

A close-up photograph of a green printed circuit board (PCB) with intricate silver-colored traces and solder points. A large, silver metal padlock is placed diagonally across the center of the board, symbolizing security and protection of the embedded systems.

# Hands-on Professional Middleware for Cortex-M

**prior to the day of the training**

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Appendix, Manual Pack Installation

- Notebook with local admin rights
- MS Windows XP, Vista, Win7, Win8, Win10
- pdf viewer
- MDK and Training needs:
  - 512MB RAM available,
  - 1GB ROM,
  - 2x USB
- Rights for connecting external USB Stick
- Mouse might be helpful (3<sup>rd</sup> USB slot)

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# Download and Installation of the MDK





■ <https://www.keil.com/download/product/>

**arm KEIL**

Home Products Download Events Support Videos Search Keil... + Go

## Download Products

Select a product from the list below to download the latest version.

 <b>MDK-Arm</b> Version 5.26 (September 2018) Development environment for Cortex and Arm devices.	 <b>C51</b> Version 9.59 (May 2018) Development tools for all 8051 devices.
 <b>C251</b> Version 5.60 (May 2018) Development tools for all 80251 devices.	 <b>C166</b> Version 7.57 (May 2018) Development tools for C166, XC166, & XC2000 MCUs.

Keil products use a [License Management](#) system - without a current license the product runs as a Life/Evaluation edition with a few [Limitations](#).

## Maintenance Status and Previous Versions

Enter a valid Product Serial Number (**PSN**) or License Code (**LIC**) to get access to all product versions available to you, or to check the status of your support and maintenance agreement.

PSN or LIC:

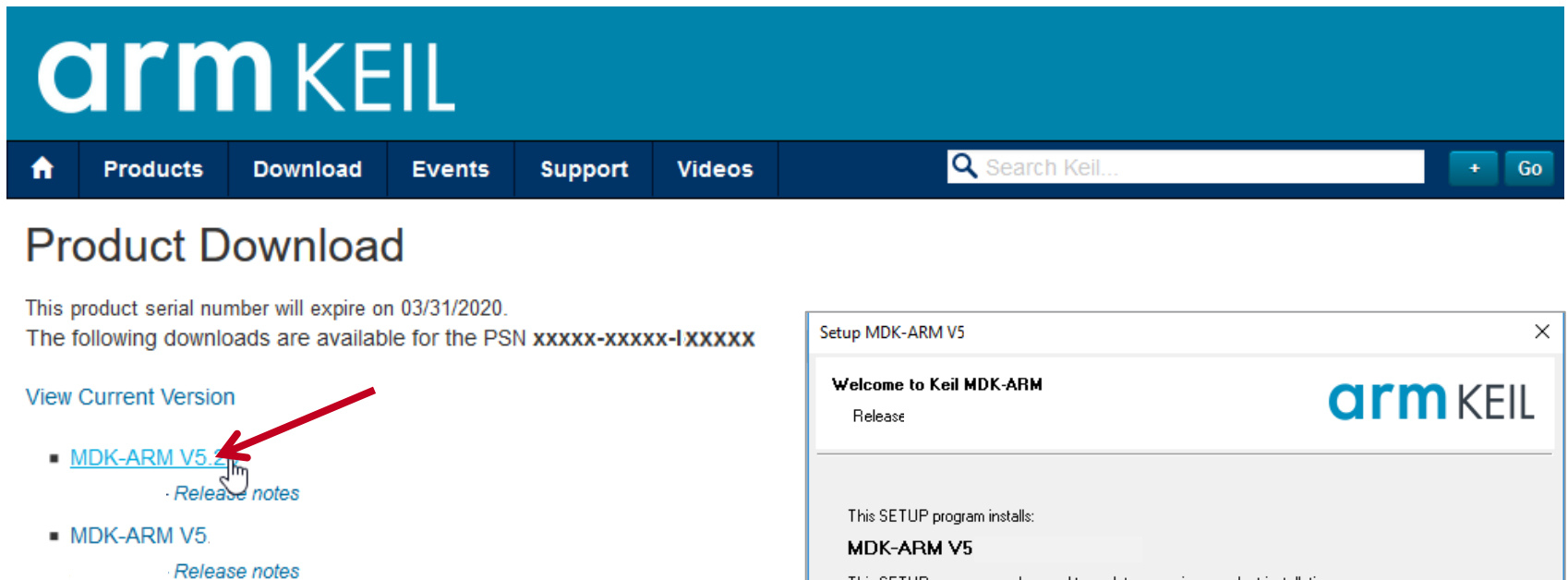
Further information about installing your software is available in the [Read Me First](#) brochure.

■ Enter PSN  
(from email)

■ Submit

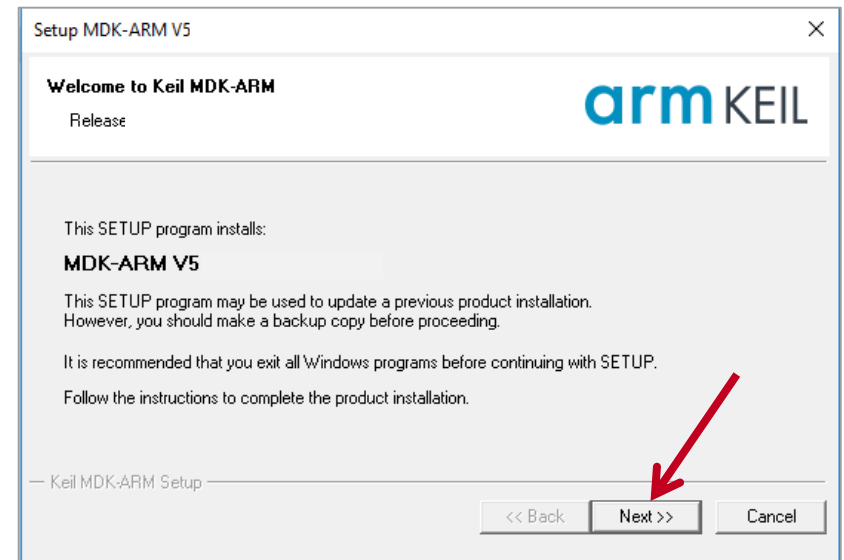
# Download and Installation of the MDK

- Select current version and download  
(IF YOU ALREADY HAVE MDK SKIP TO SLIDE 9 "PACK INSTALLATION")



