

Re: New PCI IDE controller or new mainboard – advice needed

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- *From:* "George Valkov" <a@xxxx>
 - *Date:* Fri, 13 Oct 2006 17:06:21 +0300
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Currently '\Program Files' is a junction that points to a folder on a RAID stripe. All my programs start really fast.

The most simple way to achieve this is by using a dual-boot configuration. If I boot OS2, I can move '\Program Files' for OS1 to another partition and create a junction to it. The OS1 will not even notice the change, but performance will increase.
linkd.exe "c:\Program Files" p:\programs

Installing to stripe will also allow windows to start faster and all I/O operations to the '\WINDOWS' folder will take less time.

If I backup all information to DVDs, before testing and implementing this, then I will be safe to make mistakes. Basically I need to learn how it's done only once, then it will be easy to build the system.

I know that RAID-stipes are not tolerant to disk failure, but I'll try to compensate with backups and an additional OS booting from a basic disk.

I guess that an expensive PCI card will be less problematic. Any recommendations for brand and model? It's time to explore products and futures on the markets and an Internet (for that means Google for it).

"Bob I" wrote:

The PCI card can do hardware RAID, you will need to install the drivers, I would NOT try installing the operating system on the striped RAID. You are facing an uphill battle getting that to work and then marginal "performance" increase and a lot of headache.

George Valkov wrote:

"Yves Leclerc" wrote:

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There are few, and less, motherboards that have separate IDE port. Most now come with SATA only.

When I purchased the two new IDE disks 2 months ago, I had to maintain compatibility with my mainboard. I also preferred to stick to the old and approved IDE.

The reason that your performance is low is:

- 1) Software RAID --- This takes Windows resources and slows everything down, whenever the RAID stripe is verified/rebuilt.
- 2) Slave Drives --- Each IDE cable can only read/write one drive at a time. So if the slave drive needs to read from /written to, the previous request needs to stop or complete. This is why when setting up a software RAID on IDE, most power users usually only place one drive (Master) per IDE cable. No slave drive used.

Yes and that's why the two disks that host RAID stripes are the two master devices.

I realise that and that's the reason I wanted to have four IDE channels – this allows four devices working as master.

The mainboard does not have RAID. A friend of mine (hardware PC programmer), told me that when BIOS finds a PCI card, it will send control to its BIOS and this will allow me to have a RAID BIOS for the new PCI IDE controller, from where I will be able to build the RAID stripe. Right?

Then Windows should discover the controller and install drivers for it.

I will also be able to install Windows on the RAID stripe, won't it?

As for setting up servers with RAID (mirror or stripe,) I mostly

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recommend
SCSI or
SATA configurations. SCSI based configurations allow
multiple
reads/writes at
the same time and SATA configurations, each drive is
directly cabled to
one
SATA port. No Master/Slave configurations on the same
cable.

This is good to know! Soon I won't have any slave devices, so I guess I will be fine with IDE too. SCSI is a high performance interface for high-end servers. A good PCI IDE card with RAID will be just enough for my home-server.

On 12/10/2006 "George Valkov" <a@xxxxx> wrote:

When I access two IDE devices on a same channel, performance is low. I have four devices and only two slots, so two of the devices are slave. Primary master and secondary master are two new hard-disks, same type, dynamic disks with software STRIPE partitions. Primary Slave is DVD-burner. Secondary slave is the boot hard-disk.

What would you recomend me?
a/ Buy a new mainboard with four IDE channels?
+ it will support AGP8 (the current mainboard supports AGP4)
– is more expensive
– I may have problems activating windows 2003 ent server
b/ Buy a new PCI IDE controller?
+ it will support hardware RAID / STRIPE and I will probably be able to boot from it (I currently use a software STRIPE on two dynamic disks).
+ It is cheaper

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– I may have problems activating windows
2003 ent server

There will be 4 IDE devices and a 4 PCI
devies changing its location.

Two of
which are LAN cards. Should I notify
Microsoft before changing the
locations
of the hardware, so that they expect the
hardware changes and activate
windows for me? I don`t care If I have to
reinstall windows.

details:

/dev/hda : [0,0] Segate Baracuda 320GB 16
MB cache 7200rpm DMA5

/dev/hda : [0,1] Plextor PX-760A 2MB
cache DMA4

/dev/hdc : [1,0] Segate Baracuda 320GB 16
MB cache 7200rpm DMA5

/dev/hdd : [1,1] Segate 40GB 2 MB cache
5400rpm DMA5

Thank you for any advice!

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Y.