RAS Manager™ for Windows NT™
Version 4.0

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Introduction

RAS Manager 4.0

Overview: RAS Manager is a client/server application that provides full-time control, real-time monitoring, and session-by-session accounting for RAS connections. RAS Manager works with the Windows NT™ Remote Access Service (RAS) to tailor dial-in connections to your organizational needs. With its ability to automatically enforce your RAS management policies, RAS Manager lets you accomplish more with your existing resources.

This introduction describes the installation process and any problems that may occur. This manual (along with the on-line help guide) provides comprehensive information for all aspects of RAS management, a thorough definition of terms, and step-by-step directions for using the RAS Manager program.

List of Materials

Please verify that you have the following:

- RAS Manager installation CD-ROM
- Quick Start guide
- Registration forms

If you're missing *any* of the items listed above, or have a defective CD-ROM, contact NTP Software Support at 603-626-0986 immediately.

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System Requirements

The network server must meet the following minimum requirements to install and run RAS Manager:

Operating System:
- To install the Service: Windows NT 4.0 or higher
- To install the Administrator: Windows NT 3.51 or higher

Software:
- Microsoft Remote Access Service (RAS) installed and properly configured

Hardware:
- An x86 based server with a double speed CD-ROM drive

Installation Procedure

Choose the NT server you wish to install the RAS Manager service on. If the RAS service has not been installed or configured on this machine, you must do so before installing the RAS Manager service.

The steps below outline the complete installation process for RAS Manager 4.0. Detailed installation information is included in the paragraphs that follow.

1. Install the RAS Manager service or the RAS Manager administration program.
2. Verify installation by starting the service.
3. Restart the Windows NT RAS Access Server service.

The RAS Manager CD-ROM contains one setup program for both the service and the RAS Manager administration program.

Note: You must have administrative network access to grant or modify RAS permissions with RAS Manager.

Installing RAS Manager

This section describes how to install RAS Manager.

Note: If you have more than one RAS server, choose one to be the primary RAS server. The primary RAS server hosts the RAS Manager data store. You must install RAS Manager on the primary RAS server first.

To install RAS Manager, do the following:

1. Logon to a Windows NT server using an account with Administrator privileges.
2. Insert the CD-ROM containing RAS Manager into a CD-ROM drive.
3. Run the RAS Manager installation program, **setup.exe.** The Welcome Screen appears.
4. Click **Continue.** The Installation Screen appears.
5. Click **Install.** The License Agreement Screen appears.
6. Click **Accept** to continue. The **Name and Organization** dialog box appears.
7. Enter a name in the **Name** field and the name of your organization in the **Organization** field. The **Installation Options** screen appears.
8. Select **RAS Manager Service** to install the service and select **Administrator** to install the Administrator program.

   ⇒ The **Service Account** field, the **Account Password** field and the **Confirm Password** field discussed in the next three steps only appear if you chose to install the RAS Manager service in the previous step.

   ⇒

9. Enter a domain and name or use the default in the **Account ID** field. This is the user account that is used to run the RAS Manager service.
10. Enter the password in the **Account Password** field and again in the **Confirm Password** field.
11. Click **Service Startup Type is 'Automatic'** if you want the service to start automatically after reboot; otherwise, the startup is manual.
12. The **Site Name** screen appears.

    If this is the primary RAS Manager server, you must create a new site. For all other servers, choose **Join an existing site**.
    When joining an existing site, enter the name of the primary RAS Manager server.

For a new site, enter the name that you want to use to store the RAS Manager data files. When setup completes, you must create a share name with the same name you used for the site name. RAS Manager stores the data files in the share name. Give the account ID user to run the RAS Manager service full permissions to this share name.

13. Setup now copies the required files and updates your workstation.
14. When the installation is complete, setup offers you the chance to view the Readme file. Click **Yes** or **No**.

If you installed the Administrator's Program, the setup program installs a RAS Manager for Domains program icon in the Administrative Tools Group.

Initializing RAS Manager Service

You must restart the Windows NT Remote Access Server service and the RAS Manager service. To restart the services, do the following:

1. Open **Control Panel** and double-click the **Services** icon.
2. Select the Remote Access Server service. Click **Start**.
3. Select the **RAS Manager Service**. Click **Start**.

Uninstalling RAS Manager

You must first stop the Windows NT Remote Access Server service and the RAS Manager service before uninstalling RAS Manager.

To uninstall RAS Manager do the following:

1. Logon to a Windows NT server using an account with Administrator privileges.
2. Insert the CD-ROM containing RAS Manager into a CD-ROM drive.
3. Run the RAS Manager installation program, **setup.exe**. The Welcome Screen appears.
4. Click **Continue.**
5. Choose **Remove All** to uninstall all components.

Reinstalling RAS Manager and Adding or Removing Components

To reinstall RAS Manager or add or remove RAS Manager components, do the following:

1. Logon to a Windows NT server using an account with Administrator privileges.
2. Insert the CD-ROM containing RAS Manager into a CD-ROM drive.
3. Run the RAS Manager installation program, **setup**.**exe**. The Welcome Screen appears.
4. Click **Continue**. The Installation Screen appears.
5. Click **Install.** The License Agreement Screen appears.
6. Click **Accept** to continue. The **Name and Organization** dialog box appears.
7. Enter a name in the **Name** field and the name of your organization in the **Organization** field. The **Installation Options** screen appears.
8. Select **RAS Manager Service** to install the service and select **Administrator** to install the Administrator program.
9. Click the items you want to install; clear the items you want to remove.

    ⇒ The **Service Account** field, the **Account Password** field and the **Confirm Password** field discussed in the next three steps only appear if you chose to install the RAS Manager service in the previous step.

    ⇒

10. Enter a domain and name or use the default in the **Account ID** field. This is the user account that is used to run the RAS Manager service.
11. Enter the password in the **Account Password** field and again in the **Confirm Password** field.
12. Click **Service Startup Type is 'Automatic'** if you want the service to start automatically after reboot; otherwise, the startup is manual.
13. The **Site Name** screen appears.

    If this is the primary RAS Manager server, you must create a new site. For all other servers, choose **Join an existing site**.
    When joining an existing site, enter the name of the primary RAS Manager server.
    For a new site, enter the name that you want to use to store the RAS Manager data files. When setup completes, you must create a share name with the same name you used for the site name. RAS Manager

stores the data files in the share name. Give the account ID user to run the RAS Manager service full permissions to this share name.

13. Setup now copies the required files and updates your workstation.
14. When the installation is complete, setup offers you the chance to view the Readme file. Click **Yes** or **No**.

If you installed the Administrator's Program, the setup program installs a RAS Manager for Domains program icon in the Administrative Tools Group.

Installation Problems

RAS Manager is an easy-to-use utility with few failure modes. Most installation problems stem from improper network configurations or access.

For installation problems, first verify the following:

- You have logged on with appropriate network administrative rights and password
- The RAS service is installed and properly configured

Re-install RAS Manager. If the problem persists, contact NTP Software at 603-626-0986. Leave a message and phone number when prompted. Someone from Software Support will return your call as soon as possible. Or you can contact NTP Software Support on-line at: **http://www.ntpsoftware.com**; or email to **support@ntpsoftware.com**. Please have the following information available:

- Your RAS Manager serial number
- Windows NT version and the list of services you are currently running
- RAS Manager Event log information
- The specific problem(s) requiring assistance

Using RAS Manager's On-line Help

RAS Manager has extensive on-line help. Select **Help** from the main menu or contact NTP Software Support on-line at: **http://www.ntpsoftware.com**; or email to **support@ntpsoftware.com** for additional information.

Preparing Remote Users to Receive Warning Messages

RAS Manager notifies remote users when their logon time limits (as set in RAS Manager) are close to expiring. No additional software is required to configure your remote user's machines. To receive custom messages, the remote users must have the following:

- Valid network ID and password
- RAS dial-in permission - set in RAS Manager or NT's Remote Access Admin
- Winpopup for Windows for Workgroups or Windows 95 installed and properly configured
- Messenger Service for Windows NT installed and properly configured

Configuring Workstations
See Chapter 3, "Configuring Remote Workstations To Receive Warning Messages."

