How to make project in KEIL Complier

version 0.9 βeta

Table of Contents

Ver. 0.9. **βeta**   2

Firmwares of iMCU W7100 are designed by KEIL complier. This documentation describes how to make and open project in KEIL complier by using an example code of LOOPBACK TCP.

1 Create Project

After executing KEIL Complier, Select "New Project in Project" and click "New Project".
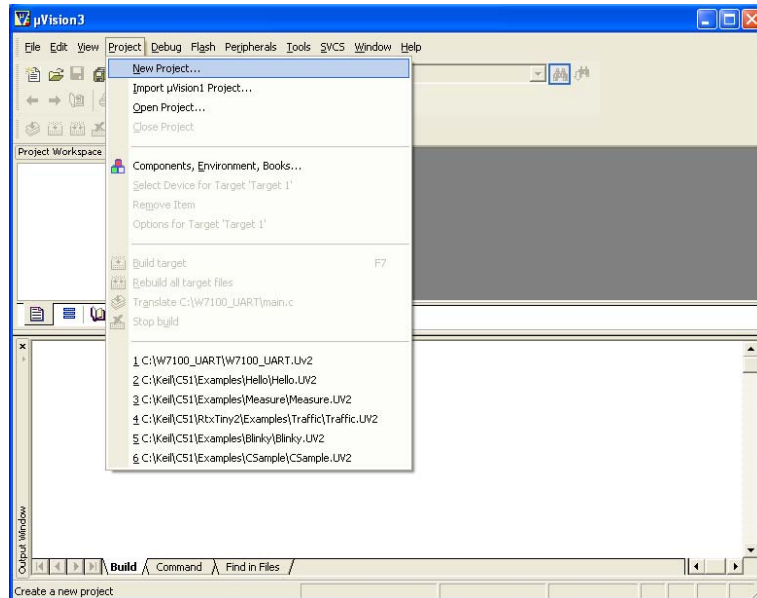

Figure 1 Project Creating

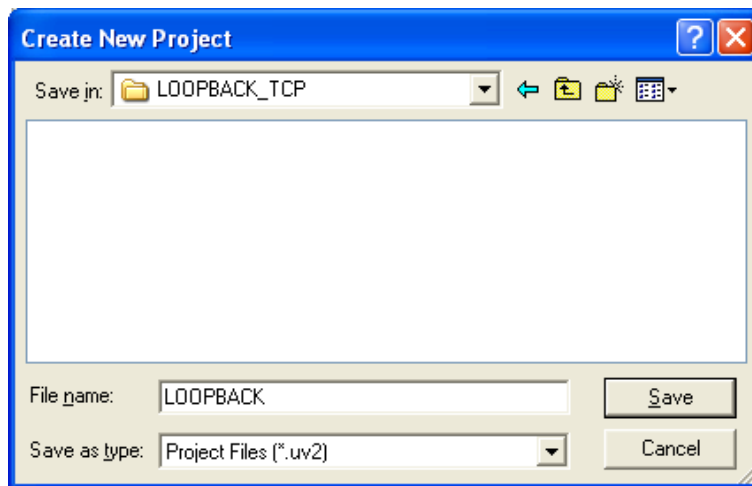Fill up the File name to create new project and click "Save" button.

Figure 2 Create New Project

Select "8052" at "Generic" in the Data base box to select Device and check the "Use Extended Linker(LX51) instead of BL51" box. Then click "OK" button.
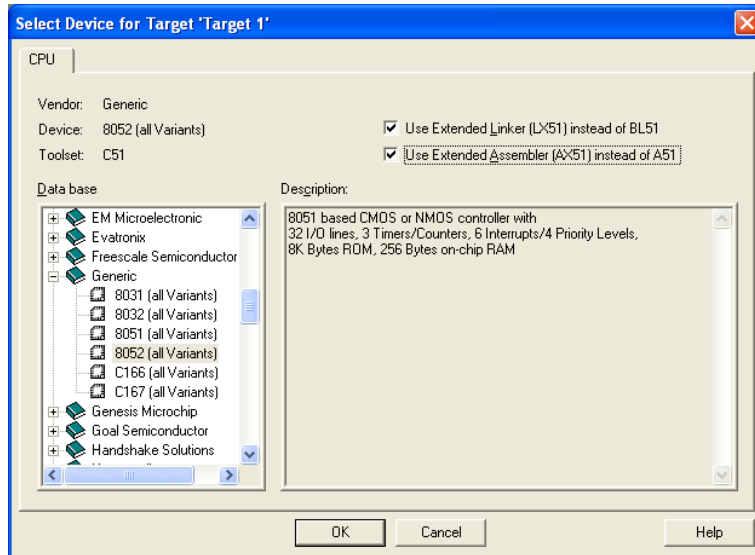

Figure 3 Select Device for Target

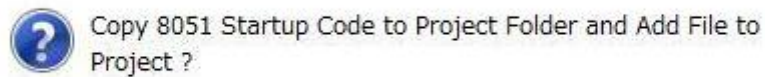Click "Yes(Y)" button to copy 8051 Startup.

