



## How to use MPLABX to program and debug PICsimLab

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<http://sourceforge.net/projects/picsim/>

November 2, 2015

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# Chapter 1

## Installing the Necessary Tools

### 1.1 Install MPLABX IDE and XC8 Compiler

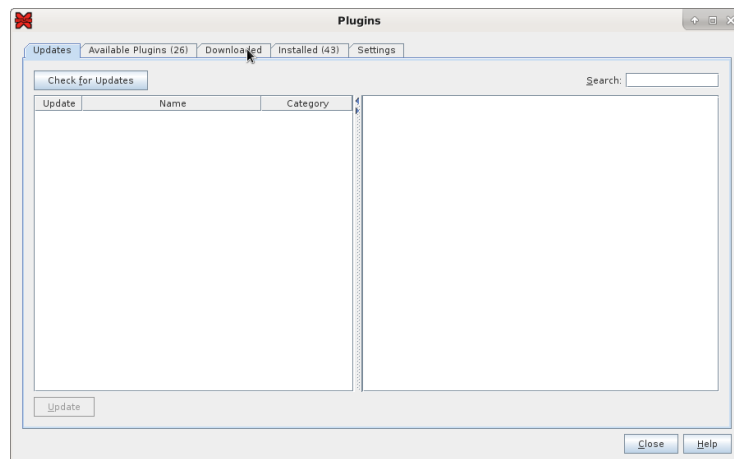
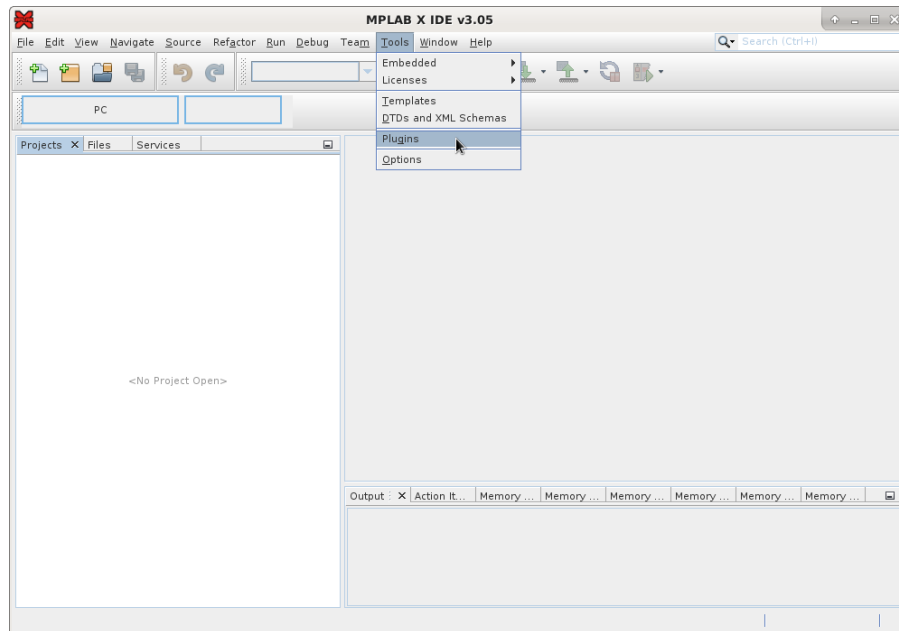
Links for download [MPLABX IDE](#) and [XC8 Compiler](#) installers. Download and install.

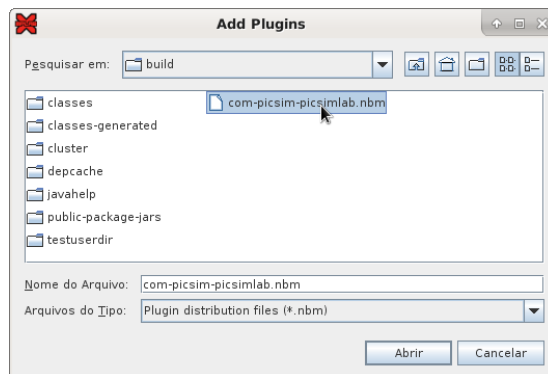
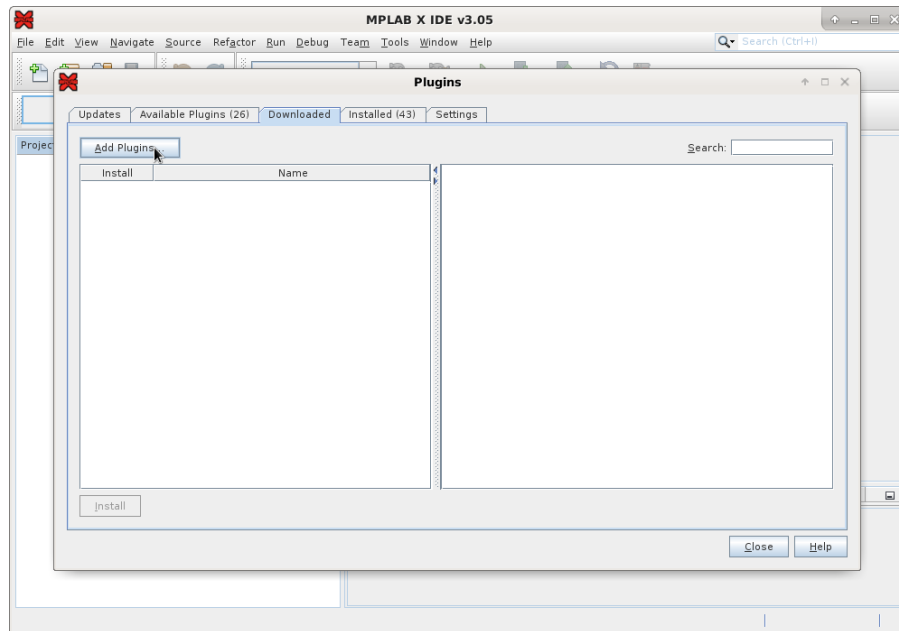
### 1.2 Install PICsimLab