Chapter 1 RAS Manager Overview

RAS Manager is a powerful tool that works with Microsoft's Remote Access Service (RAS) for Windows NT. This chapter introduces RAS Manager, and provides detailed descriptions of RAS Manager's terms, operations, and inherent security features.

Remote Access Service (RAS)

Whether your personnel are located on a plane to Paris—or in a basement in Boston, Microsoft's RAS gives users with phone lines the ability to logon to their home network, regardless of location. Your people have access to the network resources as if they were still in the office.

Why Manage RAS?

Imagine that you are the Network Administrator for an organization (or an Internet Service Provider) with 3,000 remote users. Now imagine that they all try to establish RAS connections to the network simultaneously. You know what happens next; unless you have 3,000 phone lines and a bunch of RAS servers, only a few users get through. If you could distribute the RAS calls throughout the day, and limit the amount of time each caller remains connected, your network could support more users with the same resources.

Even if you have no problems with RAS access now, the demand for RAS is certain to grow. Downsizing, decentralizing, and telecommuting are facts of business life. They all create demand for remote access to your network. If you're an ISP, you know about surging demand. The need to manage RAS resources is certain.

RAS Manager Functions

RAS Manager lets you:

- Establish and automatically enforce a RAS management policy
- Generate basic RAS use accounting information
- Allow or deny RAS user access
- Control the length of RAS sessions
- Specify RAS servers to connect to
- Specify network *Peak hours* and *off-hour* time limits

- Specify daily, weekly, and monthly time limits
- Establish global *logon* times to allow RAS connections
- Modify any default setting to meet individual user requirements
- Create custom warning messages that inform RAS clients of impending disconnection

Using RAS Manager

RAS Manager's power lies in it's simplicity and flexibility. RAS Manager works with Windows NT, managing all incoming lines to your RAS server; ISDN; X 400; and asynchronous modem lines. By monitoring and controlling these incoming lines, RAS Manager *organizes* access to your RAS server. This organization time-shares incoming RAS connections and optimizes server availability. But first, you have to provide the RAS Manager program with the following information: which users are allowed access, which servers they can connect to; and the time limit of their RAS sessions.

To do this, configure global and individual settings. The global settings, or *system preferences,* are defaults that apply to all RAS users granted RAS dial-in access. Individual settings, or *user preferences*, can be set on any individual with RAS permissions. Once set, user preferences override default system preferences. For additional information on setting system and user preferences, see Chapter 3, "Setting System Preferences" and "Setting User Properties."

RAS Manager is tightly integrated with Windows NT. All RAS Manager events are posted to NT's application log when a RAS user connects, disconnects, or is forced off the server. This information provides a quick reference that identifies RAS users and helps pinpoint problems when troubleshooting.

The terms defined in this chapter are used throughout this manual. Please familiarize yourself with RAS Manager's *global* and *individual* settings. Then read the detailed descriptions that follow.

Global and individual settings for RAS Manager:

- **System Preferences**. Default global settings that apply to all
- **User Properties**. Individual settings assigned to RAS users.

System Preferences Defined

These are global properties that set network Peak hours and Off hours, time limits, logon hours and connection times, and custom warning messages that remind RAS users of impending disconnection. For additional information, see Chapter 3, "Setting System Preferences" and "Setting Warning Messages".

The following terms describe global system preferences:

Concurrent Sessions. The number of concurrent user logons through RAS with the same user id.

Peak Hours and Off Hours. Peak hours are the hours (day or night) that your NT network has the greatest number of clients connected, using the greatest amount of network resources. RAS Manager sets network peak hour defaults from 9 A.M. to 5 P.M. during setup. Off hours are the hours when network demand is at a minimum. You can tailor these settings to meet the demands of your organization in the **Set Peak Hours** dialog box.

Peak Hours and Off Hour Time Limits. Time limits (in minutes) that you set, and are imposed globally on RAS connections, during peak hours and off hours. Set global peak hours and off hour time limits in the **Set System Preferences** dialog box.

Daily, Weekly, and Monthly Time Limits Time limits that you set daily, weekly, or monthly and are imposed globally on RAS connections. Set daily, weekly, and monthly time limits in the **Set System Preferences** dialog box.

Default Logon Hours. The **Default Logon Hours** setting defines when RAS users are allowed to connect to a RAS server. Setting the **Default Logon Hours** lets you control when the maximum RAS load is likely to occur, and prevent that load from conflicting with other network activities.

Default Logon Servers. During installation, RAS Manager sets defaults that allow all RAS users access to all network RAS servers. You can elect to restrict access to specified servers.

Warning Messages. RAS Manager lets you set up to three custom warning messages that warn your remote users of impending disconnection.

User Properties Defined

You can tailor user properties to each individual RAS client. As previously stated, once new properties are set in the **User RAS Properties** dialog box, they override default system preferences. If you require additional information on setting User RAS Properties, see Chapter 2, "Setting User RAS Properties."

The following terms describe user properties:

Concurrent Sessions. The number of concurrent user logons through RAS with the same user id.

Grant Dial-in Permission: Grants dial-in permissions without opening NT's Remote Access Admin. Program.

Peak hours and Off-Hour Time Limits. Time limits (in minutes) imposed on an individual's RAS connection. Setting time limits for each RAS user gives everyone a fair shot at the network. This prevents careless users from tying up your RAS lines and effectively shares your network resources. Set individual Peak hours and off-hour time limits in the **User RAS Properties** dialog box.

Daily, Weekly, and Monthly Time Limits Time limits that you set daily, weekly, or monthly and are imposed globally on RAS connections for each RAS user. Set daily, weekly, and monthly time limits in the **User RAS Properties** dialog box.

Individual Logon Hours. You can override the default logon hours to meet individual RAS user needs. If a user has RAS dial-in permissions, you can set individual Logon Times in the **User RAS Properties** dialog box. This overrides default logon hours for the user. If you grant a new user RAS permissions without specifying logon hours, then the global defaults are in effect.

Logon Access to Specified Servers. This management feature lets you organize your RAS clients by server.

RAS Manager As a Network Security Tool

Your information is precious, and it's your responsibility to safeguard that information. RAS Manager has features that can enhance the security of your network by imposing restrictions on remote network access. You can choose to impose global or individual access limitations.

Inherent security features in RAS Manager:

- Restricting dial-in permissions
- Restricting logon access to specified servers
- Restricting logon access to specified hours
- Restricting individual dial-in time limits

Combine these security features to enhance your current network security policies for remote users. Read on for a detailed description of each feature.

Restricting Dial-in Permissions

This feature is performed on an individual level. To dial-in remotely, the user must have dial-in permissions. RAS Manager lets you quickly remove dial-in permissions (one checkbox in the **User RAS Properties** dialog box), without affecting individual, pre-set user properties. Keep in mind that restricting dial-in permissions affects the user's *next* RAS session. If a user is currently logged on, restricting dial-in permissions *will not* kick them off the system.

Restricting Logon Access To Specified Servers

This security feature lets you protect information by only allowing users RAS access, to specified servers.

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Restricting Logon Access To Specified Hours

This feature is similar to setting global logon times. Each user has different responsibilities—and network requirements. Use this feature to limit the hours of the day an individual can connect to a RAS server.

Restricting Individual Dial-in Time Limits

Limiting individual dial-in time limits ensures that users are working the whole time they're connected. Time limits create a sense of urgency, reminding users that time is limited, and to make the most of it. At the organizational level, time limits give everyone a fair shot at the network.

Chapter 2 **Navigating the RAS Manager Administration Program**

Overview: This chapter is designed for you to gain familiarity with RAS Manager Administration program menus and commands. This chapter will explain:

- RAS Manager's menus and commands
- Using the Toolbar
- Using the Status Bar
- Using on-line help

Note: RAS Manager follows general Windows guidelines for navigation: The terms **Click**, and **Select** mean "place the mouse cursor over the menu item or button and press or "click" your primary mouse button." **Boldface items** in descriptive text emphasize action or program components that require attention. If you require additional information, please consult your Windows documentation.

RAS Manager Main Window

RAS Manager's document window displays all users in the selected domain. When RAS Manager first starts, the title bar displays the domain from which your workstation resides. . The toolbar provides shortcuts to all menu commands, and the status bar displays detailed information on menu commands and options.

