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Using NetWare Installation Scripts to Upgrade from NetWare 4 to NetWare 5 on Compaq Servers

Abstract: The migration of a multi-server network from NetWare 4.x to NetWare 5 can be a time consuming task. By taking advantage of the Novell installation scripting language CDWare, introduced with NetWare 4, you can eliminate the time spent in repeating the upgrade at multiple consoles. Since no two server environments are identical, it would be impossible to develop a script that properly addresses the specific needs of every migration. This paper, however, outlines the steps necessary in a migration script so that you may develop your own script, customized to your server environment. The included sample script reaches beyond basic scripting and provides enhancements like Compaq hardware driver updating.

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Using NetWare Installation Scripts to Upgrade from NetWare 4 to NetWare 5 on Compaq Servers
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Script-Based Migration

When managing a large, multi-server network, migrating to a new OS version is quite a task. Days of complete or partial downtime are often needed to complete the migration. Developing and using your own migration script can upgrade your entire network as fast as migrating a single server.

Successful script migration begins with an understanding of the scripting language and ends with extensive testing before deployment. In this document, we provide insight into the actions that must be called by a script to migrate from NetWare 4.x to NetWare 5. In addition, the name and location of all files that must be copied or deleted for a baseline NetWare 5 server are provided, along with destinations and modifications for the files that are being copied. Finally, a complete example script is provided in the Appendix.

IMPORTANT: The filenames, examples, and procedures given do not include references to any third party or after-market products that you may need to update or upgrade for NetWare 5. Please contact your software vendor for any relevant changes that you should add to your custom script.

The flowchart below details the steps in preparing, launching, and completing a script-based migration.

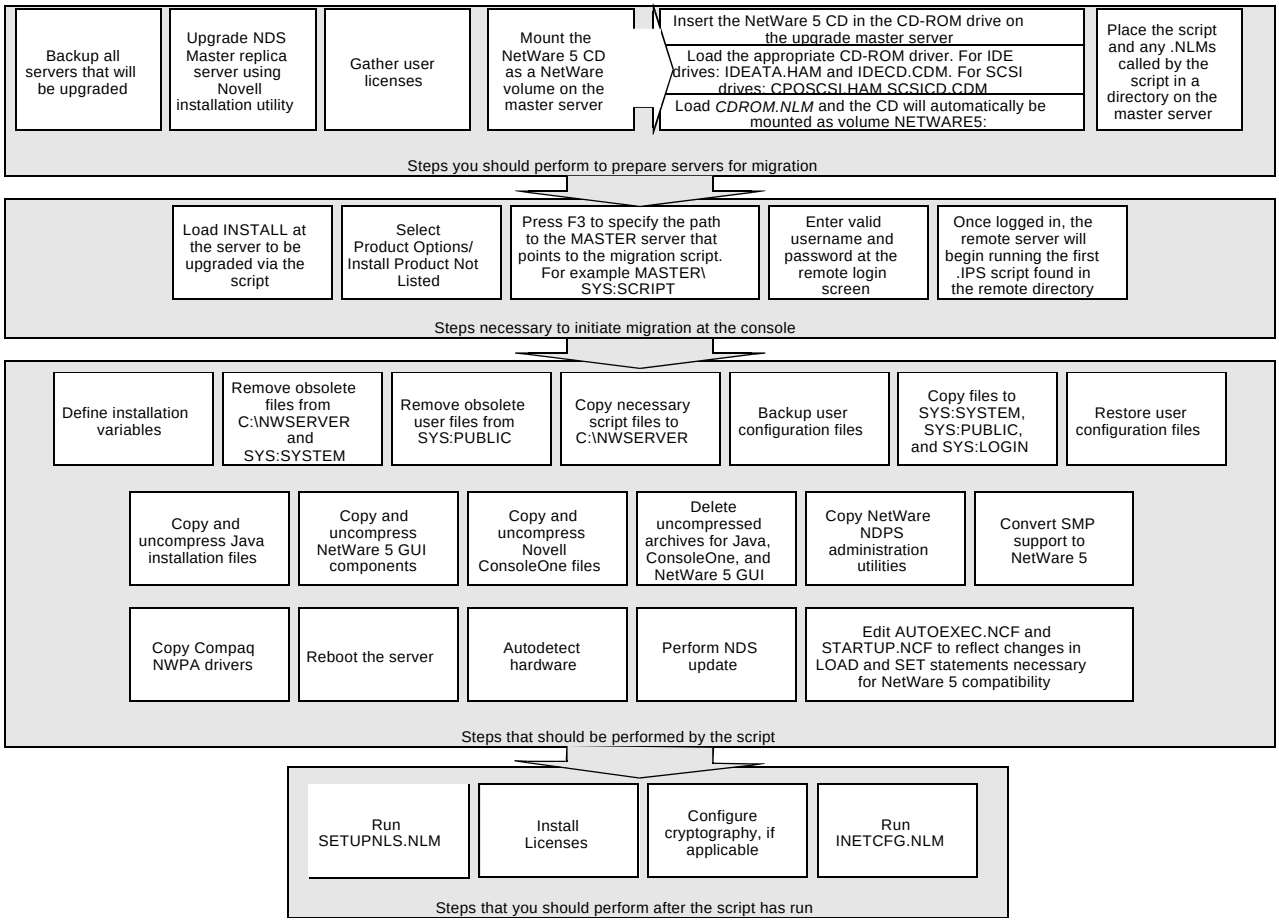

Figure 1. Script-based migration overview

Developing Your Own Script

IMPORTANT: Developing a migration script is a complex task and is recommended only for experienced system administrators. Improper implementation can cause loss of data and prolonged server downtime. Backup any data before attempting an automated migration. Please be sure that you are confident in your scripting before attempting to migrate your network using your script.

What is a Script?

In order to facilitate custom NetWare installations, Novell created CDWare installation scripting. Although CDWare was originally developed to allow OEMs to create hardware-specific installations of the NetWare installation procedure, you can use CDWare to create a non-interactive batch installation of your NetWare configuration. This document illustrates, through a complete example, specifically how you can use CDWare to migrate from NetWare 4.x to NetWare 5.

An installation script is simply a text file. When interpreted by the NetWare installation application, however, the script provides customized instructions for the installation. By placing any user-options in the script file, the process can be automated, requiring little user intervention. In large, multi-server networks this automation can considerably accelerate your migration. The added ability to remotely launch the script can also speed the process by allowing simultaneous migration of multiple servers on your network. In addition, your script provides you with a tool for swiftly adding new or restored servers to your network.

Developing a script to shorten the migration process, however, is neither a fast nor simple process. The scripting language has numerous commands, each with its own syntax and parameters. Even a basic installation script requires a solid understanding of CDWare scripting. Furthermore, an intensive script, such as, a multiple-server migration script, should undergo extensive testing before it is implemented on the entire network. If you are proficient in, or even familiar with, scripting, the time you invest in developing a script is minimal compared to the time that would have to be spent at each server console doing local migrations.

Before You Begin

In order to get started on developing your custom migration script, you should become familiar with the sample scripts available from Novell and the sample script in the Appendix. For our purposes, the scripts that Novell has released (one with the intraNetWare service pack called *411SPACK.IPS* and the other *UPGRADE.IPS* from the Novell Accelerated Upgrade utility) will provide the most applicable examples of using CDWare scripting for upgrading NetWare components. This document includes a sample script that was developed by Compaq to illustrate the power and flexibility of the scripting language and, at the same time, provide a solid example of a thorough script with good scripting style. In addition, the Compaq script addresses some issues specific to Compaq hardware, such as, automatic DDFS to NWPA storage driver replacement. Before developing your own script, you should use these examples to become familiar with the purpose and format of the commands in the sample script. For additional information and the example scripts mentioned above, search the Novell website for *CDWare scripts* or *Accelerated Upgrade Utility*.

Migration Tasks

After becoming familiar with the commands in the sample scripts, you will need to outline the tasks necessary to complete the NetWare migration. Although there is no one script that will cover every server configuration, internal Compaq migration scripts complete the following tasks:

Creating the script environment

- Transferring any files necessary for the script to complete to the master server
- Defining any internal variables used within the script

Removing old files, patches, and utilities

- Removing outdated system patches and products that may be incompatible
- Removing old NetWare 4 files from the startup directory and SYS:SYSTEM
- Removing any DOS utilities that are unsupported in NetWare 5

Copying files

- Copying necessary script files to the boot directory
- Copying server startup files and drivers
- Copying NetWare SYSTEM, PUBLIC, and LOGIN directories and files
- Copying and uncompressing Java files
- Copying and uncompressing Novell ConsoleOne files
- Copying NetWare 5 GUI components
- Copying NetWare NDPS administration utilities

Putting the finishing touches

- Converting storage driver LOAD statements from DDFS drivers to NWPA drivers
- Rebooting the server after copying files
- Auto-detecting hardware after reboot

Not all of these tasks can or should be used in every script, nor is this a complete list of actions that can be performed. Your script, for example, may convert the statements that load the storage drivers to reflect the newer NWPA drivers. In this case, the automatic hardware detection is not necessary.

For all of these steps, however, there may be many files that are deleted, copied, or renamed. Perhaps the most difficult task in developing your own script is identifying which files are incompatible with and which are essential to NetWare 5. This document handles that confusion for you with detailed lists of files complete with sources and destinations. Another aspect of well-written scripts is portability.

A more portable script can be modified more easily to accommodate minor differences between server environments. You may want to begin your script by gathering variables that may change for different installations. By doing so, you can eliminate editing your script should you need to perform a modified installation, such as a different destination directory or different language installation

Creating a fully functioning NetWare 5 server without any user input is impossible. While the example script provided in the Appendix completes all necessary file manipulation, there are a few key elements that require specific input to make your NetWare 5 server fully operational. Specifically, after migrating your server with your script, you will need to run *SETUPNLS.NLM* to convert NetWare 4.11 licensing schemas to the newer NetWare 5 format. Also, you should run *INETCFG.NLM* to setup the network components, including IP.

The Sample Script

The script in the Appendix was developed internally at Compaq for the purposes of illustrating proper scripting style and necessary actions for migrating your server. Every effort has been made to produce a script that represents portability and stability. Features such as log files, path variables, and migration conflict detection may not be necessary for successful scripting but in a critical environment may be well worth the time to implement. Where noticeable, extra features or aspects of the script will be highlighted.

Before running the sample script or a script of your own, you should copy the following files and the script itself to the master server: *ICMD.NLM, CPQICMD.NLM,* and *NDSDIBUP.NLM*. Both ICMD.NLM and NDSDIBUP.NLM are included with the Accelerated Upgrade Utility from Novell and CPQICMD.NLM is available as part of the Compaq Support Software for Novell Products (Novell SSD). Once initiated, the sample script takes roughly 35 minutes to complete on a ProLiant 5000 over a dedicated 100BASE-T Ethernet connection. Upon rebooting, the ProLiant is a fully functional NetWare 5 server, requiring only the minimal manual configuration mentioned. The sample script, as it appears in the Appendix, requires at least 9 MB of free space on the DOS partition and 165 MB of free space on the SYS: partition. Compaq recommends that you issue the PURGE command both before and after the script is run to make sure that deleted files waste no disk space.

Note: After migrating with the sample script, you may have trouble logging into the server as ADMIN. This is not an error. With the NetWare 5, you must specify the context of the admin login. To find the context for a given server, issue the CONFIG command at the server console. The context should be appended to the admin login, for example ADMIN.CPQ, where .CPQ is the context.

The rest of this document provides a walkthrough of the script in the Appendix, including the files that should be affected by your script and extra steps taken to ensure success when using the script. By developing your own script that accomplishes these tasks, you can automate the vast majority of the migration and save your organization many hours of downtime.

Creating the Script Environment

In order to facilitate the steps called by the script, steps should be taken to prepare the script environment with variable and menu item declarations and name space modules.

Defining Variables and Menu Items

While this is not necessary in your migration script, using variables and menus will make your script more portable with a minimum of effort. In addition, by defining the variables within the script, you reduce the amount of console intervention. Your script may contain as many or as few variables as you feel necessary. In the sample script several variables are defined and used throughout.

Table 1. Defined variables

Variable name	Value	Description
TRUE	1	General definition for clarity when used in script
FALSE	0	
SRCSRVR	Name of the master server that has the NetWare 5 CD mounted.	By defining the name of the master server within the script itself, the script can be run from different master servers by redefining the variable.
SRCNW5	%{SRCSRVR}\\NETWARE5:	Location and path to the NetWare 5 CD
SRCSYS	%{SRCSRVR}\\SYS:	Location of the SYS: directory on the master server
SRCSCRIPT	%{SRCSYS}SCRIPT	Location of the script file and necessary support .NLMs
SRCPOET	%{SRCSRVR}\\SYS:\\NI\\POET\\NLM	Location of POET files needed for migration
NWBOOT	C:\\NWSERVER	Path of the boot directory containing *SERVER.EXE*
NWSYS	SYS:	Volume name of the SYS: volume
NWSYSTEM	SYS:SYSTEM	Location of the SYSTEM directory on the SYS: volume
NWPUBLIC	SYS:PUBLIC	Location of the PUBLIC directory on the SYS: volume
NWLOGIN	SYS:LOGIN	Location of the LOGIN directory on the SYS: volume

When commands within your script use variables as pathnames, it is not sufficient to simply have defined the variable. In order for the script to correctly interpret your string variable as a path, the variable must be associated with a path using the GetPath command. The following path variables are defined in the sample script with the GetPath command.

Table 2. Variables declared as path variables

GetPath variable	Value
SRCSRVR	%{SRCSRVR}
SRCSYS	%{SRCSYS}
SRCPOET	%{SRCPOET}
SRCNW5	%{SRCNW5}
SRCSCRIPT	%{SRCSCRIPT}
NWBOOT	%{NWBOOT}
NWSYS	%{NWSYS}
NWSYSTEM	%{NWSYSTEM}
NWPUBLIC	%{NWPUBLIC}
NWLOGIN	%{NWLOGIN}

In the example script in the Appendix, the different actions to be performed have been separated into independent sub-modules. Each of these sub-modules has an associated variable which allows the installation of that component to be enabled or disabled. Once again, this was done to make the script as portable as possible by allowing certain elements of the migration which are not necessary to be skipped. In the script, these variables can be identified by the word *Flag* at the beginning. The use of *Flag* is not specific to the scripting language. This is simply a matter of scripting style; any non-reserved variable names can be used to label elements in your script.

Table 3. Flag variables to denote key actions of the script

FlagDebug	FlagConvertCPQStorageDrivers	FlagEraseOldPSMs
FlagRemoveOldPatches	FlagAutoDetectHW	FlagTransferNewBootFiles
FlagRemoveOldProducts	FlagTransferMasterStartup	FlagTransferNewSystemFiles
FlagAddLongNameSpace	FlagEraseOldBootFiles	FlagTransferNewScriptFiles
FlagUpdateSTARTUP	FlagEraseOldSystemFiles	FlagTransferNewJavaFiles
FlagMigrateSMP	FlagEraseOldDOSFiles	FlagTransferNewConsole1Files
FlagTransferNewInstallFiles	FlagMoveCompaqStorageDrivers	FlagUpdateNDS
FlagTransferCryptographyFiles	FlagTransferNewNDPSFiles	FlagUpdateAUTOEXEC
FlagRebootServer	FlagDisableThirdPartyApps	FlagEnableMousePS2
FlagEnableMouseCOM1		

By setting any of the above variables to *%{false}* in the example script, you can prevent the respective section from executing. The example script in the Appendix extends the function of the Flag variables by performing a check to make sure that the components selected to install do not cause any known conflicts.

Additionally, the example script creates a log file of all actions performed by the script. Should you perform the migration and afterwards wish to review which elements of your script had been selected, you may find adding the extra lines of code necessary very useful. The code that appends the text for each action to the log file can be found near the beginning of each separate section. For example,

```
SetVar CPQICMDFile,    "%{LOGFILE}"
SetVar CPQICMDCommand, "AppendText"
SetVar CPQICMDAddText, "Remove old patches"
nlmexec 1, NWUPDATE\CPQICMD
```

In order to view the log generated by the sample script, load *NWCONFIG.NLM* and select View/Change/Remove installed options from the Product Options menu.

Preparing the Server Environment for Migration

At this point in the sample script, there are a few actions that prepare the server environment to be updated. Not all of these actions should be performed in any single migration. That is, some actions will undo the effects of another, or one action could lead to a conflict with another. However, some of these actions must be complete to successfully copy the full NetWare 5 file system onto your server.

Add long name space

Adding long name space is necessary for correct uncompressing of files. Therefore, this step is necessary if Java, ConsoleOne, and the NetWare 5 GUI are to be installed. To add long name space, your script needs load *OS2.NAM* and *LONG.NAM*.

Update the STARTUP.NCF

In the example script, any **SET** parameters found in the *STARTUP.NCF* are commented out. While this step is not absolutely necessary, it makes sure that there are no conflicts between NetWare 5 and older NetWare 4.11 parameters. This step may not be necessary if automatic hardware detection is used or if you are using a master copy *STARTUP.NCF*.

Convert SMP support

Unlike NetWare 4.11, NetWare 5 does not require separate kernels for single- and multiprocessor platforms. As a result, the sample script comments out all LOAD statements in both the *AUTOEXEC.NCF* and *STARTUP.NCF* files that refer to NetWare 4.x multiprocessor specific modules. In addition, lines are added that will load the NetWare 5 platform support modules upon rebooting. This step is not necessary if automatic hardware detection is used.

Convert storage drivers from DDFS to NWPA

Specific to Compaq systems, this portion of the sample script will comment out any LOAD statements that refer to any DDFS Compaq storage drivers. At the same time, the example script will add the appropriate NWPA storage driver load statements to the *AUTOEXEC.NCF* and *STARTUP.NCF* files. Once again, this is for Compaq hardware only. This step may not be necessary if automatic hardware detection is used. But, since NetWare 5 no longer supports DDFS, either automatic detection or this section of the sample script should be used to convert to NWPA drivers.

Prepare for hardware autodetect on reboot

If automatic hardware detection is selected, the sample script removes the current *STARTUP.NCF*, copies necessary files for the detection, and generates a new *STARTUP.NCF* file that will initiate the automatic hardware detection on reboot. While automatic hardware detection can eliminate some of the steps above, the detection will most likely require user interaction to locate Compaq and third-party drivers.

The list of files necessary for hardware detection follows.

