WATCHPOINT MAIN FUNCTIONS LIST



RTOS Task Transitions Graphic Display



The OS task transitions display allows you to view time-series transition data for each task of OS and to review the occupancy rate of each task graphically. By profiling, it can be used as an indicator for the task flow optimization measures including improvement of task execution time and modification of the priority so that each task may be completed within the setting time. *1

*1: Refer to our web site for detailed information about the latest supporting CPUs.

Easy Performance Measurement

Start [1] [2]	4 ns 4 ns	*
[3] [4] [5] [Max]	5 RS 4 RS 4 RS 5 RS	
[Min] [Avg]	4 ns 4 ns	-
RREAK	ILDG+DFE_MPCore DISABLE_No Sync. Ass) ion or display

Easy Performance measurement records the CPU execution time for a specified range and can be used to measure the program execution time. The measurement cycle can be repeated a number of times, so Easy Performance measurement result displays each execution time along with an average of all execution cycle times. It can also record for CPUs that do not have trace capability. *⁴

*4: Supports CPUs of ARM series and RX600 series

Starting without Reset



When using hot plug adapter together, you can start WATCHPOINT (WP) without reset of CPU, and can start debugging smoothly after a problem occurs. *5

*5: In case that WP does not support hot plug adapter, by choosing "Initialization only" in "Setting when starting ICE", WP can be started again without reset of CPU after a problem occurs at target

Flash Memory Download

Device setup 5	Fil flash mer et work memory	nory Other Bock information	Set File	Add
Maker Al	•	Size All	•	Delete a
Type (TE)28F128J3 Stat address 0x000 Length 0x100	16-817(wite buffer 32by	te)(block lock release) Jse target work memory Jse block information	•	Close
Normal type Parallel connected (* 1 ^ 2 ^ Serial connected ro 1	number 4 C 8			Download Upload
R:0x0000000	R:0x00ffffff	NUMORYX (II	STEL) 16M	(TE) 20F1

By only choosing a device of flash memory from pre-defined menu and set start address, the number of bit and the number of memory to be connected etc., you can download programs directly from debugger to flash memory on target system. It is not necessary to prepare another program such as software for flash programming or PROM writer. *²

*2: Special program for writing is required for NAND type.

Docking of Windows

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The child window inside WATCHPOINT (except for the source window) is available to be fixed by pasting to any of the four directions (sides) and to be placed on the outside of the main window.



The project window displays the file name of currently downloaded module, the linked source-files and source file's functions, etc. in a tree format. Double-clicking on a source file name automatically opens a Source Window, and double-clicking on a function name automatically moves cursor to the location where the function is defined and displays the code, so you can quickly move onto specific areas of your code.

Sohwa & Sophia Technologies Inc.



You can set hardware breakpoints in detailed hardware level such as breaks by access of memory or I/O. The number of software breakpoints is unlimited and it is possible to set to RAM or flash memory.

Ver.13126

- market@ss-technologies.co.jp
 - www.ss-technologies.co.jp/en/index.html



The call stack window displays the back trace of executed C functions from the stack frame. All functions (function name, line number etc.) from the current function back to the main() function are displayed. In addition, you can use the features such as modification of the stack frame and execution to the indicated function.

Internal Register window



You can view and modify the CPU internal resources (MMU registers, internal I/O registers etc.). Register name, register value and also bit value of each register are displayed in a tree format. Programs can be executed while opening the internal register window. It is helpful to debug while monitoring the status of interrupt and timer.



WATCHPOINT displays the current value when you position the mouse pointer over variable name in source program. It is useful to refer to the value without opening inspect dialog box.

WATCHPOINT is used in combination with the JTAG tool "EJ-SCT"

Features of EJ-SCT

- ☑ Universal tool that supports many CPUs on one common hardware platform
 ☑ Stand-alone writer capability
- ✓ Stand-alone writer ca ✓ Hot Plug capability

B Command Window							
>CHECK 0x0 LENGTH 0x100 SIZE	BYTE	A					
Address Write R	ad						
Normal End							
>DUMP 0x0 LENGTH 0x100 ASIZE BYTE							
0x00000000 00 01 02 03 04 05	06 07 08 09 0a 0b 0c 0d 0e 0f						
0x00000010 10 11 12 13 14 15	16 17 18 19 1a 1b 1c 1d 1e 1f						
0x00000020 20 21 22 23 24 25	26 27 28 29 2a 2b 2c 2d 2e 2f	!''#\$%&'()*+,/					
0x00000030 30 31 32 33 34 35	36 37 38 39 3a 3b 3c 3d 3e 3f	0123456789:;<=>?					
0x00000040 40 41 42 43 44 45	46 47 48 49 4a 4b 4c 4d 4e 4f	@ABCDEFGHIJKLMN0					
0x00000050 50 51 52 53 54 55	56 57 58 59 5a 5b 5c 5d 5e 5f	PQRSTUUWXYZ[\]^_					
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0x00000070 70 71 72 73 74 75	76 77 78 79 7a 7b 7c 7d 7e 7f	pqrstuvwxyz{ }~.					
0x00000080 80 81 82 83 84 85	86 87 88 89 8a 8b 8c 8d 8e 8f						
0x00000090 90 91 92 93 94 95	96 97 98 99 9a 9b 9c 9d 9e 9f						
0x000000a0 a0 a1 a2 a3 a4 a5	a6 a7 a8 a9 aa ab ac ad ae af						
0x000000b0 b0 b1 b2 b3 b4 b5	b6 b7 b8 b9 ba bb bc bd be bf						
0x000000c0 c0 c1 c2 c3 c4 c5	c6 c7 c8 c9 ca cb cc cd ce cf	=					
0x000000d0 d0 d1 d2 d3 d4 d5	d6 d7 d8 d9 da db dc dd de df						
0x000000e0 e0 e1 e2 e3 e4 e5	e6 e7 e8 e9 ea eb ec ed ee ef						
BREAK LOG-OFF MPCore DISABLE No Sync Display a range of memory							
>							
<< < > >> DUMP	ENV ERROR_ECHO ETMREGREA	DETMREGWRITE					

Command Window

The command line interface allows you to control a debug session from the keyboard in addition to a debug control on Window GUI. Key in the first few letters of a command and Watchpoint will complete the command and its parameters. In addition, you can key in batch files for automatic execution and specify log files for saving the commands and results of a debug session.



You can easily setup the trigger conditions and other conditions for trace in dialog box. The result of trace is displayed in special window. Supports ETM trace^{*6}, SWV trace^{*7} and ETB trace *6, *7 Supported products: *6: Cortex-M3, *7: ARM series



Double click on one variable in source window to view the contents of variable in a tree format. Embedded variables and member in complicated structures are also displayed. In addition, the variable value can be modified. The changes can be monitored in real time by registering the variable indicated in the inspect window into the watch window.