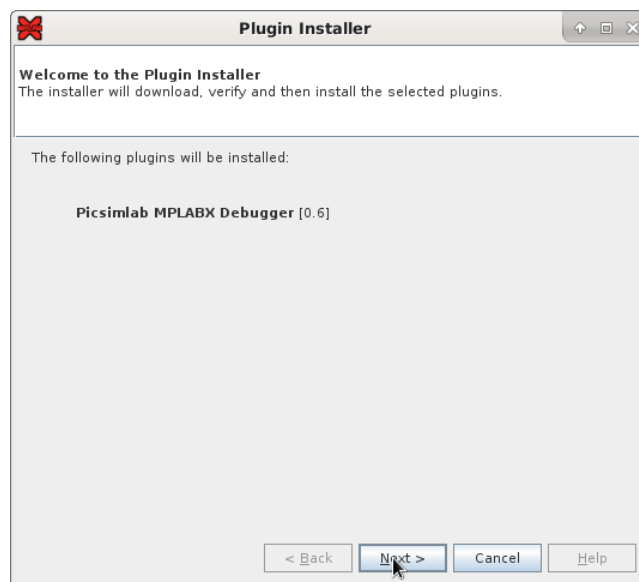
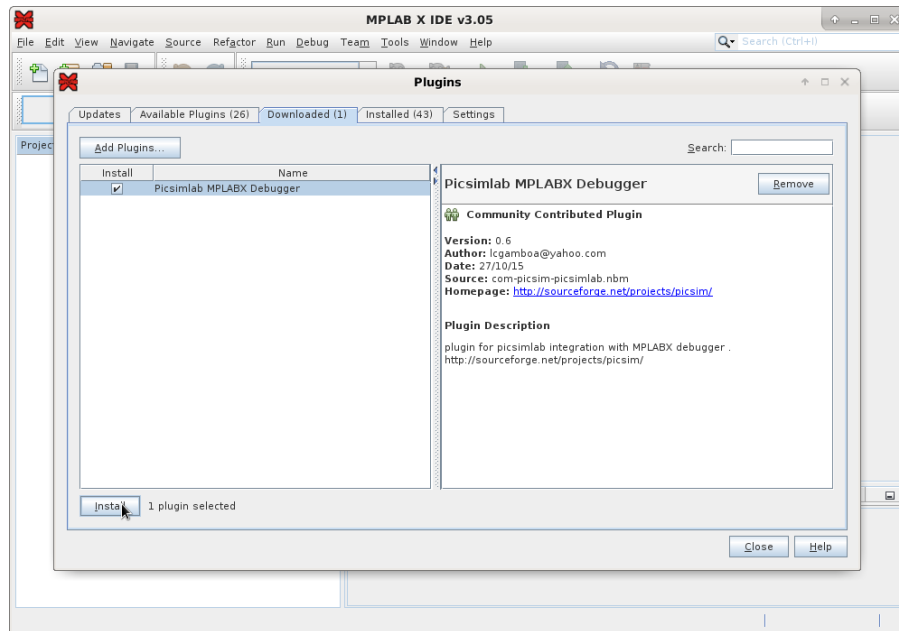
Link for download [PICsimLab-0.6](#) installer. Download and install

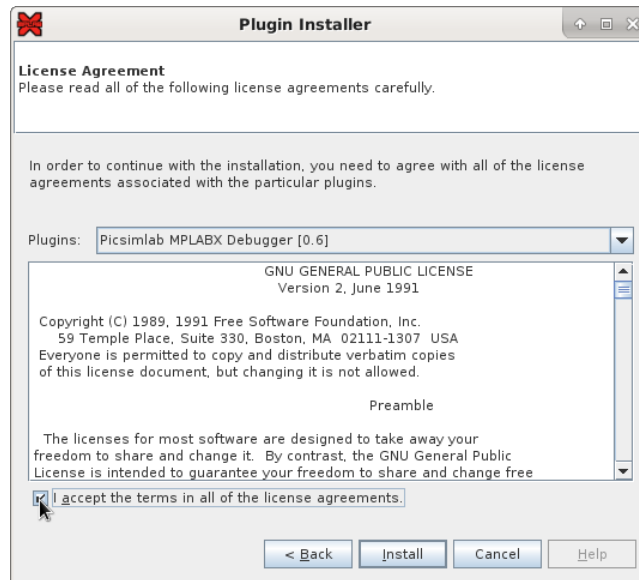
### 1.3 How to Install PicsimLab MPLABX Debugger plugin

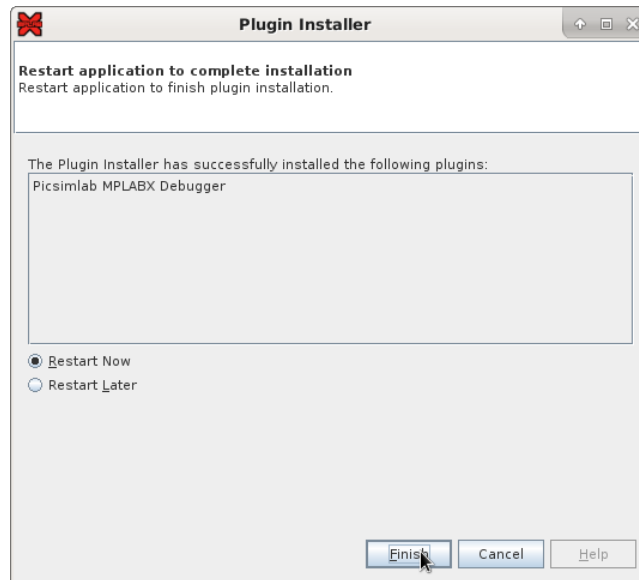
Link for download [PicsimLab MPLABX Debugger plugin \(com-picsim-picsimlab.nbm\)](#)









