

Toggle Prot 1 (P1) from value P1=0x55; to P1=0xAA; with some Delay created by wait() function in Embedded System (Using Kiel C Program)

Program:

```
#include <reg51.h>

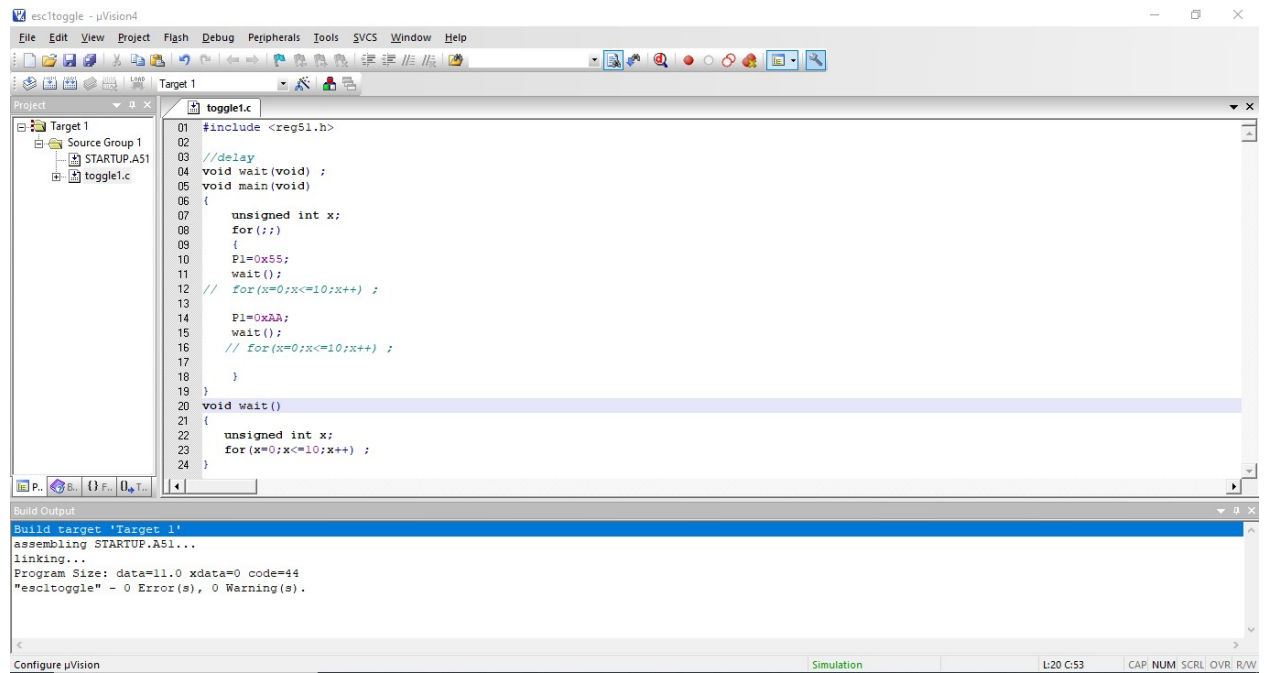
//delay
void wait(void)    ;
void main(void)
{
    unsigned int x;
    for(;;)
    {
        P1=0x55;
        wait();
//    for(x=0;x<=10;x++) ;

        P1=0xAA;
        wait();
// for(x=0;x<=10;x++) ;

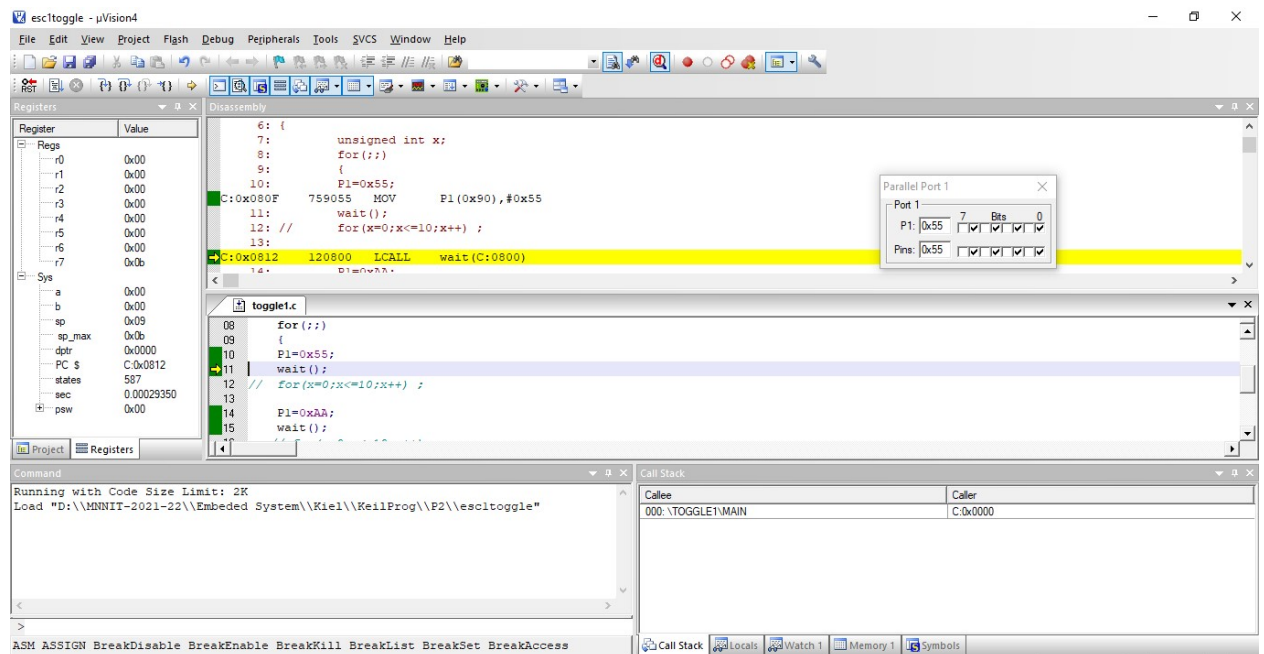
    }
}

void wait()
{
    unsigned int x;
    for(x=0;x<=10;x++) ;
}
```

