

Schneider Electric Altivar Process ATV9xx DTM Library V3.8.4

- Release Notes -

This document contains important information about the Altivar Process ATV9xx DTM Library software component and Release Content.

1. Package Content

| Software Component Name | Version |
|------------------------------------|----------|
| Altivar Process ATV9xx DTM Library | V3.8.4 |
| Altivar Process ATV9xx | V3.8.4.0 |

2. Features

2.0 What's New in V3.8.4

2.0.1 Evolutions

>> **280302**: Support of CIP (Common Industrial Protocol) Safety with FORTIS_V2.1IE82_B17 firmware and VW3A3809 CIP Safety Module.

>> **261628**: Implementation of CIP Safety display tab.

2.1 What's New in V3.8.2

2.1.1 Bug Fixes

>> **276239**: Changing IO scanner content in online mode affects command & reference parameters.

>> **221362**: PTO parameter value displayed in the DTM does not reflect the value in the device.

2.2 Features in V3.8.1

>> **269171**: Support of a new firmware V3.8IE34_B02.

>> **268737**: Addition of TPFV parameter to adjust the filtering on torque data

2.3 Features in V3.7.1

>> Support of a new firmware V3.7IE32_B01.

2.4 Features in V3.6.0

2.4.1 Evolutions

>> **219053**: Altivar Process Modular(APM) server migration from Schneider Data Hub(SDH) to Asset LifeCycle Manager(ALM).

>> **234005**: Support of a new firmware V3.6IE31_B10.

>> **241913**: Support for new variant of drive reaction on 4-20 mA input loss.

>> **241912**: Support for MxPro substitution.

>> **235255**: Support for Altivar Process Modular additional references.

>> **235829**: Latest help manual integration on the DTM.

>> **257001**: DTM updated with latest definition of Safety messages.

2.4.2 Bugs Fixes

>> **192914**: Parameters unchanged when Modify Topology done on multimotor project.

>> **202832**: Not able to switch the configuration in multimotor configured project.

>> **212674**: Service tab: Analog Front End(AFE) and Braking Unit(BU) data correction.

>> **205921**: Service tab: fan speed/diagnostic data not updated in DTM.

>> **249005**: ATV930U30M3 reference having incorrect nominal current value on My Device tab.

>> **250812**: Modbus TCP IO scanner table is exchanged with the PLC, instead of Ethernet/IP IO scanner table.

2.5 Features in V3.5.0

2.5.1 Evolutions

>> **214783**: Support of a new firmware V3.5IE29_B03.

>> **216949**: Support of a new user interface to manage the Rapid Spanning Tree Protocol (RSTP) settings from the DTM and as well as the graphical display terminal.

2.5.2 Bugs Fixes

>> **164184**: Translation issue, Long Labels which are not translated for the Spanish language.

>> **233454**: PWVU value is wrong for a few references, must be correct for all references.

>> **204104**: Wrong message shown for Autotune function when the drive is in NLP.

>> **232602**: CLIG is not available in configuration for ATV980 references in v3.4.

>> **170665**: DTM cannot download file to the drive and showing CFI2 Error because of the wrong PWVU value.

2.6 Features in V3.4.3

>> Support for Altivar Process Modular liquid cooled 400-480V references.

>> Bug Fixes

2.7 Features in V3.4.0

>> Support for new FW V3.4IE28_B05

>> Safety message updates

>> Bug Fixes

2.8 Features in V3.3.3

>> Bug Fixes

2.9 Features in V3.3.1

>> As part of the California CS Law compliance (IEC-62443-4-2 CR 1-1 Human user identification and authentication), the DTM comes with a new set of features meant to provide a more secured connection to the device over Modbus TCP (only applies to Ethernet and PROFINET fieldbuses)

>> In a few words:

>> User authentication will be required at every attempt to connect to the device. **Note**: this mechanism is by default enabled but the user can still disable it if required.

