

**Release 3.7.4**

**Release Date:** 2018-11-08  
**SVN Revision:** 1008

Changes since last Build:

- NEW: Broadcast globaltime every 5 seconds (bugfix 3)
- CHG: MoveSynchronized2 issues a stop if execute is set to FALSE  
This way we can stop streaming without a drive StreamLossError
- CHG: Actual position is commanded position in simulation mode
- CHG: use method ActualPositionFast(Trialink:=Trialink) to get interpolated positions in the fast task

**Release 3.7.3**

**Release Date:** 2018-10-18  
**SVN Revision:** 996

Changes since last Build:

- new: Report file generation "triamec-report-2018.txt" on start of TaskExceedCompensation
- chg: default Trialink.Config.FastBufferTicks := 7
- fix: reference move caused stream loss error as data stream stopped before coupling was released (bugfix 1)

**Release 3.7.2**

**Release Date:** 2018-07-06  
**SVN Revision:** 982

Changes since last Build:

- new: Signals.Homing.State and Distance, old Homing state Signals.General.HomingState removed
- chg: removed Config.Encoder, use drive config Parameters.PositionController.MasterPositionSource instead (FW>2082)
- chg: For TSD-drives we show the actual velocity instead of the commanded velocity in the state telegram
- chg: Changes to allow homing with option module implemented.
- new: Fast stop implemented
- fix: RDEeDRVERR\_PowerLinesNotOk is interpreted as warning if RDSedrVST\_NotReadyToSwitchOn

**Release 3.7.1**

**Release Date:** 2017-09-04  
**SVN Revision:** 913

Changes since last Build:

- new: Optimized bus access if using TL\_Trialink2 and TL\_Axis2  
instead of TL\_Trialink, TL\_AxisSlow, TL\_AxisFast (FW>=5050 (TS) 2097 (TSD))  
Trialink.Config.FastFilterFrequency is the corner frequency of the commanded position filter
- new: Additional input Trialink.Diagnostics.aux allows logging external input data
- fix: replace constants enabled (bugfix 8)

**Release 3.7.0**

**Release Date:** 2017-03-28  
**SVN Revision:** 891

Changes since last Build:

- !! breaking: This library requires FW>2087 on TSD devices due to the extended homing state feature
- new: TL\_RegisterRead allows accessing 4 registers at once  
but has no Reg12\_40 and Reg4\_DWORD outputs anymore
- fix: TL\_PositionLatchReg2 can now latch DigInputs, but with bad timing accuracy (SLOW\_TASK)
- new: TL\_MC\_HOME supports drive controlled homing for TSD drives (FW>2087)

**Release 3.7.0**

- chg: The register layout was modified to account for new positionlatch features
- new: Extended state in cyclic abo used for homing state

**Release 3.6.0****Release Date: 2016-12-13****SVN Revision: 865**

Changes since last Build:

- chg: Optimization of FIFO tail access saves system load!
- new: register entries for identification, positionUnit, masterPosition, analogOut
- chg: breaking register changes:
  - OptionModule.FirmwareId renamed to FirmwareRel
  - TOU1[0] renamed to AnalogIn
- chg: Modifications to avoid warnings with compiler newer equal 3.1.40.20
- chg: DirectFeed: Intreface modified.
- chg: DirectFeed: Test added to check if velocity and acceleration are within the limits.
- chg: DirectFeed: Events for error publication added.
- chg: DirectFeed: Check if table position at the end of the table matches the commanded cnc position.
- fix: DirectFeed: Modulo calculation for position check fixed.