Figure 4 Copy 8051 Startup Code

Ver. 0.9. **βeta**   4

2 Add Source files

Select "Target 1" in Project Workspace and push the mouse right button. Click "Manage Components"
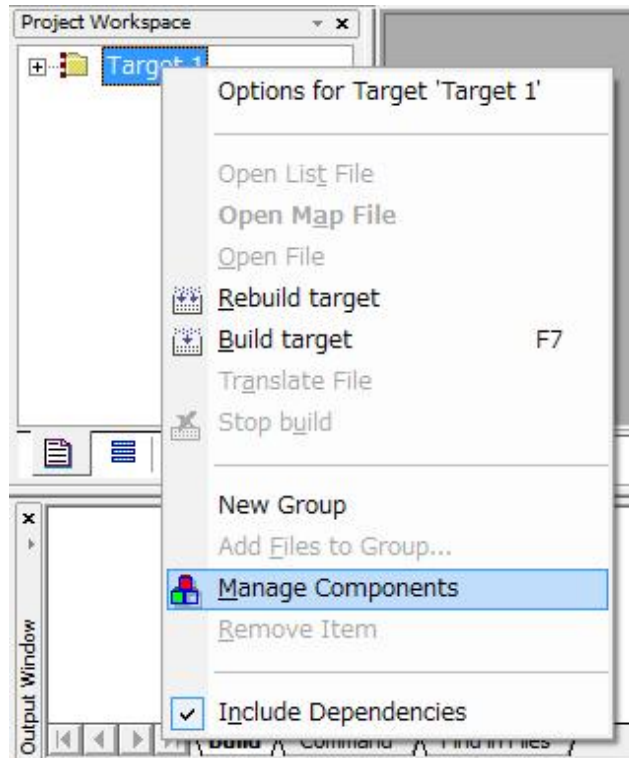

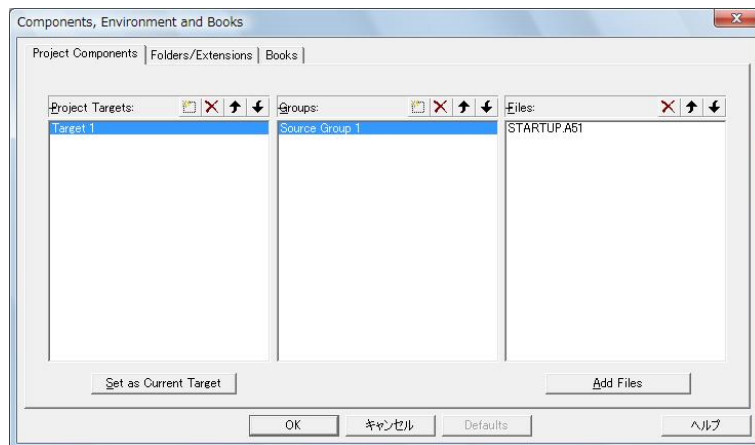Figure 5 Manage Components

Click "Add Files".

Figure 6 Manage Components

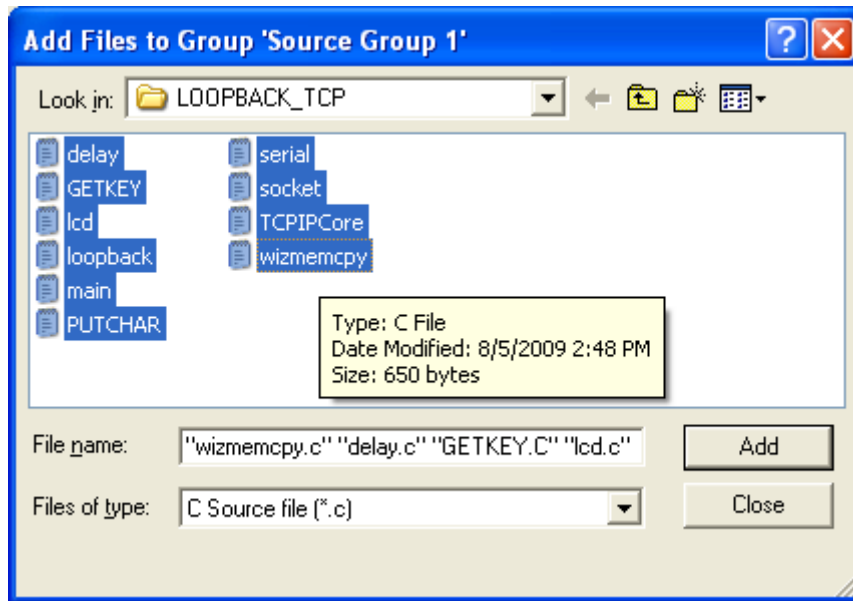Select Source files and click "Add" button.

