

Infineon On-Chip Memory Programming Tool - Release Notes

Current Version: 2021.08 (29.04.2022)

The Infineon On-Chip Memory Programming Tool (IMT) is intended to handle the on-chip FLASH and OTP memory devices on Microcontrollers of the XC800, XC16x, XC2000, XMC1000, XMC4000 and Aurix/TriCore families. According to the capabilities of the respective on-chip memory device the program allows to erase, program, verify and protect the module. To program a memory device one can open an Intel-Hex-File and completely or partly write its contents into the memory device. Infineon Memtool can be used on PC's running Microsoft Windows 10 or newer. The target is connected to the host PC using a standard RS232 port. For XC2000, XMC4000 and TriCore targets also JTAG and DAP communication via Infineon Devices Access Server (DAS) is supported.

Installation

To install Infineon Memtool go to the setup directory and run setup.exe. If you received the program as an single executable file IMT4.exe please run this.

This version of Infineon Memtool includes Infineon Devices Access Server V7.3.7.

Supported operating systems:

- Microsoft Windows™ 10 (64-bit (x86_64) versions)

Please Note:

You need administrator permissions to install the program.

Supported Controller Families

This version provides support for programming on-chip FLASH memory devices on target systems based on controllers of the following families:

- Aurix/TriCore
 - XC2000M/XE166M
 - XC2000N/XE166N
 - XC2000H/XE166H
 - XC2000/XE166
 - XC16x
 - XC800
 - XMC1100
 - XMC1200
 - XMC1300
 - XMC1400
 - XMC4100
 - XMC4200
 - XMC4300
 - XMC4400
 - XMC4500
 - XMC4700
 - XMC4800
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Supported On-Chip Memory Devices

- XC161CJ/161CS/164CS/167CI-8/16/32F Program FLASH (ES-AA, ... BA step)
- XC164CM-4/8F Program FLASH
- XC164S/D/N-8/16F Program FLASH
- XC2200/XC2300/XC2700/XE166x Program FLASH
- XC2200M/XC2300A/XC2705X/XC2706X/XE166xM Program FLASH
- XC2200N/XC2300B/XC2704X/XE166xN Program FLASH
- XC2200H/XC2300C/XC2707X/XE166xH Program FLASH

- XC2200L/XC2300D/XC2703X/XE166xL Program FLASH
- XC2200U/XC2300S/XC2702X/XE166xU Program FLASH
- XC2200I/XC2300E/XC2708X/XE166xI Program FLASH
- XC866-2/4F Program and Data FLASH
- XC886/888-6/8F Program and Data FLASH
- XC878-9/13/16F Program and Data FLASH (preliminary, no verify available)
- TC1796 Program and Data FLASH
- TC1766/1762/1764 Program and Data FLASH
- TC1161/62/63/64/65/66 Program and Data FLASH
- TC1797/1767 Program and Data FLASH
- TC1197/1167 Program and Data FLASH
- TC1782/1784 Program FLASH and Data FLASH
- TC1724/1728 Program FLASH and Data FLASH
- TC1736 Program and Data FLASH
- TC1387/1367 Program and Data FLASH
- TC1798/TC1793/TC1791 Program and Data FLASH
- XMC1100 Program FLASH
- XMC1200 Program FLASH
- XMC1300 Program FLASH
- XMC1400 Program FLASH
- XMC4100 Program FLASH
- XMC4200 Program FLASH
- XMC4300 Program FLASH
- XMC4400 Program FLASH
- XMC4500 Program FLASH
- XMC4700 Program FLASH
- XMC4800 Program FLASH
- TC2D5 Program and Data FLASH
- TC27x A/B/C/D-Step Program and Data FLASH
- TC26x A/B-Step Program and Data FLASH
- TC29x A/B-Step Program and Data FLASH
- TC23x Program and Data FLASH
- TC22x/TC21x Program and Data FLASH
- TC39x A-Step Program and Data FLASH
- TC38x A-Step Program and Data FLASH
- TC39x B-Step Program and Data FLASH
- TC35x A-Step Program and Data FLASH
- TC37x A-Step Program and Data FLASH
- TC36x A-Step Program and Data FLASH
- TC33x A-Step Program and Data FLASH
- TC3Ex A-Step Program and Data FLASH
- TC49x A-Step Program and Data FLASH

Supported external Memory Devices

Infineon Memtool doesn't support programming external memory devices.

Supported Communication Devices / Interfaces

- Standard PC serial port
 - Standard USB to RS232 converters (available as COMx port within Windows)
 - Infineon Device Access Server (DAS) using a USB/JTAG interface (wiggler)
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Revision History

2021.08 (29.04.2022)

- Preliminary support for TC49x A-step added.
- DAS server package 7.3.7 included.

2021.05 (22.10.2021)

- TC3 ASC bootstrap loader support: Connect problem with active SSWAIT option fixed.

