     | WR00000      |
| WR00000     | WR00000      |
| IP00000     | IP00000      |
| WR00000     | WR00000      |
| IP00000     | IP00000      |
| WR00470     | WR00460      |
| WR00150     | WR00000      |
| KR00003     | KR00003      |
| KR00003     | KR00003      |
| SM20004     | SM20003      |
| IC00000     | IC00000      |
| UN00000     | UN00000      |
| WR00000     | WR00000      |
| WR00000     | WR00000      |
| NM00401     | NM00401      |
| NS00401     | NS00401      |
| WR00200     | WR00000      |
| WR00200     | WR00000      |
| WR00200     | WR00000      |
| IP00200     | IP00000      |
| IP00200     | IP00000      |
| WR00200     | WR00000      |
| IP00200     | IP00000      |
| WR00505     | WR00495      |
| WR00000     | WR00000      |
| WR00000     | WR00000      |
| KR00005     | KR00005      |
| KR00005     | KR00005      |
| SM20004     | SM20003      |
| UN00002     | UN00001      |
| UN00000     | UN00000      |
| NM00401     | NM00401      |
| NS00401     | NS00401      |
| IP00200     | IP00000      |
| IP00200     | IP00000      |

Figure 260. SYSLEVEL Table 2 of 2

- Delete a row from the SYSLEVEL table:

```
DELETE FROM NETFIN.SYSLEVEL
WHERE SYSTEM_ID = 'XXXXXX'
```

### 4.6.13 MEMORY Table

- Select all columns for a system from the MEMORY table:

```
SELECT * FROM NETFIN.MEMORY
WHERE SYSTEM_ID = XXXXXX
ORDER BY CONNECTOR_ID
```

- Select all columns from the MEMORY table:

```
DBM SELECT * FROM NETFIN.MEMORY
ORDER BY SYSTEM_ID
```

| SYSTEM_ID | CONNECTOR_ID | MEMORY_SIZE | MEMORY_SPEED | MEMORY_TYPE |
|-----------|--------------|-------------|--------------|-------------|
| TRE05154  | MEM1         | 8.00        | 70.00        | Parity      |
| TRE05154  | MEM2         | 8.00        | 70.00        | Parity      |
| TRE05154  | MEM3         | 8.00        | 70.00        | Parity      |
| TRE05154  | MEM4         | 8.00        | 70.00        | Parity      |
| TRE05255  | A1           | 16.00       | 70.00        | ECC         |
| TRE05255  | B1           | 16.00       | 70.00        | ECC         |

6 record(s) selected.

Figure 261. MEMORY Table 1

- Get total memory and type for all machines from MEMORY table:

```
DBM SELECT SYSTEM_ID , SUM(MEMORY_SIZE) , MEMORY_TYPE
FROM NETFIN.MEMORY GROUP BY SYSTEM_ID ,
MEMORY_TYPE
```

| SYSTEM_ID | 2     | MEMORY_TYPE |
|-----------|-------|-------------|
| TRE05154  | 32.00 | Parity      |
| TRE05255  | 32.00 | ECC         |

2 record(s) selected.

Figure 262. MEMORY Table 2

- Delete a row from the MEMORY table:

```
DELETE FROM NETFIN.MEMORY
WHERE SYSTEM_ID = 'XXXXXX'
```

#### 4.6.14 DASD\_ADAPTER Table

- Select all columns for a system from the DASD\_ADAPTER table:

```
SELECT * FROM NETFIN.DASD_ADAPTER
WHERE SYSTEM_ID = XXXXXX
ORDER BY PHYSICAL_UNIT
```

- Select all columns from the DASD\_ADAPTER table:

```
DBM SELECT * FROM NETFIN.DASD_ADAPTER
ORDER BY SYSTEM_ID
```

| SYSTEM_ID | PHYSICAL_UNIT | LOGICAL_UNIT | DASD_BUS_TYPE | DASD_SLOT | BUS_ATTRIBUTES     | IO_ACCESS          | HOST_BUS          |
|-----------|---------------|--------------|---------------|-----------|--------------------|--------------------|-------------------|
| TRE05154  | 7             | 0            | SCSI 2        |           | 0 0 Bit            | Bus Master         | Micro Channel Bus |
| TRE05186  | -             | -            | ST-506 CAM    |           | 0 Not Available    | IO Message - Other | Host Bus - other  |
| TRE05187  | -             | -            | ST-506 CAM    |           | 0 Not Available    | IO Message - Other | Host Bus - other  |
| TRE05255  | 7             | 0            | SCSI 2        |           | 1 Fast SCSI 16 Bit | Bus Master         | Micro Channel Bus |
| TRE05255  | 7             | 0            | SCSI 2        |           | 1 16 Bit           | Bus Master         | Micro Channel Bus |

5 record(s) selected.

Figure 263. DASD\_ADAPTER Table 1 of 2

| HOST_BUS_WIDTH | MAX_SCATTER | MAX_CDB | ADD_MAJOR | ADD_MINOR | DASD_DEVICES |
|----------------|-------------|---------|-----------|-----------|--------------|
| 32             | 16          | -       | 1         | 0         | 2            |
| -              | -           | -       | -         | -         | 2            |
| -              | -           | -       | -         | -         | 2            |
| 32             | 16          | -       | 1         | 0         | 2            |
| 32             | 16          | -       | 1         | 0         | 0            |

Figure 264. DASD\_ADAPTER Table 2 of 2

- Delete a row from the DASD\_ADAPTER table:

```
DELETE FROM NETFIN.DASD_ADAPTER
WHERE SYSTEM_ID = 'XXXXXX'
```

#### 4.6.15 DASD\_DEVICE Table

- Select all columns for a system from the DASD\_DEVICE table:

```
SELECT * FROM NETFIN.DASD_DEVICE
WHERE SYSTEM_ID = XXXXXX
ORDER BY PHYSICAL_UNIT
```

- Select all columns from the DASD\_DEVICE table:

```
DBM SELECT * FROM NETFIN.DASD_DEVICE
ORDER BY SYSTEM_ID
```

| SYSTEM_ID | DASD_SIZE | DASD_TYPE     | UNIT_PUN | UNIT_LUN | ANSI_LEVEL  | UNIT_STATUS            | VENDO |
|-----------|-----------|---------------|----------|----------|-------------|------------------------|-------|
| TRE05154  | 517.00    | Fixed Disk    | 6        | 0        | ANSI SCSI-2 | A                      | IBM   |
| TRE05154  | -         | CD ROM Device | 3        | 0        | ANSI SCSI-2 | U                      | IBM   |
| TRE05106  | 1222.59   | Fixed Disk    | -        | -        | -           | May not comply to AN A | -     |
| TRE05106  | -         | CD ROM Device | -        | -        | -           | May not comply to AN A | -     |
| TRE05187  | 1222.59   | Fixed Disk    | -        | -        | -           | May not comply to AN A | -     |
| TRE05187  | -         | CD ROM Device | -        | -        | -           | May not comply to AN A | -     |
| TRE05255  | 1000.00   | Fixed Disk    | 6        | 0        | ANSI SCSI-2 | A                      | IBM   |
| TRE05255  | -         | CD ROM Device | 3        | 0        | ANSI SCSI-2 | U                      | IBM   |

8 record(s) selected.

Figure 265. DASD\_DEVICE Table 1 of 2

| VENDOR_ID | PRODUCT_ID           | PRODUCT_REVISION |
|-----------|----------------------|------------------|
| IBM       | NXT-548SL            | IN J461          |
| IBM       | CORM00203            | BZ26             |
| -         | QUANTUM FIREBALL A63 | -                |
| -         | QUANTUM FIREBALL A63 | -                |
| IBM       | 0662S12              | IO 1010          |
| IBM       | CORM00201            | IE 0093          |

Figure 266. DASD\_DEVICE Table 2 of 2

- Delete a row from the DASD\_DEVICE table:

```
DELETE FROM NETFIN.DASD_DEVICE
WHERE SYSTEM_ID = 'XXXXXX'
```

#### 4.6.16 SYSTEM\_PROFILE Table

- Select all columns for a system from the SYSTEM\_PROFILE table:

```
DBM SELECT * FROM NETFIN.SYSTEM_PROFILE
WHERE SYSTEM_ID = 'TME05154'
```

| SYSTEM_ID | MODEL_NAME | MODEL_NUMBER | SYSTEM_SERIAL  | SYSTEM_BOARD |
|-----------|------------|--------------|----------------|--------------|
| TME05154  | Model 77   | 8577         | 957F0NG23TNBHW | B10263990T   |

1 record(s) selected.

Figure 267. SYSTEM\_PROFILE Table 1 of 4

| SYSTEM_BOARD_SER | PROCESSOR_CARD_SER | SYSTEM_PURCHASED | DISPLAY_MODEL | DISPLAY_SERIAL |
|------------------|--------------------|------------------|---------------|----------------|
| B10263990TP      | -                  | 10/30/1996       | 670           | 123-123        |

Figure 268. SYSTEM\_PROFILE Table 2 of 4

| DISPLAY_PURCHASED | PRINTER_MODEL | PRINTER_SERIAL | PRINTER_PURCHASED | MODEM_MODEL | MODEM_S |
|-------------------|---------------|----------------|-------------------|-------------|---------|
| 10/30/1996        | -             | -              | 10/30/1996        | -           | -       |

Figure 269. SYSTEM\_PROFILE Table 3 of 4

| MODEM_SERIAL | MODEM_PURCHASED |
|--------------|-----------------|
| -            | 10/30/1996      |

Figure 270. SYSTEM\_PROFILE Table 4 of 4

- Select all columns from the SYSTEM\_PROFILE table:

```
DBM SELECT * FROM NETFIN.SYSTEM_PROFILE
ORDER BY SYSTEM_ID
```

| SYSTEM_ID | MODEL_NAME | MODEL_NUMBER | SYSTEM_SERIAL  | SYSTEM_BOARD |
|-----------|------------|--------------|----------------|--------------|
| TME05154  | -          | -            | 957DNG23TNDKH  | B1N263990T   |
| TME05186  | -          | -            | 23ARZFK        | SAZRAZ7FSHR  |
| TME05187  | -          | -            | 23ARZVD        | SAZRAZ7YSDH  |
| TME05255  | -          | -            | 95950QT23W0001 | B12B541005   |

4 record(s) selected.

Figure 271. SYSTEM\_PROFILE Table 1 of 4

| SYSTEM_BOARD_SER | PROCESSOR_CARD_SER | SYSTEM_PURCHASED | DISPLAY_MODEL | DISPLAY_SERIAL |
|------------------|--------------------|------------------|---------------|----------------|
| B1N263990TP      | -                  | -                | -             | -              |
| SAZRAZ7FSHR      | -                  | 10/01/1996       | -             | -              |
| B12B541005       | 00000000           | 09/30/1996       | -             | -              |

Figure 272. SYSTEM\_PROFILE Table 2 of 4

| DISPLAY_PURCHASED | PRINTER_MODEL | PRINTER_SERIAL | PRINTER_PURCHASED | MODEM_MODEL | MODEM_S |
|-------------------|---------------|----------------|-------------------|-------------|---------|
| -                 | -             | -              | -                 | -           | -       |
| 10/01/1996        | -             | -              | 10/01/1996        | -           | -       |
| 09/30/1996        | -             | -              | 09/30/1996        | -           | -       |

Figure 273. SYSTEM\_PROFILE Table 3 of 4

| MODEM_SERIAL | MODEM_PURCHASED |
|--------------|-----------------|
| -            | -               |
| -            | 10/01/1996      |
| -            | 09/30/1996      |

Figure 274. SYSTEM\_PROFILE Table 4 of 4

- Delete all rows from the SYSTEM\_PROFILE table:

```
DELETE FROM NETFIN.SYSTEM_PROFILE
WHERE SYSTEM_ID = 'XXXXXX'
```

#### 4.6.17 SYSTEM\_USER Table

- Select all columns for a system from the SYSTEM\_USER table:

```
DBM SELECT * FROM NETFIN.SYSTEM_USER
WHERE SYSTEM_ID = 'TME05154'
```

| SYSTEM_ID | FIRST_NAME | MIDDLE_NAME | LAST_NAME | EMPLOYEE_ID |
|-----------|------------|-------------|-----------|-------------|
| TME05154  | Jose       | Luis        | Jacob     | 12945       |

1 record(s) selected.

Figure 275. SYSTEM\_USER Table 1 of 4

| TITLE    | DEPT_NAME | DEPT_NUMBER | DIVISION          | START_DATE |
|----------|-----------|-------------|-------------------|------------|
| Resident | ITSO      | 005         | System Management | 10/30/1996 |

Figure 276. SYSTEM\_USER Table 2 of 4

| SHIFT | SCHEDULED_START | SCHEDULED_END | HOME_PHONE | HOME_STREET1 | HOME_STREET2 |
|-------|-----------------|---------------|------------|--------------|--------------|
| 1st   | 18:16:11        | 18:16:11      | 123-4561   | Any street   | -            |

Figure 277. SYSTEM\_USER Table 3 of 4

| HOME_CITY | HOME_STATE | HOME_ZIP | HOME_COUNTRY | EMERGENCY_N |
|-----------|------------|----------|--------------|-------------|
| Angocity  | N. C.      | -        | USA          | -           |

Figure 278. SYSTEM\_USER Table 4 of 4

- Delete all rows from the SYSTEM\_USER table:

```
DELETE FROM NETFIN.SYSTEM_USER
WHERE SYSTEM_ID = 'XXXXXX'
```

#### 4.6.18 SYSTEM\_LOCATION Table

- Select all columns for a system from the SYSTEM\_LOCATION table:

```
DBM SELECT * FROM NETFIN.SYSTEM_LOCATION
WHERE SYSTEM_ID = 'TME05154'
```

| SYSTEM_ID | COMPANY_NAME | ADDRESS | CITY | STATE |
|-----------|--------------|---------|------|-------|
| TME05154  | TBM          | -       | Cary | N. C. |

1 record(s) selected.

Figure 279. SYSTEM\_LOCATION Table 1 of 3

| ZIP_CODE | COUNTRY | SITE_NAME | OFFICE_NUMBER | BUILDING |
|----------|---------|-----------|---------------|----------|
| -        | USA     | T1S0      | 678           | 678      |

Figure 280. SYSTEM\_LOCATION Table 2 of 3

| BUILDING | FLOOR |
|----------|-------|
| 678      | First |

Figure 281. SYSTEM\_LOCATION Table 3 of 3

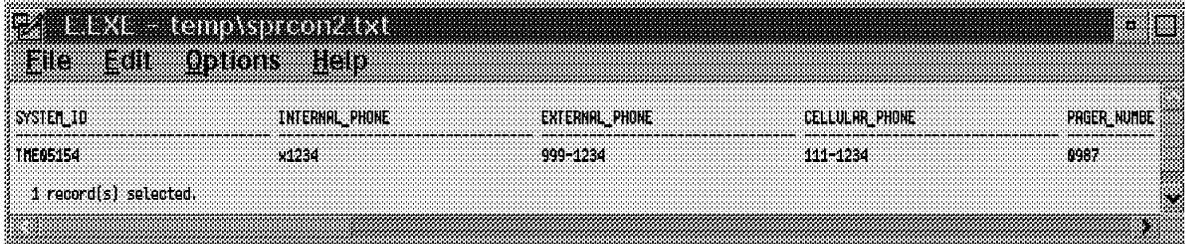
- Delete all rows from the SYSTEM\_LOCATION table:

```
DELETE FROM NETFIN.SYSTEM_LOCATION
WHERE SYSTEM_ID = 'XXXXXX'
```

## 4.6.19 SYSTEM\_CONTACTS Table

- Select all columns for a system from the SYSTEM\_CONTACTS table:

```
DBM SELECT * FROM NETFIN.SYSTEM_CONTACTS
WHERE SYSTEM_ID = 'TME05154'
```

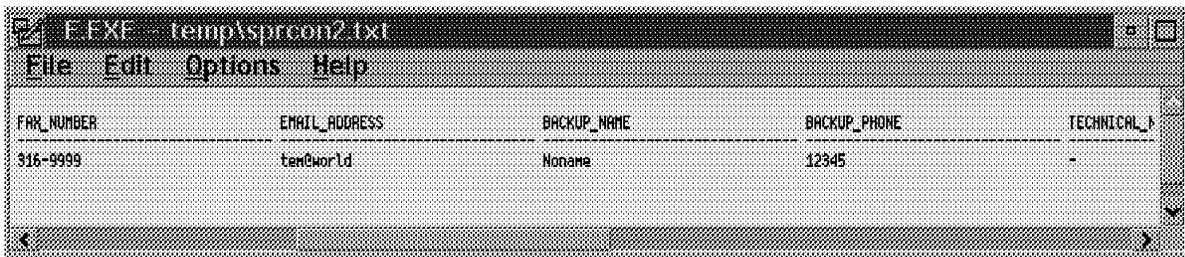


The screenshot shows a window titled 'E.FXE - temp\sprcon2.txt' with a menu bar (File, Edit, Options, Help). The table displayed has the following columns and data:

| SYSTEM_ID | INTERNAL_PHONE | EXTERNAL_PHONE | CELLULAR_PHONE | PAGER_NUMBER |
|-----------|----------------|----------------|----------------|--------------|
| TME05154  | w1234          | 999-1234       | 111-1234       | 0987         |

1 record(s) selected.

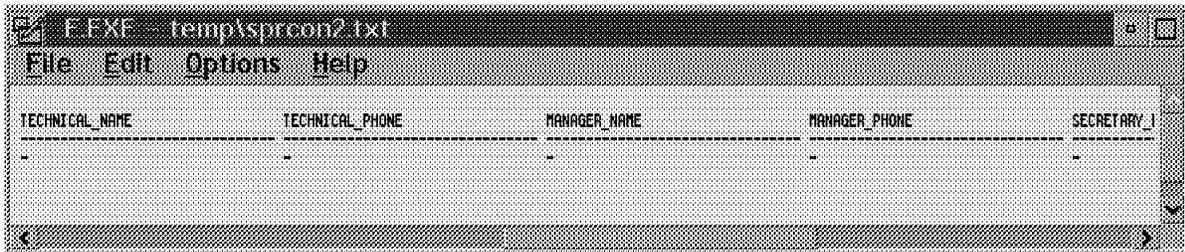
Figure 282. SYSTEM\_CONTACTS Table 1 of 4



The screenshot shows a window titled 'E.FXE - temp\sprcon2.txt' with a menu bar (File, Edit, Options, Help). The table displayed has the following columns and data:

| FAX_NUMBER | EMAIL_ADDRESS | BACKUP_NAME | BACKUP_PHONE | TECHNICAL_I |
|------------|---------------|-------------|--------------|-------------|
| 316-9999   | ten@world     | Noname      | 12345        | -           |

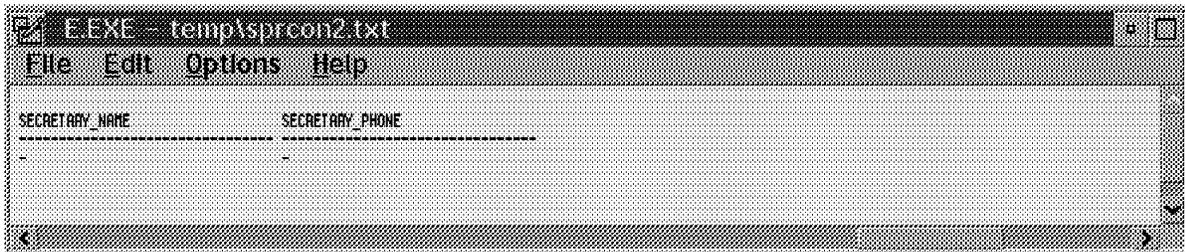
Figure 283. SYSTEM\_CONTACTS Table 2 of 4



The screenshot shows a window titled 'E.FXE - temp\sprcon2.txt' with a menu bar (File, Edit, Options, Help). The table displayed has the following columns and data:

| TECHNICAL_NAME | TECHNICAL_PHONE | MANAGER_NAME | MANAGER_PHONE | SECRETARY_I |
|----------------|-----------------|--------------|---------------|-------------|
| -              | -               | -            | -             | -           |

Figure 284. SYSTEM\_CONTACTS Table 3 of 4



The screenshot shows a window titled 'E.FXE - temp\sprcon2.txt' with a menu bar (File, Edit, Options, Help). The table displayed has the following columns and data:

| SECRETARY_NAME | SECRETARY_PHONE |
|----------------|-----------------|
| -              | -               |

Figure 285. SYSTEM\_CONTACTS Table 4 of 4

- Delete all rows from the SYSTEM\_CONTACTS table:

```
DELETE FROM NETFIN.SYSTEM_CONTACTS
WHERE SYSTEM_ID = 'XXXXXX'
```

## 4.6.20 SYSTEM\_MISC Table

- Select all columns for a system from the SYSTEM\_MISC table:

```
DBM SELECT * FROM NETFIN.SYSTEM_MISC
WHERE SYSTEM_ID = 'TME05154'
```

| SYSTEM_ID | ENTRY_SLOT | MISC_INFO              |
|-----------|------------|------------------------|
| TME05154  | 1          | This is an OS/2 system |
| TME05154  | 2          | It has Ware Connect    |

2 record(s) selected.

Figure 286. SYSTEM\_MISC Table

- Delete all rows from the SYSTEM\_MISC table:

```
DELETE FROM NETFIN.SYSTEM_MISC
WHERE SYSTEM_ID = 'XXXXXX'
```

## 4.6.21 ALERT\_LOG Table

- Select all columns for a system from the ALERT\_LOG table:

```
SELECT * FROM NETFIN.ALERT_LOG
WHERE SYSTEM_ID = XXXXXX
ORDER BY SYSTEM_ID
```

- Select all columns from the ALERT\_LOG table:

```
DBM SELECT * FROM NETFIN.ALERT_LOG
ORDER BY SYSTEM_ID
```

| SYSTEM_ID | ALERT_TEXT                                             |
|-----------|--------------------------------------------------------|
| TME05154  | The following file has been created: "C:\JTTEMP\JT.JJ" |

1 record(s) selected.

Figure 287. ALERT\_LOG Table 1 of 3

| ALERT_ID    | ALERT_CLASS | SEVERITY | APPLICATION_ID | APPL_ALERT_TYPE | RECEIVED_FROM |
|-------------|-------------|----------|----------------|-----------------|---------------|
| Application | Warning     | 3        | NonCritF       | 0002            | -             |

Figure 288. ALERT\_LOG Table 2 of 3

| SYSTEM_NAME | ALERT_DATETIME             |
|-------------|----------------------------|
| TME05154    | 1996-10-31-11:34:27.000000 |

Figure 289. ALERT\_LOG Table 3 of 3

- Delete all rows from the ALERT\_LOG table:

```
DELETE FROM NETFIN.ALERT_LOG
WHERE SYSTEM_ID = 'XXXXXX'
```

#### 4.6.22 MONITOR\_STATE Table

- Select all columns for a system from the MONITOR\_STATE table:

```
SELECT * FROM NETFIN.MONITOR_STATE
WHERE SYSTEM_ID = XXXXXX
ORDER BY SYSTEM_ID
```

- Delete all rows from the MONITOR\_STATE table:

```
DELETE FROM NETFIN.MONITOR_STATE
WHERE SYSTEM_ID = 'XXXXXX'
```

#### 4.6.23 MONITOR\_VALUE Table

- Select all columns for a system from the MONITOR\_VALUE table:

```
DBM SELECT * FROM NETFIN.MONITOR_VALUE
WHERE SYSTEM_ID = 'TME05154'
```



| MONITOR_DATA           | MONITOR_INTERVAL | MONITOR_DATETIME           |
|------------------------|------------------|----------------------------|
| +9.55094402064145E+000 | 0                | 1996-10-29-16.18.47.000000 |
| +2.25534179667500E+002 | 0                | 1996-10-29-16.18.47.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.18.47.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.18.42.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.18.37.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.18.32.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.18.27.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.18.22.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.18.17.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.18.12.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.18.07.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.18.02.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.17.57.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.17.52.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.17.47.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.17.42.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.17.37.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.17.32.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.17.27.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.17.22.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.17.17.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.17.12.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.17.07.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.17.02.000000 |
| +5.36132612500000E+001 | 5                | 1996-10-29-16.16.57.000000 |
| +5.36132612500000E+001 | 10               | 1996-10-29-16.16.52.000000 |
| +5.36132612500000E+001 | 10               | 1996-10-29-16.16.42.000000 |
| +5.36132612500000E+001 | 10               | 1996-10-29-16.16.32.000000 |
| +5.36132612500000E+001 | 10               | 1996-10-29-16.16.22.000000 |
| +5.36132612500000E+001 | 10               | 1996-10-29-16.16.12.000000 |
| +5.36132612500000E+001 | 10               | 1996-10-29-16.16.02.000000 |
| +5.36132612500000E+001 | 10               | 1996-10-29-16.15.52.000000 |
| +5.36132612500000E+001 | 10               | 1996-10-29-16.15.42.000000 |
| +5.36132612500000E+001 | 10               | 1996-10-29-16.15.32.000000 |
| +5.36132612500000E+001 | 10               | 1996-10-29-16.15.22.000000 |
| +5.36132612500000E+001 | 10               | 1996-10-29-16.15.12.000000 |
| +5.36132612500000E+001 | 10               | 1996-10-29-16.15.02.000000 |
| +5.36132612500000E+001 | 10               | 1996-10-29-16.14.52.000000 |
| +5.36132612500000E+001 | 10               | 1996-10-29-16.14.42.000000 |
| +5.36132612500000E+001 | 10               | 1996-10-29-16.14.32.000000 |
| +5.36132612500000E+001 | 10               | 1996-10-29-16.14.22.000000 |
| +5.36132612500000E+001 | 10               | 1996-10-29-16.14.12.000000 |
| +5.32392578125000E+001 | 10               | 1996-10-29-16.14.02.000000 |
| +5.36132612500000E+001 | 10               | 1996-10-29-16.13.52.000000 |
| +5.36132612500000E+001 | 10               | 1996-10-29-16.13.42.000000 |

Figure 291. MONITOR\_VALUE Table 2 of 2

- Delete all rows from the MONITOR\_VALUE table:

```
DELETE FROM NETFIN.MONITOR_VALUE
WHERE SYSTEM_ID = 'XXXXXX'
```

#### 4.6.24 SOFTWARE\_INVENTORY Table

- Select all columns for a OS/2 system from the SOFTWARE\_INVENTORY table:

```
DBM SELECT * FROM NETFIN.SOFTWARE_INVENTORY
WHERE SYSTEM_ID = 'TME05255'
```

| SYSTEM_ID | MANAGING_ID | GROUP_NAME | PROGRAM_TITLE                               |
|-----------|-------------|------------|---------------------------------------------|
| THE05255  | THE05154    | JJGROUP1   | IBM Communications Manager/2                |
| THE05255  | THE05154    | JJGROUP1   | IBM Antivirus/2                             |
| THE05255  | THE05154    | JJGROUP1   | IBM OS/2 LAN Adapter and Protocol Support   |
| THE05255  | THE05154    | JJGROUP1   | OS/2 Lan Server                             |
| THE05255  | THE05154    | JJGROUP1   | IBM OS/2 LAN Requester                      |
| THE05255  | THE05154    | JJGROUP1   | IBM OS/2 LAN Server                         |
| THE05255  | THE05154    | JJGROUP1   | E Editor                                    |
| THE05255  | THE05154    | JJGROUP1   | IBM OS/2 User Profile Management            |
| THE05255  | THE05154    | JJGROUP1   | IBM OS/2 User Profile Management - Extended |
| THE05255  | THE05154    | JJGROUP1   | THE 10 Netfinity Manager for OS/2           |
| THE05255  | THE05154    | JJGROUP1   | THE 10 Netfinity Services for OS/2          |
| THE05255  | THE05154    | JJGROUP1   | Unpacker                                    |
| THE05255  | THE05154    | JJGROUP1   | Unpacker                                    |
| THE05255  | THE05154    | JJGROUP1   | Backup                                      |
| THE05255  | THE05154    | JJGROUP1   | OS/2 All Versions                           |
| THE05255  | THE05154    | JJGROUP1   | IBM OS/2 First Failure Support Technology/2 |
| THE05255  | THE05154    | JJGROUP1   | Unpacker                                    |
| THE05255  | THE05154    | JJGROUP1   | Unpacker                                    |
| THE05255  | THE05154    | JJGROUP1   | PC Support                                  |
| THE05255  | THE05154    | JJGROUP1   | OS/2 All Versions                           |
| THE05255  | THE05154    | JJGROUP1   | IBM OS/2 32-bit Graphics Engine             |
| THE05255  | THE05154    | JJGROUP1   | IBM OS/2                                    |
| THE05255  | THE05154    | JJGROUP1   | Microsoft QBASIC                            |
| THE05255  | THE05154    | JJGROUP1   | DOS Editor                                  |
| THE05255  | THE05154    | JJGROUP1   | Phone Dialer                                |
| THE05255  | THE05154    | JJGROUP1   | ATH Control Panel                           |
| THE05255  | THE05154    | JJGROUP1   | Calculator                                  |
| THE05255  | THE05154    | JJGROUP1   | SideKick Calculator                         |
| THE05255  | THE05154    | JJGROUP1   | Calendar                                    |
| THE05255  | THE05154    | JJGROUP1   | Cardfile                                    |
| THE05255  | THE05154    | JJGROUP1   | Character Map                               |
| THE05255  | THE05154    | JJGROUP1   | Clipboard Viewer                            |
| THE05255  | THE05154    | JJGROUP1   | Microsoft Clock                             |
| THE05255  | THE05154    | JJGROUP1   | Media Player                                |
| THE05255  | THE05154    | JJGROUP1   | Microsoft Diagnostics                       |
| THE05255  | THE05154    | JJGROUP1   | Notepad                                     |
| THE05255  | THE05154    | JJGROUP1   | SideKick Notepad                            |
| THE05255  | THE05154    | JJGROUP1   | Paint Brush                                 |
| THE05255  | THE05154    | JJGROUP1   | PC Paintbrush                               |
| THE05255  | THE05154    | JJGROUP1   | Microsoft Windows 95 Registry Editor        |
| THE05255  | THE05154    | JJGROUP1   | Microsoft Write                             |

41 record(s) selected.

Figure 292. SOFTWARE\_INVENTORY Table OS/2 1 of 2

| VERSION | RELEASE_LEVEL | VENDOR_NAME            | LOCATION           |
|---------|---------------|------------------------|--------------------|
| 4.00    | WA00000_      | IBM Corp.              | C:\NCL16           |
| -       | -             | IBM                    | C:\IBMPAY          |
| 5.00    | WA00200_      | IBM Corp.              | C:\IBMPOM          |
| -       | -             | IBM Corporation        | C:\IBMLAN          |
| 5.00    | IP00200_      | IBM Corp.              | C:\IBMLAN          |
| 5.00    | IP00200_      | IBM Corp.              | C:\IBMLAN          |
| -       | -             | IBM                    | C:\jtools          |
| 5.00    | WA00200_      | IBM Corp.              | C:\MUGLIB          |
| 5.00    | IP00200_      | IBM Corp.              | C:\MUGLIB          |
| 4.00.1  | NS00401_      | IBM Corp.              | C:\NETFIN          |
| 4.00.1  | NS00401_      | IBM Corp.              | C:\NETFIN          |
| -       | -             | V Communications, Inc. | C:\NETFIN          |
| -       | -             | V Communications       | C:\NETFIN          |
| -       | -             | Microsoft              | C:\NDS2            |
| -       | -             | IBM Corporation        | C:\NDS2            |
| 1.20    | WA00505_      | IBM Corp.              | C:\NDS2            |
| -       | -             | V Communications, Inc. | C:\NDS2            |
| -       | -             | V Communications       | C:\NDS2            |
| -       | -             | IBM Corporation        | C:\PCOMOS2         |
| -       | -             | IBM Corporation        | C:\NDS2\INSTALL    |
| 3.01    | WA03005_      | IBM Corp.              | C:\NDS2\INSTALL    |
| 3.01    | WA03005_      | IBM Corp.              | C:\NDS2\INSTALL    |
| -       | -             | Microsoft              | C:\NDS2\NDS        |
| -       | -             | -                      | C:\NDS2\NDS        |
| -       | -             | Microsoft              | C:\topip\bin       |
| -       | -             | Adobe                  | C:\NDS2\NDS\WINDS2 |
| -       | -             | Microsoft              | C:\NDS2\NDS\WINDS2 |
| -       | -             | Borland International  | C:\NDS2\NDS\WINDS2 |
| -       | -             | Microsoft              | C:\NDS2\NDS\WINDS2 |
| -       | -             | Microsoft              | C:\NDS2\NDS\WINDS2 |
| -       | -             | Microsoft              | C:\NDS2\NDS\WINDS2 |
| -       | -             | Microsoft              | C:\NDS2\NDS\WINDS2 |
| -       | -             | Microsoft              | C:\NDS2\NDS\WINDS2 |
| -       | -             | Microsoft Corp.        | C:\NDS2\NDS\WINDS2 |
| -       | -             | Microsoft              | C:\NDS2\NDS\WINDS2 |
| -       | -             | Borland International  | C:\NDS2\NDS\WINDS2 |
| -       | -             | Microsoft              | C:\NDS2\NDS\WINDS2 |
| -       | -             | ZSoft                  | C:\NDS2\NDS\WINDS2 |
| -       | -             | Microsoft              | C:\NDS2\NDS\WINDS2 |
| -       | -             | Microsoft              | C:\NDS2\NDS\WINDS2 |

Figure 293. SOFTWARE\_INVENTORY Table OS/2 2 of 2

- Select all columns for a NT system from the SOFTWARE\_INVENTORY table:

```
DBM SELECT * FROM NETFIN.SOFTWARE_INVENTORY
WHERE SYSTEM_ID = 'TME05186'
```

| SYSTEM_ID | MANAGING_ID | GROUP_NAME | PROGRAM_TITLE                            |
|-----------|-------------|------------|------------------------------------------|
| THE05186  | THE05154    | JJGROUP1   | Microsoft MS-DOS                         |
| THE05186  | THE05154    | JJGROUP1   | HiTask for Windows                       |
| THE05186  | THE05154    | JJGROUP1   | Lotus Notes                              |
| THE05186  | THE05154    | JJGROUP1   | Notepad                                  |
| THE05186  | THE05154    | JJGROUP1   | Microsoft Windows 95 Registry Editor     |
| THE05186  | THE05154    | JJGROUP1   | Microsoft Write                          |
| THE05186  | THE05154    | JJGROUP1   | THE 10 NetFinity Services for Windows NT |
| THE05186  | THE05154    | JJGROUP1   | THE 10 NetFinity Manager for Windows NT  |
| THE05186  | THE05154    | JJGROUP1   | Backup                                   |
| THE05186  | THE05154    | JJGROUP1   | Calculator                               |
| THE05186  | THE05154    | JJGROUP1   | SideKick Calculator                      |
| THE05186  | THE05154    | JJGROUP1   | Cardfile                                 |
| THE05186  | THE05154    | JJGROUP1   | CD Player                                |
| THE05186  | THE05154    | JJGROUP1   | Character Map                            |
| THE05186  | THE05154    | JJGROUP1   | Clipboard Viewer                         |
| THE05186  | THE05154    | JJGROUP1   | Microsoft Clock                          |
| THE05186  | THE05154    | JJGROUP1   | Microsoft Windows NT Event Viewer        |
| THE05186  | THE05154    | JJGROUP1   | Freecell                                 |
| THE05186  | THE05154    | JJGROUP1   | Notepad                                  |
| THE05186  | THE05154    | JJGROUP1   | SideKick Notepad                         |
| THE05186  | THE05154    | JJGROUP1   | Microsoft Windows NT Backup              |
| THE05186  | THE05154    | JJGROUP1   | Microsoft Windows NT                     |
| THE05186  | THE05154    | JJGROUP1   | Microsoft Windows NT Object Packager     |
| THE05186  | THE05154    | JJGROUP1   | PC Paintbrush                            |
| THE05186  | THE05154    | JJGROUP1   | Microsoft Windows NT Performance Monitor |
| THE05186  | THE05154    | JJGROUP1   | Microsoft QBASIC                         |
| THE05186  | THE05154    | JJGROUP1   | DOS Editor                               |
| THE05186  | THE05154    | JJGROUP1   | Microsoft NT Registry Editor             |
| THE05186  | THE05154    | JJGROUP1   | Sound Recorder                           |
| THE05186  | THE05154    | JJGROUP1   | Volume Control                           |
| THE05186  | THE05154    | JJGROUP1   | Solitaire                                |
| THE05186  | THE05154    | JJGROUP1   | Microsoft Windows NT Disk Administrator  |
| THE05186  | THE05154    | JJGROUP1   | Minesweeper                              |
| THE05186  | THE05154    | JJGROUP1   | Microsoft Windows NT Diagnostics         |
| THE05186  | THE05154    | JJGROUP1   | Microsoft Write                          |

35 record(s) selected.