>> A default password is provided by the factory setting (available in the Keypad), however the user will be requested at each authentication attempt, to define a different and secured password (according to a customizable password policy). It remains possible to keep the default password temporarily, but the same reminder will pop up over again during next connection attempts

>> The User authentication can be enabled/disabled and the Password policy can be modified from the Security node (Parameters List tab) of the considered fieldbus

Note: For legacy option card (Modbus TCP/PROFINET), User authentication and Password Policy configuration will be deactivated since they are not supported by these version of cards.

>> Support for new firmware versions

>> V3.2IE25_B03 -> Support new Altivar Process Modular LC Family 690V references

>> V3.3IE26_B08 -> Support the User authentication for California Law compliance purposes

>> Bug Fixes

>> Updated help and programming manuals

2.10 Features in V3.1.1

>> Import Project configuration from Excel functionality (Specific Format support of GEA Customer)

>> Bug Fixes

2.11 Features in V3.1.0

>> Support for ATV9xx firmware version V3.1IE24_B17

>> Bug Fixes

2.12 Features in V2.3.5

>> IFW API migration to the new Apigee enterprise service

2.13 Features in V2.3.2

>> Support for Functional Safety in Direct Safety Logic Mode with additional tabs in the DTM : Safety Display and Safety Conf

>> Support for Safety related ATV9xx firmware version V2.1IE80_B06 and Safety module firmware version A05IE10_B14

>> Bug Fixes

2.14 Features in V2.3.0

> Support for Altivar Process Modular 400V References

> Support for ATV9xx firmware version V2.3IE20_B04

> Bug Fixes

2.15 Features in V2.2.1

> Support for New FW V2.2IE_B03

> Support for FW compatibility

> Multi Configuration/ Multi Motor support

> Bug Fixes

2.16 Features in V2.1.3

- > Fix for FMK Version incompatibility
- > Bug Fixes

2.17 Features in V2.1.2

- > Support for ATV9xx firmware version V2.1IE17_B11
- > CR Fixes

3. System Requirement

3.1 Supported operating systems

This software can be installed on the following operating systems:

- > Microsoft Windows 7 32/64-bit .
- > Microsoft Windows 8.1 32/64-bit .
- > Microsoft Windows 10.0 32/64-bit .

3.2 Minimum PC Requirements

| Equipment | Minimum |
|----------------------|---|
| Processor | Pentium 4 / Core 2 Duo, 2 GHz |
| RAM | 2 GB |
| Free Hard Disk Space | 1 GB of free disk space Must be available |
| Display | Resolution: 1024 x 768 pixels with 32 bit colors DPI: 96 (100%) |

3.3 Recommended PC Requirements

| Equipment | Recommended |
|----------------------|--|
| Processor | Intel(R) Core(TM) i3 |
| RAM | 4 GB |
| Free Hard Disk Space | 2 GB |
| Display | Resolution: 1920 x 1080 pixels with 32 bit colors DPI: 96 (100%) |

4. IMPORTANT NOTICE

- > Before you install Altivar Process ATV9xx DTM Library:
 1. Check if Altivar Process ATV6xx DTM Library V1.1.24 is installed in your PC.
 2. If it is installed, upgrade it to the latest available Altivar Process ATV6xx DTM Library version.

5. Some restrictions which we are working on

- > DTM is not in synchronized state after doing factory reset, a "Refresh" or "Load from Device" is requested.
- > Sometimes parameter values cannot be edited in parameter grid inside parameter list tab .Use F2 key to edit parameter values.
- > Only English is available in the first version of this software.
- > Local Stop Message will not be displayed,if Local Stop button is pressed momentarily or quickly.The button has to be pressed firmly for 4-5 Sec.

