

# RemoteWare® 32-Bit Windows

*User's Guide*

Version 4.3 SP2



RemoteWare 32-Bit Windows User's Guide

Version 4.3 SP2

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## Using This Guide

This guide introduces you to RemoteWare and the RemoteWare 32-Bit Windows Client. RemoteWare is a remote systems management tool specifically designed to distribute software to and perform inventory scans for remote and fixed-site users. It contains fundamental information necessary to use the software, including a conceptual overview and highly interactive walkthroughs.

We recommend you print this guide so it is readily available as you perform your tasks. If you prefer to use this guide online, you may find it helpful to zoom to 150% for enhanced readability.

## Revisions for this document

This guide is updated with the following changes:

- Support for RemoteWare Client running on Windows Vista
  - Describe important information about assigning Client user rights for successful installation and operations. See [“Client user rights on Windows Vista” on page 14](#).
  - Include instructions for disabling the system tray icon for the Client running as a service on Windows Vista. See [“Windows Vista and the RemoteWare system tray icon” on page 26](#).
- Client update program parameter — Disclose a user notification parameter (/f) for the Client update program (rwcupd.exe) that was introduced in a RemoteWare 4.1 SP2 hot fix. See [“ESD Auto Apply” on page 67](#).

## SPX and IPX protocol

Throughout this document are textual and graphical representations of the user interface related to Sequenced Packet Exchange (SPX) and Internetwork Packet Exchange (IPX) protocols. Although these representations are included in this document, and also appear in the RemoteWare application, this version of RemoteWare no longer supports these protocols. The next full release of RemoteWare will be updated accordingly.

## RemoteWare Support Services

Register at our technical support site to always get the latest information on your product version. This site is available only to maintenance customers.

Visit the Technical Support site for product-specific technical information.

[www.sybase.com/support](http://www.sybase.com/support) or [frontline.sybase.com/support](http://frontline.sybase.com/support)



## What's in this guide

This guide contains the chapters summarized in the table below.:

*Table 1. Chapters in this guide*

<b>Chapter</b>	<b>Description</b>
<a href="#">Chapter 1 - Installing RemoteWare Client</a>	Describes the steps for installing the RemoteWare Client software.
<a href="#">Chapter 2 - Understanding the Fundamentals</a>	Provides an overview of the RemoteWare Client and presents the information you need to set up your Client and use it to communicate with the RemoteWare Server or other remote systems.
<a href="#">Chapter 3 - Preparing for Communications</a>	Explains how to set up and configure communications resources in preparation for initiating communications sessions.
<a href="#">Chapter 4 - Initiating and Monitoring Connections</a>	Describes the methods for connecting to a RemoteWare Server or other remote system, the information you can view about current connections, and past session information available in the RemoteWare Client log.
<a href="#">Appendix A - Using Scripts</a>	Provides the information you need to use the Script Editor to view and edit scripts.

## Related publications

The following manuals are available in electronic format on the RemoteWare product image.

### Administrator guides

- *RemoteWare Server Installation Guide* — Contains detailed information about installing your RemoteWare Server and its components. The guide also discusses environment and network considerations, configuring your database, cluster tuning, and uninstalling RemoteWare.
- *RemoteWare Server Administrator's Guide* — Explains how to operate and maintain a RemoteWare system. It takes a task-oriented approach to describing features.
- *RemoteWare Server Reference Guide* — Contains a detailed description of every application, facility, window, menu, and control present in the RemoteWare Server. Use this book when you want to know what something does, how it is used, or why it behaves as it does.
- *Portable Interactive Session* — Introduces you to RemoteWare Portable Interactive Session, also known as "Portable." Portable provides a secure and restricted method for communicating with the RemoteWare Clients. It contains fundamental information necessary to use the software, including a conceptual overview and highly interactive walkthroughs.
- *RemoteWare Database Schema Guide* — Describes the characteristics of the RemoteWare SQL database tables.
- *RemoteWare Workshop Developer's Guide* — Explains how to use RemoteWare Workshop to create and publish customized desktop-style Workshop applications.
- *RemoteWare Subscriber Administrator's Guide* — Shows how to build and deploy lists of files and applications to the Client. It also explains how to use the Subscriber Lists at the RemoteWare Client.
- *RemoteWare Inventory Manager Administrator's Guide* — Explains how to use Inventory Manager for centralized monitoring and reporting of hardware and software resources on RemoteWare Clients. Instructions include how to create Inventory Manager Profiles that control the operating and scheduling of Client inventory scans, and how to assign those Profiles to Clients. The guide also describes how to view and interpret the centrally stored resource information for each Client.

- *RemoteWare Software Manager Administrator's Guide* — Explains how to use Software Manager to efficiently and securely distribute, install, and manage software for enterprise system users. Includes how to create and define software package contents and then assign that package to a RemoteWare Client.
- *RemoteWare Migration Guide* — Explains how to plan and implement many aspects of migration from RemoteWare for OS/2 to RemoteWare.
- *RemoteWare Multicast System Administrator's Guide* — Explains how to use RemoteWare Multicast. Multicast allows administrators to distribute files to a large number of RemoteWare Clients with a single communication session from the Server. It contains fundamental information necessary to use the software, including a conceptual overview and highly interactive walkthroughs.
- *RemoteWare ActiveX Controls Reference Manual* — Presents the 32-bit ActiveX controls that are included with the RemoteWare 32-bit Client software. These controls add selected Client functionality to ActiveX or OLE container applications.
- *RemoteWare API Manual* — Describes the RemoteWare Application Programming Interfaces (APIs) that allows you to control and configure the RemoteWare Server and Clients using a third-party programming language such as Microsoft Visual C++ or Microsoft Visual Basic.
- *RemoteWare Workshop Programmer's Guide* — Describes optional programmatic extensions that enhance Workshop environments.
- *Summit BasicScript Reference Manual and Summit BasicScript User's Guide* — Provides information on the options and structure for RemoteWare scripting. These documents are available in the \Document\Development Tool Administrator Guides\Summit BasicScript Documentation directory on the RemoteWare CD.
- *NetOp™* — Assists you in using NetOp with RemoteWare Remote Control.

## **Client guides**

- *RemoteWare 32-Bit Windows Client User's Guide* — Helps the Windows Client user install, set up, and understand the functionality in the RemoteWare Client.
- *RemoteWare OS/2 Client User's Guide* — Presents the features, setup procedures, available options, and connection methods for the OS/2 Client software.
- *Linux Client User's Guide* — Assists the Linux Client user install and use the RemoteWare Linux Client.

- *RemoteWare Text-Based Clients User's Guide* — Explains how to use the UNIX, VMS, 4690 and DOS Clients to communicate with the RemoteWare Server.
- *RemoteWare Software Manager Client User's Guide* — Describes how Client users can subscribe to Software Manager packages and then communicate with a RemoteWare Server to receive those packages.

## Installing RemoteWare Client

The RemoteWare 32-bit Windows Client Setup program enables you to quickly and easily install and set up the Client software on your 32-bit Windows computer.

This chapter includes:

- [“Installing the RemoteWare Client” on page 14](#)
- [“Running the Client as an NT Service” on page 25](#)

## Installing the RemoteWare Client

You install the Client software using the Client Setup program (Setup.exe). This program is available on the first disk of the Client installation kit, or in directory specified by your administrator if the installation files are being made available to you on a network.

### Client user rights on Windows Vista

Consider the following items for successful installation and operations on Windows Vista:

- Installation — RemoteWare operations require that the RemoteWare service have administrative rights and the logged on user have both access to the registry and the rights to create operating system global objects. Therefore, you must install the RemoteWare component while logged in as a standard user using "run as" local administrator context to execute the setup program.
- Operations — An administrator must grant RemoteWare Client users the following User Access Control (UAC) local policy rights:
  - Ability to create global objects
  - Administrator approval elevated without prompting

### Install the Client software

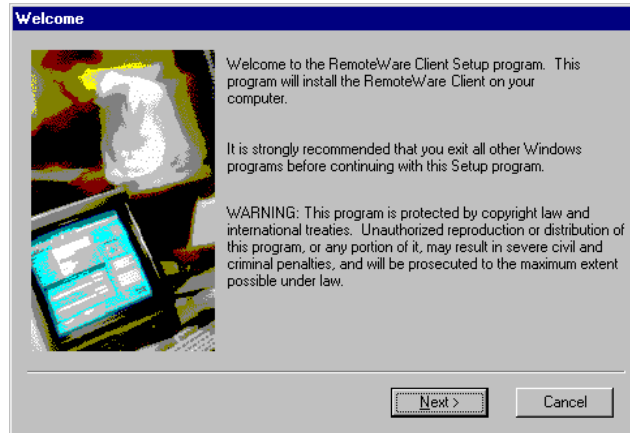
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**Note:** Some optional steps in this section refer to a Template Client installation, and may not be relevant to your installation.

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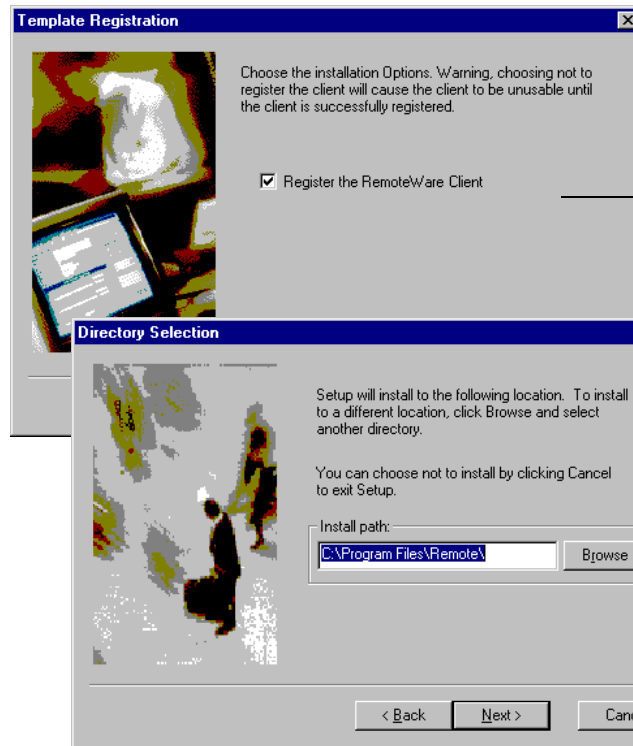
- 1 Insert the first disk of the Client installation kit in the floppy drive or access the designated directory which contains the Client installation files.

- 2 Double-click **Setup.exe**.



- 3 Click **Next** to continue or **Cancel** to terminate the installation.

- 4 The dialog box to appear next depends upon whether your administrator has distributed a template Client or a Client specifically configured for you.



If the Template Registration dialog box appears, you are installing a template Client. Continue with [step 5](#).

If the Directory Selection dialog box appears, proceed to [step 6](#).

- The **Template Registration** dialog box appears if you are installing a template Client. Continue with [step 5](#). If you do not select to register the Client, you cannot use the Client until the Client is successfully registered.
- The **Directory Selection** dialog box appears if you are *not* installing a template Client. Proceed to [step 6](#).



- 5 On the Template Registration dialog box, click **Next**.

Complete the following fields according to your administrator's instructions.

- Client Name (required)
- Password (required)
- Location

Click **Next** to continue.

- 6 Specify the install location. By default, the Client files are installed in the C:\Program Files\Remote\ directory. To change this location, click **Browse** and navigate to the appropriate location or enter the appropriate path. If the directory does not exist, you are prompted to confirm you want to create it. If you have previously installed the Client, this field defaults to the last install location.

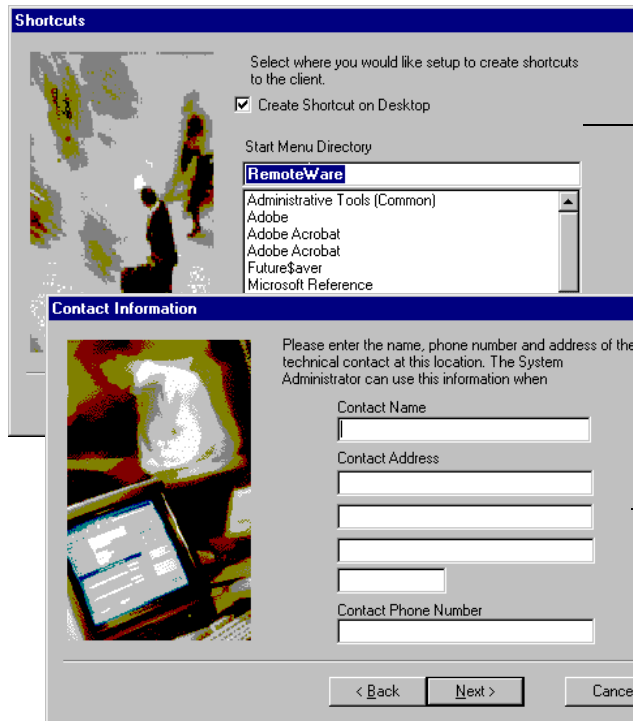
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**Note:** The RemoteWare Client software should be installed on a local drive. RemoteWare does not support running the Client from a network drive.

---

Click **Next** to continue.

- 7 The dialog box to appear next depends on whether you are installing a template Client.



If the Shortcuts dialog box appears, proceed to [step 11](#).

If the Contact Information dialog box appears, you are installing a template Client. Continue with [step 8](#).

If the Contact Information dialog box appears, you are installing a template Client. Continue with [step 8](#).

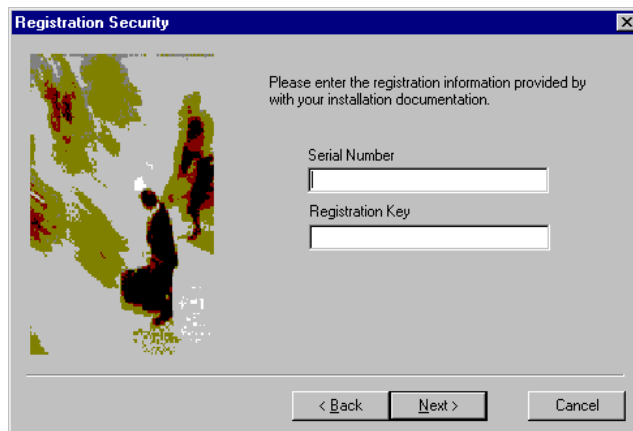
If the Shortcuts dialog box appears, proceed to [step 11](#).

- 8 Enter the following:
- Contact Name
  - Contact Address

- Contact Phone Number

This information enables your RemoteWare administrator to contact someone at your location when necessary.

Click **Next** to continue.



- 9 Enter the Server Serial Number and the Registration Key provided by your RemoteWare administrator and click **Next**.
- 10 One or more Resource Settings dialog boxes appear. The specific dialog boxes that display in sequence vary depending upon the type or types of resources your administrator has defined for your Client. Your resource may be one or more of the following types:
  - Async
  - TCP/IP
  - NetBIOS
  - SPX

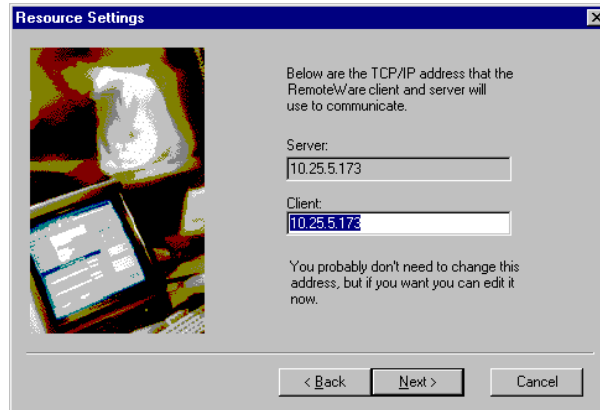
For detailed instructions on setting your resource types, locate the applicable sections below and follow the instructions.

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**Note:** If your resource type is NetBIOS, there is not information to modify. Proceed directly to [step 11](#).

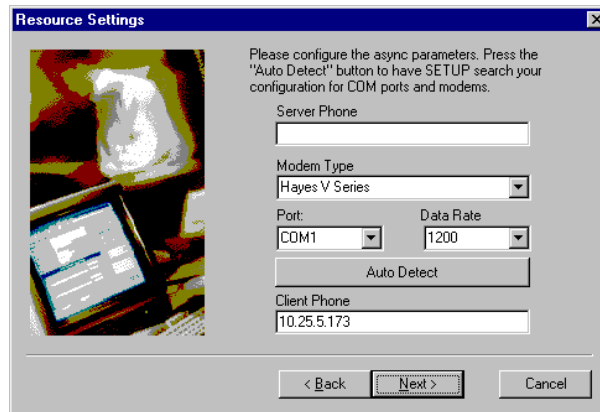
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## TCP/IP



By default, the Server and Client IP address configured by your administrator display on this dialog box. You can change the Client IP address if necessary. Click **Next** to continue.

## Async



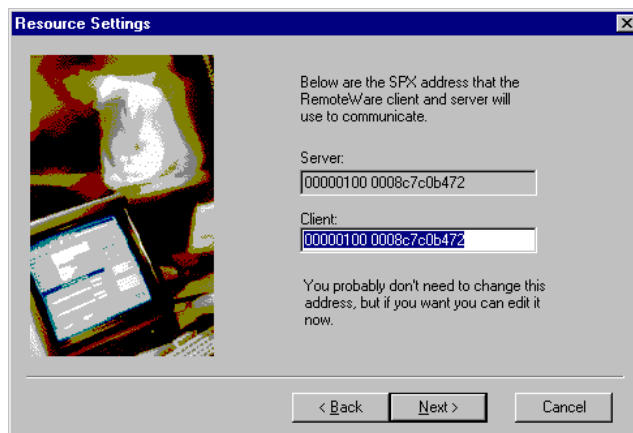
This dialog box displays the default async resource settings. You can change the default values for the following fields when necessary.

- Server Phone
- Modem Type
- Port
- Data Rate

- Client Phone

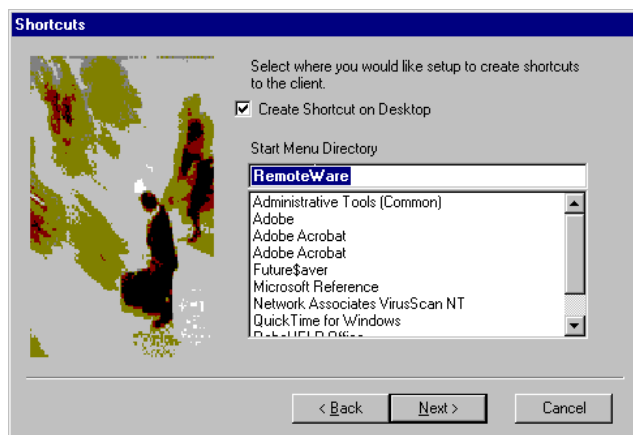
Click **Next** to continue.

SPX



The Server and Client SPX addresses display by default. You can change the Client SPX address if necessary.

Click **Next** to continue.



- 11** To create a shortcut to the RemoteWare Client on your desktop, click the **Create Shortcut on Desktop** check box.

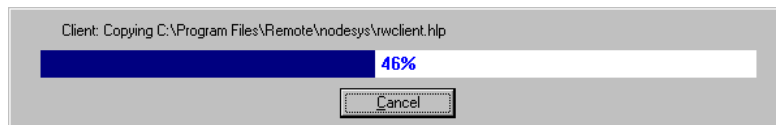
Or

To create a Start Menu directory for the RemoteWare Client, enter the name in the Start Menu Directory field. The Start Menu displays RemoteWare by default.

Click **Next** to continue.

- 12** Click **Start** to begin the installation.

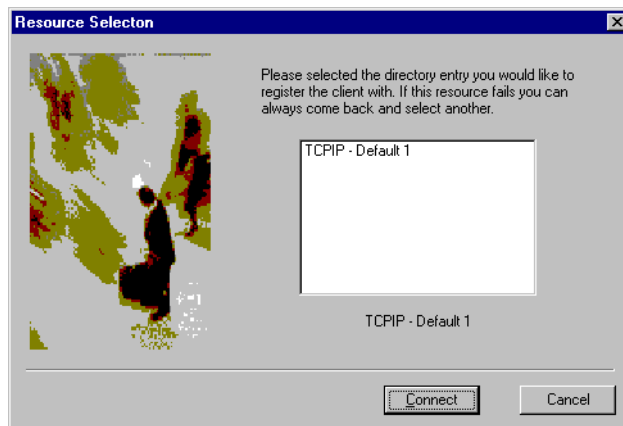
The Client files are copied to your computer.



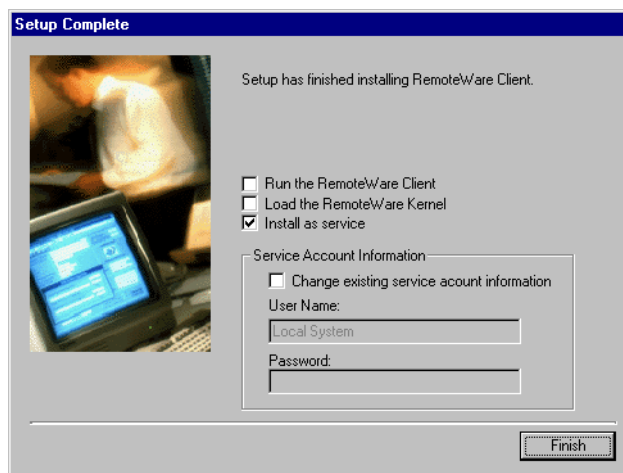
**Note:** If any required files were in use during the installation, or if the installation cannot overwrite some system files with newer versions, you are notified and presented with three options: Retry, Abort, or Cancel. If you select **Ignore**, you are prompted to reboot after the remaining files are copied. The installation completes after you reboot.


■ Template Client installation allows you to run the registration process at the Client multiple times using the same Client name. Each time, you will receive a message that the Client has been successfully registered.

- 13** If installing a template Client, you are prompted to connect with the Server so your registration information can be transferred. If you are *not* installing a template Client, proceed to [step 15](#). This dialog box varies depending upon the type of resource your Client uses.



- 14 Select the appropriate resource and click **Connect** to send your Client registration information to the RemoteWare Server.



- 15 Select one or more of the following, then click **Finish**.
- **Run the RemoteWare Client.** This option launches the RemoteWare Client application.
  - **Load the RemoteWare Kernel.** This option loads RWKernel.exe. When the kernel is loaded, the RemoteWare Client can initiate inbound connections to and can accept outbound communications from the RemoteWare Server without the Client application having to be started. The  icon appears in your system tray to indicate the kernel is loaded.
  - **Install as service.** This option is selected if your administrator chose **Run Client as Service** when the Makekit Installation kit was created. The Service Account Information is also based on your administrator's selections. Change this information only if instructed by your administrator.

The RemoteWare kernel (icon) is hidden and does not display in the system tray for non-local system accounts. The Run Client as Service feature is designed to work in the background on the Client.

---

**Note:** RemoteWare Clients can install and run as a service only if the user account is assigned to the Administrators group. For information, *Granting rights in the RemoteWare Server Administrator's Guide.*

---

**Note:** If the RemoteWare Client is installed as a service under a non-local system account, Logon as a Service must be granted to the user through the operating system.

---

Table 1. Command Line Switches used with RWKernel.exe

Parameter	Description
-c	Cancels the connection.
-d	Performs a connection, kernel needs to be loaded.
-h	Loads the kernel suppress the Loading Kernel message.
-i	Re-initializes the connection.
-nodtr	Disables use of DTR.
-r	Unloads the kernel.
-u	Loads the kernel, connects, and then unloads the kernel.

---

**Note:** While it is typically recommended to load the RemoteWare kernel, there may be situations in which you should **not** load the kernel. Contact your RemoteWare Server administrator for specific instructions on loading the kernel.

---

**Note:** The Uninstall Client is not added to the RemoteWare program group. You must use Windows Control Panel Add/Remove Programs to uninstall the Client.

---

**Note:** After performing an upgrade to Windows Client, files left in the NODESYS\WinESD\SYSTEM directory will show up as an ESD waiting to be applied. However, these cannot be applied. You must manually delete the files.

---



**Important:** When you install the Client, you must reboot before you reinstall the Client.

---



## Running the Client as an NT Service

If you are running the RemoteWare Client on Windows NT, you can configure the Client to run as an NT service. If you run the Client as a service, the RemoteWare Client application does not need to be started and you do not have to be logged on for communications between the Client and the Server to take place.

