

How to make project in IAR

version 0.9 beta

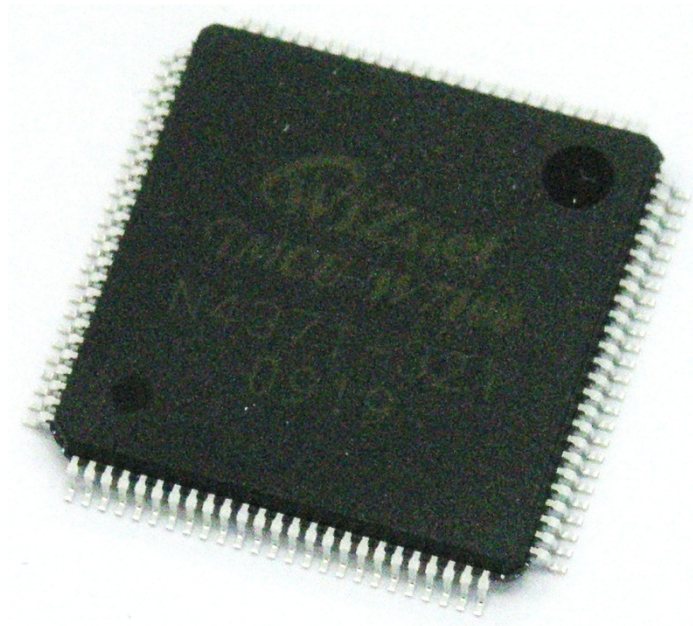


Table of Contents

1	Create Project	3
2	Setting Options	5
3	Add Source files	6
4	Build.....	7
5	Programming.....	8
6	Tips	9
	Document History Information	11

Released firmware is designed by KEIL. WIZnet provides the IAR driver of W7100 for IAR users. This documentation describes how to make project in IAR by using an example code of LOOPBACK TCP and presents how to convert firmware from KEIL to IAR.

1 Create Project

After executing IAR, click "Create new project in current work space". Or Click "Create New Project" at Project in menu bar.

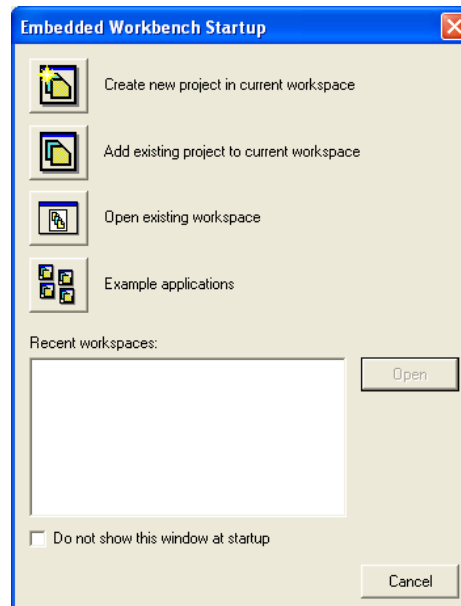


Fig. 1 Embedded Workbench Startup

Select "8051" in Tool chain and click "OK" button.

