800W PSU control board programming

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restricted

Agenda

1. Programming SW requirements and installation
2. Programming HW and connections
3. XMC programming with XMC flasher
4. Connect and device selection

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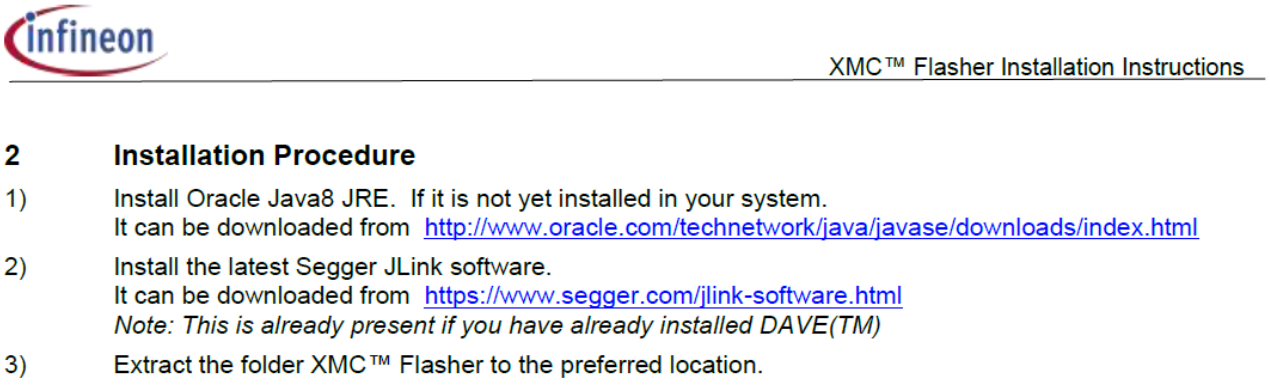
XMC Flasher (programming SW)

- Available online in Infineon Website
- The zip file includes pdf with installation instructions
  - Installation requirements: Java JRE and JLINK software required (links provided in pdf file)
  - Installation procedure



XMC™ Flasher Installation Instructions

2 Installation Procedure

1) Install Oracle Java8 JRE. If it is not yet installed in your system.
It can be downloaded from http://www.oracle.com/technetwork/java/javase/downloads/index.html

2) Install the latest Segger JLink software.
It can be downloaded from https://www.segger.com/jlink-software.html
Note: This is already present if you have already installed DAVE(TM)

3) Extract the folder XMC™ Flasher to the preferred location.

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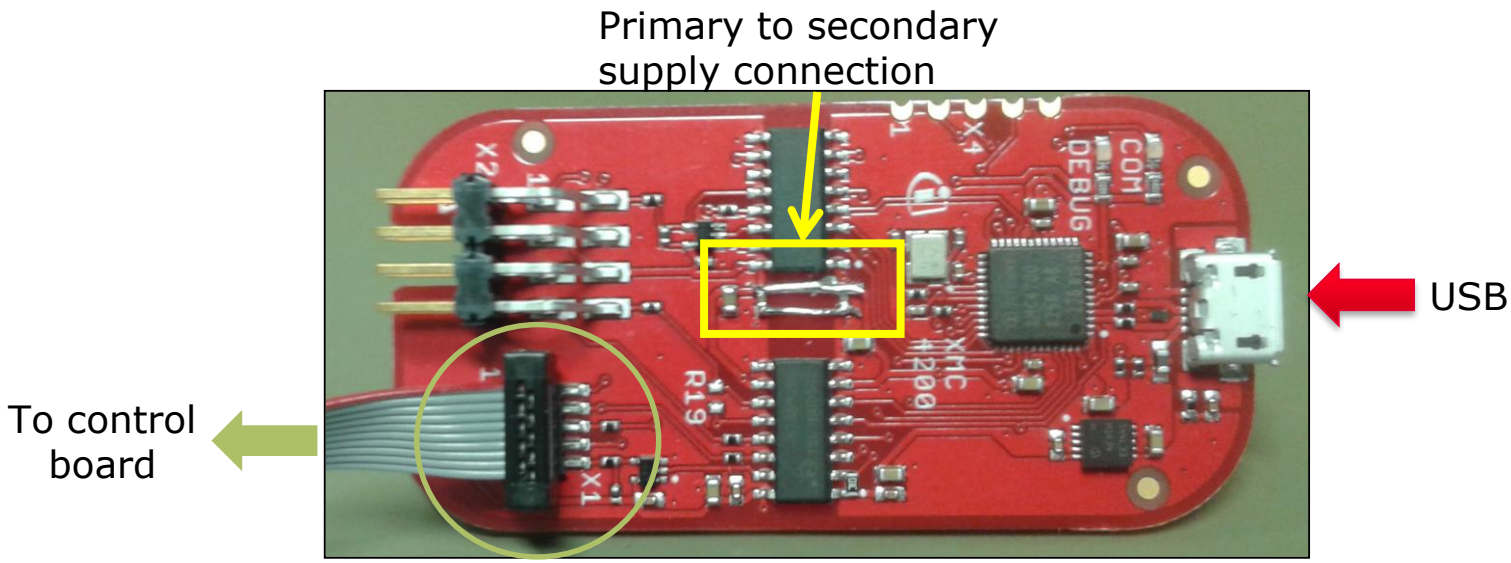
XMC link (programming HW)

