ETAS EATB V5.6.0

Release Notes

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1. Introduction

The ETAS Analytics Toolbox analyses huge amounts of time series measurement data in automotive development. Therefore, EATB reads many measurement files and provides an interactive graphical report of important data points and information in HTML format. It provides a very convenient Web interface for data processing and a flexible MATLAB interface to create analytics and reporting templates. These templates can be used in different use-cases such as statistical system validation, validation of calibration parameters or reporting of critical events and driving situation.

1.1. Intended use

EATB (ETAS Analytics Toolbox) is an analytics and reporting tool that provides a very convenient reporting functionality and is tailored to suit many needs of a calibrator, allowing to create reports in a very efficient and flexible way. The main functionalities that EATB provides are:

- Automatically generation of HTML evaluation reports and documentations
- Reads and evaluates an amount of measurements
- Efficient algorithms for data selection, data filtering and data preparation
- Presentation of results in a variety of chart types
- Multiple evaluations in a sequential mode.

2. Release description

2.1. Release information

Release type	*Production Release*
Release name	EATB 5.6.0
Scope of release	Extended Power Point export for reports Signal Aliases in GUI through Signal Manager Import of config_signal.csv in Signal Manager ADAS Video Thumbnails Bugfixes
Delivery method	This software is available on the ETAS Download Server and as a DVD

2.2. Release package content

2.2.1. New functions

Functions	**Description**
Extended Power Point export for reports	Possibility to export a report as a selectable set of Power Point slides containing a section per slide

Functions	Description
Signal Aliases in GUI through Signal Manager	Possibility to allow for multiple Aliases for Signal IDs in UI of Config Creator
Import of config_signal.csv in Signal Manager	Possibility to import config_signal.csv files in the UI allowing to export and reimported config_signal.csv files
ADAS Video Thumbnails	Possibility to display thumbnails extracted from video recordings in interval and time plots

2.2.2. Software and documentation

Filename	Description
Release Notes	Description of the Release
EATB 5.6.0	Installation package of the Software
User manual	User's guide with first steps and a detailed description of the Software
Report guide	Detailed description of the report´s structure and options
Scripting guide	Detailed description of how to interact with the APIs of EATB for report generation
Installation guide	Instructions step by step for a successful installation of the Software

2.2.3. 3rd party software

The needed 3rd party software used by EATB are JRE 17 (64 Bit) and MATLAB Runtime 2022b. These software are delivered together with the EATB software.

Creating, editing and encrypting of configuration files require a valid MATLAB license; this shall be provided by the user.

2.3. Installation

For detailed instructions of the installation, please refer to the installation guide. Please consider that administrator rights are required.

2.4. Licensing

The use of unlicensed ETAS software, including EATB, is prohibited. Valid licenses are necessary for EATB. Please consider that EATB does not provide a "grace mode".
When you purchase EATB licenses, you receive a separate entitlement letter. You can activate the license using a self-service portal on the ETAS website (http://www.etas.com/support/licensing).
For assistance, please consult the help file available on the start page of the ETAS self-service portal.
During the activation process, you will receive the necessary license keys via E-mail.

2.5. System prerequisites

The minimum requirements ensure that EATB will run smoothly, and the recommended PC configuration means that it will operate very efficiently. The following system prerequisites have to be met.

The minimum system prerequisites:

Required Hardware	2.0 GHz Core i5 8 GB RAM DVD-ROM drive Graphics with a resolution of at least 1600 x 900, 32-bit color
Required Operating System	Windows® 10
Required Free C Disk Space	10 GB HDD

The recommended system prerequisites:

Recommended Hardware	2.0 GHz Core i7 or above 16 GB RAM Graphics with a resolution of at least 1980 x 1080, with 32-bit color
Recommended Operating System	Windows® 10
Recommended Free C Disk Space	>20 GB

Please note that the system prerequisites may vary depending on the complexity of your reports (complex calculations require more memory). This applies also to exporting the report to PDF. In this case your browser might show an information requesting more resources.