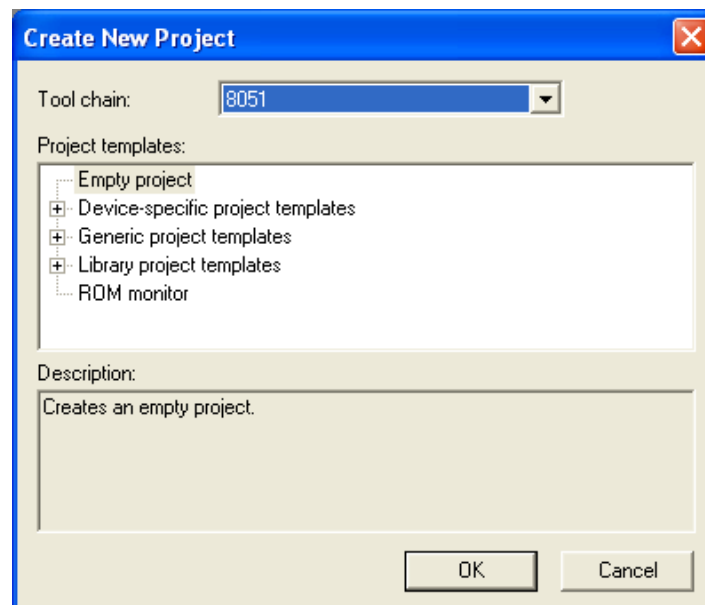


Fig. 2 Create New Project

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

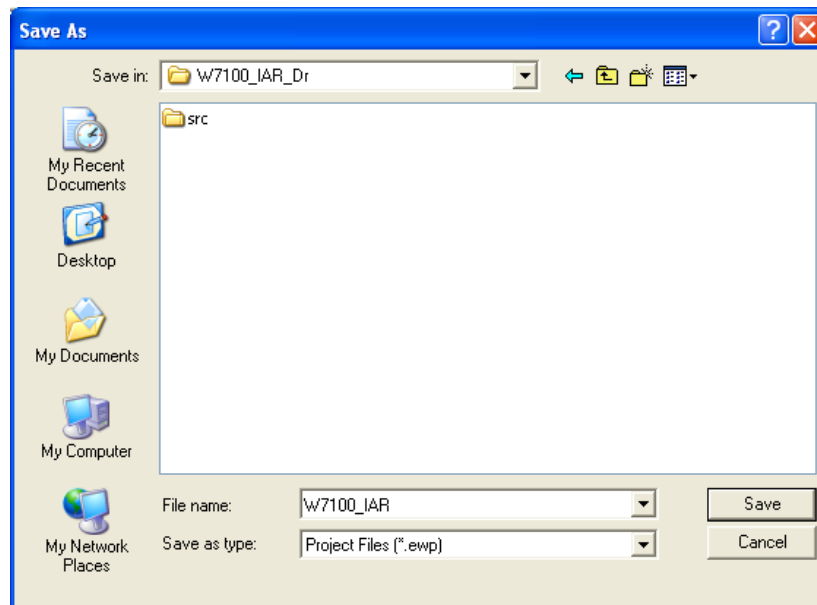


Fig. 3 Save As

If new project is created, project files will be added in Workspace.

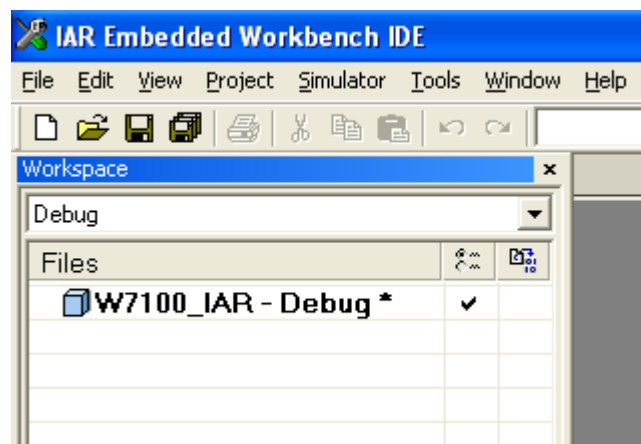


Fig. 4 Created Project in Workspace

2 Setting Options

In order to set options of project, Select Project name in Workspace and push the mouse right button. Click Options.