Table 4. Files to be copied for hardware detection

What to copy	*Source Directory*	*Destination Directory*
HDETECT.NLM	NetWare 5 CDROM Root directory	C:\NWSERVER
HWDETECT.ICS	NetWare 5 CDROM Root directory	C:\NWSERVER
CLIB.NLM	SYS\SYSTEM\	C:\NWSERVER
THREADS.NLM	SYS\SYSTEM	C:\NWSERVER
NIT.NLM	SYS\SYSTEM	C:\NWSERVER
NLMLIB.NLM	SYS\SYSTEM	C:\NWSERVER
REQUESTR.NLM	SYS\SYSTEM	C:\NWSERVER
LIB0.NLM	SYS\SYSTEM	C:\NWSERVER
STREAMS.NLM	SYS\SYSTEM	C:\NWSERVER
FPSM.NLM	SYS\SYSTEM	C:\NWSERVER
AFTER311.NLM	SYS\SYSTEM	C:\NWSERVER
???NLM32.NLM	SYS\SYSTEM	C:\NWSERVER

Copy a master *STARTUP.NCF*

If you already have a version of a *STARTUP.NCF* for NetWare 5 with support for your hardware, you may wish to place that file in the same directory as the script file on the master server and have your script copy that file to the server being migrated. The sample script will not execute if you are using a master *STARTUP.NCF* and performing hardware

detection or DDFS to NWPA conversion, since performing hardware detection or the DDFS to NWPA conversion will modify the *STARTUP.NCF*.

Each of these steps is labeled in the example script. When the sample script is run, there is a check to ensure that any incompatibilities between these actions will terminate the script; for example, converting to NWPA and autodetect hardware or installing Java without long name space installed.

Removing Old Files, Patches, and Utilities

Obviously, some components of NetWare 4 are incompatible with the newer NetWare 5 architecture. Patches for NetWare 4 that have been integrated into NetWare 5, unsupported utilities, and outdated files should be removed.

Removing Outdated Patches and Products

To eliminate any potential incompatibilities between NetWare 4.11 patches and NetWare 5, your script should remove all traces of any patches. Luckily, CDWare scripting provides an integrated function for removing patches. The syntax is somewhat cryptic and documentation on this command is sparse. The section of the example script was generated by Novell to remove any publicly available patches. The list of patches that are removed follows.

Table 5. Outdated patches to be removed before migration

ADTRSTFX	AUTODUMP	CLSSCRFX	EAPURGFX	EVNTRPFX	GETDIRFX
MACREQFX	MSSMEMFX	NSMODFFX	SRVSTPFX	STDRCHFX	UNKSPCFX
VGENFUFX	SWTINTFX	CACHEPER	SHORTAFX	TRSTFIX	ADDSRVFX
ALERTFIX	ASNCRDFX	BIGRFIX	CLPHFIX	DBLDEBFX	WSDFIX
WTCHDGFX	XMDFIX	DEVRQFIX	DIAGRFSX	PATCHMAN	TTSFIX
UNKFIX	UNLCKFIX	VOLWRFIX	WORMROFX	CRDIRFIX	DIRSPCFX
EAACCFIX	EADATFIX	EAREPLFX	ELEVFIX	GETNSPFX	GNSFIX
IPXRCVFX	MMACCFIX	PBWANFIX	DIRSRCFX	MMHANDFX	SAPFX
SYNCMFIX	UNLDIRFX	WSMSGFIX	PM312	RKIELFIX	REALMFIX
SPXCONFG	READQFIX	DBLDEBFX	HFFIX	IOHANDFX	LSTECBFX
REGOBJFX	TRBUFFIX	AUDITFIX	BCKTTSFX	ADROUTFX	NCPXTNFX
VOLMTFIX	RTCHGFIX	RENDIRFX	RTRTIME	SPXACKFX	SYNCTIME
MACNMFX	DAICCFIX	SPXTRMFX	UNLOADFX	SPXNSFIX	SPXFIX2
SPXDDFIX	DFILTRFX	EAALLCFX	NCPCHKFX	DESLOTFX	WORMROFX
SEARCHFX	NTBIOFIX	GTALLYFX	CTRSTKFX	EAFLTFIX	SIGLOGFX
LSLUNBFX	WRLENFIX	DHANDFX	GLOCKFIX	EAWRNFX	SERVHOPS
IPXSOCK	EASUBFIX	EAWRITFX	BHANDFIX	DSPRCSFX	SPXTRMFX
AUDDIRFX	AUDNSPFX	CLRDIRFX	COMABRFX	COMREDFX	COMSTPFX
COMUPDFX	EADFLGFX	EXVMGTFX	FNDSYMFX	GETVOLFX	MAPCONFX
PBOUTWFX	MSVOLMFX	PUBRECFX	RESPOLFX	SERPERFX	COMSDSFX
SUBLCKFX	TOTBLKFX	NSWILDFX	MIGINIFX	EAVLMTFX	MSSHIM
PM410	SRVPRSFX	CRTDIRFX	TIMRESFX	SHRRESFX	MMMIRRFX
RPCERRFX	SYNMEMFX	CREDIRFX	IPXSTAFX	PRGDELFX	RIPFIX
SPXACKFX	BRDCSTFX	CHKLANFX	COMCOPFX	EOFREDFX	LCKSTNFX
MIGSTRFX	SUBSPCFX	SYNMSGFX	MMDISMFX	ALLDIRFX	OPNCLBFX
LSLTIMFX	SRSYNCFX	SYNTHRFX	MSINPQFX	DUPLICFX	LSLLCKFX
RENDIRFX	MMHANDFX	READFLFX	MIGKEYFX	WATDOGFX	GETVINFX
IPXHANFX	WORKTDFX	SHRRAMFX	SMPSHMFX	MIGFREFX	STPSRVFX
MEMCOLFX	MMREMMFX	RTCONNFX	ALWRITFX	PRGFILFX	MAXPCKFX
PROTIDFX	ALEQUEFX	RELQUEFX	REGOPNFX	SRVPRSFX	DIAG410

Due to the number of entries and the undefined syntax of the PI_EditNCF_KEYSTRINGS command, Compaq recommends that you use this section of the script exactly as it appears in the example rather than coding your own.

Likewise, there are several large updates and patches for NetWare 4.11 that should be uninstalled before the migration. Unlike the previous list of patches, these products should be uninstalled by calling *UINSTALL.NLM* within your script.

Table 6. Products to be uninstalled using UInstall.NLM

410PT3	PRTS_UPD	TCPN02
410PT4	WEB_UPD	TCPN03
410IT6	DHCP_UPD	TCPN04
MPR30_PTF	NWMACUPD	TCPN05
SPACK	MPR_UPD	NWIP4

Removing Files from Startup Directory and SYS:SYSTEM

There are many files that have been replaced, modified, or eliminated for NetWare 5. Before you begin the migration, your script should remove these files to ensure that any possible conflicts are eliminated. The sample script shows how to remove all of the following files.

Table 7 lists files to be deleted in the NetWare boot directory, which is by default C:\NWSERVER.

Table 7. Files to be removed from NWBOOT

CPDATA.NLM	*DSLOADER.NLM*	*NBI.NLM*	*WS2_32.NLM*
**.I?S*	*INETLIB.NLM*	*UNICODE.NLM*	*SHOWLOGO.NLM*
**NLM32.NLM*	*POLIMGR.NLM*	*DIAG500.NLM*	*NEB.NLM*
CPUCHECK.NLM	*QUEUE.NLM*	*XSUP.XLM*	*LOADER.NLM*
MM.NLM	*NCP.NLM*	*XMGR.XLM*	**.LAN'*
LFS.NLM	*HWDETECT.NLM*	*EXPXENG.XLM*	**.LDI*
FILESYS.NLM	*XIM.XLM*	*CCS.XLM*	**.MSG*
NWI.NLM*	*NWKCFG.NLM*	*NWPA.NLM*	*MSM*.NLM*
NDSAUDIT.NLM	*CDBE.NLM*	*SERVER.MSG*	*SEARCHES.NCF*
AUTO.SAV	*DSAPI.NLM*	*FDDITSM.NLM*	*SNMP.**
CDINST.NLM	*DSEVENT.NLM*	*TOKENTSM.NLM*	*TLI.**
CSL.NLM*	*DSI.NLM*	*IPXS.NLM*	*MSERVER.EXE*
DS.NLM	*ETHERTSM.NLM*	*MMNATIVE.NLM*	

The following files should be removed from the SYS:SYSTEM directory:

Table 8. Files to be removed from SYS:SYSTEM

???NLM32.NLM	*HGSCD*.NLM*	*MPDETECT.NLM*	*NSPSAP.NLM*

AFP.NLM*	*HWMAIN.ILS*	*MPDRIVER.NLM*	*NSPSLP.NLM*
ATPS.NLM*	*ICMD.NLM*	*NBI.NLM*	*NWCONFIG.NLM*
ATXRP.NLM	*INSTALL.NLM*	*NCFUPD.NLM*	*NWI.NLM*
BRGCON.NLM	*IPXSPX.NLM*	*NCPIP.NLM*	*NWIAP.NLM*
CCS.XLM	*ISSLIB.NLM*	*NCPIPX.NLM*	*NWICF.NLM*
CHARSET.NLM	*JAVA.IPS*	*NDSAUDIT.NLM*	*NWICL.NLM*
COMMAIN.ICS	*KEYB.NLM*	*NEB.NLM*	*NWIDK.NLM*
COMOTHR.ILS	*LCONFIG.SYS*	*NETMAIN.ILS*	*NWIDS.NLM*
CONONE.IPS	*LONG.NAM*	*NETSRC.SAV*	*NWIDSIS.NLM*
CPDATA.NLM	*MAC.NAM*	*NFS.NAM*	*NWIHW.NLM*
DSLOADER.NLM	*MACFILE.NLM*	*NLS%{NWLANG}NWIWSJV.MSG*	*NWIPR.NLM*
EDIT.NLM	*MASV.NLM*	*NOVXENG.XLM*	*NWIRF.NLM*
HCSS.NLM*	*MMNATIVE.NLM*	*NSPDNS.NLM*	*NWITZ.NLM*
HFS.NLM*	*MONITOR.NLM*	*NSPNDS.NLM*	*NWIWS.NLM*
NWPA.NLM*	*UNI_1252.NLM*	*UNI_861.NLM*	*VREPAIR.NLM*
NWSNUT.NLM	*UNI_1253.NLM*	*UNI_862.NLM*	*V_LONG.NLM*
PARTAPI.NLM	*UNI_1254.NLM*	*UNI_863.NLM*	*V_MAC.NLM*
POLIMGR.NLM	*UNI_1255.NLM*	*UNI_864.NLM*	*V_NFS.NLM*
SERVCFG.000	*UNI_1256.NLM*	*UNI_865.NLM*	*WSPIP.NLM*
SERVER.EXE	*UNI_1257.NLM*	*UNI_866.NLM*	*WSPIPX.NLM*
SLP.NLM	*UNI_1258.NLM*	*UNI_874.NLM*	*XIM.XLM*
SLPDA.NLM	*UNI_437.NLM*	*UNI_932.NLM*	*XMGR.XLM*
SLPTCP.NLM	*UNI_737.NLM*	*UNI_936.NLM*	*XSUP.XLM*
SMP.NLM	*UNI_775.NLM*	*UNI_949.NLM*	**.XLM*
STARTUP.NCF	*UNI_850.NLM*	*UNI_950.NLM*	**.DSK*
STARTUP.ORG	*UNI_852.NLM*	*UNI_MON.NLM*	**.DDI*
UINSTALL.NLM	*UNI_855.NLM*	*UNI_UPR.NLM*	
UNI_1250.NLM	*UNI_857.NLM*	*UNICODE.NLM*	
UNI_1251.NLM	*UNI_860.NLM*	*UPS.NLM*	

Removing Unsupported DOS Utilities

There are some utilities scattered about a NetWare 4.11 server that are no longer supported or have been replaced in NetWare 5. Your script should remove each of these.

The following table lists files that reside on the SYS volume in the PUBLIC directory and that should be erased by your script.

Table 9. The following utilities should be removed from the SYS:PUBLIC directory.

ADDICON.EXE	*LISTDIR.BAT*	*NMENU.BAT*	*SESSION.BAT*
ALLOW.BAT	*MIGPRINT.EXE*	*NPATH.EXE*	*SETTTS.EXE*

ATTACH.BAT	*MIGRATE.EXE*	*NWXTRACT.EXE*	*SLIST.BAT*
CASTOFF.BAT	*MENU_X.BAT*	*PARTMGR.EXE*	*SMODE.BAT*
CASTON.BAT	*MENUCNVT.EXE*	*PCONSOLE.EXE*	*SYSCON.BAT*
CHKDIR.BAT	*MENUEXE.EXE*	*PRINTCON.EXE*	*SYSTIME.EXE*
CHKVOL.BAT	*MENUMAKE.EXE*	*PRINTDEF.EXE*	*TLIST.BAT*
COLORPAL.EXE	*MENURSET.EXE*	*PSC.EXE*	*TYPEMSG.EXE*
DOSGEN.EXE	*NETADMIN.EXE*	*PUPGRADE.EXE*	*USERLIST.BAT*
DSPACE.BAT	*NETUSER.EXE*	*REMOVE.BAT*	*VERSION.BAT*
ENDCAP.BAT	*NCOPY.EXE*	*RENDIR.EXE*	*VOLINFO.BAT*
FILER.EXE	*NCUPDATE.EXE*	*REVOKE.BAT*	*WHOAMI.EXE*
FLAGDIR.BAT	*NDIR.EXE*	*SALVAGE.BAT*	*WSUPDATE.EXE*
GRANT.BAT	*NLIST.EXE*	*SEND.EXE*	*WSUPGRD.EXE*

Similarly, your script should remove the following files from the SYS:LOGIN directory.

Table 10. Files to be removed from SYS:LOGIN

ATTACH.BAT	*MENU_X.BAT*	*NLIST.EXE*	*TYPEMSG.EXE*

NetWare 4.11 .PSMs are not compatible with the architecture of NetWare 5. For that reason, your script should remove any .PSM and .MDI files remaining on the server.

Table 11. .PSM and .MDI files to be removed

Files in NWBOOT		***Files in NWSYSTEM***	
**.PSM*	**.MDI*	**.PSM*	**.MDI*

Copying Files

The heart of the NetWare migration is copying the new NetWare 5 files to the server but the script must also copy many other files for a successful migration. Drivers, additional script files, support files, and utilities should also be copied as detailed below.

Copying Startup Files and Drivers

To make all drivers and necessary boot files available to the OS, your script should copy several files to the NWBOOT directory.

Table 12. Drivers and startup files that should be copied to NWBOOT

What to copy	***Source Directory***	***Destination Directory***
Directory contents	STARTUP\	C:\NWSERVER
Directory contents	STARTUP\NLS\	C:\NWSERVER\NLS
Directory contents	STARTUP\NLS\%{LANG}\	C:\NWSERVER\NLS\%{LANG}
SERVER.MSG	STARTUP\NLS\%{LANG}\	C:\NWESERVER

Directory contents	DRIVERS\STORAGE\	C:\NWSERVER\DRIVERS
Directory contents	DRIVERS\STORAGE\NLS\	C:\NWSERVER\NLS
Directory contents	DRIVERS\STORAGE\NLS\%{LANG}\	C:\NWSERVER\NLS\%{LANG}
Directory contents and subdirectories	DRIVERS\SBD\	C:\NWSERVER\DRIVERS

Copying Files to SYSTEM, PUBLIC, and LOGIN Directories

There are several user configuration files from NetWare 4.x that can be used for your NetWare 5 server. Preserving these files can save time in configuring NetWare 5. Unfortunately, the files reside on the NetWare CD among many necessary files; copying the entire source directory from the CD would overwrite your configuration files. It is possible to specify every other file, besides the default configuration files on the CD, to be copied, but it is easier for your script to make a temporary backup of the following files and replace them after the NetWare 5 default versions are copied to your server.

The configuration files that should be backed up follow.

Table 13. Configuration files that should be backed up

SYS:ETC*ATTYPES.CFG*	SYS:ETC*NETWORKS*	SYS:ETC*SLP.CFG*	SYS:ETC\DNS*ROOTSRVR.DAT*
SYS:ETC*BUILTINS.CFG*	SYS:ETC*NTP.CFG*	SYS:ETC*SNMP.CFG*	SYS:SYSTEM*NWCSTART.NCF*
SYS:ETC*GATEWAYS*	SYS:ETC*PROTOCOL*	SYS:ETC*TRAPTARG.CFG*	SYS:SYSTEM*NWCSTOP.NCF*
SYS:ETC*HOSTS*	SYS:ETC*SERVICES*	SYS:ETC*JAVA.CFG*	

After making backups of the preceding files, your script should then copy the following NetWare 5 files from the CD.