Figure 7 Add C Source files
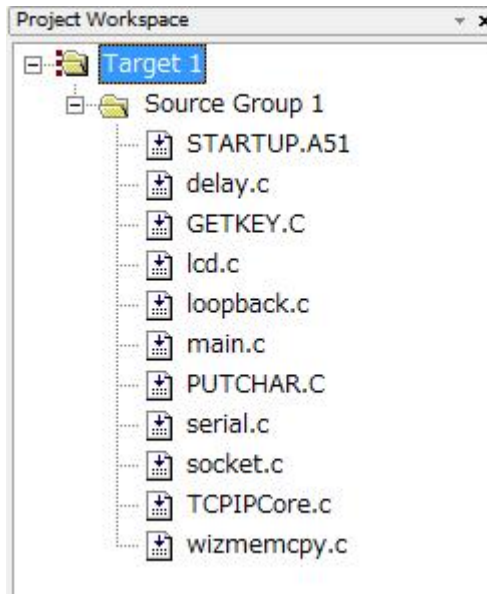
Confirm Source files in the Project Workspace.

Figure 8 Source files in Project Workspace

3   Option of Delay.c file

delay.c includes the delay function which is designed by assembly code. To compile the delay.c, options of delay.c must be set as below,

Select delay.c in the Project Workspace, push the right button. And then click "Options for File 'delay.c'".
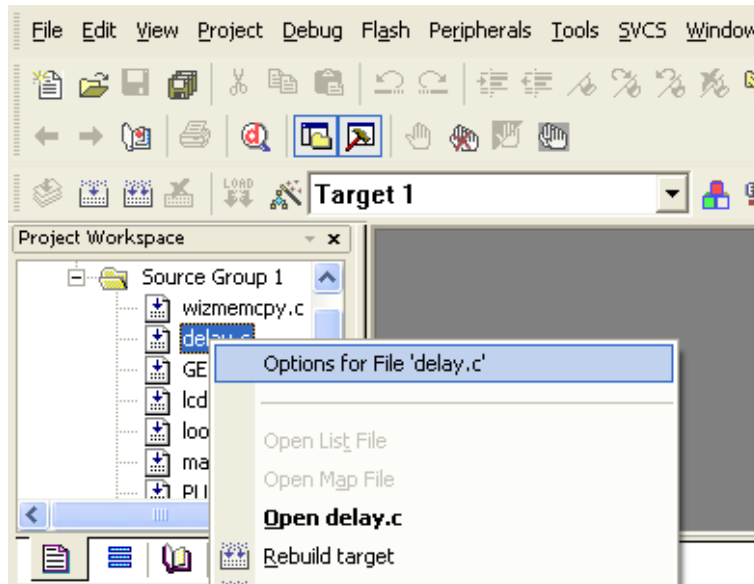

Figure 9 Option for delay.c (1)

Check " Generate Assembler SRC file" and "Assemble SRC files" box as blows,
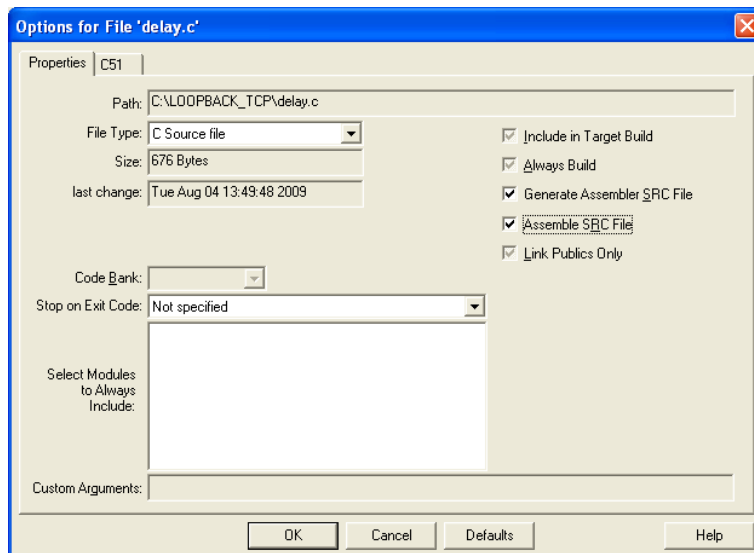

