

FICE/FICE+ Tips and Tricks
Mark Pickersgill
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Note: text enclosed in triangular brackets are parameters. When using these tips, replace the triangular brackets and text with what is described by the text.

FICE OS device is D1D

To Load a scratched program and save it as unscratched:

```
:CLEARP
:LOAD DA T(<STARTING ADDRESS>)
:SAVE T "<NEW FILENAME>"
```

To clear printer buffer:

```
$CLEARBUFFER /<device number>
where <device number> = 017 or other device number of printer
```

To Print a program from memory to the printer:

```
:SELECT LIST 217
:LIST D <LINE # OF START OF PROGRAM>
:SELECT LIST 005
```

To remove scratched items from disk:

```
:MOVE T/Dxx, TO T/340,
:COPY T/340, TO T/Dxx,
where "xx" is the disk address
```

To backup files to floppy disk:

```
:SCRATCH DISK' T/340 LS=255 END =65500
:MOVE T/Dxx "FILENAME" TO T/340
:COPY T/340 TO T/D20
where "xx" is the source disk address
```

To create an update file to send via email:

```
:SCRATCH DISK T/340,LS=1, END=200
:MOVE T/Dxx "FILENAME" TO T/340
:LISTDCT/340      -> Note the 'Current End'
Ensure the 'Current End' +1 can be divided EVENLY by 2, if not then +2 instead of +1
:MOVEEND T/340,=<Current End+1>
:SELECT DISK D1D
:LOAD RUN "+MENU"
Insert a floppy disk
Select the Transfer Fice Disk to DOS Floppy.
Enter in "UPDATE.PLT" for the file name
Enter in <(Current End+1)/2> for the number of sectors
```


Cancel Code is FD0F
Action Code is FD01
ESC Code is F0
RUN Code is 82

To recall a line number: Enter in line number and press F12

In Pack/UnPack routines, array variables should only be declared ONCE.

To run the system from where it left off in the development tool

This is used so that files are not left hanging open and you can continue working from the menu where you left off.

:LOAD T "\$F LOAD"

:RUN

or

:RUN 18

To setup the date format:

Enter in 32 - "Utilities" from the main menu

1 - "System"

1 - "System Parameters"

Enter in 6 - "Date Format" to change the display of the date prompt. e.g. DD/MM/YY to DD-MM-YY

Enter in 7 - "Date Mapping" to change the order of the day, month and year.

3=Day, 2=Month, 1=Year

So to change the format from DD/MM/YY to MM/DD/YY, enter in "231"

Backup and Restore:

Enter in 31 - "Control Module" from the main menu

2 - "System Management and Backups"

7 - "Full System Backup"

8 - "Full System Restore"

Changing Disk IDs to point to another device:

This option is used to change which disk device a disk ID points to. e.g. Disk ID 1 = D11

This way, you can hard code the Disk IDs, but later modify actual disk devices where the Disk IDs point to.

Enter in 32 - "Utilities" from the main menu:

1 - "System"

1 - "System Parameters"

Press enter until the "Disk Device Address" screen is displayed.

Enter in the device number (Disk ID) and change the device address.

(Note: the device number "\$YS" contains needed programs for the development tool)

Closing Sort Work files after a problem:

Enter 32 - "Utilities" from the main menu

1 - "System"

2 - "Edit System Configuration"

3 - "Sort Work File Configuration"

Enter in the "Sort File" item number, blank out the "Device Number" field and press enter. (This will unlock the sort file)

Enter in the same "Sort File" item number, and enter in the "Device Number" where the sort work files will be accessed. (In this system it is device 2)

Continue this for each "Sort File" item number that contains the device links.

FICE+ programs are written, starting at line 8000

The starting line numbers of Pack/Unpack routines are calculated as follows :

(pack/unpack routine number)*10 + 1000. They have a maximum of 10 lines.

The last line of a program (9999) lists the files to include at runtime. It starts with a % sign and ends with a comma.

e.g. 9999 %\$F '240,

Setting a Boolean value:

If FALSE = 0 and TRUE \leftrightarrow FALSE then->

$$X = \text{ABS}(\text{SGN}(X))$$

Proof:

$$X = \quad \text{ABS}(\text{SGN}(X)) =$$

-10	1
-1	1
0	0
1	1
10	1

Inverting a Boolean value:

If X is known to be 0 or 1 ->

$$X = 1 - X$$

Proof:

$$X = \quad 1 - X =$$

0	1
1	0

Testing a Boolean value:

If X is not known to be 0 or 1 ->

$$X = 1 - \text{ABS}(\text{SGN}(X))$$

Proof:

$$X = \quad 1 - \text{ABS}(\text{SGN}(X)) =$$

-10	0
-1	0
0	1
1	0
10	0

Limiting a value:

If X is to be $> Y$ but $< Z$ then->

$$X = \text{MIN}(\text{MAX}(Y, X), Z)$$

Proof: Y=0, Z=5

$$X = \quad \text{MAX}(Y, X) = \quad \text{MIN}(\text{MAX}(Y, X), Z) =$$

-10	0	0
-1	0	0
0	0	0
1	1	1
10	10	5

Comparing values without IF statements:

IF statement -> If X is > Y then goto:Else

ON statement -> ON SGN(X-Y) goto:REM Else

Proof: Y=1

X= SGN(X-Y)=

-10 -1

-1 -1

0 -1

1 0

10 1

Proof:

IF X < 0 GOTO

ON SGN(X)+2 GOTO

X= SGN(X)+2=

-10 1

-1 1

0 2

1 3

10 3

e.g.

```
00010 ON SGN(X-Y) GOTO 20
```

```
      : REM Else
```

```
      : REM Do something
```

```
      : GOTO 30
```

```
00020 REM X > Y
```

```
      : REM Do something
```

```
00030 REM Continue program...
```