

①

CTRL + ALT + F

DIR ↵

CD JETPAK15

DIR

JETPACK

Q (TO QUIT)

CD.. (Up ONE LEVEL)

DIR

CD Δ TASM

9:39 ' DIR

ASSEMBLY PROGRAMS HAVE THE EXTENSION ASM

COPY Δ PROG1.ASM Δ SEP15.ASM

• EDIT Δ SEP15.ASM

• ALT + F THEN KEY IN X TO EXIT

NOTE:
DONT NEED .ASM
↓

②

① TO ASSEMBLE:

TASM SEP15
DIR SEP15.*

WE SEE: SEP15.ASM (SOURCE CODE)
SEP15.OBJ (OBJECT CODE)

②

TO LINK:


TLINK SEP15
(CREATES AN EXECUTABLE FILE)

HOW WOULD WE SEE THE EXECUTABLE FILE
DIR SEP15.*

WE SEE: SEP15.ASM (SOURCE CODE)
SEP15.EXE (EXECUTABLE)
SEP15.MAP
SEP15.OBJ (OBJECT FILE)

9:48

③ TO RUN:

SEP15 



= ENTER KEY

CAPITAL A IS PRINTED

③

EDIT SEP15.ASM

DELETE 1ST 3 LINES OF CODE SECTION

- SHIFT KEY + DOWN ARROW TO HIGHLIGHT THE FIRST 3 LINES
- PRESS THE DELETE KEY

THERE ARE STILL TWO LINES IN THE CODE SECTION.

SAVE THE FILE:

[ALT] + [F] + [S]

EXIT:

[ALT] + [F] + [X]

WE WILL ASSEMBLE, LINK AND RUN SEP15

① TASM SEP15

② TLINK SEP15

③ SEP15 (TO RUN PROGRAM)

WHY DOES THE PROGRAM NO LONGER PRINT A?

WE TOOK OUT THE CODE TO DO THAT.

(4)

(9:57) copy SEP15.ASM SEP15A.ASM

EDIT SEP15A.ASM

PUT IN LINE →

MOV AX, 1

SAVE FILE

EXIT

ASSEMBLE LINK AND RUN SEP15A

① TASM SEP15A

② TLINK SEP15A

③ SEP15A

WE WILL ~~NOT~~ NOW DEBUG THE PROGRAM SEP15A

DIR *.EXE

Q. WHICH FILE LISTED IS TURBO DEBUGGER?

A. TD.EXE

10:07

TD SEP15A

→ DEBUG SEP15A

DEBUGGER

(5)

10:14

IT SAYS PROGRAM HAS NO SYMBOL TABLE.
PRESS ENTER

F7

USED TO TRACE WHILST IN
THE DEBUGGER.

ON THE RIGHT HAND PANE ARE THE
REGISTERS. WHAT ARE THEIR NAMES?

AX, BX, CX, DX, SI, DI, BP, SP
DS, ES, SS, CS, IP

WE CAN ALSO SEE THE PROGRAM CODE

WHAT VALUE IS IN AX AT THE MOMENT
0000?

PRESS THE **F7** KEY. WHAT VALUE IS
IN AX NOW? A. 0001

WHY IS 0001 IN THERE?

A. BECAUSE WE HAVE JUST EXECUTED
THE FIRST LINE OF CODE

6

PRESS THE F7 KEY AGAIN

WHAT VALUE IS IN AX NOW ?

A. 4C00

WHY IS THAT VALUE IN THERE ?

PRESS THE F7 KEY AGAIN

WHAT HAS HAPPENED ?

THE PROGRAM IS TERMINATED.

(10:27)

PRESS ENTER.

WE WILL LEAVE THE DEBUGGER

ALT + F + Q

(ALT + X)
IS FASTER

EDIT SEPISA.ASM

- CHANGE THE 1ST LINE SO INSTEAD OF MOVING 1 INTO AX, WE MOVE THE NO. 2015 INTO AX
- SAVE THE FILE

⑦

- LEAVE THE EDITOR
- ASSEMBLE, LINK AND DEBUG THE FILE.



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TASM SEP15A
TLINK SEP15A
TD SEP15A
```

WHERE'S OUR 2015 GONE?

MOV AX, 07DF (IS WHAT IT SAYS)
07DF is the hexadecimal value for 2015.

LET'S CALCULATE THAT

16		2015		
16		125	R	15
16		7	R	13
		0	R	7

[NB.]

EVERYTHING IN THE DEBUGGER IS EXPRESSED
IN HEXADECIMAL

8

STEP THROUGH BY PRESSING

F7

~~EDIT~~

COPY SEP15.ASM SEP15B.ASM

EDIT SEP15B.ASM

CHANGE CODE TO THAT BELOW:

• CODE

MOV AX, 2015

ADD AX, 1 ; ADD 1 TO AX

SUB AX, 15 ; SUBTRACT 15 FROM

WHAT WILL BE IN AX ? A. 2001

WHAT WILL WE SEE IN THE DEBUGGER?

EXERCISE: DEBUG SEP15B.ASM I.E.

TD SEP15B

10:49

CTRL

+

ALT

+

F

GIVES BACK WINDOWS

SCREEN