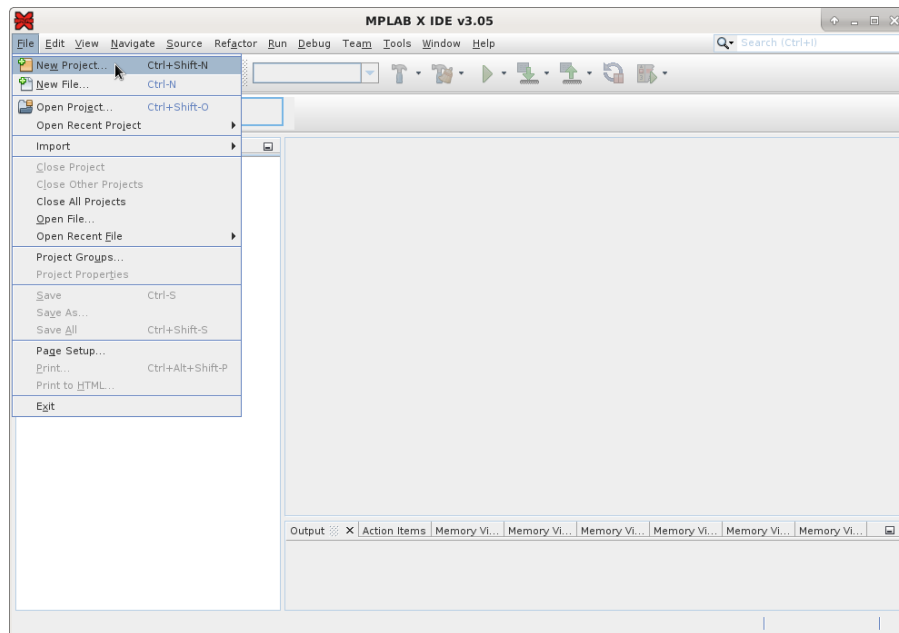


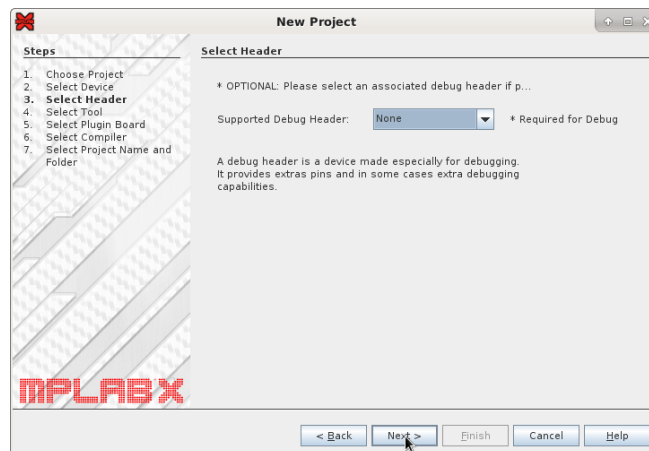
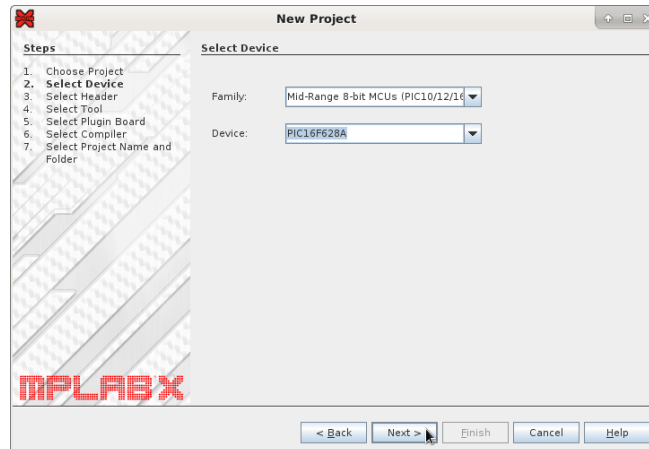
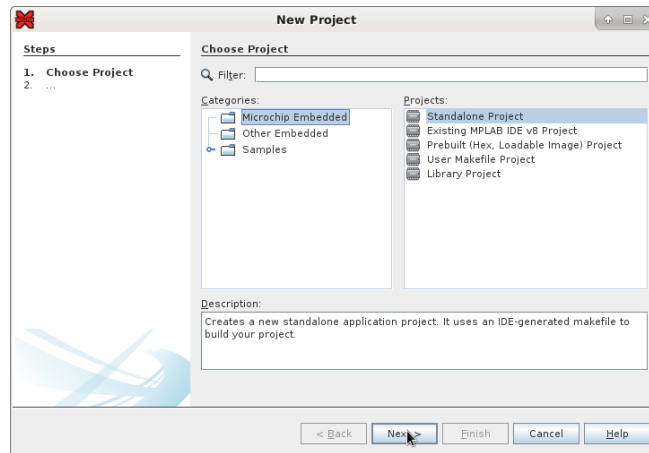


