ARM Development Primer

Call to ARM(s)

November 13, 2017

Fred Eady

Presented by:

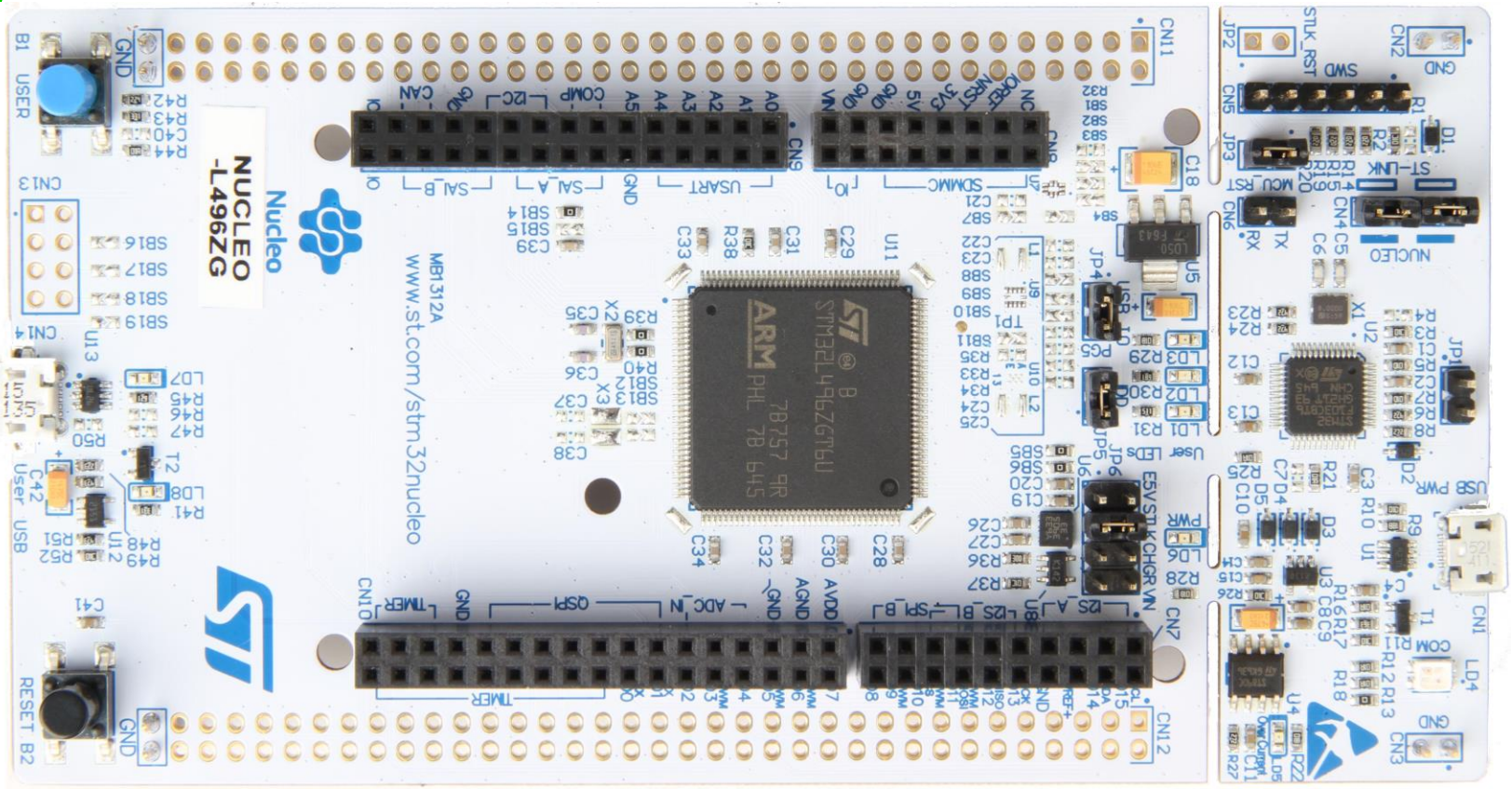
DesignNews

CEC CONTINUING EDUCATION CENTER

Digi-Key ELECTRONICS

AGENDA

- STMicroelectronics Tools
- Microchip/Atmel Tools
- Day 1's Done



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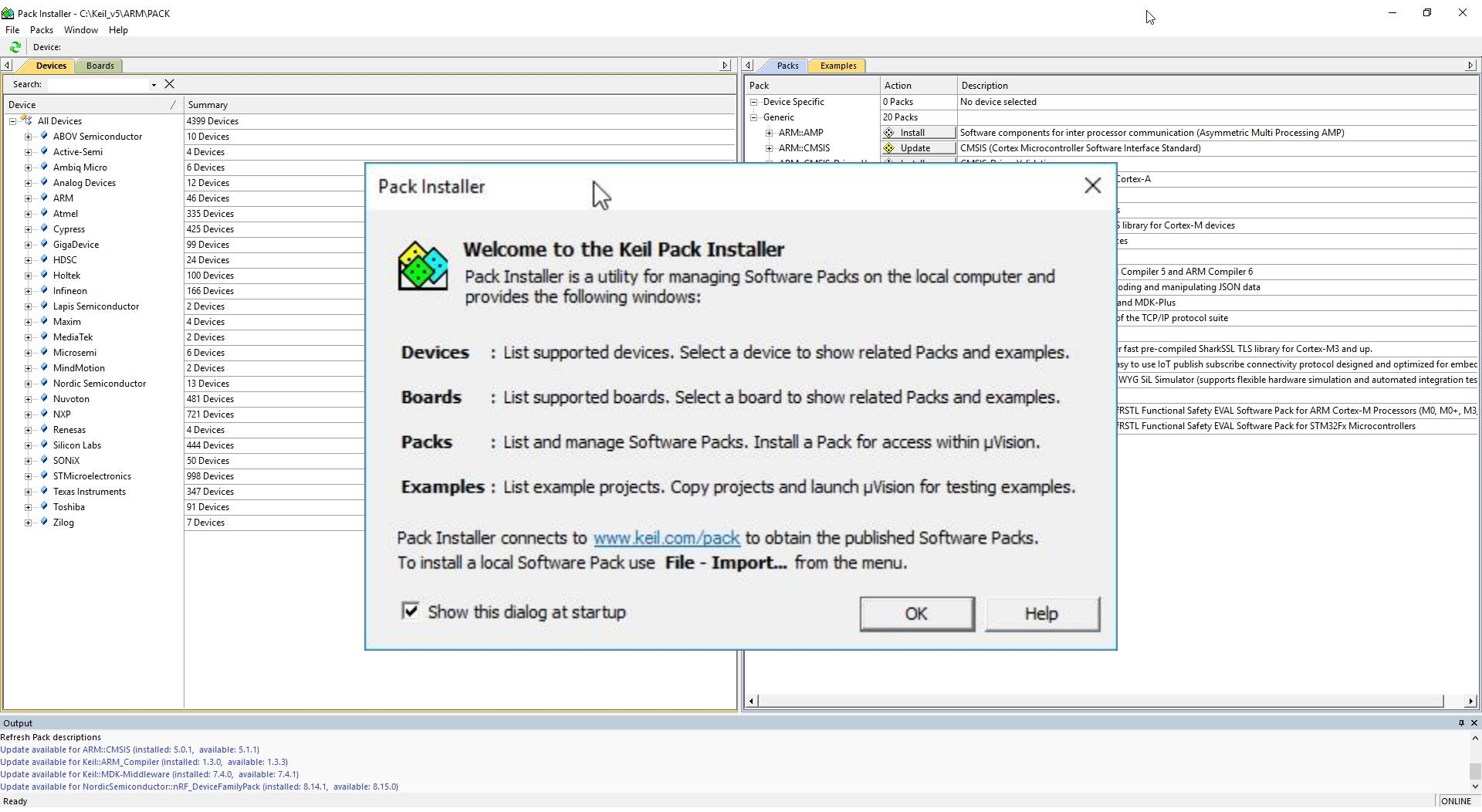
STMicroelectronics Tools – Keil Support



