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for possible inclusion in a later addition.

OS/2 2.0 CONFIG.SYS DESCRIPTION

Version 2.0

For myself and many others the OS/2 2.0 CONFIG.SYS file is
somewhat of a mystery. So, in the hope of learning something of
use, I began researching what many of the commands were for.
This file is the result of that research. It briefly describes
many of the common commands found in an OS/2 CONFIG.SYS file.
Naturally, not all possible commands are listed (especially the
many hardware device drivers), but most of the more common ones
are. I've use my own CONFIG.SYS as the foundation for this
file.

BEGINNING OF FILE LISTING

IFS=C:\OS2\HPFS.IFS /CACHE:384 /CRECL:4 /AUTOCHECK:C
This OS/2 command installs the HPFS, if you are using it,
instead of FAT. The syntax is IFS=DRIVE:PATH\FILENAME,SWITCHES.
There are three switches: /CACHE:nnn sets up a disk cache and
sets it size; /CRECL sets the maximum record size for caching,
from 2k to 64k in multiples of 2k; and /AUTOCHECK:nn tells the
system to run CHKDSK and sets the drives to be checked at
startup.

If you are using only FAT partitions, then you can REM this
statement.

PROTSHELL=C:\OS2\PMSHELL.EXE
This OS/2 command loads OS/2s user interface program (PMSHELL)
which allows you to make full-screen and window sessions work.

The current interface program is the Workplace Shell (WpS), but in theory you could purchase or develop your own user interface and use it instead of the WpS.

```
SET USER_INI=C:\OS2\OS2.INI
```

Tells OS/2 the name and locations of the file that contains your desktop setup information and the options saved from OS/2 applications which need to do so. OS2.INI is the default file name. NOTE: OS2.INI is a critical file to the proper operation of OS/2 and should not be deleted or modified. The file is not an ASCII file and therefore cannot be modified with an ASCII editor if it should become damaged. As a result, you should consider backing up this file with a program such as WPSBKUP, a shareware program you can obtain on many OS/2 BBSs.

This file remains open the entire time OS/2 is booted and operating. It only closes upon Shutdown. If it should become "trashed", MAKEINI.EXE, which ships with OS/2 and is in the OS2 directory, can be used to easily build a new set of INI files. You will have to boot from an OS/2 floppy to do so.

```
SET SYSTEM_INI=C:\OS2\OS2SYS.INI
```

Tells OS/2 the name and location of its INI file (OS2SYS.INI). OS2SYS.INI tells OS/2 what kind of equipment your system uses. NOTE: OS2SYS.INI is a critical files and should not be deleted or modified. It is not an ASCII file and can't be edited. Therefore, you should consider backing up this file with a program such as WPSBKUP, a shareware program you can obtain on many OS/2 BBSs.

This file remains open the entire time OS/2 is booted and operating. It only closes upon Shutdown. If it should become "trashed", MAKEINI.EXE, which ships with OS/2 and is in the OS2 directory, can be used to easily build a new set of INI files. You will have to boot from an OS/2 floppy to do so.

```
SET OS2_SHELL=C:\OS2\CMD.EXE
```

OS2_SHELL directs OS/2 to load the command-line shell identified at boot time. The COMSPEC line below helps OS/2 find the command-line shell later.

```
SET AUTOSTART=PROGRAMS,TASKLIST,FOLDERS
```

This command is used to start parts of the OS/2 WpS. If you remove any of these statements, then you will be restricted from accessing portions of the shell.

```
SET RUNWORKPLACE=C:\OS2\PMSHELL.EXE
```

This line tells the system what interface program is to be used. In this case it is the Workplace Shell.

```
SET RESTARTOBJECTS=YES
```

This command tells OS/2 what objects/applications to restart after you suspend operations with or without doing a Shut_down (as in doing a Ctrl-Alt-Del because some faulty program has

locked up your system). If this statement is not in your config.sys, then the default is YES, start all objects that were running at the time of Shut_down or reboot. Other options include:

NO = do not start any applications that were running at time of shutdown or reboot.

