Hands-on Professional Middleware für Cortex-M

prior to the day of the training

MDK-ARM Trainings Preparation

- **Notebook and Tools**

- **Download and Installation of the MDK**

- **MCB4357: Selection of Board and Target, Pack Installation**

- **License Request and License Installation (PLEASE ONLY ONCE)**

- **Appendix, Manual Pack Installation**

- Notebook with local admin rights

- MS Windows XP, Vista, Win7, Win8
- pdf viewer

- MDK and Training needs:
  - 512MB RAM available,
  - 1GB ROM,
  - 2x USB

- Rights for connecting external USB Stick

- Mouse might be helpful (3rd USB slot)

Download and Installation of the MDK

- **https://www.keil.com/download/product/**

- **Enter PSN (from email)**

- **Submit**

Download and Installation of the MDK

- Select Download (IF YOU ALREADY HAVE MDK SKIP TO SLIDE 9 "PACK INSTALLATION")

Download and Installation of the MDK

- Start mdk5xx.exe as administrator and follow the instructions
- Do not change the suggested paths
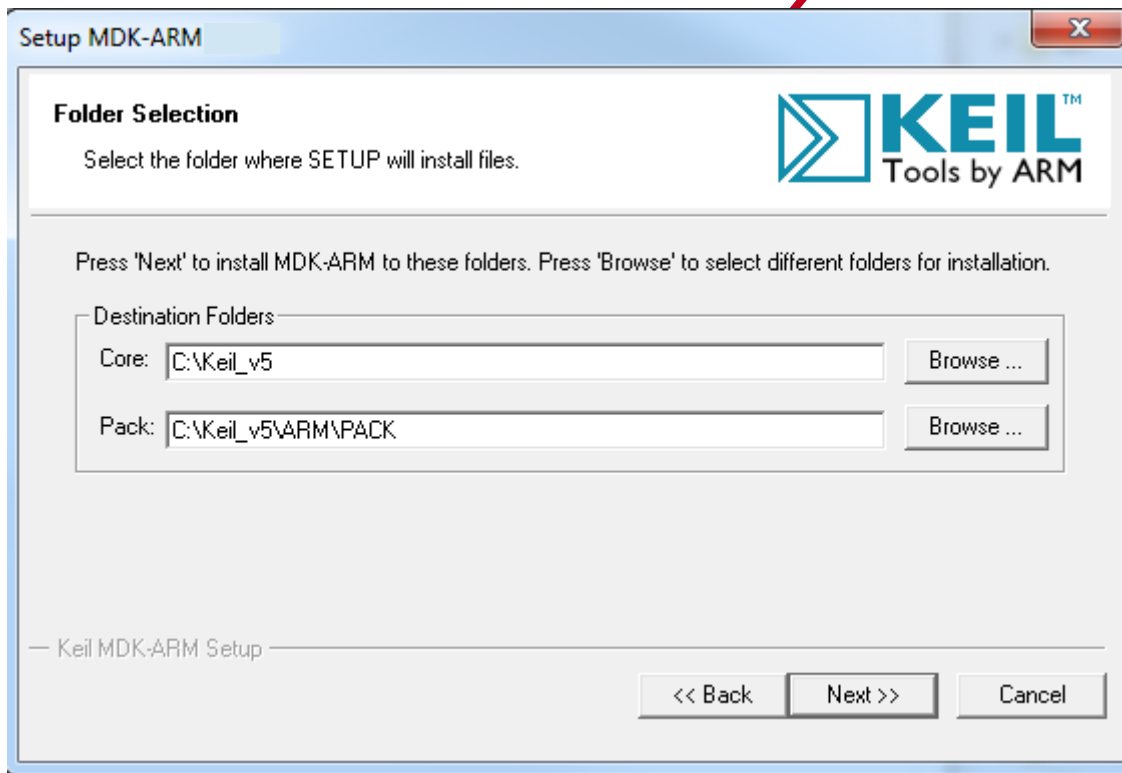
Download and Installation of the MDK

