Mobile Control version V6.X.X for Windows

December 2023

Thank you for choosing the control software Mobile Control. This document provides important information about the installation and use of the software. Different operating modes are available:
- Display - without data acquisition, no activation required
- Data - with data acquisition, activation required
- Fraction Collection - with data acquisition and fraction collection option, activation required
- LNP - with data acquisition and formulation user interface, activation required
- Column Test - activation required
- Trial Period - 30 days with Fraction Collection option
- Demo Mode - simulated instruments

Chromatograms can be revisited with the Data Viewer which is installed together with Mobile Control. Please read this document carefully before you install and start using the product.

System Configuration

Supported Instruments
AS 3950 – Firmware V01.17 or higher
AS 6.1L – Firmware V1.22 or higher
ASM 2.1L – Firmware V01.18 or higher
ASM 2.2L – Firmware V01.14 or higher
CT 2.1 – Firmware V01.06/V2.02 or higher
DAD 2.1L* – Firmware V01.12 or higher
DAD 6.1L*– Firmware V01.26 or higher
Foxy R1/ R2[#] – Firmware v01.01.11 or higher
IFU 2.1 LAN – Firmware V 1.05 or higher
MWD 2.1L – Firmware V01.12 or higher
P2.1S/P4.1S – Firmware V01.38 or higher
P 6.1L – Firmware V01.07 or higher
P 2.1L – Firmware V01.09 or higher
P 8.1L – Firmware V01.01 or higher
RID 2.1L – Firmware V01.24 or higher
UVD 2.1S – Firmware V01.14 or higher

UVD 2.1L – Firmware V02.06 or higher
Vario-4000/ Plus[#] – Firmware V01.25 or higher
V 2.1S – Firmware V05.01 or higher
VU 4.1 – Firmware V06.22 or higher
40D – ADI01, ADI04 - Firmware V02.05 or higher
50D – ADJ01, ADJ11 - Firmware V02.18 or higher
40P – APC30*XX* - Firmware V01.12 or higher

40P – APC40*XX*, APC60*XX* Firmware V02.30 or higher
80P – APD30*XX*, APD60*XX* - Firmware V02.26 or higher
80P – APD20*XX* - Firmware V01.08 or higher

* no acquisition of 3D data supported (4 channels only)
\# only one rack type is supported per device. Racks of different type cannot be combined in one device.
X = A-Z

Computer Requirements

Operating system
As operating system Windows 10, 11 Pro version 22H2 is required.
The updates recommended by Microsoft must be installed.

Communication
For the communication with the devices and the chromatography software, a WIFI or LAN connection is required. A router (WIFI or LAN) builds up a network. It is not recommended to cascade LAN switches to increase the number of available LAN ports, as this may cause communication problems. For a stable communication only use routers and switches recommended by KNAUER.

Computer Hardware

Item	Tablet, laptop or desktop PC requirements
Display size	Minimum 10"
Display resolution	Minimum 1280 x 800
Communication	LAN or WIFI
RAM	Minimum 1 GB (display license), 2 GB (all other licences)
Processor	Minimum 1,5 GHz Dual-Core
Disc space	Minimum 500 MB

Operating Mobile Control

Installation and licensing of the Mobile Control
Run the Mobile Control installer and follow the instructions. The software Mobile Control and Data Viewer are selected for installation. If the display license A9610 was purchased, deselect the Data Viewer as this functionality is not supported.
In case of the display license A9610 press the start button to enter the display operation mode. For all other licenses copy the device code by clicking on (copy). Send the device code and the serial number (starts with FSA…) of the purchased Mobile Control license to mobilecontrol@knauer.net. You will find the serial number on the Mobile Control Certificate.
The device code does not include 0 and 1, but O and I. The device code is linked to the network adapter which should not be deactivated. The device code will change every time the software is started. This does not influence the validity of the activation code. The activation code is hardware-bound and cannot be transferred to another tablet, laptop, or desktop PC. The maximum number of additional activation codes per license is one.
Use the Trial Mode with full features until you will receive the activation code.

In the Demo Mode, you can familiarize yourself with the software using simulated devices.
For detailed information, please refer to the separate *Installation Information* document.

Update the Mobile Control

New versions of the Mobile Control will be provided on the KNAUER download area. An existing activation code can be reused. The Mobile Control version 6 and earlier versions are not compatible. The previous version must be completely removed from the computer before the new version can be installed. For detailed information, please refer to the separate *Installation Information* document. Please check the website for the latest version.
A9610, A9612, A96131, A9607, A9608, A96132, A9614, A96141
→ www.knauer.net/downloadmobilecontrol
A96133, A96134
→ www.knauer.net/downloadmobilecontrol-lnp

Upgrade the Mobile Control

It is possible to switch between the different licenses using the upgrade function. For example, a display license can be changed to a data license with data recording. A new activation code must be entered which is supplied with the purchased software upgrade. For detailed information, please refer to the separate *Installation Information* document. There is no upgrade article für the Mobile Control LNP license.