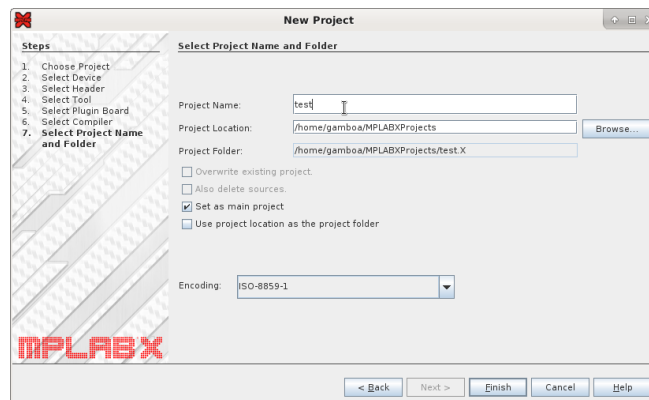
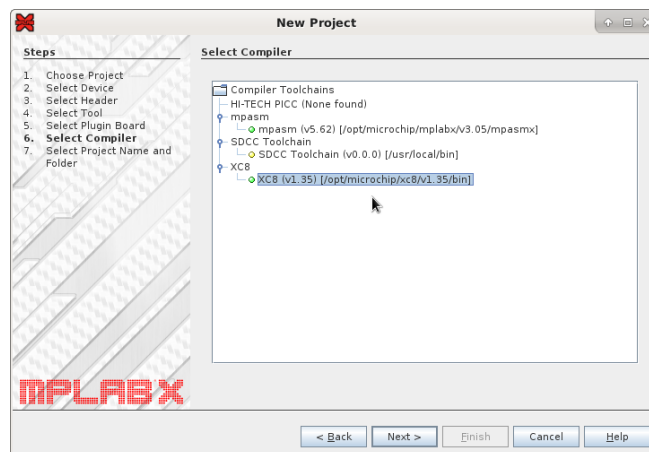
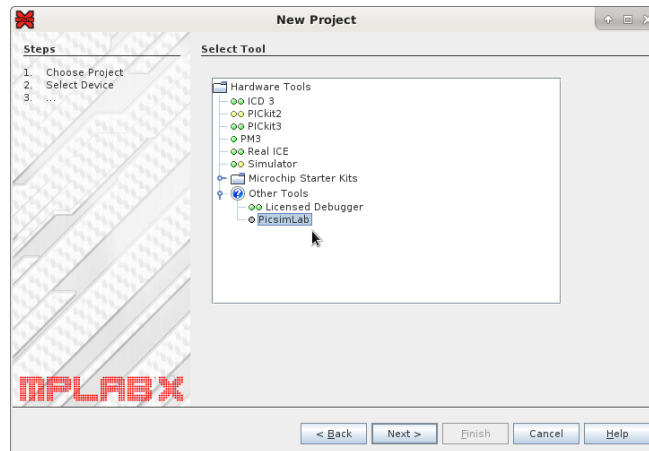
## Chapter 2

# Configuring a New Project in MPLABX

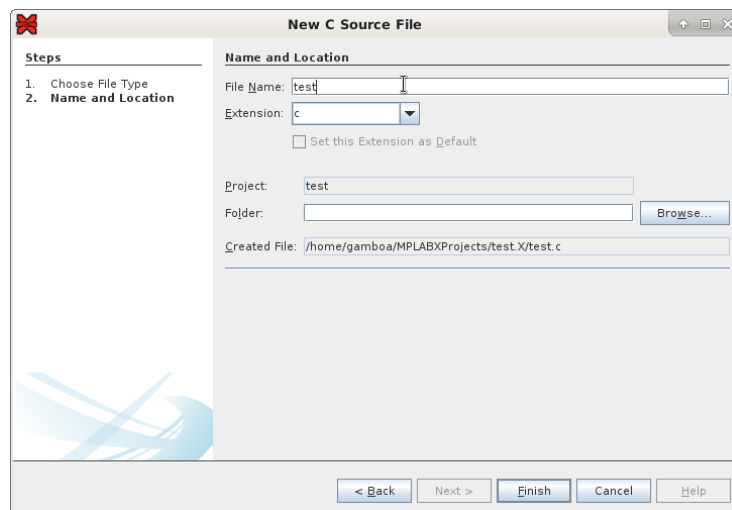
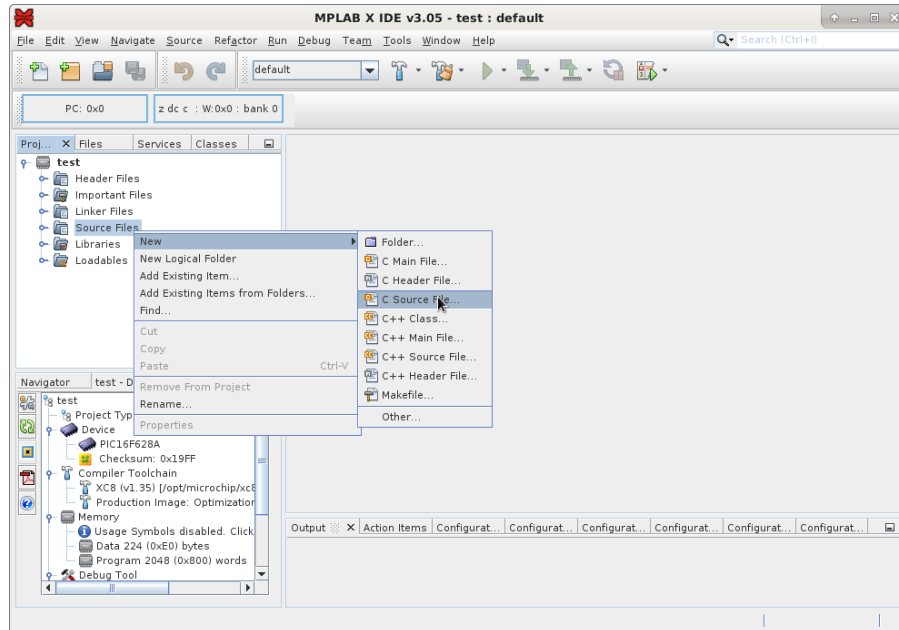
### 2.1 Project Creation



