An Introductory Dos Course

by Graham O'Connor (02)759 9398
January 1994

Things to know about your Computer.

Compatible with WHAT!
A computer is said to be a **Compatible** in the computer industry if it will run software written for the **IBM-PC**.

The Disk Operating System (Dos)
The disk operating system consists of the **Command Interpreter** (**Command.Com**), and the two **System files** (**Io.sys**) and (**MsDos.sys**). These files are the heart of **MsDos** and are all that are required to **boot** the computer. The **autoexec.bat** and **config.sys** files instruct **command.com** which **Dos Modules** (files) to load ready for use in the standard running mode of the computer, and where these files can be located. Most of these files are located in and loaded from the **Dos** directory. Vital parts of the **autoexec.bat** file are the **Path** and **Set** statements. (see below)

The BOOT sequence
The modern computer is usually set internally to boot on the **system files** (see above) on drive C. However it looks first to see if a **bootable floppy disk** is in drive A. If it detects one there, it will boot up on the system files that the floppy contains. Usually the floppy boot disk is only used if there is a problem with drive C, or a special reason to boot on the floppy.

The CURRENT DRIVE
If the computer was started from the drive **C**, it will let you know that by displaying the **C:\>** prompt as the last line of text shown on the screen. If the computer was started from the drive **A**, then it will display **A:\>**.
To change from drive **A** to drive **C** simply type **C:** the computer will respond by displaying the **C:\>** prompt. The C prompt appears in different forms on some computers that have been set up differently and sometimes the prompt is merely **C>**. This is often the case when the computer has been booted up from a floppy disk.

The STARTUP Files
The two files that must be present directly on drive **C** are shown below. They can take many forms, according to the power of the computer in which they are used, and the software that is installed. These two files shown here are suitable for a basic model **386/486** running **MsDos 5.00** to **6.20**. (some of the lines in the sample Config.sys file are specific to MsDos 6.00).

An Introductory Dos Course

by Graham O'Connor (02)759 9398
January 1994

The STARTUP Files

The Autoexec.bat file

```
@ECHO OFF
LH C:\DOS\SMARTDRV.EXE C 2024 512
LH C:\DOS\DOSKEY
PATH C:\WINDOWS;C:\DOS;C:\BAT;C:\UTILS;C:\WP51;C:\ZBIBLE
SET NU=C:\NU
SET TEMP=C:\TEMP
PROMPT $pSg
LH C:\UTILS\MOUSE\MOUSE.EXE /Y
```

The Config.sys file

```
DEVICE=C:\DOS\HIMEM.SYS
DEVICE=C:\DOS\EMM386.EXE NOEMS I=E000-EFFF
DEVICEHIGH=C:\DOS\SETVER.EXE
BUFFERS=10,0
FILES=30
DOS=UMB
LASTDRIVE=O
FCBS=4,0
DOS=HIGH
BREAK=ON
STACKS=9,256
COUNTRY=044,,C:\DOS\COUNTRY.SYS
SHELL=C:\DOS\COMMAND.COM C:\DOS\ /E:500 /p
DEVICEHIGH=C:\DOS\ANSI.SYS
DEVICEHIGH=C:\DOS\DBLSPACE.SYS /MOVE
DEVICEHIGH=C:\DOS\RAMDRIVE.SYS 1500 /E
```

What to do if these files are accidentally deleted!
It is becoming harder, the more complex the computer type, to restore a computer that has had these files deleted. To aid recovery of these files, it would be a good idea on the computer in your charge, to ....
1. Make a **hard copy** of each of the files. This can be done from the **C:\> prompt**, by switching on the printer and then typing...
type autoexec.bat > prn (press enter).
Advance the paper forward a few centimetres and type...
type config.sys > prn (press enter)
Note: **PRN** is the hardware address of the **PRINTER PORT** on most computers, and these files can be **"typed"** to the printer.
2. Make a **backup copy** of each of these files in a known location on **drive C** that can be restored in an emergency.

The **backup** copy of the startup files should be kept in a safe directory placed as a **subdirectory** to the **DOS** directory called **C:\DOS\SAV**. This can be done using several **DOS COMMANDS** (dos commands are protocols provided by MsDos to allow a wide variety of instructions to be given to the software of both the **Disk Operating System**, and the software that runs in your computer).

