New Features in ibaCMC v3.4.0

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Date: March 2025

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1 Important Notes

1.1 Support of ibaCMC v1 parallel operation mode will be stopped with ibaCMC v3.5

ibaCMC v3.4.x will be the final version that supports parallel operation of ibaCMC v1.8.x and ibaCMC v3.x. Starting with ibaCMC v3.5, all plants must be migrated. If any plants remain unmigrated at the time of installation, ibaCMC v3.5 cannot be installed.

1.2 New ibaCMC v1 bugfix version is available

If using ibaCMC v1 in parallel operation mode with v3.4.x, ibaCMC v1 must be updated to version 1.8.7 for proper DAT file selection in the trend analysis chart.

Version 1.8.7 is not publicly available. Please contact support to get the latest update files.

1.3 New ibaCMU-S firmware is available

With ibaCMC v3.4.0, a new firmware version v02.17.313 is available for ibaCMU-S.
The following things are fixed in this version:

- RMS x Peak (former k(t)) trend was not calculated “live” when sending this indicator via TCP/IP telegram.
- In some cases, the statistical values were frozen after 30 min when sending them via a tcp telegram.
- The CMU-Info labels “Telegram 1” and “Telegram 2” have been renamed to “Receive Telegram 1” and “Receive Telegram 2.” Additionally, the status of both send telegrams has been added.

Note

The firmware update file and a short update instruction can be found in the installation root folder: “C:\Program Files\iba\ibaCMC\Server\appData\cmu”

1.4 Windows Server 2025 is supported

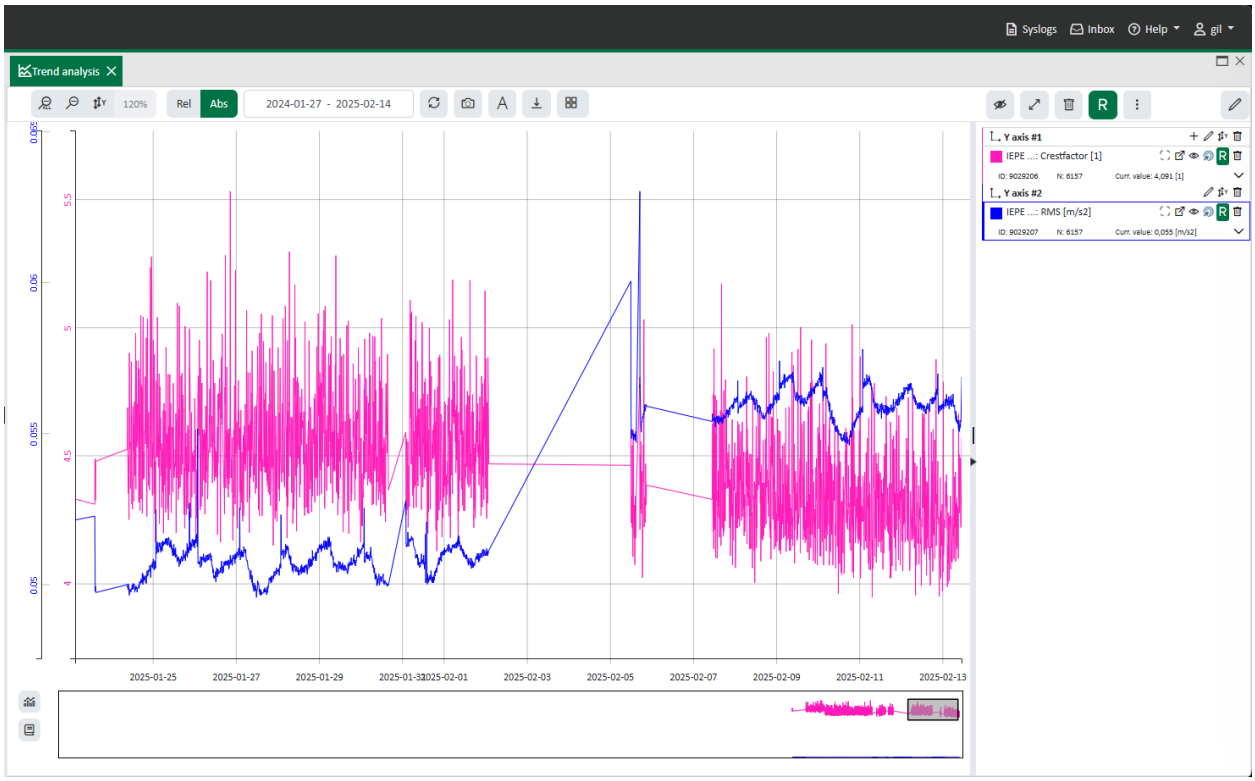
ibaCMC v3.4.0 was tested successfully with Windows Server 2025 and SQL Server 2022.

2 New Features

2.1 Support multiple Y-axis in trend analysis

The trend analysis window now supports multiple Y-axes, making it easier to compare trend data with different value ranges, such as vibration data and process data.

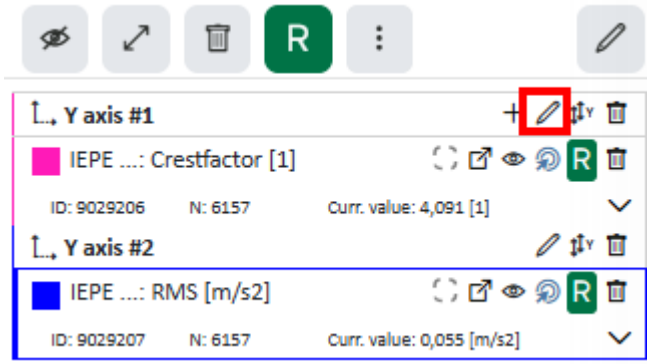
New axes can be added by clicking the '+' icon on the first axis. The axis name is autogenerated but can be modified in the axis settings dialog. When adding a new trend, it is assigned to the last Y-axis by default. Trends can be moved between axes using drag and drop. The axis color is determined by the top trend.

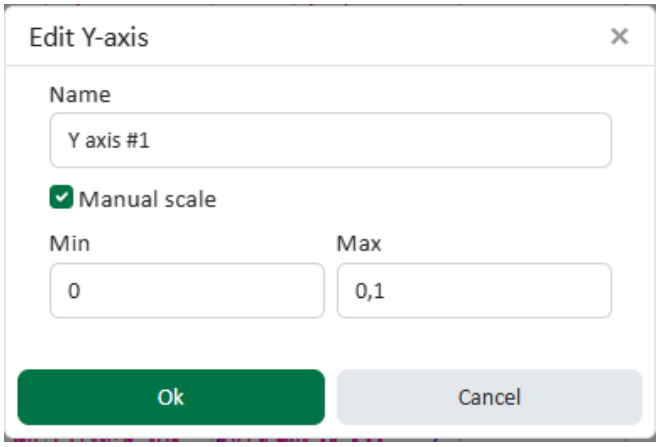


Manuel and autoscale mode for y-axis

It is now possible to manually set the axis scale directly by clicking the edit icon on the axis, selecting the 'Manual Scale' checkbox, and entering the desired value range.