2021.04 (03.09.2021)

- Infineon Memtool is full 64bit software now. It can't be installed and used on 32bit Windows systems anymore.
- DAS server package 7.3.5 included.

V4.9.3 (27.08.2021)

- Default cfg files for TC32x and TC33x TriBoards added.
- All TC3 default cfg files: direct UCB programming is enabled by default now.

V4.9.2 (26.03.2021)

- TC3 UCB programming: UCB_SWAP configuration reworked to support new mapping entries.
- TC3 UCB programming: Allow to enable SOTA mode with unlocked UCB_SWAP.
- TC3 UCB programming: Programming of UCB_SWAP_COPY corrected.
- TC2 UCB programming: UCB_DFLASH / PROCOND.RAMINSEL handling fixed.
- TC2 UCB programming: Reporting of failed 'disable lock' attempts fixed.
- Default cfg files for XMC4700 RelaxKit added.

V4.9.1 (04.12.2020)

- TC3 UCB programming: Support for UCB_OTP and UCB_SWAP added.

V4.9.0 (03.07.2020)

- TC3 UCB programming: Allow boot address in cached PFLASH region.
- TC3 FLASH programming: Connect problem with protected UCB_BMHD0 in bootstrap loader mode fixed.

V4.8.2 (21.04.2020)

- XMC1000 BMI programming: Problem with custom BMI mode values fixed.
- Preliminary support for TC3Ex added.

V4.8.1 (11.10.2019)

- XC16x/XC2000 FLASH programming: Broken FLASH protection support fixed.
- TC3xx bootstrap loader configuration files added.

V4.8.0 (27.09.2019)

- Aurix/2G: Optionally initialize on-chip RAMs required for FLASH programming.
- Fixed problem connecting Aurix2G devices with high ESR0CNT value set.
- DAS setup 7.1.8 included (Win32/Win64)

V4.7.9 (18.04.2019)

- TC36x A-Step support added (preliminary).
- TC33x A-Step support added (preliminary).

V4.7.8 (18.12.2018)

- DAS setup 7.0.6 included (Win32)
- TC37x A-Step support added (preliminary).
- TC3xx: Prevent unwanted complete erase of UCBs.

V4.7.7 (03.08.2018)

- DAS setup 7.0.5 included (Win32)
- TC35x A-Step support added (preliminary).

V4.7.6 (30.03.2018)

- TC39x B-Step support added.

V4.7.5 (10.11.2017)

- TC27x support: Function 'Safe BMI header handling' switched off by default.

V4.7.4 (20.10.2017)

- TC27x/TC39x support: Test empty function corrected.
- TC38x A-Step support added.

V4.7.3 (11.11.2016)

- DAS setup 6.0.0 included
- TC39x A-Step support added.

V4.7.2 (29.01.2016)

- XMC4300 series support added
- TC27x support: Allow to open locked debug interface on connect.

V4.7.1 (04.12.2015)

- Dialog-based Aurix UCB programming added
- XMC4100 ASC/BSL problem fixed
- Cfg files for new TC2x7 application kits added

V4.7.0 (30.09.2015)

- DAS setup 5.0.0 included
- XMC4700 series support added
- XMC4800 series support added
- XMC1400 series support added
- XMC1000 / XC2000LE/ULE programming:
 - User interface: Menu / Device / Boot Mode added
 - Program function: Option 'Set boot mode after program' added

V4.6.5 (19.01.2015)

- Fix: Workaround for XMC4xxx/XMC1xxx ASC BSL connection via OnBoard VCOM and latest firmware.

V4.6.4 (10.12.2014)

- DAS setup 4.6.0 included
- Aurix FLASH programming: Display of DFLASH protection status corrected.
- TriCore TC17x7/x8 FLASH protection: Handling of PROCON0.DFEXPRO corrected.

V4.6.3 (19.09.2014)

- Aurix UCB programming: Memory device 'UCBs' introduced for simplified initial programming of UCBs.
- TC22x/TC21x support added

V4.6.2 (05.08.2014)

- Aurix UCB programming: UCB_OTP and UCB_DBG support added.
- Aurix UCB programming: New functions 'Read UCB and save to hex file' and 'Load hex file and write to UCB' added.
- Make connect method to XMC1000 via UDAS more stable.

V4.6.1 (01.07.2014)

- DAS setup 4.5.0 included
- TC26x B-Step / TC29x B-Step support added
- Aurix FLASH programming: Handle all 8KB DFLASH sectors separately now.

V4.6.0 (30.05.2014)

- Aurix UCB programming added

V4.5.11 (10.02.2014)

- DAS setup 4.4.2 included
- TC27x C-Step support added
- TC23x support added

V4.5.10 (27.08.2013)

- TC29x support added
- XMC4000 protection support added

V4.5.9 (10.07.2013)

- XMC1000 Boot Kit *.cfg files added
- XMC4500 Relax Kit *.cfg files added
- Workaround for TC27x ED B-Step/TC26x ED bootstrap loader problem added.