- > Visibility or disabling of a parameter depending on other parameter(s) are not managed at the moment in the parameter grid.
- > We observed that for some drive references, the CLI (Current Limitation) parameter does not reset after a factory setting.
- > Software does not respond after you try to select all parameters in the parameter tab using Ctrl + A.
- > Import of configuration stored in the Keypad HMI from SoMove homepage is not yet available.
- > MultiMotor switching sketchview is not yet available.
- > Modify Topology does not update parameter value ranges (min & max) of NPR,NCR and UNS for some references.
- > FDT M&M: Unexpected Danger message is displayed after the warning message when AEMC parameter is modified.
- > DTM disconnects after store to device and connect is done from a new project for the first time.
- > RSTP evolution , If the user is connected with the device and changes the ST0C from the Keypad, we will get the updated states for ST0V, ST0S. But the ST0A and ST0C will not show the updated value unless the user has restarted the device. Also the synchronized state will still show no change in the device dataset as the signature/ counters are not updated.
- > RSTP Configuration (ST0C) will not be updated when factory settings is applied.

Limitations for DTM version V3.8.4

When there is a firmware mismatch

| | Load from device | Store to device |
|------------------------|------------------|-----------------|
| Device ver. > DTM ver. | YES/NO, ① ③ | YES, ④ |
| Device ver. < DTM ver. | YES, ② | YES/NO, ⑤ |

① When device firmware version is higher than the DTM (firmware version) project and trying to do load from device, following message is shown.

"You are trying to load from a device a newer version of the configuration file. Parameters that are not supported will not be loaded from the device."

② When DTM is of higher firmware version than device and any parameter, that leads to firmware incompatibility, is modified in the DTM and loading from device, the following message is shown.

"The configuration file activates some behaviour that are not known by the device. The related parameters will be reset to factory setting."

For ex: DTM (firmware version)project is 3.6 and Device firmware version is 3.5 and when TQNC(new parameter) in the DTM is modified, load from device operation will reset TQNC to its default value in the DTM.

③ . When the device is of higher firmware version than DTM (firmware version) and any parameter, that leads to firmware incompatibility, is modified in the device and loading from device, the following message is shown.

"This configuration of the device cannot be loaded because it activates at least one behaviour that is not available."

For ex: Device firmware version is 3.6 and DTM (firmware version)project is 3.5 and when TQNC(new parameter) in the Device is modified, load from device operation is not allowed as the new parameter is not available in the DTM.

④ When device firmware version is higher than the DTM (firmware version) and storing to device, the following message is shown.

**"You are trying to download an older version of the configuration file to a newer version device.
Some parameters in the newer version device may be inconsistent with the older version configuration file. This may lead to disconnection."**

For ex: DTM (firmware version)project is 3.5 and Device firmware version is 3.6 and after successful store and connect to the device, when TQNC(new parameter) in the Device is modified, DTM will be disconnected from the Device.

⑤ When any newly added parameter modified in the DTM with higher firmware version than the device and trying to store to device, following message is shown.

"This configuration file cannot be stored to device because it activates atleast one behaviour that is not available in the device."

For ex: DTM (firmware version)project is 3.6 and Device firmware version is 3.5 and when TQNC(new parameter) in the DTM is modified, store to device operation is not allowed as the new parameter in the DTM is modified which is not available in the device.

Workaround for ① , ② , ③ , ④ & ⑤: Use the modify topology feature to change the topology options like reference, family, option board details in the DTM to match the details in the device and then retry the operation

When there is a topology mismatch

1. If there is a mismatch between the device and the DTM topology, following message is show

**"The device topology (hardware configuration) does not match the DTM configuration, it could be due to:
>Mismatch in the device reference and power rating (refer to device nameplate)
>Mismatch in the option module inserted in the device."**

Workaround: Use the modify topology feature to change the topology options like reference, family, option board details in the DTM to match the details in the device and then retry the operation.

2. **CFI2 error occurs while performing store to device operation if multi configuration is enabled and active configuration is other than conf0.**

3. In FDT containers other than SoMove, in case of inconsistency between DTM and device configurations following message is shown

Device Inconsistency: "Cannot continue with the current operation because the device configuration has activated atleast one behavior that is not compatible with the DTM configuration."

