

Notes on Using the C Compiler Package M3T-ICC740

Please take note of the following problems in using the C compiler package M3T-ICC740, which are used for the 740 MCU family:

- On handling interrupts
 - On calling undefined functions
-

1. Versions Concerned

The C compiler package M3T-ICC740 V.1.01 Release 00 and V.1.01 Release 01 (for the 740 family)

2. Descriptions

2.1 Problems on Handling Interrupts

If a function called or to be called from an interrupt-handling function during interrupt service is called from another function, the warning message* shown below cannot be displayed at linking.

(The message is displayed in V.1.00 Release 1 through V.1.00 Release 1B.)

Warning[w16]: Function "name" in module (file) is called from two function trees (with roots name1 and name2)

- * The M3T-ICC740 statically places local variables (arguments and auto variables) of a function. So using such a function within both an interrupt-handling function and another one may corrupt local variables. If calls are made to such a function from both of the above-mentioned functions, the linker sends Warning[w16]. However, in the product concerned, the linker does not.

Example:

```

void func2( int );

interrupt[2] void intr_1(void)
{
    func2( 2 ); /* If an interrupt generated while func1() is */
               /* executing func2(), local variables of */
               /* func2() be corrupted after func2() returns */
               /* from interrupt */
}

void func1( void )
{
    func2( 1 );
}

void main( void )
{
    func1();
}

```

Workaround:

Don't use the same function within an interrupt-handling function and another one.

2.2 Problem on Calling Undefined Functions

Making a call to an undefined function does not display the warning message shown below at linking.

(The message is displayed in V.1.00 Release 1 through V.1.00 Release 1B.)

```
Error[e46:] Undefined external "external" referred in module (file)
```

Example

```

-----
void func3( int );

void main( void )
{
    func3(); /* undefined function */
}
-----

```

Workaround:

If you need to call an undefined function, define it.

3. **Schedule of Fixing the Problems**

We have no plan to fix these problems. Therefore, please use workarounds described in the Tool News to avoid the problems.

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