

## Software History Tvi36V5

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### 8.10 - 11th of August 2025

#### New

- Encoder direction inversion and encoder position offset functionality added
- New SDO Objects and corresponding ASCII-Commands
  - 0x6000 ENCCD Encoder count direction
  - 0x6509 ENCPO Encoder position offset
- New SDO Object
  - 0x5003:107 (FCSP)

#### Improvements

- Webmotion startup speed increased

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### 8.08B - 17th of July 2025

#### New

- New ASCII-Command
  - FCSP Force calibration speed

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### 8.08A - 2th of July 2025

- No functional changes

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### 8.08 - 20th of June 2025

- No functional changes

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### 8.06 - 16th of April 2025

#### New

- Powerlink support
- Shared IP access mode support for servo controller access with same IP address over fieldbus ethernet and direct ethernet
- Storage of force calibration data into motor made more robust
- New ASCII-Commands
  - EIPAM IP access mode
  - FCSS Force Calibration Storage State

#### Fixes

- Various minor WebMotion® fixes:
  - Setting state control active filter fixed
  - Freezing while access non existing force sectors in force diagram fixed

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## 8.04A - 17th of February 2025

### Fixes

- Display of error 61 (overvoltage motor inverter supply) made more tolerant

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## 8.04 - 27th of January 2025

### New

- EtherNet/IP CIP Sync support
- Position reached in cyclic synchronous position mode now indicated with bit 10 in CANopen statusword
- PSR bit 9 function extended and renamed to PSR\_BIT\_SYSTEM\_REFERENCE\_DONE
- New ASCII-Commands
  - CSTSO CIP Sync timestamp offset
  - FBCM Force buffered CSP mode for EtherNet/IP
  - SOD P402 Switch on at transition 3 disabled
- New SDO Objects corresponding to ASCII-Commands
  - 0x5003:106 (FBCM)
  - 0x5003:104 (SOD)
- New value for CANopen direct command object 0x5000
  - Object 0x5000, value 0x5002: RESO command

### Fixes

- Mutual blocking at simultaneous web and socket server communication fixed
- Spurious freezing of WebMotion after motion recorder start fixed
- Spurious faulty display of warning 46 fixed
- USB connection problem with active cyclic PLC communication fixed

### Improvements

- In CANopen DS402 state machine, power stage now enabled at "switch on" command (used to be done at "enable operation" command)

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## 8.02B - 22th of November 2024

- No functional changes

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## 8.02A - 30th of October 2024

### Fixes

- Missing TCP/IP events "@S1"/"@S2" at moves to actual position fixed

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## 8.02 - 11th of October 2024

### New

- Profinet MC\_HOME support
- Force Monitoring Verification support
- Storage of force calibration data into motor can now be disabled which is useful if force calibration is run frequently
- New ASCII-Commands
  - PMHSD Profinet MC\_HOME Support Disable
  - FMV Force Monitoring Verification
  - FCSM Force Calibration Storage Mode
- New SDO Objects corresponding to ASCII-Commands
  - 0x5003:102
  - 0x5003:103

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## 8.00B - 09th of September 2024

- No functional changes

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## 8.00A - 27th of August 2024

### Improvements

- General WebMotion® improvements
  - Preserve zoom when changing motion diagram display data
  - Logarithmic sliders changed to linear
  - Input fields in the MOVE section of move axis by click now persistent
  - Selected filter in advanced settings section of setup state controller now persistent
  - Filter not set automatically, when selecting desired frequency in FFT diagram
  - Various minor optical improvements
- Consistency of PSR bits and internal trajectory generator state improved
- Various improvements in service menu

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## 8.00 - 19th of July 2024

### New

- General synchronisation of controller firmware Xvi75V8S, Xvi48V8 and Tvi36V5
- New ASCII-Commands
  - BCSPR Buffered CSP reserve

### Improvements

- General controller improvements
  - Cyclic synchronized position mode with feed forward
  - More accurate I2T calculation
  - General calculation optimization within controller
- General WebMotion® improvements
  - Various optical adjustments
  - More detailed information in application data file
  - Extended error history buffer

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## 7.06A - 27th of September 2023

- Spurious initialisation problem of CSP mode 8 after powerup solved
- Small current bump after finishing Drive\_I\_Force eliminated

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## 7.06 - 12th of June 2023

- Ethernet/IP profile position mode support
- controller stability at speeds >1.3m/s improved

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## 7.04 - 03th of April 2022

- Ethernet over EtherCAT (EoE) support
- Simple TCP interface optimized for faster data throughput
- New info 28 "IP Range overlap"
- Faulty controller state after quickly switching power stage on and off fixed
- General stability improvements for the USB Ethernet interface
- General controller performance improvements

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## 7.02 - 24th of November 2022

- Profinet support
- Functionality "Position Window Time" added (selectable delay of the PSR-Bit "IN\_POSITION" and Statusword-Bit "Target Position Reached")
- New ASCII-Command
  - PWT Position Window Time
- New SDO Objects corresponding to ASCII-Commands
  - 0x6068
  - 0x5001:42
- USB descriptors adapted for reliable detection of INTAX® device over USB on following operation systems: Windows, Linux, MacOS
- Update time of PDO objects 0x2005 (I\_Force Actual) and 0x200A (Force Actual Value) reduced to 100us
- New error 54 "Measuring system failure"
- INTAX® serial number available via WebMotion®
- Various service functions added (service command line, crash handler, ...)
- Position filter and absolute position calculation adapted for series production

- WebMotion® access preventable by pin
- Incorrect trajectory calculation in cyclic synchronized position mode with velocity feed forward corrected
- Spurious problems at storing force calibration data corrected (prevent error 82 while storing force calibration data)
- Spurious problems at industrial ethernet firmware update corrected

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## **7.00E - 24th of October 2022**

- Faulty behaviour fixed during processing of PDO data
- Power Continue made more tolerant (spurious error 100 fixed)
- Various optical adjustments in WebMotion®

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## **7.00D - 02th of September 2022**

- Quickstart function improved
- New ASCII-Commands
  - LARES Linear Axis Resolution
  - LAST Linear Axis Stroke
  - RP Repeat Positions
- Faulty behaviour of PSR Bit I\_FORCE\_LIMIT\_REACHED and corresponding Warning 30 fixed
- Industrial Ethernet Licence integrity improved

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## **7.00C - 12th of August 2022**

- Renaming/Redefinition of the INTAX® Servocontroller name to "Tvi36V5"
- Blocked revisions 7.00, 7.00A and 7.00B from loading
- Industrial Ethernet Licence integrity improved

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## **7.00B - 25th of July 2022**

- Space vector pulse width modulation optimized for less noise at very low current

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## **7.00A - 20th of July 2022**

- Over current supervision made more tolerant (spurious error 70 fixed)
- Bug in space vector modulation at high speeds fixed (higher speed can now be achieved)

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## 7.00 - 04th of July 2022

- Initial version with INTAX® Tx36V5 support