

# Chapter 3 Installing The Software

## Overview

This chapter provides instructions for:

- installing Backup Director software
- installing AutoLoader Software
- Installing Multi-Server Software

Before performing these procedures, be sure to review Chapter 2.

## Contents

Installation Procedures

Load PALLOADR.NLM

Running the Install Program

Select a Server

Select Installation Directories

File Copy

Enter your Serial Number

Media Library Name

Auto Login Name and Password

MultiServer Software

AutoLoader Software

Server Memory Above 16MB

Remote Loading of NLMs

Environment Check

Creating the Group

Selecting Device(s)

Registration

Adding Resources to Protect

Upgrading the Software

DOS Upgrades

Select A Server

Select Installation Directories

File Copy

CDB Found

Serial Number (Upgrades from 2.x only)

System Control Database Translation

Library Name

Server Memory Above 16MB

AutoLoader Software

Remote Loading of NLMs

File History Database Translation

Environment Check

Creating the Group

Completing Your System Installation

Granting Access to Backup Director

Adding Backup Director to the Desktop

File Manager for End Users

Multi Server version and Upgrades

Upgrades and Translating File History Databases

IBM SCSI Host Adapter Support

NetFRAME and Tricord Users

Installing Additional Software

Installing AutoLoader Software

Installing Multi Server Software

## **Installation Procedures**

*Before running the install program:*

- > Review Chapter 2 for instructions on optimizing your servers and updating NetWare modules.
- > Install TSAs on all servers and workstations you want to protect. If upgrading, be sure to install the latest TSAs from the server preparation diskettes.

- > If necessary, create the auto login user.
- > If not already loaded, load PALLOADR on your installation server (see below).

### **Load PALLOADR.NLM**

PALLOADR.NLM allows Backup Director to automatically load other Palindrome NLMs while running the install program from a Windows workstation. PALLOADR is copied to your installation server when you run SETUP.NLM.

If you have already loaded PALSTART.NCF, PALLOADR may already be loaded and you can skip this step.

*To load PALLOADR*

- > From the server console prompt of your installation server, type:

### **LOAD PALLOADR**

### **Running the Install Program**

After loading PALLOADR.NLM on your installation server, you can run the install program from a Windows workstation.

1. Log into the network as a supervisor-equivalent user (the user must have rights to create users and directories). Be sure to have a drive mapping to the volume where you want to install Backup Director.

If installing on a NetWare 4.x server, the person installing the software must also have write rights to all properties of the root object in the tree and supervisor object rights to the container the installation server is in.

2. Insert Backup Director installation diskette #1 into your disk drive.
3. Access Windows from a workstation.
4. Open the File menu and select *Run*. Type:

### **A:SETUP**

(where A: is the drive your diskette is in)

### **Select a Server**

5. On the *Server Selection* dialog box, select the server where you want to install Backup Director and choose **OK**. (This is the same server where PALLOADR.NLM should be loaded.)

### **Select Installation Directories**

6. Determine the directory path where you want the install program to copy the Windows application files and database files and choose **OK**.

Backup Director NLMs are automatically copied to the SYS:\SYSTEM directory of the installation server.

## File Copy

7. The install program copies files to the specified locations. Insert the requested diskettes into the drive as prompted. After all files are copied, you are prompted to type in your serial number.

## Enter your Serial Number

8. Type your serial number (01xxxxxxxx) and choose **OK**. This number is on two labels on your software box. Affix one to your registration card prior to sending it in and keep the other label in case you have to re-install the software.

## Media Library Name

The media library name is required and must be assigned before you can begin using Backup Director. Backup Director uses this name to identify and label the media in your library.

To avoid confusion, the media library name should be unique from others in your company, department, or area.

9. Type the media library name to be used for this installation.

## Auto Login Name and Password

The auto login user is used to access the installation server's job queue and remote servers (if any). By default, the person installing the software is defined as the auto login user.

