

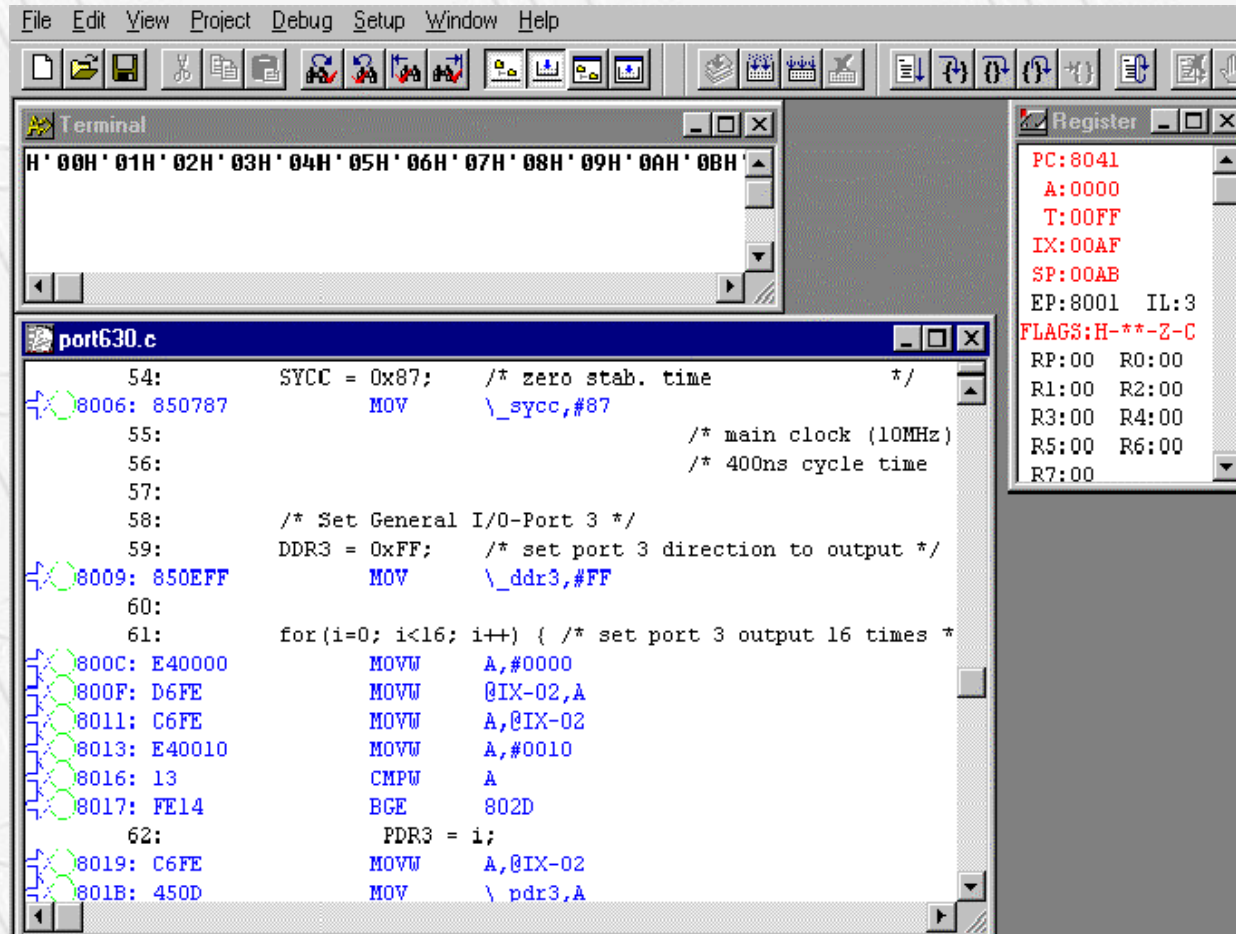
## *Using the Simulator for*

*I/O Port*

*Interrupt*

*Simulation*

# I/O port configuration for Simulator



✌ The I/O port can be simulated by terminal or file handling procedures

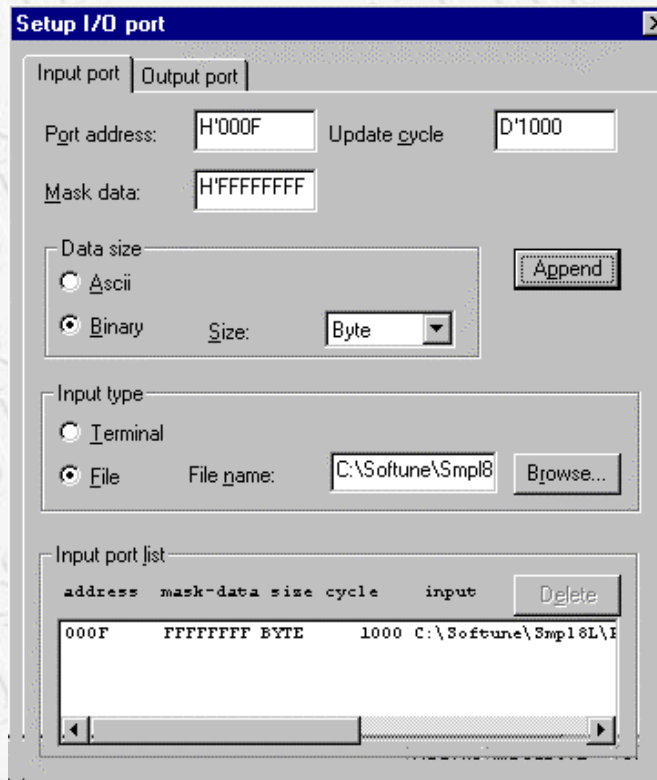
✌ In the terminal window, the values written to the Output port can be seen

✌ If a file is used, the data written to the output port are written to the specified file

✌ If an input port is defined, on each port read instruction the terminal input or the data in the file are read

# I/O port Configuration for Simulator

## Configuration of input port



✌ Input port simulation has the following types:

- Whenever a program reads the specified port, data is input from the pre-defined data input source.
- Whenever the instruction execution cycle count exceeds the specified cycle count, data is input to the port.

✌ The Input port is specified by the port address. Up to 16 input ports can be defined

✌ Terminal input or file input is possible

✌ ASCII and binary data can be specified

# I/O port configuration for Simulator

## Configuration of Output Port

Setup I/O port

Input port Output port

Port address: H'000D

Mask data: H'FFFFFFF

Data size

Ascii