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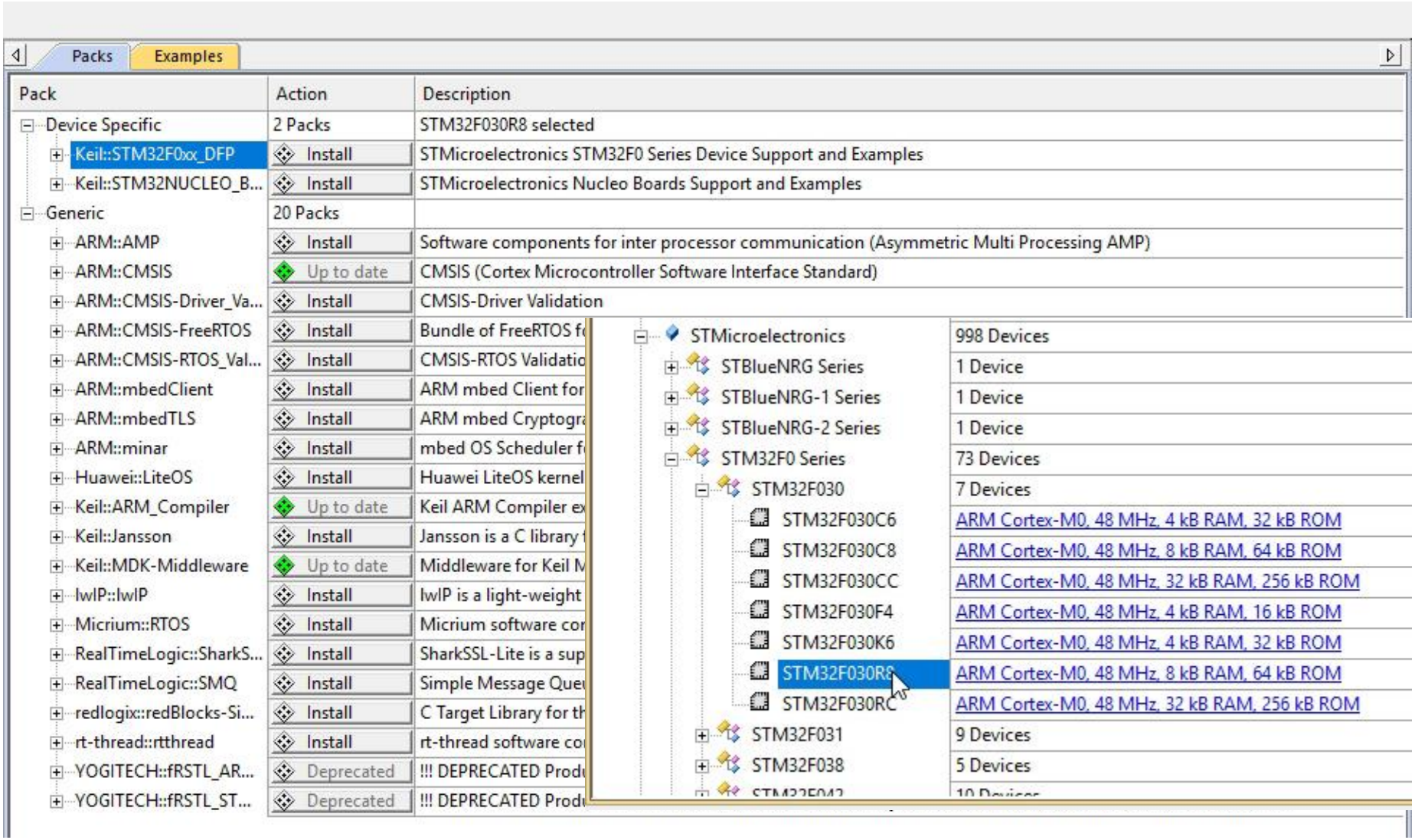

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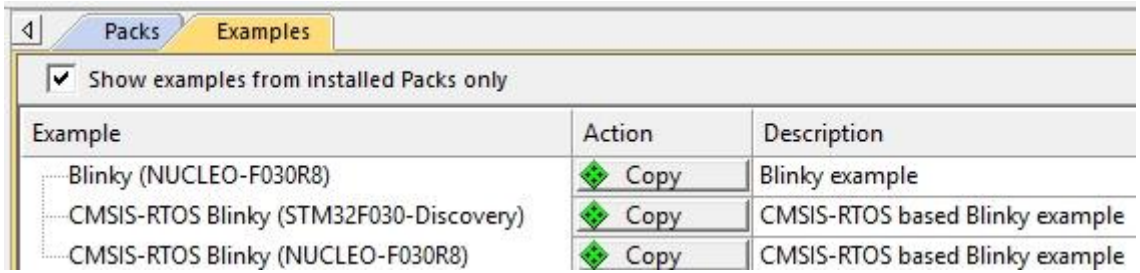

