

# SKF @ptitude Observer

Release summary

**Software version 13.4**  
**Release date: 2024-01-25**



*Please read this document. Important information not covered in the Microlog dBX User Manual is listed here.*

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# Requirements

## Software and FW requirements in Observer 13.4

- Recommended IMx-1 GW firmware version – 4.0
- Recommended IMx-1 Sensor firmware version – 4.1
- Recommended IMx firmware version – 7.8
- Recommended Microlog dBX SW version – 1.1
- Monitor Service requires 64bit OS

**Note:** As announced in 2022, new releases of Observer will have the required minimum version of MS SQL Server 2014.

## New features

### Support for SKF Microlog Analyzer dBX

We have added support for the New Microlog Analyzer dBX in Observer. User flow is very much like the old Microlog, but it can only be used with Observer when used in combination with Data bridge Service.

Microlog Analyzer dBX is a portable condition monitoring system that uses hybrid, keypad and touchscreen navigation based on Windows OS.



Figure 1 Microlog Analyzer dBX

Routes are built in Observer and downloaded to the Microlog dBX through Data Bridge Service.

In the Microlog dBX, the Data collector module is used to collect machinery vibration, temperature, and other CM measurements.

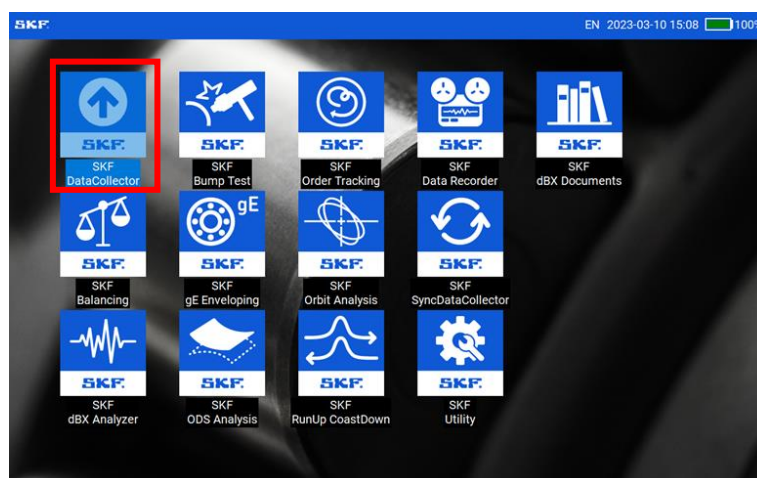


Figure 2 Home screen – Data Collector icon

The Microlog dBX is connected to a computer through USB. By using the **SKF SyncDataCollector** module, the measurements are uploaded to Observer through SKF Data Bridge Service.