- Install all components and finish installation

- The pack installer will start
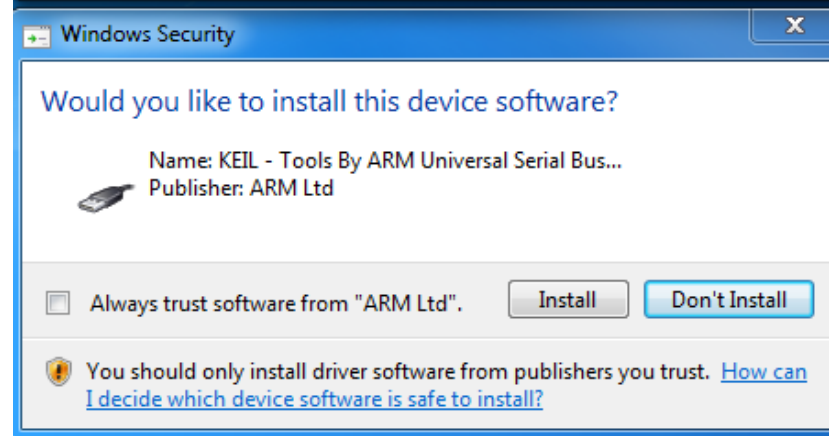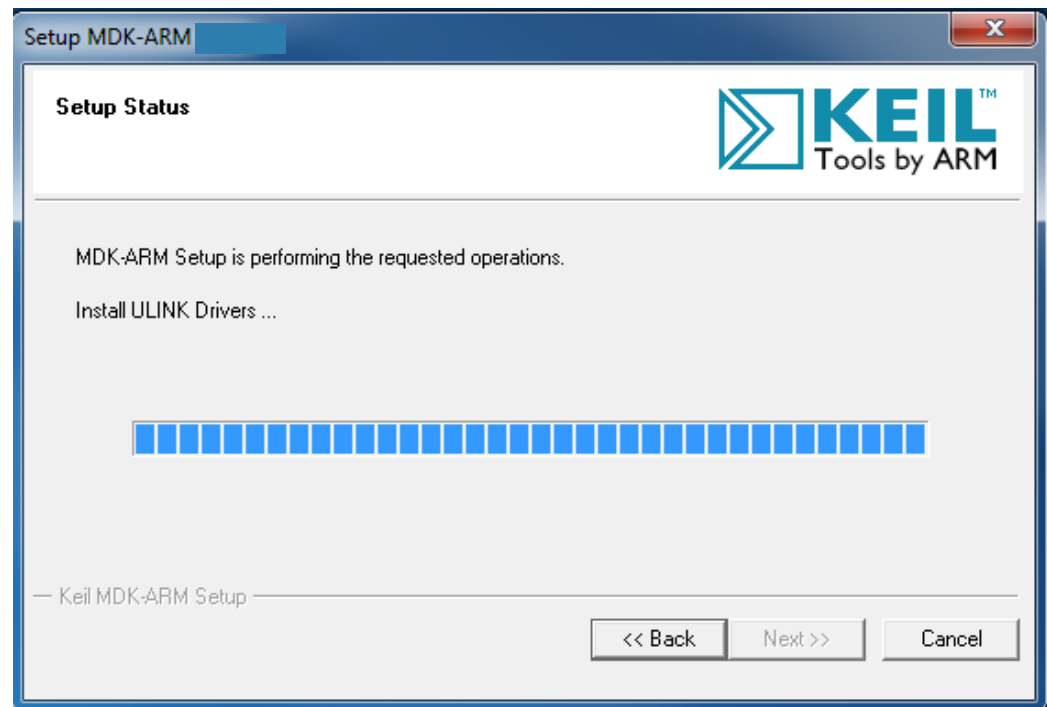
Pack Installation

- **Acknowledge the pack installation**
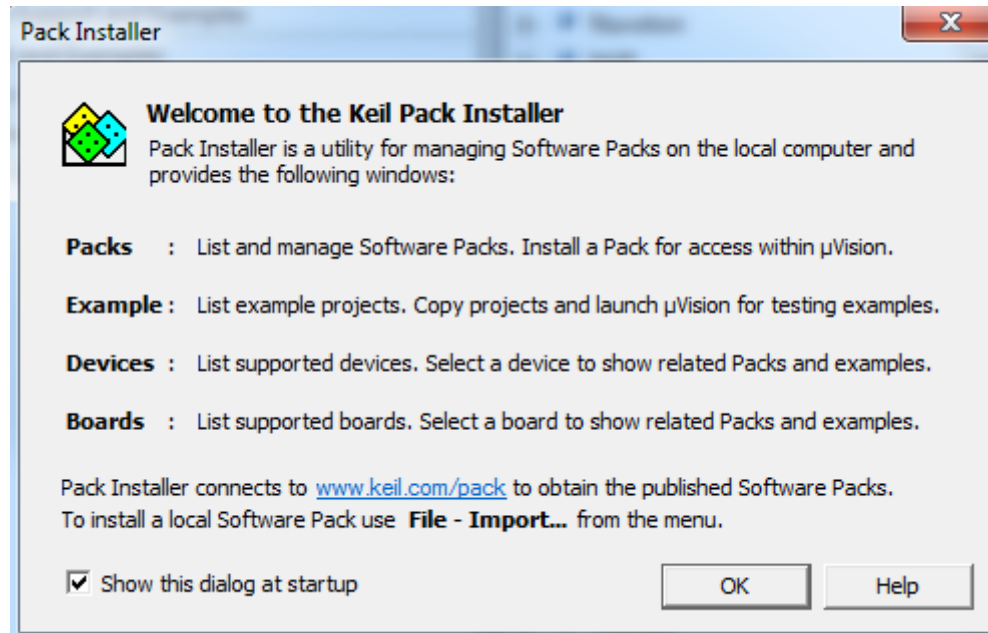
Pack Installation

