Release Notes for Device Access Server (DAS) **2023-05-05**

General Hints:

1. **Upgrading DAS:** If you upgrade from an older DAS version, please check your setup with the old version directly *before* the installation of the new version.
   This allows to distinguish clearly between the rare problems caused by a new DAS version and all kind of problems completely unrelated to the installation.

2. **Duration of the Installation:** Depending on the status of your Windows registry (in particular in case lots of software is installed), the installation may take several minutes, due to the USB driver installation. There is no defined limit, installation times of 10 minutes have been observed, in particular on 64 bit Windows versions. If possible please avoid terminating the installation.
   Hint: You can check the status of dpinst.exe with the Windows task manager.

3. **Use USB 3.0 or high speed USB 2.0:** Please use always at least USB 2.0 ports, hubs and quality cables. This prevents all kind of problems, in particular also very sporadic failures.
   SPD: For an SPD device connection this is a mandatory prerequisite.
   USB power supply: Please use a dedicated power supply for USB hubs when several USB devices are connected.

4. **Reset pull-up:** After releasing reset on the target board, the reset has to be deactivated within 200µs after the tool releases the pin. Therefore ensure that the reset pin pull-up on the target board has a low enough value to deactivate the reset. Otherwise the “DAS halt after reset” function may not work or the device is not even recognized.

5. **Conflicts with other USB devices:** There is a general issue with the USB infrastructure and its implementations, that not all components fulfill highest quality requirements. It has been observed in rare cases that the combination of miniWiggler(s) and other USB HW, connected over USB hubs can result in crashes of the PC. This is highly dependent on the used USB HW and drivers.
   Usually these problems disappear if the USB hub (possibly also as part of a notebook docking station) is removed or a different type of hub is used.
   It may also be necessary to use another USB port of your computer.
   Another general root cause for such crashes are ground loops via long USB and other cables. This can even damage the USB port of a PC. Please check if there is a risk in your setup.

6. **FT2232H and FT2232D chips:** The USB driver of the FTDI USB to serial chips, used for the miniWiggler and on-board wigglers, will sporadically fail (after hours or days) if a mixture of FT2232H and FT2232D chips is used. FT2232H and FT2232D chips can be easily distinguished by their package size.
   All new evaluation boards and miniWigglers use the faster FT2232H chip.

7. **Firewall:** Please ensure that your firewall settings allow the socket based communication between the DAS components. It must be possible to start a DAS Server with the DAS Server Control Panel.

8. **Enabling the JTAG interface:** The miniWiggler has a signal with a pull-up connected to a connector “GND” pin (JPD pin 19 of Automotive JTAG connector or GND pin 12 of OCDS L1 connector of the old miniWigglers). This is used by the UDAS server to check whether the target is connected with JTAG or not.
   Please ensure that this pin is connected to GND in case of JTAG.

9. **Uninstallation:** DAS cannot be automatically uninstalled by an application. Reason is that DAS is possibly used by several applications like debuggers, flash programmer tools, etc.
   Please use the regular Windows procedures to uninstall DAS. For instance on Windows 7:
   Start -> Control Panel -> Uninstall or change a program -> Select DAS

10. **Virtual machines:** It is *discouraged* to run DAS on a virtual machine when the Access HW (miniWiggler etc.) is connected via USB. The performance of such a setup is very low. With virtual machines, a reliable SPD connection (if possible at all) cannot be guaranteed. (See also to point 3.)

