Arcada Agents

Overview

Backup Exec for Windows NT Server gives you the option of backing up (or restoring) data from non-Windows NT workstations that are part of your Windows NT network system. These workstations, running the Macintosh, UNIX, and Windows 95 operating systems, use software modules called Arcada Agents that are designed for each specific operating system. These optional add-on modules can be purchased through your reseller or by calling Arcada directly at 1 (800) 3ARCADA.

This chapter guides you through the installation and configuration of the Arcada Agents.

Publishing Workstations

In order to back up your network workstations, they must communicate with the Backup Exec for Windows NT application. To communicate with Backup Exec, each workstation must have the appropriate Arcada Agent software module installed on it. Once installed, the agent workstation can then be seen by Backup Exec and its data can be backed up. Setting up a workstation to communicate with Backup Exec for Windows NT is called publishing a workstation.

Note: Published workstations can also have data restored to them by the Backup Exec for Windows NT Server application.

Arcada Agent notes:

- Arcada Agents are memory resident programs that make workstations running them visible to the workstation running the Backup Exec for Windows NT software.

- With Arcada Agents, users can publish whatever directories they want on their drives and assign aliases (descriptions) to describe what is being published. Users can also assign passwords to restrict access to the data they are publishing. Because these shares can only be seen by Backup Exec, they are transparent to any other enterprise user.

DOS/Windows 3.1 Support

DOS and/or Windows 3.1 machines can be protected if the following conditions exist:

• Novell NetWare LANs exist and are interconnected with your Windows NT networks.

• Arcada's Backup Exec for NetWare product is in use on the NetWare LANs.

• Backup Exec for NetWare's DOS and/or Windows agent software is installed and running on the workstations to be protected.

   Having met these conditions, Backup Exe can back up these platforms simply by making selections in its Networks window.

The Arcada Agent License

The Arcada Agent module(s) you purchase can be used on an unlimited number of agent workstations that are connected to ONE backup server. If you want to use multiple backup servers to protect these agent workstations, you must purchase an agent module for each additional backup server. Call Arcada Software at 1 (800) 3ARCADA or contact your dealer.

Arcada Agent Installation

This section guides you through agent installations for the following platforms:

• Windows 95

• Macintosh

• UNIX

   It also guides you through the creation of published folders on the Windows 95 agent computer.

The Arcada Windows 95 Agent

Overview

To use the Arcada Backup Exec Windows 95 agent, the Windows NT computer where Backup Exe is installed must be running either the Novell SPX or TCP/IP communications protocols. Choosing which protocol to use is your decision; either one can be used, or you can be run them both simultaneously. However, SPX is the recommended choice because if TCP/IP is used, the Backup Exec Windows 95 agent must be configured to advertise to specific backup servers. Using SPX, this is done automatically.

If you do use TCP/IP, make sure all Windows 95 agent computers are configured to advertise their IP addresses directly to those Windows NT computers to be used as backup servers and to those that will be used for remote administration purposes.

To set up and run these protocols, refer to your Windows NT documentation.

Important: If you use Dynamic Host Configuration Protocol (DHCP) and plan to use the Windows 95 Agent on TCP/IP, read the following:

By using DHCP to dynamically configure the IP address of the host computer running Backup Exec for Windows NT Server, the possibility exists that a different IP address will be assigned to the host computer each time it is turned on. Because the IP address assigned to the Arcada Agent during agent installation is supposed to match the IP address of the machine running Backup Exec, agent-to-host communication problems may occur since the host's IP address might change each time it boots.

In order to ensure the Arcada Agent consistently communicates with the Backup Exec host computer, you should RESERVE an IP address for the host running Backup Exec using the Windows NT DHCP Administrator program. Refer to your Windows NT documentation for details.

Microsoft includes an early version of the Arcada Backup Exec Windows 95 agent as a built-in feature of its Windows 95 operating system. Because Arcada has included an updated set of Windows 95 agent files on the Backup Exec Installation CD-ROM, you can easily upgrade the Backup Exec Windows 95 agent to its most current version.

