Code Generator for V850 V2.01.00
Release Note

R20UT3174EJ0100
Rev.1.00
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Contents

Chapter 1. Target Devices

Below is a list of devices supported by the Code Generator for V850ES/Jx3 V3.01.00.02.	
Nickname	Device name
V850ES/JG3	μPD70F3739, μPD70F3740, μPD70F3741, μPD70F3742
V850ES/JJ3	μPD70F3743, μPD70F3744, μPD70F3745, μPD70F3746
V850ES/JC3-L	μPD70F3797, μPD70F3798, μPD70F3799, μPD70F3800, μPD70F3838, μPD70F3801, μPD70F3802, μPD70F3803, μPD70F3804, μPD70F3839
V850ES/JE3-L	μPD70F3805, μPD70F3806, μPD70F3807, μPD70F3808, μPD70F3840
V850ES/JF3-L	μPD70F3735, μPD70F3736
V850ES/JG3-L	μPD70F3737, μPD70F3738, μPD70F3792, μPD70F3793 μPD70F3794(USB), μPD70F3795(USB), μPD70F3796(USB)

The Code Generator for is based on the following documents.	
Manual Name	Document Number
V850ES/JG3 User's Manual	U18708JJ2V0UD00
	U18708EJ2V0UD00
V850ES/JJ3 User's Manual	U18376JJ3V0UD00
	U18376EJ3V0UD00
V850ES/JF3-L User's Manual	U18952JJ2V0UD00
	U18952EJ2V0UD00
V850ES/JG3-L User's Manual	U18953JJ5V0UD00
	U18953EJ2V0UD00

Below is a list of devices supported by the Code Generator for V850ES/Jx3-E V3.01.00.02.	
Nickname	Device name
V850ES/JH3-E	μPD70F3778, μPD70F3779, μPD70F3780, μPD70F3781, μPD70F3782, μPD70F3783
V850ES/JJ3-E	μPD70F3784, μPD70F3785, μPD70F3786

The Code Generator is based on the following documents.	
Manual Name	Document Number
V850ES/JH3-E, V850ES/JJ3-E User's Manual	U19601JJ2V0UD00
	U19601EJ2V0UD00

Below is a list of devices supported by the Code Generator for V850ES/Jx3-H V3.01.00.02.	
Nickname	Device name
V850ES/JC3-H	μPD70F3809, μPD70F3810, μPD70F3811, μPD70F3812, μPD70F3813 μPD70F3814, μPD70F3815, μPD70F3816, μPD70F3817, μPD70F3818, μPD70F3819
V850ES/JE3-H	μPD70F3820, μPD70F3821, μPD70F3822, μPD70F3823, μPD70F3824, μPD70F3825
V850ES/JG3-H	μPD70F3760, μPD70F3761, μPD70F3762, μPD70F3770
V850ES/JH3-H	μPD70F3765, μPD70F3766, μPD70F3767, μPD70F3771

The Code Generator for is based on the following documents.	
Manual Name	Document Number
V850ES/JC3-H, V850ES/JE3-H User's Manual	U20153EJ1V0UD00
V850ES/JG3-H, V850ES/JH3-H User's Manual	U19181JJ3V0UD00
	U19181EJ3V0UD00

<table>
<tr><td colspan="2">Below is a list of devices supported by the Code Generator for V850ES/Sx3-H V3.01.00.02.</td></tr>
<tr><td>Nickname</td><td>Device name</td></tr>
<tr><td>V850E/SJ3-H</td><td>μPD70F3474, μPD70F3475, μPD70F3476, μPD70F3477, μPD70F3478, μPD70F3479,
μPD70F3931, μPD70F3932, μPD70F3933, μPD70F3934, μPD70F3935, μPD70F3936,
μPD70F3937, μPD70F3938, μPD70F3939</td></tr>
<tr><td>V850E/SK3-H</td><td>μPD70F3480, μPD70F3481, μPD70F3482,
μPD70F3486, μPD70F3487, μPD70F3488,
μPD70F3925, μPD70F3926, μPD70F3927</td></tr>
<tr><td colspan="2">The Code Generator for is based on the following documents.</td></tr>
<tr><td>Manual Name</td><td>Document Number</td></tr>
<tr><td rowspan="2">V850ES/Sx3-H User’s Manual</td><td>U19201JJ3V0UD</td></tr>
<tr><td>U19201EJ2V0UD</td></tr>
</table>

Chapter 2. User's Manuals

Please read the following user's manuals together with this document.

Manual Name	Document Number
CubeSuite+ V1.03.00 V850 Design	R20UT2134EJ0100
CubeSuite+ V2.01.00 Message	R20UT2687EJ0100

Chapter 3. Key Points for Selecting Uninstallation Method

There are two ways to uninstall this product.

