

redCat Weekly Report

27.03.2007

This past week, we mainly concentrated on designing the PIC board on a bread board that is similar to the board we used in our logic courses. In order to test our design, we obtained a PIC board used in Embedded courses and programmed it with a piece of software written in assembly language of Microchip. That software is written in order to see the connection of serial port with the PIC. We used the Hyperterminal of Windows in order to send some data over the serial port to the PIC device. PIC takes this data and without converting it, just sends it back to the PC through the serial port. With a kind of similar but more advanced software, we plan to drive the Bluetooth device soon. When we progressed to sending the received data back to the parallel port of the PC, we understood that we couldn't use hyperterminal; instead we needed obtain an application to interface the parallel port of the PC. Therefore, we are now working on this software. When we are done with the resolving the XSload's communication principle, we will code the necessary serial-to-parallel converter for the pic and test this code using the software for interfacing the parallel port of the PC.

Another thing that we were busy with, that was mentioned in the previous report, was figuring out the Xsload's principle of communicating the Spartan 3S1000 board and its RAM access. Since this operation will be handled by the Pic and the parallel port communication will be held, it is vital to understand this communication principle. We made progress in this issue, but it is does not satisfactory yet.

As a result, our next aim is to get an image as serial data sent from one PC through the bluetooth device to another PC, convert it into the format that is acceptable for the FPGA board, and transfer the data to the XSA board by the parallel port. We can safely say that, another thing that we are currently busy with is developing a ReddyPost software taking data through the serial port (the image), processing it and sending that image to the XSA board using parallel cable. We are still using the parallel cable since we have not achieved to have the Pic device operate fully compatible with the FPGA yet. It can be said that, currently the Pc is our virtual Pic device.