xCORE-200 explorer - Simple GPIO

This application note show how to use simple GPIO on an xCORE-200 explorer development kit. The kit itself contains buttons and LED's which can be accessed from application code running on the xCORE multicore microcontroller.

The example uses the XMOS GPIO library to demonstrate how simple GPIO devices can be accessed from multibit ports in an easy and efficient manner. It also demonstrates how to respond to events from within application code.

The code in the example builds a simple GPIO handling application which responds to button presses from the user and toggles the state of LED's on the development board.

Required tools and libraries

- xTIMEcomposer Tools - Version 14.0
- XMOS GPIO library - Version 1.0.0

Required hardware

This application note is designed to run on any XMOS multicore microcontroller.

The example code provided with the application has been implemented and tested on the xCORE-200 explorer kit. The dependancy on this board is only due to the GPIO ports that are connected to the buttons and LED's. These port definitions are in the source code and can be easily modified to work on another XMOS development board.

Prerequisites

- This document assumes familiarity with the XMOS xCORE architecture, the XMOS GPIO library, the XMOS tool chain and the xC language. Documentation related to these aspects which are not specific to this application note are linked to in the references appendix.
- For descriptions of XMOS related terms found in this document please see the XMOS Glossary[1].
- For the information relating to the GPIO library, please see the document XMOS GPIO Library[2].

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[1] http://www.xmos.com/published/glossary
[2] http://www.xmos.com/published/xmos-gpio-lib