When you set the RemoteWare Client to run as a service, you can have the application begin automatically when the operating system starts, or you can require the service be started manually using the Services applet in Control Panel.

Once the service is started, the service continues to run even if no one is logged on. Configuring the program as a service ensures the Server is able to connect to the Client even if no one is logged on to the computer.

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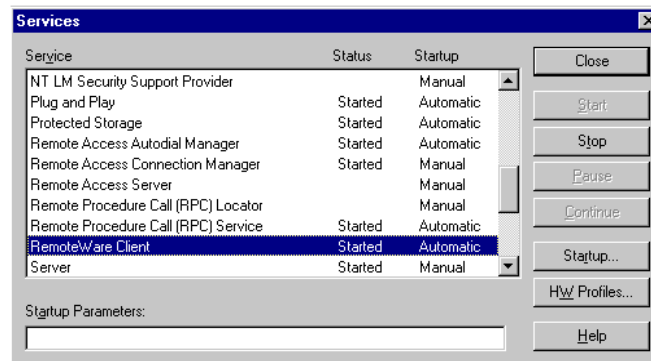
**Note:** When running a RemoteWare NT Client as a service in conjunction with SMS components, you must select the System Account/Interact with desktop option. If you select this option, it limits connectivity to other network resources.

---

### To configure the RemoteWare Client to run as a service:

- 1 At the DOS command prompt, access the RemoteWare /nodesys directory (by default C:\Program Files\Remote\nodesys).
- 2 Type one of the following commands:
  - To start the service automatically, type: `RWCINIT -i`
  - To start the service manually, type: `RWCINIT -i -m`
- 3 The RemoteWare Client service is added to the Service applet in Control Panel.

■ For information on managing Windows NT services, see your Windows documentation.



To manually remove the service, type: `RWCINIT -r`

---

**Note:** By default the NT Account that starts the service is local system account. To enter a specific account to run the service, type:  
`rwcnit -i <NT account name> <password>`

---

## Windows Vista and the RemoteWare system tray icon

By default, RemoteWare Clients running as a service runs the system tray icon for all logged on users. To disable the system tray icon, delete the following registry key.

- Path — `HKLM\Software\Microsoft\Windows\CurrentVersion\Run`
- Name — `RWCTraynnn`
- Type — `REG_SZ`
- Value — "`<ClientInstall>\nodesys\RWCTray.exe`"

If the Client service is stopped then restarted without restarting the system, the user may have to run program `RWCTray.exe` from the `<ClientInstall>\nodesys` directory in order to see the tray icon.

## Understanding the Fundamentals

The RemoteWare 32-Bit Windows Client makes use of powerful features in Microsoft Windows to connect with a RemoteWare Server.

This chapter provides you with an overview of the RemoteWare Client and presents the information you need to set up your Client and use it to communicate with the RemoteWare Server.

This chapter includes:


- [“Introducing RemoteWare Client” on page 28](#)
- [“Starting RemoteWare Client” on page 29](#)
- [“Exploring the main window” on page 31](#)
- [“Customizing the main window” on page 35](#)
- [“Changing views” on page 38](#)

## Introducing RemoteWare Client

The RemoteWare 32-Bit Windows Client (also known as the “Client”) provides a versatile and easy solution for exchanging files, messages, and data with one or more RemoteWare Servers. Your Client may also be able to communicate with other remote computers, depending upon the additional Server features your administrator uses.

In order to fully take advantage of the communications capabilities of the Client, it is important to understand the three basic components which control communications and how they interact with each other. These components include the Client user interface (UI), the kernel, and the tray icon.


The Client UI provides all of the tools and controls you need to configure, initiate, and monitor communications sessions. If you have used Windows applications, many of these controls are familiar to you. When you launch the Client UI, the kernel and system tray load automatically.

The kernel controls the ability of the Client to initiate and accept connections. When the kernel is loaded, the Client can initiate inbound communications to the RemoteWare Server and can accept outbound communications from the Server. The  kernel icon appears in the system tray to indicate the kernel is loaded. If you loaded the kernel by launching the Client UI, the kernel unloads when you close the Client UI. If, however, the kernel was already loaded when you launch the Client UI, the kernel remains loaded when you exit the application.

## Starting RemoteWare Client


RemoteWare Client provides several ways for you to start the Client and enable communications. Table 1 lists the three different methods you can use to enable Client communications.

*Table 1. Starting Client communications*

To	Do this
Manually start communications and use the Client user interface	On the Start menu, select <b>Program Files, RemoteWare, RemoteWare 32-bit Client</b> . If the  RemoteWare Client icon appears in your system tray, you can also double-click the icon to launch RemoteWare Client.
Manually start communications without the Client user interface	Execute the ...Nodesys\RWKernel.exe application from the File Run or Start Run menu or double-click shortcut to the executable file. For additional information, <a href="#">Table 1, “Command Line Switches used with RWKernel.exe” on page 24</a>
Run Client communications as a service	Use the RWCinit.exe application to configure the Client as a service. For detailed instructions, see <a href="#">“Running the Client as an NT Service” on page 25</a> . This method is not valid for Windows 98 Clients.

## Exiting the Client

### To exit the Client interface:

- 1 Click  **Close** in the upper right corner of the window, or on the File menu, select **Exit**.

If the kernel was loaded at the same time as the Client UI was loaded, when you close the UI the kernel also closes and the Client is unable to accept outbound calls or initiate inbound calls.

If the kernel was loaded before the UI, then the kernel remains running when the Client UI closes and the Client can still accept outbound calls and initiate inbound calls.

**To unload the kernel:**

- 1 Right-click the  RemoteWare Client icon in the system tray and select **Unload Kernel**.

---

**Note:** If the kernel is not loaded, then RemoteWare Server cannot communicate with the Client.

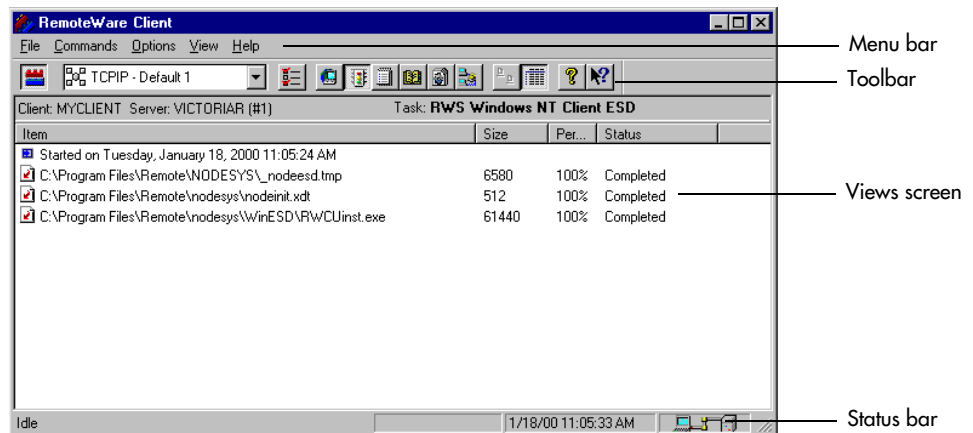
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## Exploring the main window

The RemoteWare Client main window is the central location from which you connect to the Server, configure your Client, view session information, and perform other tasks associated with managing your communications with the RemoteWare Server or other remote systems.

The Client's user interface is similar to many Windows applications, such as Windows Explorer. If you are familiar with the Windows environment, you will recognize many of the controls, shortcuts, and procedures. This consistency helps you easily install, set up, and connect to a RemoteWare Server or other remote system.

The RemoteWare Client window is composed of a menu bar, toolbar, status bar and a Views screen in which you display different types of information about your communications sessions with the Server. You can display a number of different views on this screen, each of which is customized to give you quick access to the specific information you need.



## Using the menu bar and toolbar

The RemoteWare Client menu bar contains the commands you need to manage your communications with the RemoteWare Server. The toolbar buttons provide quick access to many of the more frequently used commands. The following table lists all of the menu commands available in the Client. If a menu command has a corresponding toolbar button, it is shown to the right of the command.

*Table 2. RemoteWare Client menu commands*
















<b>Menu</b>	<b>Command</b>	<b>Button</b>	<b>Description</b>
File	New		Creates a new object type. The type of object you can create depends on the current view. For example, when the Directory view is selected, this command enables you to create a new Directory entry.
	Delete		Permanently removes the selected object from the view.
	Rename		Enables you to change a selected object's name.
	Properties		Displays information about the selected object's attributes and settings.
	Exit		Closes the user interface. The communications Kernel does not stop executing if it is running as a service or if the Kernel was active before the interface was launched.
Commands	Connect		Initiates a connection to the RemoteWare Server using the default entry.
	Run RemoteWare Backup Manager		Launches RemoteWare Backup Manager Client. Available only if Backup Manager Client has been installed.
	Run RemoteWare Software Manager		Launches RemoteWare Software Manager Client. Available only if Software Manager Client has been installed.
	Reinitialize		Reinitializes the communications transport for the Kernel on the Client.
	Unload Kernel		Unloads the Kernel on the Client.
Options	Settings		Displays current settings for Client password and toolbar.
View	Connections		Switches the current view to the Connections view.



Table 2. RemoteWare Client menu commands (Continued)



Menu	Command	Button	Description
	Status		Switches the current view to the Status view.
	Log		Switches the current view to the Log view.
	Directory		Switches the current view to the Directory view.
	Scripts		Switches the current view to the Scripts view.
	Dial Up Networking		Switches the current view to the Dial Up Networking view.
	Alerts		Displays the Alerts submenu. When an alert is present, select one of the active submenu commands to view detailed information about that alert.
	Apply ESD		If this icon appears, it opens the ESD Update Received alert, and allows updates to be applied. For ESDs to be applied properly, you must be logged on with administrator rights.
	Current Task List		Displays the Tasks property page for the current directory item. Use this dialog box to select inbound tasks to be performed, control the display, and disable ESD.
	Toolbar		Displays or hides the toolbar.
	Status Bar		Hides or displays the status bar at the bottom of the window.
	Large Icons		Displays items as large icons, without detailed descriptions.
	Details		Displays items in a detailed list, with specific descriptions and properties for the objects in the view.
Help	RemoteWare Client Help Topics		Displays the online Help system for the Client.
	What's This?		Activates context-sensitive Help. Use this to select an item and receive information about it.
	About RemoteWare		Displays the program name and version number.

## Using the status bar

The status bar at the bottom of the Client window provides information about the current status of the RemoteWare Client.



The status bar includes:

- **Status and help information.** Displays the current status of communications. Status information includes such indications as Idle, Connections, Password Check, and Receiving.
- **Alerts.** Displays a number of different alert icons, such as the ESD Update Received icon. Other alerts include Client Notification, Auto-Answer Disabled, ESD Disabled, and Resource Error.
- **Date and time.** Displays the current date and time.
- **Connection status.** Displays an icon that indicates the current connection status, such as  **Connected** or  **Idle**.

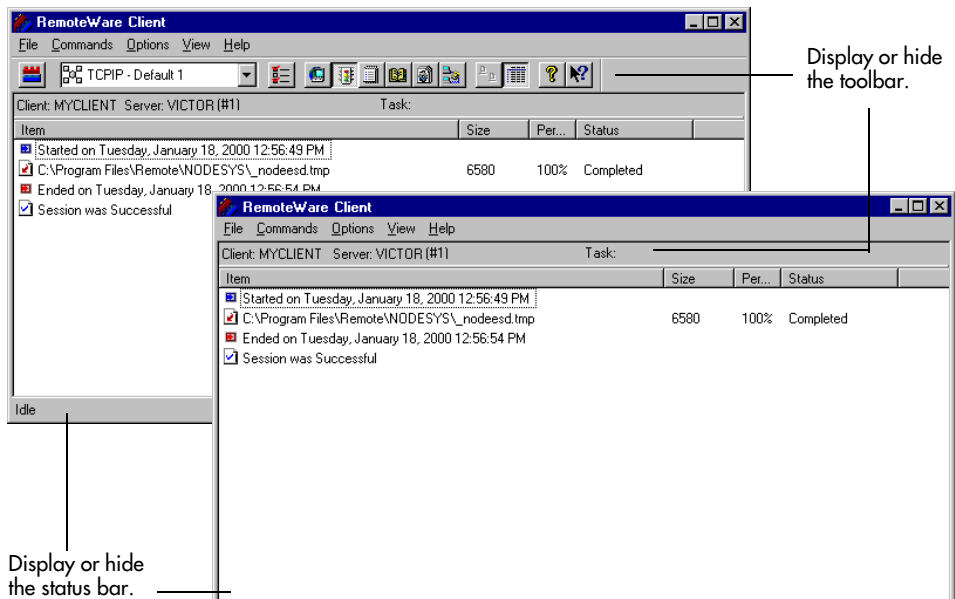
■ For detailed information about an alert, double-click the Alert icon in the status bar.

## Customizing the main window

RemoteWare Client provides a number of features that let you customize the appearance of the Client window. For example, you can choose to display or hide the toolbar or status bar, resize and move the toolbar to a new location in the window, and display either detailed information or icons on the Views screen.

### Displaying and hiding the toolbar and status bar

You can choose to hide or display the toolbar and status bar in the main window.



#### To display the toolbar or status bar:

- 1 On the View menu, select the **Toolbar** and/or **Status Bar** commands. A check mark to the left of the command means it is currently displayed in the main window.
- 2 The toolbar and/or status bar displays in the main window.

#### To hide the toolbar or status bar:

- 1 On the View menu, select the **Toolbar** and/or **Status Bar** commands.
- 2 The toolbar and/or status bar no longer display in the main window.

■ You can toggle the toolbar back and forth from its new location to the default location by double-clicking an area of the toolbar that is not a field or control.

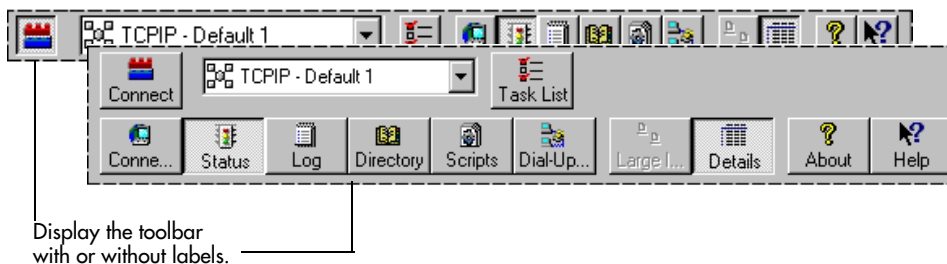
## Moving the toolbar

By default, the toolbar appears immediately below the menu bar and extends from the left side of the window to the right. You can however, use a drag-and-drop action to move the toolbar to the top or bottom edge of the Client window, or undock it to form a separate window which you can move or resize.

If you move the toolbar from its default location, the Client remembers the new location. The next time you launch the Client, the toolbar displays in the location where you last left it.

## Changing the toolbar style

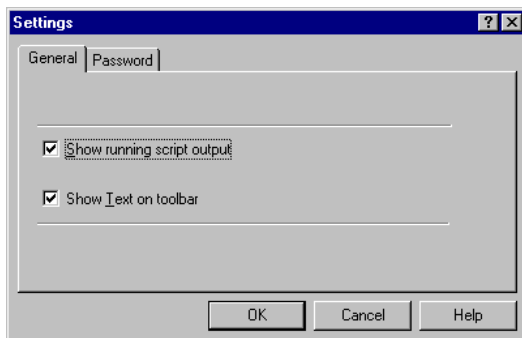
By default, the toolbar displays buttons with symbols that represent the button's function. If you are not familiar with each button's function, you can change the toolbar so that descriptive labels display on each button.



### To change the toolbar style:

- 1 On the **Settings** menu, select **Options**. The Settings dialog box displays.

■ You can also learn a button's function by placing the cursor over the button. A tool tip displays a brief description of the button.

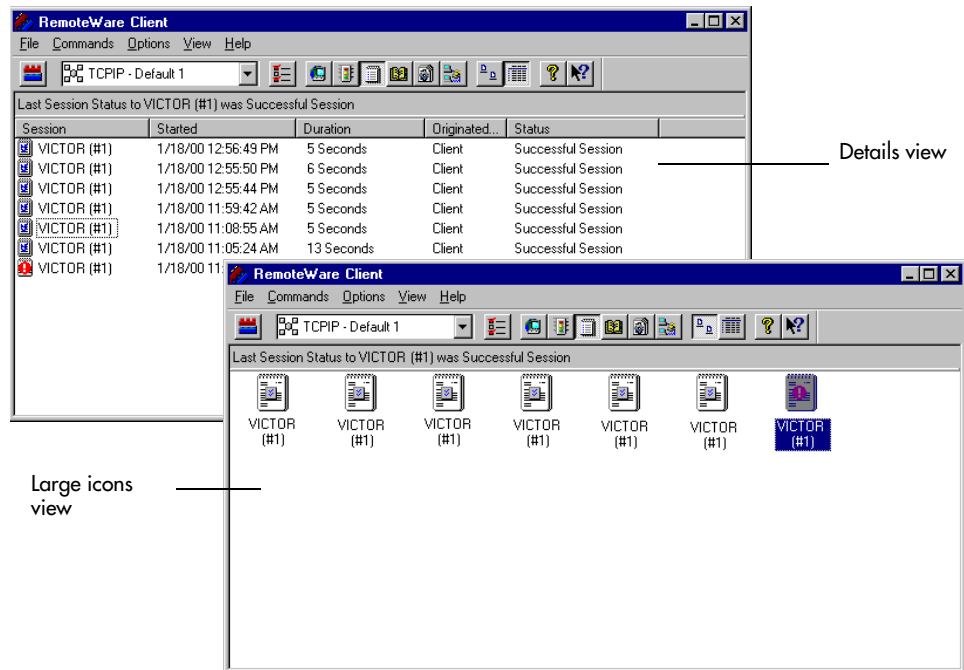


- 2 Select **Show Text on toolbar** to display the labeled tool.
- 3 Click **OK**.

## Displaying details and icons

By default, detailed information displays in the view area of the main window. While the specific information that displays varies depending upon which view you have selected, when you have chosen to display details instead of icons, information such as status, size, and type displays, with only one item per line.

When you select to display icons instead of details, the detailed information is replaced by large icons aligned horizontally across the view screen.



### To display details or icons:

- 1 On the View menu, select **Details** or **Large Icons**. The Large Icons command and toolbar button is not available for Status view.
- 2 The views screen updates to reflect your choice.

## Changing views


The RemoteWare Client enables you to display several different views on the view screen. Each view provides you with different types of information about your communications configurations, sessions with the RemoteWare Server, and the Client's current status.

The following views are available:

- **Connections View.** Provides easy access to any connection resource in the Directory, Scripts, or Dial Up Networking views.
- **Status View.** Displays communications activity for the current or most recent session. Shows the start and stop times, message queues, transaction pipes, file names, sizes, and completion status.
- **Log View.** Lists information about each session, including the start time, duration, status, and originator (either Client or Server).
- **Directory View.** Lists the Directory view resources. Contains system and user-defined directory items for this Client. Choose an item as a connection method, or designate an item as the default definition when starting a connection.
- **Scripts View.** Shows all defined scripts. Create, modify, delete, and execute these scripts to automate a complex connection procedure.
- **Dial Up Networking View.** Presents the items available as remote access resources. The Client can access these services to conveniently and automatically process both dial-up networking and RemoteWare sessions.

[Chapter 3 - "Preparing for Communications" on page 39](#) provides more detailed information about the specific information contained in and the tasks you can complete using each of these views.

### To change views:

- 1 On the View menu, select the command or toolbar button that corresponds to the view you want to display. For example, to display the Log view, select **Log** on the View menu or click  on the toolbar.
- 2 The Views screen updates to reflect your selection.

## Preparing for Communications

Before you begin to use your RemoteWare Client to communicate with a RemoteWare Server or other servers, you must first define how your Client is to communicate and configure the specific communications resources you want to use.

RemoteWare Client enables you to communicate using a number of different resources. You can also create and maintain custom scripts to help automate your communications sessions.

This chapter includes:

- [“Understanding RemoteWare communications” on page 40](#)
- [“Setting up directory entries” on page 41](#)
- [“Setting up Dial-Up Networking entries” on page 73](#)
- [“Setting up script entries” on page 79](#)
- [“Setting up connections” on page 89](#)

## Understanding RemoteWare communications

The RemoteWare Client enables you to communicate with a RemoteWare Server or other remote system using a number of different resources. Specifically, the Client enables you to use Directory entries, Dial-Up Networking entries, and scripts for your communications session.

- **Directory entries.** A directory entry defines how the Client communicates with a RemoteWare Server. These entries specify the RemoteWare Server to contact, the type of resource to use (ASYNC, TCP/IP, NetBIOS, or SPX), the phone number or address, and any additional connection parameters. Directory entries are created and maintained in the Client's Directory view. For more information on these entries, see [“Setting up directory entries” on page 41](#).
- **Dial-Up networking entries.** A Dial-Up Networking entry is used to initiate Windows RAS connections. The entry specifies the phone number to call and modem configuration information. Dial-Up Networking entries are created and maintained in the Client's Dial-Up Networking view. For more information on these entries, see [“Setting up Dial-Up Networking entries” on page 73](#).
- **Script entries.** Scripts enable you to automate connections that use either Directory entries or Dial-Up Networking entries. You can also use scripts to control other connection parameters. Script entries are created and maintained in the Client's Scripts view. For more information on these entries, see [“Setting up script entries” on page 79](#).

### Using the default connection entry

When you first install the RemoteWare Client, at least one default connection entry is available to you. Your RemoteWare Server administrator defined this entry. This entry may be ASYNC, TCP/IP, NetBIOS, or SPX, depending upon your specific configuration. Default entries appear at the top of the view window and typically contain the word “Default” in the entry name.

In many cases, the default entry may be the only connection you need. In other instances, you may need to create other entries. For example, you may need to create additional customized communications entries which include:

- Contact RemoteWare Servers other than the default Server
- Dial-Up Networking to connect to a remote system via a RAS connection
- Automatic connections through the use of scripts



## Setting up directory entries

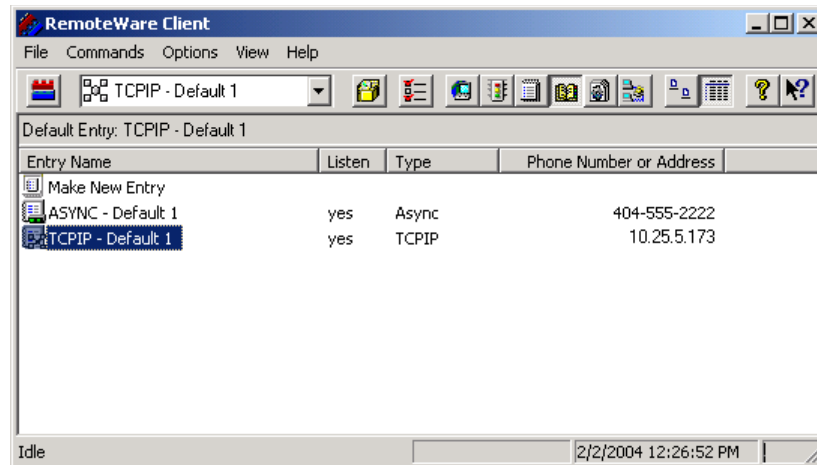
The first task you need to complete before communicating with the RemoteWare Server is to set up directory entries. A directory entry defines how the Client communicates with the RemoteWare Server.

When you first install the RemoteWare Client, the predefined directory entries are created and provided by your RemoteWare Server administrator. You cannot modify the default entries. You can create new directory entries as needed.

### Using the Directory view

The Directory view presents all of the directory entries currently defined for your Client. You can use the fields and controls to set a default directory entry, create a new communication method, modify an existing entry to meet new connection requirements, and select the method to use for a communication session.

To access the Directory view, click the  **Directory** button on the toolbar or, on the Views menu, select **Directory**.



By default, the Directory view displays details instead of icons. When the detailed version of the Directory view is selected, the following information displays for each defined directory entry.

