

Release Notes

MDA V8.6.7/1

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1. Introduction

Dear customer, in this document you will find the latest information about MDA V8.6.7 Hotfix 1.

1.1. Definitions and Abbreviations

Abbreviation	Definition
EHI	ETAS Help Desk International
FNE	FLEXnet Enterprise
KIR	Known Issue Report – For severe Problem Reports which occur after a release, ETAS has introduced the Known Issue Report to inform affected customer immediately. The current Known Issues of former versions can be found on the ETAS website: http://www.etas.com/kir
LiMa	License Manager
MDA	Measure Data Analyzer
MDF	Measure Data Format
SP	Service Pack

1.2. Privacy Disclaimer

Please note that personal data is processed when using MDA. As the controller, the purchaser undertakes to ensure the legal conformity of these processing activities in accordance with Art. 4 No. 7 of the General Data Protection Regulation (GDPR/EU). As the manufacturer, ETAS GmbH is not liable for any mishandling of this data.

Through the use of this product measurement data that may include person-related data can be processed. This measurement data, for example, include vehicle identification numbers (VIN) or vehicle number plates as well as GPS, video, audio or other measuring data. The exact data recorded in each case is determined by you when you configure your measuring system. Note that, in such cases, you are responsible for the legally compliant handling of the data in accordance with applicable national law.

Technical and organizational measures

This product does not itself encrypt the person-related data respectively data categories that it records. Ensure that the data recorded are secured by means of suitable technical or organizational measures in your IT system, e.g. by using classic anti-theft and access protection on the measurement hardware. Person-related data in log files can be deleted by tools in the operating system.

1.2.1. Data Categories

1. When using the ETAS License Manager in combination with user-based licenses, particularly the

following person-related data and/or data categories that can be traced back to a specific individual is recorded for the purposes of license management:

- User data: User ID
 - Communication Data: IP address
2. When using the ZipAndSend functionality for reporting product defects to us the logfiles and user settings file included in the zip file may contain file paths on your system, e.g. the full file path to a measurement file used in MDA. If you use personal data in your file paths (e.g. the user id) and you do not want this data to be sent you will have to remove it manually from the logfiles (via text editor, e.g., notepad) and from the user settings file (via database editor, e.g., DB Browser).
 3. When using the GPS instrument, GPS data points are not sent to the external data provider but processed and visualized internally within the tool. Particularly the following person-related data and/or data categories which can be traced to a specific individual is used for the purpose of visualization:
 4. Measurement Data: GPS data points, particularly the following person-related data and/or data categories that can be traced to a specific individual is send to the external map data provider (Omniscale GmbH) and used there for the purpose of providing the requested map data and for detecting and preventing malicious attacks on their infrastructure:
 - Communication Data: IP address

1.3. Conventions

The following typographical conventions are used in this document:

Choose **File** → **Open** Menu / Ribbon commands are shown in boldface.

1.4. User Documentation

For details about the installation, see Chapter 2.4 'Installation' on page 9.

The user documentation for MDA V8 can be found in the installation folder on the PC, namely here: %Program Files%\ETAS\MDA8.x\Documentation. .

After installation documents are accessible from MDA V8's **Home Page** or via the **Help** ribbon.

It includes:

- **What's New**
Functionality newly introduced with MDA V8.6.x is described in the "MDA-V8.6.x-Whats-New.pdf" document. The slide set is cumulative, i.e. it includes separate sections for all Service Pack releases of MDA V8.6.
- **Manuals and Videos**
Different documents are provided: MDA V8.6.x user documentation in PDF format, a brief overview of MDA V8 functionality (slides "MDA V8 Functionality Overview"), and several videos demonstrating MDA V8 functionalities.
- **Hot Keys**
A comprehensive list of supported keyboard short-cuts is provided. The list can be sorted per column, by clicking onto the column header.

2. Product Definition

2.1. Functions at a Glance

MDA V8.x represents the new generation of ETAS' measure data analysis tool. It combines

