

RE: FC2 Frist boot after clean Install

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Well, I finally made a breakthrough on this issue. If anyone else out there has this kind of issue, you should take a moment and read this.

<snip>

Here's a quick review of my environment:

- (1) Always a COMPLETELY clean install – using Drive Image utility to erase all partitions and restore MBR.
- (2) Two machines, both Asus P4 clones with 1 GB RAM, and 1 Western Digital 20 GB hard drive each.
- (3) Both machines have subsequently loaded Redhat 9.0 and ran flawlessly – no problems at all.
- (4) I have two different ISO image CD's from two different mirrors – both with verified MD5Sum's and both producing the exact same problem each time.

So I've been trying to install FC2 – I've just finished my 11th attempt. Following the advice of different threads and release notes, I always go back to a fresh install before trying anything new.

To minimize variables, I keep the install as simple as possible. I choose "Automatic Partition", which creates a 100MB /boot on hda1, a 17GB "/" (root) on hda2, and a 2GB swap on hda3. I also choose a "minimal" install to eliminate possible variables from the other CD's – this way I only have to use CD1.

Each time, the install itself is flawless. But after the first reboot – and naturally each time thereafter, immediately following the POST, I get a black screen with the word "GRUB" in the upper left corner. No response to keyboard strokes or mouse movement at that point.

I have to rule out hardware – since this problem with FC2, I have successfully installed and ran RedHat 9.0 and FreeBSD 4.10. I always use a tried and true utility to erase the hard drives of all partitions and

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restore MBR before installing anything new. This guarantees a pristine physical drive during the install.

I compared the grub.conf files on each machine after the FC2 install. They are identical. No big surprise there I guess. Then, just for further comparison, I isolated one machine and wiped it clean, and loaded RedHat 9.0. Then I compared it's grub.conf to that of the FC2 install. Almost identical except for the "/" (root) and swap partitions. In each case the /boot partition is always the first (hda1). In FC2, the "/" root partition is the second one (hda2) followed but the swap on hda3. But in RedHat 9.0, the swap is on hda2, followed by the / root on hda3. No big deal there, the grub.conf files compensate for this but looking to hda2 on FC2 and hda3 on RedHat 9.0 as one would expect.

One other thing I thought was odd is that on both machines, the standard FC2 install puts a strange format or partition table on the physical drive; so much so that it takes a few extreme steps to wipe the partition info off the drive. Normally I would just use the "delete" function of the utility, which works for all the RedHat distros and FreeBSD – but in FC2 it generates an error stating that it can't delete the partition. I have to use a utility called "bigfdisk" then put a dos partition on it, then delete the dos partition – to get everything set back to a completely empty hard drive.

</snip>

Well, the reason for the strange partition table in FC2 is because FC2 refuses to recognize the cyl/head/sector params of my hard drive(s) correctly. If this were an isolated case, I'd give FC2 the benefit of the doubt, but since I've repeated this on now 4 different machines with different Asus model motherboards and different hard drives (Seagates & Western Digitals) – I'm gonna have to fault FC2 on this matter. These four machines are about 6 months old in hardware, and I've flawlessly loaded RedHat 9.0, RedHat 7.3, and FreeBSD 4.10 & 5.2.1 on each of them multiple times. Every other distro I load will correctly see the cyl/head/sector params of the hard drives <EXCEPT> FC2. FC2 sees 38792 cylinders and 16 heads. All the other distros see 2434 cylinders and 255 heads. The manufacturer indicates on the spec sheet 16,383 cylinders and 16 heads. In all cases, it's 63 sectors per track also. The BIOS sees 1024 cylinders, 255 heads – so not sure what to say about that. I'm far from an expert on hard drive technology, but this vast inconsistency is rather frustrating.

So, I decided to stick with the params that work in the other distros. I started with a completely wiped hard drive (no partitions, and a restored MBR using "fdisk /mbr" from a DOS floppy). I then booted from FC2 CD and chose "rescue". I then used the "fdisk /dev/hda" and used the e"x"pert menu to change the cylinders to 2434 and the heads to 255. I created a /boot, "/", and "swap" partition and wrote the changes and exited. This is more an exercise to set the hard drive params than to actually create partitions – but creating and writing the partitions ensures that the params will persist during the regular install.

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Rebooted – again on the FC2 Disc1 CD, and chose a regular graphical install. I let the partitions be created automatically – after deleting the partitions I had just created in the steps above. I chose a custom install – grabbing ‘more’ than I really needed – but hey, this is an FC2 test drive after all ;)

Install was flawless, and the boot up afterwards was flawless. The hard drive parameters made the difference in this case – as was suggested earlier to me – thanks for the tip!

I guess what bothers me the most about all this is the fact that I consistently had this problem on multiple hardware platforms using very standard, 6 month old hardware with varying motherboard and hard drive models. Yet I couldn’t find ANY documentation on a problem like this, which would suggest that I have a very unusual environment – which I can’t begin to imagine.

Another let down was finding out after I finally (after three solid days of fighting) got FC2 installed, that MYSQL, and Apache packages are horribly out dated. * sigh * I’m just glad I got passed this problem. Hope this helps someone else...

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