



## TAM Software

### Troubleshooter

| Version | Date       | Editor  | Comment  |
|---------|------------|---------|--|
| 003     | 2013-01-09 | chm     |  |
| 004     | 2013-04-22 | chm     |  |
| 005     | 2013-05-31 | ab, chm |  |
| 006     | 2013-10-14 | ab, chm | 6 new entries  |
| 007     | 2013-12-02 | chm     | 4 new entries  |
| 008     | 2013-03-26 | chm     | 3 new entries, one extended  |
| 009     | 2014-11-27 | chm     | 1 new entry  |
| 010     | 2015-06-05 | chm     | 1 new entry  |
| 011     | 2016-07-07 | chm     | entries caused by dirty PCI pins                                     |
| 012     | 2016-12-14 | chm     | 3 new entries  |
| 013     | 2017-12-06 | chm     | installer issue  |
| 014     | 2019-05-15 | chm     | bluescreen issue on Windows 7 32bit                                  |
| 015     | 2020-07-22 | chm     | Error Code 10 with Tria-Link PCI adapters. Prune Windows 7 specifics |
| 016     | 2020-08-20 | chm     | Incorrect TwinCat shutdown or bad cables causing major malfunction   |
| 017     | 2021-03-22 | chm     | Open context menus on TAM configuration launches unexpected version  |

Document SWNET\_Troubleshooter\_EP  
Version 021  
Source Q:\doc\Software\SWNET  
Destination T:\doc\Software  
Owner chm

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For old versions of the TAM Software, prefer the troubleshooter delivered with the software.  
This also holds for old firmware on legacy drives.

