DataApex
Clarity™
CHROMATOGRAPHY SOFTWARE

KONTRON 460/465

Clarity Control Module ENG

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Contents

To facilitate the orientation in the **Kontron 460/465** manual and **Clarity** chromatography station, different fonts are used throughout the manual. Meanings of these fonts are:

Open File (italics) describes the commands and names of fields in **Clarity**, parameters that can be entered into them or a window or dialog name.
WORK1 (capitals) indicates the name of the file and/or directory.
ACTIVE (capital italics) marks the state of the station or its part.
Chromatogram (blue underlined) marks clickable links referring to related chapters.

The bold text is sometimes also used for important parts of the text and the name of the **Clarity** station. Moreover, some sections are written in format other than normal text. These sections are formatted as follows:

Note: Notifies the reader of relevant information.

Caution: Warns the user of possibly dangerous or very important information.

Marks the problem statement or trouble question.

Description: Presents more detailed information on the problem, describes its causes, etc.

Solution: Marks the response to the question, presents a procedure how to remove it.

1 Kontron 460/465 Control Module

This manual describes the setting of the **Kontron 460/465** autosampler. The control module enables direct control of the instrument over serial line.

Fig. 1: ***Kontron 460/465*** *autosampler*

Direct control means that the autosampler can be completely controlled from the **Clarity** environment. The Instrument method controlling the analysis conditions will be saved in the measured chromatograms.

The control is performed via the **UNI Ruby** control module and the **Kontron 460/465** script.

2 Requirements

- **Clarity** Installation with AS Control module (p/n A26).
- Free serial COM port in the PC.

Note: Modern computers usually have only one (if any) serial (COM) port installed. To use more devices requiring the RS232 port, the **MultiCOM** adapter (p/n MC01) is available.

- Serial DB9F-DIN5M cable (p/n SK09).

3 Installation Procedure

3.1 Kontron 460/465 communication

The **Kontron 460/465** is controlled by serial (RS232) communication.
It uses a DB9F-DIN5M cable (p/n SK09) described in the picture below.