- **Entry Name.** The Directory label given to the entry by the Server administrator or the Client user. Default entries always begin with the transport name and may contain the word “Default” or a description. The default entry appears at the top of this list. The default entry is the entry used by default when you initiate a

connection to the Server. The symbol at the left of the Entry Name corresponds to the transport type. For detailed descriptions of each of these symbols, [see “Understanding the icons in the Directory view” on page 42.](#)

- **Listen.** (ASYNC, TCP/IP) Indicates whether the entry's resource is enabled to listen for a RemoteWare Server's outbound connection as part of RemoteWare's multi-transport feature. Using this feature provides a backup communications path for when the Client already has its primary resource loaded or the resource is otherwise unavailable. A listening resource can respond to an outbound session only when it is idle and not currently in use for a session. At any given time, only one resource of each transport type can be defined to listen. The Listen column is blank if the multi-transport feature is not enabled at the Server.
- **Type.** The communication transport type. The transport types available for your Client are determined by your RemoteWare Server administrator. The symbol at the left of the Entry Name corresponds to the transport type. For detailed descriptions of each of these symbols, [see “Understanding the icons in the Directory view” on page 42.](#)
- **Phone Number or Address.** The network address, indirect Server address (Server name), or telephone number.

## Understanding the icons in the Directory view

The Directory view can contain a number of different icons that correspond to an entry's transport type. When you are using the view in its detailed state, small symbols appear to the left of the entry's name. When you display the icon view instead of the detailed view, large symbols appear for each entry.

The following table lists each icon and its description.

*Table 1. Directory view icons*













Large icon	Small icon	Transport type	Description
		None	This icon appears only for the Make New Entry directory entry and indicates that no transport has been defined for this entry.
		ASYNC	Asynchronous entries use a RemoteWare or system-defined modem to contact the Server. For instructions on specifying modem settings, <a href="#">see “Editing modem settings” on page 52.</a>
		NetBIOS	NetBIOS uses a network to contact the Server. The address is the indirect Server address or the RemoteWare Server's name.


Table 1. Directory view icons (Continued)

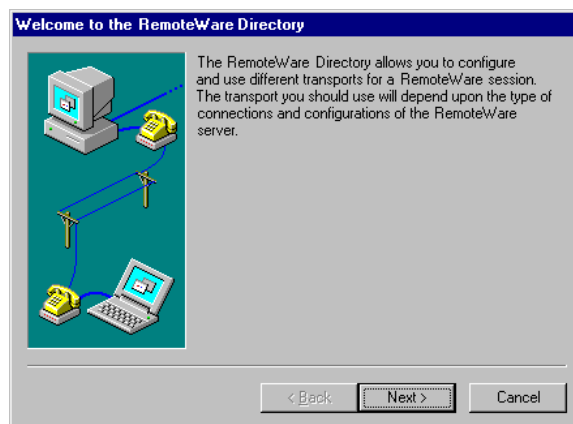
Large icon	Small icon	Transport type	Description
		SPX	The network protocol native to most Novell networks. The address is composed of hex characters for the network segment followed by twelve hex characters for the individual node address.
		TCP/IP	A network protocol independent of any computer or network type. The address is four numbers (from 0 to 255) separated by dots ( . ).
		Invalid Resource	Indicates that a user-defined entry is based on a resource type that is no longer valid for the Client, as defined by the RemoteWare Server administrator.

## Creating a new directory entry

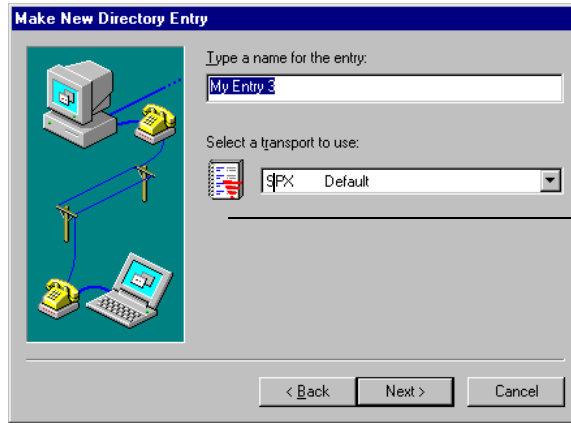
When you first install the RemoteWare Client, at least one predefined directory entry is automatically set up in the Directory view. This entry is the default entry defined for you by your RemoteWare Server administrator. You cannot modify this default entry; however, you can create additional directory entries to meet your specific communications needs.

### To create a new directory entry:

- 1 From within the Directory view, double-click the  **Make New Entry** **Make New Entry** item at the top of the view area. The Welcome dialog box displays.

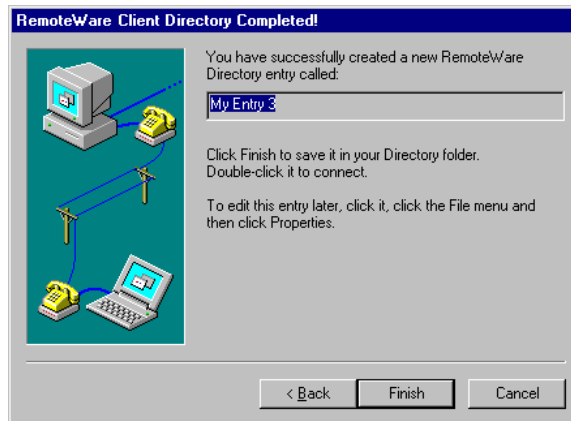


- 2 Click **Next** to display the Make New Directory Entry dialog box.

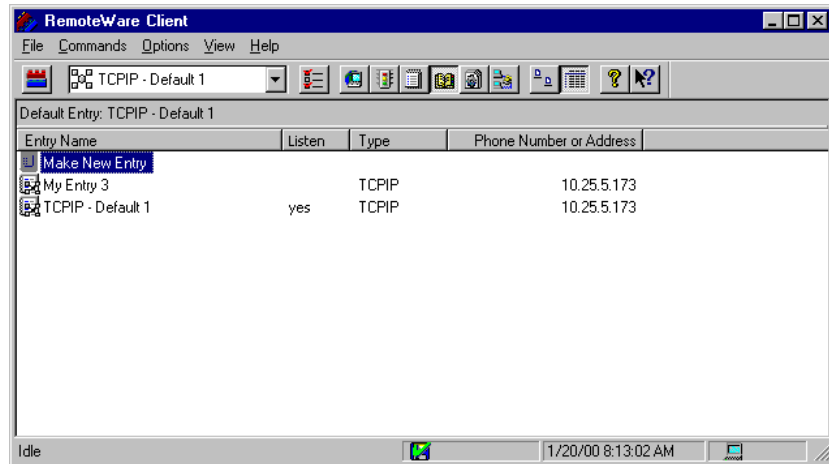


The transport icon changes to reflect your selection.

- 3 Enter a name for this entry and then select the transport to use. The drop down list displays only those transport types that are valid for your Client, as determined by you RemoteWare Server administrator. If the transport type you need is not listed, contact your administrator.
- 4 Click **Next** to continue.



- 5 Verify the information and then click **Finish**. The new entry appears in the Directory view.



Before you use this new Directory entry, be sure to view and edit the settings first. For detailed instructions, see [“Editing Directory entries” on page 45](#).

## Editing Directory entries

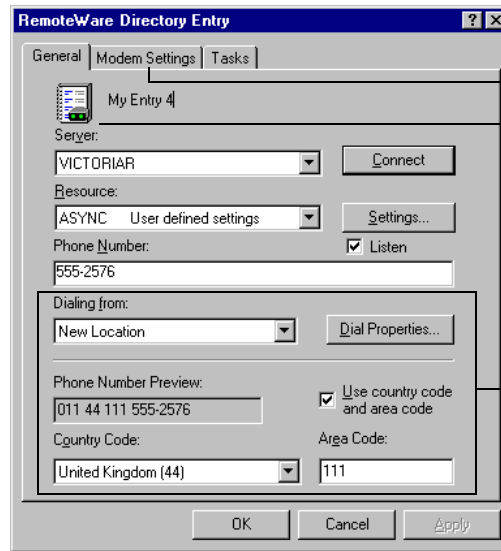
You use the Directory view to examine and edit settings for your Directory entries. It is important to remember that you cannot change settings for default Directory entries that have been defined by your RemoteWare Server administrator. These entries are identified by the word “Default” following the entry name. You can, however, change any settings for user-defined entries, that is, those entries you have created yourself.

## Editing General settings

General settings for Directory entries include such information as the Server you want to contact, the resource—or transport—to use, the Server's address or phone number, and additional resource parameters.

### To view and edit Directory entry settings:

- 1 From within the Directory view, double-click a user-defined Directory entry. The RemoteWare Directory Entry dialog box appears.



The Modem Settings property page appears only when the transport type is ASYNC.

This icon identifies the transport type.

These fields are not available for resources *other* than ASYNC.

The available fields and controls vary depending upon the type of resource. For example, the Dialing from field is available only for ASYNC resources that use a system-defined modem.

- 2 Review and modify the settings that are appropriate to the selected resource type. Fields that are not applicable to your resource type appear dimmed and are unavailable.
  - **Server.** The RemoteWare Server name you want to contact and its serial number. If your Server administrator has set up the Client to connect to more than one Server, the down arrow presents a list of all available Servers.
  - **Resource.** The resource for this entry. If your Server administrator enabled alternate resources for your Client, click the down arrow to select the appropriate transport. The resource you should select depends on your communication system. For example, a modem uses the Async resource while a

network connection may use NetBIOS, SPX, or TCP/IP. Contact your Server administrator if you are unsure which resource to select.

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**Note:** Available resource types appear because the Server administrator has explicitly assigned them to the Client. For example, it is not possible for a Client user to create an TCP/IP entry if the administrator has not defined at least one TCP/IP resource and assigned it to the Client.

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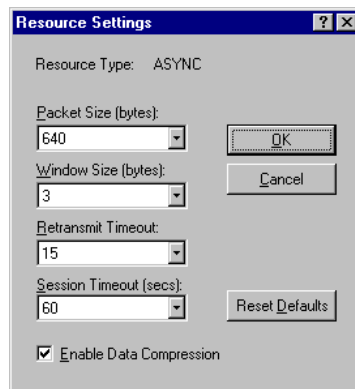
- **Listen.** (ASYNC, TCP/IP) Indicates whether the Client listens for a RemoteWare Server's outbound connection as part of RemoteWare's multi-transport feature. Using this feature provides a backup communications path for when the Client already has its primary resource loaded or the resource is otherwise unavailable. A listening resource can respond to an outbound session only when it is idle and not currently in use for a session.

Only one resource of each protocol type can be defined with the listen attribute enabled. You can edit this value only if the multi-transport feature is enabled at the Server and the Directory Dialing Entry is user-defined. A Server-defined Directory Dialing Entry Listen option cannot be modified by the Client.

- **Phone Number, NetBIOS address, SPX address, or TCP/IP address.** The unique identification number associated with the selected RemoteWare Server. Enter a valid phone number or network address. The Client does not verify the validity of this field; invalid values cause the connection to fail.
- **Dialing from.** Available only for Async resources using system-defined modems. Indicates the dialing parameters used to start a connection.
- **Phone Number Preview.** Available only for Async resources. This field is for display only and provides a preview of the number entered in the Phone Number field combined, when applicable, with the specified country code and area code.
- **Country Code.** Available only for Async resources using system-defined modems. Select the appropriate country code for the number this resource is dialing.
- **Area Code.** Available only for Async resources using system-defined modems. Enter the area code to use when dialing the phone number.
- **Use country code and area code.** Available only for Async resources using system-defined modems. Select this check box to use the specified country code and area code when dialing. When this box is selected, the values in the Country Code and Area Code fields are appended to the front of the specified phone number. The entire number displays in the Phone Number Preview field.
- **Connect.** Use this button to initiate a connection to the RemoteWare Server using this Directory entry.

■ System-defined modem: A modem defined in your Control Panel Modems applet.

- **Settings.** Use this button to view and edit the resource settings. For more information, see [step 3](#).
  - **Dial Properties.** For system-defined modems, this button displays the Dialing Properties dialog box available from the Modems Control Panel. For RemoteWare-defined modems, this button displays the Prefixes/Suffixes dialog box. For more information, see [step 10](#).
- 3 Once you have reviewed and made the necessary changes to the appropriate fields on this property page, you need to review and modify the settings for your transport resource (ASYN, TCP/IP, SPX, or NetBIOS). To display the Resource Settings dialog box, click **Settings** on the General property page.



The fields available on this dialog box vary depending upon the resource type. For example, the Retransmit Timeout field is available only for ASYN communication resources.

- 4 Review and make changes as necessary to the fields for your resource type.
- **Packet Size (bytes).** The number of bytes sent in one packet. A packet is a grouping of data that is transferred to and from the Client. A packet may contain from 128 to 16384 bytes. Lower values are for systems that cannot handle larger packets, or for conditions during which it is difficult to send large packets without line interference. Higher values maximize throughput and may result in shorter session times. Available values may vary. See **Window Size** below for more information.
  - **Window Size.** The maximum number of packets transmitted before the Server awaits for an acknowledgment. Available values range from 1 to 8 packets. This



value should be set to the maximum permitted unless some equipment between the Client and Server requires a specific window size.

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**Note:** The Packet Size and Window size fields work together to define the total number of unacknowledged bytes in a situation. Multiplying these two values cannot result in a value greater than 65536 (64K) bytes. Therefore, some values may not be available in one field until the other value is reduced. For example, when Packet Size is set to 4096, Window Size values from 5 to 8 are unavailable.

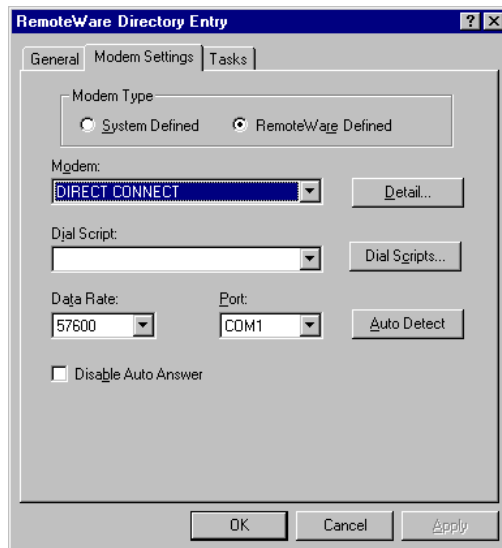
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- **Retransmit Timeout.** Enabled only for ASYNC resources. Indicates the number of seconds to wait before retransmitting unacknowledged data. The default is 15 seconds. This value should be set higher for connection with high delay times, such as on slow networks or satellite links.
  - **Session Timeout (secs).** This value determines how long a connected session continues to wait without receiving a successfully acknowledged packet.
  - **Enable Data Compression.** When selected, this option automatically compresses data to maximize throughput. This feature may not enhance performance for modems providing additional data compression, for previously compressed file, or for network-based resources.
  - **Reset Defaults.** Click this button to return all settings on this dialog box to the default values for the selected resource. Default values vary depending upon the resource type.
- 5** When you have made the necessary changes to the resource settings, click **OK** to save your changes and return to the General property page.
- 6** Choose one of the following two options:
- If your resource is any type other than ASYNC, you are finished selecting your General resource settings. Click **OK** or **Apply** to save your changes. For instructions on customizing a task list for this Directory entry, see [“Creating a custom task list for a directory entry” on page 65](#).
  - If your resource type is ASYNC, you should review and edit as necessary the dial properties. Proceed with [step 7](#).

■ A system-defined modem is a modem set up and defined in the Control Panel Modems applet. A RemoteWare-defined modem is a modem you define yourself from within RemoteWare Client.

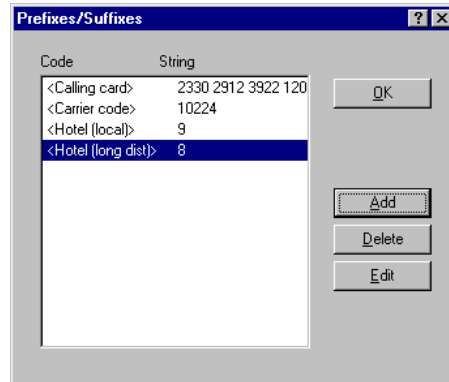
- 7 If your resource type is ASYNC, you must determine whether this resource is using a system-defined modem or a RemoteWare-defined modem.

Click the **Modem Settings** tab to determine if it is system-defined or RemoteWare-defined.



- 8 Once you've determine the modem type, return to the General property. For instructions on using the fields and controls on the Modem Setting property page, see [“Editing modem settings” on page 52](#).
- 9 Choose one of the following two actions:
- If you are editing a RemoteWare-defined modem, click **Dial Properties** on the General property page. Continue with [step 10](#).
  - If you are editing a system-defined modem, click **Dial Properties** on the General property page to display the Dialing Properties dialog box. This dialog box is a standard Windows dialog box that can also be accessed from the Control Panel Modems applet. For detailed instructions on editing the settings on this page, see your Windows documentation.

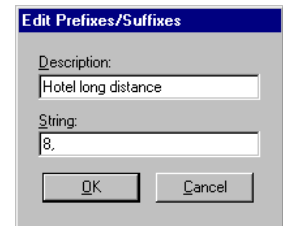
- 10 The Prefixes/Suffixes dialog box appears.



The list box displays all defined codes and their corresponding strings. You can enter one of the defined codes by typing its name in the Phone Number field on the General property page.

- 11 Review and make the necessary changes to your dial properties. You can also use the Prefixes/Suffixes dialog box to perform any of the following tasks.

- **Add a new code.** Click **Add**. In the Edit Prefixes/Suffixes dialog box, enter the description and string, and then click **OK**. The new code is added to the list of available codes on the Prefixes/Suffixes dialog box and can be used as a prefix or suffix for all RemoteWare-defined modem directory entries.
- **Edit an existing code.** Highlight an entry and then click **Edit**. Modify the values as necessary on the Edit Prefixes/Suffixes dialog box. Click **OK** to save your changes.
- **Delete a code.** Highlight an entry and then click **Delete**. The entry is removed from the list of available codes.



- 12 Click **OK** to save your changes and return to the Prefixes/Suffixes dialog box.
- 13 Click **OK** again to save your changes and return to the RemoteWare Directory Entry General property page.

You are now finished editing the general settings for your Directory entry. To view and edit more detailed modem settings, see [“Editing modem settings” on page 52](#). To create a custom task list for this Directory entry, see [“Creating a custom task list for a directory entry” on page 65](#).

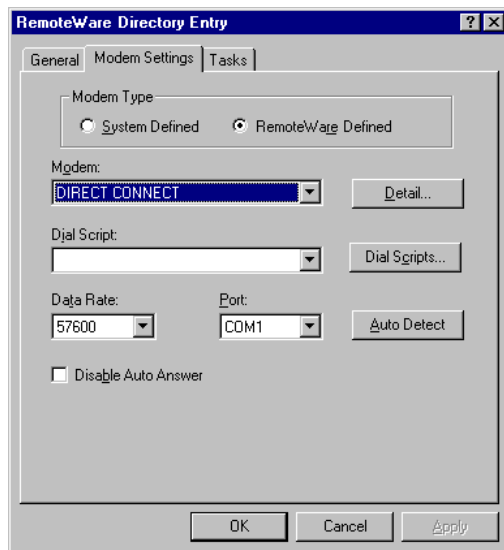
## Editing modem settings

If the Directory entry you are editing uses an ASYNC resource, you should review and edit as necessary your modem settings. If you are using a resource other than ASYNC (that is, TCP/IP, SPX, or NetBIOS), this section does not apply. See the section “Creating a custom task list for a Directory entry” to complete editing your Directory entry.

The steps you take to edit modem settings vary depending upon whether you are using a system-defined modem or a RemoteWare-defined modem. Before you can begin editing your modem settings, you must first select a modem type.

### To select a modem type:

- 1 Click the **Modem Settings** property page.



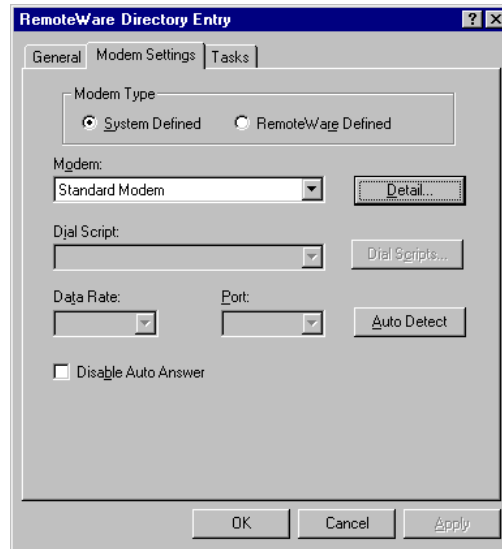
- 2 In the Modem Type group box, select one of the following two options:
  - **System Defined.** Select this option to use a modem defined in your Control Panel Modems applet. This option provides general support for many industry standard modems. If you select this option, proceed to the section “Editing a system-defined modem.”
  - **RemoteWare Defined.** Specify a standard or custom modem-definition that is provided and maintained by the RemoteWare Server. RemoteWare defined selections may be used to create modem definitions, optimize performance, and take advantage of dial scripts. If you select this option, proceed to the section “Editing a RemoteWare defined modem.”

### *Editing a system-defined modem*

A system-defined modem is a standard modem that is defined in your Control Panel Modems applet. Most settings that you can edit from within the Client can also be edited from the Modem applet in Windows Control Panel.

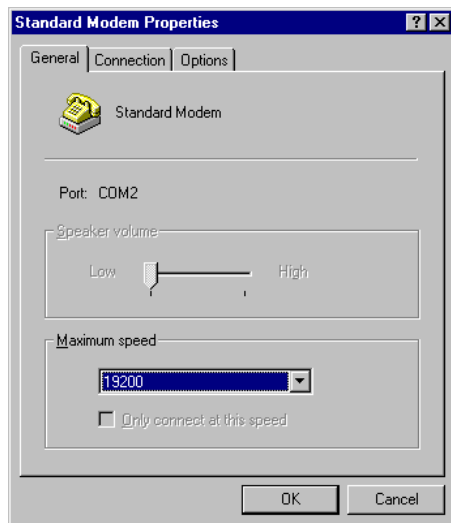
#### **To edit a system-defined modem from the Modem Settings property page:**

- 1 Display the Modem Settings property page.



- 2 In the Modem field, enter the name of the modem you want to use for this Directory entry. If you have more than one modem defined on your system, click the down arrow at the right of Modem field to select from a list of existing modems.

- 3 To specify standard modem properties, click the **Detail** button to display a standard Windows dialog box you can use to set standard modem properties.



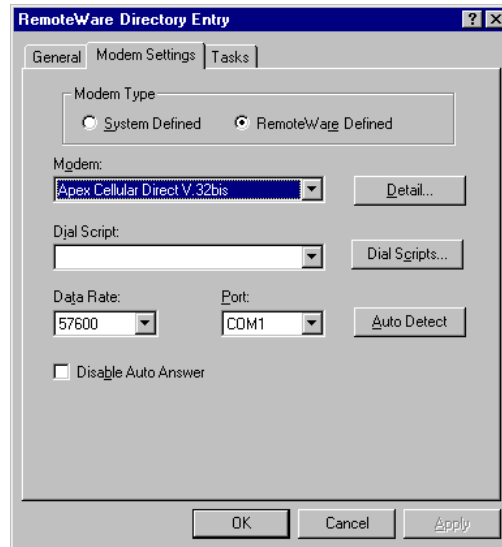
- 4 Modify the settings on the General, Connection, and Options property pages as necessary. These settings can also be modified from with the Modems applet in Control Panel. For detailed instructions on these properties, see your Windows documentation.

### ***Editing RemoteWare-defined modem settings***

A RemoteWare-defined modem is a one you define completely from within the RemoteWare Client, as opposed to a system-defined modem, which can be defined from within Control Panel.

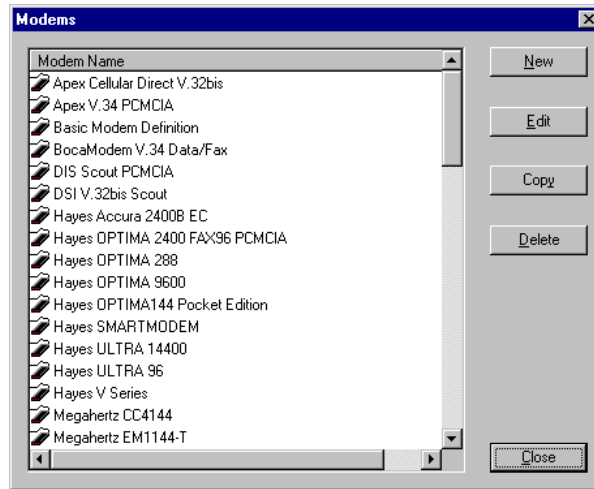
#### **To edit RemoteWare-defined modem settings:**

- 1 Display the Modem Settings property page.