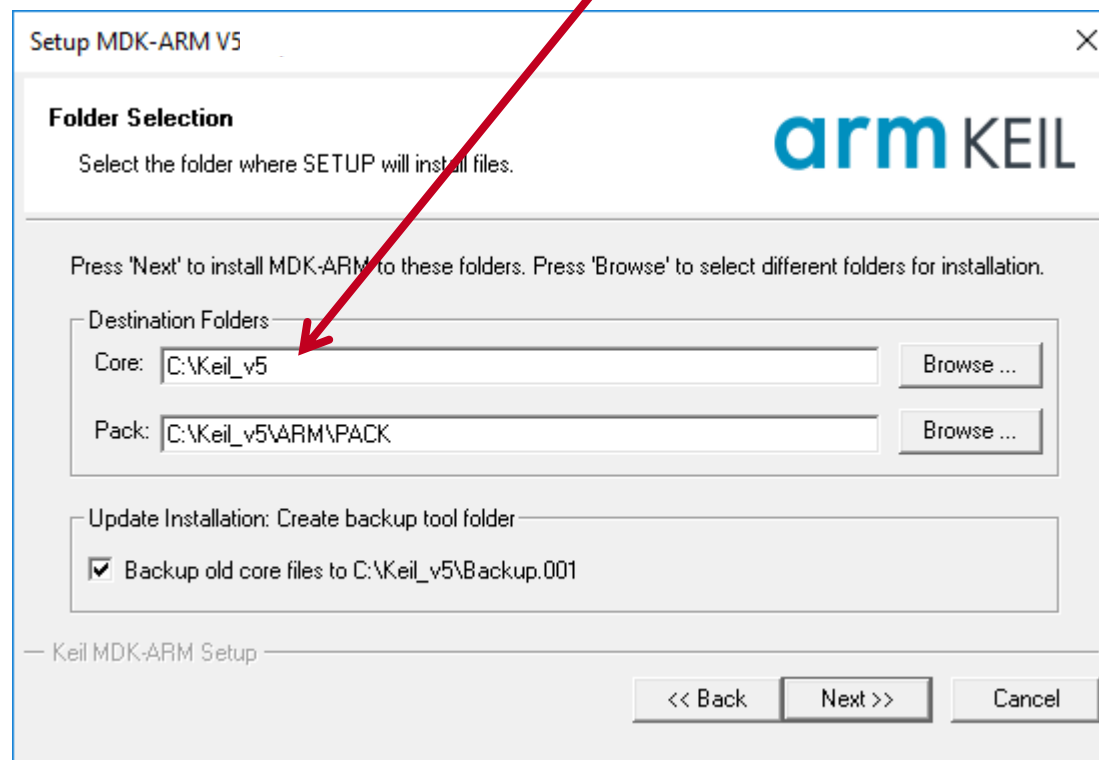
The screenshot shows the armKEIL website's 'Product Download' page. At the top is a navigation bar with links for Home, Products, Download, Events, Support, and Videos, along with a search bar. Below the navigation bar, the 'Product Download' section is displayed. It includes a notice about the product serial number expiration on 03/31/2020 and a list of available downloads for PSN xxxxx-xxxxx-lxxxxx. Under the 'View Current Version' heading, there are two links: 'MDK-ARM V5.2' (highlighted with a red arrow) and 'MDK-ARM V5'. Each link has a 'Release notes' link next to it.