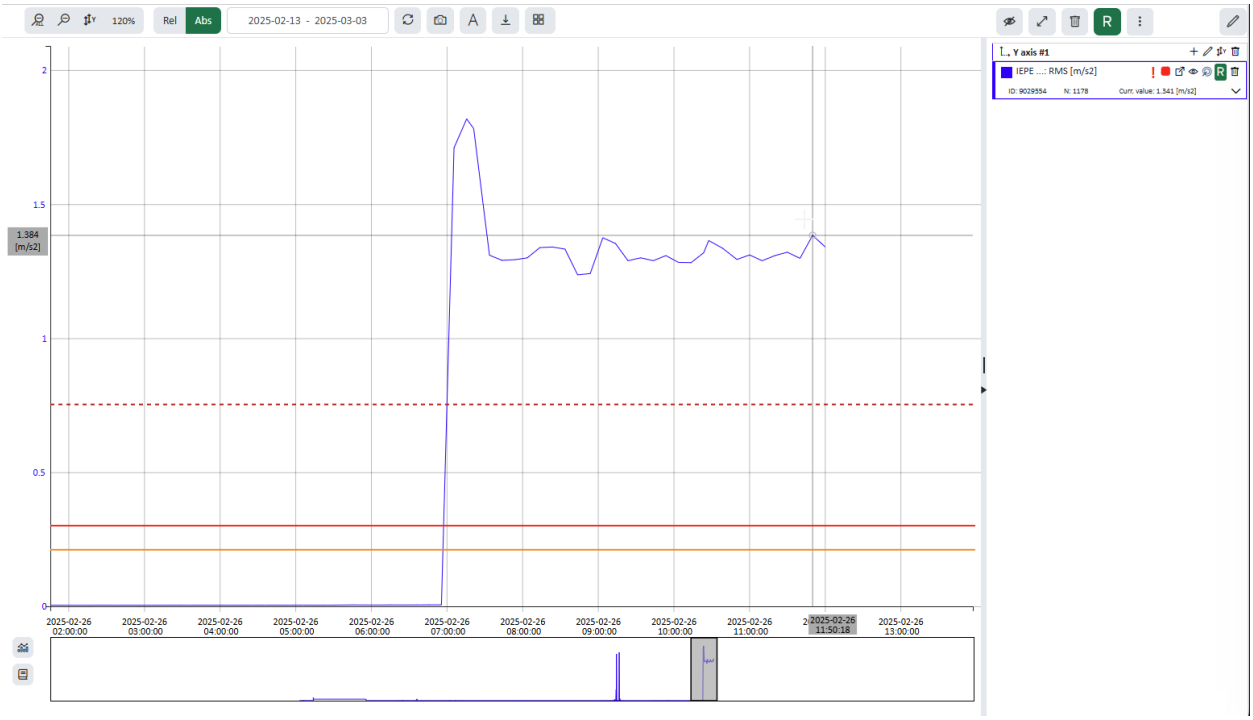
Clicking 'Y-Axis Autoscale' adjusts the scaling based on the data. Clicking the 'Zoom Out All' button resets the zoom to the manual scale settings.


Y axis #1
IEPE ...: Crestfactor [1]
ID: 9029206 N: 6157 Curr. value: 4,091 [1]
Y axis #2
IEPE ...: RMS [m/s2]
ID: 9029207 N: 6157 Curr. value: 0,055 [m/s2]


Edit Y-axis
Name
Y axis #1
Manual scale
Min
Max
0
0,1
Ok
Cancel

2.2 New measurement file selection dialog

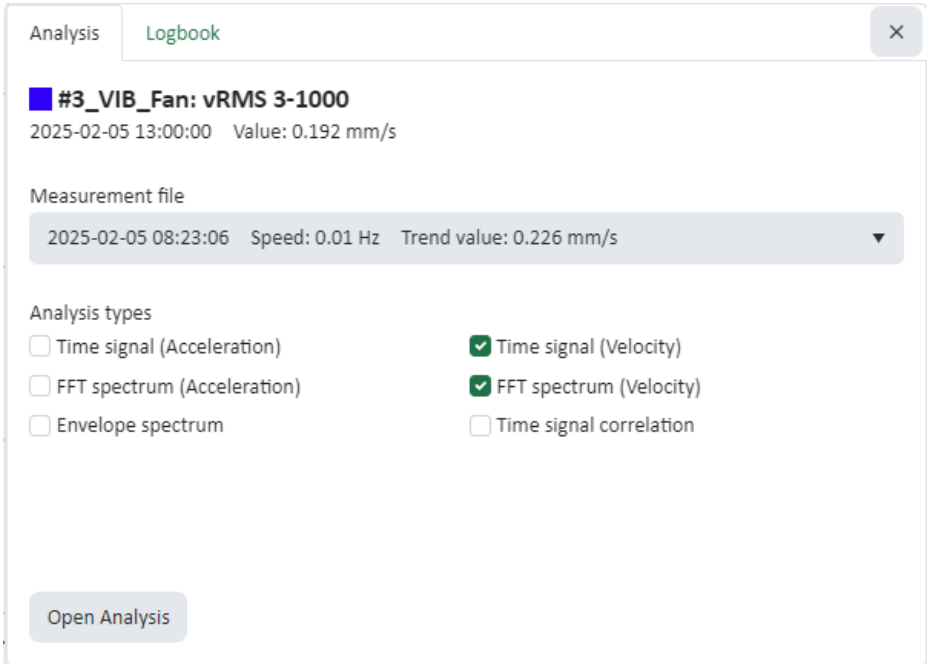
To open a new analysis window for a drill-down to the data, hover over a trend and then right click a measurement file selection dialog appears.



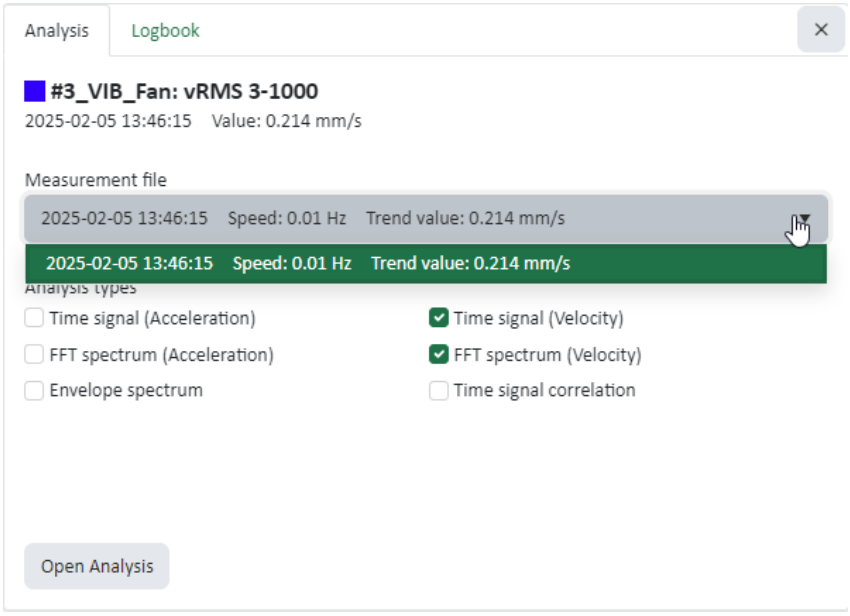
At the top the selected trend, timestamp and value are shown.

The measurement file dialog displays the following information based on the selected view mode:

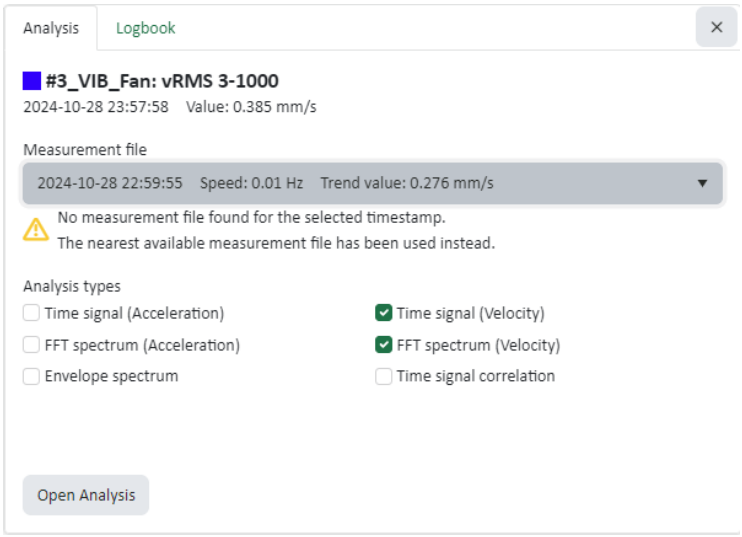
- Downsampled data view: All available files within the downsampled range (6 h) are shown. The measurement file with the highest trend value is selected by default.



- Raw data view: If a file is available for the selected data point, just this file will be shown and selected in the dropdown.



In case that no measurement file is found for the selected data point, the nearest is taken instead.



The analysis types are preselected based on the trend type. E.g. for a vRMS trend Time signal (velocity) and FFT spectrum (velocity) is selected by default. If needed, the user can change the selection before opening the analysis window.

