

Re: Dual XP boot obstacle

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From: Terry Pinnell (*terrypinDELETE_at_THESEdial.pipex.com*)

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"Rick \"Nutcase\" Rogers" <rick@mvps.org> wrote:

>Hi Terry,

>

>To add to what Michael has told you, the hardware abstraction layer
>(hal.dll) will be all wrong as the installation is not in the right physical
>location on the hard drive. Even if you fix the registry entries, this will
>still be wrong. WinXP "knows" where it is installed to physically on a
>system, so as Michael has mentioned, the images must be restored to the same
>location. They cannot be used to physically create new installations at
>other locations on the system without necessitating a repair installation.

Michael, Rick: Thanks both.

I'm happy to report that I appear to have resolved it.

For those that are interested in the detail, or who can help me better understand this whole area, but especially for any novices with a similar problem who end up googling to this post, below is a full account:

My main HD on this XP Home PC has two partitions: C = System, D = Data. I bought a second identical HD about 2 years ago, which looked like this a few days ago:

E = Very early 'copy' of C, made with Drive Image 2002, so that in an in emergency I could still run XP Home. E = 7 GB used out of 11 GB capacity.

F = Backup, where I backup most of my data files (not Program Files) nightly, using a program called Second Copy. F = 30 GB used out of 44 GB capacity.

So I dusted off Drive Image 2002 and used its Copy Drive facility to re-copy my C partition to E., to get up to date. But after around 1.5 GB it unceremoniously rebooted, with no message. End of E drive! I

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repeated it, with not much optimism, this time copying C to 'unallocated space', and the same crash occurred.

I have 2 identical '60 GB' MAXTOR HDs, and up until last night they had 2 partitions each.

Drive 1

C: system 11.72 GB
D: Data etc 44.14 GB

Drive 2

E: Copy of system 11.72 GB , made with Drive Image 2002 2 years ago, so that in an in emergency I could still run XP Home.
F: Routine backup etc 44.14 GB

(BTW, it's a pity that Drive Image, Partition Manager, etc call these disks 1 and 2, just as I would, yet XP calls them 0 and 1.)

My aim last Thursday was to update E.

After some basic house-keeping I ran Drive Image 2002 Copy Drives (note, not the Image facility) in Windows XP Home, and all seemed very simple and straightforward. I accepted the default, to copy C to E (presumably retained from the first and last time I'd used it, 2 years ago.) It asked to reboot, then started work in 'Caldera DR-DOS'. But after an hour or two, with some 2 or 3 GB copied, it just stopped, no messages, and my PC rebooted. The system could not then find E! I repeated the exercise, except this time DI was copying C to 'Unallocated space on HD 2'. I got the same result – unceremonious reboot. End of E – which was a bit of a disaster!

When I used DI Drive Operations, this is what I saw:

<http://www.terrypin.dial.pipex.com/Images/DriveImage1.gif>

I ran `chkdsk c: /f`, and used Startup Cop to remove all my many startup programs/processes. I ran DI and used Create Image from C to D. All initially went smoothly, as before, but then it stopped. This time however at least I had the courtesy of a message: "Error #48 Sector Not Found"

Research turned up several users reporting that this arose even though they had done a thorough CHKDSK run. But after using `chkdsk /?` I realised that the `/f` switch had *not* done a thorough sector check. So I ran `chkdsk c: /r`

I was encouraged when it found a bad sector: "Windows replaced bad clusters in file 10904 of name windows/system32/glmf32.dll"

I also recovered my E partition, which to my delight proved simply a matter of using XP Computer Management>Disk Management.

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So then I tried repeating my Copy Drive of C to E with DI 2002. But this time, although both C and E were apparently identical sizes of 11.72 GB, I noticed that it said the destination was too small. This was not prominent, and I could apparently have continued, but it made me apprehensive. So then I ran Partition Manager 7 (with which I was equally unfamiliar), and nervously moved E and F around, and marginally increased E's size. That ran '9 operations' for about 3 hours!

I was a bit confused by the display I saw in PM, after this <http://www.terrypin.dial.pipex.com/Misc/PM-AfterChanges.gif> because, I couldn't recall seeing anything about an 'Extended' partition before, and the sizes were not an exact match with those from XP Disk Management: <http://www.terrypin.dial.pipex.com/Misc/XPDiskMgmt.gif> which showed E as only 11.83 GB, not 12.11 GB. But these were minor puzzles (and did not turn out to be significant).

FWIW, here also is what I saw at that stage in DI with Disk Operations: <http://www.terrypin.dial.pipex.com/Misc/DI-AfterChanges.gif>

I then tried once again using the Copy Drive facility of DI 2002, but DI said it would delete E, and copy C to 'Unallocated space'. So I canceled that, as I couldn't see how I could achieve my aim if newly created E now gets zapped again! In retrospect, that was the wrong decision. I should have persisted, as will be clearer later.

Nervousness then prompted me to make an *image* of C (as opposed to a copy). I used Create Image to from C on HD1 to F on HD2. I then had 3 files on F:

MyBackup-C8Sep04-1330.002

MyBackup-C8Sep04-1330.003

MyBackup-C8Sep04-1330.pqi

My understanding is that in an emergency, providing HD1 is still usable, I could use DI 2002 to restore C from F. Mind you, it worries me that I cannot *test* this in advance ;-(

But that was a digression, for added security. The issue by now (Sunday morning?) was how to get back to the state I was in earlier, namely having a copy of C in E, allowing an alternative immediate boot to XP Home if C fails.