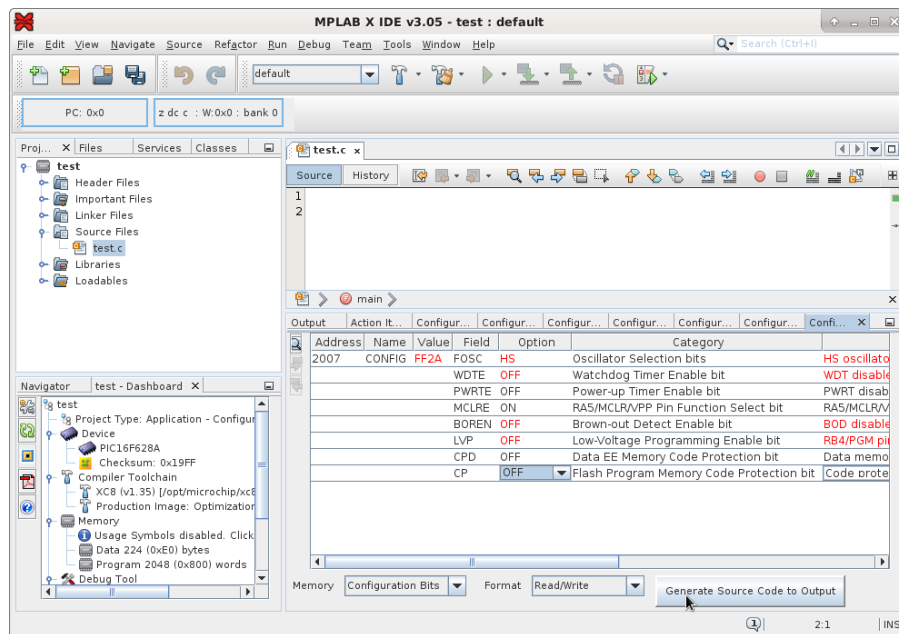
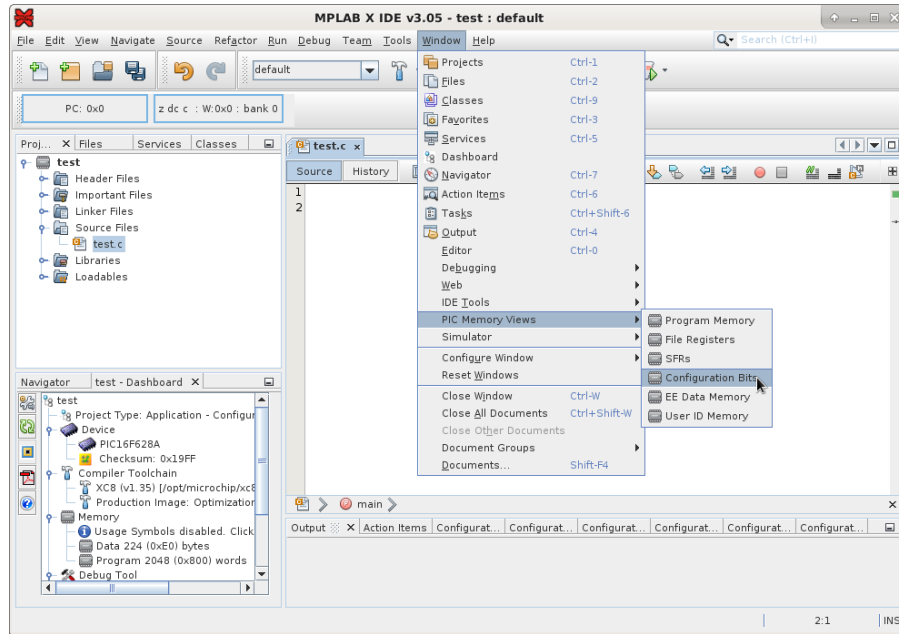