- Use the integrated uninstaller (uninstalls CS+)
- Use separate uninstaller (uninstalls this product only)

To use the separate uninstaller, select the following from the Control Panel:

- Programs and Features (Windows Vista, Windows 7, Windows 8)

Then select "CS+ Code Generator for V850".

Chapter 4. Changes

This chapter describes change from V2.00.00 to V2.01.00

4.1 Changes List

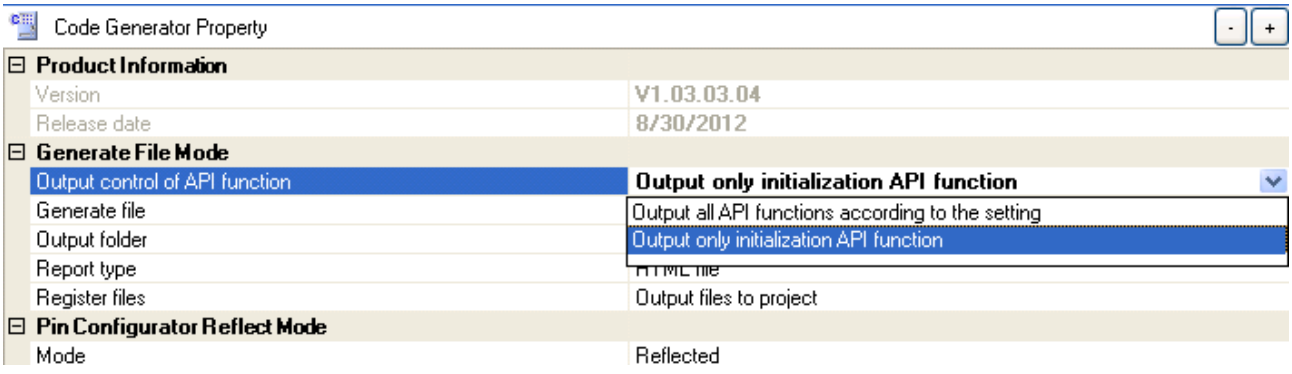
No.	Description	Corresponds of code generation			
		V850ES/JX3 V3.01.00.02	V850ES/Jx3-E V3.01.00.02	V850ES/Jx3-H V3.01.00.02	V850E/Sx3-H V3.01.00.02
1	Additional function generation file mode	○	○	○	○
2	Changes of hdwinit() function	○	○	○	○

○ : Correspondence, ×: Not correspondence

4.1.1 Additional function generation file mode

In the A/D converter, it corrected so that the message displayed with the fixed value as the number of analog input channels might be dynamically displayed according to a number of channels. In the RL78/G1A A/D converter, since conversion time was not able to be set up, it corrected that an A/D converter could not be used.

This issue has been corrected in Code Generator for V850 V1.00.02



4.1.2 Changes of hdwinit() function

We have changed the initial code for the hdwinit() and main() functions.

```
void hdwinit(void)
{
    DI();
    R_Systeminit();
    EI();
}
```

The above code has been changed to the code given below. Accordingly, interrupts are not enabled within the hdwinit function.

```
void hdwinit(void)
{
    DI();
    R_Systeminit();
}
```

Interrupts are now enabled within the main() function.

```
/***********************************************************************************************************************
* Function Name: main
* Description  : This function implements main function.
***********************************************************************************************************************/
void main(void)
{
    R_MAIN_UserInit();
    /* Start user code. Do not edit comment generated here */
    while (1U)
    {
        ;
    }
    /* End user code. Do not edit comment generated here */
}
/***********************************************************************************************************************
* Function Name: R_MAIN_UserInit
* Description  : This function adds user code before implementing main function.
***********************************************************************************************************************/
void R_MAIN_UserInit(void)
{
    /* Start user code. Do not edit comment generated here */
    EI();
    /* End user code. Do not edit comment generated here */
}
```

When an old project is used in code generation, the definitions of variables within the main function may lead to errors.

[Old project]

```
void main(void)
{
   /* Start user code. Do not edit comment generated here */
   char c;
   while (1U)
   {
      ...
```

[When an old project is loaded into CubeSuite+V1.03.00 and used for code generation]

```
void main(void)
{
   R_MAIN_UserInit();
   /* Start user code. Do not edit comment generated here */
   char c;        <- error!!
   while (1U)
   {
      ...
```

In that case, use { }.

```
void main(void)
{
   R_MAIN_UserInit();
   /* Start user code. Do not edit comment generated here */
   {              <- add “{“
     char c;      <- not error!
     while (1U)
     {
        ...
        }
   }              <- add “}”
```

This issue has been corrected in Code Generator for V850 V1.00.02

Chapter 5. Cautions

This section describes cautions for using Code Generator for V850.

