

Freescale MQX RTOS Example Guide

Flexnvm example

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

The example

The example shows the basic operations can be done with the FlexRAM memory block of the MCUs which have FlexNVM memory in their flash memory. User is able to configure FlexRAM as EEPROM memory block and to write data into and read data from FlexRAM.

Running the example

The Flexnvm application belongs to the set of examples of MQX handling the flash memory. The BSPCFG_ENABLE_FLASHX 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.

Please note that only MCUs which have the FlexNVM memory block in their flash memory can support this application.

Explaining the example

The task main_task is the only task used in this application. It

- Establishes the connection to memory block FlexRAM.
- Checks and sets up the EEPROM feature over the FlexRAM block in case it hasn't been done before.
- Reads and modifies data in the first few memory locations of the FlexRAM.

The following output is expected on the terminal.

```
MQX FlexNUM example
Device has FlexEEPROM already enabled.

Reading actual memory values:
byte: 0x14000000 = 0xe
half: 0x14000002 = 0xd
word: 0x14000004 = 0x2c

Writing new values to memory:

Reading new memory values:
byte: 0x14000000 = 0xf
half: 0x14000002 = 0x1f
word: 0x14000004 = 0x2f

Program finished, you can try restart !
```