- 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
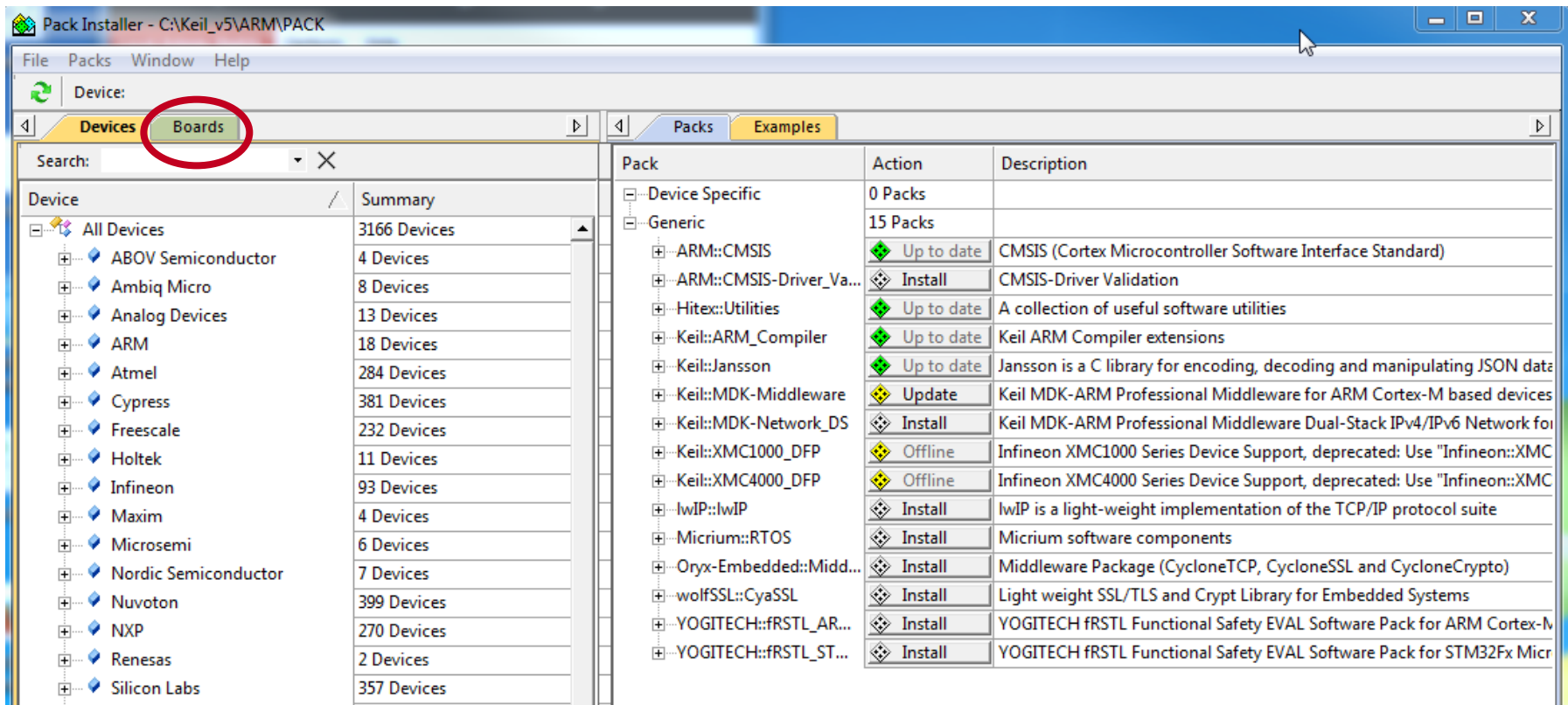
MCB4357 Pack Installation

