

Re: Dual Boot; worried about overwriting C: Boot Drive with Win2k

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From: Jim Fischer (jfischer_link5809_at_now.here.com)

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pkallis wrote:

> *Good morning all,*

>

> *I've purchased a copy of Redhat 6.2 Deluxe version. I have a Maxtor 160*

> *GB drive I just installed, with the IDE 133 card that came with it,*

> *since my BIOS will not support beyond 137 GB. Unfortunately, Maxtor*

> *supplies software which installs EZ-Drive and DDO on the hard drive,*

> *which is not compatible with Partition Magic 8.0.*

>

> *Since I had a spare IBM 46 GB hard drive around, from a warranty*

> *replacement, I decided to install that as a slave drive, but I have not*

> *FDISK'd it or formatted it. The system BIOS recognizes it as a slave drive.*

>

> *Here's the issue:*

>

> *There are really two BIOS's on the machine; one as the IDE 133 card,*

> *with the data cable from it to the 160 GB drive and the other data cable*

> *coming from IDE0 on the motherboard, with the BIOS recognizing it as a*

> *slave.*

>

> *Since I have Win2000 installed on the 160 GB drive (master), I am a bit*

> *apprehensive to install Linux and have its FDISK (or Disk Druid) make*

> *the partitions and format the drive, for fear it will not recognize the*

> *2nd drive and overwrite all my data and Win2000 on the master drive.*

>

> *As I'm new to Linux (tired of being corraled by MS), I simply want to*

> *install Linux to play around with it and experiment with applications,*

> *stability and become generally fluent. That seems to point to the*

> *workstation version VS server.*

>

> *However, the documetation says conflicting things about which version to*

> *install. I also want to dual boot, choosing either win2k or Linux.*

>

> *Any advice?*

Comment 1) Red Hat 6.2 is ancient history, so I strongly recommend you

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install Red Hat 9 (codename "shrike") instead. FWIW, if you can burn CDR/CDRW discs within Windows, you can download the three RH9 ".iso" CD disc images from the Internet for free (e.g., <http://linuxiso.org/>) and use them to burn your own RH9 installation CDs.

NOTE: Here's the location of the RH9 manuals:

<http://www.redhat.com/docs/manuals/linux/RHL-9-Manual/>

NOTE: After you download the .iso image files you should calculate the MD5 checksum for each .iso image file and compare the calculated MD5 checksum value with the published MD5 checksum value. If the calculated MD5 checksum for an .iso file matches the published MD5 checksum for that same file, then the .iso file was probably not corrupted during the download process. Of course, you should calculate and verify each .iso file's MD5 checksum BEFORE you burn the .iso files onto CDR/CDRW media. AFAIK, Microsoft Windows does not provide an MD5 checksum program, but you can download a free MD5 checksum program named 'md5summer.exe' from here:

<http://www.md5summer.org>

Comment 2) If Microsoft Windows can detect the presence of the 46 GB IDE "slave" hard drive, then the Red Hat Linux installer will also see it. During the Red Hat Linux (RHL) installation process you will be able to create and format partitions on the 46 GB drive, and you will be able to select the partitions where RHL is to be installed.

NOTE: I strongly recommend you create a separate partition for the Linux file system's "/home" directory. An 8 GB partition should be sufficient if there will only be a few users.

Comment 3) During the RHL installation, you will be asked where to install the Linux boot loader. DO NOT install the Linux boot loader on the "Master Boot Record" [MBR]. (The Win2k boot loader is currently installed on the MBR.) You should instead install the Linux boot loader on the first sector of the "/boot" partition (i.e., the partition that has the Linux file system's "/boot" directory on it).

NOTE: If you install RH9, I strongly recommend you install the "GRUB" boot loader and not the older (and IMO much more clumsy) "LILO" boot loader. IIRC, RH9 installs the "GRUB" boot loader by default.

NOTE: If you install RH9, you need to check the "Configure advanced boot loader options" checkbox when you get to the "Boot Loader Configuration" window as shown in Figure 3-16 (section 3.20) of the RH9 'x86 Installation Guide' manual,

<http://tinyurl.com/kili>

Then, on the "Advanced Boot Loader Configuration" window, select the "First sector of boot partition" radio button (see Figure 3–17).

