Prepare Source for Disk Duplication

Create an Answer file for using when setup Windows after a computer is cloned. And run Sysprep tool to prepare a computer to be a sample computer (source disk) for cloning.

The Answer file should contains only general configuration not unique value on each computer. For instance, if you're going to deploy the image to all computers in the same time zone, it is good to configure time zone in the answer file so that you don't have to set time zone on each computer after cloned them. But if you're going to deploy the image in different time zone, you should not configure time zone in the answer file.

1. Install Windows XP, update patches and setup the basic applications on the sample computer.



 Extract Sysprep tool. Insert the Windows XP CD. Navigate to "CD-Rom DriveSUPPORTTOOLS" and extract **deploy.cab** to C:Sysprep. If you don't have Windows XP CD, you can download the Sysprep tool from Microsoft.
 Note: You have to use the Sysprep tool version according to Windows version. For example, you should not use Sysprep for Windows XP on Windows Server 2003.



3. Run Setup Manager to create an Answer file. Double-click on setupmgr.exe.



4. On Welcome to Setup Manager, click Next.

🐻 Setup Manager	
	Welcome to Setup Manager
	Setup Manager helps you prepare the configuration set and answer file to automate the preinstallation of Windows on your destination computers.
	To continue of all Mark
	To continue, click Next.
	< Back Next > Cancel

5. On New or Existing Answer File, select Create new. Click Next.

🐻 Setup Manager 🛛 🛛 🔀
New or Existing Answer File An answer file tells Setup how to install and configure Windows.
An answer file is a script that provides answers to the questions or options presented during Windows Setup. For example, if your answer file provides an answer to the "Select a time zone" prompt, that page will not be shown to the end user during Setup. Create new Modify existing Enter the path and file name of the answer file:
Browse < Back Next > Cancel

6. On Type of Setup, select Sysprep setup. Click Next.

🐻 Setup Manager 🛛 🔀
Type of Setup The type of setup you choose determines the name and format of the resulting answer file.
The answer file you create will either be Unattend.txt, Sysprep.inf, or a .sif file. Choose a type of setup: Unattended setup The answer file for Setup is commonly called Unattend.txt, but for a CD-based setup, the answer file must be named Winnt.sif. Sysprep setup Sysprep.inf is an optional answer file that can be used to automate a setup mode called Mini-Setup.
C Remote Installation Services (RIS) This type of setup allows the end user to set up Windows from a Remote Installation Server. Setup Manager creates a .sif file.
< Back Next > Cancel

7. On Product, select Windows XP Professional. Click Next.

🐻 Setup Manager 🛛 🗙	
Product Which Windows product will be installed using this answer file?	
Select a Windows product:	
Windows XP Home Edition	
Windows XP Professional	
Windows Server 2003, Standard Edition	
Windows Server 2003, Enterprise Edition	
Windows Server 2003, Web Edition	
< Back Next > Cancel	

8. On License Agreement, select No, do not fully automate the installation. Click Next.

🐻 Setup Manager 🛛 🔀		
License Agreement Do you accept the terms of the License Agreement for Windows?		
Using Sysprep, you can fully automate a Windows installation so that no user input is required.		
To use this option, you must accept the terms of the End User License Agreement (EULA) and any Microsoft license agreements you have for the version of Windows you want to install. For more information about the EULA, consult your documentation or your Microsoft license agreement.		
Do you want to fully automate the installation?		
C Yes, fully automate the installation		
• No, do not fully automate the installation		
If you choose No, the end user must accept the End User License Agreement.		
< Back Next > Cancel		

9. Now you can configure the general configuration in your environment. I'll show sample configuration.On Name and Organization, enter the Name and the Organization.

🐻 Setup Manager	
File Help	
 General Settings Name and Organization Display Settings Time Zone Product Key Network Settings Computer Name Administrator Password Networking Components Workgroup or Domain Advanced Settings Telephony Regional Settings Install Printers Run Once Additional Commands Identification String 	Name and Organization You can customize Windows Setup by providing a default name and organization. Type the default name and organization you want to use. If you leave these boxes blank, the name and organization will not be specified in the answer file, and the end use will be prompted to enter the information during Windows Setup. Name: Virtual Organization: Virtual Organization: Virtual com On the left side of this page, the steps of Setup Manager are shown for your information. The highlighted step is your current position. You can move to any step in Setup Manager by clicking that step in the list.
	< Back Next > Cancel

10. On Time Zone, select the time zone.



11. On Product Key, enter the Windows product key if you have Windows corporate key (one key can be installed on many computers). If you have an unique key on each computer, leave this empty.