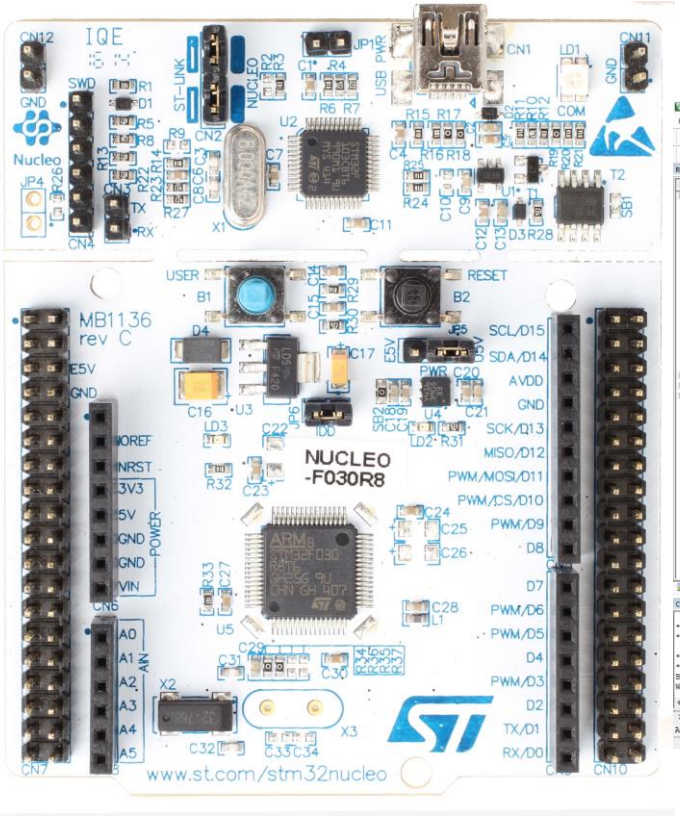

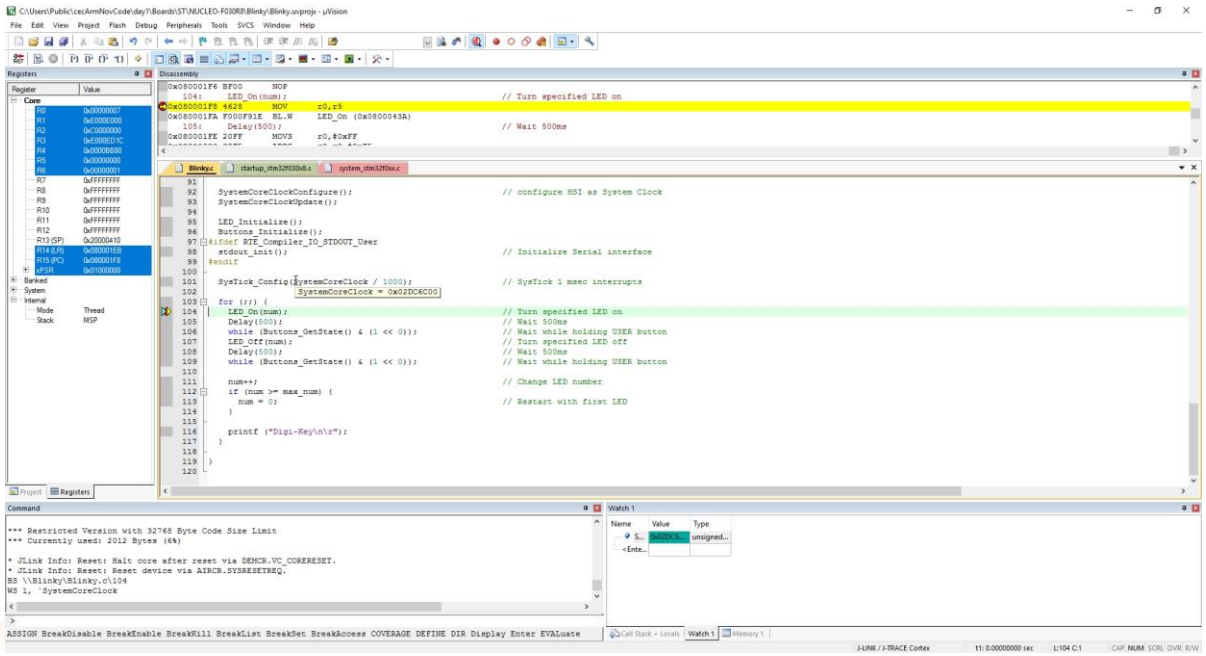

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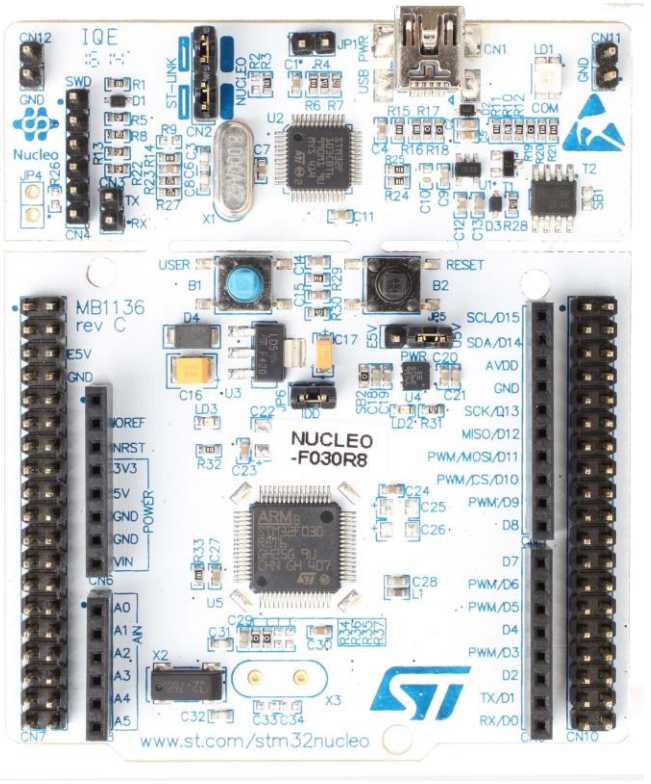
STMicroelectronics Tools – Segger Support



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STMicroelectronics Tools – Segger Support

C:\Users\Fred\Downloads\STLinkReflash_170807\STLinkReflash.exe

```
(c) 2016 SEGGER Microcontroller GmbH & Co. KG    www.segger.com
STLinkReflash compiled Aug  7 2017 18:31:24

The following terms come from SEGGER Microcontroller GmbH & Co. KG ("SEGGER")
You must agree to them in order to proceed.

================================================================================
* IMPORTANT *
This utility enables You to replace the firmware of an existing ST-LINK
on-board with firmware from SEGGER that makes the ST-LINK on-board
behave J-Link compatible. You do this replacement at Your own risk.
Though extremely unlikely, You are aware that the replacement process may
result in an unusable ST-LINK on-board. The utility and firmware from SEGGER
are provided on an as-is basis and come without any warranty
and without support.
You further agree to only use the firmware provided by SEGGER via this utility,
within the bounds of the license stated on the download page:
https://www.segger.com/jlink-st-link.html
Except as expressly set forth in this agreement,
the Agreement remains unchanged and continues in full force and effect.

================================================================================

I hereby accept the terms provided by SEGGER.
(A)ccept / (D)ecline
Selection>
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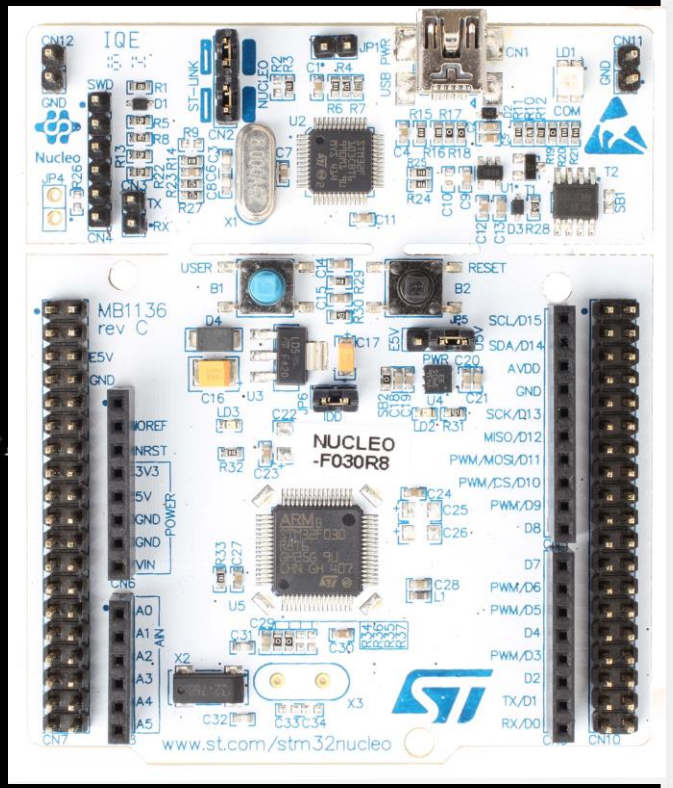

ARM Development Primer

STMicroelectronics Tools – Segger Support

C:\Users\Fred\Downloads\STLinkReflash_170807\STLinkReflash.exe

```
into an Evaluation Board License Agreement ("Agreement") with ST.
You may install the SEGGER J-Link software ("J-Link") onto Your ST
Evaluation Board only if You  agree to this amendment ("Amendment")
of the Agreement.
STMICROELECTRONICS ("ST") hereby authorizes You to install
SEGGER J-Link software ("J-Link") onto Your ST Evaluation Board,
as an exception to the terms and conditions of the Agreement.
You acknowledge and agree that J-Link is provided solely by SEGGER,
and not by ST. You acknowledge and agree that ST does not endorse, recommend,
nor provide any assurance or warranty, whether express
or implied, in relation to J-Link or its use with Your ST Evaluation Board.
You acknowledge and agree that ST shall not be liable for any direct, indirect,
special, incidental or consequential damages resulting from Your use of J-Link,
even if advised of the possibility thereof.
This Amendment shall be governed, construed and enforced in accordance with the
laws of Switzerland.
Except as expressly set forth in this Amendment, the Agreement remains unchanged
and continues in full force and effect.