This user should have supervisor-equivalent rights to any server you want to protect (on NetWare 4.x servers, the user should have supervisor object rights to each server and to the container object that the installation server is in).

The auto login user name and password is stored by Backup Director in its System Control Database. When adding server volumes to protect, if this user is not a valid user on those servers, you will be prompted to specify a valid user name and password (for ease of use and security reasons, however, Palindrome recommends using a single auto login user).

10. If you want to change the default auto login user, the user must already exist on the network. Type in the name and password for the auto login user and choose **OK**.

If your auto login user is on a 4.x server, type in the complete name including the leading dot "." or the fully qualified name. For example, you can type:

**.jsmith.sales.acme**

or

**.cn=.jsmith.ou=sales.o=acme**

After typing in your auto login user name and password, choose **OK**.

## MultiServer Software

11. If you purchased the Multi Server version of Backup Director, select **YES** and type in your serial number. The serial number (05xxxxxxx) is on a label on your software box that should be affixed to your registration card.

## AutoLoader Software

12. If you purchased AutoLoader Software, select **YES** and type in the AutoLoader Software serial number. The serial number (031xxxxxxx) is on a label on your software box.
13. Insert the AutoLoader Software diskette when prompted.

## Server Memory Above 16MB

14. If your installation server has more than 16MB of memory (for example, an EISA machine) and you are using a SCSI host adapter that uses on-line DMA or AT Bus Mastering (for example, an Adaptec 1540 or 1640), choose **YES** so memory above 16MB can be accessed by the Palindrome SCSI driver.

Choose **NO** if your SCSI host adapter can address memory above 16MB or if your server has less than 16MB of RAM.

## Remote Loading of NLMs

After responding to the previous prompts the install program loads the required Backup Director NLMs on the installation server. For NLMs to be loaded, PALLOADR.NLM must be loaded on your installation server.

## Environment Check

The install program then checks the server environment to ensure it has up-to-date NetWare modules. Any older modules will be listed in the PAL\_LOG file.

## Creating the Group

15. After checking your Windows environment, you are prompted to create the Backup Director program group. Select the group and choose **OK**.

## Selecting Device(s)

The program scans the SCSI bus for any available devices. Any backup devices found are displayed on this screen.

16. Highlight the device(s) you want to use and choose **OK**.

## Registration

17. If you want to register Backup Director online, choose **YES**. Type in the required information and fax it to Palindrome after printing.

## Adding Resources to Protect

After adding devices (or registering online), you are prompted if you want to add all resources on your installation server (including the bindery on 3.x servers; NDS on 4.x servers) to the Protected Resource List so that they can be immediately protected.

18. Choose **YES** to add all resources on your installation server .

When finished adding the resources from your installation server, you are prompted to run an automatic backup operation. If you select **OK** the automatic backup operation is submitted to the job queue.

If you have more resources to protect, choose **NO**. Open the Operations menu and select *Add Resources*.

You can now add any resources on remote servers or workstations where you have installed TSAs. For more information on adding resources, see chapter 8 of the Administrator's Guide.

19. To exit Resource Manager, open the file menu and select *Exit*.

After adding all resources you want to protect or submitting a backup operation, go to *Completing Your System Installation* in this chapter.

## Upgrading the Software

Before upgrading, be sure to:

- > Load the appropriate TSAs on all servers and workstations.
- > Identify the volume and path of your current installation (the location of your System Control Database) when prompted.
- > Unload any Palindrome NLMs from previous versions such as PNASM, PALALDRV, PALSDRV, etc.
- > Login to the network with a search mapping to your current installation directory and to the SYS:\SYSTEM directory on your installation server.

## DOS Upgrades

If your current installation is the DOS version and it is installed on a local workstation, copy your System Control Database files (ASDB.PAC and ASNX.PAC) to the server/volume where you want to install Backup Director prior to running the install program.

