

MİKROBİLGİSAYAR SİSTEMLERİ



Teknik Bilimler Meslek Yüksekokulu



ASSEMBLY KOMUTLARI

TRANSFER KOMUTLARI

- ▶ MOV
- ▶ XCHG
- ▶ LEA (Load Effective Address)
- ▶ PUSH
- ▶ PUSHF
- ▶ POP
- ▶ POPF
- ▶ LAHF
- ▶ SAHF

ASSEMBLY KOMUTLARI

GİRİŞ/ÇIKIŞ KOMUTLARI

▶ IN

▶ OUT



ASSEMBLY KOMUTLARI

ARİTMETİKSEL KOMUTLAR

- ▶ ADD
- ▶ ADC
- ▶ SUB
- ▶ SBB
- ▶ MUL
- ▶ IMUL
- ▶ DIV
- ▶ IDIV
- ▶ INC
- ▶ DEC
- ▶ CMP



ASSEMBLY KOMUTLARI

MANTIKSAL KOMUTLAR

▶ AND

▶ OR

▶ XOR

▶ NOT

ASSEMBLY KOMUTLARI

DALLANMA KOMUTLARI

- ▶ JMP (Jump)
- ▶ JZ/JE (If Zero / Equal)
- ▶ JNZ/JNE (Not Zero / Not Equal)
- ▶ JB/JC/JNAE (Below/Carry/Not Above or Equal)
- ▶ JBE/JNA (Below or Equal/Not Above)
- ▶ JNB/JNC/JAE (Not Below/Not Carry/Ab.Or Eq.)
- ▶ JG/JNLE (Greater/Not Less Than or Equal)
- ▶ JA/JNBE (Above/Not Below or Equal)
- ▶ JL/JNGE (Less Than/Not Greater or Equal)
- ▶ JLE/JNG (Less Than or Equal/Not Greater)
- ▶ JS ve JNS (Sign/No Sign)
- ▶ JO ve JNO (Overflow/Not Overflow)
- ▶ JCXZ (Cx is Zero)

UYGULAMALAR

0% Komut İstemi - debug

```
C:\Users\ilker>debug
```

```
-a
```

```
0B3A:0100 mov ah,01
```

```
0B3A:0102 int 21
```

```
0B3A:0104 cmp al,45
```

```
0B3A:0106 jne 100
```

```
0B3A:0108 int 20
```

```
0B3A:010A
```

```
-g
```

```
abcdeE
```

```
Program terminated normally
```

UYGULAMALAR

04. Komut İstemi

```
C:\Users\ilker>debug
-A
0B3A:0100  MOV  AH,01
0B3A:0102  INT  21
0B3A:0104  CMP  AL,41
0B3A:0106  JNZ  100
0B3A:0108  MOV  AH,4C
0B3A:010A  INT  21
0B3A:010C
-G
QWERTYA
C:\Users\ilker>_
```


UYGULAMALAR

C:\ Komut İstemi - DEBUG

```
C:\Users\ilker>DEBUG
```

```
-A
```

```
0B3A:0100  MOV  CX,A
```

```
0B3A:0103  MOV  AX,0
```

```
0B3A:0106  ADD  AX,CX
```

```
0B3A:0108  DEC  CX
```

```
0B3A:0109  CMP  CX,0
```

```
0B3A:010C  JNE  106
```

```
0B3A:010E
```

UYGULAMALAR

C:\ Komut İstemi - DEBUG

```
C:\Users\ilker>DEBUG
```

```
-A
```

```
0B3A:0100  MOV  CX,5
```

```
0B3A:0103  MOV  AX,1
```

```
0B3A:0106  MOV  DX,0
```

```
0B3A:0109  MUL  CX
```

```
0B3A:010B  DEC  CX
```

```
0B3A:010C  CMP  CX,0
```

```
0B3A:010F  JNE  109
```

```
0B3A:0111
```

```
-
```