Figure 294. SOFTWARE\_INVENTORY Table NT 1 of 2



- KEYBOARD Table
- MODEL Table
- MOUSE Table
- PRINTER Table
- PROCESSOR Table
- SYSLEVEL Table
- MEMORY Table
- DASD\_ADAPTER Table
- DASD\_DEVICE Table

The database is set up using referential integrity to ensure data integrity. If a row is deleted in the SYSTEM\_PROFILE table on a DB2 database management system, the same will happen to all tables in the system profile group. However, if a row is deleted in any other table, only that row is deleted.

## 4.7.2 SYSTEM\_PROFILE Table

Following is the format of the SYSTEM\_PROFILE table that comes with NetFinity V5.0

- SYSTEM\_USER Table
- SYSTEM\_LOCATION Table
- SYSTEM\_CONTACTS Table
- SYSTEM\_MISC Table

## Appendix A. New Command Line Functions Specifications for NetFinity V5.0

This appendix shows the format of the new NetFinity V5.0 commands. In addition, it shows the syntax variables and which services they effect.

### A.1 Variables

In this appendix the variables used for the syntax diagrams are defined.

| <i>Table 1 (Page 1 of 2). Variables Used for the Syntax Diagrams</i> |                                            |                                                           |      |     |      |      |      |      |      |      |   |
|----------------------------------------------------------------------|--------------------------------------------|-----------------------------------------------------------|------|-----|------|------|------|------|------|------|---|
| Variable                                                             | Type                                       | Description                                               | RSYS | SEC | PROF | ALRT | SMON | CRTF | PROC | SYSI |   |
| grpname                                                              | alphanumeric in quotes                     | Name of the selected group                                | X    |     |      |      |      |      |      |      | X |
| sysname                                                              | alphanumeric in quotes                     | Name of the selected system                               | X    |     |      |      |      |      |      |      | X |
| grouptag                                                             | hex(8)                                     | Tag to select a group                                     | X    |     |      |      |      |      |      |      |   |
| systag                                                               | hex(8)                                     | Tag to select a system                                    | X    |     |      |      |      |      |      |      |   |
| proftag                                                              | hex(8)                                     | Tag to select a profile                                   |      |     |      | X    |      |      |      |      |   |
| logtag                                                               | hex(8)                                     | Tag to select a log file                                  |      |     |      | X    |      |      |      |      |   |
| MonID                                                                | hex(8)                                     | Monitor ID                                                |      |     |      |      | X    |      |      |      |   |
| proctag                                                              | hex(8)                                     | Tag to select a process                                   |      |     |      |      |      |      |      |      | X |
| protocol                                                             | NetBIOS, IPX, TCPIP, SERIPC, SNA_APPC, ... | Protocol to be used for a system                          | X    |     |      |      |      |      |      |      |   |
| sev                                                                  | 0 ... 7                                    | Severity of the alert                                     | X    |     |      | X    | X    | X    | X    |      |   |
| Action                                                               | Any NetFinity CL procedure                 | Start any NetFinity V5.0 CL function on the remote system | X    |     |      |      |      |      |      |      |   |
| Address                                                              | Protocol address                           | Address for a system, according to the used protocol      | X    | X   |      |      |      |      |      |      |   |
| ping_int                                                             | Number in seconds                          | Interval for pinging remote systems                       | X    |     |      |      |      |      |      |      |   |
| keyword                                                              | alphanumeric                               | Keyword to group systems                                  | X    |     |      |      |      |      |      |      |   |
| os_type                                                              | OS2, WINDOWS_NT, WINDOWS, NOVELL, ...      | Operating system type                                     | X    |     |      |      |      |      |      |      |   |
| int_min                                                              | number                                     | Interval in minutes                                       | X    |     |      |      |      |      | X    |      |   |
| int_sec                                                              | number                                     | Interval in seconds                                       |      |     |      |      | X    |      |      |      |   |
| uid                                                                  | alphanumeric in quotes                     | User ID                                                   |      | X   |      |      |      |      |      |      |   |

Table 1 (Page 2 of 2). Variables Used for the Syntax Diagrams

| Variable       | Type                    | Description                                   | RSYS | SEC | PROF | ALRT | SMON | CRTF | PROC | SYSI |
|----------------|-------------------------|-----------------------------------------------|------|-----|------|------|------|------|------|------|
| pwd            | alphanumeric in quotes  | Password                                      |      | X   |      |      |      |      |      |      |
| svrc           | alphanumeric            | NetFinity V5.0 Service name                   |      | X   |      |      |      |      |      |      |
| attrib         | alphanumeric            | Attribute to add in system profile            |      |     | X    |      |      |      |      |      |
| value          | depends on attrib       | Value for a given attribute in system profile |      |     | X    |      |      |      |      |      |
| path           | valid path              | Fully qualified path to a file                |      |     | X    |      |      |      | X    |      |
| filename       | valid filename          | File name without path                        |      |     |      |      |      |      | X    | X    |
| handler_id     | alphanumeric in quotes  | Handler ID for the different alert actions    |      |     |      | X    |      |      |      |      |
| actionname     | alphanumeric in quotes  | Name for an alert action                      |      |     |      | X    |      |      |      |      |
| parm_val       | alphanumeric in quotes  | Value for the parameter of an alert action    |      |     |      | X    |      |      |      |      |
| profname       | alphanumeric in quotes  | Name of a alert profile                       |      |     |      | X    |      |      |      |      |
| alerttype      | alphanumeric(6)         | Six letter abbreviation of the alert type     |      |     |      | X    |      |      |      |      |
| app_id         | alphanumeric in quotes  | ID of the alert sending application           |      |     |      | X    |      |      |      |      |
| appl_alerttype | hex(4)                  | Application alert type                        |      |     |      | X    |      |      |      |      |
| sender         | protocol : : sysname    | Sender ID network name                        |      |     |      | X    |      |      |      |      |
| handname       | alphanumeric in quotes  | Name of the handler                           |      |     |      | X    |      |      |      |      |
| monname        | alphanumeric in quotes  | Name of the monitor                           |      |     |      | X    |      |      |      |      |
| errval         | numeric                 | Threshold for a monitor                       |      |     |      |      | X    |      |      |      |
| thname         | alphanumeric in quotes  | Name for a threshold definition               |      |     |      |      | X    |      |      |      |
| command string | alphanumeric in quotes  | Command line procedure to be executed         |      |     |      |      |      |      | X    |      |
| procname       | alphanumeric in quotes  | Name for a process                            |      |     |      |      |      |      | X    |      |
| dbi_name       | DB2OS2CI, DB2WINFI, ... | Name of the database interface                |      |     |      |      |      |      |      | X    |
| db_name        | alphanumeric in quotes  | Name of the database                          |      |     |      |      |      |      |      | X    |

## A.2 NetFinity V5.0 Specifications

All NetFinity CLI tools conform to the following specifications:

1. Tools are text-mode executables which direct their outputs to stdout and stderr, and accept all inputs from command-line parameters and (optionally) a textual response file. On Win95 and WinNT, this means that the tools are Win32 Console apps. On OS/2, this means that the tools are VIO apps. Win16 apps are not supported.
2. CLI tools return errorlevels conforming to the following definitions, as appropriate:
  - rc=0 (NFCMDLINE\_SUCCESS) Operation requested was completed successfully
  - rc=1 (NFCMDLINE\_SYSTEM\_UNAVAILABLE) Target system is unavailable or unreachable
  - rc=2 (NFCMDLINE\_SERVICE\_DOES\_NOT\_EXIST) Needed service(s) on target system is not available or defined
  - rc=3 (NFCMDLINE\_NOT\_AUTHORIZED) Authorization for needed service(s) on target system is not available
  - rc=4 (NFCMDLINE\_TIMEOUT) Communication with target system failed due to time-out
  - rc=5 (NFCMDLINE\_COMMUNICATION\_ERROR) Communication with target system failed (non-timeout)
  - rc=6 (NFCMDLINE\_SERVICE\_BUSY) Needed service(s) on target system are available, but currently not available for use
  - rc=7 (NFCMDLINE\_SVC\_NODE\_CREATE\_FAILED) Attempt to create ServiceNode failed (probably missing DLLs)
  - rc=8 (NFCMDLINE\_SVC\_START\_FAILED) Request to start required service(s) on target system failed
  - rc=9 (NFCMDLINE\_SVC\_STOP\_FAILED) Request to stop required service(s) on target system failed
  - rc=10 (NFCMDLINE\_BAD\_COMMAND\_LINE) Command-line syntax error or invalid input
  - rc=11 (NFCMDLINE\_FUNCTION\_NOT\_SUPPORTED) Requested operation is not supported on the service(s) on the target system
  - rc=12 (NFCMDLINE\_FILE\_NOT\_FOUND) Requested operation failed due to not finding needed local file
  - rc=13 (NFCMDLINE\_FILE\_OUTPUT\_ERROR) Requested operation failed due I/O error to
3. Data output for CLI tools is intended for programmatic processing by other tools. To support this, informational outputs from the CLI tools are as follows:
  - a. All information outputs (as opposed to error messages, help messages, logo messages, copyright messages, and other human-oriented outputs) are directed to 'stdout'. All other outputs are directed to 'stderr'.
  - b. Information outputs consist of keywords or keyword/value pairs, i.e. `MANAGER`, `ATTRIBNAME=VALUE`, `TOKEN="string"`
  - c. Grouped outputs are formatted by listing keyword and keyword/values pairs, separated by commas, spaces, or new lines or consecutive lines, with a blank-line marking the end of each record. Each group of data is enclosed in '{' and '}' brackets. Groups of data can be nested, for example

```
{ TAG=1234, NAME='xxx', MANAGER, MAC=4000123677 }
{ TAG=1236, NAME='yyy', MAC=4000123678 }
```

or

```
{ TAG=1234
 NAME='xxx'
 MANAGER
 MAC=4000123677 }
{ TAG=1236
 NAME='yyy'
 MAC=4000123678 }
```

or

```
{ TAG=5555, GROUPNAME='aaa'
 SYSTEMS={ { TAG=1234, NAME='xxx', MANAGER, MAC=4000123677 }
 { TAG=1236, NAME='yyy', MAC=4000123678 } }
```
  - d. Values in keyword/value pairs are formatted as follows:
    - keyword=0xNNNN for hexadecimal values (capital letters for A-F)
    - keyword=NNNN for decimal values (a leading '-' or '+' is allowed)
    - keyword=AAAAAA for keyword-type values (i.e. ON, OFF, ENABLED)
    - keyword="string" for string-like values (use two double-quotes for double-quote characters within the string. i.e. "")
    - keyword=NNN.NNN for floating-point decimal values
    - keyword=dd/mm/yyyy for dates (ISO ordering, not local)
    - keyword=hh:mm:ss for times (always 24 hour)
    - keyword=dd/mm/yyyy:hh:mm:ss for full local timestamp
    - keyword=dd/mm/yyyy:hh:mm:ss+off for full universal timestamp (off = minutes from UT ("timezone"), use - instead of + if negative delta)
    - keyword={ other\_keywords\_or\_values } - for collections of values or attributesOnly "string" fields contain non-ASCII characters (as well as translated or country-local values).
  - e. Keywords start with an ASCII letter ('A'-'Z', 'a'-'z', '\_'), followed by ASCII alphanumeric characters ('0'-'9', 'A'-'Z', 'a'-'z', '\_').
  - f. Commas, spaces, new-lines (CR, LF), and tab characters, when not enclosed in

"string" fields, are treated as interchangeable separators.

g. "String" fields are expressed in the local codepage of the system running the CLI tool. The caller of the tool is expected to provide any required codepage mapping of this data.

4. Command-line parameters are structured as follows:

- a. Each command-line parameter must have a leading '/' or '-' character, followed by a case-insensitive ASCII keyword. If a value is to be provided with the keyword, the keyword will be followed by a colon and the value (which may be enclosed in double-quotes, as needed).  
For example:  
/ADDSYS, /DELSYS:name, -REMSYS:"name with spaces"
- b. Textual values on the command line must be provided in the local codepage of the command-line tool. The caller of the tools is expected to provide any required codepage mapping of these inputs.
- c. All CLI tools support the following command-line values, with the following default behaviors if the parameter is not provided:
  1. /N:netpath - Provides NetFinity-style network path to target system. For example:  
/N:NETBIOS::PRIMM,  
or  
/N:TCPIP::primm.raleigh.ibm.com::NETBIOS::NetFin  
If not provided, local system is target system.
  2. /S:"sysname" - Provides optional system name for target system. For example:  
/S:"Mike's system"  
No optional system name, if not provided.
  3. /? - Print command-line help for tool (if any)
  4. Standard parameters are not order sensitive, and tool-specific parameters are not order-specific.
  5. The presence of any unsupported or inappropriate parameters results in no action, with a return code of NFCMDLINE\_BAD\_COMMAND\_LINE.
  6. Response file support may optionally be provided by a tool. The response file must be provided with a leading '@'. The contents of the response file are processed as if they were substituted for the response file option on the command line (with new-line and tab characters replaced with spaces).
  7. Command-line help, logos, copyright statements, error messages, and other human-oriented outputs are directed to 'stderr', not 'stdout' (to prevent any difficulties in parsing the informational output directed to 'stdout', particularly due to NLS issues and the like).

o NFRSYSCL (CLI tool for Remote System Manager)

o NFSECCL (CLI tool for Security Manager)

o NFPROFCL (CLI tool for System Profile)

o NFALRTCL (CLI tool for Alert Manager)

o NFMONCL (CLI tool for System Monitor)

o NFCRTFCL (CLI tool for Critical File Monitor)

o NFPROCCCL (CLI tool for Process Manager)

o NFSYSICL (CLI tool for System Information Tool)

o NFREPLCL (CLI tool for Service Configuration Manager)

NFRSYSCL /? - Command line help

<grpssel> = one of the following parameters

/ALL - Select all groups

/GRP:"groupname" - Select group(s) with the given name

/GRPTAG:NNNNNNNN - Select group with the given group tag (in hex)

<sysssel> = one of the following parameters

/ALL - Select all systems

/GRP:"groupname" - Select systems which are in the group(s) with the given name

/GRPTAG:NNNNNNNN - Select systems which are in the group(s) with the given group tag (in hex)

/SYS:"sysname" - Select system(s) with the given system name

/SYSTAG:NNNNNNNN - Select system with the given system tag (in hex)

NFRSYSCL /GETGRP <grpssel> - List selected system groups attributes

Output:

For each group:

```
{ GRPTAG=0xNNNNNNNN, GRPNAME="group name", COMBO=xxx,
 KWD={ kwd, ... }, OS_MASK={os, ...}, AUTODISC=minutes,
 PROTO_MASK={proto,...}, DEFONLN=online_note,
 DEFOFFLN=offline_note, DEFPING=ping_int, others }
```

where GRPTAG value is hexadecimal identifier for group,  
GRPNAME value is string name for group,  
COMBO value is keyword combo code (ALL, ANY, ONE),  
KWD value is bracketed list of string keyword values,  
OS\_MASK value is bracketed list of OS types to exclude from discovery. OS2, WINDOWS, NETWARE, WINDOWS\_NT, AIX, VINES, DOS, UNIX, OS\_400, WINDOWS\_95  
PROTO\_MASK value is bracketed list of protocol types to exclude from discovery. NETBIOS, TCPIP, IPX,

SERIPC, SNA  
AUTODISC value is minutes between each autodiscovery, or NONE if not enabled. Attribute not returned on managers which don't support feature.  
DEFONLN value is default online notify severity (0-7, DISABLED, or NONE)  
DEFOFFLN value is default offline notify severity (0-7, DISABLED, or NONE)  
DEFPING value is default ping interval in seconds (15+, or NONE)

NFRSYSCL /GETSYS <sysssel> - List system attributes of selected systems

Output:

For each system:  
{ SYSTAG=0xNNNNNNNN, SYSNAME="system name", PROTO=protocol, ADDR=address, ONLINE=status, ONLN=online\_notify, OFFLN=offline\_notify, PING=ping\_interval, GRPLIST={ grp\_tags, ... }, ERRORCOND={ "error\_cond\_str", ... }, OS=os\_type, OSVER=x.xx, MANAGER, SERVER, MAC=mac\_addr, SHUTDOWN, POWERDOWN, WAKEONLAN, WEBMGR, others }

where SYSTAG value is hexadecimal identifier for system,  
SYSNAME value is string name for system,  
PROTO value is protocol used to communicate with system (NETBIOS, TCPIP, IPX, SERIPC, SNA, others)  
ADDR value is textual address of system on PROTO protocol  
ONLINE value is TRUE if system is online, FALSE if offline  
ONLN value is severity of on-line notification alert (0-7) or DISABLED if not enabled  
OFFLN value is severity of off-line notification alert (0-7) or DISABLED if not enabled  
PING value is seconds between system pings (15+)  
GRPLIST value is bracketed list of hex tag values for groups which system is member of.  
ERRORCODE value is bracketed list of "strings" for each error condition currently defined for system  
OS value is type and version of operating system of system: UNKNOWN, OS2, WINDOWS, NETWARE, WINDOWS\_NT, AIX, VINES, DOS, UNIX, OS\_400, WINDOWS\_95  
MANAGER keyword is present if system is NetFinity manager  
SERVER keyword is present if system is a server of some sort  
MAC value is a hex number for the system's MAC address, or UNKNOWN if not known  
SHUTDOWN keyword is present if system supports remote shutdown  
POWERDOWN keyword is present if system supports remote powerdown  
WAKEONLAN keyword is present if system supports remote wake-up on LAN  
WEBMGR keyword is present if NetFinity Web manager is active on the system  
UNIQUE\_ID value, if present, indicates a 16-digit hexadecimal value provided by the client as a unique system ID (the same system appearing under different protocols will have the same UNIQUE\_ID value)

NFRSYSCL /RUNSYS <sysssel> /ACTION:rest of line - Run action on all selected systems

Output:

For each system:  
{ SYSTAG=0xNNNNNNNN, SYSNAME="system name", PROTO=protocol, ADDR=address, ONLINE=status, OUTPUT={ action output }, RC=ret\_code, others }

where SYSTAG value is hexadecimal identifier for system,  
SYSNAME value is string name for system,  
PROTO value is protocol used to communicate with system (NETBIOS, TCPIP, IPX, SERIPC, SNA, others)  
ADDR value is textual address of system on PROTO protocol  
ONLINE value is TRUE if system is online, FALSE if offline  
OUTPUT value is bracketed output from running tool selected by ACTION against given system. See the spec for the executed tool for format of output  
RC value is errorlevel returned by running tool specified by ACTION against given system

Note: This operation only supports running other NetFinity Manager executables which conform to this specification. It is not for running programs on the targetted systems. See NFPROCCL for remote task execution.

```

NFRSYSCL /DELSYS <sysssel> - Delete all selected systems
Output:
 SYSTAG=0xNNNNNNNN
 where SYSTAG value is hexadecimal tag of deleted system(s)
NFRSYSCL /ADDSYS:"systemname" /PROTO:protocol /ADDR:address
 /ONLN:online_sev /OFFLN:offline_sev /PING:ping_int
 /ADDGRP:"group name" /ADDGRPTAG:group_tag - Create new system
 with given attribs
Input:
 where ADDSYS value is name string for system (required),
 PROTO value is protocol to communicate with system
 (required) Values include NETBIOS, IPX, TCPIP,
 SERIPC, SNA, and others
 ADDR value is protocol address for system (required)
 ONLN value is on-line notify alert severity (0-7) or
 DISABLED (option) Defaults to DISABLED
 OFFLN value is on-line notify alert severity (0-7) or
 DISABLED (option) Defaults to DISABLED
 PING value is ping interval for system in seconds
 (optional) Defaults to 600 seconds.
 ADDGRP value is name of group(s) which system will be
 added to (one ADDGRP or ADDGRPTAG required, others
 optional). More than one ADDGRP or ADDGRPTAG parameter
 is allowed.
 ADDGRPTAG value is hex tag of group which system will be
 added to (one ADDGRP or ADDGRPTAG required, others
 optional). More than one ADDGRP or ADDGRPTAG parameter
 is allowed.
Output:
 SYSTAG=0xNNNNNNNN
 where SYSTAG value is hexadecimal tag assigned to new system
NFRSYSCL /EDITSYS <sysssel> /PROTO:protocol /ADDR:address
 /ONLN:online_sev /OFFLN:offline_sev /PING:ping_int /NEWNAME:"name"
 /ADDGRP:"group name" /ADDGRPTAG:group_tag /DELGRP:"group name"
 /DELGRPTAG:group_tag - Modify system attributes
Input:
 where PROTO value is new protocol for system (optional)
 Values include NETBIOS, IPX, TCPIP, SERIPC, SNA,
 and others
 ADDR value is new protocol address for system (optional)
 NEWNAME value is new system name for system (optional)
 ONLN value is new on-line notify alert severity (0-7)
 or DISABLED (optional)
 OFFLN value is on-line notify alert severity (0-7)
 or DISABLED (optional)
 PING value is ping interval for system in seconds
 (optional)
 ADDGRP value is name of group(s) which system will be
 added to (optional)
 ADDGRPTAG value is hex tag of group which system will
 be added to (optional)
 DELGRP value is name of group(s) which system will be
 removed from (optional)
 DELGRPTAG value is hex tag of group which system will
 be removed from (optional)
Output:
 SYSTAG=0xNNNNNNNN
 where SYSTAG value is hexadecimal tag of each modified system
NFRSYSCL /DELGROUP <grpsel> - Delete all selected groups
Output:
 GRPTAG=0xNNNNNNNN
 where GRPTAG value is hexadecimal of deleted group(s)
NFRSYSCL /ADDGROUP:"groupname" /COMBO:combo_code /ADKWD:kwd /ADDOS:os_type
 /ADDPROTO:protocol /AUTODISC:interval /DEFONLN:online_note
 /DEFOFFLN:offline_note /DEFPING:ping_int - Create new group
 with given attribs
Input:
 where ADDGROUP value is name string for group (required)
 COMBO value is keyword combination code (ALL, ANY, ONE)
 (optional, default is ALL)
 ADDKWD value is keyword string to add for group (optional)
 ADDOS value is OS type to add to discovery exclusion list
 (optional)
 ADDPROTO value is protocol type to add to discovery
 exclusion list (optional)

```

AUTODISC value is decimal minutes between autodiscovery in group (optional, default is NONE)  
 DEFONLN value is default online notify severity (0-7, DISABLED, NONE) (optional, default is NONE)  
 DEFOFFLN value is default offline notify severity (0-7, DISABLED, NONE) (optional, default is NONE)  
 DEFPING value is default ping interval, in seconds (15+, NONE) (optional, default is NONE)

Output:  
 GRPTAG=0xNNNNNNNN  
 where GRPTAG value is hexadecimal assigned to new group

NFRSYSCL /EDITGRP <grp sel> /COMBO:combo\_code /NEWNAME:newname  
 /ADDKWD:kwd /DELKWD:kwd /AUTODISC:interval /DEFONLN:online\_note  
 /DEFOFFLN:offline\_note /DEFPING:ping\_int /ADDOS:os\_type  
 /DELOS:os\_type /ADDPROTO:protocol /DELPROTO:protocol - Modify all selected group(s)

Input:  
 where COMBO value is new keyword combination code (ALL, ANY, ONE) (optional)  
 ADDKWD value is additional keyword string for group (optional, only allows 8 keywords total)  
 DELKWD value is keyword string to remove from group (optional)  
 ADDOS value is OS type to add to discovery exclusion list (optional)  
 DELOS value is OS type to remove from discovery exclusion list (optional)  
 ADDPROTO value is protocol type to add to discovery exclusion list (optional)  
 DELPROTO value is protocol type to remove from discovery exclusion list (optional)  
 AUTODISC value is new decimal minutes between autodiscovery in group. (optional)  
 DEFONLN value is new default online notify severity (0-7, DISABLED, NONE) (optional)  
 DEFOFFLN value is new default offline notify severity (0-7, DISABLED, NONE) (optional)  
 DEFPING value is new default ping interval, in seconds (15+, NONE) (optional)

Output:  
 GRPTAG=0xNNNNNNNN  
 where GRPTAG value is hexadecimal tag of modified group

NFRSYSCL /BOOTSYS <sys sel> - Reboot all selected systems  
 NFRSYSCL /SHUTSYS <sys sel> - Shutdown all selected systems  
 NFRSYSCL /PWSYS <sys sel> - Powerdown all selected systems  
 NFRSYSCL /WAKESYS <sys sel> - Wake-on-LAN all selected systems

Output: for each targetted system  
 { SYSTAG=0xNNNNNNNN, RC=ret\_code }  
 where SYSTAG value is hexadecimal tag of system,  
 RC value is standard errorlevel for action on given system

NFRSYSCL /RESETERRSYS <sys sel> - Reset error conditions on all selected systems

Output: for each targetted system  
 SYSTAG=0xNNNNNNNN  
 where SYSTAG value is hexadecimal tag of system

NFRSYSCL /DODISC <grp sel> - Start discovery in all selected groups  
 NFRSYSCL supports the /N tag on all commands for selecting the target remote system manager service to interact with (i.e. "passthru" management)

NFRSYSCL /DOPING <sys sel> - Initiate presence check on all selected systems

Output: for each targetted system  
 SYSTAG=0xNNNNNNNN  
 where SYSTAG value is hexadecimal tag of system

NFRSYSCL /GETSYSKWD <sys sel> - List system's configured keywords

Output: for each targetted system  
 { SYSTAG=0xNNNNNNNN, RC=retcode, KWD={ "kwd1", "kwd2", ... } }  
 where SYSTAG values is hexadecimal tag of system,  
 RC value is return code for operation on specific system,  
 KWD value is list of keyword strings (if successful)

NFRSYSCL /SETSYSKWD <sys sel> /ADDKWD:keywd /DELKWD:keywd - Add or delete keywords from selected system

Input:  
 where ADDKWD value is additional keyword string for group (optional, only allows 8 keywords total)  
 DELKWD value is keyword string to remove from group

```

 (optional)
Output: for each targetted system
 { SYSTAG=0xNNNNNNNN, RC=retcode }
 where SYSTAG values is hexadecimal tag of system,
 RC value is return code of action result on system
Tool-specific return codes:
rc=200 - Group name not defined
rc=201 - System name not defined
rc=202 - Group tag not defined
rc=203 - System tag not defined
rc=204 - Bad OS type
rc=205 - Bad protocol type
rc=206 - Bad ping interval
rc=207 - Bad notification severity
rc=208 - Bad autodiscovery interval
NFSECCL /? - Command line help
NFSECCL /LISTIN /ALL - List attribs for all inbound user IDs
NFSECCL /LISTIN /USERID:"userid" - List attribs for given user ID
Output:
 { USERID="userid", PWD="passwd", SECMGR, SVC={"svcname",...} }
 where USERID value is user ID string,
 PWD value is password string ('*' for public),
 SECMGR keyword is present if security manager access is
 defined for given user ID,
 SVC value is bracketed list of strings for service IDs
 (base servicenode names) or ALL for all services

NFSECCL /DELIN /ALL - Delete all inbound user IDs
NFSECCL /DELIN /USERID:"userid" - Delete inbound user ID
NFSECCL /ADDIN:"userid" /PWD:"password" /ADDSECMGR /ADDSVC:"svc"
 /IGNORESVC - Add new inbound user ID
Input:
 where PWD value is password (required)
 ADDSECMGR adds security manager access (optional),
 default is no SECMGR set
 ADDSVC adds access to a service (optional, multiple OK),
 either service ID string or ALL for all services
 IGNORESVC ignores unknown services in ADDSVC
 parameters (optional, default is error if unknown)
NFSECCL /EDITIN:"userid" /PWD:"password" /ADDSECMGR /DELSECMGR
 /ADDSVC:"svc" /DELSVC:"svc" /IGNORESVC - Modify inbound user ID
Input:
 where PWD value is new password (optional)
 ADDSECMGR adds security manager access (optional)
 DELSECMGR removes security manager access (optional)
 ADDSVC adds access to a service (optional, multiple OK),
 either service ID string or ALL for all services
 DELSVC removes access to a service (optional, multiple OK),
 either service ID string or ALL for all services
 IGNORESVC ignores unknown services in ADDSVC and DELSVC
 parameters (optional, default is error if unknown)
NFSECCL /LISTOUT /ALL - List attribs for all outbound host IDs
NFSECCL /LISTOUT /HOST:"host" - List attribs for given host
Output:
 { HOST="host", USERID="userid", PWD="passwd" }
 where HOST value is host ID string,
 USERID value is user ID string,
 PWD value is password string,
NFSECCL /DELOUT /ALL - Delete all outbound host IDs
NFSECCL /DELOUT /HOST:"host" - Delete outbound host ID
NFSECCL /ADDOUT:"host" /SETUID:"userid" /PWD:"password" - Add new
 outbound host ID
Input: where SETUID value is user ID (required)
 PWD value is password (required)
NFSECCL /EDITOUT /ALL /SETUID:"userid" /PWD:"password" - Modify
 outbound host ID
NFSECCL /EDITOUT /HOST:"host" /SETUID:"userid" /PWD:"password" - Modify
 outbound host ID
Input: where SETUID value is new user ID string (optional),
 PWD value is new password (optional)
NFSECCL supports the /N tag on all commands for selecting the target
 security manager service to interact with.
Tool-specific return codes:
rc=200 - Inbound user ID not defined
rc=201 - Outbound node not defined

```

```

rc=202 - Bad password
rc=203 - Bad user ID
rc=204 - Bad service
NFPPROFCL /? - Command line help
NFPPROFCL /GETALL - Get all attributes and their values
Output: for each attribute
 attrib="value"
 where attrib is name of attribute
 value is string, date, or time
NFPPROFCL /GET:attrib - Get given attribute and its value
Output:
 attrib="value"
 where attrib is name of attribute
 value is string, date, or time
NFPPROFCL /SET:attrib /SETVAL:value - Set attribute to value
Input:
 where attrib is name of attribute
 value is string with maximum 32 characters (rest will be
 truncated), date (dd-mm-yyyy), or time (hh:mm:ss)
NFPPROFCL /SETMANY /INPUT:filename - Set attributes to values in input file
Input file format: one line for each attribute
 attrib="value"
 where attrib is name of attribute
 value is string with maximum 32 characters (rest will be
 truncated), date (dd-mm-yyyy), or time (hh:mm:ss)

For example:
 firstname="Vicki"
 startdate="31/12/1995"
 starttime="14:30:00"
NFPPROFCL supports the /N tag on all commands for selecting the target
system profile service to interact with.

Tool-specific return codes:
rc=200 - Attribute missing
rc=201 - Attribute invalid
rc=202 - Value missing
rc=203 - Value invalid
rc=204 - Input file missing
rc=205 - Input file format error
rc=206 - Date format error
rc=207 - Date invalid
rc=208 - Date out-of-range
rc=209 - Time format error
rc=210 - Time invalid
rc=211 - Time out-of-range
NFALRTCL /? - Command line help
<actsel> = either /ALL, /TAG, or /HASHAND (with other /HAS* parms optional)
 where ALL selects all configured actions
 TAG value is the hex identifier of a specific action
 HASHAND value is handler ID of actions to select,
 HASPARM# value is value of parm # (0-3) of actions to
 select (optional),
 HASPROFTAG value is hex profile tag possessed by
 actions to select (optional, multiple allowed, with
 only actions which contain all provided profile
 tags being selected)
 HASPROF value is name of profile used by
 actions to select (optional, multiple allowed, with
 only actions which contain all provided profile
 names being selected)
 HASTYPE value is standard alert type matched by
 actions to select (optional, multiple allowed, with
 only actions which match all provided
 types being selected (actions which match on "any"
 type are only selected with /HAsType:ANY))
 HASAPP value is application IDs matched by actions to
 select (optional, multiple allowed, with
 only actions which match all provided IDs
 being selected (actions which match on "any"
 type are only selected with /HASAPP:ANY))
 HASATYPE value is hex application
 alert types matched by actions to select (optional,
 multiple allowed, with only actions which match
 all provided types being selected (actions
 which match on "any" application alert
 type are only selected with /HASATYPE:ANY))

```

```

 HASSEV value is alert severity matched by actions
 to select (optional, multiple allowed, with only
 actions which match all provided severities
 being selected (actions which match on "any"
 severity are only selected with /HASSEV:ANY))
 HASSENDER value is sender path matched by actions
 to select (optional, multiple allowed, with only
 actions which match all provided sender paths
 being selected (actions which match on "any"
 sender are only selected with /HASSENDER:ANY))
<profsel> = one of the following
 /ALL - Select all profiles
 /TAG:NNNNNNNN - Select profile with given tag
 /NAME:"profname" - Select profile(s) with given name

<logsel> = one of the following
 /ALL - Select all alerts in log
 /TAG:NNNNNNNN - Select alert with given tag

<handsel> = one of the following
 /ALL - Select all handlers
 /NAME:"handname" - Select handler with given ID string

NFALRTCL /LISTLOG <logsel> - List all selected alerts in alert log
Output: for each selected alert in log
 { TAG=0xNNNNNNNN, TEXT="alert text", TIME=alert_time,
 DATE=alert_date, SEV=severity, TYPE=alrt_type,
 APP="app_id", ATYPE=0xNNNN, SYSNAME="system name",
 SENDER="sender netpath", P1="parml", others }
 where TAG value is identifier for log entry,
 TEXT value is string for alert text,
 TIME value is time attribute of alert (hh:mm:ss),
 DATE value is date attribute of alert (dd-mm-yyyy),
 SEV value is severity of alert (0-7),
 TYPE value is standard alert type: format is two
 3-character sequences (as used in GENALERT): xxxyyy
 where xxx is alert type:
 UNK - Unknown
 SYS - System
 DSK - Disk or DASD
 NET - Network
 OS_ - Operating System
 APP - Application
 DEV - Device
 SEC - Security
 and yyy is alert class:
 UNK - Unknown
 FLT - Fault or Failure
 ERR - Error
 WRN - Warning
 INF - Information
 APP value is string for application ID of alert,
 ATYPE value is hex number of application alert type,
 SYSNAME value is string for system name,
 SENDER value is string for alert sender's path,
 P# value is string for alert parameter # (#=1-9)

NFALRTCL /DELLOG <logsel> - Delete all selected alerts in alert log

NFALRTCL /LISTHAND <handsel> - List all selected alert handlers
Output: for each selected alert handler
 { HANDLER="handler_id", NAME="handler name",
 PARMLAB0="parm label", PARMLAB1="parm label", others }
 where HANDLER value is string identifier for alert handler:
 "WEBACT/0" - Send alert as TCP/IP Web mail
 "SETERRORCONDITION" - Set error condition for
 sending system
 "CLEARERRORCONDITION" - Clear error condition for
 sending system
 "DMIACT/0" - Send DMI Event through DMI Service Layer
 "ALERTLOG" - Add alert to log file
 "ALERTFORWARD" - Forward alert through network
 "ALERTPOPUP" - Notify user with pop-up
 "RUNCOMMAND" - Execute command
 "RUNMINCOMMAND" - Execute minimized command

```

"PAGERACT/0" - Activate numeric pager  
 "PAGERACT/1" - Send to alphanumeric pager  
 "TCPIPACT/0" - Send SNMP alert  
 "TCPIPACT/1" - Send TCP/IP mail  
 "TCPIPACT/2" - Send mapped SNMP alert  
 others: name is uppercase DLL name, followed by '/',  
 followed by entry point number (AlertHandler#).  
 NAME value is string for alert label  
 PARMLAB# value is string label for alert parameter (0-3)