11. **Corrupted USB driver configuration:** Windows shows warnings like: "Windows cannot load the device driver for this hardware. The driver may be corrupted or missing." In this case please refer to:
    "C:/Program Files/DAS/others/driver/clean_old_drivstore/readme.txt"

12. **Silent/Unattended Installation:** In silent installation, the installer runs headless/without GUI and in non-interactive way.
    Usage: ***<DAS_SETUP.exe> silent=true***

======= DAS V8.0 =======

Date: 2023-05-05
Customers: Internal, tool partners and customers

Changes:

TAS based implementation
Implementation change is transparent for existing DAS tools
Refer to app note AP32602 TAS for DAS users
DAS GUI tools are replaced by similar TAS tools
TasServer V1.0 replaces UDAS and EDAS servers

MCDS Trace Viewer (MTV) V3.5

1. Added AUTOSAR ARTI OS trace support in decoder
2. Added register names for TC49xA and TC4Dx
3. Fixed missing initial timestamp issue for post trigger trace mode
4. Minor bug fixes

MCDS Trace DLLs

1. mcds_configurator.dll V3.3
   Added register names for TC49xA and TC4Dx
   Minor bug fixes.
2. mcds_decoder.dll V3.6
   Added register names for TC49xA and TC4Dx
   Fixed missing initial timestamp issue for post trigger trace mode
   Fixed message decoding issues for TC4Dx
   Added AUTOSAR ARTI OS trace support in decoder
   Minor bug fixes.

======= DAS V7.4 =======

Date: 2022-12-21
Customers: Internal, tool partners and customers

Changes:

UDAS Server V3.13

1. Support of latest AURIX devices added. Minor bug fixes
2. DAPE support for TC4x devices added

MCD API DLL (mcdxdas.dll) V1.14

1. Breakpoint support for TC4x devices added

MCDS Trace Viewer (MTV) V3.4

5. Can save .mcds files in ASCII format
6. Frequency measurement of device improved
7. Added TC4x OTGB signal trace support

MCDS Trace DLLs

3. mcds_configurator.dll V3.2
   Added TC4x OTGB support
   Minor bug fixes.
4. mcds_decoder.dll V3.5
   Added TC4x OTGB support
   Minor bug fixes.
5. mcds_recorder_das.dll V3.0
   mcdsrl_mcds_frequency_measurement() removed.
   Replaced by source code library on top of recorder lib

======= DAS V7.3 =======

Date: 2021-05-21
Customers: Internal, tool partners and customers

Changes:

General

1. New installer
2. Tested on Windows-10 64 bit machines

DAS API V4.2, DAS API DLL V2.2

1. New key type DAS_KEY_TYPE_256BIT_NOKEY and a new 256 default key das_default_key256

DAS GUI V3.11

1. Device scanner window's device entries increased to 16
2. Device index and miniWiggler serial number are displayed additional to the device family name
3. Installed DAS Servers (IDS) window's entries reduced to 4

UDAS Server V3.11

1. New ePower device support
2. Minor bug fixes

MCD API DLL (mcdxdas.dll) V1.13

1. Better handling of global and local core start and stops

MCDS Trace Viewer (MTV) V3.3

1. Unified GUI for MCDS, MCDSlight and miniMCDS and for all AURIX™ generations
2. Many implementation improvements and bug fixes
3. Performance optimized

MCDS Trace DLLs

1. mcds_configurator.dll V3.1
2. mcds_decoder.dll V3.4
3. mcds_recorder_das.dll V2.2

======= DAS V7.2 =======

Date: 2020-09-09
Customers: Internal, tool partners and customers

Changes:

MCD API DLL (mcdxdas.dll) V1.12

1. mcd_stop_f() and mcd_run_f() with global flag now can stop and start all cores simultaneously in AURIX devices
2. mcd_core_con_info_st.device contains more specific AURIX device names. Eg. “TC39x”

======= DAS V7.1 =======

Date: 2019-07-09
Customers: Internal, tool partners and customers

Changes:

DAS GUI V3.10

1. GUI crash when the Device Select window is closed without selecting a device bug is fixed

UDAS Server V3.10

1. Support of latest AURIX devices added. Minor bug fixes

MCD API DLL (mcdxdas.dll) V1.10

1. Data breakpoint support is added
2. Device unlock with a password now works for AURIX devices

MCDS Trace Viewer (MTV) V3.2

1. AURIX 2G: Minor bug fixes

New MCDS Trace DLLs

1. mcds_configurator.dll V1.0
2. mcds_decoder.dll V1.0
3. mcds_recorder_das.dll V1.0