5.1 Cautions List

No.	Description	Corresponds of code generation			
		V850ES/JX3 V3.01.00.02	V850ES./Jx3-E V3.01.00.02	V850ES/Jx3-H V3.01.00.02	V850E/Sx3-H V3.01.00.02
1	Cautions of the LIN-bus function of UARTA or UARTC	○	○	○	○
2	Cautions of USB functions	○	○	○	×
3	Cautions of extension code, multimaster, wakeup function of serial interface IIC	○	○	○	○
4	Cautions of the operation for slave transmission of serial interface IIC	○	○	○	○
5	Cautions of Ethernet controllers	×	○	×	×
6	Cautions of IEBus controllers	×	×	×	○
7	Cautions of CAN controllers	×	○	○	○
8	Cautions of project preservation of the watchdog timer2	○	×	×	×

○ : Correspondence, ×: Not correspondence

5.2 Cautions Details

5.2.1 Cautions of the LIN-bus function of UARTA or UARTC

The code generator is not supporting the LIN-bus functions of serial interface UARTA or UARTC.

5.2.2 Cautions of USB functions

The code generator is not supporting the USB functions.

5.2.3 Cautions of extension code, multimaster, wakeup function of serial interface IIC

The code generator is not supporting the extension code, multimaster, wakeup function of serial interface IIC.

5.2.4 Cautions of the operation for slave transmission of serial interface IIC

During slave transmission, if the master receiver does not return an ACK after the final data is received, then the error API IIC00_SlaveErrorCallback(MD_NACK) will be called, regardless of whether the actual slave transmission process ended. For this reason, the program will not terminate normally.

[Work-around]

If the master being communicated with does not return an ACK after the final data reception, change IIC00_SlaveHandler's internal code as follows. (So that it does not check for an ACK after the final data is received)

```
void IIC0_SlaveHandler(void)
{
    ...
    if (TRC0 == 1U)
    {
        if (ACKD0 == 0U)
    {
            IIC0_SlaveErrorCallback(MD_NACK);
    }
        else
    {
            if (glic0TxCnt > 0U)
      {
                IIC0 = *gplic0TxAddress;
                gplic0TxAddress++;
                glic0TxCnt--;
      }
            else
      {
                IIC0_SlaveSendEndCallback();
                WREL0 = 1U;
      }
    }
  }
}
```

if ((ACKD0 == 0U) && (glic0TxCnt != 0))

5.2.5 Cautions of Ethernet controllers

T he code generator is not supporting the USB controllers.

5.2.6 Cautions of IEBus controllers

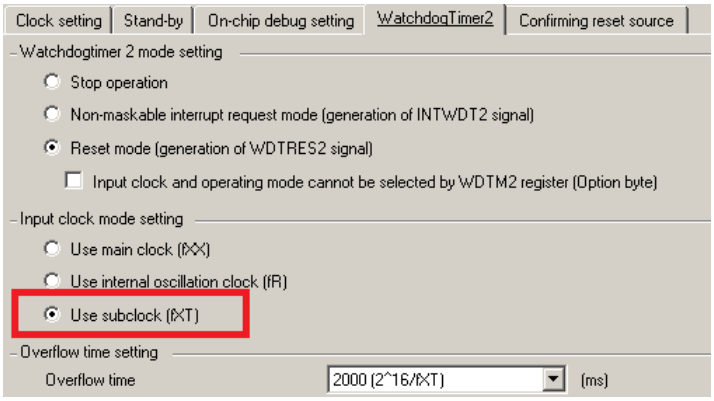
The code generator is not supporting the IEBus Controllers.

5.2.7 Cautions of CAN controllers

The code generator is not supporting the CAN Controllers.

5.2.8 Cautions of project preservation of the watchdog timer2

If the project which chose "Use subclock (fXT)" and was saved by the item of the base clock setup by the watchdog timer 2 is read, a setup will change to "Use main clock (fXX)."



There is no workaround. Repair by the following version is expected

Chapter 6. Restrictions

This section describes the restrictions for the Code Generator for V850.

6.1 Restrictions List

No.	Description	Corresponds of code generation			
		V850ES/JX3 V3.01.00.02	V850ES/Jx3-E V3.01.00.02	V850ES/Jx3-H V3.01.00.02	V850E/Sx3-H V3.01.00.02
1	Restrictions of the coding rule of MISRA-C	○	○	○	○

○ : Correspondence, ×: Not correspondence

6.2 Restrictions Details

6.2.1 Restrictions of the coding rule of MISRA-C

Compliance with the MISRA-C (Guidelines for the Use of the C Language in Vehicle Based Software) coding convention is not supported for source code output by the code generator.

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