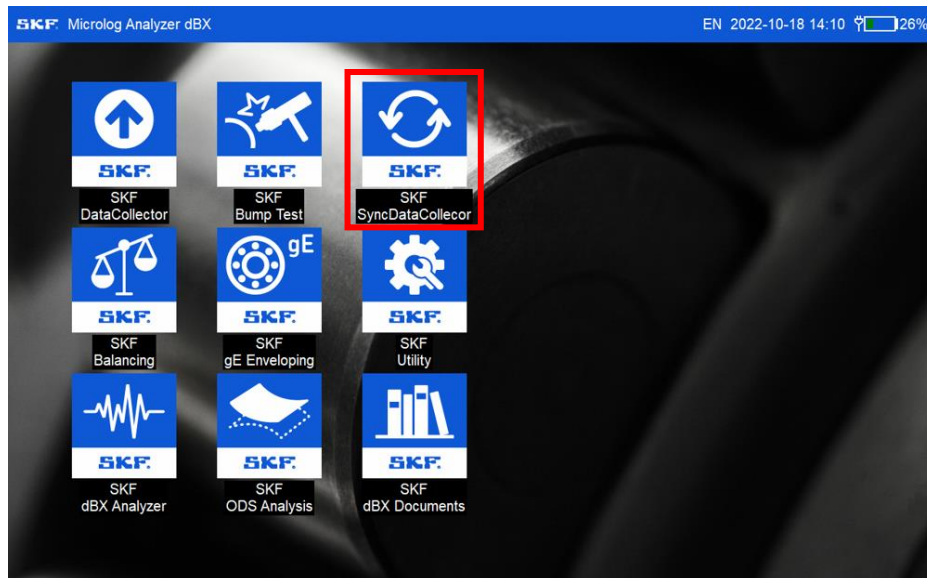


Figure 3 Home screen – SKF SyncDataCollector icon

The measurements can now be analysed in Observer.

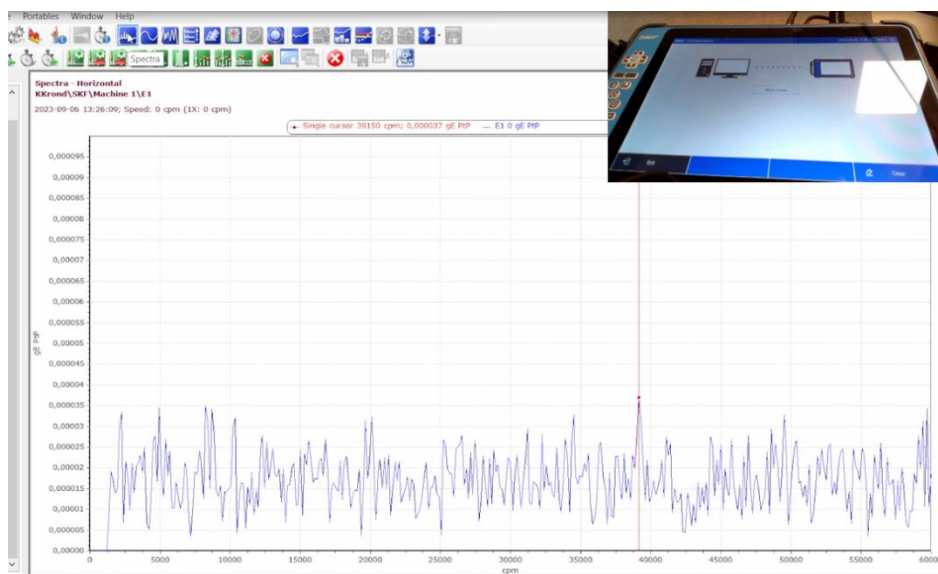


Figure 4 Measurement shown in Observer

For a more detailed description of user flow and instructions, read the Microlog Analyzer dBX, @ptitude Observer and SKF Data Bridge Service User Manuals.

## RFT spectrogram and spectrum plot

- A 2D plot where each horizontal line represents a narrow-band enveloping spectrum.
- Spectral amplitude is represented by colour, the x-axis (repetition order) is the enveloping frequency/order, and the Y-axis represents the centre of the enveloping frequency band and corresponds to frequencies in the acceleration spectrum.

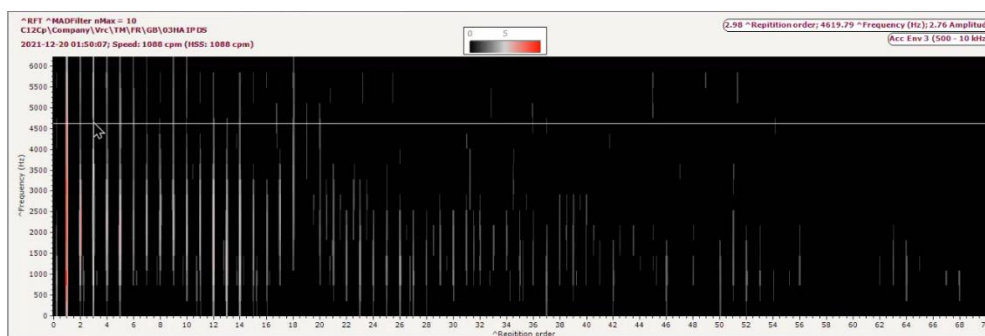


Figure 5 RFT Spectrogram

- Provides a view of all spectra at a glance and is a valuable tool for quick evaluation of the equipment condition and in-depth analysis of potential faults (ex, bearing and gear problems).

