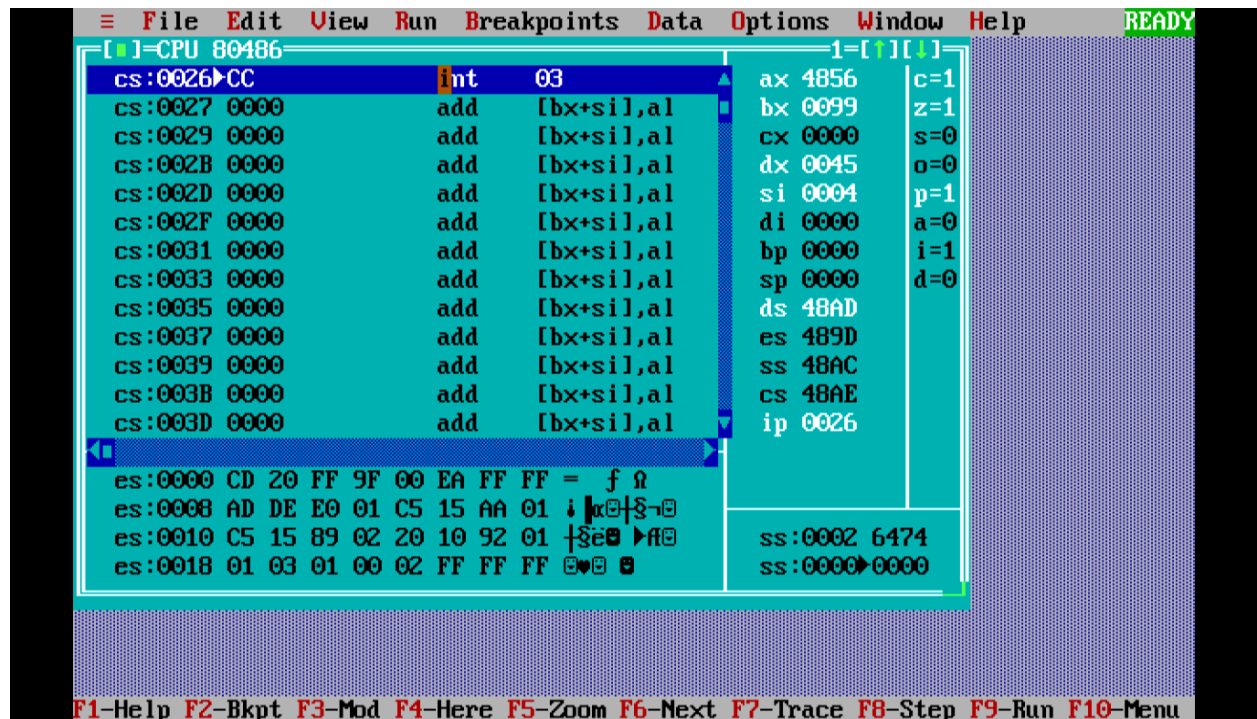


```

DATA SEGMENT
STRING1 DB 99H,12H,56H,45H,36H
DATA ENDS
CODE SEGMENT
ASSUME CS:CODE,DS:DATA
START: MOV AX,DATA
MOV DS,AX
MOV CH,04H
UP2: MOV CL,04H
LEA SI,STRING1
UP1: MOV AL,[SI]
MOV BL,[SI+1]
CMP AL,BL
JC DOWN
MOV DL,[SI+1]
XCHG [SI],DL
MOV [SI+1],DL
DOWN: INC SI
DEC CL
JNZ UP1
DEC CH
JNZ UP2
INT 3
CODE ENDS
END START

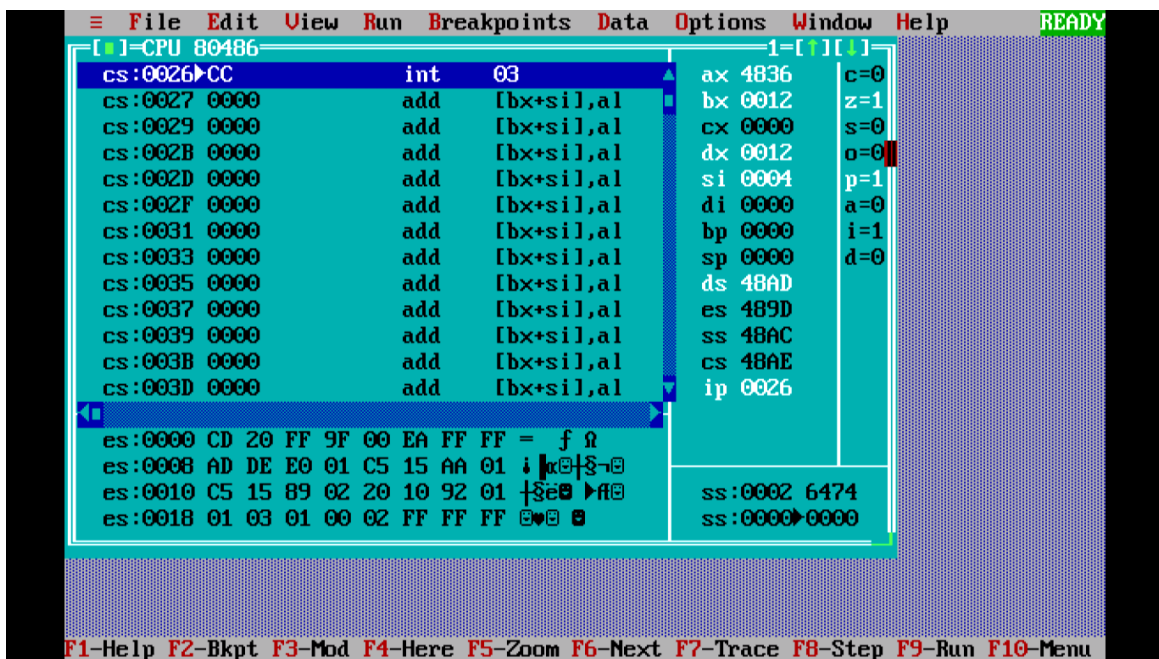
```



```

DATA SEGMENT
STRING1 DB 99H,12H,56H,45H,36H
DATA ENDS
CODE SEGMENT
ASSUME CS:CODE,DS:DATA
START: MOV AX,DATA
MOV DS,AX
MOV CH,04H
UP2: MOV CL,04H
LEA SI,STRING1
UP1:MOV AL,[SI]
MOV BL,[SI+1]
CMP AL,BL
JNC DOWN
MOV DL,[SI+1]
XCHG [SI],DL
MOV [SI+1],DL
DOWN: INC SI
DEC CL
JNZ UP1
DEC CH
JNZ UP2
INT 3
CODE ENDS
END START