- Start installation as administrator



# Download and Installation of the MDK

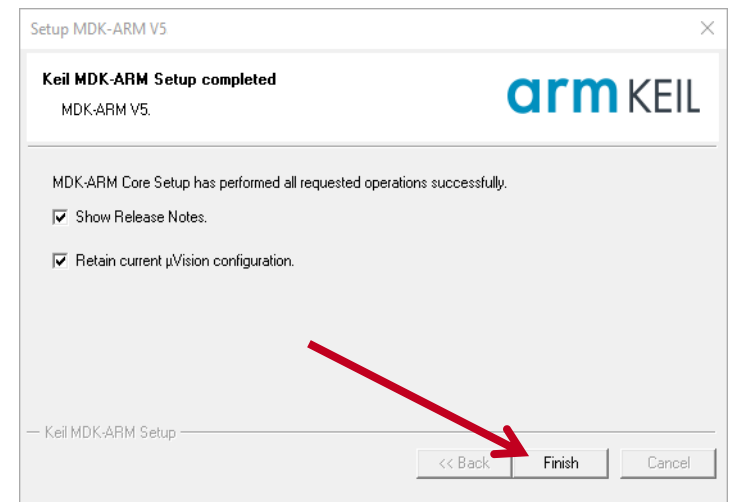
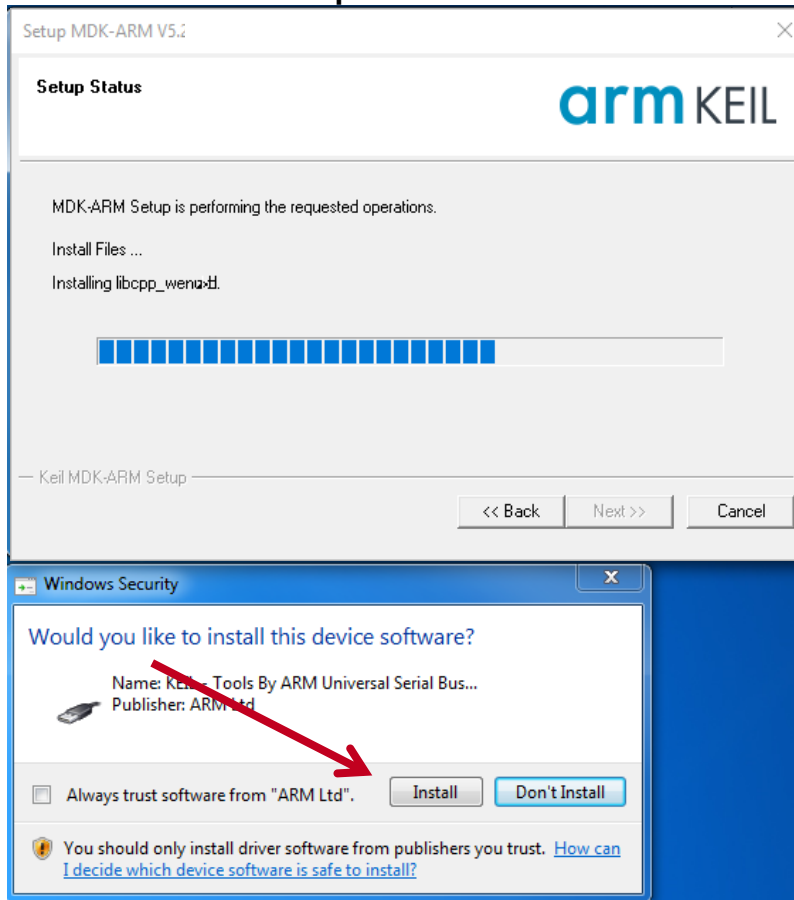
- Follow the instructions
- Do not change the suggested paths



