

Getting Started
BrightWorks

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Chapter 1 Introduction

Welcome to BrightWorks, the easy-to-use, comprehensive network management solution from the network utilities experts.

BrightWorks is a member of McAfee's family of intuitive network management tools, a group of network applications all designed to reduce the cost of network ownership.

Using BrightWorks

This getting started guide provides an overview of your BrightWorks product including, installation procedures, console description, and procedures for using the software distribution capabilities.

To provide network management capabilities, BrightWorks fully integrates McAfee's SiteMeter, LAN Inventory, Desktop Control Language, NetShield and NetTune products. The documentation for these products are included with your purchase of BrightWorks.

After completing the installation described in Chapter 2, all of the McAfee management capabilities that integrate with BrightWorks are enabled. The procedures for metering network software from BrightWorks are identical to those from SiteMeter; and those for inventory are the same for BrightWorks and LAN Inventory. The same holds true with the other McAfee products included with your purchase of BrightWorks. As such, you should refer to those manuals for complete instructions on using those components of the BrightWorks product.

The table below indicates which manual describes which capability:

BrightWorks Capability	Manual
Metering	Using SiteMeter
Inventory	Using LAN Inventory
Software Distribution	Using BrightWorks
Help Desk Support	Using LAN Support Center
Server Monitoring	Using NetTune
SD PowerScripts	Using PowerScript DCL

Viewing the Manuals

McAfee now ships its manuals electronically and can be viewed using the Adobe Acrobat Reader. The Adobe Acrobat Reader allows the users to view the documentation on-screen as well as print out as much or as little of the documentation they wish. Other features of the Adobe Acrobat Reader include commands such as: cut, copy, paste, find and zoom.

NOTE: The following procedure assumes that you have installed the BrightWorks product(s). For further information regarding the BrightWorks installation refer to Chapter 2, "Installation."

Use the following procedure to view your electronic documentation.

1. Select the Adobe Installer icon in the McAfee program group, to launch the Adobe installation process.

NOTE: After you have run the Adobe Installer process, the ACROREAD.EXE file in your Windows directory can then be deleted to conserve disk space. The Adobe Acrobat installer (ACROREAD.EXE) will, however, also be in the manuals directory of the CD for future use.

2. Launch the Adobe Acrobat Reader.
3. Choose File | Open.

The Open dialog box is displayed.

4. Locate the manual files.

The manual file names and descriptions are listed in the table below.

File Name	Description
BWS200.PDF	Using BrightWorks
DCL100.PDF	Using DCL/PowerScript
LAI320.PDF	Using LAN Inventory
LSC300.PDF	Using LAN Support Center
NT520.PDF	Using NetTools
NTN210.PDF	Using NetTune
SMR500.PDF	Using SiteMeter

6. Browse for the desired manual and choose OK.

NOTE: The combined size of the documentation uncompressed is approximately 60 MG. Ensure that there is sufficient space available before copying the files. The files do not have to reside in the same directory as the Adobe Acrobat Reader and it is recommended that CD users access the files from the CD drive when needed.

Evaluation Products

BrightWorks ships with evaluation copies of other McAfee Network Management products. For further information regarding these products contact McAfee at:

McAfee, Inc.

2710 Walsh Avenue

Santa Clara, CA 95051-0963

U.S.A.

Phone	(408) 988-3832
FAX	(408) 970-9727
Hours	6 a.m. to 5 p.m. PST
McAfee BBS	(408) 988-4004
	1200 bps to 14,400 bps
	8 bits, no parity, 1 stop bit
	24 hours, 365 days a year
CompuServe	GO MCAFEE
Internet	support@mcafee.com
America Online	MCAFEE

Using the Smart-Launch Modules

Other McAfee management solutions can be accessed from the BrightWorks console by choosing the appropriate tool bar button. Refer to “BrightWorks Tool Bar” in Chapter 3, “Exploring Software Distribution” for instructions.

The table below indicates which tool bar button and manual should be used to access other McAfee products.

McAfee Product	Tool Bar Button	Manual
NetRemote	Remote	Using NetRemote
LAN Support Center	SupportCtr	Using LAN Support Center
DCL PowerScript	PowerScripts	Using PowerScript DCL
NetShield	NetShield	Using NetShield

The procedures for generating reports on software distribution activity and inventory activity are the same. Therefore, refer to Chapter 9 in *Using LAN Inventory* for complete instructions on generating reports about software distribution activity on your network.

Manual Organization

The following table describes how this BrightWorks Getting Started guide is organized. (Refer to Chapter 1 in both the SiteMeter and LAN Inventory Getting Started guides for similar charts.)

Chapter	Description
Chapter 1: Introduction	Provides background information and environment requirements.
Chapter 2: Installation	Provides complete instructions for installing BrightWorks, including upgrade and NLM procedures.
Chapter 3: Exploring Software Distribution	Describes the console, printer setup, and software distribution’s features.
Chapter 4: Exploring Inventory Collection	Describes the inventory features of LAN Inventory, included with your purchase of BrightWorks.
Chapter 5: Exploring Software Metering	Describes the software metering features of SiteMeter, included with your purchase of BrightWorks.

About BrightWorks

BrightWorks empowers network administrators to manage their networks more effectively. By offering software metering, asset management, software distribution, help desk and server monitoring capabilities, BrightWorks streamlines your network support efforts.

BrightWorks' modular design allows you to create the solution that best fits your network management needs by offering integrated functions as well as access to other McAfee management solutions. In addition, BrightWorks' open framework facilitates integration with many management systems and products.

With years of networking experience, only McAfee can deliver an integrated solution as comprehensive and indispensable as BrightWorks.

BrightWorks' Features

The following lists the features available with each of BrightWorks' capabilities:

Software Metering

- Full enterprise metering including:
 - license sharing and load balancing over IPX and TCP/IP
 - centralized enterprise administration
 - reporting of enterprise metering
 - enterprise application usage viewing
- Server-based metering for DOS, Windows, OS/2 and Macintosh programs without using a workstation agent
- Simple installation to avoid administrative burden
- Detailed reports containing the information you need to make important management decisions about your network software
- Graphic displays detailing software usage to monitor both those currently using an application and those waiting to access a metered application
- Flexible enforcement options to allow you to monitor usage without denying access to applications

- Suite metering for accurate enforcement of concurrent license agreements for suite applications such as Microsoft Office
- Real-time trustee rights granting tied to application usage (masking) to control access to sensitive or critical network applications
- Ability to meter and control access to applications based on Novell group membership and the time of day
- Option to allow VIP users access to applications regardless of license availability
- Queueback for metered applications to reserve licenses for users waiting in the queue

Asset Management

- Recording and detecting software and hardware configuration changes (file servers, PCs & Macs) to eliminate the need for manual inventory
- Inventory collection for multiple sites to maximize resource usage
- Alerting of configuration changes via cc:Mail, MHS, e-mail and paging notification to enable timely network support and provide an added level of security
- Auto-learning of new software to reduce the time required to input new applications
- Detailed vendor and warranty data tracking to keep records up-to-date and to inform purchase decisions
- Import capabilities to preserve compatibility with other products and databases
- Full support for Compaq Intelligent Manageability Structure

Software Distribution

- Automated distribution of system files, data files and software applications to eliminate “sneaker-net” for these functions
- Flexible and powerful scripting languages which allow you to customize distribution of system files, data files and software applications
- Ability to edit system files (e.g., CONFIG.SYS, AUTOEXEC.BAT) to enable global replacement and workstation-specific changes without visiting each workstation

Server Monitoring

- Monitoring of over 110 NetWare internals for proper settings
- Unlimited number of files servers concurrently monitored
- Graphic displays of file server statistical data in real-time
- SmartTune feature that responds dynamically to fluctuating network activity and can react to heavy loads with appropriate tuning activity

Help Desk Automation

- Simplified help desk operation
- Rapid diagnoses and solutions to support problems
- Comprehensive reporting

Environment

The following criteria must be met in order to run BrightWorks.

Server Requirements

- Network Operating System: Novell NetWare 3.X and 4.X (with bindery emulation only)
- Network Disk Space: 18 MB required; 25 MB recommended
- Btrieve Database Access: server based: BTRIEVE.NLM

Administrator Console Requirements

- Operating System: DOS 5.0 or greater
- User Interface: Microsoft Windows 3.1X in enhanced mode
- Btrieve Database Access: server based: BREQUEST.EXE 6.1 or greater
- CPU: 386SX or higher
- RAM: 4 MB
- Monitor: VGA or better

DOS Workstation Requirements

- Operating System: DOS 3.3 or greater
- Btrieve Database Access: server based: BREQUEST.EXE 6.1 or greater; local based: BTRIEVE.EXE
- RAM: minimum of 640K

Macintosh Workstation Requirements (for Metering and Inventory only)

- Macintosh System 7 or greater)

OS/2 Workstation Requirements (for Metering only)

- OS/2 v. 2.1 or greater

NOTE: BrightWorks operates on Novell NetWare via IPX/SPX and includes multi-user BTRIEVE 6.10e.

Chapter 2 Installation

Chapter 1 introduced BrightWorks. This chapter describes the installation procedures for BrightWorks.

NOTE: If you are installing the BBS release, unzip the files into a directory on your local or network drive.

Before Installation

To install BrightWorks, you must:

- Be logged in to the network as a SUPERVISOR or equivalent
- Run Windows 3.1X in enhanced mode
- Have the following line in the [386Enh] section of your SYSTEM.INI file:

network=*vnetbios, vnetware.386, vipx.386

The following file versions are recommended for BrightWorks:

- IPX version 3.10
- NETX version 3.26 or greater
- Windows version 3.1X in enhanced mode
- VIPX version 1.13
- NETWARE.DRV version 2.02 or greater
- VNETWARE.386 version 1.06 or greater

NOTE: If you are using ODI drivers instead of IPX, you must have the following:

- LSL version 1.2 (2.01 is recommended)
 - IPXODI.COM version 1.2 (2.1 is recommended)
-

The latest versions of these files can be found on CompuServe in the Novell Libraries (GO NOVFILES). Current IPX, NETX, and IPXODI files are contained within the self-extracting files named VLMUP2.EXE and NET33X.EXE. Detailed information regarding these changes are located in DOSUP9.TXT.

Current versions of the Novell support drivers for Windows (VIPX.386, VNETWARE.386, NETWARE.DRV, etc.) are no longer contained in the self-extracting file WINUP9.EXE. WINDR2.EXE and NWDLL2.EXE have replaced the WINUP9.EXE file, detailed information regarding these changes are located in WINUP9.TXT.

NOTE: As these drivers are updated and added to the CompuServe file, the number within the CompuServe filename will increment. For example, if Novell releases a newer IPX and adds it to WINDR2.EXE, the name will change to WINDR3.EXE.

Determining Version Numbers

You can determine the versions of the above software by using the following methods:

- For IPX and the NETX shell versions, use the Novell NVER command.
- For Windows version and mode, run Windows and choose the Help | About Program Manager.
- For both Novell Windows support drivers and IPXODI.COM file versions, use the Novell VERSION command. For example, type:

```
VERSION VNETWARE.386 <ENTER>  
or  
VERSION IPXODI.COM <ENTER>
```

BrightWorks Installation

Installing BrightWorks is quick and simple, requiring minimal user input.

Use the following procedure to install BrightWorks on your network. You can exit the installation at any time by choosing Exit in the lower right corner of the installation screen.

During installation, BrightWorks modifies your existing WIN.INI file and backs up the old file as WIN.MCF. This change does not affect your Windows performance.

Refer to Appendix C in *Using LAN Inventory* or *Using SiteMeter* for information about installing and configuring BREQUEST.EXE and the Btrieve NLM. (The NLM and BREQUEST.EXE are required both to run the BrightWorks console and to perform the upgrade install.)

1. Verify that you have a drive letter mapped to the SYS: volume for the file server on which you are installing BrightWorks.
2. Start Windows.
3. Place the first distribution diskette in your floppy drive if you are installing from diskettes.

If you are installing from a CD ROM, place the CD in your CD drive.

If you are installing the BBS release, decompress the zipped files into a directory on your local or network drive.

4. Choose File | Run from your Windows Program Manager.

The Run dialog box is displayed.

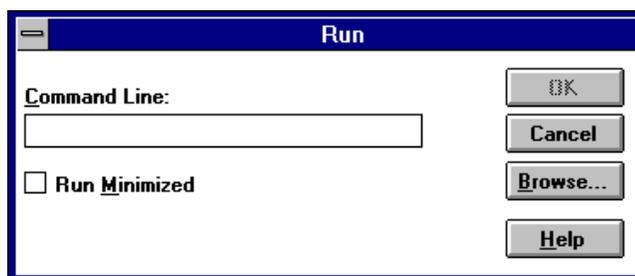


Figure 2-1: Run dialog box

5. At the prompt, enter the drive letter of the floppy, CD, or hard drive where you inserted the distribution diskette, CD, or where you unzipped the program files from the BBS and then type SETUP.

For example, type:

```
A:\SETUP <ENTER>
```

or

```
<DRIVE>:\BWORKS.200\SETUP.EXE <ENTER>
```

At this point, a message is displayed informing you that "Setup is initializing."

NOTE: The log file INS200.LOG is created and placed in your WINDOWS directory. The log file is an ASCII file listing the location of the BrightWorks installation. The log file also lists any errors that occurred during installation. If an error that prevents completion of the installation process occurs, the log file will display automatically.

The Welcome dialog box is displayed.

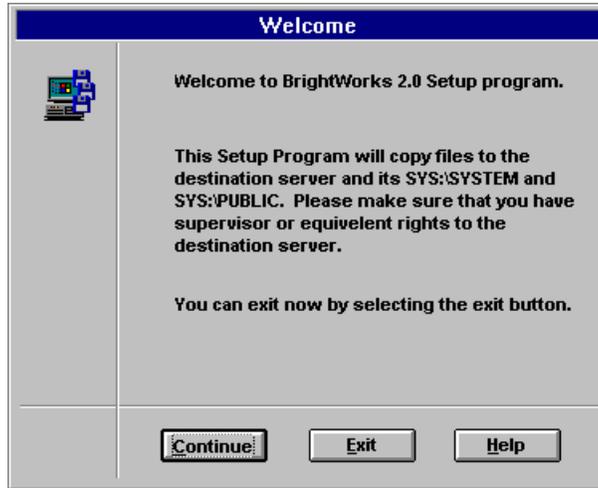


Figure 2-2: Welcome dialog box

6. Choose Continue.

The Installation Configuration dialog box is displayed.