DTM Inconsistency: "Cannot continue with the current operation because the DTM configuration activates atleast one behavior that is not compatible with the device configuration."

When there is a mismatch observed due to introduction of security node

When store to device is performed on V2.11E17_B11 or V2.11E81_B01 for ATV9xx, operation is blocked and DTM cannot go online.

Workaround: California Law security has to be disabled before performing the action.

Steps to disable california law:

- 1) Open <Parameters List> tab.
- 2) Click on submenu Fieldbus > Port - Modbus TCP/EthernetIP > Security.
- 3) In the section <Security>, Switch the parameter <User Authentication> to Disable.

6. Container Supported

> SoMove V2.0 onwards (California CS Law compliance support from SoMove V2.8.4 onwards)

- > EcoStruxure Control Expert V15.2
- > M&M FDT Container V4.6.19323.2
- > Ecostruxure Machine expert V2.1

7. Altivar Process DTM in Control Expert

7.1 Versions Provided & Compatibility

| Activity | Version |
|--|---|
| Altivar Process 9xx DTM | V3.8.4.0 |
| Altivar Process 9xx Firmware | V1.1IE01B10 V1.2IE02B20 V1.2IE03B02 V1.3IE04B04 V1.4IE07B05 V1.6IE09B08 V1.7IE12B05 V1.8IE14_B07 V1.9IE15_B07 V2.1IE17_B11 V2.1IE81_B01 V2.1IE82_B17 V2.2IE19_B03 V2.3IE20_B04 V3.1IE24_B17 V3.2IE25_B03 V3.3IE26_B08 V3.4IE28_B05 V3.5IE29_B03 V3.6IE31_B10 V3.7IE32_B01 V3.8IE34_B02 |
| Safety Module | V1.1IE02_B01 |
| CIP Safety Module | B11IE03_B15.1 |
| ControlExpert | ControlExpert V15.2 |
| EcoStruxure Control Expert PSx DTM Library | V3.16.22 |
| M580 CPU RUN boot | V4.0 |
| M580 BME CPU | V4.0 |

7.2 Features

- > Additional tabs in the DTM : Safety Conf and Safety Display for supporting the Functional Safety.
- > Additional tabs in the DTM : CIP Safety Display for supporting the CIP Safety Module.

7.3 Known issues or Observations:

- > Pencil Icon (data set changed) that enables the Apply button appears when there is preset conf settings configuration is exported and imported back
- > Sometimes while performing load from device, resetting, open of .sft file, Safety Message pop up appears when SC08 is set to Level / Auto without entering the SC08 control
- > Labels that are too long are cropped in the Safety Display tab
- > Sometimes bad display of DTM inside Unity container when clicking the splitter bar.

- > Connection loss is happening for the first time after device recovery with 600V & 690V references.
- > Under service tab voltage ranges are not dependent on firmware selection.
- > Scope parameters are not selected in the parameter selection dialog when loaded from a saved configuration.
- > Connection over EIP (applies to EcoStruxure Control Expert only) is locked whenever User authentication is enabled.
- > Downloading a configuration with a version anterior to V3.3IE26_B08 will automatically and inevitably enable the User authentication feature.
- > In EcoStruxure Control Expert and EcoStruxure Machine Expert , the "Return", "Tab", and "Esc" keys are not processed during Login, Change Password, Security panels or any notification dialogs.
- > Download to device fails when Multi Configuration is active. To workaround this issue, the timeout has to be increased to 5000ms in the communicatoin dtms settings