The ">"symbol
You will note that > can be used after **dir**, or **type** etc. for the purpose of re-directing the **output** of the command. If the **Dir** command is re-directed (>) through **prn** (the address of your printer), then a **printout** of your directory results. (**Dir > prn**). Similarly if the **Dir** command is re-directed (>) through a file named **Drcty.txt**, a text file

by Graham O'Connor (02)759 9398
January 1994

showing a directory list would result. (**Dir > Drcty.txt**) **Note:** this list could be included in a Word Processing document for example.

The Path statement and the Set command.

If you wish to determine just what is on the **Path** of the computer, the best way is, at the Dos prompt, to type **Set**. As you can see below, the **Path** is shown along with other details including the address of the **Command Interpreter**. Any **executable file** contained in the directories listed in the path statement, can be launched from the **Dos Prompt**, regardless of which directory is current. If for any reason, you wish to temporarily truncate the Path statement (ie have dos **only** look in a particular directory for a specific version of a file), type a temporary statement eg. **PATH=C:\UTILS**. This will **temporarily overwrite** your path statement with an abbreviated special purpose path. However when you have finished that task, simply reboot to restore the normal path.

The structure of the Path Statement

Inclusion of a directory in the Path Statement, allows any **executable** file contained in that directory to be run from the Dos Prompt.

The Set command.

Typing **Set** at the Dos Prompt displays any **Environment** parameters that have been set up as the instructions in the **autoexec.bat** file have been executed.

```
C:\>set
COMSPEC=C:\DOS\COMMAND.COM
PATH=C:\WINDOWS;C:\DOS;C:\BAT;C:\UTILS;C:\VIS;C:\WP51
TEMP=C:\TEMP
PROMPT=$p$g
```

Some Dos Commands

The needed commands are **DIR** (display directory list), **MD** (make directory), **RD** (remove directory) **COPY** (copy files) and **CD ** (change directory to...).

At the **C:\>** prompt type **dir /w** (the /w instructs "dir" to display a directory list in a **wide** mode that allows you to see all of the directories in your computer, but not the subdirectories. With these directories, you can see the **startup** files. (don't forget to press enter after each typed command or of course nothing will take place).

Dir /w

```
 Volume in drive C is MSDOS5
 Volume Serial Number is 18E2-3A1
 Directory of C:\
[DOS]    [JUNK]   [TEMP]   [UTILS]  [VIS]
[WIN]    [WINDOWS]         [WP51]
AUTOEXEC.BAT     COMMAND.COM      CONFIG.SYS   WINA20.386
       12 file(s)          384,967 bytes
                        46,242,304 bytes free
```

At the **C:\>** prompt type **md c:\dos\sav** (this will create the **sav** directory under the **dos** directory).

by Graham O'Connor (02)759 9398
January 1994

At the **C:\>** prompt type **cd \dos\sav** (this will take the cursor into the newly created **sav** directory and display this dos prompt **C:\DOS\SAV>**. Now type **dir** and the contents of the **sav** directory will be displayed.

```
 Volume in drive C is MSDOS5
 Volume Serial Number is 18E2-3A1
 Directory of C:\
.            <DIR>          05/01/94    7:55
..           <DIR>          05/01/94    7:55
       2 file(s)                0 bytes
                       46,225,920 bytes free
```

All that remains is to make a copy of the **startup** files in the **sav** directory and if the computer **"crashes"** we at least have available our **hard copy** and our **sav copy** of the startup files.

Now change back to the **C:** location (this is known as the **ROOT DIRECTORY**) by typing **cd **
NOTE: For all such commands it does not matter if **upper or lower** case is used.
This again displays the **C:\>** prompt and typing **dir/w**, lists the files in the **root directory** so that we can spell them correctly.
Type **copy autoexec.bat c:\dos\sav\autoexec.bat** and press enter.
Type **copy config.sys c:\dos\sav\config.sys** and press enter.
Dos will respond with **1 file(s) copied** after each.
Verify that the copies were made by changing directory to the c:\dos\sav directory (as you did above) and type **dir**.

```
 Volume in drive C is MSDOS5
 Volume Serial Number is 18E2-3A1
 Directory of C:\DOS\SAV
.            <DIR>          13/12/93   21:59
..           <DIR>          13/12/93   21:59
AUTOEXEC BAT           500 08/12/93   22:48
CONFIG   SYS           418 15/11/93    6:36
SYSTEM   INI         2,491 30/11/93   21:50
WIN      INI        35,972 13/12/93    5:15
       6 file(s)         39,381 bytes
                       46,186,539 bytes free
```

You will now see that you have stored a copy of these vital files. It is a good idea for MsWindows users to also save their **win.ini** and **system.ini files** in the **sav** directory.