Binary Size: Byte

Append

Output type

Terminal

File File name: C:\Softune\Smpl8 Browse...

Output port list

address	mask-data	size	output
000D	FFFFFFF	BYTE	\$TERMINAL

Delete

Close

✌ The output port is specified by the port address. Up to 16 output ports can be defined.

✌ Terminal output or file output is possible

✌ ASCII and binary data can be specified

# Interrupt configuration for Simulator

## Display Vector Table

No.	Address	Symbol	Factor
	2001	\start	reset
0	0000	\IO_PDR0	external interrupt #0
1	0000	\IO_PDR0	external interrupt #1
2	0000	\IO_PDR0	8-bit serial I/O
3	0000	\IO_PDR0	8-bit PWM timer #1
4	0000	\IO_PDR0	8-bit PWM timer #2
5	0000	\IO_PDR0	PWC timer
6	0000	\IO_PDR0	16-bit timer/counter
7	0000	\IO_PDR0	UART (receive complete)
8	0000	\IO_PDR0	UART (transmission c...
9	0000	\IO_PDR0	A/D converter
10	0000	\IO_PDR0	timebase timer
11	2088	\WatchTimer	timeclock prescaler

✌ In the Vector table all used Interrupts are displayed

## Specify Interrupts in the Debug environment setup

Number	Request timing	cycle
2	One time	1
3	Interval	1000
4	Interval	10

- ✌ Interrupts can be Single Shot or Interval
- ✌ Individual Interval count setting
- ✌ Individual Interval or One Shot Interrupt simulation setting