- Confirm information

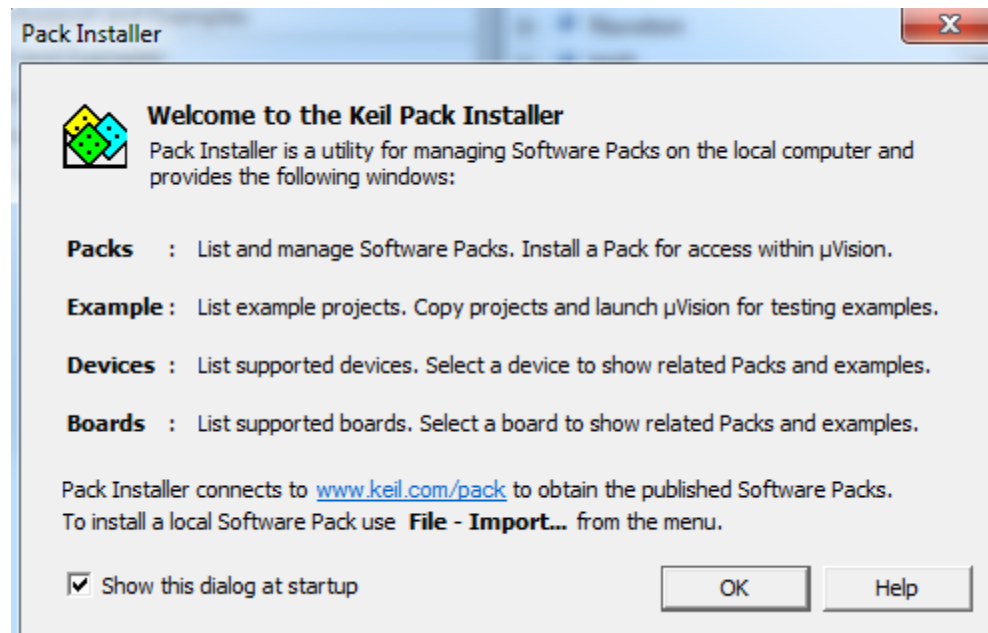
# Download and Installation of the MDK

## ■ Install all components and finish installation



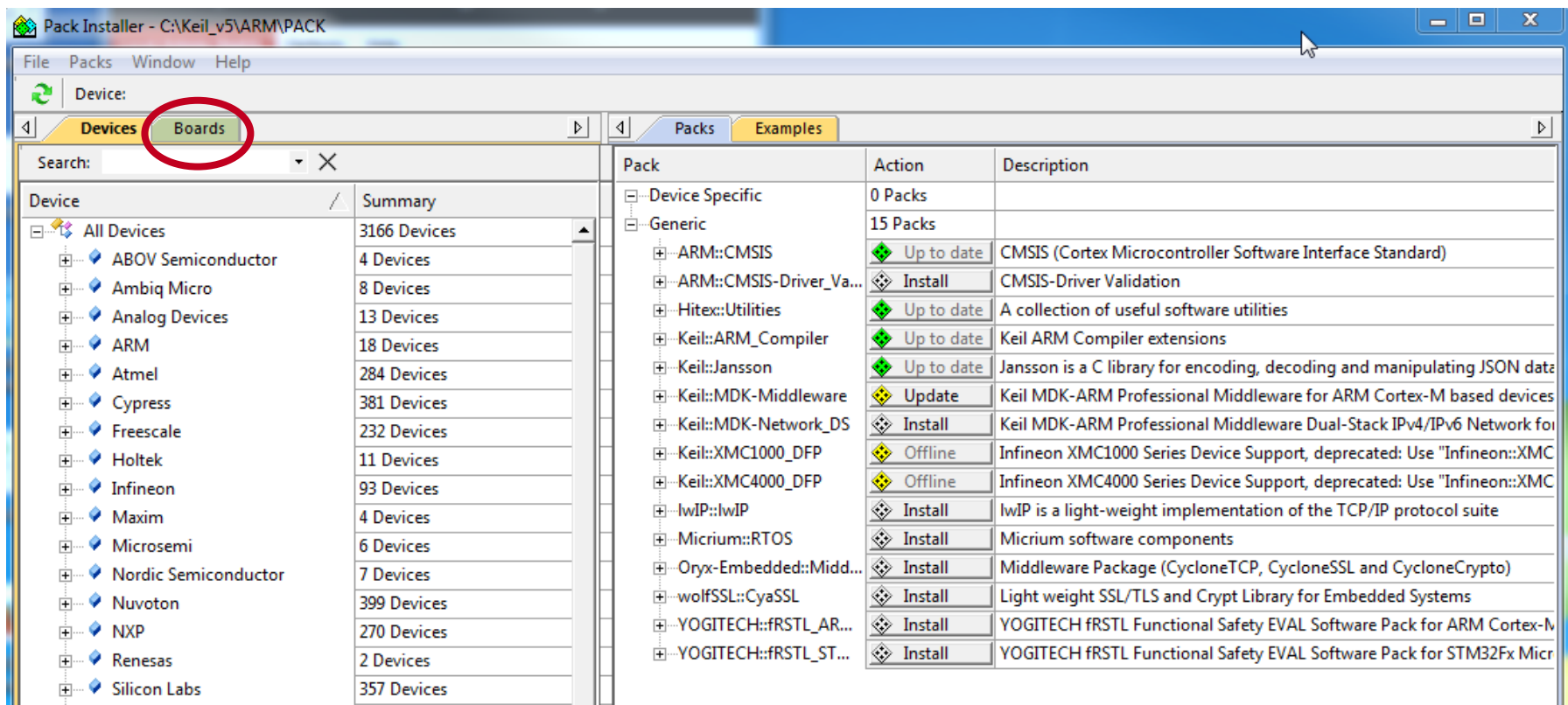
## ■ The pack installer will start

## ■ Acknowledge the pack installation



# Pack Installation

- Select tab **Boards** and follow the pack installation according to your derivate
- If the pack installation fails (limited download rights) please see the appendix of this document



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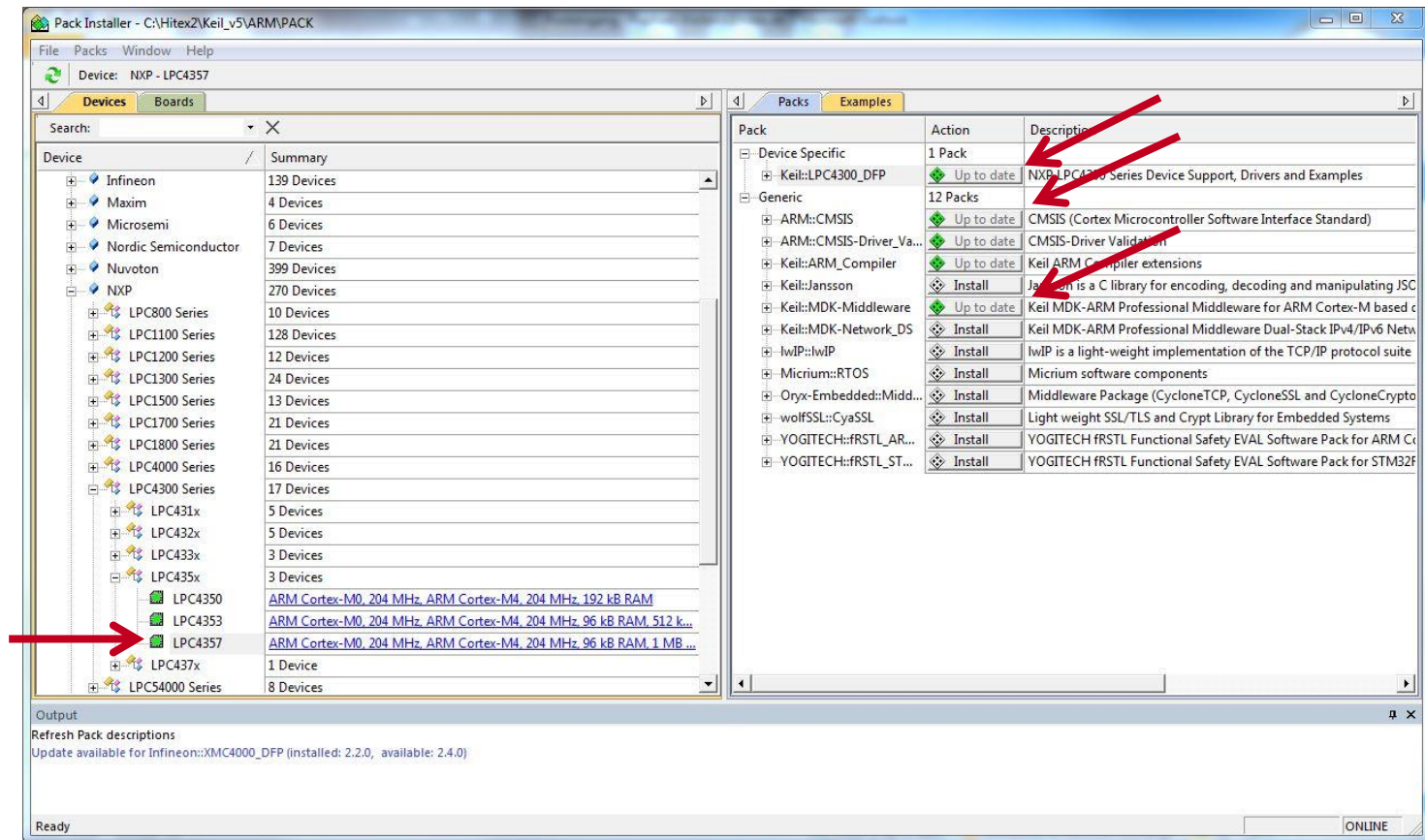
License Request and License Installation (PLEASE ONLY  
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# MCB4357 Pack Installation

