

# Re: Problem – Solved – Re: Starting with Linux

*Source:* <http://linux.derkeiler.com/Newsgroups/alt.os.linux.suse/2005-11/2290.html>

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*Date:* 11/18/05

Date: Fri, 18 Nov 2005 08:56:22 -0700

On Fri, 18 Nov 2005 15:08:33 +0000, BobS wrote:

> *Rod,*

>

> *You just solved the mystery and you do have a hardware problem – not  
> enough memory for ver 10. Minimum requirements are 256Mb and the  
> Recommended amount is 512Mb. So here's what I believe is happening:*

I've been following this thread for days, and I was certain that the answer would manifest itself. It has!

This is the reason that I originally suggested that Rod stick with version 7.3. I had a laptop which had 7.3 on it. It ran just fine with 96mb of RAM. I made sure that SuSE had a 100mb swap partition when I installed the Linux. After upgrading the laptop to SuSE 9.0, I had bootup times of 4~5 minutes. I *\*expected\** this. After bootup, the computer is eminently *USABLE*, but slow. I expected this. I did not and will revert to 7.3, but I understand *WHY* I have a five minute bootup time. I like the features of 9.0, so I will not revert to the earlier version. The earlier version had everything I needed at the time.

My laptop is a Pentium 133mhz, with the 96mb RAM. It is simply not worth investing in more specialized RAM for the dinosaur. With the RAM limitation, it is imperative that there be a sizable swap partition created during installation, because it will be swapping like crazy during usage. That's precisely what it should be doing.

To reiterate a point in my earlier post, use the 7.3 to learn on, and when ready, upgrade both the hardware and software to a much newer version.

Regards,

vg

> *1. SUSE does not see enough memory to support the operating system  
much  
> less DMA (direct memory access) for the hard drives – so it turns DMA  
> off. With DMA off, you will notice some system degradation and with only*

> 128Mb of RAM, it's swapping like crazy out to the hard drive which is  
> running slow because DMA is off because there's not enough memory to  
> support it. See the big –slow– circle there?  
>  
> 2. I'll bet that part of the memory is also being shared by the video (4  
> to 8Mb probably) further reducing the amount of system memory available.  
>  
> 3. I haven't checked but I'll bet ver 7.3 has lower minimum memory  
> requirements of only needing 32 Mb as WinME does and that's why it runs  
> faster.  
>  
> <http://support.microsoft.com/default.aspx?scid=kb:en-us:272156#kb1>  
>  
> 4. I think your only choices now are to either upgrade the memory, stay  
> with ver 7.3 (or a version that doesn't require as much memory) or a new  
> computer.  
>  
> 5. That computer probably uses PC100/133 type memory and it's getting  
> hard to find locally but you can try on–line. Just be sure to look up  
> the exact memory type you need. If it's the older PC100 memory, it  
> comes in several flavors (chip configuration) and can be crazy in price  
> just because its getting hard to find. Hopefully you can use the PC133  
> memory which is relatively cheap ([www.pricewatch.com](http://www.pricewatch.com) ) and click on  
> Memory System, and look for PC133 type. You'll need to know what the  
> max amount of memory that your computer can support in each slot. It's  
> cheap enough on line so if you can load it up to the max amount at a low  
> cost – then do it and don't worry about that 127Mb stick you have in  
> there now. If your system supports two, 512Mb sticks, then go for it  
> while its still available.  
>  
> 6. eMachines  
> [http://www.emachines.com/support/product\\_support.html?cat=desktop&subcat=Other](http://www.emachines.com/support/product_support.html?cat=desktop&subcat=Other)  
> . Use this to enter your model number and look up the specs if you can't  
> find the manuals.  
>  
> Be glad to offer any help I can, such as how to decide what memory is  
> needed (need model # of computer) and how to change out the memory  
> (piece o' cake..) but you gotta take the case off that computer first.  
>  
> Choice is yours,  
>  
> Bob S.  
>  
>  
> "rod s" <[rod@surfanytime.co.uk](mailto:rod@surfanytime.co.uk)> wrote in message  
> news:4dcbba47bbrod@surfanytime.co.uk...  
>> Hello again,  
>>  
>> I will try to answer the questions in as much detail as I can:  
>>  
>> In article, BobS wrote:

>>> Rod,  
>>  
>>> Need to get unconfused here. You have Windows on one hard drive  
>>> (master) and Linux on a second hard drive – is that correct?  
>> Yes,  
>>  
>> (When I started experimenting with Linux (couple of years ago) I added  
>> this second drive (40GB). The Windows was resident on the original hard  
>> drive and as far as I understand it the loading process of Linux puts  
>> it all on the second (slave) drive. I have not had to tell it any of  
>> this in these recent trials, so I must have told the v7.3 what to do  
>> originally and Linux must detect this somehow when (re-)installing any  
>> version.  
>>  
>>> 1. What version of Windows are you running (Win98SE, WinXP, WinXP  
>>> w/SP2...)  
>> It is Windows ME (millennium edition) Me 4.90.3000  
>>  
>>> 2. Name brand and model of computer (if any).  
>> It is emachines – GenuineIntel – Intel(r)Celeron(tm)processor 127.0MB RAM  
>>  
>> Is that enough... I could perhaps find the books which came with the  
>> computer.  
>>  
>>> 3. Does Windows run correctly (fast) when you boot to it (yes / no)  
>> I have never had any reason to suspect it is running slow. Some progs  
>> take 30s to load eg Firefox but I assume this is due to bloated  
>> program.  
>>  
>>> 4. When you had ver 7.3 running, was the DMA set On or Off the hard  
>>> drives?  
>> I don't know.. I suppose if it comes to re-installing v7.3 for test  
>> purposes, I could check this and other points. Systematically.  
>>  
>>> 5. When ver 7.3 was running was the DMA for the CD drive On or Off?  
>> Same answer as for q4.  
>>  
>>> 6. When ver 10 is running, you said YaST shows DMA is "NOT" on for  
>>> "both" the hard drives  
>> After installation, I looked in YaST–hardware–IDE DMA MOde. There are  
>> three lines.  
>> current DMA.....device.....Required Mode off hda  
>> no change off hdb no change ultraDMA/33 CD  
>> no change  
>>  
>>> 7. What was the other "place" in Linux that indicated DMA was "ON"  
>>> when running ver 10?  
>> elsewhere on the same screen you can change the DMA. You are offered in  
>> a submenu:  
>> DMA Off

>> *DMA On (default) <-----it says!!*  
>> *DMA/16*  
>> *UltraDMA/16*  
>> *UltraDMA/33*  
>>  
>> *I have never altered the CD setting*  
>> *I have tried DMA On*  
>> *I have tried UltraDMA/16*  
>> *I don't think I tried any of the others.*  
>>  
>>> *8. Was that for the hard drives or CD?*  
>> *see q7*  
>>> *Even though the hard drives support DMA, and it sounds like your*  
>>> *hardware is new enough (BIOS) that it should also support DMA, it*  
>>> *appears you are having a conflict. YaST should be turning DMA to ON*  
>>> *for the hard drives and OFF for the CD/s. Double check that.*  
>> *see qq6-7*  
>>  
>>> *If YaST is turning DMA to OFF for the hard drives then maybe ver 10 is*  
>>> *not identifying the motherboard correctly or the drives.*  
>> *OK*  
>>  
>>> *The one thing that is troublesome is that you said you turned DMA to*  
>>> *ON and that bugged the boot record – which is a typical symptom*  
>>> *under Windows when the hardware really doesn't support DMA even though*  
>>> *the software shows selections to turn it on.*  
>> *I suppose that's it... the boot process hung (if memory is right)*  
>>> *I've had to reload Windows on more than one occasion trying to see if*  
>>> *the hardware really supports DMA.*  
>>  
>>> *It would be nice if you could get at the hardware to unplug the*  
>>> *windows drive so we can do some elimination here but you indicated*  
>>> *that's not possible. Anyone else around that could do that for you?*  
>> *The problem is space – it would be a major undertaking to get at the*  
>> *computer – and (I hope this doesn't sound as if I am ungrateful for all*  
>> *your patient help) I'm not sure it is worth the effort.*  
>>  
>>> *At any rate, try answering the questions above and then when you*  
>>> *reload ver 10, do it by the numbers, one step at a time, assume*  
>>> *nothing, write down any errors it gets or anything you don't*  
>>> *understand so we can try to sort it out.*  
>> *Well, when I loaded it yesterday, it didn't seem to report any errors –*  
>> *the whole process went smoothly. But I agree it is only sensible to do*  
>> *this systematically so that one does not rely on memory.*  
>>  
>>> *If I get the chance in the am, I'll be loading ver 10 up on one of my*  
>>> *test boxes here (old hardware also) and I'll let you know how it runs*  
>>> *– or I'll be asking you for advice....;-)*  
>> *LOL*  
>>> *Don't give up on it yet. We just need to get it back to ground zero*  
>>> *and go from the known to the unknown – one step at a time. So keep a*

>>> *pencil and paper handy to jot down anything that looks flaky. It just  
>>> may be the clue needed.*  
>>  
>> *The word 'just' is rather encouraging. I am not planning to do anything  
>> till I hear from you – with a plan of campaign and then anything I do  
>> will be taken down in writing and may be used in evidence.*  
>>  
>> *Though all this installing and re–installing is very time–consuming,  
>> there is one bright side. The computer I use for messages such as this  
>> is a different one, so that I am not reliant upon the 'test' machine  
>> for immediate communication. This machine is not a Windows one – it is  
>> a RISC–PC if that means anything to you. But if it helps in all of this  
>> I do have another older Windows machine which is running Windows 98 but  
>> only has the one hard disk.*  
>>  
>> --  
>> ^\_\  
>> /=====//\_\ \ /=====/  
>> | Rodger Davis |/\_//\_/ \ |rod@surfanytime.co.uk|  
>> /=====/\_\^\_/ /\_\_\_\_) /=====/  
>>  
>>