

IBCS

Command Line

Mr. Brennan

Brief Description - general topics

Part I

Special Files

Introduce CON and LPT

Deliverable: sample bat file, input file

Part II

Batch Files

Create a bat file to map a drive

Deliverable: start.bat (or name.bat)

Part III

Input and Output Redirection

Redirect command line input and output

Deliverable: none, but will create output files.

Part IV

Piping

String together commands using input and output redirections.

Deliverable: none

IBCS

Command Line: Special Files

Part I

Part I Special Files

Introduce CON and LPT

Deliverable: sample bat file, input file

The file *CON* references a special way to refer to the console. Using these command copies the what a user enters from the keyboard into a file named *setup.bat*:

```
c:\users\copy con start.bat
```

Whatever the user then types in will be written to the file *start.bat*. When the user enters [ctrl][Z] it signals that the user is done writing to the file - it acts like an End-Of-File indicator (or EOF).

```
c:\users\copy con start.bat
```

```
subst i: c:\users\BASIC
```

```
i:
```

```
^Z
```

The [CTRL][Z] character appears on the screen as ^Z

IBCS

Command Line: Special Files

Part I

Part I Special Files

The contents of the start.bat file can be verified using the TYPE command, which will type to contents of a text file to the console.

```
c:\users\type start.bat
subst i: c:\users\BASIC
i:                               The [CTRL][Z] character will not appear
```

Because CON is a special name for the console, the following command will also work to verify the contents of the file start.bat:

```
c:\users\copy start.bat con
subst i: c:\users\BASIC
i:
```

```
1 file(s) copied.
```

IBCS

Command Line: Special Files

Part I

Part I Special Files

Using the *COPY CON* command to create a test data file:

```
c:\users\copy con test.in  
1, 3, -4  
^Z
```

Don't forget the [CTRL][Z]

Verify the contents of the test.in file:

```
c:\users\type test.in  
1, 3, -4
```

IBCS

Command line: Batch Files

Part II

Part II Batch Files

Create a bat file to map a drive

Deliverable: start.bat (or name.bat)

A batch file is a list of commands that are executed by the operating system. Some batch files can be very involved, and are also referred to as batch scripts or batch programs.

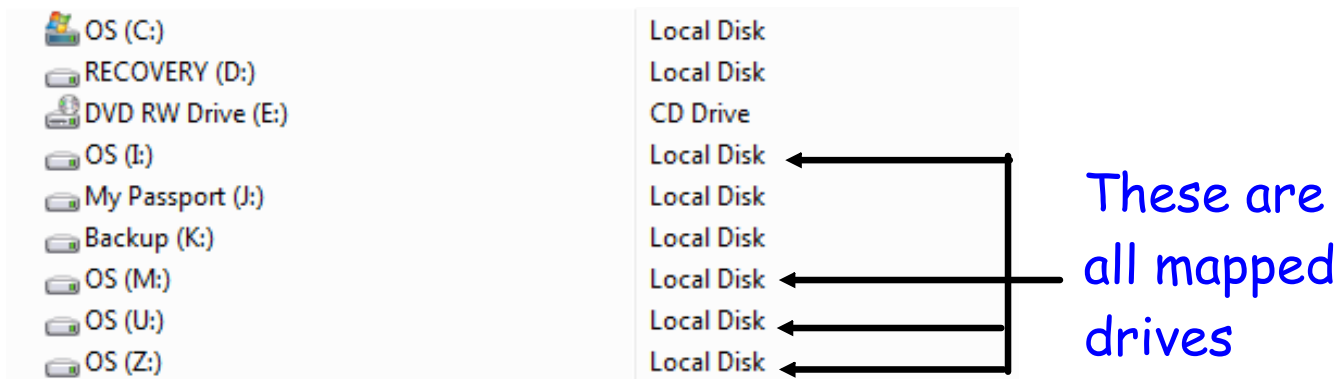
In the file start.bat, two commands were added:

`subst i: c:\users\BASIC` `subst` creates an alias for the directory `C:\users\BASIC` which can now be referred to as the `i:` drive

`i:` `i:` tells the operating system to make the current drive the `i:` drive, and it will take the user to `c:\users\BASIC`

Part II Batch Files

Using these mapped (or virtual) drives can make it easier to access specific directories (for example, when specifying where to save a file). They will appear just like any other drives.



IBCS

Command Line: Output Redirection

Part III

Part III Input and Output Redirection

Redirect command line input and output
Deliverable: none, but will create output files.

Input redirection

QUAD1v3.bas run from the command line

```
I:\T1\Unit-1>blassic QUAD1v3.bas
Enter values for a, b, and c
? 1,3,-4
13-4
The equation has two real roots.
Root(s) : 1-4
```

Input is entered by
the user interactively

```
I:>blassic QUAD1v3.bas < test.in
```

```
13-4
The equation has two real roots.
Root(s) : 1-4
```

Input is read from
the file test.in
without any user
interaction

IBCS

Command Line: Output Redirection

Part III

Part III Input and Output Redirection

Redirect command line input and output
Deliverable: none, but will create output files.

output redirection

QUAD1v3.bas run from the command line

```
I:\T1\Unit-1>classic QUAD1v3.bas
Enter values for a, b, and c
? 1,3,-4
13-4
The equation has two real roots.
Root(s) : 1-4
```

output is sent to the console

```
I:>classic QUAD1v3.bas < test.in > out.txt
```

```
I:\T1\Unit-1>classic QUAD1v3.bas < test.in > out.txt
I:\T1\Unit-1>type out.txt
Enter values for a, b, and c
? 13-4
The equation has two real roots.
Root(s) : 1-4
```

Input is read from the file test.in and output is stored in the file out.txt.

Verify the contents of out.txt

IBCS

Command Line: Piping

Part IV

Part IV Piping

String together commands using input and output redirections.

Deliverable: none

```
l:>blastic QUAD1v3.bas < test.in | sort
```

```
13-4  
Enter values for a, b, and c  
Root(s) : 1-4  
The equation has two real roots.
```

```
l:>blastic QUAD1v3.bas < test.in
```

```
13-4  
The equation has two real roots.  
Root(s) : 1-4
```