

Re: Dual Boot – Two Physical Drives

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- *From:* "Mac McMicmac" <A@xxxxxx>
 - *Date:* Mon, 8 Oct 2007 10:26:23 -0700
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"Timothy Daniels" <NoSpam@xxxxxxxxxxxxxxxx> wrote in message
<news:%23c1tl0cCIHA.2004@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>

"Pegasus (MVP)" wrote:

"Mac McMicmac" wrote:

I have two physical hard drives (IDE) – each running a single copy of XP Pro/SP2. How can I have the computer somehow prompt me for which HD I want to use when the computer starts up? I have been physically switching the power cable and IDE ribbon cable to the drive I want to use, while leaving the other drive completely disconnected (both power and IDE).

My understanding of "standard" dual boot techniques (which I could easily google for) is that those techniques assume two OS installations on a single hard drive... which is NOT my situation... thus the question here.

AFAIK you cannot do this with the basic Windows boot loader. I assume that each disk has Windows installed on drive C:. While both are installed then one would appear as drive D: or E:, which will cause havoc.

Ntldr (the standard NT/2K/XP boot loader) can boot multiple OSes from the same HD and from multiple HDs. The entries in the boot.ini file which designate the OS locations (called "ARC paths") have a parameter called "rdisk()" which designates the physical HD. The argument "x" in "rdisk(x)"

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stands for the position (beginning with 0) of the HD in the BIOS'es Hard Drive Boot Order (i.e. HD boot priority). The HD at the top of the list is "rdisk(0)", and the files in the Primary partition that is marked "active" on the HD will control booting. Other HDs in the Hard Drive Boot Order will be designated as "rdisk(1)", "rdisk(2)", and "rdisk(3)", depending on the number of HDs in the system. The *default* Hard Drive Boot Order is a subset of:

Master on IDE ch. 0, Slave on IDE ch. 0,

Master on IDE ch. 1, Slave on IDE ch. 1.

If there is not a HD at one of the above positions, that position is merely skipped when the BIOS builds its Hard Drive Boot Order list. And of interest to the Original Poster, that order can be manually adjusted in the BIOS by the User at startup time. That setting will persist in ROM from startup to startup. Thus, with a separate OS on each HD, each with its own boot files, one can accomplish multi-booting via the BIOS.

Since the OP's two copies of XP were apparently installed independently (i.e. one being out of view of the other OS's installer), each will call its own partition "C:" WHILE IT IS RUNNING, and it will call the other partitions by other single-letter names. This is NOT a problem as long as the partitions do not have shortcuts that refer to OTHER partitions.

TimDaniels

Thank you for the informative and helpful answer. FWIW, I'm a developer and support a production system based on .NET 1.1 and SQL Server 2000. We are migrating the whole thing to .NET 3.5 and SQL Server 2008 (both of which are not yet RTM). So I have two development environments which should have nothing to do with each other – thus the separate physical disks. When the 2008 products are finally RTM I'm going to reimage the disk that currently has the beta versions. When I'm working in one environment there is absolutely no need to see the other – so no shortcuts between the two disks. I do not want to have two completely separate development workstations – so two physical disks gets me what I need and want. I rarely switch between the two environments – but I do it enough that it's a hassle and I'd prefer a way to chose from a menu when I power up.

Thanks again!

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