Using RAS Manager's toolbar or pull-down menu commands, you can:

- Select users from different domains
- Grant or remove RAS permissions
- Set dial-in time limits on an individual basis
- Set global options for all RAS users
- Set custom *time remaining on-line* messages
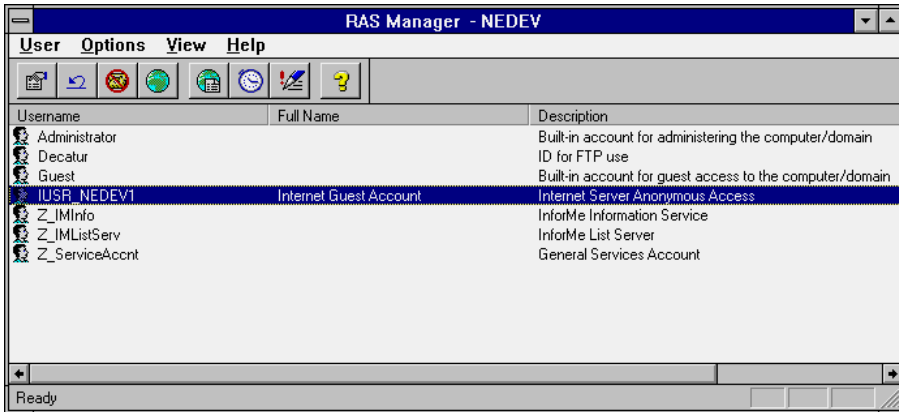- Consult on-line help

Figure 1 RAS Manager Main Window

RAS Manager Main Window Components

Title Bar

Displays the selected domain name.

Main Menu

Set or modify default system preferences and user RAS permissions:

User menu	Set or modify user permissions, select new domain
Options menu	Set or modify system preferences
Tools menu	Export and Clear RAS Manager statistics
View menu	Select **Status Bar** and **Toolbar** for viewing
Help menu	Access the RAS Manager on-line help

guide

Toolbar

Shortcuts to all **Main** menu commands. You can optionally select *not* to view the toolbar in the **View** menu. See "Using the Toolbar" in this chapter for additional information.

Document Window

Displays a list of all users in the selected domain (that appears in the Title Bar):

Username is the name used by Windows NT to identify the account. **Full name** contains the full name of the user account, but may be blank. **Description** provides additional account information when available.

Status Bar

Displays additional information when you place your mouse pointer over a toolbar icon or menu item. You can optionally select *not* to view the status bar in the **View** menu.

Menu Commands

The following sections describes the commands found on the **Options Menu**, the **User Menu**, the **Tool Menu**, and the **View Menu**.

Options Menu Commands

You set the system preferences using the **Options Menu** commands. Once established, these preferences become the default settings when new users are granted RAS permissions. You can set or modify default connection times, system peak hours and off hours, and customize warning messages.

Note: System preferences, peak hours, and warning messages are set for each domain; therefore, you can set different values for each domain.

Menu Item	Description
Set System Preferences. . .	Opens the **System Preferences** dialog box. Set Default Logon Hours, time limits and Logon Servers for the specified domain.
Set Peak Hours. . .	Opens the **Set Peak Hours** dialog box. Set default system peak hours and off hours for the specified domain.
Set Warning Messages. . .	Allows administrators to customize *time remaining on line* **warning** messages for the specified domain. You may customize up to three messages to inform RAS users

of remaining on-line time (as set in the
User RAS Properties dialog box).

User Menu Commands

Use this menu to display and modify **User RAS Properties**. First, select a user
in the main window. Then select a menu option to modify their properties. For
additional information on setting user properties, see "Setting User RAS
Properties" in Chapter 3.

Menu Item	Description
Properties. . .	Displays the **User RAS Properties** dialog box with individual user logon time limits and dial-in permissions. Double-clicking on a user name will also display the **User RAS Properties** dialog box.
Reset Properties. . .	Resets selected user properties to default settings while retaining dial-in permissions.
Disable...	Removes dial-in permissions.
Select Domain. . .	Displays the **Select Domain** dialog box from User Manager. Lets you choose a domain to select user accounts.
Exit. . .	Terminates the RAS Manager program.

Using the User Menu to Change Default Settings

You can change default settings, such as Peak hours and off-hour time limits,
on an individual basis in the **User Properties** dialog box. When you change
default settings, the new settings apply automatically until they are changed, or
reset using the **Reset Properties…** command in the **User** menu.

Tool Menu Commands

The **Tool** menu commands export statistics in delimited text format or dBase format.

Menu Item	Description
Export Session Stats...	Exports session statistics in delimited text format or dBase format.
Export Hourly Port Stats...	Exports hourly port statistics in delimited text format or dBase.
Export Daily Port Stats...	Exports daily port statistics in delimited test format or dBase.

View Menu Commands

Turns the optional toolbar and Status Bar on and off. For additional information, see, "Using the Toolbar" and "Using the Status Bar" later in this chapter.

Using the Toolbar

The toolbar provides shortcuts to all available menu items, grouped by menu topic. Hold your mouse cursor over any toolbar button and a mini help box will display the button name. If you have the Status Bar enabled, a description of the button will appear on the bottom of the RAS Manager window.

Figure 2 RAS Manager Toolbar Buttons

User Menu Toolbar Shortcuts

Properties - Opens the **Set User Properties** dialog box. Shortcut to User, Properties…

Reset Properties - Resets selected user properties to default settings. Shortcut to **User**, **Reset Properties...**

Disable - Removes user dial-in permissions. Shortcut to User, Disable…

Select Domain - Opens the **Select Domain** dialog box. Shortcut to
User, **Select Domain…**

Options Menu Toolbar Shortcuts

Preferences - Opens the **Set System Preferences** dialog box. Shortcut
to **Options, Set System Preferences…**

Set Peak Hours - Opens the **Set Peak Hours** dialog box. Shortcut to
Options, **Set Peak Hours...**

Warning Messages - Opens the **Set Warning Messages** dialog box.
Shortcut to **Options, Set Warning Messages…**

Help Menu Toolbar Shortcuts

Opens the RAS Manager on-line help guide.

Viewing or Hiding the Toolbar

The toolbar appears by default, but you can optionally select to hide it:

1. Click **View** on the main menu. A check mark in front of the
Toolbar menu command indicates the toolbar is selected. If
the toolbar is not visible, click **Toolbar**.
2. Click **View**, **Toolbar** again to remove the check mark and hide
the toolbar.

Using the Status Bar

The Status Bar provides detailed descriptions of menu and toolbar items. Place your mouse cursor over a menu or toolbar item and a description of that item appears in the Status Bar at the bottom of the RAS Manager main menu.

Figure 3 Status Bar

Viewing or Hiding the Status Bar

By default, the Status Bar is enabled. You may select to hide it:

1. Click **View** on the main menu. A check mark in front of the **Status Bar** menu command indicates the Status Bar is selected. If the **Status Bar** is not visible, click **Status Bar**.
2. Click **View**, **Status Bar** again to remove the check mark and hide the Status Bar.

Using On-line Help

RAS Manager has an extensive on-line help guide. You access on-line help through the **Help** menu. You have three options:

*   **Contents** - Brings you to the Table of Contents page of the Help file.
*   **Search for Help On** - Opens the Index page of the Help file. Type in the first few letters of the topic you wish to search for help on. If the topic is available, it will display in the window. Click **Display** to view the information.
*   **How To Use Help** - Opens the Windows NT Help guide. Use as a resource for accessing and using all help files.
*   **About** - Displays a dialog box with product serial number and revision information. Have this information handy when contacting technical support.