- XMC link board using 10 pin connector
- NO ISOLATION
  - Supply of the board is done using the USB voltage from the computer
  - **DO NOT CONNECT TO THE CONTROL BOARD WHEN THE POWER STAGE IS ALSO CONNECTED**



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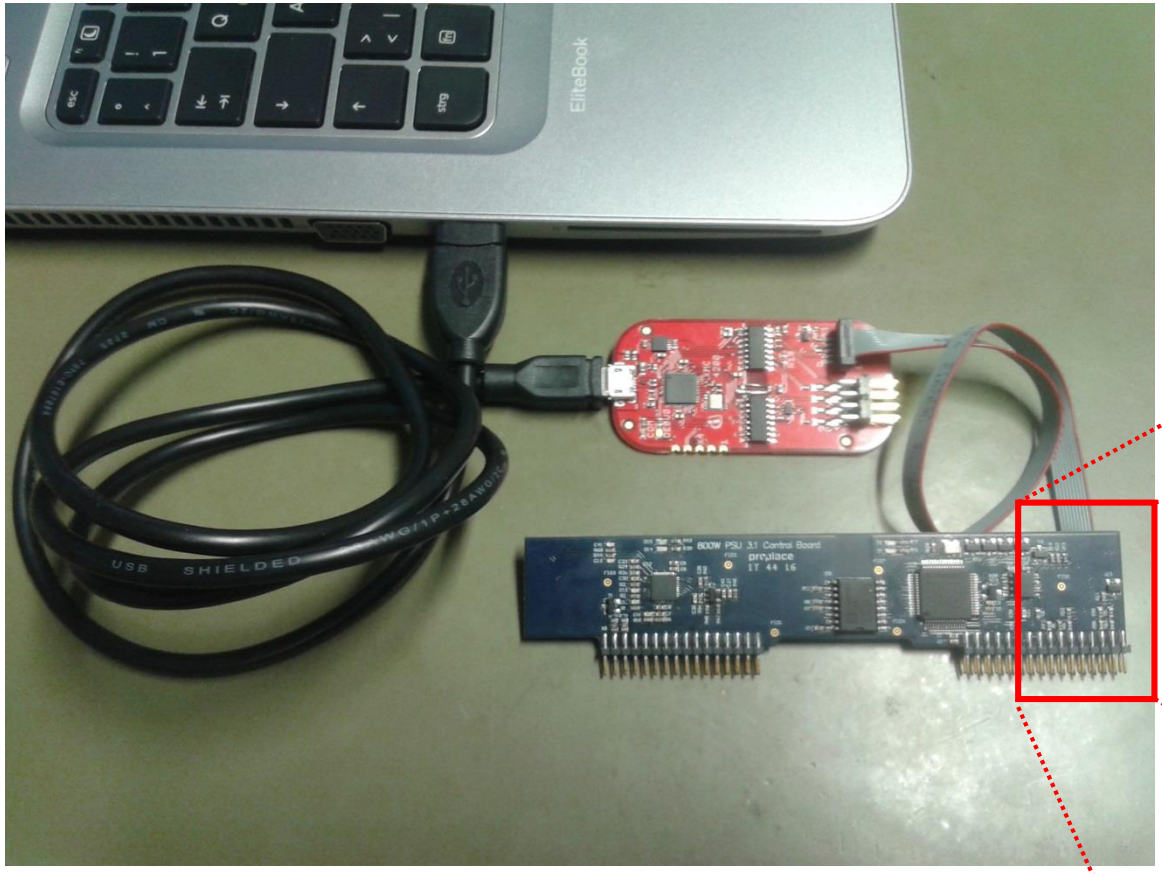
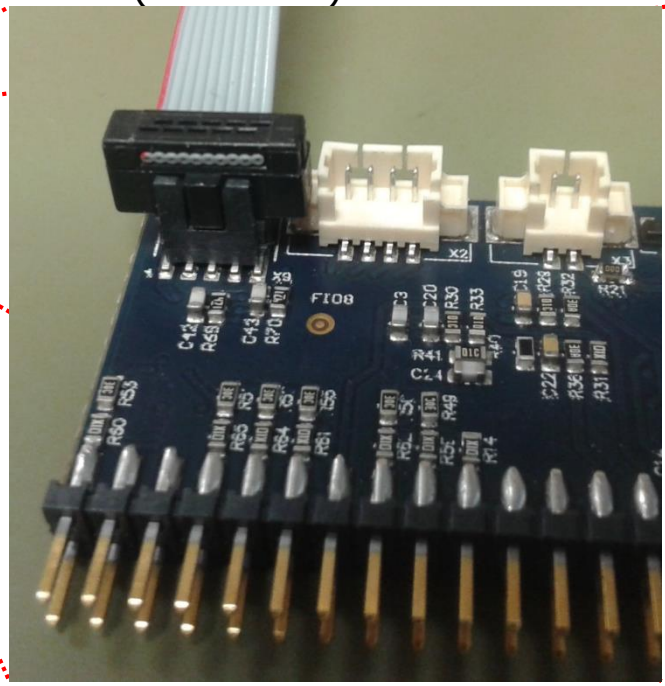
General connection and control board detail