= start objects only in the Startup folder.

objects only if the OS/2 WpS is starting from a reboot or at power on.

```
SET COMSPEC=C:\OS2\CMD.EXE
```

This line identifies what command-line shell is to be used and where its at. In DOS, COMMAND.COM is equivalent to CMD.EXE.

```
LIBPATH=.;C:\OS2\DLL;C:\OS2\MDOS;C:\;C:\OS2\APPS\DLL;
```

This is an OS/2 command. It tells OS/2 where to locate Dynamic Link Libraries or DLLs. LIBPATH is similar to DPATH and PATH, but the statement can only be used in the config.sys file and OS/2 does not search the current directory for DLLs unless you include it in the LIBPATH statement. To have OS/2 search the current directory, include a period "." right after the equal "=" symbol as noted above. You don't need to use the SET command with LIBPATH.

```
SET PATH=C:\OS2;C:\OS2\SYSTEM;C:\OS2\MDOS\WINOS2;C:\OS2\INSTALL;C:\;C:\OS2\MDOS;C:\OS2\APPS;
```

Just like in DOS, it tells both DOS and OS/2 where to find programs.

```
SET DPATH=C:\OS2;C:\OS2\SYSTEM;C:\OS2\MDOS\WINOS2;C:\OS2\INSTALL;C:\;C:\OS2\BITMAP;C:\OS2\MDOS;C:\OS2\APPS;
```

This is an OS/2 command. It tells OS/2 programs where to look for data files. It is similar to the DOS APPEND command, but unlike APPEND, DPATH only works with programs designed to use it.

```
SET PROMPT=[$p]
```

Standard DOS command for setting how your OS/2 command prompt will appear. As noted here, the command prompt will appear showing the current directory of the default drive enclosed in [], i.e. [C:\]. Having the [] bracket the drive and directory information lets you quickly know when you are at an OS/2 command line verse a DOS command line. If you type PROMPT without a parameter, OS/2 will return its default prompt [\$p].

This is for OS/2 only. Set the DOS PROMPT default in your AUTOEXEC.BAT file.

Options include:

(escape) so you can work with ASCII

tory of default drive

number

```
SET HELP=C:\OS2\HELP;C:\OS2\HELP\TUTORIAL;
```

Tells OS/2 where the help files are located. OS/2 will only look for a program's help files in the path shown.

```
SET GLOSSARY=C:\OS2\HELP\GLOSS;
```

Tells OS/2 where the Glossary file and Master Help file is located.

```
SET DIRCMD=/ON /P
```

This is the OS/2 equivalent of the DIR command. In DOS 5.x you can tell DIR how to present file information. To do this in OS/2, use the undocumented DIRCMD command. For example: SET DIRCMD=/ON /P tells OS/2 to display the DIR information in alpha order and place a pause at the end of each page.

This is for OS/2 only. Set the DOS default in your AUTOEXEC.BAT file.

/A list files with specific attributes. E.g. /AH list only hidden files. Other options are S A & R. If you place a negative (-) sign in front of your specified attribute, all files will list except those with the attribute specified. E.g. /A-H-S will display all files except hidden and system files. /B list directories and files without heading and summary information.

the full drive and path information. Date, time and size are omitted. ation in lowercase.

a FAT drive in the same format used for a HPFS drive, i.e. date, time, ze, name.

rding to sort option specified. Sort options are:

ze by file name

lphabetizes by name

ze by extension

lphabetizes by extension

oldest first

newest first

ize, smallest first

ize, largest first

ch full screen of files listed.

ile names if applicable.

splays all directories.

ames across the screen. Date, time and size are ommitted.

```
PRIORITY_DISK_IO=YES
```

This command determines whether applications running in the

foreground have priority access to disks. The default is YES. If you want all applications to have equal access to your disks, then change this statement to NO.

FILES=20

This is a standard DOS command which sets the maximum number of files that DOS can access at the same time. OS/2 sets the default at 20, but some DOS programs may require that you increase this number.

DEVICE=C:\OS2\TESTCFG.SYS

TESTCFG.SYS is used during the install process to test your systems configuration. It is also used by the Selective Install process and during device driver installations. Because of the latter, this line should not be deleted.

DEVICE=C:\OS2\PMDD.SYS

PMDD.SYS makes the Presentation Manager work and OS/2 will not start unless you have this line in your config file.