- 2 Click the down arrow at the right of the Modem field to select the appropriate modem from a list of modems. If you do not find your modem type in the list, you can create a new modem definition.

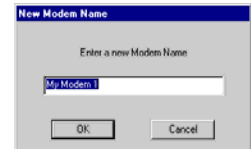
- 3 To edit the selected modem or add a new modem, click **Detail**. The Modems dialog box appears.



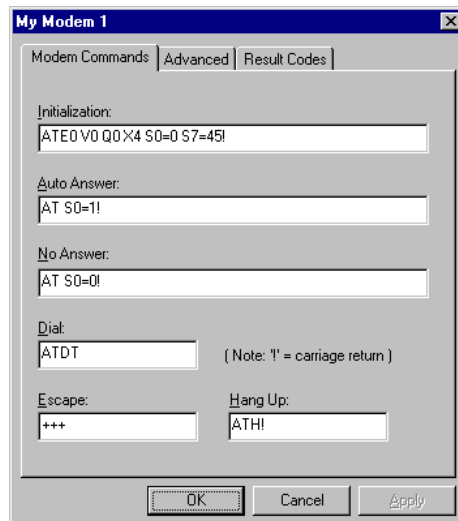
■ To create a new modem definition by using an existing definition, select the modem and click **Copy**.

- 4 Perform one of the following two actions:

- To create a new modem definition, click **New**. In the New Modem Name dialog box, enter the name for the modem you want to add and click **OK**.
- To view or edit the modem's settings, click **Edit**.



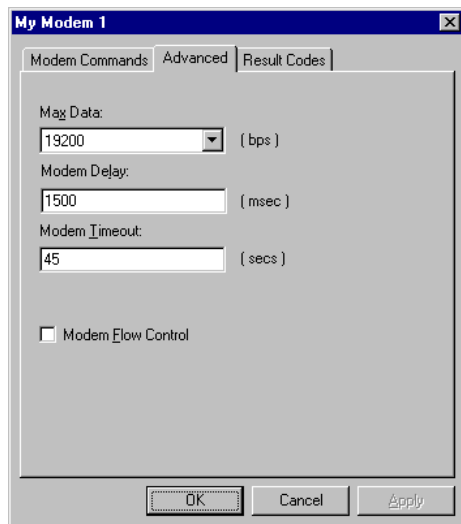
- 5 The following dialog box displays settings specific to the selected modem.





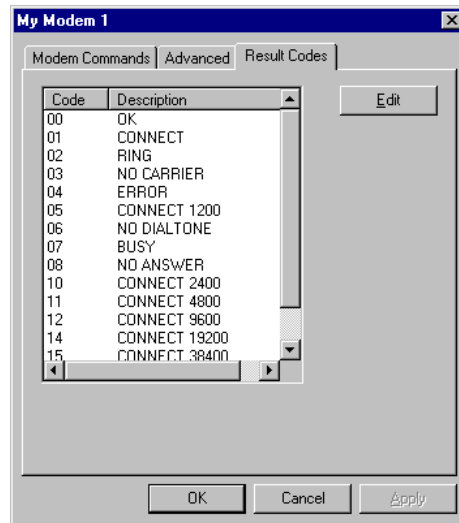
- 6 On the Modem Command property page, modify the values in the following fields as necessary.
  - **Initialization.** Use up to 60 characters to set up operating conditions for using the modem. This string is commonly used to set timeout values, disable flow control, and enable compression. An exclamation mark ( ! ) must always be used at the end of the line to specify a carriage return.
  - **Auto Answer.** Specifies conditions for letting the modem answer incoming calls. Standard formats are usually provided by the modem manufacturer. These include the auto answer function, the number of rings before the modem answers a connection, and other answering options. An exclamation mark ( ! ) must always be used at the end of the line to specify a carriage return.
  - **No Answer.** Specifies the conditions in which the modem does not answer an incoming call. The Client sends this string to the modem after a connection has ended. An exclamation mark ( ! ) must always be used at the end of the line to specify a carriage return.
  - **Dial.** Use up to 9 characters to define the AT command that is used to dial a number. This string is added in front of the phone number, and generally instructs the modem to use pulse (ATDP) or tone (ATDT) dialing.
  - **Escape.** Define up to 9 characters that are used to place the modem into the command mode. This string is usually sent to prepare the serial device for additional commands (such as Initialization or Hang Up).
  - **Hang Up.** Up to 9 characters can be used to instruct the modem to terminate the connection. An exclamation mark ( ! ) must always be used at the end of a line to specify a carriage return.

- 7 Click the **Advanced** tab to display the Advanced property page.



- 8 Modify the values in the following fields as necessary.
- **Max Data.** Select the bits per second (from 1200 to 57600 bps) that defines the upper data transfer limit. The value at the Client should not exceed the server value, check with your administrator if you have questions.
  - **Modem Delay.** Specifies how long in milliseconds (1000 msc = 1 second) the Client pauses before sending the next command to the modem. With older modems, you might need to increase this value to allow more time for the modem to process commands. High speed modems can take advantage of connection delay times by decreasing Modem Delay.
  - **Modem Timeout.** Determines how long the Client waits for the presence of a carrier signal during a connection attempt. The modem aborts the attempt if a carrier signal from the remote modem is not recognized during this predefined time period. Increase this value if your modem frequently fails to connect. This value should match the S7 register set in the Initialization string on the Modem Commands page. The S7 register tells the modem how long to wait for carrier detect.
  - **Modem Flow Control.** Select this option to enable hardware flow control between the Client computer and the modem. Hardware flow control allows the Client to transmit at the highest possible data speed, automatically adjusting for conditions such as line quality, busy destination, and modem or processor limitations.

- 9 Click the **Result Codes** tab to display the Result Codes property page.



This page provides a list of predefined result codes and their descriptions. Result codes are a numerical language used by the modem to communicate status conditions to the Client. New modem definitions and different modem options and features may necessitate examining and changing result codes. You may want to check with your administrator before modifying the result codes. Modem manufacturers may use different result codes and an incorrect change may result in a connection failure.

- 10 To change the number for a result code, highlight the code you want to change, and then click **Edit**. Type the new value in the Code column. Be certain that each result code has a unique number.

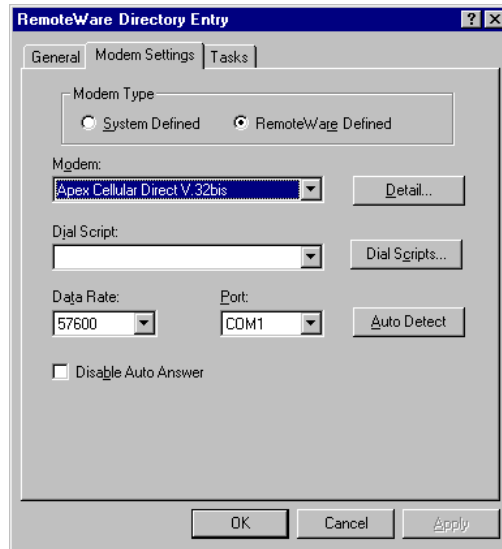
---

**Note:** Three digit result codes are not supported.

---

- 11 Click **OK** to save your changes and return to the Modems dialog box.

- 12** Click **Close** to close the Modems dialog box and return to the Modem Settings property page.



- 13** Once you have finished editing your modem settings, modify as necessary the values in the remaining fields.

- Dial Script.** Available only for RemoteWare-defined modems. Use this field to select the dial script to use for this entry. A dial script consists of commands used to place calls or complete a log on sequence to a network provider or communications service. To select an existing dial script, either one assigned to your Client by the RemoteWare Server administrator or one you created, click the down arrow at the right of this field. To create a new dial script, click the **Dial Scripts** button. For detailed instructions on creating a dial script, see [“Defining dial scripts” on page 61](#).
- Data Rate.** Available only for RemoteWare-defined modems. The value you enter defines the data transfer rate for the modem. Typically, this value equals the maximum data rate for the modem. Some modems allow you to specify higher data rates in order to take advantage of the modem's ability to reliably control the data speed based on line conditions. Data rates may range from 1200 to 57600 bits per second. The value at the Client should not exceed the server value, check with your administrator if you have questions.
- Port.** Available only for RemoteWare-defined modems. This value indicates which hardware serial port to use on this Client for this modem. Choices depend on how many COM ports your operating system supports. If unsure which port to use, click **Auto Detect** to have the Client (for RemoteWare-

■ For a Direct Connect asynchronous connection, the Max Data Rate setting for the Server's asynchronous resource must match the Data Rate of the Asynchronous resource defined for the Client.

defined modem) or Windows (for system-defined modems) search the computer for all available serial ports and attached modems.

- **Disable Auto Answer.** When selected, this option prevents the modem from answering the line. Disabling Auto Answer is helpful when the modem shares a line with a voice phone or fax device or when the Client always initiates inbound connections to the Server. This option does not limit the ability to dial out to a RemoteWare Server.

**14** Click **OK** or **Apply** to save your changes.

## Defining dial scripts

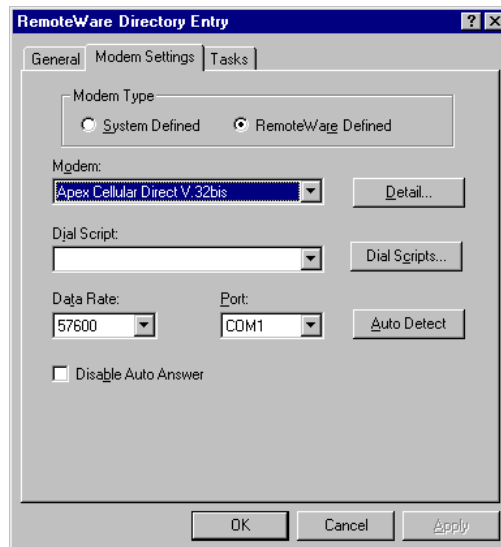
This section applies only to those using an ASYNC transport.

A dial script consists of commands used to place calls or complete a log on sequence to a modem-based network provider or communications service. Dial scripts are provided to automate communications from the Client.

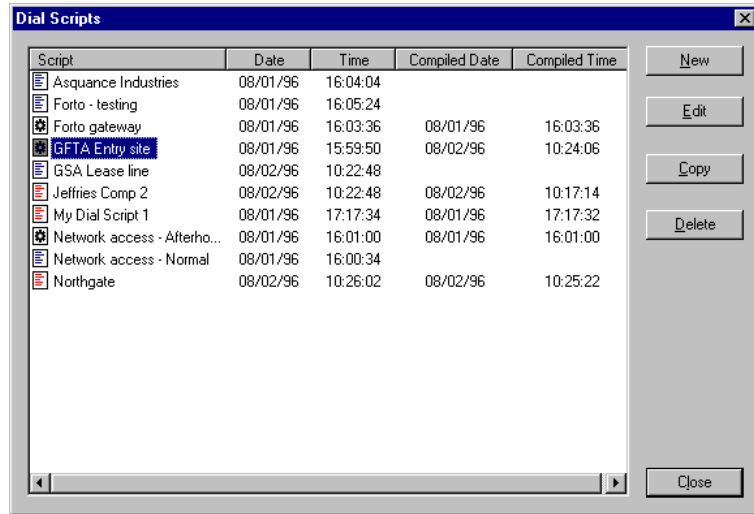
You RemoteWare Server administrator may create predefined dial scripts for you to use, or you can create and modify your own dial scripts.

### To create or edit a dial script:

- 1 Access the Modem Settings property page on the RemoteWare Directory Entry dialog box.



- 2 Click **Dial Scripts**. The Dial Scripts dialog box appears.



This dialog box lists each defined dial script on a separate line. If neither you nor your administrator has created any dial scripts, this dialog box is empty.

For each entry, this dialog displays the script's name and the date and time the entry was created or last modified. For some entries, the compiled date and time may also appear. Entries missing a compiled date and time cannot be used until they are compiled.

■ To create a new dial script based on an existing one, select the dial script and click Copy.

- 3 Perform one of the following actions:

- To create a new dial script, click **New**. Enter the name for the new dial script or accept the default name and click **OK**.
- To edit an existing dial script, highlight the appropriate entry and click **Edit**.

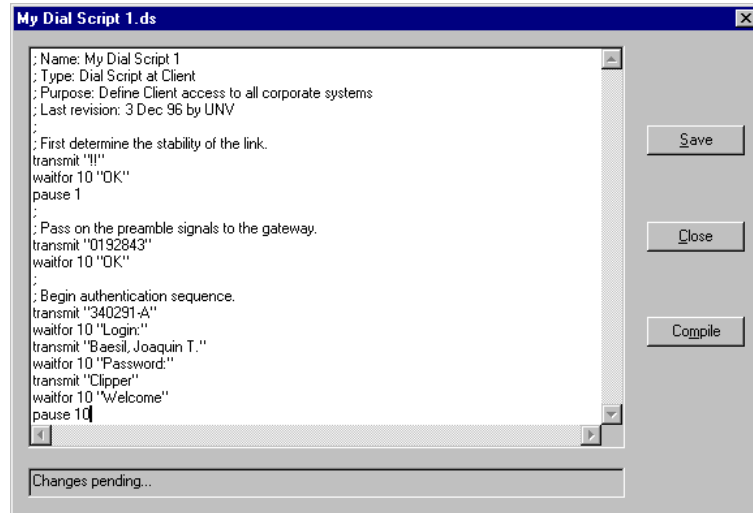



---

**Note:** Additional assistance for dial scripts is provided through RemoteWare consulting services.

---

4 A script editor window appears.



If this is an exiting dial script, review and edit as necessary the dial script. If this is a new dial script, begin by typing the Dial Script commands. Use the commands listed in [Table 2, “Dial script commands”](#) on page 64 and [Table 3, “Dial script special characters and variables”](#) on page 65 as a guide.

5 When you are finished entering the dial script, perform one of the following actions:

- Click **Save** to save the dial script without compiling. Uncompiled dial scripts are not available for use. Use this option when the dial script is not complete or when you do not want it used on the Client at this time. Once saved, click **Close** to exit the Dial Script Editor.
- Click **Compile** to save and verify the dial script syntax. A message indicates if the compile is successful. Compiled dial scripts may be used by the Client to initiate connections to the Server. Once the compile is successful, click **Close** to exit the Dial Script Editor.
- Click **Close** to exit the Dial Script Editor without saving your work.

### Using the dial script commands

Use the commands in the following tables to create and edit dial scripts. The { } symbols indicate a required argument. The [ ] symbols indicate an optional argument.

Table 2. Dial script commands

Command and examples	Description
; or REM <b>Example:</b> ; This is a comment REM Call next; send name	Text that follows a semicolon or REM is not executed. Use these commands to add comments to a script or deactivate script commands. REM or “;” must be the first item on the line. A command cannot follow a command on the same line.
DIAL “{string}” <b>Example:</b> DIAL “ATDT9,5551212,,2001!”	Transmits a string and waits for a return code. The string can consist of AT modem commands, which may include special characters (see <a href="#">Table 5, “Script actions” on page 79</a> ), the <phone#> variable, and an exclamation mark (!) at the end of the command as a carriage return. Use DIAL instead of TRANSMIT when you want the Client to process result codes (for example, “13” for “CONNECT 9600”) returned from the modem.
DLLCALL {command} [“string”] <b>Example:</b> DLLCALL 101 “NOWAIT”	DLLCALL executes an external routine supplied by the administrator. A programmer creates DialScriptExternalCommand() and compiles it into the RWWDEXT.DLL module. <i>Command</i> is an integer identifying a specific action in the function, and <i>string</i> optionally passes an argument to the function.
PAUSE {seconds} <b>Example:</b> PAUSE 60	Inserts a delay from 0 to 65,535 seconds.
MODEMINIT [“{string}”] <b>Example:</b> MODEMINIT MODEMINIT “AT&F1SO=0!”	Transmits a string and waits for an “OK” return code from the modem. Specifying no string transmits the default initialization value for the assigned modem. The Client uses the modem assigned to the current connection configuration. The string can consist of AT modem commands, which may include special characters (see <a href="#">Table 5, “Script actions” on page 79</a> ), the <phone#> variable, and an exclamation mark (!) at the end of the command as a carriage return.
TRANSMIT “{string}” <b>Example:</b> TRANSMIT “ready”	Transmits a string and continues without waiting for a reply. TRANSMIT is usually used to send login information to another system. The string can consist of any text, which may include special characters (see <a href="#">Table 5, “Script actions” on page 79</a> ), the <phone#> variable, and an exclamation mark (!) at the end of the command as a carriage return.



Table 2. Dial script commands (Continued)

Command and examples	Description
WAITFOR {seconds} "{string}" Example: WAITFOR 400 "log in"	Delays execution from 0 to 65,535 seconds, or until the modem returns the value in string. String is case sensitive. WAITFOR returns a TIMEOUT if no match occurs before the time expires. WAITFOR ignores parity when comparing strings.

The following table presents the special characters you may use when creating and editing dial strings.

Table 3. Dial script special characters and variables

Character or variable and example	Description
, (comma) DIAL "ATDT9,11031,,55 0032"	Inserts a pause in the dial string. Use one or more commas to instruct the modem to wait while the communications network is occupied. The delay time depends on the number of commas and the serial device. With modem, the S8 register typically defines the delay time for one comma.
! (exclamation mark) MODEMINI "AT&F1!" DIAL "ATDT 5551212!"	Inserts a carriage return. This is often required to start processing a command on serial devices or networks. The ! may be used anywhere in the string, but the MODEMINIT and DIAL commands require ! at the end of the string.
" " (quotation marks) TRANSMIT "Hello"	Strings must begin and end with quotation marks. To specify a quotation mark in a sting, use the literal characters "\".
\ (backslash) TRANSMIT "\ \ ff!"	Uses the literal character or a hexadecimal value that immediately follows the backslash. Some common literal characters are "\", for comma, "\" for quotation marks, "!" for exclamation mark, and "\\" for backslash. Use two hexadecimal characters to transmit that value; "\ff" sends FF hex or 255 decimal.

## Creating a custom task list for a directory entry

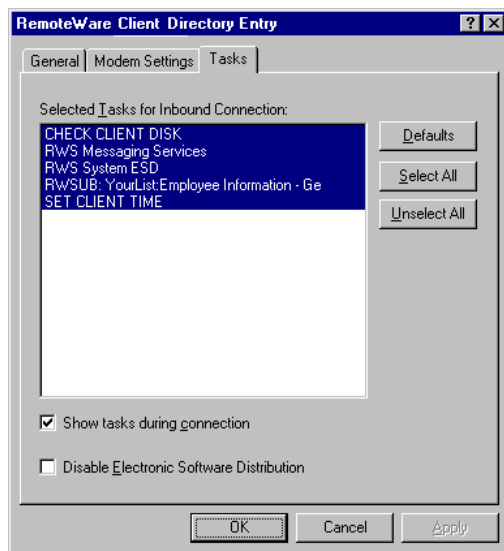
A RemoteWare communication session consists of one or more tasks performed during a connection with the RemoteWare Server. If your administrator has enabled inbound work object selection for your Client, you can select certain tasks to be performed during an inbound connection to the Server. These tasks can vary for different directory entries.

**Note:** Client user-defined tasks apply only to inbound connections, that is, connections from the Client to the Server.

■ You can also display the Tasks property page, highlight the directory entry and click the Task List button on the toolbar.

### To create a custom task list:

- 1 Access the Tasks property page for the selected Directory entry.



The list box displays all of the tasks available for execution during inbound communications.

---

**Note:** If you never modify this page, then new tasks added by your RemoteWare Server appear as enabled and automatically execute when the next inbound connection takes place. However, any change to the task selection causes all new tasks to appear as disabled. You must then manually enable them. Highlight the new tasks to execute them, so you do not change the behavior of this “user-defined” session.

---

■ To return the list to the default settings, click Defaults.

- 2 Highlight the specific tasks you want to perform during inbound connections using this directory entry. Tasks that are not highlighted are not performed.

---

**Note:** Some tasks that are not in the list may execute during an inbound session. These tasks cannot be disabled because they have been defined as required by your administrator. In addition, outbound connections from the Server process all tasks, regardless of their settings on the Tasks property page.

---



---

**Note:** If tasks are deleted or unassigned at the RemoteWare Server by the administrator, they are removed from the task list during the next connection. A Client notification alert is generated to indicate this change.

---

- 3 If necessary, select one or both of the following options.
  - **Show tasks during connection.** Displays the current task name at the top of the Status view during the next and future connections.
  - **Disable Electronic Software Distribution.** Valid only for inbound connections from the Client to the Server. When this option is selected, the Client does not receive any files that are part of the software distribution tasks. Other non-ESD file transfers, data exchanges, or any tasks the Server administrator marks as Forced are not affected by this option. Use this option to prevent a lengthy file download from taking place when time is of the essence. The status bar displays ESD Disabled when this option is selected. You may want to create another entry to allow ESD file transfers to occur during off-peak hours.
- 4 Click **OK** to save your changes and return to the Directory view.

## ESD Auto Apply

Electronic Software Distribution (ESD) is used by the RemoteWare system to keep files and programs at the RemoteWare Client fully functional. If a Client has out-of-date files or is missing a critical system file, the RemoteWare system ESD downloads and replaces the affected file(s). This restores the client to a fully operational state. In most cases, the ESD download must be sent and applied to the Client system in order to complete the process.

Historically, the ESD application step required manual interaction with the Client interface. With this enhancement, RemoteWare administrators can automatically manage the ESD process and remove the ESD application burden from the Client environment. The RemoteWare Client Update program (RWCUPD.exe) has been modified to accept several optional command line parameters. This is the same program currently launched when the **Apply ESD** button is selected on the Client User Interface. The new enhancement allows RWCUPD.exe to be executed remotely, typically through a user-created Work Object.

With this enhancement the administrator controls how and when ESD is applied. For example, the administrator can specify the ESD be applied with Administrative rights by passing the Administrator user name and password to the RWCUPD.exe program. By doing this, the ESD process occurs without the end user possessing administrator rights. Refer to the /d, /u and /p **Command Line Parameters** below for additional information.

It is highly recommended that you use the “reboot” parameter (/r) whenever the “auto apply” (/a) parameter is used. Using the “auto apply” parameter without the “reboot” parameter may leave the client in an unstable state if a reboot is required by the ESD application.

In order for the impersonation parameters (/d, /u, /p) to work correctly, the security context of the RemoteWare kernel must have the **'Act as part of the operating system'** right. If the kernel is running as a service, the security context is determined by the Logon information of the service. If the kernel is not run as a service, the security context is determined by the logged on user.

The command line parameters and an explanation of their function are as follows:

```
Rwcupd "<ClientInstall>\nodesys" <Client Name> [/a] [/r] [/b] [/l <Log File>]
[/d <Domain>] [/u <User Name>] [/p <Password>] [/f <Seconds>]
```

---

**Note:** There must be a space between each of the following:

- /l and <Log File>
- /d and <Domain>
- /u and <User Name>
- /p and <Password>
- /f and >Seconds>

---

**Note:** An “Update” and “WinESD” directory are assumed to be located under the <ClientInstall> directory. The files in the “Update” directory are copied to the <ClientInstall> \nodesys directory and the files in WinESD\System32 are moved to the Windows\System directory. The files in WinESD\XcelleNet are moved to the Windows\Xcелlenet directory.

---

<ClientInstall> Directory is where the files are to be copied.

<ClientName> Name of the client.

Table 4. Command Line Parameters

Parameters	Description	Comments
/a	Indicates the ESD is to be automatically applied. When this option is enabled the RemoteWare Kernel is unloaded and will be reloaded after the ESD is applied.	The Kernel is unloaded to reduce the probability a reboot will be required because a file is in use.
/r	Indicates the client computer can be rebooted if a reboot is necessary to complete the application of the ESD.	We recommend you allow the reboot to occur so all the required files can be applied.
/b	Indicates a backup of the files being replaced should be completed. This option creates two directories "Backup" and "WinBkup". The replaced files are copied to these directories. Files replaced from the "Update" directory tree are copied to the "Backup" directory tree and files replaced from the "WinESD" directory tree are copied to the "WinBkup" directory.	
/l	Indicates a specific Log File is to be used to log the progress and success or failure of the ESD.	This option only applies if the /a option has been specified. If the /a option is specified and the /l option is not, then a Log file is created in the <install Path> with the default name ESDLog.txt. If the ESD Apply fails or if a reboot is necessary but /r was not used the log file is renamed with a preceding "E".
/d	Indicates a user name domain.	This flag is used in conjunction with the /u and /p options to specify a user logon and password to impersonate. Impersonation allows the RWCUPD program to run with permissions necessary to apply the ESD.