2.3 New analysis workflow

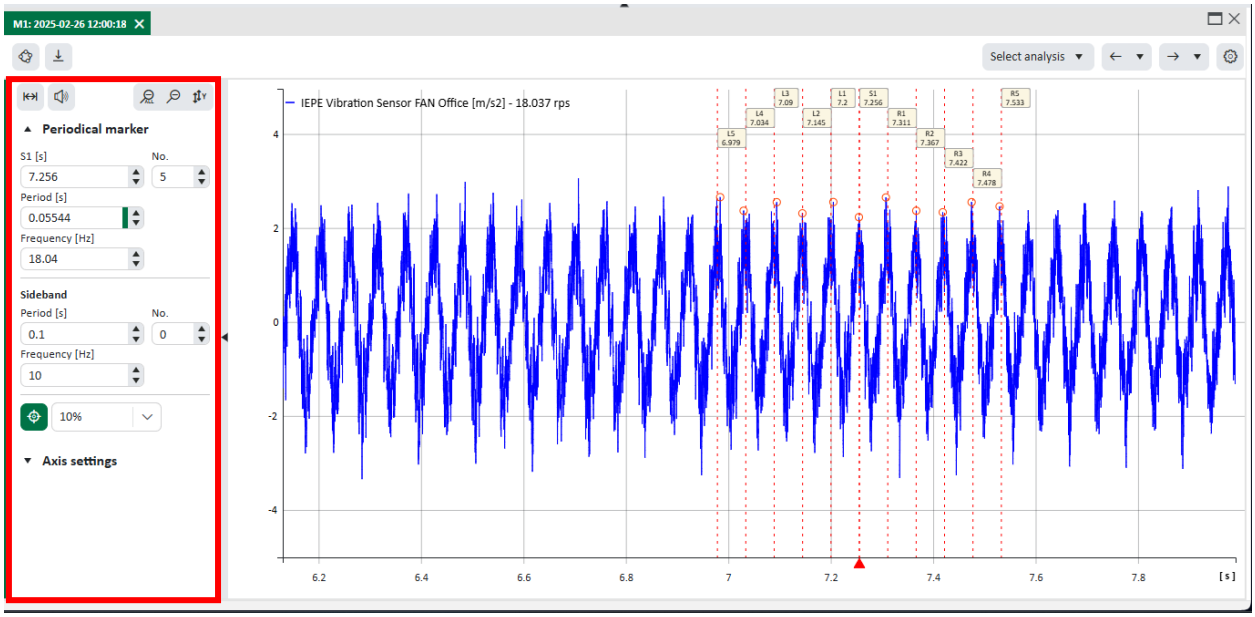
Now it is possible to compare snapshots from different timestamps in one analysis window.

With this step, also the chart and the settings were redesigned.

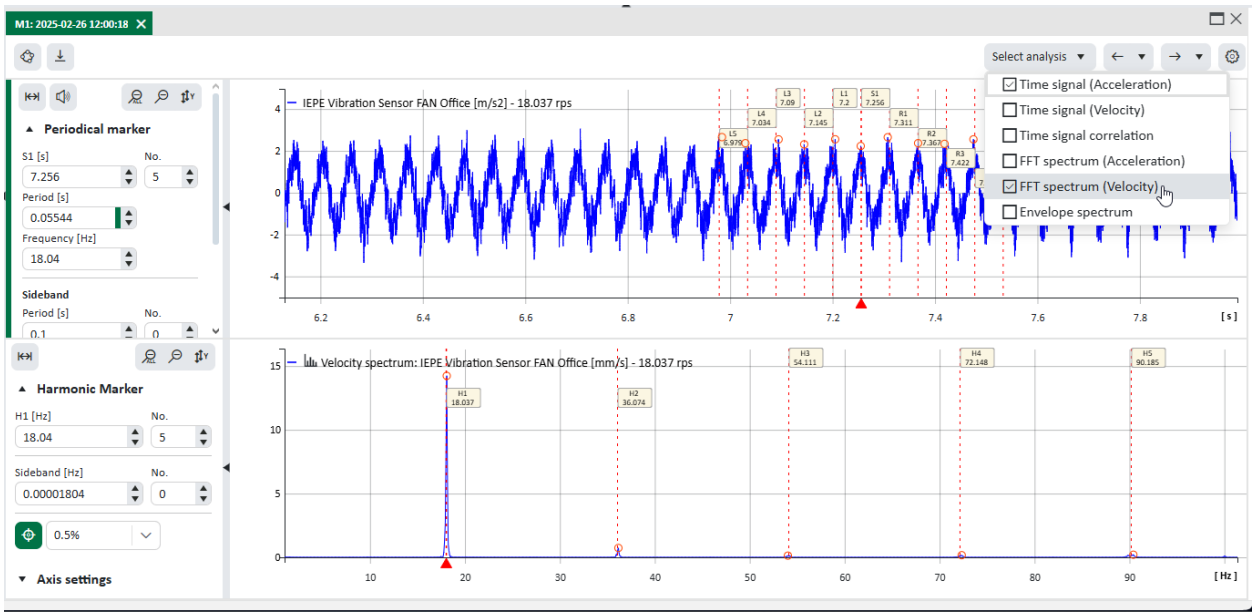
An analysis tile is a tab that consists of one or more analysis charts (see screenshot below).

The chart and marker settings can be found now on the left side next to each analysis chart.

It is possible to enlarge and collapse the different settings. Also the whole settings dialog can be collapsed by clicking on the splitter.



With the “Select analysis” dropdown, a new analysis charts can be opened below the existing one.

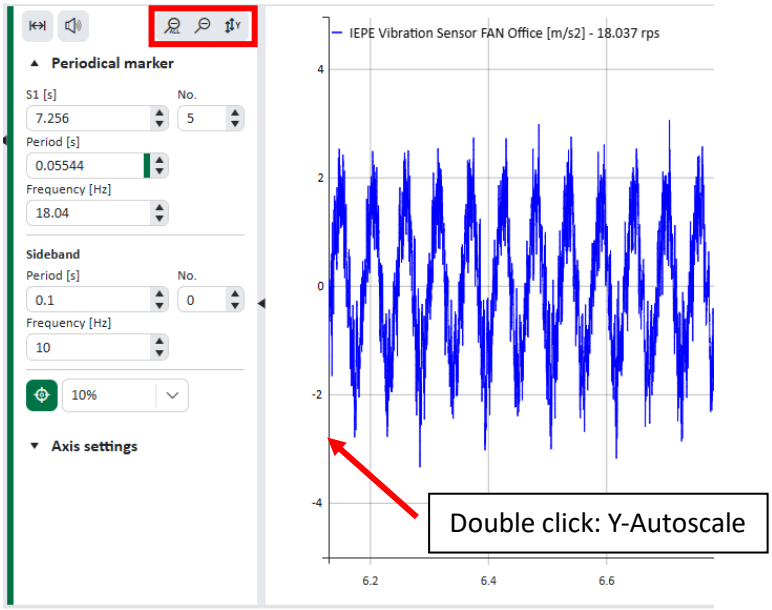


Note

For each measurement file or marker in the trend analysis chart, a new analysis tile will be opened.

Zooming:

Zooming the chart can be done by clicking the zoom buttons. Double-clicking on the Y-axis performs an autoscaling.