Chapter 3 Using RAS Manager

Overview:. This chapter explains the following:

- Setting or modifying default system preferences
- Setting or modifying user RAS properties
- Configuring remote workstations to receive warning messages
- Exporting session statistics, hourly port statistcs, and daily port statistics

Setting System Preferences

System preferences are default values that apply when a user is granted RAS permissions and *no individual* properties are set for that user. There are five basic system preference default settings:

- Set Default Time Limits
- Set Default Logon Hours
- Set Default Logon Server Access
- Set Default Peak Hours and Off Hours
- Set Custom Warning Messages

Note: System preferences, peak hours, and warning messages are set for each domain; therefore, you can set different values for each domain.
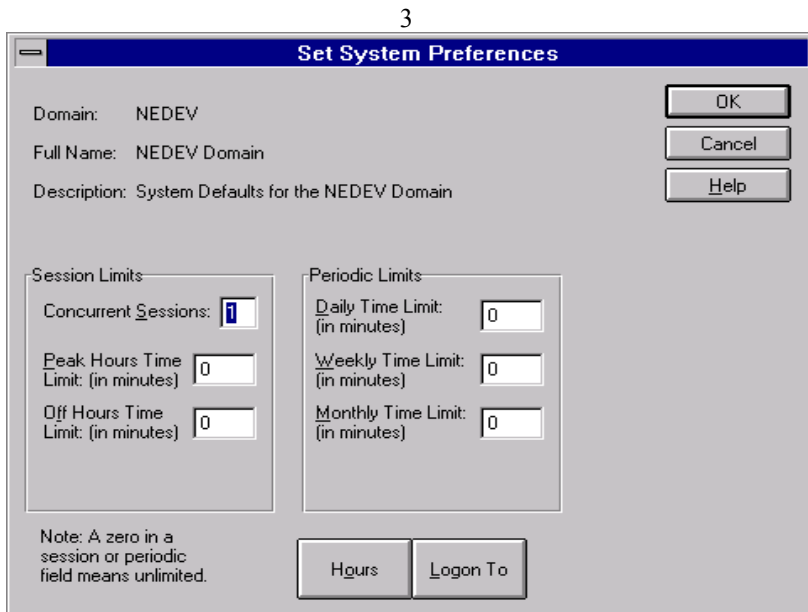
For additional information on system preference definitions, see "System Preferences Defined," in Chapter 1.

Setting Default Time Limits

To set Default Time Limits:

(Tool Bar shortcut)

1 Click **Options**, **Set System Preferences…** from the RAS Manager menu. The **Set System Preferences** dialog box appears.

2

3

Figure 4 Set System Preferences Dialog Box

4

5 Enter the default time in minutes for each session and periodic limit field.

6 Set the **Session Limits** as follows:

> 7 Fill in **Concurrent Sessions** with the number of times a user can dial in concurrently.
>
> **8** Fill in the **Peak Hours Time Limit** with the number of minutes, on a per session basis, you want to allocate to each user during peak hours.
>
> **9** Fill in the **Off Hours Time Limit** with the number of minutes, on a per session basis, you want to allocate to each user during off hours.

10 **Note**: You can define peak hours and off hours from the **Options** menu, the **Set Peak Hours...** submenu.

11 Set the **Periodic Limits** as follows:

> 12 Fill in the **Daily Time Limit**, the **Weekly Time Limit**, and the **Monthly Time Limit** with the number of minutes you want to allocate to each user on a daily, weekly, and monthly basis.

13 Click **OK**.

Note: When setting the system default time limit, choose a time limit (in minutes) that provides enough time for your average remote user to adequately perform their duties. Entering a zero in a time limit field provides unlimited access.

Note: System preferences, peak hours, and warning messages are set for each domain; therefore, you can set different values for each domain.

Setting Default Logon Hours

14 This procedure is also a security feature: *Restrict Logon Access To Specified Hours.*

15 Use the **RAS Logon Hours** dialog box to set the default days and hours during which all users granted RAS dial-in permissions can connect to a server.

16

17 To set or restrict Logon Hours:

(Tool Bar shortcut)

1. Click Options, Set System Preferences. . . from the RAS Manager menu. The Set System Preferences. . . dialog box appears.
2. Click **Hours**. The **RAS Logon Hours** dialog box appears.
3. Enter the logon time in each field for the day of the week. You may set up to three different logon periods per day.
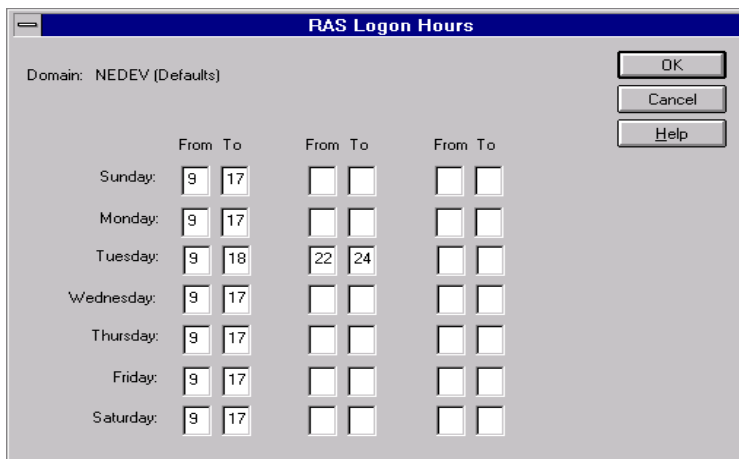
Figure 5 RAS Logon Hours Dialog Box

18 For example:

Day	From	To	From	To	From	To
Sunday	9	17				
Monday	9	17				
20 Tuesday	9	18	22	24		

21

22 **Note:** All times are set with 24-hour clock settings. This example sets logon hours between 9 A.M. to 5 P.M. on Sunday and Monday,

29

and 9 A.M. to 6 P.M on Tuesday. An additional logon period has been added to Tuesday's schedule, between 10 P.M. to midnight. Entering all zeroes or leaving the boxes blank provides unlimited logon access.

23

4.   Continue setting logon hours for each day of the week.

5.   When satisfied with your Logon Hours settings, click **OK**.

6.   Click **OK** to close the **Set System Preferences. . .** dialog box.

7.   Clicking **Default** sets the session or its periodic limits to the system defaults.

24**Note:** System preferences, peak hours, and warning messages are set for each domain; therefore, you can set different values for each domain.

Setting Default Logon Server Access

This procedure is also a security feature: *Restrict Logon Access To Specified Servers.*

Use the **Logon RAS Workstations** dialog box to set the default server(s) to which all users (that are granted RAS permissions) can connect.

(Tool Bar shortcut)

25 Click **Options**, **Set System Preferences. . .** from the RAS Manager menu. The **Set System Preferences** dialog box appears.

26 Click **Logon To**. The **Logon RAS Workstations** dialog box appears.
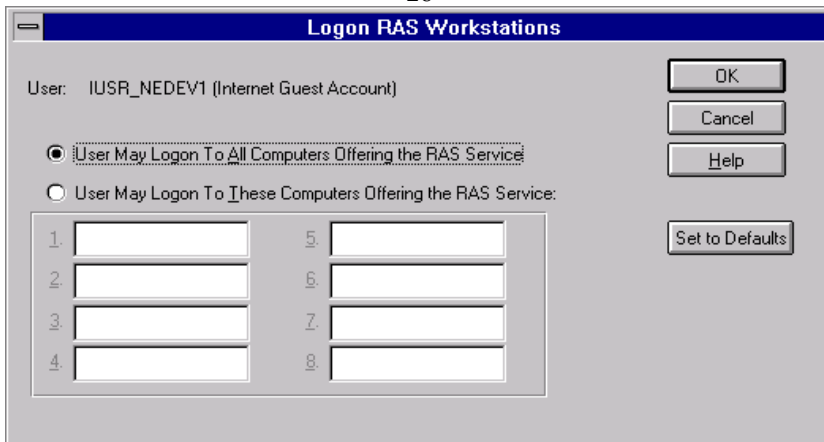
27

28

Figure 6 Logon RAS Workstations Dialog Box

29 Slect **User May Logon To These Computers Offering the RAS Service.**

30 Enter the computer names in the spaces provided. You may enter up to eight different computers for each user account.

31 Select **User May Logon To All Computers Offering RAS Service** if you want the user to be able to access all computers offering RAS Service.

32 Clicking **Set To Defaults** sets the session to the system defaults.

33 Click **OK** to return to the **Set System Preferences** dialog box.

34 Click **OK** to save your settings and close the dialog box.

35 **Note**: System preferences, peak hours, and warning messages are set for each domain; therefore, you can set different values for each domain.

