Signed and Unsigned Comparison

When you use the .IF directive to compare values, you must be aware of whether the values are signed or unsigned.

If the values are signed, the assembler will generate a signed conditional jump instruction. If the values are unsigned, the assembler will generate an unsigned conditional jump instruction.

Example:

```
.data
    val1 DWORD 5
    val2 SDWORD -1
    result DWORD ?
.code
    mov eax,6

    ; Compare EAX to val1, which is unsigned.
    .IF eax > val1
    mov result,1
    .ENDIF

    ; Compare EAX to val2, which is signed.
    .IF eax > val2
    mov result,1
    .ENDIF
```

The assembler will generate the following code for the first .IF directive:

```
mov eax,6
cmp eax,val1
jbe @C0001
; jump on unsigned comparison
mov result,1
@C0001:
```

The assembler will generate the following code for the second .IF directive:

```
1051 mov eax,6
1052 cmp eax,val2
1053 jle @C0001
1054 ; jump on signed comparison
1055 mov result,1
1056 @C0001:
```