



TAM System Explorer

Release Notes

This document describes the evolution of the TAM System Explorer application as a log of notable changes.

Software Modules

There is a similar document, the TAM API release notes [1], which is more focused on the modularized software libraries of the TAM Software. Since most of the changes to the TAM System Explorer do also affect the API, these release notes are split into different modules for the developer's convenience, too:

Triamec.Tam.UI contains user interfaces.

Triamec.Tam.Core provides most of the APIs.

Triamec.Tam.TriaLink and *Triamec.Tam.EtherCat* allow for access to Tria-Link and EtherCAT devices, respectively.

Triamec.Common supplies shared functionality around settings and logging.

Triamec.Tam.Simulation supports offline analysis of system properties.

Sometimes, a regression is described using a reference to the breaking release. That version is a module version if not otherwise noted.

Document SWNET_TamSystemExplorerReleaseNotes_EP
Version 7.19.0, 2022-06-08
Source Q:\drive\sw\doc\tamsoftware\
Destination T:\doc\Software
Owner chm

www.triamec.com



TAM Software 7.19.0

New scope templates, bug fixes.

Release date: 8.6.2022

Triamec.Tam.UI 7.16.0

Feature

- Introduces and adjusts Scope templates for ideal use with the Drive Setup Guide.
- Create Report saves a support e-mail shortcut beneath the report archive.

Changes

- Renames Angle Search scope template to Phasing Analysis and adds position error.
- Closes Bode Measurement, Bode Tuning, Manage Persistency and Periphery Access dialogs if the device is disconnected.
- Let's time start at zero when exporting plots to CSV. Previously, there was an offset related to the Tria-Link timestamp.
- When a firmware download cannot be accomplished since the target is not ready (for example due to STO), this is now indicated right when the download dialog is shown, rather than after having commanded the download to start.

Bugs

- Fixes a crash in the scope when a cursor was active and there were no longer any plots after loading a configuration (including scope autoload).
- When the host lost connection to a device (surprise removal), open windows tied to that device will automatically close, and no longer cause a crash in that situation.

Triamec.Tam.TriaLink 7.15.0, Triamec.Tam.EtherCAT 7.15.0

Change

- Previous version of the TAM Software use a different Triamec Workspace setting to save which network interface cards to leverage. Upgrading to this version will enable all network interface cards.

TAM Software 7.18.0

Usability improvements and bug fixes.

Release date: 29.3.2022

Installation

Change

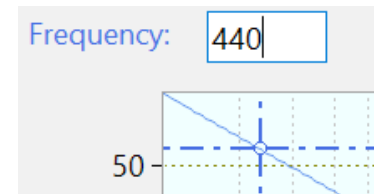
- Side-by-side installations don't longer share documentation.



Triamec.Tam.UI 7.15.0

Changes

- Various improvements in Bode Tuning:
 - ♦ Allows tuning the feed forward acceleration right in the interface.
 - ♦ Doesn't longer provide velocity controller tuning per default. The new *Enable velocity controller* preference can be used to activate it, though.
 - ♦ Lets the user confirm any attempt to close the window while parameters are modified.
 - ♦ Doesn't longer revert parameters using ESC key.
 - ♦ Introduces an option to render the phase in the range $[-360^\circ, 0^\circ]$.
 - ♦ The ability to edit the axis ranges by clicking on the end labels is no longer restricted to the phase axis. To compensate, the extra input box to limit the frequency has been removed.
 - ♦ Addresses an inconvenience where the phase axis limits were constantly rounded during interactive range changes. Rounding is now limited to initial rendering.
 - ♦ Frequency can be entered right in its label:
 - ♦ Cursors follow mouse clicks.
 - ♦ Cursors are easier to drag and plots are less narrow with high DPI scaling.
 - ♦ Synchronizes the Bode plot areas to always share the same width, even with high DPI scaling.
 - ♦ Addresses an inconvenience where the signal list is not always visible.
 - ♦ Makes some controls more discoverable.
- Reduces default sampling time in oscilloscope to 0.1 ms.



Bugs

- Ceases showing unrelated data in a triggered scope when no data was yet acquired and the stop button was clicked.
- Improves behavior when attempting to plot data above the supported volume.
- Fixes a race condition while opening the Link Health Monitor, leading to a `NullReferenceException`.

Triamec.Tam.Core 12.0.5

Bugs

- Addresses an inconvenience where loading a TAM configuration with EnDat encoders times out. Repeating the operation worked around this issue.
- Fixes a defect blocking firmware update for drives having revision 0A, 0B, 0C or 0D.
- Addresses an issue where the sequence of progress messages during a firmware update wasn't always maintained.

Triamec.Common 7.3.6

Change

- Tria-Link access via PCI adapter card is no longer configured per default.



TAM Software 7.17.2

Addresses issues regarding Tria-Link PCI and PCI express adapters. This update is highly recommended when using this hardware.

