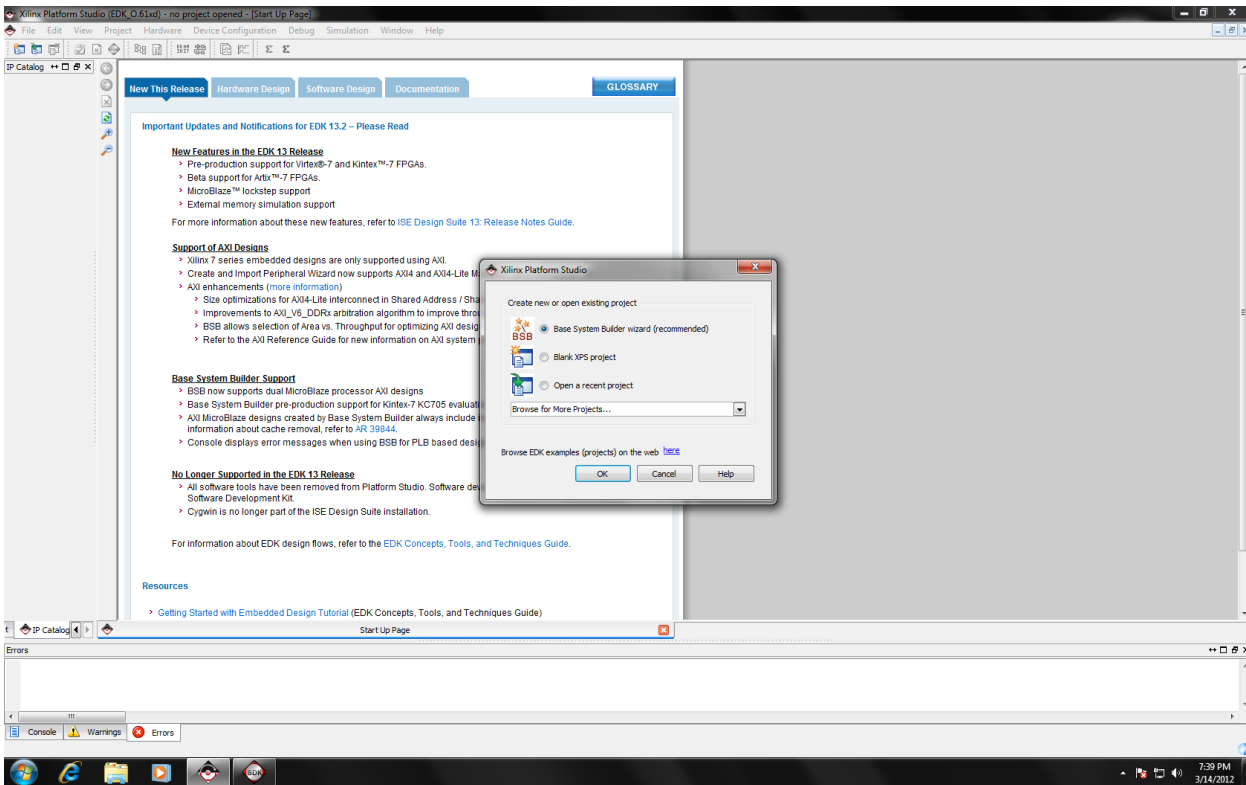
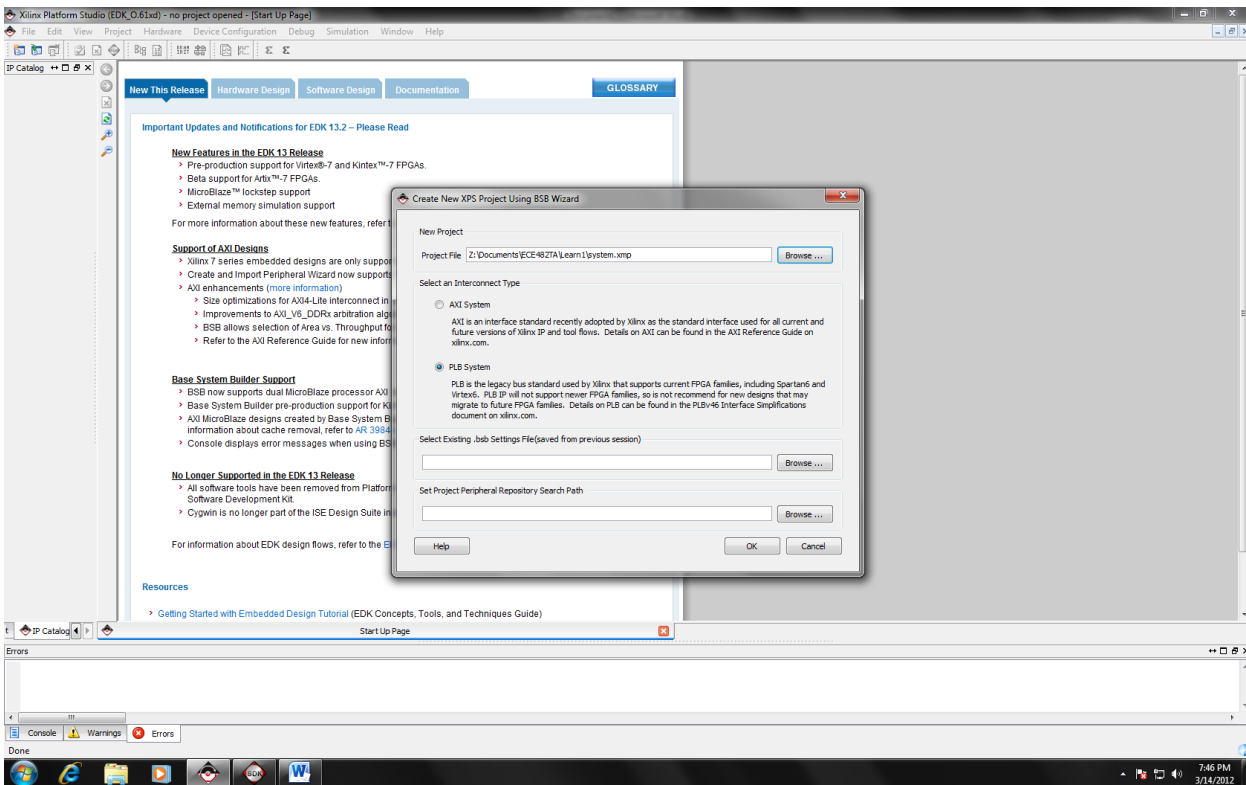