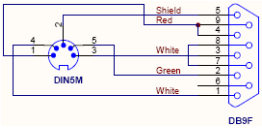

Fig. 2: DB9F-DIN5M cable

3.2 Clarity Configuration

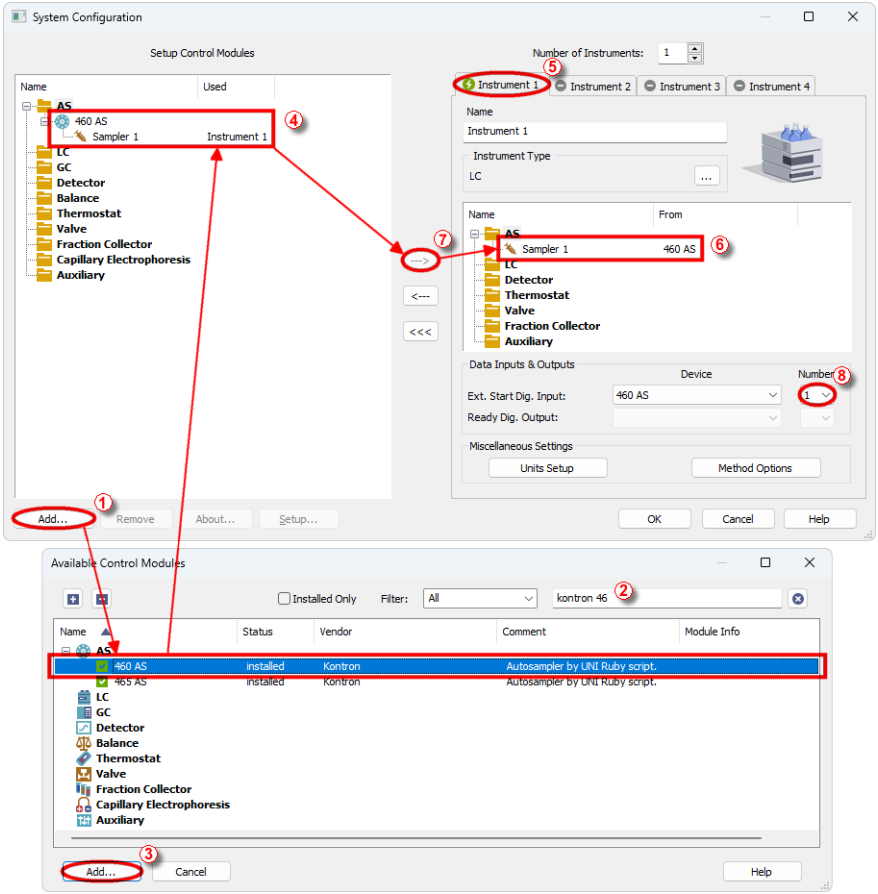

Fig. 3: How to Add Kontron 460/465 module

- Start the **Clarity** station by clicking on the icon on the desktop.
- Invoke the *System Configuration* dialog accessible from the *Clarity* window using the *System - Configuration...* command.
- Press the *Add* button (① on **Fig. 3** on pg. **4**.) to invoke the *Available Control Modules* dialog.
- You can specify the search filter ② to simplify the finding of the driver.
- Select the correct item and press the *Add* (③ on **Fig. 3** on pg. **4**.) button. Each device with already created UNI profile should have its own item

named accordingly in the *Available Control Modules* dialog.

- The *DataApex UNI Setup* dialog will appear.

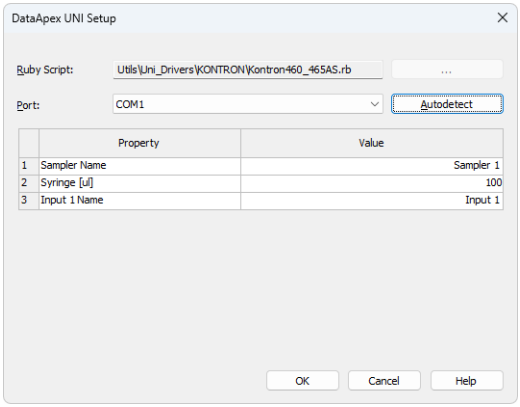

Fig. 4: DataApex UNI Setup

- Set the correct communication *Port* and click on the *AutoDetect* button to establish communication with the device.
- You may fill in the custom *Device Name*.

Note: The *DataApex UNI Setup* dialog is described in detail in the chapter **"DataApex UNI Setup"** on pg. **10**.

- The **Kontron 460/465** item ④ will appear in the *Setup Control Modules* list of the *System Configuration* dialog.
- Drag the appropriate item from the *Setup Control Modules* list on the left side to the desired *Instrument* tab ⑤ on the right side ⑥, or click on the ---> button ⑦ .
- Set the *Ext. Start Dig. Input* and *Ready Dig. Output* numbers ⑧ for your acquisition card according to the wires used for synchronization.

4 Using the control module

After adding and setting up the new device one or more new tabs will appear in the *Method Setup* dialog depending on the type of the instrument. A new **Kontron 460/465** section enabling the monitoring of the current autosampler state will be also created in the *Device Monitor* window.

4.1 Method Setup - AS

The *Method Setup - AS* tab is used for setting the common parameters of the **Kontron 460/465** autosampler.

