hw1_HelloWorld

传统方式

代码:

```
STKSGE SEGMENT PARA 'STACK'                ;定义堆栈段，段名为STACK
            DB 100 DUP('?')         ;分配堆栈的大小，设置为100字节
STKSGE ENDS
DATA SEGMENT                                ;定义数据段，段名为DATA
        STRING DB'Hello World','$'        ;定义字符串数据
DATA ENDS
CODE SEGMENT                                        ;定义代码段，改名为CODE
            ASSUME CS:CODE, DS:DATA, SS:STKSGE
        START:MOV    AX, DATA                    ;程序执行起始点
            MOV     DS, AX                    ;将数据段地址寄存器指向用户数据段
            MOV     AX, STKSGE
            MOV     SS, AX                    ;将堆栈段地址寄存器指向用户堆栈段
            LEA     DX, STRING
            MOV     AH, 09H
            INT     21H                        ;系统调试功能，在显示器上显示字符串
            MOV     AH, 4CH
            INT     21H                        ;系统调试功能，程序结束返回操作系统
CODE ENDS
        END   START                 ;汇编结束，段内程序起点为START
```

运行结果:

```
C:\Users\17615\AppData\Roaming\Code\User\globalStorage\xsro.mas
m-tasm\workspace>link TEST;>> %asmlog%
C:\Users\17615\AppData\Roaming\Code\User\globalStorage\xsro.mas
m-tasm\workspace> type %asmlog%
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987.  All rights reser
ved.


  51426 + 458334 Bytes symbol space free

      0 Warning Errors
      0 Severe  Errors

Microsoft (R) Overlay Linker  Version 3.60
Copyright (C) Microsoft Corp 1983-1987.  All rights reserved.


LINK : warning L4021: no stack segment
C:\Users\17615\AppData\Roaming\Code\User\globalStorage\xsro.mas
m-tasm\workspace>TEST
Hello World
```

debug -u反汇编结果:

```
-u
2052:0060 0000          ADD       [BX+SI],AL

2052:0062 0000          ADD       [BX+SI],AL

2052:0064 0000          ADD       [BX+SI],AL

2052:0066 0000          ADD       [BX+SI],AL

2052:0068 0000          ADD       [BX+SI],AL

2052:006A 0000          ADD       [BX+SI],AL

2052:006C 0000          ADD       [BX+SI],AL

2052:006E 0000          ADD       [BX+SI],AL

2052:0070 0000          ADD       [BX+SI],AL

2052:0072 0000          ADD       [BX+SI],AL

2052:0074 0000          ADD       [BX+SI],AL

2052:0076 0000          ADD       [BX+SI],AL

2052:0078 0000          ADD       [BX+SI],AL

2052:007A 0000          ADD       [BX+SI],AL

2052:007C 0000          ADD       [BX+SI],AL

2052:007E 0000          ADD       [BX+SI],AL
```

另类方式

直接将代码和数据使用debug -e的方式写入内存中去执行

```
-e 076A:0 48 65 6C 6C 6F 24
-e 076B:0 B8 6B 07 BE D8 BA 02 00 B4 09 CD 21 B8 00 4C CD 21
-r cs
CS 2052
:076B
-r ds
DS 203D
:076A
-R
AX=4B01  BX=0000  CX=0066  DX=0000  SP=0000  BP=0000  SI=0000  DI=0000
DS=076A  ES=203D  SS=204D  CS=076B  IP=0000   NV UP DI PL NZ NA PO NC
076B:0000 B86B07        MOV    AX,076B
-r ip
IP 0000
:0
-g
Hello
C:\Users\17615\AppData\Roaming\Code\User\globalStorage\xsro.masm-tasm\workspace>
```