2.6. Software prerequisites

For a proper operation of EATB, the system needs the following software:

- JRE 21, 64 Bit version
- MATLAB Runtime 2022b

These software are delivered together with EATB and the MCR 2022b will be installed automatically (admin-rights are needed for the installation).
In addition, the editing and encrypting of any created configuration files requires:

- MATLAB 2022b (Not delivered with the installer)

The recommended browsers based on the tests performed on the tool are:

- Mozilla Firefox – v115.12.0 ESR (64Bit)
- Google Chrome – v123.0.6312.123 (Official Build) (64-bit)
- EDGE – v126.0.2592.61 (Official Build) (64-bit)

As the browsers are continuously getting new updates, it is recommended to always use the latest released version.

2.7. Compatibility

Product	Version
INCA	V7.2 SP15 (and newer)
MDA	V8.4.1 (and newer)

2.8. Open source software

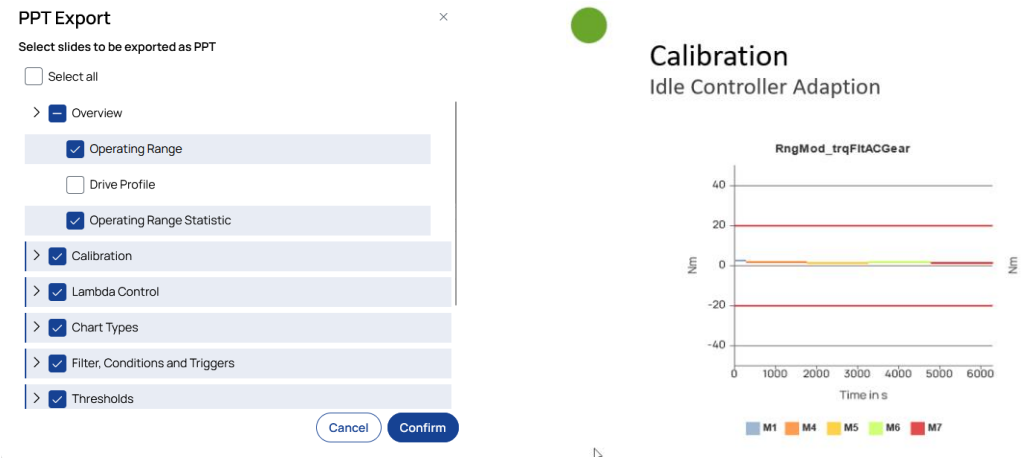
A detailed list of the used Open Source Software can be found in the OSS attribution list available with the installation package.

3. Changes

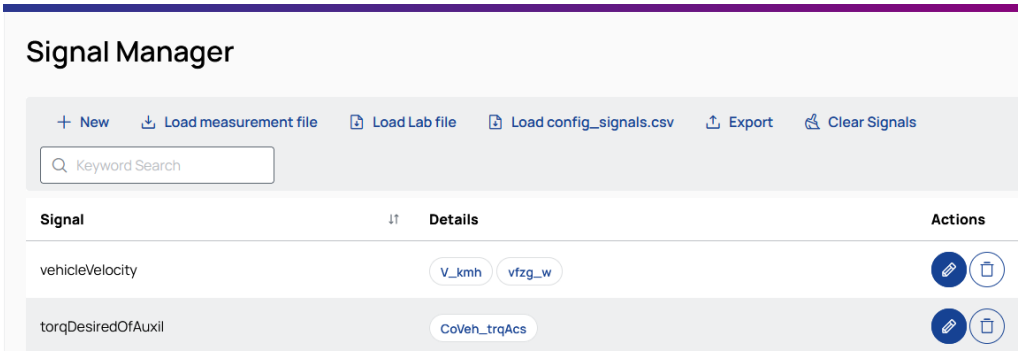
This chapter describes changes introduced to the new version.

