APPLICATION NOTE

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Date: **23rd January 2011**
To: **Purchasers of "Using the FreeRTOS Real Time Kernel – a Practical Guide"**
From: **Richard Barry – Real Time Engineers Ltd.**
Subject: **Using the Keil uVision4 simulator version of the example projects that accompany the generic Cortex-M3 edition of the FreeRTOS tutorial book**

INTRODUCTION

The book *Using The FreeRTOS Real Time Kernel – a Practical Guide* presents numerous examples, the source code for which is provided in a .zip file that can be downloaded from the FreeRTOS web site.

The Cortex-M3 edition of the book is relevant to several different Cortex-M3 microcontrollers, and several different tool chains. This application note describes how to use the examples on a simulated generic Cortex-M3 core using the Keil uVision4 IDE – which is part of the Keil Microcontroller Development Kit (MDK).

The projects are configured to run in the MDK simulator, so no hardware is required. Note, however, that the screen shots contained in the book are not taken from uVision4.

The example projects can be built and executed using the free evaluation version of the MDK, which can be downloaded from https://www.keil.com/demo/eval/arm.htm.

MISCELLANEOUS NOTES

The example projects were created in version 4.13a of the MDK.

The debug simulation is not intended to simulate any specific Cortex-M3 microcontroller implementation. Therefore, the interrupt vector table is also generic, and does not target any specific device.

LOCATING THE EXAMPLE PROJECTS

The uVision4 project files are all called Example0nn.uvproj, and can be located in the Examples\Example0nn directories, where 'nn' is the example number in both cases.

OPENING, BUILDING AND EXECUTING THE EXAMPLE PROJECTS

The example projects can be opened, built, and debugged using the standard uVision4 menu items.

The projects are configured to automatically open the debug printf() viewer window within the uVision4 IDE when a simulated debug session is started. The window is necessary to view the output described by the book text. If the debug printf() viewer is not visible it can be re-opened using the 'View | Serial Windows | Debug (printf) Viewer' menu item once a debug session has started.