- „Select the device **NXP::LPC4300::LPC4357**
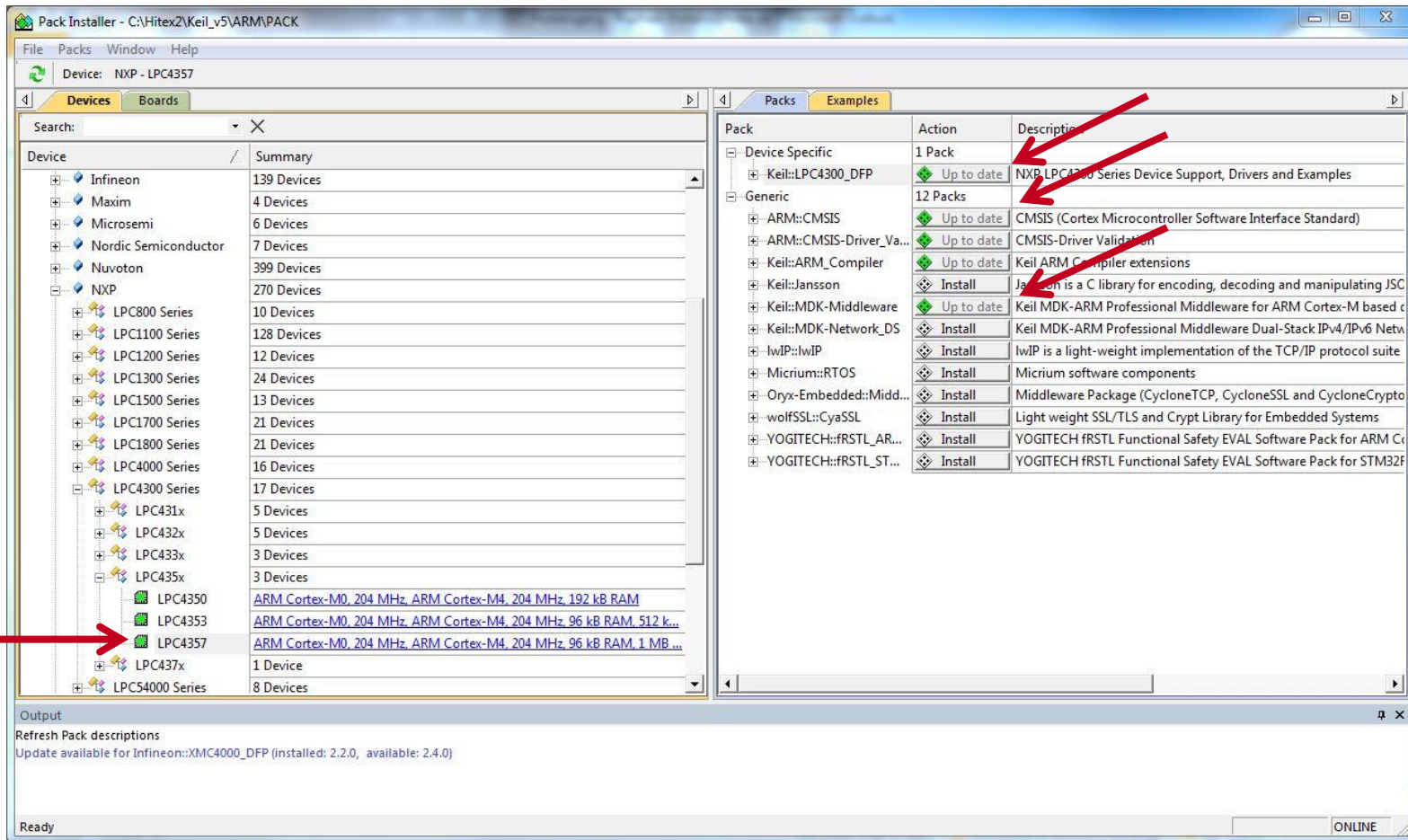
and install ARM-CMSIS, Middleware and *_DFP

- See the progress of installation down at the right corner
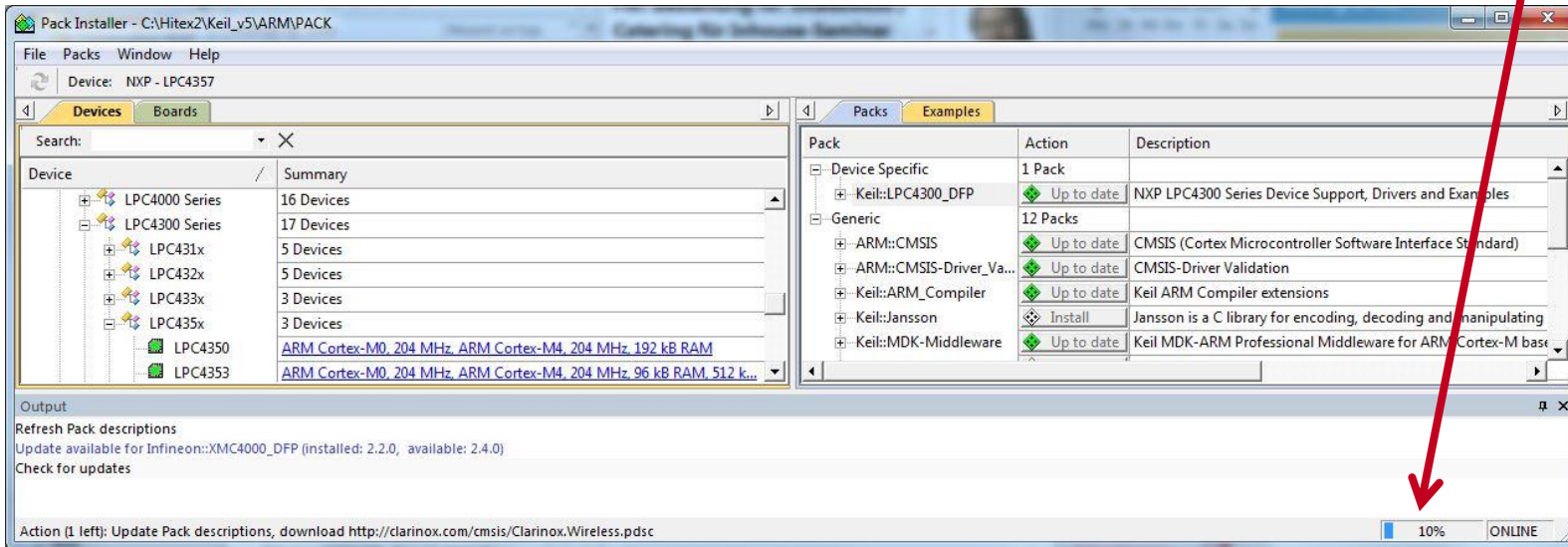
- **Up to date** after installation

