TO: LFEV-ESCM Team
FROM: Prarthana Ranjit, Amira Ahsan
DATE: 4th March 2013
SUBJECT: I²C Realterm Instructions

ABSTRACT:
The memo documents the instructions for I²C operation using RealTerm.

TECHNICAL FINDINGS:
N/A

RECOMMENDATIONS AND DECISIONS:

Instructions for I2C Operation (adapted from spring ’11)
1. If it is the first time using the CMS, or after a system crash, reset the CMS by jumping the reset pins on the OBPP, as shown below.

2. Open RealTerm I2C. If RealTerm I2C is not installed on your PC, go to: [http://realterm.sourceforge.net/index.html#downloads_Download](http://realterm.sourceforge.net/index.html#downloads_Download) to download, as well as for RealTerm help.

3. Using either an RS-232 or USB cable, connect the PC to I2C converter to the PC running RealTerm I2C.

4. Connect the provided I2C communication cable between the PC to I2C converter and the OBPP. Be sure to orient the cables as shown below.

5. In RealTerm, under the ‘Port’ tab:
a. Select ‘Baud’ of 57600

b. Select ‘Port 7’, the Port number for the USB port

c. Set ‘Parity’ to ‘None’

d. Set ‘Data Bits’ to ‘8’

e. Set ‘Stop Bits’ to ‘1 bit’

f. Set ‘Hardware Flow Control’ to ‘RTS/CTS’

g. Set ‘Software Flow Control’ to ‘Xon Char: 17’ and ‘Xoff Char: 19’. Do not check ‘Receive’ or ‘Transmit’

h. Click ‘Change’ Button to save settings

6. In RealTerm, under the ‘I2C’ tab:
a. Set ‘Bus Num’ to ‘3’

b. Set ‘Address’ to 0x00, which is the default address (for now) of an OBPP, or else set to the known address of the board.

c. Set ‘SubAddr’ to 0

7. Sending Commands
   Basic Command Format:

<table>
<thead>
<tr>
<th>Address read/write</th>
<th>Command</th>
<th>Data (high byte)</th>
<th>Data (low byte)</th>
</tr>
</thead>
</table>

   For all the possible commands and formats see the I2C protocol.

8. Pay careful attention to the boundary conditions for command sets. Failure to send correct commands could result in failure of the system.
Writing 4 data bytes into the slave PIC

Reading 3 bytes from the Slave PIC
ATTACHED DOCUMENTS:
N/A

RELEVANT LINKS:
N/A