Comment 4) Since the Linux boot loader is not installed on the master boot record, it must be "chain loaded" via the Win2k boot loader. IOW, when you reboot the computer, the system BIOS loads the Win2k boot loader into memory. The Win2k boot loader lists as one of its options the Linux boot loader, e.g.,

```
Windows 2000 Professional
DOS
Linux boot loader (GRUB)
```

If you select the "Linux boot loader (GRUB)" option, the Win2k boot loader loads the Linux boot loader "GRUB" from the Linux "/boot" partition. The GRUB boot loader then lists the options for loading the Linux OS (e.g., you might have several different versions of the Linux kernel available), and selecting one of these options actually boots the Red Hat Linux OS.

NOTE: The Win2k boot loader does not automatically detect the Linux boot loader. You must manually edit the Win2k boot loader configuration file "boot.ini" and add the "Linux boot loader (GRUB)" option yourself (see below).

Comment 5) Since the Linux boot loader is not installed on the master boot record, you ***MUST*** create a boot floppy during the RHL installation process. The RHL installer should give you the option of creating a boot floppy near the end of the RHL install process. The boot floppy must be used temporarily to boot Linux until you complete the dual boot setup. Once the dual boot setup is complete, the boot floppy will no longer be needed; you can simply "chain load" the Linux boot loader as described above — i.e., Win2k boot loader → GRUB boot loader → RHL OS.

NOTE: After you finish the dual boot setup, you should keep the Linux boot floppy available for emergencies.

Comment 6) After you install RHL, the dual boot setup is usually a straight forward process:

6.1) Reboot the computer using the Red Hat Linux boot floppy.

6.2) When the Red Hat Linux login prompt appears, log in as the super-user 'root'.

6.3) Use the 'dd(1)' program to create a file that contains a copy of the first 512 bytes of the Linux boot loader (GRUB). Recall that the RHL installer installed the Linux boot loader at the beginning of the disk partition that has the Linux file system's "/boot" directory. So for example, if the "/boot" directory resides on the partition "/dev/hdb2",

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```
[root]# dd if=/dev/hdb2 of=bootsect.lnx bs=512 count=1
```

This creates a file named 'bootsect.lnx' that holds a copy of the first 512 bytes of the partition '/dev/hdb2' -- i.e., the first 512 bytes of the GRUB boot loader.

6.4) Insert an MS-DOS formatted floppy disk into the floppy drive, mount the floppy drive, move the 'bootsect.lnx' file onto the floppy, and then unmount the floppy drive:

```
# Insert MS-DOS formatted floppy into the floppy drive
[root]# mount /mnt/floppy
[root]# mv bootsect.lnx /mnt/floppy
[root]# umount /mnt/floppy
```

6.5) Remove any floppy disk from the floppy drive.

6.6) Use the 'reboot(8)' program to reboot the computer:

```
[root]# reboot
```

n.b. Reboot the computer into Windows 2000 at this point.

6.7) Logon to Windows 2000 as the 'administrator' user.

6.8) Copy the file 'bootsect.lnx' from the floppy disk into the Win2k boot directory -- typically the C:\ directory. (The Win2k boot directory has the following files in it: boot.ini, autoexec.bat, config.sys, io.sys, ndldr, ntdetect.com, and probably some others.)

6.9) Using your favorite text editor program (e.g., notepad.exe), edit the file "boot.ini" in the Win2k boot directory (e.g., C:\boot.ini) and add the "Linux boot loader (GRUB)" option to the "[operating systems]" section as shown below:

```
[boot loader]
...
[operating systems]
...
C:\BOOTSECT.LNX="Linux boot loader (GRUB)"
```

(This assumes, of course, that your Win2k boot directory is C:\)

That's pretty much it! You should now be able to chain load the GRUB boot loader via the Win2k boot loader.

--
Jim

To reply by email, remove "link" and change "now.here" to "yahoo"
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