NFALRTCL /LISTACT <actsel> - List all selected alert actions

Output: for each selected alert action  
 { TAG=0xNNNNNNNN, NAME="name", HANDLER="handler\_id",  
 PARM0="parm value", PARM1="parm value",  
 PROFTAG={ 0xNNNNNNNN, ... }, PROF={"profname", ... },  
 TYPES={ alert\_type, ... }, APPS={ "app\_id", ... },  
 ATYPES={ atype, ... }, SEVS={ sev, ... },  
 SENDERS={ "sender", ... }, others }  
 where TAG value is unique identifier for action,  
 NAME value is string label (on profile actions),  
 HANDLER value is string identifier for alert handler  
 PARM# value is string value for parameter # (0-3)  
 PROFTAG value is a bracketed list of hex tag IDs for  
 profiles used to match with action (if used)  
 PROF value is a bracketed list of strings for  
 profile names used to match with action (if used)  
 TYPES value is a bracketed list of standard alert types,  
 with an empty list indicating ANY. Only present if  
 profiles not used for action  
 APPS value is a bracketed list of application ID strings,  
 with an empty list indicating ANY. Only present if  
 profiles not used for action  
 ATYPES value is a bracketed list of hex numbers for  
 application alert types, with an empty list  
 indicating ANY. Only present if profiles not used  
 for action  
 SEVS value is a bracketed list of alert severities,  
 with an empty list indicating ANY. Only present if  
 profiles not used for action  
 SENDERS value is a bracketed list of sender path strings,  
 with an empty list indicating ANY. Only present if  
 profiles not used for action

NFALRTCL /DELACT <actsel> - Delete all selected alert actions

Output: for each selected action  
 TAG=0xNNNNNNNN  
 where TAG is unique tag for deleted action

NFALRTCL /ADDPACT:"handler\_id" /NEWNAME:"name" /PARMO:"parm val"  
 /PARM1:"parm val" /ADDPROFTAG:NNNNNNNN /ADDPROF:"profname" -  
 Add alert action based on profile(s)

NFALRTCL /ADDACT:"handler\_id" /PARMO:"parm val" /PARM1:"parm val"  
 /ADDtype:xxxxyy /ADDAPP:"app\_id" /ADDAtype:NNNN /ADDSEV:sev  
 /ADDSENDER:"sender" - Add alert action based on matching rules

Input:  
 where ADDACT value is handler ID for action,  
 ADDPROFACT value is handler ID for action,  
 PARM# value is value for parameter # of action (0-3)  
 NEWNAME value is string label for profile-based action  
 ADDPROFTAG value is hex tag for profile to add to  
 list of profiles for action (can use more than once)  
 ADDPROF value is string name of profile to add to  
 list of profiles for action (can use more than once)  
 ADDTYPE value is standard alert type to add to  
 list of matching alert types (can use more than once)  
 ADDAPP value is application ID string to add to  
 list of matching app IDs (can use more than once)  
 ADDATYPE value is hex application alert type to add  
 to matching list (can use more than once)  
 ADDSEV value is alert severity (0-7) to add to  
 matching list (can use more than once)  
 ADDSENDER value is sender path string to add to  
 matching list (can use more than once)

Output:  
 TAG=0xNNNNNNNN

where TAG is unique tag assigned to new action

```
NFALRTCL /EDITPACT <actsel> /NEWHAND:"handler_id"
/PARMO:"parm val" /PARM1:"parm val" /ADDPROFTAG:NNNNNNNN
/DELPROFTAG:NNNNNNNN /ADDPROF:"profname" /DEFPROF:"profname"
- Edit alert action (profile) with given tag
NFALRTCL /EDITACT <actsel> /NEWHAND:"handler_id"
/PARMO:"parm val" /PARM1:"parm val" /ADDtype:xxxxyy
/ADDAPP:"app_id" /ADDAType:NNNN /ADDSEV:sev /ADDSENDER:"sender"
/DELtype:xxxxyy /DELAPP:"app_id" /DELAType:NNNN
/DELSEV:sev /DELSENDER:"sender" - Edit alert action with given tag
```

Input:

where NEWHAND value is new handler ID for action,  
PARM# value is new value for parameter # of action (0-3)  
ADDPROFTAG value is hex tag for profile to add to  
list of profiles for action (can use more than once)  
DELPROFTAG value is hex tag for profile to remove from  
list of profiles for action (can use more than once)  
ADDPROF value is string name of profile to add to  
list of profiles for action (can use more than once)  
DELPROF value is string name of profile to remove from  
list of profiles for action (can use more than once)  
ADDTYPE value is standard alert type to add to  
list of matching alert types (can use more than once)  
DELTYPE value is standard alert type to remove from  
list of matching alert types (can use more than once)  
ADDAPP value is application ID string to add to  
list of matching app IDs (can use more than once)  
DELAPP value is application ID string to remove from  
list of matching app IDs (can use more than once)  
ADDATYPE value is hex application alert type to add  
to matching list (can use more than once)  
DELATYPE value is hex application alert type to remove  
from matching list (can use more than once)  
ADDSEV value is alert severity (0-7) to add to  
matching list (can use more than once)  
DELSEV value is alert severity (0-7) to remove from  
matching list (can use more than once)  
ADDSENDER value is sender path string to add to  
matching list (can use more than once)  
DELSENDER value is sender path string to remove from  
matching list (can use more than once)

Output: for each selected action

TAG=0xNNNNNNNN

where TAG is unique tag for edited action

```
NFALRTCL /LISTPROF <profsel> - List all selected alert profiles
```

Output: for each selected alert profile

```
{ TAG=0xNNNNNNNN, NAME="profile name", PROFTAG:{ 0xNNNNNNNN, ... }
 TYPES={ alert_type, ... }, APPS={ "app_id", ... },
 ATYPES={ atype, ... }, SEVS={ sev, ... },
 SENDERS={ "sender", ... }, others }
```

where TAG value is unique identifier for profile,  
NAME value is string identifier for alert profile  
PROFTAG value is a bracketed list of hex tag IDs for  
profiles which define the profile (composite) (if used)  
TYPES value is a bracketed list of standard alert types,  
with an empty list indicating ANY. Only present if  
profiles not used for action  
APPS value is a bracketed list of application ID strings,  
with an empty list indicating ANY. Only present if  
profiles not used for action  
ATYPES value is a bracketed list of hex numbers for  
application alert types, with an empty list  
indicating ANY. Only present if profiles not used  
for action  
SEVS value is a bracketed list of alert severities,  
with an empty list indicating ANY. Only present if  
profiles not used for action  
SENDERS value is a bracketed list of sender path strings,  
with an empty list indicating ANY. Only present if  
profiles not used for action

```
NFALRTCL /DELPROFILE <profsel> - Delete all selected alert profiles
```

Output: for each selected profile

```

TAG=0xNNNNNNNN
 where TAG is unique tag for deleted action

NFALRTCL /ADDCPROF:"profname" /ADDCPROFTAG:NNNNNNNN /ADDCPROF:"profname" -
 Add profile based on profile(s) (composite profile)
NFALRTCL /ADDCPROFILE:"profname" /ADDCtype:xxxxyy /ADDCAPP:"app_id"
 /ADDCtype:NNNN /ADDCSEV:sev /ADDCSENDER:"sender" - Add
 profile based on matching rules
Input:
 where ADDPROFILE value is name for profile,
 ADDCPROF value is name for profile,
 ADDCPROFTAG value is hex tag for profile to add to
 list of profiles for action (can use more than once)
 ADDCPROF value is string name of profile to add to
 list of profiles for action (can use more than once)
 ADDCTYPE value is standard alert type to add to
 list of matching alert types (can use more than once)
 ADDAPP value is application ID string to add to
 list of matching app IDs (can use more than once)
 ADDATYPE value is hex application alert type to add
 to matching list (can use more than once)
 ADDSEV value is alert severity (0-7) to add to
 matching list (can use more than once)
 ADDSENDER value is sender path string to add to
 matching list (can use more than once)
Output:
TAG=0xNNNNNNNN
 where TAG is unique tag assigned to new action

NFALRTCL /EDITCPROF <profsel> /NEWNAME:"new profile"
 /ADDCPROFTAG:NNNNNNNN /DELPROFTAG:NNNNNNNN /ADDCPROF:"profname"
 /DELPROF:"profname" - Edit selected profiles (composite profile)
NFALRTCL /EDITPROFILE <profsel> /NEWNAME:"new profile"
 /ADDCtype:xxxxyy /ADDCAPP:"app_id" /ADDCtype:NNNN /ADDCSEV:sev
 /ADDCSENDER:"sender" /DELtype:xxxxyy /DELAPP:"app_id"
 /DELtype:NNNN /DELSEV:sev /DELSENDER:"sender" - Edit
 selected profiles
Input:
 where NEWNAME value is new profile name,
 ADDCPROFTAG value is hex tag for profile to add to
 list of profiles for action (can use more than once)
 DELPROFTAG value is hex tag for profile to remove from
 list of profiles for action (can use more than once)
 ADDCPROF value is string name of profile to add to
 list of profiles for action (can use more than once)
 DELPROF value is string name of profile to remove from
 list of profiles for action (can use more than once)
 ADDCTYPE value is standard alert type to add to
 list of matching alert types (can use more than once)
 DELTYPE value is standard alert type to remove from
 list of matching alert types (can use more than once)
 ADDAPP value is application ID string to add to
 list of matching app IDs (can use more than once)
 DELAPP value is application ID string to remove from
 list of matching app IDs (can use more than once)
 ADDATYPE value is hex application alert type to add
 to matching list (can use more than once)
 DELATYPE value is hex application alert type to remove
 from matching list (can use more than once)
 ADDSEV value is alert severity (0-7) to add to
 matching list (can use more than once)
 DELSEV value is alert severity (0-7) to remove from
 matching list (can use more than once)
 ADDSENDER value is sender path string to add to
 matching list (can use more than once)
 DELSENDER value is sender path string to remove from
 matching list (can use more than once)
Output: for each selected action
TAG=0xNNNNNNNN
 where TAG is unique tag for edited action

NFALRTCL supports the /N tag on all commands for selecting the target
 alert manager service to interact with.

```

Tool-specific return codes:

```

rc=200 - Alert log tag not valid
rc=201 - Alert action tag not valid
rc=202 - Alert handler not valid
rc=203 - Alert action match not found
rc=204 - Invalid alert type
rc=205 - Invalid alert severity
rc=206 - Invalid application alert type
rc=207 - Invalid application ID
rc=208 - Profile in use by existing actions
rc=209 - Profiles not supported
rc=210 - Profile tag/name not valid

```

NFALRTCL /? - Command line help

```

<actsel> = either /ALL, /TAG, or /HASHAND (with other /HAS* parms optional)
 where ALL selects all configured actions
 TAG value is the hex identifier of a specific action
 HASHAND value is handler ID of actions to select,
 HASPARM# value is value of parm # (0-3) of actions to
 select (optional),
 HASPROFTAG value is hex profile tag possessed by
 actions to select (optional, multiple allowed, with
 only actions which contain all provided profile
 tags being selected)
 HASPROF value is name of profile used by
 actions to select (optional, multiple allowed, with
 only actions which contain all provided profile
 names being selected)
 HASTYPE value is standard alert type matched by
 actions to select (optional, multiple allowed, with
 only actions which match all provided
 types being selected (actions which match on "any"
 type are only selected with /HASTYPE:ANY))
 HASAPP value is application IDs matched by actions to
 select (optional, multiple allowed, with
 only actions which match all provided IDs
 being selected (actions which match on "any"
 type are only selected with /HASAPP:ANY))
 HASATYPE value is hex application
 alert types matched by actions to select (optional,
 multiple allowed, with only actions which match
 all provided types being selected (actions
 which match on "any" application alert
 type are only selected with /HASATYPE:ANY))
 HASSEV value is alert severity matched by actions
 to select (optional, multiple allowed, with only
 actions which match all provided severities
 being selected (actions which match on "any"
 severity are only selected with /HASSEV:ANY))
 HASSENDER value is sender path matched by actions
 to select (optional, multiple allowed, with only
 actions which match all provided sender paths
 being selected (actions which match on "any"
 sender are only selected with /HASSENDER:ANY))

<profsel> = one of the following
 /ALL - Select all profiles
 /TAG:NNNNNNNN - Select profile with given tag
 /NAME:"profname" - Select profile(s) with given name

<logsel> = one of the following
 /ALL - Select all alerts in log
 /TAG:NNNNNNNN - Select alert with given tag

<handsel> = one of the following
 /ALL - Select all handlers
 /NAME:"handname" - Select handler with given ID string

NFALRTCL /LISTLOG <logsel> - List all selected alerts in alert log
Output: for each selected alert in log
 { TAG=0xNNNNNNNN, TEXT="alert text", TIME=alert_time,

```

```

DATE=alert_date, SEV=severity, TYPE=alrt_type,
APP="app_id", ATYPE=0xNNNN, SYSNAME="system name",
SENDER="sender netpath", P1="parml", others }
where TAG value is identifier for log entry,
TEXT value is string for alert text,
TIME value is time attribute of alert (hh:mm:ss),
DATE value is date attribute of alert (dd-mm-yyyy),
SEV value is severity of alert (0-7),
TYPE value is standard alert type: format is two
3-character sequences (as used in GENALERT): xxxyyy
where xxx is alert type:
 UNK - Unknown
 SYS - System
 DSK - Disk or DASD
 NET - Network
 OS_ - Operating System
 APP - Application
 DEV - Device
 SEC - Security
and yyy is alert class:
 UNK - Unknown
 FLT - Fault or Failure
 ERR - Error
 WRN - Warning
 INF - Information
APP value is string for application ID of alert,
ATYPE value is hex number of application alert type,
SYSNAME value is string for system name,
SENDER value is string for alert sender's path,
P# value is string for alert parameter # (#=1-9)

NFALRTCL /DELLOG <logsel> - Delete all selected alerts in alert log

NFALRTCL /LISTHAND <handsel> - List all selected alert handlers
Output: for each selected alert handler
{ HANDLER="handler_id", NAME="handler name",
 PARMLAB0="parm label", PARMLAB1="parm label", others }
where HANDLER value is string identifier for alert handler:
 "WEBACT/0" - Send alert as TCP/IP Web mail
 "SETERRORCONDITION" - Set error condition for
 sending system
 "CLEARERRORCONDITION" - Clear error condition for
 sending system
 "DMIACT/0" - Send DMI Event through DMI Service Layer
 "ALERTLOG" - Add alert to log file
 "ALERTFORWARD" - Forward alert through network
 "ALERTPOPUP" - Notify user with pop-up
 "RUNCOMMAND" - Execute command
 "RUNMINCOMMAND" - Execute minimized command
 "PAGERACT/0" - Activate numeric pager
 "PAGERACT/1" - Send to alphanumeric pager
 "TCPIPACT/0" - Send SNMP alert
 "TCPIPACT/1" - Send TCP/IP mail
 "TCPIPACT/2" - Send mapped SNMP alert
 others: name is uppercase DLL name, followed by '/',
 followed by entry point number (AlertHandler#).
NAME value is string for alert label
PARMLAB# value is string label for alert parameter (0-3)

NFALRTCL /LISTACT <actsel> - List all selected alert actions
Output: for each selected alert action
{ TAG=0xNNNNNNNN, NAME="name", HANDLER="handler_id",
 PARM0="parm value", PARM1="parm value",
 PROFTAG={ 0xNNNNNNNN, ... }, PROF={"profname", ... },
 TYPES={ alert_type, ... }, APPS={ "app_id", ... },
 ATYPES={ atype, ... }, SEVS={ sev, ... },
 SENDERS={ "sender", ... }, others }
where TAG value is unique identifier for action,
NAME value is string label (on profile actions),
HANDLER value is string identifier for alert handler
PARM# value is string value for parameter # (0-3)
PROFTAG value is a bracketed list of hex tag IDs for
profiles used to match with action (if used)
PROF value is a bracketed list of strings for
profile names used to match with action (if used)

```

TYPES value is a bracketed list of standard alert types, with an empty list indicating ANY. Only present if profiles not used for action  
 APPS value is a bracketed list of application ID strings, with an empty list indicating ANY. Only present if profiles not used for action  
 ATYPES value is a bracketed list of hex numbers for application alert types, with an empty list indicating ANY. Only present if profiles not used for action  
 SEVS value is a bracketed list of alert severities, with an empty list indicating ANY. Only present if profiles not used for action  
 SENDERS value is a bracketed list of sender path strings, with an empty list indicating ANY. Only present if profiles not used for action

**NFALRTCL /DELECT <actsel>** - Delete all selected alert actions  
 Output: for each selected action  
     TAG=0xNNNNNNNN  
     where TAG is unique tag for deleted action

**NFALRTCL /ADDPACT:"handler\_id" /NEWNAME:"name" /PARMO:"parm val" /PARM1:"parm val" /ADDPROFTAG:NNNNNNNN /ADDPREF:"profname" -**  
     Add alert action based on profile(s)

**NFALRTCL /ADDACT:"handler\_id" /PARMO:"parm val" /PARM1:"parm val" /ADDDtype:xxxxyy /ADDAPP:"app\_id" /ADDAtype:NNNN /ADDSEV:sev /ADDSENDER:"sender" -** Add alert action based on matching rules  
 Input:  
     where ADDACT value is handler ID for action,  
     ADDPFACT value is handler ID for action,  
     PARM# value is value for parameter # of action (0-3)  
     NEWNAME value is string label for profile-based action  
     ADDPROFTAG value is hex tag for profile to add to list of profiles for action (can use more than once)  
     ADDPREF value is string name of profile to add to list of profiles for action (can use more than once)  
     ADDDTYPE value is standard alert type to add to list of matching alert types (can use more than once)  
     ADDAPP value is application ID string to add to list of matching app IDs (can use more than once)  
     ADDATYPE value is hex application alert type to add to matching list (can use more than once)  
     ADDSEV value is alert severity (0-7) to add to matching list (can use more than once)  
     ADDSENDER value is sender path string to add to matching list (can use more than once)

Output:  
     TAG=0xNNNNNNNN  
     where TAG is unique tag assigned to new action

**NFALRTCL /EDITPACT <actsel> /NEWHAND:"handler\_id" /PARMO:"parm val" /PARM1:"parm val" /ADDPROFTAG:NNNNNNNN /DELPROFTAG:NNNNNNNN /ADDPREF:"profname" /DEFPREF:"profname" -**  
     Edit alert action (profile) with given tag

**NFALRTCL /EDITACT <actsel> /NEWHAND:"handler\_id" /PARMO:"parm val" /PARM1:"parm val" /ADDDtype:xxxxyy /ADDAPP:"app\_id" /ADDAtype:NNNN /ADDSEV:sev /ADDSENDER:"sender" /DELtype:xxxxyy /DELAPP:"app\_id" /DELAtype:NNNN /DELSEV:sev /DELSENDER:"sender" -** Edit alert action with given tag  
 Input:  
     where NEWHAND value is new handler ID for action,  
     PARM# value is new value for parameter # of action (0-3)  
     ADDPROFTAG value is hex tag for profile to add to list of profiles for action (can use more than once)  
     DELPROFTAG value is hex tag for profile to remove from list of profiles for action (can use more than once)  
     ADDPREF value is string name of profile to add to list of profiles for action (can use more than once)  
     DELPREF value is string name of profile to remove from list of profiles for action (can use more than once)  
     ADDDTYPE value is standard alert type to add to list of matching alert types (can use more than once)  
     DELTYPE value is standard alert type to remove from list of matching alert types (can use more than once)

ADDAPP value is application ID string to add to  
 list of matching app IDs (can use more than once)  
 DELAPP value is application ID string to remove from  
 list of matching app IDs (can use more than once)  
 ADDATYPE value is hex application alert type to add  
 to matching list (can use more than once)  
 DELATYPE value is hex application alert type to remove  
 from matching list (can use more than once)  
 ADDSEV value is alert severity (0-7) to add to  
 matching list (can use more than once)  
 DELSEV value is alert severity (0-7) to remove from  
 matching list (can use more than once)  
 ADDSENDER value is sender path string to add to  
 matching list (can use more than once)  
 DELSENDER value is sender path string to remove from  
 matching list (can use more than once)

Output: for each selected action

TAG=0xNNNNNNNN

where TAG is unique tag for edited action

NFALRTCL /LISTPROF <profsel> - List all selected alert profiles

Output: for each selected alert profile

```

{ TAG=0xNNNNNNNN, NAME="profile name", PROFTAG:{ 0xNNNNNNNN, ... }
 TYPES={ alert_type, ... }, APPS={ "app_id", ... },
 ATYPES={ atype, ... }, SEVS={ sev, ... },
 SENDERS={ "sender", ... }, others }

```

where TAG value is unique identifier for profile,

NAME value is string identifier for alert profile

PROFTAG value is a bracketed list of hex tag IDs for  
profiles which define the profile (composite) (if used)

TYPES value is a bracketed list of standard alert types,  
with an empty list indicating ANY. Only present if  
profiles not used for action

APPS value is a bracketed list of application ID strings,  
with an empty list indicating ANY. Only present if  
profiles not used for action

ATYPES value is a bracketed list of hex numbers for  
application alert types, with an empty list  
indicating ANY. Only present if profiles not used  
for action

SEVS value is a bracketed list of alert severities,  
with an empty list indicating ANY. Only present if  
profiles not used for action

SENDERS value is a bracketed list of sender path strings,  
with an empty list indicating ANY. Only present if  
profiles not used for action

NFALRTCL /DELPROFILE <profsel> - Delete all selected alert profiles

Output: for each selected profile

TAG=0xNNNNNNNN

where TAG is unique tag for deleted action

NFALRTCL /ADDCPROF:"profname" /ADDPROFTAG:NNNNNNNN /ADDPROF:"profname" -  
Add profile based on profile(s) (composite profile)

NFALRTCL /ADDPROFILE:"profname" /ADDtype:xxxxyy /ADDAPP:"app\_id"  
/ADDATYPE:NNNN /ADDSEV:sev /ADDSENDER:"sender" - Add  
profile based on matching rules

Input:

where ADDPROFILE value is name for profile,

ADDCPROF value is name for profile,

ADDPROFTAG value is hex tag for profile to add to  
list of profiles for action (can use more than once)

ADDPROF value is string name of profile to add to  
list of profiles for action (can use more than once)

ADDTYPE value is standard alert type to add to  
list of matching alert types (can use more than once)

ADDAPP value is application ID string to add to  
list of matching app IDs (can use more than once)

ADDATYPE value is hex application alert type to add  
to matching list (can use more than once)

ADDSEV value is alert severity (0-7) to add to  
matching list (can use more than once)

ADDSENDER value is sender path string to add to  
matching list (can use more than once)

Output:

TAG=0xNNNNNNNN  
where TAG is unique tag assigned to new action

```
NFALRTCL /EDITCPROF <profsel> /NEWNAME:"new profile"
/ADDPROFTAG:NNNNNNNN /DELPROFTAG:NNNNNNNN /ADDPROF:"profname"
/DELPROF:"profname" - Edit selected profiles (composite profile)
NFALRTCL /EDITPROF <profsel> /NEWNAME:"new profile"
/ADDtype:xxxxyy /ADDAPP:"app_id" /ADDAtype:NNNN /ADDSEV:sev
/ADDSENDER:"sender" /DELtype:xxxxyy /DELAPP:"app_id"
/DELAtype:NNNN /DELSEV:sev /DELSENDER:"sender" - Edit
selected profiles
```

Input:

where NEWNAME value is new profile name,  
ADDPROFTAG value is hex tag for profile to add to  
list of profiles for action (can use more than once)  
DELPROFTAG value is hex tag for profile to remove from  
list of profiles for action (can use more than once)  
ADDPROF value is string name of profile to add to  
list of profiles for action (can use more than once)  
DELPROF value is string name of profile to remove from  
list of profiles for action (can use more than once)  
ADDTYPE value is standard alert type to add to  
list of matching alert types (can use more than once)  
DELTYPE value is standard alert type to remove from  
list of matching alert types (can use more than once)  
ADDAPP value is application ID string to add to  
list of matching app IDs (can use more than once)  
DELAPP value is application ID string to remove from  
list of matching app IDs (can use more than once)  
ADDATYPE value is hex application alert type to add  
to matching list (can use more than once)  
DELATYPE value is hex application alert type to remove  
from matching list (can use more than once)  
ADDSEV value is alert severity (0-7) to add to  
matching list (can use more than once)  
DELSEV value is alert severity (0-7) to remove from  
matching list (can use more than once)  
ADDSENDER value is sender path string to add to  
matching list (can use more than once)  
DELSENDER value is sender path string to remove from  
matching list (can use more than once)

Output: for each selected action

TAG=0xNNNNNNNN  
where TAG is unique tag for edited action

NFALRTCL supports the /N tag on all commands for selecting the target  
alert manager service to interact with.

Tool-specific return codes:

rc=200 - Alert log tag not valid  
rc=201 - Alert action tag not valid  
rc=202 - Alert handler not valid  
rc=203 - Alert action match not found  
rc=204 - Invalid alert type  
rc=205 - Invalid alert severity  
rc=206 - Invalid application alert type  
rc=207 - Invalid application ID  
rc=208 - Profile in use by existing actions  
rc=209 - Profiles not supported  
rc=210 - Profile tag/name not valid

NFSMONCL /? - Command line help

<mon\_attr\_sel> = one of the following  
/ALL - all monitors and attribute groups  
/MONNAME:"name" - monitors/attribute groups with given name  
/MONID:NNNNNNNN - monitors/attribute groups with given  
monitor ID

<monthr\_sel> = one of the following  
/ALL - all monitor thresholds

```

/MONNAME:"name" - Thresholds of monitors with given name
/MONID:NNNNNNNN - Thresholds of monitor with given monitor ID
optional additional selector
/THRNAME:"thrname" = Limits selection to thresholds with
given name

NFSMONCL /GETMON <mon_attr_sel> - List monitor and attribute group
information
Output: for each selected monitor
{ MONITOR_ID=0xNNNNNNNN, NAME="name", SAMPLE=time_msec,
 VALUE=cur_val, UNITS_LBL="units string", RECORDING=enab,
 MINVAL=min_val, MAXVAL=max_val, others }
where MONITOR_ID value is hex number for monitor ID,
NAME value is string attribute name,
SAMPLE value is attribute sample rate, in
milliseconds,
VALUE value is decimal value of attribute currently,
UNITS_LBL value is string label for data type,
RECORDING value is keyword for data recording state,
either ENABLED or DISABLED
MINVAL value is decimal value of minimum for value range
MAXVAL value is decimal value of maximum for value range
Output: for each selected attribute group
{ ATTRIB_ID=0xNNNNNNNN, NAME="name", SAMPLE=time_msec,
 RECORDING=enab, { attrib_info, attrib_info, ... }, others }
where ATTRIB_ID value is hex number for attribute ID,
NAME value is string attribute group name,
SAMPLE value is attribute group sample rate, in
milliseconds,
RECORDING value is keyword for data recording state,
either ENABLED or DISABLED
attrib_info is bracketed data block formatted as follows:
{ ATTRIB_SUBID=0xNNNNNNNN, NAME="name",
 VAL_ENUM={ "val_desc", ... }, VALUE=val }
where ATTRIB_SUBID value is hex ID for attribute in
group,
NAME value is string attribute name,
VAL_ENUM value is bracketed list of strings
for enumeration values (0-based index),
VALUE value is either index in VAL_ENUM list of
current value, or a string for the current
value (if no VAL_ENUM list)

NFSMONCL /SETMONREC:enab <mon_attr_sel> - Set recording on selected monitors
Input:
where SETMONREC parm is recording state (ENABLED or DISABLED)
Output: for each modified monitor
MONITOR_ID=0xNNNNNNNN
for each modified attribute group
ATTRIB_ID=0xNNNNNNNN

NFSMONCL /GETMONTHR <monthr_sel> - List information for selected monitor
thresholds
Output: for each selected threshold
{ MONITOR_ID=0xNNNNNNNN, THRESHNAME="name", DUR=secs,
 RPT=secs, HIERRVAL=val, HIERRSEV=sev, HIERRNTFY=enab,
 HIWRNVAL=val, HIWRNSEV=sev, HIWRNNTFY=enab,
 LOWRNVAL=val, LOWRNSEV=sev, LOWRNNTFY=enab,
 LOERRVAL=val, LOERRSEV=sev, LOERRNTFY=enab,
 RTNSEV=sev, RTNNTFY=enab, LOCALNTFY=enab, others }
where MONITOR_ID value is hex monitor ID,
THRESHNAME value is string for threshold name,
DUR value is number of seconds for
duration of threshold values,
RPT value is number of seconds for
resend duration of threshold values,
HIERRVAL value is decimal value of high-error
threshold (if defined), or NONE,
HIERRSEV value is severity of threshold alert (0-7)
for high-error threshold,
HIERRNTFY value is notify state of threshold with
respect to the managing system (ENABLED or
DISABLED),
HIWRNVAL value is decimal value of high-warning
threshold (if defined), or NONE,

```

HIWRNSEV value is severity of threshold alert (0-7)  
 for high-warning threshold,  
 HIWRNNTFY value is notify state of threshold with  
 respect to the managing system (ENABLED or  
 DISABLED),  
 LOWRNVAL value is decimal value of low-warning  
 threshold (if defined), or NONE,  
 LOWRNSEV value is severity of threshold alert (0-7)  
 for low-warning threshold,  
 LOWRNNTFY value is notify state of threshold with  
 respect to the managing system (ENABLED or  
 DISABLED),  
 LOERRVAL value is decimal value of low-error  
 threshold (if defined), or NONE,  
 LOERRSEV value is severity of threshold alert (0-7)  
 for low-error threshold,  
 LOERRNTFY value is notify state of threshold with  
 respect to the managing system (ENABLED or  
 DISABLED),  
 RTNSEV value is severity of return-to-normal alert  
 (0-7),  
 RTNNTFY value is notify state of return-to-normal  
 with respect to the managing system (ENABLED  
 or DISABLED)  
 LOCALNTFY value is notify state with respect to the  
 local system (ENABLED or DISABLED)

NFSMONCL /DELMONTHR <monthr\_sel> - Delete selected monitor thresholds

Output: for each selected threshold  
 { MONITOR\_ID=0xNNNNNNNN, THRESHNAME="name" }  
 where MONITOR\_ID value is monitor ID,  
 THRESHNAME value is string of threshold name

NFSMONCL /ADDMONTHR:"name" /MONID:NNNNNNNN /DUR:secs /RPT:secs  
 /HIERRVAL:val /HIERRSEV:sev /HIERRNTFY:enab /HIWRNVAL:val  
 /HIWRNSEV:sev /HIWRNNTFY:enab /LOWRNVAL:val /LOWRNSEV:sev  
 /LOWRNNTFY:enab /LOERRVAL:val /LOERRSEV:sev /LOERRNTFY:enab  
 /RTNSEV:sev /RTNNTFY:enab /LOCALNTFY:enab - Add a new monitor  
 threshold

Input: where ADDMONTHR value is string threshold name (required),  
 MONID value is hex attribute ID (required),  
 DUR value is number of seconds for duration of  
 threshold values (default is 0),  
 RPT value is number of seconds for resend duration  
 of threshold values (default is 0),  
 HIERRVAL value is decimal value of high-error  
 threshold (if defined), or NONE (default),  
 HIERRSEV value is severity of threshold alert (0-7)  
 for high-error threshold (default is 2),  
 HIERRNTFY value is notify state of threshold with  
 respect to the managing system (ENABLED or  
 DISABLED) (default is DISABLED),  
 HIWRNVAL value is decimal value of high-warning  
 threshold (if defined), or NONE (default),  
 HIWRNSEV value is severity of threshold alert (0-7)  
 for high-warning threshold (default is 4),  
 HIWRNNTFY value is notify state of threshold with  
 respect to the managing system (ENABLED or  
 DISABLED) (default is DISABLED),  
 LOWRNVAL value is decimal value of low-warning  
 threshold (if defined), or NONE (default),  
 LOWRNSEV value is severity of threshold alert (0-7)  
 for low-warning threshold (default is 4),  
 LOWRNNTFY value is notify state of threshold with  
 respect to the managing system (ENABLED or  
 DISABLED) (default is DISABLED),  
 LOERRVAL value is decimal value of low-error  
 threshold (if defined), or NONE (default),  
 LOERRSEV value is severity of threshold alert (0-7)  
 for low-error threshold (default is 2),  
 LOERRNTFY value is notify state of threshold with  
 respect to the managing system (ENABLED or  
 DISABLED) (default is DISABLED),  
 RTNSEV value is severity of return-to-normal alert  
 (0-7) (default is 6),

RTNNTFY value is notify state of return-to-normal with respect to the managing system (ENABLED or DISABLED) (default is DISABLED)  
 LOCALNTFY value is notify state for local notifies (ENABLED or DISABLED) (default is DISABLED)  
 Output: for new threshold  
 { MONITOR\_ID=0xNNNNNNNN, THRESHNAME="name" }  
 where MONITOR\_ID value is monitor ID,  
 THRESHNAME value is string of threshold name

NFSMONCL /EDITMONTHR <monthr\_sel> /DUR:secs /RPT:secs  
 /HIERRVAL:val /HIERRSEV:sev /HIERRNTFY:enab /HIWRNVAL:val  
 /HIWRNSEV:sev /HIWRNNTFY:enab /LOWRNVAL:val /LOWRNSEV:sev  
 /LOWRNNTFY:enab /LOERRVAL:val /LOERRSEV:sev /LOERRNTFY:enab  
 /RTNSEV:sev /RTNNTFY:enab - Modify selected monitor thresholds  
 Input: where DUR value is number of seconds for duration of threshold values (default is 5),  
 RPT value is number of seconds for resend duration of threshold values (default is 0),  
 HIERRVAL value is decimal value of high-error threshold (if defined), or NONE (default),  
 HIERRSEV value is severity of threshold alert (0-7) for high-error threshold (default is 2),  
 HIERRNTFY value is notify state of threshold with respect to the managing system (ENABLED or DISABLED) (default is DISABLED),  
 HIWRNVAL value is decimal value of high-warning threshold (if defined), or NONE (default),  
 HIWRNSEV value is severity of threshold alert (0-7) for high-warning threshold (default is 4),  
 HIWRNNTFY value is notify state of threshold with respect to the managing system (ENABLED or DISABLED) (default is DISABLED),  
 LOWRNVAL value is decimal value of low-warning threshold (if defined), or NONE (default),  
 LOWRNSEV value is severity of threshold alert (0-7) for low-warning threshold (default is 4),  
 LOWRNNTFY value is notify state of threshold with respect to the managing system (ENABLED or DISABLED) (default is DISABLED),  
 LOERRVAL value is decimal value of low-error threshold (if defined), or NONE (default),  
 LOERRSEV value is severity of threshold alert (0-7) for low-error threshold (default is 2),  
 LOERRNTFY value is notify state of threshold with respect to the managing system (ENABLED or DISABLED) (default is DISABLED),  
 RTNSEV value is severity of return-to-normal alert (0-7) (default is 6),  
 RTNNTFY value is notify state of return-to-normal with respect to the managing system (ENABLED or DISABLED) (default is DISABLED)  
 LOCALNTFY value is notify state for local notifies (ENABLED or DISABLED) (default is DISABLED)

Tool-specific return codes:  
 rc=200 - Unknown monitor or attribute group ID  
 rc=201 - Unknown monitor or attribute group name  
 rc=202 - Unknown monitor or attribute group threshold name