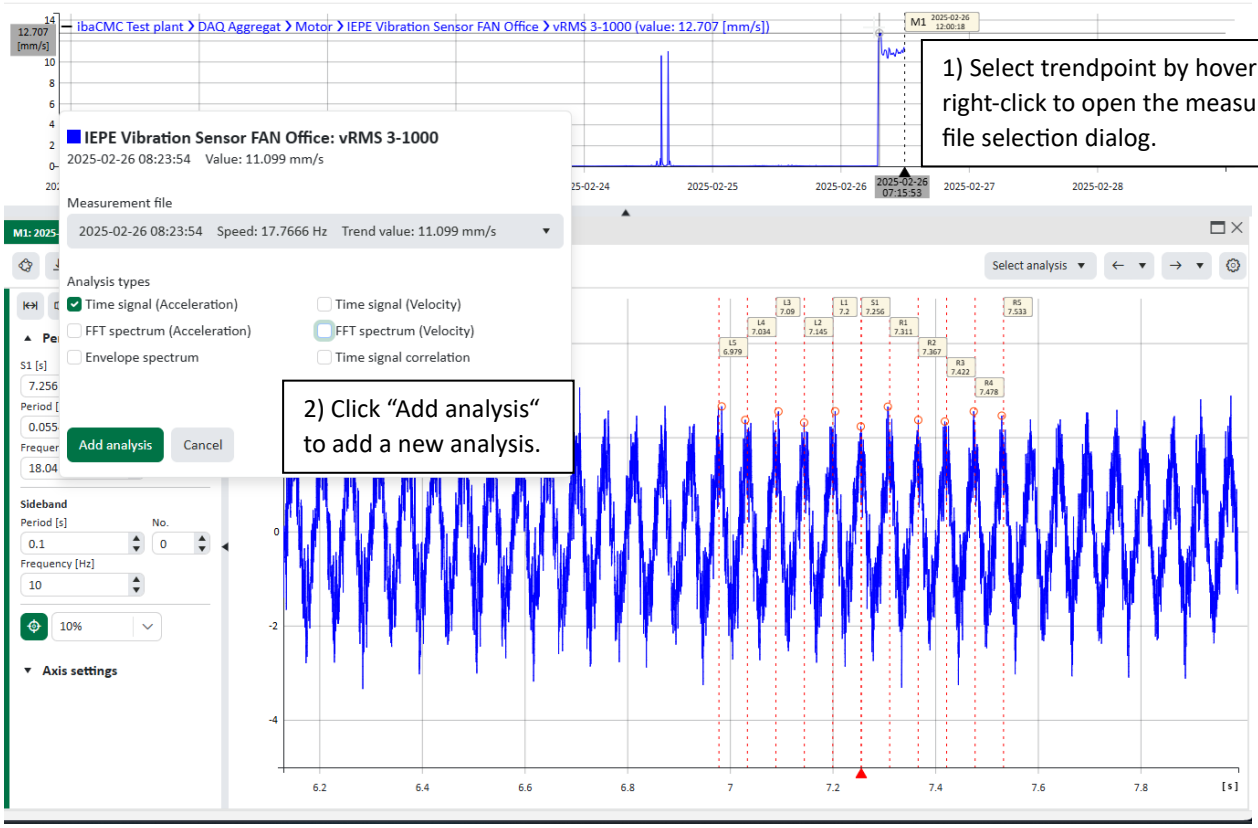


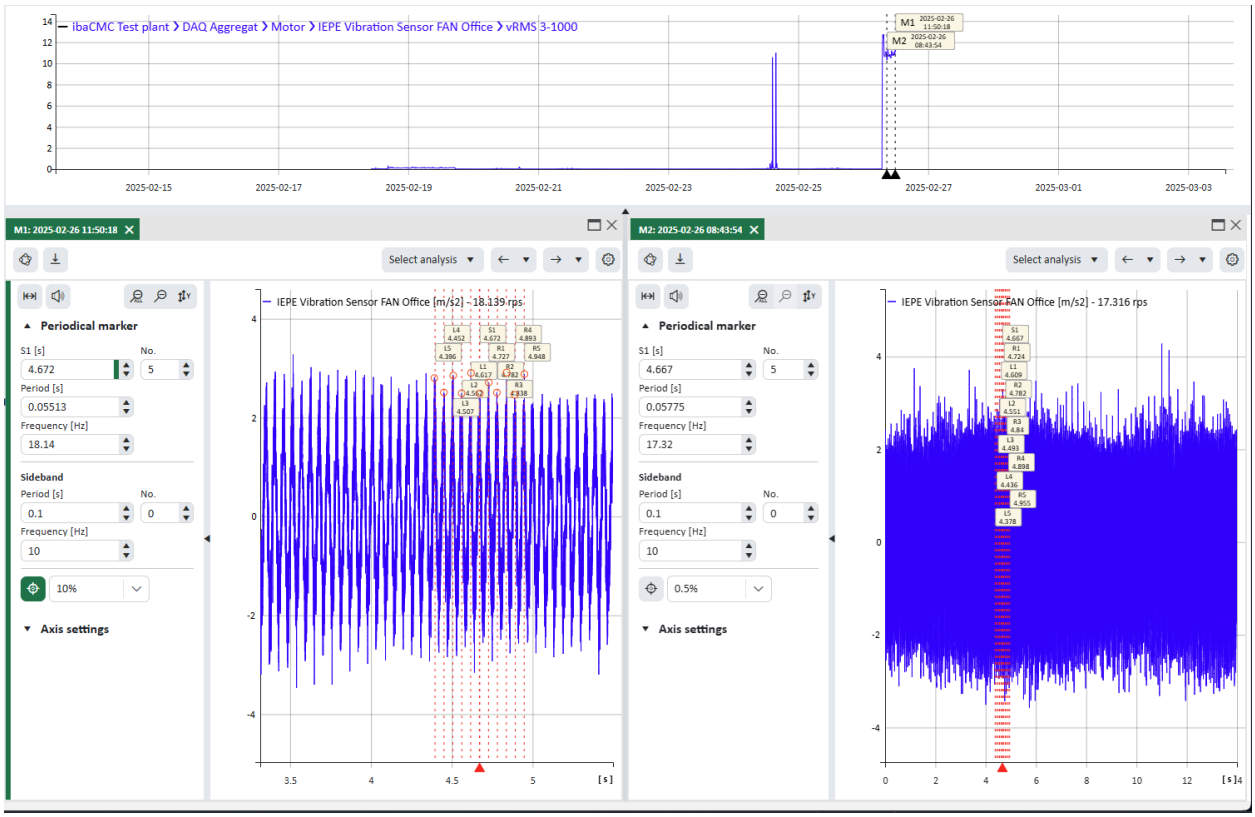
2.3.1 Added multiple markers in signal analysis window

In the trend chart of the signal analysis window, it is now also possible to select and open additional measurement files by selecting a data point on hover and right-click in the trend chart.

For each analysis tile, a marker is created which can be moved independently.

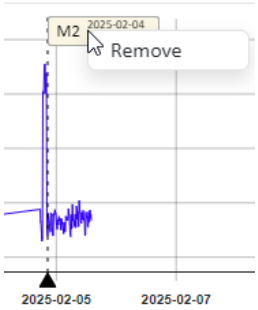
When moving the marker, the related analysis tile will be updated with the new measurement file.

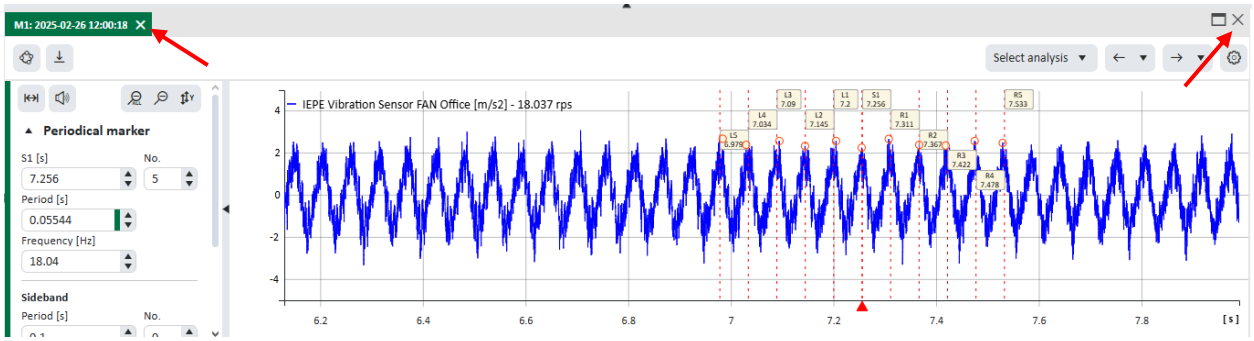




By right-clicking on the marker label, a context menu with the remove option opens.

It is also possible to remove an analysis tile by clicking the “x” icon.