Setting Peak Hours and Off Hours

Use the **Set Peak Hours** dialog box to set the hours during which your network is operating at its peak. RAS Manager uses this time setting as a reference, and limits user logon time during peak hours to the most recently saved settings in the User RAS Properties dialog box.

The Peak Hours default is set at 9 A.M. to 5 P.M. during software installation, but you can tailor the settings to your organization's requirements.
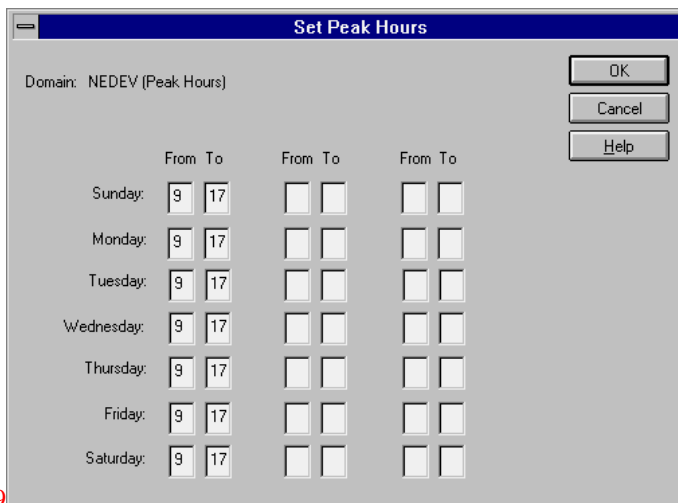
To set Peak Hours:
(Tool Bar shortcut)
36 Click **Options**, **Set Peak Hours…** from the RAS Manager menu. The **Set Peak Hours** dialog box appears.
37 In the **Set Peak Hours** dialog box, enter the time in each field for the day of the week. You may set up to three different peak hour settings per day.
38

Figure 7 Peak Hours Settings in the Set Peak Hours Dialog Box

40

33

41 For example:

Day	From	To	From	To	From	To
Sunday	9	17				
Monday	9	17				
Tuesday	9	17				

46

47 **Note**: All times are set on a 24-hour clock. This example sets peak hours between the hours of 9 A.M. to 5 P.M. on Sunday and Monday, and 9 A.M. to 6 P.M. on Tuesday.

48 Continue setting peak hours for each day of the week.

49 When satisfied with your Peak Hours settings, click **OK**.

50

51 **Note:**   System preferences, peak hours, and warning messages are set for each domain; therefore, you can set different values for each domain.

Setting Warning Messages

The **Set Warning Messages** dialog box allows you to create custom messages for your remote users. When connected, these messages inform your RAS clients of the amount of time remaining in their RAS session. You may customize up to three "warning" messages that notify users of impending disconnection.
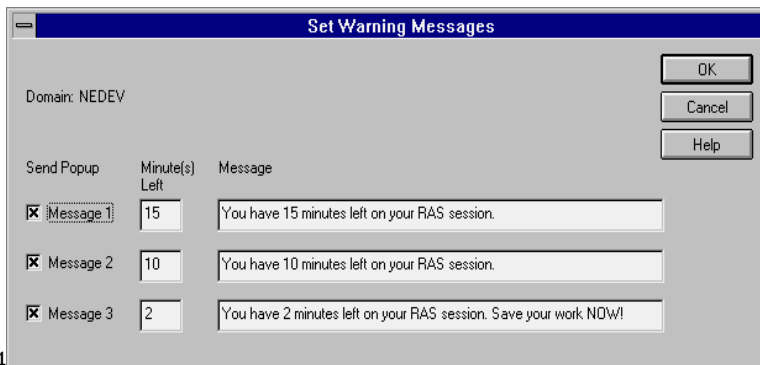
To set Warning Messages:
(Tool Bar shortcut)
52 Click **Options**, **Set Warning Messages…** from the RAS Manager menu. The **Set Warning Messages** dialog box appears.

53

54

Figure 8 Set Warning Messages Dialog Box

55

56 Select the Message 1, 2, or 3 **Send Popup** check box(s). Message priority is set by the number placed in the **Minute(s) left** field. A higher number in minutes will display the relevant message first, and the lowest number corresponds to the last message displayed before the user's RAS connection is terminated.

57 Enter the time remaining in minutes for each message.

58 Enter the **message** you wish displayed. You have up to 255 characters per message to create your custom warning messages.

59 Click **OK**.

Note: System preferences, peak hours, and warning messages are set for each domain; therefore, you can set different values for each domain.

35

Setting User RAS Properties

User RAS Properties such as dial-in permissions, Peak hour and off hour time limits, and logon access times are all set in the **User RAS Properties** dialog box. To set properties, you must first select a user account in the **RAS Manager** window. A user account can be selected from the domain that RAS Manager opened with, or from another domain that has the proper trust relationships established. See "How to Select a Domain" later in this chapter for additional information. For additional information on establishing domain trust relationships, consult your Windows NT documentation.

Figure 9 User RAS Properties Dialog Box

Note: When you're finished setting user account properties, click **OK** to close the **User RAS Properties** dialog box and save the settings for the specified user. If you select **Cancel**, User Properties will default to the last saved entry.

Setting User Time Limits

To set User Time Limits:

(Tool Bar shortcut)

60 Click **User Properties...** from the RAS Manager's Main menu. The **User RAS Properties** dialog box appears.

61 Enter the time in minutes for each session and periodic limit field.

62 Set the **Session Limits** as follows:

63 Fill in **Concurrent Sessions** with the number of times a user can dial in concurrently.

64 Fill in the **Peak Hours Time Limit** with the number of minutes, on a per session basis, you want to allocate to each user during peak hours.

65 Fill in the **Off Hours Time Limit** with the number of minutes, on a per session basis, you want to allocate to each user during off hours.

66 **Note**: You can define peak hours and off hours from the **Options** menu, the **Set Peak Hours...** submenu.

67 Set the **Periodic Limits** as follows:

68 Fill in the **Daily Time Limit**, the **Weekly Time Limit**, and the **Monthly Time Limit** with the number of minutes you want to allocate to each user on a daily, weekly, and monthly basis.

69 **Time Remaining** is the number of minutes remaining for the periodic time limits.

70 Click **Set to Defaults** to set the session or its periodic limits to the system defaults.

71 Click **OK**.

72

Note:

When setting the time limits, choose a time limit (in minutes) that provides enough time for your average remote user to adequately perform their duties. Entering a zero in a time field provides unlimited access.

For additional information on User Properties, see "User Properties Defined," in Chapter 1.

Selecting a User Account

73 Double-click the user account (see figure 4-5) you wish to set, or select the user account and click **Properties** from the **User** menu. The **User RAS Properties** dialog box appears. You can set all user properties here.
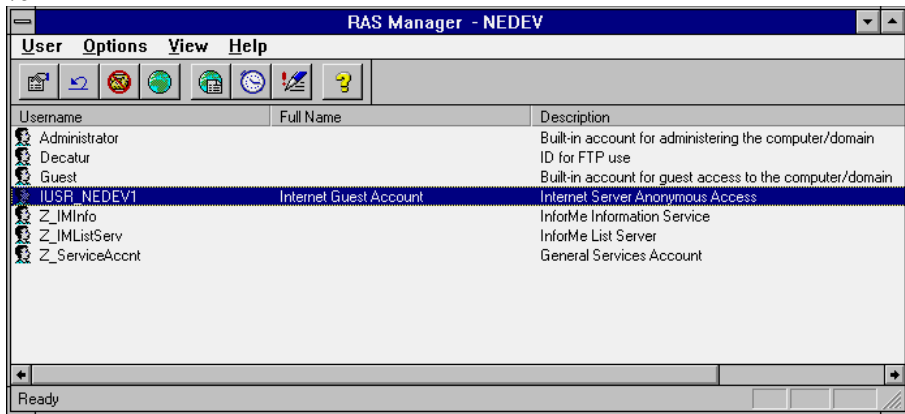
74

75

Figure 10 RAS Manager Main Window with a User Account Selected

76

Granting Dial-in Permission

This procedure is also a security feature: *Restrict RAS Dial-in Permissions*

To grant or restrict Dial-in Permissions:
(Tool Bar shortcut)
77 Click **User**, **Properties. . .** from the RAS Manager menu. The **User RAS Properties** dialog box appears.