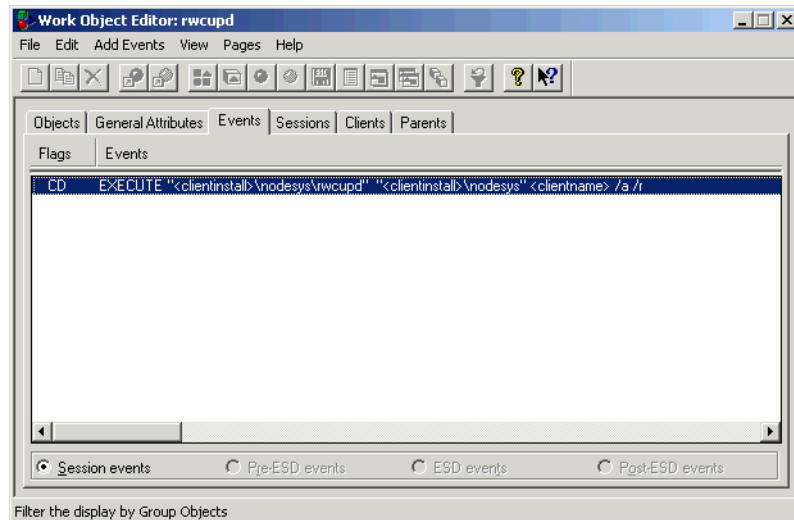
Table 4. Command Line Parameters

Parameters	Description	Comments
/u	Indicates a user name.	This flag is used in conjunction with the /d and /p options to specify a user logon and password to impersonate. Impersonation allows the RWCUPD program to run with permissions necessary to apply the ESD.
/p	Indicates a user password.	This flag is used in conjunction with the /d and /u options to specify a user logon and password to impersonate. Impersonation allows the RWCUPD program to run with permissions necessary to apply the ESD.
/f	Indicates that the system will post a "countdown" message to the user interface, for the defined number of seconds, to notify a user that the system will be rebooting. The message does not require user interaction.	This flag is used in conjunction with the /r option. This flag is not valid for Windows 98 Clients.

## How to use the ESD Enhancement

- 1 Create a Work Object to run an RWCUPD session which does the following:
  - Deletes the Log File, if a previous one exists (optional).

- Executes RWCUPD from the client nodesys directory with /a option, plus any additional desired options.



- 2 Assign the Work Object to a session or Client as needed.

The new work object can be placed in the same session as the work object that delivers the ESD or it can be scheduled for a later date. If you do not include the work object in the same session that delivers the ESD, you need to create a separate session that includes the new work object.

- 3 Use the standard ESD to transmit the ESD to the Client.
- 4 (Optional) You may create and run another work object that does the following:
  - Checks for existence of Log File.
  - Deletes Log File.

---

**Note:** The administrator may want to retrieve and view the ESDlog.txt file from the Client to check the Success or Failure of the ESD application. If a log file does not exist the ESD was not applied.

---

## Limitations

- If impersonation is used the password is displayed in plain text in the work object.
- If the ESD application fails, it does not automatically apply the ESD.
- Only the most recently replaced files are kept in the backup directory. Every time the RWCUPD runs with the /b option the backup directories are removed.

- None of the new options are available via the Client Apply ESD button.
- You must use quotes around paths that contain spaces. For example, the command line in the Execute work object should be as follows:  

```
"<ClientInstall> \nodesys\rwcupd" "<ClientInstall>\nodesys" <ClientName> /a /r
```
- It is highly recommended that you use the "reboot" parameter (/r) whenever the "auto apply" (/a) parameter is used. Using the "auto apply" parameter without the "reboot" parameter may leave the client in an "unloadable" state if a reboot is required by the ESD application.
- To ensure a reboot does not occur in the middle of a session, you should mark the Rwcupd work object as the lowest priority or run the work object as a separate session.
- In order for the impersonation parameters (/d, /u, /p) to work correctly, the security context of the RemoteWare kernel must have the '**Act as part of the operating system**' right. If the kernel is running as a service, the security context is determined by the Logon information of the service. If the kernel is not run as a service, the security context is determined by the logged on user.
- Windows XP and Windows 2000 Client users must have Power User rights to load the client user interface.
- Using /l without specifying file and followed by other switches will prevent rwcupd.exe from running.
- Rwcupd.exe will not run if the /l switch is used with a non-existing path or wildcards. Either specify a filename or an existing path with a filename.
- Session History in Log Viewer will always display Successful status for the RWCUPD work object even when it fails to run.
- For users who sent RWCUPD to a temporary location and have upgraded the client, you should open the Work Object Editor and modify the RWCUPD event so it executes the RWCUPD from the client nodesys directory. Next connect to the Client. For additional information, see ["How to use the ESD Enhancement" on page 70](#). The Start Menu shortcuts should change from Connect Remote to RemoteWare.

---

**Note:** You must use quotation marks around paths that contain spaces. For example, the command line in the Execute work object should be as follows:

```
"<ClientInstall>\nodesys\rwcupd" "<ClientInstall>\nodesys" <ClientName> /a /r
```

---

**Note:** To ensure a reboot does not occur in the middle of a session, you should mark the Rwcupd work object as the lowest priority or run the work object as a separate session.

---



## Setting up Dial-Up Networking entries

RemoteWare Client enables you to use dial-up networking to connect to RemoteWare Servers or other servers. You can use Dial-Up Network entries that have been defined in your Windows Dial-Up Networking system folder, or you can create new dial-up network entries from within the RemoteWare Client.

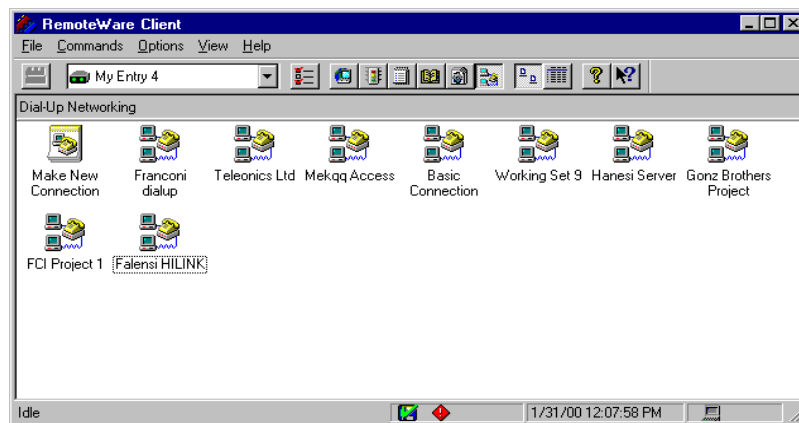



**Important:** In order to create and use dial-up networking connections in your RemoteWare Client, your computer must first have been configured to support dial-up networking. See your Windows documentation for more information.

## Using the Dial-Up Networking view

The dial-up Networking view presents all of the remote connections configured and supported by the Dial-Up Networking virtual folder in your Windows operating system. This view enables you to create, use, and maintain any remote connection without having to leave the RemoteWare Client application.

To access the Dial-Up Networking view, click the  **Dial-Up Networking** button on the toolbar or, on the View menu, select **Dial Up Networking**.



By default, the Dial-Up Networking view displays large icons instead of details. To display the detailed view, click the  **Details** button on the toolbar. When the detailed version of the Dial-Up Networking view is selected, the following information displays for each defined entry.


- **Entry name.** A descriptive name for the dial-up networking entry and its settings.

- **Phone #.** The number defined for this dial-up resource.
- **Device name.** The communications device or modem name associated with this resource.

## Creating a new dial-up networking connection

If you are using your RemoteWare Client to access a remote network server using your modem, ISDN, or other WAN adapters, you need to create the necessary dial-up networking entries. When you first access the Dial-Up Networking view, the Make New Connection item appears. Use this default entry to define additional dial-up networking connections.

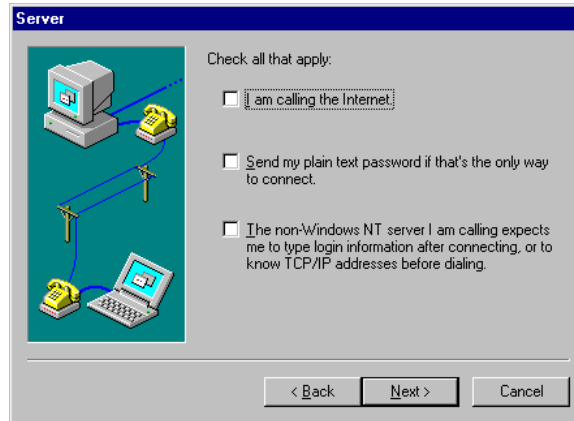
### To create a new Dial-Up Network connection:

- 1 From within the Dial-Up Network view, double-click the  **Make New Connection** icon at the top of the view area.



- 2 Enter a name for the connection.
- 3 Select one of the following two options:
  - To use the Wizard to create the connection entry, click **Next**. Continue with [step 4](#).
  - To edit or create the entry on your own, select the **I know all about phonebook entries...** option at the bottom of the dialog and click **Next**. Proceed to the next section, [“Editing a dial-up networking connection entry” on page 77](#).

- 4 The Server dialog box appears.



Select all of the options that apply and then click **Next**.

- 5 The Phone Number dialog box appears.



Use this dialog to enter the primary phone number of the dial-up server to call. You can also enter one or more alternate phone numbers, click the **Alternates** button. Select the **Use Telephony dialing properties** option if applicable.

- 6 Click **Next**, then **Finish** to complete the process.

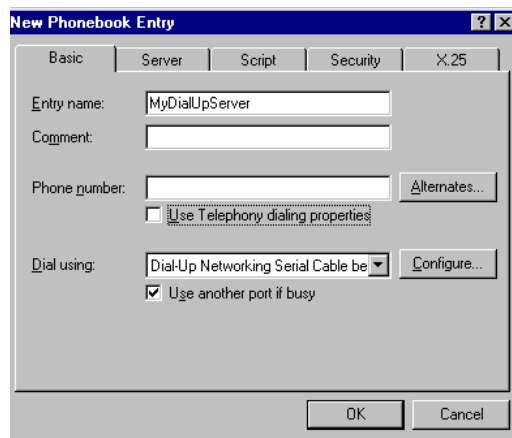


## Editing a dial-up networking connection entry

The RemoteWare Client's Dial-Up Networking view enables you to edit a new dial-up network connection you have created within the Client or an existing phonebook entry previously defined on your system using the Windows Dial-Up Networking system folder.

### To edit a dial-up networking or phonebook entry:

- 1 From within the Dial-Up Networking view, double-click one of the entries to open the item's dialog box.



Sample dialog

- 2 Modify the information as necessary. These dialogs are standard Windows dialog boxes that can also be accessed from your Windows Dial-Up Networking System Folder. For more information on these dialogs, see your Windows documentation.
- 3 When you are finished modifying the entry, click **OK** to save the information and return to the Dial-Up Networking view.

## Deleting a Dial-Up Networking entry

### To delete a dial-up networking entry:

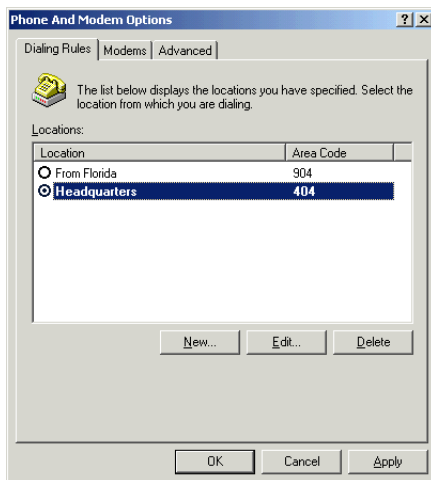
- 1 From within the Dial-Up Networking view, highlight the entry you want to delete.
- 2 On the File menu, select **Delete**.

## Setting up dialing rules for Client

The RemoteWare Dialing Entry is created using the area code set in Phone and Modem Options. This applies to the Server as well as user created entries, i.e. if you have two Locations set in Phone and Modem Options.

### To add or edit a dialing entry:

- 1 Open the Control Panel's option for configuring modem settings.



Sample dialog box

- 2 Make appropriate changes to the dialing properties.

---

**Note:** If your Home setting is where your RemoteWare Server resides and is set to default when the entry is created the RemoteWare Dialing Entry uses 404 and associated rules to call your server. If Florida is the selected Location when a dialing entry is created it uses 904 and associated rules to call your server, this example would require editing the dialing entry and selecting the correct location prior to dialing.

---

## Setting up script entries

Scripts perform one or more actions you can use in order to automate your connections and execute applications. When you combine a number of different actions into a script, be certain they are ordered correctly, as certain actions must occur before other actions. Below is a list of actions available within the RemoteWare Client's Script Wizard.

*Table 5. Script actions*

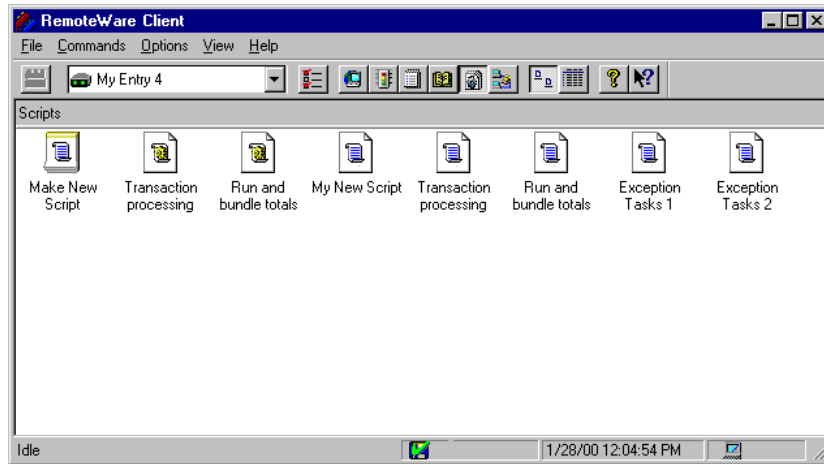
Action	Description
Connect via Dial-Up Networking; disconnect Dial-Up Networking connection	Connects with a computer or network using a Dial-Up Networking entry. Occurs once per script. The schedule loop and user-defined action may occur before this action.
Connect to RemoteWare Server	Contact a RemoteWare Server, either directly (using a Directory entry) or via a network (using a Dial-Up Networking entry). Occurs once per script. The schedule loop, dial-up networking connect, and user-defined actions (when enabled) may occur before this action.
Begin schedule loop; end schedule loop	Optionally executes the script at a specific time each day, or repeatedly executes based on a specified time interval. Occurs once at the beginning of the script.
Run programs	Run specified programs when this script executes. You can also run custom programs at any point during the script.
Launch program (user-defined action)	Executes a program on the Client computer or a computer visible on the network. May occur as many times as needed and anywhere in the script.


Scripts are always available for execution when the RemoteWare Client is active. A script with a start time automatically executes at the specified time each day when the script is active. Scripts with repeating schedules do not resume when the Client is stopped and restarted.

## Using the Scripts view

The Scripts view presents entries that contain the procedures and configurations to automate connections and application execution. This view also serves as the starting point for running the scripting wizard to create new scripts.

To access the Scripts view, click the  **Scripts** button on the toolbar or, on the View menu, select **Scripts**.



By default, the Scripts view displays icons for each entry. To display detailed information for each entry, click  **Details** on the toolbar. When the detailed version of the view is selected, the following information displays for each Script entry:

- **Name.** The descriptive label assigned to this script.
- **Size.** The number of bytes occupied by the script.
- **Type.** The type of script, either bound or uncompiled. For more information, [see “Binding an uncompiled script” on page 87.](#)
- **Modified.** The date and time the script was created or last modified.





## Understanding the icons in the Scripts view

The Scripts view can contain different icons that correspond to the status of the script. When you are using the view in its detailed state, small icons appear to the left of the entries' names. When you display the icon view instead of the detailed view, large icons appear for each entry.



The following table lists each icon and its description.

*Table 6. Script view icons*

Large icon	Small icon	Script type	Description
		Uncompiled	All scripts created in the Script Wizard are all uncompiled. This means that a script can be read by the script editor or a text editor, and must be interpreted when played on the Client. As a result, uncompiled scripts run more slowly than compiled scripts. The advantage to working with uncompiled scripts is that you can exchange them with other Clients and customize them as conditions change.
		Bound	Bound scripts are optimized for performance, but cannot be read in an editor.


## Creating new scripts

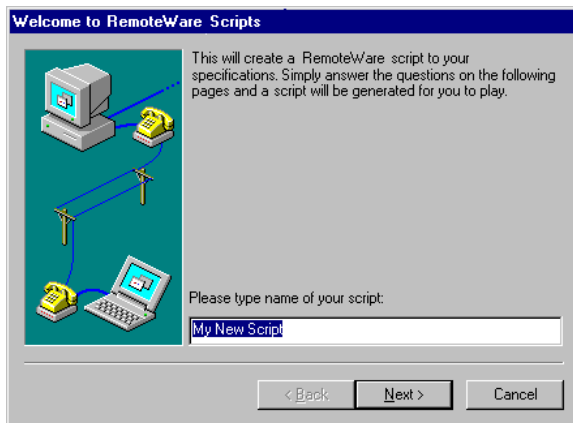
You have two different methods for creating scripts. You can use the Script Wizard to generate a script or you can manually create a script using a text editor. Using the Script Wizard simplifies the script creation process, however the scripting language that is supported by the Wizard is limited. Manually creating a script and then placing it in the `\nodesys\scripts` directory enables you to define sophisticated procedural routines. You must, however, be sure to test and maintain the generated scripts yourself.

This section explains how to use the Script Wizard to create a script. For detailed information on manually creating scripts, you may refer to Summit Software's *BasicScript Language Reference* and *BasicScript User's Guide* product documentation. This documentation is available on the [RemoteWare product support](#) site. Contact your RemoteWare Server administrator for more information on these documents. You may also refer to [Appendix A - "Using Scripts"](#) on page 125.

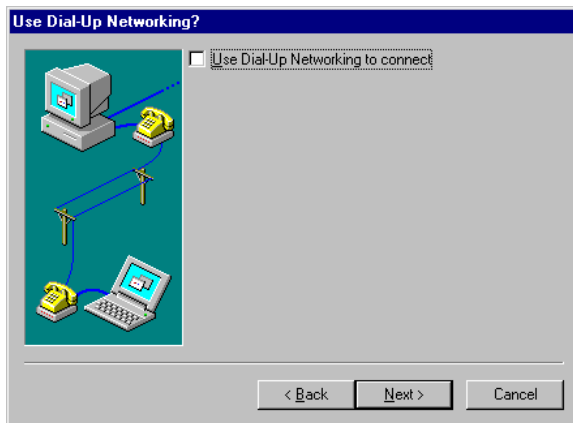
The RemoteWare Script Wizard enables you to configure a dial-up networking session, start a RemoteWare session, schedule the script, and run a program. All of these events commonly take place when connecting in a mobile environment.

**To create a new script using the Script Wizard:**

- 1 From within the Scripts view, double-click the  **Make New Script** icon.

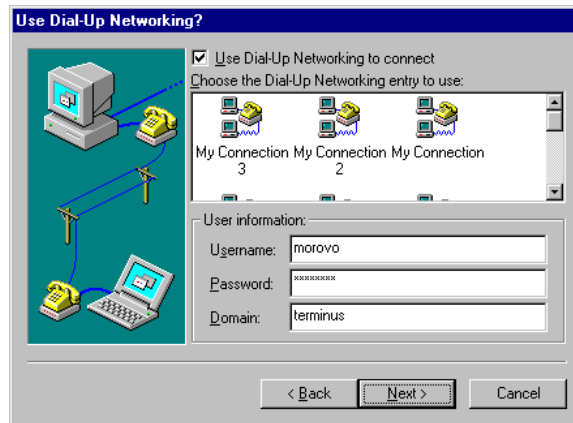


Enter a unique name for this script and then click **Next**.



- 2 If you do *not* want to use dial-up networking to connect, click **Next** and proceed to **step 3**.

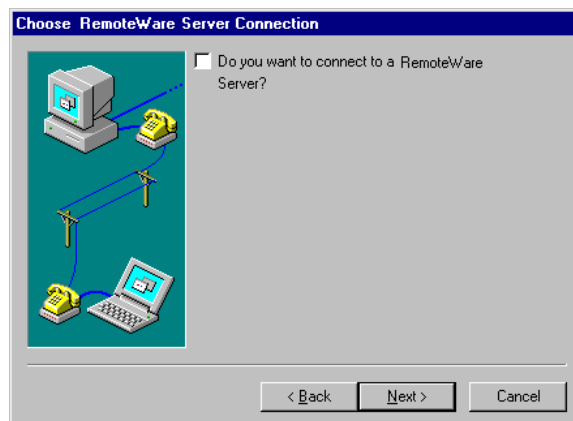
To use one of the defined Dial-Up Networking entries to connect, select the checkbox. The dialog updates to enable you to select the specific entry to use and to enter additional connection information.



From the list of defined Dial-Up Networking entries, select the entry to use and then enter the appropriate user information.

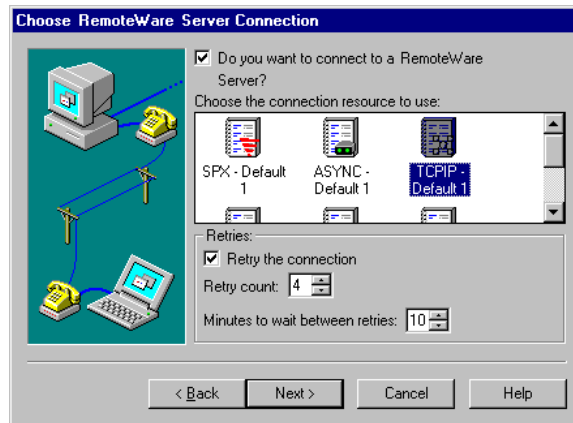
- **Username.** The user name as it is defined on the computer or network you are calling.
- **Password.** The password for this user account. Passwords are encrypted in the uncompiled script text.
- **Domain.** The name of the domain that maintains your account information.

Click **Next** to continue.



- 3 If you do not want to connect to a RemoteWare Server, click **Next** and proceed to [step 4](#).

To use one of the defined Directory entries to connect to a RemoteWare Server, select the checkbox. The dialog updates to enable you to select the specific entry to use and to enter additional connection information.

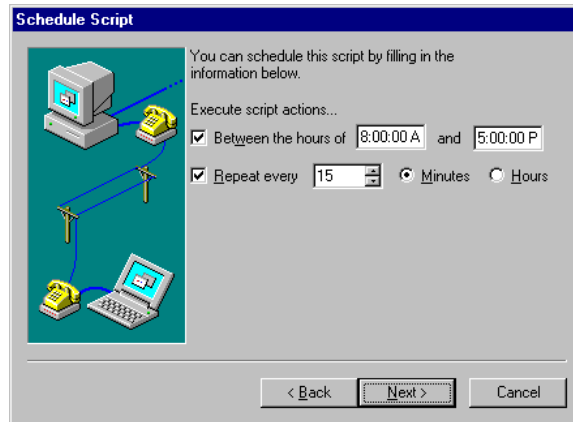


From the list of defined Directory entries, select the entry to use and then enter the appropriate user information.

- **Retry the connection.** Select this option to reattempt a failed connection. If you select this option, specify the **Retry count** value.
- **Retry count.** This option is active only if the Retry the connection option is selected. Specify the number of times (from 1 to 99) to reattempt a failed connection. The default value of zero specified no retries.
- **Minutes to wait between retries.** This option is active only if the Retry the connection option is selected. Specify the number of minutes to wait between retries. Be sure to allow enough time for the script to complete, even if the attempt is unsuccessful.

- 4 Click **Next** to continue.

The Schedule Script dialog box appears.



Indicate whether the script is to run at a specific time or whether it should re-run based on a time interval. By default, scripts are unscheduled. An unscheduled script runs only when you execute the **Play** command for a script in either the Scripts or Connections view.

- 5 Use one or both of the following controls to schedule this script:
- **Between the hour of.** Select this option to automatically run this active script at the specified starting time. The script stops at the specified ending time. A currently active script is not interrupted if it exceeds the stop time.
  - **Repeat every.** When the Between the hours of option is selected, this option repeats the script during the start and stop times. This option must be selected and specified for the script to execute at or during the scheduled time window. Selected by itself, the script continuously repeats based on the time value. When the Repeat option is active, specify the number of minutes or hours to repeat the script.