12. On Computer Name, select Automatically generate computer name so that each computer after cloned and run sysprep, it'll has unique computer name (Auto-generated name).

🐻 Setup Manager		
File Help		
General Settings Mame and Organization Josplay Settings	Computer Name Assign a name to the destination computer.	
Time Zone Product Key Protwork Settings Computer Name Administrator Password Networking Components	 Automatically generate computer name Use the following computer name: Computer name: 	
Workgroup or Domain Advanced Settings Telephony Regional Settings Languages Install Printers Run Once		
Additional Commands Identification String	< Back	< Next > Cancel

13. On Administrator Password, choose "Use the following Administrator password"

🐻 Setup Manager	
File Help	
 General Settings Name and Organization Display Settings Time Zone Product Key Network Settings Computer Name Administrator Password Networking Components Workgroup or Domain Advanced Settings Telephony Regional Settings Install Printers Run Once Additional Commands Identification String 	Administrator Password You can specify a password for the Administrator account on all destination computers. If you keep a record of the password you choose, help desk technicians or network administrators can change settings when needed. • Prompt the end user for an Administrator password • Use the following Administrator password (127 characters maximum; case-sensitive): Password: Confirm password:

14. On Workgroup or Domain, leave as default.

🐻 Setup Manager		
File Help		
 General Settings Name and Organization Display Settings 	Workgroup or Domain The destination computers may belong to either a workgroup or a domain.	
Time Zone	How will the destination computers participate in a network?	
Product Key ⊡ Network Settings	Workgroup: WORKGROUP	
Computer Name Administrator Password	C Domain: DOMAIN	
Networking Components	Create a computer account in the domain	
Workgroup or Domain	Specify a user account that has permission to add a computer to the domain.	
- Telephony - Regional Settings	User name:	
- Languages	Password:	
	Confirm password:	
Identification String	If you specify a domain but don't set up a user account, the end user will be prompted for a valid user name and password the first time the computer logs on to the domain after Windows Setup.	
	< Back Next > Cancel	

15. On Identification String, give some name to identify this sysprep image. It'll keep this information in the registry so you'll know that this computer was cloned from which Sysprep image. Click Finish.

🐻 Setup Manager	
File Help	
 General Settings Name and Organization Display Settings Time Zone Product Key Network Settings Computer Name Administrator Password Networking Components Workgroup or Domain Advanced Settings Telephony Regional Settings Languages Install Printers Run Once Additional Commands Identification String 	Identification String You can add a string to the registry on the duplicated computers to help identify the Sysprep image. Type information you would like to include in the registry about this Sysprep installation. Later, this information can help you determine which Sysprep image is installed on a particular computer. Identification string: Default Windows XP </td

16. Save the .inf file. This is the Answer file that you've configured. Save it in the same folder and click OK.



17. After the Answer File has been saved, click Cancel to exit Setup Manager

🐱 Setup Manager	
File Help	
 General Settings Name and Organization Display Settings Time Zone Product Key Network Settings Computer Name Administrator Password Networking Components Workgroup or Domain Advanced Settings Telephony Regional Settings Languages Install Printers Run Once Additional Commands Identification String 	Completing Setup Manager You have successfully completed Setup Manager and created the following files: C:\Sysprep\sysprep.inf < Back



18. You noticed the Sysprep's Answer file has been created in Windows Explorer.

19. Download the latest version of DriverPack BASE (8.12.5 at time of writing) and whatever DriverPacks you need at http://www.driverpacks.net/.

20. Extract BASE to a folder by running the .exe you downloaded (example: DPs BASE 8125.exe)

21. In the folder you extracted BASE to, open the 'bin' folder. Copy DPsFnshr.ini and extract DPsFnshr.7Z to C:\ on the computer you'll be running Sysprep on.

22. Inside of the BASE 'bin' folder, open the 'wnt5 x86-32' folder. Copy ROE.exe to C:\sysprep, and extract DevPath.exe from M2.7z to C:\ on the computer you'll be running Sysprep on.