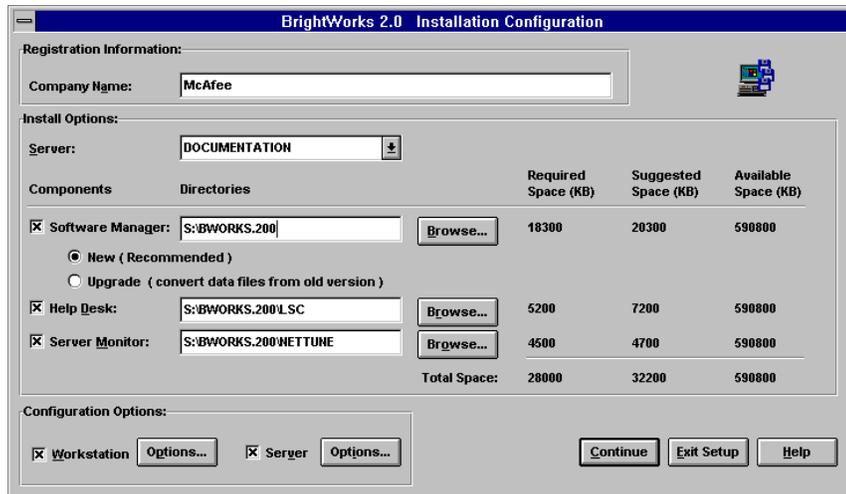


Figure 2-3: Installation Configuration dialog box

NOTE: The Installation Configuration dialog box displays the required space and suggested space needed to run the BrightWorks install as well as the available space on the selected volume of the current server. If there is insufficient space, you will have to choose a new destination (i.e., volume or file server).

7. Type your company name in the Company Name text box.
8. Select a server from the server drop-down list box.

The drop-down list box displays all the file servers to which you are currently attached and have a drive mapped. BrightWorks verifies that you have SUPERVISOR rights on the selected file server.

NOTE: Because of BrightWorks integrated nature, all components (Software Manager, Help Desk and Server Monitoring) must be installed on the same server.

9. Select one of the following install options:

Option	Description
Software Manager	Installs BrightWorks (software distribution), SiteMeter (software metering) and LAN Inventory (software and hardware inventory).
New Install	Copies BrightWorks files to the network and automatically creates the Program Manager group McAfee (if not found) containing the BrightWorks program, the Crystal Reports program and all associated Read Me file icons.
Upgrade	In addition to New Install features, it allows you to automatically upgrade from either previous versions of BrightWorks with minimal user input.
Help Desk	Installs LAN Support Center.
Server Monitor	Installs NetTune.

10. Confirm the Directory in the Directory text box.

The drive letter and full directory must coincide with the file server you selected earlier. BrightWorks creates the directory if it does not exist. The default drive letter is the first one found on the server you specified. BWORKS.200 is the default directory.

11. If you want to change an option's directory, choose the corresponding Browse button.

Change Directory dialog box similar to the one in Figure 2-4 is displayed.

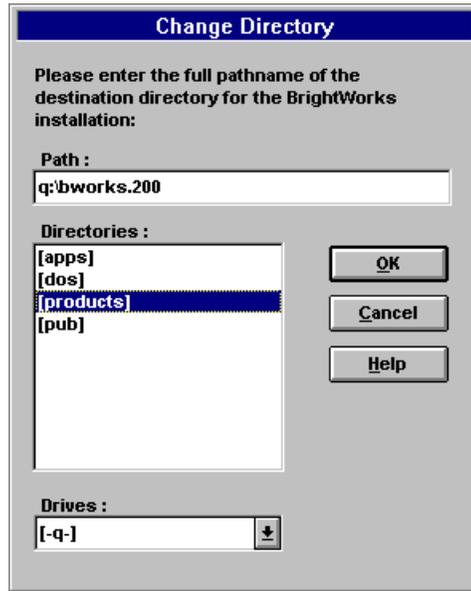


Figure 2-4: Change Directory dialog box

Select the desired directory and path and choose OK to return to the Installation Configuration dialog box.

12. If desired, deselect the Configuration Options.

By default, the install procedure configures both your workstation and server. Simply select the check box to disable these settings.

If you do select the Workstation Options button, the Workstations Configuration Options dialog box is displayed.

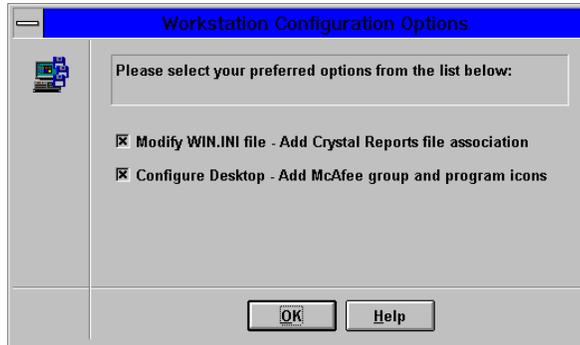


Figure 2-5: Workstation Configuration Options

If you do select the Server Options button, the Server Configuration Options dialog box is displayed.

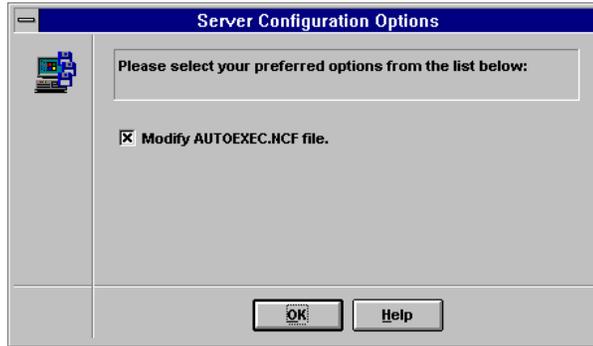


Figure 2-6: Server Configuration Options

Select the desired options in either dialog box and choose OK. The following table lists the available configuration options and their descriptions.

Option	Description
Modify WIN.INI file	Inserts the following: [EXTENSIONS] RPT=CRW . EXE ^ . RPT
Configure Desktop	Adds McAfee program group and icons.
Modify AUTOEXEC.NCF file	Adds the following lines: LOAD LI LOAD SITEMETR LOAD SMRPROXY LOAD SMRRPT

LOAD SMRENT

NOTE: If you choose not to modify your AUTOEXEC.NCF file during installation, you can later load the necessary NLMs by typing:
 BWORKS
 at the file server.

13. Choose Continue to proceed with the installation.

A dialog box is displayed with a percent completed bar.

14. If you selected the Upgrade option, refer to the next section for additional instructions.

If prompted, insert the remaining disks to complete the installation.

The Setup Information dialog box is displayed.

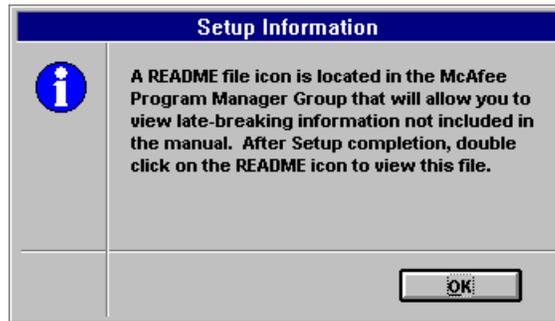


Figure 2-7: Setup Information dialog box

15. Choose OK to indicate that the installation is complete. View the Read Me file for any updated product information.

The installation is complete. Refer to Chapter 3, “Exploring Software Distribution” for a description of BrightWorks’ console and tutorials introducing BrightWorks’ capabilities.

Upgrade Install

The Upgrade option installs into a new BrightWorks directory and imports data from an older version of metering software. The term “migration” refers to the process of upgrading previous metering software with this version of BrightWorks.

Continue with the following steps to complete the Upgrade Install procedure:

15. After choosing Continue, the BrightWorks Upgrade Options dialog box is displayed.

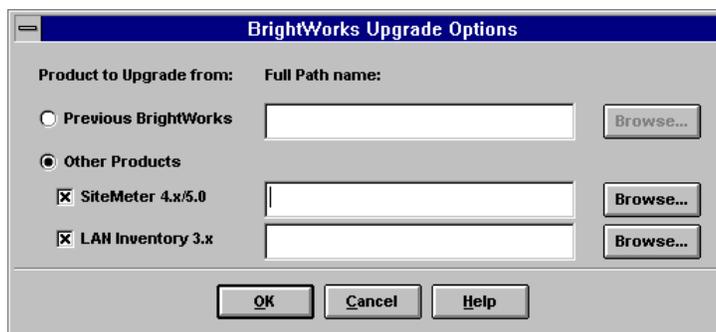


Figure 2-8: The BrightWorks Upgrade Options dialog box

16. To upgrade from a previous BrightWorks installation, choose the corresponding radio button.

To upgrade from previous installations of SiteMeter or LAN Inventory, choose the Other Products radio button and the corresponding check boxes.

17. If prompted, insert the remaining disks to complete the installation.

NOTE: If you are upgrading from SiteMeter 4.x or earlier, continue with Step 17. If you are not upgrading from SiteMeter 4.x or earlier, skip to Step 20.

The Confirm Migration dialog box is displayed and contains the following information:

Option	Description
Metering data directory	Displays the directory path where metering files are located.
File server to be migrated	Displays the file server that you entered in the Installation Configuration dialog box.
Disk space required	Displays the estimated amount of disk space needed to achieve a successful migration.
Disk space available	Displays the amount of disk space available on the selected server.



Figure 2-9: Confirm Migration dialog box

18. Choose Begin Migration to transfer the metered applications from previous copies to the selected file server.

The Migration Status dialog box is displayed.

NOTE: If you do not want to transfer the existing metered applications to the selected file server, choose Abort Migration. Your upgrade will install successfully, however, no metered applications will be transferred from previous copies of McAfee software metering products.

19. View the migration program.

The Success dialog box is displayed.

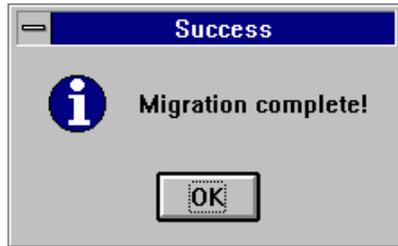


Figure 2-10: Success dialog box

20. Choose OK.

The Setup Information dialog box is displayed.

21. Choose OK.

The installation is complete. Refer to Chapter 3, "Exploring Software Distribution" for a description of BrightWorks' console and tutorials introducing BrightWorks' capabilities.

Configuration Procedures

These instructions review the installation process and provide important information about installing the product NLMs.

Important: BREQUEST.EXE version 6.10 or later must be properly loaded to run the BrightWorks Administration program and USAGE.EXE. For instructions on setting up server-based Btrieve, refer to Appendix C, “Using Brequest” in either *Using LAN Inventory* or *Using SiteMeter*.

NOVDB.INI file must exist in the Windows directory. For server-based Btrieve, the Local=NO line should exist in that file.

If you are using BrightWorks and receive the following error message:

```
BrightWorks: The Novell Brequester has not been loaded.
BrightWorks databases will not be optimized. To optimize
performance of this program, load the BTRIEVE.NLM on
your server, the BREQUEST.EXE TSR on your workstation
(with argument /d:17000), and restart Windows and
BrightWorks.
```

and to the best of your knowledge Btrieve has been properly loaded, read the following instructions and take the appropriate steps.

This error occurs if the BTRIEVE.NLM or the BSPXCOM.NLM is not loaded on the file server. Please take the following steps:

1. At the file server console, type BSTOP.

This unloads the NLMs.

2. Type BSTART.

This loads both BTRIEVE.NLM and BSPXCOM.NLM on the file server.

Loading NLMs

The BrightWorks NLMs need to be loaded to begin collecting inventory and metering network software. To do this, at the file server, type: BWORKS

This will load the required Btrieve NLMs, the LI.NLM, SITEMETR.NLM, SMRPROXY.NLM, SMRPT.NLM and SMRENT.NLM.

To unload the BrightWorks NLMs, type: STOPBWRK

This will unload the BrightWorks NLMs.

Refer to both *Using LAN Inventory* and *Using SiteMeter* for information on the individual NLMs.

Chapter 3 *Exploring Software Distribution*

Chapter 2 described the BrightWorks installation and upgrade instructions. This chapter introduces and discusses the BrightWorks application window.

The BrightWorks Console

Windows Terms

As a Windows application, BrightWorks should be used with a mouse. The table below briefly defines several Windows terms regarding the use of the mouse and product windows.

Term	Description
Button 1	The selection or primary mouse button (usually the left button, but can be switched using the Control Panel).
Cancel	Choose Cancel to exit the current dialog box without saving any of the changes you made in the dialog box or without executing a command you chose in the dialog box.
Choose	Double-click the mouse button (or use a key combination) on an item to initiate an action. For example, “Choose the BrightWorks icon” should be interpreted as a double-click on the BrightWorks icon.
Click	Press the mouse button once.
Double click	Press the mouse button twice in quick succession.
Icon	A graphic representation of an executable or function.
Point	Position the cursor on the screen to rest on the desired item.
Property Sheet	Windows tab metaphor that locates related information in a single dialog box and allows easy navigation from tab to tab.

Spin Control	Arrows that increase or decrease the value displayed in the accompanying text box.
Scroll	Use the scroll bars and buttons to move through a list of items.
Select	Mark an item by clicking on it or by highlighting it with either key combinations or the mouse. For example, “Select the Include Path option” should be interpreted as click or highlight the Include Path item.

NOTE: The remainder of this manual assumes that you are familiar with Windows. Refer to your Microsoft Windows manual for information on the fundamental operating conventions of the Windows environment.

Accessing BrightWorks

After successfully installing BrightWorks, a McAfee Program Manager group and a BrightWorks program icon are created on your Windows desktop.

Use the following procedure to launch BrightWorks.

1. Load Brequest.

The BrightWorks console requires the use of server-based Btrieve.

2. Run Windows, and double click on the BrightWorks program icon.

The application window consists of the following items which are discussed in this section:

- The BrightWorks Menu Bar
- The BrightWorks Tool Bar
- Access to BrightWorks' On-Line Help

Exiting BrightWorks

Use the following procedure to end a BrightWorks session.

1. Choose File | Exit.

A dialog box is displayed prompting you to confirm the exit action.

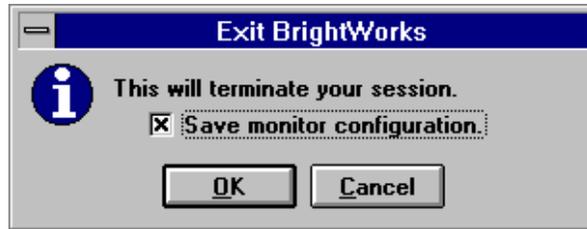


Figure 3-1: BrightWorks' Exit Prompt

2. Select 'Save monitor configuration.'

Checking this option will save the configuration of any metering windows that are currently open in your BrightWorks application window. All open metering windows will be automatically restored upon starting your next BrightWorks session.

3. Choose OK to close the BrightWorks application.

BrightWorks Menu Bar

The BrightWorks menu bar consists of the menu items listed in the table below. To choose a menu, point to the menu name and click the left mouse button. The menu displays.