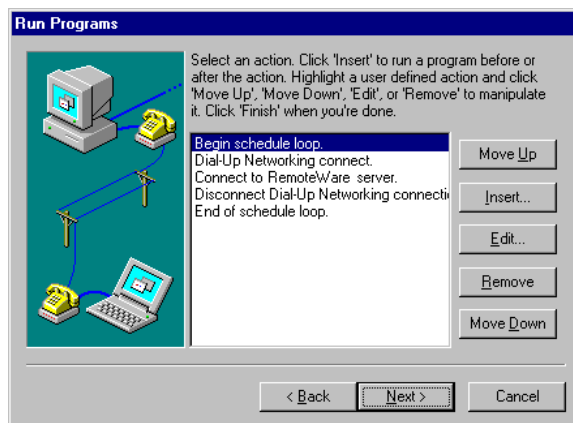
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**Note:** A repeat time that exceeds the specified time window only executes once. For example, if the time window is set from 8:00 to 9:00, and the repeat interval is 2 hours, then the script runs once at 8:00.

---

6 Click **Next** to continue.

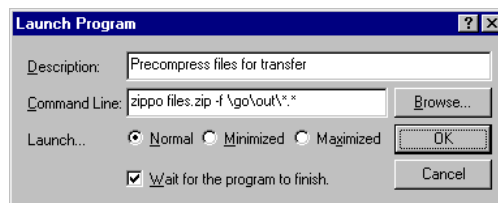
The Run Programs dialog box appears.



The list box displays all the actions you have enabled while using the Script Wizard. The actions are Client-defined and cannot be modified or deleted using the controls on this dialog box. To modify these default items, use the **Back** button to return to the appropriate dialog and make the necessary changes.

Use the following controls to further customize the script:

- **Move Up.** Moves the highlighted action up in the list. The actions execute in the order in which they appear in this list.
- **Insert.** Displays the Launch Program dialog box. Use this dialog to create a user-defined action. In the Description field, enter a descriptive label for this action. In the Command Line field, type the path name, program name, and any arguments or variables the program needs to run. Select how the program should launch, either in its default display (Normal), as an icon (Minimized), or with a full screen (Maximized). Select the **Wait for the program to finish** option to pause the script until the program completes.
- **Edit.** Opens the Launch Program dialog box for the selected action. See “Insert” above for more information on the Launch Program fields.



■ Enter a description of the event before you click the Browse button.

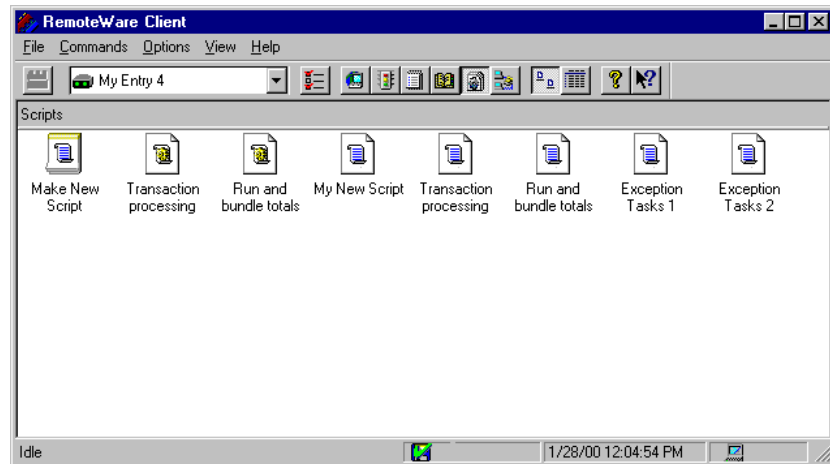
---

**Note:** Although the Launch Program dialog box appears for Client-defined actions, it is not possible to modify or save changes to these actions.

---

- **Remove.** Permanently deletes the selected user-defined action.

- **Move Down.** Moves the highlighted user-defined action down in the list. Actions execute in the order in which they appear in this list.
- 7 Click **Finish** to create this script. It appears as an uncompiled script in the Scripts view.




## Binding an uncompiled script

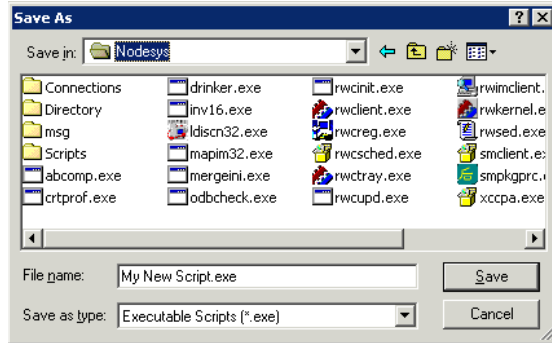
Scripts created in the Script Wizard are always uncompiled. This means the script can be read by the script editor or a text editor, and must be interpreted when played on the Client. As a result, they run more slowly than compiled scripts. The advantage of working with uncompiled scripts is you can exchange them with other Clients and can customize them as conditions change.

Bound scripts are optimized for performance, but cannot be read in an editor. You create a bound script by binding it. Binding creates the bound copy and leaves the original intact.

To bind a script:

- 1 From within the Scripts view, select the uncompiled script you want to bind. The  **Uncompiled** icon indicates a script is uncompiled.

- 2 Right-click and select the **Bind** shortcut menu.



- 3 Locate the Client's nodesys directory.

---

**Note:** Do not save the script file in the Scripts directory.

---

- 4 Enter a name for the executable script. By default, the file name is the same as the uncompiled script, but uses the .exe file extension. Click **Save**.

The script is bound.

---

**Note:** The script displays the next time the RemoteWare Client is opened. To see it immediately, close then reopen the RemoteWare Client.

---

## Editing a Script entry

For information on editing scripts, see [Appendix A - "Using Scripts" on page 125](#).

## Deleting a Script entry

To delete a scripts entry:

- 1 From within the Scripts view, highlight the entry you want to delete.
- 2 On the File menu, select **Delete**.



## Setting up connections


■ **Connections:**  
Defined methods of communications based on Dial Up Networking, Script, or Directory entries.

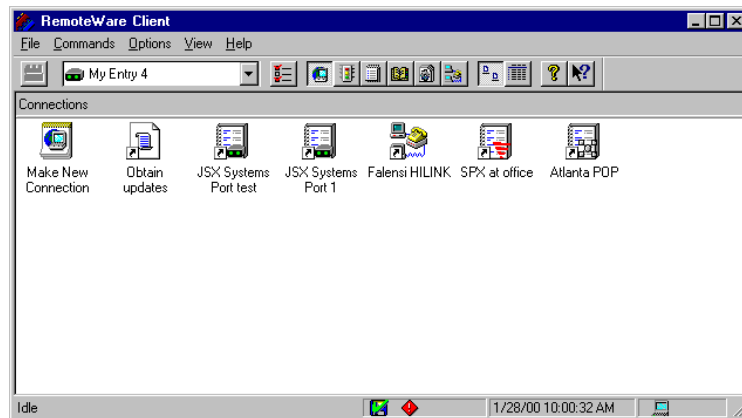
RemoteWare Client enables you to define a number of different methods for communicating with both RemoteWare Servers and other servers. A connection is a defined method of communication—either a Directory entry, Dial-Up Networking entry, or a Script entry—combined with additional parameters which further control how the connection is established. For example, you can create a number of different connections based on different Dial-Up Networking resources to use in different situations, and can define different phone book entries to use when connecting to different RemoteWare Servers.

The Connections view provides a summary of all resources, regardless of type, defined within your RemoteWare Client. This view also enables you to create new connections “on the fly.”

### Using the Connections view

The Connections view presents all of the connections currently defined for your Client. These connection entries can contain information to schedule a script, contact a RemoteWare Server, or use a defined Dial-Up Networking resource to contact a remote server.

To access the Connections view, click the  **Connections** button on the toolbar or, on the View menu, select **Connections**.



By default, the Connections view displays icons instead of details. To display detailed information, click  **Details** on the toolbar. When the detailed version of the

Connections view is selected, the following information displays for each defined connection entry:

- **Name.** The descriptive label assigned to this connection entry.
- **Size.** The number of bytes occupied by each resource entry.
- **Type.** The type of connection resource. Possible types include Directory Shortcut, RAS (Dial-Up Networking) Shortcut, Compiled Script Shortcut, and Uncompiled Script Shortcut.
- **Modified.** The date and time when the connection entry was created or last modified.

## Creating new connections


When you create a new connection, you define and configure the options and settings you want to use for the communications sessions you will be running. You can create a number of different connection entries, each with their own purpose. For example, you may want to create one connection that is based on an automated session that you previously created using scripts and another connection that is based on a previously defined Dial-Up Networking entry.

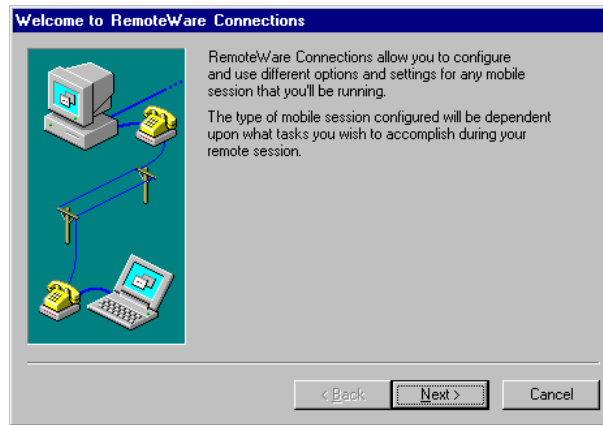
You can create connections using the Dial-Up Networking, Directory, or Scripts entries you have already created, or you can create a connection and define a completely new Dial-Up Networking or Directory entry to use right from the connection view.

## Creating a connection using a predefined entry

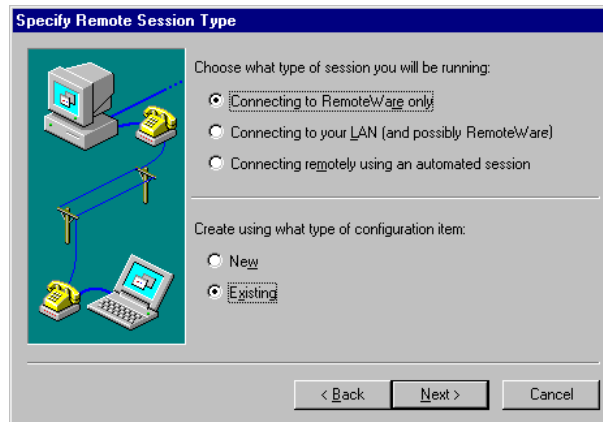
To create a connection using a predefined entry, you must first have created a least one Dial-Up Networking, Directory, or Scripts entry. For detailed instructions on creating these entries, see the appropriate sections presented later in this chapter.

### To create a connection using a predefined entry:

- 1 From within the Connections view, double-click the  **Make New Connection** icon at the top of the view area. The Welcome dialog box appears.



- 2 Click **Next** to continue. The Specify Remote Session Type dialog box appears.

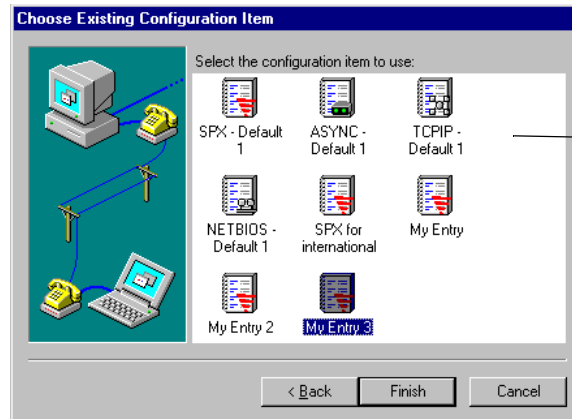


Use the options at the top of this dialog to specify the type of remote session you want to run using this Connection entry. Select one of the following options:

- **Connecting to RemoteWare only.** Uses and creates a shortcut to a predefined entry in the Directory view. For more information on Directory entries, [see “Setting up directory entries” on page 41.](#)
  - **Connecting to your LAN (and possibly RemoteWare).** Uses and creates a shortcut to a predefined entry in the Dial-Up Networking view. For more information on Dial-Up Networking entries, [see “Setting up Dial-Up Networking entries” on page 73.](#)
  - **Connecting remotely using an automated session.** Uses and creates a predefined entry in the Scripts view. For more information on scripts and automated session, [see “Setting up script entries” on page 79.](#)
- 3** Select the **Existing** option to use an existing entry, then click **Next** to continue. For information on creating a new entry, [see “Creating a connection entry for a new resource” on page 94.](#)

■ For information on *Directory*, *Dial-Up Networking*, or *Scripts* entries, see the appropriate section presented later in this chapter.

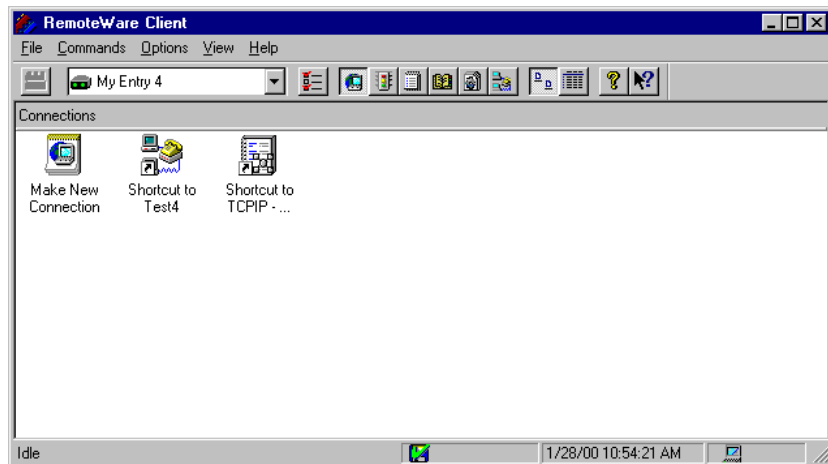
- 4 The Choose Existing Configuration Item dialog box displays the predefined entries for the type of session you selected. For example, if you selected **Connecting to RemoteWare only**, this dialog box displays all of the Directory entries currently defined in the Directory view.



This box displays all currently defined entries for the specified connection type.

Select the entry you want to use for this connection, and click **Finish**.

- 5 The new connection appears in the Connections view.




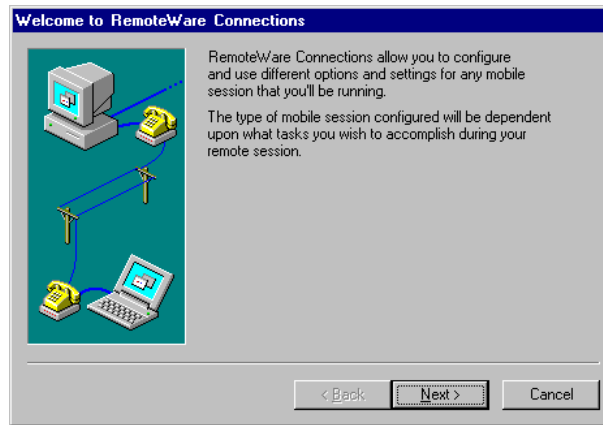
- 6 Edit the connection as necessary to defined the desired connection parameters.

## Creating a connection entry for a new resource

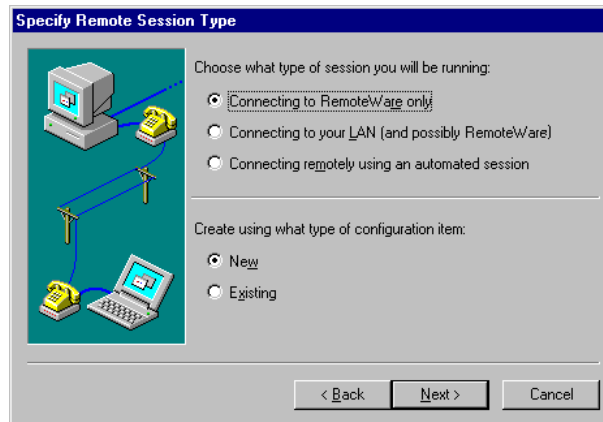
You do not have to have previously created separate Dial-Up Networking, Directory, or Scripts entries in order to create a new connection entry. The Connections view enable you to create a connection entry “on the fly.”

### To create a connection entry with a new connection resource:

- 1 From within the Connections view, double-click the  **Make New Connection** icon at the top of the view area. The Welcome dialog box appears.



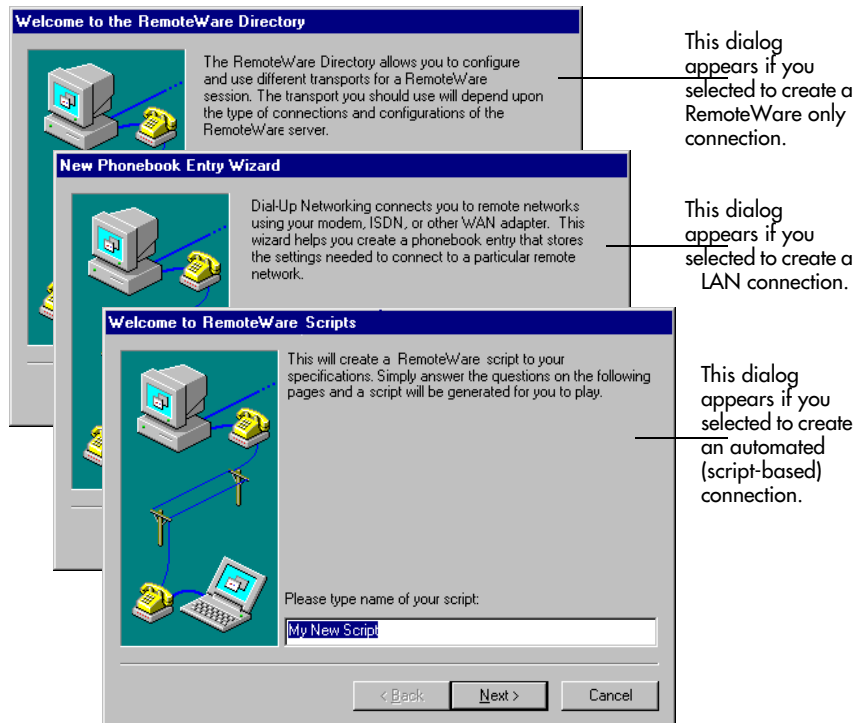
- 2 Click **Next** to continue. The Specify Remote Session Type dialog box appears.



Use the options at the top of this dialog to specify the type of remote session you

want to run using this Connection entry. Select one of the following options:

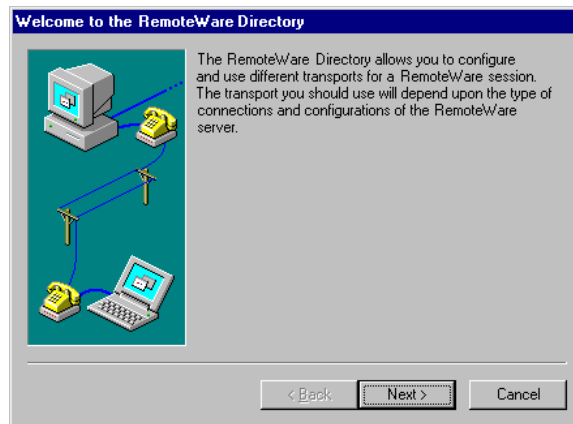
- **Connecting to RemoteWare only.** Creates a new Directory entry to use when connecting to the RemoteWare Server. For more information on Directory entries, see [“Setting up directory entries” on page 41.](#)
  - **Connecting to your LAN (and possibly RemoteWare).** Creates a new Dial-Up Networking entry. For more information on Dial-Up Networking entries, see [“Setting up Dial-Up Networking entries” on page 73.](#)
  - **Connecting remotely using an automated session.** Creates a new Scripts entry in the Scripts view. For more information on scripts and automated sessions, see [“Setting up script entries” on page 79.](#)
- 3 At the bottom of the dialog box, click **New** to indicate that you want to create a new Directory, Dial-Up Networking, or Scripts entry “on the fly.”
  - 4 Click **Next** to continue. The dialog box that displays depends upon your selection on the previous dialog.



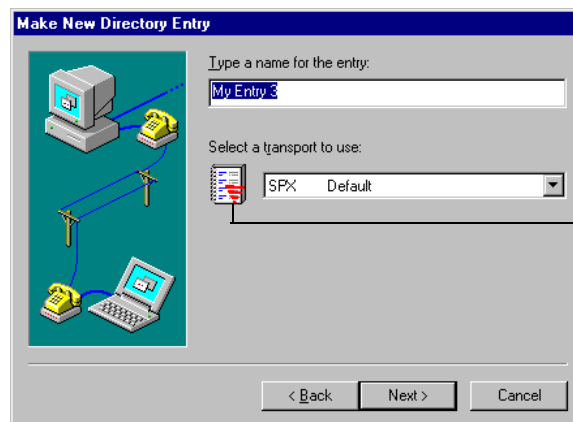
- 5 To create the specified connection type (Dial-Up, LAN, or Scripts), proceed to the appropriate sections which follow for detailed instructions:
- Creating a RemoteWare only connection (Directory entry)
  - Creating a LAN connection (Dial-Up Networking entry)
  - Creating an automated session connection (Scripts entry)

### ***Creating a RemoteWare only connection (Directory entry)***

- 1 At the Welcome dialog box, click **Next** to continue.



- 2 The Make New Directory Entry dialog box appears.



- 3 Enter a name for this entry and then select the transport to use. The drop down list displays only those transport types that are valid for your Client, as determined by

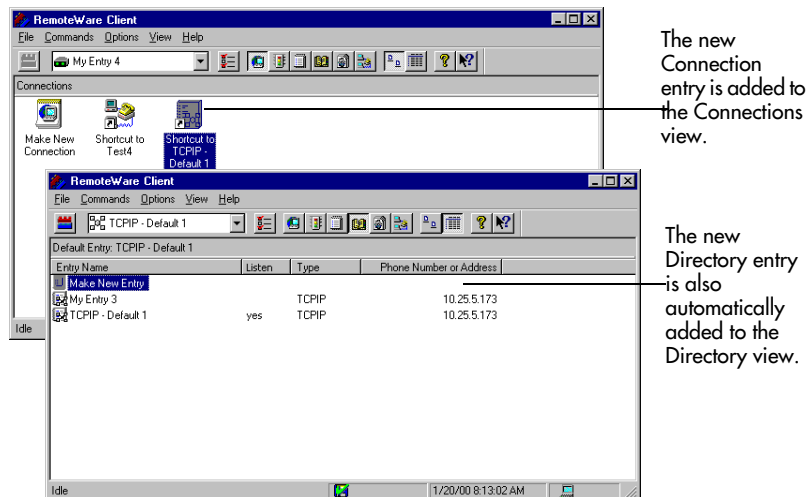


your RemoteWare Server administrator. If the transport type you need is not listed, contact your administrator.

- 4 Click **Next** to continue.



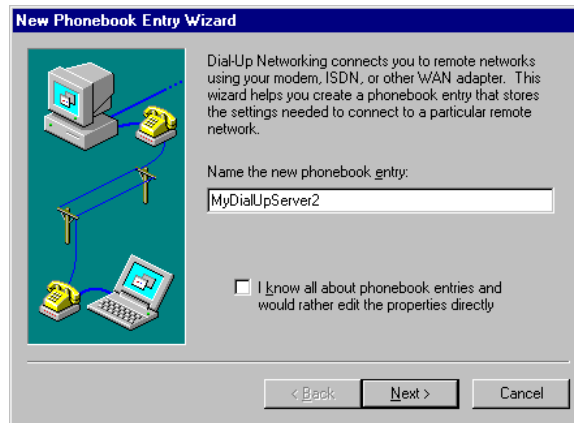
- 5 Verify the information and then click **Finish**. The new entry appears in the Connections view. The entry is also automatically added to the list of defined Directory entries in the Directory view.



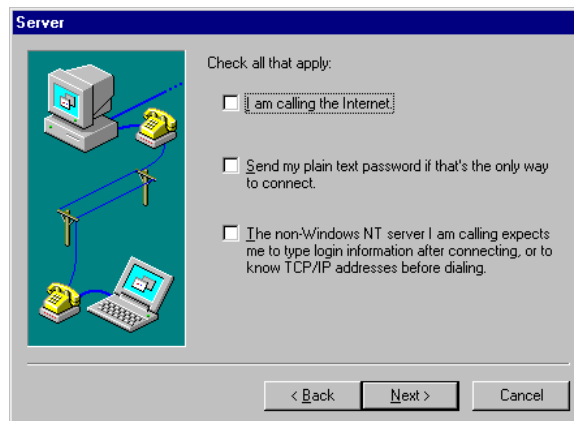
Before you use this new Connection entry, be sure to view and edit the settings for its corresponding Directory entry first. For detailed instructions, see [“Editing Directory entries” on page 45](#).