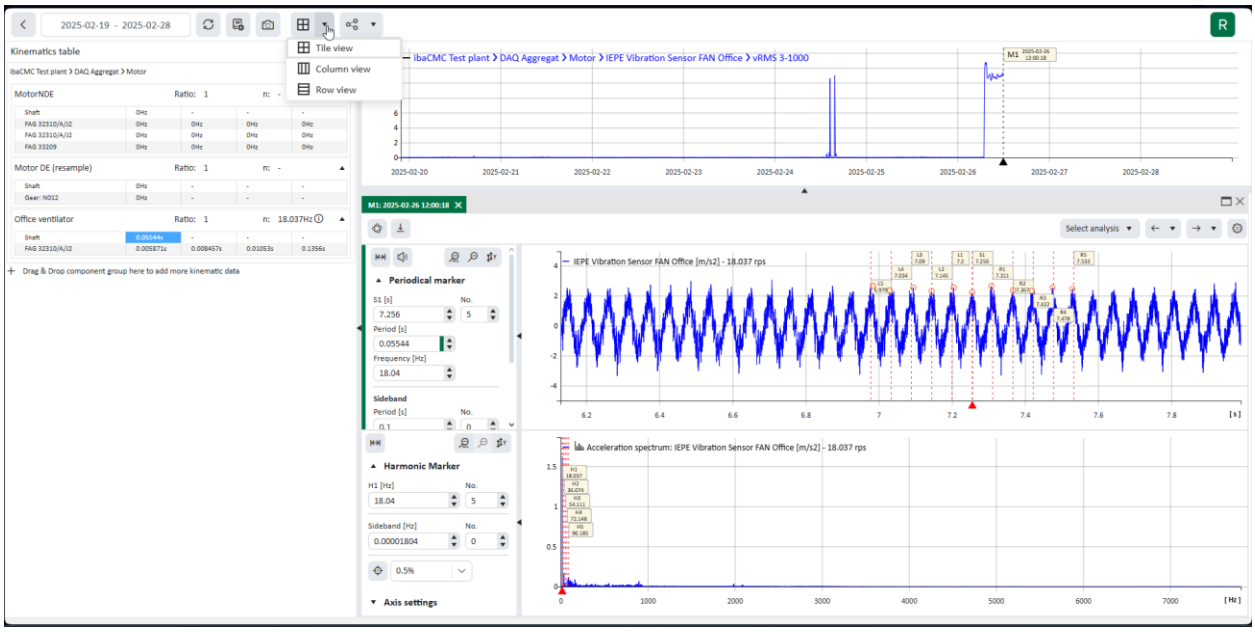


2.3.2 New layout options for arranging the analysis tiles

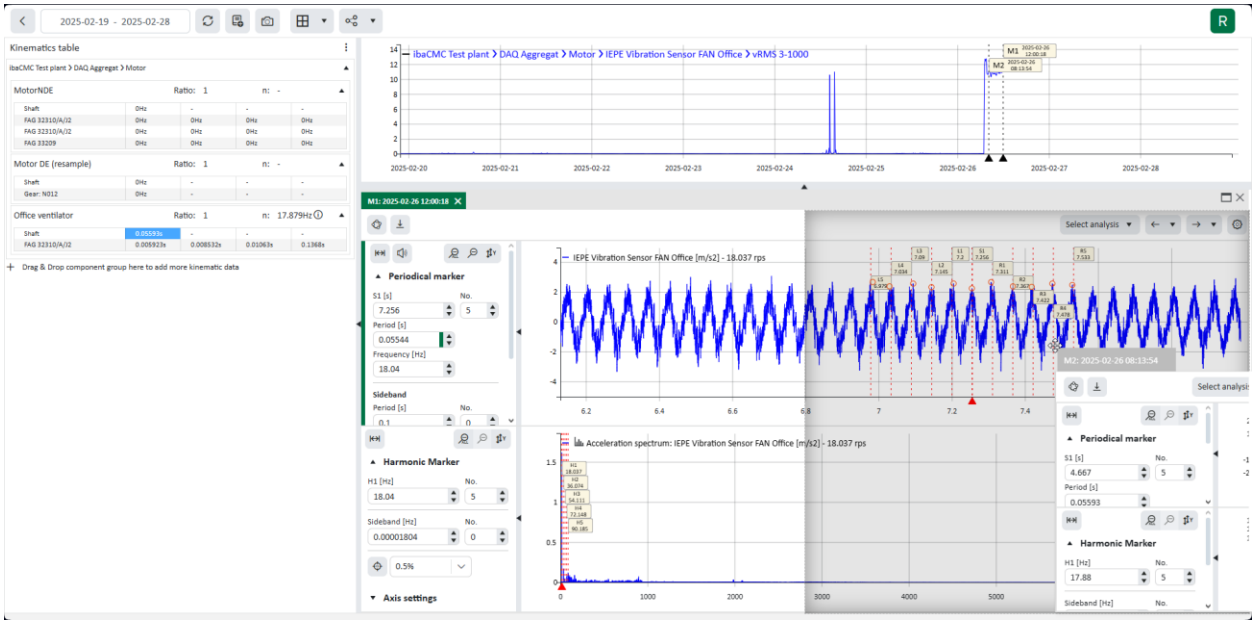
With the new layout management for analysis tiles, now there are various layout options available.

By default, the tile view is selected. Via the dropdown in the header, the layout mode can be changed between tile, column and row view.

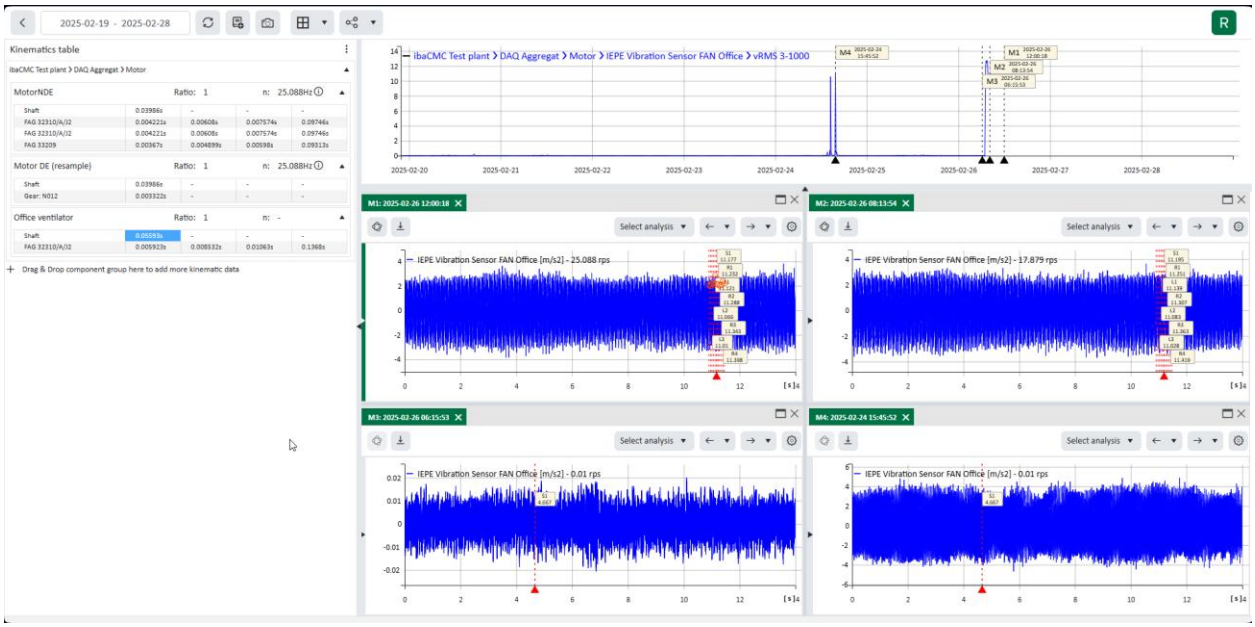
For column and row mode, the limit of open analysis tiles is 4. For the tile view, the limit is 6.



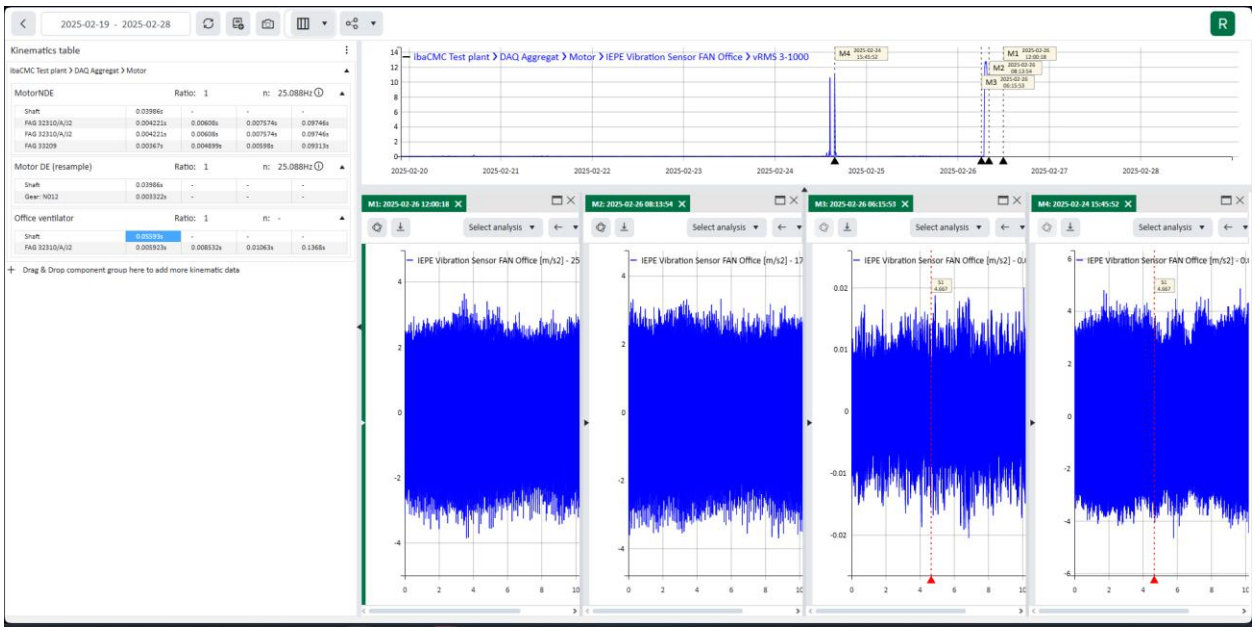
With layout management, analysis tiles can be dragged and dropped to create custom arrangements.



