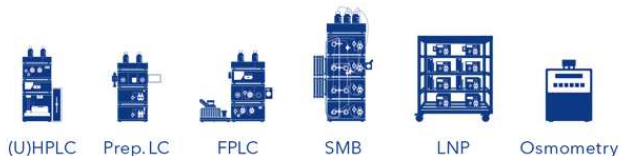




# PurityChrom 6 Release Notes

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## Supported Instruments

### Pumps

- AZURA Pumps P 2.1S/P 4.1S/P 4.2S (only in P 4.1S control mode)
- AZURA Pumps P 6.1L
- AZURA Pump P 2.1L
- BlueShadow Pump 80P
- Labomatic HD-5000
- Watson Marlow Pump 530 En

### Detectors

- AZURA UV-Detector UVD 2.1S
- AZURA UV-Detector UVD 2.1L
- AZURA UV-Detector UV MWD 2.1L
- (4 channels, up to 50 Hz)
- AZURA UV-Detector VWD 2.1L
- AZURA Diode Array Detector DAD 2.1L
- AZURA Diode Array Detector DAD 6.1L
- AZURA Refractive Index Detector RID 2.1L
- AZURA Conductivity Detector CM 2.1S
- AZURA pH Monitor pH 2.1S
- BlueShadow 50D
- Mikron 81
- SEDEX LC

### Flowmeter

- Bronkhorst Mini Cori-Flow M14 (and similar models with RS-232 or FLOW-BUS)
- Valves
- AZURA Valve Drives V2.1S, VU 4.1
- VICI Valco Drives

### Valves

- AZURA Valve Drives V2.1S, VU 4.1
- VICI Valco Drives

### Fraction Collectors

- KNAUER Fraction Collector FC 6.1
- ISCO Foxy R1
- ISCO Foxy R2
- LABOCOL Vario-4000, Vario-4000 Plus

### Autosampler

- AZURA AS 6.1L (support of 2 AS 6.1L)
- AZURA RAS 2.1L

### Liquid Handling

- KNAUER LH 2.1

### Heating Devices

- AZURA Eluent Heater ELH 2.1L
- SCPA Eluent Heater
- AZURA Column Thermostat CT 2.1

### Interfaces

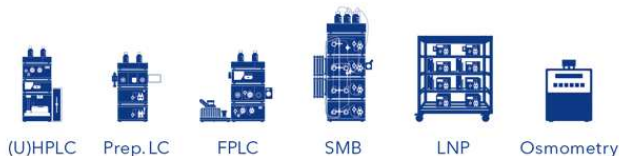
- Interface Box IFU 2.1 LAN (Analog Inputs only)
- SCPA Ethernet Eventbox

### Assistants

- AZURA ASM 2.2L
- AZURA ASM 2.1L

### Miscellaneous

- SCPA External Pressure Sensors
- Gameport Adapter



## Installation

### Installation Requirements

<b>Operating Systems</b>	Windows 10 64-bit, Windows 11
<b>CPU/RAM/Disc Space</b>	Intel Core i5 6 <sup>th</sup> Generation or comparable/ 16 GB / Disc Space 10GB
<b>Network</b>	Second network card is required for network integration
<b>Graphics</b>	Screen with minimal resolution 1024 x 768
<b>Connectors and Slots</b>	USB for license dongle COM, USB or LAN according to connected instruments
<b>Input Device</b>	Mouse and Keyboard

### Language Selection

PurityChrom 6 is available in English.

### Installation and use under Windows

Administrator rights are necessary during installation of PurityChrom 6 and the Windows User Account Control settings should be set to “Never notify” in order to deactivate the User Account Control. It may be re-activated after the installation.

The user needs write and read permission for registry and folders C:\ProgramData\PurityChrom6 and C:\Program\PurityChrom6.

PurityChrom 6 needs to be excluded from Microsoft Security Essentials. Furthermore, the Windows Defender and antivirus software should be deactivated.

### Energy Saving Features

Automatic switching to energy saving mode or hibernating has to be disabled i.e. settings for “Turn Off Hardware”, “Turn off Computer” or “System Standby” must be set to “Never” in the control panels energy options.