Menu	Software Metering	Inventory Collection	Software Distribution
File	New, Open, Close, Save, Delete, Print, Print Setup, Import, and Purge	New, Open, Close, Save, Delete, Print, Print Setup, Import, Purge	New, Open, Close, Save, Delete, Print, Print Setup, Rename, and Compile Script
Edit			Undo, Cut, Copy, Paste, Find, Next, Replace, Font, Paste Special
View	NLM Status, Hide Status Bar	NLM Status, Audit Log, Hide Status Bar	Refresh, Distribution Log,

			Hide Status Bar
Configure	Reporting, Prepare Report Data, Server System Settings, Set Refresh Timer, Edit Usage View	Audit Parameters, Alerting, Qualification Lists, Unidentified PC/Fileserver Software, Unidentified Macintosh Software	Distribution Preferences
Tools	Metered Applications, Replicate and Application Usage	Inventory	Filesets, QuickScripts, PowerScripts, Scopes and Packages
Reports	Choose Report, Edit Reports	Choose Report, Edit Reports	Choose Report, Edit Reports
Window	Cascade, Tile Vertically, Tile Horizontally, Arrange Icons, Close All	Cascade, Tile Vertically, Tile Horizontally, Arrange Icons, Close All	Cascade, Tile Vertically, Tile Horizontally, Arrange Icons, Close All
Help	Index, Using Help, About	Index, Using Help, About	Index, Using Help, About

NOTE: Holding down the left mouse button over a menu command causes the function of the command to display in the title bar at the top of the BrightWorks application window.

BrightWorks Tool Bar

When using BrightWorks with a mouse, BrightWorks’ tool bar buttons provide an alternative for accessing the most frequently used BrightWorks functions. The tool bar is shown in Figure 3-2.



Figure 3-2: BrightWorks Tool Bar

Rather than choosing commands from the drop-down menus, you can choose the tool bar buttons to perform the same tasks. For example, to define applications to be

metered, you can either choose Tools | Metered Applications, or you can simply choose the Metering tool bar button. Both actions result in displaying the Define Metered Applications dialog box.

The function of each tool bar button is described below:

Button	Description
Meter	Displays the Define Metered Applications dialog box used for adding, modifying and deleting applications to be metered.
Usage	Displays the View Application Usage dialog box used for determining which applications are being used and by whom.
Inventory	Displays the Inventory dialog box used for viewing and managing the inventory of each audited workstation.
Distribute	Displays the Available Packages window used for viewing, creating and managing packages for distribution.
QuickScript	Brings up the QuickScript editor to write Software Distribution scripts.
PowerScripts	Brings up the DCL PowerScript editor to write flexible, powerful Software Distribution scripts.
NetRemote	Provides access to optional McAfee NetRemote software for automated user support.
SupportCtr	Provides access to optional McAfee LAN Support Center software for help desk automation.
NetShield	Provides access to optional McAfee NetShield software, which is a NetWare loadable module (NLM) that provides uninterrupted server-based virus protection.
NetTune	Opens the NetTune server monitoring and tuning application.
Alerts	Displays the Alerting Options dialog box used for defining and scheduling auditing alerts.
Reports	Displays the Choose Report dialog box, enabling you to generate inventory, metering and distribution reports.

NOTE: Holding down the left mouse button over a tool bar button displays the function of the button in the BrightWorks title bar at the top of the application window.

Using the Keyboard

To use BrightWorks without a mouse, perform the standard Windows keyboard actions to navigate through the program.

Each menu item on the BrightWorks menu bar has a keyboard mnemonic. Press the <ALT> key in combination with the keyboard mnemonic key to choose a menu and cause the menu to drop down. For example, press the <ALT><F> keys to choose the File menu and display its commands.

Each command also has a keyboard mnemonic. Once the menu is displayed (i.e., “dropped down”), press the keyboard mnemonic of the command you want to choose. For example, from the File menu, press <P> to choose the Printer Setup command. You can also use the <up/down arrow> keys to move the highlight to a desired command and press <ENTER> to select the command.

For detailed information on using a Windows application with the keyboard, refer to your Microsoft Windows documentation.

NOTE: Some BrightWorks features require the use of a mouse and cannot be accessed with the keyboard.

BrightWorks' Help Facility

BrightWorks' help facility provides on-line assistance for using the BrightWorks software. To get information quickly about a BrightWorks feature or procedure, choose Help | Help Index.

Choosing the Help Index command displays an index list of topics. Choose the topic for which you require assistance.

BrightWorks' Help system is written in a standard Windows hypertext format. This allows you to jump from one topic to another by simply choosing topic names from a list. Several buttons display across the top of the Help dialog box allowing you to search for topics and also to view a list of the topics you have visited.

For detailed information on using a Windows help facility, refer to your Microsoft Windows documentation.

BWORKS.INI File

Upon installing the BrightWorks software, the BWORKS.INI file is created and placed in the Windows directory of the local workstation. The file can consist of the following sections:

- **[ShowBrequeWarning]** - This section indicates the status of the Breque warning which displays upon launching BrightWorks when the presence of the Btrieve NLM is not detected. This section contains an "Init=" line which indicates whether or not the warning is disabled (i.e., "Init=No" when warning is disabled; "Init=Yes" when warning is enabled).

The warning message can be disabled from within BrightWorks by checking the "Disable message when Breque isn't running" field when launching the application. To re-enable the warning message after it has been disabled, edit the BWORKS.INI file, and enter "Init=Yes" in this section.

- **[ShowBanner]** - This section can be manually added to the INI file in order to disable the About BrightWorks dialog box which displays upon launching BrightWorks. To disable the About dialog box at start-up, enter the following:

```
[ShowBanner]
Init=No
```

To re-enable the warning message, either delete this section or enter "Init=Yes."

- **[DisableExitPrompt]** - This section can be manually added to the INI file in order to disable the prompt which displays upon exiting BrightWorks. This prompt allows you to save the configuration of any open metering windows. (Refer to Figure 3-1 in the section above entitled "Exiting BrightWorks.") To disable the exit prompt, add the following section to the BWORKS.INI file:

```
[DisableExitPrompt]
AutoSave=Yes
```

- Note that an "AutoSave=Yes" setting will inhibit the exit prompt and save the configuration of the open *metering windows*. An "AutoSave=No" setting will also inhibit the exit prompt but will not save the open metering window settings.
- **[downgrade]** - This option allows you to instruct the console to display either metering or inventory functions when it displays. For only metering functions, add the following section to the BWORKS.INI file:

```
[downgrade]
module=metering
```

To display only inventory functions, add the following section to the BWORKS.INI file:

```
[downgrade]
module=inventory
```

Configuring Launch Sections

In addition to the sections listed above, the BrightWorks INI file also contains individual sections for each integrated product. Use the following procedure to edit these sections.

NOTE: The following procedure assumes that you have launched the BrightWorks console.

1. Choose Configure | Launch Item Properties.

The Launch Item Properties dialog box is displayed.

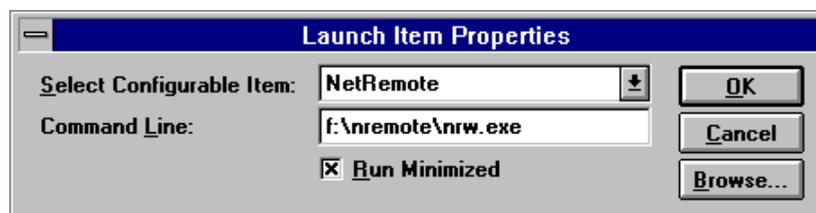


Figure 3-3: The Launch Item Properties dialog box

2. Select a configurable item from the provided list box.
3. Enter a command line in the provided text box or choose Browse to locate the desired executable.
4. To run the item minimized, select the corresponding check box.
5. Choose OK to save configuration.

Changes made are saved to the BrightWorks INI file.

Printer Setup and Administration

Before printing BrightWorks reports, review the global print parameters to ensure they reflect the printer settings that you require.

Printer settings include:

- Printer destination
- Page orientation (portrait/landscape)
- Paper size and source
- Graphics resolution

The procedures for customizing the contents of individual BrightWorks reports are discussed in Chapter 9 of *Using LAN Inventory* (for inventory and distribution reports) and Chapter 7 of *Using SiteMeter* (for metering reports). This section briefly presents the procedures for viewing and changing Windows global print settings.

NOTE: Please refer to your Microsoft Windows manual for detailed procedures on modifying the Windows print settings.

Changing Print Settings

Use the following procedure to review and change your print settings.

1. Choose File | Print Setup.

The Print Setup dialog box is displayed.

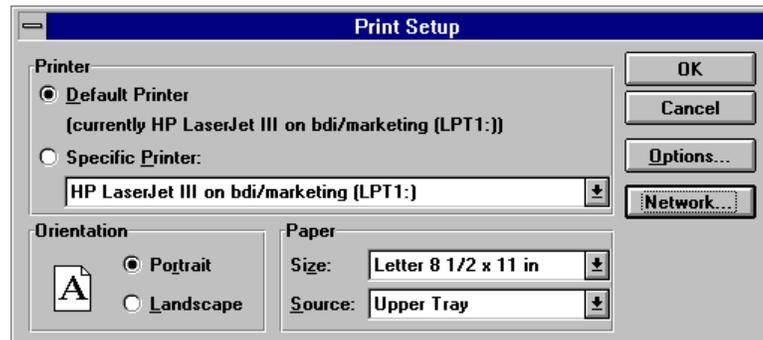


Figure 3-4: Setting Print Parameters

If you have the latest version of COMMDLG.DLL, this dialog box will have a Network button.

2. Select the printer you want to use for printing reports.

The printer selected from your Windows printer control is selected as the default. To use another printer, select a Specific Printer from the drop-down list.

NOTE: Choosing a specific printer does not permanently change your printer setting.

3. Select the desired orientation and paper parameters.

Choose either the Portrait (long) or Landscape (wide) Orientation radio button. Use the drop-down lists to define the Paper Size and Paper Source settings.

4. To make additional changes to the selected printer configuration, choose Options.

Additional settings include dithering and intensity control.

5. Choose OK in the Print Setup dialog box to save the print settings.

Software Distribution Tutorial

This tutorial outlines the major steps in using BrightWorks to distribute software and scripts throughout your local area network. Refer to Chapter 4, "Exploring Inventory Collection" for an inventory tutorial and Chapter 5, "Exploring Software Metering" for a metering tutorial.

NOTE: BrightWorks' distribution component must be installed on your network before beginning the tutorial. If you have not already done so, please refer to Chapter 2, "Installation."

The steps in this tutorial include the following:

1. Creating and Compiling a Script
2. Creating a Scope
3. Scheduling a Package for Distribution
4. Running the SDUPDATE.EXE Program at the Receiving Workstation.

NOTE: The options and features mentioned in this tutorial are discussed in detail throughout the *Using BrightWorks* manual.

Step 1: Creating and Compiling a Script

A script is a series of commands to be executed on a remote workstation. Scripts can be as simple as displaying a message on a remote user's monitor, or they can be as complex as restructuring a hard drive and/or installing and configuring software.

Use the following procedure to create a script.

1. Choose Tools | QuickScripts.

The Scripts dialog box is displayed. For each script you define, the last compilation date, the status and the file name will display.

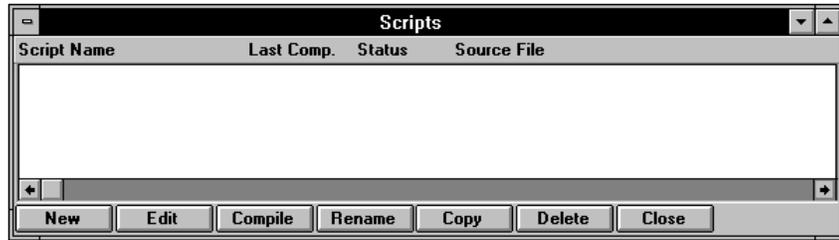


Figure 3-5: The List of Scripts

2. Choose New.

The Open New Script dialog box is displayed prompting you to enter the name, file name and destination directory for the new script.

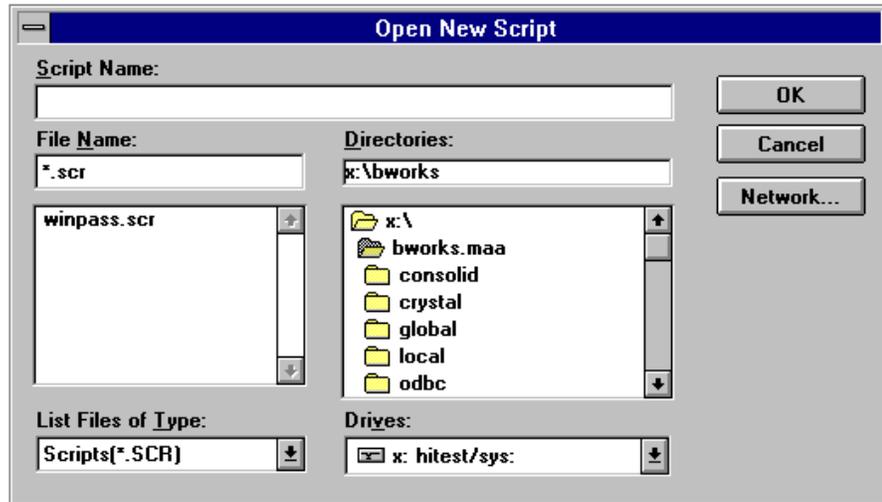


Figure 3-6: Creating a New Script

NOTE: The Network button will only appear in dialog boxes if you have the latest version of COMMDLG.DLL.

3. In the Script Name text box, enter HELLO WORLD.
4. In the File Name text box, enter HELLO.SCR.
5. Choose OK.

The message "This file does not exist. Create the file?" displays.

6. Choose Yes to create the script file.

The Script editor window automatically displays so you can enter the script commands. The script name being edited displays in the title bar of the script editor dialog box.

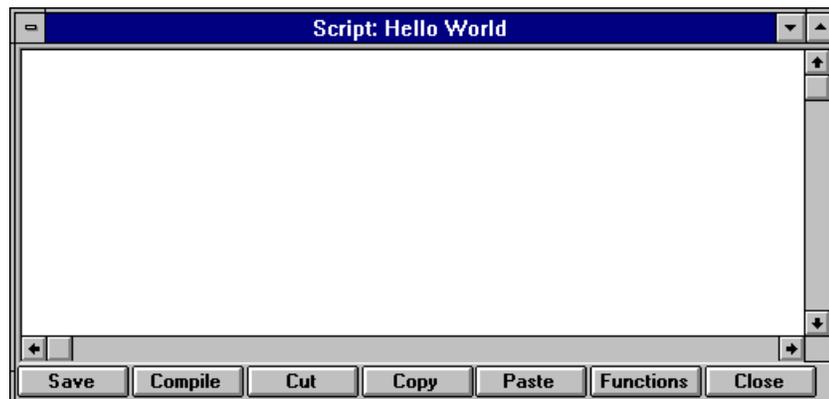


Figure 3-7: A New Script Editor Window

7. For the purpose of this tutorial, enter the following script command:

```
WRITELN "HELLO WORLD! "
```

The **WRITELN** script function is used to write a value (in this case, “Hello World”) to the screen at the receiving workstation.

NOTE: The commands and rules for using the scripting language are documented in Chapter 7 of the *Using BrightWorks* manual.

8. Choose Save.

The script is saved and the editor window remains open. The saved script contents are stored in ASCII text format.

NOTE: Scripts must be compiled before they can be used in a package. Continue with the following steps to compile the script.

9. Choose Compile.

While a compile is in progress, the Compile Status dialog box is displayed.