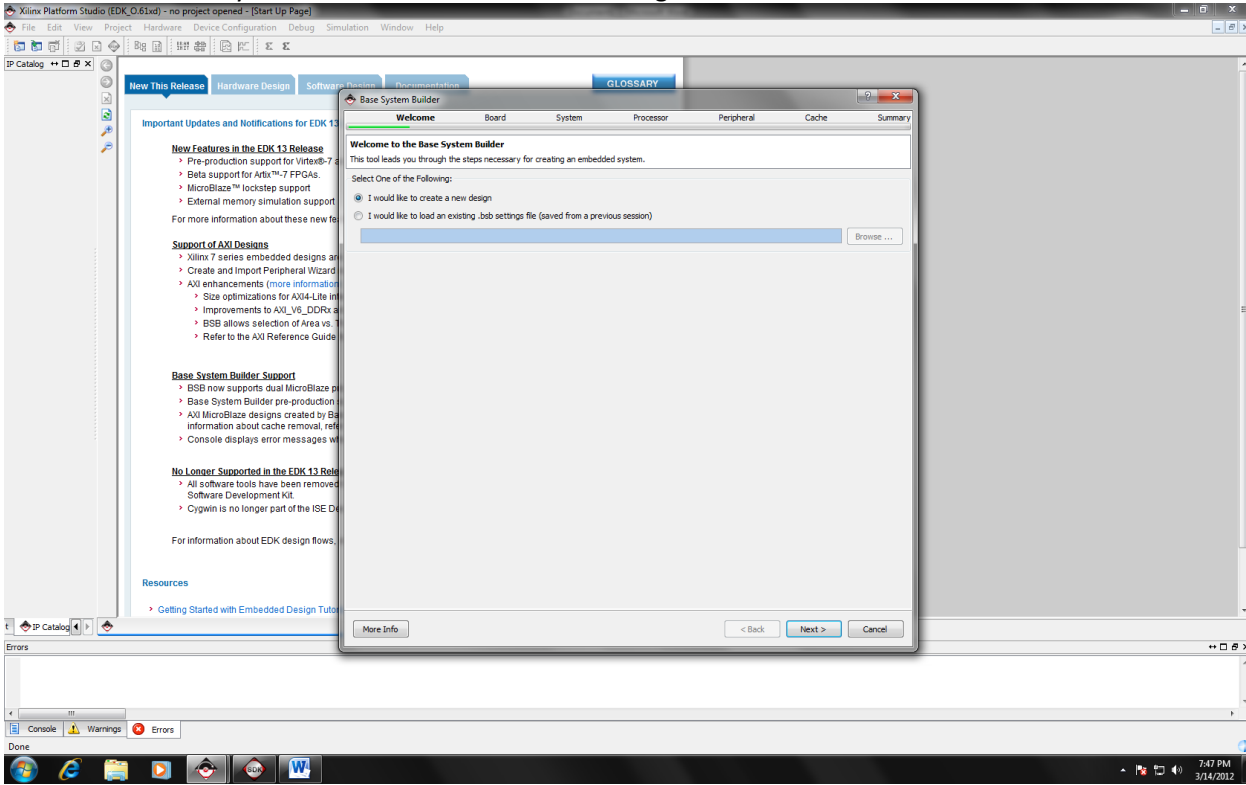
## 1. Open the EDK Xilinx Platform Studio- Select the Base System Builder Wizard – click OK



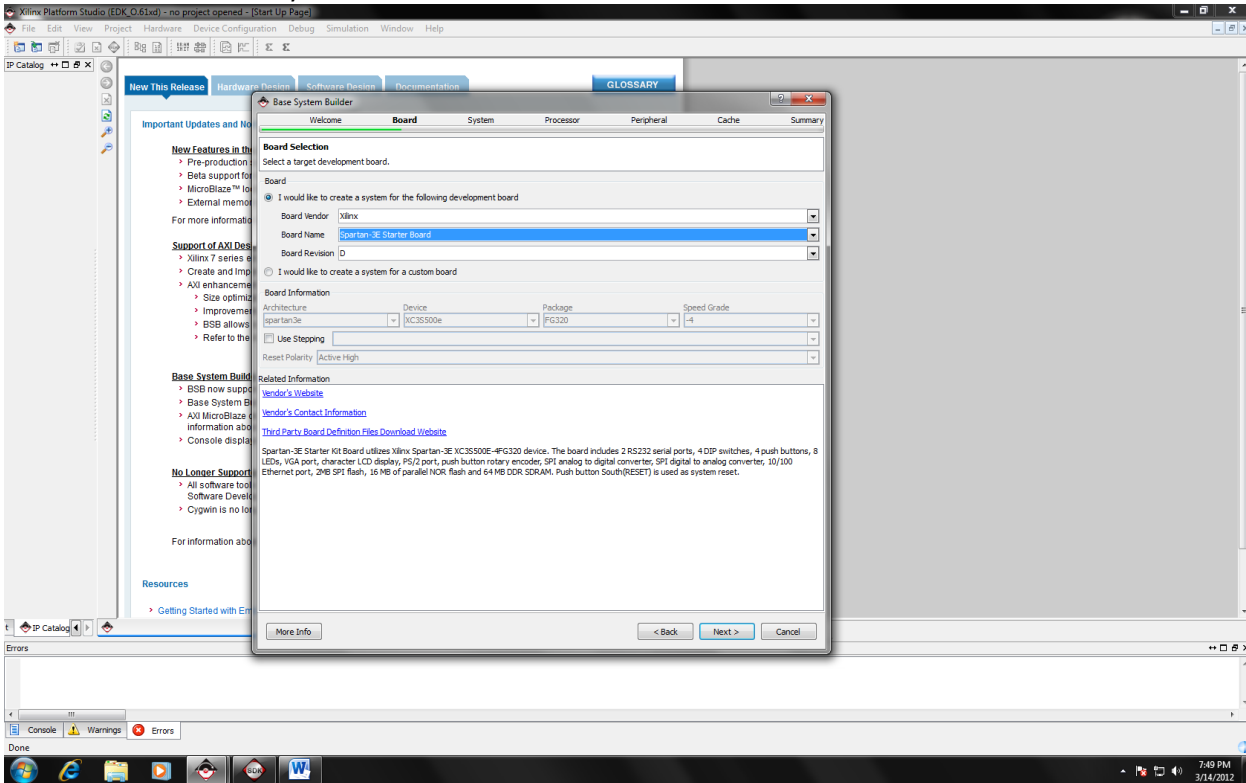
## 2. Create a project file in your Z: drive (it must be in a non-root folder) and make sure that the PLB System is selected