NFCRTFCL /? - Command line help  
 NFCRTFCL /LIST - List information about the monitored files.  
 Output: for each file being monitored  
 { FILE="fully\_qualified\_path", SEV=x, TYPE=file\_type }  
 where FILE value is string for fully qualified path to file  
 SEV value is severity of alert that will be generated (0-7)  
 TYPE value is type of file being monitored, either SYSTEM\_FILE OR STANDARD\_FILE  
 NFCRTFCL /DELSYS:filename\_without\_path - Delete a "system file" from the list of monitored files.

```

Input:
 where DELSYS value is filename only (path should not be included)
NFCRTFCL /DELSTD:fully_qualified_path - Delete a "standard file" from the
list of monitored files.
Input:
 where DELSTD value is fully qualified path to file
NFCRTFCL /SETSYS:filename_without_path /SEV:x - Add a new "system file"
to be monitored or change the alert severity of a "system file"
already being monitored.
Input:
 where SETSYS value is filename only (path should not be included)
 SEV value is severity of alert that will be generated (0-7)
NFCRTFCL /SETSTD:fully_qualified_path /SEV:x - Add a new "standard file"
to be monitored or change the alert severity of a "standard
file" already being monitored.
Input:
 where SETSTD value is fully qualified path to file
 SEV value is severity of alert that will be generated (0-7)
NFCRTFCL supports the /N tag on all commands for selecting the target
critical file monitor service to interact with.

Tool-specific return codes:
rc=200 - fully qualified path missing
201 - fully qualified path invalid
202 - filename (without path) missing
203 - filename (without path) invalid
204 - severity missing
205 - severity invalid
206 - severity out of range

NFPROCCL /? - Command line help

<procel> = one of the following
 /ALL - Select all process alerts
 /PROCNAME:"name" - Select process alerts with name
 /TAG:NNNNNNNN - Select process alerts with given tag

NFPROCCL /GETPROC - List current process information
Output: for each active process
 { PROCESS_ID=0xNNNNNNNN, EXENAME="name", CMDLINE="cmd line",
 THREADS=numthrs, FILES=numfiles, PARENT_ID=0xNNNNNNNN,
 SESSION_ID=0xNNNNNNNN, USER_ID="user_id",
 PRIORITY=prio, START_TIME=timedate, EXEVER="version",
 EXEDATE=date, EXEDESC="description", other }
 where PROCESS_ID value is hex number for process ID,
 EXENAME value is string process name,
 CMDLINE value is string command line (OS-specific),
 THREADS value is integer thread count (OS-specific),
 FILES value is integer open file count (OS-specific),
 PROCESS_ID value is hex number for parent process ID,
 SESSION_ID value is hex number for session ID
 (OS-specific),
 USER_ID value is string user ID (OS-specific),
 PRIORITY value is keyword for process priority:
 IDLE, LOW, BACKGROUND, NORMAL, FOREGROUND, HIGH,
 SERVER, TIMECRIT, REALTIME (OS-specific),
 START_TIME value is timestamp for process start time
 (OS-specific),
 EXEVER value is executable version string (OS-specific),
 EXEDATE value is timestamp for executable (OS-specific),
 EXEDESC value is string executable description
 (OS-specific)

NFPROCCL /RUNCMD:"command string" - Run a requested command

NFPROCCL /LISTMON <procel> - List process monitors
Output: for each selected process monitor
 { TAG=0xNNNNNNNN, PROCNAME="process name", SEV=severity,

```

ONSTART=enable, ONSTOP=enable, ONNORUN=time,  
 NOTIFY={"path", ...}, others }  
 where TAG value is hex number for unique identifier,  
 PROCNAME value is string process name,  
 SEV value is integer alert severity (0-7),  
 ONSTART value is ENABLED or DISABLED,  
 ONSTOP value is ENABLED or DISABLED,  
 ONNORUN value is integer time, in minutes, or DISABLED  
 NOTIFY value is bracketed list of strings for  
 notify paths : LOCAL is local system

NFPROCCL /ADDMON:"process name" /SEV:severity /ONSTART:enabled  
 /ONSTOP:enabled /ONNORUN:time /ADDNOTIFY:path - Add new  
 process alert

Input:

where ADDMON value is name for process (required),  
 SEV value is integer for severity (required),  
 ONSTART value is ENABLED or DISABLED (optional,  
 default is DISABLED),  
 ONSTOP value is ENABLED or DISABLED (optional,  
 default is DISABLED),  
 ONNORUN value is DISABLED or integer time in minutes  
 (optional, default is DISABLED),  
 ADDNOTIFY value is network path for alert notification  
 (optional, multiple allowed) : LOCAL is local system,  
 HERE is alias for manager's system (local to NFPROCCL)

Output:

TAG=0xNNNNNNNN  
 where TAG is unique tag for new process monitor

NFPROCCL /DELMON <procel> - Delete all selected process monitors

Output: for each selected process monitor

TAG=0xNNNNNNNN  
 where TAG is unique tag for deleted process monitor

NFPROCCL /EDITMON <procel> /NEWNAME:"name" /SEV:severity  
 /ONSTART:enabled /ONSTOP:enabled /ONNORUN:time  
 /ADDNOTIFY:path /DELNOTIFY:path - Edit  
 selected process monitors

Input:

where EDITMON value is name for process (required),  
 NEWNAME value is string for new process name,  
 SEV value is integer for severity,  
 ONSTART value is ENABLED or DISABLED),  
 ONSTOP value is ENABLED or DISABLED,  
 ONNORUN value is DISABLED or integer time in minutes  
 ADDNOTIFY value is network path for alert notification  
 (optional, multiple allowed) : LOCAL is local system,  
 HERE is alias for manager's system (local to NFPROCCL)  
 DELNOTIFY value is network path for alert notification  
 (optional, multiple allowed) : LOCAL is local system,  
 HERE is alias for manager's system (local to NFPROCCL)

Output: for each selected process monitor

TAG=0xNNNNNNNN  
 where TAG is unique tag for edited process monitor

Tool-specific return codes:

rc=200 - Process monitor tag/name not valid  
 rc=201 - Run command failed

NFSYSICL /? - Command line help

NFSYSICL /HIST:filename - Generate a history file to 'filename'  
 NFSYSICL /HISTOUT - Generate a history file to a generated filename  
 (based on the /S parameter value, or a random value)

Output:

HSTFILE="filename"  
 where HSTFILE value is name of file containing output

NFSYSICL /RPT:filename - Generate a textual report to 'filename'  
 NFSYSICL /RPTOUT - Generate a textual report to a generated filename

```

(based on the /S parameter value, or a random value)
Output:
 RPTFILE="filename"
 where RPTFILE value is name of file containing report
NFSYSICL /EXPORT:dbi_name /DBNAME:"db_name" /NOPROF /NOSYSLEV
/MGR:"mgr_name" /GRP:"grp_name" /S:"sys_name" -
Export data to database 'db_name' using database
driver 'dbi_name'
Input:
 where EXPORT value is the name of the database interface
 module (DBI) used for exporting to the selected
 database (i.e DB2OS2CI, DB2WINFI, etc) (required)
 DBNAME value is string representing name of the
 target database (format depends upon specific
 DBI driver being used) (required)
 NOPROF indicates that system profile data should
 be excluded from export (optional, default is to
 include the system profile data)
 NOSYSLEV indicates that software information from
 OS/2 SYSLEVEL files should be excluded from
 export (optional, default is to include SYSLEVEL data)
 MGR value is string for identifying requesting manager
 (optional, default is local system name)
 GRP value is string for identifying system's group
 (optional, default is none)
 S value is string for system name (required)

Tool-specific return codes:
rc=200 - Error writing to history file
rc=201 - Error writing to report file
rc=202 - Error during database export
rc=203 - Unable to execute sysinfo task (SINFG30.EXE)

NFREPLCL /? - Command line help

filename_from_SCF_dir = name of file in SCF directory under the
NetFinity executable directory (\NETFIN or \WNETFIN)

NFREPLCL /LISTFILES - Show all configuration files
Output, for each file:
 { FILE="filename_from_SCF_dir",
 DESC="description of file"
 }

NFREPLCL /LISTREMOTES - Show available remote systems
Output, for each remote system known by Remote System Manager:
 { NAME="system name",
 PATH="system netpath, e.g., NETBIOS::JUPITER"
 }

NFREPLCL /LISTSERVICES - Show services available to save
Output, for each available service:
 { NAME="service name, e.g., Alert Manager",
 SERVICE="service, e.g., AlertMgr"
 }

NFREPLCL /SHOW:filename_from_SCF_dir
- Summarize the contents of a configuration file
Output:
 { SERVICE="name of service in file",
 DESC="description of file",
 SYSTEM="name of system whose configuration was saved into file",
 DATE="time and date of saving of configuration",
 SUBSETS={
 { NAME="name of subset of configuration records"
 ID="NNN"
 RECORDS={
 { REC="NNN.NNN",
 DESC="description of record"
 },
 ...
 }
 }
 }
 }

```

```

 }
 },
 ...
}
}

```

where TAG="NNN" is the 0-index number of the subset,  
and REC="NNN.NNN" is the 0-index number of the subset followed  
by a period and the 0-index number of the record in the subset

```

NFREPLCL /PRUNE:filename_from_SCF_dir
/REC:NNN.NNN /REC:NNN.NNN ...
- Prune the given records from the file
where /REC:NNN.NNN is the 0-index number of the subset followed
by a period and the 0-index number of the record in the subset
Output: None

```

```

NFREPLCL /DELETE:filename_from_SCF_dir
- Delete file
Output: None

```

```

NFREPLCL /SAVE:filename_to_go_in_SCF_dir
/SERVICE:service_to_save_configuration_from
/REMOTE:path_to_remote_system
/SYSNAME:nondefault_name_of_remote_system
/DESC:description_to_give_to_file
- Save the service from the system to the file
where /SERVICE refers to the NetFinity name of the service,
e.g., "AlertMgr"
Output: None

```

```

NFREPLCL /RESTORE:filename_from_SCF_dir
/REMOTE:path_to_remote_system
/CLEAN - Delete old configuration before restoring
- Restore the service from the file to the system
Output: None

```

Tool-specific return codes:

rc=200 - Means of dealing with service configuration not found.  
Generally, this would be a mis-specified service name  
or a missing SCF\*.DLL.

All NetFinity CLI tools conform to the following specifications:

1. Tools are text-mode executables which direct their outputs to stdout and stderr, and accept all inputs from command-line parameters and (optionally) a textual response file. On Win95 and WinNT, this means that the tools are Win32 Console apps. On OS/2, this means that the tools are VIO apps. Win16 apps are not supported.

2. CLI tools return errorlevels conforming to the following definitions, as appropriate:

```

rc=0 (NFCMDLINE_SUCCESS) Operation requested was completed successfully

rc=1 (NFCMDLINE_SYSTEM_UNAVAILABLE) Target system is unavailable or unreachable

rc=2 (NFCMDLINE_SERVICE_DOES_NOT_EXIST) Needed service(s) on target system is not
available or defined

rc=3 (NFCMDLINE_NOT_AUTHORIZED) Authorization for needed service(s) on target
system is not available

rc=4 (NFCMDLINE_TIMEOUT) Communication with target system failed due to time-out

rc=5 (NFCMDLINE_COMMUNICATION_ERROR) Communication with target system failed
(non-timeout)

rc=6 (NFCMDLINE_SERVICE_BUSY) Needed service(s) on target system are available, but
currently not available for use

rc=7 (NFCMDLINE_SVC_NODE_CREATE_FAILED) Attempt to create ServiceNode failed
(probably missing DLLs)

rc=8 (NFCMDLINE_SVC_START_FAILED) Request to start required service(s) on target
system failed

```

- rc=9 (NFCMDLINE\_SVC\_STOP\_FAILED) Request to stop required service(s) on target system failed
  - rc=10 (NFCMDLINE\_BAD\_COMMAND\_LINE) Command-line syntax error or invalid input
  - rc=11 (NFCMDLINE\_FUNCTION\_NOT\_SUPPORTED) Requested operation is not supported on the service(s) on the target system
  - rc=12 (NFCMDLINE\_FILE\_NOT\_FOUND) Requested operation failed due to not finding needed local file
  - rc=13 (NFCMDLINE\_FILE\_OUTPUT\_ERROR) Requested operation failed due I/O error to local file
3. Data output for CLI tools is intended for programmatic processing by other tools. To support this, informational outputs from the CLI tools are as follows:
- a. All information outputs (as opposed to error messages, help messages, logo messages, copyright messages, and other human-oriented outputs) are directed to 'stdout'. All other outputs are directed to 'stderr'.
  - b. Information outputs consist of keywords or keyword/value pairs, i.e. `MANAGER, ATTRIBNAME=VALUE, TOKEN="string"`
  - c. Grouped outputs are formatted by listing keyword and keyword/values pairs, separated by commas, spaces, or new lines or consecutive lines, with a blank-line marking the end of each record. Each group of data is enclosed in '{' and '}' brackets. Groups of data can be nested, for example

```
{ TAG=1234, NAME='xxx', MANAGER, MAC=4000123677 }
{ TAG=1236, NAME='yyy', MAC=4000123678 }
```

or

```
{ TAG=1234
 NAME='xxx'
 MANAGER
 MAC=4000123677 }
{ TAG=1236
 NAME='yyy'
 MAC=4000123678 }
```

or

```
{ TAG=5555, GROUPNAME='aaa'
 SYSTEMS={ { TAG=1234, NAME='xxx', MANAGER, MAC=4000123677 }
 { TAG=1236, NAME='yyy', MAC=4000123678 } } }
```

- d. Values in keyword/value pairs are formatted as follows:
  - keyword=0xNNNN for hexadecimal values (capital letters for A-F)
  - keyword=NNNN for decimal values (a leading '-' or '+' is allowed)
  - keyword=AAAAAA for keyword-type values (i.e. ON, OFF, ENABLED)
  - keyword="string" for string-like values (use two double-quotes for double-quote characters within the string. i.e. "")
  - keyword=NNN.NNN for floating-point decimal values
  - keyword=dd/mm/yyyy for dates (ISO ordering, not local)
  - keyword=hh:mm:ss for times (always 24 hour)
  - keyword=dd/mm/yyyy:hh:mm:ss for full local timestamp
  - keyword=dd/mm/yyyy:hh:mm:ss+off for full universal timestamp (off = minutes from UT ("timezone"), use - instead of + if negative delta)
  - keyword={ other\_keywords\_or\_values } - for collections of values or attributes

Only "string" fields contain non-ASCII characters (as well as translated or country-local

values).

- e. Keywords start with an ASCII letter ('A'-'Z', 'a'-'z', '\_'), followed by ASCII alphanumeric characters ('0'-'9', 'A'-'Z', 'a'-'z', '\_').
- f. Commas, spaces, new-lines (CR, LF), and tab characters, when not enclosed in "string" fields, are treated as interchangeable separators.
- g. "String" fields are expressed in the local codepage of the system running the CLI tool. The caller of the tool is expected to provide any required codepage mapping of this data.

4. Command-line parameters are structured as follows:

- a. Each command-line parameter must have a leading '/' or '-' character, followed by a case-insensitive ASCII keyword. If a value is to be provided with the keyword, the keyword will be followed by a colon and the value (which may be enclosed in double-quotes, as needed).

For example:

```
/ADDSYS, /DELSYS:name, -REMSYS:"name with spaces"
```

- b. Textual values on the command line must be provided in the local codepage of the command-line tool. The caller of the tools is expected to provide any required codepage mapping of these inputs.
- c. All CLI tools support the following command-line values, with the following default behaviors if the parameter is not provided:

- 1. /N:netpath - Provides NetFinity-style network path to target system. For example:

```
/N:NETBIOS::PRIMM,
```

or

```
/N:TCPIP::primm.raleigh.ibm.com::NETBIOS::NetFin
```

If not provided, local system is target system.

- 2. /S:"sysname" - Provides optional system name for target system. For example:

```
/S:"Mike's system"
```

No optional system name, if not provided.

- 3. /? - Print command-line help for tool (if any)
- 4. Standard parameters are not order sensitive, and tool-specific parameters are not order-specific.
- 5. The presence of any unsupported or inappropriate parameters results in no action, with a return code of NFCMDLINE\_BAD\_COMMAND\_LINE.
- 6. Response file support may optionally be provided by a tool. The response file must be provided with a leading '@'. The contents of the response file are processed as if they were substituted for the response file option on the command line (with new-line and tab characters replaced with spaces).
- 7. Command-line help, logos, copyright statements, error messages, and other human-oriented outputs are directed to 'stderr', not 'stdout' (to prevent any difficulties in parsing the informational output directed to 'stdout', particularly due to NLS issues and the like).

## A.3 Return Codes

### A.3.1 Overview

*Table 2. Return Codes - Overview*

| <b>rc =</b> | <b>name NFCMDLINE_*</b> | <b>Description</b>                                                                     |
|-------------|-------------------------|----------------------------------------------------------------------------------------|
| 0           | SUCCESS                 | Operation requested was completed successfully.                                        |
| 1           | SYSTEM_UNAVAILABLE      | Target system is unavailable or unreachable.                                           |
| 2           | SERVICE_DOES_NOT_EXIST  | Needed service(s) on target system is not available or defined.                        |
| 3           | NOT_AUTHORIZED          | Authorization for needed service(s) on target system is not available.                 |
| 4           | TIMEOUT                 | Communication with target system failed due to timeout.                                |
| 5           | COMMUNICATION_ERROR     | Communication with target system failed (non-timeout).                                 |
| 6           | SERVICE_BUSY            | Needed service(s) on target system are available, but currently not available for use. |
| 7           | SVC_NODE_CREATE_FAILED  | Attempt to create ServiceNode failed (probably missing DLLs).                          |
| 8           | SVC_START_FAILED        | Request to start required service(s) on target system failed.                          |
| 9           | SVC_STOP_FAILED         | Request to stop required service(s) on target system failed.                           |
| 10          | BAD_COMMAND_LINE        | Command line syntax error or invalid input.                                            |
| 11          | FUNCTION_NOT_SUPPORTED  | Requested operation is not supported on the service(s) on the target machine.          |
| 12          | FILE_NOT_FOUND          | Requested operation failed due to not finding needed local file.                       |
| 13          | FILE_OUTPUT_ERROR       | Requested operation failed due I/O error to local file.                                |
| 14 - 199    |                         | Reserved for future standard error levels.                                             |
| 200 - 399   |                         | Tool-specific error codes (for non-retryable errors).                                  |
| 400 - 599   |                         | Tool-specific error codes (for retryable errors).                                      |
| 600 - 799   |                         | Tool-specific information codes (for non-errors)                                       |

## A.3.2 Tool-Specific Return Codes

| <i>Table 3 (Page 1 of 2). Tool-Specific Return Codes</i> |             |                                    |
|----------------------------------------------------------|-------------|------------------------------------|
| <b>Tool</b>                                              | <b>rc =</b> | <b>description</b>                 |
| Remote System Manager                                    | 200         | Group name not defined             |
|                                                          | 201         | System name not defined            |
|                                                          | 202         | Group tag not defined              |
|                                                          | 203         | System tag not defined             |
|                                                          | 204         | Bad OS type                        |
|                                                          | 205         | Bad protocol type                  |
|                                                          | 206         | Bad ping interval                  |
|                                                          | 207         | Bad notification severity          |
|                                                          | 208         | Bad autodiscovery interval         |
| Security Manager                                         | 200         | Inbound user ID not defined        |
|                                                          | 201         | Outbound node not defined          |
|                                                          | 202         | Bad password                       |
|                                                          | 203         | Bad user ID                        |
|                                                          | 204         | Bad service                        |
| System Profile                                           | 200         | Attribute missing                  |
|                                                          | 201         | Attribute invalid                  |
|                                                          | 202         | Value missing                      |
|                                                          | 203         | Value invalid                      |
|                                                          | 204         | Input file missing                 |
|                                                          | 205         | Date format error                  |
|                                                          | 206         | Date invalid                       |
|                                                          | 207         | Date out-of-range                  |
|                                                          | 209         | Time format error                  |
|                                                          | 210         | Time invalid                       |
|                                                          | 211         | Time out-of-range                  |
| Alert Manager                                            | 200         | Alert log tag not valid            |
|                                                          | 201         | Alert action tag not valid         |
|                                                          | 202         | Alert handler not valid            |
|                                                          | 203         | Alert action match not found       |
|                                                          | 204         | Invalid alert type                 |
|                                                          | 205         | Invalid alert severity             |
|                                                          | 206         | Invalid application alert type     |
|                                                          | 207         | Invalid application ID             |
|                                                          | 208         | Profile in use by existing actions |
|                                                          | 209         | Profiles not supported             |
|                                                          | 210         | Profile tag/name not valid         |

| <i>Table 3 (Page 2 of 2). Tool-Specific Return Codes</i> |             |                                                                                                                             |
|----------------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>Tool</b>                                              | <b>rc =</b> | <b>description</b>                                                                                                          |
| System Monitor                                           | 200         | Unknown monitor or attribute group ID                                                                                       |
|                                                          | 201         | Unknown monitor or attribute group name                                                                                     |
|                                                          | 202         | Unknown monitor or attribute group threshold name                                                                           |
| Critical File Monitor                                    | 200         | Fully qualified path missing                                                                                                |
|                                                          | 201         | Fully qualified path invalid                                                                                                |
|                                                          | 202         | Filename (without path) is missing                                                                                          |
|                                                          | 203         | Filename (without path) is invalid                                                                                          |
|                                                          | 204         | Severity missing                                                                                                            |
|                                                          | 205         | Severity invalid                                                                                                            |
|                                                          | 206         | Severity out of range                                                                                                       |
| Process Manager                                          | 200         | Process monitor tag/name not valid                                                                                          |
|                                                          | 201         | Run command failed                                                                                                          |
| System Information                                       | 200         | Error writing to history file                                                                                               |
|                                                          | 201         | Error writing to report file                                                                                                |
|                                                          | 202         | Error during database export                                                                                                |
|                                                          | 203         | Unable to execute sysinfo task (SINFG30.EXE)                                                                                |
| System Configuration Manager                             | 200         | Means of dealing with service configuration not found. Generally a service name specified incorrectly or a missing SCF*.DLL |

---

## Appendix B. Software Installation M95 Lab

This machine was partitioned as follows (using the Warp Server version of FDISK):

| Size   | Operation System | Partition Type | File system |
|--------|------------------|----------------|-------------|
| 400 Mb | Warp Server      | Primary        | HPFS        |
| 500 Mb | NT Workstation   | Primary        | NTFS        |
| 100 Mb | Data             | Primary        | FAT         |

Figure 296. PS/2 9595

The process to select which OS to boot from is the following:

- Insert the Warp server CD-ROM.
- Boot the machine using the Warp server installation diskettes.
- At the first panel, break the install with PF3.
- Enter FDISK from the command prompt.
- Select the partition by ASSIGN C: DRIVE.

---

### B.1 Warp Server Installation

The following services were chosen:

- File and print sharing
- TCP/IP services
- Advanced print services

The values chosen during installation:

```
Administrator ID WTR05255
Administrator password xxxxxxxx

Subnet mask 9.24.104.115
Router 255.255.255.0
Host name tmecli7
Domain name (TCP/IP) itso.ral.ibm.com
Name server 9.24.104.108
```

The installation process generated a LAN server computer name and a domain name based upon the name and company that is entered at installation time. In this case:

```
Computer name = JACOBX34
Domain name = ITSO
```

#### B.1.1 Post Warp Server Install

To set up the LAA (Warp Server installs using the UAA):

- Click on the **LAN Services LAN and Print** icon.
- Click on **Adapters and protocol services**.
- Go to configuring MPTS.
- Set up the LAA address to 400052005255.

To change the server name (computer name):

```
logon WTR05255
chgsrvr JACOBX34 WTR05255
```

To change the domain name:

```
edit \ibmlan\ibmlan.ini
change in DOMAIN NAME: ITSO ==> DOM05255
```

## B.1.2 AntiVirus Install

The default value for virus checking was once a week. We changed the value to be once a day.

## B.1.3 Communications Manager Server-SNA APPC Support

NetFinity purposes, the only requirement is to install CM/2 with APPC support. In this case this machine was configured as a network node.

**Note:** If the mode TMODE is not configured, NetFinity will create it when establishing the APPC sessions, with the default values.

## B.1.4 NetWare Requester-IPX Support

To install IPX support, we installed NetWare Requester from Warp Connect, and then we added the IPX support through MPTS.

### Important

After installing NetWare Requester and reconfiguring MPTS, there were problems in the startup related to NetWare. For some reason, the installation program inserted the following statement in the CONFIG.SYS file:

```
REM DEVICE=C:\NETWARE\ROUTE.SYS
```

Changing it to:

```
DEVICE=C:\NETWARE\ROUTE.SYS
```

solved all the problems.

## B.1.5 NetFinity Manager

```
Insert NetFinity manager diskette 1
a:\install
Choose ==> World Wide WEB Enhancement
Choose ==> Service Processor Enhancement
At the end
System Name ==> TME05255
Enable:
Novell
NetBIOS Network address ==> WTR05255
Serial Serial name ==> SER05255
SNA APPC Mode name ==> TMODE
TCP/IP
save
exit
reboot
```

---

## B.2 NT Workstation Partition

Boot from the NT workstation setup disks.

Select 'Custom setup'  
Let NT detect the hardware

Name        ITSO  
Company     IBM  
Product #   xxx-xxx-xxx

Computer name WTR05255

x Set up Windows components  
x Set up Network

Select all 'Optional Windows components'

Let NT find the T/R card type  
Set Network address to 400052005255  
Select protocols:  
  IPX  
  TCP/IP  
  NetBEUI

Select all TCP/IP installation options  
Don't mark 'Enable automatic DHCP configuration'  
In TCP/IP configuration:  
Community name   ==> public  
Trap destination ==> 9.24.104.128 (The AIX system)  
Click on 'Agent'  
  contact ==> tmecli5  
  Location ==> Lab  
  click on 'OK'  
FTP Service  
  Change IDLE 10 ==> 60  
  x Allow anonymous connection  
  userid   ==> tmecli5  
  password ==> xxxxxxxx

Click on 'Add software'  
  DLC Protocol  
  Network monitor agent  
click on 'OK'

IPX configuration  
  take defaults

TCP/IP configuration  
  IP address       ==> 9.24.104.112  
  Subnet mask     ==> 255.255.255.0  
  Default gateway ==> 9.24.104.1  
  click on 'DNS'  
  add:  
    9.24.104.108  
  click on 'OK'  
click on 'OK'

Domain/Workgroup settings

```

x Workgroup ==> WORKGROUP

Userids
administrator: password ==> xxxxxxxx
username ==> WTR05255
password ==> xxxxxxxx

Take defaults for swapper
Change time to 'Eastern time'
Floating point by software ==> NO (pentium bug)
Create emergency diskettes
Reboot

```

## B.2.1 Post NT Workstation Install

### Change boot time:

```

control
system
change boot time 30 ==> 10 sec

```

### Convert FAT to NTFS:

```

At a command prompt
convert c: /fs:ntfs

```

### Apply NT fixes:

```

Connect to WTRDM (where the software for LAN installation is)
File manager
Disk
Connect network drive
path ==> \\wtrasmx\nt_code
Connect as ==> jjacob
password ==> xxxxxxxx
At a command prompt
c:
md junk
cd junk
copy f:\ntfixes\ntserv\hotfixes*. *
copy f:\ntfixes\ntserv*. *
sp4_3511 -d (when prompted, don't replace existing modules)
update
reboot

```

### Install AntiVirus:

```

Connect to WTRDM (where the software for LAN installation is)
At a command prompt
f:
cd antivirus
avnti.exe
accept defaults, other than scanning period should be every day

```

### Install NetFinity NT:

```

Insert NetFinity for NT diskette 1
a:\install
Choose ==> Active client
System name ==> TME05255
Enable:
Novell

```

```
NetBIOS Network address ==> WTR05255
TCP/IP
Serial Serial name ==> SER05255
save
exit
reboot
```



---

## Appendix C. Software Installation PC350 Lab

This machine was partitioned as follows (using the Warp Server version of FDISK):

| Size   | Operation System | Partition Type | File system |
|--------|------------------|----------------|-------------|
| 800 Mb | NT Server        | Primary        | NTFS        |
| 400 Mb | Data             | Primary        | FAT         |

Figure 297. PC 350 NT Server

---

### C.1 NT Server

Boot from the NT Microsoft BackOffice setup disks:

Answer questions, take defaults

After first boot:

Name ITSO  
Company IBM  
Product # xxxxx-xxx-xxxxxxx  
Select DOMAIN  
Per server 10 concurrent connections  
Computer name WTR05187  
English

x Set up Windows components  
x Set up Network

Select all 'Optional Windows components'

Let NT find the T/R card type  
Set Network address to 400052005187  
Select protocols:

IPX  
TCP/IP  
NetBEUI

Select all TCP/IP installation options  
Don't mark 'Enable automatic DHCP configuration'  
In TCP/IP configuration:  
Community name ==> public  
Trap destination ==> 9.24.104.128 (The AIX system)  
Click on 'Agent'  
contact ==> beta  
Location ==> Lab  
click on 'OK'  
FTP Service  
Change IDLE 10 ==> 60  
x Allow anonymous connection  
userid ==> beta  
password ==> xxxxxxx

```

Click on 'Add software'
 DLC Protocol
 Network monitor agent
click on 'OK'

IPX configuration
 take defaults

TCP/IP configuration
 IP address ==> 9.24.104.87
 Subnet mask ==> 255.255.255.0
 Default gateway ==> 9.24.104.1
 click on 'DNS'
 add:
 9.24.104.108
 9.14.1.105
 click on 'OK'
click on 'OK'

Computer role ==> Primary Domain controller
 DOM05187
user IDs
 administrator: password ==> xxxxxxx

Take defaults for swapper
Change time zone to 'Eastern time'
Floating point by software ==> NO (pentium bug)
Create emergency diskettes
Reboot

```

## C.1.1 Post NT Server Install

Log on as administrator (password xxxxxxx).

Change boot time:

```

control
system
change boot time 30 ==> 10 sec

```

Change configuration:

```

control
network
choose 'server' from list
configure
x Make browser broadcast to Lan Manager 2.x client

```

Apply NT fixes:

```

Connect to WTRDM (where the software for LAN installation is)
 File manager
 Disk
 Connect network drive
 path ==> \\wtrasmx\nt_code
 Connect as ==> jjacob
 password ==> xxxxxxx
At a command prompt
 c:
 md junk
 cd junk

```

```
copy f:\ntfixes\ntserv\hotfixes*. *
copy f:\ntfixes\ntserv*. *
sp4_35i1 -d (when prompted, don't replace existing modules)
update
reboot
```

#### Install AntiVirus:

```
Connect to WTRDM (where the software for LAN installation is)
At a Command Prompt:
f:
cd antivirus
avnti.exe
accept defaults, other than scanning period should be every day
```

## C.1.2 Install SQL Server

```
Insert the Microsoft Back Office CDROM #1
From a Command Prompt:
d:\setup.exe
Name ITSO
Company IBM
Prod # xxxxx-xxx-xxxxxxx
Choose:
x SQL Server 6.0
Insert CDROM #2
Name ITSO
Company IBM
Prod # xxxxx-xxx-xxxxxxx
x Install SQL Server and Utilities
10 per server
Accept defaults
Increase Master Device from 25 ==> 50
Books on hard disk
Choose:
Char set ISO (Default)
Sort order Dictionary order, case insensitive (Default)
x Auto start SQL Server at boot
x Auto start Executive at boot
Network protocols
Name pipes
NwLink IPX/SPX
TCP/IP sockets

Account DOM05187/Administrator
Password xxxxxxxx

x Install to log on as local system account
Novell bindery service name WTR05187
SQL Server will listen to TCP/IP port number 1433
Finish
reboot
```

### C.1.3 NetFinity Manager

```
Insert the NetFinity manager diskette 1
a:\netfinst
Choose ==> World Wide WEB Enhancement
Choose ==> Service Processor Enhancement
At the end
System Name ==> TME05187
Enable:
Novell
Netbios Network address ==> WTR05187
Serial Serial name ==> SER05187
TCP/IP
save
exit
reboot
```

---

## Appendix D. Software Installation PC350 JJ

This machine is partitioned as follows (using the Warp Server version of FDISK):

| Size   | Operation System | Partition Type | File system |
|--------|------------------|----------------|-------------|
| 800 Mb | NT Server        | Primary        | NTFS        |
| 400 Mb | Data             | Primary        | FAT         |

Figure 298. OS/2 Warp Server

---

### D.1 NT Server

Boot from the NT Microsoft BackOffice setup disks:

Answer questions, take defaults

After first boot:

Name ITSO  
Company IBM  
Product # xxxxx-xxx-xxxxxxx  
Select DOMAIN  
Per server 10 concurrent connections  
Computer name WTR05186  
English

x Set up Windows components  
x Set up Network

Select all 'Optional Windows components'

Let NT find the T/R card type  
Set Network address to 400052005186  
Select protocols:  
IPX  
TCP/IP  
NetBEUI

Select all TCP/IP installation options  
Don't mark 'Enable automatic DHCP configuration'  
In TCP/IP configuration:  
Community name ==> public  
Trap destination ==> 9.24.104.128 (The AIX system)  
Click on 'Agent'  
contact ==> ntdom79  
Location ==> Jose's desk  
click on 'OK'  
FTP Service  
Change IDLE 10 ==> 60  
x Allow anonymous connection  
userid ==> ntdom79  
password ==> xxxxxx

Click on 'Add software'

```

DLC Protocol
Network monitor agent
click on 'OK'

IPX configuration
take defaults

TCP/IP configuration
IP address ==> 9.24.104.80
Subnet mask ==> 255.255.255.0
Default gateway ==> 9.24.104.1
click on 'DNS'
add:
9.24.104.108
9.14.1.105
click on 'OK'
click on 'OK'

Computer role ==> Primary Domain controller
DOM05186
user IDs
administrator: password ==> xxxxxx

Take defaults for swapper
Change time zone to 'Eastern time'
Floating point by software ==> NO (pentium bug)
Create emergency diskettes
Reboot

```

## D.1.1 Post NT Server Install

Log on as administrator (password xxxxxx).

Change boot time:

```

control
system
change boot time 30 ==> 10 sec

```

Change configuration:

```

control
network
choose 'server' from list
configure
x Make browser broadcast to Lan Manager 2.x client

```

Apply NT fixes:

```

Connect to WTRDM (where the software for LAN installation is)
File manager
Disk
Connect network drive
path ==> \\wtrasmx\nt_code
Connect as ==> jjacob
password ==> xxxxxx
At a command prompt
c:
md junk
cd junk
copy f:\ntfixes\ntserv\hotfixes*.*

```

```
copy f:\ntfixes\ntserv*.*
sp4_35i1 -d (when prompted, don't replace existing modules)
update
reboot
```

#### Install AntiVirus:

```
Connect to WTRDM (where the software for LAN installation is)
At a command prompt:
f:
cd antivirus
avnti.exe
accept defaults, other then scanning period should be every day
```

### D.1.2 Install Lotus Notes Server

```
Insert the Lotus Notes CDROM
From a command prompt:
d:\installw
click on Install Lotus Notes for NT V4.1
Name ITSO
Company IBM
Choose:
Server Install on C:
Program Group Lotus Applications
Finish
reboot
```

### D.1.3 NetFinity Manager

```
Insert the NetFinity manager diskette 1
a:\netfinst
Choose ==> World Wide WEB Enhancement
Choose ==> Service Processor Enhancement
At the end
System Name ==> TME05186
Enable:
Novell
NetBIOS Network address ==> WTR05186
Serial Serial name ==> SER05186
TCP/IP
save
exit
reboot
```



---

## Appendix E. Software Installation M77 JJ

This machine is partitioned as follows (using the Warp Server version of FDISK):

| Size   | Operation System | Partition Type          | File system |
|--------|------------------|-------------------------|-------------|
| 512 Mb | Warp Connect     | Logical<br>Boot Manager | HPFS        |

Figure 299. OS/2 Warp Connect

---

### E.1 Warp Connect Partition CID Install

The following services were chosen:

- OS/2 from Warp Connect
- TCP/IP from Warp Connect
- MPTS from Warp Connect
- CM/2 1.11
- LAN Requester 4.01
- DB/2 2.11 Client/Server
- AntiVirus

The values chosen during installation:

```
IP address 9.24.104.103
Subnet mask 255.255.255.0
Router (Gateway) 9.24.104.1
Host name tmecli3
Domain name (TCP/IP) itso.ral.ibm.com
Name server 9.24.104.108
```

```
Computer name = WTR05154
Domain name = WTRDM
LAA = 400052005154
```

#### E.1.1 Communications Manager Server-SNA APPC Support

For Netfinity purposes, the only requirement is to install CM/2 with APPC support. In this case this machine was configured as an end node.

**Note:** If the mode TMODE is not configured, NetFinity will create it when establishing the APPC sessions, with the default values.

#### E.1.2 NetWare Requester-IPX Support

To install IPX support, we installed NetWare requester from Warp Connect, and then we added the IPX support through MPTS.

### Important

After installing NetWare Requester and reconfiguring MPTS, there were problems in the startup related to NetWare. For some reason, the installation program inserted the following statement in the CONFIG.SYS file:

```
REM DEVICE=C:\NETWARE\ROUTE.SYS
```

Changing it to:

```
DEVICE=C:\NETWARE\ROUTE.SYS
```

solved all the problems.