| Category                                   | Problem   | Cause   | Solution  |
|--|---|---|---|
| Installer / Launcher                       | Application has failed to start because framedyn.dll was not found  | Operating system is misconfigured   | See <a href="http://support.microsoft.com/default.aspx?kbid=319114">http://support.microsoft.com/default.aspx?kbid=319114</a>   |
|  | A file that is required cannot be installed because the cabinet file (...)tam.cab has an invalid digital signature. This may indicate that the cabinet file is corrupt. | The root certificates of the PC are outdated  | Download required <a href="#">SSL.com</a> certificates: <a href="#">Root certificate</a> and <a href="#">intermediate certificate</a> . Change extension from .pem to .cer. Choose "Install Certificate" from the file context menu. Choose Local Machine Certificate Store. Choose Trusted Root Certification Authorities Store for the first and Intermediate Certification Authorities Store for the latter. |
|  | Error 0x800b010a: Failed to get certificate chain for authenticode certificate.   |   |   |
|  | Open or Open Simulated doesn't launch the expected version of the TAM System Explorer   | You're using TAM Software < 7.15.0. These versions have known issues.   | Use more recent versions of the TAM Software  |
|  |   | The configuration is saved within a Triamec workspace   | Open the workspace once with the desired Tam System Explorer. This version is persisted in the workspace.   |
| Hardware                                   |   | User has set a standard app for the .TAMcfg file extension  | Use the <b>Open With</b> context menu and choose TamLauncher  |
|  | Tria-Link adapter not recognized by the operating system, not visible in the Device Manager   | Soiled PCI pins   | Abrade the soiling  |
|  |   | Hardware or BIOS issue with the PCI slots   | Choose different slot; Update BIOS; Change computer   |
|  | Tria-Link PCI adapter shows "This device cannot start. (Code 10)", Problem Status: "An I/O adapter hardware error has occurred." (C0000C2) in Device Manager            | The BIOS has troubles with the PCI hardware setup, often in conjunction with an external graphics card  | Change the PCI slot<br>Update BIOS<br>Change computer   |
|  | Issues with file system and network when Tria-Link adapter is installed.  | BIOS starts up faster than the adapter<br>The PCI slot is disabled in the BIOS  | Check if BIOS can be configured to boot slower, or change the computer<br>Enable the PCI slot in the BIOS   |
|  | Device Manager shows "An I/O adapter hardware error has occurred."  | Soiled PCI pins   | Abrade the soiling  |
| Boot                                       | Tria-Link adapter visible in the operating system device manager, but not recognized by the TAM SDK.  | Soiled PCI pins causing SUBSYS FFFFFFFF instead of 00000000   |   |
|  | The Tria-Link is not ready. Check cabling. ...  | Tria-Link not closed  | Close Tria-Link, check cables<br>Attention with TLC201 and old TL100 boards: Choose the two left connectors. If this does not help, replace the card  |
|  | The Tria-Link is not ready. Ensure there is a master, and check cabling. ...  | No master in ring or Tria-Link not closed   | Switch card to master, or see above   |
|  | Reset of subscriptions failed for <x> stations.   | Bad reset after firmware update of TLC card   | Power cycle computer  |
|  | No stations found, despite fast start   | TAM System Explorer < TAM SDK 7.4.0 closed in unfortunate moment during boot, so loopback is set. Test: Orange LED on Ethernet lights up even if cable is pulled out. | Power cycle computer  |
|  | Station(s) not visible, stations not always responsive in axis monitor. Health monitor shows increasing Rx-Err counts.  | Beckhoff TwinCAT not correctly shut down<br>Ethernet cables not screened  | Power cycle computer<br>Use screened cables   |
|  | Unable to add device for station of type X. No assembly found providing a register layout library for rlid Y.   | Register Layout Dynamic Link Library (dll) not found  | Correct Build or Deployment so that the dll RegisterLayout.Y.dll is in the same directory as the application  |
|  | Unable to add device for station of type X. No assembly found providing a register layout library for rlid 0.   | Register Layout ID 0 is reported back   | Reprogram firmware  |
|  | Link: Initialize failed. Could not communicate with the adapter   | Application not closed during Hibernate.<br>If permanent: interrupt problem?  | Restart the application.<br>Set the IrqDisabled workspace setting to True. Note that this causes longer delays. If this fix succeeds, try the other solutions, too, and revert the setting in case of success there.  |
|  |   | Motherboard incompatibility   | Change slots<br>Upgrade Motherboard-BIOS  |
| Fifo is empty. Tria-Link endpoint listener | TwinCAT is running on the same computer.  | Stop TwinCAT  |   |

