

RELEASEnotes

catman Easy / AP / PostProcess

V4.2.2

Legend:

FUN: functional enhancement

MOD: modification

FIX: bug fix

PRB: known problem

Overview about the most important new functions

- Support of inductive crank angle sensors together on MX460
For combustion analysis catman offers a new angle synchronous visualization object to display measurement data over angle. A crank angle sensor is supported on MX460 beginning with FW 4.6.x
- catman 4.2.2 can be installed quickly and for this minor update free of charge on your new data recorder CX22B / CX22B-W. A dedicated full image is not necessary anymore.

New functions

FUN390: Computation channels: Peak-Valley detection

The former "Cycle count" computation has been replaced by a new function package "Peak-Valley". The peak valley function creates three computation channels out of the input channel: a channel delivering the peaks (maxima), a channel delivering the valleys (minima) and the cycle count (one cycle corresponds to one peak-valley transition). Peak-Valley computation channels do not possess a timebase, i.e. they cannot be displayed versus time. The samples in these channels are not equidistant in time, their time separation depends on the cycle frequency. catman graphs will automatically display a peak-valley computation channel versus the cycle count.

FUN391: Handling of CAN channels on MX471

With version 4.2.2 usability for CAN channels on a MX471 has been improved:

- CAN sensors assigned to channels may be dragged to a different channel. To drag use the row header of the channel list.
- The list of channel names may be updated to reflect the current CAN configuration of the MX471. This is necessary in case the MX471 was configured independently from catman (i.e. no usage of catman CAN sensor database) by MX Assistant. The new function allows you to keep your DAQ project as it is and only update the CAN names. Name update can be done automatically after loading a project (see Startup screen/Hardware settings/CAN) or interactively in the "CAN configuration" dialog.

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FUN392: Sensor adaptation without sensor assigned

With version 4.2.2 you may change some transducer settings (scaling, excitation voltage, carrier frequency, gage factor) directly in the hardware (i.e. without a sensor from the sensor database being assigned). Select the channel and click "Sensor adaptation" from the "Sensor" menu.

FUN393: Statistics journal

The Statistics Journal adds a new column: momentaneous value. This column will contain the last sample of the update interval - no statistics will be applied. In addition the columns which should appear in the journal are now selectable (see DAQ job settings/Job parameters).

FUN394: Strain gage stress analysis

The computation offers an additional strain gage type: single strain gage. In this case a simple conversion from strain to stress is performed on the data of a single quarterbridge:

$\text{Stress} = \text{Young's modulus} * \text{Strain}$

The transversal sensitivity parameter is considered. The new computation is available as online computation channel in DAQ mode as well as in Analysis mode.

FUN395: Data storage: file name placeholders

Version 4.2.2 introduces new file name placeholders:

%ProjectDir%

This placeholder which inserts the project file path in the file name. The %ProjectDir% placeholder must appear at the very beginning of the file name and must not be used together with the %TestFile% placeholder.

%_00% and %_000%

These placeholders add a counting number to the file (the different placeholders determine the number of leading zeroes). The counter counts the number of tests performed and persists between catman sessions. It can be reset by the "Reset counter" button in the DAQ job settings dialog or by the script property EA_Job.GlobalTestCounter. The latter allows to set the counter to any value.

FUN396: EasyScript projects

For backup purposes all files (.ESP, .BAS, .CLS) are now included automatically in your DAQ or Analysis projects. Upon project load, the script project files will be extracted in a subfolder (DAQ or Analysis project name_Temp). Observe however that this is only a backup copy - when your DAQ project or Analysis project attempts to run the script it will still look for the script at the original place.

FUN397: Standard graphs: new plot styles for best fit

The standard graph offers 4 new plot styles which can be applied to a curve. These new styles perform a data fitting algorithm and calculate fit parameters for BestFitLine, BestFitPoly2ndDegree, BestFitPoly3rdDegree and BestFitPoly4thDegree. The coefficients of the fit are visualized in the graph and the fitting result is plotted as line while the original data points are displayed as scatter plot.