- File / Exit
  will close
  pack installer
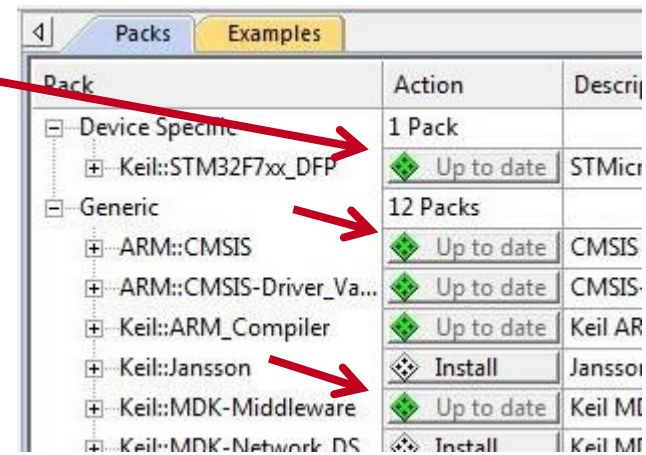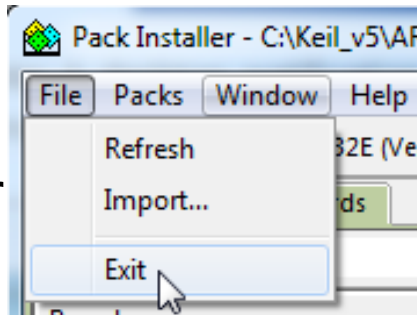
License Request and License Installation

- 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 the MDK5 **as administrator** (context menu / run as administrator)

- Start

  File/License management

- Select

  "Get LIC via Internet"
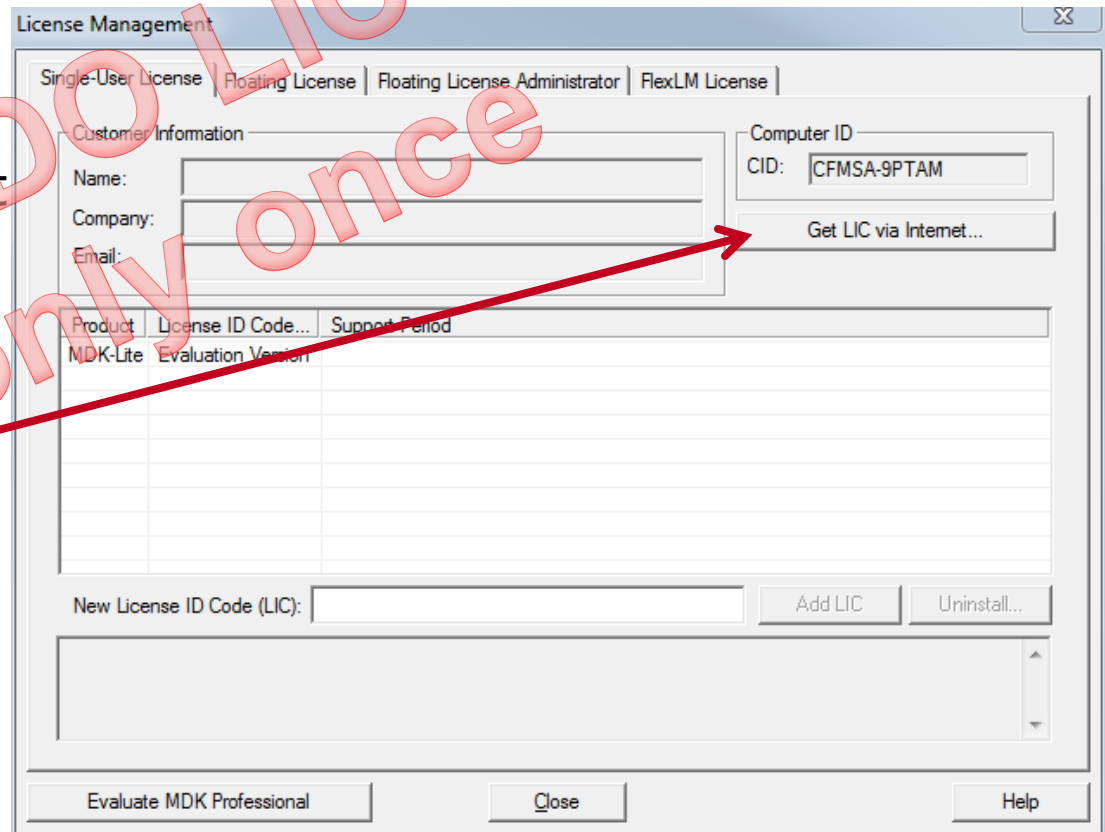
■ Follow the instructions and insert PSN number