23. Extract your DriverPacks with either 7-zip or WinRAR. If you have WinRAR integrated into your shell you can just control-click the Packs you want to select them. then right-click on one and choose "Extract Here". Make sure that they are all merged into the same folder structure under the 'D' folder (D\C, D\G, etc). You should also have a set of files ending with wnt5 x86-32.ini. These contain the various exceptions that DPsFnshr.exe reads when it runs.

24. Move extracted DriverPacks ('D' folder) and wnt5 x86-32.ini files to C:\ on the computer you'll be running Sysprep on.

24a. If you are slipstreaming DP Graphics A, create a dummy (Notepad) file in C: λ . Name it ATICCC.ins if you want the Catalyst Control Center or ATICCP.ins if you want the Catalyst Control Panel installed when Radeon hardware is detected. The file can be blank as DPsFnshr.exe just looks for the file name. DPsFnshr.exe deletes the .ins file when it is finished running.

24b. If you want, you can modify the extracted driver packs to remove hardware you don't need. If you do, remember to move the modified driver pack to D\3\ (i.e. D\3\C, D\3\CPU, etc). If you want DPsFnshr.exe to run as intended (do to paths in the wnt5_x86-32.ini files), though, I would leave things like the DriverPack Graphics A unmodified.

25. Open a Command Prompt and run

C:\DevPath.exe C:\D

and then

C:\makePNF.exe C:\D

NOTE: Since you are loading your DevicePath with DevPath.exe, you can leave out the *OemPnPDriversPath* entry (under the [Unattended] section) in your sysprep.inf file. *OemPnPDriversPath* has a 512 characters limit, but DevPath.exe gets around this by writing directly to the registry entry that *OemPnPDriversPath* gets loaded into by sysprep.

26. Open C:\DPsFnshr.ini in Notepad. Since we aren't actually running BASE we have to change the configuration for the Finisher manually. Generally, you will only need to edit the KTD and KTDlocation variables at the very top. If you do not want KTD enabled set:

KTD = ''false''

If you want to KTD, put 'paths:' and then a list of folders in D you want to keep. Even if you want to keep all the drivers, I would still recommend specifying them individually due to the "double D" and Desktop.ini bugs in Finisher. For example, in my configuration, I want to keep all of the drivers. I have a D\3 folder when I've put my 3rd party and modified driver packs, and a D\G folder that contains an unmodified Driver Pack Graphics A. So my KTD line looks like:

KTD = ''paths:D\G;D\3''

KTDlocation tell Finisher where to move the D folder to if you have KTD enabled. For example, I move my drivers to C:\WINDOWS\Options\Drivers so my KTDlocation line is:

KTDlocation = "%SystemRoot%\Options\Drivers"

27. Edit c:\sysprep\sysprep.inf and add the following lines under the [Unattended] section:

UpdateInstalledDrivers = Yes DriverSigningPolicy = Ignore **NOTE:** *UpdateinstalledDrivers* specify that Plug and Play is called after Mini-Setup, to re-enumerate all the installed drivers, and to install any updated drivers in the driver path. *DriverSigningPolicy* setting this policy setting to "ignore" disables any warnings from driver signing about unsigned vendor-supplied drivers. Disable the Driver Signing Policy by checking "*Ignore*" in System Properties > Hardware > Drivers Signing...

28a. (optional) If you want the Mass Storage drivers that come with XP added to your sysprep.inf then add the line:

[SysprepMassStorage]

to the very end of your sysprep.inf. Then, run

c:\sysprep\sysprep.exe -bmsd

28b.We want to add the MassStorage drivers we downloaded in the drivers packs so we can avoid unbootable systems that lack the SATA drivers. There is a script that will automatically generate a text file of entries that we can manually add to the **sysprep.ini** in the **[SysprepMassStorage]** section.

28c. Copy the following script into a text file and save it as HWIDS.cmd:

#BEGIN

rem %1 is path to MassDriverPacks Folder IF "%1"=="" GOTO EOF IF NOT EXIST %1 GOTO EOF

SETLOCAL ENABLEDELAYEDEXPANSION SET STDOUT=%cd%\HWIDS.TXT TYPE>%STDOUT% 2>NUL

::traverse drivers path CALL :TRAVERSAL %1

GOTO EOF

```
FOR /F %%I IN ('DIR /AD /OGN /B') DO (
CALL :TRAVERSAL %CD%\%%I
)
POPD
GOTO EOF
```

:EOF

#END

28d. Move the HWIDS.cmd file to the C:\ directory and the command prompt, run;

C:\HWIDS.cmd D\M

28e. HWIDS will run through the drivers and create **HWIDS.txt** in the directory you ran it from. (C:\HWIDS.txt) Open **HWIDS.txt** and copy the entire thing at the end of the **[SysprepMassStorage]** section. You should see similar entries which were generated when we ran **sysprep** with the **-bmsd** flag.