FUN398: EasyScript, QuantumX

EasyScript adds a new function in the EA_IO.QuantumX class to retrieve XML configuration settings for a module (EA_IO.QuantumX.GetXMLView). The SourceName parameter must be the name of the module (i.e. the device node in the catman channel list) and the View parameter can take the following values:

- 1: Communication settings
- 3: System information (e.g. firmware version)
- 5: Analog connector configuration

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6: OnBoard math channel configuration

8: Special connector configuration (MX471 CAN, MX878 Digital I/O and Analog OUT, MX410 Analog OUT)

FUN399: EasyScript, internet communication

A set of new methods in the *EA_Comm* class allow communication with the internet (HTTP and FTP protocols): *EA_Comm.INET_Execute*, *EA_Comm.INET_GetState*, *EA_Comm.INET_GetData* and *EA_Comm.INNET_LogIn*.

FUN400: QuantumX - display of channel parametrization errors

In case a channel reports an error after a sensor, sample rate or filter assignment, you may obtain the full error description (including warning messages) by hovering the mouse over the READING/STATUS column of the channel.

Modifications

MOD335: Event monitoring

You may now select if an events file (.events) should be created with each test (DAQ job settings/Job parameter). By default no event file is generated.

MOD336: XY graph zooming

The zooming mechanism for xy-graphs has been improved. Even at very deep zoom levels points near the borders of the zoom area will no longer disappear.

MOD337: Configuration of visualization objects

The properties which will be considered in case multiple objects are selected have been extended and object types formerly not supporting this mechanism (like meters or bar indicators) were added.

MOD338: Reordering of computation channels in DAQ mode

Dragging computation channels to reorder them must now occur via the leftmost column of the channel list. Only if the mouse is pressed on this column the drag operation will be initiated.

MOD339: EasyScript: EA_Comm

EA_Comm.TCPIP_ReadPort: Removed *NullChar* in received buffer.

MOD340: Cyclic storage mode

If a cycle is specified by a time interval the interval may now be much shorter than in previous versions. Formerly the time interval could not be smaller than 2 s while with version 4.2.2 it can be as small as 100 ms.

MOD341: Visualization - Multibar Chart

The Multibar Chart is no longer limited to 12 channels. Instead an unlimited number of channels can be displayed.

Fixes

FIX925: QuantumX CX27: modules not found after project load

In rare cases (and with many modules linked to the CX27) catman might not connect to some of the modules.

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FIX926: Display of traceability data

The "Active supply" voltage was not displayed.

FIX927: NTP sync status and CX27

Fixes a minor problem related to NTP sync status display for QuantumX: if a CX27 was present in the DAQ project, all other modules showed a "NTP Server not found" status, even if the NTP connection was working.

FIX928: Graph symbol size

Setting the symbol size in the curve configuration dialog did work reliably - sometimes the symbol size was not changed. The initial symbol size was very small.

FIX929: XY-graphs with manual x-axis scaling

The graph produced incorrect results if the x-axis was not autoscaled.

FIX930: Graph plots show points only or no data at all

In case the graph displayed channels with different sample rates, the graph did show no data at all or only data points, without interconnecting lines.

FIX931: Loss of connection to QuantumX module no longer detected

In the live channel display view catman did no longer detect if a module lost the connection to the computer. Instead of indicating the channels of the module with the "Disconnected" symbol, catman attempted to continue communication. This could result in a timeout.

FIX932: Real-time graph (stripchart) with DateTime axis

The time section displayed was not correct.

FIX933: Analysis mode FFT graph

The graph displayed incorrect results in case it contained more than one channel. Only the FFT of the first channel was correct.

FIX934: Event monitoring: setting digital output of CX22

The action performed correctly but immediately afterwards catman crashed. The same action performed via EasyScript method *EA_IO.SetDigitalOut* however worked without problem.

