11.4.5 Lab: Install, Configure, and Partition a Second Hard Drive in Windows XP

Introduction

Print and complete this lab.

In this lab, you will change the boot order, install a second hard drive, create partitions, and map drive letters to partitions.

Recommended Equipment

- Computer running Windows XP Professional
- Unpartitioned IDE hard disk drive
- IDE cable with a free connection
- Antistatic wrist strap
- Tool kit

Step 1

Boot your computer, and then enter the BIOS setup.

Main	Advanced	l Power	BIOS SE Boot	TUP UTILITY Security	Exit	
AMIBIOS BIOS Bu	Version ild Date	1	08.00 08/14	.02 ⁄03		
System I	lemory	:	1024M	В		
System ' System I	Fime Date		[12:3 [Sat	9:37] 02/10/2007]		
					↔ †↓ +- Ta F1 F1 ES	Select Screen Select Item Change Field b Select Field General Help 0 Save and Exit C Exit
	v02.10	(C)Copyrigh	t 1985-2	001, American	n Megatr	ends, Inc.

Use the **left** and **right arrow** keys to move between tabs in the BIOS. Use the **up** and **down arrow** keys to move between items in each tab.

Navigate the BIOS setup program screens to the boot order configuration settings screen.

Main	Advanced	Power	BIOS SE	IUP UTILITY Security	Ex	it
<pre>> Boot > Hard > Flopp > CDROM</pre>	Device Prior Disk Drives y Drives Drives	rity				 ↔ Select Screen 14 Select Iten Enter 60 to Sub Screen F1 General Help F10 Save and Exit ESC Exit
	v02.10 ((C)Copyrigh	nt 1985-20	901, American	n Meç	jatrends, Inc.

Select the "Boot Device Priority". The "Boot Device Priority" may also be called the "Boot Options" or the "Boot Order".

Press the Enter key.

Change the order of the boot devices to:

- 1. CD-ROM
- 2. Hard Drive
- 3. Floppy Drive
- 4. Any other boot option available

	BIOS SETUP UTILITY <mark>Boot</mark>	
1st Boot Device 2nd Boot Device 3rd Boot Device	EFloppy Drivel ICDROMJ [Hard Drive]	Specifies the boot sequence from the available devices. ↔ Select Screen t↓ Select Item +- Change Option F1 General Help F10 Save and Exit
		ESC Exit
v02.10	(C)Copyright 1985-2001, American Meg	jatrends, Inc.

On which screen was the boot device order found?

Save the changes to the BIOS and exit the BIOS utility by pressing the **F10** key.

Step 2

Confirm the change to the BIOS settings if you are prompted. The computer will restart.

Do not log on to Windows.

Shut down your computer.

If a switch is present on the power supply, set the switch to "0" or "off".

Unplug the computer from the AC outlet.

Remove the side panels from the case.

Put on the antistatic wrist strap, and then clip it to the case.

Step 3

Many hard drives will have the jumper settings indicated in a diagram on the drive. Follow the diagram to determine where the jumper will be installed.



Move the Master/Slave jumper on the installed hard disk drive to the Master position if it is in any other position.

Move the Master/Slave jumper on the second hard disk drive to the Slave position if it is in any other position.

Insert the second hard disk drive into the computer and attach it with the proper screws.

Plug the middle connector of the IDE cable into the second hard disk drive.

Plug a four-pin Molex power connector into the second hard disk drive.

Check the jumper settings and cable connections on both hard disk drives to make sure the settings are correct and the cables are secured. Remove the antistatic wrist strap from the case and from your wrist, and then replace the case panels.

Plug the power cable into an AC outlet.

If a switch is present on the power supply, set the switch to "1" or "on".

Boot your computer.

Step 4

The new hard disk drive will be detected by the computer during the POST routine.

```
AMIBIOS(C)2001 American Megatrends, Inc.
BIOS Date: 08/14/03 19:41:02 Ver: 08.00.02
Press DEL to run Setup
Checking NVRAM..
1024MB OK
Auto-Detecting Pri Master..IDE Hard Disk
Auto-Detecting Pri Slave...IDE Hard Disk
Auto-Detecting Sec Master..CDROM
Auto-Detecting Sec Slave...Not Detected
Pri Master: 1. 1 Virtual HD
Pri Slave : 1. 1 Virtual HD
Sec Master: Virtual CD
```

If you are prompted to accept changes to the computer, Press the F1 key.

Log on to Windows as an administrator.

Step 5

Click the Start button, and then right-click My Computer.



Choose Manage.

The "Computer Management" window appears.

Click Disk Management.



The "Initialize and Convert Disk Wizard" window appears. Click Next.



The "Select Disks to Initialize" window appears.

Check the "Disk 1" checkbox, and then click Next.

Initialize and	Convert Disk Wizard			0.0
Select Disk You mus	ks to Initialize stinitialize a disk before Logical Disk	Manager can access it.		
Select or	ne or more disks to initialize.			×
Disks:				1000
	1	< Back Next > N Cancel	s Capacity Free Span hy (System) 4.88 GB 3.12 GB hy (Page File) 4.88 GB 3.35 GB hy 4.88 GB 4.88 GB hy 502 MB 497 MB (F:) (G:) 4.88 GB 502 Mt 879 MB Healthy Health Free s	
	ана ()	Disk 1 Unknown 19.53 GB Unallocated Unallocated Primary partition Extended	led partition Free space Logica	edi Recycle Bin
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The "Select Disks to Convert" window appears.