Control board connection detail (XMC4200)



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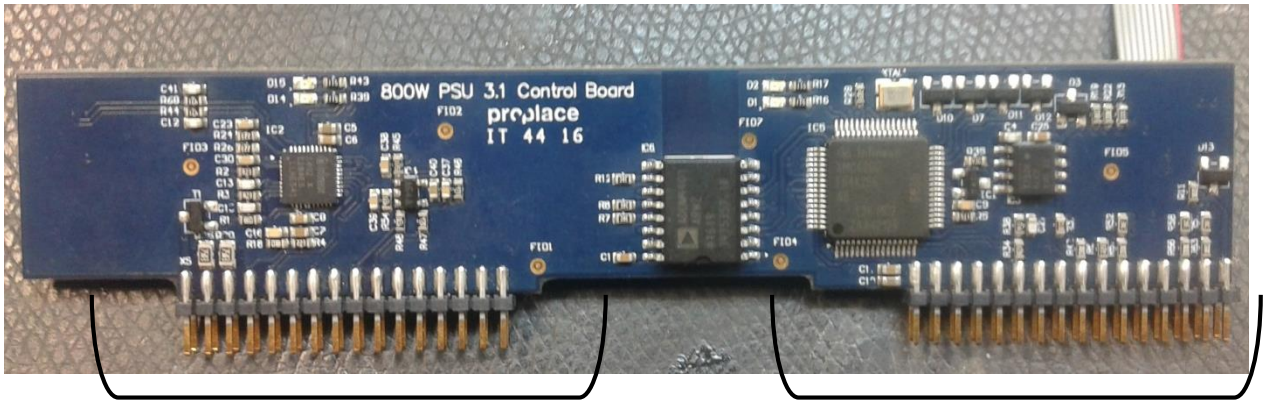
Control board

- Two microcontrollers to be programmed
  - XMC1402-0128 (left side of the board)
  - XMC4200-256 (right side of the board)
- Dedicated connectors in PCB bottom. For connection see the detail in the previous slide.