The directory name you copy the database files to must be the same name as the directory on the workstation. For example, if your directory is \PBD on the workstation it must be \PBD on the server/volume. This will then also be the directory name of your new installation.

**NOTE:** The installation program automatically deletes older versions of Palindrome files. If you want to save Palindrome NLMs and executables, copy them to a different directory prior to upgrading.

*To upgrade the software*

1. Log into the network as a supervisor-equivalent user (the user must have rights to create users and directories). Be sure to have a drive mapping to your current installation.

If installing on a NetWare 4.x server, the person installing the software must also have write rights to all properties of the root object in the tree and supervisor object rights to the container the installation server is in.

2. Access Windows from a workstation.
3. Open the File menu and select *Run*. Type:

### **A:SETUP**

(where A: is the drive your diskette is in)

### **Select A Server**

4. On the *Server Selection* dialog box, select the server where Backup Director is currently installed and choose **OK**. (This is the same server where PALLOADR.NLM should be loaded.)

If Backup Director finds an installation on the server you selected, you are asked if you want to use that installation directory for your new installation. If you want to upgrade, choose **OK**.

### **Select Installation Directories**

If Backup Director found your original installation, the directory path of that installation should appear in the dialog box.

To upgrade a current installation, the Database Files directory path must point to that installation. If it does not, type in your current installation directory that you want to upgrade in the Database Files text box. Choose **OK**.

### **File Copy**

5. The install program copies files to the specified locations. Insert the requested diskettes into the drive as prompted.

### **CDB Found**

After copying files, Backup Director indicates it has found a System Control Database and asks you to confirm whether or not to upgrade that database. Select **<Upgrade>**.

### **Serial Number (Upgrades from 2.x only)**

If you are upgrading from version 2.x of Network Archivist or Backup Director, you are prompted for a serial number.

6. Type your serial number (01xxxxxxxx) and choose OK. This number is on two labels on your software box. Affix one to your registration card prior to sending it in and keep the other label in case you have to re-install the software.

## System Control Database Translation

After typing your serial number, the translation of the System Control Database begins.

### Library Name

Upgrades to version 4.x, require a new media library name (formerly Archive ID) to take advantage of new media labeling scheme and added media set support. When you specify a new media library name, your old library is retired.

7. Specify a library name to identify media used by this Backup Director installation.

### Server Memory Above 16MB

If your installation server has more than 16MB of memory (for example, an EISA machine) and you are using a SCSI host adapter that uses on-line DMA or AT Bus Mastering (for example, an Adaptec 1540 or 1640), choose **YES** so memory above 16MB can be accessed by the Palindrome SCSI driver.

Choose **NO** if your adapter can address memory above 16MB or if your server has less than 16MB of RAM.

### AutoLoader Software

If you currently have AutoLoader Software installed, you will be prompted to upgrade the software. Insert the AutoLoader Software diskette when prompted.

### Remote Loading of NLMs

After typing in your serial number, the install program loads the required Backup Director NLMs on the installation server. For NLMs to be loaded, PALLOADR.NLM must first be loaded on your installation server.

### File History Database Translation

After the necessary NLMs are loaded, a job is sent to the job queue to translate all File History Databases for all resources on your Protected Resource List.

Because this job is an NLM, you can continue with the installation while the File History Databases are being translated and/or exit the program.

File History Databases are translated one at a time. Because the database structure has changed in Backup Director 4.0, translation may take a long time to complete.

**TIP:** To view the progress of the translation job, open Backup Director. Open the status menu, and select Job Queue. Highlight the job and select **View**.

### Translating Volume Records

If the installation you are upgrading was a non-SMS version or if you were protecting workstations, you will be prompted to manually add the volumes or skip them. If you choose to add the volume, you must perform the following:



- Ensure the proper agents are loaded on the workstation and/or the server.
- Select the Server where you agent is loaded
- Select TSA on that server
- Select the resource you want to protect.