## Release History

In the latest version R3-33, the following changes and improvements have been added, or bugs have been fixed from version R2-34:

### Bug Fix

- In report, step times are now also displayed in local time
- Operation of DAD 6.1L under Windows 11 lead to data acquisition stop after approximately 3 minutes due to data buffer overflow
- Zoom into live data view in active multi-function moving feature will correctly change gradients
- "Emergency Pause" will generate like "Emergency Continue" a log entry in the general audit trail
- Users without the "Edit Sequence" permission could save changes via the confirmation dialog when closing a sequence
- RID 2.1L: missing autozero/LED off functions were added as method function and in the visualization element
- RID 2.1L: Analog Start In, Error In signal is now supported
- RID 2.1L: Leak Sensor is now supported
- UVD 2.1L/UVD 2.1S/MWD 2.1L: Analog Start In is now supported
- FC 6.1: Sub-rack positions now available as method function
- Fraction Highlight in result file for fractions ranging over two steps now correctly shown

### New features

- Simultaneous usage of two autosamplers
- Display of reference or previous chromatogram in chromatogram live view of the Purification tab
- New option for printout "Save as PDF" avoids problems with different PDF printing tools
- Shift Marker: variable time offset programmable
- "Conditional Flow" for usage of summed flows as basis for fraction volumes and volume-based methods
- PID Controller/Pump Control: Control of a device based on measurement data
- Multi-Client Access: Optimization for Windows SID
- RFID login
- Mongo DB connection option: Storage of all data on MongoDB server
- Lipid Mixing function using AS 6.1
- Support of Labomatic HD-5000
- Support of AZURA LH 2.1
- Support of SEDEX ELSD LC
- Support of AZURA VWD 2.1L

### Improvements

- Optimizations in method writing: Device that is currently programmed will be highlighted in system visualization
- Optimizations in method writing: more placeholders for thresholds
- New Permissions in Administration: Can Load Method/Can Start/Can Pause/Can Continue/Can Stop All/Can Emergency Pause/Can Move Processed Functions/Audit Trail/Online Editing

## PurityChrom® 6 Release Notes



- Commands can be sorted by drag-and-drop in a Command Step
- Modules sorted by types
- Channels can be rearranged using drag and drop
- Display of the gradient composition at a certain data point in the chromatogram available via space bar
- KNAUER IFU 2.1: Added Gain and Offset Factor in the configuration to present a directly transformed channel that can be used by other modules.
- New Function for Valve Proxy “Waste and Next” improves fractionation via Mult-position valves
- Updated System Templates now also include method files
- Preconfigured FC 6.1 Racks are now installed under C:\ProgramData\PurityChrom6\FC6.1 Racks
- RID 2.1L: ADC Channels 1 and 2 are now displayed additionally in visualization element
- UVD 2.1S/UVD 2.1L: limits set to Wavelength range
- DAD 2.1L/DAD 6.1L/MWD 2.1L: Lamp Lifetime Notification added or updated
- Templates Updated and Example Methods added

## Known issues

- **ID search** in configuration of IFU 2.1 and CT 2.1 is available but does not work
- **ID search** in configuration of CM 2.1S and pH 2.1S shows device without serial number
- **MongoDB**: recovery of file under the same name as an existing file, the older file can be found as an older version
- **MongoDB**: Long Term Storage can only be used with special scripts
- **MongoDB**: during lost connection to server, notifications are only logged in run protocol and not in the audit trail
- **Fraction racks** loaded in the final step are not documented correctly. To avoid this, the fraction rack should be programmed (Load Rack) at the beginning of the process.
- **Visualization**: Connecting the pump output directly to the input of another pump will lead to incorrect flow visualization
- **Pump Configuration** of KNAUER Pump P 2.1L won't be sent to the device but only read. LPG mode needs to be configured via service tool
- **SHPG** Module: smallest flow increment is 10µl/min
- **PID Pump**: reaching min. pressure limit in method leads to error 22 message
- For all **detectors, but especially DAD 2.1L and DAD 6.1L**: Please consider that a slice time below 500 ms will generate large data files. For runs longer than 30 minutes a slice width of 500 ms or above shall be used.
- Turning off the detector lamp during a run in a sequence will not result in the Notification “Detectors Lamp Off” at the start of the next run of the sequence.
- **Detector 50D**: If used with 1 channel only and lamp is turned off some data is still sent from detector
- In rare cases renaming of files needs refreshing of data file list to show the updated files
- **AS 6.1L**: temperature reading cannot be used as data channel

## PurityChrom® 6 Release Notes