Appendix A Installation Notes

Contents

General Hardware Notes

This section provides information on hardware-related items that may affect Backup Director's performance or prevent proper backups.

Adaptec 1540 Host Adapters

Unless you have a bootable hard disk attached, Palindrome recommends disabling the AT BIOS port address jumper (J6, pin 1) on the Adaptec AHA-1540B SCSI host adapter card. See the documentation included with your host adapter for a description and location of this jumper.

If using the AHA-1540C, disable the Host Adapter BIOS setting using the Advanced Configuration option screen.

Servers With More than 16MB of Memory

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), you should use Palindrome's SCSI Driver PALSDRV.NLM with the ABOVE16MEG switch.

PALSDRV is automatically loaded during installation but if you have added memory or changed host adapters, you may need to manually load the PALSDRV with the switch.

When loaded with the ABOVE16MEG switch, PALSDRV allows the host adapter to access memory above 16MB.

> **WARNING:**   The ABOVE16MEG option should only be used if your host adapter cannot address memory above 16MB of RAM. Do not use this option if

your adapter can address memory above 16MB.

Load PALSDRV manually (with the option) or execute if from the PALSTART.NCF file so that it loads automatically. Because PALSDRV is autoloaded automatically during any backup, restore, or utility operation, to use the ABOVE16MEG option, it must be loaded prior to running any operation.

If using this option, you may have to increase the number of reserve buffers below 16MB on your server, especially if you have a server with device drivers that access memory below 16MB. Add the NetWare set command:

SET RESERVED BUFFERS BELOW 16 MEG = 200

to your STARTUP.NCF file and reboot your server.

This command should proceed the loading of your device driver for your host adapter.

Host Adapter Bios

Palindrome does not require the BIOS enabled on any host adapters. Bootable hard disks on the same SCSI bus require the BIOS to be enabled however.

Tape Drive Cleaning

Be sure to clean the drive after each initial backup with a **new** tape.

8500 Tape Drives

For any FAST 5000 (or other Exabyte 8500) tape drive, the default transfer mode is asynchronous; meanwhile the default transfer mode of many host adapters is synchronous.

This may cause a conflict if the tape drive is ever disconnected or powered off and then powered on again while the server is still running. The tape drive will default to asynchronous transfer and the adapter will fail to renegotiate transfer mode. The next tape operation will then fail and lock the workstation or server console screen.

If the tape operation is hanging, you must down the workstation or the server. To avoid potential conflicts, always power on the tape drive prior to powering on your workstation or server.

General Software Notes

Resource Files

During installation, Backup Director copies its Resource files from the installation diskettes. Resource files (*.RSF) are required for any Backup Director program (executable) to run. Do not rename, move, or delete these files.

NETWARE.DLL

When starting Backup Director, if you receive a message:

"Cannot find NETWARE.DLL"

it means you have an old version of the Windows NetWare driver NETWARE.DRV or you have not

configured Windows for using NetWare. Ensure your version of NETWARE.DRV is dated 7-23-93 or later or configure Windows to use with NetWare.

Multiple Server Environment

If you are backing up multiple servers, be sure the installation server has the NetWare set command "Reply to Get Nearest Server" set to "ON" (the default setting) especially if your File History Databases are not centrally located on the installation volume.

Read Fault Emulation

Be sure to set Read Fault Emulation to ON on all NetWare 4.x servers.

Auto Login user on NetWare 4.x Servers

Previous versions of Backup Director required the auto login user be defined on each NetWare 4.x server protected. This is no longer necessary.

The auto login user only has to be created once unless you are protecting 4.x servers that are not part of the same the NDS tree as your installation server. In this case, you must create the auto login user in the bindery context on each server in a different NDS tree.

Time Zone Environment Variable

Palindrome recommends that you use the Time Zone (TZ) environment variable with caution. If you back up files under one time zone setting and attempt to restore them under a different time zone setting, Backup Director will be unable to restore the files due to conflicting time zones.

Execute-Only attribute

Files marked with the NetWare attribute EXECUTE-ONLY cannot be read by Backup Director and therefore cannot be backed up. If you are required to designate files EXECUTE-ONLY, be sure they are fully protected first before assigning this attribute.

DOS TSA and SEND messages

On workstations with the DOS TSA loaded, network SEND messages may cause dropped connections between the TSA and Backup Director if the message is not cleared by the user. You should use NetWare's CASTOFF at the workstation to reject any broadcast messages especially before running any Backup Director operations.

Search Mode

If using NetWare's SEARCH MODE (SMODE), do not assign it to any Backup Director files. Unless absolutely necessary, Palindrome recommends leaving SMODE set to 0. If you use SMODE, use it only for specific files (usually older files) that need non-standard behavior.

Unloading TSAs

Whenever unloading TSADOS or TSAPROXY on the server, you should unload and reload the TSAs on workstations that the server TSA manages.