3.1. What's New

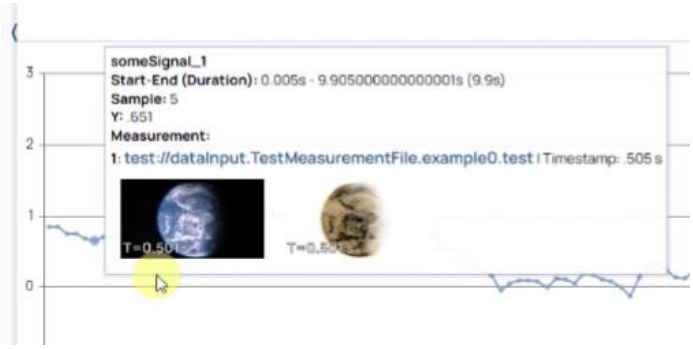
- The extended feature „Export Reports to Power Point" now allows to export one EATB report section per slide. Furthermore, it shows the traffic lights on the exported Power Point slides. A user can select which sections should be exported.



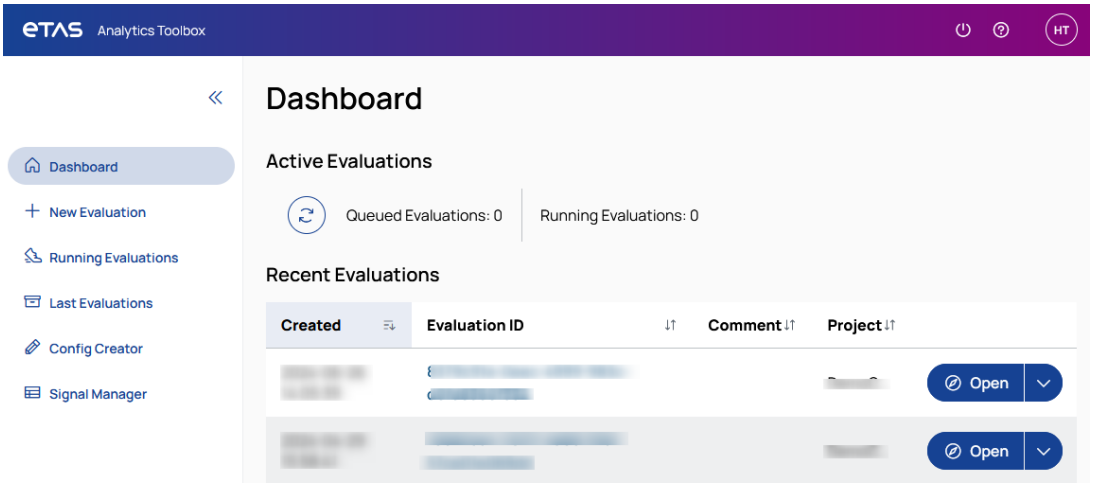
- A new page "Signal Manager" replaces the earlier used Config diffs dialog within ConfigCreator. It allows for extended signal editing:
    - The Signal Manager allows to specify multiple aliases for a specific Signal ID
    - Through the CSV export and import feature, the signals can be persisted, and bulk changes can easily performed on the CSV files.



- The new ADAS Video Thumbnails feature allows to embed thumbnail pictures from environment cameras/videos related to measurement files in EATB reports. The chart types “Time Plot” and “Interval Plot” support this new feature. See the Scripting Guide for further information regarding how to use this feature.



- EATB has started its migration to the new CommonUI corporate design of ETAS. This opportunity has been used to start migrating EATB to the React framework, which will allow for more robust and resilient development.



3.2. Fixed bugs

ID	Bug description
744433	b.setDisplaySetting('legend', 'disabled') does not work
696964	Changed visualization of Hist after applying ndf

746483	Min Scatterplot shows 2nd measurement files in tooltip, although points are only in first file
754272	Data missing when using eatb web frontend
755485	IncludeMeasurementBasenamePatterns does not work from EATB Web
759081	Blocking of network drive letters when comparing evaluations stored at network drive
761646	Unequal behavior between EATB Console and EATB Web regarding blanks in config_signals.csv
763369	Error when adding a line in config_Diffs or config_last to a time chart if more than one measurement file is used
755492	JSON file from EATB 5.4 results in infinity loop when imported to EATB 5.5