BUFFERS=30

Tells OS/2 how many disk buffers to use. Range is from 1 to 100. Each buffer takes up to 512 bytes of RAM. 30 is the default and usually works well.

Disk buffers are blocks of memory set aside by OS/2 for use in reading and writing blocks of data. Generally, you can speed up your system by increasing the number of BUFFERS. But, keep in mind that as you increase the number, you reduce available memory. 30 is the default, but you may wish to experiment with a higher number. Be careful about using a lower number.

IOPL=YES

An OS/2 command that, when set to YES, lets programs that need to bypass OS/2 and work directly with hardware devices, do so. YES means that all programs can access the hardware directly. NO means that no program can access the hardware directly. You can also specify a list of programs that are allowed to work directly with the hardware. For example, IOPL=WS.EXE, Q.EXE, FLIST.EXE would allow only these three programs to access hardware directly.

DISKCACHE=256,LW

If you are using FAT file system, this command sets up a RAM disk cache. The DISKCACHE line noted here sets up a 256k cache with lazy writing enabled. If you don't want lazy write enabled, then remove ",LW". The default cache size is 64k, which I feel is too small. If you have the RAM, increase the size to improve system performance. If you want CHKDSK to automatically check your startup partition (usually C), then add this switch to end of the DISKCACHE command: AC:n where n is your startup partition, e.g. AC:C.

If you are only using HPFS, then you can REM this statement.

MAXWAIT=3

This OS/2 command sets the longest period a program will have to wait to execute before OS/2 ups its priority. This makes sure that no program is put on hold forever while some other program hogs the system. You can set MAXWAIT from 1 to 255 seconds. The default is 3 seconds.

MEMMAN=SWAP,MOVE,PROTECT

OS/2 can run more programs and use more data than can actually be stored in memory at any given time. This is done by swapping large amounts of memory to your hard disk and then reading the the data back into memory when needed. This is called virtual memory. If you only have 4 meg of memory or less (Get MORE memory fast! You need 8 meg minimum.) and you will see lots of disk activity while you are working with your system, this is the process that is more than likely occurring. It will slow down your system and cause your hard disk to fragment quicker than normal.

This OS/2 command controls this process. The syntax is MEMMAN=s,m,PROTECT where s=SWAP or NOSWAP; m=MOVE or NOMOVE; and PROTECT allows memory compaction with protected dynamic link libraries. The default is to have virtual memory on. To turn off virtual memory, which is NOT recommended, the config.sys line should read: MEMMAN=NOSWAP,NOMOVE.

SWAPPATH=C:\OS2\SYSTEM 512 2000

As noted above, OS/2 can allocate more memory than it actually has available. It does this by swapping data to a disk file called SWAPPER.DAT.

The syntax is SWAPPATH=DRIVE,PATH,mmm,nnn where DRIVE AND PATH is the location where you want the SWAPPER.DAT file to be placed; mmm is a number from 512 to 32767 and specifies how large the SWAPPER.DAT file can growth before it stops consuming hard disk space. The size is stated in the negative. In other words, if you have the mmm set to 512 and you have a 105 meg hard drive, the SWAPPER.DAT file will not grow larger than 105meg minus 512k. The variable nnn is the starting size of the SWAPPER.DAT file. In the config.sys line above, the starting size is 2000k or 2 meg.

BREAK=OFF

For DOS programs only. Many DOS programs can be stopped by holding down the Ctrl key and then pressing the Break key. BREAK controls how quickly DOS programs stop when you interrupt them with the Ctrl-Break sequence. If BREAK=OFF, DOS will stop the program only when the programs next reads a character from the keyboard or writes to the screen or printer. With BREAK=ON, DOS will check for the Ctrl-Break on a more frequent basis. Remember that this extra checking can make your DOS programs run

slower.

THREADS=256

OS/2 programs can have several different processes running at the same time. These are called threads. This OS/2 command sets the maximum number of threads, from 32 to 4095, that OS/2 can run at the same time.

PRINTMONBUFSIZE=134,134,134

This OS/2 command sets the size of the print buffers for your parallel ports. The syntax is PRINTMONBUFSIZE=lpt1,lpt2,lpt3 where lpt1 is the buffer size for the parallel port LPT1, lpt2 is the buffer size for LPT2 and lpt3 is the buffer size for LPT3. The default and minimum is 134 bytes and the maximum is 2048 bytes.