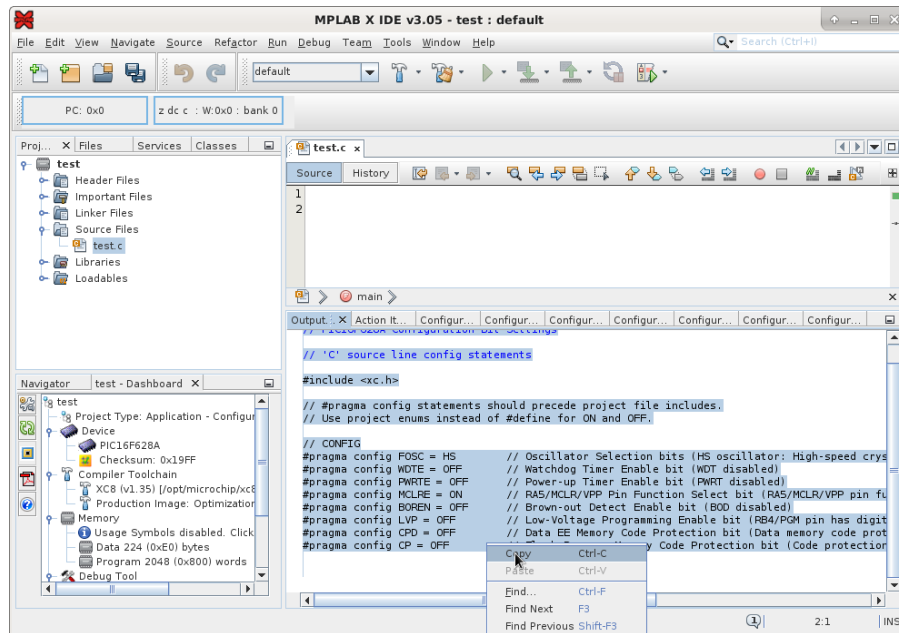


## 2.2 File Creation



## 2.3 PIC Configuration Bits

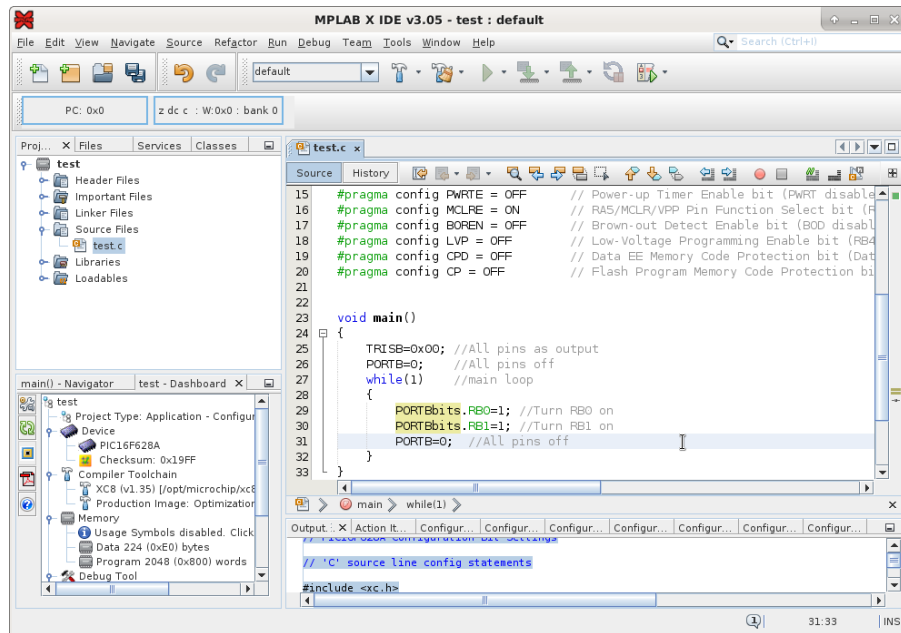




## 2.4 Code Example

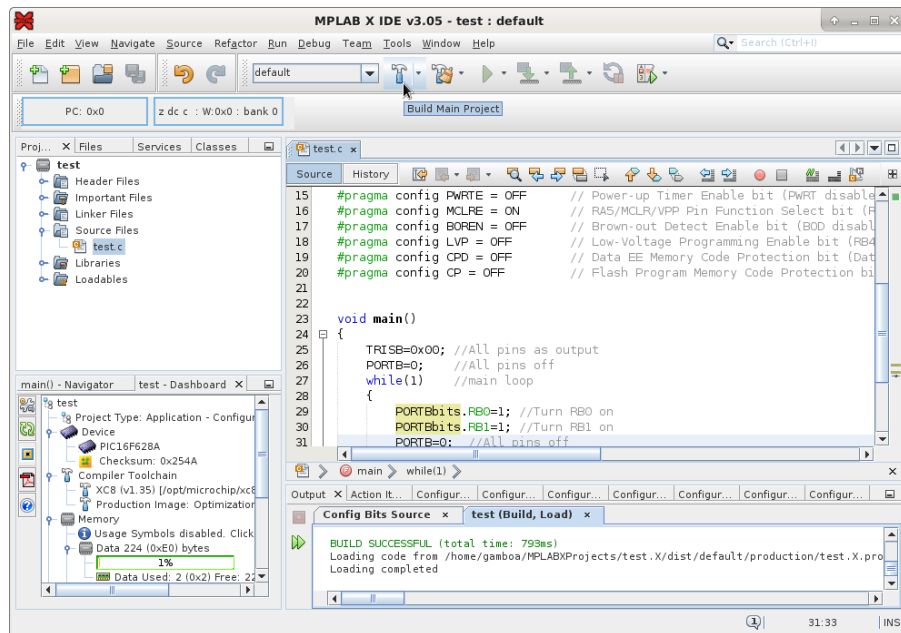
Paste the configuration and this simple code example in test.c:

```
void main()
{
    TRISB=0x00; //All pins as output
    PORTB=0;    //All pins off
    while(1)    //main loop
    {
        PORTBbits.RB0=1; //Turn RB0 on
        PORTBbits.RB1=1; //Turn RB1 on
        PORTB=0;    //All pins off
    }
}
```



## 2.5 Building the Project

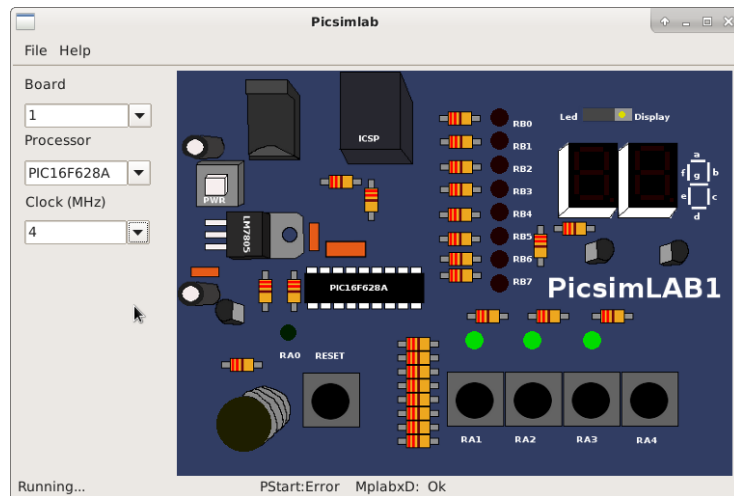
Use the **Build** button and wait for the message “**BUILD SUCCESSFUL**”.