- High performance and user-friendly operation concepts
- Support of different measure file formats, best performance can be achieved using MDF V4.x format version in combination with ASAM Standard indexing
- Support to read and interpret CAN bus trace files (BLF format) in combination with a CAN bus description file (DBC or ARXML format) (add-on required)
- Applying a time offset on measure file level, or for individual signals
- Export of measure data and measure file format conversion, including customer-specific textual file formats, and equidistant re-sampling of time stamps
- Several instruments to visualize recorded data (e.g., oscilloscope, scatter plot, table, battery imbalance table, battery imbalance graph, battery imbalance histogram, basic statistical data, event list, GPS map, video (add-on required) ...)
- Persistency of many settings selected by the user to reduce re-configuration efforts
- Flexible definition of rule sets for truncating signal display names selectively
- Support of calculations, namely by creation of so-called calculated signals, usage of predefined calculations, and usage of ASCMO models by means of FMUs
- Interoperability with INCA V7.x (preferably V7.4.x):
Opening of MDA with last recording from INCA Experiment, or during recording as so-called 'snap-shot' (MDF V4 only)
- Interoperability with EHANDBOOK-NAVIGATOR (preferably version V11.2 should be used):
Open interactive documentation from signal level in MDA, and synchronized cursors
- Comfortable usage of configuration templates. i.e. using the same configuration in multiple instances with different measure files
- Export of a configuration and all files assigned to it in one zipped file.
- Import of
 - o MDA V8 configurations whereby contents can be selected for import like assigned files, layers and instruments, calculations, or display name rule sets
 - o INCA and MDA V7 configurations (*.xda files, and *.xcs file)
- Additional command line tools for GUI independent measure file handling:
 - o mdconvert.exe for conversion of formats, extraction of signals or time range, and resampling with equidistant time stamps
 - o mdcombine.exe for merging or appending of MDF files

2.2. General Description

2.2.1. System Prerequisites

The following minimum system prerequisites have to be met:

Required Hardware	2 GHz dual-core processor, 2 GB RAM Graphics card with a resolution of 1280 x 1024, 1GB RAM, 32 bit color and DirectX 9
Required Operating System	WINDOWS® 8.1 (64 bit) WINDOWS® 10 (64 bit) Version 1803 or higher WINDOWS® 10 Enterprise (64 bit) LTSC 2016 or higher WINDOWS® 11 WINDOWS® Server 2016 (64 bit) * WINDOWS® Server 2019 (64 bit) * WINDOWS® Server 2022 (64 bit) *
Required Free Disk Space	5 GB (not including the size for user application data)

The following system prerequisites are recommended:

Recommended Hardware	3,0 GHz quad Core processor or equivalent, 16 GB RAM Graphics card with a resolution of 1280 x 1024, 1GB RAM, 32 bit color and DirectX 9
Recomm. Operating System	WINDOWS® 10 (64 bit) Version 1803 or higher
Recomm. Free Disk Space	>10 GB

*Note: See also section 2.5 'Licensing' on page 10.

2.2.2. Software Prerequisites

Administrator Privileges

To install the program, you need administrator privileges.

User Privileges

To work with the program, each user must have read and write access for the following folders and directories:

- %ProgramData%\ETAS\
- %LocalAppData%\ETAS\

2.2.3. Restrictions

Other or older versions of WINDOWS® operating system than mentioned in the System Prerequisites (see section 2.2.1 'System Prerequisites' above) are not supported.

Installation is only possible on a native 64 bit operating system.

2.3. Delivery

MDA V8.6.7/1 is delivered with an installation routine, including MDA software, documentation, tools, utilities, and further information. All software documentation is available in the Portable Document Format (PDF), which requires Adobe® Reader®.

In the main folder of the unzipped installation package “MDA_8.6.n_Released_xyz” the installation itself and the documentation are available. Do not change the folder structure!

There the file “setup.exe” is provided to install or update the MDA related software. The file “MDA-V8.6.n-Whats-New.pdf” describes new features implemented in the new MDA version.

In the sub-folder “Readme” additionally the Release Notes, the Installation Guide, and documentation about Open Source Software can be found.

2.3.1. Used 3rd Party Software

The 3rd Party Software used by MDA V8.6.x is listed in the folder:
\\ReadMe \\OpenSourceSoftware \\ of the installer.

After installation of MDA the document can be found in the folder:
\\Program Files \\ETAS \\MDA8.x \\Documentation \\OpenSourceSoftware \\..

2.3.2. Used Components

Together with MDA V8.6.7/1 the following components are shipped and optionally installed:

- DirectX V9
- .Net-Runtime Environment 4.8
- ETASSHARED (IPManager only) 14
- ETAS License Manager (LiMa) V1.8.11
- MCD Core V1.2
- Visual C++ 2019 Redistributable(x64)

ETAS software products are sharing one installation of ETAS License Manager (LiMa). Accordingly, each product installation installs the LiMa software only if there is an older or no version available on the target computer. Another ETAS software product might update LiMa to a succeeding version.

2.4. Installation

MDA V8.6.x can be installed independently or using INCA Service Pack Installer.

