

RELEASEnotes

catman Easy / AP / PostProcess

V5.2.2

Legend:

FUN: functional enhancement

MOD: modification

FIX: bug fix

PRB: known problem

New functions

FUN444: Support of National Instruments TDMS data format

With version 5.2.2 you may save or export your measurement data into the National Instruments TDMS format (e.g. for further processing in NI Diadem). The files will contain all traceability data. In addition, in catman analysis mode you can directly access TDM/TDMS files without prior conversion to the catman standard format.

If you load TDM/TDMS files in analysis mode which have not been created by catman, it cannot be guaranteed that the content of the file can be interpreted correctly in all cases. For instance catman will not support TDM/TDMS data channels with DataFormat=String. The catman TDM/TDMS reader was however tested with the example files coming with NI Diadem and most of these load correctly.

FUN445: EasyScript support to configure the MX878/879 arbitrary signal generator

A new script method EA_IO.QuantumX.SetArbitrarySignalGenerator allows you to transfer a waveform into the signal generator. The waveform can either be passed as a list of values separated by blanks or read from a text file (one column, each row is one value). The signal generator runs with 96 kHz output rate, use the SampleRepetitions parameter to slow down the output by n-times repetition of an individual sample.

Observe that the signal generator must be configured as "Arbitrary". This cannot be done from within catman - use the MX Assistant tool.

FUN446: Support of new QuantumX gateway module CX27C

catman 5.2.2 supports the new module CX27C as a gateway (i.e. access to QuantumX/SomatXR modules which are connected to the CX27C via FireWire). The throughput of the CX27C is significantly higher than that of the CX27B (up to 2 MS/s).

Observe that in contrast to the CX27B the CX27C does not feature any digital I/O's!

FUN447: New online math filter functions

catman 5.2.2 features three new filter types: Bessel band pass, Butterworth band pass, Butterworth band stop filter. Due to the weaker attenuation of the Bessel characteristic no Bessel band stop filter is provided!

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FUN448: Extension of the Excel Parametrization Tool

Configuring a project via an Excel workbook now allows the addition of GPS devices.

FUN449: Password protection

The sensor protection mechanism (OPTIONS/SENSORS) has been extended to protect other actions also:

- Configuration of sample rates and filter
- Configuration of limit values and events
- Editing online math channels
- Deactivation/Activation of channels
- Firmware Update

Access to the password protection setup is additionally provided in OPTIONS/SAFETY.

FUN450: New online computations for strain gages

- Temperature compensation with up to 5 polynomial coefficients and gage factor temperature dependency
- Change of strain over time (strain rate)

FUN451: DataViewer

The DataViewer module (i.e. quick examination of measurement data) now contains a Data Finder utility, which allows the location of specific conditions in a dataset. Supported methods:

- Go to specific line (data point)
- Find data point > value
- Find data point < value
- Find data point larger than predecessor by value
- Find data point smaller than predecessor by value
- Find data point exactly equal to predecessor

The search will start at the active row in the data table, thus allowing browsing through the whole dataset (i.e. Find Next).

Modifications

MOD377: DataViewer: Edit data in table

Enable/Disable editing values is no longer possible on a per channel base. Allowing edit mode will allow to edit values for all channels displayed in the DataViewer table.

MOD378: Standard graphs inverted axes

- Axes inversion may now also be applied to the x-axis of a standard graph
- Axes inversion is now also supported by real-time charts

Observe that axes inversion is not supported by cursor graphs.

MOD379: Detection of loss of communication to devices already during configuration phase

This feature can be turned OFF via OPTIONS/SAFETY.

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MOD380: Channel and sensor comments

- Assigning a sensor will transfer the sensor comment into the channel comment if the OPTIONS/SENSORS/ "Sensor name as channel name" is active.
- Sensor and channel comments are no longer restricted to 50 characters - sensor comments can have up to 256 characters, channel comments can have an arbitrary size
- Hovering the mouse over the Name column of the channel list will display the channel comment
- Hovering the mouse over a sensor in the sensor list will display the sensor comment

MOD381: Strain gage sensors

With version 5.2.2 the unit label can be chosen different from "µm/m": additional units are "µstrain" and "microstrain".