Example:

PCI\VEN_8086&DEV_2652&CC_0106 = C:\D\M\IN\1\iaahci.inf PCI\VEN_8086&DEV_2653&CC_0106 = C:\D\M\IN\1\iaahci.inf PCI\VEN_8086&DEV_27C1&CC_0106 = C:\D\M\IN\1\iaahci.inf PCI\VEN_8086&DEV_27C5&CC_0106 = C:\D\M\IN\1\iaahci.inf PCI\VEN_8086&DEV_27C3&CC_0104 = C:\D\M\IN\1\iastor.inf PCI\VEN_8086&DEV_2652&CC_0104 = C:\D\M\IN\1\iastor.inf

IMPORTANT: The next step will cause programs to run on next boot. Do not reboot after this point or your hard work will be lost!

29. Open a Command Prompt and run

C:\sysprep\ROE.exe 937

This tells Windows to run C:\DPsFnshr.exe on the next reboot. I found that using [GuiRunOnce] in sysprep.inf to run DPsFnshr.exe resulted in the dreaded desktop.ini bug. Using ROE.exe to create a RunOnceEx entry for DPsFnshr.exe does not have this issue. **DO NOT REBOOT BEFORE THE NEXT STEP OR DPsFnshr.exe WILL RUN**!

30. Next, let's prepare this computer as a sample computer for cloning by run Sysprep.exe.

)



31. It shows a warning message. Just click OK.

System Preparation Tool 2.0			
♪	Running System Preparation Tool (Sysprep) can modify this computer's security settings.		
	If allowed under your license agreement, you may use Sysprep to prepare an installation of Windows that you can deploy to multiple destination computers.		
	After you run Sysprep, Windows will automatically shut down.		
	OK Cancel		

32. To make Sysprep use Answer file after cloned, check on Mini-Setup. Select Shutdown mode to Shutdown. Click Reseal.

System Preparation Tool 2.0			
System Preparation Tool (Sysprep) prepares a computer's hard disk for delivery to the end user. Additional options are available from the command line.			
To skip Windows Welcome or Mini-Setup and Factory configure the installation as scripted in Winbom.ini, click Factory.			
To reboot this computer and manually test the Audit installation, click Audit (available only in Factory mode).			
To prepare the computer for the end user, click 3 Reseal			
Options			
Don't reset grace period for activation			
Use Mini-Setup 1			
Don't regenerate security identifiers			
Detect non-plug and play hardware			
Shutdown mode: Shut down			

Note: "Don't reset grace period for activation" - Activation is not required when you use Volume License media (VL versions of Windows XP) in conjunction with the VL product keys.

33. It shows a warning message again that after reboot the security identifiers (SIDs) will be regenerate. This is what we want after clone the disk. Click OK.

System Preparation Tool 2.0			
♪	You chose to regenerate security identifiers (SIDs) on the next reboot. You only need to regenerate SIDs if you plan to make an image of the installation after shutdown.		
	To regenerate SIDs, click OK. To go back and change this setting, click Cancel.		
OK Cancel			

34. Sysprep is working.

System Preparation Tool 2.0					
System Preparation Tool (Sysprep) prepares a computer's hard disk for delivery to the end user. Additional options are available from the command line.					
To skip Windows Welcome or Mini-Setup and Factory configure the installation as scripted in Winbom.ini, click Factory.					
To reboo installatio	Sysprep is working 🛛 🔀	Audit			
mode).					
To prepa Reseal.		Reseal			
Options					
Don't reset grace period for activation					
🔽 Use Mini-Setup					
Don't regenerate security identifiers					
Detect non-plug and play hardware					
Shutdown mode: Shut down					

35. The sample computer is shutting down. After the system shutdown, its disk can now be cloned to other disk now. Next post, I'll show how to clone a disk to disk using Norton Ghost.