**Release 3.5.0****Release Date: 2016-06-09****SVN Revision: 799**

Changes since last Build:

- new: Function blocks for direct feed re-sampling added
- chg: Modifications used for direct feed re-sampling added

**Release 3.4.1****Release Date: 2018-10-18****SVN Revision: 782**

Changes since last Build:

- new: Reference on adjacent EncoderIndex for TSxxx drives (special application)
  - use ConfigurationManager settings:
    - ReferenceMethod := TL\_Config.ReferenceMethod.Marker
    - ReferenceFirstMask := 512; // instead of TL\_Config.ReferenceFirstInput.ExtIoA

**Release 3.4.0****Release Date: 2016-05-20****SVN Revision: 774**

Changes since last Build:

- new: Support 24V digitalInput for homing of TSD-drives (same as for old drives)
  - (latching not in drive, but in Twincat)
- chg: new entry Config.Encoder replaces TL\_MC\_Power.EncoderIndexForActPosition
- chg: Support for FW2077, which does no longer support old register style
- chg: BrakeTimeBeforeDisable is discarded with newer drives (TSD)
  - because brake time parameter is a config register parameter with newer drives

### Release 3.3.0

**Release Date:** 2016-03-14  
**SVN Revision:** 745

Changes since last Build:

- chg: remove debug signal TL\_MC\_AXIS::rx\_test and corresponding TL\_MC\_Power::pub\_aux
- chg: no set position zero during boot. These changes do only apply for TSD-Series drives
- chg: Register uses URI-offsets now and is not compatible for TSD80 FW < 2071  
     URI take more than 20 bits: extend internal register offset range to 22 bits
- chg: rename General.Parameters.DriveName to General.Parameters.DeviceName
- new: support for absolute endat with TSD80  
     EncoderPersistency, ReferenceDone, Digital Encoder Signals
- new: RCTtCommutationCommands2, Encoder Velocity

### Release 3.2.1

**Release Date:** 2016-01-19  
**SVN Revision:** 730  
**Lib:** 310.0 (TC3 only)

Changes since last Build:

- chg: homing is now also supported for TSD80
- chg: general enhancement of TSD80 support
- fix: if axes are coupled, homig did not work in some cases

### Release 3.2.0

**Release Date:** 2018-10-18  
**SVN Revision:** 713  
**Lib:** 310.0 (TC3 only)

Changes since last Build:

- new: support for new current controller features of FW2071 of TSD80
- chg: Changes of the drive register layout! Incompatible to earlier FW of the TSD80!

### Release 3.1.0

**Release Date:** 2015-10-05  
**SVN Revision:** 704  
**Lib:** 310.0 (TC3 only)

Changes since last Build:

- NEW: allow receiving five (single) values per abo
- NEW: TSD80 support: add register layout 19 MC\_AXIS.register2 and support for doubles

### Release 3.0.5

**Release Date:** 2015-05-04  
**SVN Revision:** 692  
**Lib:** 305.4 (TC2 &3)

Changes since last Build:

- NEW: ReferenceType Tama, see AN108
- FIX: Check for Session handler garbage collector limit, fixed
- CHG: PLL correction time was 2.5\*fastTaskTime, now it is constant 2.5ms.
- CHG: Diagnostic files show position error instead of actual position: Err is not interpolated, act can be seen from cmd in tracking situation (BugFix 4)
- CHG: Diagnostics: adaptations for Explorer scope

**Release 3.0.5**

- CHG: reorganize error and event priorities
- CHG: avoid double read of publisher abos
- FIX: wrong type of PositionController.ControlOutputCurrentQ
- NEW: Object TL\_AboSubscriberMaster5 receives 5 single float values  
Object TL\_AboSubscriberMaster receives 1 Float40 and 3 single float values (old)
- NEW: add missing commit option for Axis Environment
- CHG: message 075 not trialink "down", but short "shutting down"
- CHG: disable of moving axis first tries an emergency stop if MaximumStoppingTimeBeforeBrake<0
- CHG: pll: adjust with sample time, different windows for boot and error 179
- CHG: remove obsolete events: 131, 136, 138, 139, 141, 144
- NEW: couple warning/error: sync 178/179 on pll sync problems
- NEW: task exceeds compensation

## Release 3.0

**Release Date:** 2014-04-02  
**SVN Revision:** 631  
**Lib:** 302.0

Changes since last Build:

- CHG: Compatibility changes for TwinCat3... The following are breaking changes:
  - variable "method" in homing parameter not allowed in TC3 -> ReferenceMethod
  - all axis parameters are now set in TL\_AxisSlow.Config
  - move Trialink.FastHandler.pll.BufferTicks to Trialink.Config.FastBufferTicks
  - move TL\_AxisSlow.MC\_axis\_Home.Position to TL\_AxisSlow.referencePosition
- CHG: Error 069 has now a smaller priority than 070. New events 178/179
- NEW: Diagnostic logfile generated on axis errors
  - set path in Trialink.Config.RootFolder
  - an empty path or Trialink.Config.DiagnosticMode is used to disable the feature
  - the number of files in this folder is limited to Trialink.Config.DiagnosticNumberOfFiles
- CHG: move library\_version to Diagnostics
- NEW: Add errors for STO firmware 1040, no parallel errors 130+260, changed event file
- NEW: Trialink.Config.TcEventShowReferenceInfos FALSE disables homing move information messages
- NEW: Trialink.Config.TcEventShowWarnings FALSE disables all warning messages
- NEW: 4th order interpolator for commanded positions accounts for high dynamic trajectories
- NEW: TL\_publishSlave2Master for ts<>ts\_Fast or ts/0.lms<>n
- NEW: TL\_MC\_MoveAbsolute can now react in MAIN\_FAST, see AN108
- CHG: sample codes: new TL\_CNC and TL\_CNC\_AX with task exceed compensation capability

## Release 2.2

**Release Date:** not public released  
**SVN Revision:** 553  
**Lib:** 226

Changes since last Build:

- NEW: Preparation FOR DMA with rx-iso, rx-asy, AND tx-sdram
- NEW: Disable axis errors if Trialink down. STO errors may be configured in Trialink.Config
- NEW: High resolution actual position
- NEW: More registers for tama and position control parameters
- CHG: TL\_AboSubscriberMaster flexible interpolation and modulo capability on src1
- CHG: MoveAbsolute and MoveVelocity now signal 152=CommandAborted if an axis error stops the move before reaching the final state (standstill or ContinuousMotion)
- NEW: Trialink events "Booting" and "Timeout"
- CHG: tiob: remove unused tRefTick, replace TL\_TiobFast by TL\_AboSubscriberMaster;
- CHG: publish: new fifo and SingleInterpolator for TL\_AboSubscriberMaster
- NEW: each axis has its own event source for simultaneous display
- NEW: Homing: add search info and show them in the event-display

**Release 2.1**

**Release Date:** 2013-02-21  
**SVN Revision:** 502  
**Lib:** 219

Changes since last Build:

- CHG: bug fix Float40 of lib
- CHG: Application notes are now in PDF format
- CHG: FPGA localbus device DEVencoder\_in\_out to DEVencoder\_DigIn
- CHG: faster pll initialization
- NEW: Position-latch feature for digital IOs
- CHG: recover MC\_Power on communication down (\*)
- CHG: default direction of moveAbsolute is now shortestway (important for modulo axes)
- NEW: timeout error if boot not successful for 20 seconds
- CHG: improve detection of two masters in the loop
- NEW: readyToOperate output of axis module (bridge voltage and STO detection)
- NEW: distinguish errors and warning for STO and bridge voltage
- FIX: message events block fixed new error problem
- NEW: independent TwinCat errors for axis and (power/homing)
- CHG: priors of errorId of TL\_AxisSlow (1. axis error or warning 2. homing error 3. power error)
- FIX: dualport ram sync problem on rx\_iso fifo and sync warning
- FIX: TL\_publishSlave2Master bug

know bug: recovery of MC\_Power:

when the ring has been opened and closed again and user tries to acknowledge error with HMI reset, error is not cleared.

Solution: set communicationEnable FALSE/TRUE.

**Release 2.0**

**Release Date:** 2012-10-03  
**SVN Revision:** 476  
**Lib:** 216

Changes since last Build:

- NEW: major release with changes listed in AN160 (TL\_Trialink, TL\_publishSlave2Slave, Homing)
- NEW: Support STO
- NEW: AN122 for CNC-Error 70091 in Manual und Auto Mode
- NEW: 12 hour bug
- CHG: turn off pwm if MC\_Power.enable=FALSE

**Release 1.8**

**Release Date:** 2012-04-12  
**SVN Revision:** 393  
**Lib:** 177

Changes since last Build:

- FIX: Endat 2.1 for more than 32 bits
- CHG: nci-sample code with same structure as cnc