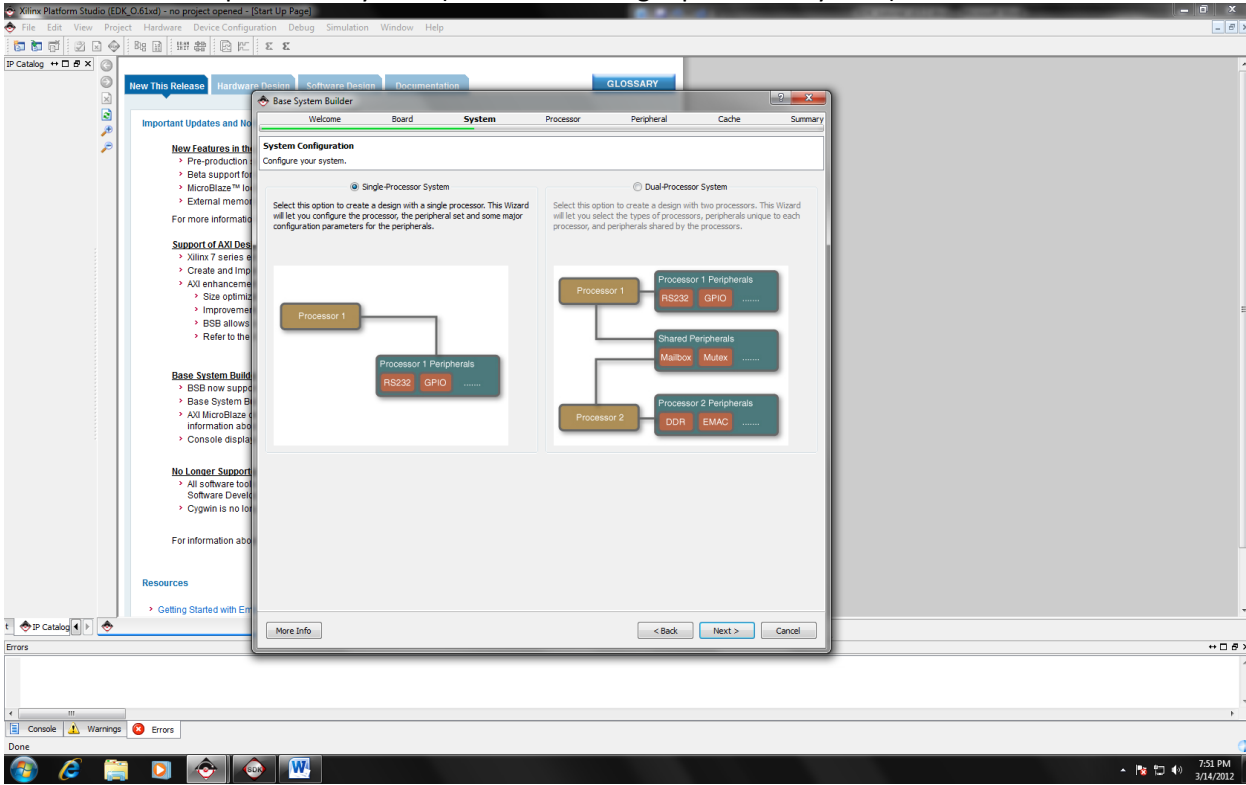
### 3. Select that you would like to create a new design and hit next



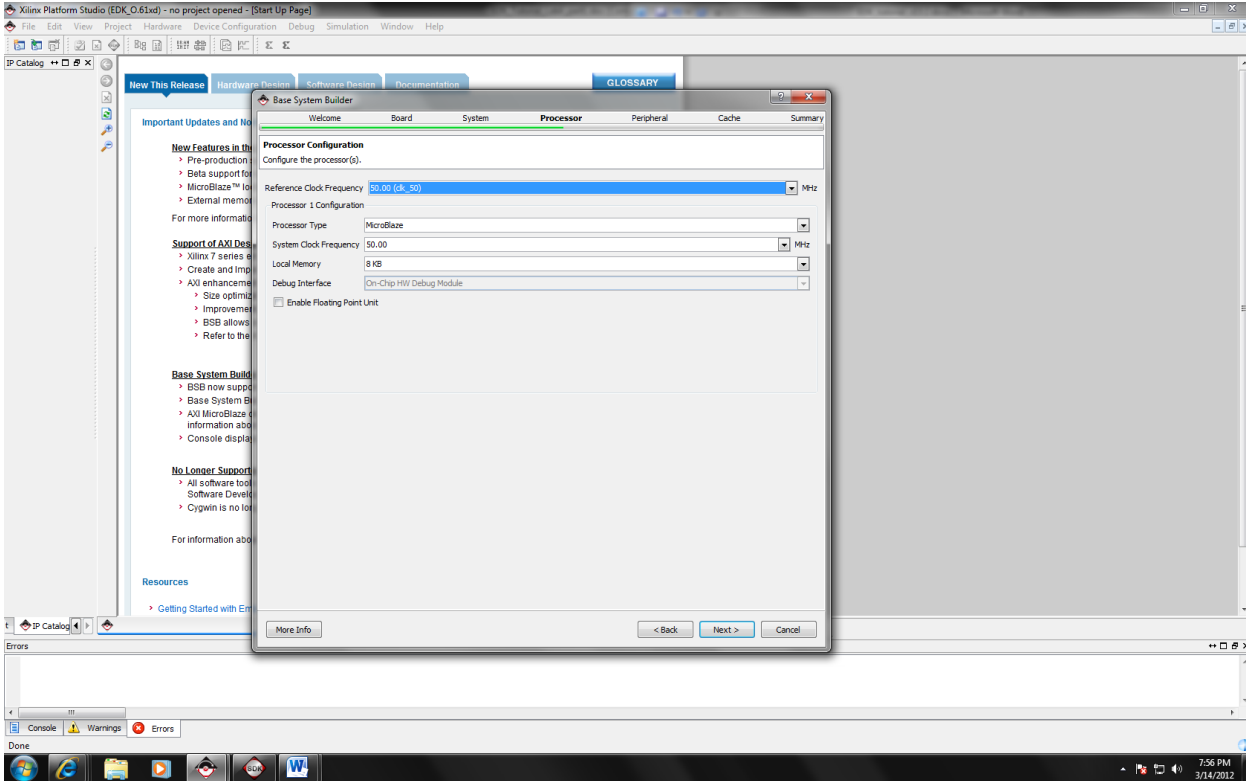
### 4. Make sure that you select the SPARTAN-3E STARTER BOARD under board name – click next