Details for the installation are described in the document “MDA_InstallationGuide.pdf” which can be found in the \\ReadMe \\ folder of the installation package or can be downloaded from the ETAS Download Center.

2.4.1. Installation Hints

Installation of V8.6.771 Service Pack replaces any former Service Pack of MDA V8.6.x.

Depending on the actually installed software and components a reboot might be required after installation but before MDA V8 can be started.

2.5. Licensing

MDA V8.6 is protected by means of an electronic licensing.

In order to run and use the product, a valid license file is required that needs to be installed via the ETAS License Manager. The license manager is opened during the installation and can also be started at a later point as an external program located in the ETAS program folder in the Start menu.

Independent from the Operating System, and the kind of used electronic license, only one instance of MDA can run on one machine at a time.

The license file can be obtained through a self-service portal on the ETAS website by using the software entitlement you received during the order process, or it is provided by your tool coordinator.

For using MDA V8.6.x an existing MDA V7.2 license is accepted.

A valid license for INCA V7.2, V7.3 or V7.4 includes usage of MDA V8.6.x.

Since MDA V8.6.0 in case of a machine-based license only an FNE license is accepted.

3. Changes

This chapter describes changes with respect to the previous version of MDA V8.

3.1. What's New

New functionality introduced with MDA V8.6.7/1 is documented in the "What's New" slide set. The slide set is cumulative, i.e. it includes What's New slides of all former MDA V8.6.x versions. It can be found in the installation folder on the PC, and is accessible in the application itself via the Home Page → or Help → What's New.

3.2. Compatibility to Earlier Releases

MDA V8.6.x supports to load and reuse configurations from any former (i.e. older) MDA version since V8.2.x or higher.

Configurations saved with MDA V8.6.7/1 cannot be opened with a former MDA V8.x version.

Since MDA V8.5.1 the location for storage of customer specific configuration files for ASCII format based measure files was changed to the following directory:

```
%ProgramData%\ETAS\MDA\8.x\CorePlugins\  
Etas.TargetAccess.Targets.MeasureFile.Formats.AsciiConfigurable
```

New and existing configuration files for textual file formats (*.ini) should be stored in the new directory to enable usage in MDA V8.6.

3.3. Fixed Problems

This section describes the set of fixed problems of the released version of MDA V8.6.7/1.

3.3.1. MDA V8.6.7/1

EHI Number	Title
747065	MDA8 mapping of variables fails after exchanging measure files

The new version MDA V8.6.7/1 prevents a problem which was introduced with MDA V8.6.7. If the configuration was **not opened and saved** with MDA V8.6.7, you are not affected.

With MDA V8.6.7 a signal might be displayed partly correctly and partly as signal in no-match state, although the signal was displayed properly in in former versions. If such a configuration was saved with MDA V8.6.7 a manual work-around in MDA V8.6.7/1 is required. Select one of the signal instances in no-match state, and perform a manual 'Signal Replace' with the option 'Everywhere'.

3.3.2. MDA V8.6.7

EHI Number	Title
633846	MDA8: Setting color per data group.
665780	Axis Scale with 1.4e7 not meaningful
667380	Easy comparing a signal with the same signal in different files.
697564	Bei der Anzeige von Messwerten in der Signalliste wird gerundet.
714128	MDA8 Feature Request: set color for all signals in a measurement file to compare easily multiple files
715700	MDA Feature Request - Unique color for all variables from measured file
716709	MDA863_Display_of_exponential_axis_values
717330	3 x Ex-ID: #592283044>>>System.InvalidOperationException: Die Sequenz enthält keine Elemente.>>>
721477	MDA8 Mapping Dialog out of INCA XDA Import shows 2 Devices with same Origin
723865	Device mapping does not work with MDA V8.6.4/1
728256	MDA 8.6.5 shows unnecessary Mapping Dialog in Compare to MDA 8.6.4
730878	MDA8 Missing Signals without Device name after mapping
733608	MDA8 left drag and drop popup comes with space between mouse and popup with >100%