Table 14. NetWare 5 files to be copied

What to copy	*Source Directory*	*Destination Directory*
Directory contents and subdirectories with *read-only* attribute set off	SYS\ETC\	SYS:ETC
Directory contents	SYS\LOGIN\	SYS:LOGIN
Directory contents	SYS\LOGIN\NLS	SYS:LOGIN\NLS
Directory contents	SYS\LOGIN\NLS\%{NWLANGNAME}\	SYS:LOGIN\NLS\%{NWLANGNAME}
Directory contents and subdirectories	SYS\MAIL	SYS:MAIL
Directory contents and subdirectories	SYS\NETBASIC	SYS:NETBASIC
Directory contents	SYS\PUBLIC	SYS:PUBLIC
Directory contents	SYS\PUBLIC\DNSDHCP	SYS:PUBLIC\DNSDHCP
Directory contents and subdirectories	SYS\PUBLIC\DNSDHCP\DAT\BIN	SYS:PUBLIC\DNSDHCP\DAT\BIN
Directory contents	SYS\PUBLIC\DNSDHCP\DAT\HELP	SYS:PUBLIC\DNSDHCP\DAT\HELP
Directory contents	SYS\PUBLIC\DNSDHCP\DAT\HELP\%{NWLANGNAME}	SYS:PUBLIC\DNSDHCP\DAT\HELP\%{NWLANGNAME}
Directory contents	SYS\PUBLIC\DNSDHCP\DAT\NLS	SYS:PUBLIC\DNSDHCP\DAT\NLS
Directory contents	SYS\PUBLIC\DNSDHCP\DAT\NLS\%{NWLANG	SYS:PUBLIC\DNSDHCP\DAT\NLS\%{NWLANG

	NAME}	NAME}
Directory contents	SYS\PUBLIC\DNSDHCP\%{NWLANGNAME}	SYS:PUBLIC\DNSDHCP\%{NWLANGNAME}
Directory contents	SYS\PUBLIC\DNSDHCP\NLS	SYS:PUBLIC\DNSDHCP\NLS
Directory contents	SYS\PUBLIC\DNSDHCP\NLS\%{NWLANGNAME}	SYS:PUBLIC\DNSDHCP\NLS\%{NWLANGNAME}
Directory contents	SYS\PUBLIC\DNSDHCP\SNAPIN	SYS:PUBLIC\DNSDHCP\SNAPIN
Directory contents	SYS\PUBLIC\NLS	SYS:PUBLIC\NLS
Directory contents	SYS\PUBLIC\NLS\%{NWLANGNAME}	SYS:PUBLIC\NLS\%{NWLANGNAME}
Directory contents	SYS\PUBLIC\WIN32	SYS:PUBLIC\WIN32
Directory contents	SYS\PUBLIC\WIN32\NLS	SYS:PUBLIC\WIN32\NLS
Directory contents	SYS\PUBLIC\WIN32\NLS\%{NWLANGNAME}	SYS:PUBLIC\WIN32\NLS\%{NWLANGNAME}
Directory contents and subdirectories	SYS\PUBLIC\WIN32\SNAPINS	SYS:PUBLIC\WIN32\SNAPINS
Directory contents	SYS\PUBLIC\WIN95	SYS:PUBLIC\WIN95
Directory contents	SYS\PUBLIC\WIN95\NLS	SYS:PUBLIC\WIN95\NLS
Directory contents	SYS\PUBLIC\WIN95\NLS\%{NWLANGNAME}	SYS:PUBLIC\WIN95\NLS\%{NWLANGNAME}
Directory contents	SYS\PUBLIC\WINNT	SYS:PUBLIC\WINNT
Directory contents	SYS\PUBLIC\WINNT\NLS	SYS:PUBLIC\WINNT\NLS
Directory contents	SYS\PUBLIC\WINNT\NLS\%{NWLANGNAME}	SYS:PUBLIC\WINNT\NLS\%{NWLANGNAME}
Directory contents	SYS\SYSTEM	SYS:SYSTEM
Directory contents and subdirectories	SYS\SYSTEM\AIO	SYS:SYSTEM\AIO
Directory contents and subdirectories	SYS\SYSTEM\ATMUNI31	SYS:SYSTEM\ATMUNI31
Directory contents and subdirectories	SYS\SYSTEM\CONNECT	SYS:SYSTEM\CONNECT
Directory contents	SYS\SYSTEM\NLS	SYS:SYSTEM\NLS
Directory contents	SYS\SYSTEM\NLS\%{LANG}	SYS:SYSTEM\NLS\%{LANG}
Directory contents and subdirectories	SYS\SYSTEM\NMA	SYS:SYSTEM\NMA
Directory contents and subdirectories	SYS\SYSTEM\NMX	SYS:SYSTEM\NMX
Directory contents and subdirectories	SYS\SYSTEM\SCHEMA	SYS:SYSTEM\SCHEMA
Directory contents	SYS\SYSTEM\UTILS	SYS:SYSTEM\UTILS
Directory contents	SYS\SYSTEM\UTILS\NLS	SYS:SYSTEM\UTILS\NLS
Directory contents	SYS\SYSTEM\UTILS\NLS\%{NWLANGNAME}	SYS:SYSTEM\UTILS\NLS\%{NWLANGNAME}
Directory contents	DRIVERS\LAN	SYS:SYSTEM
Directory contents	DRIVERS\LAN\NLS	SYS:SYSTEM\NLS
Directory contents	DRIVERS\LAN\NLS\%{LANG}	SYS:SYSTEM\NLS\%{LANG}
Directory contents and subdirectories	DRIVERS\SBD	SYS:SYSTEM
NWCSTART.NCF with *read-write* attribute set to off	PRODUCTS\RAS\NWCNCF\	SYS:SYSTEM
NWCSTOP.NCF with *read-write* attribute set to off	PRODUCTS\RAS\NWCNCF\	SYS:SYSTEM
NCS.LDF with *read-write* attribute set to off	PRODUCTS\RAS\SYSTEM\CONNECT\SCRIPTS	SYS:SYSTEM\CONNECT\SCRIPTS

NCS.ULF with *read-write* attribute set to off	PRODUCTS\RAS\SYSTEM\CONNECT\SCRIPTS	SYS:SYSTEM\CONNECT\SCRIPTS
NWCINST.TXT with *read-write* attribute set to off	PRODUCT\RAS\NWCNCF\	SYS:SYSTEM

At this point, your script should restore the configuration files which it had previously backed-up to their original locations

Copying Necessary Script Files

Several script files must be copied from the NetWare 5 CD to the C:\NWSERVER DOS partition. When copying these files, your script should also set the attributes for the file to disable the read-only parameter.

Table 15. Script files to be copied to the server

What to copy	*Source Directory*	*Destination Directory*
NETMAIN.ILS	INSTALL\NLS\%{LANG}\	C:\NWSERVER
JAVA.IPS	INSTALL\NLS\%{LANG}\	C:\NWSERVER
CONONE.IPS	INSTALL\NLS\%{LANG}\	C:\NWSERVER
COMOTHR.ILS	INSTALL\NLS\%{LANG}\	C:\NWSERVER
HWMAIN.ILS	INSTALL\NLS\%{LANG}\	C:\NWSERVER
ADDLANG.ILS	INSTALL\NLS\%{LANG}\	C:\NWSERVER
CHGLANG.ILS	INSTALL\NLS\%{LANG}\	C:\NWSERVER
COMMAIN.ICS	INSTALL\NLS\	C:\NWSERVER
SETLANG.ICS	INSTALL\NLS\	C:\NWSERVER
COPYLANG.ICS	INSTALL\NLS\	C:\NWSERVER

Copying and Uncompressing Java Files

To install the new Java support for NetWare 5, create your script to copy and extract the following archives.

Table 16. Files to be copied and extracted for Java installation

What to copy	*Source Directory*	*Destination Directory*
JAVA.TAR	SYS\JAVA_INS\	SYS:
NJCL.TAR	SYS\JAVA_INS\	SYS:
BEANS.TAR	SYS\JAVA_INS\	SYS:
PERL.TAR	SYS\JAVA_INS\	SYS:

When your script has copied the files to SYS:, you should call the NLMexec function to launch TAR to extract the files. When calling TAR, your script should specify the *xvfD* parameters so that the files are extracted to the correct subdirectory. An example is shown below.

```
NLMexec 1, SYS:SYSTEM\\TAR xvfD BEANS.TAR
```

After extracting the files, have your script delete the four compressed archives.

Copying and Uncompressing Novell ConsoleOne Files

Similar to the Java installation, the ConsoleOne files reside on the NetWare 5 CD as compressed archives. In order to install ConsoleOne, your script should copy the archives, extract the files with directory structure intact, then delete the original compressed files copied from the CD. The archives that contain ConsoleOne are listed below.

Table 17. Files to be copied and extracted for ConsoleOne installation

What to copy	*Source Directory*	*Destination Directory*
CONSOLE1.TAR	SYS\JAVA_INS\	SYS:
MACH1.TAR	SYS\JAVA_INS\	SYS:
SERVTOP.TAR	SYS\JAVA_INS\	SYS:
RCONJ.TAR	SYS\JAVA_INS\	SYS:

When your script has copied the files to SYS:, you should call the NLMexec function to launch TAR to extract the files. When calling TAR, your script should specify the *xvfD* parameters so that the files are extracted to the correct subdirectory. An example is shown below.

```
NLMexec 1, SYS:SYSTEM\\TAR xvfD CONSOLE1.TAR
```

After extracting the files, have your script delete the four compressed archives.

Copying New Install Files

Once again, your script must copy and uncompress the archives, just as with the Java and ConsoleOne components, to perform the installation.

Table 18. Files to be copied and extracted

What to copy	*Source Directory*	*Destination Directory*
NI.TAR	INSTALL\TARS\	SYS:
PRODUCTS.TAR	INSTALL\TARS\	SYS:

Several other files need only be copied to complete the GUI installation.

Table 19. Files to be copied

What to copy	*Source Directory*	*Destination Directory*
AD1.GIF	INSTALL\NLS\%{LANG}\	SYS:NI\DATA
AD2.GIF	INSTALL\NLS\%{LANG}\	SYS:NI\DATA
AD3.GIF	INSTALL\NLS\%{LANG}\	SYS:NI\DATA
AD4.GIF	INSTALL\NLS\%{LANG}\	SYS:NI\DATA
AD5.GIF	INSTALL\NLS\%{LANG}\	SYS:NI\DATA
NOVSW.XPM	INSTALL\	SYS:JAVA\NWGFX\PIXMAPS
NOVELL.XPM	INSTALL\	SYS:JAVA\NWGFX\PIXMAPS
SVCDEF.NLM	PRODUCTS\RAS\SYSTEM\	SYS:SYSTEM
NWCUPDAT.NLM	PRODUCTS\RAS\SYSTEM\	SYS:SYSTEM

CPDATA.NLM	INSTALL\	C:\NWSERVER
Directory contents and subdirectories	INSTALL\JAVABIN\	SYS:JAVA\BIN
Directory contents and subdirectories	INSTALL\CFGS\	SYS:SYSTEM
SEARCHES.NCF	INSTALL\	SYS:SYSTEM
INST2RC	INSTALL\NLS\%{LANG}\	SYS:NI\DATA
PTJ_R0.NLM	SYS:NI\POET\NLM\:	SYS:SYSTEM
SASNDS.NLM	PRODUCTS\SAS\INST\	SYS:SYSTEM
LDAPNDS.NLM	PRODUCTS\NLDAP\INST\	SYS:SYSTEM

Copying NetWare NDPS Utilities

To install the NetWare Distributed Print Services, your script should simply copy the following.

Table 20. Files to be copied for NetWare NDPS Administration installation

What to copy	*Source Directory*	*Destination Directory*
Directory contents	PRODUCTS\NDPS\SYSTEM\	SYS:SYSTEM
Directory contents	PRODUCTS\NDPS\SYSTEM\NLS\	SYS:SYSTEM\NLS
Directory contents	PRODUCTS\NDPS\SYSTEM\NLS\%{LANG}\	SYS:SYSTEM\NLS\%{LANG}
Directory contents	PRODUCTS\NDPS\PUBLIC\	SYS:PUBLIC
Directory contents	PRODUCTS\NDPS\PUBLIC\NLS\	SYS:PUBLIC\NLS
Directory contents	PRODUCTS\NDPS\PUBLIC\NLS\%{NWLANGNAME}\	SYS:PUBLIS\NLS\%{NWLANGNAME}
Directory contents	PRODUCTS\NDPS\WIN32\	SYS:PUBLIC\WIN32
Directory contents	PRODUCTS\NDPS\WIN32\NLS\	SYS:PUBLIC\WIN32\NLS
Directory contents	PRODUCTS\NDPS\WIN32\NLS\%{NWLANGNAME}\	SYS:PUBLIC\WIN32\NLS\%{NWLANGNAME}
Directory contents	PRODUCTS\NDPS\SNAPINS\	SYS:PUBLIC\WIN32\SNAPINS

Putting the Finishing Touches

Copying Cryptography Files

Perhaps the most troubling component of the script was the handling of the NetWare 5 encryption engines. The copying of the encryption engines as seen in the Appendix provides only minimal encryption support through a NULL engine. If greater cryptography is needed, you will need to configure the encryption according to the Novell documentation.

Copying Updated Compaq Drivers

To make the migration script even more complete, the sample script copies all Compaq drivers from the NetWare 5 CD to the server being migrated. If you have obtained newer drivers than appear on the NetWare 5 CD, the script could easily copy them from the

master server so that the machine you are upgrading would boot with the latest Compaq drivers.

Performing Directory Services Update

Before the migration is complete, you must update the Novell Directory Services using the *NDSDIBUP.NLM* available from Novell with the Accelerated Upgrade Utility. Since this utility needs be run only once after the first reboot, the sample script adds the necessary lines to the *AUTOEXEC.NCF* and then actually creates another script that will remove these statements when the server reboots.

Modifying Startup Files

The sample script adds a few additional lines to the *AUTOEXEC.NCF* that will enable the IPX networking for the server. Since NetWare 5 is native IP, these components are loaded to ensure IPX compatibility.

Removing Third-Party Applications from *AUTOEXEC.NCF*

To eliminate any potential conflict between NetWare 5 and any third-party applications on your server, the sample script searches the *AUTOEXEC.NCF* file and comments out the load statement for *SAMPLE.NLM*. In developing your own script, you could replace *SAMPLE.NLM* with any after-market application running on your server. By duplicating the code and replacing the name for each custom .NLM loaded, you can prevent any potential conflicts from interfering with your migration. After the script has completed, you will need to uncomment the lines for the applications that are compatible with NetWare 5.

Configuring the mouse port

With a new graphical interface, mouse support is a must for NetWare 5. The sample script enables mouse support for either a serial or PS/2 mouse by modifying, or creating if necessary, the files *MOUSE.CFG* and *PRE_SRV.NCF*.

Rebooting the Server

Finally, if you would like, you may have the script automatically reboot the server. This step is not necessary in your script and, in some cases, not practical due to the number of users currently accessing the server. If your script does not reboot the server, you can perform the migration during regular operation, then reboot the server when server activity is reduced to avoid the impact of momentarily downing the server. However, a reboot, at some point, is necessary to have your server functioning as a NetWare 5 server.

Appendix – Example Script

```
@Version 5.00
@SyntaxVersion 1.03
; UPGRADE.IPS ** x86 Version **

;-------------------------------------------------------------------------
;                    Sample NetWare 5 Migration Script
; Updates a NetWare 4.11 server to NetWare 5 with minimal user intervention
; User accepts responsibility and consequences of use!
;
; Requirements:
; 1) Master NDS replica updated to NW5 using NetWare 5 CD (Normal upgrade)
; 2) NetWare 5 CD available on a network server
; 3) On the same server as the NetWare 5 CD, this script is available
; 4) In the same directory as this script, the following helper NLMS:
;      CPQICMD.NLM version 1.13 or later (from Compaq NSSD 5.01)
;      ICMD.NLM version 3.07 or later from the NetWare 5 CD STARTUP directory
;      NDSDIBUP.NLM version 1.00 or later from Novell
; 5) Update the following variables in the Global Variables section
;    to match the configuration you with to use:
;      SRCSRVR should be the name of the source system
;      SRCNW5 should be the path to the NetWare 5 CD contents
;      SRCSCRIPT should be the path to the script and associated utilities
;      NWBOOT should be the directory that the target server boots from
;
; Instructions
; 1) Mount the NetWare 5 CD on the master replica server (not the target server)
; 2) Create a directory on the server for the migration kit
; 3) Copy this script and associated utilities to the script directory
; 4) Edit the appropriate global variables (below)
; 5) On the target system,
;    a. Load INSTALL
;    b. Select Product Options
;    c. Select Install a product not listed
;    d. Press F3 and enter the path to the script.  eg, NW5:SYS\SCRIPT
;    e. Supply a username and password for the source server
;    f. Let the script run (requires about 35m across a 100Tx link)
;    g. Proceed when the migration process is complete (1 reboot)
; 6) On the target system, LOAD SETUPNLS.NLM
;    a. Update the licensing service
; 7) On the target system, LOAD NWCONFIG.NLM
;    a. Install the NetWare 5 server license(s)
; 8) On the target system, LOAD INETCFG.NLM
;    a. Update the networking
; 9) Install/configure any additional features/applications
;10) Reboot the server for all the changes to take place.
;-------------------------------------------------------------------------


;-------------------------------------------------------------------------
; Transfer needed utilities to the local (target) server from the same
; location as the script.
; ICMD.NLM must be copied from the STARTUP directory on the NETWARE5 CD
; to the same directory as this script on the master server!
CopyToServer SYSTEM\NWUPDATE, ICMD.NLM, '', ''
CopyToServer SYSTEM\NWUPDATE, CPQICMD.NLM, '', ''
;-------------------------------------------------------------------------


;-------------------------------------------------------------------------
; Load the script command language extender.
Command NWUPDATE\ICMD
;-------------------------------------------------------------------------
```