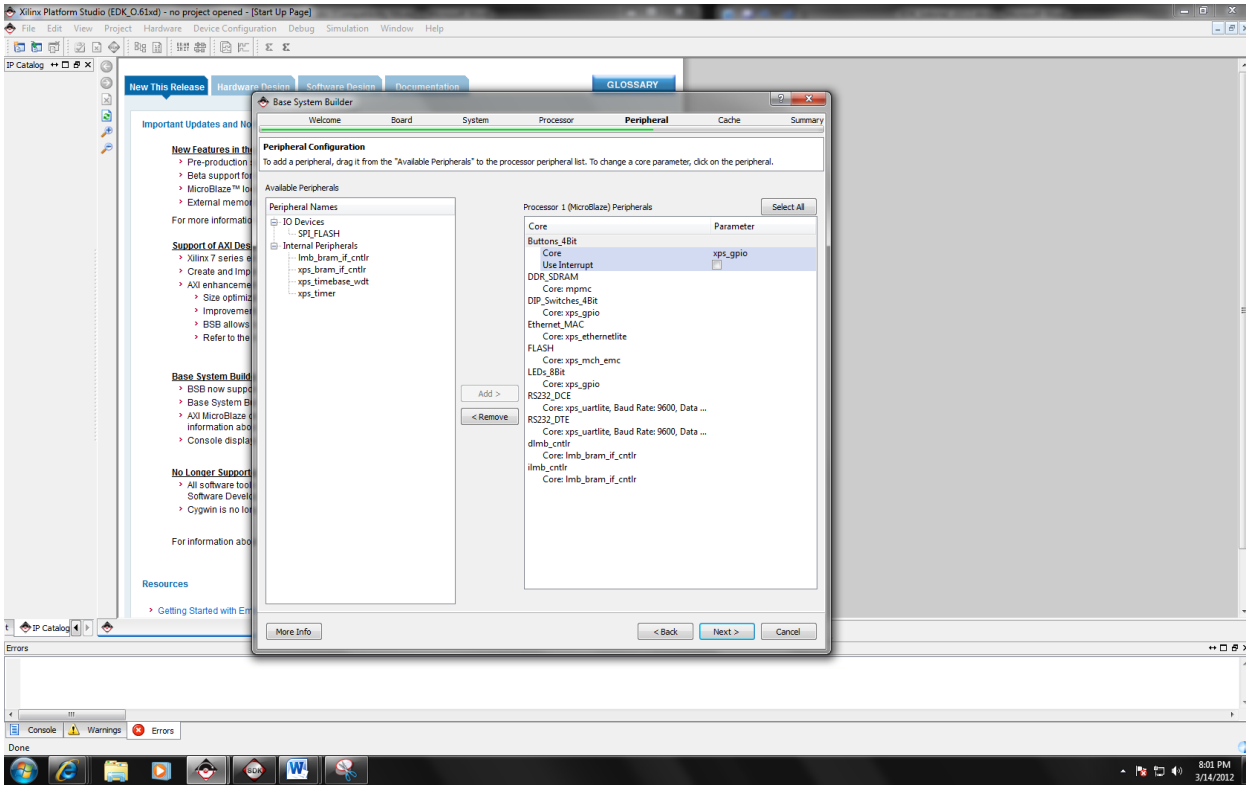
## 5. Select the processor system (we want the single-processor system)- click next



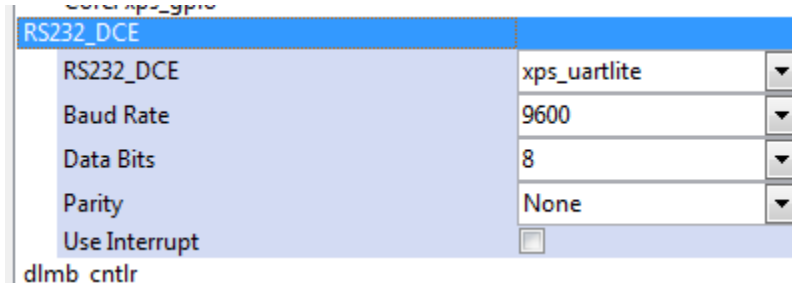
## 6. Maintain the Processor Type: MicroBlaze, at 50 Mhz, with an 8KB local memory



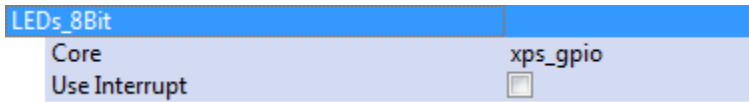
7. We now select the different peripheral and internal devices to be used in the computer system.



- a. Remove the RS232\_DTE and only keep the RS232\_DCE
  - i. The RS232\_DCE has a 9600 baud rate with 8 data bits and none parity