**Note:** RFT application notes will be available.

**Notes:** The analysis of the RFT graph could work as follows. The colour scale gives a measure for the spectral amplitude. If a specific modulation frequency is present in all acceleration frequencies, it will show as a vertical line spanning the entire height of the RFT graph. Usually, however, modulations are only present in a certain frequency band of the time signal; in this case, they show in the RFT graph as vertical lines spanning only a range of Y values corresponding to that frequency band. In this case Analyst can consider creating a separate measurement gE point with a custom enveloping band which provides this good 'signal to noise' aspect.

## Alarm grouping in alarm list

- Added possibility to group alarms in the alarm list by their Point ID, status and source.
- Configured in **User preferences > Show grouped alarms**.
- Gives a better overview of alarms, especially in cases where there are many alarms on the same points/large installations.

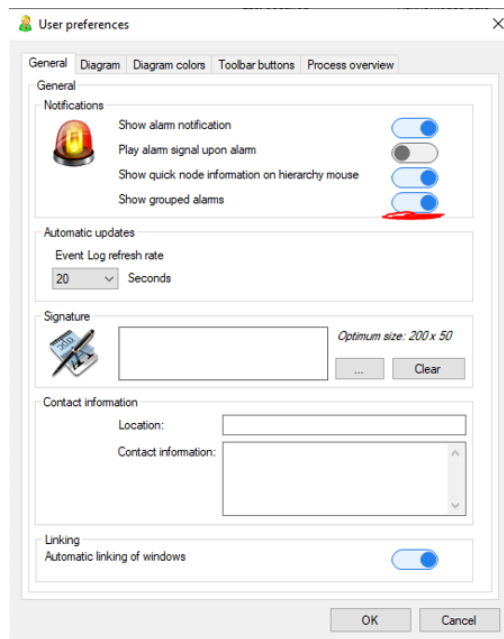


Figure 6 User preferences – General tab

Date/Time	Path	Meas. point	Title	Value	%	Status	Reason	Acknowledge date	Acknowledge comment	Signature
2019-11-08 11:12:13	ext:Example Data\IMa\UIm-1\Functional Location 1\Asset 1\F1A1S1	F1A1S1-T	Temperature	122 F	64 %	LOW WARNING	Overall			
2019-10-11 12:04:11	ext:Example Data\IMa\UIm-1\Functional Location 1\Asset 1\F1A1S1	F1A1S1-T	Temperature	122 F	100 %	HIGH WARNING	Overall			
2019-09-10 10:48:46	ext:Example Data\IMa\UIm-8 All Measurement Types\Event Capture group	EC A2	Overall	53,021 g PkP	353 %	HIGH ALARM	Overall			
2019-09-10 10:48:46	ext:Example Data\IMa\UIm-8 All Measurement Types\Event Capture group	EC A2	Overall	53,021 g PkP	1060 %	HIGH WARNING	Overall			
2019-09-10 10:48:46	ext:Example Data\IMa\UIm-8 All Measurement Types\Event Capture group	EC A3	Overall	53,004 g PkP	312 %	HIGH WARNING	Overall			
2019-09-10 10:48:46	ext:Example Data\IMa\UIm-8 All Measurement Types\Event Capture group	EC A4	Overall	53,007 g PkP	379 %	HIGH ALARM	Overall			
2019-09-10 10:48:46	ext:Example Data\IMa\UIm-8 All Measurement Types\Event Capture group	EC A4	Overall	53,007 g PkP	530 %	HIGH WARNING	Overall			