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
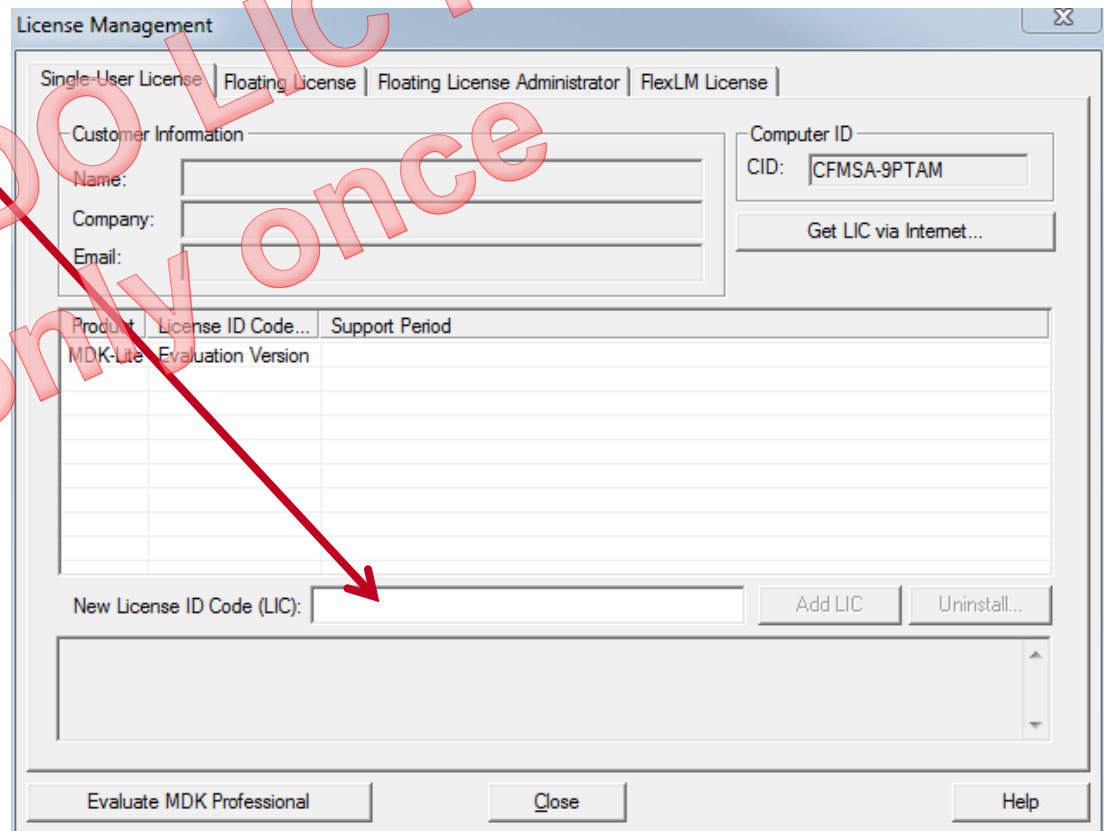
MDK-ARM Trainings Preparation

- Notebook and Tools

- Download and Installation of the MDK

- NXP: Selection of Board and Target, Pack Installation

- STM: Selection of Board and Target, Pack Installation

- IFX: Selection of Board and Target, Pack Installation

- License Request and License Installation (PLEASE ONLY ONCE)