## Chapter 3

# Program and Debug PICsimLab With MPLABX

### 3.1 Starting PICsimLab

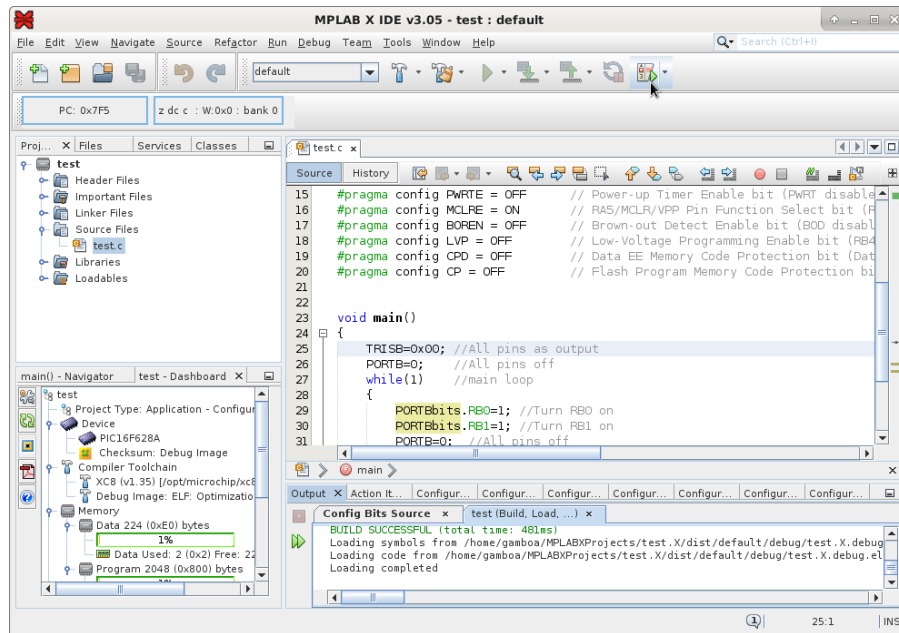


The plugin connect to Picsimlab through a TCP socket using port 1234, and you have to allow the access in the firewall. Verify in the PICsimLab statusbar the message “MplabxD: Ok”. It’s show debugger server state.

### 3.2 Programming PICsimLab

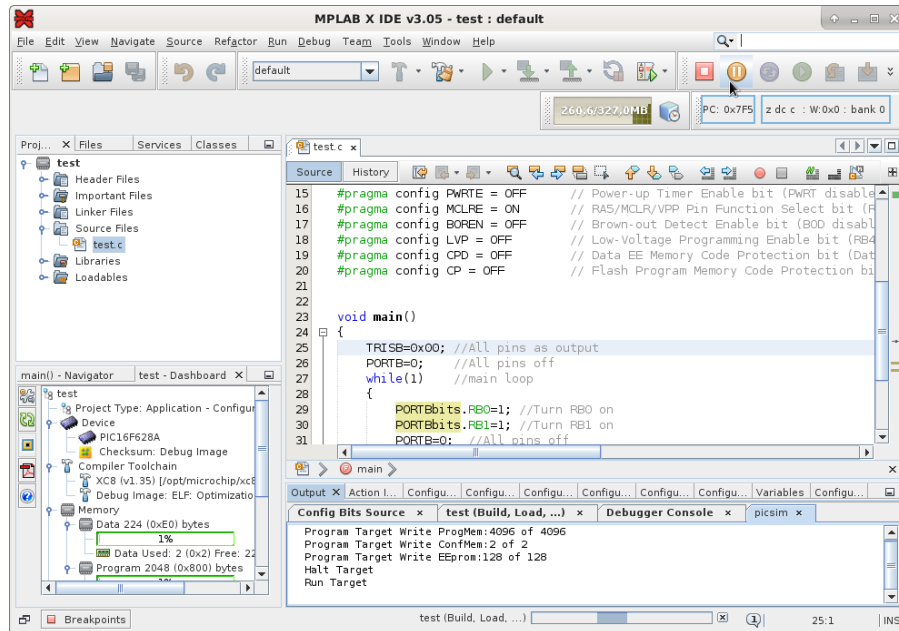
Use the **Debug** button to programming PICsimLab.





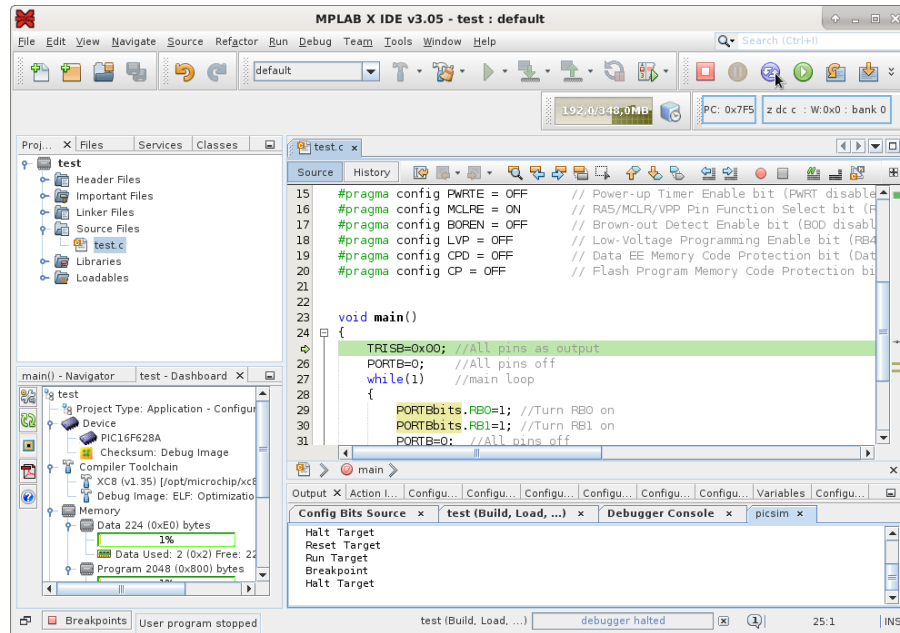
### 3.3 Pausing the Program

Use the **Pause** button to stop the program and inspect the code and memory.