Figure 10 Option for delay.c (2)

4   Option of startup.A51 file

Double click startup.c in the Project Workspace. Fill up a command line after "STARTUP 1:" as follows,
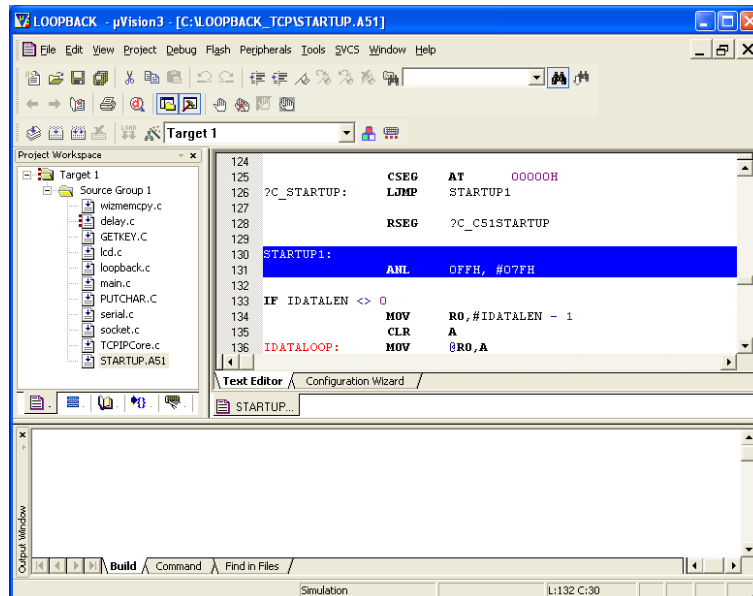
<p align="center">ANL OFFH, #07FH</p>

<p align="center">Figure 11 Add a Command Line in Startup.A51</p>

5   Option for Target

Select "Target 1" in the Project Workspace and push the right button. And then click Options for Target 'Target 1'.
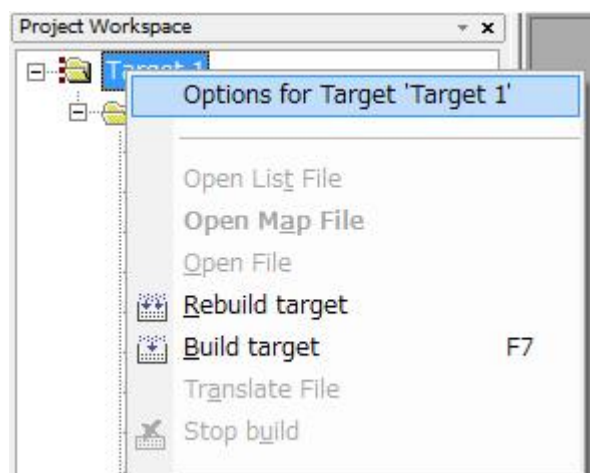

<p align="center">Figure 12 Option for Target</p>

Click 'Target' tab and select "Small variables" in DATA as Memory Model. The example code of LOOPBACK TCP is designed by this model. In this model, all variables, by default, reside in the internal data memory of the W7100 system as if they were declared explicitly using the data memory specifier. Refer to Memory modes for more information.

