Re: 2 large hard drive questions

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- *From*: "Jonny" <spamyourself@xxxxxxxxxxxxx>
- *Date*: Fri, 22 Sep 2006 23:48:23 −0500

With NTFS, if it ain't broke, don't fix it.

4K cluster size is fine for windows partition.

Now, just go have some fun with the PC. Pondering any further tweaking is
worth much less in the gains seen.
−−
Jonny
"djc" <noone@xxxxxxxxxxx> wrote in message
news:OB8XzjY3GHA.3464@xxxxxxxxxxxxxxxxxxxxxxx

> thank you Jonny and David. That definitely clears up the 232.88 GB for me.
>
> However, on the cluster issue, I was wondering what effect cluster size
> would have on these big drives. I did install my OS on its own partition,
> about 40GB and then formated the rest of the drive on another partition
> using disk manager. Thats when I thought about whether or not I should use
> the default cluster size, as I usually do, or not? It didn't matter much
> in the past with smaller drives but I was thinking that in the same way
> the manufacturers use of 1000 instead of 1024 is *much* more apparent now
> with the *big* drives that this too (cluster size), may be much more
> significant now? maybe using a smaller size gains you significantly more
> usable space now? If I remember correctly the smallest unit of storage on
> the formated disk is equal to the cluster size, which is a component of
> file system, rather than physical hard drive. So if for example you have a
> 16K cluster size and you save a 17K file to the partition, it actually
> takes up 32K of space.
>
> If my memory is correct, I think I just answered my own question. I would
> think smaller cluster size *would* have a much bigger impact now, in
> general. It does depend on the types/sizes of files being saved on the
> partition.
>
> Am I remembering correctly? what do ya think?
>
> "Jonny" <spamyourself@xxxxxxxxxxxxx> wrote in message
> news:eUOjnMY3GHA.4924@xxxxxxxxxxxxxxxxxxxxxxx

"djc" <noone@xxxxxxxxxxx> wrote in message
news:e%23vqWrX3GHA.1588@xxxxxxxxxxxxxxxxxxxxxxx

> I just installed a 250GB drive (WD WD2500JB). No problems with BIOS or OS
> (xp sp2) recognizing and using the drive, supports 48bit LBA.
>
> However,
>
> 1) I noticed that Disk Manager in Windows XP SP2 reports the disk as
> 232.88 GB? I know that the 'marketing' number on the box of the drives
> is not exact and when you do the actual math there are differences
> between the 'marketing' number and the 'real' number (largely due to
> manufacturers using 1000 instead of the proper 1024 bytes = 1 KB). I
> can't think of how to work this out at the moment to see if that is all
> my descrepency is, or if there is something else wrong here. I'm used to
> working with 20−40 GB drives where these differences did not amount to
> much so I know when going to such a large drive they will be compounded.
> Is my 232.88 GB correct? and how do I do that math?

232.885591685771942138671875 GB is the actual number. WD refers to MB as
1,000,000 bytes and states the formatted capacity of this specific hard drive as 250,059 MB.
Another words multiply 250,059 times a million, or 250,059,000,000 gives the capacity in bits. Divide this by 1024, 3 times, gives you the term in actual GBs used by the PC.

> 2) What about the 'allocation unit size' (If I remember correctly this
> is the same as the 'cluster' size, correct me if I'm wrong please) when
> formating a partition on the drive? I have always left this at the
> default value for NTFS partitions. Now that I'm dealing with such a
> large drive does this setting become more important? how significant is

> it? what should I set it to?

Yep, cluster size. If partitioning with XP's disk manager or XP install setup CD, just leave it alone when done. It will format it automatically.

If you want a smaller cluster size, make a more suitable size partition for XP for both the same identical partition for boot and system. Mine is 26GB as an example. Use the remainder of the space for another partition that may use predominantly large files of your own device.
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Jonny

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