

Another Approach to Windows 95 Dual Boot

For sure I am still in the learning phase with Windows 95, and a recent email message from W9DMK, Bob, underscored my ignorance. Bob researched and fully tested a way to dual boot with Win95 that may be many people's answer, without the need to purchase any third party software. I thought it of sufficient interest to print Bob's slightly edited method here, with his kind permission. *Our hats go off with a thank you to W9DMK!*

BACKGROUND: If you own the Win95 CD ROM, be sure to consult the WIN95RK.HLP file that contains the topic MS-DOS.SYS - SETTING UP DUAL BOOT CAPABILITIES. The steps below will permit installation and running of an older DOS on a Win95 system. Once you have carried out these steps you can also install Win3.1 as well, but be sure that the Win3.1 goes in a directory other than C:\WINDOWS (Win 95 must reside there).

STEP 1: If they exist, save a copy of your Win95 AUTOEXEC.BAT and CONFIG.SYS files somewhere on your hard drive other than in the root directory. (Win95 systems do not need these files so they may well not be present).

STEP 2: Make sure you have a Win95 Startup (boot) Disk. If you don't already have one, create one from START | Settings | Control Panel | Add/Remove Programs | Windows Setup | Startup Disk | Create Disk.

STEP 3: Rename the following files as shown, so they have the extension DOS:

AUTOEXEC.BAT ⇒ AUTOEXEC.DOS

CONFIG.SYS ⇒ CONFIG.DOS

and edit each of the files to be appropriate for your DOS environment. Don't worry about details for now since you can fine-tune them later. In fact, you can just "REM" out each statement in each file for now, if you wish.

STEP 4: Boot with a DOS disk (e.g., MS-DOS 6.22, the latest stand-alone MS-DOS version) and execute the following command: SYS C: This will install the essential hidden files IO.SYS and MSDOS.SYS, as well as the non-hidden file COMMAND.COM (and perhaps DBLSPACE.BIN) on your hard drive. It is advisable after this step to boot from the hard drive just to verify that it does boot properly in MS-DOS 6.22, and you can verify this with the VER command after the boot. Note that at this point you will be unable to boot into Win95.

STEP 5: Rename the files IO.SYS, MSDOS.SYS and COMMAND.COM (all are in the root directory, but two are hidden; see the Additional Notes at the end of this article) to IO.DOS, MSDOS.DOS and COMMAND.DOS. This sets up the hard drive with files needed for the dual boot.

STEP 6: Delete the file DBLSPACE.BIN (in the root directory) if it was installed in Step 4. This is to prevent Win95 grumbling about the presence of an obsolete version of this file.

STEP 7: Using a Win95 Startup floppy disk, boot the system. Execute the command SYS C:, which will reinstall the Win95 system files IO.SYS, MSDOS.SYS and COMMAND.COM. This will allow booting into Win95. If you copied your AUTOEXEC.BAT and CONFIG.SYS files in Step 1, copy them back to the root directory (as stated previously, such files may not be a necessary part of your Win95 configuration).

STEP 8: Reboot the system and verify proper operation of Win95.

STEP 9: Assuming that everything is working properly, edit the file MSDOS.SYS to include the line BootMulti=1 under the [Options] heading (it may already be there). Then shut down Win95 with the ShutDown | Restart command. Just as soon as you see the "Starting Windows 95" message, press F4 (you must be quick!). You should see the system boot now into MS-DOS 6.22.

STEP 10 [OPTIONAL]: The remaining DOS files that normally go into the directory C:\DOS may now be installed from your installation disk. I will not provide details on how to do this here. Generally, it involves extracting or expanding compressed files from the floppies with a special program provided on the first installation disk. There is a wealth of information on how to do this on the DOS installation disk itself.

Step 11 [OPTIONAL]: Windows 3.1 can be installed now while booted in DOS. Just be sure to select the "custom" installation option, and install it into a directory such as C:\WIN3 or another name other than C:\WINDOWS. Be careful concerning any messages dealing with the swap file. If Windows 3.1 had been on this disk previously, there may be an old swap file that will confuse the installation program (but don't think the Win95 swap file can become a problem; I have successfully performed this step myself).

ADDITIONAL NOTES: Many of the files involved in this setup are "Read Only" or "System" or "Hidden" or any combination of these attributes. It is advisable that you become familiar with how to change the attributes of files in both DOS and Win95. Look closely into the ATTRIB command in DOS. Also note the DIR command in MS-DOS 6.22 will show hidden files, if you include a comma after the DIR or use the command DIR /A. It is also important that you know how to edit text files with a text editor. If you are not familiar with editing text files, you will most assuredly become frustrated, and you may get an unpleasant surprise by the garbage introduced into the files when you use a word processor. I use Xtree Gold for all such operations, because it has the ability to manipulate attributes, edit text files and perform other file management functions. I'm sure Norton Utilities and others can do equally well, but if you lack these powerful tools that does not present an insurmountable roadblock. MS-DOS 6.22 has a text editor ("EDIT"), and the Notepad in Win95 will also do the job.