Defining Variables and Menu Items

```
;-------------------------------------------------------------------------
; Initialize Global Variables
;-------------------------------------------------------------------------
 SetVar true,  1
 SetVar false, 0

 ; Enter the name of the system serving the NetWare 5 CD and migration script
```

```
  SetVar SRCSRVR,   "NW5"

  ; Enter the path to the NetWare 5 CD
  SetVar SRCNW5,    "%{SRCSRVR}\\NETWARE5:"
  SetVar SRCSYS,    "%{SRCSRVR}\\SYS:"

  ; Enter the path to the migration script and tools directory
  SetVar SRCSCRIPT, "%{SRCSYS}SCRIPT"

  ; Enter the boot directory for the target system
  SetVar NWBOOT,    "C:\\NWSERVER"

  SetVar SRCPOET,   "%{SRCSRVR}\\SYS:\\NI\\POET\\NLM"
  SetVar NWSYS,     "SYS:"
  SetVar NWSYSTEM,  "SYS:SYSTEM"
  SetVar NWPUBLIC,  "SYS:PUBLIC"
  SetVar NWLOGIN,   "SYS:LOGIN"

  ; This appears to make some sensitive commands treat paths correctly.
  GetPath SRCSRVR,   1, %{SRCSRVR},   "
  GetPath SRCSYS,    1, %{SRCSYS},    "
  GetPath SRCPOET,   1, %{SRCPOET},   "
  GetPath SRCNW5,    1, %{SRCNW5},    "
  GetPath SRCSCRIPT, 1, %{SRCSCRIPT}, "
  GetPath NWBOOT,    1, %{NWBOOT},    "
  GetPath NWSYS,     1, %{NWSYS},     "
  GetPath NWSYSTEM,  1, %{NWSYSTEM},  "
  GetPath NWPUBLIC,  1, %{NWPUBLIC},  "
  GetPath NWLOGIN,   1, %{NWLOGIN},   "

; Establish installation selection items below
; These items could be enabled through a menu (optional filesets), but this
; allows them to execute without user intervention.  The only flag likely to be
; modified is FlagRebootServer (if you want to migrate but wait to down the
; server).
;
; Note: To prevent an installation action, set the flag to false (do not
; delete the flag).  Otherwise a syntax error may occur.

  SetVar FlagDebug,                 %{false}
  SetVar FlagRemoveOldPatches,      %{true}
  SetVar FlagRemoveOldProducts,     %{true}
  SetVar FlagAddLongNameSpace,      %{true}
  SetVar FlagUpdateSTARTUP,         %{true}
  SetVar FlagMigrateSMP,            %{true}
  SetVar FlagConvertCPQStorageDrivers,  %{true}
  SetVar FlagAutoDetectHW,          %{false}
  SetVar FlagTransferMasterStartup,     %{false}
  SetVar FlagEraseOldBootFiles,     %{true}
  SetVar FlagEraseOldSystemFiles,   %{true}
  SetVar FlagEraseOldDOSFiles,      %{true}
  SetVar FlagEraseOldPSMs,          %{true}
  SetVar FlagTransferNewBootFiles,      %{true}
  SetVar FlagTransferNewSystemFiles,    %{true}
  SetVar FlagTransferNewScriptFiles,    %{true}
  SetVar FlagTransferNewJavaFiles,      %{true}
  SetVar FlagTransferNewConsole1Files,  %{true}
  SetVar FlagTransferNewInstallFiles,   %{true}
  SetVar FlagTransferCryptographyFiles, %{true}
  SetVar FlagMoveCompaqStorageDrivers,  %{true}
  SetVar FlagTransferNewNDPSFiles,      %{true}
  SetVar FlagUpdateNDS,             %{true}
  SetVar FlagUpdateAUTOEXEC,        %{true}
  SetVar FlagDisableThirdPartyApps,     %{false}
  SetVar FlagEnableMousePS2,        %{true}
  SetVar FlagEnableMouseCOM1,       %{false}
  SetVar FlagRebootServer,          %{true}
;-------------------------------------------------------------------------

;-------------------------------------------------------------------------
; Last warning and splash screen
;-------------------------------------------------------------------------
Display 0,
"ÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿNetWare 5 Migration Scriptÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿ\n
This script will attempt to migrate a server from NetWare 4 to NetWare 5.  If
you continue, the migration will proceed.\n\n
ÿÿÿÿÿÿÿÿÿ*** This is not a reversible process ***\n
(once begun, the only restoration method may be from tape)\n\n
This script should not be used on an SFT-III server.  This
script should not be used if HCSS data migration is in process.\n\n
```

```
The following steps will need to be performed after running this script:\n
- Update NetWare licensing service\n
- Apply the NetWare 5 server license(s)\n
- Configure TCP/IP\n
- Configure the mouse for Console1\n\n
Press <ESC> to abort or"
;-------------------------------------------------------------------------------

;-------------------------------------------------------------------------------
; Dump global variables in debug mode
;-------------------------------------------------------------------------------
Label ProcDumpGlobals
  GotoIfNEqual %{true}, %{FlagDebug}, EndProcDumpGlobals

  Display 2, "Auto variable          NWSRC    = %{NWSRC}"     Delay 1
;  Display 2, "Auto variable          NWDST    = %{NWDST}"     Delay 1
  Display 2, "Auto variable          NWSTATUS = %{NWSTATUS}"  Delay 1
  Display 2, "Auto variable          NWLANG   = %{NWLANG}"    Delay 1
  Display 2, "Auto variable          COUNTRY  = %{COUNTRY}"   Delay 1
  Display 2, "Auto variable          CODEPAGE = %{CODEPAGE}"  Delay 1
  Display 2, "Auto variable          NWLICNUM = %{NWLICNUM}"  Delay 1
  Display 2, "Auto variable  PI_OSMajorVersion = %{PI_OSMajorVersion}"
  Delay 1

  Display 2, "Script runs from        SRCSCRIPT= %{SRCSCRIPT}" Delay 1
  Display 2, "Master NetWare 5 server SRCSRVR  = %{SRCSRVR}"   Delay 1
  Display 2, "Master SYS: volume      SRCSYS   = %{SRCSYS}"    Delay 1
  Display 2, "Master NetWare 5 path   SRCNW5   = %{SRCNW5}"    Delay 1
  Display 2, "target boots from       NWBOOT   = %{NWBOOT}"    Delay 1
  Display 2, "target system directory NWSYSTEM = %{NWSYSTEM}"  Delay 1
  Display 2, "target public directory NWPUBLIC = %{NWPUBLIC}"  Delay 1
  Display 2, "target login directory  NWLOGIN  = %{NWLOGIN}"   Delay 1
Label EndProcDumpGlobals
;-------------------------------------------------------------------------------


;-------------------------------------------------------------------------------
; Sanity check - make sure that conflicting Flags are not selected
;-------------------------------------------------------------------------------
Label ProcSanityCheckFlags

  Label Test1Begin
    GotoIfEqual %{false}, %{FlagAutoDetectHW}, Test1End
    GotoIfEqual %{false}, %{FlagMigrateSMP}, Test1End
      Display 1, "Error1: conflicting options AutoDetect hardware and Migrate SMP are both enabled."
      Goto EndScript
  Label Test1End

  Label Test2Begin
    GotoIfEqual %{false}, %{FlagAutoDetectHW}, Test2End
    GotoIfEqual %{false}, %{FlagConvertCPQStorageDrivers}, Test2End
      Display 1, "Error2: conflicting options AutoDetect hardware and Convert storage drivers are both enabled."
      Goto EndScript
  Label Test2End

  Label Test3Begin
    GotoIfEqual %{false}, %{FlagAutoDetectHW}, Test3End
    GotoIfEqual %{false}, %{FlagTransferMasterStartup}, Test3End
      Display 1, "Error3: conflicting options AutoDetect hardware and Transfer Master STARTUP.NCF are both enabled."
      Goto EndScript
  Label Test3End

  Label Test4Begin
    GotoIfEqual %{false}, %{FlagTransferMasterStartup}, Test4End
    GotoIfEqual %{false}, %{FlagMigrateSMP}, Test4End
      Display 1, "Error4: conflicting options Transfer Master STARTUP.NCF and Migrate SMP are both enabled."
      Goto EndScript
  Label Test4End

  Label Test5Begin
    GotoIfEqual %{false}, %{FlagTransferMasterStartup}, Test5End
    GotoIfEqual %{false}, %{FlagConvertCPQStorageDrivers}, Test5End
      Display 1, "Error5: conflicting options Transfer Master STARTUP.NCF and Convert storage drivers are both enabled."
      Goto EndScript
  Label Test5End

  Label Test6Begin
    GotoIfEqual %{false}, %{FlagTransferNewJavaFiles}, Test6End
    GotoIfEqual %{true}, %{FlagAddLongNameSpace}, Test6End
      Display 1, "Error6: dependent options Transfer new Java files and Add long name space are not both enabled."
```

```
    Goto EndScript
  Label Test6End

  Label Test7Begin
    GotoIfEqual %{false}, %{FlagTransferNewConsole1Files}, Test7End
    GotoIfEqual %{true}, %{FlagAddLongNameSpace}, Test7End
      Display 1, "Error7: dependent options Transfer new ConsoleOne files and Add long name space are not both enabled."
      Goto EndScript
  Label Test7End

  Label Test8Begin
    GotoIfEqual %{false}, %{FlagTransferNewInstallFiles}, Test8End
    GotoIfEqual %{true}, %{FlagAddLongNameSpace}, Test8End
      Display 1, "Error8: dependent options Transfer new Install files and Add long name space are not both enabled."
      Goto EndScript
  Label Test8End

  Label Test9Begin
    GotoIfEqual %{false}, %{FlagTransferNewJavaFiles}, Test9End
    GotoIfEqual %{true}, %{FlagTransferNewSystemFiles}, Test9End
      Display 1, "Error9: dependent options Transfer new Java files and Transfer new System files are not both enabled."
      Goto EndScript
  Label Test9End

  Label Test10Begin
    GotoIfEqual %{false}, %{FlagTransferNewConsole1Files}, Test10End
    GotoIfEqual %{true}, %{FlagTransferNewSystemFiles}, Test10End
      Display 1, "Error10: dependent options Transfer new ConsoleOne files and Transfer new System files are not both enabled."
      Goto EndScript
  Label Test10End

  Label Test11Begin
    GotoIfEqual %{false}, %{FlagTransferNewInstallFiles}, Test11End
    GotoIfEqual %{true}, %{FlagTransferNewSystemFiles}, Test11End
      Display 1, "Error11: dependent options Transfer new Install files and Transfer new System files are not both enabled."
      Goto EndScript
  Label Test11End

  Label Test12Begin
    GotoIfEqual %{false}, %{FlagEnableMousePS2}, Test12End
    GotoIfEqual %{false}, %{FlagEnableMouseCOM1}, Test12End
      Display 1, "Error12: conflicting options Enable PS/2 Mouse and Enable COM1 Mouse are both enabled."
      Goto EndScript
  Label Test12End

Label EndProcSanityCheckFlags
;-------------------------------------------------------------------------


;-------------------------------------------------------------------------
; Product record creation
; Create a migration history log file
;-------------------------------------------------------------------------
Label ProcMigrationProductRecord
  ProductRecord MIGRATE, 0, 0.9
  ProductRecord MIGRATE, 1, "Server OS migration to NetWare 5"
  ProductRecord MIGRATE, 3, "C:\\NWSERVER\\MIGRATE.LOG"
  SetVar LOGFILE, "%{NWBOOT}\\MIGRATE.LOG"

  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, "+-------------------------------------------------------------------------------+"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "NetWare 5 Migration Log [%{LOGFILE}] created by migration script."
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "Script run from: %{NWSRC}."
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "Initial OS Version: %{PI_OSMajorVersion}.%{PI_OSMinorVersion}"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, ""
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, ".....Migration options listed below....."
  nlmexec 1, NWUPDATE\CPQICMD
Label EndProcMigrationProductRecord
;-------------------------------------------------------------------------


;-------------------------------------------------------------------------
; Internationalization - determine the name of the language directory
;-------------------------------------------------------------------------
```

```
Label ProcGetLanguage
  GotoIfEqual %{NWLANG}, 1, Lang1
  GotoIfEqual %{NWLANG}, 4, Lang4
  GotoIfEqual %{NWLANG}, 6, Lang6
  GotoIfEqual %{NWLANG}, 7, Lang7
  GotoIfEqual %{NWLANG}, 8, Lang8
  GotoIfEqual %{NWLANG}, 9, Lang9
  GotoIfEqual %{NWLANG}, 10, Lang10
  GotoIfEqual %{NWLANG}, 12, Lang12
  GotoIfEqual %{NWLANG}, 13, Lang13
  GotoIfEqual %{NWLANG}, 14, Lang14
  GotoIfEqual %{NWLANG}, 16, Lang16
  Goto ErrorGetLanguage

  Label Lang1  ; Chinese - Simplified
    SetVar NWLANGNAME, "CHINESES"
    Goto DirectoryNameKnown

  Label Lang4  ; English
    SetVar NWLANGNAME, "ENGLISH"
    Goto DirectoryNameKnown

  Label Lang6  ; French
    SetVar NWLANGNAME, "FRANCAIS"
    Goto DirectoryNameKnown

  Label Lang7  ; German
    SetVar NWLANGNAME, "DEUTSCH"
    Goto DirectoryNameKnown

  Label Lang8  ; Italian
    SetVar NWLANGNAME, "ITALIANO"
    Goto DirectoryNameKnown

  Label Lang9  ; Japanese
    SetVar NWLANGNAME, "NIHONGO"
    Goto DirectoryNameKnown

  Label Lang10  ; Korean
    SetVar NWLANGNAME, "KOREAN"
    Goto DirectoryNameKnown

  Label Lang12  ; Portuguese
    SetVar NWLANGNAME, "PORTUGUE"
    Goto DirectoryNameKnown

  Label Lang13  ; Russian
    SetVar NWLANGNAME, "RUSSKI"
    Goto DirectoryNameKnown

  Label Lang14  ; Spanish
    SetVar NWLANGNAME, "ESPANOL"
    Goto DirectoryNameKnown

  Label Lang16  ; Chinese - Traditional
    SetVar NWLANGNAME, "CHINESET"
    Goto DirectoryNameKnown

  Label ErrorGetLanguage
    SetVar NWLANGNAME, "ENGLISH"
    Display 2, "Err: Unknown NetWare 5 Language value: %{NWLANG}"
    Goto DirectoryNameKnown

  Label DirectoryNameKnown
    GotoIfNEqual %{true}, %{FlagDebug}, EndDirectoryNameKnown
    Display 2, "Language Directory name NWLANGNAME=%{NWLANGNAME}" Delay 1
  Label EndDirectoryNameKnown

  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, "Language is %{NWLANGNAME}"
  nlmexec 1, NWUPDATE\CPQICMD

Label EndProcGetLanguage
;-------------------------------------------------------------------------
```

Removing Outdated Patches and Products

```
;-------------------------------------------------------------------------
```

```
; Remove outdated patches
; NetWare 4 patches do not belong on a NetWare 5 system
;-------------------------------------------------------------------------
Label ProcRemoveOldPatches
  GotoIfNEqual %{true}, %{FlagRemoveOldPatches}, EndProcRemoveOldPatches
  SetVar FlagRemoveOldProducts,        %{true}

  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, "Remove old patches" nlmexec 1, NWUPDATE\CPQICMD

  Display 2, "Removing outdated patches."

  PI_EditNCF_KEYSTRINGS
    'ADTRSTFX','AUTODUMP','CLSSCRFX','EAPURGFX','EVNTRPFX','GETDIRFX',
    'MACREQFX','MSSMEMFX','NSMODFFX','SRVSTPFX','STDRCHFX','UNKSPCFX',
    'VGENFUFX','SWTINTFX','CACHEPER','SHORTAFX','TRSTFIX','ADDSRVFX',
    'ALERTFIX','ASNCRDFX','BIGRFIX','CLPHFIX','DBLDEBFX','WSDFIX',
    'WTCHDGFX','XMDFIX','DEVRQFIX','DIAGRFSX','PATCHMAN','TTSFIX',
    'UNKFIX','UNLCKFIX','VOLWRFIX','WORMROFX','CRDIRFIX','DIRSPCFX',
    'EAACCFIX','EADATFIX','EAREPLFX','ELEVFIX','GETNSPFX','GNSFIX',
    'IPXRCVFX','MMACCFIX','PBWANFIX','DIRSRCFX','MMHANDFX','SAPFX',
    'SYNCMFIX','UNLDIRFX','WSMSGFIX','PM312','RKIELFIX','REALMFIX',
    'SPXCONFG','READQFIX','DBLDEBFX','HFFIX','IOHANDFX','LSTECBFX',
    'REGOBJFX','TRBUFFIX','AUDITFIX','BCKTTSFX','ADROUTFX','NCPXTNFX',
    'VOLMTFIX','RTCHGFIX','RENDIRFX','RTRTIME','SPXACKFX','SYNCTIME',
    'MACNMFX','DAICCFIX','SPXTRMFX','UNLOADFX','SPXNSFIX','SPXFIX2',
    'SPXDDFIX','DFILTRFX','EAALLCFX','NCPCHKFX','DESLOTFX','WORMROFX',
    'SEARCHFX','NTBIOFIX','GTALLYFX','CTRSTKFX','EAFLTFIX','SIGLOGFX',
    'LSLUNBFX','WRLENFIX','DHANDFX','GLOCKFIX','EAWRNFX','SERVHOPS',
    'IPXSOCK','EASUBFIX','EAWRITFX','BHANDFIX','DSPRCSFX','SPXTRMFX',
    'AUDDIRFX','AUDNSPFX','CLRDIRFX','COMABRFX','COMREDFX','COMSTPFX',
    'COMUPDFX','EADFLGFX','EXVMGTFX','FNDSYMFX','GETVOLFX','MAPCONFX',
    'PBOUTWFX','MSVOLMFX','PUBRECFX','RESPOLFX','SERPERFX','COMSDSFX',
    'SUBLCKFX','TOTBLKFX','NSWILDFX','MIGINIFX','EAVLMTFX','MSSHIM',
    'PM410','SRVPRSFX','CRTDIRFX','TIMRESFX','SHRRESFX','MMMIRRFX',
    'RPCERRFX','SYNMEMFX','CREDIRFX','IPXSTAFX','PRGDELFX','RIPFIX',
    'SPXACKFX','BRDCSTFX','CHKLANFX','COMCOPFX','EOFREDFX','LCKSTNFX',
    'MIGSTRFX','SUBSPCFX','SYNMSGFX','MMDISMFX','ALLDIRFX','OPNCLBFX',
    'LSLTIMFX','SRSYNCFX','SYNTHRFX','MSINPQFX','DUPLICFX','LSLLCKFX',
    'RENDIRFX','MMHANDFX','READFLFX','MIGKEYFX','WATDOGFX','GETVINFX',
    'IPXHANFX','WORKTDFX','SHRRAMFX','SMPSHMFX','MIGFREFX','STPSRVFX',
    'MEMCOLFX','MMREMMFX','RTCONNFX','ALWRITFX','PRGFILFX','MAXPCKFX',
    'PROTIDFX','ALEQUEFX','RELQUEFX','REGOPNFX','SRVPRSFX','DIAG410',"

  PI_EditNCF_KEYSTRINGS " ; Set strings to not search again.

  PI_EditNCF NWSYSTEM, 'autoexec.ncf', '.BAK', ccode
  GotoIfEqual %{ccode}, 0, PatchesRemovalComplete
     Display 2, "Error: Cannot update AUTOEXEC.NCF. Error #%{ccode}.\n"

  Label PatchesRemovalComplete
    Display 2, "Removing outdated patches - complete."

Label EndProcRemoveOldPatches
;-------------------------------------------------------------------------


;-------------------------------------------------------------------------
; Remove outdated Products
; Clears the product record(s) of older products
;-------------------------------------------------------------------------
Label ProcRemoveOldProducts
  GotoIfNEqual %{true}, %{FlagRemoveOldProducts}, EndProcRemoveOldProducts

  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, "Remove old products" nlmexec 1, NWUPDATE\CPQICMD

  Display 2, "Removing old products."

  NLMExec 1, 'UINSTALL 410PT3'
  NLMExec 1, 'UINSTALL 410PT4'
  NLMExec 1, 'UINSTALL 410IT6'
  NLMExec 1, 'UINSTALL MPR30_PTF'
  NLMExec 1, 'UINSTALL SPACK'
  NLMExec 1, 'UINSTALL PRTS_UPD'
  NLMExec 1, 'UINSTALL WEB_UPD'
  NLMExec 1, 'UINSTALL DHCP_UPD'
  NLMExec 1, 'UINSTALL NWMACUPD'
```

```
  NLMExec 1, 'UINSTALL MPR_UPD'
  NLMExec 1, 'UINSTALL TCPN02'
  NLMExec 1, 'UINSTALL TCPN03'
  NLMExec 1, 'UINSTALL TCPN04'
  NLMExec 1, 'UINSTALL TCPN05'
  NLMExec 1, 'UINSTALL NWIP4'

  Display 2, "Removing old products - complete."

Label EndProcRemoveOldProducts
;-------------------------------------------------------------------------
```