================================================================================

I hereby accept the amendment to the Evaluation Board License Agreement
provided by STMICROELECTRONICS ("ST")(A)ccept / (D)ecline
Selection>a

[0] Quit
[1] Upgrade to J-Link
[2] Update J-Link firmware
[3] Restore ST-Link
Selection>1
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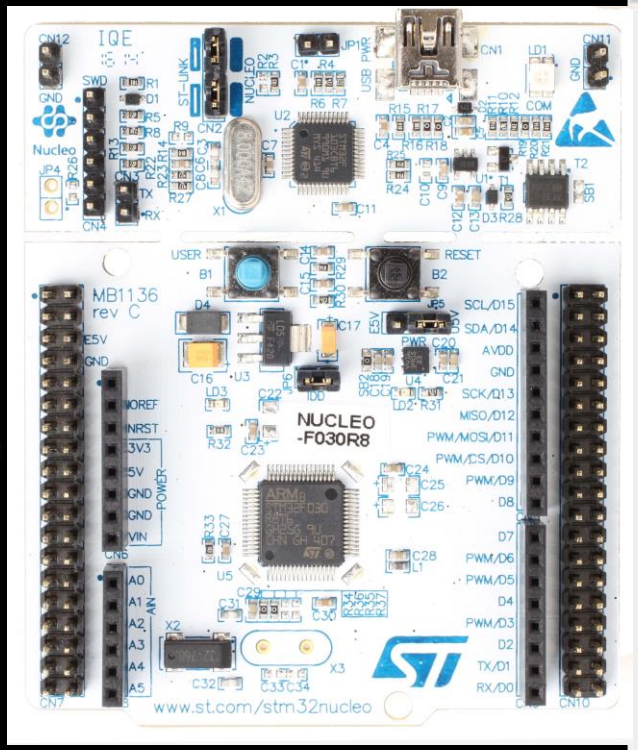

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STMicroelectronics Tools – Segger Support

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```
or implied, in relation to J-Link or its use with Your ST Evaluation Board.
You acknowledge and agree that ST shall not be liable for any direct, indirect,
special, incidental or consequential damages resulting from Your use of J-Link,
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Selection>a

[0] Quit
[1] Upgrade to J-Link
[2] Update J-Link firmware
[3] Restore ST-Link
Selection>1

Preparing for FW update (can take up to 10 seconds)...O.K.
Identifying ST-LINK variant...O.K.: ST-LINK/V2-1
Performing firmware update...O.K.

[0] Quit
[1] Upgrade to J-Link
[2] Update J-Link firmware
[3] Restore ST-Link
Selection>
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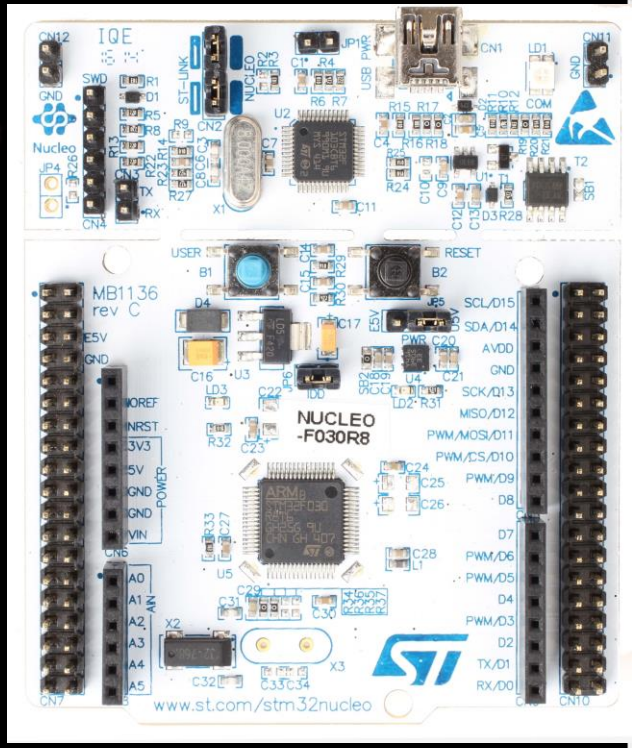

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STMicroelectronics Tools – Segger Support

