

## RE: New IDE drive in old PC

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*Source:* <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/questions/2005-12/msg02546.html>

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- *From:* "Gayn Winters" <[gayn.winters@xxxxxxxxxxxxxxxxxxxxxx](mailto:gayn.winters@xxxxxxxxxxxxxxxxxxxxxx)>
  - *Date:* Thu, 29 Dec 2005 10:04:28 -0800
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> On Behalf Of RW  
> Sent: Thursday, December 29, 2005 9:18 AM  
> On Wednesday 28 December 2005 07:14, Robert Slade wrote:  
>> On Tue, 2005-12-27 at 22:12, Robert Ames wrote:  
>>> I have an old (very old) ASUS P5 motherboard running FreeBSD 5.4.  
>>> The boot disk is a 40MB Western Digital WD400 IDE drive  
> jumpered to  
>>> only use 32MB so it can be booted from since the BIOS in this PC  
>>> (the latest and greatest) can't deal with anything larger  
> than 32MB.  
>>> This PC is working well for me and I don't want to upgrade it.  
>>> However I would like to add a lot of disk space. So my question  
>>> is, can I go out and buy a new 300 GB (or whatever) IDE disk and  
>>> attach it to the secondary IDE controller and hope to use all 300  
>>> GB? I will still use the old disk for booting and to hold the OS.  
>>> The new disk will be just for data. If this will "just  
> work" how do  
>>> I configure the BIOS so the PC will boot with the large  
> drive installed?  
>>  
>> Robert,  
>>  
>> If you had to jumper the boot disk for it to work with the  
> BIOS of the motherboard, then the chances are that you would have to  
do the same  
>> with the 2nd hard drive.  
>>  
>> ISTR that ASUS produced updated BIOS' for most of their  
> motherboards to get around this. Have a look at their website to see  
if there is and  
>> upgrade. There is also a area on the site for questions  
> such as yours.  
>  
> I would have thought the main issue is support for 48-bit  
> LBA. The limit for 32-bit LBA is 137GB (128 GiB).

Since the OP wants more disk space and somehow can't upgrade this old BIOS (the preferred option), separate the issue into two:

1. How to boot

2. How to access the large disk.

I haven't tried it, but if you installed the large drive as a second disk, then you could boot off the older (jumpered even) hard drive. Even if the BIOS doesn't see the second hard drive, it probably won't go belly up. I would think FreeBSD would then see the second drive when it booted and handle it correctly (since FreeBSD doesn't use the BIOS for access.) Map the second drive as /data and enjoy.

I recommend putting the old drive as primary (master) on the first IDE channel and putting the new drive as slave or as master on the second IDE channel.

I don't think trying this risks data on your old drive, but back it up anyway!

Good luck,

-gayn

Bristol Systems Inc.  
714/532-6776  
www.bristolsystems.com

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