Freescale MQX RTOS Example Guide

IO example

This document explains the IO example, what to expect from the example and a brief introduction to the API used.

The example

The example examines the two UART modules at the same time. The serial driver is used. For any specific MCU board, MQX RTOS uses particular UART module as the default serial input/output port to interface to other MCU board or any serial terminal application. The default serial port and one additional serial port are invoked. Different messages - strings of characters - are sent over each serial port and displayed over the output terminals.

Running the example

The BSPCFG_ENABLE_TTYA and BSPCFG_ENABLE_TTYB macros must be set to non-zero in the user_config.h file prior to compilation of MQX libraries and the example itself.

To run the example the corresponding IDE, compiler, debugger and a terminal program are needed. The MCU board needs two serial port and two terminal windows to display the test messages.

Explaining the example

The application creates only one task called main_task which accomplishes the following jobs.

- print out a message to the default serial port using printf() function.
- open another serial port and assign the standard output stream to this serial channel.
- print out another message to the new serial port.

On the terminal corresponding to the default serial port, the following message is expected.
This is printed to the default device

On the terminal corresponding to the new serial port, the message should be
This is printed to the other device