NetWare Upgrades

If you upgrade NetWare versions, for example from NetWare 3.12 to NetWare 4.1, be sure to unload the TSAs on all protected servers and load the appropriate TSAs for your new NetWare version.

Workstation TSA Options

The following provides details on the TSASMS.COM and TSAOS2.EXE command line parameters.

TSASMS Options

Below is a description of available parameters for the DOS TSA (TSASMS) that you can set in the NET.CFG file or use on the command line. To load TSASMS from the command line, use syntax similar to the following:

TSASMS /SE=SERVER1 /N=JSMITH /B=8 /ST=2048 /D=C /T

these parameters are described in detail below.

TSA Server Name

Specifies the name of the server you want this workstation to connect to for backup and restore operations. This is the server where TSADOS.NLM is loaded (and is usually the primary server).

Example:
TSA Server Name = SERVER1
Command
/SE=servername

Workstation Name

Sets the workstation's unique name up to 10 characters (no spaces). You may want to choose a name such as the name of the user who uses the workstation. For example, JSMITH.

This parameter is required when you first load TSASMS as it registers the workstation with the bindery or NDS. After initially installing TSASMS with this parameter, you will not need to use the parameter again unless you want to change the workstation name or remove the workstation object from the bindery or NDS.

Example:
Workstation Name = JSMITH
Command line: /N=workstation name

> **NOTE:** Backup Director requires unique workstation names. When adding workstation resources, no two workstation names can be identical (even if the workstations are protected by different TSAs). For example, you cannot have two workstations on your Protected Resource List named JSMITH.

Password

Sets a password for the workstation. If you use this option, you must type in the password for each workstation when adding the resources to the Protected Resource List.

If you do not want to configure passwords for each workstation, use Trust Mode (/T) (described below).

Example:
Password = Test
Command
/P**=**password

Disk Buffers

1K buffers (n=1 through 30). The default is one. Increasing the number increases throughput backup speed, but requires more RAM on the workstation and also reduces responsiveness of the keyboard when a backup is in progress. Palindrome recommends increasing this setting to at least 4. If this is insufficient, try increasing the setting in increments of 4.

Example:
Disk Buffers = 30
Command
/B=n(number of buffers)

Stack Size

Specifies the stack size represented as a decimal (512 through 5096 bytes). The default is 2048 bytes. Do not change this number unless RAM is extremely limited or you receive "Stack Overflow" messages. You may need to increase the setting, depending on the structure of your disk.

Example:
Stack Size = 2048
Command
/ST=n(stack size)

Drives

This required parameter indicates the DOS drives containing data that you want to protect. Note that a colon is not accepted with the drive letter.

Example:
Drives=CD
(where "C" represents the C: drive and "D" represents the D: drive.)
Command line: /D=x(drive letter)

Other Command Line Options

/H

Help. Displays all options.

/R=server name/workstation name

Removes the workstation address from NDS or the Bindery. Use this option when installing new hardware or if you want to change the workstation name. You must have supervisory rights to remove the workstation from NDS or the Bindery and TSASMS must first be unloaded at the workstation.
Example:
TSASMS /R=FS1/JSMITH

/T

Trust Mode. When using this option, the defined user must have Supervisor-equivalent rights on the server where TSADOS.NLM is loaded in order to protect the workstation.

This option provides a high level of security without the need to configure and remember workstation passwords. **Example:** TSASMS /T

/U

Unload. Unloads TSASMS from the workstation's memory.
Example:
TSASMS /U

TSAOS2.CFG Options

Auto Register

Required parameter (ON or OFF) used to automatically register with the server whenever the workstation boots. To use this parameter you must also specify a valid WSName, ServerName, and UserName.
Example:
AutoRegister ON

Hide Resource

The drives you do not want to protect. Repeat this line for each drive that you do not want to protect. The colon after the drive is allowed but is not required. By default, the TSA provides access to all drives on the workstation.
Example:
HideResource C

Server Name

The name of the server where TSAPROXY.NLM is loaded (usually the primary server).
Example:
ServerName FS1

TempFiles Dir

The location on your hard drive where the TSA can temporarily store files during backup operations. These files are removed when the backup is completed. Do not use spaces in the directory name.

If you do not specify this parameter, the temporary files will be located in the same directory as TSAOS2.EXE.
Example:
TempFilesDir C:\TEMPTSA

UserName

The user that you allow to attach to the OS/2 workstation (this must be the Auto Login user). If you want to specify a password, specify it on the same line as the username.
Example:
UserName ADMIN [PASSWORD]

The username must be your auto login user. If you specify a password, the network administrator (during installation of Backup Director) must configure that password when adding the workstation to the Protected Resource List.

To protect from unauthorized use of Backup Director and your network, if you configure a password, do not use the Auto Login Password (the password configured for the Auto Login user). If users know the Auto Login user's password, they could access the network as a supervisor equivalent user.

WSName

The Target Service name you assign to your workstation. Do not use spaces in the workstation name.
Example:
WSName JOHN_OS2

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