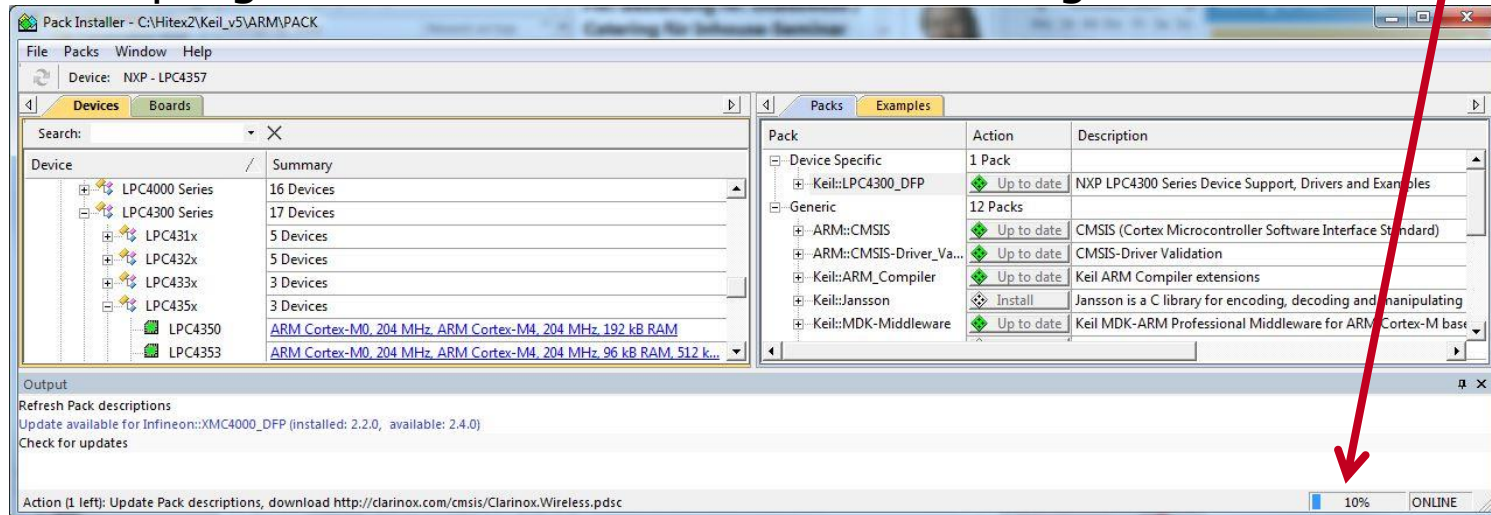
- „Select the device **NXP::LPC4300::LPC4357**



and install ARM-CMSIS, Middleware and LPC4300\_DFP

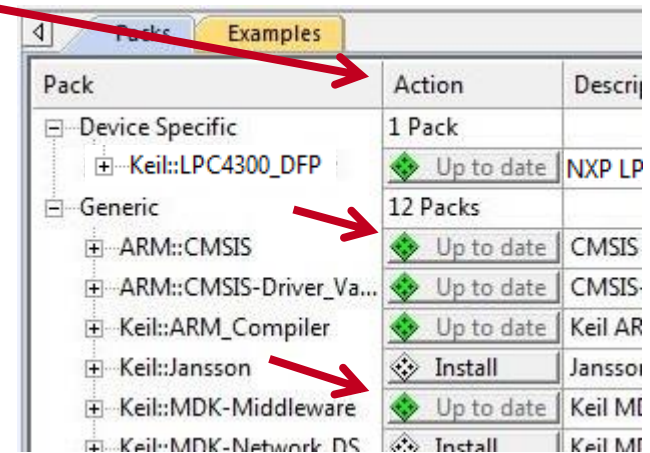
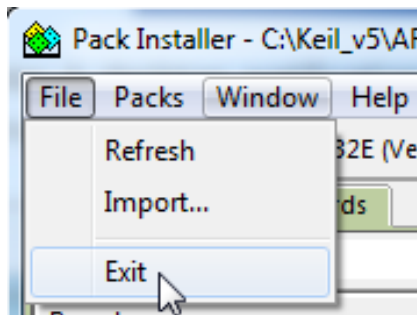
# MCB4357 Pack Installation