78

Figure 11 User RAS Properties Dialog Box with Dial-In Permission Selected

80

81 To grant dial-in permission, select **Grant dial-in permission to user** in the **User RAS Properties** dialog box.

82 Continue setting additional User Properties or click **OK** to save the setting and close the dialog box.

Managing User Logon Hours

83 This procedure is also a security feature: *Restrict Logon Access To Specified Hours.*

84 Use the **Logon Hours** dialog box to set or restrict the days and hours during which a user can connect to a server.
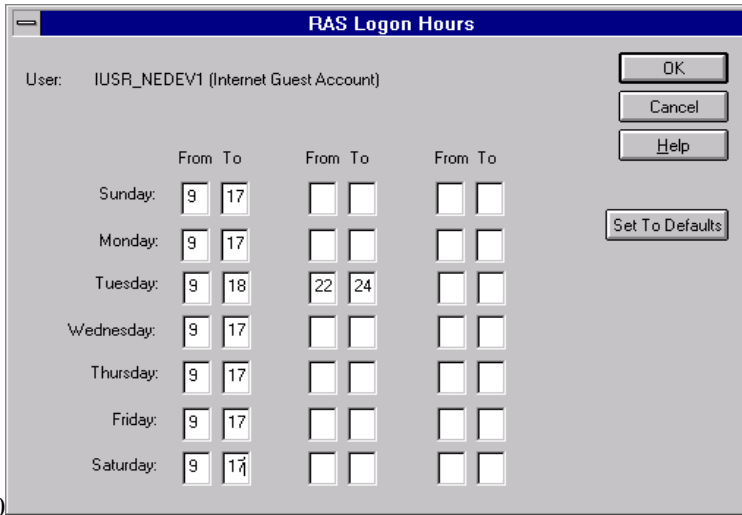
85

86 To set or restrict Logon Hours:

(Tool Bar shortcut)

87 Click **User**, **Properties…** from the RAS Manager menu. The **User RAS Properties** dialog box appears.

88 Click **Hours**. The **RAS Logon Hours** dialog box appears.

RAS Logon Hours

User: IUSR_NEDEV1 (Internet Guest Account)

	From	To	From	To	From	To
Sunday:	9	17				
Monday:	9	17				
Tuesday:	9	18	22	24		
Wednesday:	9	17				
Thursday:	9	17				
Friday:	9	17				
Saturday:	9	17				

OK   Cancel   Help   Set To Defaults

90

Figure 12 RAS Logon Hours Dialog Box

91

92 Enter the preferred user logon time in each field for the day of the week. You may set up to three different logon periods per day.

93 For example:

Day	**From**	**To**	**From**	**To**
Sunday	9	17		
Monday	9	17		
Tuesday	9	18	22	24

97

98 Note*:* All times are set on a 24-hour clock. This example sets individual logon hours between 9 A.M. to 5 P.M. on Sunday and Monday, and 9 A.M. to 6 P.M on Tuesday. An additional logon period has been added to Tuesday's schedule, between 10 P.M. to midnight.

99

100 Continue setting logon hours for each day of the week.

101 When satisfied with your Logon Hours settings, click **OK**.

102 Click **Set To Defaults** to set the logon hours to the system defaults.

103 Click **OK** to close the **User Properties** dialog box.

Restricting User Logon Access to Specified Servers

This procedure is also a security feature: *Restrict Logon Access To Specified Servers*

Use the **Logon RAS Workstations** dialog box to restrict the servers to which a user can connect.

To restrict User Logon Access:

(Tool Bar shortcut)

  104Click **User**, **Properties. . .** from the RAS Manager menu. The **User** Properties dialog box appears.

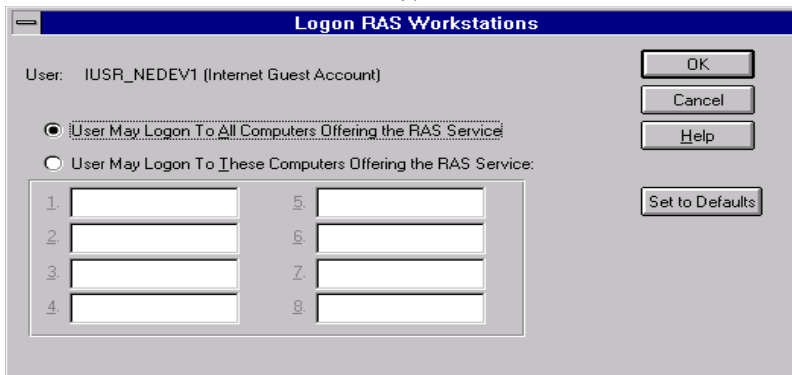 105Click **Logon To**. The **Logon RAS Workstations** dialog box appears.

  106

107

Figure 13 Logon Workstations Dialog Box

  108 In the **Logon To** dialog box, select **User May Logon To These Computers Offering the RAS Service.**

  109Enter the computer names in the spaces provided. You may enter up to eight different computers for each user account.

  110Click **Set To Default** to set the specified servers to the system defaults.

  111Click **OK** to return to the **User RAS Properties** dialog box.

  112Click **OK** to save your settings and close the dialog box.

Disabling User Properties

This feature is a menu item shortcut to the "Grant dial-in permission to user" selection in the **User RAS Properties** dialog box. When you disable a user's properties, you simply remove their dial-in permissions, keeping their individual user settings intact.

To Disable User Properties:
(Tool Bar shortcut)
1. Click **User**, **Disable User Properties** from the RAS Manager main menu.

43

Selecting A Domain

RAS Manager lets you grant RAS permissions to users in different domains, provided you have the proper trust relationship established with the domain. See your Windows NT documentation for information on establishing trust relationships across multiple domains.

To select a different domain:

(Tool Bar shortcut)

113Click **User**, **Select Domain…** from the RAS Manager menu. The **Select Domain** dialog box appears.

114
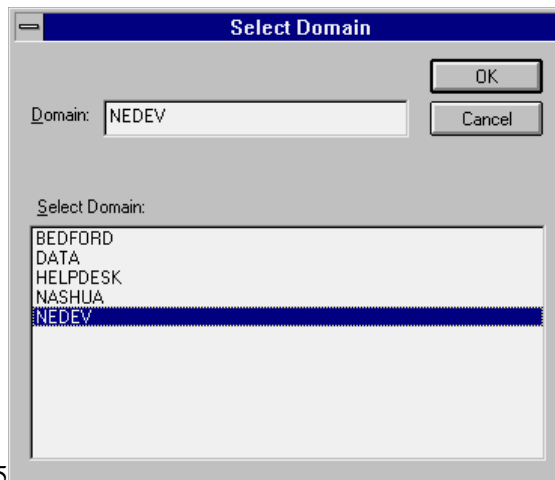
115

Figure 14 Select Domain Dialog Box

116

117Choose a domain from the list in the **Select Domain** list box, or type a *domain name* in the **Domain** text box.

118Click **OK** to return to the RAS Manager main window. User names for the newly selected domain will appear in the main document window.

119

Reseting User Properties

This feature resets the selected user properties to system defaults, without affecting dial-in permissions.

To Reset User Properties:
(Tool Bar shortcut)
1. Click **User**, **Reset** from the RAS Manager main menu.

Configuring Remote Workstations To Receive Warning Messages

Warning messages are displayed differently, depending on the workstation platform. Windows for Workgroups and Windows 95 workstations require Winpopup, a program included with both versions of Windows. Winpopup must be running to receive custom messages. Additionally, you can customize the method in which the workstation is notified using Winpopup. Windows NT workstations require that the *Messenger service* be started and properly configured. For additional information on customizing Winpopup, or Windows NT Messenger Service, consult your Windows documentation.

The following sections provide specific setup information for all your remote client workstations.

45

Configuring for Windows for Workgroups

120 Open the **Control Panel** from the Main program group.

121 Double click the **Network** icon. The Microsoft Windows Network dialog box appears.

122 Under Options, click **Start Up**. The **Startup Settings** dialog box appears.

123 Select Enable <u>W</u>inpopup.

124 Choose **OK**.

125 When you restart Windows for Workgroups, Winpopup will load automatically.

<u>Note</u>**:** You may configure Winpopup to display a pop-up dialog box or sound when you receive a message. Consult your Windows documentation to configure Winpopup.