If you are not using LPT2 or LPT3, then do not set up a buffer for them and use these bytes to increase the buffer for LPT1 (PRINTMONBUFSIZE=402,0,0) which should increase the speed of printing. Note that you still need to define a buffer for LPT2 and LPT3, but you indicate of 0 byte size. You will get an error message at startup if you don't.

COUNTRY=001,C:\OS2\SYSTEM\COUNTRY.SYS

Customizes your system for the country you wish to use. It establishes which defaults to use when it comes to decimal separators, date and time formats, currency symbols, etc. The syntax is COUNTRY=xxx,PATH,FILE NAME. xxx is a three-digit code number that tells what country to use. The number is usually (but not always) the same as the telephone international dialing prefix for the country desired. Several example: United States=001, United Kingdom=044, France=033, Germany=049, Korea=082.

SET KEYS=ON

When using the Command-line, KEYS tells CMD.EXE whether to remember previous keystrokes so they can be recalled with the up arrow key. OS/2 maintains a 64k buffer for storing keystroke history. KEYS can be ON or OFF.

REM SET DELDIR=C:\DELETE,512;

To use OS/2s UNDELETE command, you must first establish a directory in which to store the deleted files. To do this, create a directory called DELETE in your root and then remove the "REM" from this config.sys line.

This command points OS/2 to the directory you created to place deleted files in. It also indicates the maximum number of files that will be stored in the DELETE directory. If the number of deleted files exceeds the maximum number that you specified, then files are automatically removed from the directory on a first-in-first-out basis.

BASEDEV=PRINT01.SYS

BASEDEV=IBM1FLPY.ADD

BASEDEV=IBM1S506.ADD

BASEDEV=OS2DASD.DMD

BASEDEV installs a base device driver used by OS/2 when it is first started. The statement cannot contain either a drive or path because OS/2 cannot process such information at the stage at which these statements are process.

PRINT01.SYS supports attached printers on non-Micro Channel PC's.

IBM1FLPY.ADD supports diskette drives on non-Micro Channel PC's.

IBM1S506.ADD supports non-SCSI disk drives on non-Micro Channel PC's.

OS2DASD.DMD is a general purpose driver for disk drives.

SET BOOKSHELF=C:\GAMATECH;C:\OS2\BOOK

This command points to the on-line documentation provided with OS/2 and to any on-line documentation provided by other OS/2 programs. I have the GAMMATECH utilities installed on my system which contains on-line documentation.

SET EPATH=C:\OS2\APPS

According to Mel Hallerman of IBM, EPATH is used by the Enhanced Editor (EPM.EXE). I assume it points to where the Editor is located.

PROTECTONLY=NO

An OS/2 command. Allows you to choose between a shared DOS and OS/2 operating environment or just an OS/2 environment. If you plan to run only OS/2 programs, then set PROTECTONLY=YES. If you plan to run DOS programs (this includes Windows programs also), then set PROTECTONLY=NO.

SHELL=C:\OS2\MDOS\COMMAND.COM C:\OS2\MDOS /P

This line identifies and loads the DOS command processor COMMAND.COM which you must have to make DOS sessions work. The /p switch keeps the command processor in memory until shutdown.

You can also load and run other command processor's such as 4DOS. To do so, just put 4DOS in the MDOS directory and change the SHELL line to read 4DOS.COM instead of COMMAND.COM. You will also need to add another line to your config.sys: SET COMSPEC=C:\OS2\MDOS\4DOS.COM.

FCBS=16,8

File control blocks (FCBS) give information about a file to DOS. This config.sys line tells DOS how many FCBS can be open at once, or, when DOS needs to open more FCBS than are available, how many currently open but not active FCBS may be closed to make room for new ones.

The syntax is FCBS=a,b where a=the number of FCBS that DOS can

have open at one time and b=the number of FCBS DOS cannot close to make room for new FCBS. "a" can be as high as 255. "b" can have a value of 0 to 254, but must be less than "a".