FIX935: Analysis mode: filter computation

Filter settings were accepted which actually are not allowed (e.g. sample rate/cutoff frequency < 5) and caused an empty result channel.

FIX936: Setting sample rates for QuantumX

Changing the sample rate groups via the "Sample rate and filters" dialog failed to consider channels of devices which were collapsed in the channel list. The channels of these devices were not initialized and the sample rate thus not transferred into the QuantumX hardware. As a consequence the DAQ job start failed with error "Unknown reason".

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FIX937: QuantumX OnBoard math channels

Fixes an intermediate problem introduced with 4.2: QuantumX OnBoard math channel configuration was not restored after DAQ project load.

FIX938: Cyclic data storage mode

In case the cycles were defined via a time interval and this time interval was < 2 s the module sporadically did not save a complete cycle.

FIX939: Import of DAQ project settings

Some special settings (channel activation) were lost during import.

FIX940: QuantumX CX27

If a CX27 was connected to a computer via Ethernet and FireWire at the same time the modules connected to the CX27 did not appear in the device scan results.

FIX941: User interface: dialogs not fully visible in case Windows display setting MEDIUM (125% font size) is used.

Several dialogs like for instance the configuration of online math channels did not show all control elements, register tabs could become invisible.

FIX942: EasyScript, DAQ job sample rates

The DAQ job properties (EA_Job.SetProperty) for the sample rates did not accept decimal sample rates.

FIX943: MGCplus ML71 and CANbus

If the CAN database loaded into the ML71 contained more than 256 messages catman issued several error messages during initialization of the DAQ project and froze.

FIX944: catman stops DAQ job in case of an error during video capture

Instead of a dialog box the error message will be logged in the DAQ message bar as well as in the events log.

FIX945: Video capture fails in case a "MPEG Layer-3" encoder is used.

The standard Windows MPEG Layer-3 encoder does not work with catman. We recommend to install an alternative MPEG encoder as for example LAME Direct Show Filter 3.99.5 which is available from several download servers.

FIX946: Manually adding a QuantumX/SomatXR module to a DAQ project

If the channel names of this module were empty, catman did not correctly display the module in the channel list.

FIX947: Scope and Floating Panels

Closing the configuration pane of these windows incorrectly asked if the visualization object should be deleted.

FIX948: GPS delivering too many data

This could happen if the devices other than the GPS (i.e. the QuantumX, PMX or MGCplus devices) contained in the project were set to very low sample rates (< 10 Hz)

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FIX949: Extracting video frames from SIE file

Some of the resulting JPEG files might contain the same video frame.

FIX950: Auto-zerobalance on DAQ start

If both options "Hardware" and "Computations" were set at the same time, the resulting measurement values for the computation channels could be wrong (depending on the unbalanced values of the hardware channels).

FIX951: Sensor database and T40B torque transducers

The 50 Nm, 100 Nm and 200 Nm measuring ranges of the 240 kHz frequency type had an incorrect sensitivity of 140 kHz instead of the correct 120 kHz.

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Overview about the most important new functions

New functions for lab testing and vehicle testing

- Visualization of GPS data in maps
- Video visualization object in standard panel
- Improved device integration (GPS, Fiber Sensing interrogators)

New functions for Monitoring

- Extended statistics journal for long term measurements
- Enhanced configuration of optical interrogators and optical sensors

New general functions

- Professional report creation through visualization Export to Word
- Transparent visualization objects
- WIN10 Support

For more functions, details, modifications and fixes please read below.

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New functions

FUN370: Optical interrogators and sensors

catman 4.2 allows the conversion of wavelength changes to strain or temperature via sensor assignment. Formerly this conversion could only be achieved by means of computational channels. While this is still supported, the sensor approach is easier to use and spares the additional computation channels. The catman sensor database coming with 4.2 already contains two generic optical sensors for strain and temperature. Observe that usually you will have to adapt the sensor parameters after assignment (e.g. specify the exact gage factor or the reference wavelength of an HBM FiberSensing composite temperature sensor).