Preparing Server Environment for Migration

```
;-------------------------------------------------------------------------
; Add name spaces
; Long filename space is required for successful unTARring of archives
;-------------------------------------------------------------------------
Label ProcAddLongNameSpace
  GotoIfNEqual %{true}, %{FlagAddLongNameSpace}, EndProcAddLongNameSpace

  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, "Add LONG name space to volume SYS:"
  nlmexec 1, NWUPDATE\CPQICMD

  Display 2, "Adding long name space to SYS:."

  GotoIfEqual %{PI_OSMajorVersion}, 5, EndProcAddLongNameSpace
  GotoIfEqual %{PI_OSMinorVersion}, 11, NameSpace_411
    Console 'Load OS2.Nam', 2
    Console 'Add Name Space OS2 to SYS', 20
    Goto EndProcAddLongNameSpace

  Label NameSpace_411
    Console 'Load Long.Nam', 2
    Console 'Add Name Space LONG to SYS', 20

  Display 2, "Adding long name space to SYS: - complete."

Label EndProcAddLongNameSpace
;-------------------------------------------------------------------------

;-------------------------------------------------------------------------
; Update STARTUP.NCF
; This probably doesn't help if hardware detect option is selected.
; Comments out STARTUP statements that are not needed for NetWare 5.
;-------------------------------------------------------------------------
Label ProcUpdateSTARTUP
  GotoIfNEqual %{true}, %{FlagUpdateSTARTUP}, EndProcUpdateSTARTUP

  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, "Updating STARTUP.NCF"
  nlmexec 1, NWUPDATE\CPQICMD

  Display 2, "Updating STARTUP.NCF for NetWare 5."

  SetVar CPQICMDCommand,    "PrependLineWithText"
  SetVar CPQICMDAddText,    "\; "
  SetVar CPQICMDFile,       "%{NWBOOT}\\STARTUP.NCF"
  SetVar CPQICMDSearchText, "SET "
  nlmexec 1, NWUPDATE\CPQICMD

  Display 2, "Updating STARTUP.NCF for NetWare 5 - complete."

Label EndProcUpdateSTARTUP
;-------------------------------------------------------------------------


;-------------------------------------------------------------------------
; Convert SMP support (if present) to NetWare 5 flavor
; This probably doesn't help if hardware detect option is selected.
; Disables NetWare 4 SMP support (if present).  Adds NetWare 5 support
; for Compaq systems.
;-------------------------------------------------------------------------
Label ProcMigrateSMP
  GotoIfNEqual %{true}, %{FlagMigrateSMP}, EndProcMigrateSMP
```

```
  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, "Migrating SMP support"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "(PSM always loaded for NetWare 5)"
  nlmexec 1, NWUPDATE\CPQICMD

  Display 2, "Converting platform support to NetWare 5 (SMP)."

  SetVar CPQICMDCommand,    "PrependLineWithText"
  SetVar CPQICMDAddText,    "\; "
  SetVar CPQICMDFile,       "%{NWSYSTEM}\\AUTOEXEC.NCF"
  SetVar CPQICMDSearchText, "LOAD MPS14"        nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDSearchText, "LOAD CPQSMP"       nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDSearchText, "LOAD CPQPSM"       nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDSearchText, "LOAD CPQMPK"       nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDSearchText, "LOAD SMP"          nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDSearchText, "LOAD MPDRIVER"     nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDFile,       "%{NWBOOT}\\STARTUP.NCF"
  SetVar CPQICMDSearchText, "LOAD MPS14"        nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDSearchText, "LOAD CPQSMP"       nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDSearchText, "LOAD CPQPSM"       nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDSearchText, "LOAD CPQMPK"       nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDSearchText, "LOAD SMP"          nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDSearchText, "LOAD MPDRIVER"     nlmexec 1, NWUPDATE\CPQICMD

  ; The PSM should generally be loaded on all systems (even single processor)
  ; for NetWare 5.  There are some exceptions, but adding this load statement
  ; will not hurt.  Novell also supplies a PSM (MPS14.PSM) that can be used
  ; on most systems.
  SetVar CPQICMDFile,       "%{NWBOOT}\\STARTUP.NCF"
  SetVar CPQICMDCommand,    "PrependText"
  SetVar CPQICMDAddText,    "LOAD CPQMPK.PSM"
  nlmexec 1, NWUPDATE\CPQICMD

  Display 2, "Converting platform support to NetWare 5 (SMP) - complete."

Label EndProcMigrateSMP
;-------------------------------------------------------------------------------


;-------------------------------------------------------------------------------
; Convert DDFS to NWPA.
; Legacy Compaq storage driver LOAD statements will use current equivalents.
; This probably doesn't help if hardware detect option is selected.
; This probably doesn't help for non-Compaq storage adapters.
;-------------------------------------------------------------------------------
Label ProcConvertCPQStorageDrivers
  GotoIfNEqual %{true}, %{FlagConvertCPQStorageDrivers}, EndProcConvertCPQStorageDrivers

  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, "Convert Compaq DDFS to NWPA storage driver load statements"
  nlmexec 1, NWUPDATE\CPQICMD

  Display 2, "Converting Compaq DDFS to NWPA."

  SetVar CPQICMDCommand,    "ConvertFileToNWPA"
  SetVar CPQICMDAddText,    "\; "
  SetVar CPQICMDFile,       "%{NWSYSTEM}\\AUTOEXEC.NCF"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDFile,       "%{NWBOOT}\\STARTUP.NCF"
  nlmexec 1, NWUPDATE\CPQICMD

  Display 2, "Converting Compaq DDFS to NWPA - complete."

Label EndProcConvertCPQStorageDrivers
;-------------------------------------------------------------------------------


;-------------------------------------------------------------------------------
; Configure the server to run hardware detection algorithm after reboot
; May require user intervention to complete.
;-------------------------------------------------------------------------------
Label ProcAutoDetectHardware
  GotoIfNEqual %{true}, %{FlagAutoDetectHW}, EndProcAutoDetectHardware
  GotoIfEqual %{PI_OSMajorVersion}, 5, EndProcAutoDetectHardware

  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
```

```
SetVar CPQICMDAddText, "Enable Hardware autodetection at next boot"
nlmexec 1, NWUPDATE\CPQICMD

Display 2, "Enabling hardware detection at next reboot."

Label GenerateHwdetectFile
  EraseFile 0,NWBOOT,'startup.ncf','','
  CopyFile 0,0,1,1,0,SRCNW5,INSTALL\hdetect.nlm,'','',NWBOOT,'','','
  EraseFile 0, NWBOOT, HWDETECT.ICS, '', ''
  Display 2, "Generating file %{NWBOOT}\\HWDETECT.ICS"
  ; Generate a new HWDETECT.ICS file
  SetVar CPQICMDFile,    "%{NWBOOT}\\HWDETECT.ICS"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, "@Version 5.00"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "@SyntaxVersion 1.03"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "; HWDETECT.ICS ** x86 Version **"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, ""
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "Command ICMD"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "NLMExec 1, 'load hdetect.nlm -u'"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "Console 'Load DS.NLM', 2"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "NLMExec 1, 'load ndsdibup.nlm -s'"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, ""
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "EraseFile 0,NWDST,'autoexec.ncf', ','"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "CopyFile 0,2,0,1,0,NWDST,'autoexec.bak','',NWDST,'autoexec.ncf','','"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, ""
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "EraseFile 0,NWDST,    'clib.nlm','','"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "EraseFile 0,NWDST, 'threads.nlm','','"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "EraseFile 0,NWDST,     'nit.nlm','','"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "EraseFile 0,NWDST,  'nlmlib.nlm','','"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "EraseFile 0,NWDST,'requestr.nlm','','"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "EraseFile 0,NWDST,    'lib0.nlm','','"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "EraseFile 0,NWDST, 'streams.nlm','','"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "EraseFile 0,NWDST,    'fpsm.nlm','','"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "EraseFile 0,NWDST,'after311.nlm','','"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, ""
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "Console 'restart server',2"
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, ""
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, ";**** End of HWDETECT.ICS ****"
  nlmexec 1, NWUPDATE\CPQICMD
Label EndGenerateHwdetectFile

Label ProcTransferHWDETECTSupportLibraries
  CopyFile 0,0,1,1,0,SRCSYS,system\threads.nlm, '','',NWBOOT,'','','
  CopyFile 0,0,1,1,0,SRCSYS,system\nit.nlm,     '','',NWBOOT,'','','
  CopyFile 0,0,1,1,0,SRCSYS,system\nlmlib.nlm,  '','',NWBOOT,'','','
  CopyFile 0,0,1,1,0,SRCSYS,system\requestr.nlm,'','',NWBOOT,'','','
  CopyFile 0,0,1,1,0,SRCSYS,system\lib0.nlm,    '','',NWBOOT,'','','
  CopyFile 0,0,1,1,0,SRCSYS,system\streams.nlm, '','',NWBOOT,'','','
  CopyFile 0,0,1,1,0,SRCSYS,system\fpsm.nlm,    '','',NWBOOT,'','','
  CopyFile 0,0,1,1,0,SRCSYS,system\after311.nlm,'','',NWBOOT,'','','
  CopyFile 0,0,1,1,0,SRCSYS,system\???nlm32.nlm,'','',NWBOOT,'','','
Label EndProcTransferHWDETECTSupportLibraries

Label ProcEnableHWDETECTNextBoot
  PI_EditNCF_ADDLINE 'Load NWCONFIG.NLM b=hwdetect.ics c:\err.log d=%{NWBOOT}'
  PI_EditNCF NWBOOT, 'autoexec.ncf', '.BAK', ccode
```

```
    GotoIfEqual %{ccode}, 0, EndProcEnableHWDETECTNextBoot
      Display 2, "Error: Cannot edit %{NWBOOT}\\AUTOEXEC.NCF. Error #%{ccode}.\n"
  Label EndProcEnableHWDETECTNextBoot

  Display 2, "Enabling hardware detection at next reboot - complete."

Label EndProcAutoDetectHardware
;-------------------------------------------------------------------------------


;-------------------------------------------------------------------------------
; Transfer a master STARTUP.NCF to the target server
; This probably doesn't help if hardware detect option is selected.
; For standard configurations, a master NetWare 5 STARTUP.NCF file can be
; copied from the script directory to the target server.
;-------------------------------------------------------------------------------
Label ProcXferMasterStartup
  GotoIfNEqual %{true}, %{FlagTransferMasterStartup}, EndProcXferMasterStartup

  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, "Transfer a master STARTUP.NCF"
  nlmexec 1, NWUPDATE\CPQICMD

  ; An alternative would to be to generate one "on the fly" using Append...
  ; File is transferred from the same directory as the script
  CopyFile 0,0,1,1,0,SRCSCRIPT,STARTUP.NCF,'','',NWBOOT,'','',''

Label EndProcXferMasterStartup
;-------------------------------------------------------------------------------
```

Removing Files from Startup Directory and SYS:SYSTEM

```
;-------------------------------------------------------------------------------
; Clean up obsoleted files in OS boot directory (C:\NWSERVER)
;-------------------------------------------------------------------------------
Label ProcEraseOldBootFiles
  GotoIfNEqual %{true}, %{FlagEraseOldBootFiles}, EndProcEraseOldBootFiles

  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, "Erase old OS boot files"
  nlmexec 1, NWUPDATE\CPQICMD

  Display 2, "Removing old OS boot files."

  EraseFile 0,NWBOOT,  'cpdata.nlm','',''
  EraseFile 0,NWBOOT,      '*.i?s','',''
  EraseFile 0,NWBOOT,  '*nlm32.nlm','',''
  EraseFile 0,NWBOOT,    'NWI*.NLM','',''
  EraseFile 0,NWBOOT,'dsloader.nlm','',''
  EraseFile 0,NWBOOT, 'inetlib.nlm','',''
  EraseFile 0,NWBOOT, 'polimgr.nlm','',''
  EraseFile 0,NWBOOT,  'nwkcfg.nlm','',''
  EraseFile 0,NWBOOT,     'nbi.nlm','',''
  EraseFile 0,NWBOOT, 'unicode.nlm','',''
  EraseFile 0,NWBOOT, 'diag500.nlm','',''
  EraseFile 0,NWBOOT,    'nwpa.nlm','',''
  EraseFile 0,NWBOOT,  'ws2_32.nlm','',''
  EraseFile 0,NWBOOT,'showlogo.nlm','',''
  EraseFile 0,NWBOOT,     'neb.nlm','',''
  EraseFile 0,NWBOOT,  'loader.nlm','',''
  EraseFile 0,NWBOOT,'cpucheck.nlm','',''
  EraseFile 0,NWBOOT,      'mm.nlm','',''
  EraseFile 0,NWBOOT,     'lfs.nlm','',''
  EraseFile 0,NWBOOT, 'filesys.nlm','',''
  EraseFile 0,NWBOOT,   'queue.nlm','',''
  EraseFile 0,NWBOOT,     'ncp.nlm','',''
  EraseFile 0,NWBOOT,'hwdetect.nlm','',''
  EraseFile 0,NWBOOT,     'xim.xlm','',''
  EraseFile 0,NWBOOT,    'xsup.xlm','',''
  EraseFile 0,NWBOOT,    'xmgr.xlm','',''
  EraseFile 0,NWBOOT, 'expxeng.xlm','',''
  EraseFile 0,NWBOOT,     'ccs.xlm','',''
  EraseFile 0,NWBOOT,'ndsaudit.nlm','',''
  EraseFile 0,NWBOOT,    'cdbe.nlm','',''
  EraseFile 0,NWBOOT,  'server.msg','',''
  EraseFile 0,NWBOOT,      '*.dsk','',''
  EraseFile 0,NWBOOT,      '*.ddi','',''
```

```
  EraseFile 0,NWBOOT,       '*.lan','','
  EraseFile 0,NWBOOT,       '*.ldi','','
  EraseFile 0,NWBOOT,       '*.msg','','
  EraseFile 0,NWBOOT,    'auto.sav','','
  EraseFile 0,NWBOOT,  'cdinst.nlm','','
  EraseFile 0,NWBOOT,    'csl*.nlm','','
  EraseFile 0,NWBOOT,      'ds.nlm','','
  EraseFile 0,NWBOOT,   'dsapi.nlm','','
  EraseFile 0,NWBOOT, 'dsevent.nlm','','
  EraseFile 0,NWBOOT,     'dsi.nlm','','
  EraseFile 0,NWBOOT,'ethertsm.nlm','','
  EraseFile 0,NWBOOT, 'fdditsm.nlm','','
  EraseFile 0,NWBOOT,'tokentsm.nlm','','
  EraseFile 0,NWBOOT,    'ipxs.nlm','','
  EraseFile 0,NWBOOT,'mmnative.nlm','','
  EraseFile 0,NWBOOT,    'msm*.nlm','','
  EraseFile 0,NWBOOT,'searches.ncf','','
  EraseFile 0,NWBOOT,    'snmp.*',  '','
  EraseFile 0,NWBOOT,     'tli.*',  '','
  EraseFile 0,NWBOOT, 'mserver.exe','','
  EraseFile 0,NWBOOT, 'mserver.exe','','
  GotoIfEqual %{PI_OSMajorVersion}, 5, SpareNETSRC
    EraseFile 0,NWBOOT,  'netsrc.sav','','
  Label SpareNETSRC

  Display 2, "Removing old OS boot files - complete."

Label EndProcEraseOldBootFiles
;-------------------------------------------------------------------------------


;-------------------------------------------------------------------------------
; Clean up obsoleted files in OS SYS:SYSTEM directory
;-------------------------------------------------------------------------------
Label ProcEraseOldSystemFiles
  GotoIfNEqual %{true}, %{FlagEraseOldSystemFiles}, EndProcEraseOldSystemFiles

  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, "Erase old OS system files"
  nlmexec 1, NWUPDATE\CPQICMD

  Display 2, "Removing old system files."

  ; Remove old 4.x and 5.x files
  EraseFile 0,NWSYS,'system\\???nlm32.nlm','','
  EraseFile 0,NWSYS,    'system\\afp*.nlm','','
  EraseFile 0,NWSYS,   'system\\atps*.nlm','','
  EraseFile 0,NWSYS,   'system\\atxrp.nlm','','
  EraseFile 0,NWSYS,  'system\\brgcon.nlm','','
  EraseFile 0,NWSYS,     'system\\CCS.XLM','','
  EraseFile 0,NWSYS, 'system\\CHARSET.NLM','','
  EraseFile 0,NWSYS, 'system\\COMMAIN.ICS','','
  EraseFile 0,NWSYS, 'system\\COMOTHR.ILS','','
  EraseFile 0,NWSYS,  'system\\CONONE.IPS','','
  EraseFile 0,NWSYS,  'system\\CPDATA.NLM','','
  EraseFile 0,NWSYS,'system\\DSLOADER.NLM','','
  EraseFile 0,NWSYS,    'system\\EDIT.NLM','','
  EraseFile 0,NWSYS,   'system\\hcss*.nlm','','
  EraseFile 0,NWSYS,    'system\\hfs*.nlm','','
  EraseFile 0,NWSYS,  'system\\hgscd*.nlm','','
  EraseFile 0,NWSYS,  'system\\HWMAIN.ILS','','
  EraseFile 0,NWSYS,    'system\\ICMD.NLM','','
  EraseFile 0,NWSYS, 'system\\INSTALL.NLM','','
  EraseFile 0,NWSYS,  'system\\IPXSPX.NLM','','
  EraseFile 0,NWSYS,  'system\\ISSLIB.NLM','','
  EraseFile 0,NWSYS,    'system\\JAVA.IPS','','
  EraseFile 0,NWSYS,    'system\\KEYB.NLM','','
  EraseFile 0,NWSYS, 'system\\LCONFIG.SYS','','
  EraseFile 0,NWSYS,    'system\\LONG.NAM','','
  EraseFile 0,NWSYS,     'system\\MAC.NAM','','
  EraseFile 0,NWSYS, 'system\\macfile.nlm','','
  EraseFile 0,NWSYS,    'system\\masv.nlm','','
  EraseFile 0,NWSYS,'system\\MMNATIVE.NLM','','
  EraseFile 0,NWSYS, 'system\\MONITOR.NLM','','
  EraseFile 0,NWSYS,'system\\mpdetect.nlm','','
  EraseFile 0,NWSYS,'system\\mpdriver.nlm','','
  EraseFile 0,NWSYS,     'system\\nbi.nlm','','
  EraseFile 0,NWSYS,  'system\\NCFUPD.NLM','','
  EraseFile 0,NWSYS,   'system\\NCPIP.NLM','','
```

```
EraseFile 0,NWSYS,  'system\\NCPIPX.NLM','',''
EraseFile 0,NWSYS,'system\\ndsaudit.nlm','',''
EraseFile 0,NWSYS,     'system\\neb.nlm','',''
EraseFile 0,NWSYS, 'system\\NETMAIN.ILS','',''
EraseFile 0,NWSYS,  'system\\NETSRC.SAV','',''
EraseFile 0,NWSYS,     'system\\NFS.NAM','',''
EraseFile 0,NWSYS, 'system\\NOVXENG.XLM','',''
EraseFile 0,NWSYS,  'system\\NSPDNS.NLM','',''
EraseFile 0,NWSYS,  'system\\NSPNDS.NLM','',''
EraseFile 0,NWSYS,  'system\\NSPSAP.NLM','',''
EraseFile 0,NWSYS,  'system\\NSPSLP.NLM','',''
EraseFile 0,NWSYS,'system\\NWCONFIG.NLM','',''
EraseFile 0,NWSYS,     'system\\NWI.NLM','',''
EraseFile 0,NWSYS,   'system\\NWIAP.NLM','',''
EraseFile 0,NWSYS,   'system\\NWICF.NLM','',''
EraseFile 0,NWSYS,   'system\\NWICL.NLM','',''
EraseFile 0,NWSYS,   'system\\NWIDK.NLM','',''
EraseFile 0,NWSYS,   'system\\NWIDS.NLM','',''
EraseFile 0,NWSYS, 'system\\NWIDSIS.NLM','',''
EraseFile 0,NWSYS,   'system\\NWIHW.NLM','',''
EraseFile 0,NWSYS,   'system\\NWIPR.NLM','',''
EraseFile 0,NWSYS,   'system\\NWIRF.NLM','',''
EraseFile 0,NWSYS,   'system\\NWITZ.NLM','',''
EraseFile 0,NWSYS,   'system\\NWIWS.NLM','',''
EraseFile 0,NWSYS,   'system\\nwpa*.nlm','',''
EraseFile 0,NWSYS,  'system\\NWSNUT.NLM','',''
EraseFile 0,NWSYS, 'system\\PARTAPI.NLM','',''
EraseFile 0,NWSYS, 'system\\POLIMGR.NLM','',''
EraseFile 0,NWSYS, 'system\\SERVCFG.000','',''
EraseFile 0,NWSYS,  'system\\SERVER.EXE','',''
EraseFile 0,NWSYS,     'system\\SLP.NLM','',''
EraseFile 0,NWSYS,   'system\\SLPDA.NLM','',''
EraseFile 0,NWSYS,  'system\\SLPTCP.NLM','',''
EraseFile 0,NWSYS,     'system\\smp.nlm','',''
EraseFile 0,NWSYS, 'system\\STARTUP.NCF','',''
EraseFile 0,NWSYS, 'system\\STARTUP.ORG','',''
EraseFile 0,NWSYS,'system\\UINSTALL.NLM','',''
EraseFile 0,NWSYS,'system\\UNI_1250.NLM','',''
EraseFile 0,NWSYS,'system\\UNI_1251.NLM','',''
EraseFile 0,NWSYS,'system\\UNI_1252.NLM','',''
EraseFile 0,NWSYS,'system\\UNI_1253.NLM','',''
EraseFile 0,NWSYS,'system\\UNI_1254.NLM','',''
EraseFile 0,NWSYS,'system\\UNI_1255.NLM','',''
EraseFile 0,NWSYS,'system\\UNI_1256.NLM','',''
EraseFile 0,NWSYS,'system\\UNI_1257.NLM','',''
EraseFile 0,NWSYS,'system\\UNI_1258.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_437.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_737.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_775.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_850.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_852.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_855.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_857.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_860.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_861.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_862.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_863.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_864.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_865.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_866.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_874.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_932.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_936.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_949.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_950.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_MON.NLM','',''
EraseFile 0,NWSYS, 'system\\UNI_UPR.NLM','',''
EraseFile 0,NWSYS, 'system\\unicode.nlm','',''
EraseFile 0,NWSYS,     'system\\ups.nlm','',''
EraseFile 0,NWSYS, 'system\\VREPAIR.NLM','',''
EraseFile 0,NWSYS,  'system\\V_LONG.NLM','',''
EraseFile 0,NWSYS,   'system\\V_MAC.NLM','',''
EraseFile 0,NWSYS,   'system\\V_NFS.NLM','',''
EraseFile 0,NWSYS,   'system\\WSPIP.NLM','',''
EraseFile 0,NWSYS,  'system\\WSPIPX.NLM','',''
EraseFile 0,NWSYS,     'system\\XIM.XLM','',''
EraseFile 0,NWSYS,    'system\\XMGR.XLM','',''
EraseFile 0,NWSYS,    'system\\XSUP.XLM','',''
EraseFile 0,NWSYS,       'system\\*.xlm','',''
EraseFile 0,NWSYS,       'system\\*.dsk','',''
```

```
  EraseFile 0,NWSYS,       'system\\*.ddi','',''

  EraseFile 0,NWSYS,'system\\nls\\%{NWLANG}\\nwiwsjv.msg','',''

  Display 2, "Removing old system files - complete."

Label EndProcEraseOldSystemFiles
;-------------------------------------------------------------------------------
```