## E.1.3 NetFinity Manager

```
Insert the NetFinity manager diskette 1
a:\install
Choose ==> World Wide WEB Enhancement
Choose ==> Service Processor Enhancement
At the end
 System Name ==> TME05154
Enable:
 Novell
 Netbios Network address ==> WTR05154
 Serial Serial name ==> SER05154
 SNA APPC Mode name ==> TMEMODE
TCP/IP
save
exit
reboot
```

---

## Appendix F. The NetFinity Relational Database Tables

This appendix shows the NetFinity relational database tables:

- NetFinity System Information Tables
- NetFinity System Profile Tables
- NetFinity System Monitor Tables
- NetFinity Software Inventory Tables
- NetFinity Alert Table

### Notes

- Database management systems that do not support the date or time data type will assign it an SQL-type time stamp (for example, date time).
- The varchar data type has a maximum value of 255 characters on Microsoft SQL Server databases (and others). This value may be up to 256 characters on DB2 databases.

---

### F.1 NetFinity System Information Tables

The following database configuration tables contain the name, type, and description of database entries for information gathered and exported by the System Information Tool:

- BASE Table
- DISKETTE Table
- DISPLAY Table
- EXPANSION\_SLOT Table
- FIXED\_DISK Table
- LOGICAL\_DRIVE Table
- KEYBOARD Table
- MODEL Table
- MOUSE Table
- PRINTER Table
- PROCESSOR Table
- SYSLEVEL Table
- MEMORY Table
- DASD\_ADAPTER Table
- DASD\_DEVICE Table

#### F.1.1 BASE Table

| Name      | Type              | Description                 |
|-----------|-------------------|-----------------------------|
| SYSTEM_ID | char(32) not null | Identifies unique system ID |

| <i>Table 4. BASE Configuration Table. Base system configuration information.</i> |               |                                                       |
|----------------------------------------------------------------------------------|---------------|-------------------------------------------------------|
| <b>Name</b>                                                                      | <b>Type</b>   | <b>Description</b>                                    |
| MANAGING_ID                                                                      | char(32)      | NetFinity system management for group                 |
| GROUP_NAME                                                                       | char(32)      | NetFinity logical group name                          |
| OPERATING_SYSTEM                                                                 | char(32)      | Operating system                                      |
| VERSION                                                                          | char(8)       | Version of operating system                           |
| MEMORY_OPERATING                                                                 | dec(10,2)     | Total memory detected by operating system (megabytes) |
| MEMORY_BASE                                                                      | dec(10,2)     | Base memory (megabytes)                               |
| MEMORY_USABLE                                                                    | dec(10,2)     | Usable memory (megabytes)                             |
| MEMORY_BOARD                                                                     | dec(10,2)     | Memory board memory (kilobytes)                       |
| MEMORY_ADAPTER                                                                   | dec(10,2)     | Adapter card memory (megabytes)                       |
| MEMORY_CACHEABLE                                                                 | dec(10,2)     | Cacheable memory (megabytes)                          |
| REFERENCE_DISK                                                                   | smallint      | Reference disk type                                   |
| NVRAM                                                                            | smallint      | NVRAM size                                            |
| DEDICATED_IRQ                                                                    | char(38)      | Dedicated IRQ levels                                  |
| SHARED_IRQ                                                                       | char(38)      | Shared IRQ levels                                     |
| PARALLEL_PORTS                                                                   | smallint      | Number of parallel ports                              |
| SERIAL_PORTS                                                                     | smallint      | Number of serial ports                                |
| SYSTEM_SERIAL                                                                    | char(20)      | Serial number of system                               |
| PLANAR_ID                                                                        | char(4)       | ID of planar board                                    |
| PLANAR_SERIAL                                                                    | char(20)      | Serial number of planar board                         |
| PROCESSOR_CARD_SER                                                               | char(20)      | Serial number of processor card                       |
| BASE_DATE                                                                        | date not null | Date of update                                        |
| BASE_TIME                                                                        | time not null | Time of update                                        |
| <b>Note:</b> The primary key is SYSTEM_ID, unique index on SYSTEM_ID.            |               |                                                       |

**Note:** Database management systems that do not support the date or time data type will assign it an SQL-type time stamp (for example, datetime).

## F.1.2 DISKETTE Table

| <i>Table 5 (Page 1 of 2). DISKETTE Table. Diskette information, one (1) entry per diskette drive.</i> |                   |                                                    |
|-------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------|
| <b>Name</b>                                                                                           | <b>Type</b>       | <b>Description</b>                                 |
| SYSTEM_ID                                                                                             | char(32) not null | Identifies unique system ID                        |
| LOGICAL_DRIVE                                                                                         | char(2)           | Identifies logical drive (for example, A:)         |
| DEVICE_TYPE                                                                                           | char(40)          | Type of device (for example, Direct Access Device) |
| <b>Note:</b> Foreign key (SYSTEM_ID), references BASE.                                                |                   |                                                    |

### F.1.3 DISPLAY Table

*Table 6. DISPLAY Table. Display information, one (1) entry per display*

| Name            | Type              | Description                              |
|-----------------|-------------------|------------------------------------------|
| SYSTEM_ID       | char(32) not null | Identifies unique system ID              |
| DISPLAY_ADAPTER | char(40)          | Type of adapter in use                   |
| DISPLAY_TYPE    | char(40)          | Type of display in use                   |
| VIDEO_MEMORY    | dec(10,2)         | Amount of memory in kilobytes            |
| COLORS          | int               | Number of colors displayed               |
| HORIZONTAL_RES  | smallint          | Horizontal resolution of screen          |
| VERTICAL_RES    | smallint          | Vertical resolution of screen            |
| HORIZONTAL_SIZE | smallint          | Horizontal size of screen in millimeters |
| VERTICAL_SIZE   | smallint          | Vertical size of screen in millimeters   |
| VIDEO_SUBSYSTEM | smallint          | Video subsystem, 0 = primary             |
| SLOT_LOCATION   | smallint          | Video adapter slot location number       |

**Note:** Foreign key (SYSTEM\_ID), references BASE.

### F.1.4 EXPANSION\_SLOT Table

*Table 7. EXPANSION\_SLOT Table. Expansion slot information, one (1) entry per slot.*

| Name         | Type              | Description                 |
|--------------|-------------------|-----------------------------|
| SYSTEM_ID    | char(32) not null | Identifies unique system ID |
| SLOT         | smallint          | Identifies slot number      |
| BUS_TYPE     | char(16)          | Type of bus used            |
| BUS_NUMBER   | smallint          | Bus number                  |
| ADAPTER_ID   | char(10)          | Adapter ID number           |
| ADAPTER_TYPE | char(70)          | Type of adapter card        |

**Note:** Foreign key (SYSTEM\_ID), references BASE.

### F.1.5 FIXED\_DISK Table

*Table 8. FIXED\_DISK Table. Fixed disk information, one (1) entry per physical unit.*

| Name               | Type              | Description                    |
|--------------------|-------------------|--------------------------------|
| SYSTEM_ID          | char(32) not null | Identifies unique system ID    |
| DISK_CAPACITY      | dec(10,2)         | Capacity in megabytes          |
| DISK_CYLINDERS     | int               | Number of cylinders            |
| SECTORS_PER_CYL    | int               | Number of sectors per cylinder |
| DISK_HEADS         | int               | Number of heads                |
| DISK_TOTAL_SECTORS | int               | Total number of sectors        |

| <i>Table 8. FIXED_DISK Table. Fixed disk information, one (1) entry per physical unit.</i> |         |                                   |
|--------------------------------------------------------------------------------------------|---------|-----------------------------------|
| Name                                                                                       | Type    | Description                       |
| PHYSICAL_DRIVE                                                                             | char(8) | Physical drive ID for example, I: |
| <b>Note:</b> Foreign key (SYSTEM_ID), references BASE.                                     |         |                                   |

## F.1.6 LOGICAL\_DRIVE Table

| <i>Table 9. LOGICAL_DRIVE Table. Logical drive information, one (1) entry per logical unit.</i> |                   |                                   |
|-------------------------------------------------------------------------------------------------|-------------------|-----------------------------------|
| Name                                                                                            | Type              | Description                       |
| SYSTEM_ID                                                                                       | char(32) not null | Identifies unique system ID       |
| LOGICAL_NAME                                                                                    | char(32)          | G: Remote disk attached by LAN    |
| VOLUME_NAME                                                                                     | char(16)          | Volume name                       |
| FILE_SYSTEM                                                                                     | char(8)           | File system name                  |
| FILE_ATTACH                                                                                     | char(32)          | File system attach name           |
| DRIVE_TYPE                                                                                      | char(1)           | Local(L) or remote(R)             |
| SECTORS_CLUSTER                                                                                 | smallint          | Number of sectors per cluster     |
| SECTORS_BYTES                                                                                   | smallint          | Number of bytes per sector        |
| DEVICE_CAPACITY                                                                                 | dec(10,2)         | Capacity in megabytes             |
| AVAILABLE_SPACE                                                                                 | dec(10,2)         | Space available in megabytes      |
| PHYSICAL_DRIVE                                                                                  | char(8)           | Physical drive ID for example, I: |
| <b>Note:</b> Foreign key (SYSTEM_ID), references BASE.                                          |                   |                                   |

## F.1.7 KEYBOARD Table

| <i>Table 10 (Page 1 of 2). KEYBOARD Table. KEYBOARD information, one (1) entry per system.</i> |                   |                                             |
|------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------|
| Name                                                                                           | Type              | Description                                 |
| SYSTEM_ID                                                                                      | char(32) not null | Identifies unique system ID                 |
| KEYBOARD_TYPE                                                                                  | char(30)          | Type of keyboard                            |
| COUNTRY_CODE                                                                                   | char(3)           | Identifies country code for example, US     |
| SUBCOUNTRY_CODE                                                                                | char(3)           | Identifies subcountry code for example, 103 |
| CODE_PAGE                                                                                      | smallint          | code page for example, 437                  |
| <b>Note:</b> Foreign key (SYSTEM_ID), references BASE.                                         |                   |                                             |

## F.1.8 MODEL Table

| <i>Table 11. MODEL Configuration Table. Model dependent information, one (1) entry per system.</i> |                   |                             |
|----------------------------------------------------------------------------------------------------|-------------------|-----------------------------|
| Name                                                                                               | Type              | Description                 |
| SYSTEM_ID                                                                                          | char(32) not null | Identifies unique system ID |

*Table 11. MODEL Configuration Table. Model dependent information, one (1) entry per system.*

| Name                                                   | Type     | Description          |
|--------------------------------------------------------|----------|----------------------|
| MODEL_NAME                                             | char(30) | Model name of system |
| EXPANSION_BUS                                          | char(30) | Expansion bus type   |
| MODEL_NUMBER                                           | char(2)  | Model number         |
| SUBMODEL_NUMBER                                        | char(2)  | Sub-Model number     |
| BIOS_REVISION                                          | char(2)  | BIOS revision level  |
| BIOS_DATE                                              | date     | BIOS ROM date        |
| <b>Note:</b> Foreign key (SYSTEM_ID), references BASE. |          |                      |

**Note:** Database management systems that do not support the date or time data type will assign it an SQL-type time stamp (for example, datetime).

### F.1.9 MOUSE Table

*Table 12. MOUSE Table. MOUSE information, one (1) entry per system.*

| Name                                                   | Type              | Description                    |
|--------------------------------------------------------|-------------------|--------------------------------|
| SYSTEM_ID                                              | char(32) not null | Identifies unique system ID    |
| MOUSE_TYPE                                             | char(30)          | Type of mouse                  |
| MOUSE_BUTTONS                                          | smallint          | Number of buttons on the mouse |
| <b>Note:</b> Foreign key (SYSTEM_ID), references BASE. |                   |                                |

### F.1.10 PRINTER Table

*Table 13. PRINTER Table. PRINTER information, one (1) entry per installed printer.*

| Name                                                   | Type              | Description                  |
|--------------------------------------------------------|-------------------|------------------------------|
| SYSTEM_ID                                              | char(32) not null | Identifies unique system ID  |
| PRINTER_PORT                                           | char(4)           | Name of logical printer port |
| PRINT_QUEUE                                            | char(8)           | Name of print queue          |
| PRINTER_DRIVER                                         | char(16)          | Name of printer driver       |
| PRINTER_MODEL                                          | char(32)          | Name of printer model        |
| <b>Note:</b> Foreign key (SYSTEM_ID), references BASE. |                   |                              |

### F.1.11 PROCESSOR Table

*Table 14. PROCESSOR Configuration Table. Processor information, one (1) entry per processor.*

| Name         | Type              | Description                 |
|--------------|-------------------|-----------------------------|
| SYSTEM_ID    | char(32) not null | Identifies unique system ID |
| PROCESSOR    | char(16)          | Processor type              |
| CO_PROCESSOR | char(16)          | Co_Processor type           |

*Table 14. PROCESSOR Configuration Table. Processor information, one (1) entry per processor.*

| Name                                                   | Type     | Description                                                          |
|--------------------------------------------------------|----------|----------------------------------------------------------------------|
| PROCESSOR_SPEED                                        | int      | Speed of installed processor in MHz                                  |
| INTERNAL_CACHE                                         | char(1)  | Internal processor cache enabled (E), disabled (D) not installed (N) |
| EXTERNAL_CACHE                                         | char(1)  | External processor cache enabled (E), disabled (D) not installed (N) |
| PLANAR_SPEED                                           | int      | Speed of planar in MHz                                               |
| PROCESSOR_NUMBER                                       | smallint | Processor number<br>Multiprocessor use only.                         |
| <b>Note:</b> Foreign key (SYSTEM_ID), references BASE. |          |                                                                      |

### F.1.12 SYSLEVEL Table

*Table 15. SYSLEVEL Table. SYSLEVEL information, one (1) entry per installed product.*

| Name                                                   | Type              | Description                      |
|--------------------------------------------------------|-------------------|----------------------------------|
| SYSTEM_ID                                              | char(32) not null | Identifies unique system ID      |
| PRODUCT_NAME                                           | char(80)          | Name of software product         |
| PRODUCT_VERSION                                        | char(5)           | Version of software product      |
| COMPONENT_ID                                           | char(9)           | ID number of installed component |
| CURRENT_CSD                                            | char(8)           | Current install CSD level        |
| PREVIOUS_CSD                                           | char(8)           | Previous install CSD level       |
| <b>Note:</b> Foreign key (SYSTEM_ID), references BASE. |                   |                                  |

### F.1.13 MEMORY Table

*Table 16 (Page 1 of 2). MEMORY Table. MEMORY information, one (1) entry per connector.*

| Name                                                   | Type              | Description                          |
|--------------------------------------------------------|-------------------|--------------------------------------|
| SYSTEM_ID                                              | char(32) not null | Identifies unique system ID          |
| CONNECTOR_ID                                           | char(8)           | ID number of installed connector     |
| MEMORY_SIZE                                            | dec(10,2)         | Memory size in megabytes             |
| MEMORY_SPEED                                           | dec(10,2)         | Memory speed in nanoseconds          |
| MEMORY_TYPE                                            | char(10)          | Memory type for example, Parity, ECC |
| <b>Note:</b> Foreign key (SYSTEM_ID), references BASE. |                   |                                      |

## F.1.14 DASD\_ADAPTER Table

| <i>Table 17. DASD_ADAPTER Table. DASD adapter information, one (1) entry per adapter.</i> |                   |                                               |
|-------------------------------------------------------------------------------------------|-------------------|-----------------------------------------------|
| <b>Name</b>                                                                               | <b>Type</b>       | <b>Description</b>                            |
| SYSTEM_ID                                                                                 | char(32) not null | Identifies unique system ID                   |
| PHYSICAL_UNIT                                                                             | smallint          | Physical unit number                          |
| LOGICAL_UNIT                                                                              | smallint          | Logical unit number                           |
| DASD_BUS_TYPE                                                                             | char(10)          | Type of bus used, for example, SCSI           |
| DASD_SLOT                                                                                 | smallint          | Adapter slot location                         |
| BUS_ATTRIBUTES                                                                            | char(20)          | Bus attributes                                |
| IO_ACCESS                                                                                 | char(20)          | Vehicle for I/O access for example, busmaster |
| HOST_BUS                                                                                  | char(20)          | Host bus                                      |
| HOST_BUS_WIDTH                                                                            | smallint          | Host bus width                                |
| MAX_SCATTER                                                                               | smallint          | Maximum scatter gather list                   |
| MAX_CDB                                                                                   | smallint          | Maximum CDB length                            |
| ADD_MAJOR                                                                                 | smallint          | ADD major level                               |
| ADD_MINOR                                                                                 | smallint          | ADD minor level                               |
| DASD_DEVICES                                                                              | smallint          | Number of devices on DASD adapter card        |
| <b>Note:</b> Foreign key (SYSTEM_ID), references BASE.                                    |                   |                                               |

## F.1.15 DASD\_DEVICE Table

| <i>Table 18 (Page 1 of 2). DASD_DEVICE Table. DASD_DEVICE information, one (1) entry per device on DASD adapter card.</i> |                   |                                                   |
|---------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------------|
| <b>Name</b>                                                                                                               | <b>Type</b>       | <b>Description</b>                                |
| SYSTEM_ID                                                                                                                 | char(32) not null | Identifies unique system ID                       |
| DASD_SIZE                                                                                                                 | dec(10,2)         | DASD device capacity in megabytes                 |
| DASD_TYPE                                                                                                                 | char(40)          | DASD device type                                  |
| UNIT_PUN                                                                                                                  | smallint          | Device unit PUN                                   |
| UNIT_LUN                                                                                                                  | smallint          | Device unit LUN                                   |
| ANSI_LEVEL                                                                                                                | char(20)          | ANSI level supported                              |
| UNIT_STATUS                                                                                                               | char(1)           | Unit status, A = active D = disabled, U = unknown |
| VENDOR_ID                                                                                                                 | char(8)           | Vendor ID                                         |
| PRODUCT_ID                                                                                                                | char(16)          | Product ID numbers                                |
| PRODUCT_REVISION                                                                                                          | char(4)           | Product revision level                            |
| <b>Note:</b> Foreign key (SYSTEM_ID), references BASE.                                                                    |                   |                                                   |

## F.2 NetFinity System Profile Tables

The following database configuration tables contain the name, type, and description of database entries for information gathered and exported by the System Information Tool from the system profile:

- SYSTEM\_PROFILE Table
- SYSTEM\_USER Table
- SYSTEM\_LOCATION Table
- SYSTEM\_CONTACTS Table
- SYSTEM\_MISC Table

### F.2.1 SYSTEM\_PROFILE Table

| <i>Table 19. SYSTEM_PROFILE Table. System profile information, one (1) entry per system_id.</i> |                   |                               |
|-------------------------------------------------------------------------------------------------|-------------------|-------------------------------|
| Name                                                                                            | Type              | Description                   |
| SYSTEM_ID                                                                                       | char(32) not null | Identifies unique system ID   |
| MODEL_NAME                                                                                      | char(32)          | Model name of system          |
| MODEL_NUMBER                                                                                    | char(32)          | Model number of system        |
| SYSTEM_SERIAL                                                                                   | char(32)          | System serial number          |
| SYSTEM_BOARD_SER                                                                                | char(32)          | System board serial number    |
| PROCESSOR_CARD_SER                                                                              | char(32)          | System processor card number  |
| SYSTEM_PURCHASED                                                                                | date              | Date the system was purchased |
| DISPLAY_MODEL                                                                                   | char(32)          | Display model name            |
| DISPLAY_PURCHASED                                                                               | date              | Date display was purchased    |
| PRINTER_MODEL                                                                                   | char(32)          | Printer model name            |
| PRINTER_SERIAL                                                                                  | char(32)          | Printer serial number         |
| PRINTER_PURCHASED                                                                               | date              | Date printer was purchased    |
| MODEM_MODEL                                                                                     | char(32)          | Modem model name              |
| MODEM_SERIAL                                                                                    | char(32)          | Modem serial number           |
| MODEM_PURCHASED                                                                                 | date              | Date modem was purchased      |
| <b>Note:</b> Foreign key (SYSTEM_ID), references BASE.                                          |                   |                               |

**Note:** Database management systems that do not support the date or time data type will assign it an SQL-type time stamp (for example, datetime).

### F.2.2 SYSTEM\_USER Table

| <i>Table 20. SYSTEM_USER Table. System profile user information, one (1) entry per system_id.</i> |                   |                             |
|---------------------------------------------------------------------------------------------------|-------------------|-----------------------------|
| Name                                                                                              | Type              | Description                 |
| SYSTEM_ID                                                                                         | char(32) not null | Identifies unique system ID |
| FIRST_NAME                                                                                        | char(32)          | First name                  |
| MIDDLE_NAME                                                                                       | char(32)          | Middle name                 |

*Table 20. SYSTEM\_USER Table. System profile user information, one (1) entry per system\_id.*

| Name            | Type     | Description                        |
|-----------------|----------|------------------------------------|
| LAST_NAME       | char(32) | Last name                          |
| EMPLOYEE_ID     | char(32) | Employee ID                        |
| TITLE           | char(32) | Title                              |
| DEPT_NAME       | char(32) | Department name                    |
| DEPT_NUMBER     | char(32) | Department number                  |
| DIVISION        | char(32) | Division                           |
| START_DATE      | date     | Start date                         |
| SHIFT           | char(32) | Shift                              |
| SCHEDULED_START | time     | Scheduled start time               |
| SCHEDULED_END   | time     | Scheduled end time                 |
| HOME_PHONE      | char(32) | Home telephone                     |
| HOME_STREET1    | char(32) | Home street - line 1               |
| HOME_STREET2    | char(32) | Home street - line 2               |
| HOME_CITY       | char(32) | Home city                          |
| HOME_STATE      | char(32) | Home state                         |
| HOME_ZIP        | char(32) | Home zip code                      |
| HOME_COUNTRY    | char(32) | Home country                       |
| EMERGENCY_NAME  | char(32) | Emergency contact name             |
| EMERGENCY_PHONE | char(32) | Emergency contact telephone number |

**Note:** Foreign key (SYSTEM\_ID), references BASE.

**Note:** Database management systems that do not support the date or time data type will assign it an SQL-type time stamp (for example, datetime). On some database management systems (such as Microsoft SQL Server), SYSTEM\_USER is a reserved keyword. On these systems, the name of this table is SYSTEM\_USER1.

### F.2.3 SYSTEM\_LOCATION Table

*Table 21 (Page 1 of 2). SYSTEM\_LOCATION Table. System profile location information, one (1) entry per system\_id.*

| Name         | Type              | Description                 |
|--------------|-------------------|-----------------------------|
| SYSTEM_ID    | char(32) not null | Identifies unique system ID |
| COMPANY_NAME | char(32)          | Name of the company         |
| ADDRESS      | char(32)          | Internal location of user   |
| CITY         | char(32)          | Location city               |
| STATE        | char(32)          | Location state              |
| ZIP_CODE     | char(32)          | Location zip code           |
| COUNTRY      | char(32)          | Country of location         |
| SITE_NAME    | char(32)          | Name of site                |

| <i>Table 21 (Page 2 of 2). SYSTEM_LOCATION Table. System profile location information, one (1) entry per system_id.</i> |             |                                |
|-------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------------|
| <b>Name</b>                                                                                                             | <b>Type</b> | <b>Description</b>             |
| OFFICE_NUMBER                                                                                                           | char(32)    | Internal office number of user |
| BUILDING                                                                                                                | char(32)    | Building location              |
| FLOOR                                                                                                                   | char(32)    | Building floor                 |
| <b>Note:</b> Foreign key (SYSTEM_ID), references BASE.                                                                  |             |                                |

## F.2.4 SYSTEM\_CONTACTS Table

| <i>Table 22. SYSTEM_CONTACTS Table. System profile contact information, one (1) entry per system_id.</i> |                   |                                       |
|----------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------|
| <b>Name</b>                                                                                              | <b>Type</b>       | <b>Description</b>                    |
| SYSTEM_ID                                                                                                | char(32) not null | Identifies unique system ID           |
| INTERNAL_PHONE                                                                                           | char(32)          | Internal telephone number             |
| EXTERNAL_PHONE                                                                                           | char(32)          | External telephone number             |
| CELLULAR_PHONE                                                                                           | char(32)          | Cellular telephone number             |
| PAGER_NUMBER                                                                                             | char(32)          | Pager number                          |
| FAX_NUMBER                                                                                               | char(32)          | Fax number                            |
| E-mail_ADDRESS                                                                                           | char(32)          | E-mail address                        |
| BACKUP_NAME                                                                                              | char(32)          | Backup name                           |
| BACKUP_PHONE                                                                                             | char(32)          | Backup telephone number               |
| TECHNICAL_NAME                                                                                           | char(32)          | Name of technical contact             |
| TECHNICAL_PHONE                                                                                          | char(32)          | Telephone number of technical contact |
| MANAGER_NAME                                                                                             | char(32)          | Name of manager                       |
| MANAGER_PHONE                                                                                            | char(32)          | Telephone number of manager           |
| SECRETARY_NAME                                                                                           | char(32)          | Name of secretary                     |
| SECRETARY_PHONE                                                                                          | char(32)          | Telephone number of secretary         |
| <b>Note:</b> Foreign key (SYSTEM_ID), references BASE.                                                   |                   |                                       |

## F.2.5 SYSTEM\_MISC Table

| <i>Table 23. SYSTEM_MISC Table. System profile miscellaneous information, one (1) entry for each miscellaneous slot containing information.</i> |                   |                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------|
| <b>Name</b>                                                                                                                                     | <b>Type</b>       | <b>Description</b>          |
| SYSTEM_ID                                                                                                                                       | char(32) not null | Identifies unique system ID |
| ENTRY_SLOT x                                                                                                                                    | smallint          | Slot number of entry        |
| MISC_INFO                                                                                                                                       | char(32)          | Miscellaneous entry data    |
| <b>Note:</b> Foreign key (SYSTEM_ID), references BASE.                                                                                          |                   |                             |

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## F.3 NetFinity Monitor Tables

The following two tables are related to the system monitors:

- MONITOR\_STATE Table
- MONITOR\_VALUE Table

### F.3.1 MONITOR\_STATE Table

| <i>Table 24. MONITOR_STATE Table. Monitors containing state information.</i>                     |                       |                             |
|--------------------------------------------------------------------------------------------------|-----------------------|-----------------------------|
| Name                                                                                             | Type                  | Description                 |
| SYSTEM_ID                                                                                        | char(32) not null     | Identifies unique system ID |
| MONITOR_NAME                                                                                     | varchar(128) not null | Name of monitor             |
| MONITOR_STATE                                                                                    | varchar(64) not null  | State reported by monitor   |
| MONITOR_DATETIME                                                                                 | timestamp not null    | Date/time stamp             |
| <b>Note:</b> The primary key is SYSTEM_ID, MONITOR_NAME, MONITOR_DATETIME unique. No duplicates. |                       |                             |

### F.3.2 MONITOR\_VALUE Table

| <i>Table 25. MONITOR_VALUE Table. Monitors containing quantitative data points.</i>              |                    |                                         |
|--------------------------------------------------------------------------------------------------|--------------------|-----------------------------------------|
| Name                                                                                             | Type               | Description                             |
| SYSTEM_ID                                                                                        | char(32) not null  | Identifies unique system ID             |
| MONITOR_NAME                                                                                     | char(128) not null | Name of monitor                         |
| MONITOR_DATA                                                                                     | float not null     | Data point sent from monitor            |
| MONITOR_INTERVAL                                                                                 | int not null       | Time interval for data point in seconds |
| MONITOR_DATETIME                                                                                 | timestamp not null | Date/time stamp                         |
| <b>Note:</b> The primary key is SYSTEM_ID, MONITOR_NAME, MONITOR_DATETIME unique. No duplicates. |                    |                                         |

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## F.4 NetFinity Software Inventory Tables

The following table describes the software inventory table format:

- SOFTWARE\_INVENTORY Table

### F.4.1 SOFTWARE\_INVENTORY Table

| <i>Table 26 (Page 1 of 2). SOFTWARE_INVENTORY Table. Software inventory information.</i> |                   |                             |
|------------------------------------------------------------------------------------------|-------------------|-----------------------------|
| Name                                                                                     | Type              | Description                 |
| SYSTEM_ID                                                                                | char(32) not null | Identifies unique system ID |

*Table 26 (Page 2 of 2). SOFTWARE\_INVENTORY Table. Software inventory information.*

| Name              | Type         | Description                         |
|-------------------|--------------|-------------------------------------|
| MANAGING_ID       | char(32)     | NetFinity system manager for group  |
| GROUP_NAME        | char(32)     | NetFinity logical group             |
| PROGRAM_TITLE     | varchar(64)  | Text title of program               |
| VERSION           | char(16)     | Identifies unique version           |
| RELEASE_LEVEL     | char(12)     | Identifies release level of product |
| VENDOR_NAME       | char(32)     | Name of software vendor             |
| LOCATION          | varchar(256) | Location of installed product       |
| SOFT_INV_DATETIME | timestamp    | Date/time stamp                     |

**Note:** The varchar data type has a maximum value of 255 characters on Microsoft SQL Server databases (and others). This value may be up to 256 characters on DB2 databases.

## F.5 NetFinity Alert Table

The NetFinity V5.0 alert log format follows:

- ALERT\_LOG Table

### F.5.1 ALERT\_LOG Table

*Table 27. ALERT\_LOG Table. Alert log information, one (1) entry per alert.*

| Name            | Type              | Description                    |
|-----------------|-------------------|--------------------------------|
| SYSTEM_ID       | char(32) not null | Identifies unique system ID    |
| ALERT_TEXT      | varchar(128)      | Text of alert                  |
| ALERT_ID        | char(32)          | ID of alert (type of alert)    |
| ALERT_CLASS     | char(32)          | Class of alert (type of alert) |
| SEVERITY        | smallint          | Severity of alert              |
| APPLICATION_ID  | char(8)           | Application ID                 |
| APPL_ALERT_TYPE | char(4)           | Application alert type         |
| RECEIVED_FROM   | varchar(256)      | Received from (path)           |
| SYSTEM_NAME     | varchar(64)       | System generating the alert    |
| ALERT_DATETIME  | timestamp         | Date/time of alert             |

**Note:** The varchar data type has a maximum value of 255 characters on Microsoft SQL Server databases (and others). This value may be up to 256 characters on DB2 databases.

## Appendix G. NetFinity Wake-on-LAN Checklist

This appendix shows a NetFinity Wake-on-LAN checklist.

### NetFinity 'Wake-on-LAN' Checklist

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 For best results, we recommend that you install NetFinity (PC SystemView) Version 5.00 or later at both the administrator's workstation and at the machine targetted for wake-up.  
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#### HARDWARE

=====

|                                                                                                                                    |    |                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------|----|-----------------------------------------------------------------------------------------------|
| Do you have an Ethernet card or token-ring card which includes the 'wake-up-on-LAN' function (e.g. Panther) in the target machine? | NO | ----->The network card must be capable of detecting the 'magic packet' to initiate a wake-up. |
|------------------------------------------------------------------------------------------------------------------------------------|----|-----------------------------------------------------------------------------------------------|

YES

|                                                                                                       |    |                                                                                                   |
|-------------------------------------------------------------------------------------------------------|----|---------------------------------------------------------------------------------------------------|
| Is the target machine a Firepower or Flashpoint (or some other 'wake-up on LAN' enabled system unit)? | NO | ----->The system unit must be capable of reacting to the wake-up signal from the network adapter. |
|-------------------------------------------------------------------------------------------------------|----|---------------------------------------------------------------------------------------------------|

YES

#### HARDWARE CONFIG

=====

|                                                                                                                                                     |    |                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|----|-----------------------------------------------------------------------------|
| Is the target system configured to allow 'wake-up-on-LAN'? (Under SurePath Setup, check Advanced Power Management/ Automatic Power On/LAN Wake Up). | NO | ----->The wake-up function must be enabled using the machine setup program. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|----|-----------------------------------------------------------------------------|

YES

#### SOFTWARE

=====

|                                                                  |    |                                                                                                                                |
|------------------------------------------------------------------|----|--------------------------------------------------------------------------------------------------------------------------------|
| Is NetFinity Vers 3.05 or later installed on the target machine? | NO | ----->Older versions of NetFinity are not 'wake-up' aware and will not tell the NetFinity manager that this capability exists. |
|------------------------------------------------------------------|----|--------------------------------------------------------------------------------------------------------------------------------|

YES

|                                                                 |    |                                                                                      |
|-----------------------------------------------------------------|----|--------------------------------------------------------------------------------------|
| Is the 'wakonlan.dll' properly installed on the target machine? | NO | ----->This DLL tells NetFinity whether the feature is available or not (see note 1). |
|-----------------------------------------------------------------|----|--------------------------------------------------------------------------------------|

YES

|                                                                                               |    |                                                       |
|-----------------------------------------------------------------------------------------------|----|-------------------------------------------------------|
| If the target machine is running OS/2, is the PNPDRV.SYS driver installed (check CONFIG.SYS)? | NO | ----->WAKONLAN.DLL requires this driver (see note 1). |
|-----------------------------------------------------------------------------------------------|----|-------------------------------------------------------|

YES

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Is NetFinity Vers 3.06 or later installed on the administrator machine (the machine attempting to initiate a wake-up)                                                                                                                                                                                                                                                                                                                                                         | NO | Older versions of NetFinity do not know how to send the 'magic packet'.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| YES                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Can the target machine determine its own MAC address (answer YES if ANY of the following are TRUE):                                                                                                                                                                                                                                                                                                                                                                           | NO | The TCP/IP protocol does not provide an API that allows NetFinity to determine the MAC address of the network adapter (which must be known to initiate a wakeup). Starting with NF 3.06, the TCP/IP driver can acquire this info from IPX or NETBIOS if one of those drivers is also enabled. Starting with NF 5.00, NetFinity uses additional operating system and network protocol stack APIs under OS/2 and Windows NT to more aggressively determine the MAC address under TCP/IP. Also starting in NF 5.00, it is possible to force the use of a particular MAC address using an environment variable, regardless of what software APIs report (see note 4). |
| <ul style="list-style-type: none"> <li>a) You intend to manage the target machine using IPX and the NetFinity IPX protocol driver is enabled at the target machine, OR</li> <li>b) You intend to manage the target machine using NETBIOS and the NetFinity NETBIOS protocol driver is enabled at the target machine, OR</li> <li>c) You intend to manage the target machine using TCP/IP and the NetFinity TCP/IP protocol driver is enabled at the target machine</li> </ul> |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| AND                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| The target machine is running NetFinity Version 3.06 or later                                                                                                                                                                                                                                                                                                                                                                                                                 |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| AND                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Either the NETFINITY IPX or NETBIOS protocol drivers are enabled at the target machine, OR                                                                                                                                                                                                                                                                                                                                                                                    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <ul style="list-style-type: none"> <li>d) You intend to manage the target machine using TCP/IP and the NetFinity TCP/IP protocol driver is enabled at the target machine</li> </ul>                                                                                                                                                                                                                                                                                           |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| AND                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| The target machine is running OS/2                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| AND                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| The target machine is running NetFinity Version 5.00 or later, OR                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <ul style="list-style-type: none"> <li>e) The target machine is running Windows NT</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                 |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| AND                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| The target machine is running NetFinity Version 5.00 or later, OR                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <ul style="list-style-type: none"> <li>f) The target machine is running NetFinity 5.00 or later and you overrode the MAC address determination software by using the 'NFWAKEONLAN' environment variable (see note 4).</li> </ul>                                                                                                                                                                                                                                              |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| YES                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Can the administrator machine generate a wake-up 'magic packet'? (answer YES if ANY of the following are TRUE):                                                                                                                                                                                                                                                                                                                                                               | NO | NETBIOS broadcasts are not true broadcasts in the sense that IPX and IP broadcasts are. The NETBIOS APIs do not provide a mechanism for sending the type of broadcast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>a) The administrator machine is using NetFinity Ver 3.06 or later and the IPX protocol driver is enabled,</li> </ul>                                                                                                                                                                                                                                                                                                                   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

b) The administrator machine is using NetFinity Ver 4.0 or later and the TCP/IP protocol driver is enabled.

YES

that 'wake-on-lan' requires. NetFinity will use IPX or IP to send a wake-up packet to a NETBIOS machine if they are available at the admin machine.

Is the token-ring format of the MAC address being sent to the target machine in the wake-up frame if needed?