Configuring For Windows 95

126 Click **Start**, then point to **Settings…**.

127 Click **Taskbar**, then the **Start Menu Programs** tab.

128 Click **<u>A</u>dd**, and enter the following line:

    winpopup.exe

129 Click **<u>N</u>ext>**, then double-click the StartUp folder.

130 Type the name that you want to see on the **Start<u>u</u>p** menu, and then click **Finish**.

131 When you restart Windows 95, Winpopup will load automatically.

132

Configuring For Windows NT

133 Open the **Control Panel**. Double click on the **Services** icon. The NT Services dialog box appears.

134 Verify the M*essenger Service* is displayed in the services window.

135 Highlight Messenger Service. If **Start** is highlighted, choose it. If **Stop** is highlighted, the Messenger Service is running.

136 To make the Messenger service start automatically, click **Sta<u>r</u>tup…** , then choose **<u>A</u>utomatic**. Click **OK**.

137

Exporting Statistics

This section describes how to export session statistics, hourly port statistics, and daily port statistics in either delimited text format or dBase.

Exporting Statistics in Delimited Text Format

To export session statistics, hourly port statistics, or daily port statistics in delimited text format, do the following:

1. On the **Tools** menu, click the type of statistics (session, hourly port, or daily port) that you want to export. The **Export** dialog box appears.
2. Choose **Text (Delimited)** in the **Data Destination** field.
3. Click **OK**. The **Export** dialog box reappears.
4. Select the dates that you want statistics from in the **Select Dates to Export** field. The dates of the days having recorded statistics are listed in this field.
5. Click **OK.** The **Export File Name** dialog box appears.
6. Enter the name of the file to which the statistics will be exported or choose one of the files listed. The default file type is **.txt**.
7. Click **Open.** The **Export Options** dialog box appears. You choose the format for your export file from these options. The options are the following:

- **Store <u>F</u>ield Name in First Row** Allows you to include the field names in the exported file.
- **F<u>i</u>le Type** field. Controls whether the file uses the ANSI or the UNICODE character set. The default is **Windows (ANSI).**
- **Text <u>D</u>elimiter** field. Determines the character that is used to show the beginning and end of a text string. The default text delimiter is double quotes (˝).
- **Field <u>S</u>eparator** field. Determines the character that is used to separate fields in the record. The default field separator is a comma (**,**).
- Select the format of your dates, times, and numbers in the **Dates, Times, and Number** fields. The options are the following:
-
- **Date Order.** Controls the order in which the day, month, and year are exported. The default is month, day, year (MDY).
- **Leading Zeroes in Dates.** Determines whether or not elements of the date are padded with leading zeroes.
- **Time Delimiter.** Determines the character that is used to separate the elements of the time field. The default time delimiter is a colon (**:**).

- **Date Delimiter.** Determines the character that is used to separate the elements of the date field. The default date delimiter is a forward slash (/).
- **Four Digit Years.** Controls the number of digits exported to designate the year.
- **Decimal Separator.** Determines the character that is used to specify the location of the decimal point in numbers.

8. Click **OK** when you finish choosing the formatting options.
9. RAS Manager notifies you when the exporting is complete.

Exporting Statistics in dBase Format

To export session statistics, hourly port statistics, or daily port statistics in dBase format, do the following:

1. On the **Tools** menu, click the type of statistics (session, hourly port, or daily port) that you want to export. The **Export** dialog box appears.
2. Choose **dBase** in the **Data Destination** field.
3. Click **OK**. The **Export** dialog box reappears.
4. Select the dates that you want statistics from in the **Select Dates to Export** field. The dates of the days having recorded statistics are listed in this field.
5. Click **OK.** The **Export File Name** dialog box appears.
6. Enter the name of the file to which the statistics will be exported or choose one of the files listed. The default file type is **.dbf**.
7. Click **Open.** The **Export Options** dialog box appears. You choose the format for your export file from these options. The options are the following:

- **File Type** field. Controls whether the file uses the ANSI or the UNICODE character set. The default is **Windows (ANSI).**

    Select the format of your dates, times, and numbers in the **Dates, Times and Number** fields. The options are the following:

    Date Order. Controls the order in which the day, month, and year are exported. The default is month, day, year (MDY).
    Leading Zeroes in Dates. Determines whether or not elements of the date are padded with zeroes.
    Time Delimiter. Determines the character that is used to separate elements in the time field. The default time delimiter is a colon (**:**).

49

Date Delimiter. Determines the character that is used to separate elements in the date field. The default date delimiter is a forward slash (/).

Four Digit Years. Controls the number of digits exported to designate the year.

8. Click **OK** when you finish choosing the formatting options.
9. RAS Manager notifies you when the exporting is complete.

Export Function Statistical Log Files

This section defines and explains the fields of the statistical log files created when you use the **Export** function. It is possible to have six log files: sessions log files for delimited text format and dBase format, hourly log files for delimited text format and dBase format, and daily log files for delimited text format and dBase format.

RAS Manager stores up to 31 statistical log files. You can increase or decrease this value by using the registry editor on your primary RAS server and changing the value of the following field:

MaxAgedDays in HKEY_LOCAL_MACHINE\NTPSoftware\RASMgr.

Export Session Log File

The following table lists and describes the text and dBase field names and field definitions for the **Export session** log files.

Field	Name	Field Definition
Text	**dBase**	
Authorized	AUTHOCODE	Contains codes describing the user's access or restrictions. The codes are: 0-- Authenticated. Successfully connected. 1-- Not authenticated due to logon hour restriction. 2-- Not authenticated due to server access restriction. 3-- Not authenticated due to concurrent session limit. 4-- Not authenticated due to daily limit restriction. 5-- Not authenticated due to weekly limit restriction. 6-- Not authenticated due to monthly limit restriction.
Start Date	STRTDATE	The date on which the connection began.
Start Time	STRTIME	The time at which the connection began (24 hour clock).
End Date	ENDDATE	The date on which the connection ceased.
End Time	ENDTIME	The time at which the connection ceased.

Session Length	SESSLEN	The number of minutes the session was maintained (minutes and decimal minutes).
Session Limits	SESSLIM	The maximum number of minutes allowed for this connection. This value can vary depending on whether the connection is during peak hours or off hours. 0 means unlimited time.
Domain	DOMAIN	The name of the domain to which the user is connected.
User	USER	The user ID used to make the connection.
User Compt	USERCN	The name of the computer from which the user logged on.
TCP/IP Addr	IPADDR	The TCP/IP address assigned to the user when the connection is made using TCP/IP.
IPX Addr	IPXADDR	The IPX address assigned to the user when the connection is made using IPX.
NetBios Name	NBNAME	The NetBios address assinged to the user when the connection is made using NetBios.
RAS Compt	RASCN	The name of the computer to which the user logged on.
RAS Port	PORT	The port on the RAS Server the user.
Connect BPS	CONNTBPS	The speed of the RAS connection.
Multi-Linked	PORTLINK	If the value in this field is zero (0), the RAS port the user is connected to is not a multi-linked port. If the value is one (1), the port is multi-linked.
RAS Device Type	DEVTYPE	The type of port to which the user is connected.
RAS Device Name	DEVNAME	A text description of the port to which the user is connected.
BytesXmited	BYTEXMIT	The number of bytes transmitted during a session.
BytesRcved	BYTERCVD	The number of bytes received during a session.
FramesXmited	FRMEXMIT	The number of frames transmitted during a session.
FramesRcved	FRMERCVD	The number of frames received during a session.
CRC Errs	CRCERR	The number of cyclic redundancy check

Field	Name	Field Definition
		errors in a session.
Timeout Errs	TIMEOUTS	The number of time out errors that occurred during a session.
Align Errs	ALIGNERR	The number of alignment errors that occurred during a session.
HwdOverrun Errs	HWDOVRUN	The number of hardware overrun errors that occurred during a session.
Framing Errs	FRMERRS	The number of framing errors that occurred during a session.
BufOverun Errs	BUFOVRUN	The number of buffer overrun errors that occurred during a session.
BytesXmited (uncomp)	BYTXMITU	The number of bytes transmitted uncompressed.
BytesRcved (uncomp)	BYTRCVDU	The number of bytes received uncompressed.
BytesXmited (comp)	BYTXMITC	The number of bytes trasmitted compressed.
BytesRcved (comp)	BYTRCVDC	The number of bytes received compressed.