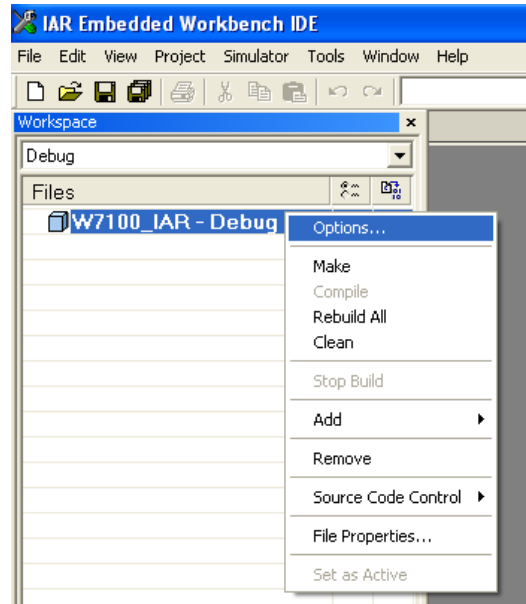


Fig. 5 Select Options

In general Options category, Select "Plain" as CPU core, "Near" as Code model, and "Large" as Data mode. Finally, select "XDATA stack reentrant" in calling convention.

Note : Data model and Calling convention are modified depending on user's system.

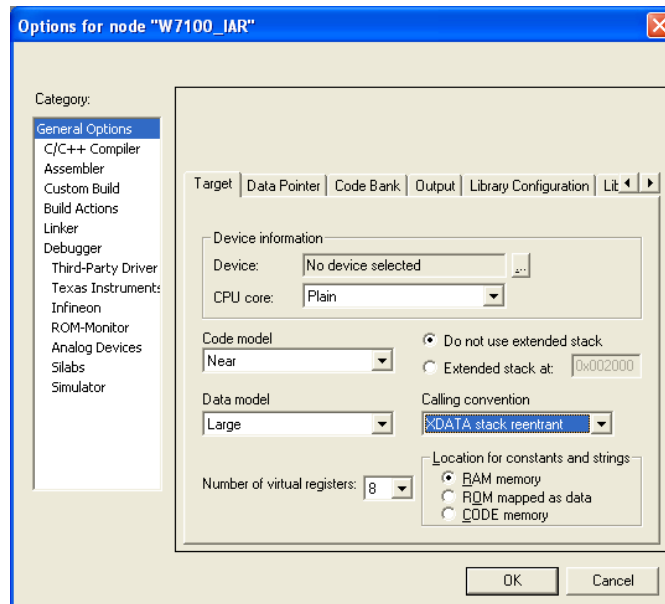


Fig. 6 General Options

3 Add Source files

In order to add Source files, select Project name in Workspace and push the mouse right button. Click "Add files..." in ADD. Or, Click "Add Files" at Project in menu bar.

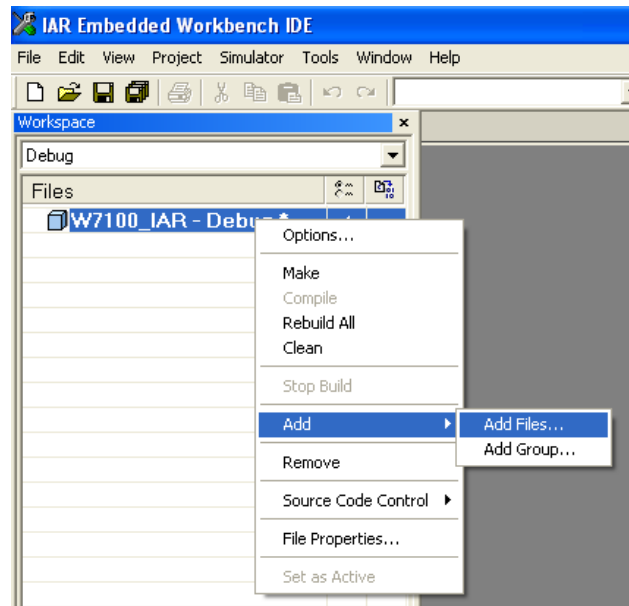


Fig. 7 Add Source files

Select Source files and click "Open" button. Then, confirm added source files in Workspace.