======= DAS V7.0 =======

Date: 2018-03-27
Customers: Internal, tool partners and customers

Changes:

General

1. 64 bit DAS is now available
2. New GUI design prepared for Windows 10

UDAS Server (V3.9)

1. AURIX 2G: DAP CRC32 algorithm updated. Minor bug fixes
2. Get firmware error code implemented
3. ePower devices supported

MCDS Trace Viewer (MTV) V3.0

1. AURIX 2G device support added
2. Support of signal trace (OTGB)
3. Bug fixes

======= DAS V6.0 =======

Date: 2016-09-29
Customers: Internal, tool partners and customers

Changes:

UDAS Server (V3.8)

1. Support of latest AURIX devices added
2. DAPE supported

MCD API DLL (mcdxdas.dll) V1.9

1. Support of latest AURIX devices added

MCDS Trace Viewer (MTV) V2.0

1. Support of latest AURIX devices added
2. miniMCDS supported
3. DAPE supported
4. Trigger and trace features improved

======= DAS V5.0 =======

Date: 2015-07-15
Customers: Internal, tool partners and customers

Changes:

DAS API V4.1, DAS API DLL V2.1, UDAS V3.7 and DAS Tools V3.8

1. Tool can prevent that connect_to_device() tries with a reset if no device responds.
2. Tools in this DAS release ask now the user before they try to connect with a reset.

MCDS Trace Viewer (MTV) V1.0 added

1. For AURIX Emulation Devices with MCDS (e.g. on AURIX TriBoards)
2. MTV is a free tool without support

MCD API DLL (mcdxdas.dll) V1.8

1. AURIX: OTGS TL1 (suspend) now active when a CPU is halted
2. AURIX: All CPUs start and stop synchronized

UDAS Server (V3.7)

1. Support of latest devices added

======= DAS V4.6 =======

Date: 2014-10-10
Customers: Internal, tool partners and customers

Changes:

UDAS Server (V3.6)

1. AURIX: Device unlocking implemented
2. AURIX: Minor bug fixes and improvements
3. Removed spike in UART over DAP1/SPD pin communication. Affected XMC1000 BSL.

DAS Based Tools

1. DAS Basic Client supports now entry of up to 256 bit keys

======= DAS V4.5 =======

Date: 2014-06-02
Customers: Internal, tool partners and customers

Changes:

UDAS Server (V3.5)

1. AURIX: DAP CRC32 mode used for all block reads (4 bytes and more)
2. AURIX: Minor bug fixes and improvements

FTDI Driver (Virtual COM Port)

1. New version (2.10.0.0) solving the COM port issues introduced by the FTDI driver version (V2.8.30.0) of DAS V4.4

======= DAS V4.4 =======

Date: 2013-08-09
Customers: Internal, tool partners and customers

UDAS Server (V3.4)

1. Support of latest devices of the AURIX family
2. Improved robustness against USB failures
3. AURIX: OCDS is not anymore enabled in case of reset without halt
4. AURIX JTAG: Workaround for OCDS_TC.040 added
5. Support of galvanic isolation and DXCPL frontend boards of miniWiggler V3.1

DAS Tools

1. Information about device connection improved (DAS Device Info window)

======= DAS V4.3 =======

Date: 2013-03-12
Customers: Internal, tool partners and customers

Changes:

UDAS Server (V3.3)