(Answer YES if any of the following are TRUE):

NO -----> Under 16 bit Windows, NETBIOS may report the token-ring format of the MAC address instead of the real burned-in MAC address needed to wake the card. Starting with Version 4.0, NetFinity will send the wake-up frame using both the reported MAC addresses and the token-ring format of the reported address.

- a) The target machine is using the token-ring version of the wake-up LAN adapter (as opposed to Ethernet),
- b) The target machine is not running Windows 3.1 or Windows 95,
- c) The administrator machine is using NetFinity 4.0 or later

YES

If the target machine is running Windows 95, does the MAC address in the Win 95 configuration match the actual address of the card?

NO -----> The MAC address that is reported to NetFinity is the one that appears in the 'Network Neighborhood'. If it does not match the real address burned into the network card, the card will not respond to the 'magic packets' when they are sent.

To check this:

- a) Click on 'Network Neighborhood',
- b) Select 'Properties',
- c) Find the network card which has wake-up capabilities (and select it),
- d) Select 'Properties',
- e) Select 'Advanced',
- f) Verify or correct the 'Value' of the 'Network Address'. It should match the value reported by the LANAID configuration utility that came with the card.

YES

NETWORK  
=====

Are 'Locally Administered Addresses' being used at the target machine?

YES -----> The use of LAAs interferes with NetFinity's ability to determine the real MAC address of the network adapter (see note 3).

NO

Will IP or IPX broadcast frames sent from the admin machine be able to pass through the network to the portion

NO -----> Some equipment in the network (e.g., hubs, bridges, routers) may

of the network where the target machine resides?

YES

be configured to pass only selected protocols or to block broadcasts. If you are not sure about your network, ask your network administrator.

OTHER  
=====

Did you wait one presence check interval (the default value is 10 minutes but can be changed) or perform a presence check on the system after it was discovered into a group (see note 2).

NO

NetFinity Manager does not learn about a system's ability to support wake-up during the initial discovery but does detect this capability on subsequent presence checks.

YES

Find the target system icon in the appropriate group(s) under the NetFinity Remote System Manager. (Multiple icons for the target machine may be present in the group if the machine is accessible via more than one network protocol.) Find the icon that represents the target machine via the IPX or NETBIOS network. (Easiest to do using the 'detail view'.) From the context menu for that system (that is, right mouse click on the target machine's icon or name) the 'wake up' option should appear. It will be gray and non-selectable if the system is currently online and selectable if the system is offline.

If the target machine is running NetFinity Vers 3.06 or later and has both TCP/IP and IPX protocol support (or TCP/IP and NETBIOS) or if the target machine is running NetFinity 5.00 or later and is using TCP/IP under OS/2 or Windows NT, then the icon representing the target machine via the TCP/IP network should also present the 'wake up' option on the context menu.

If the wake-up function still does not appear on the menu or does not work, carefully review your answers to the questions asked above and then suspect a hardware or installation problem. The network adapter must be properly cabled to the planar board. (Early systems had a problem with a two conductor wire between the network card and the planar being reversed. If the cable is reversed another symptom that should be apparent is that the main power button will not power the system on and off correctly. If it is necessary to reverse the cable, pull the power plug from the wall before reversing the cable - remember that these machines remain partially powered internally even when they appear to be off.)

NOTES:

- (1) - The 'wakonlan' DLL is used by NetFinity to determine whether the network card in the target system is capable of being awoken. If you do not have the 'wakonlan' DLL (or if the version of the DLL that you have does not support the network card which you are using), you may override the result returned from the DLL using an environment variable:

```
SET NFWAKEONLAN=ON
or
SET NFWAKEONLAN=YES
```

This will cause NetFinity to believe that the function is available regardless of 'wakeonlan.dll'. Likewise,

```
SET NFWAKEONLAN=OFF
or
SET NFWAKEONLAN=NO
```

will disable the feature.

If the environment variable is used, WAKONLAN.DLL and PNPDRV.SYS are not required on the target system.

- (2) - The default interval between presence checks is 10 minutes. To verify or change the value, click the right mouse button on a system icon and select System Notifications from the menu. To initiate a presence check manually, select Presence Check from the same menu.
- (3) - Starting with NetFinity 5.0 a target machine running Windows NT can properly report its MAC address even if Locally Administered Addresses are being used, so this restriction may not apply.
- (4) - Starting with NetFinity 5.0 it is possible to force NetFinity to use a specific MAC address regardless of what the operating system and network protocol APIs report. To do this, add the following environment variable at the target machine:

```
SET NFWAKEONLAN=nnnnnnnnnnnn
```

where nnnnnnnnnnn is a 12 digit hexadecimal number which is the MAC address to be used. Note that setting this variable is also equivalent to setting NFWAKEONLAN=YES and will force the Wake On LAN feature to be reported as present. Double check the number carefully; it's easy to make a typing error when entering a 12 digit hex number!



---

## Appendix H. System Information Tool

The System Information Tool is a window application designed to gather and display a lot of technical information about the hardware and software configuration of your system. The program is primarily designed for use on IBM PS/1s, PS/2s, PS/Valuepoints, ThinkPad systems and PC Servers, but many features will function on systems from other vendors. In addition to its operation as a window application, the System Information Utility can generate output to a file, printer or database using either command line options or pull-down menu selections during its operation. The System Information Tool provides information on the following topics:

- Adapter identity, with configuration information for many common adapters. This feature is provided for PCI, Micro Channel, ISA, and EISA bus systems.
- Drive information, including file system type, available space, drive size, and partition layout.
- Power management information.
- Error log display and interpretation.
- Keyboard information.
- Memory configuration, including total physical memory and installed SIMM identification.
- Mouse type and settings.
- Operating system information, including version, DOS support, and session limits.
- Model and processor information, including model name, processor type and speed, and BIOS date.
- Parallel and serial port configuration.
- PCI Bus configuration.
- PCMCIA Bus configuration.
- Printer configuration, including data on installed printer drivers.
- SCSI, ESDI, IDE/ST506, or other disk adapter information, including devices attached, device sizes, and adapter data.
- System security features, including power-on password and C2 features.
- Video system information, including adapter type, screen resolution, and video display identification.
- Vital product data (VPD).

The program also contains support for control from the command line, including text report generation and binary history file generation and loading.

Double-click on the **System Information Tool** in the Service Manager window.

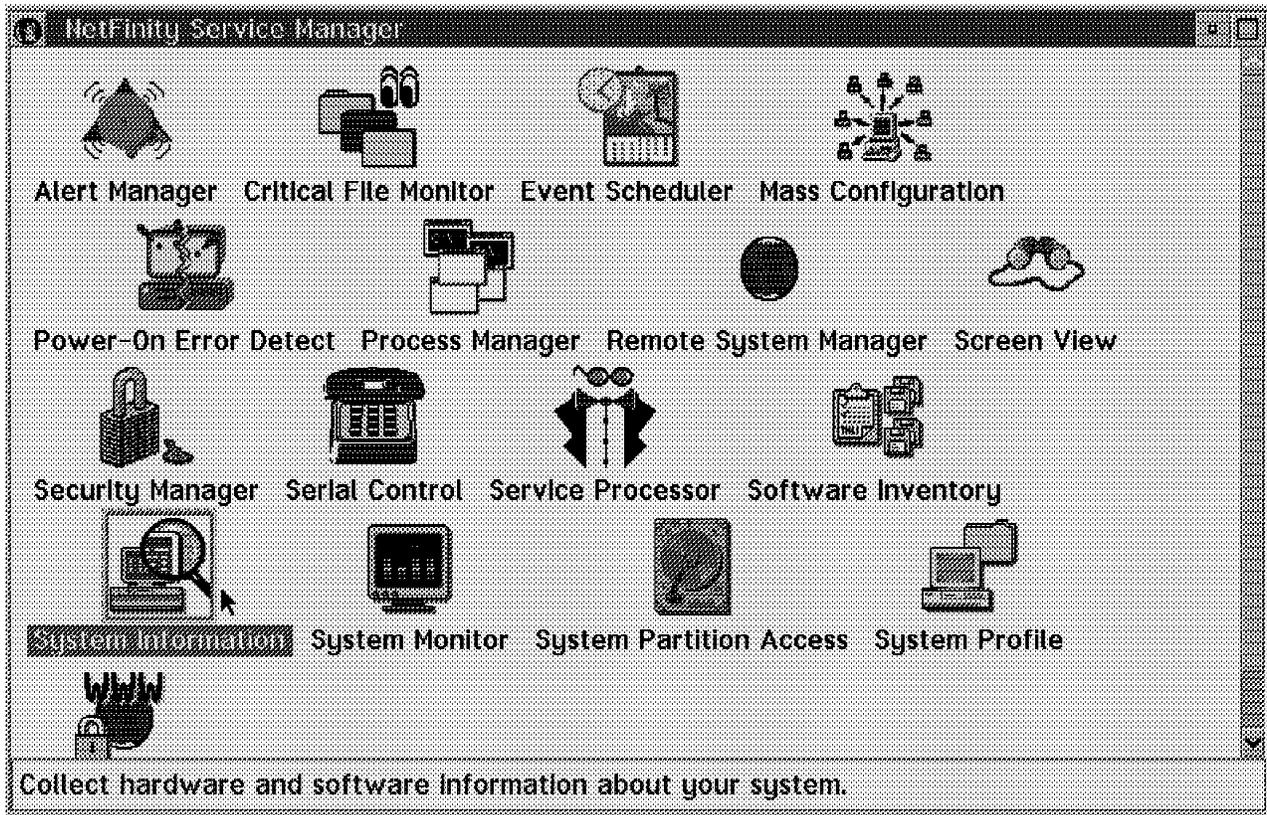


Figure 300. NetFinity V5.0 Service Manager

After a short period of time, this results in a window with links to all the system information. Samples of all the windows are provided in Appendix I, "System Information Tool Using the Graphical User Interface" on page 267.

## H.1 Command Line Interface for System Information Tool

The format of the command line interface for the NFSYSICL tool is:

NFSYSICL - CLI tool for system information tool

The following command line operations are supported:

```

/? - Returns this command-line help
/HIST:fname - Generates history file 'fname'
/HISTOUT - Generates history file with unique name
/RPT:fname - Generates report file 'fname'
/RPTOUT - Generates report file with unique name
/DBDLL:dbi_name /DBNAME:database
 - Exports data to selected database

```

## H.2 Examples Using Command Line Interface

- Generate a history file to a file:

```
nfsysicl.exe /hist:"c:\jjsysinf\temp\77inf1.hst"
```

Output:

```
HSTFILE="C:\jjsysinf\temp\77inf1.hst"
```

- Generate a history file to a generated file name:

```
nfsysicl.exe /histout
```

Output:

```
HSTFILE="04B20C1E.HST"
```

- Generate a text report and place it in a file:

```
nfsysicl.exe /rpt:"c:\jjsysinf\temp\77inf3.rpt"
```

Output:

```
RPTFILE="C:\jjsysinf\temp\77inf3.rpt"
```

- Generate a text report and put in a generated file:

```
nfsysicl.exe /rptout
```

Output:

```
RPTFILE="04B59B9D.RPT"
```

- Export data to a database:

```
nfsysicl.exe /export:DB20S2FI /dbname:"NFDBASE"
```

Output: The database data in text format

```
Table=BASE[0]
SYSTEM_ID="*"
MANAGING_ID="TME05154"
GROUP_NAME=NULL
OPERATING_SYSTEM="OS/2 Operating System"
VERSION="3.00"
MEMORY_OPERATING=31
MEMORY_BASE=0.63
MEMORY_USABLE=31
MEMORY_BOARD=32384
MEMORY_ADAPTER=0
MEMORY_CACHEABLE=31
REFERENCE_DISK=NULL
NVRAM=8192
DEDICATED_IRQ="0 1 2 8 "
SHARED_IRQ="6 7 9 12 13 14 "
PARALLEL_PORTS=1
SERIAL_PORTS=2
SYSTEM_SERIAL="9577DNG23TNBXW"
PLANAR_ID=NULL
PLANAR_SERIAL=" B10Z63990TP"
PROCESSOR_CARD_SER=NULL
BASE_DATE="1996-10-04"
BASE_TIME="18.47.24"
Table=EXPANSION_SLOT[0]
SYSTEM_ID="*"
SLOT=1
BUS_TYPE="(32-bit Micro Ch"
BUS_NUMBER=NULL
ADAPTER_ID="8FDA"
ADAPTER_TYPE="XGA-2 Display Adapter/A"
Table=EXPANSION_SLOT[1]
SYSTEM_ID="*"

```

```

SLOT=3
BUS_TYPE="(32-bit Micro Ch"
BUS_NUMBER=NULL
ADAPTER_ID="E001"
ADAPTER_TYPE="IBM Token-Ring Network 16/4 Adapter/A"
Table=SYSLEVEL[0]
SYSTEM_ID="*"
PRODUCT_NAME="IBM OS/2 Socket/Multi-Protocol Transport Services"
PRODUCT_VERSION="2.00."
COMPONENT_ID="562280700"
CURRENT_CSD="WR08000_"
PREVIOUS_CSD="WR08000_"
Table=SYSLEVEL[1]
SYSTEM_ID="*"
PRODUCT_NAME="IBM OS/2 LAN Adapter and Protocol Support"
PRODUCT_VERSION="2.60."
COMPONENT_ID="562280700"
CURRENT_CSD="WR08000_"
PREVIOUS_CSD="WR08000_"
Table=SYSLEVEL[2]
SYSTEM_ID="*"
PRODUCT_NAME="IBM OS/2 LAN Requester"
PRODUCT_VERSION="4.00."
COMPONENT_ID="562246101"
CURRENT_CSD="IP08030_"
PREVIOUS_CSD="IP08000_"
Table=SYSLEVEL[3]
SYSTEM_ID="*"
PRODUCT_NAME="IBM OS/2 User Profile Management"
PRODUCT_VERSION="4.00"
COMPONENT_ID="562246104"
CURRENT_CSD="WR08000_"
PREVIOUS_CSD="WR08000_"
Table=SYSLEVEL[4]
SYSTEM_ID="*"
PRODUCT_NAME="IBM OS/2 User Profile Management - Extended"
PRODUCT_VERSION="4.00"
COMPONENT_ID="562246105"
CURRENT_CSD="IP08000_"
PREVIOUS_CSD="IP08000_"
Table=SYSLEVEL[5]
SYSTEM_ID="*"
PRODUCT_NAME="IBM OS/2 First Failure Support Technology/2"
PRODUCT_VERSION="1.20"
COMPONENT_ID="562119400"
CURRENT_CSD="WR00470_"
PREVIOUS_CSD="WR00460_"
Table=SYSLEVEL[6]
SYSTEM_ID="*"
PRODUCT_NAME="IBM Communications Manager/2 IBM Internal Use Only"
PRODUCT_VERSION="1.11"
COMPONENT_ID="2207800"
CURRENT_CSD="WR06150_"
PREVIOUS_CSD="WR00000_"
Table=SYSLEVEL[7]
SYSTEM_ID="*"
PRODUCT_NAME="IBM OS/2 32-bit Graphics Engine"
PRODUCT_VERSION="3.00"
COMPONENT_ID="562274700"

```

```

CURRENT_CSD="XR03003_"
PREVIOUS_CSD="XR03003_"
Table=SYSLEVEL[8]
SYSTEM_ID="*"
PRODUCT_NAME="IBM OS/2 Base Operating System"
PRODUCT_VERSION="3.00"
COMPONENT_ID="562274700"
CURRENT_CSD="XR03003_"
PREVIOUS_CSD="XR03003_"
Table=SYSLEVEL[9]
SYSTEM_ID="*"
PRODUCT_NAME="Distributed SOM Framework"
PRODUCT_VERSION="2.01."
COMPONENT_ID="96F8647DS"
CURRENT_CSD="SM20004_"
PREVIOUS_CSD="SM20003_"
Table=SYSLEVEL[10]
SYSTEM_ID="*"
PRODUCT_NAME="SOM Event Management Framework"
PRODUCT_VERSION="2.01."
COMPONENT_ID="96F8647EM"
CURRENT_CSD="SM20004_"
PREVIOUS_CSD="SM20003_"
Table=SYSLEVEL[11]
SYSTEM_ID="*"
PRODUCT_NAME="SOMobjects Interface Repository Framework"
PRODUCT_VERSION="2.01."
COMPONENT_ID="96F8647IR"
CURRENT_CSD="SM20004_"
PREVIOUS_CSD="SM20003_"
Table=SYSLEVEL[12]
SYSTEM_ID="*"
PRODUCT_NAME="SOM Run-time Kernel"
PRODUCT_VERSION="2.01."
COMPONENT_ID="96F8647RK"
CURRENT_CSD="SM20004_"
PREVIOUS_CSD="SM20003_"
Table=SYSLEVEL[13]
SYSTEM_ID="*"
PRODUCT_NAME="SOMobjects Taligent Collection Classes"
PRODUCT_VERSION="2.01"
COMPONENT_ID="96F8647UC"
CURRENT_CSD="SM20004_"
PREVIOUS_CSD="SM20003_"
Table=SYSLEVEL[14]
SYSTEM_ID="*"
PRODUCT_NAME="SOMobjects Utility Classes"
PRODUCT_VERSION="2.01."
COMPONENT_ID="96F8647UT"
CURRENT_CSD="SM20004_"
PREVIOUS_CSD="SM20003_"
Table=SYSLEVEL[15]
SYSTEM_ID="*"
PRODUCT_NAME=" IBM TCP/IP Version 3.0 for OS/2"
PRODUCT_VERSION="3.00"
COMPONENT_ID="562281300"
CURRENT_CSD="IC00000_"
PREVIOUS_CSD="IC00000_"
Table=SYSLEVEL[16]

```

```

SYSTEM_ID="*"
PRODUCT_NAME="IBM Ultimedia Mail Lite Client for OS/2"
PRODUCT_VERSION="2.10"
COMPONENT_ID="562260112"
CURRENT_CSD="UN00000_"
PREVIOUS_CSD="UN00000_"
Table=SYSLEVEL[17]
SYSTEM_ID="*"
PRODUCT_NAME="IBM DB2 Client Application Enabler for OS/2"
PRODUCT_VERSION="2.11"
COMPONENT_ID="562212900"
CURRENT_CSD="WR08080_"
PREVIOUS_CSD="WR08000_"
Table=SYSLEVEL[18]
SYSTEM_ID="*"
PRODUCT_NAME="IBM DB2 for OS/2 Server"
PRODUCT_VERSION="2.11"
COMPONENT_ID="562204401"
CURRENT_CSD="WR08080_"
PREVIOUS_CSD="WR08000_"
Table=SYSLEVEL[19]
SYSTEM_ID="*"
PRODUCT_NAME="TME 10 NetFinity Manager for OS/2"
PRODUCT_VERSION="4.00."
COMPONENT_ID="564202000"
CURRENT_CSD="NM00401_"
PREVIOUS_CSD="NM00401_"
Table=SYSLEVEL[20]
SYSTEM_ID="*"
PRODUCT_NAME="TME 10 NetFinity Services for OS/2"
PRODUCT_VERSION="4.00."
COMPONENT_ID="564201000"
CURRENT_CSD="NS00401_"
PREVIOUS_CSD="NS00401_"
Table=DISPLAY[0]
SYSTEM_ID="*"
DISPLAY_ADAPTER="XGA-2 Video Adapter"
DISPLAY_TYPE="IBM 9517"
VIDEO_MEMORY=1024
COLORS=256
HORIZONTAL_RES=1024
VERTICAL_RES=768
HORIZONTAL_SIZE=300
VERTICAL_SIZE=225
VIDEO_SUBSYSTEM=0
SLOT_LOCATION=1
Table=KEYBOARD[0]
SYSTEM_ID="*"
KEYBOARD_TYPE="101/102 Key Enhanced Keyboard"
COUNTRY_CODE="US"
SUBCOUNTRY_CODE="103"
CODE_PAGE=437
Table=MEMORY[0]
SYSTEM_ID="*"
CONNECTOR_ID="MEM1"
MEMORY_SIZE=8
MEMORY_SPEED=70
MEMORY_TYPE="Parity"
Table=MEMORY[1]

```

```

SYSTEM_ID="*"
CONNECTOR_ID="MEM2"
MEMORY_SIZE=8
MEMORY_SPEED=70
MEMORY_TYPE="Parity"
Table=MEMORY[2]
SYSTEM_ID="*"
CONNECTOR_ID="MEM3"
MEMORY_SIZE=8
MEMORY_SPEED=70
MEMORY_TYPE="Parity"
Table=MEMORY[3]
SYSTEM_ID="*"
CONNECTOR_ID="MEM4"
MEMORY_SIZE=8
MEMORY_SPEED=70
MEMORY_TYPE="Parity"
Table=PROCESSOR[0]
SYSTEM_ID="*"
PROCESSOR="80486DX2"
CO_PROCESSOR="80486DX2"
PROCESSOR_SPEED=66
INTERNAL_CACHE="E"
EXTERNAL_CACHE="U"
PLANAR_SPEED=33
PROCESSOR_NUMBER=NULL
Table=MODEL[0]
SYSTEM_ID="*"
MODEL_NAME="IBM PS/2 Model 77"
EXPANSION_BUS="Micro Channel Architecture"
MODEL_NUMBER="F8"
SUBMODEL_NUMBER="41"
BIOS_REVISION="05"
BIOS_DATE="1992-10-28"
Table=PRINTER[0]
SYSTEM_ID="*"
PRINTER_PORT="LPT1"
PRINT_QUEUE="IBM4029L"
PRINTER_DRIVER="IBM4019"
PRINTER_MODEL="IBM 4029 LaserPrinter 10L"
Table=MOUSE[0]
SYSTEM_ID="*"
MOUSE_TYPE="PS/2 Mouse"
MOUSE_BUTTONS=2
Table=DASD_ADAPTER[0]
SYSTEM_ID="*"
PHYSICAL_UNIT=7
LOGICAL_UNIT=0
DASD_BUS_TYPE="SCSI 2"
DASD_SLOT=0
BUS_ATTRIBUTES="8 Bit"
IO_ACCESS="Bus Master"
HOST_BUS="Micro Channel Bus"
HOST_BUS_WIDTH=32
MAX_SCATTER=16
MAX_CDB=NULL
ADD_MAJOR=1
ADD_MINOR=0

```

```

DASD_DEVICES=2
Table=DASD_DEVICE[0]
SYSTEM_ID="*"
DASD_SIZE=517
DASD_TYPE="Fixed Disk"
UNIT_PUN=6
UNIT_LUN=0
ANSI_LEVEL="ANSI SCSI-2"
UNIT_STATUS="A"
VENDOR_ID="IBM "
PRODUCT_ID="MXT-540SL !N"
PRODUCT_REVISION="JA6I"
Table=DASD_DEVICE[1]
SYSTEM_ID="*"
DASD_SIZE=NULL
DASD_TYPE="CD ROM Device"
UNIT_PUN=3
UNIT_LUN=0
ANSI_LEVEL="ANSI SCSI-2"
UNIT_STATUS="U"
VENDOR_ID="IBM "
PRODUCT_ID="CDRM00203"
PRODUCT_REVISION="BZ26"
Table=LOGICAL_DRIVE[0]
SYSTEM_ID="*"
LOGICAL_NAME="A:"
VOLUME_NAME="NONE"
FILE_SYSTEM=NULL
FILE_ATTACH=NULL
DRIVE_TYPE="L"
SECTORS_CLUSTER=0
SECTORS_BYTES=0
DEVICE_CAPACITY=0
AVAILABLE_SPACE=0
PHYSICAL_DRIVE=NULL
Table=DISKETTE[0]
SYSTEM_ID="*"
LOGICAL_DRIVE="A:"
DEVICE_TYPE="2.88MB 3.5-inch Diskette Drive"
Table=LOGICAL_DRIVE[1]
SYSTEM_ID="*"
LOGICAL_NAME="C:"
VOLUME_NAME="DRIVE-C"
FILE_SYSTEM="HPFS"
FILE_ATTACH=NULL
DRIVE_TYPE="L"
SECTORS_CLUSTER=1
SECTORS_BYTES=512
DEVICE_CAPACITY=515.98
AVAILABLE_SPACE=294.12
PHYSICAL_DRIVE="1"
Table=LOGICAL_DRIVE[2]
SYSTEM_ID="*"
LOGICAL_NAME="D:"
VOLUME_NAME="NONE"
FILE_SYSTEM=NULL
FILE_ATTACH=NULL
DRIVE_TYPE="L"
SECTORS_CLUSTER=0

```

```

SECTORS_BYTES=0
DEVICE_CAPACITY=0
AVAILABLE_SPACE=0
PHYSICAL_DRIVE=NULL
Table=LOGICAL_DRIVE[3]
SYSTEM_ID="*"
LOGICAL_NAME="K:"
VOLUME_NAME="F_DRIVE"
FILE_SYSTEM="LAN"
FILE_ATTACH="\\WTRAS1X\NT_CODE"
DRIVE_TYPE="R"
SECTORS_CLUSTER=1
SECTORS_BYTES=512
DEVICE_CAPACITY=2199.98
AVAILABLE_SPACE=698.42
PHYSICAL_DRIVE=NULL
Table=LOGICAL_DRIVE[4]
SYSTEM_ID="*"
LOGICAL_NAME="L:"
VOLUME_NAME="SYS"
FILE_SYSTEM="NETWARE"
FILE_ATTACH=NULL
DRIVE_TYPE="R"
SECTORS_CLUSTER=64
SECTORS_BYTES=512
DEVICE_CAPACITY=195
AVAILABLE_SPACE=0
PHYSICAL_DRIVE=NULL
Table=LOGICAL_DRIVE[5]
SYSTEM_ID="*"
LOGICAL_NAME="V:"
VOLUME_NAME="IBM23MN465"
FILE_SYSTEM="LAN"
FILE_ATTACH="\\WTRDC\LANCMDS"
DRIVE_TYPE="R"
SECTORS_CLUSTER=1
SECTORS_BYTES=512
DEVICE_CAPACITY=158.98
AVAILABLE_SPACE=140.28
PHYSICAL_DRIVE=NULL
Table=LOGICAL_DRIVE[6]
SYSTEM_ID="*"
LOGICAL_NAME="W:"
VOLUME_NAME="IBM23MN465"
FILE_SYSTEM="LAN"
FILE_ATTACH="\\WTRDC\LANDLLS"
DRIVE_TYPE="R"
SECTORS_CLUSTER=1
SECTORS_BYTES=512
DEVICE_CAPACITY=158.98
AVAILABLE_SPACE=140.28
PHYSICAL_DRIVE=NULL
Table=FIXED_DISK[0]
SYSTEM_ID="*"
DISK_CAPACITY=536
DISK_CYLINDERS=517
SECTORS_PER_CYL=2048
DISK_HEADS=64
DISK_TOTAL_SECTORS=1058816

```

```

 PHYSICAL_DRIVE="1"
Table=SYSTEM_PROFILE[0]
 SYSTEM_ID="*"
 MODEL_NAME=NULL
 MODEL_NUMBER=NULL
 SYSTEM_SERIAL="9577DNG23TNBXW"
 SYSTEM_BOARD_SER=" B10Z63990TP"
 PROCESSOR_CARD_SER=NULL
 SYSTEM_PURCHASED=NULL
 DISPLAY_MODEL=NULL
 DISPLAY_SERIAL=NULL
 DISPLAY_PURCHASED=NULL
 PRINTER_MODEL=NULL
 PRINTER_SERIAL=NULL
 PRINTER_PURCHASED=NULL
 MODEM_MODEL=NULL
 MODEM_SERIAL=NULL
 MODEM_PURCHASED=NULL
Table=SYSTEM_USER[0]
 SYSTEM_ID="*"
 FIRST_NAME=NULL
 MIDDLE_NAME=NULL
 LAST_NAME=NULL
 EMPLOYEE_ID=NULL
 TITLE=NULL
 DEPT_NAME=NULL
 DEPT_NUMBER=NULL
 DIVISION=NULL
 START_DATE=NULL
 SHIFT=NULL
 SCHEDULED_START=NULL
 SCHEDULED_END=NULL
 HOME_PHONE=NULL
 HOME_STREET1=NULL
 HOME_STREET2=NULL
 HOME_CITY=NULL
 HOME_STATE=NULL
 HOME_ZIP=NULL
 HOME_COUNTRY=NULL
 EMERGENCY_NAME=NULL
 EMERGENCY_PHONE=NULL
Table=SYSTEM_LOCATION[0]
 SYSTEM_ID="*"
 COMPANY_NAME=NULL
 ADDRESS=NULL
 CITY=NULL
 STATE=NULL
 ZIP_CODE=NULL
 COUNTRY=NULL
 SITE_NAME=NULL
 OFFICE_NUMBER=NULL
 BUILDING=NULL
 FLOOR=NULL
Table=SYSTEM_CONTACTS[0]
 SYSTEM_ID="*"
 INTERNAL_PHONE=NULL
 EXTERNAL_PHONE=NULL
 CELLULAR_PHONE=NULL
 PAGER_NUMBER=NULL

```

FAX\_NUMBER=NULL  
EMAIL\_ADDRESS=NULL  
BACKUP\_NAME=NULL  
BACKUP\_PHONE=NULL  
TECHNICAL\_NAME=NULL  
TECHNICAL\_PHONE=NULL  
MANAGER\_NAME=NULL  
MANAGER\_PHONE=NULL  
SECRETARY\_NAME=NULL  
SECRETARY\_PHONE=NULL



## Appendix I. System Information Tool Using the Graphical User Interface

This appendix shows sample panels when using the System Information Tool. Appendix H, "System Information Tool" on page 255 shows the command line structure for using the System Information Tool.