MOD382: MGCplus and sample rates in synchronized systems

It is no longer allowed that a slave has channels in a sample rate group which is not also used by the master (the first MGCplus in your DAQ project).

MOD383: Channel names

Blanks in a channel name will automatically be replaced by an underscore (_).

Fixes

FIX1034: Optical strain sensors with temperature compensation using sensitivity instead of gage factor

If the temperature channel resided AFTER the strain channels to be compensated the strain value was incorrect.

FIX1035: Rescan of project with optical sensors

Only the original sensor properties (from the sensor database) were restored after the scan - not the sensor adaptation.

FIX1036: Online computation of type "Rate of change" (derivation)

The first two samples after DAQ start contained invalid values.

FIX1037: CAN mode dependent signals

Mode values > 32767 were not supported. With 5.2.2 a mode value up to 65535 is allowed.

FIX1038: CAN Raw data table

Filtering the table for ID's with 29 Bit Extended Frame Format did not work correctly.

FIX1040: MGCplus filter settings on inactive channels

Setting filters on a multichannel board (like ML801) which only provides one common filter frequency for all subchannels caused a misleading display in the channel list if channels were deactivated. The list pretended different frequencies while in reality all subchannels shared the same frequency.

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FIX1041: Strain sensors wit unit " $\mu\text{m}/\text{m}$ " could not be assigned to QuantumX modules on a Japanese Windows OS

Assigning such a sensor resulted in a "Sensor not supported by hardware" error.

FIX1042: Measuring electrical value for 2-point sensor scaling could result in weird value

Measuring the electrical value could unintentionally deliver a physical value in engineering units. This happened under the following circumstances:

- Only on QuantumX/SomatXR modules
- Only if measurement performed from within the Sensor Database Manager
- Only if measurement method was "Average over n seconds"
- Only if channel was zerobalanced (i.e zerobalance \neq zero)

FIX1043: Online computation channels

If a computation consisted of a pure constant expression (like " $1 + \pi/2$ "), i.e. did not contain an argument channel, catman could crash or deliver an unexpected result.

FIX1044: Edit online computation channels

Edit multiple channels in one go: only the selected channel was really initialized. That is the changes for the other channels did not become effective if a DAQ starts immediately following the edit operation.

FIX1045: Execute EasyScript after DAQ job termination

Script to be executed after DAQ job termination (the DAQ job configuration dialog "General\Execute automatically on DAQ stop", NOT the auto exec stages!) did not get executed in case of a regular DAQ stop via the ribbon button.

FIX1046: Optical interrogators and band locking

The band lock information got lost after project load.

FIX1047: FastStream converter

Conversion of files with a large number of channels (> 200) and sample rates > 50 KHz could lead to a crash of the converter program.

FIX1048: Statistics journal

Using the statistics journal with wavelength channels from an optical interrogator resulted in insufficient precision of the wavelength data written to the statistics text file (.stat).

FIX1049: Changing sample rates or filters on MGCplus

In rare cases (e.g. with ML77 boards present) this operation crashed catman.

FIX1050: Hybrid systems including more than 16 QuantumX/SomatXR modules

Catman crashed when creating a new DAQ project.

FIX1051: Terminating DAQ job

Terminating DAQ jobs which had repetitions failed to restore the ribbon GUI in the following scenario: "Abort all repetitions" selected in the DAQ stop prompt dialog.

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FIX1052: MGCplus and ML74 CANHead

In case sensors with differing excitation voltages were assigned to channels of one and the same CANHead module, the channel list live readings could produce incorrect values. All channels of a module must share the same excitation voltage.

FIX1053: UDP output on CX22B

On a CX22B the [UDP output of measurement data](#) during a DAQ job ("DAQ job settings/Advanced") incorrectly used the IOverFirewire network adapter to stream the data instead of the regular LAN adapter.

Known problems in this version

PRB 1: MGCplus CP52 with more than 256 channels (relevant for ML71 CAN bus cards only)

catman currently only supports up to 256 channels per device in one sample rate group. The CP52 however supports up to 512 channels per device - in case the channel number exceeds 256 and all are in the same sample rate group a DAQ error BLOCK_TOO_LARGE occurs. Workaround: put all channels above 256 in another sample rate group.

