RENESAS Tool News

C Compiler M3T-NC308WA Upgraded to V.5.20 Release 1

We have upgraded the M3T-NC308WA C-compiler (with an assembler and integrated development environment) for the M32C/80 and M16C/80 series MCUs from V.5.10 Release 1 to V.5.20 Release 1.

1. Descriptions of Upgrade

1.1 Functions Introduced

(1) The High-performance Embedded Workshop supported.

(2) The following ten command options have been added:

* -fno_switch_table (-fNST)--Suppresses generation of code using a table jump for a switch statement

* -fswitch_other_section (-fSOS)--Puts table code for a switch statement in a section other than the program section.

* -fmake_vector_table (-fMVT)--Generates variable vector tables automatically.

* -fmake_special_table (-fMST)--Generates special page tables automatically.

* -Oforward_function_to_inline (-OFFTI)--Performs inline expansion for all the inline functions.

* -Ofloat_to_inline (-OFTI)--Performs inline expansion of the run-time routine for executing floating-point operations to enhance the performance of these operations.

* -Oglb_jmp (-OGJ)--Selects the most appropriate jump instruction at linking.

* -Wno_used_function (-WNUF)--Outputs a warning message when a function not yet used in the application program is detected.

* -Wstop_at_link (-WSAL)--Suppresses creation of absolute module files when a warning message is output at linking.

* -Wundefined_macro (-WUM)--Outputs a warning message when a symbol

not yet defined as a macro is used in a #if statement.

(3) Option /E, which enables multiple interrupts, has been added to expanded function #pragma INTHANDLER (#pragma HANDLER).

1.2 Problems Fixed

The following known problems have been fixed:

(1) On the "MOVA" and "PUSHA" mnemonic instructions
For details, see RENESAS TOOL NEWS "A Note on Using C Compilers and Assemblers M3T-NC308WA, M3T-NC30WA, AS308, and AS30"issued on May 1, 2003.

(2) On standard library functions atof and strtod
For details, see RENESAS TOOL NEWS "A Note on Using C Compilers M3T-NC308WA, M3T-NC30WA, M3T-NC79WA and M3T-NC77WA" issued on May 16, 2003.

(3) On arithmetic right shift of a variable of type long long
For details, see RENESAS TOOL NEWS "A Note on Using C Compiler M3T-NC308WA" issued on June 1, 2003.

(4) On defining structure-type arrays
For details, see RENESAS TOOL NEWS "A Note on Using C Compilers M3T-NC308WA, M3T-NC30WA, M3T-NC79WA, and M3T-NC77WA" issued on June 1, 2003.

(5) On displaying the values of arguments passed to a function
For details, see RENESAS TOOL NEWS "A Note on Using C Compilers M3T-NC308WA and M3T-NC30WA" issued on June 16, 2003.

(6) On using the -Ocompare_byte_to_word (-OCBTW) compile option

(7) On the character string length of a variable that has functions as array elements
For details of (6) and (7), see RENESAS TOOL NEWS "Notes on Using C Compilers M3T-NC308WA and M3T-NC30WA" issued on July 16, 2003.

(8) On arguments of formatted input/output functions
For details, see RENESAS TOOL NEWS "A Note on Using C Compilers M3T-NC308WA, M3T-NC30WA, M3T-NC79WA, and M3T-NC77WA" issued on August 16, 2003.

(9) On calling a function indirectly
For details, see RENESAS TOOL NEWS "A Note on Using C Compiler M3T-NC308WA" issued on August 16, 2003.

(10) On using the link option "-U"
For details, see RENESAS TOOL NEWS "A Note on Using C Compilers M3T-NC308WA and M3T-NC30WA" issued on September 16, 2003.

(11) On comparing a variable with another one or a constant of type signed char in a conditional expression
For details, see RENESAS TOOL NEWS "A Note on Using C Compiler M3T-NC308WA" issued on October 16, 2003.

(12) On the division and remainder operations between constants
For details, see RENESAS TOOL NEWS "A Note on Using C Compilers M3T-NC308WA and M3T-NC30WA" issued on October 16, 2003.

(13) On linking relocatable module files with no sections
For details, see RENESAS TOOL NEWS "A Note on Using C compilers M3T-NC308WA, M3T-NC30WA, and M3T-NC79WA; and Assemblers AS308, AS30, and AS79 --On Linking Relocatable Files--" issued on November 16, 2003.

(14) On declaring parameters in function definitions
For details, see RENESAS TOOL NEWS "A Note on Using C compilers M3T-NC308WA and M3T-NC30WA --On Declaring Parameters in Function Definitions--" issued on November 16, 2003.

(15) On function calls using the indirection operator
For details, see RENESAS TOOL NEWS "A Note on Using C compilers M3T-NC308WA and M3T-NC30WA --On Function Calls Using the Indirection Operator--" issued on November 16, 2003.

(16) On defining array-type variables
For details, see RENESAS TOOL NEWS "A Note on Using C Compilers M3T-NC308WA and M3T-NC30WA" issued on January 16, 2004.

(17) On casting an integer-type value to a pointer-type one
For details, see RENESAS TOOL NEWS "A Note on Using C Compiler M3T-NC308WA" issued on January 16, 2004.

(18) On testing equality/inequality between a variable of type signed or unsigned char and a constant
For details, see RENESAS TOOL NEWS "A Note on Using C Compilers M3T-NC308WA and M3T-NC30WA --On Testing Equality/Inequality Between a Variable and a Constant--" issued on March 1, 2004.

2. How to Upgrade the Current Product and Order the Upgraded One

2.1 Online Upgrade (without Charge)
Please download the upgraded product from **HERE**.

2.2 First ordering or upgrading by CD-ROM (with Additional Charge)
Upgrade service in CD-ROM is also available. When you place an order, please furnish

the following information to your local Renesas Technology sales office or distributor:

First Ordering

  Product Type : M3T-NC308WA

  Version No.   : V.5.20

  Release No. : Release 1

  Host OS   : Windows XP, Windows Me, Windows 98, Windows 2000,
               or Windows NT 4.0

Upgrading by CD-ROM
Please let us know your product's license ID or serial number besides the above information.

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