Release date: 30.12.2021

Triamec.Tam.Core 12.0.4

Bugs

- Fixes data logging performance for Tria-Link adapters not providing an interrupt. On systems suffering from this issue, plotting data was barely possible. Due to an unfortunate timing, some systems only reproduced the issue when the Firefox web browser was running.
- Addresses a data acquisition issue when data couldn't be consumed in real-time. For example, attempting to plot 80 kSamples in one second via a TL100 PCI adapter only showed appropriately half a second of data.

TAM Software 7.17.1

Improves usability.

Release date: 14.12.2021

Triamec.Tam.UI 7.14.1

Bug

- The emergency keys (F12 and Pause) now work in the Bode Measurement and Bode Tuning windows, too.



TAM Software 7.17.0

Introduces new elements in the Axis Monitor.

Release date: 22.11.2021

Triamec.Tam.UI 7.14.0

Features

- The Axis Monitor replicates detailed warning and errors as provided by the devices.
- Errors or warnings shown in the Axis Monitor are replicated one at a time in the status bar.

Changes

- The *Acknowledge Errors* button is enabled as soon as warnings or errors appear in the Axis Monitor irrespective of their persistence.
- The Create Report button already part of the log tab toolbar strip is now also available in the status bar, flashing upon appearance of errors.

Bugs

- Addresses an issue in the Axis Monitor where acknowledging cleared a hidden axis error.
- Supports measuring a Bode plot of both axes of a drive simultaneously. Note that you still might run short of resources when doing this with a dual-loop system, or when attempting to sample with 100 kHz.
- Addresses an issue where the original drive parameters were not restored if disabling failed after a Bode measurement.
- Gets rid of the error message Issue in `_parametersDataGridView...` by removing obsolete parameters from the axis module.

Triamec.Tam.Core 12.0.2

Bugs

- Works around a fatal exception at first start-up: *bad parameter or other API misuse Failed to configure managed assembly logging*, observed since 12.0.0.
- Handles a race condition during network discovery, while a network interface card is removed.
- Addresses a 12.0.0 regression where firmware update via Tria-Link PCI failed for new generation drives with firmware prior 4.9.1.

Triamec.Tam.Simulation 7.1.7

Bug

- Addresses a regression in 7.1.5 where simulated drives with register layout 19 refused motion.

Drivers

New

- Driver support for most current Windows systems where you previously got an error code 52. These drivers are backward compatible with previous versions of the TAM Software.



TAM Software 7.16.1

This release contains bug fixes.

Release date: 20.9.2021

Triamec.Tam.UI 7.13.1

Changes

- The top-level topology node is hidden from the view.

Bugs

- Addressed a crash as of 7.13.0 when the plot list of the scope became unusable on an attempt to remove an aggregate function column.
- Addressed an issue where Bode measurement didn't consider register parameter changes made between opening the window and starting a measurement, or in between measurements.

Triamec.Tam.Core 12.0.0

Bug

- Addressed a crash upon an attempt to load a dump file with more than 8 signals.

Triamec.Tam.TriaLink 7.14.1

Bug

- Addressed a regression as of 7.14.0 where previous generation drives could no longer be simulated.



TAM Software 7.16.0

This release features handling of a new kind of data logging files, that is, dump files produced by recent firmware.

This release also improves usability and fixes some notable issues.

Release date: 15.6.2021

Triamec.Tam.UI 7.13.0

Features

- Allow loading .TAMdump dump files produced by recent firmware into the scope.
- The archive created with **Help > Create Report** now includes device-side reports.
- Show absolute local time of the time axis origin in the scope.
- Show address in tool-tip when hovering over a plot legend row.
- Plots of short-named registers get a default name including the register's parent name.

Changes

- Configuration dialogs now close automatically when successful.
- Serial numbers are always shown when needing to resolve the stations of a TAM configuration.

Bugs

- Addressed a crash as of 7.11.1 when the scope width collapsed.
- Addressed a regression as of 7.12.0 where the cursor's Δt wasn't longer shaded.
- Addressed a crash when computing FFT and some plots are muted.
- Don't longer reset zoom when computing FFT.
- Addressed an issue where not all of a group of plots with the same name were correctly configured.

Triamec.Tam.Core 11.4.0

Bugs

- Fixed a regression as of 11.3.3 breaking firmware download for first generation drives.
- Addressed an issue where the application stops being responsive for a long time after Ethernet disconnect. In particular, the timeout was proportional to the number of plots in the scope.
- Fixed a race condition between USB hot-plug and application tear-down.



TAM Software 7.15.1

Fix two regressions from TAM Software 7.15.0.

Release date: 31.3.2021

Triamec.Tam.UI 7.12.1

Bug

- Addressed a regression as of 7.12.0 where zoom was reset prior FFT.

Triamec.Tam.Core 11.3.4

Bug

- Addressed a regression as of 11.3.3 blocking firmware download for drives with option modules.



TAM Software 7.15.0

This release supports file system tables, a new firmware feature introduced with firmware release 4.11.x.

The software was backported to .NET framework 4.6.2, which should help out some customers to run the TAM System Explorer on some older Beckhoff IPCs running Windows Enterprise 2016.