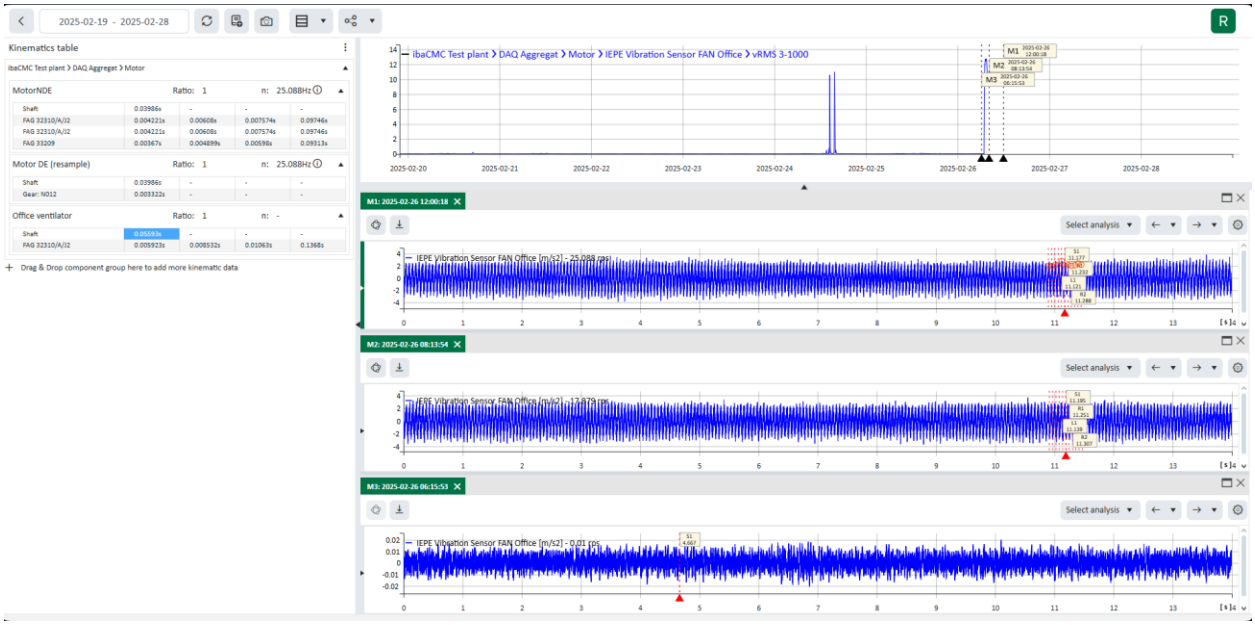
Examples: Tile view mode with 4 analysis tiles



Column mode with 4 analysis tiles



Raw mode with 3 analysis tiles

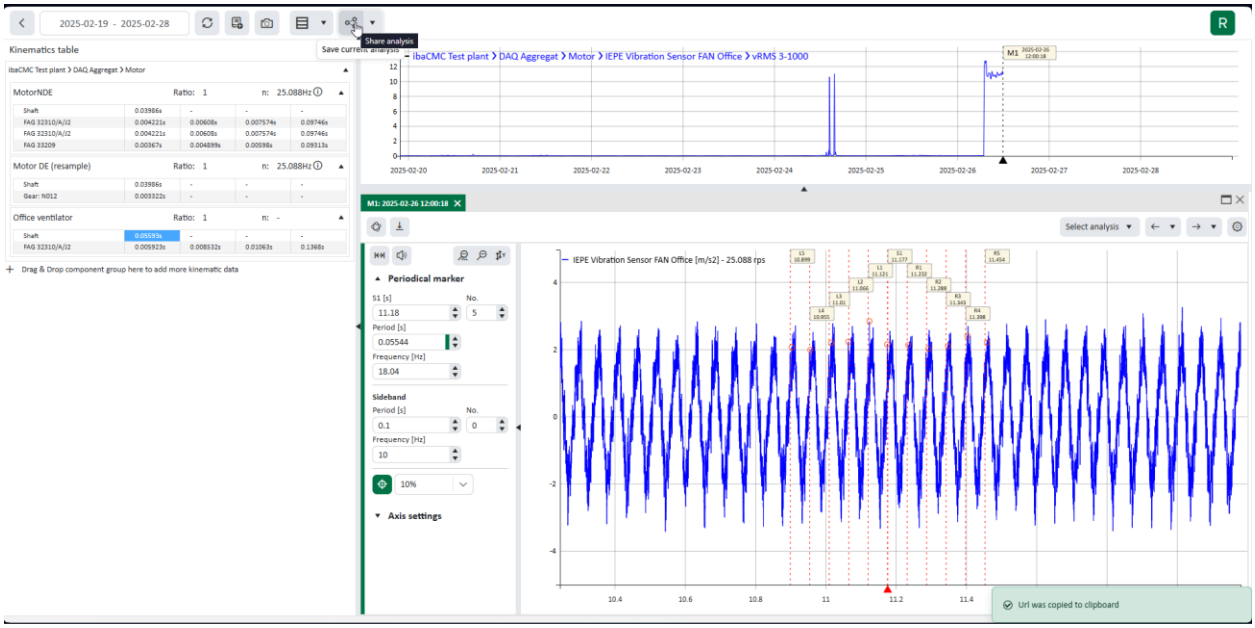


2.3.3 Sharing analysis layouts via a link

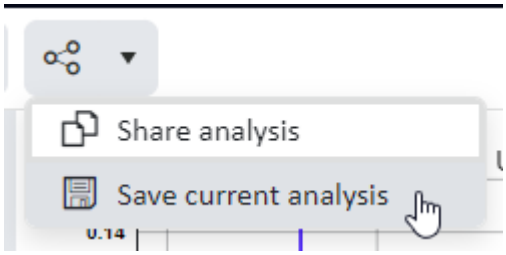
It is also possible to share the analysis layout including all settings (layout, axis and marker settings) with colleagues or save the link in the logbook for documentation.

By clicking on the share icon, the first time after opening the analysis window the current analysis is stored, and the share link is copied to the clipboard.

When an analysis is saved, clicking the share icon again copies the current link.

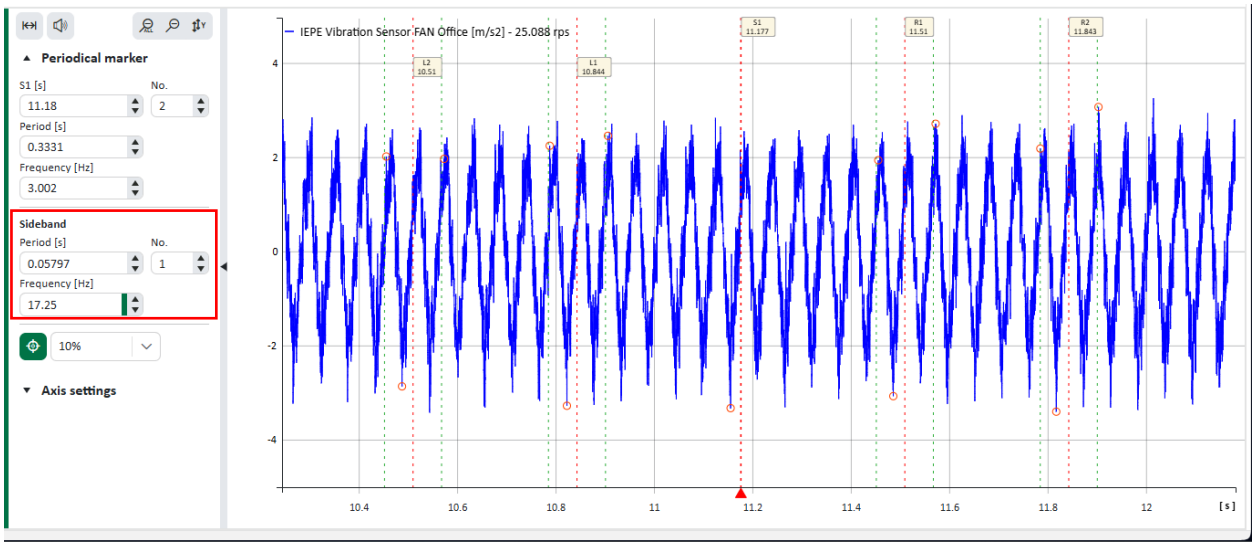


When settings or the layout are modified, the “save current analysis” option must be clicked in the dropdown to share the modified version of the analysis.



