COEN 317: MICROPROCESSOR-BASED SYSTEM

Section UN-X

LAB REPORT # 1: Introduction to the ZYNQ ZC702 "Hello World"

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"I certify that this submission is my original work and meets the Faculty's Expectations of Originality"

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Objectives:

The objectives of the lab are to become familiar with the Xilinx ZC702 development board and Xilinx software tools. Additionally, it is to become familiar with the PlanAhead tools, the Xilinx Platform Studio, and the SDK.

Introduction:

In this lab, we are asked to create the “Hello World” program using the PlanAhead and SDK for the Xilinx ZC702 development board.

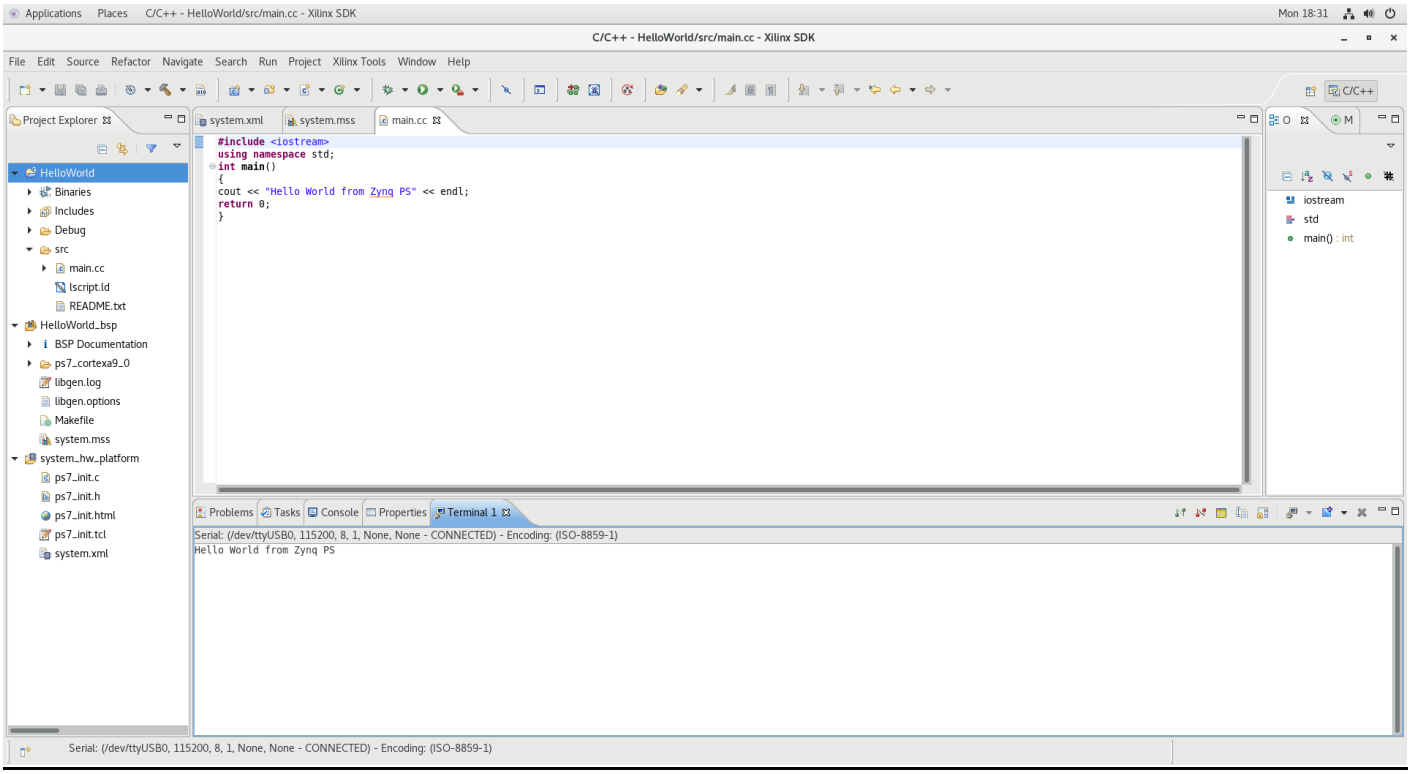
Xilinx ZC702 is used to customize the processor hardware and programmable logic. XPS configures the hardware and exports it to software development kit (SDK). SDK is used to program the processor through a C or C++ GNU compiler.

PlanAhead is a tool used to add design sources such as VHDL program or Intellectual Property to the hardware. For more information, please refer to the lab manual.

Results:

This lab is more directed to introduce us to the procedure and setup of Xilinx ZC702 development board and the Xilinx software tools used to program the board. For that reason, there isn’t much to show in terms of results nor many processes to explain. The lab required us to follow the detailed steps of how-to setup the programs and what to write.

In the end, I managed to get my “Hello World” program to run successfully and was able to see my ‘cout’ on the terminal as required.



main.cc code:

```
#include <iostream>
using namespace std;

int main()
{
cout << "Hello World from Zynq PS" << endl;
return 0;
}
```

Conclusion:

In conclusion, the objectives of the lab were met. I managed to learn how to run a program using the Xilinx ZC702 board and receive its output on the computer. I also managed to gain experience and practice with PlanAhead and Xilinx Platform Studio.