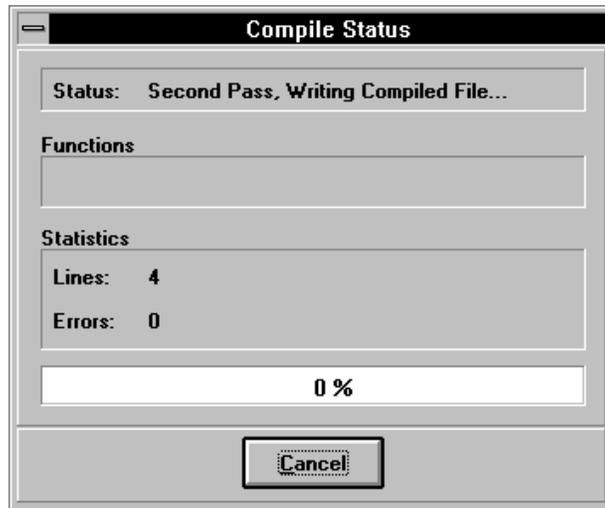


Figure 3-8: Script Compilation

When the compile is complete, the Status field in the Compile Status dialog box indicates success or failure. If the compile fails, the Function field indicates the first function found with invalid parameters. The Statistics area indicates the total number of lines in the script (Lines field) and the number of errors found (Errors field).

If you entered the script command exactly as shown in Step 5 above, your script should compile successfully.

10. Choose OK to continue.

The Compile Status dialog box closes.

11. Choose Close in the Script Editor dialog box to return to the Scripts dialog box.

The script's status displays as COMPILED. A script can be used in a package only after it has been compiled successfully.

12. Choose Close in the Scripts window.

Step 2: Creating a Scope

A scope is a group of workstations defined to receive a distributed package. Any number of workstations can be included in a scope definition.

Use the following procedure to create a new scope.

1. Choose Tools | Scopes.

The Scopes dialog box is displayed.

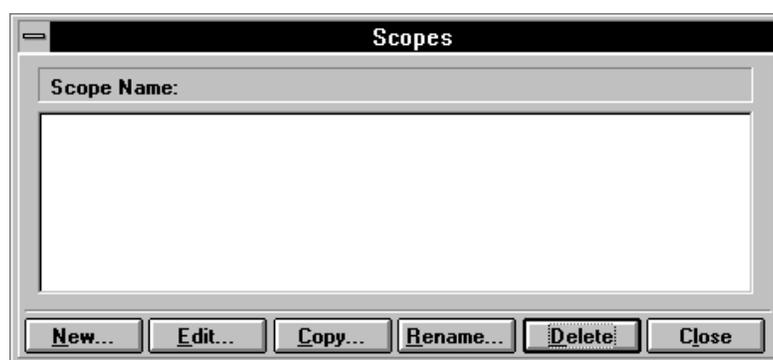


Figure 3-9: The List of Scopes

2. Choose New.

The New Scope dialog box is displayed prompting you to enter a name for the new scope.

3. In the Scope Name text box, enter TUTORIAL_SCOPE.
4. Choose OK.

The Edit Scope dialog box is displayed prompting you to define the new scope, similar to Figure 3-10.

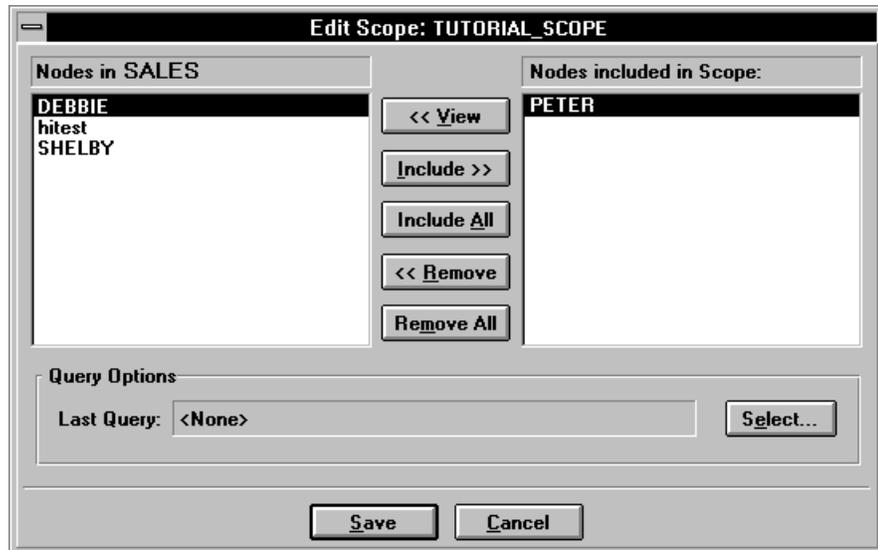


Figure 3-10: Editing a Scope

5. Choose Include All.

NOTE: The Query Options section of the Edit Scope dialog box is used to perform a query to filter the node names in the Nodes in SITE list. Refer to Chapter 8 in the *Using BrightWorks* manual for further information.

6. Choose Save.

The scope's membership is defined, and you are returned to the Scopes dialog box.

7. Choose Close.

Scheduling a Package

Software is distributed across your local area network by creating and activating a package. When a package is created, it is assigned a scope and a "Start Date." Upon reaching the start date and running the SDUPDATE.EXE program at a workstation in the scope, an active package is automatically sent to the workstation.

Use the following procedure to schedule a package consisting of the scope and script created in this tutorial.

1. Choose Tools | Packages.

The Packages dialog box is displayed. This dialog box lists the names and status information of all defined packages.

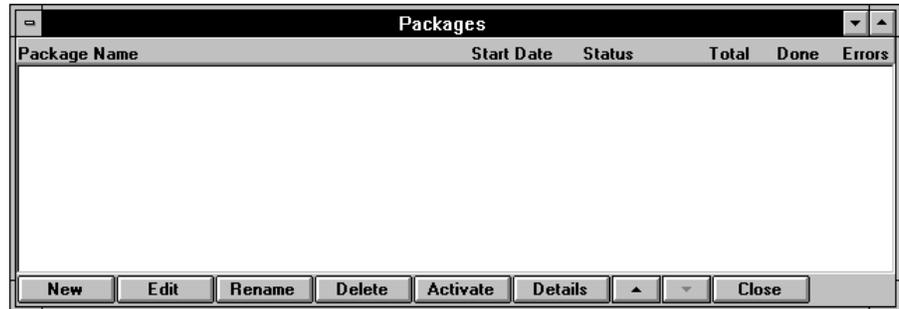


Figure 3-11: The List of Packages

2. Choose New.

The New Package dialog box is displayed prompting you to enter a name for the new package.

3. In the text field, enter TUTORIAL.
4. Choose OK.

A New Package dialog box is displayed. The name of the new package is indicated in the title bar of the dialog box.

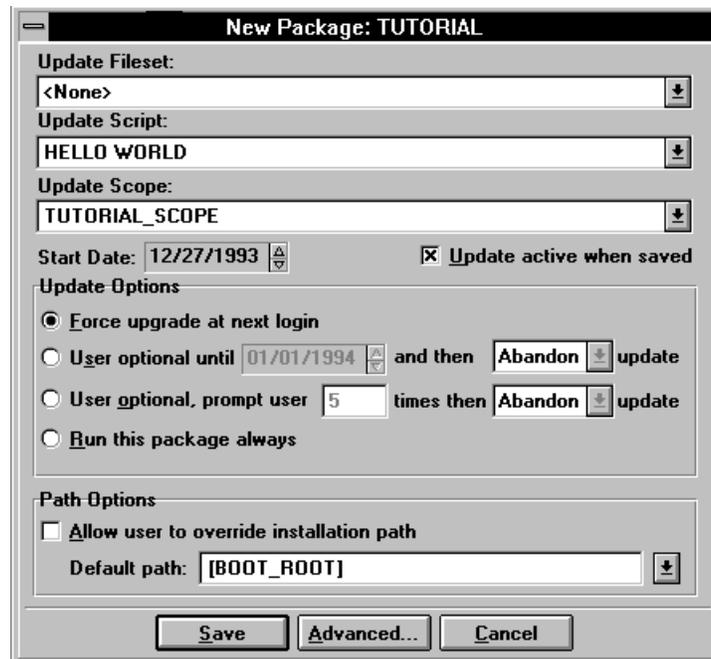


Figure 3-12: Creating a New Package

5. Select Hello World from the Update Script drop-down list box.

NOTE: A package must include a fileset and/or a script.

6. Select TUTORIAL_SCOPE from the Update Scope drop-down list box.
7. Select the Update active when saved option.

This option automatically places the package in an active state upon saving the package. (An active package will get distributed automatically on its assigned start date.)

8. In the Upgrade Options group box, select "Force upgrade at next login."

This option forces the package's receipt on the user at the next login. If an error occurs, the distribution is halted so you can address the problem and reschedule the package.

9. In the Path Options group box, set the Default Path to [BOOT_ROOT].

Even though this package does not consist of a fileset, a default path must be assigned to the package. The default path is the target path in which the distributed software (e.g., fileset) is to be installed or copied.

10. Choose Save.

The New Package dialog box closes, and the package is saved and assigned an active status.

Step 3: Running the Update Program

The distribution update program (SDUPDATE.EXE) is a DOS-based program which must be run from each workstation in order to receive the distributed packages it has been sent. Upon BrightWorks installation, the update program is copied into the BWORKS.200 directory.

```
SDUPDATE [drive:[\path]]
```

in which *drive* and *path* are optional parameters. The brackets are not typed.

Consider the following examples:

Example	Result
SDUPDATE	SDUPDATE will look in the current directory.
SDUPDATE F:	SDUPDATE will look in the current directory on drive F:.
SDUPDATE F:\path	SDUPDATE will look in the directory F:\path.

Use the following procedure to run the update program and distribute the active package.

1. At the workstation which is to receive the distributed package, load the Btrieve Record Manager.
2. Use the DOS CD command to change into the BWORKS.200 directory.
3. At the DOS command line, type: SDUPDATE.

Upon executing SDUPDATE, messages similar to the following will display at your workstation:

```
Looking for packages, please wait...
Installing package "TUTORIAL"...
Created target path.
Target path: C:\
Disk space: ### bytes free
Running Script "HELLO_WORLD"...
HELLO WORLD!
The script completed successfully.
No more packages scheduled.
```

This completes the distribution tutorial. All of the features introduced here are described in full detail in the *Using BrightWorks* manual.

Chapter 4 *Exploring Inventory Collection*

This chapter provides information for configuring the inventory capability and provides a tutorial introducing BrightWorks' inventory features.

Inventory Configuration Options

Before you begin to inventory your network components, you must verify that the appropriate rights have been granted to the BrightWorks program directory.

Assigning Rights To a Common Directory

Users need READ, WRITE, FILESCAN, CREATE and ERASE rights to the directory from which the EQUIP file will be executed. These rights are required in order to update the transaction and log files upon executing the EQUIP.EXE program.

Upon BrightWorks installation, EQUIP.EXE and all transaction and log files reside in the BWORKS.200 program directory.

Establishing a Separate Transaction Directory

If granting extensive rights to a program directory (i.e., the BWORKS.200 directory) is a concern, then follow the steps below to set up a separate “transaction directory” from which your users can execute EQUIP. *By doing so, your users will no longer need any rights to the BWORKS.200 directory.*

You may also want to create separate transaction directories to maintain individual network sites. Defining sites is useful for categorizing your inventory data. By establishing a separate transaction directory, you are defining a directory into which a site's inventory data will be collected. For example, you might want to maintain a separate inventory for your Sales Department. To do so, you must define a site for the Sales Department (e.g., the SALES site). You also must establish a separate transaction directory for the SALES site. The collected inventory data for all workstations included in the SALES site will be maintained in the new sales transaction directory.

NOTE: The BWORKS.200 program directory must always be defined as a site because it maintains the file server, MAC and stand-alone inventory data.

BrightWorks' software distribution capabilities can be used to distribute software and/or scripts to any workstation in the BrightWorks local site only (i.e., the site which identifies the BWORKS.200 program directory).

SHORTCUT: The instructions below should be used by those who wish to manually populate your transaction directory. Otherwise, choose Configure | Audit Parameters to display the Audit Parameters dialog box. Use the Define Sites property sheet to copy all necessary files to a transaction directory. Refer to Chapter 4, "Set-up and Administration" in your *Using LAN Inventory* manual for further instructions.

Use the following procedure to establish a transaction directory in which EQUIP can collect inventory data.

1. Create a transaction directory on the File server.

To allow all your network users access to the EQUIP inventory program, create the new directory on the file server. For example, create a directory named F:\BWORKS.200\SALES.

2. Grant rights to the transaction directory.

Users need READ, WRITE, FILESCAN, CREATE, and ERASE rights to the directory from which the EQUIP file will be executed. These rights are required in order to update the transaction and log files upon executing the EQUIP.EXE program.

3. Copy the required administration files into the new transaction directory.

Several administration files must be copied into the transaction directory; however, the files must first be configured using the BrightWorks console program.

a - To configure the administration files, choose the Configure | Audit Parameters. In the Audit Parameter Configuration dialog box, select the Software Options property sheet.

b - Select the Workstation software option and define the unknown file extensions and system files to be identified.

c - Choose OK to accept the configuration changes and exit BrightWorks.

d - Use the DOS Copy command to copy the following administration files into the new transaction directory. (The audit NLM may have some of these files open, and Novell's NCOPY or Novell's Filer might fail with "Sharing

violations" if the audit NLM has them open. The DOS Copy command, however, will not fail.

- WAUDCFG.DAT
- WFIDPC.DAT
- WIDPCSFT.DAT
- WSYSFLST.DAT

Copy the following files if you plan to inventory Macintosh machines:

- MACEQUIP
- WFIDMAC.DAT
- WIDMCSFT.DAT
- WMCSLIST.DAT

4. Copy the required EQUIP files into the new transaction directory.

The files required to execute EQUIP are:

- EQUIP.EXE
- BTRIEVE.EXE or BREQUEST.EXE (depending on the Btrieve method you are using at the client workstations)
- ENDBTRV.EXE
- WPCSLIST.DAT
- NRCALL.PID
- CPUTABLE.TXT

Several transaction files also need to be in the transaction directory. The first time EQUIP is run in a new transaction directory, you are prompted to instruct EQUIP to create the following files.

- WEQTRN.DAT
- WEQLOG.DAT
- WFREQNCY.DAT
- WTRSOFTT.DAT
- WSYSFTRN.DAT
- WSYSFLOG.DAT

NOTE: In order for EQUIP to execute properly, you should not copy the transaction files from the BrightWorks directory to the transaction directory manually.

5. Define the transaction directory as a Site.

Use one of the following methods:

- From the BrightWorks menu bar, choose Configure | Audit Parameters, and then select the Define Sites property sheet to define the new site and its path.

- When EQUIP first executes in the new transaction directory, you will be prompted to enter a Site name (if the Site has not yet been defined). Then define the site and its path from within BrightWorks by choosing Configure | Audit Parameters, and selecting the Define Sites property sheet.

NOTE: If BrightWorks finds the existing .DAT files, a message box is displayed prompting you to either choose Yes to use the existing path or No to redefine the path. In this case, you are returned to the Add Sites dialog box.

At this point, the new transaction directory is established. To include the transaction site data in your baseline (i.e., to include the data in an audit), choose Configure | Audit Parameters, select the Site Scope property sheet and include the transaction site in the audit scope.