Note: Observe that when using a sensor on a wavelength channel, the original wavelength data is lost!

FUN371: Optical interrogator Smart Peak Detection

For the FS22SI catman can make use of the so called Smart Peak Detection (SPD) method built into the device. SPD makes your DAQ project completely robust against peak dropouts during the measurement. To enable SPD mode set the corresponding option in the "Device types and interfaces" dialog (see startup screen). If SPD is enabled, catman assumes the FS22SI to be fully pre-configured by the FS BraggMonitor software. In this mode the "Optical functions" ribbon tab (allowing spectrum display, peak locking and setting peak detection parameters) is not available. If necessary, the FS BraggMonitor software can be launched from the "Channel configuration" tab.

FUN372: Display of GPS data on maps

The visual object gallery provides a Map object which can be used to visualize GPS tracks. This object is most useful together with other visualization objects like a cursor graph or a video replay. After activating the Cursor tool, all these objects synchronize their display. See "How to use maps" for more details on maps and "Synchronize data displays with cursors and video playback in analysis mode" for more details about display synchronization.

FUN373: Angle synchronous display of data

With version 4.2 catman introduces a new visualization object: the angle synchronous display. The intention of this visualization object is to display data sampled as a time series versus an angle also sampled as a time series. A typical example is an engine where you measure the pressure of the valves together with an incremental sensor counting the angle. Instead of displaying the pressure data over time it is much more informative to see the pressure development for each single revolution. In addition to just display the data you may also browse through the individual revolutions. The angle synchronous display object can either be used in analysis mode to view data recorded in previous tests as well as in DAQ mode to observe the data just being acquired.

See the topic Angle synchronous display to learn more about this type of graph display.

FUN374: Replay of video files

With version 4.2 a video replay object can be placed directly on a visualization panel. Playing a video will synchronize all other display objects on the panel. See the topic "Synchronize data display with cursors and video playback" for details about cursor synchronization.

Note: The dedicated video panel of former versions is no longer supported. Analysis projects containing such a panel will however continue to work.

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FUN375: PMX Device Scan

Up to version 4.1 PMX devices could only be added to a DAQ project by specifying the IP address explicitly in advance. With version 4.2 catman supports the built-in scan mechanism of the PMX and the HBM Device Manager formerly available for QuantumX/SomatXR only can now be used for PMX also. Using the HBM Device Manager will also provide the names of the PMX devices in your DAQ project (formerly these were not available and the devices were always named PMX_1, PMX_2 etc.)

FUN376: Using the DeviceManager in hybrid systems

Up to version 4.1 the QuantumX DeviceManager could not be used in hybrid systems (mixed device types). Instead all addresses or address ranges of the devices had to be specified manually. With version 4.2 it will be possible to add non-QuantumX devices manually to the HBM Device Manager QuantumX device list. In this manner you may fully use the benefits of the QuantumX and PMX device scan and at the same time add another device (like an optical interrogator or a GPS system) to your DAQ project.

Note: this new mechanism makes the former function "Manual devices" nearly unnecessary.

FUN377: Visualization objects: Transparency

The following object types will now support background transparency: text, digital indicators, LEDs, analog meters and bar graph indicators.

Note: Observe that transparency is intended to work with static backgrounds. You may not apply it to changing backgrounds like a video display or a real-time chart. It is also not recommended to stack transparent objects on top of each other.

FUN378: Statistics journal

Several improvements have been made for the statistics journal:

- The journal can already become active even if the DAQ job waits for a start trigger (see DAQ job configuration)
- With intervals larger than 5 minutes the update of the journal file will occur at exact and absolute times, e.g. 12:10, 12:29, 12:30 in case of a 10 min interval.
- The journal can be closed (finalized) at specific time intervals (e.g. daily at 24:00). The journal file will be closed and renamed (increment counter added to original file name) and the journal starts from scratch. This avoids the journal file getting bigger and bigger during long term measurements.