C:\Users\Fred\Downloads\STLinkReflash_170807\STLinkReflash.exe

```
provided by STMICROELECTRONICS ("ST")(A)ccept / (D)ecline
Selection>a

[0] Quit
[1] Upgrade to J-Link
[2] Update J-Link firmware
[3] Restore ST-Link
Selection>1

Preparing for FW update (can take up to 10 seconds)...O.K.
Identifying ST-LINK variant...O.K.: ST-LINK/V2-1
Performing firmware update...O.K.

[0] Quit
[1] Upgrade to J-Link
[2] Update J-Link firmware
[3] Restore ST-Link
Selection>2

Switching to ST-Link bootloader...O.K.
Waiting for ST-LINK BTL to enumerate (can take 2 seconds)...O.K.
Preparing for FW update (can take up to 10 seconds)...O.K.
Identifying ST-LINK variant...O.K.: ST-LINK/V2-1
Performing firmware update...O.K.

[0] Quit
[1] Upgrade to J-Link
[2] Update J-Link firmware
[3] Restore ST-Link
Selection>
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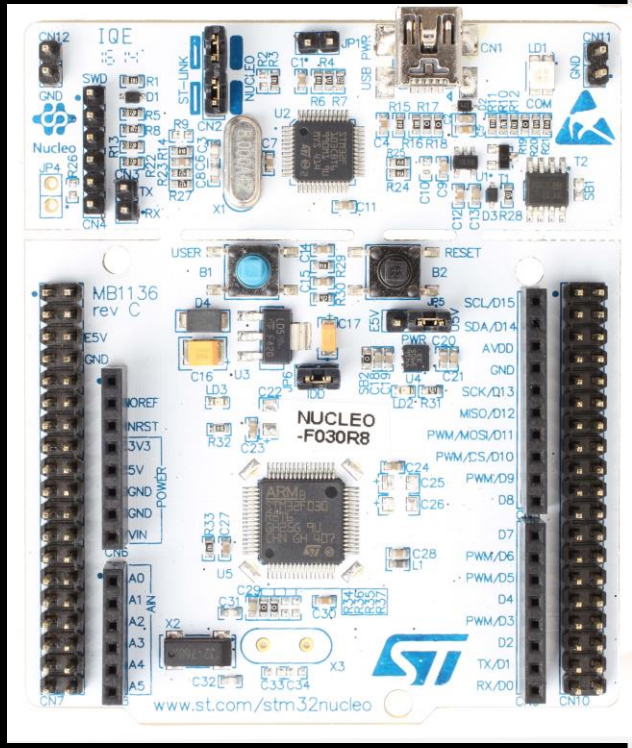

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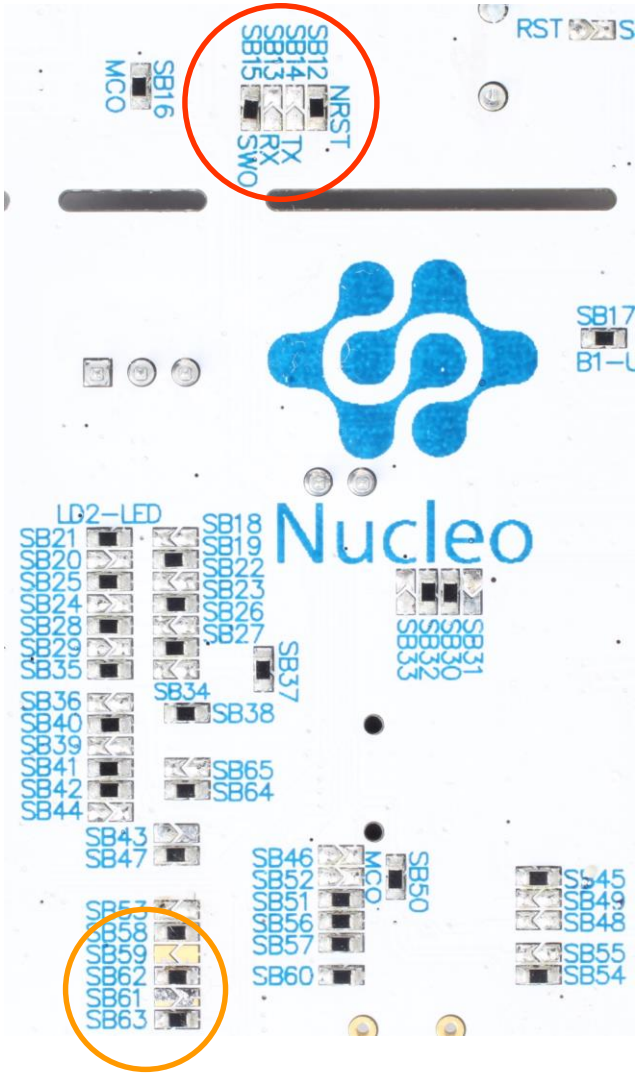

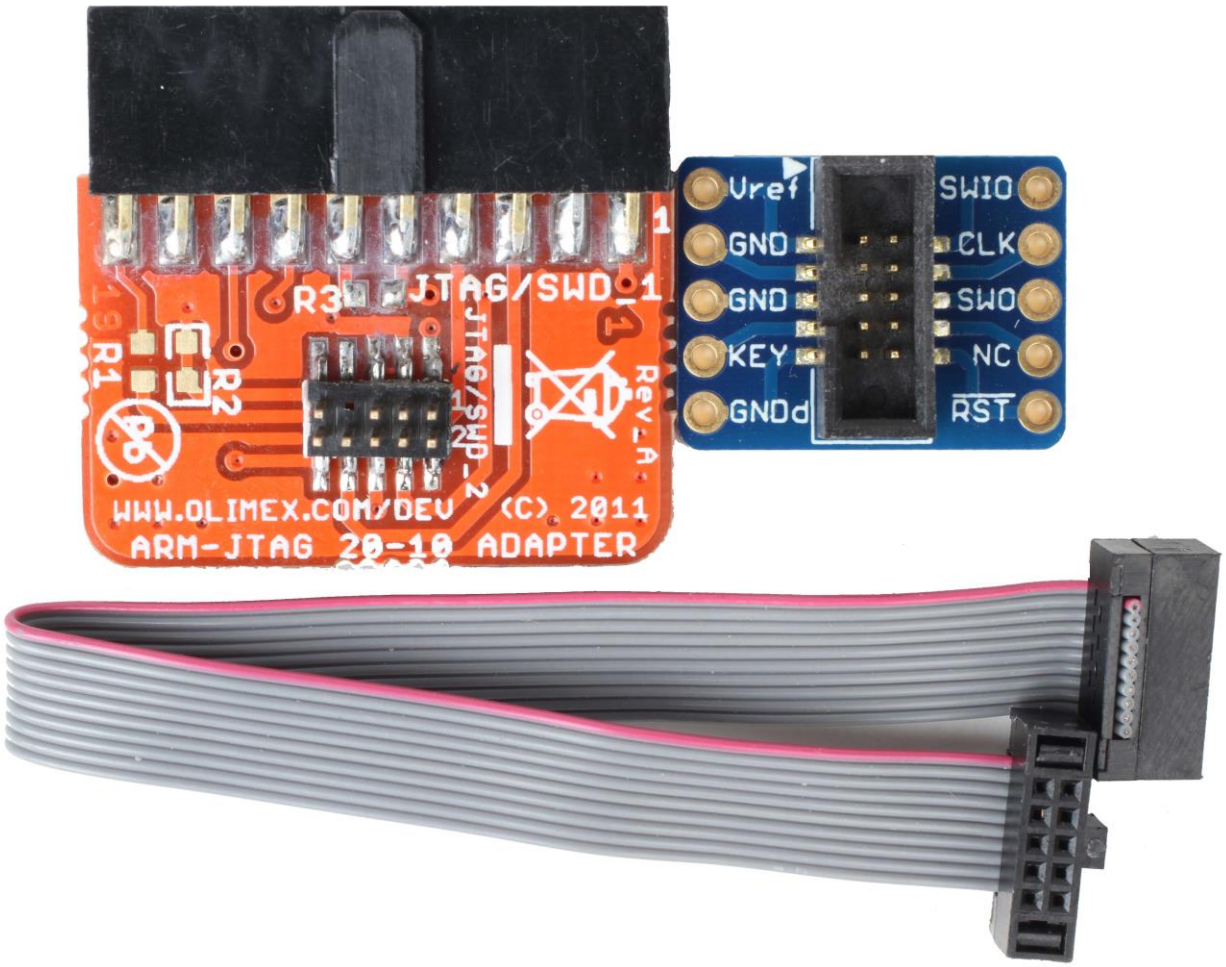

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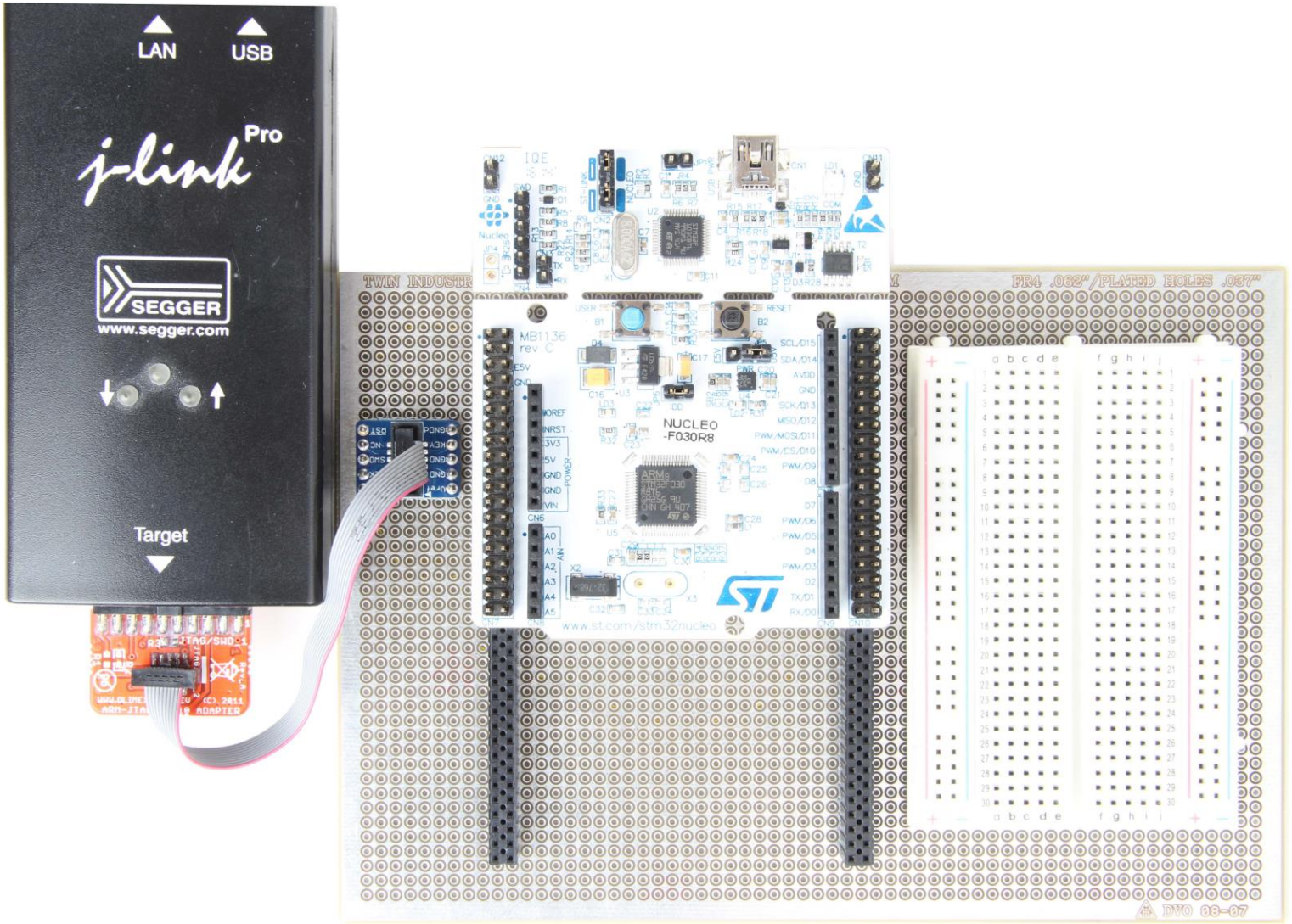

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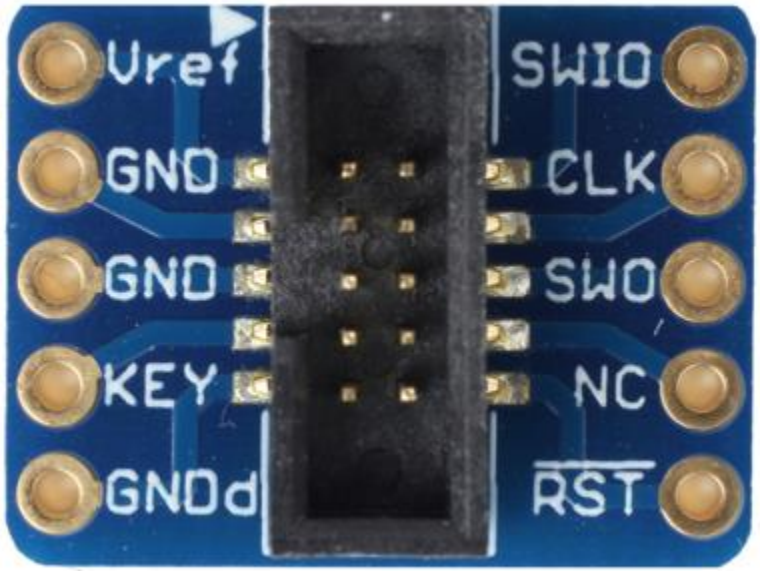
STMicroelectronics Tools – Segger Support