PRB2: Triggered video recordings

Depending on the camera type it may happen that the video recording starts too early (immediately when the DAQ job starts). This can be prevented by putting a "Live video" display object on the visualization panel and activate its "Preview" mode.

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Overview about the most important new functions and modifications

New functions for lab testing

- Data acquisition from GOM Aramis 3D Motion and Deformation Sensor
- Enhanced FS22DI device support: Support NTP synchronization and new sample rate 1000S/s

New functions for vehicle testing

- Enhanced device support
 - QuantumX CX22B-W-R: UPS (Uninterruptible Power Supply) feature support
 - Enhance synchronization status display
- Visualization of GPS data in Baidu maps

New general functions

- Personal formula library for algebra calculations
- Enhanced analysis and post process functions
 - New Channel overflow event
 - Add single channels to analysis project
 - Enhanced search in test explorer using meta data parameters
- Enhancements for large channel applications (100-1000 channels)
 - Edit multiple online computations in one step
 - Intelligent renaming of channels
 - Online algebra computations with channels of mixed sample rate
- Many new functions in EasyScript
 - E.g. functions to directly access data in measurement files for analysis

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

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New functions

FUN431: NTP synchronization with Fiber Sensing optical interrogators

With firmware 2.0 or higher the HBM Fiber Sensing interrogators FS22 SI/DI feature an onboard NTP clock synchronization. catman will make use of this in case of hybrid systems (QuantumX/MGCplus + interrogator) to improve the time synchronization between the systems. Under "Special/Configure external time synchronization" you may monitor the sync quality.

Observe that the interrogators always expect the NTP server to be the PC where catman is running on. It is currently not possible to select a different server. This has several important consequences:

- The local PC must run NTP services. This is always the case if you installed catman with the option "Install NTP time server" (ON by default). You can verify this in the windows start menu, program folder "Meinberg/Network Time Protocol/Quick NTP Status". The folder "Meinberg/Network Time Protocol/Service Control" allows you to restart the NTP service. In case the "Meinberg" program folder is not present no NTP services are available. You may either reinstall catman with the above mentioned option set or download the NTP service software from the Meinberg web site (www.meinbergglobal.com/english/sw/ntp.htm).
- The NTP time sources of the QuantumX/MGCplus devices must be configured in a way that they use the local PC as NTP server (see "Special/Configure external time synchronization").

FUN432: Support of CX22B-W-R UPS (Uninterruptible Power Supply)

The CX22B-R comes with an UPS which takes over the power supply in case of a power line failure. The UPS can power the CX22 for several minutes. A new type of event (see also Event Monitoring) in catman "CX22B power supply interrupted - UPS operation active" allows you to take actions (e.g. sending an e-mail). A special type of action "Save data, terminate catman and restart on return of power" will allow you a clean shutdown without the risk of losing data. During the shutdown process catman will launch the Restart Monitor on the CX22. This software will automatically restart catman in case the power line comes back while the CX22 is still in UPS mode.

Observe that the CX22 UPS does NOT power the connected QuantumX/SomatXR modules. If these are connected to the same power line as the CX22, any running DAQ job in catman will immediately abort. Still the event described above will fire before(!) catman terminates the DAQ job.

FUN434: Analysis mode: new search functions in Test Explorer

Formerly the file search mechanism could only search based upon filenames (e.g. "Brake*.TST). With version 5.2 files can be searched for by the content of the TST file. In the search field type Parameter name=Parameter value. The following example shows how to list all files created by all brake test DAQ jobs: Jobname=Braketest*

You may use the wildcard character in front or after the parameter value. In most cases you will search for the content of test parameters, e.g. Operator=Smith. Several search expressions may be combined with the AND and OR operators: Operator=Smith AND Jobname=TestDrive*.

The "Search sub folders" option now works independently from any search text. Even without a search criterium, i.e. displaying all test files of a folder, the sub folders may be included.