Energy Saving

While the Mobile Control is in operation, the screen saver is not activated, as this is usually associated with turning off the WIFI on tablets. Note that manually turning off the display will certainly result in the loss of the WIFI connection. It is recommended to leave the display on and connect the device to the power supply during use. After 30 minutes, Mobile Control will reduce the brightness of the display.

Mobile Control – Display, Data, FRC license

What´s New in this version?

- Single installer for Mobile Control and Data Viewer
- New devices: Foxy R1/ R2, Vario-4000/ Plus, P 8.1L, 40D, 50D, 40P, 80P
- Fraction Collection option – time, volume, threshold based
- Live Traces – Traces are displayed beyond a running method
- Variables for method parameters
- Direct Control during a running method
- Eluent Control
- Manual Integration in Data Viewer
- Do not stop pumps in case of disconnection
- Column Management
- System pressure sets a maximum pressure for the whole system
- Export of X- and Y-values of traces
- HTML graph export as vector graphic
- Start of run setting: Skip autosampler injection
- Logs in report
- Widget View which is designed for better reading if you operate a big number of instruments.
- Global standby button for the whole system
- Monitor Mode is no longer supported due to technical reasons
- Bugfixes and optimization

Known issues

- The Mobile Control version 6 and earlier versions are not compatible. The previous version must be completely removed from the computer before the new version can be installed. Please follow update instructions V6852A.
- If the tablet battery is below 50 %, communication with the instruments can be interrupted.
- To remove instruments from the configuration, please use the button "Remove all" and save.
- Program start/ wavelength change is followed by an autozero of the UVD 2.1S although "Autozero at start" is not selected in program setting.
- If the runtime of the UVD 2.1L did not correspond with the real run time, stop the method, and calibrate the UVD 2.1L detector.
- In case of a not starting method in combination with the request to adjust the data rate or integration time of MWD 2.1L, DAD 2.1L or DAD 6.1L, please receive an optimal integration time in the settings of the detector. Additionally, a maximum data rate corresponding to this integration time is suggested.
- By using µl Pickup, only the wash solution can be used. The selection of a transport vial is not possible.
- By using AS 3950 or AS 6.1L, only transport liquid can be utilized in the microliter-pickup mode.
- If instrument connection is lost during a method run all pumps will stop with exception of the standalone compact pumps P 4.1S /P 2.1S. Compact pumps integrated in an assistant also stop in this scenario.
- Analog output of the IFU LAN is not supported.
- By using the ASM 2.1L with 2 pumps a HPG (high pressure gradient) is not supported. Both pumps are controlled as separate pumps.
- Device parameters which are entered out of range are automatically corrected to the minimum or maximum value.
- User with read permission can connect and disconnect devices.
- Event outputs of the ASM 2.1L are not supported in method, only in detail view.
- File names are limited to a maximum number of characters due to the operating system Windows.
- If the run time is set in a method with a second decimal place, the chromatogram is not saved in the h5 file and is not displayed in the Data Viewer. The report generated by Mobile Control includes the chromatogram.
- The valve switching time might be displayed with a slight delay in live traces. The actual valve switching time is according to the programmed method and method traces.

Mobile Control – LNP license

The LNP license of Mobile Control requires an own installer of version 6.2.X. Do not execute the installer version 6.0.X or 6.3.X which is used for the Mobile Control licenses Display, Data, Fraction Collection. Please contact the KNAUER customer support to obtain the installer. Mobile Control LNP is designed to control the IJM NanoScaler system and is limited to its system configuration. The system consists of three P 4.1S pumps and one, two or three VU 4.1 valves. Except the third valve all modules are engulfed in two AZURA ASM 2.2L Assistant devices. Additional or alternative devices are not supported. The LNP license differs from the other Mobile Control products and does not support following features:

- Variables for method parameters
- Direct Control during a running method
- Fraction collection option
- Column Management (menu item removed)
- Monitor Mode with other software packages

- LNP license supports only KNAUER devices which are part of the IJM NanoScaler system

Special LNP features
- Modified user interface of method writing in menu Method & Sequences (renamed: Lipid Nanoparticles)
- Predefines method structures for Pre/ Aftercare and Formulation methods
- All methods in the LNP license use waiting for trigger, the end of run setting flow off and start with flow off for all pumps

Known issues
- The run time value in the method editor of the LNP user interface is rounded to one decimal digit. The actual run time value with an accuracy of two decimal digits is displayed in the method and info tab.
- Do not operate the IJM NanoScaler system in parallel with the two software packages. To avoid communication problems, the system should be operated with either Mobile Control or Purity Chrom.