1. Support of latest devices of the AURIX, XMC4000 and XMC1000 families
2. Maximum number of connected Access HWs (miniWiggler etc.) increased from 4 to 16
3. USB connection setup to Access HWs improved (responsiveness, robustness)
4. Automatic adaptation of SPD sample rate
5. TriCore: Unique device ID from COMDATA shown as device ID1 after DAS initiated reset
6. TriCore: Direct COMDATA access with automatic COM/RW Mode switching
7. AURIX: init_device() supports now 256 bit keys
8. AURIX: R/W accesses optional with lowest bus master priority and/or not in Supervisor Mode
9. AURIX: Increased DAP performance to read 2 MByte/s, write 1.2 MByte/s
10. Leaving Native JTAG mode does not trigger a JTAG reset anymore
11. SET_DEVICE can be used now before connect_to_device(). Use only when absolutely needed!
12. Bare On-Board Wiggler (BOBW) supported
13. Latest USB drivers for FTDI chip (V2.8.24) used

mcdxdas.dll

1. Support of latest devices of the AURIX, XMC4000 and XMC1000 families
2. TriCore: Can set now generic breakpoints in flash (before only possible with HW breakpoints)

======= DAS V4.0 =======

Date: 2012-03-05
Customers: Internal, tool partners and customers

General

1. Robustness and responsiveness improved
2. DAS Device Scanner shows Access HW name if no device is responding
3. Support for latest devices added, in particular XMC4000 family
4. Supports Windows 7, Vista and XP
5. Windows 2000 is not supported anymore
6. Windows XP and Vista will show warnings during the USB driver installation
7. Latest USB drivers and libs for FTDI chip are used in UDAS server

======= DAS V3.3 =======

Date: 2011-02-17
Customers: Internal, tool partners and customers

Changes:

General

1. Support for latest devices added
2. mcdxdas.dll improved (latest devices, breakpoint implementation, etc.)
3. MCD Basic Client select window shows now also access HW without a connected device

UDAS Server

1. XE166/XC2000 BSL programming support for latest devices added

======= DAS V3.2.3 =======

Date: 2010-10-11
Customers: Internal, tool partners and customer

General

1. Support for latest devices added das_dad.dll added again in installation for supporting legacy tools
2. mcdxdas.dll controls now run led of miniWiggler (used by MCD Basic Client)
3. MCD Basic Client has now a core select window and loads mcdxdas.dll dynamically

UDAS Server

XE166/XC2000 support for latest devices added

Limitations

mcdxdas.dll and das_dad.dll don't fully support very latest XE166/XC2000 devices

======= DAS V3.1.0 =======

Date: 2010-08-20
Customers: Internal, tool partners

Changes:

General

1. Support for latest devices added
2. das_dad.dll removed from installation (use mcdxdas.dll instead)

UDAS Server

1. USERPINS_GET doesn't return error anymore in case of miniWiggler in JTAG mode
2. TRIGGERPINS_GET doesn't return error anymore in case of miniWiggler in DAP mode
3. Minor bug fixed in SET_DEVICE implementation
4. RESET pin: No spike anymore, which occurred during disconnect of the ECF HW
5. TriCore: Improved robustness of error notification e.g. for access to unimplemented addresses
6. XE166/XC2000 connected over JTAG: Bug fixed for reset without halt
7. miniWiggler JTAG/DAP/SPD: USR8 pin (not on connector) default value changed from 0 to 1
8. Tools can check now availability of SPD feature (depends on USB 2.0 connection)

======= DAS V3.0.0 =======

Date: 2010-04-12
Customers: Internal, tool partners and customers

Changes:

General

1. Support of new TriCore, XC2000, XE166 and XC800 derivatives
2. MCD API support added for TriCore, XC2000, XE166 and XC800 (mcdxdas.dll)
3. MCD Basic Client replaces DAD (das_dad.dll) based DAS Basic Client
4. WHQL certified USB Driver will be installed automatically.
   - miniWiggler, on-board Wiggler: Windows 2000; Win XP 32+64bit; Vista 32+64bit; Win7 32+64bit
   - USB Wiggler (dark gray box) : Windows 2000; XP; Vista; 7 (all 32bit only)
5. General minor changes for improved robustness

Previous releases omitted.