The Backup Exec Installation CD contains a directory call \WIN95. In it are the files needed to upgrade the Windows 95 Backup Exec agent. The four files are named:

BKUPAGNT.EXE   BKUPAGNT.INF

BKUPPROP.DLL   BKUPNET.DLL

Use the following steps install these files on your Windows 95 workstation.

Note: If the Backup Exec Windows 95 agent is already installed and running on the Windows 95 workstation, use the following steps to shut down the agent. If the Backup Exec Windows 95 agent has not been installed on the Windows 95 workstation, skip to Upgrading the Windows 95 Agent .

Shutting Down The Windows 95 Agent

1. At the Windows 95 workstation, open the Network control panel.

2. Click Backup Exec Agent.

3. Select Remove.

4. Click OK.

5. Reboot the workstation.

Upgrading the Windows 95 Agent

1. From the \WIN95 directory on the Backup Exec Installation CD, copy the file, BKUPAGNT.INF to the \WINDOWS\INF directory on the Windows 95 workstation.

   Note: If Windows 95 is installed in a directory other than \WINDOWS, copy the file to the INF subdirectory of the directory where Windows 95 is installed.

2. Copy the files, BKUPAGNT.EXE, BKUPNET.DLL, and BKUPPROP.DLL to the \WINDOWS\SYSTEM directory on the Windows 95 workstation.

   Note: If Windows 95 is installed in a directory other than \WINDOWS, copy the files to the \SYSTEM subdirectory of the directory where Windows 95 is installed.

3. On the Windows 95 workstation, open the Network control panel.

4. Click Add.

5. Select Service.

6. Select Arcada Software|Backup Exec Agent

7. Click OK.

8. Reboot the Windows 95 workstation

   The newly upgraded Backup Exec agent will be running after restarting the Windows 95 workstation.

Adding Shares to the Windows 95 Agent Computer

To add shares, follow these steps:

1. From the Windows 95 Start button, select Settings|Control Panel.

    The Control Panel appears.

2. Double-click the Network icon.

    The Network window appears.

3. Double-click the Arcada Agent component found in the Configuration section of this window.

    A Properties for Arcada Agent dialog box appears. The following choices appear in this window:

General	
Disable network backup	Allows you to prevent this machine from being backed up. The computer can no longer be seen on the enterprise by the Backup Exec application.
Enable network backup	Allows you to backup this machine across the network.
Computer Name	This is the name of the Windows 95 computer.
Password	Allows share level password protection for all shares on this computer.
Current Status	Shows the current status of the Arcada Agent.
Registry	

Allow Registry to be restored	Allows this computer's Windows 95 Registry to be restored to this computer.
Published Folders	Also known as shares, these are folders available to be backed up.
Name	The published folder/share name that appears on the hard disk.
Path	The path where the data resides.
Access Control	Access control attributes such as Read Only (RO) or Requires Password (PW) can be assigned to each published folder/share.

4. Make sure Enable network backup is enabled. Click the radio button to activate it.

   If you want to be able to restore the Registry, click the check box, Allow Registry to be restored.

5. Click Add.

   A Select Folder to Publish dialog box appears.

6. Select a folder to add by double-clicking it.

7. Click OK.

   A Folders Detail dialog box appears listing the path and name of the folder just selected.

8. Select the Access Control attributes for this folder.

   If you've chosen to use an Access Control password, enter it now.

9. Click OK.

10. Close the Properties for Arcada Agent dialog box.

11. The Network dialog box re-appears.

12. Click OK.

13. A Properties for <Network Interface Card> appears.

14. Verify all hardware settings.

15. Click OK.

16. Restart the Windows 95 computer for your changes to take effect.

The Macintosh Agent

The Arcada Macintosh Agent module consists of two files found on the Arcada Macintosh Agent Installation Diskette:

- The Arcada Agent system extension

- The Agent Publisher control panel.

  The Arcada Macintosh Agent system extension is the component that communicates with Backup Exec for Windows NT Server. It allows Backup Exec to back up data from (or restore to) Macintosh workstations. This agent must be running on the Macintosh computer before backup or restore operations can be performed.

Once the software is successfully installed, the agent must be configured.

After the agent is configured and the Macintosh workstation is restarted, the workstation is ready for backup. Because the Arcada Macintosh Agent is a system extension, it is started during each normal Macintosh workstation start-up.