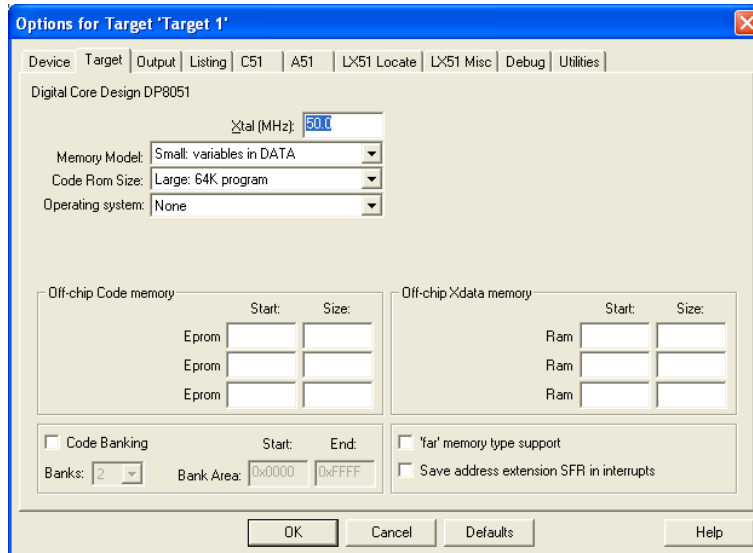(www.keil.com/supprot/man/docs/c51/c51_le_memtypes.htm)

Figure 13 Target Option for Target

Click 'Output' tab and check "Create HEX file" box.
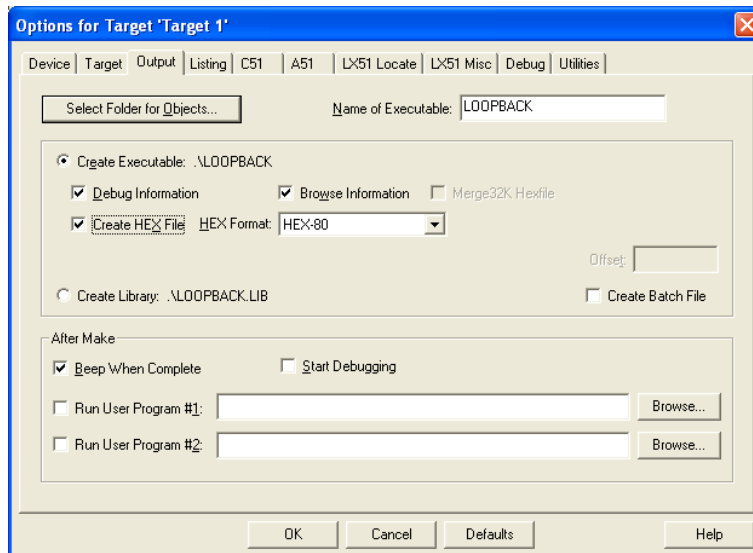

Figure 14 Output Option for Target

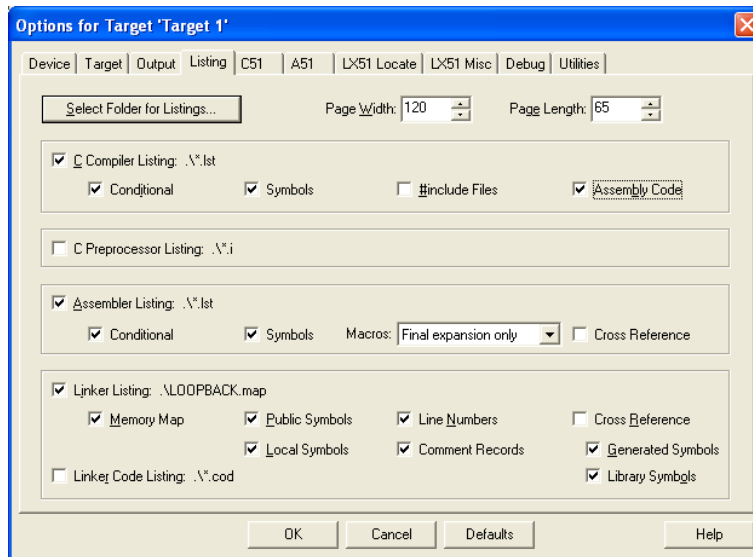Click 'Listing' tab and check "Symbols" and "Assembly Code" box.