Tips

Clean out the HKLM\Software\Microsoft\Windows\CurrentVersion\DevicePath key in the registry. Everytime you run sysprep it appends the path state in OEMPnPDriversPath in the sysprep.inf file to this registry key on the base image. This can make this key extremely long if you do not clean it out.

Before Re-Seal your image run "cleanmgr" from a command prompt. Purge Internet cache history from Internet Explorer and Mozilla. Defrag image at least 2x. Run Nullfile.exe this tool zeros out free space.

Customizing Sysprep.inf

There are other sections to the sysprep.inf then what I will use in this example but in my environment I only use these so I will stick to these. Many of these are also optional and many don't seem to have an effect in my environment will be comment it out, but I will explain them to you.

I would suggest running setupmgr.exe in the sysprep folder to create a base sysprep.inf file and to then edit it by hand from then on as setupmgr.exe can delete some of your customizations.

;SetupMgrTag ; ----- Sysprep Notes ------; Note: All notes in this files must have a ';' before them, and the first line should not be changed from ';SetupMgrTag'. Options like OemPnPDriversPath can be removed or comment it out with ; if don't have an effect in your environment. ; Things to know: ; 1: Verify if you need a new HAL and add appropriate UpdateUPHAL or UpdateHAL lines below under the [unattended] section or use the "Multi-universal Hal options" hack. 3: Verify the admin password in the [GuiUnattended] section If done properly this file is deleted after sysprep completes so this should not be a security issue [Unattended] ;OemPnPDriversPath="Drivers\1\1;Drivers\1\10;Drivers\1\11;Drivers\1\12;Drivers\1\13; Drivers\intel" DriverSigningPolicy=Ignore InstallFilesPath=C:\sysprep\i386 TargetPath=\WINDOWS ExtendOemPartition=1 KeepPageFile=0 OemSkipEULA=Yes UpdateInstalledDrivers=Yes NonDriverSigningPolicy=Ignore UpdateServerProfileDirectory=1 [Sysprep] BuildMassStorageSection=Yes

[GuiUnattended] AdminPassword="ADMIN SECRET PASS" EncryptedAdminPassword=NO OEMSkipRegional=1 OEMDuplicatorstring="20091105 - v1.0" TimeZone=10 OemSkipWelcome=1 AutoLogon=Yes AutoLogonCount=3 [FavoritesEx] Title1="Google.com" URL1="http://google.com" [UserData] FullName="Your Name" OrgName="Your Orginization" ComputerName=* ProductKey=xxxxx-xxxxx-xxxxx-xxxxx [Display] BitsPerPel=32 Xresolution=1024 YResolution=768 Vrefresh=72 AutoConfirm=1 [TapiLocation] CountryCode=1 Dialing=Tone AreaCode=719 LongDistanceAccess="9" [RegionalSettings] LanguageGroup=13,17,3,2,5,16,4,12,15,7,8,10,11,9,6,14,1 Language=00000409 [Networking] InstallDefaultComponents=Yes [Identification] JoinWorkgroup=TEMPORARY [GuiRunOnce] ;Command0=c:\drivers\scripts\cleanup.bat [SysprepMassStorage] *pnp0a00=c:\windows\inf\machine.inf *pnp0a01=c:\windows\inf\machine.inf *pnp0a04=c:\windows\inf\machine.inf *pnp0a03=c:\windows\inf\machine.inf pci\cc 0604=c:\windows\inf\machine.inf pci\cc 0601=c:\windows\inf\machine.inf ...Shortand for this post... pci/ven 1055&dev 9130=c:/windows/inf/mshdc.inf pemeia/micron-mtef -392d=c:\windows\inf\mshdc.inf pci/ven 1179&dev 0105=c:/windows/inf/mshdc.inf

-Section by Section

[Unattended]

OemPnPDriversPath= Since you are loading your DevicePath with

DevPath.exe(Driverspack), you can leave out the *OemPnPDriversPath* entry (under the [Unattended] section) in your sysprep.inf file. *OemPnPDriversPath* has a 512 characters limit, but DevPath.exe gets around this by writing directly to the registry entry that *OemPnPDriversPath* gets loaded into by sysprep.