- b. Keep the LED and make sure that it is connected to the xps\_gpio



- c. Keep the DIP\_switches with parameter xps\_gpio



d. Keep the DDR\_SDRAM, dlmb\_cntlr, ilmb\_cntlr

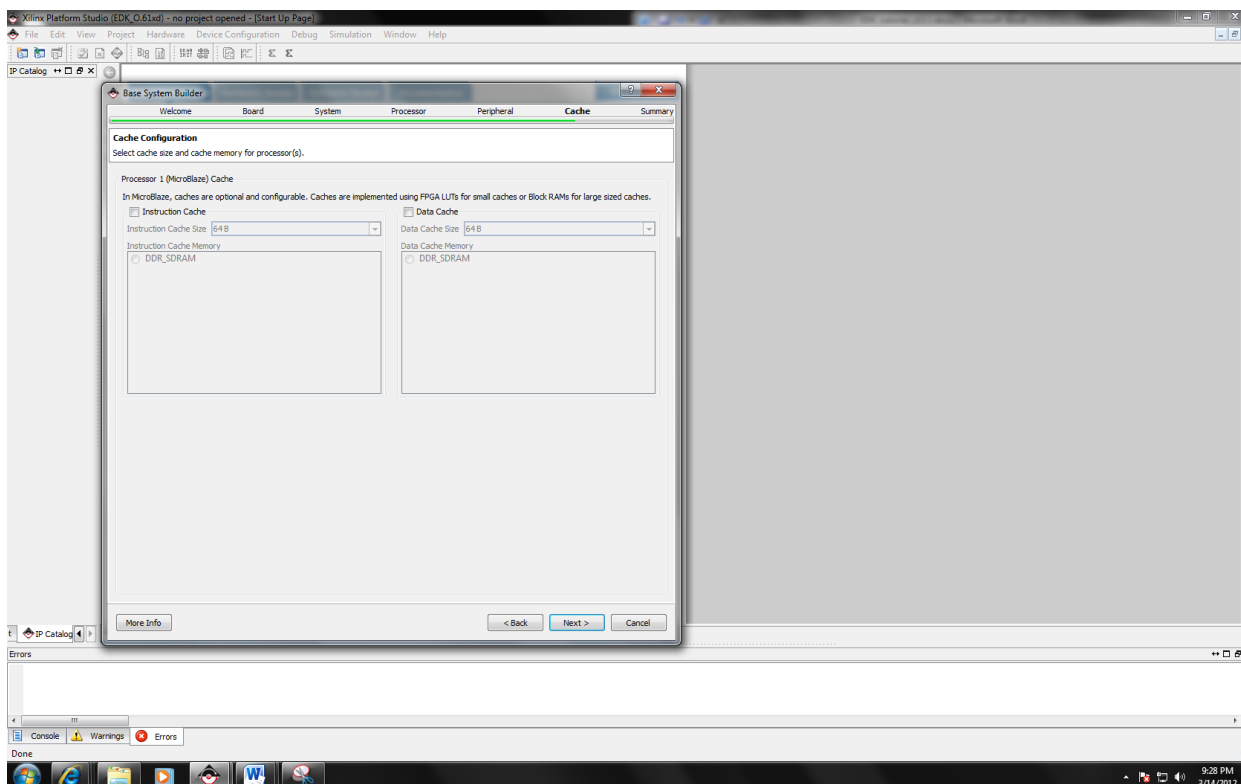
Core	Parameter
DDR_SDRAM	
Core	mpmc
DIP_Switches_4Bit	
Core	xps_gpio
LEDs_8Bit	
Core	xps_gpio
RS232_DCE	
Core	xps_uartlite, Baud Rate: 9600, Data ...
dlmb_cntlr	
Core	lmb_bram_if_cntlr
ilmb_cntlr	
Core	lmb_bram_if_cntlr