### **Location of Databases**

Although Backup Director defaults to installing File History Database in a central location, File History Databases on previously protected volumes remain in their original location (i.e., they are not moved from the volume they are protecting) except for workstation File History Databases. If you want to move your File History Databases, follow the instructions in the Administrator's Guide.

**NOTE:** Depending on the size and complexity of your File History Databases, translations may take significant time.

### **Environment Check**

The install program then checks the server environment to ensure it has up-to-date NetWare modules. Any older modules will be copied to a list and to the PAL\_LOG file.

### **Creating the Group**

After checking your Windows environment, you are prompted to create the Backup Director program group.

### **Completing Your System Installation**

#### **Granting Access to Backup Director**

The admin list in Backup Director allows you to configure a list of names of administrators and operators you want to have access to Backup Director.

The auto login user and the user installing the software are automatically added to the admin list as Administrators during installation.

**Administrators** have full access to all Backup Director managers. Only those with supervisor-type rights should be defined as Administrators in Backup Director.

Administrators should be granted Read, Write, and File Scan rights (RWF) to the Backup Director installation directory (the directory where the System Control Database is located [as\*.pac files]).

**Operators** have access the Control Console where they can submit pre-configured jobs, respond to prompts, and determine what media is required for operations.

Operators need only Read and File Scan rights to the same directory.

See chapter 3 in the Administrator's Guide for information on configuring the admin list.

### **Adding Backup Director to the Desktop**

When installing the software, the Backup Director icon is automatically created on the desktop for the person installing the software.

For other administrators and operators to access Backup Director, they must create the Backup Director icon on their Windows desktop using Program Manager. Administrators/Operators must have a search mapping to the installation directory and the appropriate rights (see above) to use Backup Director.

*To create the Backup Director icon*

1. Access Windows.
2. Open the File menu and select New. Select *Program Item*.
3. Type in a description. In the Command Line text box, type:

**FS1\APPS:\PAL\PALMON.EXE**

(where FS1\APPS: is the installation server and volume, \PAL is the directory path, and PALMON.EXE is the file that creates the Backup Director icon.)

## **File Manager for End Users**

Palindrome's File Manager allows end users to submit backup and restore requests from resources protected by Backup Director.

During installation, the group EVERYONE is automatically added to the Backup Director User list with Read and File Scan rights to the Backup Director installation directory.

**NOTE:** On NetWare 4.x servers, the group EVERYONE is created in the same container that the installation server resides and is populated with all users that reside in the installation server's container.

By granting Read and File Scan rights to the installation directory, members in the group EVERYONE have access to File History Databases. By adding the group EVERYONE to the User List, anyone in the group can submit jobs to the Backup Director job queue.

The File Manager executable, PALFILER.EXE, can be placed anywhere on the network for end user access. If you do move it from the directory where other Backup Director executables are located, you must configure the Backup Director installation(s) it uses. See chapter 3 of the Administrator's Guide for more information on configuring File Manager for end users.

## **Multi Server version and Upgrades**

If you are upgrading and you newly purchased the Multi Server version, follow the instructions on to enable Multi Server software.

## **Complete Registration Card**

If you haven't already done so, fill out your registration card and return it to Palindrome to activate your warranty.

## **Old Software and Tape Library**

If you are upgrading from another backup system, Palindrome recommends that you retain your existing backup software even after successful installation of Backup Director. This will allow you to easily restore files in the event that a required file is not part of Backup Director's file history.

When you are satisfied that Backup Director has generated a thorough file history, your previous system will no longer be needed and can be removed from your network.

### **Upgrades and Translating File History Databases**

When upgrading, File History Databases must be translated. If you are upgrading from non-SMS versions of Network Archivist or Backup Director and you installed TSAs on all servers and workstations prior to installing the software, File History Databases on those resources are automatically translated.

If TSAs were not installed prior to upgrading, you must manually translate the File History Databases for those resources. Note that resources with File History Databases that have not been translated cannot be used for backup or restore operations.