Important: Macintosh Operating System 6.x is not supported.

Usage Requirements

In order to use the Arcada Macintosh Agent, the following requirement must be met:

- The Windows NT Server that has Backup Exec for Windows NT Server installed on it, must have the AppleTalk communications protocol enabled. Windows NT Server uses AppleTalk to communicate with the Macintosh workstation. If AppleTalk is not enabled, refer to your Windows NT Server documentation for setup instructions.

  Note: Although the Macintosh computer must be physically connected to a Windows NT Server network through LocalTalk or EtherTalk, it does not need to be logged into the backup server to complete scheduled jobs.

Installing the Macintosh Agent

Important: To back up (or restore) the Macintosh workstation, the AppleTalk network protocol must be running on the Windows NT computer where Backup Exec for Windows NT is installed.

AppleTalk must also be installed at any Windows NT computer that might be used with Backup Exec's Remote Administration software.

To install the Arcada Macintosh Agent, use the following steps:

1. Insert the Macintosh Agent Installation diskette in the disk drive.

2. Double-click the diskette's icon after it appears on the desktop.

3. Choose Select All from the Edit menu, or press <Command + A> to select both files on the diskette.

4. Drag both files into the System folder icon.

    The Arcada Agent file will automatically be placed in the extensions folder and the Agent Publisher will be placed in the control panels folder. System 7 notifies you that this took place.

5. From the Apple menu, choose control panels. Next, select the Agent Publisher and open it.

    This section includes an example Macintosh Agent configuration.

The Agent Publisher Control Panel

The Macintosh Agent Publisher control panel is used to configure the Macintosh agent software to your suit your specific needs. You can add specific folders to protect, or remove them at a later date as your protection needs change.

Once the Macintosh Agent Publisher is installed on the Macintosh workstation, and during the initial activation of the Agent Publisher control panel, the software automatically adds each local hard drive on the Macintosh workstation to its list of Resource Names and Shared Folders to be protected. Once this is done, all data on these drives can be backed up using Backup Exec.

This section explains each of the fields found in the Agent Publisher window. Also included is an example Macintosh Agent configuration.

After opening the Agent Publisher from the control panels folder, the Agent Publisher window appears. Following are explanations for each field in the window.

Macintosh Name	The Macintosh Name identifies the published Macintosh workstation to Backup Exec for Windows NT Server. Each Macintosh agent MUST have a unique name. Backup Exec defaults to using the Macintosh name found under the Control Panels - Sharing Setup Network Identity option. If you want to publish the workstation under another name for Backup Exec operations, enter another name here.
Workstation Password Protection	The Workstation Name password prevents unauthorized users from gaining access to your Macintosh workstation. A padlock icon is used to indicate which Agent Publisher fields are password-protected.
	If the field is not password-protected, an open padlock icon appears.
	If the field is password-protected, a closed padlock appears.
	When your Macintosh workstation is accessed through the Backup Exec for Windows NT Server, the person accessing it will be prompted to enter a password. If you did not specify one, pressing the <Enter> key when prompted for a password will allow the person to access your Macintosh.
Disable/Enable	The Disable/Enable button allows you to turn the Arcada Agent off and on. When Disable is selected, the agent software will not be loaded upon system start-up. If the Disable feature is selected while the agent is running, the agent will be stopped. To restart the agent, click the Enable button and restart the computer.
Agent Status	The Agent Status field lists the agent's current status. Running means the Macintosh agent software is running in the background; Active means that a job is being performed on the workstation. Disabled means that the Arcada Agent is not running.

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Resource Names	A Resource Name is a description or label that identifies the contents of a folder or set of folders that have been assigned as Shared Folders.
Shared Folders	Shared Folders are folders on the workstation that are published for backup or restore purposes. This is similar to the Sharing feature of LocalTalk. Only drives and folders assigned as Shared Folders are eligible for backup or restore. Individual files cannot be specified as Shared Folders. You can publish up to eight folders.

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Add	The Add option allows you to publish additional Shared Folders.
Remove	The Remove option allows you to delete shared folder entries from the Agent Publisher dialog box.
Advanced Features	The Advanced Features button opens a box which allows you to configure more specific options for the agent publisher.