e. Remove the Ethernet\_MAC

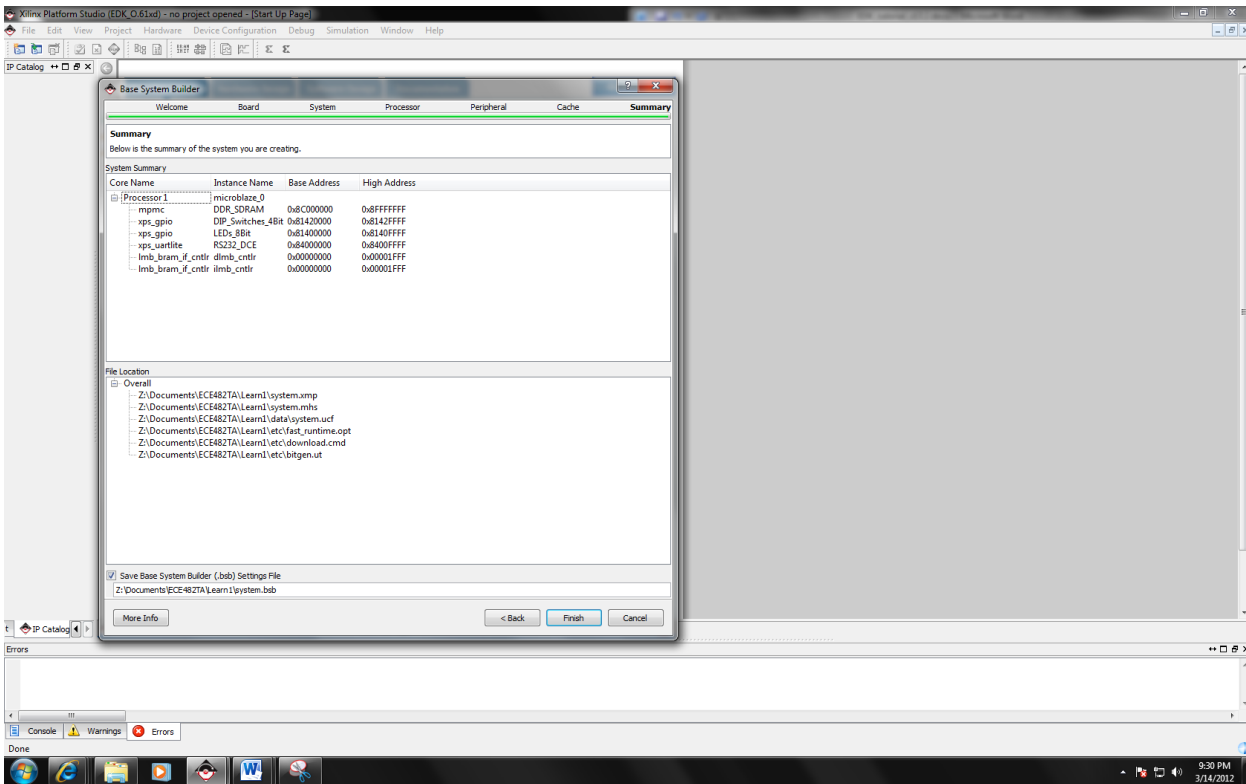
f. Remove the Buttons\_4bit

g. Remove theFLASH

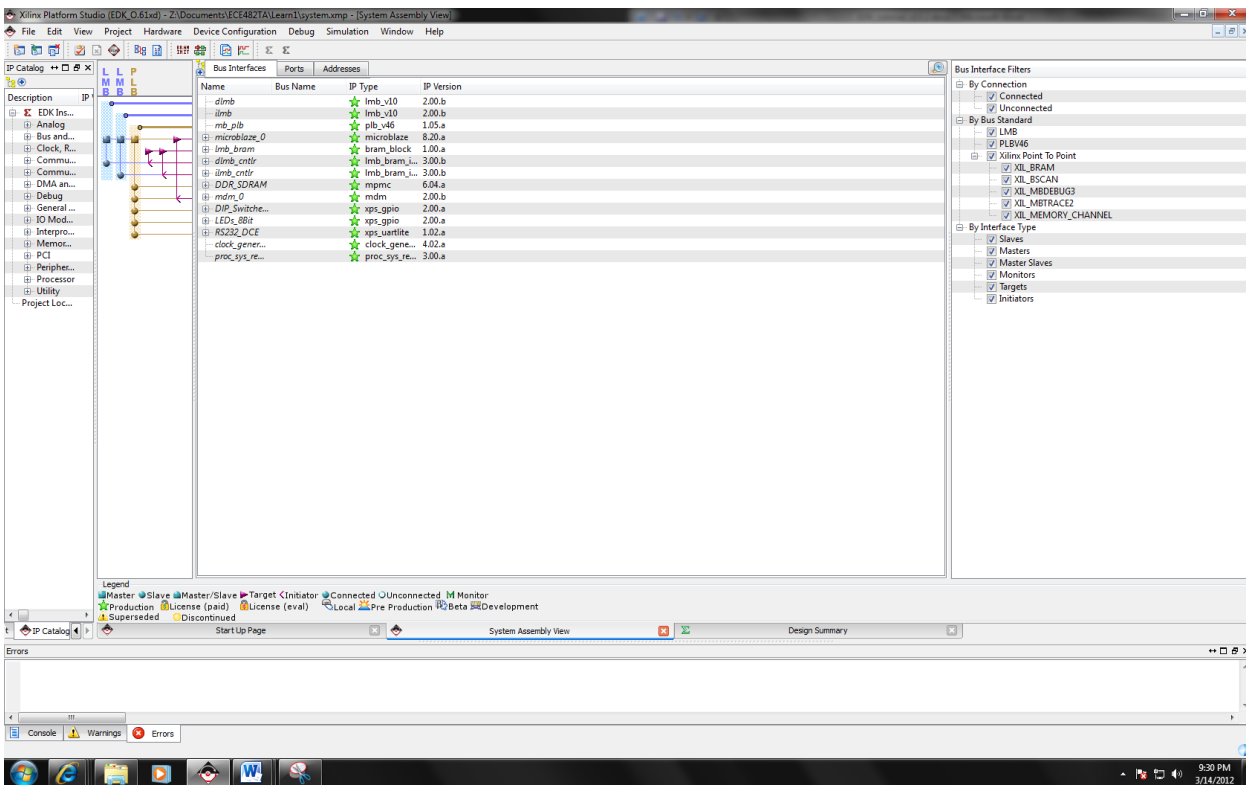
8. You may skip the Cache configuration and do not select any cache simply click next



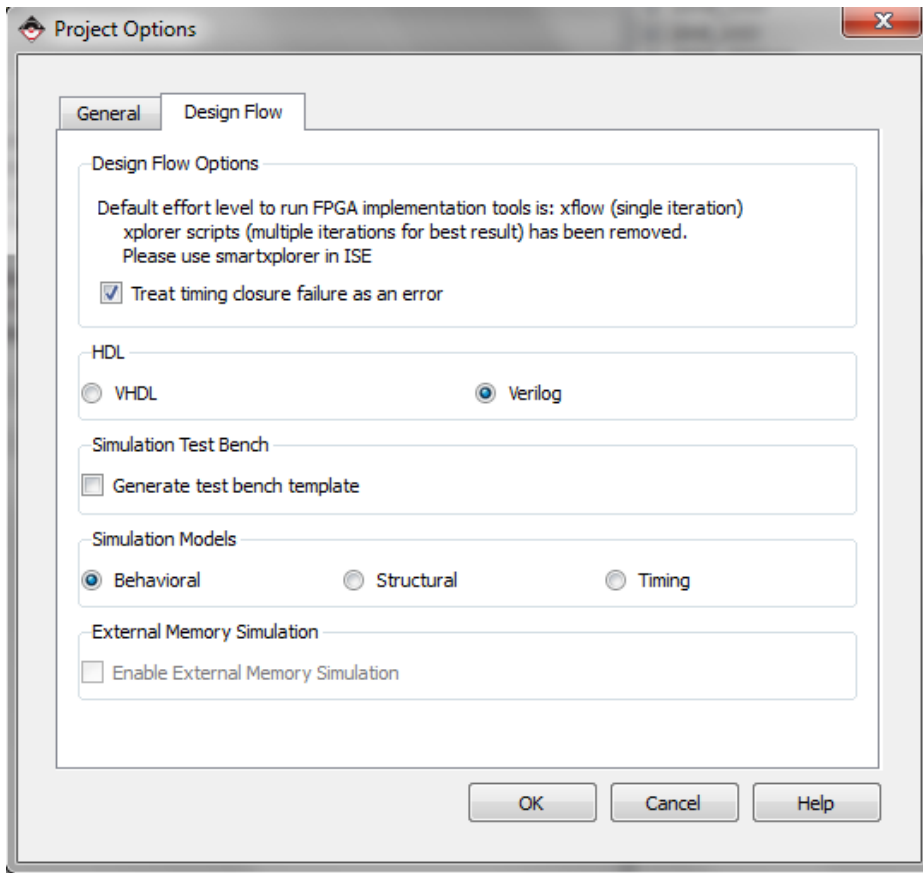
9. Review the summary of your system and press finish. Notice the name of your system.bsb at the bottom of the screen and notice where it is being stored.



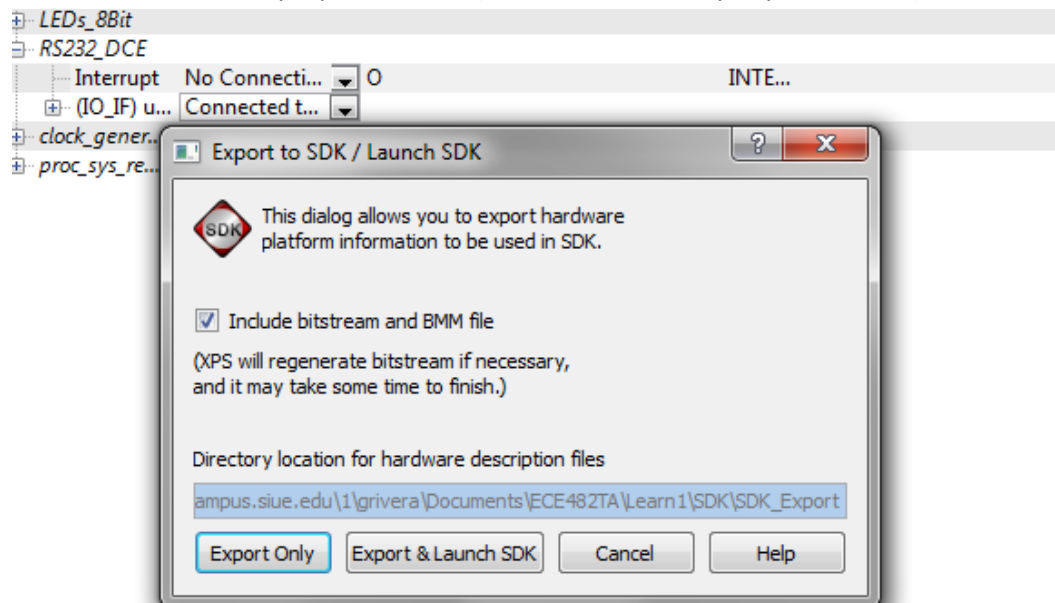
10. Now the environment will look like this. Please take the time to familiarize yourself.