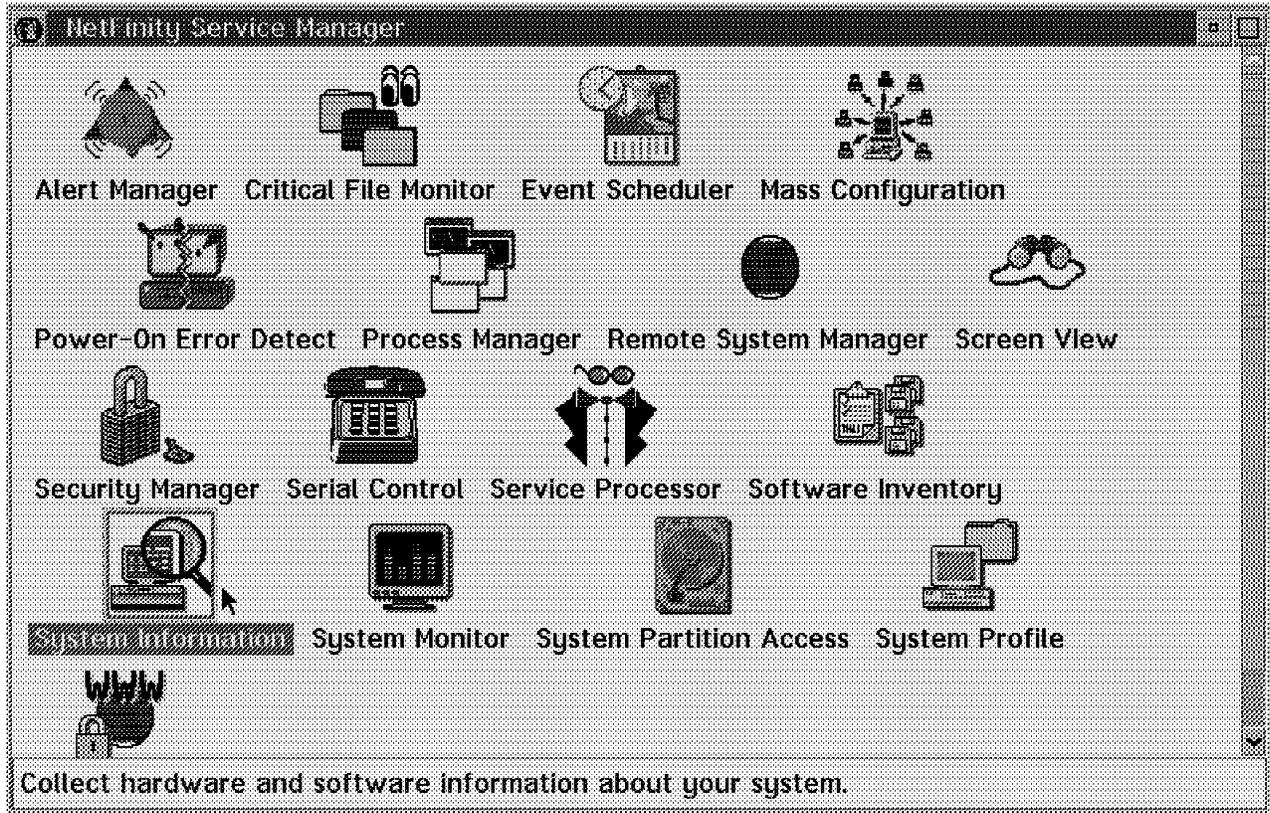


Figure 301. Netfinity V5.0 Service Manager

### I.1.1 System Information Tool

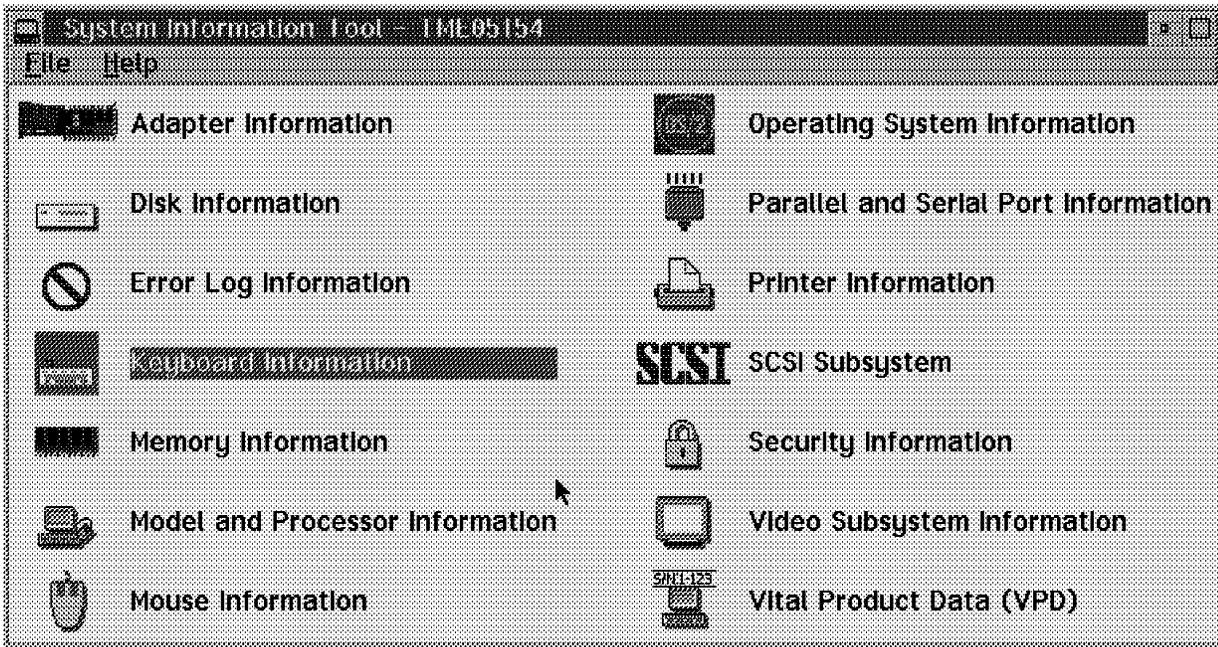


Figure 302. System Information Tool

## I.1.2 Adapter Information

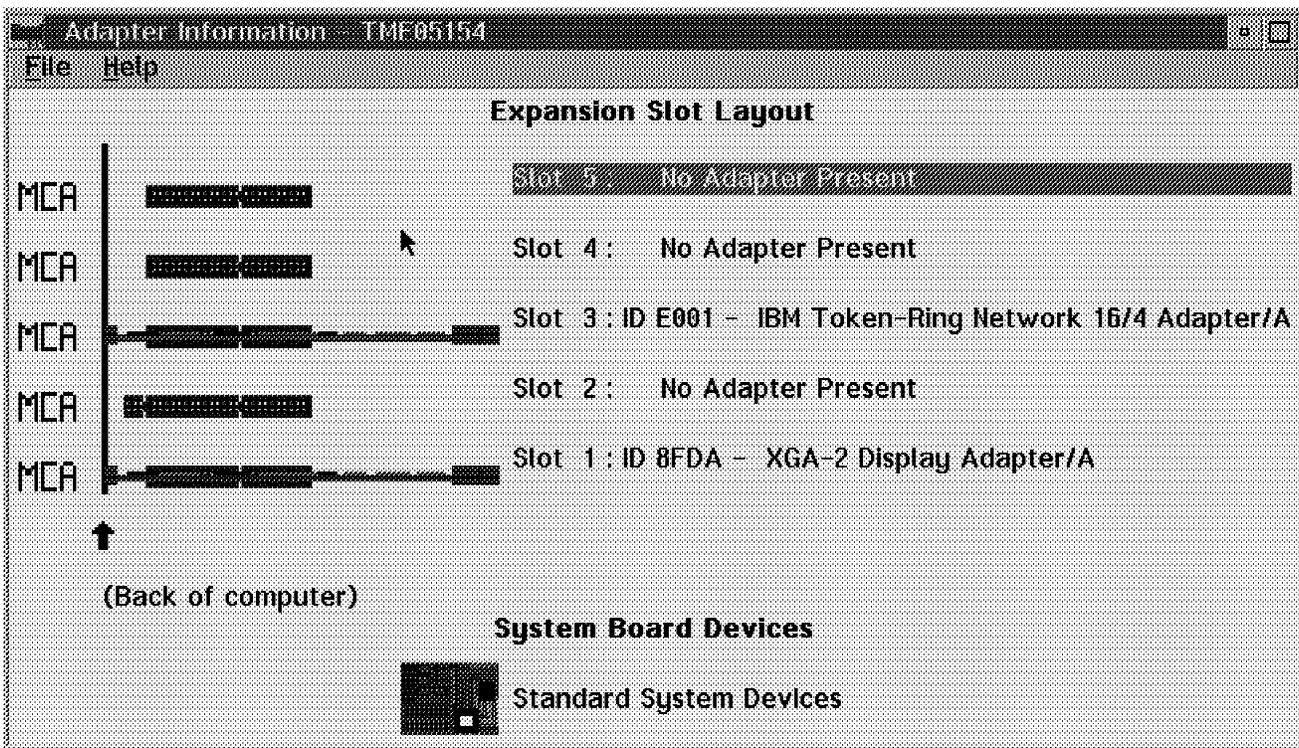


Figure 303. Adapter Information

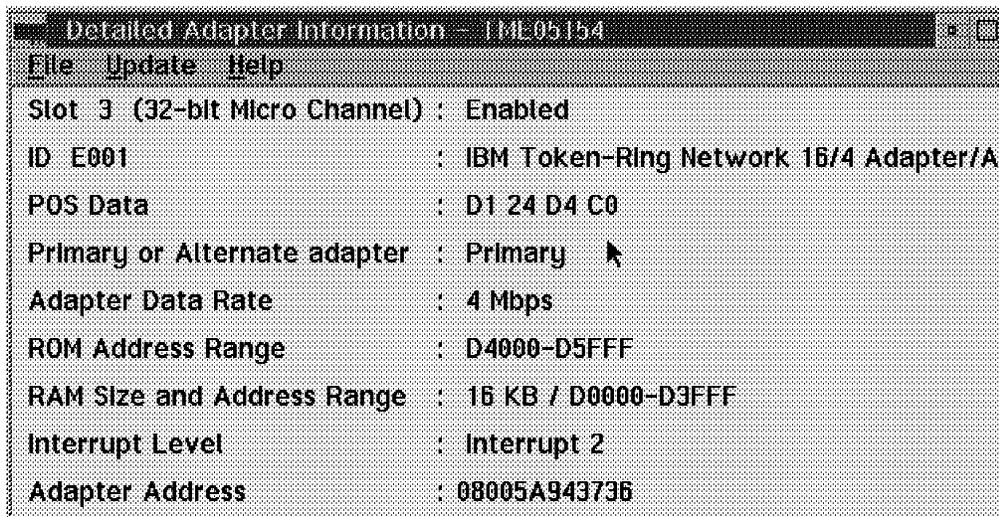


Figure 304. Detail Adapter Information

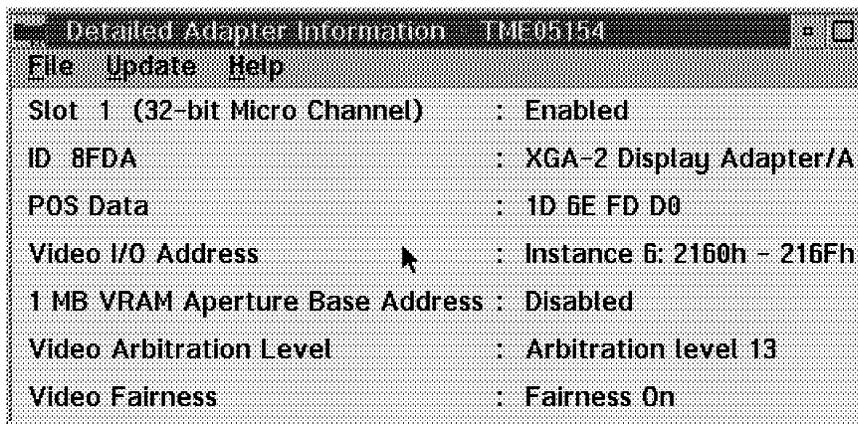


Figure 305. Detail Adapter Information

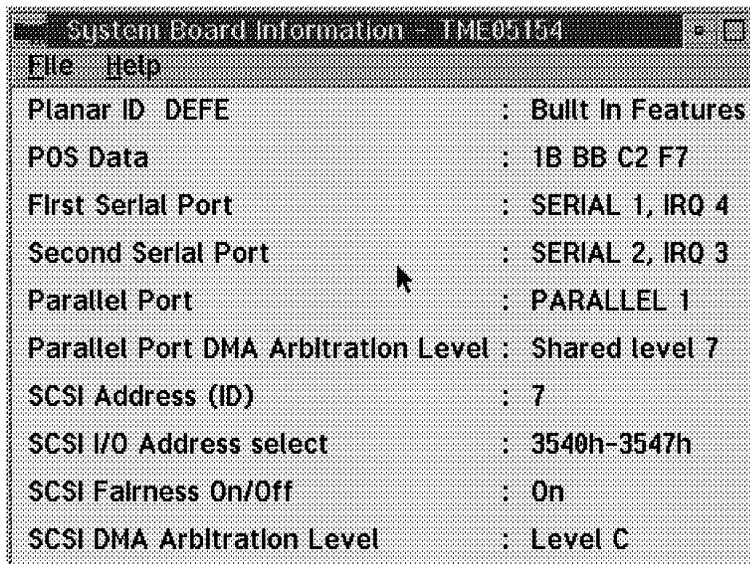


Figure 306. System Board Information

### I.1.3 Disk Information

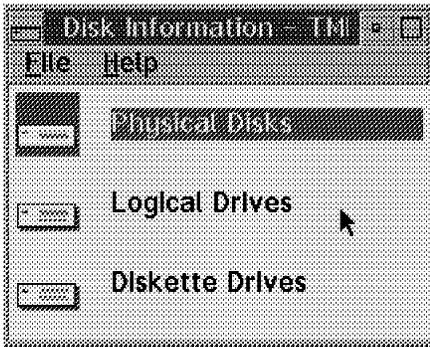


Figure 307. Disk Information

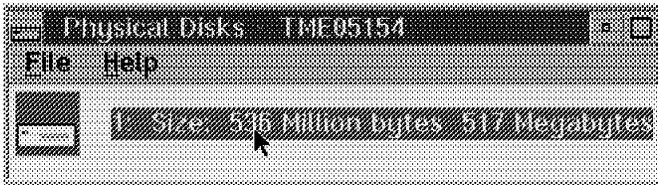


Figure 308. Physical Disks

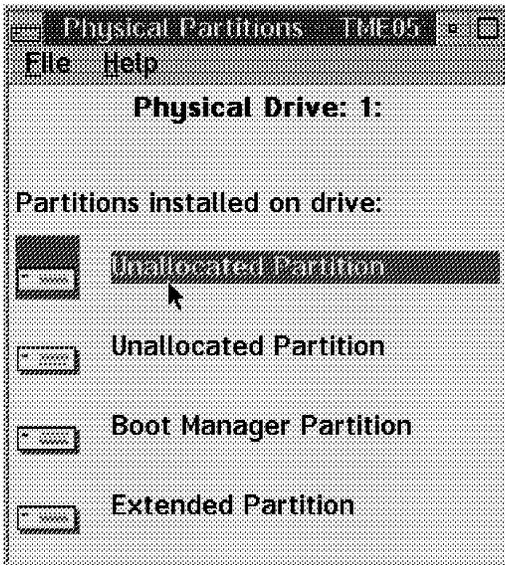


Figure 309. Physical Partitions

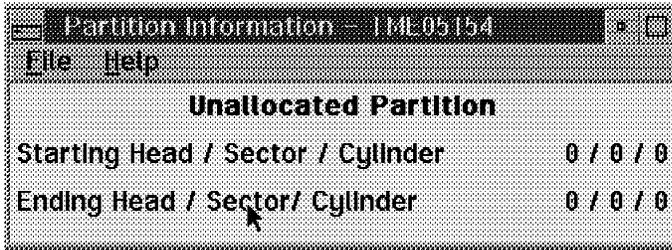


Figure 310. Partition Information

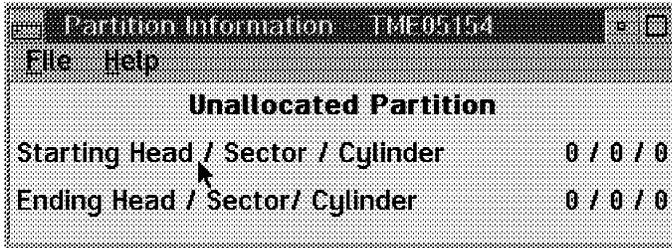


Figure 311. Partition Information

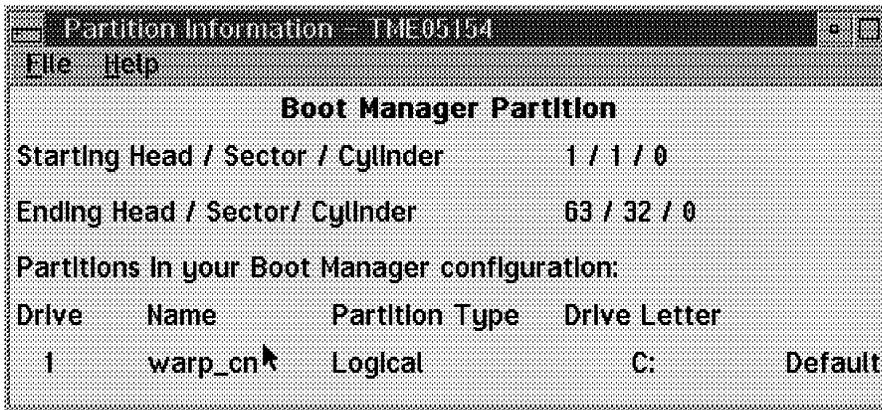


Figure 312. Partition Information

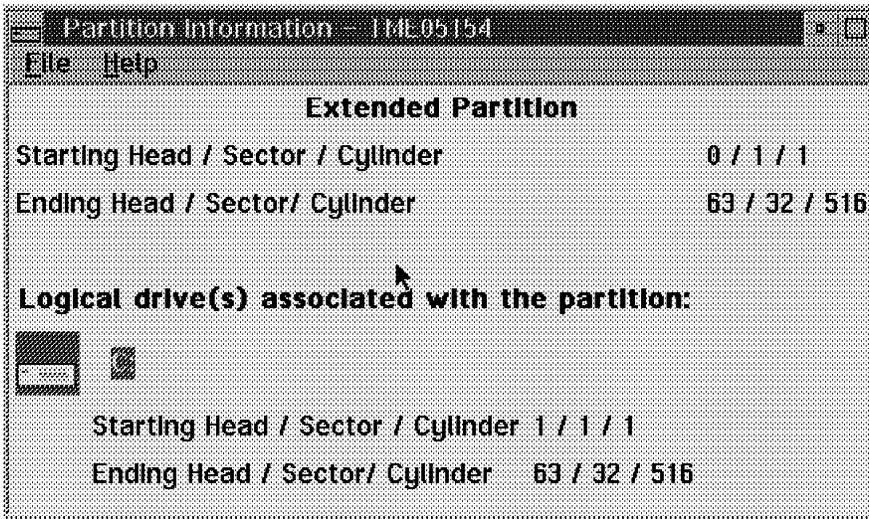


Figure 313. Partition Information

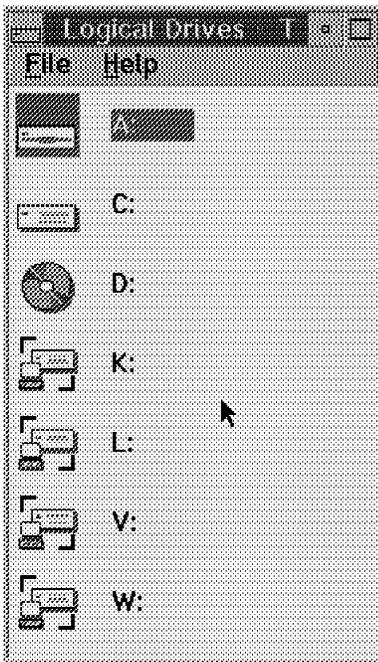


Figure 314. Logical Drives

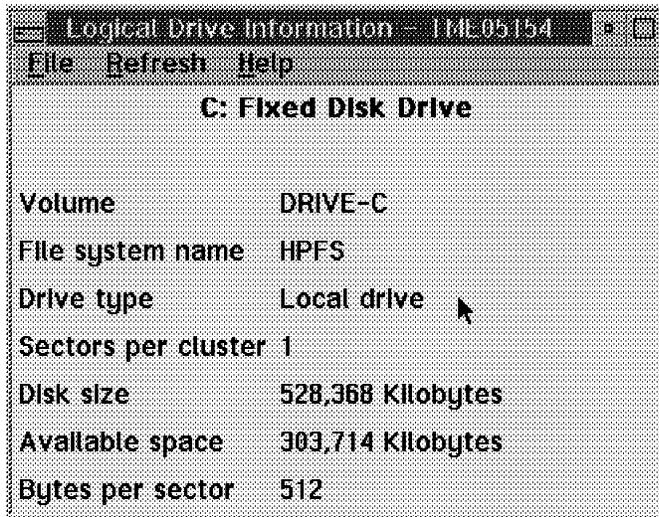


Figure 315. Logical Drive Information

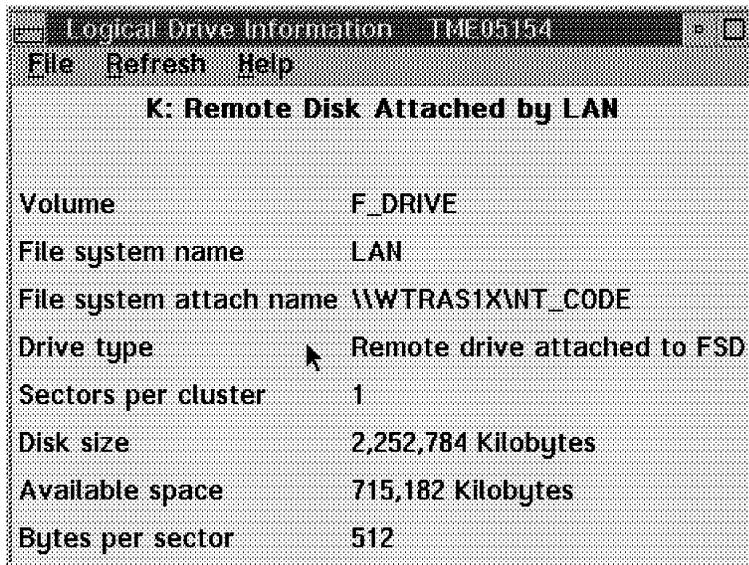


Figure 316. Logical Drive Information



Figure 317. Diskettes Drives

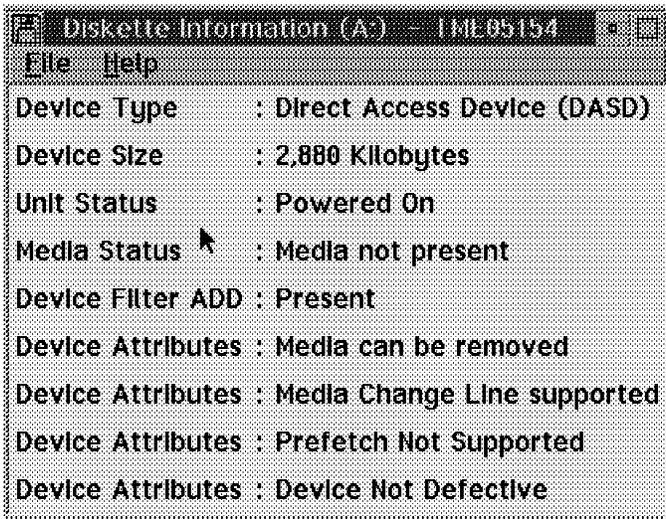


Figure 318. Diskette Information

### I.1.4 Keyboard Information

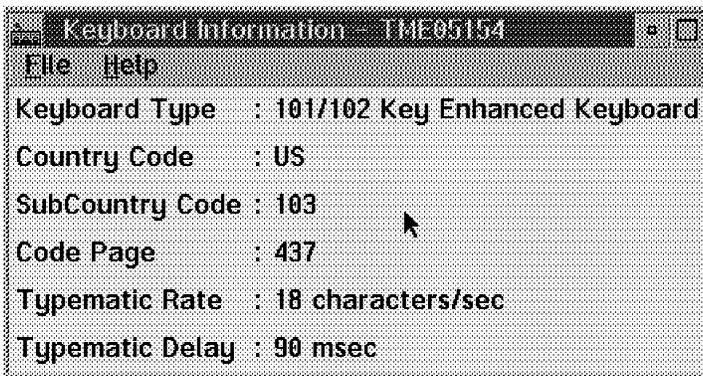


Figure 319. Keyboard Information

### I.1.5 Memory Information

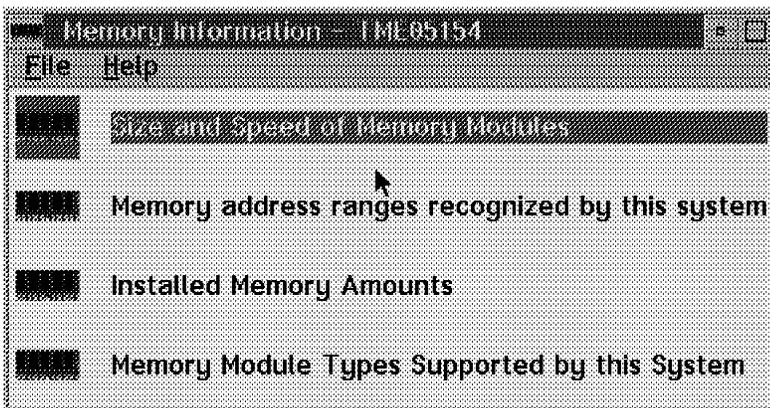


Figure 320. Memory Information

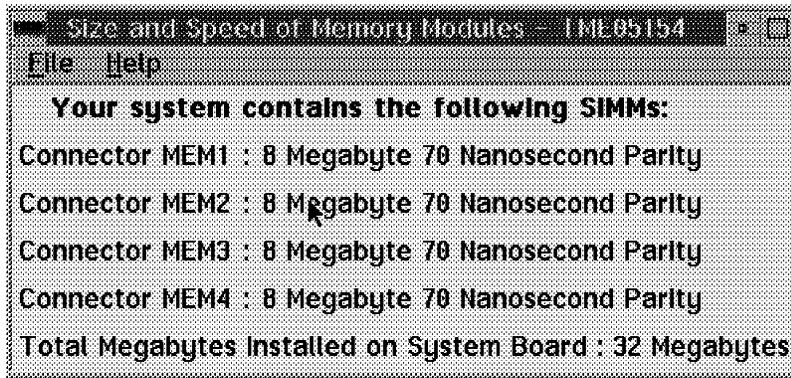


Figure 321. Size and Speed of Memory Modules

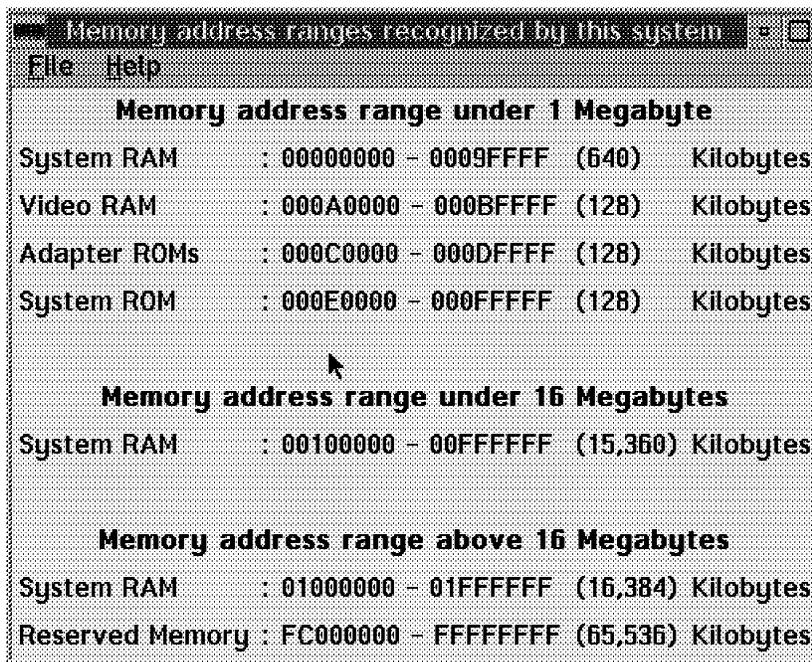


Figure 322. Memory Address Ranges

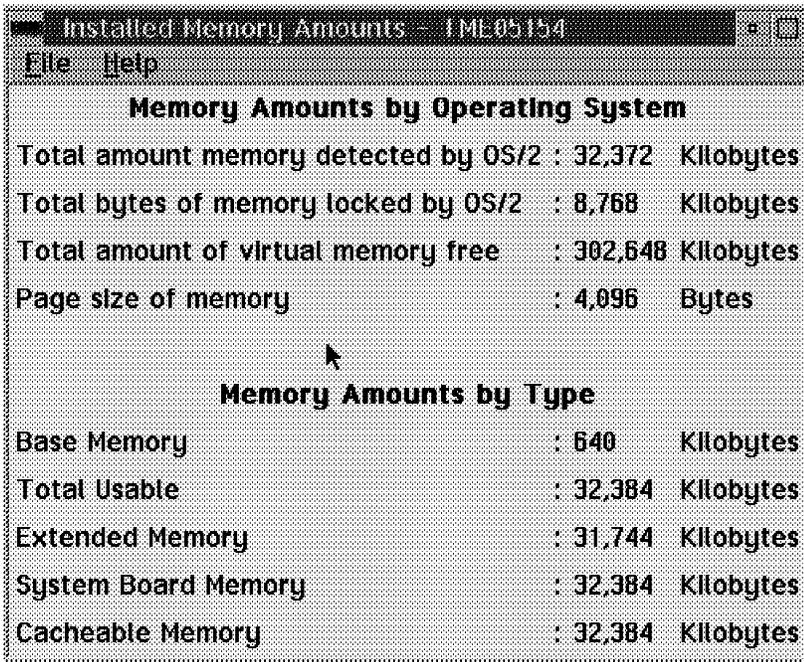


Figure 323. Installed Memory Amounts

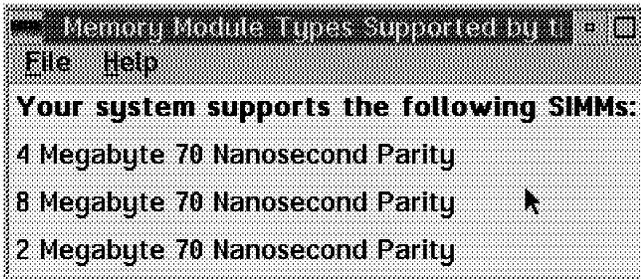


Figure 324. Memory Modules Types Supported by This System

## I.1.6 Model and Processor Information

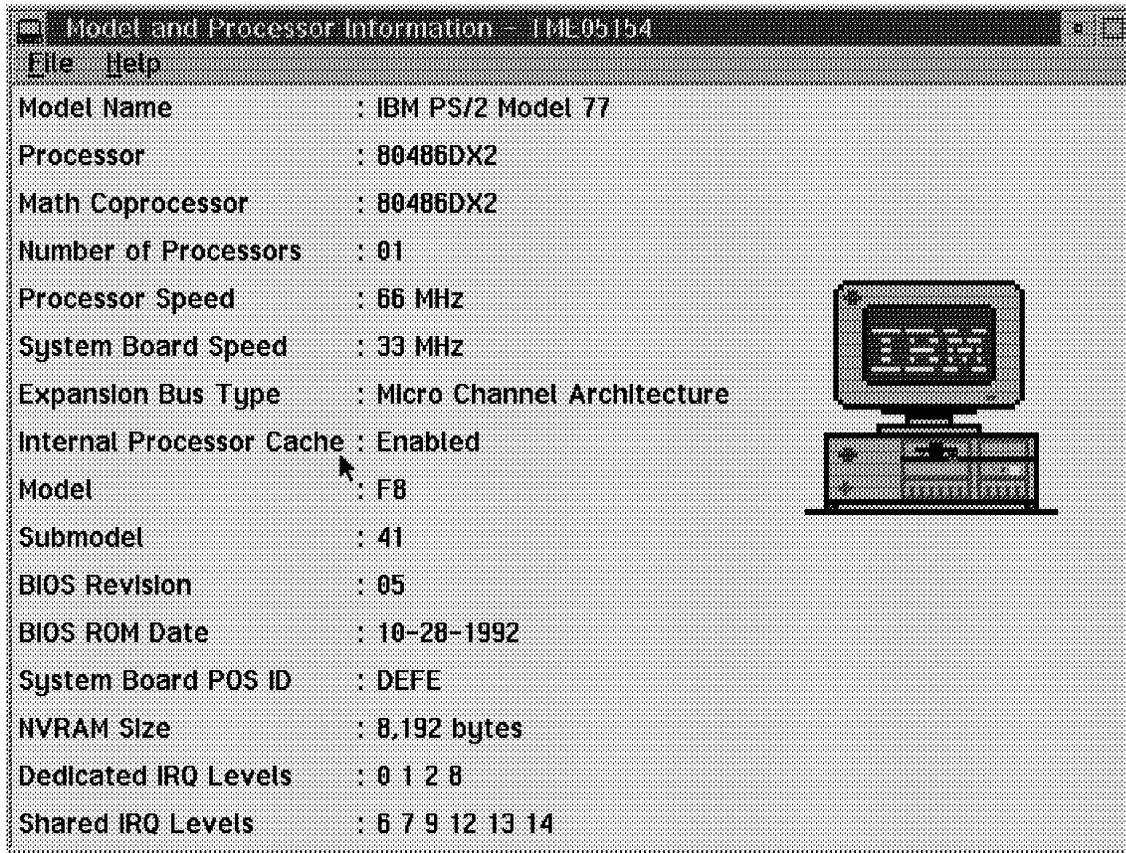


Figure 325. Model and Processor Information

### I.1.7 Mouse Information

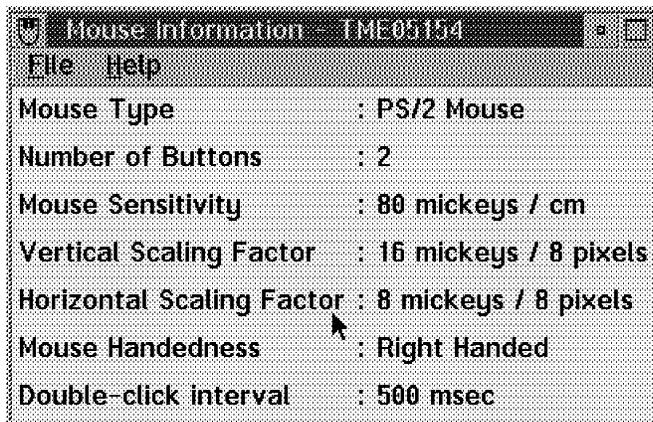


Figure 326. Mouse Information

## I.1.8 Operating System Information

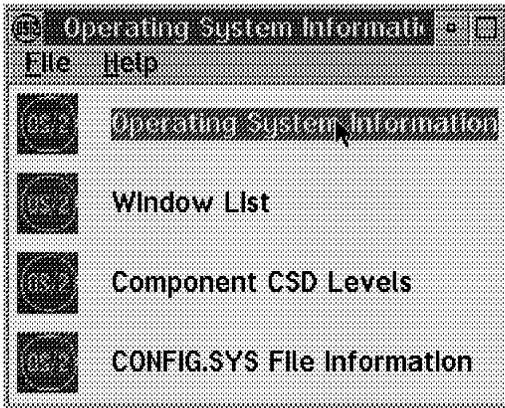


Figure 327. Operating System Information Selection

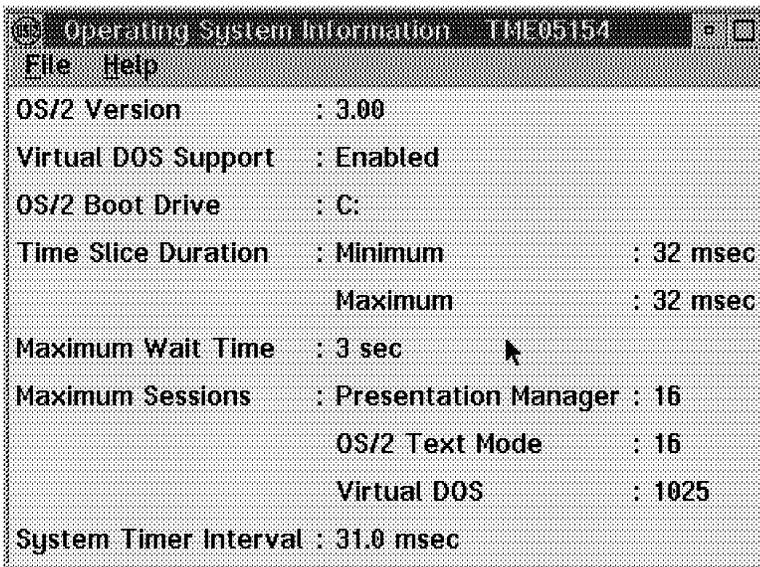


Figure 328. Operating System Information

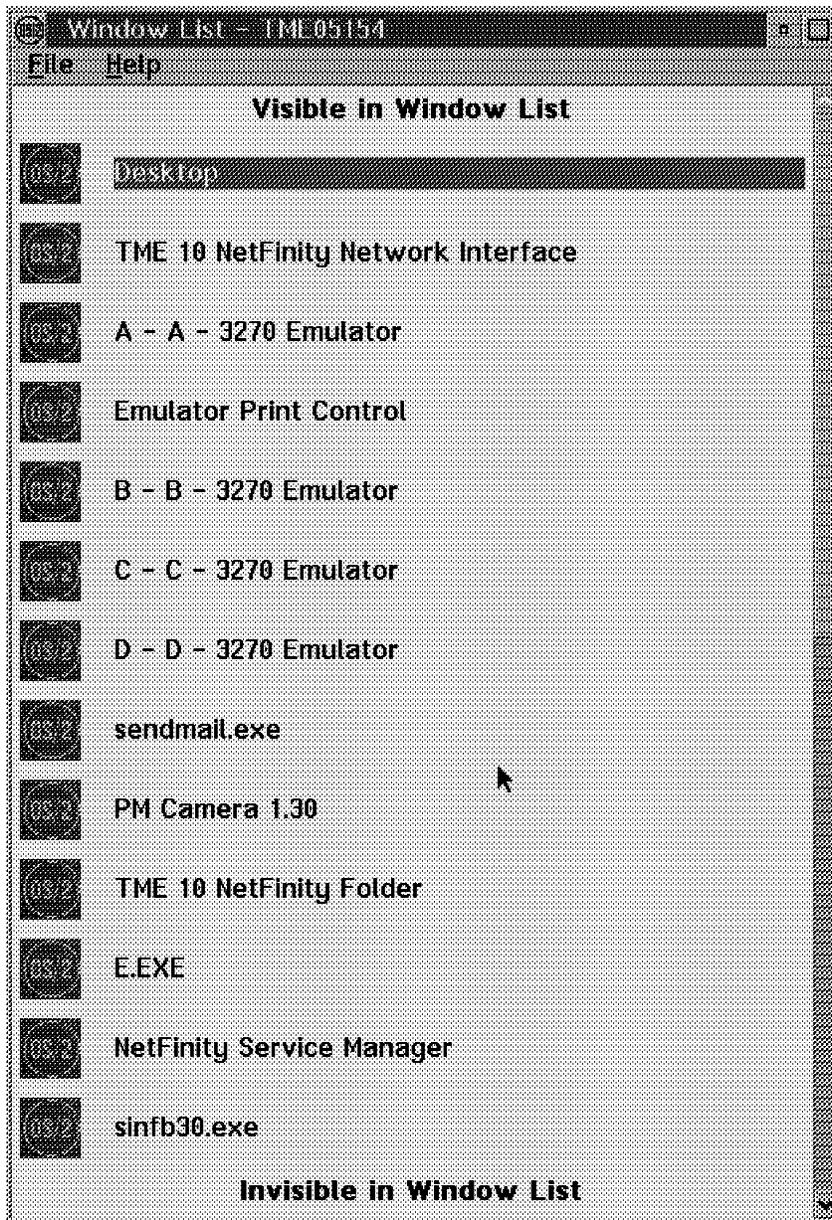


Figure 329. Window List

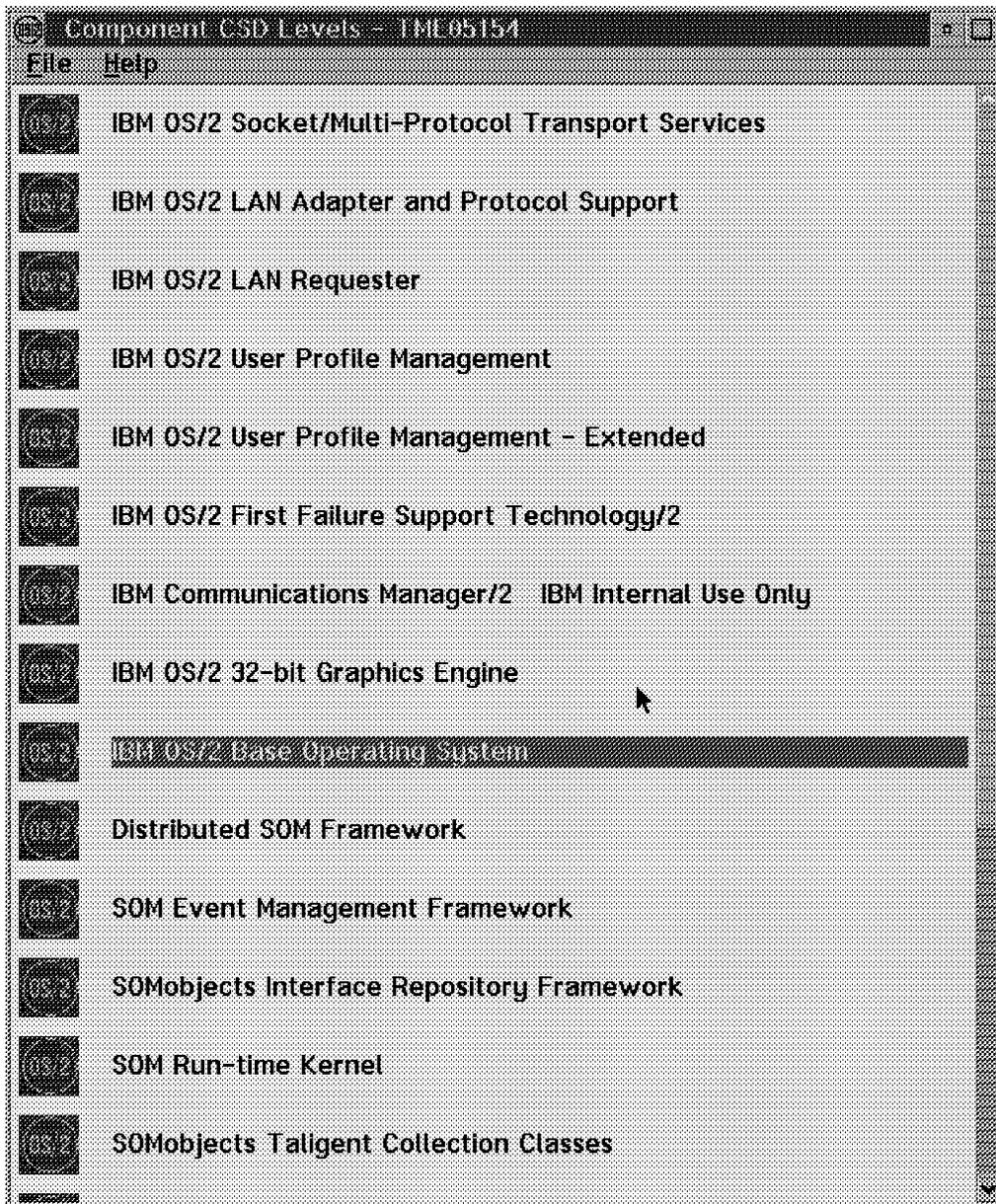


Figure 330. Component CSD Levels

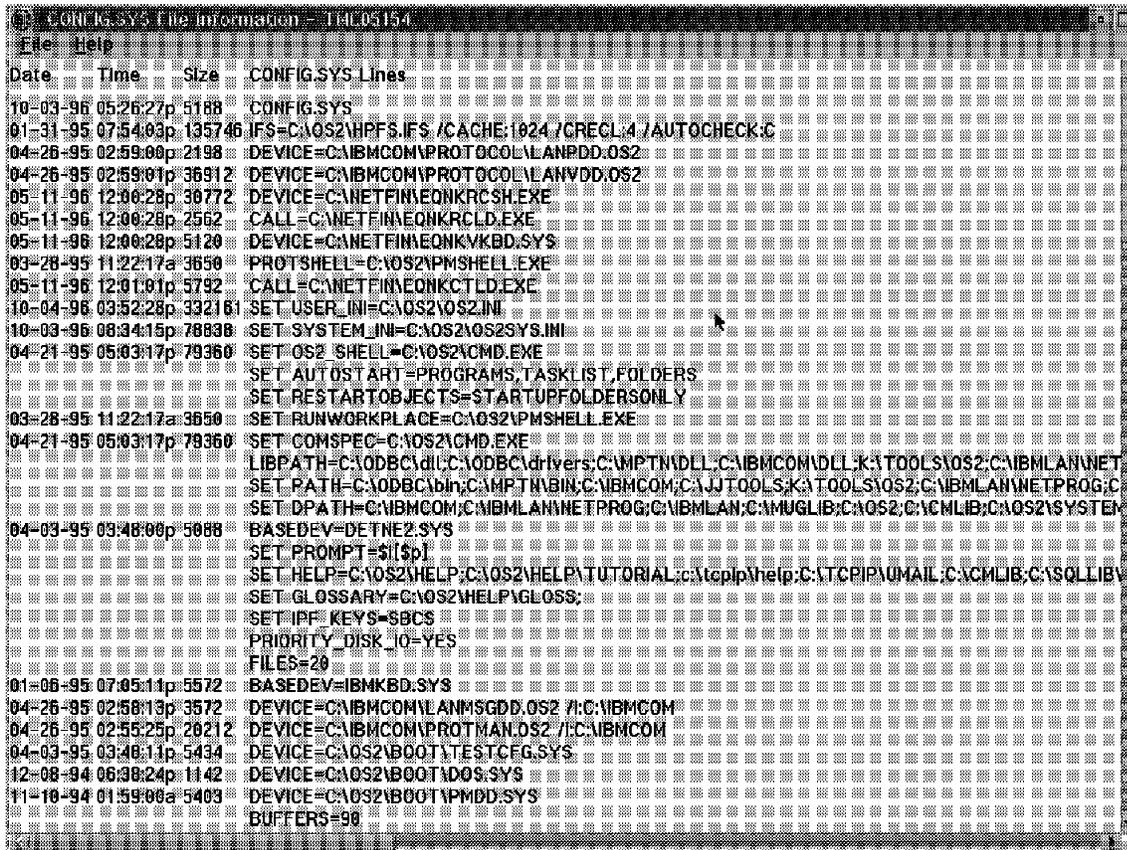


Figure 331. CONFIG.SYS File Information

## 1.1.9 Parallel and Serial Port Information

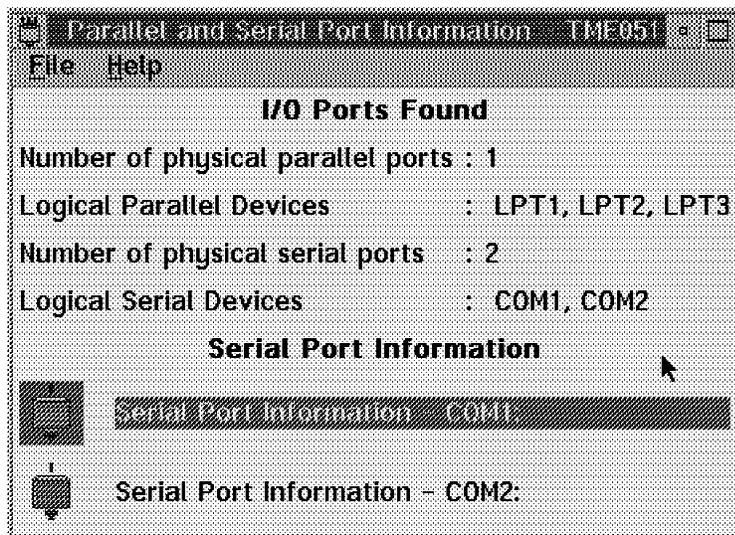


Figure 332. Parallel and Serial Port Information

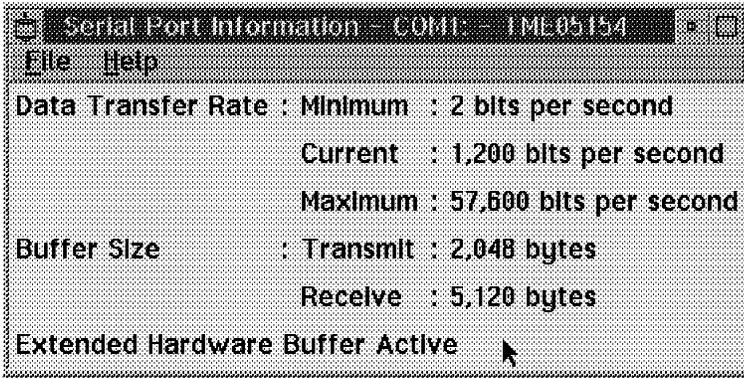


Figure 333. Serial Port Information COM1

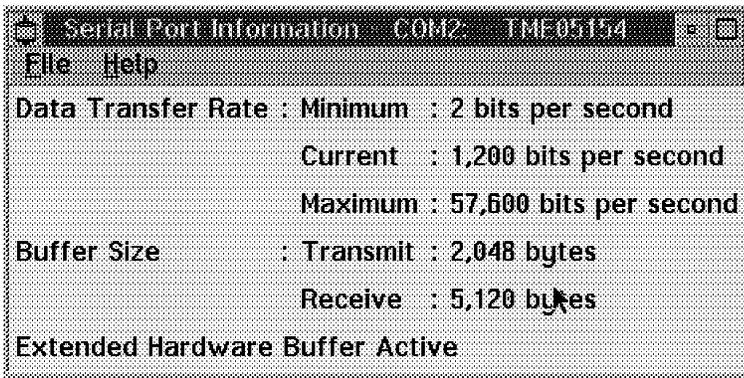


Figure 334. Serial Port Information COM2

### I.1.10 Printer Information

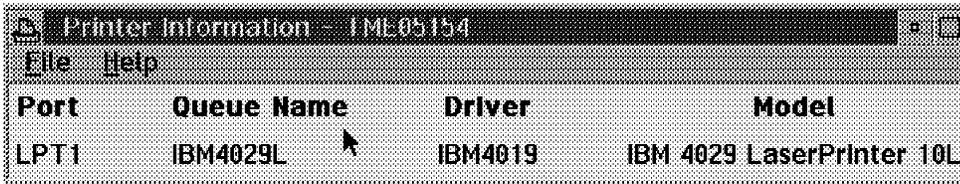


Figure 335. Printer Information

### I.1.11 SCSI Subsystem

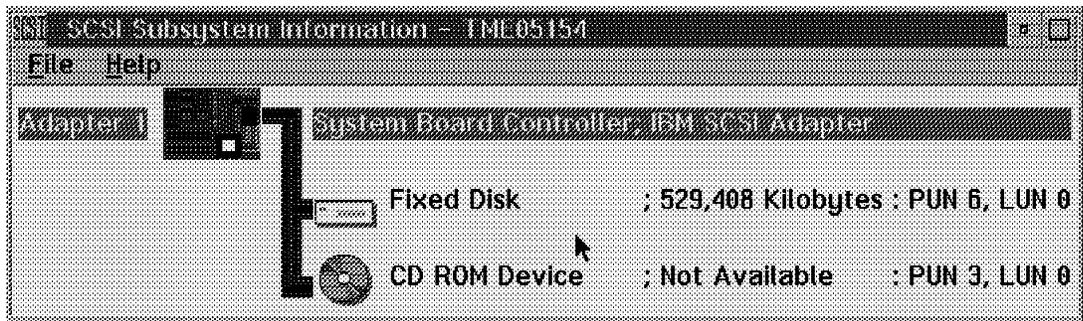


Figure 336. SCSI Subsystem Information

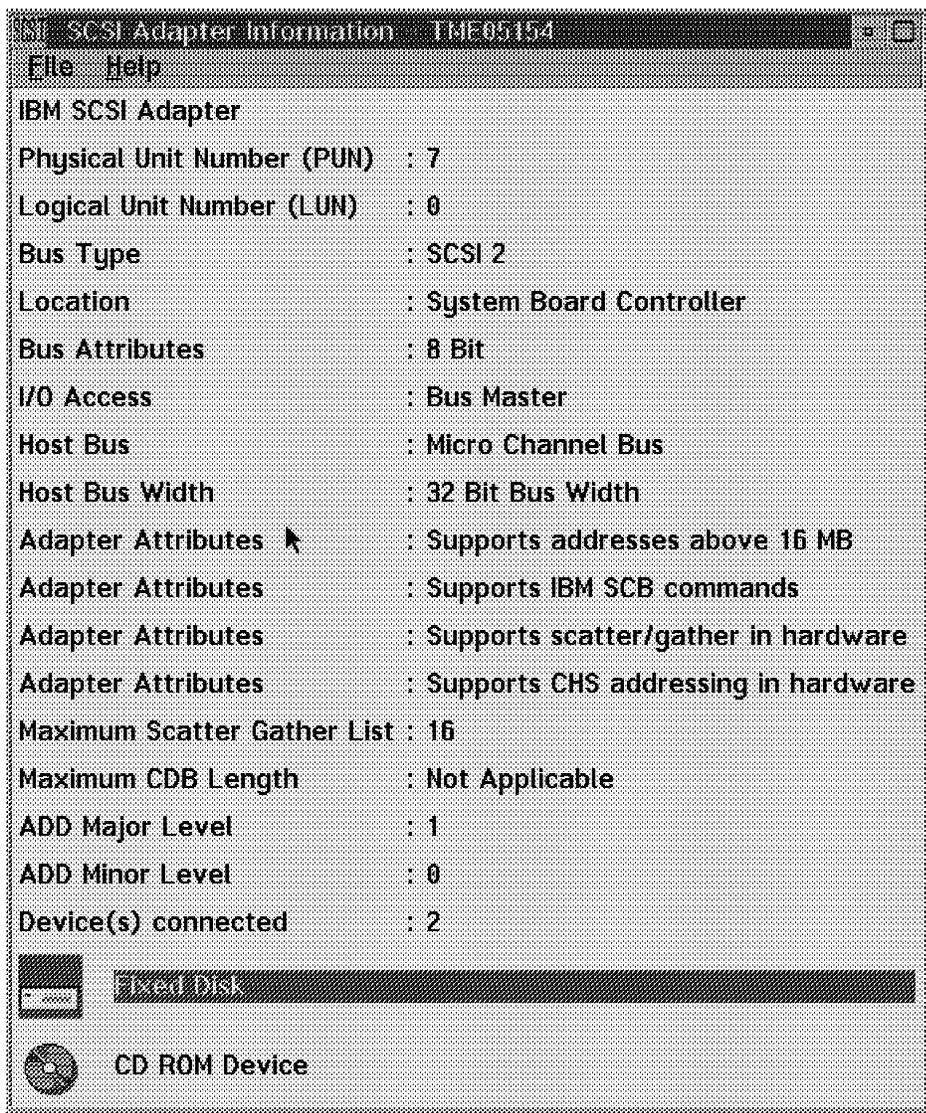


Figure 337. SCSI Adapter Information

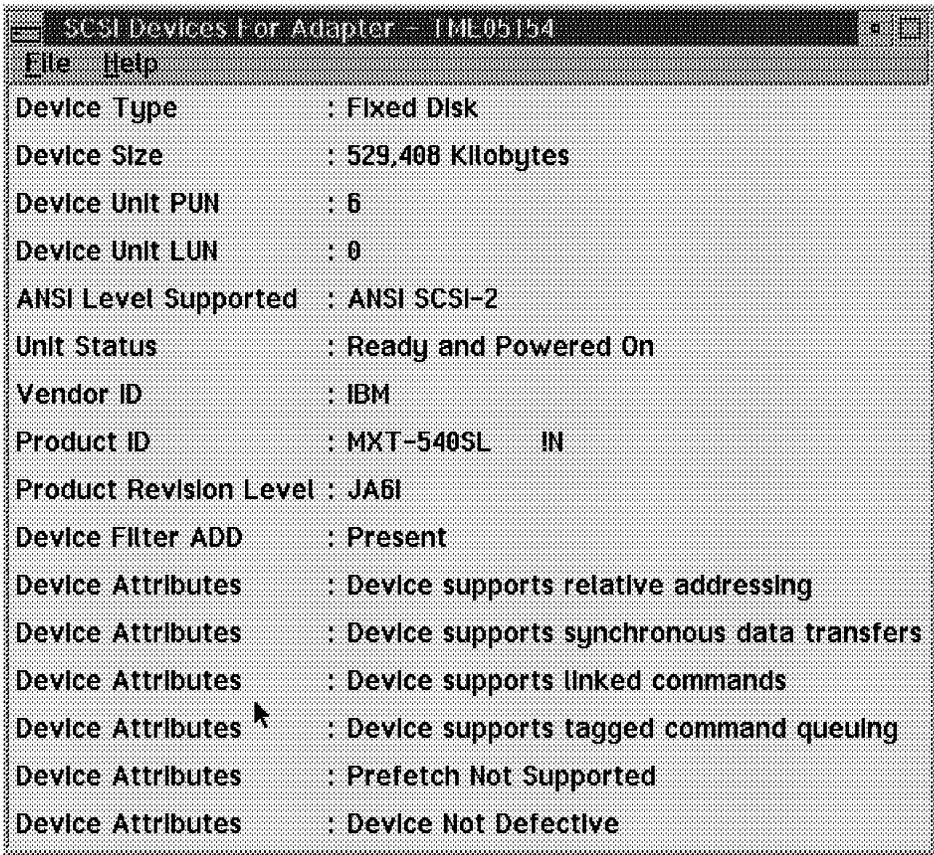


Figure 338. SCSI Devices For Adapter (1/2)

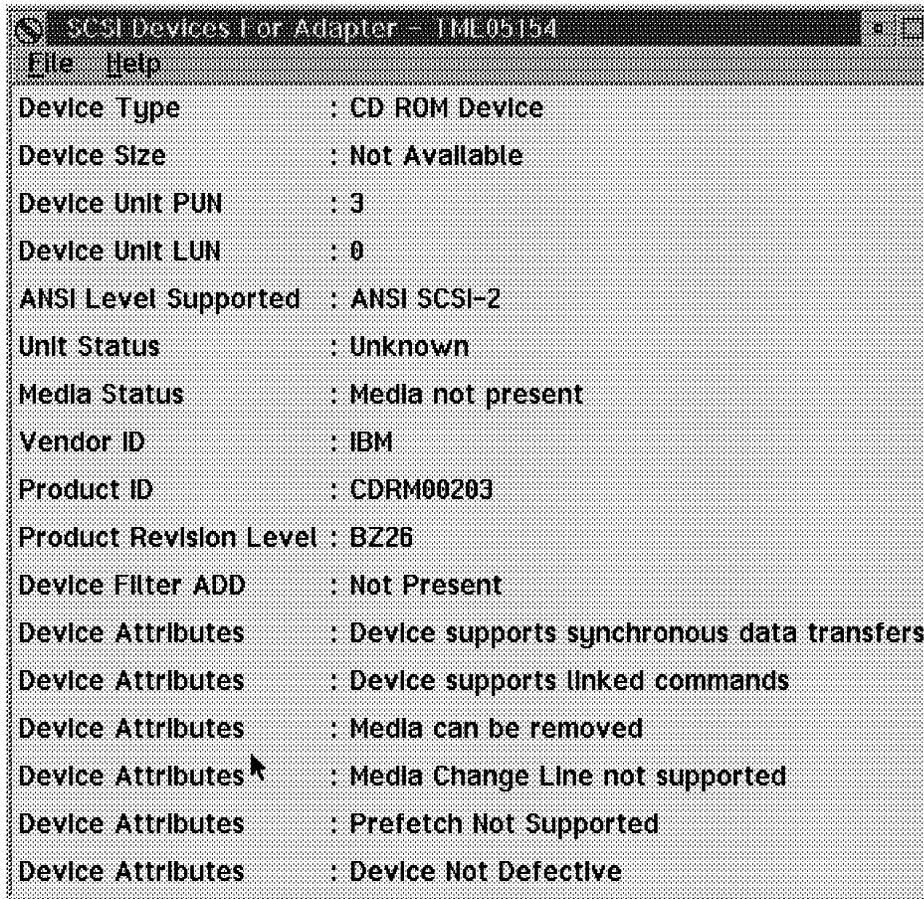


Figure 339. SCSI Devices For Adapter (2/2)

## I.1.12 Security Information

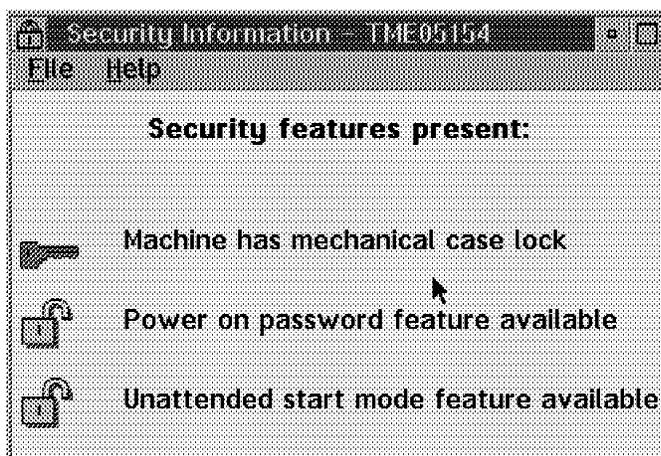


Figure 340. Security Information

## I.1.13 Video Subsystem Information

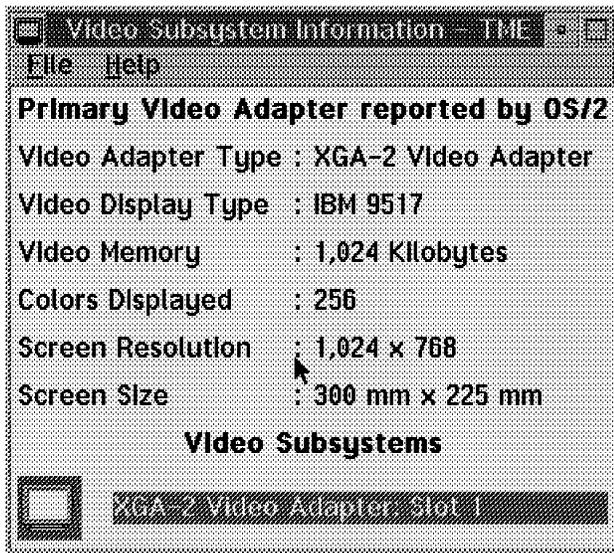


Figure 341. Video Subsystem Information

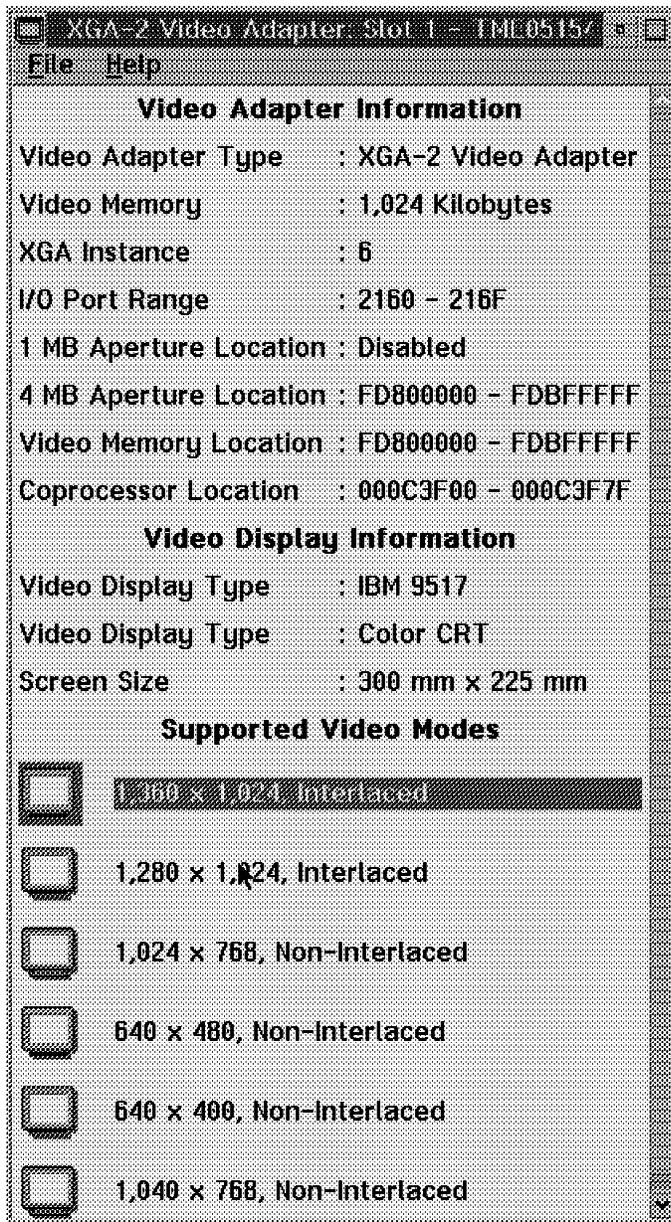


Figure 342. XGA-2 Video Adapter: Slot 1

### I.1.14 Vital Product Data (VPD)

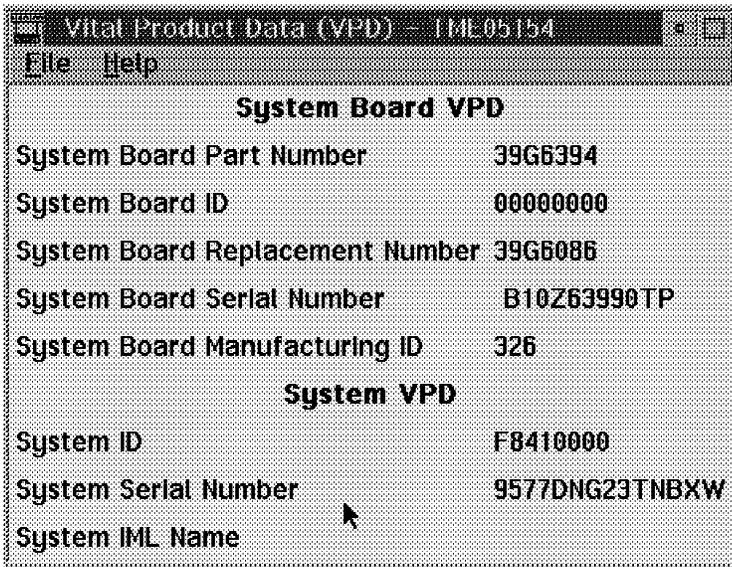


Figure 343. Vital Product Data (VPD)

### I.1.15 Database Entry Selection

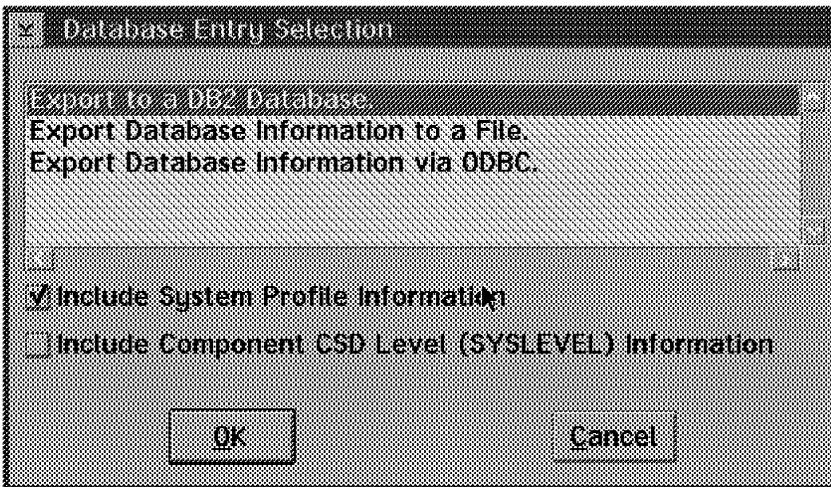


Figure 344. Database Entry Selection

### I.1.16 Database Selection

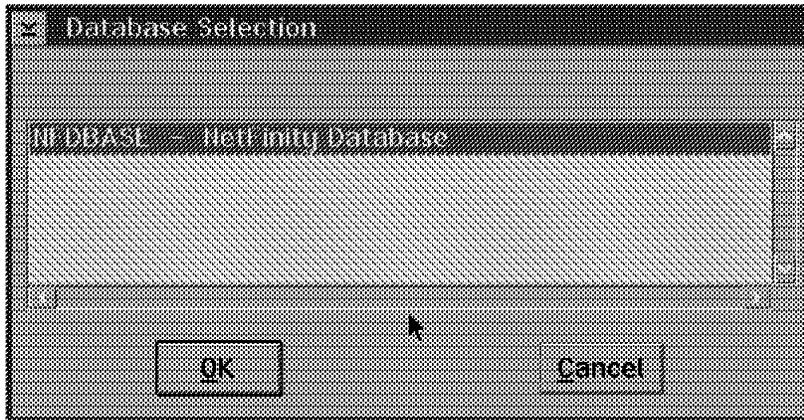


Figure 345. Database Selection

### I.1.17 Database Selection

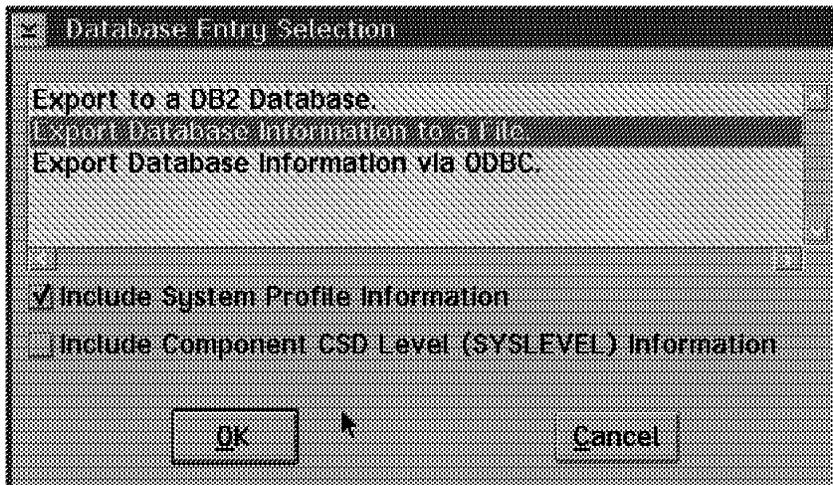


Figure 346. Database Selection

### I.1.18 Export to File

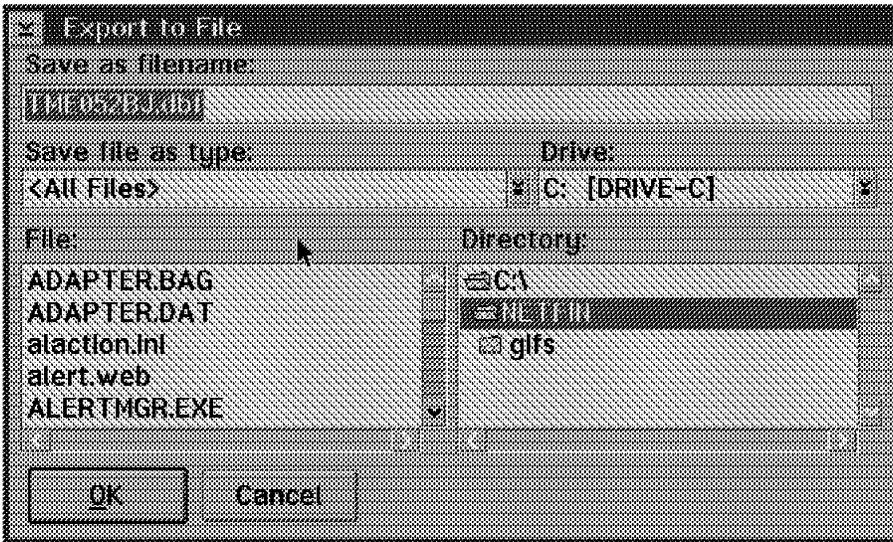


Figure 347. Export to File

## 1.1.19 Database Selection

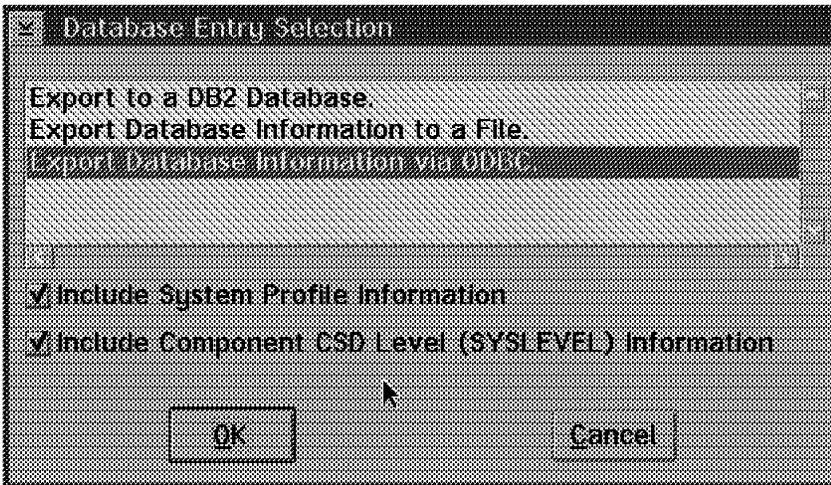


Figure 348. Database Selection

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## Appendix J. Special Notices

This publication is intended to help technical support personnel implement NetFinity V5.0 and install and use the database products that work with NetFinity V5.0. The information in this publication is not intended as the specification of any programming interfaces that are provided by NetFinity. See the PUBLICATIONS section of the IBM Programming Announcement for NetFinity for more information about what publications are considered to be product documentation.