736557	MDA8: moving signals with same/common axis into a new stripe (ie. Ctrl+T or menu entry) in oscilloscope leads to single axis again
736712	MDA8: unexpected opening of all stripe axis configs after closing it before to better change the axis values of only one stripe
737016	MDA8 shows no signals with reason Record ID is invalid
737392	Operations with high numbers of signals
737408	1 x [Ex-ID: #1689389266] System.InvalidOperationException: Sequence contains no matching element
737557	MDA8: moving signals with same/common axis into a new stripe (ie. Ctrl+T or menu entry) in oscilloscope leads to single axis again
738164	1 x [Ex-ID: #3027547748] System.NullReferenceException: Der Objektverweis wurde nicht auf eine Objektinstanz festgelegt.
738301	1 x MDA 8.6.5 report Ex-ID: #246284913
739355	Device Mapping dialog should not appear
739618	2 x [Ex-ID: #3402113869] System.ArgumentException: An item with the same key has already been added.
740241	MDA_ Device Mapping Dialogue pops up unplausible
740641	2x Ex-ID: #2376902820>>>System.NotSupportedException:
740770	[Requirement] MDA8: time unit [s] is displayed on Oscilloscope Screenshot
741768	MDA accepts symbols in file names for mf4 files, but not for blf files
745498	1 x MDA 8.6.4 report Ex-ID: #2540154044
746121	1 x MDA 8.6.4 report Ex-ID: #3140366255
746453	2 x [Ex-ID: #2588512238] System.Runtime.InteropServices.COMException: UCEERR_RENDETHREADFAILURE (Exception from HRESULT: 0x88980406)
750503	1 x [Ex-ID: #369935330] System.ArgumentOutOfRangeException: Der Index lag außerhalb des Bereichs. Er darf nicht negativ und kleiner als die Sammlung sein.
752978	1 x [Ex-ID: #600000770] System.ArgumentOutOfRangeException: Der Index lag außerhalb des Bereichs. Er darf nicht negativ und kleiner als die Sammlung sein.]

3.3.3. MDA V8.6.6

EHI Number	Title
715763	Signals_in_.mat_measurefile_exported_from_MDA8_Cannot_be_read_into_Matlab
722165	One configuration file (XDX) can not be opened twice
722488	MDA does not paint sample connection
722983	Calculate_maximum_of_multiple_input_values
726781	[NetWBID2539630620] System.InvalidOperationException: Die Sammlung wurde geändert. Der Enumerationsvorgang kann möglicherweise nicht ausgeführt werden.
726837	MDA interaction with Total Commander regarding replacing measure files
727671	Text is cut in Device Mapping Dialog
728964	MDA 8 crash after remove file
730825	MDA8 layers are imported from a to z and not in the given order
730830	MDA8 Replace file shortcut is not working when closing a second configuration
732307	1 x Ex-ID: #1318187711 System.NullReferenceException: Der Objektverweis wurde nicht auf eine Objektinstanz festgelegt.

3.3.4. MDA V8.6.5

EHI Number	Title
697569	Min/Max-values are missed in MDA-view
709978	1 x [Ex-ID: #4032109188]
710707	2 x Ex-ID: #1624402131>>>System.ArgumentException: An item with the same key has already been added.
714855	Export Measurefile: MDF4.1 to MDF4.1 -> 929 Signal Errors
718376	MDA Window is not visible/not usable
719590	Stripe position can sometimes not be changed
719818	Oscilloscope: the table next to the visual representation is slightly misaligned
720469	MDA8 after multiple replacements the osci display of measure date is not correct anymore, looks like load interruption and MDA8 will hang up while closing
720485	Zip and Send: Pressing "Create Report" kills Outlook process if in draft mode
720509	After changing position of a empty layer, no variables can be added to the layer

720744	Unsigned Float32 signal from Bus trace was wrong.
723565	1 x [Ex-ID: #3271811827] Autofac.Core.DependencyResolutionException: An exception was thrown while activating Etas.Eee.McdClient.Instruments.Y
724850	1x [Ex-ID: #2664045854] >>>System.ComponentModel.Win32Exception: Not enough quota is available to process this command
726343	Signal values are shown with factor 10

3.3.5. MDA V8.6.4/1

EHI Number	Title
719387	MDF Export results in an empty file

3.3.6. MDA V8.6.4

EHI Number	Title
612475	Measure file replacement with different devices does not work properly
654809	MDA shows a signal incorrect
664340	MDA8 painting oscilloscopes wrong
664983	MDA : signal display problem
665241	MDA 8.5.x shows a wrong visualization from signal when 2 timestamp a far away
677088	CPG Support: MDA allows multiple instances of same .xdx open simultaneously
683169	Controller Mapping in MDA
683537	MDA mapping does not work properly for several ECU at replaced files
694730	Cursor Tooltip for event signal hides some information
706798	MDA8: file extension will be overwritten after export of the measure file
706835	MDA 8 cannot show data from .aff file when .dbc file contains some variables with wrong description
708044	1 x [Ex-ID#4091652698] System.InvalidOperationException: Collection was modified; enumeration operation may not execute.
710830	Customer is not able to replace the measure file ,The signals are grayed out and cannot be displayed in the oscilloscope