2019-09-10 10:48:41	ext:Example Data\IMa\UIm-8 All Measurement Types\Event Capture group	EC A1	Overall	52,408 g PkP	262 %	HIGH ALARM	Overall			
2019-09-10 10:48:41	ext:Example Data\IMa\UIm-8 All Measurement Types\Event Capture group	EC A1	Overall	52,408 g PkP	524 %	HIGH WARNING	Overall			
2019-09-09 14:34:02	ext:Example Data\IMa\UIm-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1385,99 g PkP	142 %	HIGH WARNING	Overall			
2019-09-09 14:30:15	ext:Example Data\IMa\UIm-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,013 g PkP	142 %	HIGH WARNING	Overall			
2019-09-09 14:26:26	ext:Example Data\IMa\UIm-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,286 g PkP	142 %	HIGH WARNING	Overall			
2019-09-09 14:24:49	ext:Example Data\IMa\UIm-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,319 g PkP	142 %	HIGH WARNING	Overall			
2019-09-09 14:22:03	ext:Example Data\IMa\UIm-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,302 g PkP	142 %	HIGH WARNING	Overall			
2019-09-09 14:19:48	ext:Example Data\IMa\UIm-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,127 g PkP	142 %	HIGH WARNING	Overall			
2019-09-09 14:16:32	ext:Example Data\IMa\UIm-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,119 g PkP	142 %	HIGH WARNING	Overall			
2019-09-09 14:14:58	ext:Example Data\IMa\UIm-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,238 g PkP	142 %	HIGH WARNING	Overall			
2019-09-09 14:13:14	ext:Example Data\IMa\UIm-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,223 g PkP	142 %	HIGH WARNING	Overall			
2019-09-09 14:09:25	ext:Example Data\IMa\UIm-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,065 g PkP	142 %	HIGH WARNING	Overall			
2019-09-09 14:04:40	ext:Example Data\IMa\UIm-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,229 g PkP	142 %	HIGH WARNING	Overall			
2019-09-09 14:02:52	ext:Example Data\IMa\UIm-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,209 g PkP	142 %	HIGH WARNING	Overall			

Figure 7 Alarm list without grouped alarms

Path: ext

Alarm list 1 pcs of eLW, 17 pcs of eHW, 3 pcs of eHA, Total 21 pcs

Filter:  Interval:

Details ext

Date/Time	Count	Path	Meas. point	Title	Value	%	Status	Reason
▶ 2019-11-08 11:12:13	1	ext\Example Data\IMx\IMx-1\Functional Location 1\Asset 1\F1A1S1	F1A1S1-T	Temperature	32 F	64 %	eLW	Overall
▶ 2019-10-11 12:04:11	1	ext\Example Data\IMx\IMx-1\Functional Location 1\Asset 1\F1A1S1	F1A1S1-T	Temperature	122 F	100 %	eHW	Overall
▶ 2019-09-10 10:48:46	1	ext\Example Data\IMx\IMx-8 All Measurement Types\Event Capture group	EC A2	Overall	53,021 g PtP	353 %	eHA	Overall
▶ 2019-09-10 10:48:46	1	ext\Example Data\IMx\IMx-8 All Measurement Types\Event Capture group	EC A2	Overall	53,021 g PtP	1060 %	eHW	Overall
▶ 2019-09-10 10:48:46	1	ext\Example Data\IMx\IMx-8 All Measurement Types\Event Capture group	EC A3	Overall	53,004 g PtP	312 %	eHW	Overall
▶ 2019-09-10 10:48:46	1	ext\Example Data\IMx\IMx-8 All Measurement Types\Event Capture group	EC A4	Overall	53,007 g PtP	379 %	eHA	Overall
▶ 2019-09-10 10:48:46	1	ext\Example Data\IMx\IMx-8 All Measurement Types\Event Capture group	EC A4	Overall	53,007 g PtP	530 %	eHW	Overall
▶ 2019-09-10 10:48:41	1	ext\Example Data\IMx\IMx-8 All Measurement Types\Event Capture group	EC A1	Overall	52,408 g PtP	262 %	eHA	Overall
▶ 2019-09-10 10:48:41	1	ext\Example Data\IMx\IMx-8 All Measurement Types\Event Capture group	EC A1	Overall	52,408 g PtP	524 %	eHW	Overall
▼ 2019-09-09 14:00:00	12	ext\Example Data\IMx\IMx-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,318 g PtP	142 %	eHW	Overall
2019-09-09 14:00:00		ext\Example Data\IMx\IMx-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1385,99 g PtP	142 %	eHW	Overall
2019-09-09 14:00:00		ext\Example Data\IMx\IMx-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,013 g PtP	142 %	eHW	Overall
2019-09-09 14:00:00		ext\Example Data\IMx\IMx-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,286 g PtP	142 %	eHW	Overall
2019-09-09 14:00:00		ext\Example Data\IMx\IMx-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,318 g PtP	142 %	eHW	Overall
2019-09-09 14:00:00		ext\Example Data\IMx\IMx-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,302 g PtP	142 %	eHW	Overall
2019-09-09 14:00:00		ext\Example Data\IMx\IMx-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,127 g PtP	142 %	eHW	Overall
2019-09-09 14:00:00		ext\Example Data\IMx\IMx-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,119 g PtP	142 %	eHW	Overall
2019-09-09 14:00:00		ext\Example Data\IMx\IMx-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,238 g PtP	142 %	eHW	Overall
2019-09-09 14:00:00		ext\Example Data\IMx\IMx-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,223 g PtP	142 %	eHW	Overall
2019-09-09 14:00:00		ext\Example Data\IMx\IMx-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,065 g PtP	142 %	eHW	Overall
2019-09-09 14:00:00		ext\Example Data\IMx\IMx-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,229 g PtP	142 %	eHW	Overall
2019-09-09 14:00:00		ext\Example Data\IMx\IMx-8 All Measurement Types\Dynamic - Acceleration & Displacement	Dynamic TWF	Overall	1386,209 g PtP	142 %	eHW	Overall

Figure 8 Alarm list with Show grouped alarms selected

Notes: The oldest alarm is shown at the top, and the highest value is shown for each group, a counter of how many times this point has had an alarm (example 8).

You can expand the list to see each alarm.

You can acknowledge the group to acknowledge all alarms.

## Phoenix API

- Added a new controller `SystemAlarmController` and endpoint `HttpGet systemsalarms` that return fields in the system alarms table.
- Added a new endpoint to make it possible to acknowledge alarms via API.
- See further explanation in API documentation.

# Bugs

## Overview

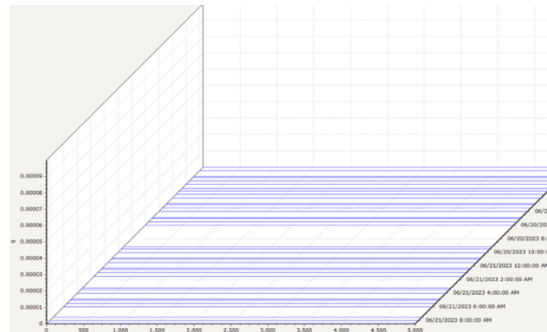
- Fixed more than 70 bugs
- Analyse: 24
- Configuration: 20
- Phoenix: 2
- Data Bridge: 13
- Other: 11

On the following pages, some of the fixed bugs are presented. For a full list of fixed bugs, see the change log.