| Category                                      | Problem   | Cause  | Solution   |
|---|---|--|--|
| All   | A communication timeout occurred.   | Tria-Link not closed anymore   | Close Tria-Link  |
|   |   | Function not supported by hardware or firmware   | Use another function or call Triamec support for clarification   |
|   |   | Too fast power cycle, e.g. after firmware update of the device   | Perform logic power cycle 5s   |
|   |   | Computer overloaded  | Close other applications, do not plot so much  |
|   |   | packet loss for unknown reason, not reproducible   | Try again if possible, implement error handling  |
| Configuration / Persistence                   | A matching module with type Axis could not be found.  | ModulePath setting on subfolders without corresponding privatePath probing   | At the end of app.config, introduce a runtime section similar to TamSystemExplorer.exe.config.   |
|   |   | Wrong ModulePath application setting   | Correct setting. If the ModuleCatalog.dll is in the working directory, set the setting to "ModuleCatalog.dll".   |
|   | Match failure - Parameter X has wrong value type Y. Expected type Y   | Module dll exists several times in the module path   | 1. correct build or deployment so that the dll is only present once<br>2. reduce the number of paths in the ModulePath application setting.  |
| Explorer                                      | A relative URI cannot be created because the 'uriString' parameter represents an absolute URI<br>TAM Module Manager is empty. The log contains entries of the form: The file or assembly (...)ModuleCatalog.dll or a dependency on it was not found. The operation is not supported. (Exception of HRESULT: 0x80131515) An attempt was made to load an assembly from a network address... | ":" in the name of a TAM node  | Do not use ":", "/", "?", "#", "="   |
|   |   | Application brought onto the machine by means of a zip file from the internet.   | Unblock the zip file prior unpackaging. In the Windows Explorer, use context menu > Properties and check the Unblock check box.  |
|   | Could not load file or assembly 'netstandard, Version=2.0.0.0,....' The system cannot find the file specified, with menu <b>File &gt; Preferences</b>   | Incomplete installation of .NET 4.8 on a Windows 10 Enterprise 2016 LTSB, where C:\WINDOWS\Microsoft.Net\assembly\GAC_MSIL\netstandard\v4.0_2.0.0.0__cc7b13ffcd2ddd51 is empty | Get a copy of netstandard.dll and put it into the program directory or into the directory mentioned before. If this doesn't work, put the DLL beneath the executable.  |
|   | Could not load file or assembly 'NationalInstruments.UI, Version=9.0.35.292,....' The system cannot find the file specified.  | msiexec was called with /quiet, /qb or /qn   | call msiexec with /qr or /qf   |
|   | Cannot terminate the application via task manager   | Application crash after operating via USB connection of the TL card  | Remove the respective USB cable for a short time   |
| Firmware Upgrade                              | Firmware download prohibited: Periphery ..\Bridge-Monitor not present   | Safe Torque Off active   | Close or short-circuit Safe Torque Off lines. Perform Power Cycle 5s   |
|   | Download is slower than usual   | Some devices are indeed slower to update than other devices  | None   |
|   | Interrupted Download in case of Downgrade from Build with FF1240 and higher to a Build with FF lower than FF1240  | Incompatibility caused by switching of CRC-mode in the SPI channel (FPGA -> Monitors)  | power cycle drive, boot and restart Firmware downgrade again   |
| Electronics                                   | Cannot enable axis control.   | Encoder wiring wrong, mixed up or not connected at all   | Correct cabling  |
|   |   | Drive not or incorrectly configured  | Configure drive  |
| Scope / Acquisition                           | The maximum number of subscriptions was exceeded in the publishing station.   | Module or application already using subscriptions  | Remove module or record fewer signals  |
|   |   | In MATLAB, recordings were aborted with Ctrl-C and tried again   | Reinitialize link or disconnect logic on device  |
|   | Nothing is plotted  | Unfavorable trigger condition  | Adjust trigger condition   |
|   |   | Device is operated with local clock  | In the startup settings of the device, change to global Tria-Link clock, save and restart the device.  |
|   | Internal Error OutOfMemoryException   | Too much data plotted  | - Decrease "refresh frequency", available in the category "sophisticated behavior".<br>- Made all plots invisible during plotting using the Visible property in the Appearance category of the plot properties (Before saving, make the plots visible again) |
|   |   | A realtime system, such as TwinCAT, is running on the same machine   | - Decrease data rate.<br>- Use different machines for realtime and data acquisition tasks  |
|   |   | Bad inference with some National Instruments software (the scope is implemented using Measurement Studio)  | Use another machine w/o NI software or uninstall some of the NI software   |
|   | Gaps  | Known issue with USB observers (p.e. TLO100)   | Work around: acquire some more data at once, such that two subscriptions are set up.   |
| User interface elements are no longer updated | Too much data to display (NI/GDI+ not performant)   | - Decrease data rate.<br>- Decrease "refresh frequency", available in the category "sophisticated behavior".   |  |

| Category | Problem                         | Cause                       | Solution  |
|----------|---------------------------------|-----------------------------|---|
|          | Zooming is abnormally slow      | Unknown                     | Work around: move the mouse cursor out of the scope. Please contact us if you observe this issue.   |
|          | needles not visible on printout | Printer undercuts hairlines | <ul style="list-style-type: none"> <li>- Configure printer driver to enhance hairlines.</li> <li>- Enlarge line thickness in scope</li> </ul> |
|          |                                 |                             |   |