There were quite some bug fixes stemming from the analysis of crashes reported with the telemetry feature introduced with TAM SDK 7.14.1.

We decided to rename the installer from *TAM SDK* to *TAM Software*, since software development is clearly not its main use case.

Release date: 25.3.2021

Triamec.Tam.UI 7.12.0

Features

- Bode measurements for Gantry mode added.
- Closed loop Bode based on position error now allows measurement during constant motion.
- When changing the line color of the first plot of a y-axis, the y-axis adopts that color.

Change

- Removed sensorless mode Bode as closed loop Bode can be used instead.

Bug Fixes

- Addressed an inconvenience where plots could be sorted by their columns, unexpectedly.
- Addressed a crash in scope auto-load after having used the green cursor.
- Addressed a crash in STD(BW) calculation due to an unexpected imaginary part.

Triamec.Tam.Core 11.3.3

Change

- Tama assembly is always saved in-line with the TAM configuration. The original path is retained for reference only.

Bug Fix

- Address a dead-lock upon device restart as of 10.3.0.

Triamec.Tam.TriaLink 7.12.2, Triamec.Tam.EtherCAT 7.12.2

Bug Fix

- Addressed a crash when using bridge mode and the Tria-Link ring address was unassigned.

Triamec.Tam.Simulation 7.1.3

Bug Fix

- Address an issue as of 7.1.1 where the simulation wouldn't send data logging packets for RLID19 devices.



TAM SDK 7.14.1

This is the first version we deploy a component with the TAM System Explorer gathering anonymous usage and crash data. You will be asked for consent upon application start. If your system can reach the internet and you let telemetry be enabled, you can expect faster reaction to application crashes.

Release date: 15.12.2020

Triamec.Tam.UI 7.11.1

Features

- Experimental anonymous telemetry and crash data using Visual Studio App Center.

Changes

- Δt is now shown on top of the scope when blue and green cursors are shown, instead of in analysis.
- Reduced automatism in cursor analysis function choice to y for the blue, and $y2$ for the green cursor, and only the first time the cursors are enabled.
- Batch update shows a warning when nothing was updated.

Triamec.Tam.Core 11.3.1

Change

- Implemented UDP hole punching in order to increase reliability of data logging and other data from the device over a firewall.

Bug Fixes

- Addressed broken firmware update to TLO300, TLO400 and TLU1.
- Fixed a crash as of 11.3.0 occurring with batch firmware update in presence of Tria-Link PCI adapters.

Triamec.Common 7.3.1

Change

- TAM Configurations are opened with XCopy deployed TAM System Explorer as applicable.



TAM SDK 7.14.0

We introduce an STD(BW) – standard deviation in function of frequency – plot useful to analyze standstill noise. Refer to [the newsletter](#) for more information.

You can now open a TAM configuration (simulated or not) with the most current TAM System Explorer, or with the version specified by the Triamec workspace. Use the topmost context menu entries of the file for this sake.

Release date: 12.11.2020

Triamec.Tam.UI 7.11.0

Features

- STD(BW) - standard deviation in function of frequency - plot useful to analyze standstill noise.
- Second cursor value y_2 shown in plot analysis. Δy and Δt automatically added when second cursor appears.
- The Axis Monitor shows a blinking worker icon while the control system is overridden.

Changes

- Less intrusive Bode when an axis is already enabled. Measuring during coupled motion isn't permitted, though.
- The Tama status indicators have been updated from textual to iconic representations in the Axis Monitor.
- Live view is now enabled by default in the register grid, and the pause button is only shown in advanced mode.
- Reworked various icons in the property pages and some in the scope.

Bug Fixes

- Addressed an inconvenience in the axis module where it was not possible to detach in presence of device errors.
- Address an issue where the FFT plot of a measurement series didn't reuse original formatting correctly.
- Improve error message upon unparsable Bode measurement files.

Triamec.Tam.Core 11.3.0

Change

- Establish side-by-side support of the Ethernet over Tria-Link subsystem with IIS or other web servers. This can be configured by means of the *Ethernet over Tria-Link HTTP proxy port* setting.

Bug fixes

- Addressed a dead-lock upon an attempt to identify a freshly disconnected drive over Ethernet.
- Addressed a long timeout when clicking on the device node in the presence of inaccessible network drives.

Triamec.Tam.TriaLink 7.11.0, Triamec.Tam.EtherCAT 7.11.0

Bug fixes

- Don't crash in front of misaligned data received over USB.



- Don't crash when scanning a surprise-removed NIC.

Triamec.Tam.Simulation 7.1.1

Change

- Address an inconvenience as of 7.1.0 where it got more difficult to install the TAM SDK offline.



Previous Releases

A textual change log of previous releases is deployed with the documentation [2].

References

- [1] “TAM API release notes”, SWNET_TamApiReleaseNotes-7.19.0_EP001.pdf, Triamec Motion AG, 2022
- [2] “TAM System Explorer 7.13.1 release notes”, SWNET_TamSystemExplorerReleaseNotes-7.13.1_EP001.txt, Triamec Motion AG, 2020

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