Uncheck the "Disk 1" checkbox if it is already checked, and then click Next.

Initialize and Convert Disk Wizard	
Select Disks to Convert The disks you select will be converted to dynamic disks.	
Select one or more disks to convert:	
Disks:	
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	Recycle Bin
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The "Completing the Initialize and Convert Disk Wizard" window appears.

Verify that you will "Initialize: Disk 1" and "Convert: None", and then click Finish.

Initialize and Convert Disk Wizard		
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You selec Initialize: Convert	ted the following settings: Disk 1 None	Capacity Free Space ny (System) 4.88 GB 3.12 GB ny (Page File) 4.88 GB 3.35 GB ny 4.88 GB 4.88 GB ny 502 MB 497 MB
To close	his wizard, click Finish. < Back Finisk Cancel	(F;) (G;) 4.88 GB 502 Mt 879 MB
	Control Contr	Healthy Health Free sr.
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Step 6

The "Disk Management" area of "Computer Management" appears.

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Note: If the hard disk drive is shown as offline or missing, the hard disk drive may be corrupted.

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🛨 🛐 Event Viewer	🗐 (D:) Partition	Basic NTFS	Healthy (Page File)	4.88 GB	3.35 GB	68 %	No	0%
Shared Folders	💷 (F:) Partition	Basic	Healthy	4.88 GB	4.88 GB	100 %	No	0%
E Scal Users and Groups	💷 (G:) Partition	Basic NTFS	Healthy	502 MB	497 MB	99 %	No	0%
Performance Logs and Alerts Device Mapager								
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Right-click on the Unallocated space of "Disk 1" and choose New Partition....

The "New Partition Wizard" window appears.

Click Next.



The "Specify Partition Size" window appears.

Type "5000" in the "Partition size in MB:" field, and then click Next.

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(∂) Services and Applications	Minimum disk space in MB: Partition size in MB: Partition size in MB: B I O O D	8 [500d]	HB e space
K	N Unallocated Primary partition Extended	Can	201
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The "Assign Drive Letter or Path" window appears.

Click the "Assign the following drive letter" radio button.

Choose "M" from the "Assign the following drive letter" drop-down box, and click Next.

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Shared Folders Shared Folders Cal Users and Groups Device Manager Sorage Sorage Disk Defragmenter Disk Management Services and Applications	Assign Dr For ea	Assign Drive Letter or Path For easier access, you can assign a drive letter or drive path to your partition.					0% 0%	
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The "Format Partition" window appears.

Click Next.

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System Tools	New Partition Wizard	0%
Construction of the second secon	 Format Partition To store data on this partition, you must format it first. 	6% 0%
Storage Removable Storage Dick Definition	Choose whether you want to format this partition, and if so, what	settings you want to use.
Disk Derragmenter	O Do not format this partition	N
	Formar trus partition with the rollowing settings: File system: NTFS Allocation unit size: Default	MB e space
	Volume label: New Volume I	
	DN	Next > Cancel
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The "Completing the New Partition Wizard" window appears.

Verify that the settings you have chosen match the settings shown in the "Completing the New Partition Wizard" window, and then click **Finish**.



Windows formats the new partition and the status of the Volume changes to "Healthy".

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Computer Management (Local) System Tools Tools Super Tools Shared Folders Local Users and Groups	Volume Layout (C:) Partition (D:) Partition (F:) Partition (G:) Partition	Type File System Basic NTFS Basic NTFS Basic NTFS	Status Healthy (System) Healthy (Page File) Healthy Healthy	Capacity 4.88 GB 4.88 GB 4.88 GB 502 MB	Free Space 3.12 GB 3.35 GB 4.88 GB 497 MB	% Free 63 % 68 % 100 % 99 %	Fault Tolerance No No No No	Overt 0% 0% 0% 0%
Performance Logs and Alerts Device Manager Storage Part Removable Storage Disk Defragmenter	(M:) Partition	Basic NTFS	Healthy	4.88 GB	4.85 GB	99 %	No	0%
Disk Management	<		1111					>
A ga Services and Applications	CBDisk 0 Basic 15.99 GB Online	(C:) 4.88 GB NTFS Healthy (System)	(D:) 4.88 GB NTFS Healthy (Page File	(F:) 4.88 GE Healthy	3	(G:) 502 MB N Healthy	TFS 879 MB Free space	
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The New Volume Setup Wizard partitioned the second hard drive. What type of partitions did the Setup Wizard create?

What other partitions could be created?

Step 7

Create a second partition in the Unallocated space of "Disk 1" with the drive label "N:".

Step 8

Choose Start > My Computer.

The "Hard Disk Drives" section of "My Computer" now shows the two "New Volumes", "M:" and "N:".



How many primary partitions can be created on the newly added second hard disk drive?