

ETAS EATB V5.5.0

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	<i>Production Release</i>
Release name	EATB 5.5.0
Scope of release	New feature "Export Reports to Power Point" and 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
Export reports to Power Point	Possibility to export a report as a set of Power Point slides
Support of different log levels	Possibility to define the log level for debugging purposes

2.2.2. Software and documentation

Filename	Description
Release Notes	Description of the Release
EATB 5.5.0	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
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 17, 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 – v115.4.0 ESR (64Bit)
- Google Chrome – v118.0.5993.71 (Official Build) (64-bit)
- EDGE – v119.0.2152.72 (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 new feature „Export reports to Power Point“ allows the user to export a report as a set of slides to Power Point. With this feature, all charts in the report will be exported to Power Point. Each chart will be located on a separate slide.
- New settings `rb.settings.LogLevel` and `rb.settings.commandWindowLevel` were introduced to allow user to define the log levels. This feature helps with the debugging of configurations. Depending on the defined log level, information about errors and warnings will be shown in the log files or the command window.
- Windows 11 and Windows Server 2022 are now supported.
- Support measurement files of Parquet format.
- New commands `removeChapter`, `removeSection` and `removeChart` are introduced. These commands can be used only in `config_Last` to remove unwanted chapters, sections or charts before the final report is created.
- The interface of `EATBConsole.exe` was extended to allow the user to change the settings of EATB without the need of re-encryption, as it is required with `start.m`. This is enabled through a `start.json` file. In this file, the settings of EATB can be defined as key-value pairs. The `start.json` does not need to be encrypted and allows therefore a more flexible usage of `EATBConsole.exe`.
- The parser of `config_diffs.m` was enhanced to detect many cases of syntax errors. When running the evaluation, in case of errors, the logs will show an error message pointing to the exact line of code in `config_diffs.m`. This will allow an early recognition of incorrect syntax that may be a potential cause of follow-up errors. This helps the user debugging the files and run a proper evaluation.
- For consistency reasons, the option “configure signal axes” of a scatter plot is removed from the report viewer.
- The file `config_diffs` allow a dynamic definition of calculated signals. This file cannot be used to define charts because, due to the processing sequence, the results from the last measurement file will not be considered.
- Improved protection of data integrity and prohibition of manipulation of measured signals. In this sense, `config_diffs` shows an error in case a calculated signal and a measured signal have the same label.
- Improved security measures to prevent a potential misuse of global variables. In this sense, all defined variables are available only locally within the processed function (configuration file) and not across all configurations. If a variable needs to be used in different configurations then it should be explicitly defined as “global” and loaded in the required configuration file.

3.2. Fixed bugs

ID	Bug description
729914	Failed to open reports created via Configuration Creator after DB migration
731634	Failed to perform Evaluation: Dot indexing is not supported
729021, 729022	Long loading time when selecting or scrolling through report list
736410	Failed to perform Evaluation: Unrecognized method, property or field QUANTITY for class chart.MinMax
741928	Incorrect yellow traffic light in time-chart
681167	Show list of measurements in all charts tooltips for overlapped points
728299	Job aborted. No supported or valid data files
729913	Axes quantity changes after DB migration
731726	EATB cannot be used with EDGE v114.0.1823.67
731426	Error using cellfun
732896	Unable to read labels from a measurement file
732492	Unable to open section after merging reports
730192	Error in data reader: unexpected exception from MEX file
729018	Unexpected sorting of files when expanding column width
733383	Unexpected results with DFC
722649	Incorrect pdf export of MinMax-table

3.3. Restrictions

- EATB 5.5.0 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 5.5.0.
- 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.
- The port 9232 cannot be used to run EATB as it is reserved internally.
- 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 <code>LogInfo</code> then remove the custom-tables from the report and retry again.
2	IUMPR tables accepts only double values for the parameter <code>min</code> and <code>low</code>	If integer values are used for <code>min</code> and <code>low</code> then an error will be shown	Use only double values for the IUMPR table
3	Reports containing "interval"-charts with <code>DisplayTypes</code> 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. Reports using Aliasing with	The remaining Aliases will not be considered. This may lead to signals	Import Reports to "Configuration Creator" only if <code>signalAliasUseCase = 0</code> is used. Otherwise adapt the

	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.	not being found in some measurement files. The processing will consider only files where Alias1 is found.	signal's list in the "Signal Config"-Window.
5	In case Aliasing functionality is used, a mismatch may be visible in the tooltip of a time-chart (only the first Alias will be displayed)	The signal-Label in the tooltip may not correspond to the found and used signal in the measurement file. The tooltip shows only Alias1	The correct information about the signal-Label can be found under the "Info"-Button of a 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	Incomplete export of a table from an HTML report to PDF (#722649)	If a report is exported to PDF then the tables might be not exported completely	
9	Corrupted visualization of histogram after applying ndf (#696964)	When applying "normal density function" to a histogram in the viewer, then the visualization might get corrupted	
10	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	
11	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
12	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.	
13	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]);
14	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.	
15	Merge evaluation labels might vanish if the running evaluations page is refreshed.	Merge evaluations are not easily identified on the running evaluations page.	
16	Merge evaluations cannot be canceled.	Merge evaluations must be seen through once started.	Waiting until the evaluation finishes.
17	Using multiple separate paths to DCM files on the New Evaluation	Evaluations cannot use multiple,	Move all relevant DCM files to one folder and use the path to

	page leads to a file extension not supported error and a failed evaluation.	separate DCM file paths.	this folder on the New Evaluation page instead.
18	Running evaluations with EATBConsole with both pathToConfigs and pathProjectConfigs attribute set, pathProjectConfigs is ignored	pathToProjectConfigs is not considered during the evaluation.	
19	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.
20	Disabling the legend via setDisplaySetting('legend', 'disabled') does not work for time charts (#744433)	Unwanted legend is shown	Disable the legend manually in the shown report.
21	When displaying multiple measurement files in a scatterplot and showing points in an interval (category), the tooltip lists all measurement files which have points there in the 1 st and 2 nd dimension, although there are no points in a file for this category (#746483)	User does not know, from which file points in the category originate.	

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

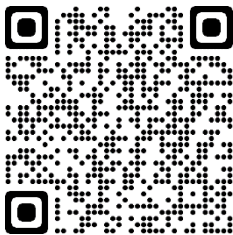
generate the demo report or adapt it to your measurement files and use it to create your first report

- 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



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