

LabLinks: Hands-on Tutorials/Appnotes

Arm® Keil® MDKTM toolkit featuring Serial Wire Viewer and ETM Trace. V 4.2

The latest version of this document is here: www.keil.com/appnotes/docs/apnt-244.asp

NXP (LPC)	www.keil.com/NXP	
NEW! LPCXpresso LPC5411x Cortex®-M4 and Cortex-M0+		www.keil.com/appnotes/docs/apnt 294.asp
NEW! Keil MCB5411™ board with NXP LPC5411		www.keil.com/appnotes/docs/apnt_295.asp
LPCXpresso LPC800 Cortex-M0+		www.keil.com/appnotes/docs/apnt_237.asp
MCB1700 TM		www.keil.com/appnotes/docs/apnt 246.asp
CAN Primer using NXP LPC1700:		www.keil.com/appnotes/files/apnt 247.pdf
Keil MCB4300™ board with NXP LPC4300		www.keil.com/appnotes/docs/apnt 241.asp
NGX Xplorer Evaluation board LPC4300		www.keil.com/appnotes/docs/apnt_233.asp
NXP (Freescale)	www.keil.com/NXP	
NEW! S32K-148 EVAL		www.keil.com/appnotes/docs/apnt 305.asp
NEW! S32K-144 EVAL		www.keil.com/appnotes/docs/apnt 299.asp
KL25Z Freedom		www.keil.com/appnotes/docs/apnt 232.asp
K20D50M Freedom		www.keil.com/appnotes/docs/apnt_243.asp
Kinetis K60N512 Tower		www.keil.com/appnotes/docs/apnt 239.asp
NEW! Kinetis K60D100M Tower		www.keil.com/appnotes/docs/apnt_249.asp
NEW! Kinetis TWR K64 Tower		www.keil.com/appnotes/docs/apnt 288.asp
NEW! Kinetis FRDM K64 Freedom		www.keil.com/appnotes/docs/apnt 287.asp
Kinetis FlexMemory configuration using MDK		www.keil.com/appnotes/files/apnt220.pdf
STMicroelectronics	www.keil.com/ST	
NEW! STM32F7 Discovery and Eval board:		www.keil.com/appnotes/docs/apnt_280.asp
STM32F4-Discovery board		www.keil.com/appnotes/docs/apnt 230.asp
Updated! CAN Primer using STM32F4 Discovery Board		www.keil.com/appnotes/docs/apnt 236.asp
Updated! STM32F429I Discovery board		www.keil.com/appnotes/docs/apnt 253.asp
USB and Graphics configuration for STM32F42	29I	www.keil.com/appnotes/docs/apnt 268.asp
MCBSTM32C TM		www.keil.com/appnotes/docs/apnt_245.asp
Microchip (Atmel)	www.keil.com/Micro	ochip
NEW! SAM L10 Cortex-M23		www.keil.com/appnotes/docs/apnt_313.asp
NEW! SAM L11 ArmV8-M TrustZone® Corto	ex-M23	www.keil.com/appnotes/docs/apnt 314.asp
NEW! SAM V7 Cortex-M7		www.keil.com/appnotes/docs/apnt 274.asp
SAM3S-EK		www.keil.com/download/files/sam3s_ek_lab2.pdf V 4.5
SAM3X-EK		www.keil.com/appnotes/docs/apnt 229.asp
SAM4S-EK		www.keil.com/appnotes/docs/apnt_228.asp
Infineon	www.keil.com/Infine	eon
Updated! XMC1100 2Go		www.keil.com/appnotes/docs/apnt 260.asp
XMC1200 Boot Kit		www.keil.com/appnotes/docs/apnt_263.asp
Using Infineon DAvE with Keil MDK		www.keil.com/appnotes/files/apnt 227.pdf
Maxim Integrated	www.keil.com/Maxi	m/
ZEUS MAX71637		www.keil.com/appnotes/docs/apnt 265.asp
Microsemi	www.keil.com/Micro	osemi
SmartFusion		www.keil.com/appnotes/docs/apnt_208.asp
Updated! SmartFusion 2		www.keil.com/appnotes/docs/apnt_238.asp
Texas Instruments	www.keil.com/Tl	
MSP432		www.keil.com/appnotes/docs/apnt 276.asp
MSP432E		www.keil.com/appnotes/docs/apnt 309.asp
		

Many of these labs use MDK 4. To use these labs with MDK 5, download the Legacy support: www.keil.com/mdk5/legacy **You can also migrate to MDK 5** (recommended). Instructions are provided after loading a MDK 4 project into MDK 5.

