

This is the description of my double (triple) boot installation from Win95 and DOS/WfW (and NT 3.5 WS).

Hardware: AMD 80486DX4/100, 16 MB RAM, PCI board ASUS SP3G, 1 GB SCSI IBM DPES 31080, Hercules Dynamite PCI, 17" Nokia, Creatix 28800 modem.

All is running without any problems (sometimes the vga card is obviously not correctly initialized and I have to boot several times).

My intention was to keep the original systems DOS and Win95 and also the path information in the ini-, grp- and other files. So I am able to switch between the os-systems and access all my installed software.

This can be achieved with little effort.

You should start with the preparations before the installation of Win95. If you already installed it, you should restore the original DOS- and Windows-subdirectory from your backups. If you didn't made backups, you have to install DOS and Windows 3.* from scratch. In this case you should better stop here and read something about backup strategies.

Most of you will know that Win95 saves the original DOS files with the extension dos in the case of booting Win95 and vice versa with the extension w40 in the case of booting DOS. In the following you should always keep in mind which os is running. If I write e.g. „config.sys“ I talk about the config.sys of the actually running os. Of course the names of files and directory are up to you.

RUNNING DOS

Create a subdirectory DOS.622 and copy your DOS subdirectory into.

Create a subdirectory WINDOWS.WFW and copy your WINDOWS subdirectory into.

Create a subdirectory BOOT.622. Copy config.sys, autoexec.bat, command.com, country.sys, himem.sys, ifshlp.sys, move.exe, setver.exe, protocol.ini, system.ini in BOOT.622. Most of this files are not really necessary for the following boot switching in this directory but it is a good place for saving the special files for the os system. Inspect your config.sys to identify all drivers loaded at boot time. If this drivers are not hardware or software specific but from the normally shared DOS subdirectory, you have to copy this driver and potentially necessary files (e.g. *.cpi) also in BOOT.622.

Create a subdirectory BOOT.95. If you already installed Win95, you find the original DOS-files with the extension *.w40. Copy this files and rename it to the original names. See also RUNNING WIN95 for copying other files.

Now prepare your config.sys and autoexec.bat for the installation of Win95. The original files are now saved in BOOT.622. Delete or comment the lines with not DOS drivers or TSR. No HD or CDROM drivers or anything else if possible. If Win95 is not able to find your specific hardware you can try to integrate this specific drivers. Do not remove the programs for the vga chip in the autoexec.bat (e.g. clmode, vmode, powerhz, setcrt). This files are needed to initialize the vga card for higher resolutions.

Make a batch job called DOS622.BAT and store it BOOT.622. You can copy the following and adopt to your paths:

```
IF EXIST D:\WINDOWS.95\WIN.COM GOTO jump1
d:\boot.622\MOVE d:\windows d:\windows.95
d:\boot.622\MOVE d:\windows.wfw d:\windows

:jump1
IF EXIST C:\DOS.95\COMMAND.COM GOTO jump2
d:\boot.622\MOVE c:\dos c:\dos.95
d:\boot.622\MOVE c:\dos.622 c:\dos
:jump2
```

Edit config.sys and append the following. You can copy the following and adopt to your paths:

```
install=command.com /c d:\boot.622\dos622.bat
```

RUNNING WIN95 Setup

Do it from cdrom or floppies. If you enough place on your harddisk you should copy it to a subdirectory. Follow the instructions and choose the upgrade of your original windows installation. Your WINDOWS subdirectory will contain afterwards the new WIN95 installation.

RUNNING WIN95

After the hopefully succesfull installation (your turn) you have to change the default boot menu. This is described in DBWIN95.TXT from Bob Schaffer which describes another approach of a double boot installation. Thanks, Bob. I copied it from Bob Schaffer's DBWIN95.TXT and added 5a. In the final beta release BootMenuDefault=8 must be used for original DOS as default and not 7 cited by Bob. Network= may be 0 or 1.

5a. In order for the dual boot menu to work, the setting WinBootDir must be changed. I let the orignal setting as comment. Override the original setting (your windows subdirectory) by the newly created BOOT.95 subdirectory. If you get problems, edit this file again and restore the original setting.

