

Re: Adding new HDD to system using dual boot

Source:

<http://www.tech-archive.net/Archive/WinXP/microsoft.public.windowsxp.basics/2004-12/0839.html>

From: R. C. White (*rc_at_corridor.net*)

Date: 12/09/04

Date: Thu, 9 Dec 2004 14:45:59 -0600

Whoops! Typo...

> *partition. The extended partition itself does get a "drive" letter, but*

should say...

partition. The extended partition itself does NOT get a "drive" letter, but

RC

--

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"R. C. White" <rc@corridor.net> wrote in message

news:OF950Lh3EHA.3000@TK2MSFTNGP15.phx.gbl...

> Hi, Bill.

>

> My memory on drive letter assignment sequence is about as hazy as
> Sharon's, but I happen to have some literature on it handy, so here's the
> long version of the explanation. ;^}

>

> "Drive" letters are not permanently assigned. Each time you reboot,
> former drive letters are forgotten and the BIOS assigns letters from
> scratch using its built-in algorithm, which can't be changed except by the
> folks who write the BIOS. What was Drive X: this morning might be Drive
> Y: this afternoon if you added or removed HDDs, or added or removed
> volumes on existing HDDs. For x86 computers, the BIOS algorithm has not
> changed in many years; I've read about the order more than once, but don't
> remember it. As I recall, all primary partitions on the first HDD are
> assigned letters first, then primary partitions on other HDDs, then
> logical drives in extended partitions, then driver-managed devices, such
> as CD/DVD drives, USB drives, cameras, etc.

>

> Once Windows loads, it may re-assign the letters, using its own built-in
> rules, which may be different from the BIOS assignments, and Win98 rules
> are different from WinXP rules. But we have some control over these
> letters, if we choose to use that control. By using Disk Management in
> WinXP or Device Manager in Win98, we can assign letters of our choice and
> Windows will attempt to use those same letters on each reboot thereafter.

>

> "Drive letter" is actually a misnomer because letters are not assigned to
> physical drives. After we create primary partitions on an HDD, each of
> those partitions is assigned a letter, so we sometimes call it a partition

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> drives within the extended partition. Rule 2 would assign letters to each
> logical drive. Then Rule 3 would assign letters to any remaining primary
> partitions, before moving on to Rule 5 to assign letters to your CD/DVDs.
>
>> As you will notice, there is no reference to Win98SE in the file,
>
> While WinXP and Win9x/ME may be installed into any volume in your computer
> (which will become the "boot volume" for THAT Windows installation only),
> the boot process always starts in the "system partition" (the active
> primary partition on the first physical HDD), which is almost always Drive
> C:. The Root of this system partition (C:\) holds the few "system files"
> for both WinXP (NTLDR, NTDETECT.COM and Boot.ini) and Win9x/ME (io.sys and
> msdos.sys). The boot sector of C: is different for NT-based operating
> systems than for those based on MS-DOS. When the computer boots, the
> DOS-style boot sector automatically looks for C:\io.sys to boot MS-DOS or
> Win9x/ME, depending on the contents of C:\msdos.sys. If WinXP Setup
> detects Win9x/ME already installed, it saves a copy of the DOS-style boot
> sector in a new file, C:\bootsect.dos, then overwrites the boot sector
> with the NT version. Thereafter, when the computer boots, the NT boot
> sector looks for C:\NTLDR, which finds C:\boot.ini and puts the operating
> system menu onscreen. If we choose WinXP, it finds the WinXP boot folder
> by rdisk(#)partition(#) and loads WinXP from there. If we choose
> Win9x/ME, it loads C:\bootsect.dos and turns control over to it so that it
> can find and load C:\io.sys and C:\msdos.sys. So the line that loads
> Win98 for you is that bottom line in boot.ini: C:\ = "Microsoft Windows"
> (but there should be NO space before or after the "="). Note that this
> line does not use drive or partition number; it always refers to C:\, the
> Root of the system partition.
>
> That may be more information than you wanted, Bill, but it's hard to
> explain this stuff without leaving loose ends dangling. And, too often,
> the fine point that is left out is exactly the little detail that makes
> the difference in the current situation.
>
> RC
>
> "Bill Post" <BillPost@discussions.microsoft.com> wrote in message
> news:83D7632A-5B56-4723-8430-DA8E3FD95E84@microsoft.com...
>> Hope this don't turn up as a double post.
>> I posted it a couple of hours ago and as of yet it's not showing up.
>>
>> I built a system about 3 yrs. ago with a single 40 gig. hard drive.
>> Using FDISK, I partitioned the drive into 5 partitions, C,D,E,F,G,
>> Drive No. is "0"
>> Installed Win.98SE on D partition, then installed XP Home Edition on C
>> partition.
>> Default OS is XP.
>>
>> A few days ago I installed another 40 gig.drive, and DOS re-arranged my
>> drive
>> letters by inserting the partitions on the second drive in after "C" and
>> naming them "D" & "E".
>> Problem: Path to Win98SE is no longer correct.
>>
>> Below is a copy of my Boot.ini file, along with a couple of samples from
>> Microsoft.
>> As you will notice, there is no reference to Win98SE in the file, yet
>> when I
>> remove
>> the partitions on the second disk it boots fine to both systems.
>> Also, when I look at the drives after starting XP, all drive letters are
>> correct,
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>> and the new disk can be used as normal with drive letters "I" and "J"
>> Help on this would be greatly appreciated.
>>
>>
>> My current Boot.ini file
>> [boot loader]
>> timeout=30
>> default=multi(0)disk(0)rdisk(0)partition(1)\WINDOWS
>> [operating systems]
>> multi(0)disk(0)rdisk(0)partition(1)\WINDOWS="Microsoft Windows XP Home
>> Edition" /fastdetect /NoExecute=OptIn
>> C:\ = "Microsoft Windows"
>>
>>
>> Sample Boot.ini File
>> This is a sample of a default Boot.ini file from a Windows XP
>> Professional
>> computer.
>> [bootloader
>> timeout=30
>> default=multi(0)disk(0)rdisk(0)partition(1)\WINDOWS
>> [operating systems]
>> multi(0)disk(0)rdisk(0)partition(1)\WINDOWS="Microsoft Windows XP
>> Professional" /fastdetect
>>
>>
>> This is a sample of the above Boot.ini file after adding another
>> partition
>> running Windows 2000 Professional.
>> [boot loader]
>> timeout=30
>> default=multi(0)disk(0)rdisk(0)partition(1)\WINDOWS
>> [operating systems]
>> multi(0)disk(1)rdisk(0)partition(1)\WINDOWS="Windows XP Professional"
>> /fastdetect
>> multi(0)disk(0)rdisk(0)partition(2)\WINNT="Windows 2000 Professional"
>> /fastdetect
>
```