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Changelist TwinCAT 3.1.4024.29 to 4024.32

XAE:

- Optimized: Link between two TcCom objects created invalid mapping object (ADOS:56283).
- Optimized: TMC Editor: DoubleQuotes were doubled while reimport translations for events (ADOS:60773).
- Optimized: Status of the option "Swap LOBYTE and HIBYTE" were not stored (ADOS:65912).
- Optimized: Converter: If the PLC project could not be build, the functionality for changing the GVL variable links was not executed (ADOS:71621).
- Optimized: Wrong IEC code for 'qualified only' enum type used in struct with default value (ADOS:78591).
- Optimized: XAE had problems after reloading TMC on an object (ADOS:79708).
- Optimized: If there was an old TMC file after updating the local copy of a specific project via Git, an unrestored link was not restored after compiling this project (ADOS:80658).
- Optimized: __FileName__ was not set to (error) message if the "source" was saved as an independent project file (ADOS:82789).
- Optimized: Renaming the PLC project leads to names of all its instances were changed except of first default one (ADOS:83715).
- Optimized: When using the Automation Interface to add variant specific setting and then add a new variant config, the variant specific settings were lost (ADOS:83810).
- Optimized: An error in serializing RPC method calls is fixed (ADOS:84933).
- Optimized: Automation Interface: TwinCAT XAE problems when specifying ImplementationCode in ITcSmTreeItem::CreateChild TreeItemType.PlcPropertySet or TreeItemType.PlcPropertyGet (ADOS:86647).

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- Optimized: Adapter IP incompatible warning staid and causes problems (ADOS:55107).
- Optimized: An AMP8000 EtherCAT device could be erroneously inserted (ADOS:64380).
- Optimized: lot Driver: problems with tlsv1.3 version (ADOS:74999).
- Optimized: EtherCAT: When inserting a device before a device with connector, the connector was not checked (ADOS:75417)
- Optimized: A device which only has an A-Port cannot be inserted multiple times (ADOS:75465).
- Optimized: It is now possible to add an AMP8000 to a port if there is a disabled AMP8000 connected (ADOS:75878).
- Updated: Added ADS service to the EtherCAT master to write data to the EEprom of an EtherCAT slave (ADOS:77150).
- Optimized: BACnet Rev14: ReadProperty was not working with ArrayIndex, also not working with RPM (ADOS:78764).
- Optimized: BACnet Extension: Adjusted structured view creation to use setting in BACnet Param.eView SubordinateAnnotationMode to generate structure (ADOS:79537).
- Optimized: Profinet Controller: wrong record alignment during fragmentation (ADOS:80348).
- Updated: Added support of Intel I225 network adapter on Windows CE (ADOS:80527).
- Optimized: EtherNet/IP: Communication Interruption on Explicit Messaging once every 24 –
 48 hours (ADOS:80568).
- Optimized: In a specific 3rd party drive it was not possible to change specific PDO settings (ADOS:81045).
- Optimized: TwinCAT XAE had problems after rescanning a BK9100 (ADOS:81158).
- Optimized: Dynamic PLC Objects can now not deleted from BACnet (ADOS:81564).

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- Optimized: EtherCAT: a problem occurred when an emergency was sent by the EPP3632-0001 (ADOS:83039).
- Optimized: BACnet Rev14: COV-U was not working correctly if client/object is configured statically (ADOS:84155).
- Optimized: Sometimes a problem occurred when one restarts TwinCAT and the HMI EtherCAT Topology Control is active (ADOS:84885).
- Optimized: EthernetIP: Master might use invalid Destination IP for Output UDP-IO Frames depending on FwdOpen reply of remote node (ADOS:85857).
- Optimized: Warning about EtherCAT address appeared for disabled terminals although it is not possible to change the address (ADOS:86243).
- Optimized: In the memory view of an EtherCAT slave PHY MIO Address was not displayed correctly (ADOS:86680).
- Optimized: Different values in startup with and without ESI (ADOS:86806).

PLC:

- Optimized: Breakpoint handling: 2nd PLC did not start anymore if a breakpoint was set in 1st PLC and the code of the 1st PLC was changed via online change (ADOS:39597).
- Optimized: Busy Hangup during Build of special TwinCAT Project with PLC (ADOS:51428).
- Optimized: After update from one version to the next one a problem appeared after a TwinCAT restart (ADOS:64101).
- Optimized: 'Find All' in Visual Studio 2019 jumps now to correct line in PLC (ADOS:19843).
- Optimized: Automation Interface: Export/ProduceXml was not possible for PLC functions without return type (void) (ADOS:76971).
- Optimized: TcDocGen: internal variables now also rendered in documentation (ADOS:77284).
- Optimized: Standalone PLC: Parameter (0x08500005) mismatch error appeared (ADOS:80429)
- Optimized: Standalone PLC: Parameter (0x08500005) mismatch error appeared while online change in a specific project (ADOS:83895)
- Optimized: Project Compare problem occurred while comparing two SFC POUs (ADOS:84712).

NC:

- Optimized: 'ContinuousUpdate' functionality added to MC_TorqueControl for fast communication to change the commanded target torque value (like a cyclic controller application) (ADOS:81608).
- Optimized: New NC simulation mode for MC_TorqueControl (equal to the existing NC simulation axis with simulation encoder) (ADOS:81599).
- Optimized: Automation Interface: Include axis links in encoder device xml (ADOS:72305).
- Optimized: MC_MoveModulo improved to prevent seldom run-time error when new modulo command is requested during active movement (ADOS:72557).
- Optimized: Improvement switching drive operation mode from TorqueCtrl into Pos/Velo-Ctrl (ADOS:79175).
- Optimized: If TcNcAxis attribute in PLC could not be resolved an error message appears (ADOS:79863).
- Optimized: Jerk adjustment in a special situation during the decoupling phase of an accelerating slave axis with a new motion command to minimize unexpected overshoot (ADOS:82278).
- Updated: Added write access via PID for synchron torque precontrol (additive torque offset for drive nOutData3) (ADOS:85708).
- Optimized: Encoder Sub Mask with value 0xFFFFFFFF is now leading to correct velocity scaling for e.g. Bodeplot (ADOS:77094).

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- Optimized: XFC time cam shorter than cycle time is supported (ADOS:77067).
- Optimized: Tc2_MC2_XFC digital cam is considering direction parameter when turning on (MC DigitalCamSwitch) (ADOS:83086).

System:

- Optimzed: Changed 'hint' to 'error' dialog when a task dump is (or might be) written (ADOS:57647).
- Optimized: Problems when accessing last byte of an array of BITARR4 with an uneven number of elements (ADOS:59783).
- Optimized: EventLogger lead to problems on CX8200 (ADOS:61462).
- Optimized: TwinCAT/BSD: Evaluates now UserPath from TcRegistry.xml in SystemService (ADOS:72424).
- Optimized: TwinCAT/RTOS: MQTT receive error in combination with CX7000 fixed (ADOS:73584).
- Optimized: Expanded exception window text with the last four version numbers (e.g. 3.1.4548.6) (ADOS:78893).
- Optimized: TcEventLogger: Required LoggedEvents.db to be closed in CONFIG Mode (ADOS:81096).
- Optimized: TwinCAT/BSD: EventLogger problems on C6017/CX5120 fixed (ADOS:81494).
- Optimized: TcEventLoggerAdsProxy: Alignment error in GetSourceGuid fixed (ADOS:81642)-
- Optimized: TcEventLogger: AdsLogMessages might be malformed (ADOS:83483).