FUN435: Online computations and analysis mode computations

Computations of type "Algebra" feature so called Formula Collections. A formula collection is a plain text file (.for, by default located in the \Templates folder of the catman working directory) containing formulae,

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including title and description. From within the "Computation" dialogs you can open a formula collection, add a formula to the collection and copy a formula from the collection to the formula edit window. As an example catman comes with a formula collection "OpticalFormulas.for" which contains several useful formulae for the conversion of wavelength changes to strain or temperature.

Hint: Hovering the mouse over the formula collection combo box shows the description for the formula.

FUN436: CX22 digital outputs

A new option (OPTIONS/CX22) allows you to automatically sync the LED state of the "DAQ running" and "Error" LEDs with the digital outputs No. 1 and No.2. That is, the state of these outputs reflects the LED on/off state.

FUN437: Renaming of DAQ channels

Formerly a name was rejected if a channel with that name already existed. Version 5.2 will offer several options how to handle the naming conflict:

- Keep the new name for the channel under edit and set the already existing one to the default channel name
- Keep the new name for the channel under edit and increment the already existing one by an appendix `_1`, `_2` etc.
- Keep the new name for the channel under edit and replace the already existing name by some arbitrary name
- Do not accept the new name and return to the edit dialog

Once an option is selected it may be applied automatically without showing the dialog again (Hint: menu bar window/Show prompt windows will show the dialog again).

FUN438: Online computations and analysis mode computations

A new function "Rate of change (derivative over time)" (residing in the "Predefined formulas" tab of the "Formulas" group) allows a quicker and easier way to use derivation with respect to time. The function calculates the dy/dt of a signal y based upon the sample rate of the signal. In analysis mode the computation additionally provides a smoothing option (based upon Savitzky-Golay filtering) to suppress noise in the derivation amplified from the noise in the input signal. This option is not available for the online computation in DAQ mode.

FUN439: Edit multiple online computations in one go

With version 5.2 it is possible to change a parameter (e.g. the cutoff frequency of a filter) of multiple online computations of the same type for many channels in one go. Simply highlight the desired computation channels and select "Edit computation" from the context menu.

Please observe the following notes:

- Multiple edit does not apply to algebraic formulas
- Changing the formula type (e.g. changing a class count type) is not possible for multiple channels
- Multiple edit is not supported in analysis mode post-process computations

FUN440: EasyScript: Access catman .BIN files

Version 5.2 significantly enhances the EasyScript support for accessing .BIN files (catman standard format). Up to this version, access to measurement data from script required the test to be loaded into the analysis project at first (EA_Test.Load). Sometimes it would however be more flexible to have access to the .BIN file directly. One great benefit: this could be done in DAQ mode. For this reason catman 5.2 adds several new script methods:

- `EA_Test.GetDataFileChanCount`: retrieves the number of channels in the .BIN file.

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- EA_Test.GetDataFileInfo : retrieves header information for all channels in the .BIN file, e.g. number of samples, byte offset of channel data in .BIN file and so on.
- EA_Test.GetDataFileData: retrieves the samples for one channel out of the .BIN file.
- A new set of methods FILE_xxxx in the EA_Comm class allows file access more powerful than the VBA built in functions. The methods simply wrap the Win API file functions (CreateFile, ReadFile, WriteFile, SetFilePointer, CloseHandle). In particulate the EA_Comm.FILE_SetFilePointer method can handle offsets > 2³² (which is not possible with VBA Seek method).

This set of functions gives the programmer a huge amount of analysis power.

FUN441: EasyScript new helper functions

- The new property EA_IO.DeviceCount (delivers the number of devices in your DAQ project) and the method EA_IO.GetDeviceNameFromPos (returns the name of a device based on position) are useful for functions which expect a device name and you want to iterate over all devices in the project (e.g. EA_IO.QuantumX.ReadXML).
- A new property EA_Test.TestCount allows you to iterate through all loaded tests of your analysis project.
- Two other methods allow the manipulation of online computation channels: EA_IO.GetFormula and EA_IO.SetFormula
Depending on the type of math channel the formula expression can be a complex string including delimiters like "~". In case of an algebraic formula it is simply the formula (e.g. "PressureLeft + PressureRight/2"), in other cases like for instance a rosette it might look like "ROSETTE~Strain_a~Strain_b~Strain_c~45~235000~0.3~0.14~0.14~0.14~11". If you examine a few formula strings by hovering the mouse over the SENSOR/FUNCTION column you will easily understand the structure of most expressions.
- A new method EA_Job.TriggerPowerBIDataTransfer allows you to force an immediate transfer of channel data to Microsoft Power BI or Influxdb, regardless of the update interval set in the catman Power BI console.