Removing Unsupported DOS utilities

```
;-------------------------------------------------------------------------------
; Clean up obsoleted DOS (.EXE) files
;-------------------------------------------------------------------------------
Label ProcEraseOldDOSFiles
  GotoIfNEqual %{true}, %{FlagEraseOldDOSFiles}, EndProcEraseOldDOSFiles

  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, "Erase old DOS, client files"
  nlmexec 1, NWUPDATE\CPQICMD

  Display 2, "Removing old client utilities."

  ; Remove Old DOS Utilities from LOGIN directory
  EraseFile 0,NWLOGIN, 'attach.bat','',''
  EraseFile 0,NWLOGIN, 'menu_x.bat','',''
  EraseFile 0,NWLOGIN,  'nlist.exe','',''
  EraseFile 0,NWLOGIN,'typemsg.exe','',''

  ; Remove Old DOS Utilities from PUBLIC directory
  EraseFile 0,NWPUBLIC, 'addicon.exe','',''
  EraseFile 0,NWPUBLIC,   'allow.bat','',''
  EraseFile 0,NWPUBLIC,  'attach.bat','',''
  EraseFile 0,NWPUBLIC, 'castoff.bat','',''
  EraseFile 0,NWPUBLIC,  'caston.bat','',''
  EraseFile 0,NWPUBLIC,  'chkdir.bat','',''
  EraseFile 0,NWPUBLIC,  'chkvol.bat','',''
  EraseFile 0,NWPUBLIC,'colorpal.exe','',''
  EraseFile 0,NWPUBLIC,  'dosgen.exe','',''
  EraseFile 0,NWPUBLIC,  'dspace.bat','',''
  EraseFile 0,NWPUBLIC,  'endcap.bat','',''
  EraseFile 0,NWPUBLIC,   'filer.exe','',''
  EraseFile 0,NWPUBLIC, 'flagdir.bat','',''
  EraseFile 0,NWPUBLIC,   'grant.bat','',''
  EraseFile 0,NWPUBLIC, 'listdir.bat','',''
  EraseFile 0,NWPUBLIC,'migprint.exe','',''
  EraseFile 0,NWPUBLIC, 'migrate.exe','',''
  EraseFile 0,NWPUBLIC,  'menu_x.bat','',''
  EraseFile 0,NWPUBLIC,'menucnvt.exe','',''
  EraseFile 0,NWPUBLIC, 'menuexe.exe','',''
  EraseFile 0,NWPUBLIC,'menumake.exe','',''
  EraseFile 0,NWPUBLIC,'menurset.exe','',''
  EraseFile 0,NWPUBLIC,'netadmin.exe','',''
  EraseFile 0,NWPUBLIC, 'netuser.exe','',''
  EraseFile 0,NWPUBLIC,   'ncopy.exe','',''
  EraseFile 0,NWPUBLIC,'ncupdate.exe','',''
  EraseFile 0,NWPUBLIC,    'ndir.exe','',''
  EraseFile 0,NWPUBLIC,   'nlist.exe','',''
  EraseFile 0,NWPUBLIC,   'nmenu.bat','',''
  EraseFile 0,NWPUBLIC,   'npath.exe','',''
  EraseFile 0,NWPUBLIC,'nwxtract.exe','',''
  EraseFile 0,NWPUBLIC, 'partmgr.exe','',''
  EraseFile 0,NWPUBLIC,'pconsole.exe','',''
  EraseFile 0,NWPUBLIC,'printcon.exe','',''
  EraseFile 0,NWPUBLIC,'printdef.exe','',''
  EraseFile 0,NWPUBLIC,     'psc.exe','',''
  EraseFile 0,NWPUBLIC,'pupgrade.exe','',''
  EraseFile 0,NWPUBLIC,  'remove.bat','',''
  EraseFile 0,NWPUBLIC,  'rendir.exe','',''
  EraseFile 0,NWPUBLIC,  'revoke.bat','',''
  EraseFile 0,NWPUBLIC, 'salvage.bat','',''
  EraseFile 0,NWPUBLIC,    'send.exe','',''
  EraseFile 0,NWPUBLIC, 'session.bat','',''
  EraseFile 0,NWPUBLIC,  'settts.exe','',''
  EraseFile 0,NWPUBLIC,   'slist.bat','',''
  EraseFile 0,NWPUBLIC,   'smode.bat','',''
  EraseFile 0,NWPUBLIC,  'syscon.bat','',''
```

```
  EraseFile 0,NWPUBLIC, 'systime.exe','','
  EraseFile 0,NWPUBLIC,   'tlist.bat','','
  EraseFile 0,NWPUBLIC, 'typemsg.exe','','
  EraseFile 0,NWPUBLIC,'userlist.bat','','
  EraseFile 0,NWPUBLIC, 'version.bat','','
  EraseFile 0,NWPUBLIC, 'volinfo.bat','','
  EraseFile 0,NWPUBLIC,  'whoami.exe','','
  EraseFile 0,NWPUBLIC,'wsupdate.exe','','
  EraseFile 0,NWPUBLIC, 'wsupgrd.exe','','

  Display 2, "Removing old client utilities - complete."

Label EndProcEraseOldDOSFiles
;-------------------------------------------------------------------------


;-------------------------------------------------------------------------
; Clean up obsoleted Platform Support Modules
;-------------------------------------------------------------------------
Label ProcEraseOldPSMs
  GotoIfNEqual %{true}, %{FlagEraseOldPSMs}, EndProcEraseOldPSMs

  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, "Erase old PSMs"
  nlmexec 1, NWUPDATE\CPQICMD

  Display 2, "Removing NetWare 4.11 Platform Support Modules."

  EraseFile 0,NWBOOT,'*.PSM','','
  EraseFile 0,NWBOOT,'*.MDI','','
  EraseFile 0,NWSYSTEM,'*.PSM','','
  EraseFile 0,NWSYSTEM,'*.MDI','','

  Display 2, "Removing NetWare 4.11 Platform Support Modules - complete."

Label EndProcEraseOldPSMs
;-------------------------------------------------------------------------
```

Copying Startup Files and Drivers

```
;-------------------------------------------------------------------------
; Transfer new boot files to the boot (C:\NWSERVER) directory
;-------------------------------------------------------------------------
Label ProcTransferNewBootFiles
  GotoIfNEqual %{true}, %{FlagTransferNewBootFiles}, EndProcTransferNewBootFiles

  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, "New OS boot files"       nlmexec 1, NWUPDATE\CPQICMD

  Display 2, "Transferring new OS boot files."

  CopyFile 0,1,1,2,0,SRCNW5,                          startup,'','',NWBOOT,'','','
  CopyFile 0,1,0,2,0,SRCNW5,                        startup\nls,'','',NWBOOT,'nls','','
  CopyFile 0,1,1,2,0,SRCNW5,          'startup\\nls\\%{NWLANG}','','',NWBOOT,'nls\\%{NWLANG}','','
  CopyFile 0,0,1,2,0,SRCNW5,'startup\\nls\\%{NWLANG}\\server.msg','','',NWBOOT,'','','

  CopyFile 0,1,1,2,0,SRCNW5,                    drivers\storage,'','',NWBOOT,'drivers','','
  CopyFile 0,1,0,2,0,SRCNW5,                  drivers\storage\nls,'','',NWBOOT,'nls','','
  CopyFile 0,1,1,2,0,SRCNW5,   'drivers\\storage\\nls\\%{NWLANG}','','',NWBOOT,'nls\\%{NWLANG}','','

  CopyFile 0,1,1,2,0,SRCNW5,                    drivers\psm,'','',NWBOOT,'drivers','','
  CopyFile 0,1,0,2,0,SRCNW5,                  drivers\psm\nls,'','',NWBOOT,'nls','','
  CopyFile 0,1,1,2,0,SRCNW5,       'drivers\\psm\\nls\\%{NWLANG}','','',NWBOOT,'nls\\%{NWLANG}','','

  CopyFile 1,1,1,2,0,SRCNW5,                    drivers\sbd,'','',NWBOOT,'drivers','','

  CopyFile 0,0,1,2,0,SRCNW5,                 install\cpdata.nlm,'','',NWBOOT,'','','

  Display 2, "Transferring new OS boot files - complete."

Label EndProcTransferNewBootFiles
;-------------------------------------------------------------------------
```

Copying Files to SYSTEM, PUBLIC, and LOGIN Directories

```
;-------------------------------------------------------------------------
; Transfer new system files to the SYS:SYSTEM directory
;-------------------------------------------------------------------------
Label ProcTransferNewSystemFiles
  GotoIfNEqual %{true}, %{FlagTransferNewSystemFiles}, EndProcTransferNewSystemFiles

  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, "New OS system files"   nlmexec 1, NWUPDATE\CPQICMD

  Display 2, "Transferring new system files."
  Display 2, "Storing existing configurations."
  ; Copy any existing user configuration files to a temp directory
  CopyFile 0,0,0,1,0,NWSYS,                    etc\attypes.cfg,'','',NWSYS,'temp\\sys\\etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                   etc\builtins.cfg,'','',NWSYS,'temp\\sys\\etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                     etc\gateways,'','',NWSYS,'temp\\sys\\etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                       etc\hosts,'','',NWSYS,'temp\\sys\\etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                     etc\networks,'','',NWSYS,'temp\\sys\\etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                      etc\ntp.cfg,'','',NWSYS,'temp\\sys\\etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                     etc\protocol,'','',NWSYS,'temp\\sys\\etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                     etc\services,'','',NWSYS,'temp\\sys\\etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                      etc\slp.cfg,'','',NWSYS,'temp\\sys\\etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                     etc\snmp.cfg,'','',NWSYS,'temp\\sys\\etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                   etc\traptarg.cfg,'','',NWSYS,'temp\\sys\\etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                      etc\java.cfg,'','',NWSYS,'temp\\sys\\etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                  etc\dns\rootsrvr.dat,'','',NWSYS,'temp\\sys\\etc\\dns','',''
  CopyFile 0,0,0,1,0,NWSYS,                   system\nwcstart.ncf,'','',NWSYS,'temp\\sys\\system','',''
  CopyFile 0,0,0,1,0,NWSYS,                   system\nwcstop.ncf,'','',NWSYS,'temp\\sys\\system','',''

  Display 2, "Updating configurations."

  ; Copy all the NetWare 5 ones
  CopyFile 1,1,1,2,0,SRCNW5,                          sys\etc,'','',NWSYS,etc,'',''

  Display 2, "Restoring existing configurations."

  ; Now restore any existing user config files
  CopyFile 0,0,0,1,0,NWSYS,                temp\sys\etc\attypes.cfg,'','',NWSYS,'etc','',''
  CopyFile 0,0,0,1,0,NWSYS,               temp\sys\etc\builtins.cfg,'','',NWSYS,'etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                  temp\sys\etc\gateways,'','',NWSYS,'etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                    temp\sys\etc\hosts,'','',NWSYS,'etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                  temp\sys\etc\networks,'','',NWSYS,'etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                   temp\sys\etc\ntp.cfg,'','',NWSYS,'etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                  temp\sys\etc\protocol,'','',NWSYS,'etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                  temp\sys\etc\services,'','',NWSYS,'etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                   temp\sys\etc\slp.cfg,'','',NWSYS,'etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                  temp\sys\etc\snmp.cfg,'','',NWSYS,'etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                temp\sys\etc\traptarg.cfg,'','',NWSYS,'etc','',''
  CopyFile 0,0,0,1,0,NWSYS,                   temp\sys\etc\java.cfg,'','',NWSYS,'etc','',''
  CopyFile 0,0,0,1,0,NWSYS,               temp\sys\etc\dns\rootsrvr.dat,'','',NWSYS,'etc\\dns','',''
  CopyFile 0,0,0,1,0,NWSYS,                temp\sys\system\nwcstart.ncf,'','',NWSYS,'system','',''
  CopyFile 0,0,0,1,0,NWSYS,                temp\sys\system\nwcstop.ncf,'','',NWSYS,'system','',''

  Display 2, "Updating Login files."

  ; Login files
  CopyFile 0,1,1,2,0,SRCNW5,                          sys\login,'','',NWSYS,login,'',''
  CopyFile 0,1,0,2,0,SRCNW5,                        sys\login\nls,'','',NWSYS,login\nls,'',''
  CopyFile 0,1,1,2,0,SRCNW5,          'sys\\login\\nls\\%{NWLANGNAME}','','',NWSYS,'login\\nls\\%{NWLANGNAME}','',''

  Display 2, "Updating Mail and Netbasic files."

  ; Mail and Netbasic files
  CopyFile 1,1,0,2,0,SRCNW5,                          sys\mail,'','',NWSYS,mail,'',''
  CopyFile 1,1,1,2,0,SRCNW5,                        sys\netbasic,'','',NWSYS,netbasic,'',''

  Display 2, "Updating DOS client utilities."

  ; DOS utilities
  CopyFile 0,1,1,2,0,SRCNW5,                          sys\public,'','',NWSYS,public,'',''
  CopyFile 0,1,1,2,0,SRCNW5,                       sys\public\dnsdhcp,'','',NWSYS,public\dnsdhcp,'',''
  CopyFile 1,1,1,2,0,SRCNW5,                  sys\public\dnsdhcp\dat\bin,'','',NWSYS,public\dnsdhcp\dat\bin,'',''
  CopyFile 0,1,0,2,0,SRCNW5,                 sys\public\dnsdhcp\dat\help,'','',NWSYS,public\dnsdhcp\dat\help,'',''
  CopyFile
0,1,1,2,0,SRCNW5,'sys\\public\\dnsdhcp\\dat\\help\\%{NWLANGNAME}','','',NWSYS,'public\\dnsdhcp\\dat\\help\\%{NWLANGNAME}','',''
  CopyFile 0,1,0,2,0,SRCNW5,                  sys\public\dnsdhcp\dat\nls,'','',NWSYS,public\dnsdhcp\dat\nls,'',''
  CopyFile 0,1,1,2,0,SRCNW5,
'sys\\public\\dnsdhcp\\dat\\nls\\%{NWLANGNAME}','','',NWSYS,'public\\dnsdhcp\\dat\\nls\\%{NWLANGNAME}','',''
```

```
CopyFile 0,1,1,2,0,SRCNW5,          'sys\\public\\dnsdhcp\\%{NWLANGNAME}','','',NWSYS,'public\\dnsdhcp\\%{NWLANGNAME}','',''
CopyFile 0,1,0,2,0,SRCNW5,                  sys\public\dnsdhcp\nls,'','',NWSYS,public\dnsdhcp\nls,'',''
CopyFile 0,1,1,2,0,SRCNW5,     'sys\\public\\dnsdhcp\\nls\\%{NWLANGNAME}','','',NWSYS,'public\\dnsdhcp\\nls\\%{NWLANGNAME}','',''
CopyFile 0,1,1,2,0,SRCNW5,                sys\public\dnsdhcp\snapin,'','',NWSYS,public\dnsdhcp\snapin,'',''

; DOS utility language support
CopyFile 0,1,0,2,0,SRCNW5,                      sys\public\nls,'','',NWSYS,public\nls,'',''
CopyFile 0,1,1,2,0,SRCNW5,            'sys\\public\\nls\\%{NWLANGNAME}','','',NWSYS,'public\\nls\\%{NWLANGNAME}','',''

Display 2, "Updating Windows client utilities."

; Windows utilities and language support
CopyFile 0,1,1,2,0,SRCNW5,                      sys\public\win32,'','',NWSYS,public\win32,'',''
CopyFile 0,1,0,2,0,SRCNW5,                   sys\public\win32\nls,'','',NWSYS,public\win32\nls,'',''
CopyFile 0,1,1,2,0,SRCNW5,      'sys\\public\\win32\\nls\\%{NWLANGNAME}','','',NWSYS,'public\\win32\\nls\\%{NWLANGNAME}','',''
CopyFile 1,1,1,2,0,SRCNW5,               sys\public\win32\snapins,'','',NWSYS,public\win32\snapins,'',''

; Windows 95 utilities and language support
CopyFile 0,1,1,2,0,SRCNW5,                      sys\public\win95,'','',NWSYS,public\win95,'',''
CopyFile 0,1,0,2,0,SRCNW5,                   sys\public\win95\nls,'','',NWSYS,public\win95\nls,'',''
CopyFile 0,1,1,2,0,SRCNW5,      'sys\\public\\win95\\nls\\%{NWLANGNAME}','','',NWSYS,'public\\win95\\nls\\%{NWLANGNAME}','',''

; Windows NT utilities and language support
CopyFile 0,1,1,2,0,SRCNW5,     sys\public\winnt,'','',NWSYS,public\winnt,'',''
CopyFile 0,1,0,2,0,SRCNW5,                   sys\public\winnt\nls,'','',NWSYS,public\winnt\nls,'',''
CopyFile 0,1,1,2,0,SRCNW5,      'sys\\public\\winnt\\nls\\%{NWLANGNAME}','','',NWSYS,'public\\winnt\\nls\\%{NWLANGNAME}','',''

CopyFile 0,1,1,2,0,SRCNW5,                        sys\system,'','',NWSYSTEM,'','',''
CopyFile 1,1,1,2,0,SRCNW5,                      sys\system\aio,'','',NWSYSTEM,aio,'',''
CopyFile 1,1,1,2,0,SRCNW5,                   sys\system\atmuni31,'','',NWSYSTEM,atmuni31,'',''
CopyFile 1,1,1,2,0,SRCNW5,                    sys\system\connect,'','',NWSYSTEM,connect,'',''
CopyFile 0,1,0,2,0,SRCNW5,                      sys\system\nls,'','',NWSYSTEM,nls,'',''
CopyFile 0,1,1,2,0,SRCNW5,               'sys\\system\\nls\\%{NWLANG}','','',NWSYSTEM,'nls\\%{NWLANG}','',''
CopyFile 1,1,1,2,0,SRCNW5,                      sys\system\nma,'','',NWSYSTEM,nma,'',''
CopyFile 1,1,1,2,0,SRCNW5,                      sys\system\nmx,'','',NWSYSTEM,nmx,'',''
CopyFile 1,1,1,2,0,SRCNW5,                    sys\system\schema,'','',NWSYSTEM,schema,'',''
CopyFile 0,1,1,2,0,SRCNW5,                      sys\system\utils,'','',NWSYSTEM,utils,'',''
CopyFile 0,1,0,2,0,SRCNW5,                   sys\system\utils\nls,'','',NWSYSTEM,utils\nls,'',''
CopyFile 0,1,1,2,0,SRCNW5,      'sys\\system\\utils\\nls\\%{NWLANGNAME}','','',NWSYSTEM,'utils\\nls\\%{NWLANGNAME}','',''

CopyFile 0,1,1,2,0,SRCNW5,                      drivers\lan,'','',NWSYS,system,'',''
CopyFile 0,1,0,2,0,SRCNW5,                   drivers\lan\nls,'','',NWSYS,system\nls,'',''
CopyFile 0,1,1,2,0,SRCNW5,               'drivers\\lan\\nls\\%{NWLANG}','','',NWSYS,'system\\nls\\%{NWLANG}','',''

CopyFile 1,1,1,2,0,SRCNW5,                      drivers\sbd,'','',NWSYS,system,'',''

; Copy these NCF files again with R/W attribute
CopyFile 0,0,1,2,0,SRCNW5,          products\ras\nwcncf\nwcstart.ncf,'','',NWSYS,system,'',''
CopyFile 0,0,1,2,0,SRCNW5,           products\ras\nwcncf\nwcstop.ncf,'','',NWSYS,system,'',''
CopyFile 0,0,1,2,0,SRCNW5,  products\ras\system\connect\scripts\ncs.ldf,'','',NWSYS,system\connect\scripts,'',''
CopyFile 0,0,1,2,0,SRCNW5,  products\ras\system\connect\scripts\ncs.ulf,'','',NWSYS,system\connect\scripts,'',''
CopyFile 0,0,1,2,0,SRCNW5,           products\ras\nwcncf\nwcinst.txt,'','',NWSYS,system,'',''

Display 2, "Transferring new system files - complete."

Label EndProcTransferNewSystemFiles
;-------------------------------------------------------------------------
```