RMSIZE=640

This is a DOS command and sets the amount of memory available for DOSs use. The maximum is 640 kilobytes. Since many DOS programs require 640k, its best to have RMSIZE set to 640, but if you have only DOS programs which take less than 640k, say 512k, and you could use extra RAM for OS/2, then set the value at 512 or something less.

DEVICE=C:\OS2\MDOS\VEMM.SYS

VEMM.SYS lets DOS programs use expanded memory unless you override it by changing a DOS programs SETTINGS.

DEVICE=C:\OS2\MDOS\VMOUSE.SYS

Identifies and loads the mouse driver to let you use a mouse with DOS. Mouse support for OS/2 is loaded below.

DOS=LOW,NOUMB

This is a standard DOS command that lets you control how DOS uses memory. The OS/2 default is DOS=LOW,NOUMB.

DEVICE=C:\OS2\MDOS\VXMS.SYS /UMB

VXMS.SYS is a device driver that provides Extended Memory management to DOS sessions. XMS allows DOS programs to access more than one meg of memory.

DEVICE=C:\OS2\MDOS\VCDROM.SYS

Your config.sys may contain various device drivers for various DOS related devices based upon your systems hardware configuration. This is a CDROM device driver.

DEVINFO=SCR,VGA,C:\OS2\VIOTBL.DCP

This command prepares your monitor to display information based upon the CODEPAGE specification. VIOTBL.DCP is the file that contains the video fonts for displaying characters for each of the CODEPAGES supported by OS/2. See the CODEPAGE command line below.

DEVICE=C:\OS2\MDOS\VVGA.SYS

Your config.sys may contain various device drivers for various DOS related devices based upon your systems hardware configuration. This is a VGA video driver.

DEVICE=C:\OS2\POINTDD.SYS

POINTDD.SYS is the file that contains information on what the mouse pointer looks like and draws it on you screen. It is required to make your mouse work correctly. I think it would be nice if someone could write a few different POINTDD.SYS files with different looking mouse points.

DEVICE=C:\OS2\MOUSE.SYS SERIAL=COM1 QSIZE=10

Lets you use a mouse or track ball with OS/2. This line also identifies the type of mouse you have and which COM port it is on. QSIZE is a number from 1 to 100 which indicates how many mouse actions are to be saved when you execute mouse actions

faster than your system can handle them.

```
DEVICE=C:\OS2\COM.SYS
```

Lets you use the communications ports one and two (COM1 and COM2). If you want to use COM3 or COM4 or change the IRQ of a COM point, then add the next line below. This line MUST appear after any driver that uses the communications ports. Use COM02.SYS if you have an IBM PS/2 model 90 or 95.

```
DEVICE=C:\OS2\COM.SYS (3,3E8,4) (4,2E8,3)
```

This line adds support for COM3 and COM4 in OS/2 at location 3E8 with IRQ 4 and 2E8 with IRQ 3 respectively. Instead of adding this line to provide support, you can just add (3,3E8,4) (4,2e8,3) to the DEVICE=C:\OS2\COM.SYS line above.

```
DEVICE=C:\OS2\MDOS\VCOM.SYS
```

Lets you use the communications ports for DOS sessions.

```
CODEPAGE=437,850
```

Lets you use the alphabet of various countries and languages. The syntax is CODEPAGE=ppp,sss, where ppp is the number of the primary national alphabet to be used and sss is a secondary alphabet number. 437=US English alphabet and 850=multinational alphabet. The multinational alphabet contains most of the accented letters used in various European languages. Several other alphabets that can be supported by your version of OS/2 include Turkish (857), Portuguese (860), Iceland (861) and Nordic (865). Japanese (932 & 942), Korean (934 & 944) and Chinese (938 & 948) require a special version of OS/2 and special hardware.

If there is not a CODEPAGE statement in your config.sys, your keyboard will use an alphabet based on the COUNTRY statement, but your screen and printer will use their built-in defaults.

```
DEVINFO=KBD,US,C:\OS2\KEYBOARD.DCP
```

Tells the keyboard which international character set to use and where to find the file KEYBOARD.DCP which translates keystrokes. The syntax is DEVINFO=KBD,cc,DRIVE,PATH,FILENAME. cc equals the character set to be used, e.g. US = United States, UK = United Kingdom, BE = Belgium, FR = France, GR = Germany, etc.

END OF FILE LISTING