

**32 Bit, DOS Version Configuration**

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There have been many questions lately on what is the "best" way to set up the 32 bit version. The following are guidelines used to quickly establish a reasonable setup on your computer.

**Procedure:**

There is a fundamental decision to be made at the time of installation. Do you want to configure for a large swap space? By default, TECHBASE is limited to a maximum virtual memory size of 32 megabytes. By answering YES to this question, you allow unlimited virtual memory size (up to your hard disk size), but will result in significantly larger TECHBASE programs on your disk. Unless you have a specific need, it is better to answer NO.

There are two files which control the 32 bit setup: AUTOEXEC.BAT and DOS4G.VMC. Samples of these two files are included with every 32 bit distribution, called AUTOEXEC.MSL and DOS4G.MSL. These files can be copied to the proper names as a starting point for setting up your computer.

**AUTOEXEC.BAT**

Your AUTOEXEC.BAT file is executed automatically by DOS every time you reboot your computer. To set up the PC/32 version, the AUTOEXEC.BAT should contain these additional lines:

The following command simply turns off the DOS4G BANNER.

**SET DOS4G = QUIET**

The following command calls up the DOS4G.VMC file. The "@" tells the computer to take further commands from this file.

**SET DOS4GVM = @C:\TBASE\DOS4G.VMC**

The following command sets the WATCOM video driver for graphics. The listing of available drivers can be found in the PC/32 README. The example is for a 16 color VGA display.

**SET WATVID = VRES16COLOR**

**DOS4G.VMC**

The DOS4G.VMC file contains Virtual Memory Configuration information. It contains Virtual Memory Manager (VMM) parameters and settings. The DOS4G.VMC file carries the parameters for setting up the 32 bit version. There are two things about your computer you need to know to set these parameters properly. First, how much RAM do you have? Second, how much hard disk is available and where? Once you have answers to these questions you are ready to setup the DOS4G.VMC file.

The following line is REQUIRED, to delete the swap file after each run. This is necessary to make sure disk space is freed after the program is done. It also is REQUIRED to avoid swap file collision when executing more than one 32 bit program at time. It is in your best interest to have this parameter in your file.

**DELETESWAP**

The following line sets the MAXIMUM amount of extended memory to be used by the VMM. More is generally better, however you may need to leave some free for use by other programs. You MUST leave at least 1.5 megabytes free to allow you to use the 32 bit version of MF\_GV for graphics review. Graphics review is the most common problem for the 32-bit configuration.

**MAXMEM = 5500**

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The following line sets the maximum amount of Virtual Memory (VM) to be made available, in 1K blocks. The default is 16,000 (16 Megabytes.) If you get "Insufficient VM" messages from TECHBASE, this number should be increased. You must have this much DISK SPACE available, since a swap file of this size will be created for EACH 32 bit program being concurrently executed. For example, if you are running POSTER and then do a graphics review using the MF\_GV program, a second 16 Megabyte file will be created.

If you need more than 32 megabytes of VM, you MUST have requested "Large Swap Space" when prompted by the INSTALL program. To change this decision, the programs must be re-installed. SWAPINC should always be set to zero.

**VIRTUALSIZE = 24000**  
**SWAPINC = 0**

The following line is used to designate the directory where the swap file (created by the VIRTUALSIZE parameter) should be placed. This is important if you do not want the swap file in the root directory of the disk where the TECHBASE programs reside.

**SWAPNAME = C:\TBASE\TMPL.**

If you are on a network each user MUST have a separate swap file! For adequate performance, the swap file should be on a local disk rather than across the network.

These are the only four settings you need in your DOS4G.VMC file. Setting the parameters correctly will make the difference between frustration and smooth operations.

**Frequently asked questions**

*How much RAM do I have to have to run the PC/32 version?*

You can run with 4 megabytes of RAM, but an 8 megabyte minimum is recommended for reasonable performance. If you only have 4 Megabytes, then you should use the MFGV\_286 in your TBREV variable.

*I picked a 256 color driver, so why do I only get 16 colors?*

The colors.map file does not exist. Copy the colors.msl file to colors.map.

*Which WATVID driver should I choose?*

Start with the VRES16COLOR driver. This is a standard VGA driver and will work with almost all computers. After you have that driver working, experiment with the other high resolution drivers to see which will fit your needs the best.

*Why are the menu screens so small on some of the drivers?*

Part of the trade-off with choosing some of the high resolution drivers is the size of the characters and the speed at which they work. It is a personal decision on what will fit your needs the best.

*Should I set the DOS16M environment variable?*

For most users, the answer is NO. If you were setting this variable in an earlier version of TECHBASE, delete the setting and try to run the programs without it. DOS16M is only needed in the rare cases of a non-standard BIOS, or another program with non-compatible use of extended memory.