710989	MdfCombine.exe leads to message "Error occurred: Invalid handle"
712239	MDA shows several Raster groups
712530	MDA does not show \$ActiveCalibrationPage always correct
712651	1 x [Ex-ID3392646975] System.Runtime.InteropServices.COMException: Klasse nicht registriert
713340	1 x [Ex-ID3675168403] System.ArgumentException: At least one input value is not a double value
714527	MDF Combine does not works on Porsches PC
715792	Signal_description_in_MDA8_is_worse_than_in_INCA_if_description_is_long

3.3.7. MDA V8.6.3

EHI Number	Title
627601	Comments from measurement are not shown in Oscilloscope
689316	MDA Time Offset GUI improvement per selected signals.
699753	1x [Ex-ID: #1476393256] >>>System.InvalidOperationException: The window which should be moved was not found.>>> Data: System.Object = null
701304	1x [Ex-ID#1503223649] System.InvalidOperationException: Cannot call StartAt when content generation is in progress.
701422	MDA crash with Dump on McdCore when loading the mdf4 file
703027	Creating Calculated Signal with Time Offset
705455	The comment is not completely shown
705746	MDA replace file performance
705747	Change a size of XDX between versions

3.3.8. MDA V8.6.2/1

EHI Number	Title
702183	MDA _Export Fails

3.3.9. MDA V8.6.2

EHI Number	Title
622874	Attempt to sort bit signals leads to unintended result
629581	moving bit signals in oscilloscope signal list with the mouse places the signal at the end of the list
634364	Time Slider on Table
674976	Calculating a low pass filter with a time constant
678038	Signal order for boolean signals can not be sorted
680741	Quick win MDA8ff: remember last window size of "Quick Switch"
681243	Support Call: Bustrace MDA 8.5.6
685544	ASCII file output raster question
688716	no signals visible at all, but if the available signals are copied to a new oscilloscope they are visible
688759	MDA_ escape of not allowed xml-string characters does not work _and so the comment is not displayed after export
690631	1 x Ex-ID: #985527913>>>System.NotImplementedException: Die Methode oder der Vorgang ist nicht implementiert.
691563	Cannot_read_mat_file_into_MDA
692116	1 x [Ex-ID:#1120918856] Autofac.Core.DependencyResolutionException:
693581	Context menu sporadically not correctly created
694017	[MDA] AccessViolationException in ETAS::CalcEngine3 in MDA 8.6.1.501 and higher
694164	MDA does not read the measure files from encrypted folder
694564	inconsistent Hotkeys Oscilloscope and Scatter plot
695503	Oscilloscope set an error while zoom in with a signal in hex view
695530	If a signal is moved to a new axis still the old axis for the signal is active
695531	[Ex-ID: #2588512238] MDA8_attaching external Monitor leads to MDA crash
697372	XDX configuration from previous version cannot be used
697618	Calculated Signal makes the whole Layer unreadable

3.3.10. MDA V8.6.1

EHI Number	Title
601840	1 x [Ex-ID#2588512238] System.Runtime.InteropServices.COMException: UCEERR_RENDETHREADFAILURE (Ausnahme von HRESULT: 0x88980406)
615053	INS feature adds a new signal on first strip only
615380	Ex-ID: #2588512238 - System.Runtime.InteropServices.COMException: Ausnahme von HRESULT: 0x88980406
633844	Time aligning by difference in cursor positions.
633850	Insert key behaviour change.
654818	Not possible to combine measurement files which were created by MdfConvert
661384	Intuitive time offset operation
667277	1 x [Ex-ID: #991183747] System.Runtime.InteropServices.COMException: UCEERR_RENDETHREADFAILURE (Ausnahme von HRESULT: 0x88980406)
667279	Worse stability if MDA is in the background during working with other applications
667334	MDA 8.5 crash with empty error message after long uptime/sleep cycles
669158	WG: A: MDA 8.5.3 stürzt ab/friert ein beim abdocken (HDMI + LAN abstecken)
673809	4x [Ex-ID: #2588512238]>>>System.Runtime.InteropServices.COMException: UCEERR_RENDETHREADFAILURE (Ausnahme von HRESULT: 0x88980406)
675152	'Insert'_add_selected_signals_into_1 st _strip_of_Osc. _instead_highlighted_strip
678795	Recording Big Data-named recorded WP and RP dataset in the recorded mf4 file with same name saved
679084	Measure file reading buffer is in inconsistent state
680219	1 x [Ex-ID #1567775142] System.InvalidOperationException: An attempt was made to transition a task to a final state when it had already completed.
681036	1 x [Ex-ID#1985088516] Ice.ObjectNotExistException: Exception of type 'Ice.ObjectNotExistException' was thrown.
682483	Bus Trace signals are not visible
682967	1 x Ex-ID: #901792681>>>System.ComponentModel.Win32Exception: Das System kann das angegebene Laufwerk nicht finden>>>
684252	MDA shows wrong cursor value if cursor is near to the edge of the osci
686747	1 x [Ex-ID#2245390755] Ice.ConnectionRefusedException

