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Keywords: Keil, uVision, IDE, Integrated Development Environment, MAX7651, MAX7652

## Configuring Keil µVision IDE for the MAX7651 EV Kit

Mar 26, 2004

Abstract: This article gives a step-by-step procedure for starting a project and configuring the Keil  $\mu$ Vision® IDE software for the MAX7651 EV kit. It is the second of a three-part application example for writing, compiling and downloading a simple program to the MAX7651 EV kit target board.

## Also See:

- Performing ADC Conversions Using the MAX7651
- Downloading a Program to Flash Using the MAX7651 EV Kit Serial Downloader

## Procedure

- 1. Download and install the Keil DK-51 demo software at www.keil.com unless it was installed previously as a step in application note 3083, "Performing ADC Conversions Using the MAX7651." Note: Please verify that you are using version 7.08 or later. The procedure for the software installation is outlined in the MAX7651 Quick Start Manual.
- Open Keil µVision 2 by clicking on the Keil icon on your desktop or by opening the software in the Windows® START menu.
- 3. Open a new project in the Keil µVision IDE Software

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- 4. Select a new folder and give the project a name.
- 5. Select MAX7651 target in the database under Maxim -> MAX7651. Click OK.

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- 6. Click Yes, to "Copy Standard 8051 Startup Code to Project Folder and Add File to Project".
- 7. Right Click on Target 1 -> Source Group 1 and Add files to Source Group 1.

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8. Add the source files. See, application note 3083, "Performing ADC Conversions Using the MAX7651."

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- Target 1	Test function for ADC.c	-	
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ADC.c	Date: Feb 26, 2004		
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	Usage: The funtion will return 8 conversion results to an array.		
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	void convergali_chamers(inc- barrer);		
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	finclude <reg51.h></reg51.h>		
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	#define NUMBER OF CHANNELS 8		
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9. Set Target Options. Click on the icon to the left of Target drop down box. Click on the Target Tab. Configure the Target for an 11.0592MHz crystal, select Use On-Chip ROM (0x0-0x3FFF), specify Off-chip Code Memory to Start at 0x4000 with a size of 0x8000 and Off-Chip Xdata memory to Start at 0x0 with a Size of 0x8000.

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STARTU Xtal (MHz): 11.059	Use On-chip ROM (0x0-0x3FFF)
ADC.c     main.c     Memory Model: Small: variables in DATA	•
Code Rom Size: Small: program 2K or less	•
Operating system: None	<u> </u>
- Official Code memory	*/
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Eprom 0x4000 0x9000	Riam 0x0000 0x8000
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10. Set output options. Click on Create HEX file.

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Create Executable: .VADC	
Debug Information     P Browse Information     Merge32K Hexfile	
Create HEX File HEX Format: HEX-80	
C Create Library: .\ADC.LIB Create Batch File	
Beep When Complete	
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OK Cancel Defaults	
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11. Set Debug Options. Check the Use Simulator option.

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OK Cancel Defaults	
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- 12. Click OK to accept option changes.
- 13. In the Project Menu, Select Rebuild all Target Files. The Program should compile.
- 14. Make sure there are no errors. The Program is ready to be loaded to the MAX7651 Target Board. See, application note 3087, "Downloading a Program to Flash Using the MAX7651 EV Kit Serial Downloader."

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complling main.c linking Program Size: data=48.1 xdata=0 code=1447 creating hex file from "ADC" "ADC" - 0 Error(s), 0 Warning(s). Key Build (Command ) Find in Files ( L:4 C:37 NUM R/W	

15. If you do not have the MAX7651EVKIT and/or wish to run the program using the Keil μVision simulator, click on the Debug Menu, and Start the debug Session. Click OK for the warning of evaluation version. Select View Menu and click on Serial Window #1. Select the Debug Menu and click on Go. The program will execute and perform analog-to-digital conversions on all 8 channels.

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Related Parts	
MAX7651	Flash Programmable 12-Bit Integrated Data-Acquisition Systems
MAX7652	Flash Programmable 12-Bit Integrated Data-Acquisition Systems

## More Information

For Technical Support: http://www.maximintegrated.com/support For Samples: http://www.maximintegrated.com/samples Other Questions and Comments: http://www.maximintegrated.com/contact

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