XMC1402-0128 XMC4200-256

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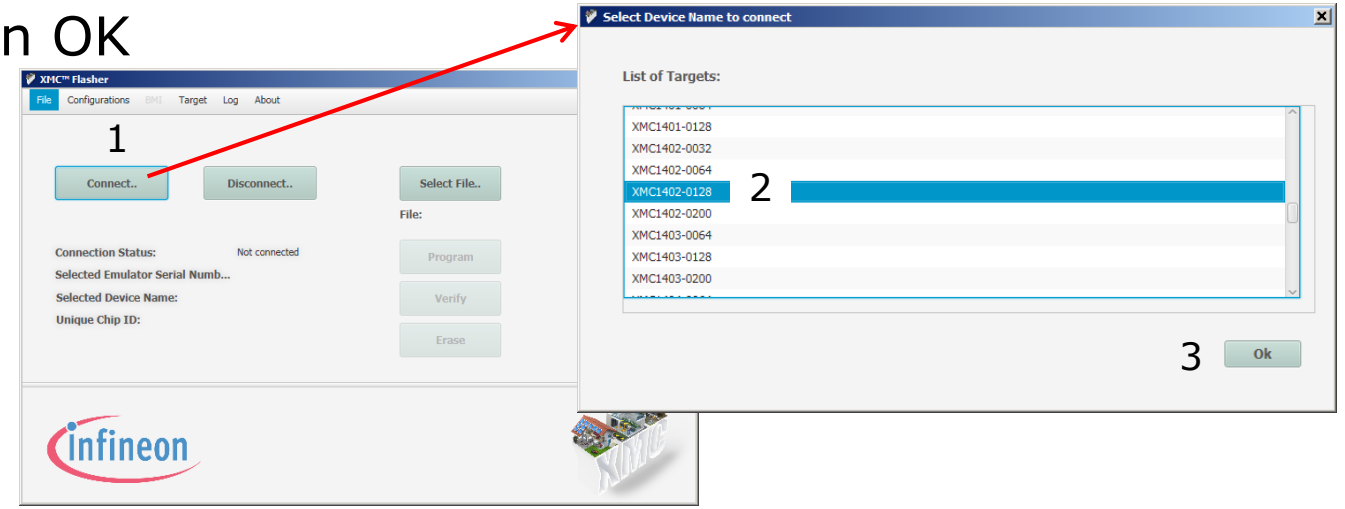
XMC programming with XMC flasher

- Connect the control board to the PC as shown before
- Open XMC flasher: double click in executable (XMCFlasher.jar) in the selected folder
- Connect to target
  - 1. click in connect
  - 2. selet the proper microcontroller (XMC1402-0128 or XMC4200-256)
  - 3. click in OK



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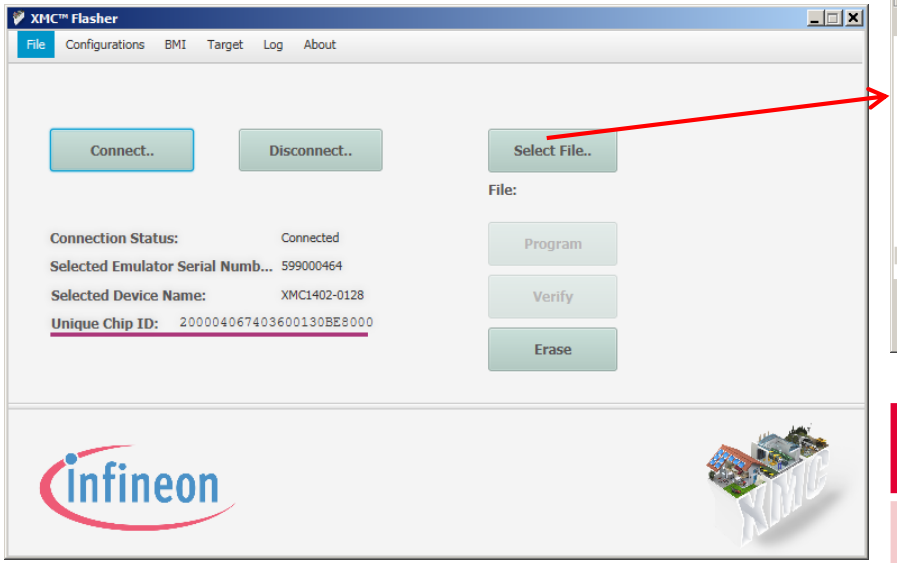
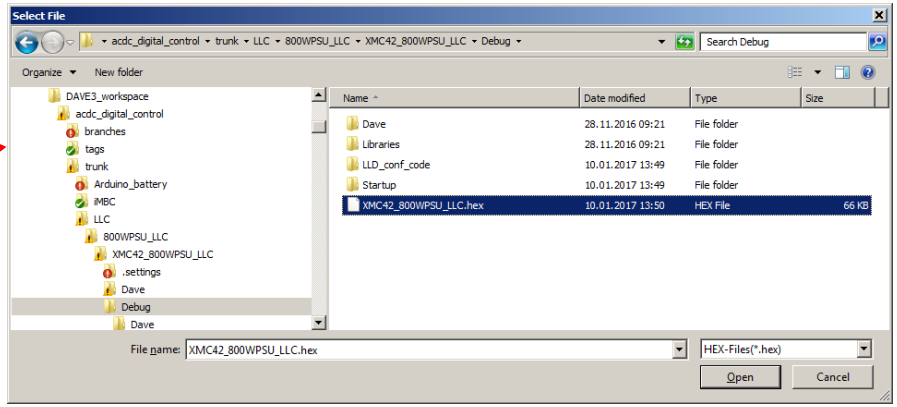
XMC programming with XMC flasher