```



```

data SEGMENT
cnt DB 10
fib DB 10 DUP(0)
data ENDS
code SEGMENT
ASSUME CS:code,DS:data
START:
MOV AX,data
MOV DS,AX
MOV AL,00H
LEA SI,fib
MOV [SI],AL
INC SI
INC AL
MOV [SI],AL
MOV CL,cnt
MOV CH,00H
SUB CX,02H
L1:
MOV AL,[SI-1]
ADD AL,[SI]
DAA
INC SI
MOV [SI],AL
LOOP L1
MOV AH,4CH
INT 21H
code ENDS
END START

```

The screenshot shows a DOS-based debugger interface. The top menu bar includes File, Edit, View, Run, Breakpoints, Data, Options, Window, and Help. The status bar at the bottom shows function key shortcuts: F1-Help, F2-Bkpt, F3-Mod, F4-Here, F5-Zoom, F6-Next, F7-Trace, F8-Step, F9-Run, and F10-Menu.

The main window is divided into several panes:

- Assembly List:** Displays assembly instructions with their addresses and hex values. The current instruction is at address 48AE:000D: FECD, which is an `inc al` instruction. The instruction at 48AE:000E: 46 is highlighted in blue.
- Registers:** A table on the right shows the current values of various registers:

ax	0192	c=1
bx	31B1	z=0
cx	31B1	s=1
dx	31B1	o=0
si	31B1	p=0
di	31B1	a=0
bp	0100	i=1
sp	0106	d=1
ds	2110	
es	31B1	
ss	0192	
cs	0000	
ip	0000	
- Disassembly:** A pane below the assembly list shows the disassembled instruction for the selected address: `inc al`.
- Memory:** A pane on the right shows memory addresses and their values, such as 48AC:0002 6474 and 48AC:0000 0000.

DATA SEGMENT

NUM DB 37H

PR DB 0H

NPR DB 0H

DATA ENDS

CODE SEGMENT

START: ASSUME CS:CODE, DS:DATA

MOV AX, DATA

MOV DS, AX

MOV AL, NUM

MOV BL, 02H

MOV BH, 00H

MOV DX, 0000H

MOV AH, 00H

UP: DIV BL

CMP AH, 00H

JNE NEXT

INC BH

NEXT: CMP BH, 02H

JE NPRIME

INC BL

MOV AX, 0000H

MOV DX, 0000H

MOV AL, NUM

CMP BL, NUM

JBE UP

PRIME:

INC PR

JMP EXIT

NPRIME:

INC NPR

EXIT:

MOV AH, 4CH

INT 21H

CODE ENDS

END START