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| DB2              | First Failure Support Technology/2 |
| IBM              | Micro Channel                      |
| NetFinity        | NetView                            |
| OS/2             | PS/2                               |
| RISC System/6000 | RMONitor                           |
| SOMobjects       | SurePath                           |
| SystemView       | ThinkPad                           |
| Trouble Ticket   | Ultimedia                          |
| Workplace        | XGA                                |
| 400              | IBM                                |

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|-------------------|-------------------------------------|
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| Microsoft Windows | Microsoft Corporation               |
| Microsoft         | Microsoft Corporation               |
| MS                | Microsoft Corporation               |
| NetWare           | Novell, Incorporated                |
| Notes             | Lotus Development Corporation       |
| Novell            | Novell, Incorporated                |
| Taligent          | Taligent, Incorporated              |
| TME 10            | Tivoli Systems Inc., an IBM Company |
| WEB               | WEBCORP                             |
| Win32             | Microsoft Corporation               |

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## Appendix K. Related Publications

The publications listed in this section are considered particularly suitable for a more detailed discussion of the topics covered in this redbook.

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### K.1 International Technical Support Organization Publications

For information on ordering these ITSO publications see "How To Get ITSO Redbooks" on page 295.

- *LAN Management Process (Alerts/Monitoring) Using NetFinity*, SG24-4517
- *Systems Management from an NT Server Point of View*, SG24-4723
- *TME 3.0 NT - Automated Process*, SG24-4793
- *Setting Up a TME 3.0 NT Environment*, SG24-4819

---

### K.2 Redbooks on CD-ROMs

Redbooks are also available on CD-ROMs. **Order a subscription** and receive updates 2-4 times a year at significant savings.

| CD-ROM Title                                          | Subscription Number | Collection Kit Number |
|-------------------------------------------------------|---------------------|-----------------------|
| System/390 Redbooks Collection                        | SBOF-7201           | SK2T-2177             |
| Networking and Systems Management Redbooks Collection | SBOF-7370           | SK2T-6022             |
| Transaction Processing and Data Management Redbook    | SBOF-7240           | SK2T-8038             |
| AS/400 Redbooks Collection                            | SBOF-7270           | SK2T-2849             |
| RS/6000 Redbooks Collection (HTML, BkMgr)             | SBOF-7230           | SK2T-8040             |
| RS/6000 Redbooks Collection (PostScript)              | SBOF-7205           | SK2T-8041             |
| Application Development Redbooks Collection           | SBOF-7290           | SK2T-8037             |
| Personal Systems Redbooks Collection                  | SBOF-7250           | SK2T-8042             |

---

### K.3 Other Publications

These publications are also relevant as further information sources:

- *NetFinity Manager User's Guide*, 78H5373
- *Microsoft Backoffice 2 Unleashed*, SR19-5431
- *Windows NT Server Survival Guide*, SR23-7364
- *Windows NT Server Professional Reference*, SR23-7365



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## How To Get ITSO Redbooks

This section explains how both customers and IBM employees can find out about ITSO redbooks, CD-ROMs, workshops, and residencies. A form for ordering books and CD-ROMs is also provided.

This information was current at the time of publication, but is continually subject to change. The latest information may be found at URL <http://www.redbooks.ibm.com>.

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## How IBM Employees Can Get ITSO Redbooks

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- **PUBORDER** —to order hardcopies in United States
- **GOPHER link to the Internet** - type GOPHER.WTSCPOK.ITSO.IBM.COM
- **Tools disks**

To get LIST3820s of redbooks, type one of the following commands:

```
TOOLS SENDTO EHONE4 TOOLS2 REDPRINT GET SG24xxxx PACKAGE
TOOLS SENDTO CANVM2 TOOLS REDPRINT GET SG24xxxx PACKAGE (Canadian users only)
```

To get lists of redbooks:

```
TOOLS SENDTO USDIST MKTTOOLS MKTTOOLS GET ITSOCAT TXT
TOOLS SENDTO USDIST MKTTOOLS MKTTOOLS GET LISTSERV PACKAGE
```

To register for information on workshops, residencies, and redbooks:

```
TOOLS SENDTO WTSCPOK TOOLS ZDISK GET ITSOREGI 1996
```

For a list of product area specialists in the ITSO:

```
TOOLS SENDTO WTSCPOK TOOLS ZDISK GET ORGCARD PACKAGE
```

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