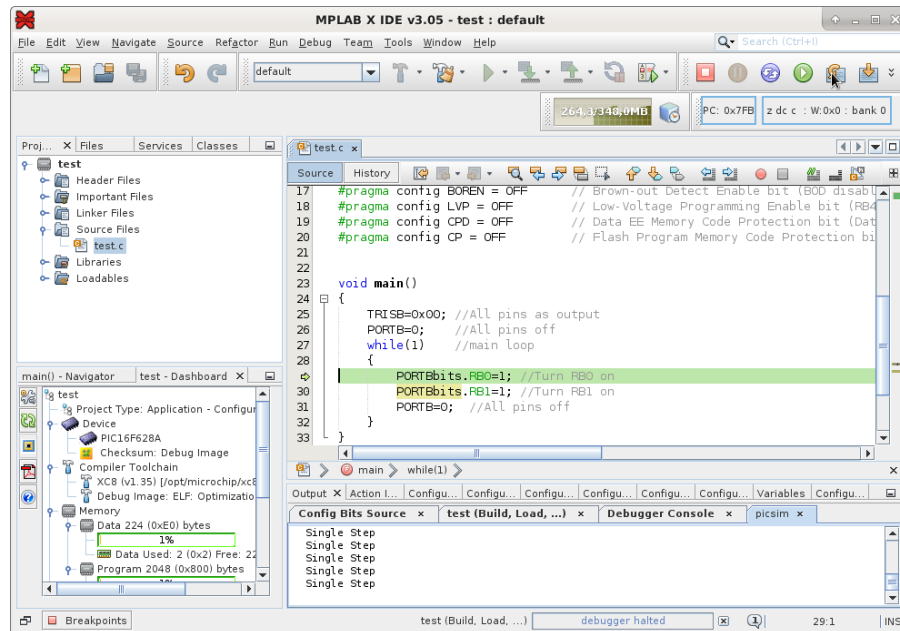
### 3.4 Restarting the Program

Use the **Restart** button to restart the program.

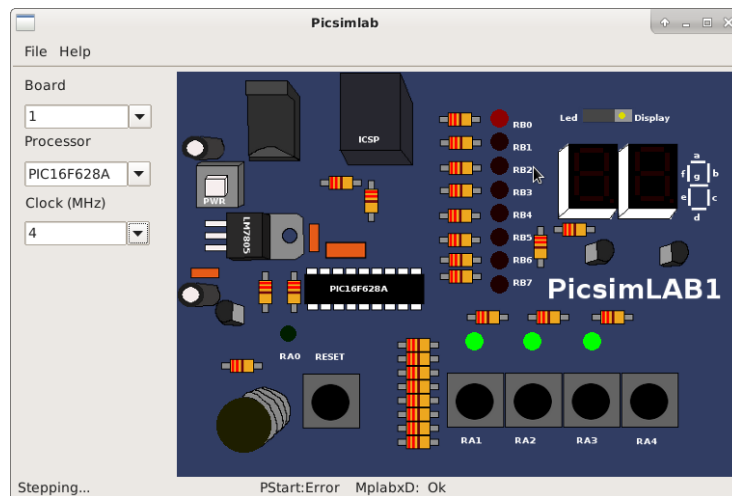


### 3.5 Running Step by Step

Use the **Step** or **Step Over** button to run the program step by step.

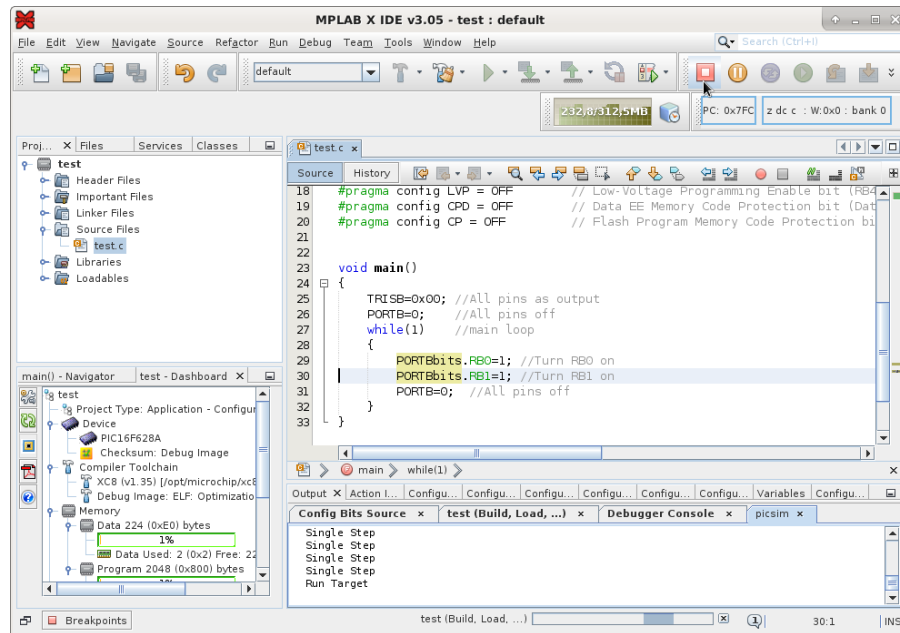


See in the PICsimLab the changes of each step.



### 3.6 Stopping Debugger

Use the **Stop** button to turn off the MPLABX debugger. The program continues running in PICsimLab after MPLABX debugger is stopped.



## **Chapter 4**

# **This Tutorial in Video**

Link for Youtube video version of this tutorial: [How to use MPLABX to program and debug PcsimLab 0.6](#)

## Chapter 5

# License

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