687883	1 x [Ex-ID#2329148363] System.NullReferenceException: Object reference not set to an instance of an object.
688399	Copy and Paste a layer caused MDA-JP System doesn't work
688556	MDA hangs by operations with VECTOR mf4

3.3.11. MDA V8.6.0

EHI Number	Title
648422	1 x [Ex-ID#1812071447] Autofac.Core.DependencyResolutionException: An exception was thrown while activating
658145	Favorite Axis configuration
659056	2 x [Ex-ID: #607010195] >>>Ice.ConnectionRefusedException: >>> Data: System.Object = null
664263	Issue in MCD Core with read data into MDA and Matlab
665517	1 x [Ex-ID#1497665653] Ice.ConnectionRefusedException:
666139	1 x Ex-ID: #1691235217>>>Autofac.Core.DependencyResolutionException / during opening a configuration
666548	7 x Ex-ID: #2331439533>>>Ice.ConnectionRefusedException: >>> Data: System.Object = null
667156	1 x [Ex-ID#2771847360] Autofac.Core.DependencyResolutionException: An exception was thrown while activating Etas.Eee.McdClient.Instruments.YtOscilloscope.UI.AxesProperties.AxesTabBehavior.
669221	2 x Ex-ID: #1316256484 Eine vorhandene Verbindung wurde vom Remotehost geschlossen
672141	2 x [Ex-ID#3167807335] Autofac.Core.DependencyResolutionException: An exception was thrown while activating Etas.Eee.McdClient.Signals.UI.ViewModel.SignalMetadataViewModel.
672581	1 x Ex-ID: #1203314273>>>Ice.ConnectionLostException: >>> Data: System.Object = null>>>
672777	Problem with display of signals in existing oscilloscopes from different measurement files
673291	1 x [Ex-ID: #1018730722] Ice.ConnectionLostException: Data: System.Object = null
673796	1 x MDA crash without EX-id

673863	2 x [Ex-ID: #3509404394] crash while load measurefile in existing Config
674139	MDA 856 Build 749 with BusTrace AddOn shows implausible measured values
674620	Osci -> Export Measure Data -> Export of all signals does not work.
674665	Measure files recorded with INCA V7.3.5 cannot be used in MDA =>V8.5.6
676741	1 x Ex-ID: #1813691989 after Standby and add Variable to Osci
678471	Error message that another user is logged on or another instance of MDA is open takes over 5 minutes
678570	Time unit should be converted during export only for master time
679861	MDA8_Copy screen to clipboard contains wrong measure file

3.4. Known Issue Reports

If a product issue develops, ETAS will prepare a Known Issue Report (KIR) and post it on the internet. The report includes information regarding the technical impact and status of the solution. Therefore you must check the KIR applicable to this ETAS product version and follow the relevant instructions prior to operation of the product.

The Known Issue Report (KIR) can be found here:

<http://www.etas.com/kir>

3.5. Known Issues

This section describes known problems of the released version of MDA V8.6.x.

3.5.1. Software related Items

General:

- With older versions of Windows® 10 problems when waking up from sleep mode can happen. These Windows versions are not supported any longer by MDA (see section 2.2.1 'System Prerequisites' on page 8).
- If MDA reacts with an exception when connecting to, or disconnecting from an external monitor, optionally combined with sleep mode of the computer, an update of the driver for the graphical card is recommended.
- After the first installation of an MDA V8.6.x version the format definitions for textual measure file formats (INI files) need to be copied from the folder C:\ProgramData\ETAS\MDA\8.5 into folder C:\ProgramData\ETAS\MDA\8.6.
- In the category 'Custom Filter(s)' of the Variable Explorer a LAB file appears only if at least one of the entries in the LAB file matches to one of the signals of any source file.

