

## 1 Purpose

This document describes known issues of the new software version  
**Metrohm IC Driver 1.0 for OpenLab.**

## 2 New features

Metrohm IC Driver for OpenLab is a software driver for integrating Metrohm IC instruments in OpenLab 2.3 or higher.

### Supported instruments

- **800 Dosino**  
(version: 2.800.0010)
- **858 Professional Sample Processor**  
(version: 2.858.0010, 2.858.0020)  
with Liquid Handling Station (6.5330.130)  
with Magnetic Stirrer (2.741.0010)
- **889 IC Sample Center**  
(version: 2.889.0010, 2.889.0020)
- **930 Compact IC Flex**  
(version: 2.930.1100, 2.930.1160, 2.930.1200, 2.930.1260, 2.930.1300,  
2.930.1360, 2.930.1400, 2.930.1460, 2.930.1500, 2.930.1560,  
2.930.2100, 2.930.2160, 2.930.2200, 2.930.2260, 2.930.2300,  
2.930.2360, 2.930.2400, 2.930.2460, 2.930.2500, 2.930.2560)
- **940 Professional IC Vario**  
(version: 2.940.1100, 2.940.1110, 2.940.1200, 2.940.1300, 2.940.1400,  
2.940.1410, 2.940.1440, 2.940.1500, 2.940.1510,  
2.940.1540, 2.940.2100, 2.940.2400, 2.940.2500)
- **941 Eluent Production Module**  
(version: 2.941.0010)
- **942 Extension Module Vario**  
(version: 2.942.0040, 2.942.1060, 2.942.0500)
- **944 Professional UV/VIS Detector Vario**  
(version: 2.944.0010)
- **945 Professional Detector Vario**  
(version: 2.945.0010, 2.945.0020, 2.945.0030)
- **947 Professional UV/VIS Detector Vario**  
(version: 2.947.0010, 2.947.0020)
- **IC Amperometric Detector**  
(version: 2.850.9110)

- **IC Conductivity Detector**  
(version: 2.850.9010)
- **Remote Box MSB**  
(version: 6.2148.010)

## 3 Known issues

### Configuration

- Metrohm IC modules cannot be combined with Agilent LC modules. For example, an Agilent HPLC cannot be combined with a conductivity detector.
- Metrohm IC Driver for OpenLab cannot detect, whether an 858 Professional Sample Processor contains a stirrer. The stirrer can be activated or deactivated in manual configuration. It is possible to configure a stirrer even though the instrument does not contain a stirrer. It is possible to define parameters for the configured but inexistent stirrer in the method or in manual control. It is possible to run a method with these parameters or to switch the stirrer on in manual control.

### Status panels

- The instrument status is displayed in the status panels and at the bottom of the dashboard. During initialization, the status panels display **Not Ready** but the dashboard already displays **Instrument Idle**. If the status panels and the dashboard display a different status, then the status of the status panels is relevant.
- An **[On]** button is located at the bottom of the **Dashboard**. This button has no functionality for Metrohm instruments. You cannot start the instrument with **[On]**. To start the instrument, send a method to the instrument or start units in manual control. The same applies for the **[On]** and **[Off]** buttons on each status panel.
- The status **Injecting** is not available for the 858 Professional Sample Processor and the 889 IC Sample Center. In an instrument that contains an IC and an autosampler, the autosampler is in status **Run** while the IC is in status **Injecting**.
- In the MSM start parameters, the dosing rate for dosino regeneration is calculated from the parameters **Volume** and **Time**. If you send the current method to the instrument to equilibrate the instrument, then the default dosing rate of 1.0 mL/min is applied for the first MSM step. For all following MSM steps, the dosing rate from the method is applied.

### Data acquisition

- The moment when a time program starts measuring is displayed with a red line in **Online Signals**. If 2 detectors of a 2-channel instrument start measuring at a different time, then the following behavior applies: In the charts for the conductivity detectors, both of these moments are recorded at the same time. Actually, only the measurement for the first detector starts at the recorded time. The measurement for the second detector starts later.

- In the display of live data is sometimes interrupted while the instrument is in the status **Injecting**. As soon as the instrument enters the **Run** status, live data is displayed correctly again. This behavior does not affect the measurement.
- In **Online Signals**, it is possible that the time axes of different signals do not coincide.
- The combination of Dose-in gradient and Dosino regeneration MSM leads to random aborts. An error with the message **Executing Dosino command "Dose-in gradient" during execution of time program failed** occurs. Data acquisition stops. The next line in the sequence is executed.

## Method

- If the configured instrument contains **fewer modules** than the instrument from the loaded method, then the entire modules are removed from the method without notification.
- If you use a method with time program as a shutdown method, then the time program is executed in the shutdown method. Time program commands that use information from the sequence cannot be used in the time program of a shutdown method.

Do **not** use the following commands in the time program of a shutdown method:

- Dosing unit commands – Volume mode: Injection volume
- Dosing unit commands – Volume mode: Injection volume next sample
- Move – Position type: Vial from Sequence
- Move – Position type: Next Vial from Sequence
- Move – Position type: Vial from Sequence +1
- Event Wait
- With the command **Parallel** it is possible to execute several time program commands at the same time. If the same unit is used for several commands at the same time, an error is generated, but not all units are stopped.
- The position type **Next Vial from Sequence** of the 889 IC Sample Center can only be used if the next sample uses the same acquisition method as the current sample. Ensure that the sequences in the sequence table meet the requirements for the **Next Vial from Sequence** command.
- The position type **Next Vial from Sequence** cannot be used with the 858 Professional Sample Processor. An instrument error occurs and the sequence is aborted.
- With instruments with a detector, it is not possible to execute a run without data acquisition. Always add a measure command to the time program. Otherwise, the instrument stays in the state **Injecting** and does never enter the state **Run**.

If you do not want to acquire data during the run, then add a time program command **Measure Conductivity** at the end of the time program and define a recording time of 0 minutes. As different detectors in an instrument can have different recording times, ensure that the recording time for each detector is properly adapted.

If an instrument does not contain a conductivity detector, then the instrument enters the **Run** state with the first acquisition command. In this case, the command **Measure Conductivity** is not needed.

### Various

- The translation is incomplete. If you create a time program and delete multiple lines, the appearing window contains the keys **[Ja]** and **[Nein]**.
- The input range of the intensity level for the **947** Professional UV/VIS Detector Vario is 2 ... 12.  
If you enter a value that is > 8, a warning icon is displayed. Despite the warning icon, it is possible to set intensity level values up to 12. Ignore the warning icon.
- In an instrument with a 944/947 Professional UV/VIS Detector Vario and an 858 Professional Sample Processor, connection problems may occur.
- If you close the instrument connection, update the firmware revision and launch the instrument again, the firmware of the instrument modules is not displayed under **Report ► Instrument Information ► Instrument Modules**.  
The reason for this behavior is an OpenLab bug (Tracking Number: CDS2ACQ-14753 306156).
- If a module is in **Error** state and you send a method to the instrument, it may occur that the module remains in **Error** state, but some units of the module work correctly.

## 4 Compatibility

### 4.1 Compatibility with Windows

The Metrohm IC Driver 1.0 for OpenLab was tested with the following Windows versions:

- Microsoft Windows 10 Enterprise version 10.0.18363

### 4.2 Compatibility with OpenLab

The Metrohm IC Driver 1.0 for OpenLab was tested with the following OpenLab CDS versions:

- OpenLab CDS 2.3
- OpenLab CDS 2.4
- OpenLab CDS 2.5
- OpenLab CDS 2.6