**Using Keil to create Hex file**

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I will start from how to write a program in Keil software. An evaluation version can be downloaded from [here](https://www.keil.com/demo/eval/c51.htm). I hope the following screen shots will help.

Firstly when you open the keil window it will look something like this.

To start a new project go to: Project->New uvision Project

And then a window opens where you are supposed to type in your project name.

After selecting the name the target (The device on which the program will be running) should be selected. This tutorial is based on 89S52 micro controller. It can be found with the Atmel vendor. Just select the device you will be working on and click ok.

The compiler will ask you if you want to add the startup code. Click no.

Now we get a target and a source folder in the project area. The source should be having a program which we did not write yet. So click on the new document button and start writing the code in it.

Here I have written the LED blink code in the window. It should be observed that the text is in normal format till you save the text document.

Save the document with a name.C extension. Where name is the name you want to give to the file. The extension should be .asm for assembly level program files.

Right click on the source group folder and select Add Files to Source Group

Now browse to the previously written program and click Add.

**Note:**After the program is added you will not get any acknowledgement that the program is added nor will the window close by itself. You should click on the close button and move on.

Now click on translate the file, build target and rebuild it. You will get notifications in case of any errors.

Observe that Hex file is NOT created here. The option to create the Hex file will be disabled by default we should manually enable it.  Here we enable the Create hex file box and browse to a folder where we will be saving objects which includes the hex file too.

This window can be opened by the following path:

Flash-> Configure Flash Tools -> Output

Now after enabling the Create hex file and selecting the folder for objects we have to repeat this step again:

Translate the file, Build target and rebuild it. Now you can find your Hex file and other objects in the destination folder.

In this post I have just shown about how to create a Hex file using Keil, it can even debug the code with simulation limited to the peripherals of the device you choose. For a full fledged simulation which is not limited to the device terminals you might want to try Proteus.

Hope this article helps you on your programming needs, Any questions and suggestions are welcome in the form below.