Freescale MQX RTOS Example Guide

LOG example

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

The example

The example shows the usage of the log component of RTOS MQX. The log allows user's application program to record the information about the context switch as tasks being re-scheduled and interrupt happened in the application program. The log API is used to enable log for specific component and to display log information to terminal.

Running the example

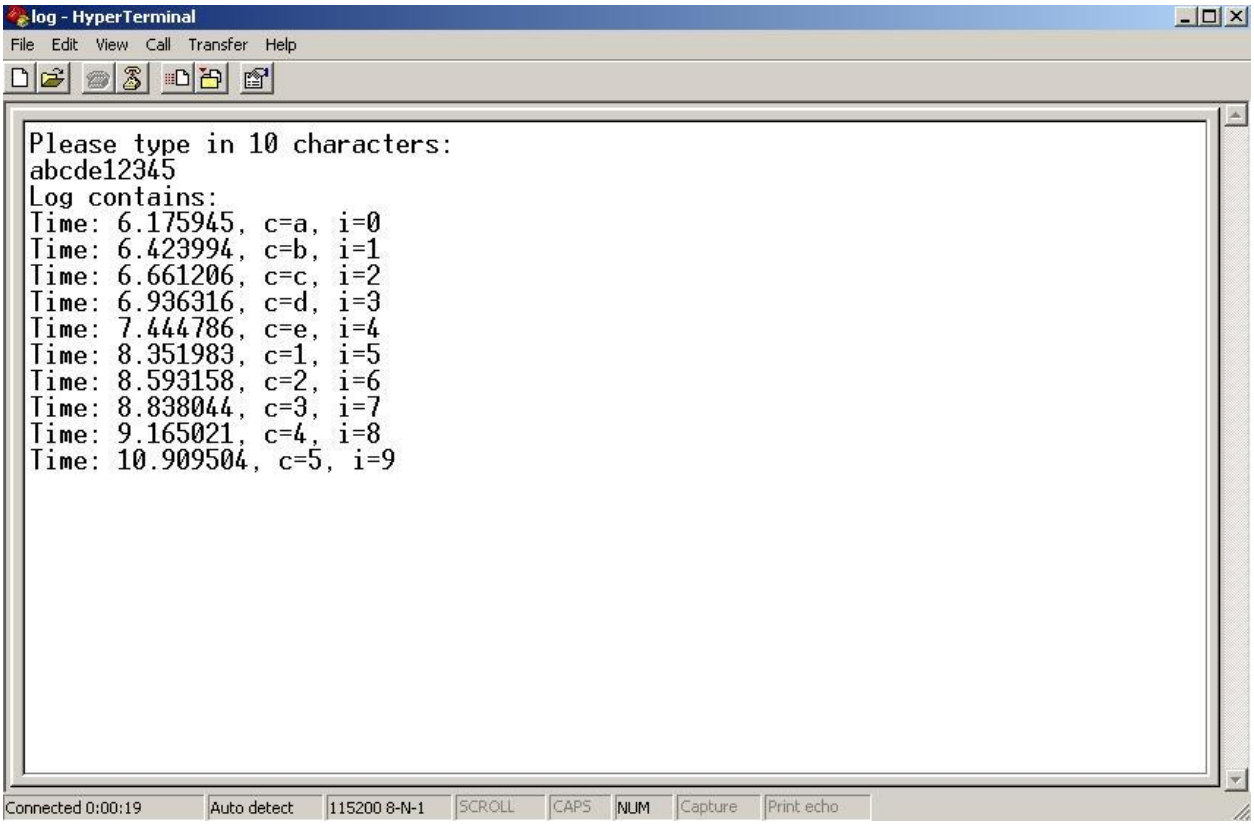
The user only needs to do compilation of MQX libraries, ksdk library and the example without any further step.

The MQX_USE_LOGS macro 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.

Explaining the example

The application example creates only one task called main_task.
The main_task creates the log component as it is optional component of RTOS MQX.
The log is then created which allows user to write any data into it and then to retrieve the information later in time.
The log component is more flexible than kernel log as user defined data can be recorded.
The log API functions _log_write() and _log_read() are used for writing and reading logs.
The log is destroyed and the main_task is blocked.

The user is prompted to input 10 characters to be written into a log entry of the log component and then the recorded information is displayed on terminal as follow.


log - HyperTerminal
File Edit View Call Transfer Help
Please type in 10 characters:
abcde12345
Log contains:
Time: 6.175945, c=a, i=0
Time: 6.423994, c=b, i=1
Time: 6.661206, c=c, i=2
Time: 6.936316, c=d, i=3
Time: 7.444786, c=e, i=4
Time: 8.351983, c=1, i=5
Time: 8.593158, c=2, i=6
Time: 8.838044, c=3, i=7
Time: 9.165021, c=4, i=8
Time: 10.909504, c=5, i=9
Connected 0:00:19
Auto detect
115200 8-N-1
SCROLL
CAPS
NUM
Capture
Print echo