3.3. Restrictions

- EATB 5.6.0 can operate only with MATLAB Runtime version 2022b. No other version of MATLAB Runtime is currently supported.
- The recommended operating system for EATB is Windows 10 or 11. Linux operating system and virtual machines are not supported.
- The recommended browser are Firefox, Google Chrome and EDGE. Internet Explorer is not supported.
- The recommended MATLAB version to edit the configurations is 2022b.
- EATB is a single user web-application that can be accessed only from localhost. External access through IP-address is not possible.
- Data from previous EATB versions (older than v4.0.0) might not be compatible with EATB 5.6.0.
- The configuration creator offers a graphical user interface to create simple reports. Dynamic calculations in config_Diffs and usage of own MATLAB functions are therefore not supported. In this case it is recommended to use the *.m files to define the configuration.
- Running multiple instances of EATB in parallel is not supported
- Due to strict security policies introduced by the new versions of the browsers, the standalone viewer will not be able to directly open the report. A warning and some instructions are shown in the browser page to help you proceed. As an alternative, you can also change the security settings of your browser to allow EATB to open the reports (this has to be clarified with your responsible IT). Follow these instructions to change your browser settings:
  - Open the Firefox browser
  - In address bar input `about:config` and press `enter`
  - Click on `I accept the risk!`
  - In search bar search for `origin_policy`
  - Double click on `fileuri.strict_origin_policy` to change the value from `true` to `false`
  - Relaunch the browser and open the standalone report.

3.4. Compatibility to earlier releases

EATB is offered as a single user desktop variant not supporting multiple user access. The compatibility with old configuration files is provided but it is strongly recommended to adapt the syntax to the new commands (available from V4.0.0 onwards). The information about any deprecated commands will be displayed in the `LogInfo`. The information about all available commands can be found in the user´s guide.

The EATB standalone viewer is getting continuously improved and the structure of the results *.Json files can get changed. Therefore, old reports opened with the current standalone viewer may show an error under the signal-info. Hence, the signal names will not be displayed. This will not affect the newly created charts. Due to this fact, it will not be possible to import reports created by versions older than V4.1.0 into the `Configuration Creator`.

3.5. Known issues

Issue ID	Issue description	Impact	Workaround
1	Custom tables can contain complex structure that cannot be merged with the "Compare"-functionality	Merging reports that contain custom-tables may fail	If a warning or an error are shown in the LogInfo then remove the custom-tables from the report and retry again.
2	IUMPR tables accepts only double values for the parameter `min` and `low`	If integer values are used for `min` and `low` then an error will be shown	Use only double values for the IUMPR table
3	Reports containing "interval"-charts with `DisplayTypes` and thresholds, if imported to the "Configuration Creator", the thresholds will be missing in the imported chart settings	The report created with such an imported template to the "Configuration Creator" will not show the thresholds of the interval-chart	Add the thresholds manually to the imported charts before using it to create further reports
4	"Configuration Creator" does not support Aliasing in configuration import. Reports using Aliasing with `signalAliasUseCase = 1 or 2`, if imported to the "Configuration Creator" then only the list of first Aliases (in config_signals.csv the columns Alias1 and Device1) will be imported.	The remaining Aliases will not be considered. This may lead to signals not being found in some measurement files. The processing will consider only files where Alias1 is found.	Import Reports to "Configuration Creator" only if `signalAliasUseCase = 0` is used. Otherwise adapt the signal´s list in the "Signal Manager"-Page to add the missing Aliases.
5	In case Aliasing functionality is used, a mismatch may be visible in the tooltip of a time-	The signal-Label in the tooltip may not correspond to the found and used	The correct information about the signal-Label can be found under the "Info"-Button of a

	chart (only the first Alias will be displayed)	signal in the measurement file. The tooltip shows only Alias1	chart, in the tab "Chart Properties".
6	If the Json files are deleted from the report folder then the report entry cannot be delete	When trying to delete a report entry on "Last Evaluation" page, if the corresponding Json files are not found then the entry will not be deleted and an error message is show	Delete the reports directly from the UI of EATB under "Last Evaluation" and do not delete seperately the Json files manually
7	Traffic light system for DFC and IUMPR tables are not visible under "Threshold violations" (#723254)	If you navigate to the report-info button and click on "Threshold violations" then the status of the traffic light will not be shown in the filtered list	
8	Inconsistency when using a transitive zoom-synchronization	If multiple charts are transitively zoom-synchronized (e.g. chart1 with chart2 and chart1 with chart3), then zooming in one of the charts (e.g. chart3) might lead to an inconsistent zooming in other charts	
9	Failing to import "infinity" thresholds	Charts having thresholds as "infinity", if the report's template is imported to the Configuration Creator then the threshold fields of this chart will remain empty	Run the evaluation in MATLAB using the p-Code of EATB. The thresholds set to infinity will be considered
10	Broken export of tables to Power Point	When exporting a report to Power Point, if this report contains tables (e.g. MinMax-table, custom-table. ...) then the exported tables might be	