Before Execution:



After Execution:



escitoggle - µVision4

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Registers

Register	Value
r0	0x00
r1	0x00
r2	0x00
r3	0x00
r4	0x00
r5	0x00
r6	0x00
r7	0x0b
Sys	
a	0x00
b	0x00
sp	0x09
sp_max	0x0b
dptr	0x0000
PC	0x0818
states	684
sec	0.00034200
BI-paw	0x00

Disassembly

```
14:          P1=0xAA;
C:0x0815  7590AA  MOV     P1(0x90),#0xAA
15:          wait();
16:          // for(x=0;x<=10;x++) ;
17:
C:0x0818  120800  LCALL  wait(C:0800)
18:          ?
C:0x081B  80F2    SJMP   main(C:080F)
133:         MOV     R0,#IDATALEN - 1
C:0x081D  787F    MOV     R0,#0x7F
194:         CTD     R0
```

toggle1.c

```
12 // for(x=0;x<=10;x++) ;
13
14 P1=0xAA;
15 wait();
16 // for(x=0;x<=10;x++) ;
17
18 }
19 }
```

Parallel Port 1

Port 1: 7 Bits 0

P1: 0xAA

Pins: 0xAA

Command

Running with Code Size Limit: 2K

Load "D:\MNNIT-2021-22\Embedded System\Kiel\KeilProg\P2\escitoggle"

Call Stack

Callee	Caller
000:\TOGGLET\MAIN	C:0x0000

ASM ASSIGN BreakDisable BreakEnable BreakKill BreakList BreakSet BreakAccess

Call Stack Locals Watch 1 Memory 1 Symbols