Data:

- MDF standard indexing is beneficial for data display, missing index impairs performance.
- MDA supports scalars only including Enumerations, String, Events. Arrays and Structs (e.g. maps/curves from calibration recording) are not supported.
- Not supported conversion types are:
 - o Signals with nested conversions, except STATUS_STRING_REFS
 - o Free form
 - o Text-to-Value
- Export of EVENT signals from MDA user interface is not supported. MdfConvert.exe provides a specific argument to include Events.
- For drawing the signal curve of a STATUS_STRING_REF signal in an oscilloscope the numeric conversion formula is used even when the sample has a verbal conversion. The textual value is shown in the cursor tooltip and cursor column of the signal list. When using the STATUS_STRING_REF signal as input for a calculated signal, samples with a textual value result in invalid samples of the calculated signal.
- Time channel physical values must be in seconds. Due to nano-seconds precision time stamps > ~1Mio seconds (~10 days) are not supported.
- Time channel data type must be of Floating point 64 bit.
- For files with a virtual master channel, file indexing is not used, thus performance might be lower.
- Delay State function supports a positive delay only. In case of a negative delay value, no data is displayed. For a signal time offset use calculated signal's 'Output Options'.

- Individually shifted signals are ignored when determining the complete time range.
- For MDF3 files the DISPLAY_IDENTIFIER contains the device name.
- When exporting / converting files in DXL format into MDF V3 format, the process might be extremely slow, and does not react on 'Cancel'.
- If measure files are combined by means of MdfCombine.exe and the original files include references to video files, the combined measure file can not display the video channel.
- MDF files for usage in MDA must have the time signal defined as the master channel, and time stamps must be increasing.

Instruments & Layers (General):

- Instrument drawing in MDA V8 is optimized for many layers with few instruments per layer. With many oscilloscopes on one layer bad loading and updating times can be observed. Then it is advisable to distribute the oscilloscopes onto separate layers.
- Synchronization is limited to one mode and one synchronization group.
- When storing a configuration having layers arranged side-by-side, the arrangement of the layers gets lost, and cannot be restored when opening the configuration again.
- If the screen setting for size is higher than 100%, and signals are dragged and dropped onto the layer background, the window for selecting an instrument opens shifted from the dropping point. It might even be shifted outside the visible area. Instead dropping on the layer tab can be used.

Oscilloscope & Scatter Plot:

- In case of problems while creating an oscilloscope, please update your graphic device driver, if needed manually.
- Oscilloscope: If a sample is flagged as 'invalid' no signal curve is drawn for this pixel column. This causes that also other samples falling on the same pixel column will not be visible. Especially on high zoom levels this can hide extreme values. In case you observe a gap in the signal curve: zoom-in until samples get drawn individually, or use a table instrument to check the proximity of the invalid sample.
- Value axis representation in oscilloscope and scatter plot switches automatically to a scientific representation if the range is larger than 10,000,000 or smaller than 0.001. This cannot be configured. Alternatively, a calculated signal can be created for which the value is divided or multiplied with a multiple of 10, so that the result is again in a range for which usual (non-scientific) values will be shown.
- Limitations of Scatter Plot instrument:
 - o Cursor synchronization is not supported.
 - o Per strip only one signal can be assigned to the y axis.
 - o Samples are drawn based on time relation of signals on x and y axes, therefore signals should be from the same measure file and preferably acquired in the identical measure raster.

Event List:

- Event List Instrument: when using cascaded calculated signals the calculation might take long time till data is displayed in the instrument.

GPS Map:

- To enable a download of maps for the GPS map instrument, Port 443 (over https) and URL: maps.omniscene.net must be unblocked in the firewall / network settings.
- GPS Map instrument has a time-out of 5 seconds. If the longitude and latitude values are not available within this time range, the track is handled as invalid. This might happen for example if the measure file is a textual file format with many samples for the signals, or if the file is stored on a network share.

Import and Calculated Signals:

- From XDA files only yt-oscilloscopes, xy-oscilloscopes and tables are imported. A message in the status bar resp. the Notifications window lists not imported instruments.
- Import of calculated signals from *.xda or *.xcs files fails if the configuration contains already a calculated signal with the same name. A message in the status bar informs about not imported calculated signals. Rename the existing calculated signal and retry the import.
- Calculation results might differ slightly from those in INCA or MDA V7, especially if the calculation requires an initial value. For details see the Appendix of the User Manual.
- When for a calculated signal the formula is imported, and the calculated signal was recorded into a measure file, MDA V8 displays the result of the re-calculation in MDA. The recorded calculated signal can be selected independently from the measure file.
- With V8.5.1 the behavior of calculated signals was changed. Now the result of the calculation additionally depends on whether the input signal has 'No Value' or is in 'Invalid' state. A detailed overview is given in the Appendix of the User Manual.
 - o Valid samples with value result usually in valid samples with value
 - o Valid samples without value ('No Value') are treated as if they are not present at all, i.e., the result of the calculation is also a valid sample but without value
 - o 'Invalid' samples (with and without value) represent errors and will be processed, possibly also causing the state of the resulting calculation to go into invalid state
- When layers, instruments and signals are copied via Configuration Manager, also calculated signals are copied and pasted, but only the assignment of the calculated signals to instruments, and not the definition of calculated signals.
Alternatively an Import of the instruments and the calculated signals can be done.
- When a calculated signal is imported from an *.xdx configuration file, or if it is copied from the Calculated Signals docking window and pasted into another configuration, MDA checks whether source and target have a reference to one measure file only.
If so the reference to the original measure file is mapped to the one available measure file in the target configuration. In case there are multiple files defined in the source or available in the target the reference of the input signal(s) remains unchanged, i.e. the imported or the pasted calculated signals cannot be used without a manual adaptation of the input signal's reference.
Additionally, when the imported or pasted calculated signal has a reference to another calculated signal, the calculated signal with the same name is used as input signal automatically. This might be incorrect, if calculated signals were renamed.
- For calculated signals imported from INCA with a data type defined as UINT32 the imported formula must be adapted. The imported formula needs to be combined using a logical AND with a bitmask: "(Imported Formula) & 0xffffffff".
Then the result in MDA V8 corresponds to a UINT32 data type.
- With MDA V8.6.0 a change in the internal handling of variables from a CDF files was done. This can cause that in configurations loaded for the first time in MDA V8.6 maps and curves used in calculated signals as look-up tables are not mapped automatically.
A manual remapping solves the problem and the calculated signal can be used again.
- With MDA V8.6.4 a special handling was introduced for samples which are flagged as invalid and appear at the very beginning of a measure file. These samples are ignored, i.e. handled as not available. The invalid flag is supported only in MDF V4.x format, but not in MDF V3. Invalid flags cause that a calculation result is also flagged as invalid. By handling such initial invalid samples as not available, the result of a calculation with history (e.g. an average, or integral) can be different between MDF V3.x and MDF V4.x files.

Functional Mockup Units (FMUs)

- FMUs must be according to FMI standard V2.
- ASCMO V5.8 or higher is required to create FMUs from ASCMO models for the usage in MDA V8.
- Possibly FMUs created with other applications than ASCMO might fail when being used in MDA V8, especially if these require from the user to define a parameter value. In case you face problems with your FMU files, please inform the ETAS support team.

- FMUs must be stored under
C:\ProgramData\ETAS\MDA\8.6\CorePlugins\Etas.TargetAccess.VirtualTarget
This can be done easily via of the "+" icon in the Function Library area of MDA V8.6.5 or higher.
- Only FMUs can be used which contain a 'DefaultExperiment' block.
Optionally such a block can be inserted manually in the XML file:

```
<DefaultExperiment  
  startTime="0.0"  
  stopTime="100"  
  stepSize="1"/>
```

Afterwards the adapted XML file must be stored again in the zipped FMU file.

The "stepSize" parameter is often crucial for a proper calculation. The value "1" listed above is just an example. Its value must be set according to the needs of the FMU.

Values of StartTime and StopTime are just placeholders, the calculation is adapted to the actual time range of the measure file and the measure data.

- Input signals for functions must be numeric. If an enumeration signal shall be used, first create a calculated signal: Calculated Signal = Raw (Enumeration Signal). This converts the input signal to its decimal value. Then the calculated signal can be used as input for the function.
- There are sometimes problems when displaying enumeration signals and the output signals of FMUs in the same oscilloscope or table instrument. Then assign the signals to different instruments. Please inform the ETAS Support team in case you observe such problems.
- When applying a time offset to an output of a Function, MDA creates automatically a calculated signal and applies the time shift to the Calculated Signal.

User Interface & Operation:

- For some areas keyboard operation is not supported so far, e.g. Variable Explorer, or Video instrument. A complete list of all supported hotkeys is given via CTRL+F1.
- To benefit from the latest improvements in MDA – EHANDBOOK-NAVIGATOR coupling, usage of EHB-NAVIGATOR V11.1 is recommended.
- Snapshot Recording requires MDA V8.4.1 (or higher) in combination with INCA V7.3.0 (or higher) and MDF V4.x format.
- For some UI elements it might happen that terms are given in English language only. Translation is in progress and enhanced with every new MDA V8 version.

4. Contact, Support and Problem Reporting

For details of your local sales office as well as your local technical support team and product hotlines, take a look at the ETAS website:

ETAS subsidiaries www.etas.com/en/contact.php

ETAS technical support www.etas.com/en/hotlines.php