		broken and not displayed correctly in the slides.	
11	setAxisProp overwrites previous calls of setAxisProp with default values (#746178)	E.g., when setting the axis title, previous settings of an interval are replaced with default values.	Do only a single call to setAxisProp per chart, containing all properties which shall be set, e.g. chart.setAxisProp('Title', 'myDiagramm', 'interval',[0,10,20]);
12	The legend names for the merge evaluation report in split mode do not get the respective project names added correctly.	Origin of respective labels might be unclear.	
13	Merge evaluation labels might vanish if the running evaluations page is refreshed.	Merge evaluations are not easily identified on the running evaluations page.	
14	Merge evaluations cannot be canceled.	Merge evaluations must be seen through once started.	Waiting until the evaluation finishes.
15	Using multiple separate paths to DCM files on the New Evaluation page leads to a file extension not supported error and a failed evaluation.	Evaluations cannot use multiple, separate DCM file paths.	Move all relevant DCM files to one folder and use the path to this folder on the New Evaluation page instead.
16	Running evaluations with EATBConsole with both pathToConfigs and pathProjectConfigs attribute set, pathProjectConfigs is ignored	pathToProjectConfigs is not considered during the evalution.	
17	Changing the global view settings of a category of plots (Timeplots, Intervals, Histograms) while none of the selected category are currently shown might change the dimensions of plots of this category currently not shown.	Display objects might change in size.	Reopening the report from the Last Evaluations page.
18	Selecting not a folder containing DCM file(s)	Evaluation fails.	Select the folder containing the DCM files to be used.

	but a specific DCM file is not supported.		
19	When using bar, pie, histbar sometimes not all legends are visible. (#736630)	Chart is not usable without legend visible.	
20	Sometimes intervals and color definitions are not used correctly by EATB. (#746178)		
21	When clicking on a legend symbol other signals in other charts disappear. (#749397)	The customer is observing unexpected behavior.	

4. Hints

- ETAS Analytics Toolbox related data is stored on the local file system. Therefore, the access and usage of this data is independent of and not influenced by EATB.
- EATB stores meta-information (dates of evaluations, report authors, paths to directories, etc.) in a database in the user directory. The access to this data is restricted to the report author.
- EATB can process only *.eatb files (encrypted *.m files). The encryption can be done with the EATB Config-Encrypter. This tool is delivered together with EATB and can be used only in MATLAB to encrypt the *.m files.
- The installation package contains demo data. During the installation, this demo data is stored under C:\Program Files\ETAS\EATBx.y\Demo. These demo files contain examples of available chart types and different use cases. You may use this data to generate the demo report or adapt it to your measurement files and use it to create your first report
- EATB uses MCD-Core as a default data reader to read the measurement files. The user can choose to switch to the MDF-Lib by setting the parameter `isMcdCore` to 0. However, it is to be considered that this reader does not offer all the needed functionalities. This may lead to inconsistencies with some use cases (The MDF-Lib will be removed completely in future versions of EATB)
- When using the p-Code variant of EATB, it is recommended to write your code in config_diffs using the rbtb-commands of EATB and not hardcoded syntax pointing to specific fields of the rb-object. The structure of the rb-object is continuously getting improved and new fields might appear and old fields might disappear. This might lead a running code to fail in newer versions if the structure changes.
- Config_last can be used to transfer the datapoints of a chart to a custom-table. As this file is processed last by EATB, many dynamic options that are available in config_diffs cannot be used in config_last (e.g. setting thresholds).

5. Contact Information

5.1. Technical Support

For details of your local sales office as well as your local technical support team and product hotlines, take a look at the website: www.etas.com/hotlines

5.2. ETAS Headquarters

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