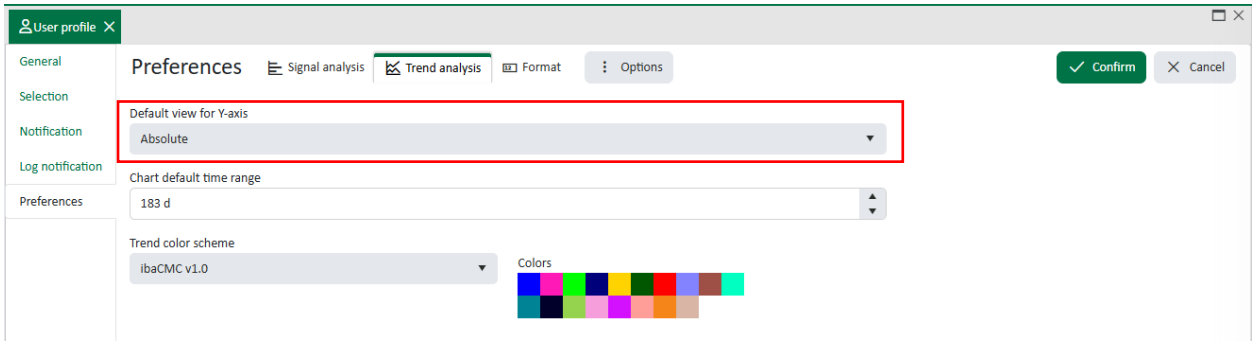
2.4 Sideband markers for periodical markers in time signal

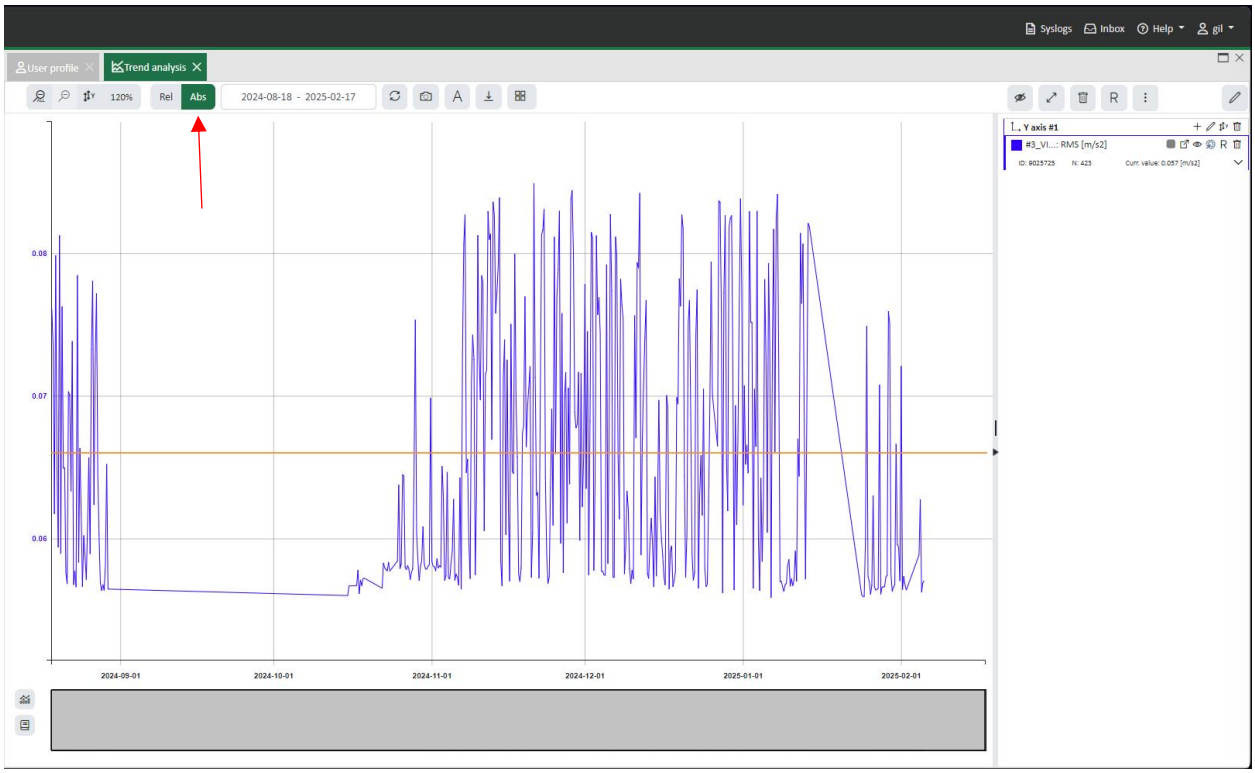
For analysis of gear or bearing faults, sideband markers on periodical markers can be helpful.



2.5 User setting for abs/rel trendview mode

In the preferences tab of the user settings, there is now a new setting that defines the “Default view for Y-axis”. When opening the trend analysis window, the selected view mode is selected by default.



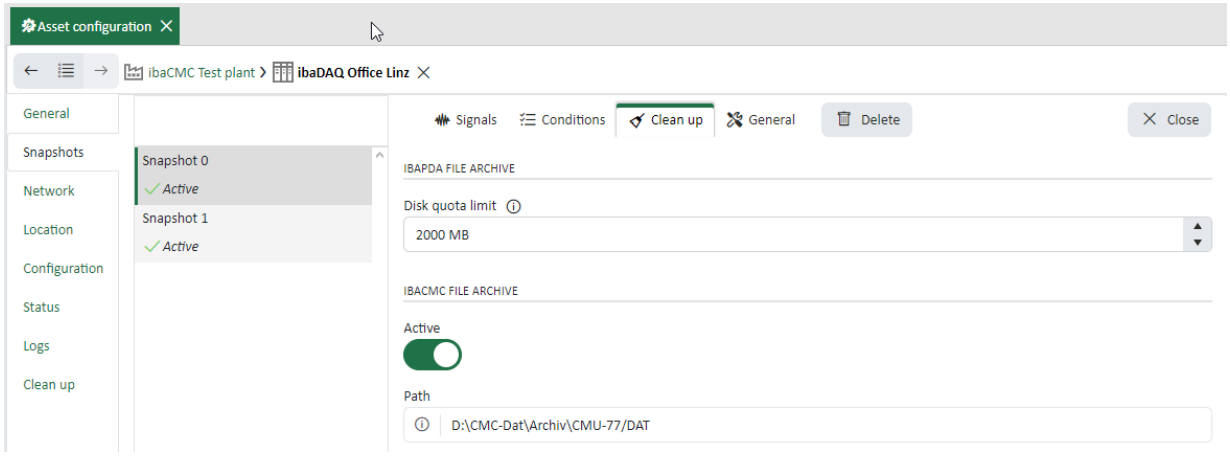


2.6 ibaPDA snapshot cleanup configuration

For ibaPDA systems, the cleanup is snapshot specific. In older ibaPDA versions, the disk quota limit per snapshot was 1000 MB and not configurable.

Now with ibaCMC v3.4.0 and ibaPDA v8.10.0, per snapshot the disk quota limit for ibaPDA can be configured separately in the snapshot configuration of each CM-Device.

If the disk quota limit is reached for the snapshot on ibaPDA side, the oldest files will be deleted.



If the network connection to the ibaCMC server is lost, ibaPDA stores the files in the local snapshot folder. Once the connection is restored, the files are automatically uploaded to the server.

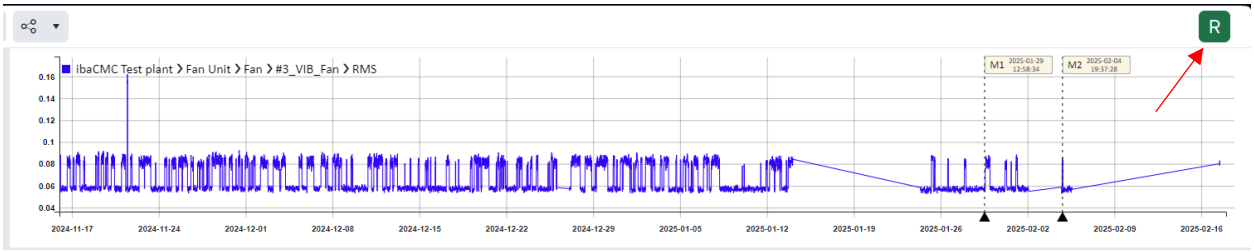
This means the higher the disk quote limit is, the longer the ibaPDA can buffer data without any data loss in case of network connection issues.