- See the progress of installation down at the right corner



- **Up to date** after installation

- File / Exit will close pack installer



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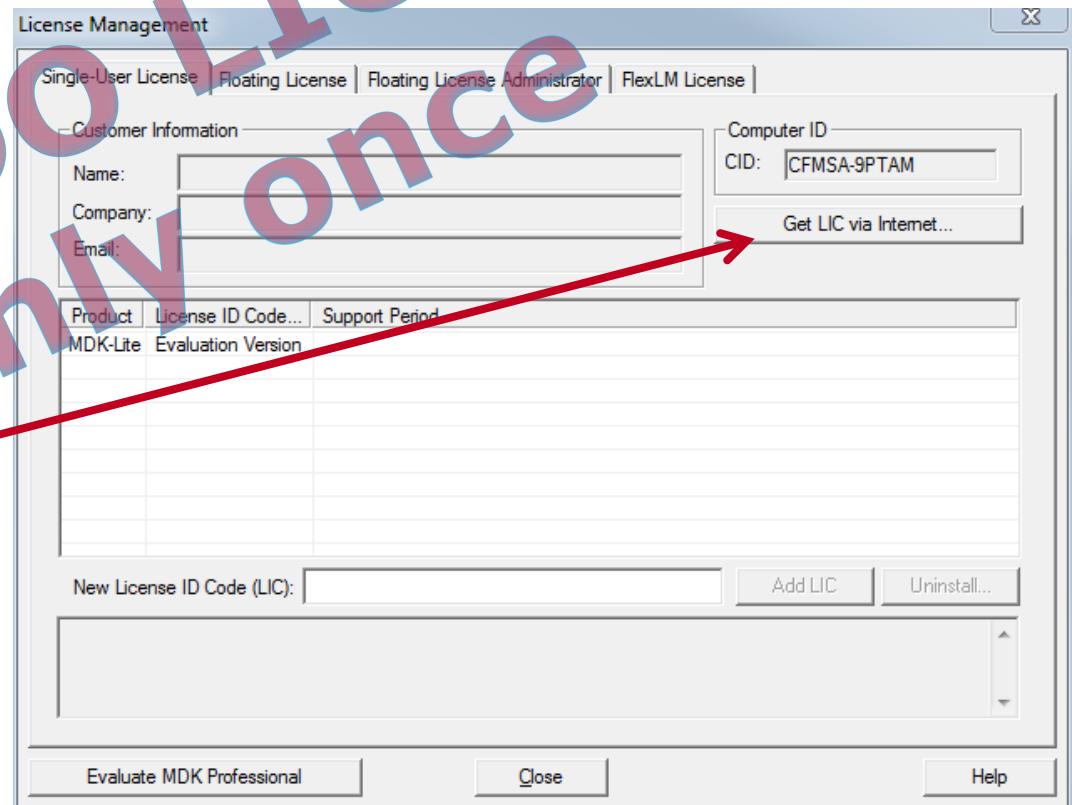
License Request and License Installation (PLEASE ONLY  
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# License Request and License Installation

- You will need the PSN number which came per e-mail from Hitex concerning the MDK-ARM power training. It will provide a time limited license.
- Start MDK5 **as administrator** (context menu / run as administrator)
- Start File/License management
- Select "Get LIC via Internet"



# License Request and License Installation

- Follow the instructions and insert PSN number

The image shows a screenshot of the KEIL website's 'Product Licensing' page and a 'Obtaining a License ID Code (LIC)' dialog box. The website has a blue header with 'arm KEIL' and a navigation bar with links: Home, Products, Download, Events, Support, Videos. A sidebar on the left lists 'Product Licensing' options: Overview, Single-User License, Single-User License Uninstall, and Floating-User License. The main content area is titled 'Single-User License' and contains instructions: 'Enter your Product Serial Number (PSN) and computer ID (CID) and obtain a License ID Code (LIC). Be sure to include dashes.' and 'Please make certain your e-mail address is valid. After registering, you will receive an e-mail containing the LIC for your computer. Enter the LIC into the New License ID Code field.' Below this is a form with fields for 'Computer ID (CID)', 'Product Serial # (PSN)', 'PC Description', and 'First Name'. A red arrow points from the bullet point 'Follow the instructions and insert PSN number' to the 'Product Serial # (PSN)' field. The dialog box, titled 'Obtaining a License ID Code (LIC)', contains the same instructions and a list of notes: 'You may register the product manually at http://www.keil.com/license/install.htm.', 'After registering, you will receive an e-mail containing the LIC for your computer.', and 'Enter the LIC into the New License ID Code field.' The dialog box also shows the 'Product Serial Number (PSN)' and 'Computer ID Number (CID): CFMSA-9PTAM'.

**arm KEIL**

Home / Product Licensing

## Single-User License

Enter your Product Serial Number (PSN) and computer ID (CID) and obtain a License ID Code (LIC). **Be sure to include dashes.**

Please make certain your e-mail address is valid. After registering, you will receive an e-mail containing the LIC for your computer. Enter the LIC into the New License ID Code field.

Enter Your Computer ID (CID)

Computer ID (CID): CFMSA-9PTAM

Product Serial # (PSN):

PC Description:

Enter a description of the PC on which this license is registered.  
For example: LAB PC, Office Computer, Laptop, John's PC, etc.

First Name:

**Obtaining a License ID Code (LIC)**

You are about to register a Product and obtain a License ID Code (LIC).

The following information must be sent to [www.keil.com](http://www.keil.com):

Product Serial Number (PSN)  
Computer ID Number (CID): CFMSA-9PTAM

Notes:

- You may register the product manually at <http://www.keil.com/license/install.htm>.
- After registering, you will receive an e-mail containing the LIC for your computer.
- Enter the LIC into the New License ID Code field.

OK Cancel

# License Request and License Installation

**arm KEIL**

Home / Product Licensing

## Thanks for Licensing Your Product

We have sent your product registration information including the License ID Code (LIC) via e-mail to [andres.richter@hitex.de](mailto:andres.richter@hitex.de).

When you receive this e-mail, copy the License ID Code (LIC) and paste it into the **New License ID Code** input field in the µVision License Manager Dialog — Single-User License Tab (available from the File Menu).