FUN379: Online computation channels

Channels of this type can be reordered in the channel list by dragging them around. Additional context menu functions allow to copy/paste computations.

FUN380: Report generation with MS Word

With version 4.2 you may create a report from your visualization based on a MS Word template document. In the template document you place bookmarks, in your visualization then attach the objects to these bookmarks (object configuration dialog, tab "Office"). The visualization ribbon bar features a new button "Report" which will create the MS Word report. Click to the group option button of the "Report" group to invoke a dialog allowing you to set several properties controlling the report generation: template file, resulting report file, print report immediately. The report properties are part of your project. See Creating a MS Word report for more details. The DEMO PROJECTS folder contains an analysis project demonstrating how to generate a report.

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FUN381: DAQ mode, Flex Table

In addition to measurement values a cell can also display the state of one of the up to three limit value conditions which can be assigned to a channel.

FUN382: Optical interrogators

The optical driver features "dynamic" peak locking. This means that the bands around the peaks (see LOCK SPECTRUM) will move together with the peaks. The initial band positions (set when user selects LOCK SPECTRUM) are however retained (and stored with the project). Dynamic peak locking is always effective - it can not be switched off. Background: in case the peaks shift due to large temperature effects (e.g. kryogenic cooling to 2 K) they would very quickly move out of the bands without dynamic peak locking and all signals would be lost (go to zero or OVFL).

Note: Peak locking does not apply if the interrogator is of type FS22SI and the Smart Peak Detection option is enabled.

See Measuring Fiber Optical devices in catmanEasy/AP for details.

FUN383: GPS NMEA support

Version 4.2 adds support for NMEA Wind speed (in m/s) and Wind direction (in °) based on the MWV sentence.

FUN384: Analysis mode channel search

The analysis project treeview now features a quick search box to quickly find a specific channel in a test (similar to the channel search available in the DAQ mode visual channel selector)

FUN385: New sensors for crankshaft wheels

catman 4.2 is prepared to support two new types of sensors capable to measure pulses (counter) or frequency from crankshaft wheels. Pulse counting with crankshaft wheels is based upon gap detection.

Note: The use of crankshaft wheel sensors is only possible together with QuantumX MX460B and requires a FW update to version 4.6.

FUN386: Cyclic interval storage

The cyclic interval storage mode (long term data acquisition) features an enhanced counter mode which makes it possible to start the storage at any place in the sequence plan, depending on the absolute value of the counter channel. Formerly with each start of a DAQ job the sequence plan startet from scratch, i.e. the counter value was reset to zero. While this is still the default behaviour, you may force catman to use the absolute counter value by disabling the option "Reset on start".

FUN387: FastStream data conversion

Version 4.2 includes a standalone conversion tool which can be run from the command line (FSConverter.exe). See the chapter "Data storage and export/FastStream mode" for details.

FUN388: New analysis mode computation: Matrix

The Matrix computation requires three input channels (x,y and z). The x- and y-channels are divided into a (selectable) number of classes n and thus form a n x n matrix grid. For each value in the z-channel the corresponding x- and y-value (based on the z timestamp) is retrieved and from this x,y pair the matrix cell is determined. The z-value is then assigned to this cell. If multiple z-values fall into the same matrix cell the one

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with the (absolute!) highest value is taken (sign is preserved). Observe that all three channels must belong to the same sample rate.

FUN389: Plot handling in standard graph

Dragging a channel onto the legend of a plot opens a context menu to allow several possible actions:

- Assign the dragged channel as x-datasource to the plot.
- Assign the dragged channel as color channel to the plot.
- Replace the plot with the dragged channel.

Modifications

MOD320: Visualization objects

With the introduction of angle synchronous displays (see FUN373) the former "FOS mode" applicable to a standard live graph has been removed. For this reason the knowledge base topic "Angle-synchronized y(x) real-time graphs (Fast Online Sync)" is outdated.