To restore the Dos **startup** files in the event of accidental deletion of the copies in the root directory, is made more or less difficult according to the way that the computer has been set up. In some cases, the computer must first be **booted up** from a **floppy disk** to facilitate this. The computer can be re-booted from a floppy **boot disk.** ie. one that has been formatted as a **SYSTEM** disk and has a copy of **command.com** and the **system files** on it. To reboot the computer. either press the **Ctrl+Alt+Del** keys simultaneously - or press the **Reset** button on the **Console** or **Switch** off and on again at the **On/Off Switch**.

If booted on **A**, restore startup files by typing **c:** which will log to the **C>** prompt where you can type **cd \dos\sav** (enter). Then type, **copy autoexec.bat c:** (enter) and type, **copy config.sys c:** (enter). Dos will respond with **1 file(s) copied** in each case.

The computer can then be rebooted on **c:** as is usual. The **rd** (remove directory) command will allow you to remove any directories that you may have made in the wrong places. Of course they have to be empty before you can remove them. You have to give a full address in your command. If you made a sav **subdirectory** attached to c:\junk directory, instead of the **c:\dos** directory, then type **rd c:\junk\sav** (enter) to remove the **\sav** directory.
Of course if you make changes to the set up of your computer, and change your startup files, don't forget to make new copies in the **sav** directory and in your note book that you keep with your computer. If you don't have a **Dos** startup floppy, make one and store it in a safe disk box in your computer room.

CLS
At times it may be difficult to work out what is happening on the screen because of the clutter. The CLS command clears the screen for us.
TREE
The TREE command produces a **graphic representation** of the directory which shows all directories and subdirectories in the form of a **TREE.**

```
Directory PATH listing for Volume MSDOS5
Volume Serial Number is 18E2-3A1
C:.
├───DOS
│   └───SAV
├───JUNK
├───TEMP
├───UTILITY
│   ├───FREE
│   └───OK
├───VIS
│   └───HS2000
├───WIN
│   └───ASCII
├───WINDOWS
│   └───SYSTEM
│
└───WP51
    ├───WPG
    └───LEARN
```

This tree can be printed out by the following command.
TREE > PRN where **PRN** is the hardware address of your printer.

The Current LOGGED drive
MsDos displays a symbol and a flashing cursor " _ " that indicates the drive that is in use - for example **C:\>_**
or **A:\>_**. At this point, where an active **flashing cursor** is located, various **Dos Commands** may be executed.... Some of these commands allow us to view files and data stored on the logged drive.

Cursor Location
When the computer has been switched on and has booted up to show the **Dos Prompt, C:\>** The " \ " indicates that the active cursor is located in the **ROOT DIRECTORY**. All of the directories **Visible** to the **dir** command can be **logged to** with the **cd** command. (see below)

An Introductory Dos Course

by Graham O'Connor (02)759 9398
January 1994

DIR

The dir command **LISTS** or displays the contents of the **Current Logged Drive** in the form of a **Directory** which shows all directories and files which that drive contains, as can be seen from the cursor location.

```
Volume in drive C is MsDos5
Volume Serial Number is 18E2-3A1
Directory of C:\
DOS          <DIR>          31/10/93   15:50
JUNK         <DIR>          31/10/93   20:14
TEMP         <DIR>          31/10/93   20:24
UTILS        <DIR>          01/11/93   18:43
VIS          <DIR>          31/10/93   20:29
WIN          <DIR>          31/10/93   20:31
WINDOWS      <DIR>          31/10/93   20:35
WP51         <DIR>          31/10/93   20:35
AUTOEXEC BAT          436 09/01/94   15:37
COMMAND  COM       54,619 30/09/93    6:20
CONFIG   SYS          458 07/01/94   15:03
WINA20   386        9,349 12/02/93    6:00
       12 file(s)        384,967 bytes
                      46,242,304 bytes free
```

This form of directory lists the date and time of creation of each item that it lists in a vertical format and often extends over several screen "pages". (see dir /p and dir | more commands for a convenient way to display long directories).