The Add Button

The Add button is used to add resource names and shared folders to the Agent Publisher. After clicking the Add button, the following dialog box appears. Each field is explained below.

Folder	The Folder field shows the name of the folder assigned as a shared folder. All subfolders and files found underneath it can be included in the backup. Only folders configured as shared folders can be backed up.
Set Folder	The Set Folder button brings up a directory listing that allows you to scan the drives and workstations on your Macintosh. To select a folder, simply move through the folder listing and click on the folder you wish to publish. Press Select to publish the folder.
Name	In the Name field, enter a short description of the contents of the folder listed in the Folder field. This name appears in the Networks selection window under Arcada Agents.
Folder Password Protection	The Folder password prevents unauthorized users from gaining access to the folder. When your Macintosh workstation is accessed through Backup Exec for Windows NT Server, the person accessing it will be prompted to enter a password. If you did not specify one, pressing the <Enter> key will allow the person to access this folder on your Macintosh. The Access Privilege icons are shown at the beginning of each shared folder entry in the Agent Publisher window.
Share	The Share button allows you to publish or share the folder listed in the Folder field. The button must be selected for operations to be performed on the Macintosh agent. Click the Share box to activate it.

Write Protect

Activating the Write Protect box prevents restore operations from being performed on the designated folder. If you want the capability of restoring data to this folder, make sure this box is not marked. Write protections are indicated by a small icon in the Resource Names and Shared Folders box. The icon resembles a pencil with a diagonal line though it.

Password Protection

There are two types of optional passwords that you can supply to protect against unauthorized backups or restores of your Macintosh agent:

• Workstation Name protection

• Shared Folder protection

   The Workstation Name password prevents unauthorized users from gaining access to your Macintosh workstation; the Shared Folder password prevents unauthorized users from backing up, or restoring to, specific shared folders that you've defined within the Agent Publisher.

A padlock icon is used to indicate which Agent Publisher fields are password-protected.

If the field is not password-protected, an open padlock icon appears. If the field is password-protected, a closed padlock appears.

The Name field password restricts unauthorized users from backing up or restoring Shared Folder data.

Note: Password-protecting shared folders that are not write-protected is highly recommended. This ensures greater security of your data.

Assigning, Changing, or Deleting Passwords

To add or change a password:

1. Click the padlock icon.

   A dialog box appears asking for a new password.

2. Type a new password and click OK.

   A dialog box appears asking you to confirm the password.

3. Type the password again and click OK.

   The dialog box closes and a password is now assigned.

The password-protected field is denoted by a closed padlock icon.

Important: If you lose or forget your password, you can still access the Macintosh workstation from within Backup Exec for Windows NT Server. Simply move to the Macintosh computer in question and double-click its Agent Publisher control panel. Delete the password using the steps below.

To delete a password:

1. Click the password icon.

    A dialog box appears asking for a new password.

2. Leave the dialog box empty and click OK.

    A dialog box appears asking you to confirm your password.

3. Click OK.

    The dialog box closes and a password is no longer assigned.

The non-password-protected field is denoted by an open padlock.

The Advanced Features Dialog Box

Within the Agent Publisher window is an Advanced Features button. Clicking this button brings up the Advanced Features dialog box.

Priority	The Priority buttons (Low, Medium, High) determine the backup performance of the Macintosh agent during a backup or restore operation. High priority is the default.
	Backup Exec backs up your Macintosh in the background (i.e., you can still use your Macintosh while the backup is running). The choice you choose for Priority directly affects the performance of your Macintosh during a backup or restore operation.
	High allows the best possible backup performance but degrades the foreground performance of the Macintosh during the backup operation.
	Medium allows average backup performance and average foreground performance during the backup operation.
	Low allows limited backup performance and the best possible foreground performance during the backup operation.
	It is recommended that you schedule your Macintosh agent backups during evening hours or during times of light Macintosh activity. Scheduling in this manner will help you avoid the performance degradation that normally occurs when performing background operations.
Default Creator Type	When files created on other operating systems such as DOS, OS/2 or UNIX are restored to the Macintosh workstation, a Default Creator Type must be assigned to the files in order for you to be able to open them. This is necessary because files from non-Macintosh operating systems have different file format structures.
	For example, files such as ASCII text files created on a DOS workstation may be restored to the Macintosh disk. When they are restored, they have no creator application associated with them. The Default Creator Type allows you to specify an application with which to open these types of files.
	The Arcada Macintosh Agent defaults to using TeachText (or SimpleText with System 7.5 or later) as a Default Creator Type application. Using the Set button, you may select a different application to suit your needs.
Set	The Set button allows you to choose the Default Creator Type application. If you are restoring files created with a companion product on another platform, click the set button and select the application from the folder listing. The default creator type will automatically be entered for you.