### Creating a LAN connection (Dial-Up Networking entry)

- 1 At the New Phonebook Entry Wizard dialog box, enter a name for the new phone book (Dial-Up Networking) entry you want to create.

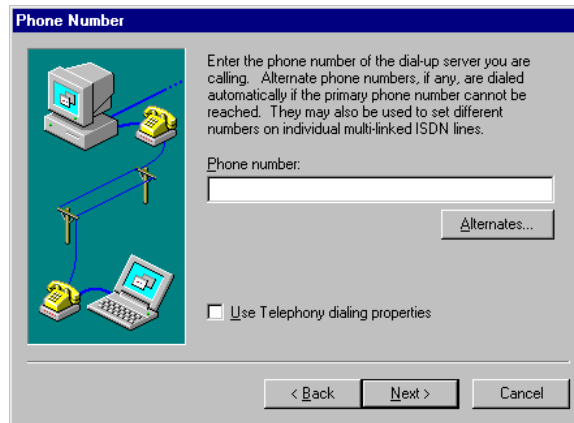


- 2 Select one of the following two options:
  - To use the Wizard to create the connection entry, click **Next**. Continue with [step 4](#).
  - To create the entry on your own, select the **I know all about phone book entries...** option at the bottom of the dialog and click **Next**. Proceed to the next section, "Editing a dial-up networking connection."
- 3 The Server dialog box appears.



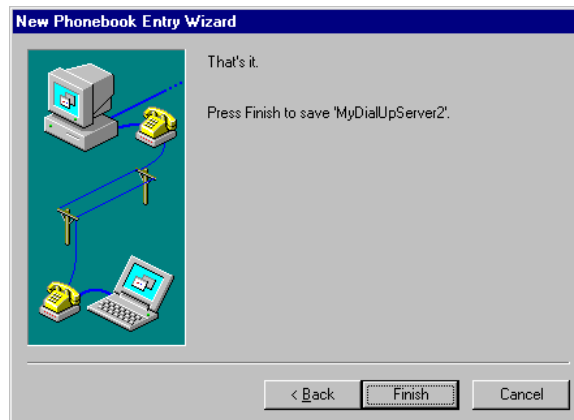
Select all of the options that apply and then click **Next**.

- 4 The Phone Number dialog box appears.

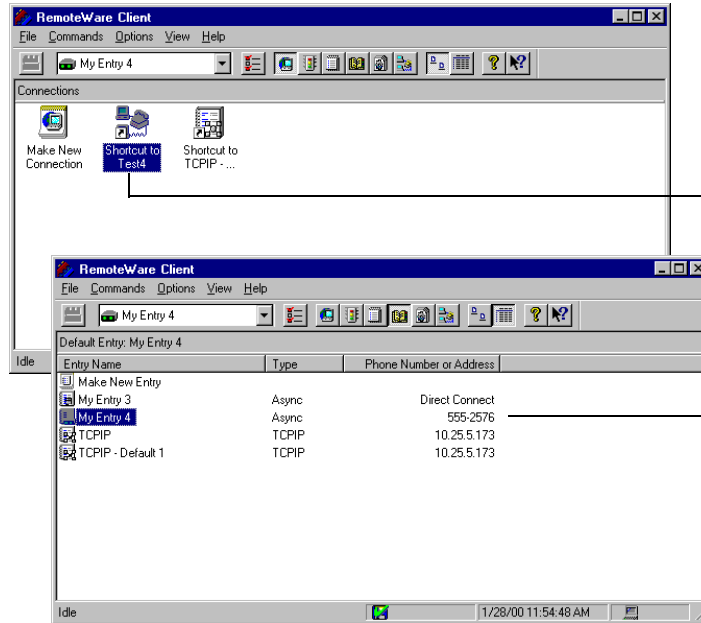


Use this dialog to enter the primary phone number of the dial-up server to call. You can also enter one or more alternate phone numbers, click the **Alternates** button. Select the **Use Telephony dialing properties** option to place calls from your computer to another telephone by using your modem or another Windows telephony device. For more information on using Windows telephony devices, see your Windows documentation.

- 5 Click **Next**, then **Finish** to complete the process.



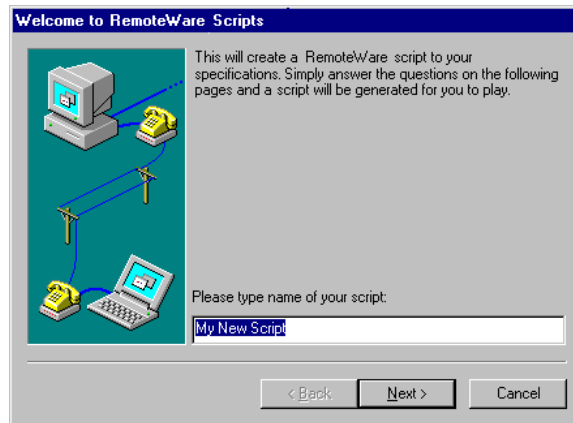
- 6 The new entry appears in the Connections view. The entry is also automatically added to the list of defined Dial-Up Networking entries in the Dial-Up Networking view.



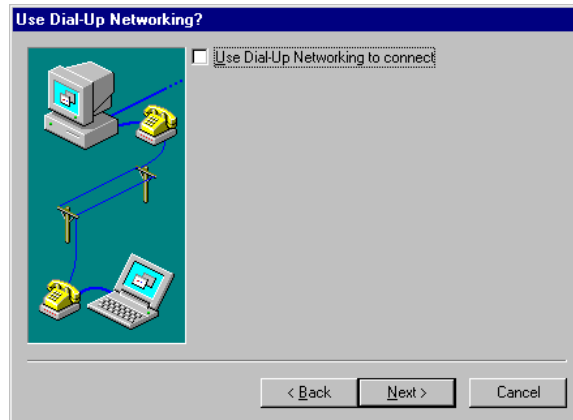
Before you use this new Connection entry, be sure to view and edit the detailed settings for its corresponding Dial-Up Network entry first. For detailed instructions, see [“Editing a dial-up networking connection entry” on page 77](#).

### Creating an automated (script-based) connection (Scripts entry)

- 1 At the Welcome to RemoteWare Scripts dialog box, enter a name for the script and click **Next**.



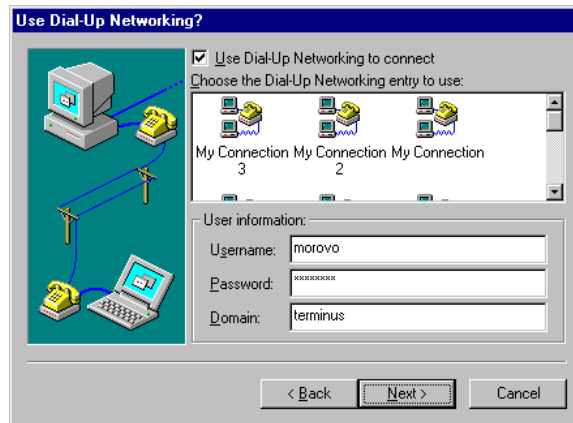
- 2 The Use Dial-Up Networking dialog box appears.



If you do not want to use Dial-Up Networking to connect, click **Next** and proceed to [step 3](#).

To use one of the predefined Dial-Up Networking entries to connect, select the checkbox. The dialog updates to enable you to select the specific entry to use and to

enter additional connection information.

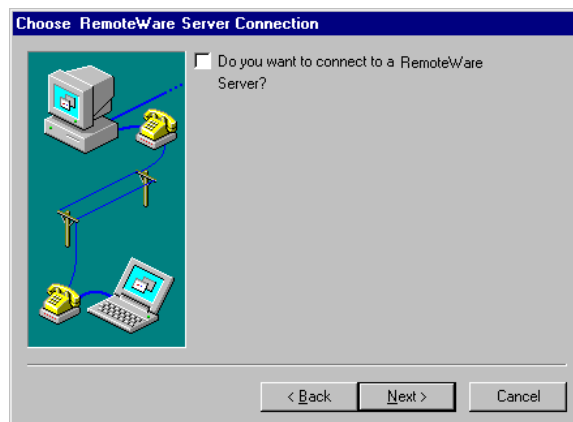


From the list of defined Dial-Up Networking entries, select the entry to use and then enter the appropriate user information.

- **Username.** The user name as it is defined on the computer or network you are calling.
- **Password.** The password for this user account. Passwords are encrypted in the uncompiled script text.
- **Domain.** The name of the domain that maintains your account information.

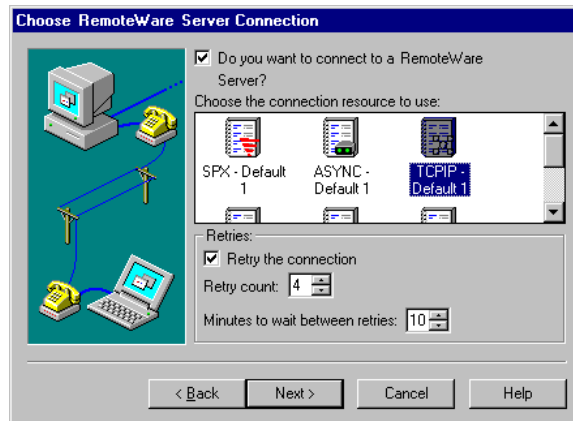
Click **Next** to continue.

- 3 The RemoteWare Server Connection dialog box appears.



If you do not want to connect to a RemoteWare Server, click **Next** and proceed to [step 4](#).

To use one of the defined Directory entries to connect to a RemoteWare Server, select the checkbox. The dialog updates to enable you to select the specific entry to use and to enter additional connection information.

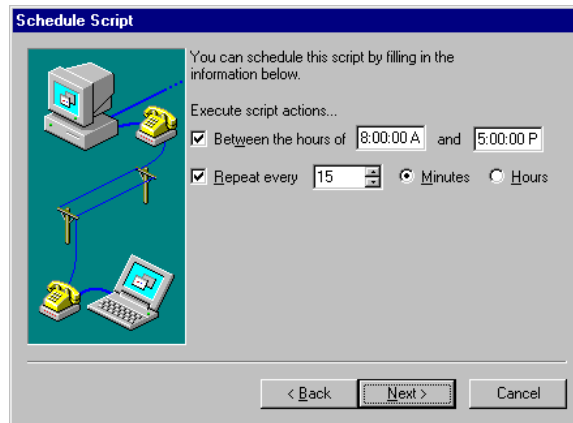


From the list of defined Directory entries, select the entry to use and then enter the appropriate user information.

- **Retry the connection.** Select this option to reattempt a failed connection. If you select this option, specify the Retry count value.
- **Retry count.** This option is active only if the Retry the connection option is selected. Specify the number of times (from 1 to 99) to reattempt a failed connection. The default value of zero specified no retries.
- **Minutes to wait between retries.** This option is active only if the Retry the connection option is selected. Specify the number of minutes to wait between retries. Be sure to allow enough time for the script to complete, even if the attempt is unsuccessful.

Click **Next** to continue.

4 The Schedule Script dialog box appears.



Use this dialog to indicate whether the script is to run at a specific time or whether it should rerun based on a time interval. By default, scripts are unscheduled. An unscheduled script runs only when you execute the Play command for a script in either the Scripts or Connections view.

Use one or both of the following controls to schedule this script:

- **Between the hour of.** Select this option to automatically run this active script at the specified starting time. The script stops at the specified ending time. A currently active script is not interrupted if it exceeds the stop time.
- **Repeat every.** When the Between the hours of option is selected, this option repeats the script during the start and stop times. This option must be selected and specified for the script to execute at or during the scheduled time window. Selected by itself, the script continuously repeats based on the time value. When the Repeat option is active, specify the number of minutes or hours to repeat the script.

---

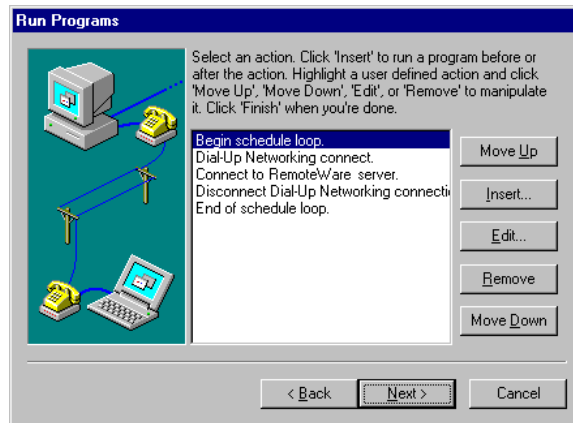
**Note:** A repeat time that exceeds the time specified window only executes once. For example, if the time window is set from 8:00 to 9:00, and the repeat interval is 2 hours, then the script runs once at 8:00.

---

Click **Next** to continue.



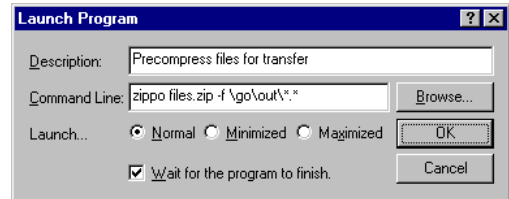
5 The Run Programs dialog box appears.



The list box displays all the actions you have enabled while using the Script Wizard. The actions are Client-defined and cannot be modified or deleted using the controls on this dialog box. To modify these default items, use the **Back** button to return to the appropriate dialog and make the necessary changes.

Use the following controls to further customize the script:

- **Move Up.** Moves the highlighted action up in the list. The actions execute in the order in which they appear in this list.
- **Insert.** Displays the Launch Program dialog box, use this to create a user-defined action. Enter a descriptive label for this action. In the Command Line field, type the path name, program name, and any arguments or variables the program needs to run. Select how the program should launch, either in its default display (Normal), as an icon (Minimized), or with a full screen (Maximized). Select the Wait for the program to finish option to pause the script until the program completes.
- **Edit.** Opens the Launch Program dialog box for the selected action.




---

**Note:** Although the Launch Program dialog box appears for Client-defined actions, you cannot modify or save changes to these actions.

---

- **Remove.** Permanently deletes the selected user-defined action.
  - **Move Down.** Moves the highlighted user-defined action down in the list. Actions execute in the order in which they appear in this list.
- 6 Click **Finish** to create this script. It appears as an uncompiled script in the Scripts view.

## Deleting a Connections entry

### To delete a connections entry:

- 1 From within the Connections view, highlight the entry you want to delete.
- 2 On the File menu, select **Delete**.

## Initiating and Monitoring Connections


The RemoteWare Client enables you to quickly and easily choose a connection resource and initiate a communication session. You can view “real time” information about current sessions, and access information about previous sessions.

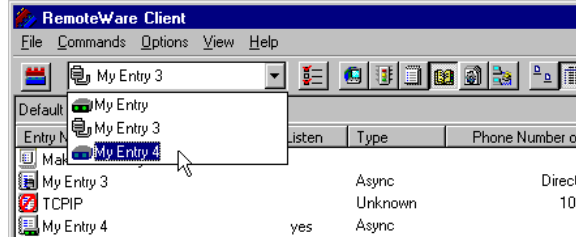
This chapter includes:

- [“Initiating connections” on page 108](#)
- [“Viewing connection status information” on page 116](#)
- [“Viewing past session information” on page 119](#)
- [“Understanding and managing alerts” on page 122](#)

## Initiating connections

RemoteWare Client provides a number of different methods to initiate a session with a RemoteWare Server or another remote system. The method you choose depends upon what resource, or transport, you want to use in order to connect and the tasks you want to perform during a connection.

The simplest method to connect is to select from the drop down list on the toolbar and click  **Connect**. This method works best if you have only a few connection resources defined and are certain you know which resource to use. If you have multiple connection resources defined, or if you are uncertain which is the best resource to use to for a specific session, refer to the connection methods outlined in the following sections.



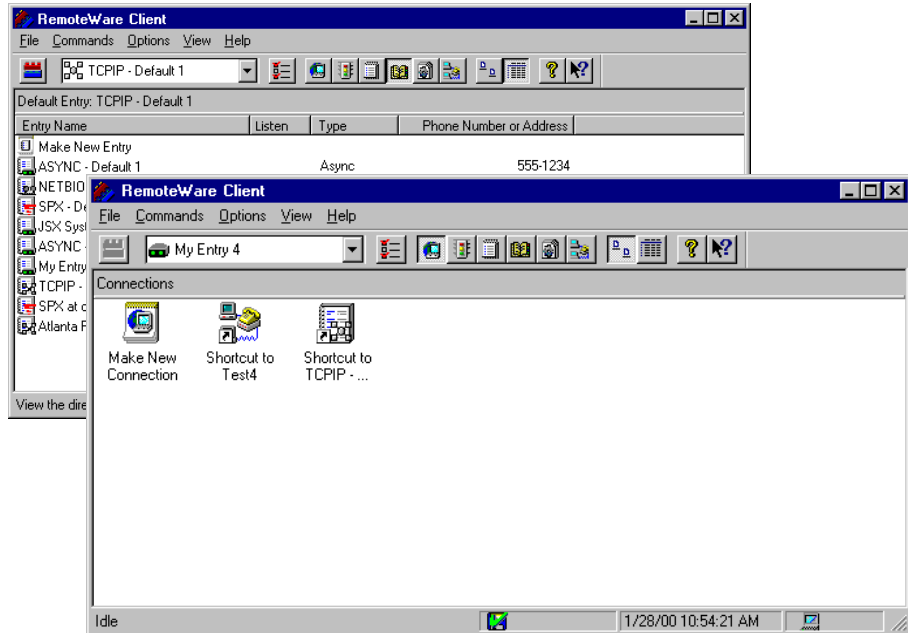
Before you attempt to connect, be sure you or your RemoteWare Server administrator has created and configured the necessary connection resources. For detailed information, see [“Setting up connections” on page 89](#).

## Connecting to a RemoteWare Server

The Directory view contains all of the resources you can use to initiate a connection to a RemoteWare Server. These directory entries may have been created by you or your Server administrator. The default entry displays at the top of the list.

You may also have created a Connection entry in the Connections view that uses one of these defined Directory entries. The Connections entry may have additional parameters that control the connection.

You can connect to a RemoteWare Server from either of these views.

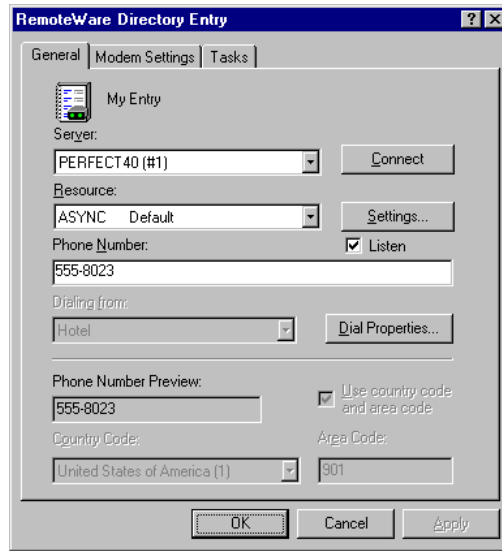


### To connect from the Directory view:

■ For more information on Directory entries, see [“Setting up directory entries”](#) on page 41.


- 1 From within the Directory view, select the Directory entry you want to use to connect.
- 2 To view information about the selected entry, right-click and select **Properties** from the shortcut menu. The RemoteWare Directory Entry dialog box displays detailed information about this entry, including the Server’s name, the resource

type, the phone number or address, and any tasks to be performed when using this entry.



■ You can also connect by clicking **Connect** on the General property page.

Use the information on these property pages to verify that this is the entry you want to use to connect to the Server. Click **Cancel** to close the dialog and return to the Directory view.

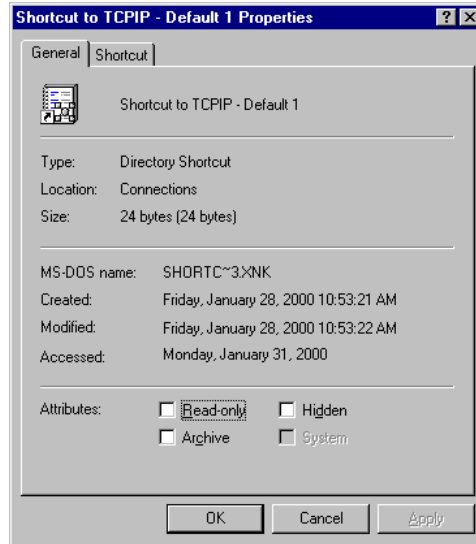
- 3 With the desired Connection entry highlighted, initiate a connection by clicking  **Connect** on the toolbar, or by right-clicking the entry and selecting **Connect** on the shortcut menu.
- 4 RemoteWare Client attempts to connect using the information in the selected Directory entry. For more information on obtaining information about the status of a connection, see [“Viewing connection status information” on page 116](#).

#### To connect from the Connections view:


- 1 From within the Connections view, select the Connection entry you want to use to connect.

■ For more information on Connections entries, see [“Setting up connections”](#) on page 89.

- 2 To view information about the selected entry, right-click and select **Properties** on the shortcut menu. The General property page displays general information about this Connection entry.



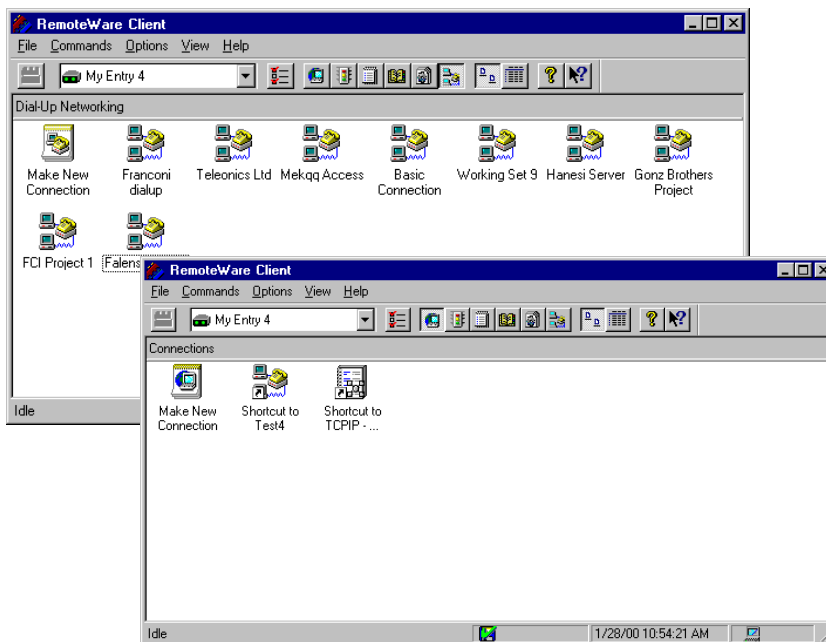
Verify that this is the Connection entry you want to use to connect to the Server. Click **Cancel** to close the dialog and return to the Connections view.

- 3 With the desired Connection entry highlighted, initiate a connection by clicking  **Connect** on the toolbar, or by right-clicking the entry and selecting **Play** on the shortcut menu.
- 4 RemoteWare Client attempts to connect using the information in the selected Connection entry. For more information on obtaining information on the status of a connection, see [“Viewing connection status information”](#) on page 116.

## Connecting to a remote system

The Dial Up Networking view contains all of the resources you can use to initiate a dial up networking connection to a remote server. You may also have created a Connection entry in the Connections view that uses one of these defined Dial Up Networking entries. The Connections entry may contain additional parameters that control the connection.

You can connect to a remote system from either of these views.



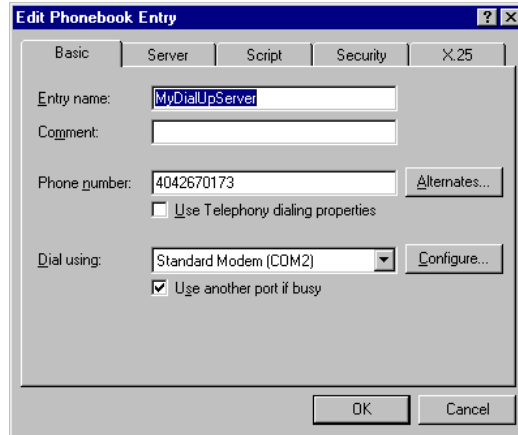
### To connect from the Dial Up Networking view:

- 1 From within the Dial Up Networking view, select the entry you want to use to connect.




