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Steps to write programs for 8051 Microcontroller using keil

Step 1. Start the Keil software. Go to the Project > New Project then choose a location to store your program, and give a name and Save.

Step 2. Now in the next window select the device from different manufacturers. We are selecting Microchip, and then by expanding we are selecting AT89C51 device and click ok (37)

Step 3. Now go to the New in the menu and select New. It will open a new editor to write code.

Device	
Vendor: Microchip Device: AT89C51 Toolset: C51 Search: AT89	Use Extended Linker (LX51) instead of BL51
 Microchip AT89C1051 AT89C1051U AT89C2051 AT89C2051 AT89C4051 AT89C4051 	B051-based Fully Static 24MHz CMOS controller with 32 I/O Lines. 2 Times/Counters, 6 Interrupts/2 Priority Levels, UART, Three-Level Program Memory Lock, 4K Bytes Flash Memory, 128 Bytes On-chip RAM
AT89C5115 AT89C5130 AT89C5130A AT89C5130A	

Step 4. Go to the save option and save the program file with .asm or.A51 extension for assembly language and .c for c language..

Step 5. Write the code for 8051 Microcontroller.

Step 6. Now from the left panel, select Source Group 1, and Add (F Existing Files to Group 'Source Group 1'. Then select the program (c file for .c and .asm/.a51 for assembly) then add and close

Project		🕈 🔯 📄 blink_program.c
E Sour	t: Counter P arget 1	Projec 1 #include <reg51.h> 2 sbit LED_pin = P2</reg51.h>
	A	Options for Group 'Source Group 1' Alt+F7
	-	Add New Item to Group 'Source Group 1'
		Add Existing Files to Group 'Source Group 1'
		Remove Group 'Source Group 1' and its Files
		Rebuild all target files
		Build Target F7
	*	Manage Project Items
	v	Show Include File Dependencies
		13 void main(){
		14 while(1){ //inf

Step 7. Now go to the Project > Build Target to build the project. If there is

some error the building will be failed, after correcting the errors it can be build.

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Step 8. Now click on the Target1 from the left panel and select Options for Target 'Target1'. Then set the xtal (MHz) value to 11.0592. Then go to the output tab. In this tab check Create Hex File, and click OK. Then build it again. Then the hex file will be created in the project folder which we saved in step 1.

By uploading this hex file into the 8051 microcontroller the program can be loaded into it. And it will work.