CN7 Pin 12 – 3.3V

CN7 Pins 19-20-22 = GND



CN7 Pin 13 – PA13

CN7 Pin 15 – PA14

CN10 Pin 31 – PB3

CN7 Pin 14 – NRST

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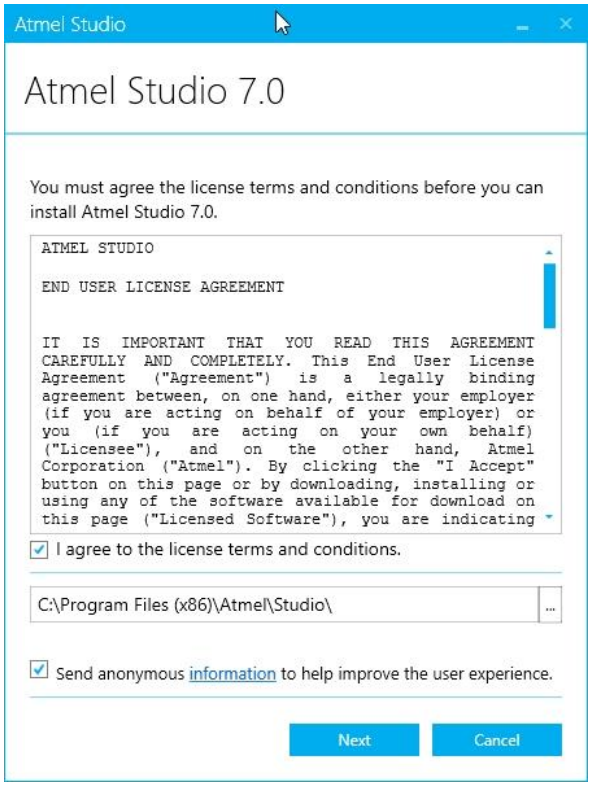
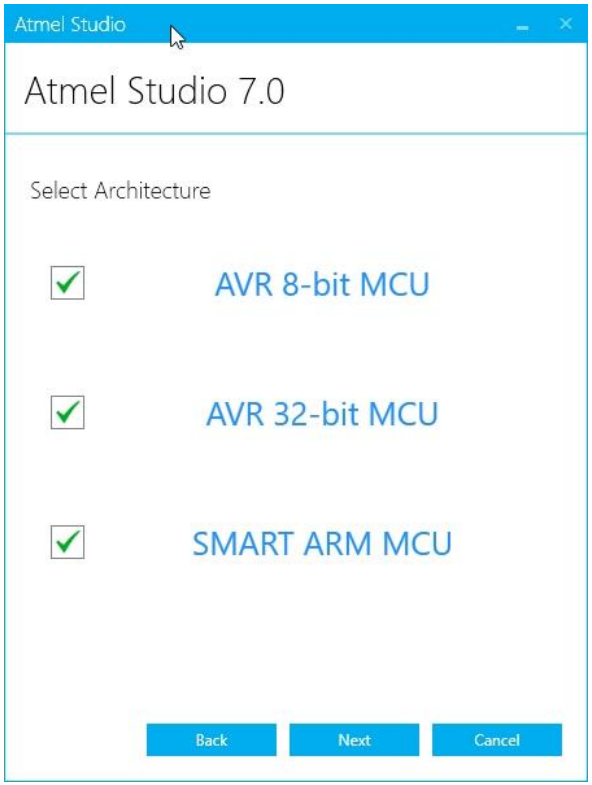
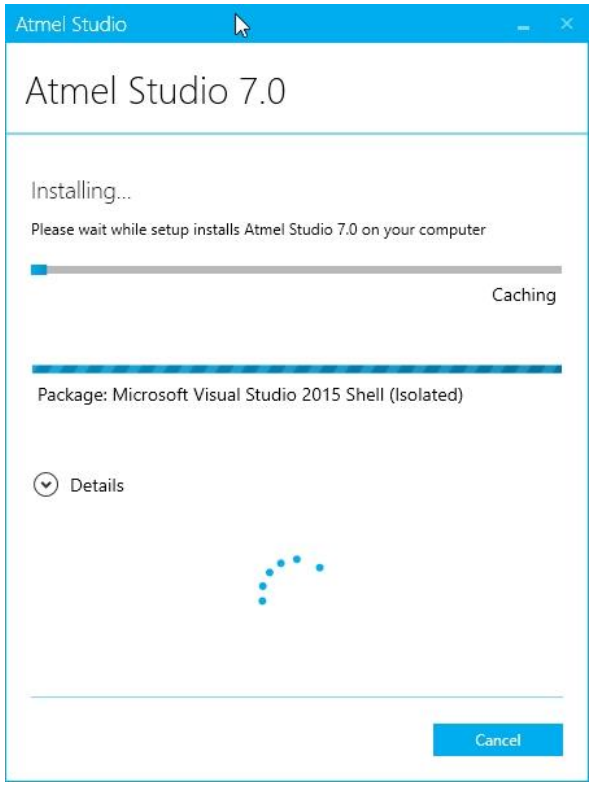
Microchip/Atmel Tools – Atmel Studio 7







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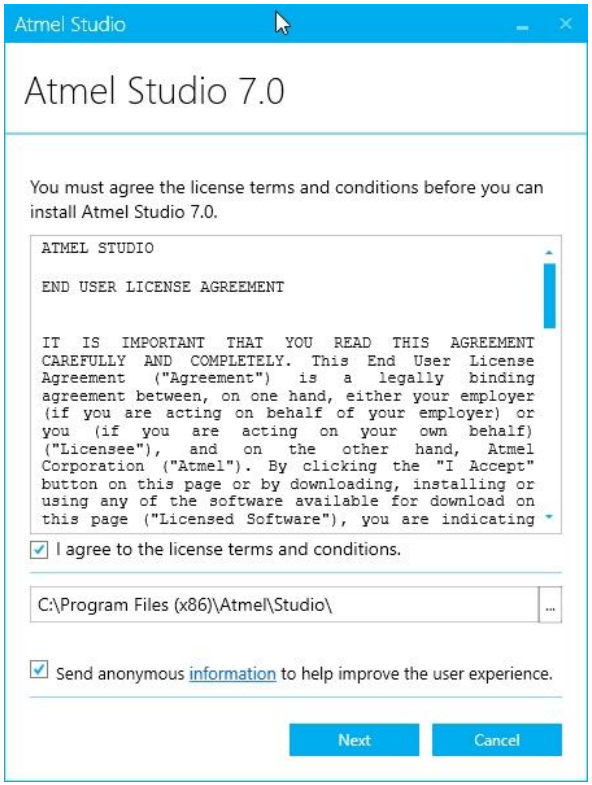
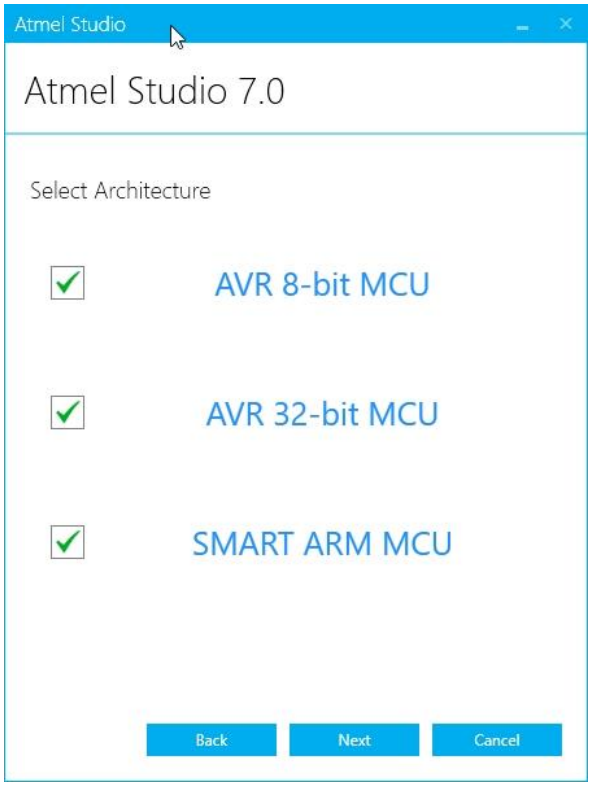
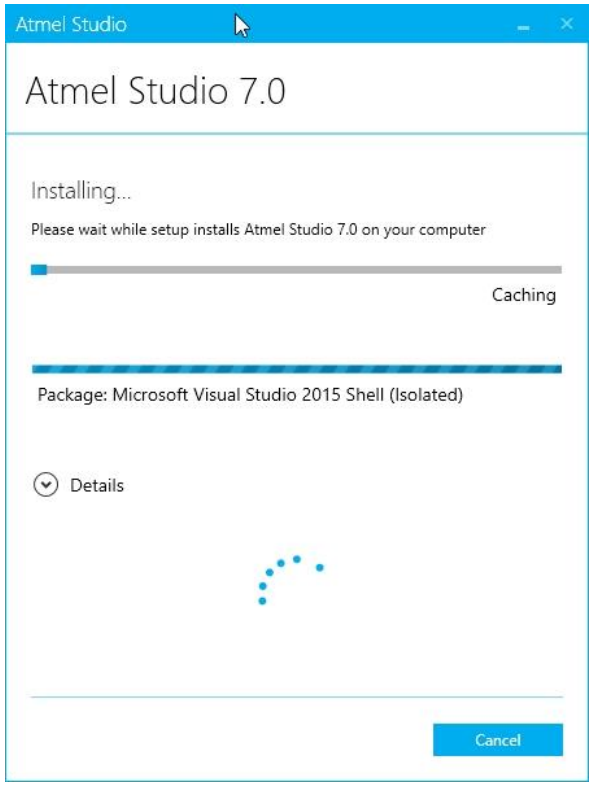
Microchip/Atmel Tools – Atmel Studio 7







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Microchip/Atmel Tools – Atmel-ICE