V4.5.8 (16.05.2013)

- TC27x B-Step bootstrap loader support added

V4.5.7 (14.03.2013)

- DAS setup 4.3.0 included
- TC27x B-Step support added (DAS only)

V4.5.6 (11.02.2013)

- DAS setup 4.2.1 included

V4.5.5 (10.01.2013)

- XMC1100 series support added
- XMC1200 series support added
- XMC1300 series support added
- XMC4500/4400/4200: Support for ASC bootstrap loader added.
- XMC1100/1200/1300: Support for ASC bootstrap loader added.
- XMC1100/1200/1300: Support for ASC bootstrap loader via DAP miniWiggler added.
- TC275 A-Step: BMI header CRC check added.

V4.5.4 (23.10.2012)

- TC275 A-Step: Support for ASC bootstrap loader K-Line mode corrected.

V4.5.3 (14.09.2012)

- TC275 A-Step: Use 'Safe BMI Header Handling' in bootstrap loader mode by default.

V4.5.2 (10.08.2012)

- XMC4400 series support added
- XMC4200 series support added
- Bugfix: TC1798/93/91 FLASH read protection support corrected.
- Always show 'Please reset target' message after successful protection operation.

V4.5.1 (03.07.2012)

- TC275 A-Step support: Problem with BMI header handling corrected.

V4.5.0 (01.06.2012)

- TC275 A-Step support added

V4.4.1 (16.04.2012)

- DAS setup 4.0.5 included
- TC2D5 support added

V4.4.0 (25.11.2011)

- XMC4000 support added

V4.3.5 (08.11.2011)

- Bugfix: XC2000 FLASH Protection installation problem fixed.
- Bugfix: Time stamp generation difference between file and window fixed.

V4.3.4 (25.07.2011)

- DAS setup 3.3.1 included
- Bugfix: TC1782 ASC/BSL problem corrected
- TC1724/28 support added

V4.3.3 (11.02.2011)

- DAS setup 3.3.0 included
- Workaround for XC2000ULE FLASH programming problem added

V4.3.2 (16.12.2010)

- Bugfix for XC2000LE/ULE UART-over-SPD bootstrap loader mode
- New XC2000H types added

V4.3.1 (22.11.2010)

- DAS setup 3.2.3 included
- XC2000LE/ULE: Support for bootstrap loader communication via DAS server added (UART-over-SPD mode)
- XC2000I support added

V4.3.0 (09.09.2010)

- DAS setup 3.0.0 included
- TC1791/93 support added
- XC2000LE/ULE support added

V4.2.2 (11.03.2010)

- TC1736 Easykit support added
- DAS setup 2.9.2 included

V4.2.1 (18.09.2009)

- XC2000: FLASH protection handling corrected
- DAS setup 2.9.0 included (DAP wiggler support)
- TC1782/83 support added

V4.2.0 (01.07.2009)

- Automatic COM port detection for Infineon Starterkit and Easykit boards
- TC1797/67 on-chip FLASH protection support added
- XC2000/XC2000M FLASH programming: Changed to handle 4KB physical sectors instead of logical sectors.
- XC2000N/XE166xN support added
- XC2000H/XE166FH support added

V4.1.5 (10.02.2009)

- TC1167/97 support added
- DAS setup V2.7.1 included with IMT4 setup

V4.1.4 (16.07.2008)

- TC1767/97 ASC/BSL support added (preliminary)

V4.1.3 (07.05.2008)

- Improved editor for protection passwords
- DAS setup V2.6.4 included with IMT4 setup
- XC2000M/XE166M support introduced

V4.1.2 (28.04.2008)

- XC878 added (preliminary, no verify available)

V4.1.1 (13.02.2008)

- BUGFIX: XC2000 sector write protection bug fixed
- Improved handling of partly protected controllers/FLASHs
- DAS setup V2.6.1 included with IMT4 setup
- TC1767/97 added (DAS/JTAG)

V4.1.0 (31.10.2007)

- BUGFIX: XC888-6, start address of D-FLASH bank 0 corrected
- XC2786/66-96F added
- JTAG communication support via DAS added (XC16x, XC2000, TriCore)

V4.0.4 (20.06.2007)

- XC2365-48F, XC2365-56F, XC2365-72F, XC2387-72F added

V4.0.3 (31.10.2006)

- XC2000 support introduced (XC2287)

V4.0.2 (14.06.2006)

- XC800 support introduced

V4.0.1 (03.11.2005)

- minor bug fixes

V4.0.0 (26.10.2005)

- Initial release version of IMT4, functionally based on IMT3
- C16x on-chip FLASH memory devices not supported anymore