

# ASSEMBLY - MOVS INSTRUCTION

[http://www.tutorialspoint.com/assembly\\_programming/assembly\\_movs\\_instruction.htm](http://www.tutorialspoint.com/assembly_programming/assembly_movs_instruction.htm)

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The MOVS instruction is used to copy a data item *byte, word or doubleword* from the source string to the destination string. The source string is pointed by DS:SI and the destination string is pointed by ES:DI.

The following example explains the concept –

```
section .text
    global _start          ;must be declared for using gcc

_start:                   ;tell linker entry point
    mov ecx, len
    mov esi, s1
    mov edi, s2
    cld
    rep movsb

    mov edx, 20           ;message length
    mov ecx, s2           ;message to write
    mov ebx, 1           ;file descriptor (stdout)
    mov eax, 4           ;system call number (sys_write)
    int 0x80             ;call kernel

    mov eax, 1           ;system call number (sys_exit)
    int 0x80             ;call kernel

section .data
s1 db 'Hello, world!',0 ;string 1
len equ $-s1

section .bss
s2 resb 20               ;destination
```

When the above code is compiled and executed, it produces the following result –

```
Hello world!
```

```
Loading [MathJax]/jax/output/HTML-CSS/fonts/TeX/fontdata.js
```