- **Appendix, Manual Pack Installation**

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:
- Vist **www.keil.com/pack** (-> www.keil.com/dd2/pack)
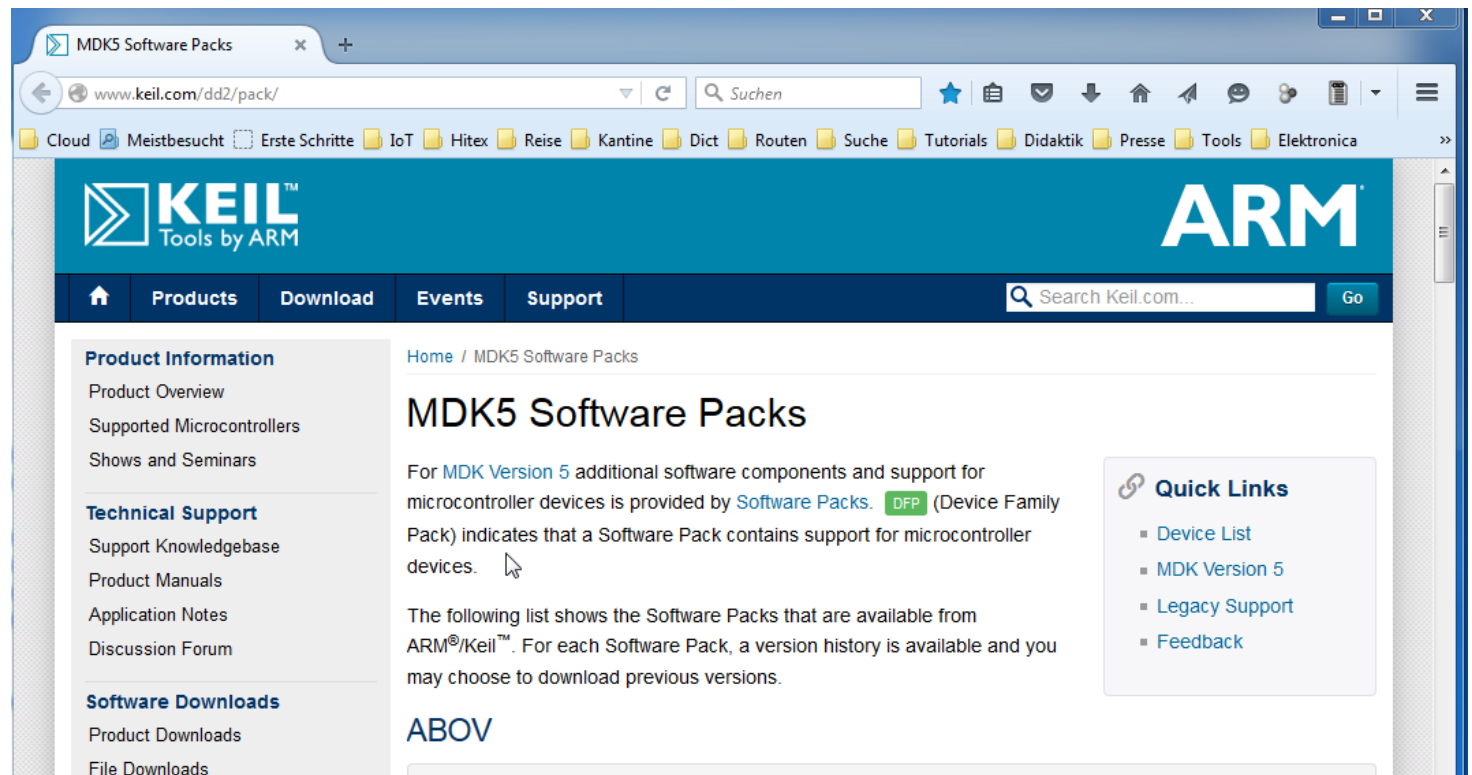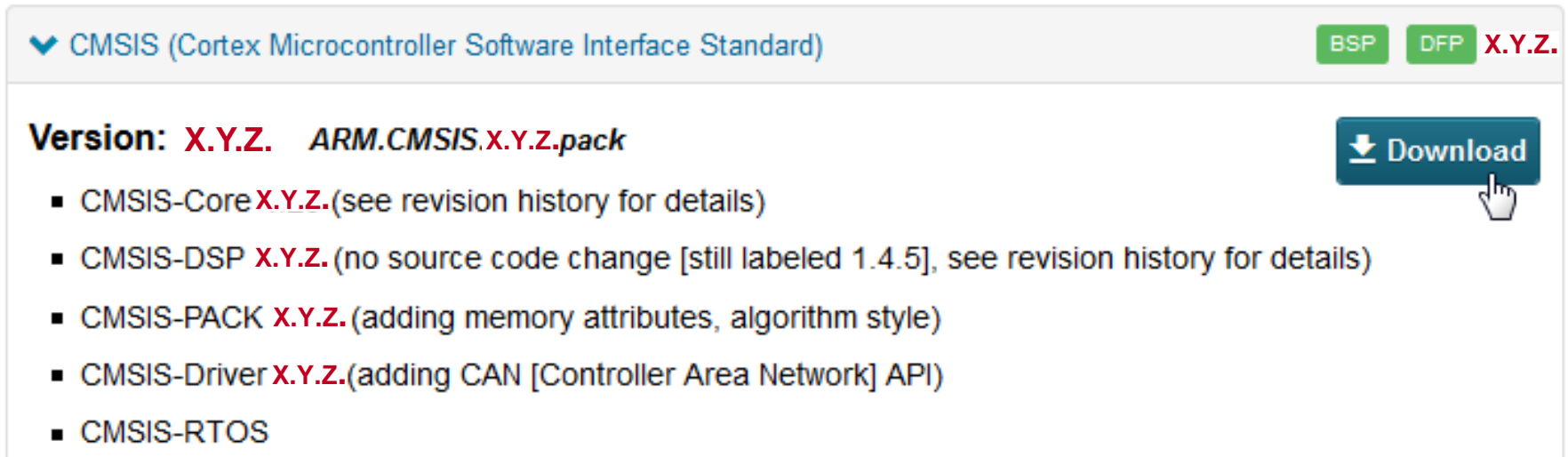
Manual Pack Installation