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Reconfiguring the Agent Publisher

If you later decide to reconfigure the Agent Publisher, you must restart the Macintosh workstation in order to activate the new Agent Publisher entries.

A Sample Macintosh Agent Configuration

This sample configuration describes the steps necessary to manually add or remove Macintosh agent folders to the Agent Publisher control panel application.

Manually Adding a Drive

1. Open the Agent Publisher from the control panels folder by double-clicking the Agent Publisher icon.

    The Agent Publisher window appears with the Macintosh Name present. The Macintosh name defaults to the name you've chosen under Owner's Name within Apple's Sharing Setup control panel.

If you want to password–protect this machine, click the padlock icon and add a password.

2. Click the Add button.

    An Add dialog box appears.

3. Click the Set Folder button.

    An Apple dialog box appears.

4. Click Desktop.

    A list of installed hard drives appears.

5. Highlight a hard drive name by single-clicking it.

6. Click Select.

    The hard drive name appears in the Add dialog box's Folder field and the cursor moves to the Name field.

7. In the Name box, type a description of the hard drive.

8. Make sure the box, Share, is marked with an X (default setting). If it is not, click the box to activate it.

    Note: If you want the capability of restoring data to your Macintosh workstation, make sure the Write Protect box is not marked.

If you want password protection, click the padlock icon and add a password. This password restricts unauthorized users from accessing previously defined and published path data.

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9.____Click OK.

To protect another hard disk, repeat steps 2 through 9.

10. Click OK to add your configuration choices.

11. Click the Close box in the upper left hand corner of the Agent Publisher window. This saves all configuration information.

12. Shut down and restart the Macintosh.

All configurations are now active.

This completes the sample Agent Publisher configuration.

Removing a Drive

To remove a drive from the Agent Publisher's Resource Names and Shared Folders list:

1. Highlight the drive to remove by single-clicking its name.

2. Click Remove.

3. Close the Agent Publisher by double-clicking its Close box.

The UNIX Agent

The Backup Exec UNIX Agent allows Windows NT Server network administrators to perform backup and restore operations on UNIX workstations that are connected to the network.

Usage Requirements

In order to use the Backup Exec UNIX Agent, the following requirements must be met:

• The Windows NT Server machine must be configured to run the TCP/IP communications protocol. Windows NT uses TCP/IP to communicate with UNIX workstations.

Important: If you use Dynamic Host Configuration Protocol (DHCP) and plan to use the UNIX Agent on TCP/IP:

By using DHCP to dynamically configure the IP address of the host computer running Backup Exec, the possibility exists that a different IP address will be assigned to the host computer each time it is turned on. Because the IP address assigned to the Arcada Agents during agent installation is supposed to match the IP address of the machine running Backup Exec, agent-to-host communication problems may occur since the host's IP address might change each time it boots. In order to ensure the Arcada Agents consistently communicates with the Backup Exec host computer, you should RESERVE an IP address for the host running Backup Exec using the Windows NT DHCP Administrator program. Refer to your Windows NT documentation for details.

Installation Requirements

• You must have ROOT privileges during the installation process.

• Make sure the UNIX workstation has a minimum of 700k of free hard disk space. (The actual agent runs in less the 150k of memory, but the install process requires more.)

• After the installation is completed, the UNIX workstation must be rebooted in order to activate the Arcada UNIX Agent software.

• Make sure all UNIX agent computers are configured to advertise their IP addresses directly to those Windows NT computers to be used as backup servers and to those that will be used for remote administration purposes.

