

ConTEXT - [C:\home\finson\cse410\ex\hello.s]

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hello.s MIPS Assembler

5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

```
1 # This MIPS program uses a system call to print a string
2
3     .data
4 str:
5     .asciiz    "Hello World\n"
6
7     .text
8 main:
9     li    $v0,4    # print_string code
10    la    $a0,str  # addr(str)
11    syscall        # print it
12
13    jr    $ra      # return
14
15
```

Ln 1, Col 1 Insert Sel: Normal DOS File size: 241



```

PC      = 00400000  EPC      = 00000000  Cause   = 00000000  BadVAddr= 00000000
Status = 3000fff0  HI       = 00000000  LO       = 00000000
          General Registers
R0 (r0) = 00000000  R8 (t0) = 00000000  R16 (s0) = 00000000  R24 (t8) = 00000000
R1 (a1) = 00000000  R9 (t1) = 00000000  R17 (s1) = 00000000  R25 (t9) = 00000000
R2 (v0) = 00000000  R10 (t2) = 00000000  R18 (s2) = 00000000  R26 (k0) = 00000000
R3 (v1) = 00000000  R11 (t3) = 00000000  R19 (s3) = 00000000  R27 (k1) = 00000000
R4 (a0) = 00000000  R12 (t4) = 00000000  R20 (s4) = 00000000  R28 (gp) = 10008000
R5 (a1) = 00000000  R13 (t5) = 00000000  R21 (s5) = 00000000  R29 (sp) = 7ffffeffc
R6 (a2) = 00000000  R14 (t6) = 00000000  R22 (s6) = 00000000  R30 (s8) = 00000000
R7 (a3) = 00000000  R15 (t7) = 00000000  R23 (s7) = 00000000  R31 (ra) = 00000000

```

```

[0x00400000] 0x8fa40000 lw $4, 0($29) ; 175: lw $a0 0($sp) # argc
[0x00400004] 0x27a50004 addiu $5, $29, 4 ; 176: addiu $a1 $sp 4 # argv
[0x00400008] 0x24a60004 addiu $6, $5, 4 ; 177: addiu $a2 $a1 4 # envp
[0x0040000c] 0x00041080 sll $2, $4, 2 ; 178: sll $v0 $a0 2
[0x00400010] 0x00c23021 addu $6, $6, $2 ; 179: addu $a2 $a2 $v0
[0x00400014] 0x0c100009 jal 0x00400024 [main] ; 180: jal main
[0x00400018] 0x00000000 nop ; 181: nop
[0x0040001c] 0x3402000a ori $2, $0, 10 ; 183: li $v0 10
[0x00400020] 0x0000000c syscall ; 184: syscall # syscall 10 (exit)
[0x00400024] 0x34020004 ori $2, $0, 4 ; 9: li $v0,4 # print_string code
[0x00400028] 0x3c041001 lui $4, 4097 [str] ; 10: la $a0, str # addr(str)
[0x0040002c] 0x0000000c syscall ; 11: syscall # print it

```

```

DATA
[0x10000000]...[0x10010000] 0x00000000
[0x10010000] 0x6c6c6548 0x6f57206f 0x0a646c72 0x00000000
[0x10010010]...[0x10040000] 0x00000000

STACK
[0x7ffffeffc] 0x00000000

KERNEL DATA
[0x90000000] 0x78452020 0x74706563 0x206e6f69 0x636f2000
[0x90000010] 0x72727563 0x61206465 0x6920646e 0x726f6e67
[0x90000020] 0x000a6465 0x495b2020 0x7265746e 0x74707572

```

```

Loaded: C:\apps\PCSpim\exceptions.s
Memory and registers cleared and the simulator reinitialized.

```

```

SPIM Version Version 7.2 of August 7, 2005
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DOS and Windows ports by David A. Carley (dac@cs.wisc.edu).
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Loaded: C:\apps\PCSpim\exceptions.s
C:\home\finson\cse410\ex\hello.s successfully loaded

```