Figure 15 Listing Option for Target

6   Setting Tool Base Folder

Select "Project" and push the mouse right button. Click "Option Components, environment, Books".
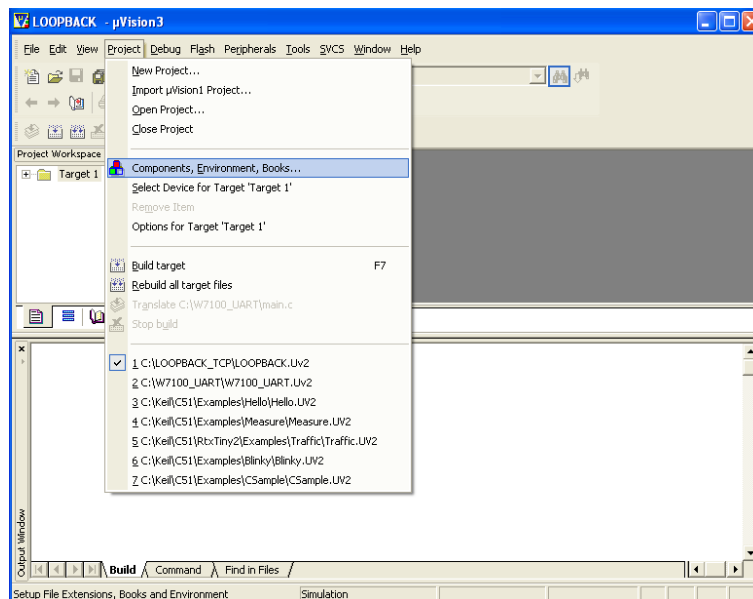

Figure 16 Components, Environment, Books

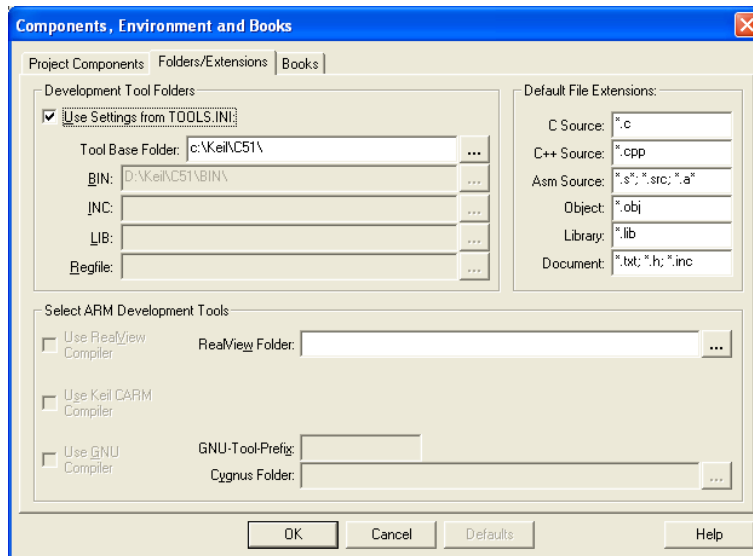Fill up the text box of 'Tool Base Folder' as below,

Figure 17 Folders Extensions

7 Result of Compile

In order to compile the example code, click "F7" key. Confirm whether HEX file is created of not. Check also results of compile as like error and warning.
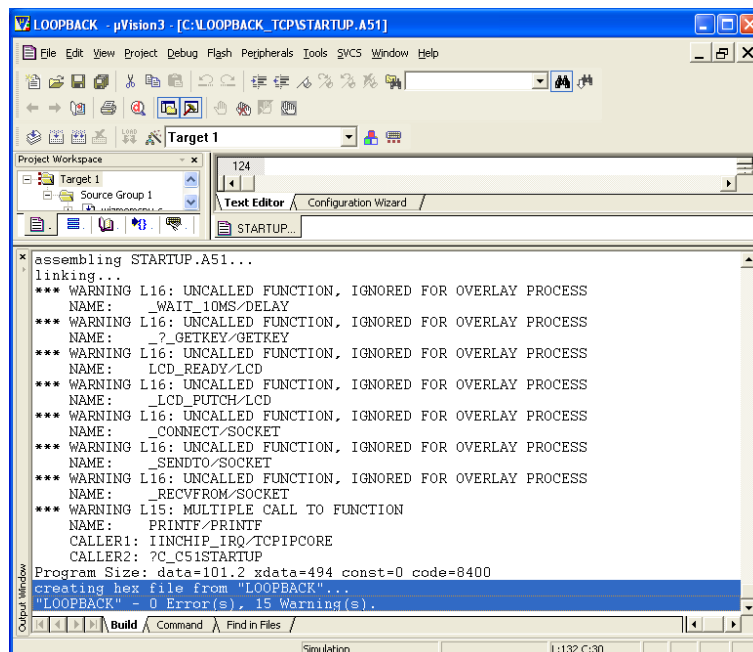

Figure 18 Result of Compile

8 OPEN project

Select "Project" and push the mouse right button. Click "Open Project". Search directory which includ e target project by use 'save in' box. Select target project and push "OK(Y)" button.

Document History Information

Version	Date	Descriptions
Ver.0.9βeta	Sep. 2009	Release with W7100 launching
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