## Analyse

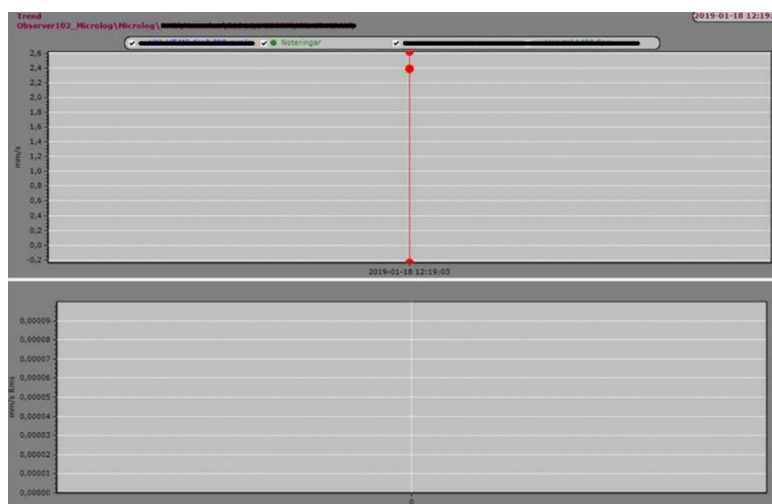
- Fixed an issue where time waveform analysis point data was shown as flat lines in the 3D plot.



- Sometimes, an image captured by phone would have the wrong rotation in the **Measurement Location**. This is now fixed.

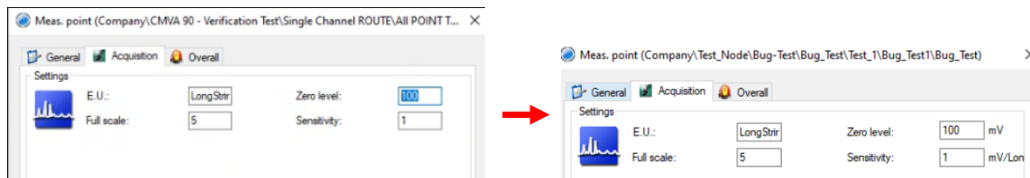


- Fixed an issue that led to combination plots like **Trend/Spectra** or **Trend/Spectra/Time waveform** would not show any data if there was only one spectrum for a measurement point.

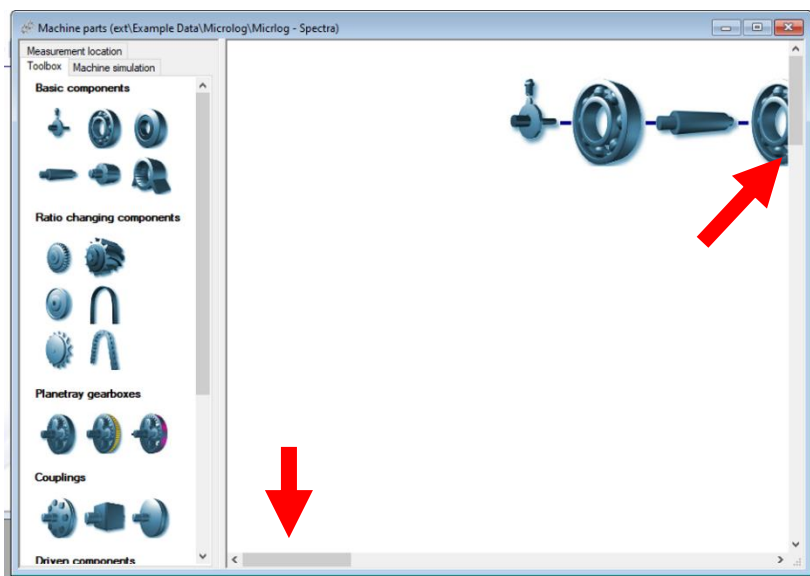


## Configuration

- Units are now displaying appropriately for Process points under the **Acquisition** tab.



- Fixed issue where scroll bars in **Machine parts** view were not visible.



- Performance improvement when deleting Points, machines, or nodes in the hierarchy.