If you have multiple Keil products you may [Register Another Product](#) at this time.

**Product Licensing**

- Overview
- Single-User License
- Single-User License Uninstall
- Floating-User License

**Quick Links**

- [Licensing User's Guide](#)

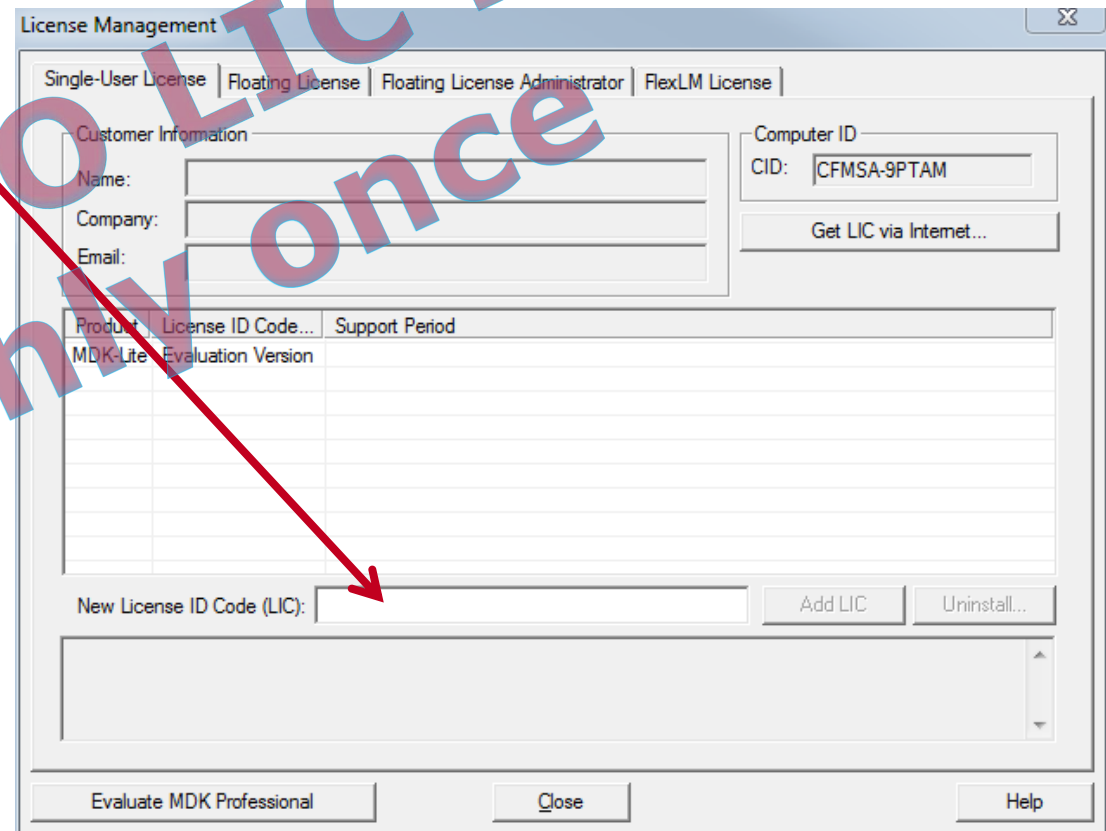
**Knowledgebase**

- [UNABLE TO REGISTER PRODUCT SERIAL NUMBER \(PSN\)](#)
- [MOVING A LICENSE TO A NEW WORKSTATION](#)
- [WHAT IS A CID?](#)

[Top 3 License Issues](#)

# License Request and License Installation

- You will get the LIC (license id code) via email
- Copy / paste to "New License ID Code"
- Select "Add LIC"
- Close license manager and restart MDK5



The screenshot shows the 'License Management' dialog box. It has tabs for 'Single-User License', 'Floating License', 'Floating License Administrator', and 'FlexLM License'. The 'Floating License' tab is selected. The 'Customer Information' section includes fields for Name, Company, and Email. The 'Computer ID' section shows CID: CFMSA-9PTAM and a 'Get LIC via Internet...' button. A table lists existing licenses with columns for Product, License ID Code..., and Support Period. The first row shows 'MDK-Lite' and 'Evaluation Version'. At the bottom, there is a 'New License ID Code (LIC):' text box, an 'Add LIC' button, and an 'Uninstall...' button. A red arrow points from the 'New License ID Code (LIC):' text box to the 'Add LIC' button.

Product	License ID Code...	Support Period
MDK-Lite	Evaluation Version	

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# Manual Pack Installation

- Your pack installation may fail if your download options are restricted by IT rules.
- The workaround is a manual download and installation:
- Visit [www.keil.com/pack](http://www.keil.com/pack) (-> [www.keil.com/dd2/pack](http://www.keil.com/dd2/pack))

The screenshot shows the ARM KEIL website. The header is blue with the 'arm KEIL' logo. Below the header is a navigation bar with links: Home, Products, Download, Events, Support, Videos, and a search bar. The main content area is divided into a left sidebar and a main section. The sidebar contains links for Product Information, Technical Support, and Software Downloads. The main section is titled 'MDK5 Software Packs' and contains text about software packs, a list of quick links, and a section for 'ABOV' semiconductor.

**arm KEIL**

Home / MDK5 Software Packs

## MDK5 Software Packs

For **MDK**, additional software components and support for microcontroller devices is provided by **software packs**. **DFP** (Device Family Pack) indicates that a software pack contains support for microcontroller devices.

The following software packs are provided by ARM® or third parties. For each software pack, a version history is available and you may choose to download previous versions.