FUN442: Standard and cursor graph axis layers for curves - shortcut to create new layers

The legend context menu (i.e. clicking on legend name) allows the quick creation of a new y-axis layer and automatically moves the curve into this layer.

FUN443 Support for GOM Aramis camera system

catman can acquire position and strain data from the GOM (Gesellschaft für Optische Messtechnik) ARAMIS camera system. Under "Hardware options" select the device type "Optical instruments" and specify the IP address of the computer running the GOM ARAMIS Professional software (alternatively you may also add the camera in the HBM Device Manager in case you want to create a hybrid system including for instance HBM QuantumX and the GOM camera). catman interacts with this software only - never with the camera controllers. Please observe some important notes when working with the GOM software:

- In the ARAMIS software make sure the "Deformation Tracking" is running and the "SCPI interface" option is enabled -otherwise catman will not be able to connect to the system. Do not stop deformation tracking while catman is running - otherwise you have to restart catman and reload your project. Observe that catman has no means to detect if the ARAMIS configuration (i.e. number of points etc.) does still match your catman project!
- Make sure to terminate catman before you stop the deformation tracking in ARAMIS! If you reconfigure ARAMIS (i.e. add or remove points) you need to create a new DAQ project in catman.

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- catman can only acquire data - no configuration of the ARAMIS system can be done from within catman. This applies in particular to the sample rate: the sample rate you select in catman must match the rate configured for the ARAMIS Deformation Tracking!
- The sample rate you selected in ARAMIS deformation tracking (recommended: 1,2, 5,10, 20, 50) must also be selected in your catman DAQ project. Observe that ARAMIS does not guarantee to provide this rate under all circumstances. Several reasons (high computing load in ARAMIS, disturbed camera image) can slow down this rate. For this reason we recommend to use the REL_TIME catman provides - it contains the actual timestamp of each data packet delivered by the ARAMIS processor. Drag this channel to the x-axis of a graph to obtain a correct y vs. time representation. The channel NTP_TIME contains the absolute timestamps in s since 1.1.970 (UTC).

Modifications

MOD365: Online computations of type algebra allow mixed sample rates

Up to version 5.1 all argument channels in a formula must belong to the same sample rate group. With version 5.2 this is no longer required - argument channels can belong to different sample rate groups. This is for instance useful in calculations involving a temperature channel, which usually is sampled at a lower rate. The sample rate group of the first argument channel appearing in the formula will determine the number of results generated - usually this channel will belong to the fastest sample rate group used.

Observe that this only applies to online computations in DAQ mode. Algebraic computations in Analysis mode still require the argument channels in a formula to belong to the same sample rate group!

MOD366: Input of numerical values

Input boxes for the entry of numerical values will also accept an algebraic expression, i.e. instead of "1.5" you may also type "3/2" or "sqrt(2)" instead of "1.414". Observe that this is only an input aid - the value shown in the textbox when redisplaying a dialog will always be the result.

MOD367: Display of external time sources and sync topology (s. SPECIAL/CONFIGURE EXTERNAL TIME SYNCHRONIZATION)

This dialog has been reviewed in order to improve the display of sync master/slave relationships and the usage of external time sources like NTP or PTP. The former dialog proved to be confusing in some scenarios.

MOD368: Limit value and OVFL checking

- The event monitoring facility allows the specification of a minimum hold time for the events of type level crossing or sensor range exceedance. The condition must persist for at least this time until the event is triggered. Default is 0, i.e. immediately.
- Added new event type "Channel in overflow". The above mentioned "minimum hold time" also applies to this event type.