Supported UNIX Versions

The Arcada UNIX Agent software supports the following UNIX OS versions:

SCO Release 3.2 v4.x   Univel UnixWare v1.0, v1.1

Solaris 2.3   SunOS Release 4.1.x

HPUX 9.x

Note: This section does not contain a sample configuration because the UNIX agent is configured during the installation process.

The install program presents a series of questions about the installation you are performing. The agent configuration information is saved to a text file called agent.cfg. To reconfigure the Arcada UNIX agent, simply edit the agent configuration file and make your changes.

Note: Items in [ ] are default answers which can be accepted by pressing the [Enter] key.

Sun SPARCstations and NIS:

Before installing the Backup Exec UNIX agent on a Sun SPARCstation using Name Information Service (NIS), the network administrator MUST modify the network's master database /etc/services file.

Use the following steps:

1. Make sure you have superuser rights at the master server.

2. Edit the input file (/etc/services) for the map you want to change.

3. Add the line:

    grfs 6101/tcp # Arcada Agent

4. Type the following:

    ```
    #  cd /var/yp
    #  make services.byname
    ```

    The make command will update the NIS map according to the changes made to the input file. The make command then propagates the changes to all other NIS servers on the network.

After all NIS database changes have been made, the Arcada Agent should load and run properly.

UNIX Agent Installation

To install and configure the UNIX agent software, use the following steps:

Important: Make sure you have ROOT privileges before beginning this installation procedure.

Note: The Arcada UNIX Agent keeps a list of backup servers which are allowed to access the workstation. The Windows NT Server server's names and IP addresses must be in the /etc/hosts file.

1.   Place the UNIX Agent Installation disk in the workstation's 3 1/2" floppy drive.

2.   Create a temporary directory. If you prefer, you can use the system's /tmp directory.

3.   Change to the temporary directory you want to use.

4.   At the command line, type: tar xvf /dev/rfd0.

5.   From the temporary directory, run the installation script.

   Example:_____#./install

The installation screens appear:

Backup Exec Unix Agent Install v3.203

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Installing the Arcada Agent for target platform: sco

Please enter the full directory path where the Arcada Agent should be installed. [/etc/bkupexec]

Note: If the full directory path that you've specified does not exist, you will be asked if it should be created.

Your system's initialization procedure has been modified to automatically start the Agent the next time your system is started.

All necessary Arcada Agent files have been copied to: /etc/bkupexec

The configuration for the Arcada Agent is stored in /etc/bkupexec/agent.cfg. You may edit this file at any time to change the configuration for the Agent.

You will now be prompted to enter the initial values for the Agent configuration.

Press Enter to continue

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6.____A prompt appears asking for the name of the UNIX workstation.

Please enter the name for this workstation [your network name]

Note: The workstation name uses the network node name as a default. If you decide to use a different name, make sure it is a unique name not used by other Arcada UNIX Agents.

7.   A password question appears:

Do you require a password for this workstation? (y/n)

If you answer y, enter a password at the next prompt:

Please enter the password for this workstation:

8.   A prompt appears asking for a directory path to publish:

Please enter a directory path you want to publish:

Note: If you want to back up the workstation's entire hard disk, simply define a directory path as "/". This allows the network administrator to select the entire disk for backup.

You can create and publish up to eight unique directory paths.

9.   The resource name prompt appears:

Please enter a unique resource name for this published path:[ ]

Note: The resource name is used by the Backup Exec for Windows NT Server to identify the contents of each published path.

The next question determines whether Restore operations are allowed for this published path:

Do you wish to allow files to be restored to this published path? (y/n)

10. Enter n if you do not want restore privileges for this published path.

A password prompt appears:

Do you require a password for this published path? (y/n)

If you answer y, you are prompted to enter a password. This password will be required before anyone using Backup Exec for Windows NT Server can perform operations on your workstation.

If you answer n, the next prompt asks if you want to define more directory paths.

Do you want to publish another directory path? (y/n)

Note: You can create and publish up to eight directory paths. To publish more directory paths, repeat steps 8 through 11.

Next, you are prompted for backup server names:

11. Enter a backup server name when the following prompt appears:

You must enter the names of the backup servers which will access this workstation.