Other forms of the DIR Command

DIR/P

This form of the Dir command displays the directory a page at a time.

```
Volume in drive C is MSDOS5
Volume Serial Number is 18E2-3A1
Directory of C:\
DOS          <DIR>          31/10/93   15:50
JUNK         <DIR>          31/10/93   20:14
TEMP         <DIR>          31/10/93   20:24
UTILS        <DIR>          01/11/93   18:43
VIS          <DIR>          31/10/93   20:29
WIN          <DIR>          31/10/93   20:31
WINDOWS      <DIR>          31/10/93   20:35
WP51         <DIR>          31/10/93   20:35
Press any key to continue . . .
```

DIR | MORE

This form of the Dir command displays the directory a page at a time also, utilising the " **| more** " command.

```
Volume in drive C is MSDOS5
Volume Serial Number is 18E2-3A1
Directory of C:\
DOS          <DIR>          31/10/93   15:50
JUNK         <DIR>          31/10/93   20:14
TEMP         <DIR>          31/10/93   20:24
UTILS        <DIR>          01/11/93   18:43
VIS          <DIR>          31/10/93   20:29
WIN          <DIR>          31/10/93   20:31
WINDOWS      <DIR>          31/10/93   20:35
WP51         <DIR>          31/10/93   20:35
-- MORE --
```

DIR/W

Displays a **wide** form of directory, showing from the " ****" (root directory) a list of all the directories, (but not Subdirectories) and any files that are in the root directory. (as seen below)

```
Volume in drive C is MSDOS5
Volume Serial Number is 18E2-3A1
Directory of C:\
[DOS]    [JUNK]   [TEMP]   [UTILS]  [VIS]
```

by Graham O'Connor (02)759 9398
January 1994

```
[WIN]    [WINDOWS]        [WP51]
AUTOEXEC.BAT    COMMAND.COM    CONFIG.SYS    WINA20.386
        12 file(s)          384,967 bytes
                         46,242,304 bytes free
```

DIR *.EXE (see **Wildcards** below for details of *.* facility).
This form of the Dir command will display any file that ends with **".exe"** and utilises the **wildcard** capability of MsDos.

DIR *.*
This form of the Dir command will display all files in a directory and utilises the **wildcard** capability of MsDos.

MD, RD, CD
When an active cursor is at the Dos Prompt, **C:\>_**
It is possible to use the **md** to make a directory using any name that consists of up to eight characters. MsDos will not allow two directories of the same name that relate to the root directory or the same **Parent Directory**. for example, a directory named **LOOK** can be made in the root directory by typing at the Dos Prompt C:\>**MD LOOK** - this will then make a directory called **LOOK**.

A **SUBDIRECTORY** to the LOOK directory called FOOD can be made in one of two ways. The first can be done by typing the command..

C:\>**MD \LOOK\FOOD**

The presence of this directory can be confirmed by typing

C:\>**CD \LOOK\FOOD**

The cursor will then log to the **FOOD** Directory and display and active cursor as shown below...

C:\LOOK\FOOD>_

If you now wish to remove the FOOD directory, the **RD** command is used. However, it is required that you relocate the cursor by either logging to the root directory or at least the LOOK directory or this will be the result.

C:\LOOK\FOOD>**rd \look\food**
Attempt to remove current directory - \LOOK\FOOD

Dos will remind you with the above error message to change to the Root directory and then remove the FOOD directory.

C:\>**rd \look\food**

DEL (delete)
DEL *.* is an instruction to delete all files in the current directory. Assuming that we were working in the LOOK directory and there were several files in that directory that we wanted to delete, we would type the following command.

C:\LOOK>**del *.***
All files in directory will be deleted!
Are you sure (Y/N)?

If we type **Y** then all of the files would then be deleted in that directory, but if we typed **N** they would not.

> **WARNING** Be very careful that we know precisely what is in the directory, (particularly in the **root directory**) or we can cause

problems by deleting **System files** necessary for the running of the computer.

DEL *.WP5 If we have a number files, some having a **.WP5** and some with **.TXT** extensions, we can delete the *.wp5 files and leave the *.txt files with the above command.
DEL G*.* If some of the files started with a **G**, but with various extensions as shown below, we could delete all of the g's with the above command, and leave the rest of the files.