From within the BrightWorks console, any changes made to the PC Software List, the “System Files to Inventory on Local Site” option, the “Unknown Files to Identify on Local Site” option or the Audit Parameters window options will update the files in the BWORKS.200 program directory. Refer to Chapter 7 in your *Using LAN Inventory* manual for a detailed explanation of the PC Software List. (The file names are WPCSLIST.DAT, WSYSFLST.DAT, WFIDPC.DAT and WAUDCFG.DAT, respectively.) To maintain the changes, you must copy the updated files into the transaction directory before running EQUIP again.

Before you perform an audit of your inventory databases, the WIDPCSFT.DAT file (the list of unidentified software) in the transaction directory needs to be appended to the same file name in the BWORKS.200 directory. Use a third party utility to append one file to another file. For example, Novell’s BUTIL.EXE or Magic Solution’s BU.EXE can be used to do this. (BU.EXE is shipped with BrightWorks. It is located in the self-extracting file named TOOLS.EXE in the BWORKS.200 program directory.)

For example, use the following procedure to use BUTIL.EXE to append the files.

1. Load Btrieve.

You can use either BTRIEVE.EXE or BREQUEST.EXE.

2. At the DOS prompt, enter the BUTIL -copy command, with the following syntax: BUTIL -COPY <source file> <target file>.

The command you enter may look similar to the following:

```
BUTIL -COPY f:\transdir\widpcsft.dat
f:\BWORKS.200\widpcsft.dat
```

3. Use the ENDBTRV command to unload Btrieve.

Note also that the BU.EXE COPY syntax is exactly the same as the BUTIL syntax; simply replace the BUTIL command with BU.

Improving BrightWorks' Database Performance

BrightWorks uses the Novell Btrieve Record Manager to manage its database records. Btrieve is integrated with NetWare and offers an extremely high performance mechanism for storing information. In addition, Btrieve is the basis for Novell's Network Management System (NMS), which allows McAfee to integrate easily with this important management platform. Btrieve must be loaded before running the EQUIP program. There are two methods of implementing Btrieve:

Method	Description
Server-based	All data processing is done at the file server by the Requester (the Btrieve NLM). Each workstation communicates with the NLM by loading BREQUEST.EXE in the local PC's memory. Brequest uses 31-45KB of RAM, depending on the options specified. (Version 6.10 or greater is required when using Brequest with BrightWorks.) It is much faster than the local Btrieve, but it requires, however, that the NLM be loaded on the file server.
Client-based	Workstations load an executable version of the record manager (BTRIEVE.EXE) and perform all data processing locally. Btrieve uses approximately 85KB of RAM and is much slower than Brequest.

NOTES: a - General instructions for configuring the Btrieve NLM are provided in Appendix C, "Using Brequest" in your *Using LAN Inventory* manual. Refer to your Novell documentation for details on configuring Btrieve.

b - When running the Requester, the BSPXCOM.NLM must also be loaded. Refer to your Novell documentation for details on loading these programs.

c - Verify that you are running the latest versions of the Btrieve files. Updated Btrieve files can be found on CompuServe in the Novell Libraries (GO NOVLIB).

EQUIP is fully compatible with both methods of access, but the BrightWorks console only supports server-based Btrieve. BrightWorks is shipped with BTRIEVE.EXE.

BrightWorks provides two batch files for loading Btrieve:

- BTR.BAT loads local Btrieve (BTRIEVE.EXE)
- BRQ.BAT loads server-based Btrieve (BREQUEST.EXE)

All batch files provided with BrightWorks are placed in the BWORKS.200 program directory upon installation.

Placing EQUIP in the Login Script

To ensure that EQUIP is executed on a regular basis, the EQUIP command can be placed in the system login script. The following example illustrates how EQUIP can be executed from within a system login script. BTRIEVE or BREQUEST must be loaded before EQUIP is run and unloaded after EQUIP has completed gathering the inventory.

```

. . . .
MAP F:=FS/SYS:BWOKRS.200
DRIVE F:
#BREQUEST /D:17000
#EQUIP /H /S
#ENDBTRV
. . . .

```

where F:=FS/SYS:BWOKRS.200 is the drive ID and complete path where the BrightWorks files are stored.

The login script can also call a batch file to execute EQUIP, as in the following example:

```

. . . .
MAP L:=server/vol:apps\BWOKRS.200
drive L:
#command /c DOEQUIP.BAT
DRIVE F:

```

where DOEQUIP.BAT is:

```

@echo off
endbtrv
brequest /d:17000
EQUIP /Hd /Sw /Yw /noshow
endbtrv

```

NOTE: EQUIP will launch using the above example provided your Comspec is set up properly.

In the above login script, the /c switch instructs the login script to close and return to the location where it started. This method is useful for all file servers, especially NetWare 4.X, which will avoid possible conflicts with Brequest.

NOTE: When mapping to the BWOKRS.200 directory, ensure that you use a straight logical map. MAP ROOTS and MAP INS are not allowed.

For further information regarding EQUIP and BTRIEVE, refer to Chapter 5, “Collecting Inventory” and Appendix C, “Using Brequest” in your *Using LAN Inventory* manual, respectively.

Inventory Collection Tutorial

This tutorial outlines the major steps in Using LAN Inventory to perform an inventory and a subsequent audit of network components.

This tutorial includes the following steps:

1. Collecting Inventory Data (using the EQUIP.EXE program)
2. Configuring the Audit Parameters
3. Running an Audit
4. Viewing the Audit Results (audit log and inventory details)

NOTE: BrightWorks must be installed on your network before beginning the tutorial. If you have not already done so, please refer to Chapter 2, "Installation." The options and features mentioned in this tutorial are discussed in detail in rest of this manual.

Step 1: Collecting Inventory Data

EQUIP.EXE is the program used to collect the inventory data of your networked PCs. The program is executed at the machine on which you want to perform the inventory. Inventory data includes hardware, software and system file information.

NOTE: Before running EQUIP you must set up the Btrieve database.

Use the following procedure to collect a workstation's inventory data.

1. Proceed to the PC workstation for which you want to collect inventory data.
2. Use the DOS CD command to change into the BWORKS.200 program directory.
3. Setup the Btrieve database.

BrightWorks provides two batch files which setup the Btrieve database. Issue the batch file which corresponds to the method of Btrieve you are using.

- BRQ.BAT automatically issues the Btrieve setup command and loads Brequest. Brequest uses 25-49KB of RAM, depending on the version and the command line switches used. It is approximately 250% faster than the local Btrieve. The BRQ.BAT file consists of the following:

```
BREQUEST /D:17000
```

- BTR.BAT automatically issues the Btrieve setup command and loads local Btrieve. Btrieve uses approximately 85KB of RAM, depending on the command line switches used. It is much slower than Brequest. The BTR.BAT file consists of the following:

```
BTRIEVE /P:3072 /F:22 /T:BTR.TRN /E
```

NOTE: Because of the increase in speed, Brequest is recommended for use at clients' workstations.

4. Issue the EQUIP command and collect the hardware and software component data for the PC you are using.

```
EQUIP /h /s <ENTER>
```

where */h* is the command line option used to specify hardware collection; */s* is the command line option used to specify software collection. Refer to "EQUIP Command Line Reference" in Chapter 5 in your *Using LAN Inventory* manual for a listing of EQUIP command line options.

5. Respond to the prompts that display the *first time* EQUIP is run in a transaction directory.

Skip this step if EQUIP has already been executed from the current directory.

a - The first time EQUIP is run from any transaction directory, you are prompted to create new database files. Answer Yes to this prompt by typing Y and pressing the ENTER key. The EQUIP program will create the required transaction files.

b - After the database files have been created, EQUIP then prompts you to enter a Site ID name. BrightWorks uses the Site ID to determine your workstation's location.

For example, enter the file server name as the Site ID. To do this, type:

```
(file server name) <ENTER>
```

where (*file server name*) is the name of your file server.

Upon pressing ENTER, EQUIP gathers the hardware and software information from the workstation.

NOTE: Follow Steps 1-4 above for each networked PC you want to inventory, or use the example described in "Placing EQUIP in the Login Script" on page 48 to automate inventory collection for networked PCs.

Step 2: Configuring the Audit Parameters

Several audit parameters must be defined before performing an audit of the collected inventory data. All audit configuration information is defined from within the BrightWorks console.

The audit parameters that are defined in this step of the tutorial include:

Parameter	Description
Audit scope	The sites and file servers to be audited
Audited components	The inventory components to be audited (i.e., hardware, software or both)

Use the following procedure to configure the audit parameters for this tutorial.

1. Choose Configure | Audit Parameters.

The Audit Parameter Configuration dialog box is displayed, allowing you to select the sites and file servers to be included in the audit.

2. Select the Site Scope property sheet.

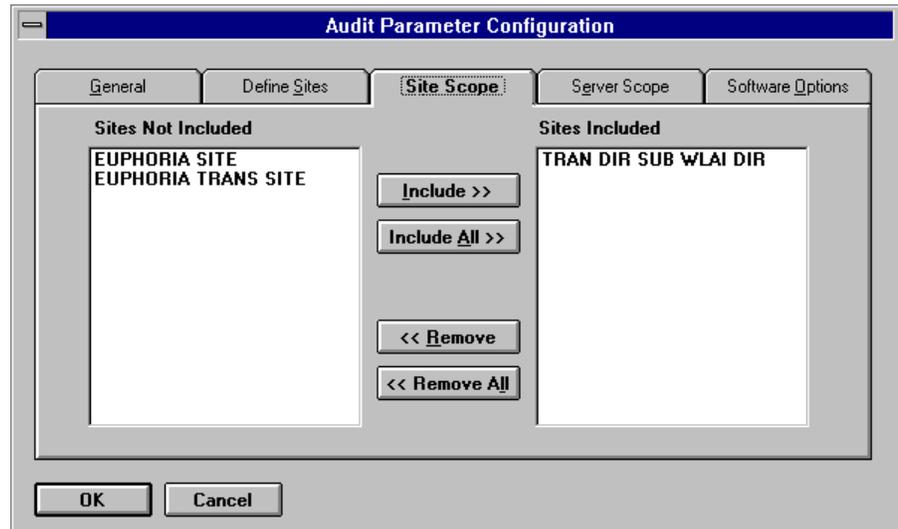


Figure 4-6: Site Scope Property Sheet

3. Select your local site from the Sites Not Included list.
4. Choose Include.

The selected site is moved to the Sites Included list.
5. Select the Server Scope property sheet.

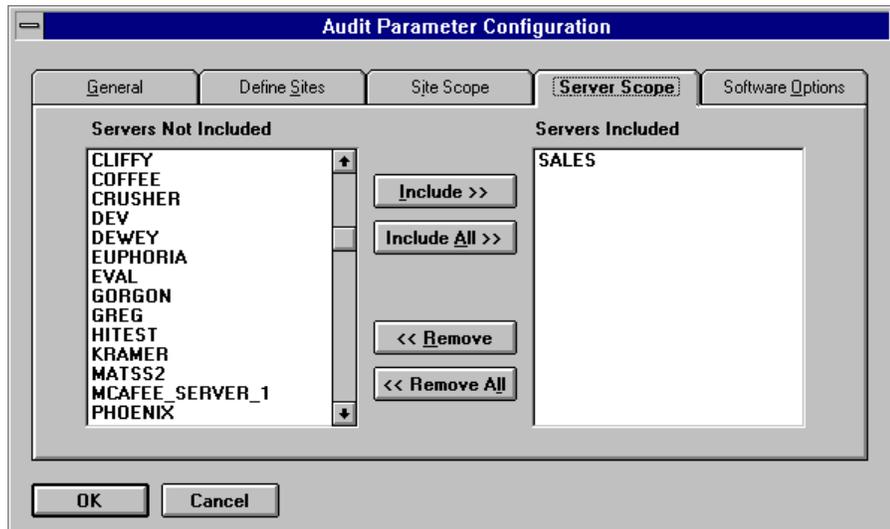


Figure 4-7: Server Scope Property Sheet

6. From the Servers Not Included list, select the file server on which BrightWorks is installed.
7. Choose Include.
 - The file server moves to the Servers Included list.
8. Select the General property sheet.

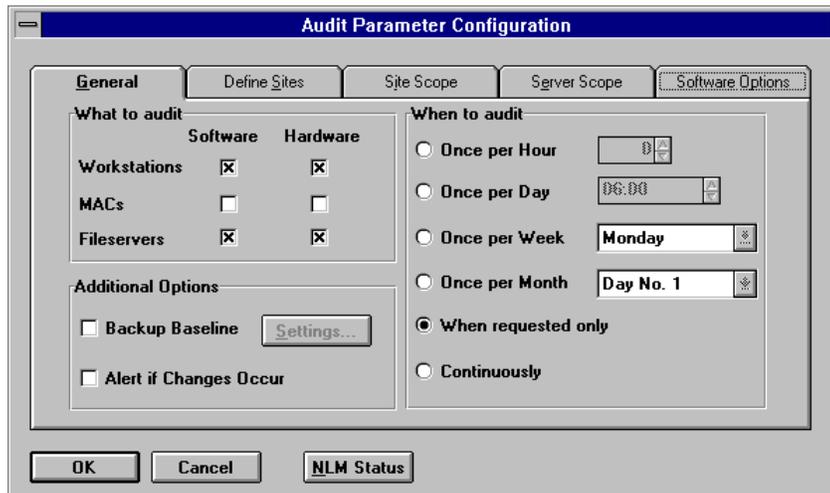


Figure 4-8 : The General Property Sheet

9. For this tutorial, select the following options:
 - What to Audit: PC Software and PC Hardware
 - What to Audit: Fileserver Software and Fileserver Hardware
 - When to Audit: When Requested
10. Choose OK.

When a file server is included in the scope definition, a Server dialog box is displayed.

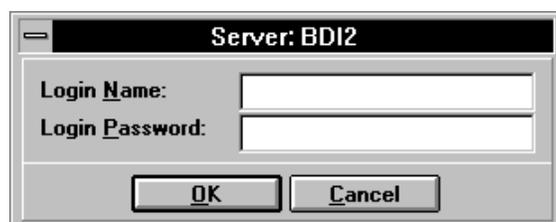


Figure 4-9: Including a File Server in the Audit

11. In the Server dialog box, enter a login name and password for the selected file server and choose OK.

NOTE: You must have Supervisor rights or equivalent to include a file server in the audit scope.

The configuration changes are saved.

NOTE: For further information regarding audit configuration procedures, refer to Chapter 4 in your *Using LAN Inventory* manual

Step 3: Running the Audit

Conducting an audit compiles the collected equipment inventory data from your workstations and file servers and adds it to BrightWorks' baseline inventory. Performing an audit updates the baseline inventory file to represent an accumulation of your most currently audited inventory information. The baseline inventory file provides data for various inventory reports, on-screen viewing, automatic notification of inventory changes, and the BrightWorks software distribution capability.

The audit process uses the currently defined audit parameters. Therefore, before you initiate an audit, you should verify that the audit parameters are set properly. (In the Step 2 of this tutorial, the audit scope was defined to include the local BrightWorks site.)

Use the following procedure to perform an audit.

1. Choose View | NLM Status.

The View NLM Status dialog box is displayed.