- Status after connection
  - Unique chip ID shown and status changes to Connected
- Then „Select File“
  - Select the .hex to be downloaded and click „open“





Hex file	Microcontroller
XMC14_800WPSU_PFC_V10.hex	XMC1402-0128
XMC42_800WPSU_LLC_C7-4pin_V10.hex	XMC4200-256

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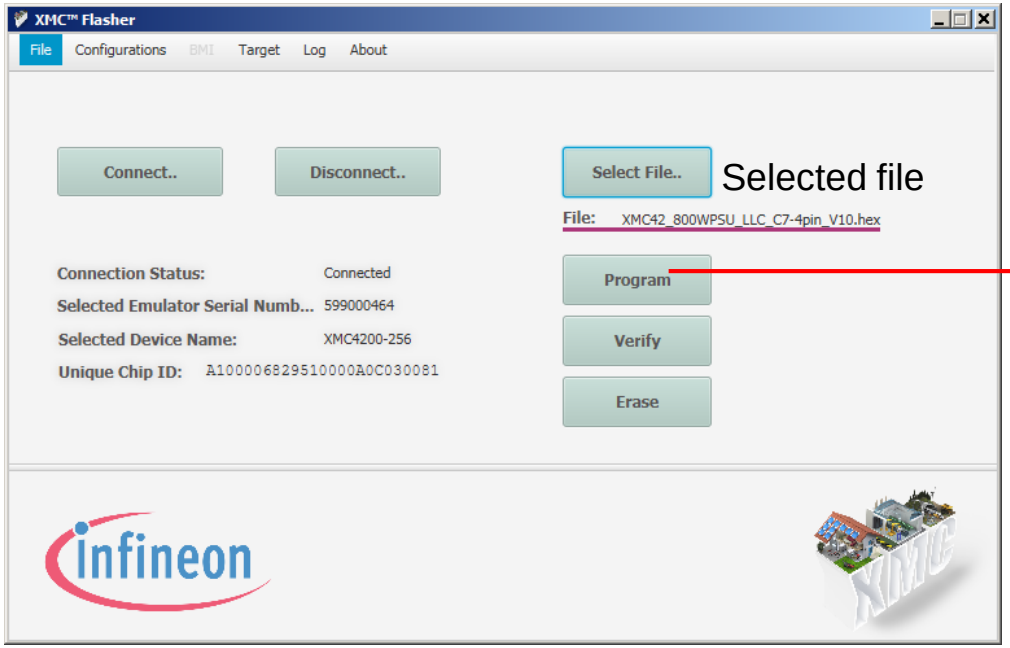
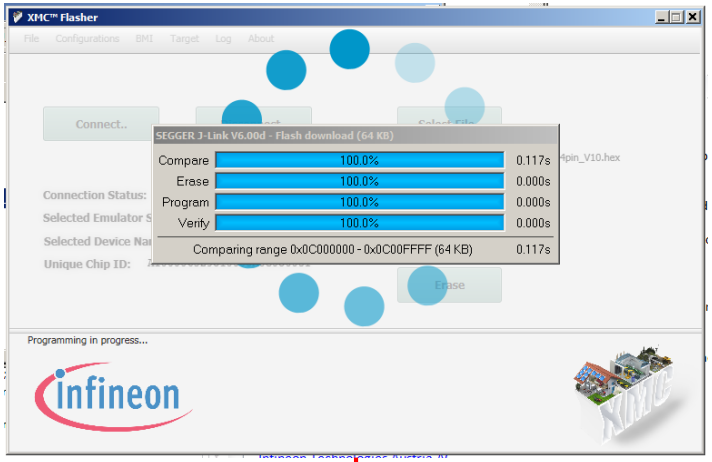
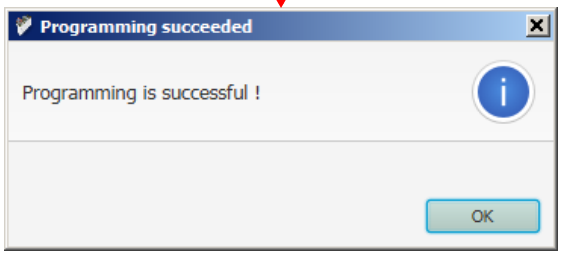
XMC programming with XMC flasher