I was by this time getting strong urging from a very helpful MS MVP in the Aumha Forum to use the Restore Image facility to get what I wanted. ("That should, in short order, bring back the image of C that you just made.") I didn't feel too comfortable with that (although I couldn't articulate precisely why) but I went ahead and tried it.

BTW, note that E at this stage was fine; it contained only a couple of automatically-generated system folders. I could move/copy/delete in it using Explorer.

Anyway, I then used Restore Image in DI 2002 to restore the F image back to E. But here again, after I specified E as the destination, DI displayed this worrying message that it was going to delete E to do this! The very last message I got before I needed to commit to this restore was:

```
-----  
Deleting partition: E:System 2  
(NTFS, Primary volume, 12111.5 MB on Disk:2)  
  
Restoring partition(s):  
System (*) 8.21 GB  
>From image file: F:\MyBackup-C8Sep04-1330.pqi  
To free space location (12111.5 MB in size) on Disk: 2  
-----
```

I couldn't get my mind around this. IOW, why DI wouldn't just place the restore into E. Why would it place it in 'free space'? If it ends up in 'free space', how can that carry the drive letter E, to get things back into shape? My thinking was along the lines of: If I go ahead and let it restore to this free space, would my partitions look like they did before? And will that then still appear on the list of options when I boot up, i.e as "Windows XP Home Edition #1"?

That delayed me a fair while. But I now know that the DI message was at best ambiguous. IMO, it was downright misleading to a novice like me. It should have just said it would delete the *contents* of the partition. And ditto for the messages it displayed during the Copy Drive approach.

Anyway, I finally bit the bullet and did the Restore Image. I had now apparently re-copied my XP Home system partition C onto partition E with Drive Image 2002, and E was now of course up to date rather than nearly 2 years old. However...it no longer worked. When I rebooted I got the familiar 3 options for a few seconds:

```
Windows XP Home Edition  
Windows XP Home Edition #1  
XP Recovery Console  
But if I choose the second, instead of booting into my 'alternative'  
XP as it used to do, I now get this error message:
```

```
"Windows could not start because the following file is missing or  
corrupt:  
<Windows root>\system32\hal.dll.  
Please reinstall a copy of the above file"
```

Yet that file looked identical in both C and E (75.6 KB, 29th Aug 2002).

The reply from Michael crystallised my previously vague discomfort over this imaging route. I now understood it had failed because all the registry references after the restore would be wrong. I was using DI Restore's facility in what I (and my helper) had thought was a clever way. But although DI (surprisingly?) allowed it, it wasn't what that facility had been intended for, as Michael clarified. So the boot up wouldn't find any of the files, and hal.dll just happened to be the first.

Anyway, that confirmed that I **should have persisted** and used Copy Drive, which **is** intended for this purpose. That's plainly what I used 2 years ago. The bad sector crash incident had put me off, followed by the misleading wording in DI about deleting the partition. (BTW, that's the same in the Create Image and Copy Drive operations._

So, remotivated, I then repeated the copy drive, copying C to E. It eventually rebooted, and I could see that the original 3 options were present, plus one more, to 'Windows XP Home #2'. So, yes, I could now boot into alternative versions of XP Home.

But my drive letters had now been scrambled! C had become E and E had become C. And by default XP was booting into the 'copied' version. All very confusing to me!

<http://www.terrypin.dial.pipex.com/Misc/Mess1.gif>

Deeply buried, I then found XP System Properties>Advanced>Startup & Recovery>Settings>System Startup has a box for 'Default Operating System'. So I could change that easily.

Trouble is, by that stage I could not get my brain around which one to choose <g>.

>From that drop-down box I selected this:

"Microsoft Windows XP Home Edition (#2)" /fastdetect /NoExecute

They now both looked identical once I was into XP. Of course, if I kept swapping, I'm knew I'd get into a mess. But what I wanted is what I had: to boot up to a 'system' partition called C, on my original (oldest) hard disk. So this would also be the 'boot partition', I think.

This is how it looked like, after changing the boot partition in XP Properties:

<http://www.terrypin.dial.pipex.com/Misc/Mess2.gif>

If I left it like that, then I'd be working from system C. That's good, because C is the familiar label. But I'd be accessing most of my data and many programs on Disk 2, which makes me uncomfortable. I want most of my activity to be confined to one hard disk, disk 1, and only access disk 2 for backup of data nightly, plus hopefully rare emergencies when I need to boot into the alternative (increasingly old) XP system.

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But if I arrange to boot from E, then the goods and bads get reversed?
So it seems to me I 'just' want to relabel C as E, and E as C – but
without screwing up the registry and hundreds of shortcuts.

But then, after one more reboot, somehow XP automagically returned the
partition names to their correct original labels:

<http://www.terrypin.dial.pipex.com/Misc/LookingGood.gif>

It also removed that 'Boot' annotation. All I did was what I'd done a
couple of times before, namely change the default boot drop down box I
described.

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Terry, West Sussex, UK