8. Altivar Process DTM in Ecostruxure Machine expert

8.1 Versions Provided & Compatibility

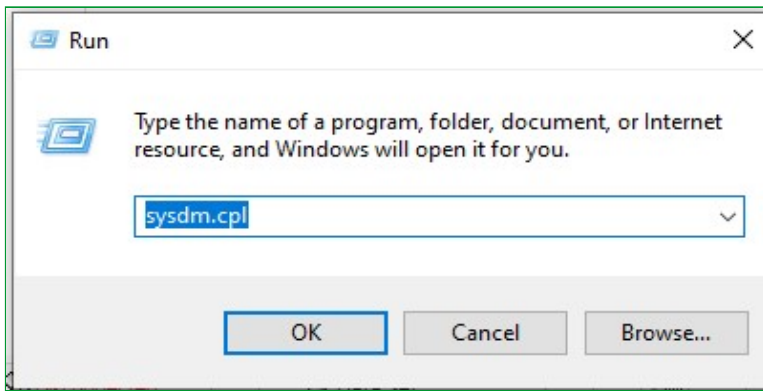
| Activity | Version |
|------------------------------|---|
| Altivar Process 9xx DTM | V3.8.4.0 |
| Altivar Process 9xx Firmware | V1.1IE01B10 V1.2IE02B20 V1.2IE03B02 V1.3IE04B04 V1.4IE07B05 V1.6IE09B08 V1.7IE12B05 V1.8IE14_B07 V1.9IE15_B07 V2.1IE17_B11 V2.1IE81_B01 V2.1IE82_B17 V2.2IE19_B03 V2.3IE20_B04 V3.1IE24_B17 V3.2IE25_B03 V3.3IE26_B08 V3.4IE28_B05 V3.5IE29_B03 V3.6IE31_B10 V3.7IE32_B01 V3.8IE34_B02 |
| Safety Module | V1.1IE02_B01 |
| Ecostruxure Machine expert | Ecostruxure Machine expert V2.1 |

9. Troubleshooting

> Please ensure below troubleshooting steps, failing to comply with these might results in crashes, hangs or other possible commissioning-blocking issues.

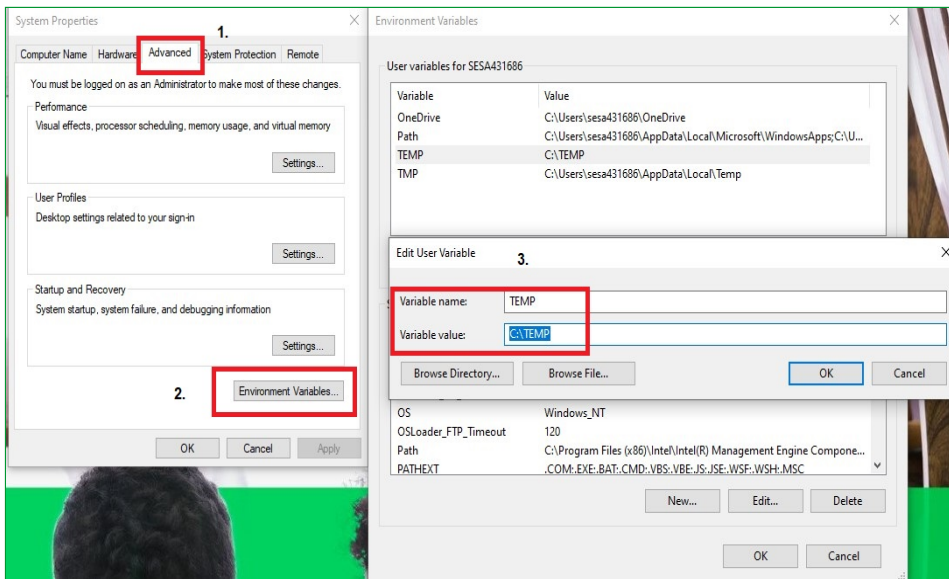
9.1 Modify Temp location:

- > Press 'Windows Key' and 'R Key' together, It will open "Run Window".
- > Type "sysdm.cpl" in "Run Window", Click on "OK"



> Navigate to Advanced tab, Click on environment variables button.

> Edit the temp variable entry from "%USERPROFILE%\AppData\Local\Temp" to "C:\Temp".



If the issue still persists, please contact the support team.