Please enter a backup server name:

After entering a backup server name, the server is located and added to the list of valid backup servers.

Locating [server name]....located and added to list.

Note: You can add an unlimited number of backup servers to your UNIX agent configuration file.

12. You are presented with a message and a prompt requiring your response:

The Agent must periodically send advertisement messages to the backup servers so the backup servers know that this workstation is accessible. Please enter the frequency (in seconds) that these advertisements should be sent: [60]

It is recommended that you use the default frequency.

The final configuration step discusses symbolic links:

13. To back up symbolically linked directories, choose either Method 1 or Method 2:

Symbolic links may be backed up in one of two ways.

Method 1: The symbolically linked directory is handled as a special file and only the information required to create the symbolic link is backed up.

Method 2: The symbolically linked directory is backed up as a normal directory. All files and subdirectories within the symbolically linked directory are also backed up.

Which method do you want to use? (1 or 2) [1]

After answering step 13, your Arcada UNIX Agent configuration is complete. A status message appears:

Configuration complete.

Note: You may edit the file agent.cfg to change your agent configuration at any time. Changes to the configuration file will take effect after the UNIX agent is restarted.

The Agent.cfg File

Each UNIX workstation set up as an Arcada UNIX Agent contains all of its configuration information in a text file called agent.cfg. By default, agent.cfg is installed on each UNIX agent workstation in the /etc/bkupexec subdirectory.

Editing the Agent.cfg File

Any text editor can be used to make changes to agent.cfg. The first portion of the agent.cfg file contains instructions that define and explain each of the configuration lines. The actual agent configuration commands are found at the end of the file.

Agent.cfg Commands

The following table lists the commands and parameters used with the Arcada UNIX Agent.cfg file. Commands are italicized; parameters within [ ] are optional.

Agent .cfg Commands	
Command [<Parameter>]	**Definition**
name <workstation name>	Workstation name appears in the Backup Exec for Windows NT Server selection screens. This item is optional. If a workstation name is not provided, the Agent program will use the workstation's network node name (i.e., uname -n).
password <passwd>	In order to access this workstation, the person using Backup Exec for Windows NT Server to access the workstation must enter the password. This item is optional. If a password was not provided during installation, the Backup Exec administrator must simply press <Enter> when prompted for a password.
export	Export is used to specify a directory tree to publish so that it may be accessed by Backup Exec for Windows NT Server.
<resourcename>	Resourcename is the name that appears in the Backup Exec for Windows NT Server Networks window under Arcada Agents. It identifies the exported paths of the agent workstation.
[write_protected]	If write_protected is specified, the published path can be accessed for backup operations but not for restore operations.
<password>	If password is specified, the person using Backup Exec for Windows NT Server will be required to enter the password, <passwd> before the published path can be accessed.
[include_remote]	If include_remote is specified, remotely mounted (NFS) file systems will be accessible through their normal mount points. export / as ROOT include_remote
Example:	

export <directory> as <resourcename> [write_protected] [password <passwd>] [include_remote]	

tell <machine name>	The tell command takes a Windows NT Server server name as an argument. This server name will be added to the list of machines that advertisements will be sent to. This machine name must be found in the /etc/ hosts file.
tell_interval <number_of_seconds>	This command specifies the number of seconds the agent waits before re-advertising itself to the backup server. If you enter a number other than the default setting (60 seconds), the number should not be more than a few minutes or less than 60 seconds. Longer numbers cause a delay in the workstation's network broadcast verification and shorter numbers cause excessive network traffic. Each advertisement transaction requires eight (8) network packets.
follow_sym_dirs	By default, the contents of symbolically linked directories are not backed up, but the symbolic links themselves are. If follow_sym_dirs is specified, the opposite is true – the contents of the linked directories are backed up but the symbolic links themselves are not

log_file <filename>	This action specifies a file name where error and warning messages will be written. This command is optional.
exclude_file <filename>	The exclude_file command is used to specify individual files which should never be backed up. The <filename> must include a fully specified path. No wildcards are permitted.
exclude_dir <directory path>	The exclude_dir command is used to exclude individual directories or directory trees from being backed up. The <directory path> must be fully specified.