Figure 4-10 : View NLM Status Dialog Box

2. Choose Start.

NOTE: The NLM must be loaded. Refer to Chapter 2, "Installation" in *Using LAN Inventory* for instructions on loading the LI.NLM.

The audit process begins.

3. Choose Close when audit is complete.

NOTE: For further information regarding the audit process, refer to Chapter 6 in your *Using LAN Inventory* manual.

Step 4: Viewing Audit Results

As a result of performing an audit, BrightWorks' equipment and inventory files are updated and are available for viewing.

The audit results viewed in this step of the tutorial include:

- Audit log listing all audits with access to audit summary and detail information
- Inventory listing component data for PC/MAC workstations and file servers

Use the following procedure to view the audit log and inventory details.

1. Choose View | Audit Log.

The Audit Log dialog box is displayed listing all the audits that have been performed, the date, time, "BrightWorks" and the status for each audit.

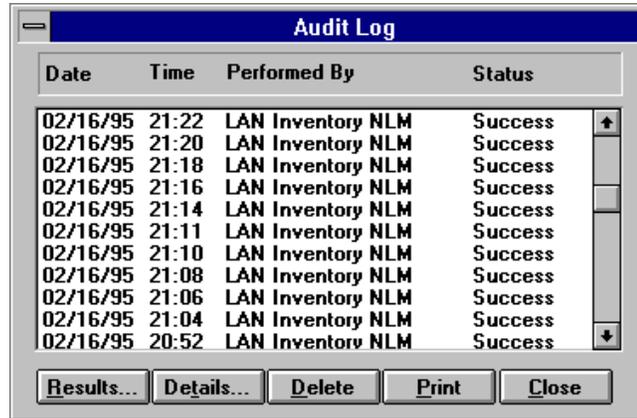


Figure 4-11: Viewing the Audit Log

2. To view the summarized results of an audit, select the audit from the Audit Log dialog box and choose Results.

The Audit Results dialog box is displayed and lists the summarized results of the selected audit.

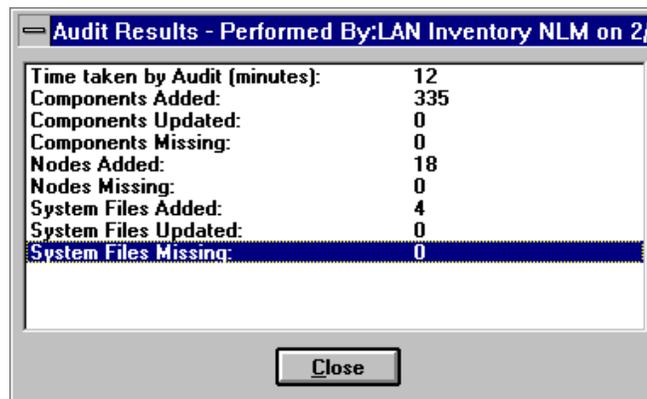


Figure 4-12: Viewing the Audit Summary Results

NOTE: The above Audit Results dialog box can also be displayed by double clicking on an audit in the Audit Log dialog box.

3. Choose Close to close the Audit Results dialog box.
4. To view the details of an audit, select the audit from the Audit Log dialog box and choose Details.

An Audit Details dialog box is displayed which contains an itemized list of audited components, nodes and system files.

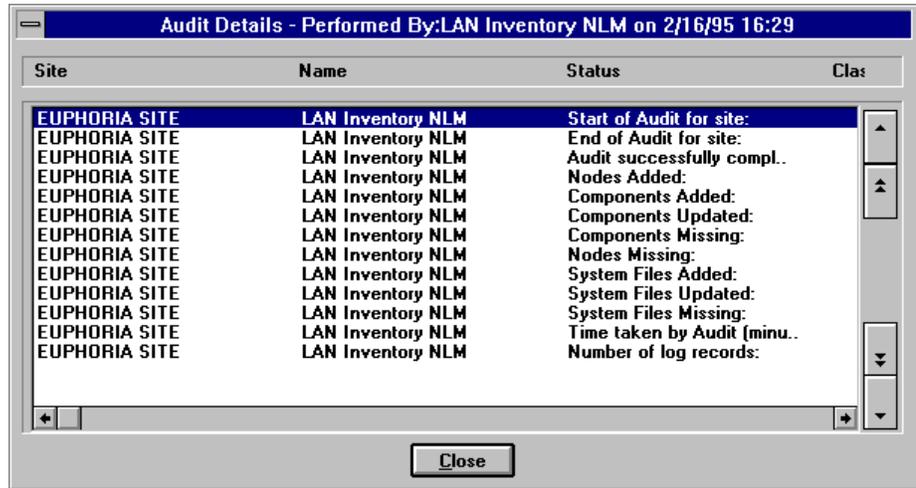


Figure 4-13: Viewing the Audit Details

Use the scroll buttons and scroll bars to view all the information.

5. Choose Close to close the Audit Details dialog box.
6. To view the inventory of your PC/MAC workstations and file servers, choose the Inventory tool bar button.

The Inventory window is displayed listing the workstations and file servers for each audited site.

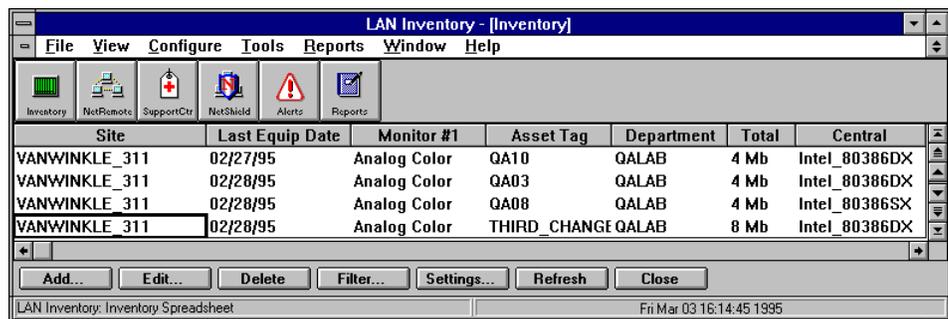


Figure 4-14: Viewing Inventory Data

Use the scroll buttons to view all the information.

7. Select a workstation type entry and choose Edit.

The detailed inventory data for the workstation is displayed in an inventory details dialog box.

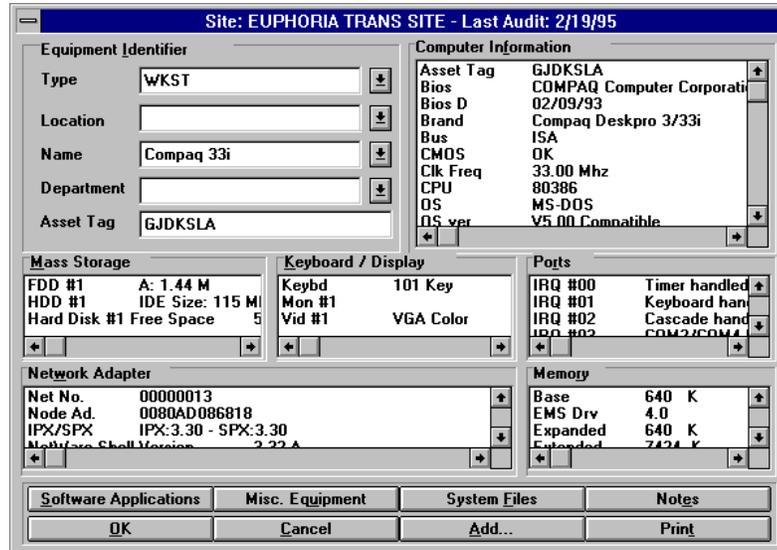


Figure 4-15: Viewing Inventory Details

Use the slide bars and arrows to view the information on the inventory screen.

The table below briefly lists the detailed inventory data displayed for PC and MAC workstations. A complete list of the detected equipment is provided in Appendix A of *Using LAN Inventory*.

PC Workstation	MAC Workstation
Computer Information	Computer Information
Mass Storage	Floppy drives
Keyboard/Display	Monitor type
Ports	Slot adapters and drivers
Network Adapter	Mounted volumes
Memory	

8. Choose Software Applications, Misc. Equipment, System Files and Notes to view additional component data regarding the workstation.

The corresponding dialog boxes provide detailed information regarding the selected workstation.

NOTE: You can also view the Software Applications, Miscellaneous Equipment, and Notes associated with a file server.

9. When you have finished viewing the information for the workstation, choose OK to return to the Inventory spreadsheet.
10. Choose Close to close the Inventory window.

This completes the inventory collection tutorial. All of the features introduced here are described in full detail throughout *Using LAN Inventory*.

Chapter 5 Exploring Software Metering

This chapter describes the metering features of BrightWorks and provides a brief tutorial.

Attaching to and Detaching from File Servers

BrightWorks offers flexibility in managing your network applications. Many of the configuration dialog boxes allow you to attach to and detach from file servers in a multi-server environment on your network.

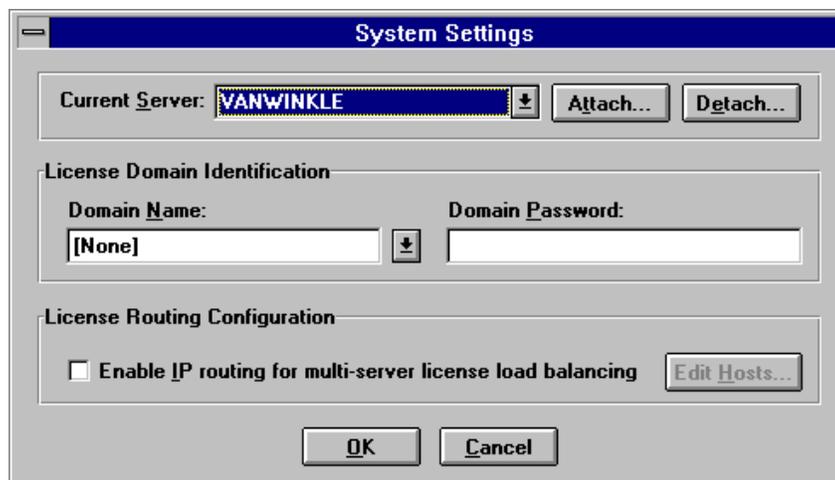


Figure 5-1: Sample dialog box with Attach and Detach Buttons

Using the Attach and Detach buttons, you can change file servers quickly and easily. In doing so, you can control software usage on any file server you want. This tool is particularly useful when you register applications for software metering and when you configure your network for enterprise metering.

The following sections describe the attach and detach procedures. Once you attach to a new server, it becomes the current server for the console until you change servers again. The steps outlined below assume you are at a dialog box with Attach and Detach features; the procedures work for any dialog box with these features.

Attaching to a File Server

Use the following procedure to attach to a file server.

1. Choose Attach.

The Attach to Server dialog box is displayed.

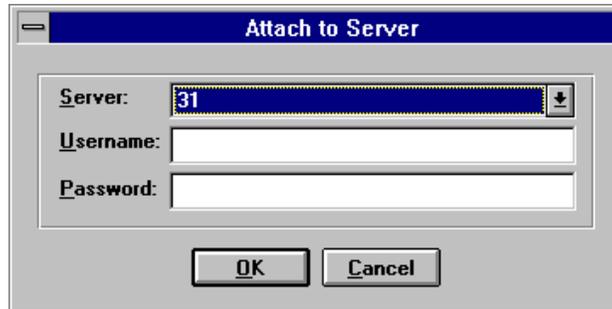


Figure 5-2: Attach to Server dialog box

2. From the drop-down list box, select the file server that you want to attach.
3. Enter your user name and password to attach to that file server.
4. Choose OK to exit this dialog box and attach to the selected server.

NOTE: When you attach to a server using the Attach button in the Define Metered Application dialog box you cannot browse for files on that server unless you have a drive mapped.

Detaching from a File Server

Use the following procedure to detach from the current file server.

1. Choose Detach.

The Detach From Server dialog box is displayed.

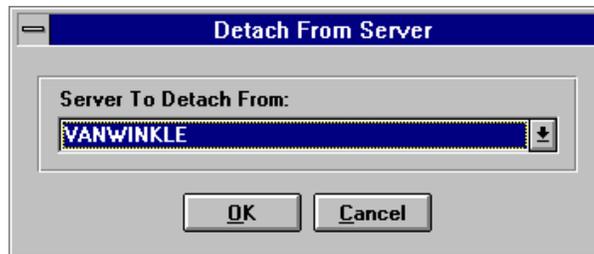


Figure 5-3: Detach From Server dialog box

2. Select the desired file server from the drop-down list box.
3. Choose OK to detach from this file server.

NOTE: You cannot detach from the file server from which the BrightWorks console was launched.

Software Metering Tutorial

This tutorial introduces you to some of BrightWorks' metering features. It uses the Windows Calculator utility to demonstrate how to register an application for software metering, view its usage on the application usage monitor and determine who the current and queued users are for that application.

Step 1: Registering Applications for Software Metering

To control the number of simultaneous users of an application, you must register the application with BrightWorks. This tutorial assumes you have the BrightWorks console displayed on your monitor.

Use the following procedure to register Calculator as a metered application.

1. Choose Tools | Metered Applications.

The Define Metered Applications dialog box is displayed.

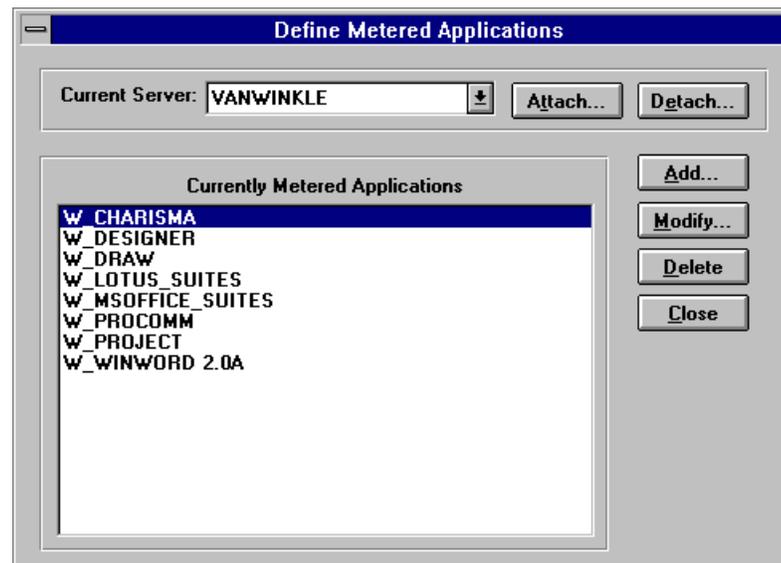


Figure 5-4: Defined Metered Applications dialog box

2. Choose Add to register a metered application.

The New Metered Application dialog box is displayed.

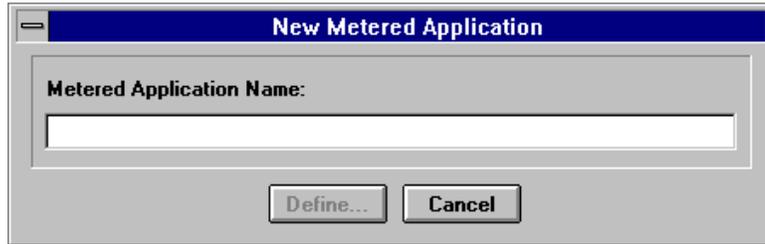


Figure 5-5: New Metered Application dialog box

3. Type “Calculator” in the Metered Application Name text box and choose Define.

The Define Metered Application: Calculator dialog box is displayed.

