

## STRING INSTRUCTIONS:

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- ① Used for moving large blocks of data.
- ② For all string instructions, the memory source is DS:SI & memory destination is ES:DI.
- ③ The offset memory pointers, SI & DI, are automatically incremented or decremented on the state of DF  $\rightarrow$  by 1 for bytes or by 2 for words.

STOSB  $\rightarrow$  ES:[DI]  $\leftarrow$  AL  
If DF = 0, DI  $\leftarrow$  DI + 1  
If DF = 1, DI  $\leftarrow$  DI - 1

STOSW  $\rightarrow$  ES:[DI]  $\leftarrow$  AX  
ES:[DI+1]  $\leftarrow$  AH  
If DF = 0, DI  $\leftarrow$  DI + 2  
If DF = 1, DI  $\leftarrow$  DI - 2

Explanation: Transfer a byte (STOSB) or word (STOSW) from register AL or AX to the string element addressed by DI in the extra segment. If Direction Flag (DF = 0)  $\rightarrow$  increment DI, else decrement DI. Flags are not affected.