GROWTH.WP5
GREY.TXT
GREEN.TMP
LILAC.TXT
PARSNIP.WP5

EXE, COM, BAT
The above files are **executable files** and as such can be executed from the current directory by typing the filename.
A file consists of a <**filename**> a<.> (period) an <**extension**> (filespec). Each application will consist of one or more **executable** file and a number of working files that tell the main **engine** (usually an **exe** file) how and where to function. A text or word processor file can have a filename but no extension, but this is a bad practice as the extension can better identify the file to you, but more importantly it identifies the type of file if and when it is retrieved or placed into another application.

some examples of file types ..
Program files
- <**filename**>**.com** command or program file
- <**filename**>**.exe** command or program file
- <**filename**>**.ovl** overlay file
- <**filename**>**.bat** batch file
- <**filename**>**.asm** assembly language file
- <**filename**>**.bas** basic program

Output files
- <**filename**>**.tmp** temporary file
- <**filename**>**.txt** text only file
- <**filename**>**.asc** ascii text file
- <**filename**>**.doc** document file
- <**filename**>**.wp5** word perfect document file
- <**filename**>**.bak** backup file
- <**filename**>**.prn** printable output file

Wildcard filenames
As can be seen from instructions related to the **Del** (Delete) command above, groups of files can be selectively removed from disks and

directories by referring to them in a **Global** manner. An asterisk (*) can be substituted for any character in a **filename** or **extension**. Therefore **Del *.*** deletes any filename and extension combination in the directory. **Del h*.*** would delete filename that starts with **h**. To use **Wildcards**, remember, The * will substitute for any and all characters in the filename or extension. To substitute for a **Specific** character in a filename **or** extension, the **?** wildcard must be utilised. If you had the following file extensions scattered through a directory, ...

<filename>**.asc**
<filename>**.atf**
<filename>**.bin**
<filename>**.fin**
<filename>**.prn**
<filename>**.tmp**
<filename>**.txt**

To select and delete the two files with extensions that start with **a** and leave the rest, ... the **Wildcard selection** would be **Del *.a??**.

To select and delete the three files with extensions that end with an **n** and leave the rest, ... the **Wildcard selection** would be **Del *.??n**.

Of course the same principal could be applied to the filename.

APPLICATION PROGRAMS

An application program is a software program that is written to run under the control of **MsDos** or **Windows** that performs a predetermined function such as **Word Processing** or a **Database** or other type of program. The computer's ability to run the selected program, depends on functions of Dos such as memory management, the path command, and other items. Should the startup files fail to load all of the **modules** nominated in the autoexec.bat and config.sys files, the desired application will not run.

BAD COMMAND OR FILE NAME

During the bootup period, if a **Dos module** (or other module) is not at the location named in the startup files, **Dos** will report this fact to the screen, and continue to load the rest of the files. It will report files that called from and the autoexec.bat and found missing, as a **Bad command or filename**. Files that are called from the config.sys and found missing are reported as..

Bad or missing C:\DOS\HIMEM.SYS
error in CONFIG.SYS line 1 (if HIMEM.SYS happens to be missing).

Software Modules found in the DOS Directory.

On installation of the **Disk Operating System**, a library of control and utility software modules are copied into the **Dos directory** on drive C. These files cover any eventuality for functions that are a standard part of the handling of dos and the configuration of the computer. Examples of these modules are items that enable dos to **format**, **copy**, **sort**, **find**, **print** etc. A summary of these commands can be displayed on computers with **MsDos 6.2** installed, by typing **Fasthelp** at the Dos

Prompt. The following list will be displayed on the screen (page by page).

Fasthelp

APPEND Allows programs to open data files in specified directories as if they were in the current directory.
ATTRIB Displays or changes file attributes.
BREAK Sets or clears extended CTRL+C checking.
CD Displays the name of or changes the current directory.
CHCP Displays or sets the active code page number.
CHDIR Displays the name of or changes the current directory.
CHKDSK Checks a disk and displays a status report.
CLS Clears the screen.
COMMAND Starts a new instance of the MS-DOS command interpreter.
COMP Compares the contents of two files or sets of files.
COPY Copies one or more files to another location.
CTTY Changes the terminal device used to control your system.
DATE Displays or sets the date.
DBLSPACE Sets up or configures DoubleSpace compressed drives.
DEBUG Starts Debug, a program testing and editing tool.
DEFRAG Reorganises the files on a disk to optimise the disk.
DEL Deletes one or more files.
DELOLDOS Deletes the OLD_DOS.1 directory and the files it contains.
DELTREE Deletes a directory and all the files and subdirectories in it.
DIR Displays a list of files and subdirectories in a directory.
DISKCOMP Compares the contents of two floppy disks.
DISKCOPY Copies the contents of one floppy disk to another.
DOSKEY Edits command lines, recalls MS-DOS commands, and creates macros.
DOSSHELL Starts MS-DOS Shell.
ECHO Displays messages, or turns command echoing on or off.
EDIT Starts MS-DOS Editor, which creates and changes ASCII files.
EMM386 Enables or disables EMM386 expanded memory support.
ERASE Deletes one or more files.
EXIT Quits the COMMAND.COM program (command interpreter).
EXPAND Decompresses one or more compressed files.
FASTHELP Provides summary Help information for MS-DOS commands.
FASTOPEN Decreases the amount of time needed to open frequently used files and directories.
FC Compares two files or sets of files, and displays the differences between them.