DriverSigningPolicy=Ignore This will let SysPrep silently install drivers that are not signed

InstallFilesPath=c:\sysprep\i386 This should be the location of the i386 folder from the Windows XP CD

TargetPath=\Windows The folder name to install windows to

ExtendOemPartition=1 Depending on the third-party software you use to create and apply the images, you may be able to shrink or increase the disk image to fit the size of the target disk. When you are using Sysprep with NTFS volumes in environments in which the drive sizes may differ, use the following method:

1. Create your image using a partition/volume less than or equal in size to the smallest hard disk installed in the target computers.

2. After you run Sysprep and the image is created (using whichever disk-imaging software you want), do not let the imaging software extend the volume when applying the image to the target computer. Check the documentation included with the disk-imaging software for information on how to prevent this.

3. Modify the Sysprep.inf file to use the ExtendOemPartition key in the [Unattended] section to extend the partition to the full size of the target disk or the extra size (in megabytes) that you want.

Values:

ExtendOemPartition = 0 (do not extend)

ExtendOemPartition = 1 (extend to the end of the disk)

ExtendOemPartition = number_in_megabytes (extend the volume this many megabytes in size)

When the duplicated disk is placed in a computer and turned on, the volume is extended by Windows Setup to the size you specified in the Sysprep.inf answer file. This allows Windows to update the NTFS metafile information to reflect the correct volume size and maintain file system integrity.

KeepPageFile=0 Deletes the page file to help make sure no residual from the other hardware is still hanging around

OEMSkipEULA=Yes Accepts the EULA for you automatically

UpdateInstalledDrviers=Yes Reinstalls any drivers that have updates to them **NonDriversSigningPolicy**=Ignore Ignores warnings about unsigned files that are not drivers

UpdateServerProfileDirectory=1 More Info The article talks about this setting with a hotfix and SP2, but in this hotfix seems to be included in SP3. This setting takes the administrator profile and copies it to the default profile.

[Sysprep]

BuildMassStorageSection=Yes Extremely important as this will build all mass storage drivers

[GuiUnattended]

AdminPassword=... Set this to your password

EncrypedAdminPassword=NO I always opt out of encrypting the admin password as I have had times this step fails and encrypting the password disables the autologon feature use further down, also remember that this file will be deleted before the first login.

OEMSkipRegional=1 Skips the Regional options page

OEMDuplicatorString="Clones Name" This is a key put into the registry so you can track what clone a computer came from

TimeZone=10 10 just happens to MST so you will need to change this to your time zone

OEMSkipWelcome=1 Skips the Welcome Screen

AutoLogon=Yes Logs the administrator into the computer automatically after sysprep finishes

AutoLogonCount=3 Will log the administrator on for 3 reboots. Note that if you log off the PC it will log you right back on until you restart

[FavoritesEX]

Title1="Google.com" This is to add a favorite to IE automatically but it has yet to work for me. Change the number for each new site URL1=http://google.com The URL to match Title1

[UserData]

FullName="Your Name" The name in which the computer is registered to **OrgName**="Your OrgName" The organization in which the computer is registered to **ComputerName**=* Let sysprep pick a random computer name **ProductKey**= Put your volume license key in here, if you do not have one leave this value blank. Look for another post from me shortly to get around typing in the key on every computer if you don't have a VLK

[Display]

BitsPerPel=3232bit colorxResolution=800set the monitor to 800×600 for older modelsyResolution=600set the monitor to 800×600 for older modelsvRefresh=6060 HzAutoConfirm=1Confirm the resolution change, if you don't set this to 1 you willneed to click ok within 15 seconds to keep the video settings once they change

[TapiLocation]

CountryCode=1 1 is for the US, change this accordingly Dialing=Tone Set the modem to tone dialing AreaCode=404 Your area code LongDistanceAccess="9" Set this to the number the computer will need to use to get an outside line

[RegionalSettings] LanguageGroup=1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17 Installs all languages Language=00000409 set the default to English

[Networking] InstallDefaultComponents=Yes Installs all the default network protocols

[Identification]

JoinWorkgroup=Temp Joins the computer to a workgroup called Temp

[GuiRunOnce]

Command0=c:\drivers\scripts\cleanup.bat Runs a program once the computer boots into windows if you need any cleanup or extra tweaks.

[SysprepMassStorage]

This section is created automatically and contains a list of mass storage drivers.

- Creating the Mass Storage Devices List

SysPrep will need to know what type hard drive drivers to load during setup so you should always create you [SysprepMassStorage] section to help it out will all your drivers. The get this section filled in with all your values run sysprep.exe with the -bmsd switch.