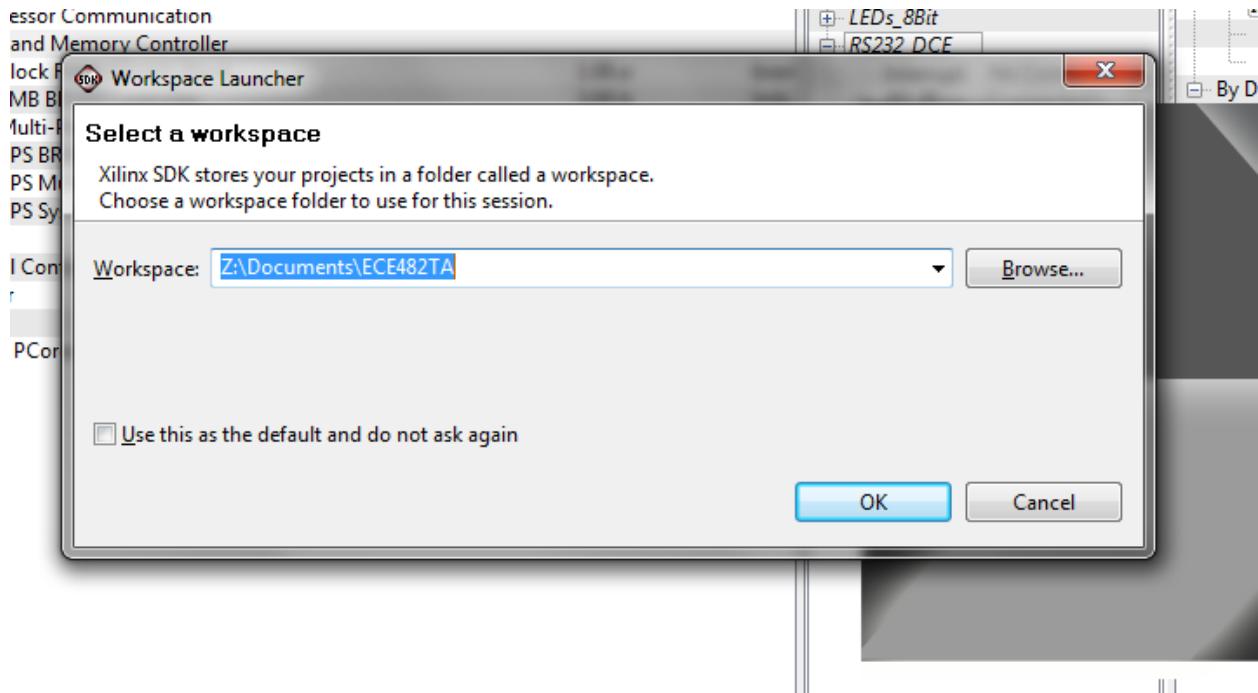
11. Now go to Project>> Project options and this window will show up. Change the HDL to Verilog. Then click ok.



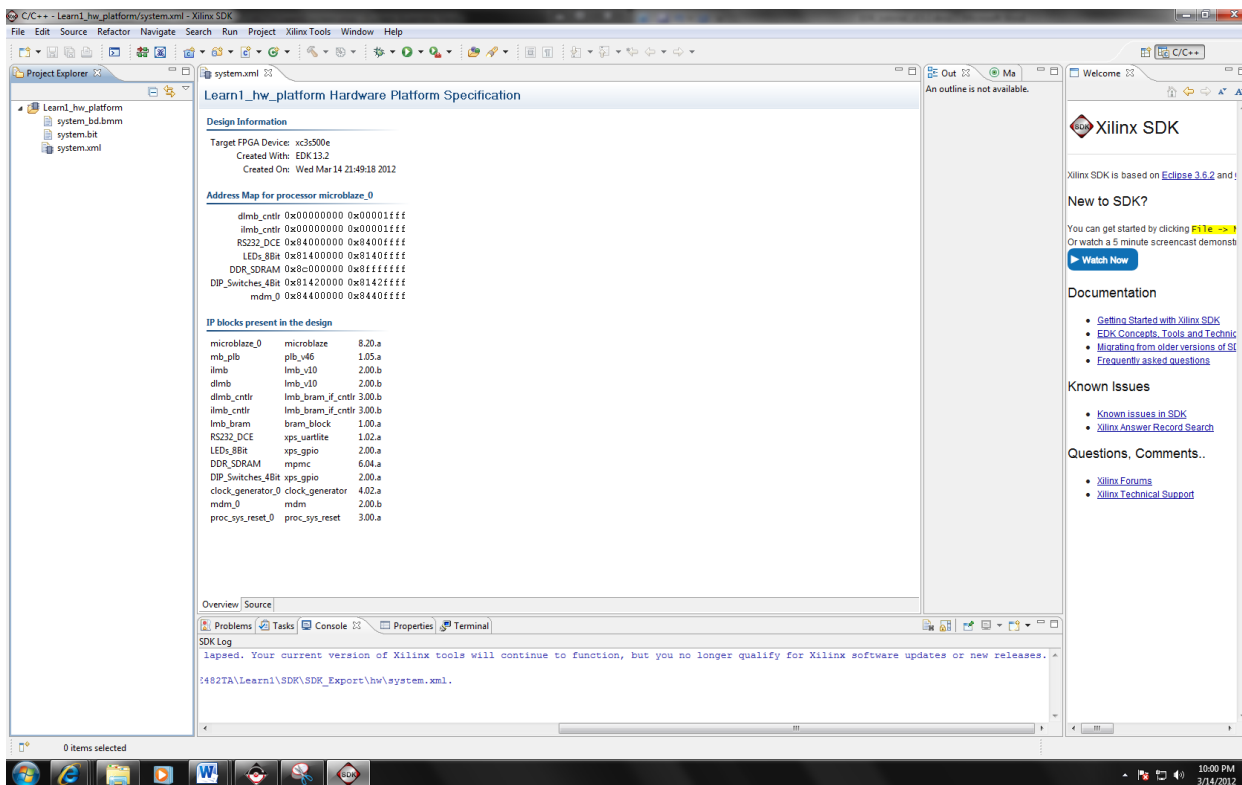
12. Now we go to Project>> Export Hardware Design XPS SDK. When this window shows up. Be sure to say that you want to Export & Launch SDK. ALSO, IT IS VERY IMPORTANT THAT YOU REMEMBER WHERE THE FILES ARE BEING STORED FROM THE DIRECTORY LOCATION. This will take a couple of minutes, but once the SDK message appears be sure to save the WORKSPACE in a proper director. (A non-root directory in your Z: drive). Once finished the



SDK will open.

