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Subject: 4gb ram 32-bit pae

Posted by [Nightma12](#) on Sat, 07 Mar 2009 20:51:01 GMT

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Hey,

I'm running XP SP3 Home edition 32-bit with 4GB of RAM (purchased last week) yet only 2.99gb shows up in system properties.

i

I've already enabled PAE but nothing changed =/ - Is there anyway to recognise the missing gb without having to upgrade to 64-bit?

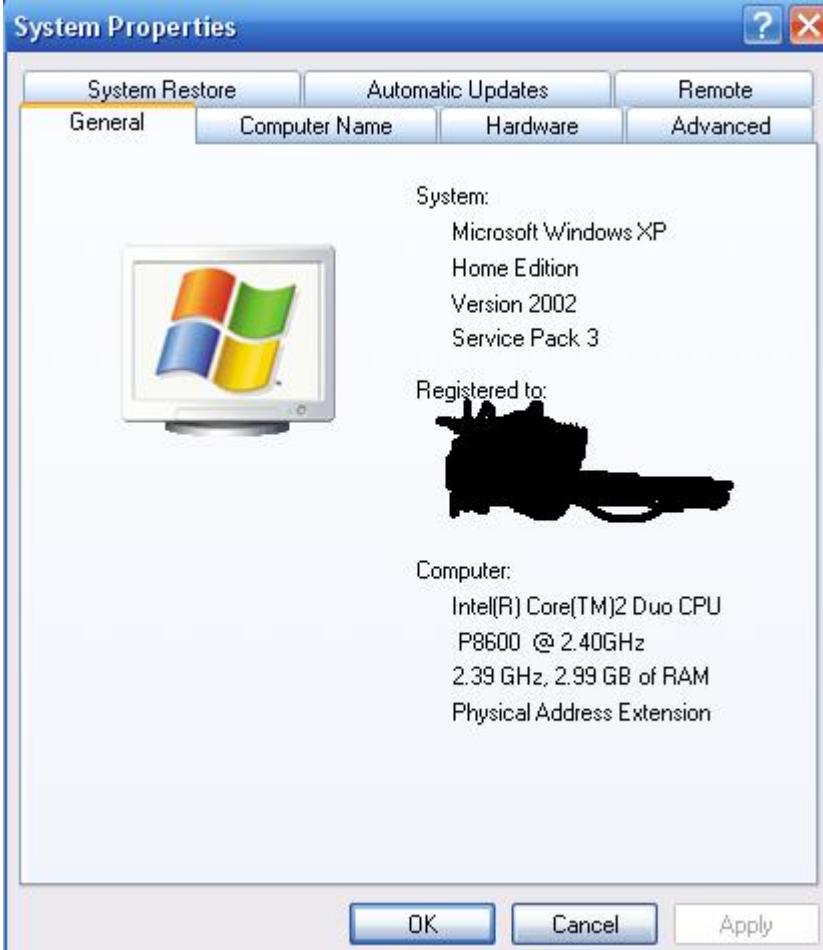
I read that with PAE enabled 32-bit OS is able to read up to 64GB of memory (although effectively using masses of CPU power to read up to this point under 32bit) - Yet for me it won't budge from 2.99...

When I had Vista SP1 32bit installed a few days back, that correctly picked up all 4GB of ram but Vista RTM simply picked up 2.99g

I've included a screenshot if it helps ^\_^

### File Attachments

1) [pae.JPG](#), downloaded 816 times



**Subject: Re: 4gb ram 32-bit pae**  
Posted by [cmatt42](#) on Sat, 07 Mar 2009 20:57:27 GMT  
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The short answer is no.

The long answer is also no.

You'll want to save headaches and move on to 64-bit.

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**Subject: Re: 4gb ram 32-bit pae**  
Posted by [ExEric3](#) on Sat, 07 Mar 2009 21:03:30 GMT  
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What is your video card? How much memory have?

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**Subject: Re: 4gb ram 32-bit pae**  
Posted by [Nightma12](#) on Sat, 07 Mar 2009 21:12:22 GMT  
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cmatt42 wrote on Sat, 07 March 2009 14:57The short answer is no.

The long answer is also no.

You'll want to save headaches and move on to 64-bit.

<http://www.microsoft.com/whdc/system/platform/server/PAE/PAEdrv.mspx>  
^^ so whats this? lol

Quote:What is your video card? How much memory have?

Geforce 9600M GT

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**Subject: Re: 4gb ram 32-bit pae**  
Posted by [CarrierII](#) on Sat, 07 Mar 2009 21:22:07 GMT  
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Quote:

How much memory does your graphics card have?

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Subject: Re: 4gb ram 32-bit pae  
Posted by [Nightma12](#) on Sat, 07 Mar 2009 22:30:54 GMT  
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512mb

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Subject: Re: 4gb ram 32-bit pae  
Posted by [ExEric3](#) on Sat, 07 Mar 2009 22:49:18 GMT  
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Nightma12 wrote on Sat, 07 March 2009 23:30:512mb

So there is first answer. 512MB you will not see because graphic card.

Try check bios settings section about chipset. Before it was called Aperture size (it was for AGP) now it have different name.

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Subject: Re: 4gb ram 32-bit pae  
Posted by [Nightma12](#) on Sat, 07 Mar 2009 23:27:48 GMT  
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all i have in my bios is time/date and boot order ^\_^ lol.

Seriously though, shouldnt pae give me access to my full 4gb? (or so it claims?)

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Subject: Re: 4gb ram 32-bit pae  
Posted by [danpaul88](#) on Sun, 08 Mar 2009 00:15:24 GMT  
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Quote:Windows XP (all versions)

4 GB of physical RAM\*

Quote: \* Total physical address space is limited to 4 GB on these versions of Windows.

From the PAE article you linked to. The reason you can't see all 4GB is because 1.01gb (in your case) of the available address space is used by the graphics card (512mb) and other devices (every single device on your system will be allocated an address range which refers to it's input and output buffers). Hence why you only actually get 2.99gb of usable memory. The more devices you add, the lower that number will go. The reverse is also true, remove devices (or disable them

in BIOS) and you will be able to access more of your RAM.

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I had the same problem you did, in that I had 4gb of RAM but my 32bit installation of Vista could only access 3.5gb of it. That's why I am now running Vista x64, and have not had any problems with it, other than the hassle of upgrading.

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**Subject:** Re: 4gb ram 32-bit pae

**Posted by** [saberhawk](#) **on** Sun, 08 Mar 2009 03:03:46 GMT

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Nightma12 wrote on Sat, 07 March 2009 16:12

<http://www.microsoft.com/whdc/system/platform/server/PAE/PAEdrv.mspx>

^^ so whats this? lol

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See big red letters. PAE for addresses greater than 4gb isn't enabled on any consumer 32-bit version of Windows, nor is it enabled on "Standard" 32-bit server editions ([http://en.wikipedia.org/wiki/Physical\\_Address\\_Extension](http://en.wikipedia.org/wiki/Physical_Address_Extension)). To make things more complicated, just about all of your devices reserve address space (but not physical memory), therefor cutting down the amount of addressable RAM. Upgrade to 64-bit if you really want to use that extra gigabyte of memory.

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