[Paths]

```
WinDir=D:\WINDOWS  
WinBootDir=D:\BOOT.95  
;WinBootDir=D:\WINDOWS  
HostWinBootDrv=D
```

5. In order for the dual boot menu to work, the following lines must appear in the [Options] section of your MSDOS.SYS file: (If you use DoubleSpace or Drivespace disk compression you must change both MSDOS.SYS files - one on the boot drive and one in the compressed drive)

[Options]

```
BootGUI=1  
Network=1 (I have a standalone with dial up and sometimes a nic installed)  
BootMulti=1  
BootMenu=1  
BootMenuDefault=8 (original DOS as default. Use 1 for Win95 default)  
BootMenuDelay=5 (number of seconds to select something else)  
;
```

To add these lines, first, open "My Computer" and use the menu bar to VIEW - OPTIONS - VIEW - Show All Files, and also unclick "hide MS-DOS file extensions". Then double-click on the MSDOS.SYS icon and look. If it doesn't have all the above lines, you'll need to edit this file and put them in.

Since the MSDOS.SYS file is "read-only-hidden" you'll need to first change the file attributes and then use the notebook editor to insert the new line(s). Then you'll have to change the attributes back to their original states when done to protect the file.

To change the attributes, click on the MSDOS.SYS icon using your RIGHT mouse button. Select Properties and uncheck the attribute blocks. Exit and make your text changes, then save the file. Then put the attribute check marks back where they were.

So far Bob. Now again my turn.

Create a subdirectory BOOT.95 if you did not already. Copy from the root config.sys, autoexec.bat, command.com and from the WINDOWS subdirectory ansi.sys, country.sys, dblbuf.sys, display.sys, ega*.cpi, himem.sys, ifshlp.sys, move.exe, setver.exe. Most of this files are not really necessary for the following boot switching in this directory but it is a good place for saving the special files for the os system.

Edit config.sys and append the following. You can copy the following and adopt to your paths:

```
install=command.com /c d:\boot.95\windows95.bat
```

RUNNING DOS

Now boot and start DOS. Copy system.dat, system.da0, user.dat, user.da0 from the WINDOWS.95 subdirectory into the BOOT.95 subdirectory.

Ready.

I hope I mentioned all steps. If not let it me know. Improvements are appreciated.

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P.S.
Autoexec.w40 and Autoexec.dos
@ECHO OFF
PROMPT \$P\$G

```
PATH d:\WINDOWS;d:\WINDOWS\COMMAND;c:\;c:\dos;d:\util;d:\SNA.WIN
```

```
lh D:\WINDOWS\COMMAND\DOSKEY /INSERT  
lh D:\HERCULES\POWERHZ  
D:\HERCULES\SETCRT D:\HERCULES\myscreen.crt  
mode con codepage prepare=((850) d:\WINDOWS\COMMAND\ega.cpi)  
mode con codepage select=850  
keyb gr,,d:\WINDOWS\COMMAND\keyboard.sys  
SET TMP=f:\TEMP  
SET TEMP=f:\TEMP
```

```
Config.w40  
device =d:\BOOT.95\himem.sys  
device =d:\BOOT.95\dblbuf.sys  
device =d:\BOOT.95\setver.exe  
device =d:\BOOT.95\ifshlp.sys  
device =d:\BOOT.95\display.sys con=(ega,,1)  
Country=049,850,d:\BOOT.95\country.sys  
FILES =150  
DOS =HIGH,UMB  
BREAK = ON  
install=command.com /c d:\boot.95\win95.bat
```

```
Config.dos  
DEVICE=e:\QEMM\QEMM386.SYS RAM ROM X=B000-B7FF AROM=C800-CFFF DMA=64  
DEVICE=c:\PROSCSI\DOSCAM.SYS /EMS  
DEVICE=e:\QEMM\LOADHI.SYS /R:1 C:\PROSCSI\ASPICAM.SYS /EMS  
BUFFERS=10,0
```

```
FILES=150
DOS=HIGH,UMB
LASTDRIVE=Z
COUNTRY = 49,,d:\BOOT.622\COUNTRY.SYS
BREAK = ON
STACKS=0,0
rem DEVICE=C:\SCSI\DOS\CDROM.SYS /D:R
DEVICEHIGH /L:2,4560 =d:\BOOT.622\IFSHLP.SYS
install=command.com /c d:\BOOT.622\dos622.bat
```