MOD321: Visualization objects

The display of raw spectra on regular visualization panels introduced with catman 3.4 has been deprecated with version 4.2. You may use the automatic storage functions of the "Optical functions" tab to achieve a similar result. See the chapter "Measuring with optical fiber devices" for details.

MOD322: catman system log

The catman system log formerly realized as a MS Access database is now a plain text file. This makes analyzing the system log by external tools much more easy. MS Access based logs are no longer possible. In addition to switching the log to text format and auto-close function has been added: every time the system log gets larger than 1 MB the file is saved under a unique name (generated from date/time) and a new log is started.

MOD323: Online computations

The dialog window for creating and modifying online computation channels is no longer a modal dialog. Instead it is integrated in the channel list docking pane system. The separate channel list formerly present in the modal dialog is no longer available (and no longer necessary): instead the regular channel list is used to specify the argument channels for the computations.

MOD324: Saving data in MDF 4.1 format

The parameters controlling the compression and preview stages of the MDF4 file have been reworked. See MDF 4.1 format for details.

MOD325: Histograms (Time at level and span pairs computations)

The y-axis of the histogram is now scaled in %. Formerly the total count was displayed on the y-axis.

MOD326: Printing of visualization

The print mechanism for the visualization pages has been changed. All objects will now be printed as bitmaps. This overcomes problems sometimes causing corrupted pages if objects extended beyond the page borders.

MOD327: Optical interrogators spectrum display

It is no longer possible to display the spectrum of more than one channel (fiber) at the same time.

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MOD328: Spider8 operation via printer (LPTx) port

This operation mode is no longer supported.

MOD329: GPS time channel

The channel GPS_Time will now deliver timestamps in NTP format. This allows comparisons of GPS data with QuantumX, MGCplus or optical interrogators which also can deliver timestamp data in NTP format.

MOD330: Analysis mode computation Remove outliers

The computation has been renamed to "Data cleansing"

An arbitrary value can be specified as replace value

MOD331: SSI sensors

SSI counter sensors support an additional clock frequency "External". In this case the data bus clocking is not done by the QuantumX hardware but instead by an external clock master.

Note: This functionality is available on the MX840B, connector 8 only.

MOD332: CAN signals

With version 4.2 catman will make use of the full internal 64 bit floating point resolution of the QuantumX MX471. For instance GPS position data will no longer suffer from a loss of resolution.

MOD333: ASCII converter

The ASCII converter handling the conversion of ASCII text files into the standard catman .BIN file can now handle files up to 2 GB. In addition it will also recognize UNIX style text files which have a single LF as line terminator.

MOD334: Global x-datasources of standard and cursor graph in analysis project

In case of a global x-datasource in a graph with channels from multiple tests the display channel is now plotted against the global x-datasource channel from the test of the display channel.

Fixes

FIX888: Zooming

Creating dataset from zoom section: this did not work if the x-axis was in date+time format.

FIX889: EasyRoadLoad and Kistler RoadDyn systems

In rare case and with sample rate higher than 600 Hz UDP packages could get lost. This resulted in an increasing RT-Lag in catman, eventually bringing the DAQ job to halt after several hours.

FIX890: Online computations of type strain gage rosettes

Editing a rosette computation was overwriting a channel name in the treeview of the math dialog with the base name if that channel was selected during the modification (e.g. because a different source channel was selected).

90° rosette demanded a third input channel despite needing only two input channels.

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Deleting a source channel from the textbox was not emptying internal structures so the computation still worked with seemingly empty textboxes.

FIX891: Online computations of type Fixed formula/Linearization table

Prevent number of points exceeding 32 otherwise a "Subscript out of range" error occurred.
Computation had an incorrect timebase (always 1 kHz) resulting in wrong $y(t)$ displays.
Entering more than 14 x,y pairs could crash catman

FIX892: Flex Table

Prevent applying the "Assign to active object" function in the channel selector list to this table type.

