

Re: booting a clone from a Slave HD

Source:

http://www.tech-archive.net/Archive/WinXP/microsoft.public.windowsxp.setup_deployment/2005-11/msg00194.htm

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The operating system is not jumper-aware, and neither is it cable-position aware. All it knows is that what partition it was loaded from and that there are other partitions in the system associated with various HDs. To understand how an OS is selected and loaded, you have to know the boot sequence:

The BIOS checks the HD that is at the head of its HD boot order, and it passes control to that HD's Master Boot Record (MBR). The code in the MBR looks for the partition marked "active", and the MBR passes control to the Boot Sector in that partition. The boot sector finds the boot loader, ntldr, in that partition, and it passes control to that ntldr. ntldr reads the boot.ini file to see where the partition is that contains the OS - which may be the same partition or any other partition in the system (either primary or logical), or even a partition on another HD. In the language of boot.ini, "rdisk(0)" is the HD that is at the head of the HD boot order - i.e. "the HD at relative position 0" - and "partition(1)" means the 1st partition on the HD.

Obviously, which HD is at the head of the BIOS's HD boot order determines the path that the boot process takes, and only by *default* is that order determined by the Master/Slave settings. That default order is:

Master on IDE channel 0, Slave on IDE channel 0,
Master on IDE channel 1, Slave on IDE channel 1,
Master on IDE channel 2, Slave on IDE channel 2, etc.

If you remove the Master on IDE channel 0, the Slave on IDE channel 0 moves to the head of the HD boot order. Therefore, the Slave can contain the partition which starts the loading process.

But that is only the *default* order. At any startup, one can

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change the HD boot order in the BIOS, and that order will persist until the ROM's battery runs down. So *any* HD in the system can be put at the head of the HD boot order, and its MBR will direct control to its "active" partition, and the boot files in that partition will control the loading of the OS under the direction of its boot.ini file, and the boot.ini file can designate any partition in the entire system to be the source of the OS.

Getting back