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

Manual Pack Installation

- **Download matching Device Support Packages**
  - □ Select Keil
  - □ Scroll down and download current *._DFP

Infineon

> Infineon TLE986x Series Device Support — BSP DFP 1.2.1

> Infineon TLE987x Series Device Support — BSP DFP 1.2.1

> Infineon XMC1000 Series Device Support — BSP DFP 2.1.0

> Infineon XMC4000 Series Device Support, Drivers and Examples — BSP DFP 2.3.0

Keil ← LPC NXP4357 (MCB4357)

> Analog Devices ARM Cortex-M4 CM4xx Family Device Support — BSP DFP 1.0.1

- MCB4357

NXP LPC4300 Series Device Support, Drivers and Examples `BSP` `DFP` 2.5.0

Version: 2.5.0   *Keil.LPC4300_DFP.2.5.0.pack*   ⬇ Download

Updated CMSIS drivers:

- I2C, MCI, EMAC, I2S, SPI, USART, USB Device, USB Host: Updated initialization, uninitialization and power procedures

- I2S, SPI, USART, USB Device, USB Host: Corrected status bit-field race conditions

- MCI:

-- Interrupt processing optimized
-- Data timeout handling corrected
Updated example USB device VirtualCOM

Version: 2.4.0   *Keil.LPC4300_DFP.2.4.0.pack*   ⬇ Download

Device support:

- updated device features

Updated CMSIS Driver:

- I2S: improved fs divider calculation

- MCI: avoid DMA buffer alignment issues

- USART:

-- corrected disabling of receive DMA channel when aborting Receive or Transfer
-- moved fract_div_lookup_table from header file to driver .c file
Updated Example for USB Device Mass Storage

Version: 2.3.0   *Keil.LPC4300_DFP.2.3.0.pack*   ⬇ Download
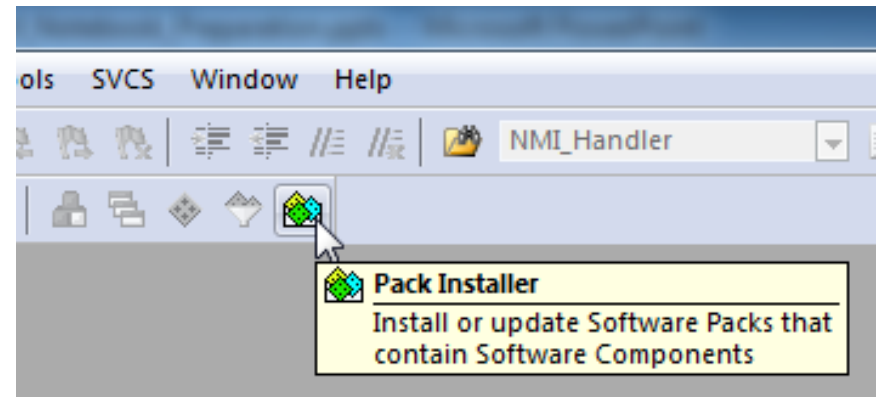
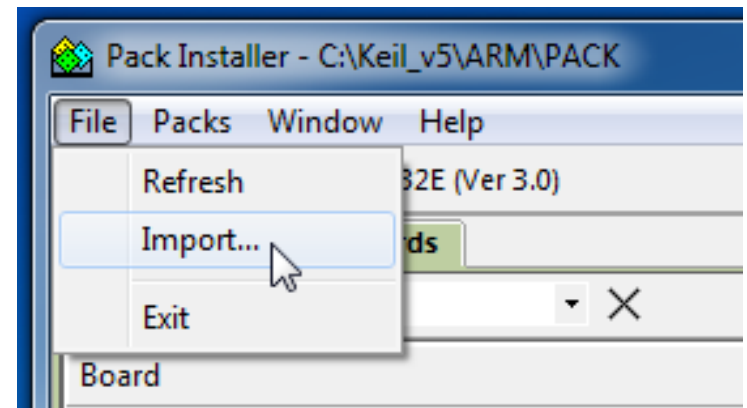Required PACKs: ARM.CMSIS.4.3.0.pack, Keil.MDK-Middleware.6.3.0.pack, Keil.ARM_Compiler.1.0.0.pack
Updated drivers:

Manual Pack Installation

- **Install the downloaded files manually in the pack installer**
  - □ open pack installer, e.g.from µVision IDE

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

Thank you for preparing. Have an interesting and succesful training.