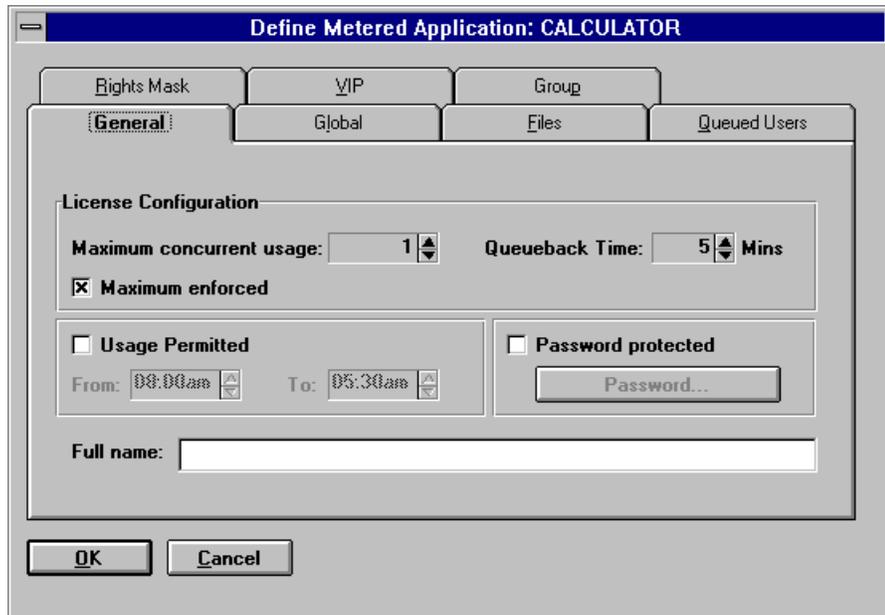


Figure 5-6: General property sheet in the Define Metered Application: Calculator dialog box

4. Select the Files property sheet.

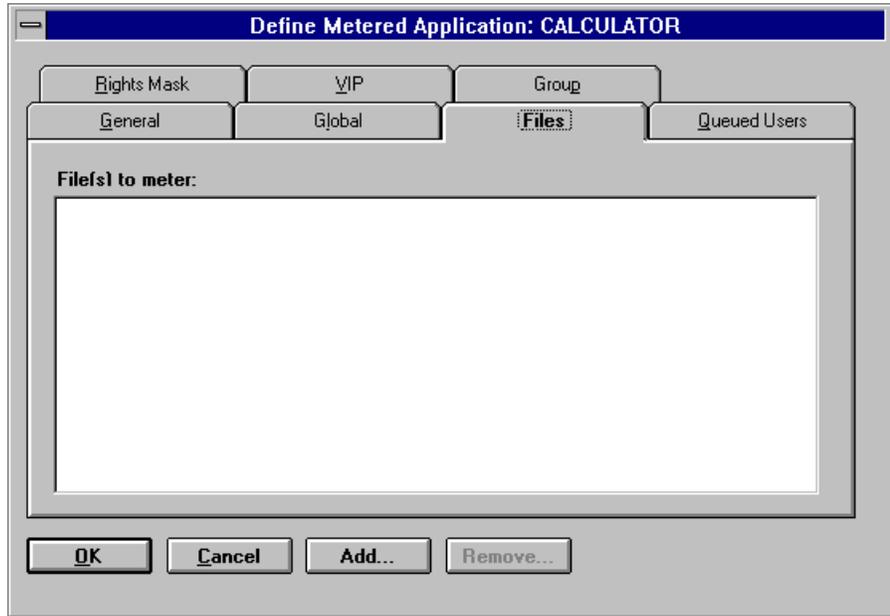


Figure 5-7: Files property sheet in the Define Metered Application: Calculator dialog box

5. Choose Add.

The Browse For Files To Meter dialog box is displayed.

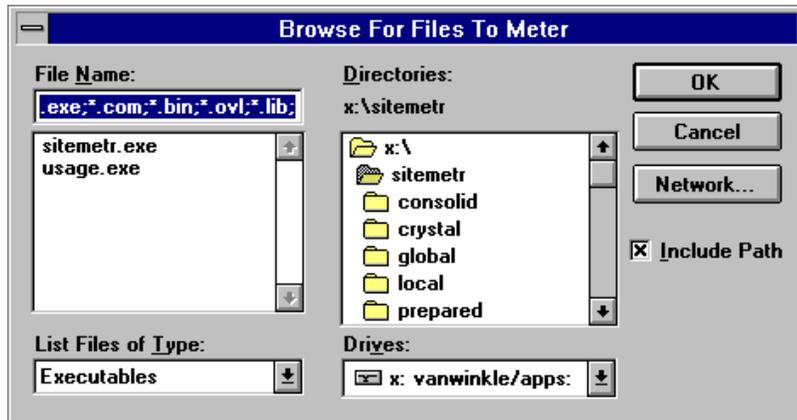


Figure 5-8: Browse for Files to Meter dialog box

This is a standard Windows dialog box for searching for files.

6. Locate your network Windows directory and select CALC.EXE.
7. Select the Include Path option and choose OK.

You are returned to the Files property sheet in the Define Metered Application: Calculator dialog box.

8. Select the General property sheet.
9. Type Calculator in the Full name text box.
10. Use the spin control to set the Maximum current usage to 2.
11. Use the spin control to set the Queueback Time to 10 minutes.
12. Choose OK to return to the Define Metered Applications dialog box.
13. Choose Close to exit this dialog box.

This procedure outlined some of the basic steps necessary to register an application for metering with BrightWorks. In fact, to meter an application, only the application files need to be specified, as in Steps 1 through 6.

BrightWorks offers numerous additional options that you can use to enhance your software metering. Refer to Chapter 4, “Setting Up Metered Applications” in the *Using SiteMeter* manual for information on password protection, group metering, VIP metering and time-based restriction.

Step 2: Monitoring Application Usage

Before monitoring or viewing application usage, run Calculator from your Windows shell. (This will ensure that at least one copy of the Calculator application is running.)

Use the following procedure to view Calculator application usage.

1. Choose Tools | Application Usage.

The View Application Usage dialog box is displayed.

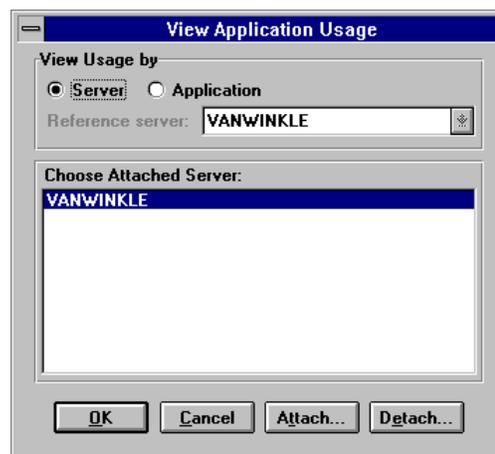


Figure 5-9: View Application Usage dialog box

2. Select the desired file server in the Choose Attached Server list box.
3. Choose OK.

The Application Usage window for the file server you have selected is displayed.

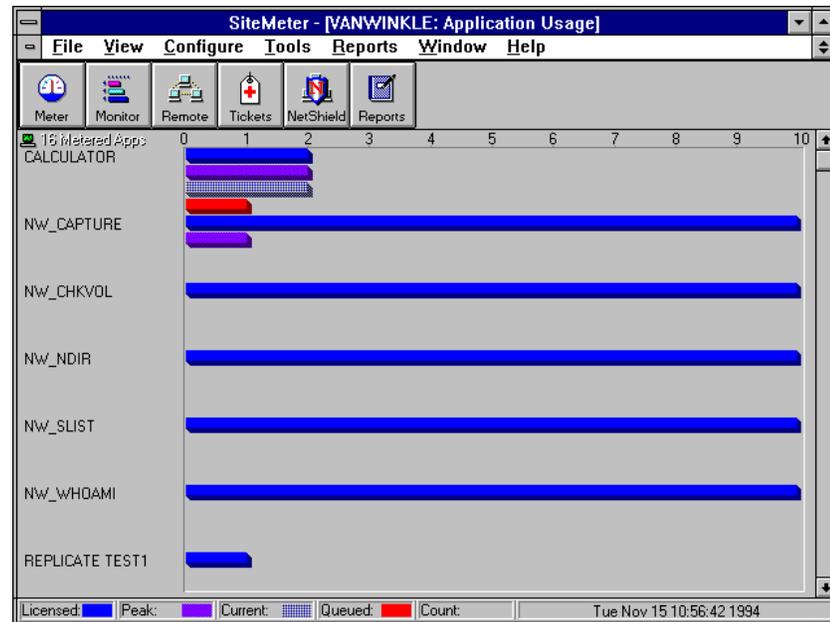


Figure 5-10: Application Usage window

4. Select Calculator from the list along the left-hand side of the window.
When the cursor is in this area, it changes to a magnifying glass.
5. Hold down mouse button 1 to display an infopop window.

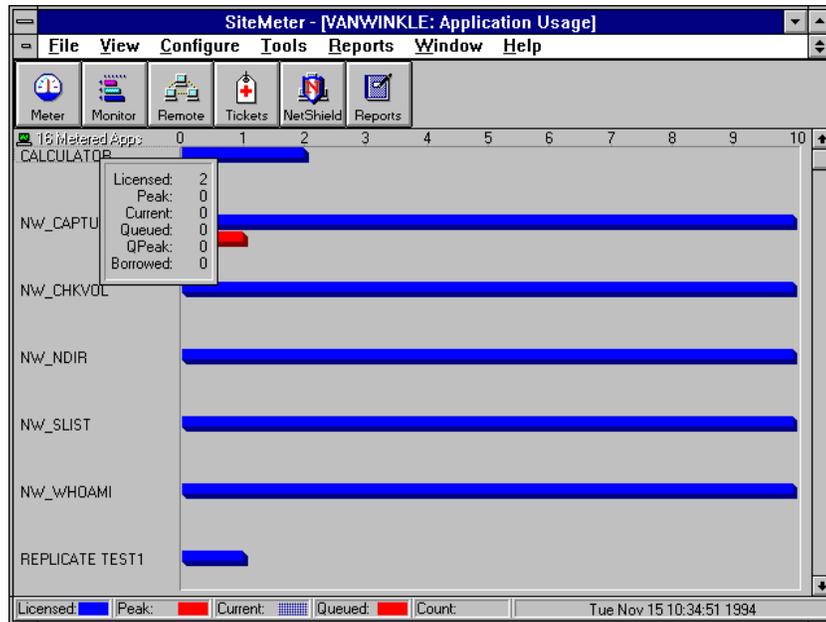


Figure 5-11: InfoPop Window with Number of User Information for Calculator

Step 3: Viewing Current and Queued Users

Use the following procedure to view the names of the users who are currently using Calculator.

- From the Application Usage window, position your cursor in the area to the right of Calculator.

A small menu box should be attached to the bottom right of the arrow. If there is no menu box, the cursor is not pointing to a place where information is available. Information is available where the number of users (queued, peak, current and licensed) are displayed on the graph bars.

- Hold down mouse button 1 to display a menu box.

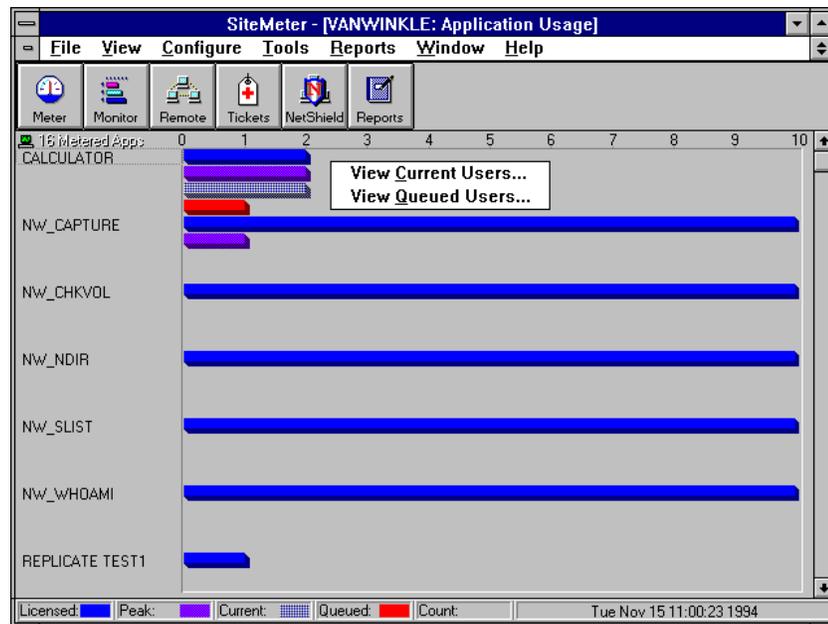


Figure 5-12: View Current/Queued Users menu box

- View Current Users - displays the list of current users for the selected application.
 - View Queued Users - displays list of queued users for the selected application.
8. Choose the View Current Users command.
- The Calculator on <file server>: Current Users window is displayed.

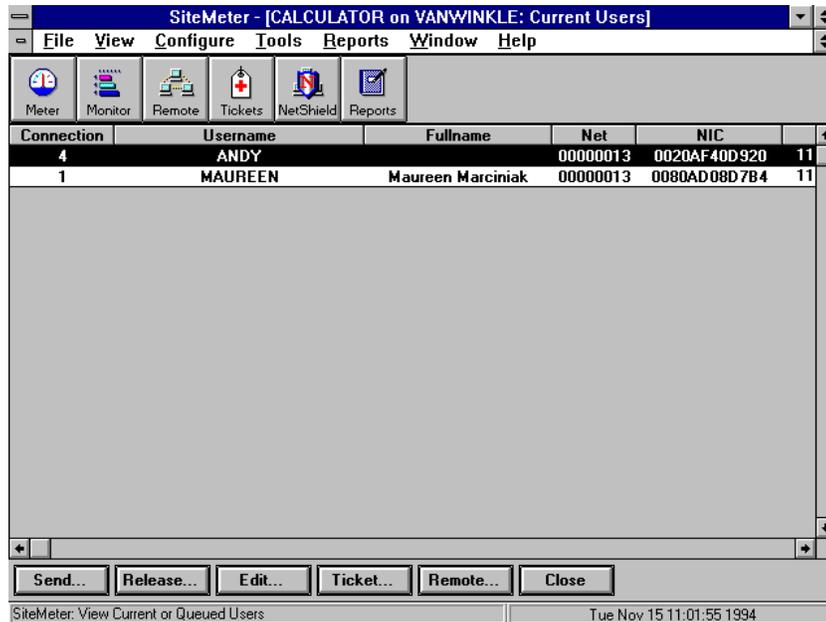


Figure 5-13: Calculator on <file servers>: Current Users window

This window lists the users who are currently using Calculator.

