

DEBUG demo for MAE 412

Demonstration of how to enter manually a short program using DOS's "debug" program. Program modifies the AX register and saves the results in memory. The highlighted text below is typed by the user. ^C = Ctrl + C

```
START; RUN; CMD
```

```
>debug
```

```
-?
```

```
-d
```

```
1375:0100 00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 .....  
1375:0110 00 00 00 00 00 00 00 00-00 00 00 00 34 00 64 13 .....4.d.  
1375:0120 00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 .....  
1375:0130 00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 .....  
1375:0140 00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 .....  
1375:0150 00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 .....  
1375:0160 00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 .....  
1375:0170 00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 .....
```

```
-r
```

```
AX=0000 BX=0000 CX=0000 DX=0000 SP=FFEE BP=0000 SI=0000 DI=0000  
DS=1375 ES=1375 SS=1375 CS=1375 IP=0100 NV UP EI PL NZ NA PO NC  
1375:0100 0000 ADD [BX+SI],AL DS:0000=CD
```

```
-a
```

```
1375:0100 mov ax,1234  
1375:0103 mov [200],ax  
1375:0106 ^C
```

```
-g 1375:0106 (NOTE: make certain that CS:IP points to 1375:0100 before proceeding)
```

```
AX=1234 BX=0000 CX=0000 DX=0000 SP=FFEE BP=0000 SI=0000 DI=0000  
DS=1375 ES=1375 SS=1375 CS=1375 IP=0106 NV UP EI PL NZ NA PO NC  
1375:0106 0000 ADD [BX+SI],AL DS:0000=CD
```

```
-d 1375:0200
```

```
1375:0200 34 12 00 00 00 00 00 00-00 00 00 00 00 00 00 4.....  
1375:0210 00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 .....  
1375:0220 00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 .....  
1375:0230 00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 .....  
1375:0240 00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 .....  
1375:0250 00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 .....  
1375:0260 00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 .....  
1375:0270 00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 .....
```

(NOTE that the contents of the AX register have been deposited into locations 1375:0200 and 1375:0201)