Copying Necessary Script Files

```
;-------------------------------------------------------------------------
; Transfer new script files to the boot (C:\NWSERVER) directory
;-------------------------------------------------------------------------
Label ProcTransferNewScriptFiles
  GotoIfNEqual %{true}, %{FlagTransferNewScriptFiles}, EndProcTransferNewScriptFiles

  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, "Scripts"          nlmexec 1, NWUPDATE\CPQICMD

  Display 2, "Updating scripts."

  ; Copy Script files to server boot directory
  CopyFile 0,0,1,2,0,SRCNW5,'INSTALL\\NLS\\%{NWLANG}\\NETMAIN.ILS','','',NWBOOT,'','',''
  CopyFile 0,0,1,2,0,SRCNW5,   'INSTALL\\NLS\\%{NWLANG}\\JAVA.IPS','','',NWBOOT,'','',''
  CopyFile 0,0,1,2,0,SRCNW5, 'INSTALL\\NLS\\%{NWLANG}\\CONONE.IPS','','',NWBOOT,'','',''
  CopyFile 0,0,1,2,0,SRCNW5,'INSTALL\\NLS\\%{NWLANG}\\COMOTHR.ILS','','',NWBOOT,'','',''
  CopyFile 0,0,1,2,0,SRCNW5, 'INSTALL\\NLS\\%{NWLANG}\\HWMAIN.ILS','','',NWBOOT,'','',''
  CopyFile 0,0,0,2,0,SRCNW5,'INSTALL\\NLS\\%{NWLANG}\\ADDLANG.ILS','','',NWBOOT,'','',''
```

```
  CopyFile 0,0,0,2,0,SRCNW5,'INSTALL\\NLS\\%{NWLANG}\\CHGLANG.ILS','','',NWBOOT,'','',''
  CopyFile 0,0,1,2,0,SRCNW5,          'INSTALL\\NLS\\COMMAIN.ICS','','',NWBOOT,'','',''
  CopyFile 0,0,1,2,0,SRCNW5,          'INSTALL\\NLS\\SETLANG.ICS','','',NWBOOT,'','',''
  CopyFile 0,0,1,2,0,SRCNW5,         'INSTALL\\NLS\\COPYLANG.ICS','','',NWBOOT,'','',''

  Display 2, "Updating scripts - complete."

Label EndProcTransferNewScriptFiles
;-------------------------------------------------------------------------------
```

Copying and Uncompressing Java Files

```
;-------------------------------------------------------------------------------
; Transfer and expand new Java files
;-------------------------------------------------------------------------------
Label ProcTransferNewJavaFiles
  GotoIfNEqual %{true}, %{FlagTransferNewJavaFiles}, EndProcTransferNewJavaFiles

  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, "Java"

  nlmexec 1, NWUPDATE\CPQICMD

  CopyFile 0,1,1,2,0,SRCNW5,sys\system,'','',NWSYSTEM,'','',''

  Display 2, "Updating Java."

    CopyFile 0,0,1,0,0,SRCNW5,sys\java_ins\java.tar,'','',NWSYS,'','',''
    Display 2, "Java for NetWare directories and files are being extracted."
    NLMexec 1, 'SYS:SYSTEM\\TAR xvfD java.tar'
    EraseFile 0,NWSYS, java.tar,'',''
    CopyFile 0,0,0,1,0,NWSYS,temp\sys\etc\java.cfg,'','',NWSYS,'etc','',''

    CopyFile 0,0,1,0,0,SRCNW5,sys\java_ins\njcl.tar,'','',NWSYS,'','',''
    Display 2, "Java Class Libraries for NetWare directories and files are being extracted."
    NLMexec 1, 'SYS:SYSTEM\\TAR xvfD njcl.tar'
    EraseFile 0,NWSYS, njcl.tar,'',''

    CopyFile 0,0,1,0,0,SRCNW5,sys\java_ins\beans.tar,'','',NWSYS,'','',''
    Display 2, "Java Beans for NetWare directories and files are being extracted."
    NLMexec 1, 'SYS:SYSTEM\\TAR xvfD beans.tar'
    EraseFile 0,NWSYS, beans.tar,'',''

    CopyFile 0,0,1,0,0,SRCNW5,sys\java_ins\perl.tar,'','',NWSYS,'','',''
    Display 2, "Perl 5 for NetWare directories and files are being extracted."
    NLMexec 1, 'SYS:SYSTEM\\TAR xvfD perl.tar'
    EraseFile 0,NWSYS, perl.tar,'',''

  Display 2, "Updating Java - complete."

Label EndProcTransferNewJavaFiles
;-------------------------------------------------------------------------------
```

Copying and Uncompressing ConsoleOne Files

```
;-------------------------------------------------------------------------------
; Transfer and expand new Console1 files
;-------------------------------------------------------------------------------
Label ProcTransferNewConsole1Files
  GotoIfNEqual %{true}, %{FlagTransferNewConsole1Files}, EndProcTransferNewConsole1Files

    SetVar CPQICMDFile,    "%{LOGFILE}"
    SetVar CPQICMDCommand, "AppendText"
    SetVar CPQICMDAddText, "ConsoleOne"     nlmexec 1, NWUPDATE\CPQICMD

    Display 2, "Updating Console1."

    CopyFile 0,0,1,0, 0,SRCNW5,sys\java_ins\console1.tar,'','',NWSYS,'','',''
    Display 2, "Console One Directories and Files are being extracted."
    NLMexec 1, 'SYS:SYSTEM\\TAR xvfD console1.tar'
    EraseFile 0, NWSYS, console1.tar,'',''

    CopyFile 0,0,1,0, 0,SRCNW5,sys\java_ins\mach1.tar,'','',NWSYS,'','',''
    Display 2, "Mach One Directories and Files are being extracted."
    NLMexec 1, 'SYS:SYSTEM\\TAR xvfD mach1.tar'
```

```
    EraseFile 0, NWSYS, mach1.tar,","

    CopyFile 0,0,1,0, 0,SRCNW5,sys\java_ins\servtop.tar,","",NWSYS,","","
    Display 2, "Server Top Directories and Files are being extracted."
    NLMexec 1, 'SYS:SYSTEM\\TAR xvfD servtop.tar'
    EraseFile 0, NWSYS, servtop.tar,","

    ; backup the current NCF
    CopyFile 0,2,0,0,0,NWSYS,system\ldragcon.ncf,","",NWSYS,system\ldragcon.sav,","
    CopyFile 0,0,1,0, 0,SRCNW5,sys\java_ins\rconj.tar,","",NWSYS,","","
    Display 2, "Java Rconsole directories and files are being extracted."
    NLMexec 1,'SYS:SYSTEM\\TAR xvfD rconj.tar'
    EraseFile 0, NWSYS, rconj.tar,","
    ; restore the current NCF
    CopyFile 0,2,0,0,0,NWSYS,system\ldragcon.sav,","",NWSYS,system\ldragcon.ncf,","

    Display 2, "Updating Console1 - complete."

Label EndProcTransferNewConsole1Files
;-------------------------------------------------------------------------------
```

Copying New Install Files

```
;-------------------------------------------------------------------------------
; Transfer and expand new Install files
;-------------------------------------------------------------------------------
Label ProcTransferNewInstallFiles
  GotoIfNEqual %{true}, %{FlagTransferNewInstallFiles}, EndProcTransferNewInstallFiles

    SetVar CPQICMDFile,    "%{LOGFILE}"
    SetVar CPQICMDCommand, "AppendText"
    SetVar CPQICMDAddText, "Install"        nlmexec 1, NWUPDATE\CPQICMD

    Display 2, "Updating Install."

    CopyFile 0,0,1,0, 0,SRCNW5,install\tars\ni.tar,","",NWSYS,","","
    Display 2, "NetWare Server Install directories and files are being extracted."
    NLMexec 1,'SYS:SYSTEM\\TAR xvfD ni.tar'
    EraseFile 0, NWSYS, ni.tar,","

    CopyFile 0,0,1,0, 0,SRCNW5,install\tars\products.tar,","",NWSYS,","","
    Display 2, "Other Products directories and files are being extracted."
    NLMexec 1,'SYS:SYSTEM\\TAR xvfD products.tar'
    EraseFile 0, NWSYS, products.tar,","

    CopyFile 0,0,1,0, 0,SRCNW5,'install\\nls\\%{NWLANG}\\ad1.gif',","",NWSYS,'ni\\data',","
    CopyFile 0,0,1,0, 0,SRCNW5,'install\\nls\\%{NWLANG}\\ad2.gif',","",NWSYS,'ni\\data',","
    CopyFile 0,0,1,0, 0,SRCNW5,'install\\nls\\%{NWLANG}\\ad3.gif',","",NWSYS,'ni\\data',","
    CopyFile 0,0,1,0, 0,SRCNW5,'install\\nls\\%{NWLANG}\\ad4.gif',","",NWSYS,'ni\\data',","
    CopyFile 0,0,1,0, 0,SRCNW5,'install\\nls\\%{NWLANG}\\ad5.gif',","",NWSYS,'ni\\data',","
    Copyfile 0,0,1,0, 0,SRCNW5,              install\novsw.xpm,","",NWSYS,'java\\nwgfx\\pixmaps',","
    Copyfile 0,0,1,0, 0,SRCNW5,              install\novell.xpm,","",NWSYS,'java\\nwgfx\\pixmaps',","
    CopyFile 0,0,1,0, 0,SRCNW5,    products\ras\system\svcdef.nlm,","",NWSYSTEM,","","
    CopyFile 0,0,1,0, 0,SRCNW5,  products\ras\system\nwcupdat.nlm,","",NWSYSTEM,","","
    CopyFile 0,0,1,2, 0,SRCNW5,           install\cpdata.nlm,","",NWBOOT,","","
    CopyFile 1,1,1,0, 0,SRCNW5,             install\javabin,","",NWSYS,'java\\bin',","
    CopyFile 1,1,1,0, 0,SRCNW5,               install\cfgs,","",NWSYSTEM,","","
    CopyFile 0,0,1,0, 0,SRCNW5,          install\searches.ncf,","",NWSYSTEM,","","
    CopyFile 0,0,1,0, 0,SRCNW5,'install\\nls\\%{NWLANG}\\inst2rc',","",NWSYS,'ni\\data',","

    CopyFile 0,0,1,0, 0,SRCPOET,                ptj_r0.nlm,","",NWSYSTEM,","","

    ; Preliminary copy for SAS install
    CopyFile 0,0,1,0,0,SRCNW5,      products\SAS\inst\SASNDS.NLM,","",NWSYSTEM,","","

    ; Preliminary copy for LDAP install
    CopyFile 0,0,1,0,0,SRCNW5,    products\NLDAP\INST\ldapnds.nlm,","",NWSYSTEM,","","

    GotoIfEqual %{PI_OSMajorVersion}, 5, EndProcTransferNewInstallFiles
       AppendFile NWSYSTEM,searches.ncf,","",NWSYSTEM,autoexec.ncf,","

    Display 2, "Updating Install - complete."

Label EndProcTransferNewInstallFiles
;-------------------------------------------------------------------------------

;-------------------------------------------------------------------------------
; Transfer and expand NICI Signed Loader cryptography files
```

```
; Cryptography needs to be set up (key and license) to take effect
;-------------------------------------------------------------------------
Label ProcTransferCryptographyFiles
  GotoIfNEqual %{true}, %{FlagTransferCryptographyFiles}, EndProcTransferCryptographyFiles

    SetVar CPQICMDFile,    "%{LOGFILE}"
    SetVar CPQICMDCommand, "AppendText"
    SetVar CPQICMDAddText, "Cryptography support"
    nlmexec 1, NWUPDATE\CPQICMD

    Display 2, "Updating cryptography support."

    ; Create NICI directory
    SetDir NWSYSTEM, 'NICI', '', '', 0, 0, 0

    ; Copy null Novell cryptography engine
    CopyFile 0,2,0,2,0,SRCNW5, startup\novxeng.xlm,'','',NWBOOT,'novxeng.xlm','',''

    ; Copy worldwide cryptography engine
    CopyFile 0,2,0,2,0,SRCNW5, startup\expxeng.xlm,'','',NWBOOT,'expxeng.xlm','',''

    ; Copy domestic cryptography engine
    CopyFile 0,2,0,2,0,SRCNW5, startup\domxeng.xlm,'','',NWBOOT,'domxeng.xlm','',''

    ; Copy OEM cryptography engine
    CopyFile 0,2,0,2,0,SRCNW5, startup\locxeng.xlm,'','',NWBOOT,'locxeng.xlm','',''

    Display 2, "Updating cryptography support - complete."

Label EndProcTransferCryptographyFiles
;-------------------------------------------------------------------------
```