MOD369: Recorders

It has been observed that in some cases the launch of the FastStream converter, which occurs immediately after a recording is finished, sometimes takes unusually long (several seconds). In rare cases this could cause a buffer overflow error in the DAQ job process. With version 5.2 the FastStream conversion may be deferred to a later time when it can be done manually (see topic FastStream storage for details how this can be done). Set the registry entry RECORDERNOAUTOFSCONVERT to 1 to switch off automatic FastStream conversion:

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HKEY_CURRENT_USER\Software\VB and VBA Program
Settings\catmanEasy\DEFAULTS\RECORDERNOAUTOFS CONVERT

MOD370: New DAQ option to ignore Re-sync messages

The DAQ option "Resume measurement also in case of re-sync messages" (in "Synchronization" group of the "DAQ jobs" tab) allows you to continue a DAQ job even in case of a re-sync performed by QuantumX/SomatXR modules. See Ignore Re-sync of QuantumX/SomatXR modules for more details.

MOD371: Long term cyclic storage module snapshot storage

Up to version 5.1 snapshots recorded (i.e. sequence plan contained "Save cycle every....." and only one data point stored for this cycle) and Min/Max values were only written to disk after the DAQ job terminated. With version 5.2 the cyclic storage module offers the option to save the file at selectable intervals.

MOD372: Time information in test file (.TST)

With version 5.2 catman will add the time zone information (the time zone where the test was done) to the .TST file.

MOD373: Data storage in ASCII format

If a precision other than "Auto" was selected, the numbers in the file contained trailing spaces. While this is legal and most programs like MS Excel have no problems with this kind of formatting, it seems that some programs fail to correctly convert the ASCII file back to numbers. For this reason with version 5.2 catman will remove the spaces.

MOD374: Online computations of type Linearization and Polynomial

With version 5.2 you may create multiple computations (assign multiple input channels) for these types in one go.

MOD375: Overview graphs

A new option for the x-axis (see config dialog, register tab "General\X-axis in point index") allows the use of the point index instead of time as x-dataset.

MOD376: Recorders

Added some disk space checks. A recorder is now terminated if disk space capacity falls below 100 MB. In addition, before FastStream conversion is started, a check is done if the total number of bytes recorded plus a safety buffer of 100 MB exceeds the free disk space. If this is the case no conversion will be done. In both cases a message will be written to the log (recorder log and catman event log).

Fixes

FIX1006: Optical strain sensors with temperature compensation

The measurement value shown in the channel list (live reading) was not correct (measurement data collected by a DAQ job however were ok).

FIX1007: Online computation: Optical strain + temperature compensation

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The "Temperature Cross Sensitivity" parameter entered was not displayed correctly when the computation was edited again and computation results were wrong.

FIX1008: Connecting to QuantumX/SomatXR modules not found in scan

If for some reason modules were not contained in the device scan results (e.g. behind a router boundary or scanning ports blocked by Firewall) catman was not able to connect to these modules even if a connection was theoretically possible. With V 5.2 it is possible to build up a DAQ project without the HBM Device Manager (i.e. adding all addresses manually, separated by a ";") even in case the modules are not found by the device scan.

FIX1009: QuantumX CANBus: Synchronicity between CAN and analog signals on MX840

Depending on the number of analog channels as well as on the sample rates in use it could happen that an analog signal appeared to occur before a CAN signal which gave rise to the change in the analog signal (i.e. response before stimulus).

FIX1010: Online computation channel of type LINEARIZATION

If the input value to be linearized exceeded the last x-point of the linearization table, a wrong result was computed.

FIX1011: Import of visualization from a project

This import failed in case the project has been created with version 5.1. Older versions were not affected.

FIX1012: Cyclic storage module

If the module was configured to use a counter channel in order to count cycles and this counter channel (e.g. MX460) did not start with 0 (because already counting before your DAQ job started) catman created too many snapshots at the begin of the test. This did not occur if the option "Reset counter on start" was set.

FIX1013: EasyPlan

The option "Automatically create default channels for device" was always active and could not be changed (grayed out) in case of MGCplus systems.