### ABOV

➤ [ABOV Semiconductor CM0 Device Support, Drivers and Examples](#)

**Quick Links**

- [Device List](#)
- [MDK Version 5](#)
- [Legacy Support](#)
- [Feedback](#)

**Software Downloads**

- Product Downloads
- File Downloads

**Product Information**

- Product Overview
- Supported Microcontrollers
- Shows and Seminars

**Technical Support**

- Support Knowledgebase
- Product Manuals
- Application Notes
- Discussion Forum


**ABOV**


➤ [ABOV Semiconductor CM0 Device Support, Drivers and Examples](#)

**DFP** **1.0.3** [Download](#)

- Download **CMSIS**
  - Scroll down to ARM and unfold CMSIS
  - Download current CMSIS pack (at top of the list)

## ARM

 CMSIS (Cortex Microcontroller Software Interface Standard) BSP DFP

Version:	ARM.CMSIS	pack	 Download
■ CMSIS-Core	(see revision history for details)		
■ CMSIS-DSP	(no source code change [still labeled ], see revision history for details)		
■ CMSIS-PACK	(adding memory attributes, algorithm style)		
■ CMSIS-Driver	(adding CAN [Controller Area Network] API)		
■ CMSIS-RTOS			

# Manual Pack Installation

## ■ Download matching Device Support Packages

- Select Keil
- Scroll down and download current \*.\_DFP

### Infinion

➤ Infineon XMC1000 Series Device Support, Drivers and Examples Note: The	BSP	DFP	2.9.0	↓
➤ Infineon XMC4000 Series Device Support, Drivers and Examples Note: The	BSP	DFP	2.11.0	↓
➤ Infineon TLE984x Series Device Support	BSP	DFP	1.1.1	↓
➤ Infineon TLE986x Series Device Support	BSP	DFP	1.4.0	↓
➤ Infineon TLE987x Series Device Support	BSP	DFP	1.4.0	↓

### Keil

← NXP LPC4300 (MCB4357)

➤ ARM V2M-MPS2 Board Support PACK for Cortex-M System Design Kit	BSP	DFP	1.7.0	↓
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## ■ MCB4357

[▼ NXP LPC4300 Series Device Support, Drivers and Examples](#) BSP DFP 2.8.0

**Version: 2.8.0** (2017-11-16) *Keil.LPC4300\_DFP.2.8.0.pack* [Download](#)

Device Support:

- Updated system file with corrected SystemCoreClock initial value to match SystemInit function

Debug Description:

- Updated debug sequences: use read modify write operation on updating DEMCR\_Addr to avoid side effects.

Board Examples:

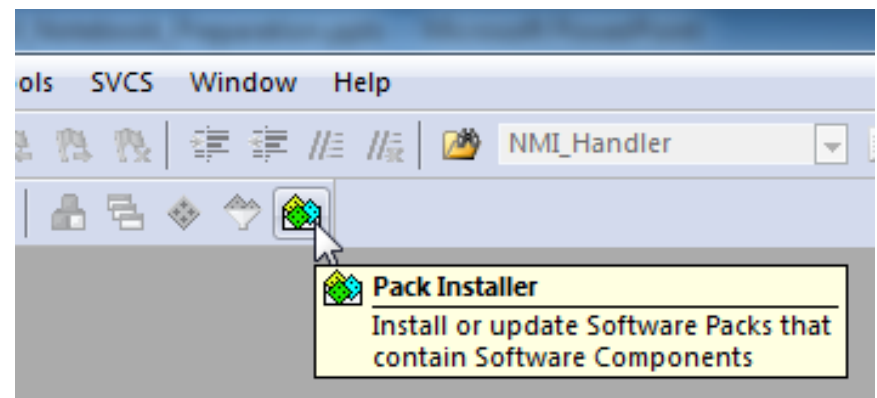
- Updated Board Support LED\_\*.c files.
- Updated USB Device Audio example for Keil MCB4300 evaluation board
- Updated examples for MDK-Middleware Network using Cbundle="MDK-Pro Net\_v6"

CMSIS-Driver:

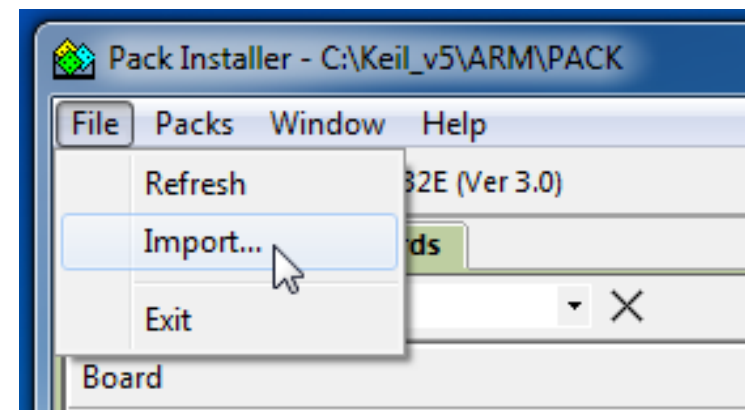
- Updated CAN driver:
  - Corrected SetBtrRate function
- Updated EMAC driver:
  - Added support for CMSIS-RTOS2

# Manual Pack Installation

- Install the downloaded files manually in the pack installer
  - open pack installer, e.g. from  $\mu$ Vision IDE



- Select **File / Import**
- Select the appropriate packs
  - ARM.CMSIS.xxx.pack
  - Keil.<derivate>.\_DFP.x.x.x.pack



# Thank you for preparing. Enjoy your training.

**Learn more about Hitex at [www.hitex.com](http://www.hitex.com)**