Document Resources:

Books:

- 1. **NEW!** Getting Started with MDK 5: Obtain this free book here: www.keil.com/gsg/.
- 2. There is a good selection of books available on ARM processors. A good list of books on ARM processors is found at: www.arm.com/support/resources/arm-books/index.php
- 3. µVision contains a window titled Books. Many documents including data sheets are located there.
- 4. **A list of resources is located at:** <u>www.arm.com/products/processors/cortex-m/index.php</u>
 Click on the Resources tab. Or select the Cortex-M processor you want in the Processor panel on the left.
- 5. The Definitive Guide to the ARM Cortex-M0/M0+ by Joseph Yiu. Search the web for retailers.
- 6. The Definitive Guide to the ARM Cortex-M3/M4 by Joseph Yiu. Search the web for retailers.
- 7. Embedded Systems: Introduction to Arm Cortex-M Microcontrollers (3 volumes) by Jonathan Valvano.

Application Notes: www.keil.com/appnotes

1. ARM Compiler Qualification Kit: Compiler Safety Certification: www.keil.com/safety

2. Using Infineon DAVE with uVision: www.keil.com/appnotes/files/apnt 258.pdf

8. Using Cortex-M3 and Cortex-M4 Fault Exceptions www.keil.com/appnotes/files/apnt209.pdf

9. CAN Primer using NXP LPC1700: www.keil.com/appnotes/files/apnt_247.pdf

10. CAN Primer using the STM32F Discovery Kit www.keil.com/appnotes/docs/apnt_236.asp

11. Segger emWin GUIBuilder with μVisionTM www.keil.com/appnotes/files/apnt_234.pdf

12. Porting an mbed project to Keil MDKTM www.keil.com/appnotes/docs/apnt 207.asp

13. MDK-ARMTM Compiler Optimizations www.keil.com/appnotes/docs/apnt-202.asp

14. RTX CMSIS-RTX Ports in MDK 5 Eval Version: C:\Keil_v5\ARM\Pack\ARM\CMSIS\

15. Barrier Instructions http://infocenter.arm.com/help/topic/com.arm.doc.dai0321a/index.html

16. Lazy Stacking on the Cortex-M4 www.arm.com and search for DAI0298A

17. Cortex-M Processors for Beginners: http://community.arm.com/docs/DOC-8587

18. Cortex Debug Connectors: www.keil.com/coresight/coresight-connectors

19. Sending ITM printf to external Windows applications: www.keil.com/appnotes/docs/apnt_240.asp

20. NEW! Migrating from Cortex-M3/M4 to Cortex-M7 Processors: www.keil.com/appnotes/docs/apnt_270.asp

21. **NEW!** ARMv8-M Architecture Technical Overview https://community.arm.com/docs/DOC-10896

22. **NEW!** Using ARM TrustZone® on ARMv8-M www.keil.com/appnotes/docs/apnt 291.asp

23. **NEW!** Determining Cortex-M CPU Speed using SWV: www.keil.com/appnotes/docs/apnt-297.asp

Useful ARM Websites:

- 1. CMSIS 5 Standard GitHub: https://github.com/ARM-software/CMSIS_5
- 2. CMSIS Information and documentation: www.arm.com/cmsis/ and www.keil.com/cmsis
- 3. Forums: www.keil.com/forum https://developer.arm.com/groups/tools/content https://developer.arm.com/groups/tools/content
- 4. ARM University Program: www.arm.com/university. Email: university@arm.com
- 5. <u>mbed</u>™: <u>http://mbed.org</u>

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