FIX893: PMX analog outputs in EasyScript

The method `EA_IO.SetAnalogOut` did not work correctly for PMX devices.

FIX894: Polar diagrams

Live updates for polar diagram in DAQ mode did not work properly.

FIX895: Graph region selector tool

FFT output unit using region selector tool: RMS and Peak were reversed.

FIX896: Analysis mode video replay

After loading an analysis project, the video player that contained the video file could not be played. It was necessary to reopen the video file first.

FIX897: Digital indicators

Some advanced properties of the indicator (like border styles) were not correctly restored in case of project load if the project contained more than one visualization panel.

FIX899: Event monitoring - action "Send email"

The `%MV%` placeholder did not work (always empty).

FIX900: Graph zoom

Zooming into very small datasets (containing a few samples only) could result in the first and last few datapoints not to be drawn.

FIX901: Project load

If the project contained more visual objects than allowed by the maximum object numbers (see `OPTIONS/PANEL`) currently configured, these objects were ignored and were not visible. With 4.2 project load the maximum number of objects will be automatically increased.

FIX902: Recovery of data from the temporary store after unexpected program termination

The manual recovery of a static temporary store (i.e. store with fixed size) on startup failed. Automatic recovery (unattended mode) however worked. The dynamic temporary store (default) was not affected.

FIX903: Graph region selector tool

Creating a new dataset from the region failed if the x-axis was in date+time format.

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FIX904: Sensor database manager

The graph showing the % deviation of a linearization table (non-linearity) had an incorrect y-axis scaling. The actual scaling operation was however not affected.

FIX905: Optical interrogators

Converting wavelength to strain with a temperature compensation of type PKF-OTC did not work correctly.

FIX906: Custom GUI context menu with action "Start DAQ job"

The custom menu did not work properly: the DAQ job was started but no data were transferred.

FIX907: Potentiometer sensors

Sensors of this type did not allow to set the "Wiring" parameter and might have used a wrong parameter (3-wire instead of 5-wire) in QuantumX/SomatXR modules.

FIX910: PMX zerobalance value and electrical units

If a channel was switched to "Show electrical value" an incorrect zerobalance value (in physical units) could be subtracted from the electrical value. Displaying an electrical value will now ignore the zerobalance value.

FIX911: QuantumX/SomatXR module order

Normally catman should add modules to your DAQ project sorted by name (alphabetically ascending). In case of a pure FireWire connection (e.g. modules connected to a CX22) the sorting was however incorrectly done based on UUIDs.

FIX912: EasyScript

Fixes a bug in script EA_Test.GetStatistics: RMS was not computed correctly.

FIX913: CX22 data recovery

In some cases it could happen that the data in the temporary store was not recovered after an unexpected system shutdown (e.g. power off). This effect only showed up if the temporary store was operated in dynamic mode.

FIX914: FS22 SI optical interrogator

Operating this device in a hybrid system together with QuantumX/SomatXR did not work.

FIX915: Visualization - printing a scope

Function unintentionally attempted to print a floating panel.

FIX916: Analysis mode filter computations

The filter types Chebyshev and Elliptic delivered the original data instead of the filtered data.

FIX920: DAQ mode online filter computations

Fractional cutoff frequencies were truncated to integer values.

FIX921: FastStream conversion

Attempting to convert multiple files in one go failed. Conversion aborted after the first file was converted. This problem did only occur in version 4.1.

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RELEASEnotes

FIX922: Saving data in MS Excel format

In rare cases an attempt to save in old Excel 97-2003 format could result in an Excel 2007/2010 formatted file in case MS Excel 97-2003 was not installed on the computer.

FIX923: Zerobalance value in traceability data

In very rare cases it could occur that the zerobalance value displayed in the analysis mode traceability data did not reflect the zerobalance value actually used during the measurement. Measurement data however were always correct.

FIX924: Channel names lost after adding a QuantumX/SomatXR module manually to the DAQ project

Instead default names were assigned to the channels

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