An Introductory Dos Course

by Graham O'Connor (02)759 9398
January 1994

FDISK Configures a hard disk for use with MS-DOS.
FIND Searches for a text string in a file or files.
FOR Runs a specified command for each file in a set of files.
FORMAT Formats a disk for use with MS-DOS.
GRAPHICS Loads a program that can print graphics.
HELP Provides complete, interactive Help information for MS-DOS commands.
INTERLNK Connects two computers via parallel or serial ports.
INTERSVR Starts the Interlnk server.
KEYB Configures a keyboard for a specific language.
LABEL Creates, changes, or deletes the volume label of a disk.
LH Loads a program into the upper memory area.
LOADFIX Loads a program above the first 64K of memory, and runs the program.
LOADHIGH Loads a program into the upper memory area.
MD Creates a directory.
MEM Displays the amount of used and free memory in your system.
MEMMAKER Starts the Memmaker program, which optimises your computer's memory.
MKDIR Creates a directory.
MODE Configures a system device.
MORE Displays output one screen at a time.
MOVE Moves one or more files. Also renames files and directories.
MSAV Scans your computer for known viruses.
MSBACKUP Backs up or restores one or more files from one disk to another.
MSD Provides detailed technical information about your computer.
NLSFUNC Loads country-specific information.
PATH Displays or sets a search path for executable files.
PAUSE Suspends processing of a batch file and displays a message.
POWER Turns power management on and off.
PRINT Prints a text file while you are using other MS-DOS commands.
PROMPT Changes the MS-DOS command prompt.
QBASIC Starts the MS-DOS QBasic programming environment.
RD Removes a directory.
REN Renames a file or files.
RENAME Renames a file or files.
REPLACE Replaces files.
RESTORE Restores files that were backed up by using the BACKUP command.
RMDIR Removes a directory.
SET Displays, sets, or removes MS-DOS environment variables.
SETVER Sets the version number that MS-DOS reports to a program.

SHARE Installs file-sharing and locking capabilities on your hard disk.
SORT Sorts input.
SUBST Associates a path with a drive letter.
SYS Copies MS-DOS system files and command interpreter to a disk you specify.
TIME Displays or sets the system time.
TREE Graphically displays the directory structure of a drive or path.
TYPE Displays the contents of a text file.
UNDELETE Restores files previously deleted with the DEL command.
UNFORMAT Restores a disk erased by the FORMAT command.
VER Displays the MS-DOS version.
VERIFY Directs MS-DOS to verify that your files are written correctly to a disk.
VOL Displays a disk volume label and serial number.
VSAFE Continuously monitors your computer for viruses.
XCOPY Copies files (except hidden and system files) and directory trees.

CONTROL ALT DEL
This command reboots the computer on occasions where you wish to reset the processor to its **bootup defaults** ie those set by the autoexec.bat and config.sys. This can also be done by pressing the **RESET** button on the console or switching off and on again at the **ON/OFF switch.**

The S.W.E.L.L. Foundation

These notes were written for the benefit of students taking introductory computer courses with the S.W.E.L.L. Foundation who are often the **longterm unemployed.** The S.W.E.L.L. Foundation is supported by public donation and the Board of Adult & Community Education, and by the time of Volunteers from all walks of life.

Please feel able to copy the above pages freely for use as an INTRODUCTION TO The P.C. or IBM Clone Personal Computer.
Many of the explanations contained in these notes are "Screen Grabs" of the excellent Help Files contained within MsDos itself.
The S.W.E.L.L Foundation can be contacted at the numbers listed below.
Graham O'Connor Jan 1994.

S.W.E.L.L.

South West Education & Leisure Learning Foundation Inc

Cnr Chester Hill & Wellington Roads Chester Hill NSW 2162
Telephone: 645 3626 Fax: 645 3626

Information:
Barb Hughes 728 7683 or B Harris 726 7798