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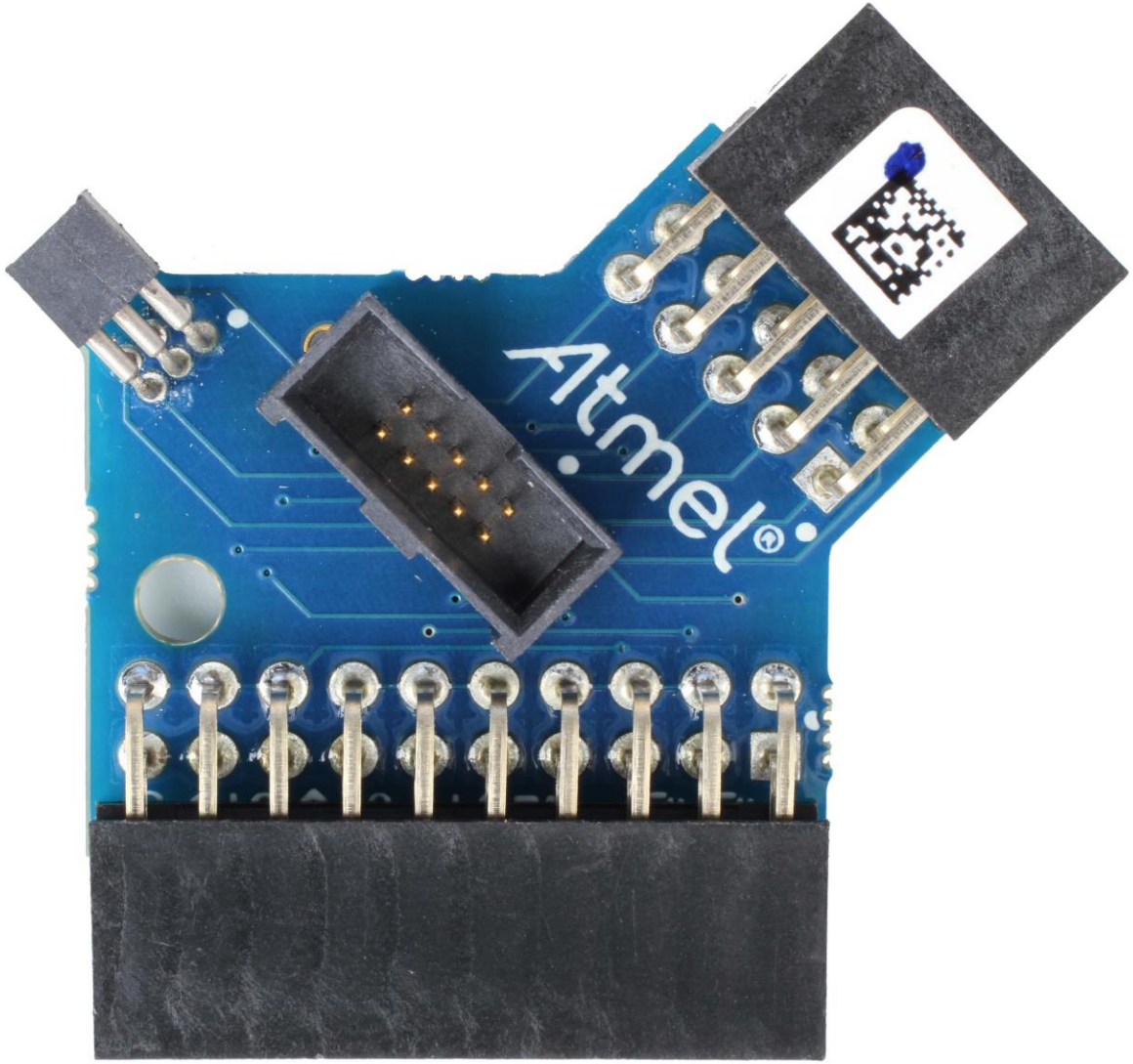
Microchip/Atmel Tools – Atmel-ICE



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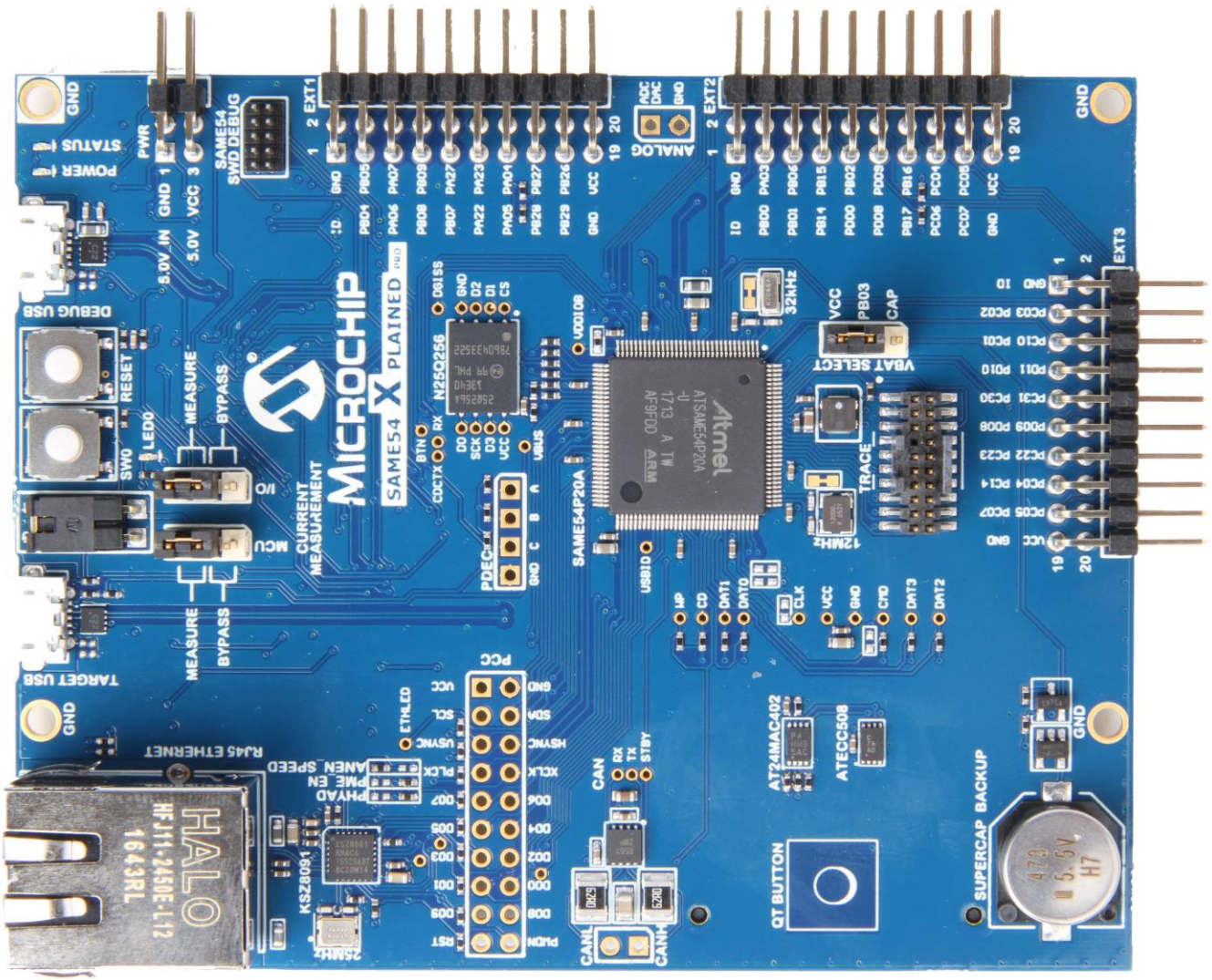
Microchip/Atmel Tools – SAME54 X PLAINED



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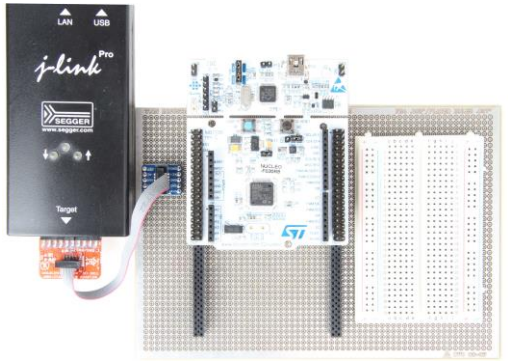
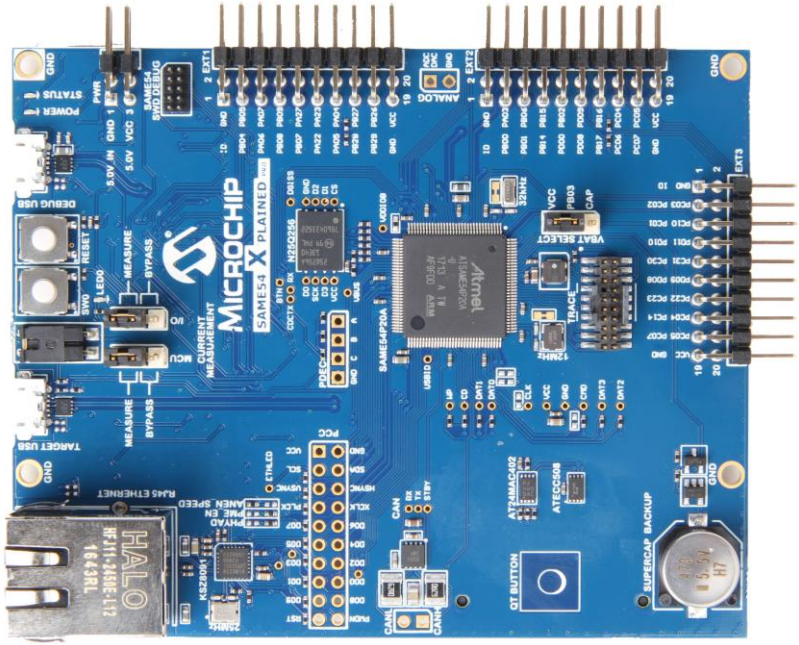
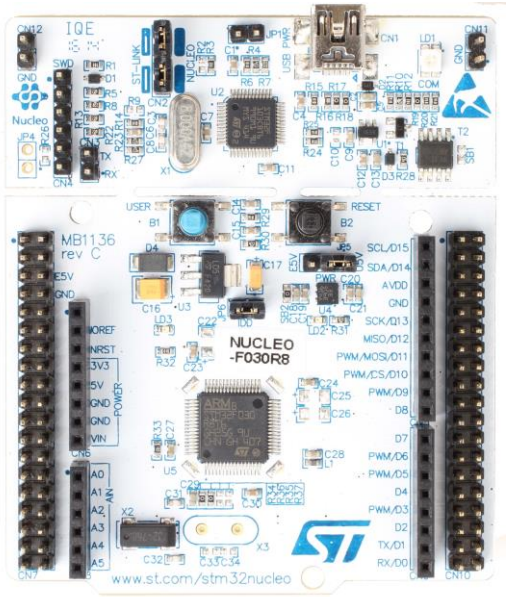
Day 1's Done

- **We Walked Around Our STMicroelectronics Nucleo Development System**
- **We Took a Look at Our Atmel SAME54 Development System**