FIX1014: MGCplus AP402/S38

Sensor type "Current" (mA) could not be set for this custom version of the AP402 and resulted in a "Sensor not supported by hardware" error.

FIX1015: Project hardware mapper (i.e. device not found after project load) with MGCplus and PMX

With version 5.1 it was no longer possible to manually specify an address range to be used in the scan for available devices.

FIX1016: Sensor database - changing sensor name of existing sensor

Changing the name of a sensor already assigned to a channel did not update the channel list display. The new name was not reflected in the channel list.

FIX1017: Channel health check

Nominal shunt values for MX1615/1616 corrected.

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FIX1018: Data file name (see DAQ job configuration/Storage) had .TST extension

This could lead to loss of data - the .TST file did overwrite the binary data file .BIN. The extension .TST will no longer be accepted.

FIX1019: catman freezes when attempting to create an online computation channel of type algebraic formula

If one of the argument channels was named "c1" catman did freeze after clicking "Create computation".

FIX1020: Vaisala weather station AutoBaud detection not working

The AutoBaudDetect routine only looked for \$GP but the Vaisala station sends \$WI in NMEA mode.

FIX1021: Analysis mode file converters (SIE)

Adding multiple files to project which needed to be converted could display repeated, unwanted prompt messages.

FIX1022: Kistler KiRoad

Loading a project containing a KiRoad failed to connect to the KiRoad.

FIX1023 Adding all files from folder to the analysis project

In case the "Use channels automatically" option was set the computations and display sources for the last test added were created twice.

FIX1024: Import of CAN dbc file into sensor database

In rare cases a file can contain a leading TAB character at the beginning of a "SG_" line. This caused the import to not read any sensor at all.

FIX1025: Cursor sync with maps

With version 5.1 the cursor sync between graphs/video and maps didn't work correctly. Sync was off by a factor of 2 and zoomed sync (graph was zoomed) didn't work at all.

FIX1026: Error message "Unexpected error loading catman: component File.OCX or one of its dependencies not correctly registered: a file is missing or invalid"

This error could appear if the setup program needed to restart the computer after the installation. Depending on the user account in effect during this restart the registration of OCX components could fail due to missing privileges. With version 5.2 catman ensures the registration after a computer restart regardless of the type of user account.

For this to work the SYSTEM account must be available and the Scheduled Task function of Windows must not be deactivated.

FIX1027: Digital indicators

Digital indicators will no longer show a previous value after loading a project. Instead they will show 0.

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RELEASEnotes

FIX1028: Visual panel object "Data table"

Setting font type and size for this object had no effect

FIX1029: MGCplus ML460 invalid frequency range

Depending on the input characteristics (i.e. transforming kHz into engineering units) of a sensor an invalid frequency range (not supported by ML460) could be selected. This resulted in a "Sensor not supported by hardware" error.

FIX1030: MX840 CANbus - DAQ could not be started (Error: Unknown reason).

CAN decoders were not activated upon catman project start, so it depended on the activation state of the decoders (e.g. set by MX Assistant) if a DAQ job could be started or not. This error applied to version 5.1.3 only.

FIX1031: EasyScript method EA_Test.GetChannelData

An array bounds check introduced with 5.1 did no longer allow to dimension the buffer receiving the sample data to exactly SampleCount-1 (i.e. 0 to SampleCount-1 elements). The upper bound of the array needed to be SampleCount at least.

FIX1032: Incorrect DAQ status displays if MX471 CAN raw channels present

If CANRaw receivers were activated and the MX471 was the last device in the DAQ project, the DAQ status information like remaining disk space and RT lag where incorrect.

FIX1033: MGCplus frequency measurement with ML60 and ML460

The sensor options "5V/100 mV input" (ML60) and "Direct/Integrating" (ML460) where not provided.

Known problems in this version

PRB 1: MGCplus CP52 with more than 256 channels (relevant for ML71 CAN bus cards only)

catman currently only supports up to 256 channels per device in one sample rate group. The CP52 however supports up to 512 channels per device - in case the channel number exceeds 256 and all are in the same sample rate group a DAQ error BLOCK_TOO_LARGE occurs. Workaround: put all channels above 256 in another sample rate group.

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