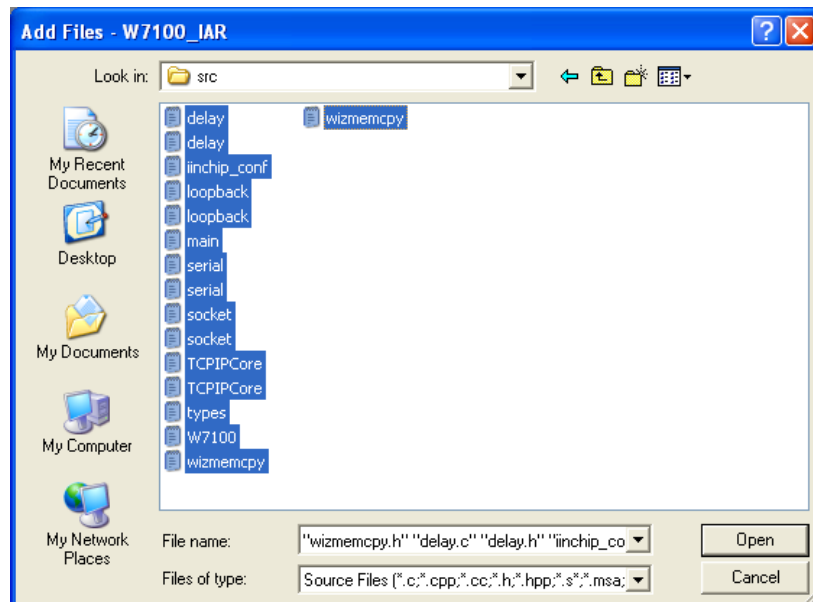


Fig. 8 Add Files

4 Build

To Build, select Project name in Workspace and push the mouse right button. Click “Make” or “Rebuild All” in Workspace.

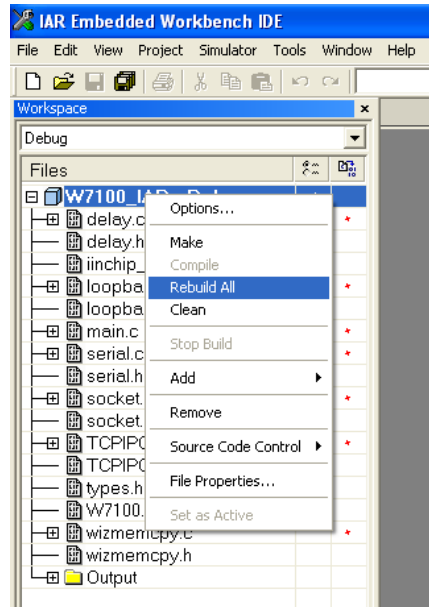


Fig. 9 Rebuild All

5 Programming

The project's option is set for programming HEX file to iMCU7100EVB. In Linker option, check "Override default" and fill up HEX file's name. And, In Format, check "Other".

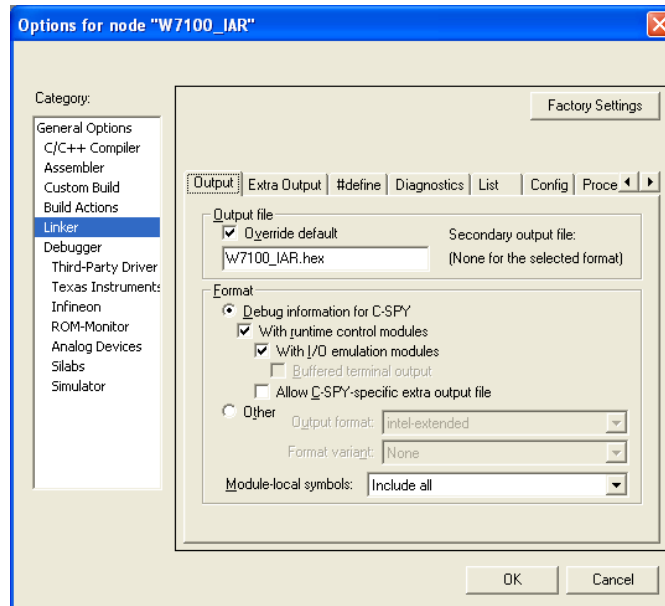


Fig. 10 Linker

Build again because of changing of options. If Build succeeds, HEX file will be created in Output directory.