Prior to manually translating File History Databases, be sure to load TSAs on all servers and workstations you are protecting.

#### *To translate server/volume File History Databases*

1. Install TSAs according to the instructions in Chapter 2.
2. Open Backup Director.
3. Open the Managers menu and select *Resource Manager*.
4. Highlight a server/volume resource that indicates it needs translation.
5. Click on the Config tab. Select **Edit**.
6. In the Protected Resource Name group box, select **Configure**.
7. Choose the Server, Target Service, TSA, and Resource name for the resource and choose OK. The resource should now appear in the tree.
8. Tag the resource and open the Operations menu. Select *Translate History Database*. The File History Database for the resource is translated.

#### *To translate workstation File History Databases*

1. Install TSAs according to the instructions in Chapter 2.
2. Open Backup Director.
3. Open the Managers menu and select Resource Manager.
4. Highlight a workstation resource that indicates it needs translation.
5. Click on the Config tab. Select Edit.

6. In the History Database Location group box, select **Configure**.
7. Select the server where you want to locate the resource's File History Database. You most likely should pick the Backup Director installation server (by default File History Databases are stored on that server).
8. Next pick the volume where you want to locate the resource's File History Databases. This should be the Backup Director installation volume.
9. Record the history database location path as displayed the History Database Server/Volume location and History Database Path fields. This is the path where you will need to copy the original workstation File History Database as described below.
10. Repeat steps 4-9 for each workstation resource to be translated.
11. From the workstation you are upgrading, copy the File History Database (AV\*.PAC) files (located in a directory of the same name as your installation directory) to the server/volume and directory path recorded in step 9. Repeat this step for each workstation resource needing translation.
12. In Resource Manager, tag a workstation resource that needs File History Database translation.
13. Open the Operations menu. Select *Translate History Database*. The File History Database for the resource is translated.

### **IBM SCSI Host Adapter Support**

Backup Director supports IBM SCSI PS2 host adapters. If using this adapter, you must load the device driver (PS2SCSIA.DSK) and ASPI manager (IBMASPI.NLM). These files (and IBMENTRY.NLM) are copied to your installation directory during installation of the software.

**PS2SCSIA.DSK**—SCSI device driver for NetWare 3.x and 4.x. This file replaces PS2OPT.DSK or PS2SCSI.DSK (using ASPI). This file should be loaded first.

**IBMASPI.NLM**—ASPI manager for NetWare 3.x and 4.x. This file should be loaded after PS2SCSIA.DSK.

**IBMENTRY.NLM (optional)**—This file should be loaded if you have a SCSI host adapter from a different vendor that uses the exported ASPI\_Entry point. This file then replaces IBMASPI.NLM which exports a different entry point function.

PS2SCSIA.DSK and IBMASPI.NLM can be added to your AUTOEXEC.NCF file so they load automatically when the server boots.

In addition, the following NetWare patches are required when using the IBM SCSI host adapter. Contact Novell for information on obtaining these patches.

#### **NetWare 4.x**

DAICCFIX.NLM 1031 bytes, 02-07-94

PM401.NLM 8113 bytes 08-26-93

REALMFIX.NLM 2756 bytes 02-07-94

#### **NetWare 3.12**

DAICCFIX.NLM 1076 bytes 02-07-94

PM312.NLM 9586 bytes 08-31-93  
REALMFX.NLM 3207 bytes 02-07-94

## **NetFRAME and Tricord Users**

If you're installing Backup Director on a NetFRAME or Tricord server, follow the instructions below.