Copying NetWare NDPS Utilities

```
;-------------------------------------------------------------------------
; Transfer new NetWare Distributed Print Services files
;-------------------------------------------------------------------------
Label ProcTransferNewNDPSFiles
  GotoIfNEqual %{true}, %{FlagTransferNewNDPSFiles}, EndProcTransferNewNDPSFiles

    SetVar CPQICMDFile,    "%{LOGFILE}"
    SetVar CPQICMDCommand, "AppendText"
    SetVar CPQICMDAddText, "NDPS"          nlmexec 1, NWUPDATE\CPQICMD

    Display 2, "Updating NDPS."

    CopyFile 0,1,1,0,0,SRCNW5,                    products\ndps\system,'','',NWSYSTEM,'','',0
    CopyFile 0,1,0,0,0,SRCNW5,                  products\ndps\system\nls,'','',NWSYSTEM,nls,'',0
    CopyFile 0,1,1,0,0,SRCNW5,        'products\\ndps\\system\\nls\\%{NWLANG}','','',NWSYSTEM,'nls\\%{NWLANG}','',0

    CopyFile 0,1,1,0,0,SRCNW5,                    products\ndps\public,'','',NWPUBLIC,'','',0
    CopyFile 0,1,1,0,0,SRCNW5,                  products\ndps\public\nls,'','',NWPUBLIC,nls,'',0
    CopyFile 0,1,1,0,0,SRCNW5,     'products\\ndps\\public\\nls\\%{NWLANGNAME}','','',NWPUBLIC,'nls\\%{NWLANGNAME}','',0

    CopyFile 0,1,1,0,0,SRCNW5,                products\ndps\public\win32,'','',NWPUBLIC,win32,'','',0
    CopyFile 0,1,0,0,0,SRCNW5,              products\ndps\public\win32\nls,'','',NWPUBLIC,win32\nls,'',0
    CopyFile
0,1,1,0,0,SRCNW5,'products\\ndps\\public\\win32\\nls\\%{NWLANGNAME}','','',NWPUBLIC,'win32\\nls\\%{NWLANGNAME}','','',0

    CopyFile 0,1,1,0,0,SRCNW5,           products\ndps\public\win32\snapins,'','',NWPUBLIC,win32\snapins,'','',0

    Display 2, "Updating NDPS - complete."

Label EndProcTransferNewNDPSFiles
;-------------------------------------------------------------------------
```

Putting the Finishing Touches

```
;-------------------------------------------------------------------------
; Transfer Compaq storage drivers (required storage adapter drivers) to the
; server boot directory.
; This is kind of a hack, but allows the OS to boot on Compaq hardware
; without requiring hardware detection, seamlessly.  On systems or options not
; supported by the NetWare 5 CD drivers, new drivers could be copied here.
; Regular hardware detection will copy necessary files from the DRIVERS
; directory to the NWSERVER directory.
;-------------------------------------------------------------------------
Label ProcMoveCompaqStorageDrivers
```

```
  GotoIfNEqual %{true}, %{FlagMoveCompaqStorageDrivers}, EndProcMoveCompaqStorageDrivers

    SetVar CPQICMDFile,    "%{LOGFILE}"
    SetVar CPQICMDCommand, "AppendText"
    SetVar CPQICMDAddText, "Move Compaq storage drivers to the boot directory."
    nlmexec 1, NWUPDATE\CPQICMD

    Display 2, "Moving Compaq drivers."

    CopyFile 0,1,1,2,0,SRCNW5,     drivers\psm,'CPQ*.*','',NWBOOT,'','',''
    CopyFile 0,1,1,2,0,SRCNW5, drivers\storage,'CPQ*.*','',NWBOOT,'','',''

    Display 2, "Moving Compaq drivers - complete."

Label EndProcMoveCompaqStorageDrivers
;-------------------------------------------------------------------------


;-------------------------------------------------------------------------
; Perform Directory Services DIB update
;-------------------------------------------------------------------------
Label ProcUpdateNDS
  GotoIfNEqual %{true}, %{FlagUpdateNDS}, EndProcUpdateNDS

    SetVar CPQICMDFile,    "%{LOGFILE}"
    SetVar CPQICMDCommand, "AppendText"
    SetVar CPQICMDAddText, "NDS update"        nlmexec 1, NWUPDATE\CPQICMD

    Display 2, "Preparing for NDS update at next boot."

    ; The NDS update program, NDSDIBUP.NLM must be co-located
    ; with the script on the master server
    CopyToServer SYSTEM, NDSDIBUP.NLM, '', ''

    Display 2, "Modifying AUTOEXEC.NCF for NDS update."

    PI_EditNCF_ADDLINE '; The following lines were added by the migration script'
    PI_EditNCF_ADDLINE '; and can be removed after rebooting the server.'
    PI_EditNCF_ADDLINE '; NDSDIBUP is used to update the NDS schema.'
    PI_EditNCF_ADDLINE 'LOAD NDSDIBUP.NLM'
    PI_EditNCF_ADDLINE 'LOAD NWCONFIG.NLM b=%{NWBOOT}\\MIGDONE.ICS e=%{NWBOOT}\\err.log d=%{NWBOOT}'
    PI_EditNCF_ADDLINE '; End of modifications made by the migration script.'
    PI_EditNCF_ADDLINE ' '  ;Add blank Line
    PI_EditNCF NWSYSTEM, 'autoexec.ncf', '.BAK', ccode

    GotoIfEqual %{ccode}, 0, EndErrorProcUpdateNDS
      Display 2, "Error: cannot edit AUTOEXEC.NCF. Error #%{ccode}."
    Label EndErrorProcUpdateNDS

    ; now create a script to clean up the target server AUTOEXEC after reboot
    EraseFile 0, NWBOOT, \\MIGDONE.ICS, '', ''
    Display 2, "Generating file %{NWBOOT}\\MIGDONE.ICS"
    SetVar CPQICMDFile,    "%{NWBOOT}\\MIGDONE.ICS"
    SetVar CPQICMDCommand, "AppendText"
    SetVar CPQICMDAddText, "@Version 5.00"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "@SyntaxVersion 1.03"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "; MIGDONE.ICS ** x86 Version **"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, ""
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "Command NWUPDATE\\ICMD"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "Console 'disable login',0"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "Delay 5"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "GetPath NWBOOT, 1, \'\%\{NWBOOT\}\','""
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "SetVar CPQICMDFile,       'SYS:SYSTEM\\\\AUTOEXEC.NCF"'
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "SetVar CPQICMDCommand,    'PrependLineWithText"'
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "SetVar CPQICMDAddText,    '\\; "'
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "SetVar CPQICMDSearchText, 'Load NDSDIBUP"'
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "nlmexec 1, NWUPDATE\\CPQICMD"
    nlmexec 1, NWUPDATE\CPQICMD
```

```
    SetVar CPQICMDAddText, "SetVar CPQICMDSearchText, 'Load NWCONFIG'"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "nlmexec 1, NWUPDATE\\CPQICMD"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "EraseFile 0, NWBOOT, MIGDONE.ICS, '', ''"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "Console 'enable login',0"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "Delay 5"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, ""
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, ";**** End of MIGDONE.ICS ****"
    nlmexec 1, NWUPDATE\CPQICMD

    Display 2, "Modifying AUTOEXEC.NCF for NDS update - complete."
    Display 2, "Preparing for NDS update at next boot - complete."

Label EndProcUpdateNDS
;-------------------------------------------------------------------------


;-------------------------------------------------------------------------
; Update AUTOEXEC.NCF for NetWare 5
;-------------------------------------------------------------------------
Label ProcUpdateAUTOEXEC
  GotoIfNEqual %{true}, %{FlagUpdateAUTOEXEC}, EndProcUpdateAUTOEXEC

    Display 2, "Updating AUTOEXEC.NCF."

    ; Note updates in migration log file
    SetVar CPQICMDFile,    "%{LOGFILE}"
    SetVar CPQICMDCommand, "AppendText"
    SetVar CPQICMDAddText, "IPX will load when OS is booted"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "IPX router network management will load when OS is booted"
    nlmexec 1, NWUPDATE\CPQICMD

;   ConsoleOne support pulled because mouse requires configuration.
;    SetVar CPQICMDAddText, "Console 1 will load when OS is booted"
;    nlmexec 1, NWUPDATE\CPQICMD

    ; Perform updates on actual AUTOEXEC
    SetVar CPQICMDFile,    "%{NWSYSTEM}\\AUTOEXEC.NCF"
    SetVar CPQICMDCommand, "AppendText"
    SetVar CPQICMDAddText, "\n"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "\; The following lines were added by the migration script:"
    nlmexec 1, NWUPDATE\CPQICMD

    Display 2, "Preparing for IPX load at next boot."
    SetVar CPQICMDAddText, "LOAD IPXRTR"
    nlmexec 1, NWUPDATE\CPQICMD

    Display 2, "Preparing for IPX router network management load at next boot."
    SetVar CPQICMDAddText, "LOAD IPXRTRNM"
    nlmexec 1, NWUPDATE\CPQICMD

    ; now add statements that normally are present on NW5 installations
    Display 2, "Accommodating new search paths."
    SetVar CPQICMDAddText, "SYS\:\\SYSTEM\\NMA\\NMA5.NCF"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "\#RCONAG6.NLM is required by Console Manager in ConsoleOne and by RConsoleJ"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "\#LOAD SPXS"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "\#LOAD RCONAG6.NLM"
    nlmexec 1, NWUPDATE\CPQICMD

;   ConsoleOne support pulled because mouse requires configuration.
;    Display 2, "Preparing for ConsoleOne load at next boot."
;    SetVar CPQICMDAddText, "C1START"
;    nlmexec 1, NWUPDATE\CPQICMD

    SetVar CPQICMDAddText, "\; End of modifications made by the migration script."
    nlmexec 1, NWUPDATE\CPQICMD

    Display 2, "Updating AUTOEXEC.NCF - complete."

Label EndProcUpdateAUTOEXEC
```

```
;-------------------------------------------------------------------------


;-------------------------------------------------------------------------
; Disable Third Party Applications
; They will be manually enabled after migration is complete
; * Sample
;-------------------------------------------------------------------------
Label ProcDisableThirdPartyApps
  GotoIfNEqual %{true}, %{FlagDisableThirdPartyApps}, EndProcDisableThirdPartyApps

    Display 2, "Disabling any Third Party Applications."

    ; Note updates in migration log file
    SetVar CPQICMDFile,    "%{LOGFILE}"
    SetVar CPQICMDCommand, "AppendText"
    SetVar CPQICMDAddText, "Third party applications disabled:"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText, "   SAMPLE.NLM"
    nlmexec 1, NWUPDATE\CPQICMD

    ; Perform updates on AUTOEXEC
    ; The file being processed
    SetVar CPQICMDFile,       "%{NWSYSTEM}\\AUTOEXEC.NCF"
    ; The command being processed
    SetVar CPQICMDCommand,    "PrependLineWithText"
    ; The text to insert in the process
    SetVar CPQICMDAddText,    "\; REM-Enable Later: "
    ; The text to insert before in the process (whitespace ignored)
    SetVar CPQICMDSearchText, "LOAD SAMPLE.NLM "
    ; Launch the process
    nlmexec 1, NWUPDATE\CPQICMD

    Display 2, "Disabling any Third Party Applications - complete."

Label EndProcDisableThirdPartyApps
;-------------------------------------------------------------------------


  SetVar FlagEnableMouseCOM1,          %{false}
;-------------------------------------------------------------------------
; Enable Mouse support through the PS/2 mouse port
;-------------------------------------------------------------------------
Label ProcEnableMousePS2
  GotoIfNEqual %{true}, %{FlagEnableMousePS2}, EndProcEnableMousePS2

    Display 2, "Enabling PS/2 Mouse support."

    ; Note updates in migration log file
    SetVar CPQICMDFile,    "%{LOGFILE}"
    SetVar CPQICMDCommand, "AppendText"
    SetVar CPQICMDAddText, "Enabled PS/2 mouse support"
    nlmexec 1, NWUPDATE\CPQICMD

    ; MOUSE.CFG
    ; Assures that "-mp PS/2 -md PS/2" is in SYS:JAVA\NWGFX\MOUSE.CFG
    SetVar CPQICMDFile,       "%{NWSYS}\\JAVA\\NWGFX\\MOUSE.CFG"
    SetVar CPQICMDCommand,    "PrependLineWithText"
    SetVar CPQICMDAddText,    "\# "
    SetVar CPQICMDSearchText, "-mp "
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDCommand,    "AppendText"
    SetVar CPQICMDAddText,    "-mp PS/2 -md PS/2"
    nlmexec 1, NWUPDATE\CPQICMD

    ; PRE_SRV.NCF
    ; Assures that "LOAD AIO" is in SYS:JAVA\NWGFX\PRE_SRV.NCF
    ; Assures that "LOAD AIOPS2" is in SYS:JAVA\NWGFX\PRE_SRV.NCF
    SetVar CPQICMDFile,       "%{NWSYS}\\JAVA\\NWGFX\\PRE_SRV.NCF"
    SetVar CPQICMDCommand,    "PrependLineWithText"
    SetVar CPQICMDAddText,    "\# "
    SetVar CPQICMDSearchText, "AIOCOMX"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDSearchText, "LOAD AIOCOMX"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDSearchText, "AIOPS2"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDSearchText, "LOAD AIOPS2"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDSearchText, "AIO"
```

```
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDSearchText, "LOAD AIO"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDCommand,    "AppendText"
    SetVar CPQICMDAddText,    "AIO"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDAddText,    "AIOPS2"
    nlmexec 1, NWUPDATE\CPQICMD

    Display 2, "Enabling PS/2 Mouse support - complete."

Label EndProcEnableMousePS2
;-------------------------------------------------------------------------


;-------------------------------------------------------------------------
; Enable Mouse support through the COM1 port
;-------------------------------------------------------------------------
Label ProcEnableMouseCOM1
  GotoIfNEqual %{true}, %{FlagEnableMouseCOM1}, EndProcEnableMouseCOM1

    Display 2, "Enabling COM1 Mouse support."

    ; Note updates in migration log file
    SetVar CPQICMDFile,    "%{LOGFILE}"
    SetVar CPQICMDCommand, "AppendText"
    SetVar CPQICMDAddText, "Enabled COM1 mouse support"
    nlmexec 1, NWUPDATE\CPQICMD

    ; MOUSE.CFG
    ; Assures that "-mp Microsoft -md COM1" is in SYS:JAVA\NWGFX\MOUSE.CFG
    SetVar CPQICMDFile,       "%{NWSYS}\\JAVA\\NWGFX\\MOUSE.CFG"
    SetVar CPQICMDCommand,    "PrependLineWithText"
    SetVar CPQICMDAddText,    "\# "
    SetVar CPQICMDSearchText, "-mp "
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDCommand,    "AppendText"
    SetVar CPQICMDAddText,    "-mp Microsoft -md COM1"
    nlmexec 1, NWUPDATE\CPQICMD

    ; PRE_SRV.NCF
    ; Assures that "LOAD AIO" is in SYS:JAVA\NWGFX\PRE_SRV.NCF
    ; Assures that "AIOCOMX port=3F8 int=4 name=COM1" is in SYS:JAVA\NWGFX\PRE_SRV.NCF
    SetVar CPQICMDFile,       "%{NWSYS}\\JAVA\\NWGFX\\PRE_SRV.NCF"
    SetVar CPQICMDCommand,    "PrependLineWithText"
    SetVar CPQICMDAddText,    "\# "
    SetVar CPQICMDSearchText, "AIOCOMX"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDSearchText, "LOAD AIOCOMX"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDSearchText, "AIOPS2"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDSearchText, "LOAD AIOPS2"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDSearchText, "AIO"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDSearchText, "LOAD AIO"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar CPQICMDCommand,    "AppendText"
    SetVar CPQICMDAddText,    "AIO"
    nlmexec 1, NWUPDATE\CPQICMD
    ; The following command contains COM port parameters which can be changed
    ; a similar procedure would be used if a serial mouse were on COM2
    SetVar CPQICMDAddText,    "AIOCOMX port=3F8 int=4 name=COM1"
    nlmexec 1, NWUPDATE\CPQICMD

    Display 2, "Enabling COM1 Mouse support - complete."

Label EndProcEnableMouseCOM1
;-------------------------------------------------------------------------


;-------------------------------------------------------------------------
; Automatically Reboot the server
;-------------------------------------------------------------------------
Label ProcRebootServer
  GotoIfNEqual %{true}, %{FlagRebootServer}, EndProcRebootServer
  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, "Automatic server reboot" nlmexec 1, NWUPDATE\CPQICMD
```

```
  GotoIfEqual %{PI_OSMajorVersion}, 4, RebootServerUsingNCF
  GotoIfEqual %{PI_OSMajorVersion}, 5, RebootServerUsingCommand
  Goto EndProcRebootServer

  Label RebootServerUsingCommand
    Console 'reset server',0
    Goto EndProcRebootServer

  Label RebootServerUsingNCF
    ; Erase existing REBOOT.NCF file
    EraseFile 0, NWSYSTEM, NWUPDATE\\REBOOT.NCF, '', ''
    ; Generate a REBOOT.NCF file
    SetVar  CPQICMDFile,       "SYSTEM\\NWUPDATE\\REBOOT.NCF"
    SetVar  CPQICMDCommand,    "AppendText"
    SetVar  CPQICMDAddText,    "\; REBOOT.NCF generated by NetWare 5 migration script"
    nlmexec 1, NWUPDATE\CPQICMD
    SetVar  CPQICMDAddText,    "REMOVE DOS"   nlmexec 1, NWUPDATE\CPQICMD
    SetVar  CPQICMDAddText,    "Delay 2"      nlmexec 1, NWUPDATE\CPQICMD
    SetVar  CPQICMDAddText,    "DOWN"         nlmexec 1, NWUPDATE\CPQICMD
    SetVar  CPQICMDAddText,    "Delay 2"      nlmexec 1, NWUPDATE\CPQICMD
    SetVar  CPQICMDAddText,    "EXIT"         nlmexec 1, NWUPDATE\CPQICMD
    SetVar  CPQICMDAddText,    "Delay 2"      nlmexec 1, NWUPDATE\CPQICMD

    ; run REBOOT.NCF
    Console 'NWUPDATE\\reboot.ncf',0
    Delay 10
    Goto EndProcRebootServer

Label EndProcRebootServer
;-------------------------------------------------------------------------------

Label EndScript
  SetVar CPQICMDFile,    "%{LOGFILE}"
  SetVar CPQICMDCommand, "AppendText"
  SetVar CPQICMDAddText, ""
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, "..................Migration script complete....................."
  nlmexec 1, NWUPDATE\CPQICMD
  SetVar CPQICMDAddText, ""
  nlmexec 1, NWUPDATE\CPQICMD

  GotoIfNEqual %{true}, %{FlagDebug}, EndEndScript
    Display 0, "ÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿÿ" ; causes a pause for <enter>
Label EndEndScript
_
```