## Data Bridge

- **Microlog** – clarified what will be removed when pressing **Remove route** in the Data bridge. Now says “Removing the selected route will delete it from the Microlog”

### Remove route

Removing route will clear all data and remove selected routes in Microlog.

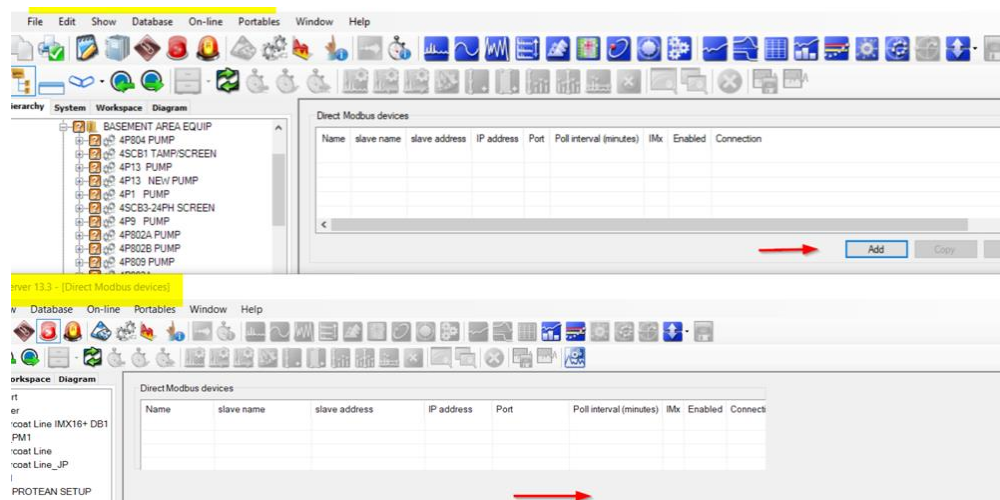
Cancel

Remove route

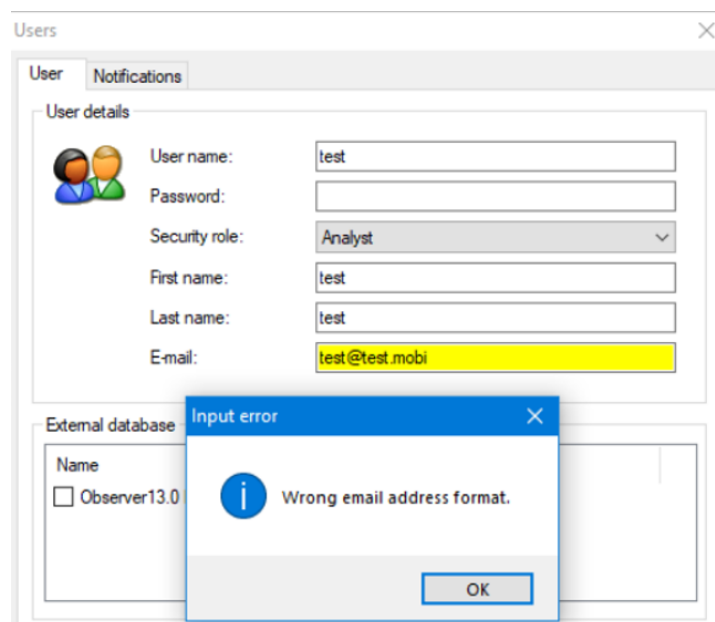
- Fixed an issue where OPC point IDs would get mixed up in Data Bridge, causing problems with the existing tag list, disappearing names and empty points sent to Observer.
- Fixed an issue where Data Bridge would suddenly stop due to corrupt OPC Points.

## Other

- Fixed a scaling issue in the **Direct Modbus** devices window that would cause some buttons to not show on small screens.



- Fixed an issue where some valid e-mail addresses would be incorrectly validated as invalid.



- Fixed an issue where the monitor service would only send one mail per day even though it was configured to send mail every 12th hour.