› After the file is selected: click in „Program“







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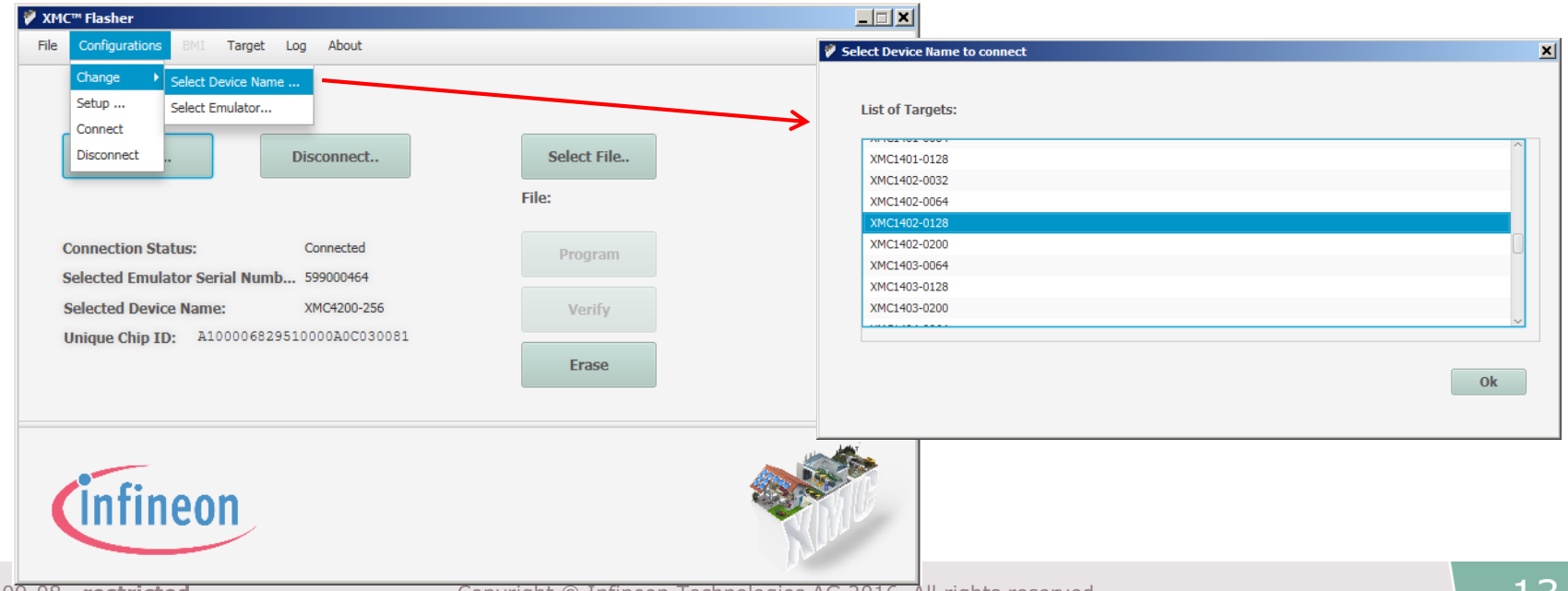
Connect and device selection

- Device selection is important since the control board has two different microcontrollers
  - When click on connect for the first time
    - Procedure explained before
  - Alternatively: „Configuration>Select Device Name“
    - After changing the device, click in „Connect“



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