■ For more information on Dial Up Networking entries, see “Setting up Dial-Up Networking entries” on page 73.

- 2 To view information about the selected entry, right-click and select **Properties** from the shortcut menu. The Edit Phonebook Entry dialog box displays detailed information about this entry.



Use the information on these property pages to verify that this is the entry you want to use to connect to the Server. Click **Cancel** to close the dialog and return to the Dial Up Networking view.

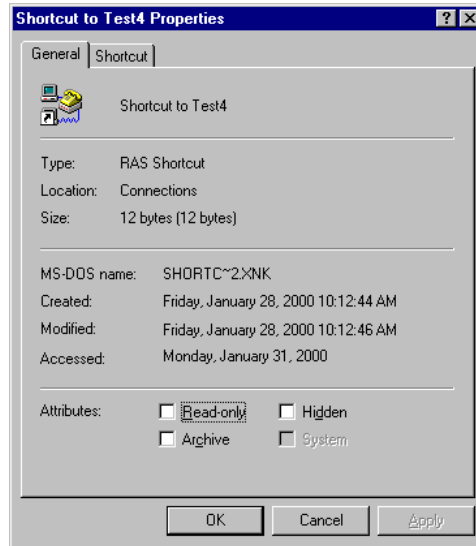
- 3 With the desired Connection entry highlighted, initiate a connection by clicking  **Connect** on the toolbar, or by right-clicking the entry and selecting **Connect** on the shortcut menu.

RemoteWare Client attempts to connect using the information in the selected Dial Up Networking entry. For more information, see “[Viewing connection status information](#)” on page 116.


#### To connect from the Connections view:

- 1 From within the Connections view, select the Connection entry you want to use to connect.

- 2 To view information about the selected entry, right-click and select **Properties** on the shortcut menu. The General property page displays general information about this Connection entry.



Verify that this is the Connection entry you want to use to connect to the Server. Click **Cancel** to close the dialog and return to the Connections view.

- 3 With the desired Connection entry highlighted, initiate a connection by clicking  **Connect** on the toolbar, or by right-clicking the entry and selecting **Play** on the shortcut menu.
- 4 RemoteWare Client attempts to connect using the information in the selected Connection entry. For more information on obtaining information on the status of a connection, see [“Viewing connection status information” on page 116](#).

#### To connect from the Scripts view:

- 1 From within the Scripts view, select the script you want to use to connect.
- 2 Highlight the desired script, right-click the script, and select **Play** on the shortcut menu.

---

**Note:** To execute a bound script, the kernel must be running. For more information, see [“Binding an uncompiled script” on page 87](#), and see [“Introducing RemoteWare Client” on page 28](#).

---

RemoteWare Client attempts to execute the script. For more information on monitoring the status of a connection, see [“Viewing connection status information” on page 116](#).

■ For more information on Script entries, see [“Setting up script entries” on page 79](#).


## Stopping a Script

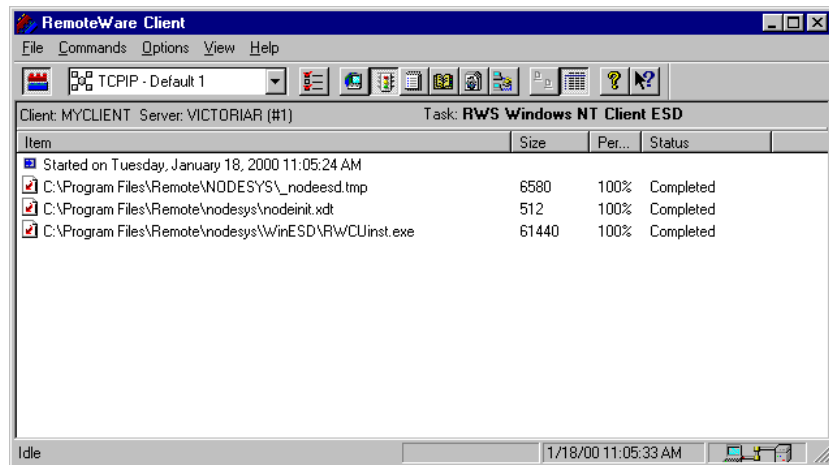
You can stop a bound script by using Windows Task Manager to end the application.

## Viewing connection status information

Once you have initiated a connection to a RemoteWare Server or some other remote system, RemoteWare Client's Status view provides information about the current connection.

### To access the Status view:

- 1 Click  **Status** on the toolbar or, on the View menu, select **Status**.



## Using the Status view

The Status view keeps track of the tasks and files being processed during your communication session. All the information on this view is erased when a new session begins; however, a summary of this information is written to the Client log. For more information on using the Log view, see [“Viewing past session information” on page 119](#).

The Status view enables you to easily monitor the progress of a connection. Each line lists:

- Beginning or end of a connection
- Message queue operation
- Transaction, or an individual file transfer

All RemoteWare sessions switch to the Status view upon initiation. When a connection is in progress, the last item in the list may display a progress bar in the Status column.

■ This view displays information about the current or most recent connection (if there is not a current connection).

You can place the cursor over the progress bar to display the estimated time remaining for this file transfer.






The Status view always appears as a detail list. The Status view displays:

- **Client.** The name of this RemoteWare Client.
- **Server.** The name of the RemoteWare Server to which you are connecting.
- **Task.** The task name currently being executed. This field may be blank if the Show tasks during Connection option is disabled. For more information on tasks, [see “Creating a custom task list for a directory entry” on page 65.](#)
- **Item.** The operation currently being performed. Operations include the start and stop date and time, the fully qualified name being accessed, message queue exchanges, interactive sessions, and transaction operations. A number of different icons display that correspond to the item type.
- **Size.** The number of bytes transferred for this file. This value corresponds to the disk space occupied by this file.
- **Percent Complete.** The percentage of the command completed (0 - 100%).
- **Status.** The completion status. Items still in progress display the progress bar (which approximates the value in the Percent Complete column).


## Understanding the Status icons

The Status view can contain a number of different icons that correspond to an item's type.

*Table 1. Status view icons*

Icon	Description
	Indicates the beginning or end of a connection. The beginning icon is blue and accompanies the phrase “Started on...”. The ending icon is red and accompanies the phrase “Ended on...”.
	Red icon indicates the Client received a file from the Server.
	Blue icon indicates the Client sent a file to the Server.
	Indicates the Client processed a message queue Inbox operation, receiving messages for the Client user.
	Indicates the Client processed a message queue Outbox operation, sending messages to the Server.

*Table 1. Status view icons*

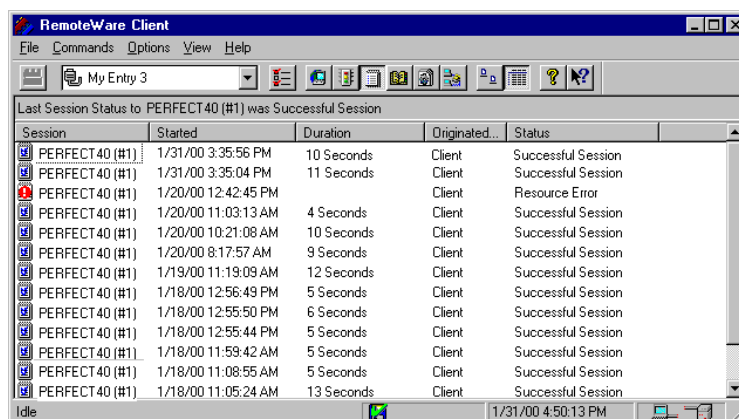
<b>Icon</b>	<b>Description</b>
	Indicates the Client initiated and used a transaction pipe.

## Viewing past session information

Each time you initiate an inbound communications session or your RemoteWare Server initiates an outbound connection, the RemoteWare Client gathers information about these sessions and logs that information for future use. You can access this past session information in the Log view.


**To access the Log view:**

- 1 Select the  **Log** button on the toolbar, or on the View menu, select **Log**.



## Using the Log view

The Log view displays the detailed view. To display the information as large icons, select

-  **Large Icons** on the toolbar, or on the View menu, select **Large Icons**.

The detailed view displays the following information for each past session:





- **Session.** The RemoteWare Server name and serial number contacted during this connection.
- **Started.** The date and time when the connection was established. The time is relative to the Client, not the RemoteWare Server.
- **Duration.** The minutes and seconds that elapsed during the connection.
- **Originated.** The machine (either Client or Server) that initiated the connection.

- **Status.** The completion status for the session. An icon appears next to the Session name. For additional information, see [“Log view icons” on page 120](#).
- **Ended.** The date and time when the connection was ended.

## Understanding the Log icons

When the Large Icons view is selected, the Log view displays each item as an icon that corresponds to the session status. When the detailed view is selected, small icons appear to the left of the item.

*Table 2. Log view icons*

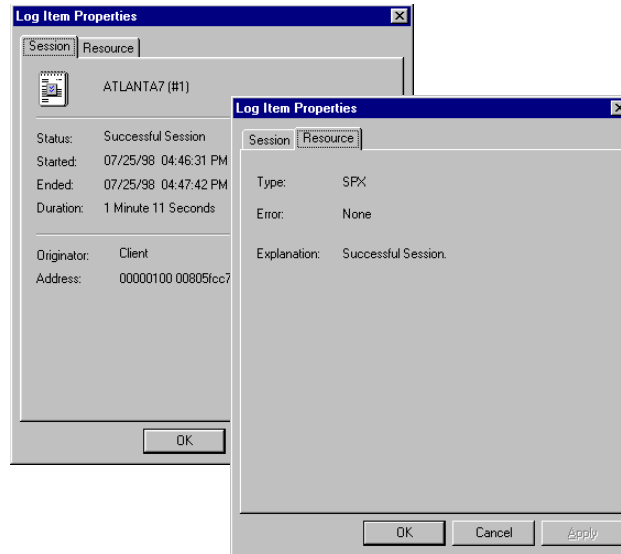
Large icon	Small icon	Description
		Indicates a successful session. Both the Client and Server were able to process the entire session.
		Indicates the session was not successful. Some issue caused the session to stop before it was completed. This icon does not necessarily indicate that the Client was not able to contact the Server. See the information in the Status column and the Log Item Properties dialog box for more information.



## Viewing detailed information for log items

To obtain more detailed information about any log item:

- 1 Right-click a log item and select **Properties** on the shortcut menu.



The Session and Resource property pages provide the following:

- **Status.** The completion status of the session.
- **Started.** The time when the session started.
- **Ended.** The time when the session ended.
- **Duration.** The length of the session.
- **Originator.** The Client or Server that initiated the session.
- **Address.** The address of the originator.
- **Type.** The transport used for this session.
- **Error.** An error message indicates if the communication resource caused the connection to fail.
- **Explanation.** If an error message is present, this provides a longer description of the problem and possible resolutions.

## Understanding and managing alerts

The RemoteWare Client provides a number of different alerts to identify and troubleshoot communications problems. Alert icons that correspond to different types of alerts display in the status bar in the main window so you can readily identify problems.

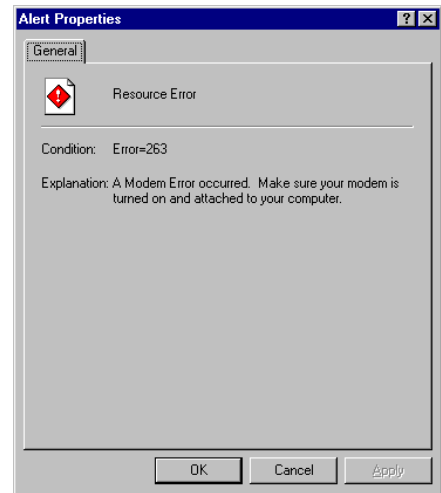


Alert icons appear on the status bar.

*Table 3. RemoteWare Client alerts*

Icon	Alert	Description
	Client Notification	There is a problem with the current task list selections.
	Auto-Answer Disabled	Indicates the current default RemoteWare entry has been disabled so the Client will not answer incoming asynchronous calls.
	ESD Disabled	Indicates ESD is currently disabled for the current default RemoteWare directory entry.
	ESD Update Received	ESD is available and can be applied.
	Resource Error	A resource-specific error, such as a network or modem problem, has occurred.

To learn more information about a specific alert double-click the alert icon in the status bar, or select the **Alerts** command on the View menu and then selecting the appropriate alert type.





## Using Scripts

RemoteWare Scripts are a powerful way of automating a series of functions on a 32-bit RemoteWare Client. This appendix describes the technical aspects of the RemoteWare Script functions; it does not describe any of the user level functions of the RemoteWare Script. For detailed information on using the Script view or the Script Wizard in RemoteWare Client, see [“Setting up script entries” on page 79](#).

This chapter includes:

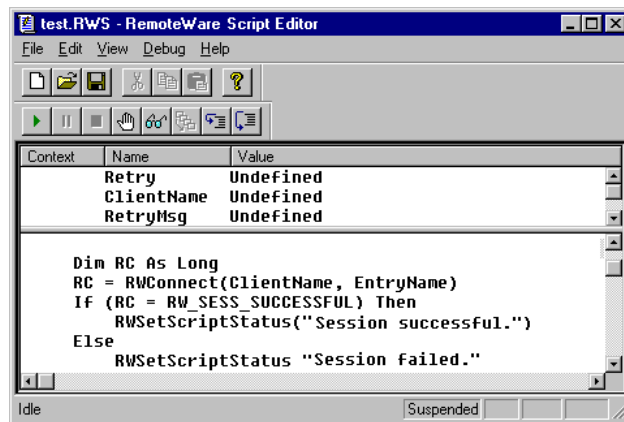
- [“Using the Script Editor” on page 126](#)
- [“Using script formats” on page 130](#)
- [“Using extensions” on page 132](#)




The script appears as a series of programmatic procedures. For more information on the details of the programming language, refer to the *BasicScript Programmer's Guide*, available with the RemoteWare product image.

## Using the Debugger Watch window

The Debugger Watch window is located at the top of the editable portion of the Script Editor window and is separated from the main script edit area by a splitter bar. It is initially hidden, to make it visible drag the splitter bar at the top of the window down to the desired size.



To add a variable to the watch window, select the variable, then go to the **Debug** menu and select **Add Watch** or click the  **Add Watch** button on the toolbar. The watch window will display the variable type and current value.

To modify the value of a variable in the watch window, double click the variable in the watch window. Enter the new value for the variable in the Modify Variable dialog and click **OK**.

## Editing launch program attributes

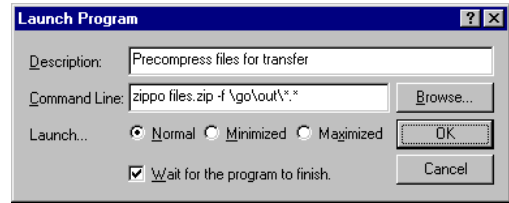
One or more lines beginning with `RWExecuteProgram` control the execution of programs on the Client computer or a local network. The general format for this line is:

```
RWExecuteProgram "Command Line", Launch, Wait to Finish flag
```

Command Line is the program name and any arguments (such as "dir /p c:\"); Launch is `RW_START_NORMAL` for Normal display, `RW_START_MINIMIZED` for Minimized, and `RW_START_MAXIMIZED` for Maximized; and the Wait to Finish flag is True or False.

The script line for the Launch Program window shown would be:

```
RWExecuteProgram "zippo
files.zip -f \go\out\*.*" ,
RW_START_NORMAL, True
```



## Editing a schedule loop

A schedule loop is set in the Script wizard from the Schedule Script window. The RWScheduleWait command controls this feature. Look for a line that follows this format:

```
LastTime$=RWScheduleWait("Start time", "End time", Repeat
time, LastTime$)
```

The start and end times are both in the 24-hour hh:mm format, and repeat time is the number of minutes. LastTime\$ is a variable used by the script and should not be changed.

Exactly one schedule loop exists in a script written by the scripting wizard. For example, the following line begins the schedule loop at 8 am, ends at 11 pm, and repeats every 2 hours (120 minutes):

```
LastTime$=RWScheduleWait("08:00", "23:00", 120, LastTime$)
```

---

**Note:** The RWSchedule Wait command does not execute in the Script Editor when you are testing the script. The RWSchedule Wait command will execute on the Client.

---

## Editing a dial-up networking connection

A dial-up networking connection follows this format in the script file:

```
Handle$=RWRasConnect("Resource", "Username", "Password",
"Domain", "DialDlg")
```

Handle\$ is a variable used by the script and should not be changed. The parameter values other than DialDlg were originally set from the Dial-Up Networking entry. DialDlg is a boolean value, for use when your dial-up networking entry includes the "Show Terminal Windows" attribute, that indicates whether to use the interactive dial dialog. Omitting the DialDlg value or setting it to false when dial-up networking properties include the "Show Terminal Window" attribute causes the script to not initiate the connection and result in error "Dial-Up Networking connection failed."

Exactly one dial-up networking connection exists in a script written by the scripting wizard.



For example, to access the Flauberg LAN's Engineering domain with the user name Anonymous (and no password):

```
Handle$=RWRasConnect ("Flauberg LAN", "Anonymous", "",
"Engineering", "True")
```

If you omit a user name, password, or domain the Authentication window opens when you play the script, and prompts for the information. When this information must be completely secure or frequently changes, it is a good idea to manually enter this information.

## Editing a RemoteWare Server connection

Choosing to connect to a RemoteWare Server results in a line in this format:

```
RemoteWareConnect "Client Name", "Resource", Retries,
Minutes to wait
```

Where *Client Name* is the name of this Client trying to contact the Server, *Resource* is the description name of the Directory resource being used, *Retries* is a number for the retry count, and *Minutes to wait* is a number for the minutes to wait between retries.

---

**Note:** Format the Client Name as a null string "" to use this script on any Client. The Client inserts the current Client's name when the script runs.

---

These variables are controlled from the Choose RemoteWare Server Connection window in the scripting wizard. Exactly one schedule loop exists in a script written by the scripting wizard.

In this example, Client PLANT002 uses resource Async - Default to contact the Server. The script specifies 5 retries, 10 minutes apart.

```
RemoteWareConnect "PLANT002", "Async - Default", 5, 10
```

## Using script formats

RemoteWare scripts can be stored three different formats. Each of the formats offer different advantages and disadvantages listed in Table 1.

*Table 1. RemoteWare script formats*

<b>Feature</b>	<b>Text</b>	<b>Compiled</b>	<b>Executable</b>
Created and modified by standard text editor	Yes	No	No
Able to modify or view	Yes	No	No
Can be executed as stand-alone executable	No	No	Yes
Can be executed from the Client	Yes	Yes	Yes
Can be executed from Script Editor	Yes	No	No
Relative file size	Small	Larger	Largest

## Using text scripts

A text script is stored as standard ANSI text. This is the most versatile format since it can be created or modified by any standard text editor. Text scripts can be executed from the Client or the Script Editor without being compiled. The Script wizard creates scripts as text, since text is the most standard format.

By default, text scripts use a file extension of .RWS.

## Using compiled scripts

A compiled script can be generated to prevent viewing of the script source. Since the binary image cannot be modified, it is important to save a master copy of the script as Text in addition to creating the compiled script. Compiled scripts are larger than their Text counterparts.

Compiled scripts are not supported by the RemoteWare Client, and can only be generated by the Script Editor. By default, compiled scripts use a file extension of .RWC.

## Using executable scripts

An executable script provides script functionality in a standalone binary executable. This allows the user to execute the script just as any other program is executed. This feature allows the script to be executed from a command prompt or incorporated into batch files.

One of the advantages to using executable script files is the security it offers. Once an executable script has been generated, there is no way to modify or view the script source. Since the binary image cannot be modified, it is important to save a copy of the script as Text or Compiled in addition to creating the Executable script.

## Using extensions

BasicScript provides a feature rich language that covers a vast majority of most programming needs. However, what makes the language valuable is the ability to add custom extensions. RemoteWare has extensions that can be called directly from the script using the same format used to call BasicScript functions and commands.

## Using RemoteWare constants

The following RemoteWare defined constants are used by the RemoteWare script extensions.

*Table 2. RemoteWare script constants*

Constant Name	Description
RW_FAILURE	Function did not complete successfully.
RW_SUCCESS	Function completed successfully.
RW_START_NORMAL	Executes program in a standard window.
RW_START_MAXIMIZED	Executes program in a maximized window
RW_START_MINIMIZED	Executes program in a minimized window

## Understanding RemoteWare extension functions

### RWRasConnect

```
LONG lHandle = RWRasConnect ( strEntry, strUserName,
strPassword, [strDomain], [strDialDlg] );
```

The return value is the handle of the running RAS connection if successful; otherwise RW\_FAILURE.

Parameters	Description
<i>strEntry</i>	Name of the RAS Phone book entry to dial.
<i>strUserName</i>	Specifies the user ID to use when authenticating the RAS connection.
<i>strPassword</i>	Specifies the password for the user indicated by <i>strUserName</i> .

Parameters	Description
<i>strDomain</i>	Specifies the Domain for the user indicated by <i>strUserName</i> .
<i>bDialDlg</i>	Indicates whether to use the interactive dial dialog for the dial-up network connection. You must set the value to True to be able to make a connection if the dial-up network properties are set to include the “Show Terminal Window”. If set to False or omitted while the network properties include the “Show Terminal Window” attribute, the connection is not started and results in error “Dial-Up networking connection failed.”

This function is a blocking call that attempts to establish a RAS connection using the phone book entry identified by the “*strEntry*” parameter.

## RWRasDisconnect

```
RWRasDisconnect ( lHandle );
```

Parameters	Description
<i>lHandle</i>	Handle of the RAS connection to disconnect.

This function disconnects a currently connected RAS connection. “lHandle” is the handle to the RAS connection returned from the RWRasConnect() function.

## RWConnect

```
RWConnect ( strClient, strEntry );
```

Parameters	Description
<i>strClient</i>	Name of the RemoteWare client where <i>strEntry</i> is defined. If this parameter is an empty string (“”), the current Client will be used.
<i>strEntry</i>	Dialing directory entry. Default entry is used when blank.

This function is a blocking call that establishes a RemoteWare connection from the Client to the RemoteWare Server and returns the status of the session.

## RWWaitForSeconds

```
RWWaitForSeconds( nSeconds );
```

Parameters	Description
<i>nSeconds</i>	Number of seconds to wait.

This function is a blocking call that waits for the specified number of seconds to elapse. When the specified number of seconds have elapsed, the function will unblock.

## RWExecuteProgram

```
RWExecuteProgram( strProgram, dwOptions, bWait );
```

Parameters	Description
<i>strProgram</i>	Name of the executable module and any command line arguments.
<i>dwOptions</i>	One of the RW_START_ constants described in the “RemoteWare Constants” section earlier in this appendix.
<i>bWait</i>	If set to True, the function will block until the program has terminated. If set to False, the function will return as soon as the program is launched.

This command starts the program specified by “Program Name”. The RWExecuteProgram() API can be used to launch external applications, and chain RemoteWare scripts together. For example, if a script needs to start another script that has been generated into an executable module, use the name of the script executable as the “Program Name”.

## RWSetScriptStatus

```
RWSetScriptStatus( <Status Message> );
```

Parameters	Description
<i>Status Message</i>	String that is to become the current script status.

This command sets the current script status to the string that is passed as “Status Message”. This command allows the script writer to add custom status messages that appear in the Client as script status. The status messages are also reflected on the Script

Editor status line. The `RWEnableInternalStatusMessages()` and `RWDisableInternalStatusMessages()` commands have no effect on this command.

## **RWEnableInternalMessages**

This command enables internal script status messages. Internal status messages are enabled by default; therefore this command is only needed if `RWDisableInternalStatusMessages()` has been called and the script wants to have access to internal messages. See “`RWDisableInternalStatusMessages`” below for more information on internal status messages.

## **RWDisableInternalMessages**

This command disables internal script status messages. The RemoteWare Script APIs generate general status messages to relay the state and running status of both blocking and non-blocking calls. If the user has just set a user defined status message with `RWSetScriptStatus()`, they may not want the internal status messages to overwrite their message. By calling `RWDisableInternalStatusMessages()`, the user can turn off the status messages generated by the RemoteWare script commands, this allows the status to remain current throughout the call. To turn the internal status messages back on, use the `RWEnableInternalStatusMessages()` command.





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