9. Choose Close to return to the Application Usage monitor.
10. Press CTRL+F4 to close the Application Usage monitor.

Step 4: Deleting an Application from Metering

You can remove an application from BrightWorks' metering capability. This procedure does not remove the application from your network—it merely releases it from being metered by BrightWorks.

Use the following procedure to delete Calculator from BrightWorks.

1. If you are currently running Calculator, exit the application.

An application cannot be removed from metering if a user is currently running the application.
2. Choose Tools | Metered Applications.

The Define Metered Applications dialog box is displayed.

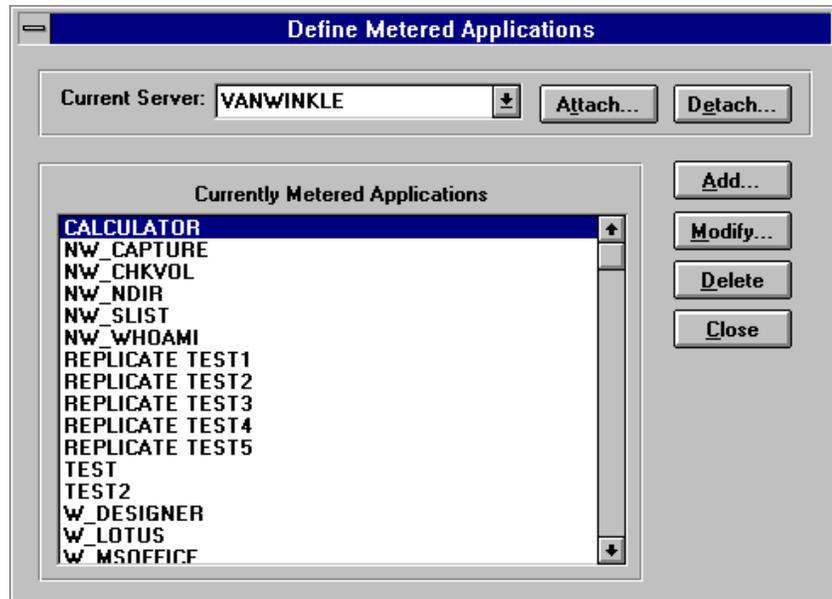


Figure 5-14: Defined Metered Applications dialog box

3. Select Calculator.
4. Choose Delete.

A BrightWorks message box is displayed.



Figure 5-15: Removing a Metered Application message

5. Choose Yes to delete the application.
6. Choose Close to return to the BrightWorks console.

Step 5: Configuring Your Network for Enterprise Metering

This tutorial walks through setting up enterprise metering on your network. The procedure is for two file servers and two workstations. Refer to Chapter 5 in the *Using SiteMeter* manual for detailed information and procedures on enterprise metering.

NOTE: The following tutorial requires that you have access to two file servers, File Servers A and B; and two workstations, Workstations A and B. In addition, BrightWorks and the SMRENT and SMRPROXY NLMs must be loaded on both file servers.

1. On File Server A, create the metered application Calculator.

Follow the tutorial in the previous section.

If the metered application already exists, a message box indicating this will appear.

2. Choose Tools | Metered Applications.

The Define Metered Applications dialog box is displayed.

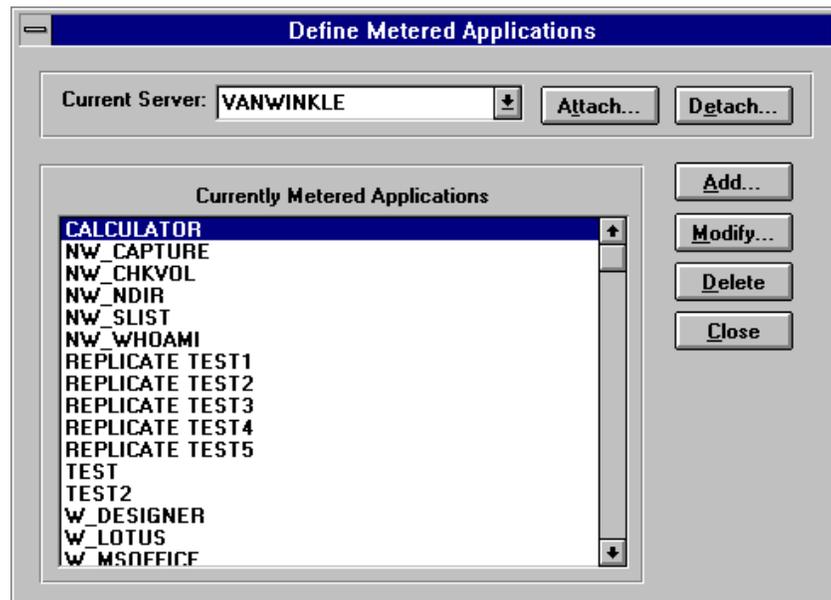


Figure 5-16: Defined Metered Applications dialog box

3. Select Calculator and choose Modify.

The General property sheet in the Define Metered Application: Calculator dialog box is displayed.

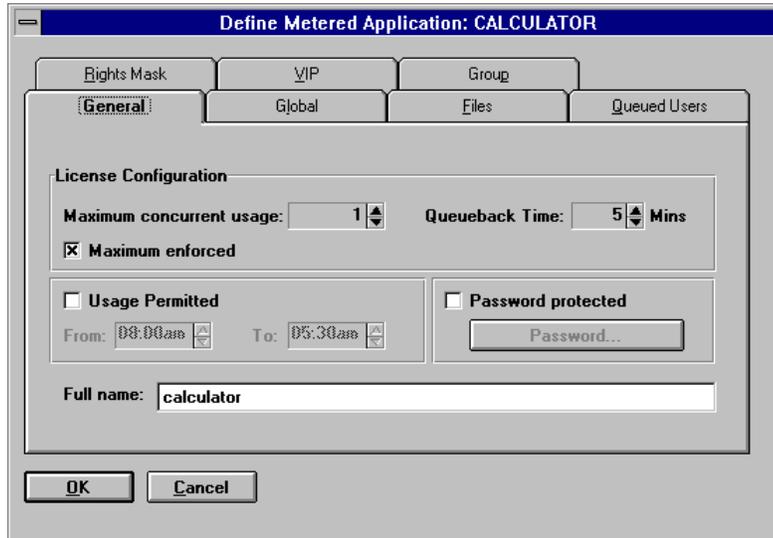


Figure 5-17: General property sheet in the Defined Metered Application: Calculator dialog box

4. Set the Maximum concurrent usage to 5.
5. Select the Global property sheet.

The Global property sheet in the Defined Metered Application: Calculator dialog box is displayed.

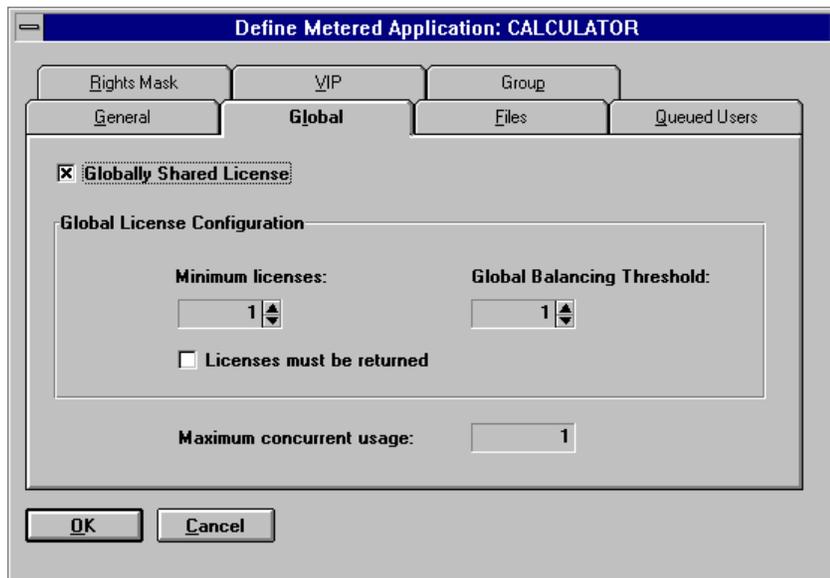


Figure 5-18: Global property sheet in the Defined Metered Application: Calculator dialog box

6. Select the Globally Shared License check box, set the Minimum licenses to 3, set the Global Balancing Threshold to 1, select the Licenses must be returned check box and choose OK.

NOTE: The minimum license number refers to the minimum amount of licenses retained for the “providing” file server. In this tutorial, there are a total of 5 licenses available for Calculator, but only 2 are available for lending because 3 are required to be retained by the providing file server.

By selecting the Licenses must be returned check box, you are sending a message to BrightWorks to search for a license at the time of being queued. If the check box is not selected, BrightWorks automatically searches to obtain a license.

7. Choose Close to return to the BrightWorks console.
8. Choose Tools | Replicate.

The Replicate Metered Application Configuration dialog box is displayed.

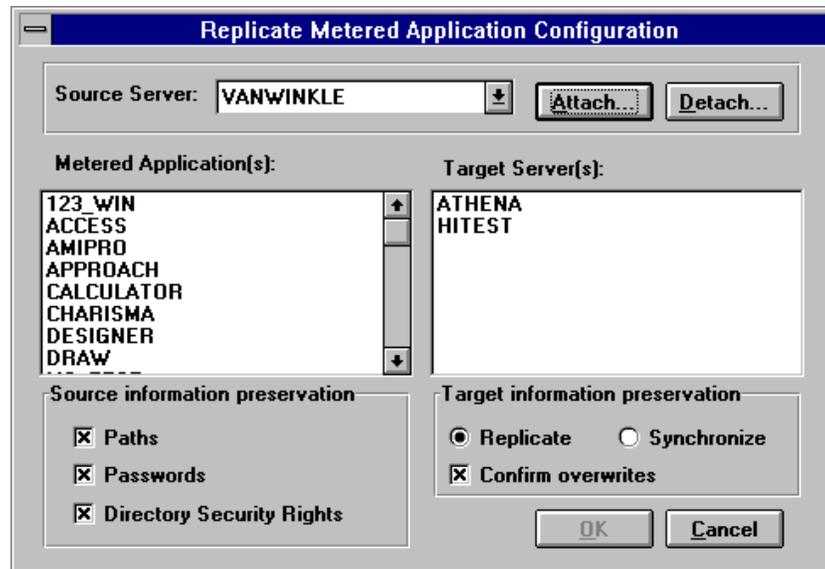


Figure 5-19: Replicate Metered Application Configuration dialog box

9. Attach to the desired File Server (File Server B).
10. Select the metered application Calculator from the Metered Application(s) list box, select the target server (File Server B) from the target server(s) list box, deselect the Paths check box, and then choose OK.

NOTE: By default, the Paths check box is selected. If you choose to replicate the paths, it is important to confirm that the directory trees for both file servers are parallel.

A BrightWorks message is displayed.

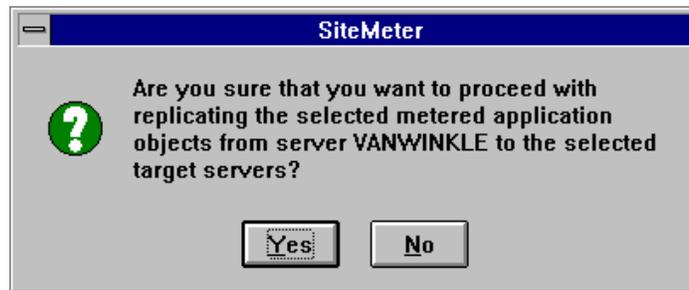


Figure 5-20: Replication message

11. Choose Yes to continue with the replication.

NOTE: A message may be displayed asking to confirm an overwrite. This message will occur if a duplicate metered application is found on the receiving file server. Choose Yes to overwrite the metered application.

12. Choose Tools | Metered Applications.
The Define Metered Applications dialog box is displayed.
13. Change current server to recipient server (File Server B), select Calculator from the Currently Metered Applications list box, and choose Modify.
14. Change Maximum Concurrent Usage to 0.
15. Select the Global property sheet.
The Global property sheet in the Define Metered Application: Calculator dialog box.
16. Confirm that the Globally Shared License Balancing check box is selected and the Global Balancing Threshold is set to 1.
The Replicate process transferred this information. If you remove this information, you will need to choose OK to continue.
17. Choose Close to return to the BrightWorks console.
18. Choose Tools | Application Usage.
The View Application Usage dialog box is displayed.
19. Select the Application radio button, select Calculator and choose OK .
20. From Workstation B, log in to File Server B and run Calculator.

At this time a Network Broadcast message is displayed. “Calculator unavailable, you have been queued.” Shortly thereafter, another Network Broadcast message is displayed. “Calculator available, will be held for 5 minutes.”

- 21. From Workstation B, run Calculator again.
- 22. From Workstation A, view the new Application Usage graph for Calculator.

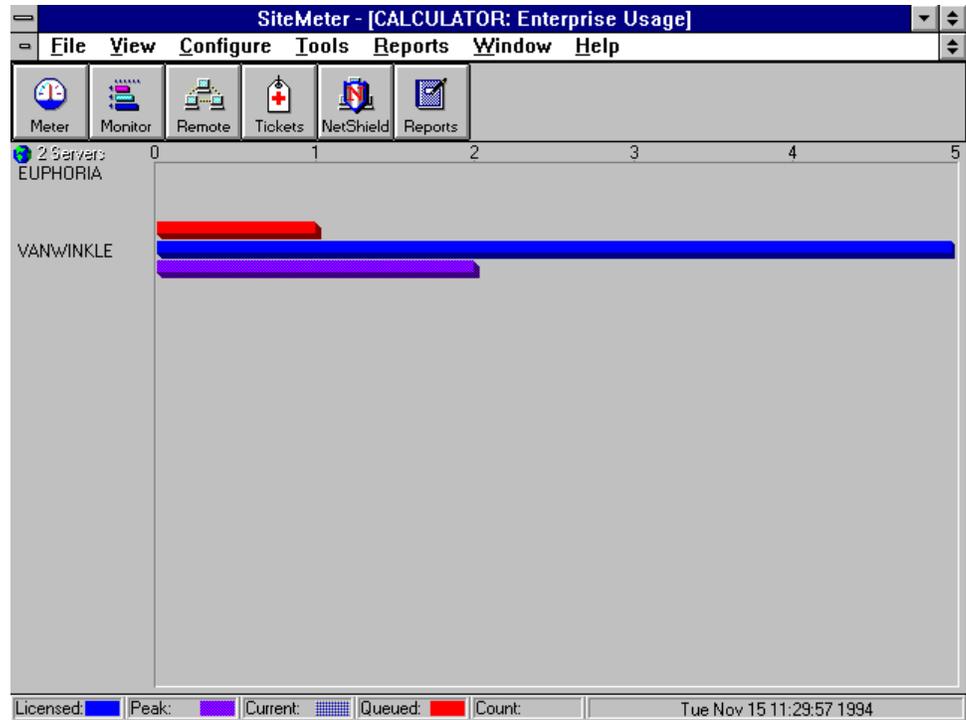


Figure 5-21: Application Usage graph for Calculator

- 23. From Workstation B, close Calculator.
- 24. From Workstation A, note the update.

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