Note

Please note that the configured disk quota limit restricts permanent disk space usage. For example, if the limit is set to 10,000 MB, the folder will accumulate files until it reaches this limit, at which point ibaPDA will begin deleting the oldest files.

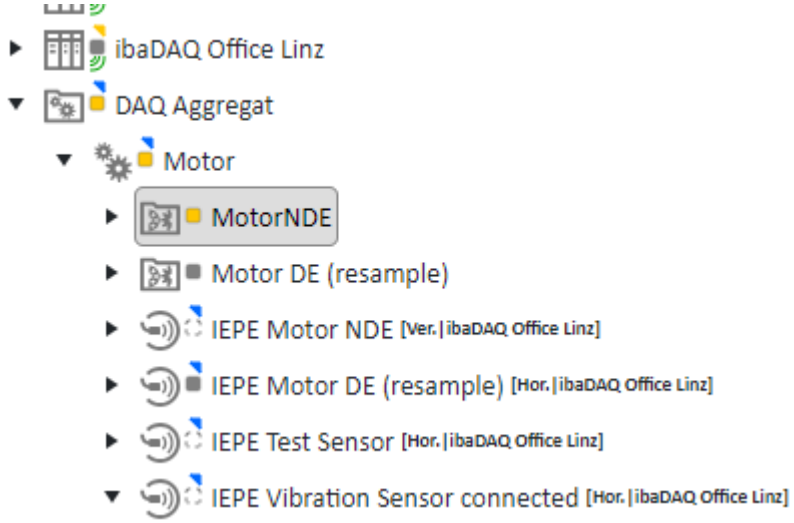
2.7 Raw data view in signal analysis trend chart

In the signal analysis window, now it is possible to switch between downsampled and raw data mode for the trend analysis chart. By default, raw data mode is active.

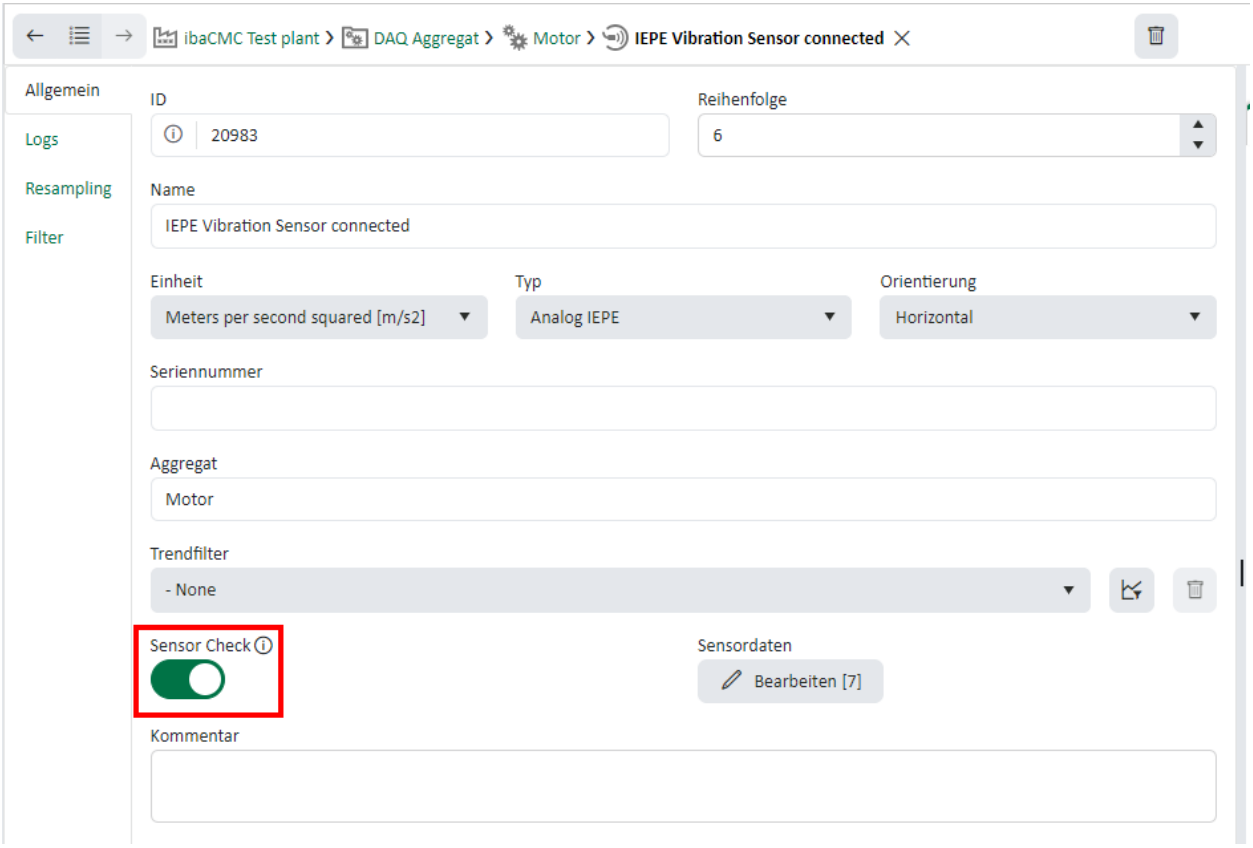


2.8 Added support for sensor defect detection for ibaPDA based CM-devices

With ibaPDA v8.10.0, sensor defects of ibaMS8xIEPE modules are detected and shown in ibaCMC.



If the connection of the sensor should be not checked, the sensor check can be disabled in the asset configuration of the sensor itself. The CMU config must be uploaded so that the configuration will be overtaken.



Note

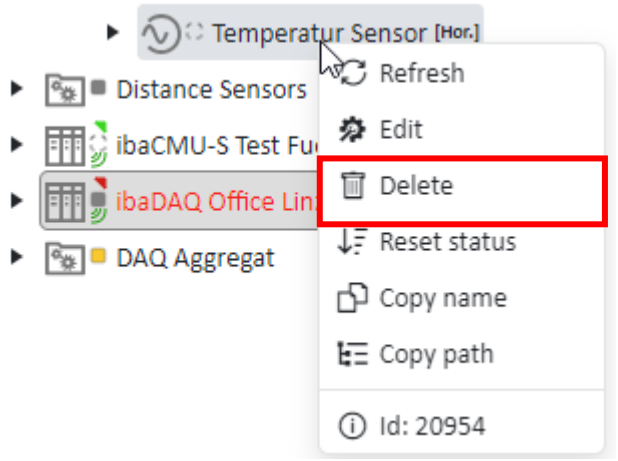
If sensor check for an IEPE sensor is active, 1 ibaPDA signal is used to calculate the sensor defect status. In ibaPDA, for that digital signal “data valid” is used for that.

If the sensor check is not active, no extra ibaPDA signal is used and the data valid flag is reset in ibaPDA automatically. In this case, the sensor defect state will also not be checked.

3 Improvements

3.1 New delete option in context menu of the asset configuration

Now it is also possible to delete asset configuration directly via the “delete” item in the context menu of the asset configuration.



3.2 Asset report shows also filtered trends

In the asset report now filtered trends are shown in the alarm list.

Note

To take advantage of this improvement, update the asset report template (v3.4.0) on the reporting service.

⚠ Alarm List

Aggregate Group	Aggregate	Trend Id	Trend Name	Current Status		Since [h]
ibaGEB_Air_Ventilation	Motor > Motor > Shaft	90115	Imbalance: 25-45Hz_SPEED_1	Warning	→	11
	Motor > VIB_Motor	9022062	vRMS 3-1000: 45-53Hz_SPEED	Warning	↗	131

3.3 Installer shows an error page if a database migration error occurs

If an error occurs during updating the database, the installer now shows an error message page with a link to the log files for more information and the iba support page to get help in your region.

* Text of image is in German. Text will be shown based on the selected operating system language.

3.4 Show MQTT Error Message in Header

If the internal MQTT Broker or client has an issue or is not running properly, a red “MQTT Connection Error” label is shown in the header. By clicking on the label/button, the diagnostics tab opens to see where the exact issue is.

Note

If the MQTT issue is not resolved, trend data from CM devices will not be imported, and CMU configuration uploads will not function. However, analyzing already imported trends, DAT files, and plant configurations remains possible.