Export Hourly Log Files

The following table lists and describes the text and dBase field names and field definitions for the **Export hourly** log files.

Field	Name	Field Definition
Text	**dBase**	
Server	SERVER	The name of the RAS Server.
Port	PORT	The name of each port on the server.
Date	DATE	The day for which the hourly activity is recorded.
Hour	HOUR	The hour during which the activity is recorded (military time).
Active Connections	UTILCNT	The number of active connections during a specific hour.
Denied Connections	FAILCNT	The number of denied connections during a specific hour.
Utilization (min)	UTILTIME	The number of minutes a port was utilized during a specific hour.
BytesXmited	BYTEXMIT	The number of bytes transmitted during a specific hour.

53

BytesRcved	BYTERCVD	The number of bytes received during a specific hour.
FramesXmited	FRMEXMIT	The number of frames transmitted during a specific hour.
FramesRcved	FRMERCVD	The number of frames received during a specific hour.
CRC Errs	CRCERR	The number of cyclic redundancy check errors in a session.
Timeout Errs	TIMEOUTS	The number of time out errors that occurred during a specific hour.
Align Errs	ALIGNERR	The number of alignment errors that occurred during a specific hour.
HwdOverrun Errs	HWDOVRUN	The number of hardware overrun errors that occurred during a specific hour.
Framing Errs	FRMERRS	The number of framing errors that occurred during a specific hour.
BufOverun Errs	BUFOVRUN	The number of buffer overrun errors that occurred during a specific hour.
BytesXmited (uncomp)	BYTXMITU	The number of bytes transmitted uncompressed.
BytesRcved (uncomp)	BYTRCVDU	The number of bytes received uncompressed.
BytesXmited (comp)	BYTXMITC	The number of bytes transmitted compressed.
BytesRcved (comp)	BYTRCVDC	The number of bytes received compressed.

Export Daily Log Files

The following table lists and describes the text and dBase field names and field definitions for the **Export daily** log files.

Field	Name	Field Definition
Text	**dBase**	
Server	SERVER	The name of the RAS Server
Port	PORT	The name of each port on the server.
	HOUR	Has no meaning for this file.
Date	DATE	The day for which the daily activity is recorded.

Successful Connections	UTILCNT	The number of successful connections for a specific day.
Denied Connections	FAILCNT	The number of denied connections for a specific day.
Connection Length (min)	UTILTIME	The total number of minutes the port was in use for a specific day.
Session Limits	SESSLIM	The maximum number of minutes allowed for this connection. This value can vary depending on whether the connection is during peak hours or off hours. 0 means unlimited time.
Domain	DOMAIN	The name of the domain to which the user is connected.
User	USER	The user ID used to make the connection.
User Compt	USERCN	The name of the computer from which the user logged on.
TCP/IP Addr	IPADDR	The TCP/IP address assigned to the user when the connection is made using TCP/IP.
IPX Addr	IPXADDR	The IPX address assigned to the user when the connection is made using IPX.
NetBios Name	NBNAME	The NetBios address assinged to the user when the connection is made using NetBios.
RAS Compt	DEVNAME	The name of the computer to which the user logged on.
RAS Port	PORT	The port on the RAS Server the user to which the user connected.
Connect BPS	CONNTBPS	The speed of the RAS connection.
Multi-Linked	PORTLINK	If the value in this field is zero (0), the RAS port the user is connected to is not a multi-linked port. If the value is one (1), the port is multi-linked.
RAS Device Type	DEVTYPE	The type of port to which the user is connected.
RAS Device Name	DEVNAME	A text description of the port to which the user is connected.

BytesXmited	BYTEXMIT	The number of bytes transmitted daily.
BytesRcved	BYTERCVD	The number of bytes received daily.
FramesXmited	FRMEXMIT	The number of frames transmitted daily.
FramesRcved	FRMERCVD	The number of frames received daily.
CRC Errs	CRCERR	The number of cyclic redundancy check errors daily.
Timeout Errs	TIMEOUTS	The number of time out errors that occurred daily.
Align Errs	ALIGNERR	The number of alignment errors that occurred daily.
HwdOverrun Errs	HWDOVRUN	The number of hardware overrun errors that occurred daily.
Framing Errs	FRMERRS	The number of framing errors that occurred daily.
BufOverun Errs	BUFOVRUN	The number of buffer overrun errors that occurred daily.
BytesXmited (uncomp)	BYTXMITU	The number of bytes transmitted uncompressed.
BytesRcved (uncomp)	BYTRCVDU	The number of bytes received uncompressed.
BytesXmited (comp)	BYTXMITC	The number of bytes trasmitted compressed.
BytesRcved (comp)	BYTRCVDC	The number of bytes received compressed.

Chapter 4 Troubleshooting

138

139

140**Overview**: The RAS Manager program is tightly integrated with Windows NT. This integration improves the isolation of potential problems that affect RAS connections.

RAS Manager Event Posting

141

142Each RAS Manager "event" is posted to the application log:

143

144When the RAS Manager service starts or stops

145When a user logs on, or off the RAS server

146When a user is "forced" off due to imposed time limits

147When a user tries to log on during restricted logon hours or days

148When any internal programming problem occurs

149

150When problems occur, first check the application log. This information can point you to potential configuration problems: globally, or user specific.

151

Support Information

152If the problem persists, contact NTP Software at 603-626-0986. Leave a message and phone number when prompted. Someone from Software Support will return your call as soon as possible. Or you can contact NTP Software Support on-line at: **http://www.ntpsoftware.com**; email: **support@ntpsoftware.com**. Please have the following information available:

- Your RAS Manager serial number
- Windows NT version and the list of services you are currently running
- RAS Manager application log information
- The specific problem(s) requiring assistance

153 Glossary

154

155 **Concurrent Sessions.** The number of concurrent user logons through RAS with the same user id.

156 **Dial-in permission**. Permissions (set in RAS Manager User Properties) that allow user(s) to connect to the network from a remote workstation.

157

158 **Domain(s)**. A group of Windows NT servers that share common security policy and account databases.

159

160 **Logon Hours, Default**. The times and days that a RAS user can logon to the network. Default Logon Hours apply when individual logon hours are *not* set in User Properties.

161

162 **Logon Hours, Individual**. User specific times and days a RAS user can logon to the network.

163

164 **Logon Server Access, Default**. By default, all RAS users have access to all RAS servers. Logon Server Access lets the Administrator restrict global RAS access to specified servers.

165

166 **Logon Access to Specified Servers, Individual**. Lets Administrators restrict access to RAS servers on an individual basis.

167

168 **Off Hours**. The hours (day or night) that network demand is at a minimum. Any time that is not identified by the RAS Manager program as a peak hour is off hours by default.

169

170 **Off Hour Time Limits, Default**. Time limits imposed globally on RAS sessions during network off hours (as set in System Preferences).

171

172 **Off Hour Time Limits, Individual** Time limits imposed on individual RAS user sessions during network off hours (as set in User Properties).

173

174 **Peak Hours**. The hours (day or night) that your NT network has the greatest number of clients connected, using the greatest amount of network resources. RAS Manager has two time references: Peak Hours and Off hours.

175

176**Peak Hour Time Limits, Default**. Time limits imposed globally on RAS sessions during network peak hours (as set in System Preferences).

177

178**Peak Hour Time Limits, Individual**. Time limits set on individual RAS user sessions during network peak hours (as set in User Properties).

179

180**Remote Access Server (RAS)**. A Windows NT service that lets users in remote sites use the network as if their computers were directly connected to the network.

181

182**RAS User**. An individual with a valid network I.D. that connects to the network from a remote location using the RAS service.

183

184**RAS Session**. The total time (day or night) that an individual is connected to the network from a remote location using the RAS service.

185

186**System Preferences**. Global default settings that apply to all RAS sessions.

187

188**User Properties**. Individual settings for each RAS user. Once set, individual settings override system default settings.

189

190**Warning Messages**. Custom messages that warn users of impending disconnection.

191