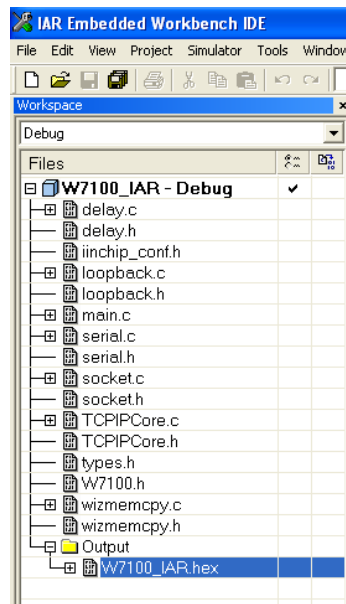


Fig. 11 Output

HEX file is created at “/Debug/Exe” in current directory.

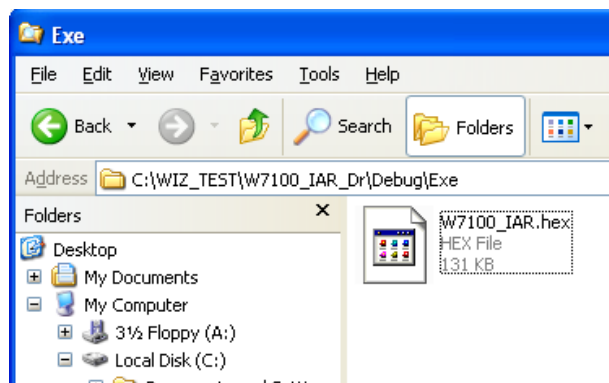


Fig. 12 Hex file

The created HEX file can be downloaded to W7100's ROM by using WizISP or W7100 Debugger.

6 Tips

This chapter explains how to covert firmwaves from KEIL to IAR.

Resisters in head files are defined, as below (W7100.h)

Header file Define	KEIL	IAR
Ex)	<pre> /* IP */ sbit PX0 = IP^0; sbit PT0 = IP^1; sbit PX1 = IP^2; sbit PT1 = IP^3; sbit PS0 = IP^4; sbit PS = IP^4; sfr SP = 0x81; </pre>	<pre> __sfr __no_init volatile union { unsigned char IP; /* Interrupt Priority */ struct /* Interrupt Priority */ { unsigned char PX0 : 1; unsigned char PT0 : 1; unsigned char PX1 : 1; unsigned char PT1 : 1; unsigned char PS : 1; unsigned char : 1; unsigned char : 1; unsigned char : 1; } IP_bit; } @ 0xB8; __sfr __no_init volatile unsigned char SP @ 0x81; </pre>

Port and interrupt defined in header files are used as follow. (<sfr-name>_bit.PreDefinedBit)

Port	KEIL	IAR
Ex)	P0_1 = 1	P0_bit.P0_1 = 1

Interrupt	KEIL	IAR
Ex)	EA = 0;	IE_bit.EA = 0;

Data pointer is modified as below.

Data pointers	KEIL	IAR
Ex)	int xdata int pdata int idata	int __xdata int __pdata int __idata

Document History Information

Version	Date	Descriptions
Ver.0.9beta	2009	Release with W7100 launching

Copyright Notice

Copyright 2009 WIZnet, Inc. All Rights Reserved.

Technical Support: support@wiznet.co.kr

Sales & Distribution: sales@wiznet.co.kr

For more information, visit our website at <http://www.wiznet.co.kr>