### **NetFRAME Users**

If you are using Backup Director on a NetFRAME server, use the driver located in your installation directory (default=\PAL). Copy the NetFRAME device driver (PALNFDRV.NLM) into your SYS:\SYSTEM directory using a command similar to the following:

```
COPY F:\PAL\PALNFDRV.NLM FS1/SYS:\SYSTEM
```

(where F:\PAL is your Backup Director installation directory)

Edit your server's STARTUP.NCF or AUTOEXEC.NCF files to include the following statement (preferably before loading other Palindrome NLMs):

### **LOAD PALNFDRV**

### **Tricord Users**

If you are installing Backup Director on a Tricord server, you need three drivers for communication with your backup device: NWIIOP31.DSK, ASPITRAN.DSK, and ASPI.DSK.

**NOTE:** If you are already using the correct version of NWIIOP31.DSK or the above ASPI drivers, you may not have to install the files. Palindrome recommends that you use a version dated no earlier than "5/93".

Follow the steps below to install these files.

1. Copy ASPITRAN.DSK and ASPI.DSK from your Backup Director installation directory to the SYSTEM directory on your SYS: volume:

```
COPY F:\PAL\ASPITRAN.DSK FS1/SYS:\SYSTEM
```

```
COPY F:\PAL\ASPI.DSK FS1/SYS:\SYSTEM
```

(where F:\PAL is your installation directory)

2. Edit your AUTOEXEC.NCF file on your server to include the following:

### **LOAD ASPITRAN**

### **LOAD ASPI**

3. Type the load statements in the same order at the server console prompt to load the drivers.
4. If necessary, copy **NWIIOP31.DSK** from your Backup Director installation directory to the boot partition of your server.

5. Edit your STARTUP.NCF file on your boot partition to automatically load this file using the following syntax:

### **LOAD NWIOP31.DSK**

**NOTE:** If your original driver was the same name (**NWIOP31.DSK**) and version, and was loaded from your STARTUP.NCF file, you do not need to add it to your STARTUP.NCF.

6. Down your server and reboot it to initialize the driver.

## **Installing Additional Software**

This section includes installation instructions for installing AutoLoader Software and Multi Server Software.

### **Installing AutoLoader Software**

AutoLoader Software controls the robotic arm of an autoloader device and retains information about the contents and status of the autoloader.

For more information on AutoLoader Software, refer to the AutoLoader Software Guide.

**NOTE:** Be sure to unload PALMEDIA, PALALDRV (autoloader driver), and PALSDRV (SCSI driver) before installing AutoLoader Software.

*To install AutoLoader Software, perform the following:*

1. Insert the AutoLoader Software diskette into a floppy drive at your workstation.
2. Access Backup Director.
3. Open Configuration Manager.
4. Open the Install menu and select *AutoLoader Software*.
5. The program prompts for the serial number:

### **Please enter the AutoLoader Software serial number:**

Type the serial number and choose **OK**. This number is on a label that is on the outside of your AutoLoader Software box. Affix this label to your registration card if you haven't already.

6. Choose the disk drive your diskette is in. The program copies the appropriate files to the SYS:\SYSTEM directory on your installation server.
7. PALMEDIA autoloads the autoloader driver. To load PALMEDIA, at the server console prompt, type:

### **LOAD PALMEDIA**

8. Complete your AutoLoader Software registration card and return it to Palindrome.

## **Installing Multi Server Software**

Multi Server Software allows you to protect an unlimited number of servers. If you originally purchased Backup Director as a Multi Server version, you should enable the Multi Server Software during installation of Backup Director.

*To upgrade from a single server version*

1. Insert the Multi Server Software diskette into a floppy drive.
2. Access Backup Director.
3. Open Configuration Manager.
4. Open the Install menu and select *Multi Server Software*.
5. The program prompts for the serial number:

### **Please enter the Multi Server Software serial number:**

Type the serial number and choose OK. This number is on a label that is on the outside of your Multi Server Software box. Affix this label to your registration card if you haven't already.

6. After typing in your serial number, you are prompted to insert the Multi Server Software diskette. Choose the disk drive your diskette is in.
  7. Complete your Multi Server Software registration card and return it to Palindrome.
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