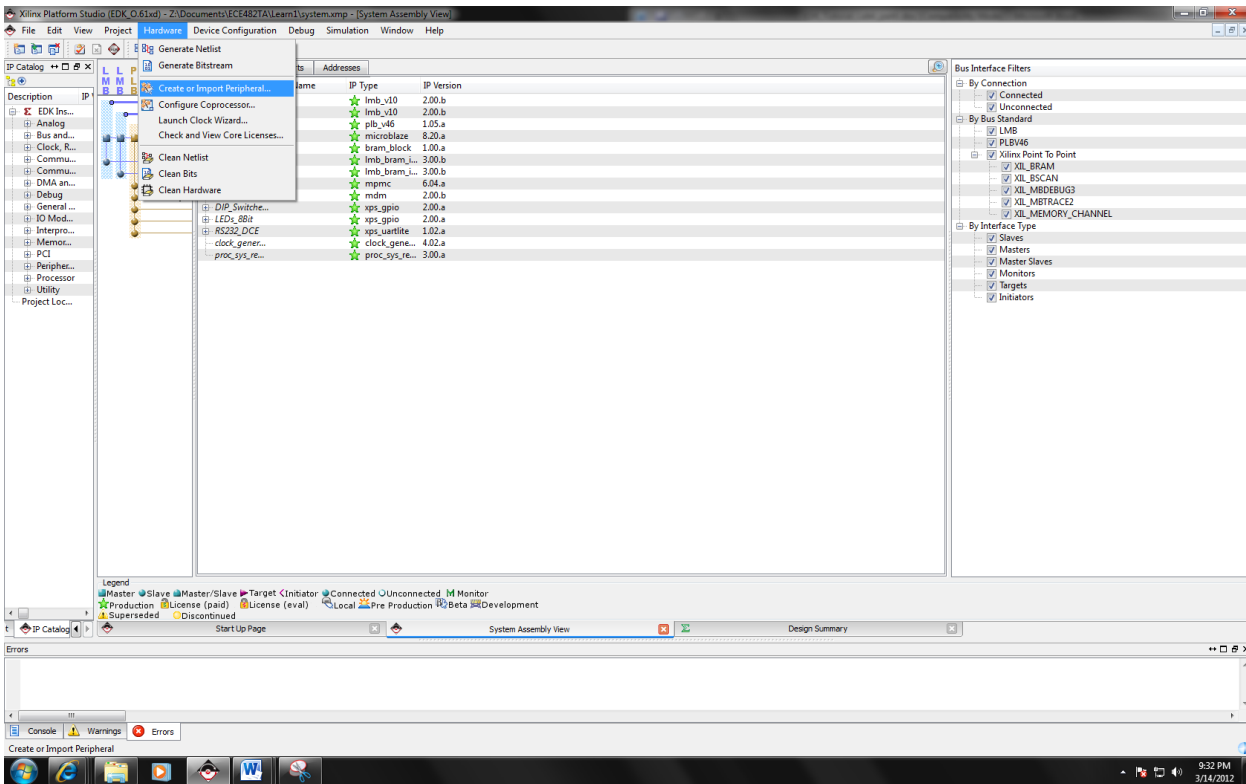


13. The environment for the SDK looks like this. Take some time to familiarize yourself.

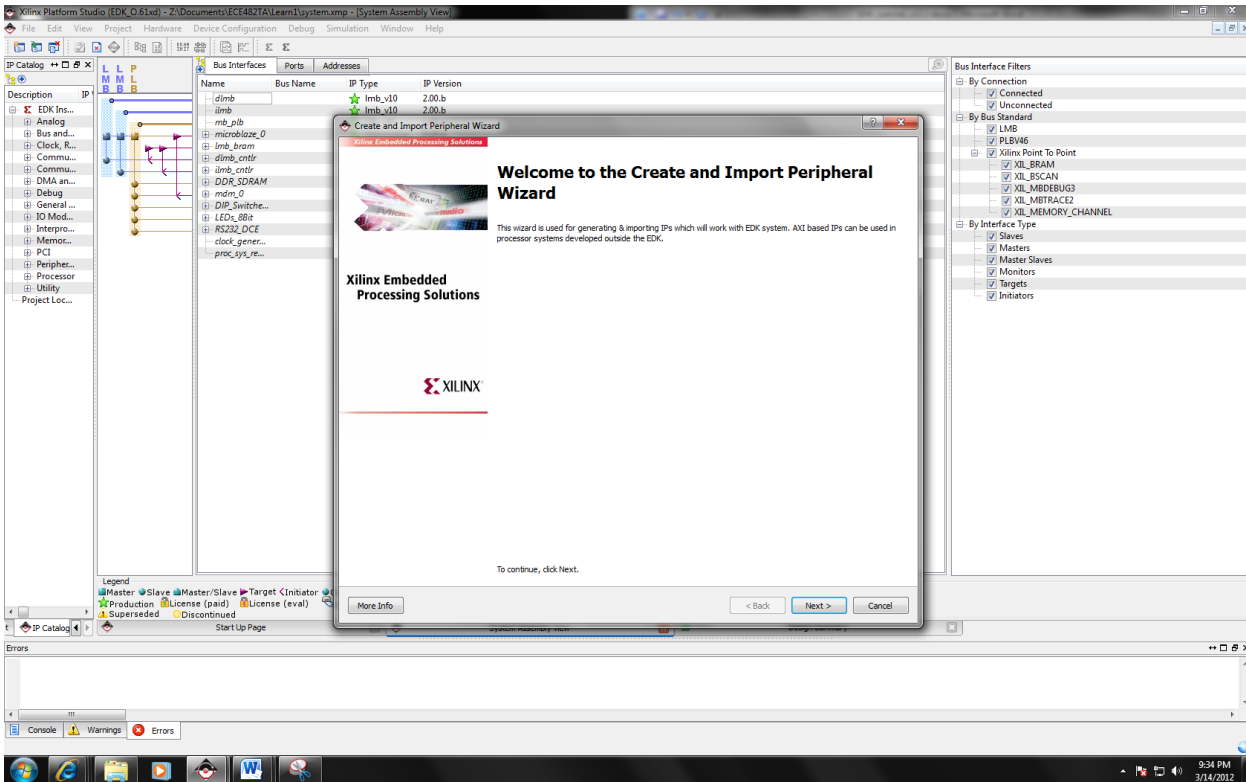


14. Now select Hardware >> Create or Import Peripheral from the top menus





15. This wizard window will appear. Click next to continue



16.