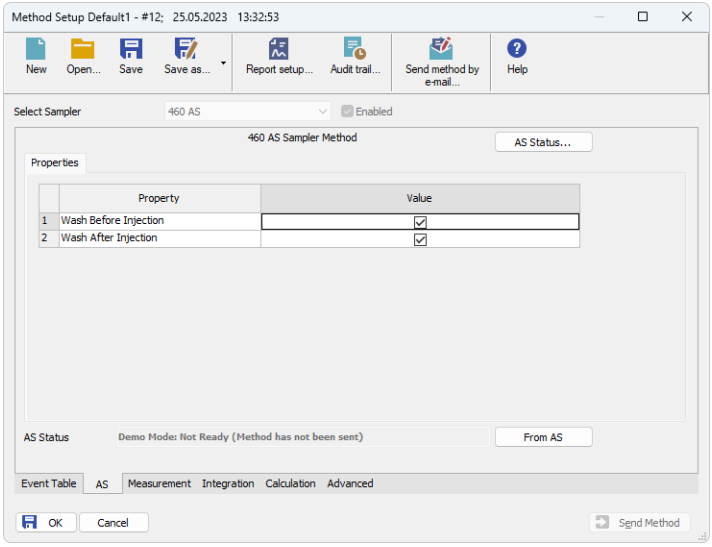

Fig. 5: Method Setup - AS

Wash Before Injection

Determines whether the sampler will perform the wash operation prior to injecting the sample.

Wash After Injection

Determines whether the sampler will perform the wash operation after injecting the sample.

From AS

Loads the autosampler control parameters from the autosampler to **Clarity**.

AS Status

When invoked, opens the *Hardware Configuration* dialog showing the information regarding the connected autosampler.

4.2 Hardware Configuration

The *Hardware Configuration* dialog (invoked by using the *AS Status* button from theMethod Setup - AS Method Setup - LC Method Setup - FC Method Setup - ValvesMethod Setup - Aux - Properties dialog) displays the configuration of the **Kontron 460/465**, namely the communication type and its parameters.

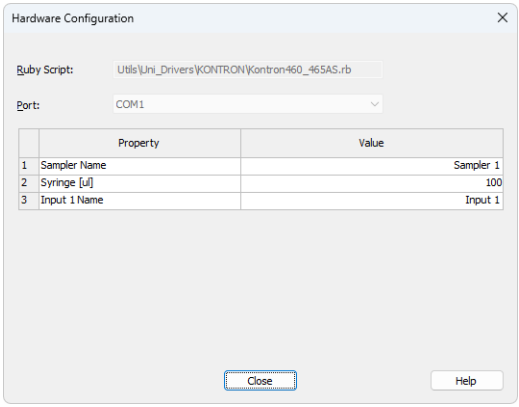

Fig. 6: Hardware Configuration

4.3 Device Monitor

The window with the autosampler status can be invoked by the *Monitor - Device Monitor* command from the *Instrument* window or using the *Device Monitor* icon.

Device Monitor - Autosampler

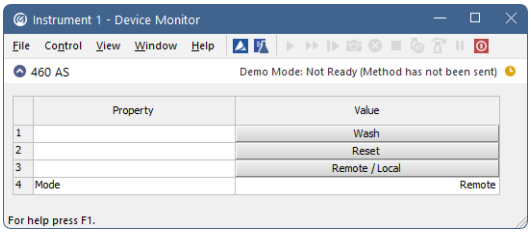

Fig. 7: Device Monitor - Autosampler

In case of the **Kontron 460/465** autosampler, the *Device Monitor* pane is reduced to a single row, showing the actual state of the sampler and the vial which it is on, and several buttons triggering different actions:

Wash

Performs the pre-set wash routine.

Reset

Resets the autosampler. The function works the same as for the autosampler in *Local* mode, invoked by the instrument keyboard.

Remote / Local

Switches the autosampler between the *Local* and *Remote* modes. The mode the sampler is switched in can be seen in the *Mode* row.

Mode

Shows the mode in which the **Kontron 460/465** autosampler is switched in. If in *Remote* mode, the device can be controlled from software. If in *Local* mode, **Clarity** will stay in *NOT READY* state until the *Remote* mode is started using the *Remote / Local* button.

4.4 DataApex UNI Setup

The appearance of the *DataApex UNI Setup* dialog depends on the presence of the selected Ruby Script - if the script is not present, only the *Ruby Script* field is visible.

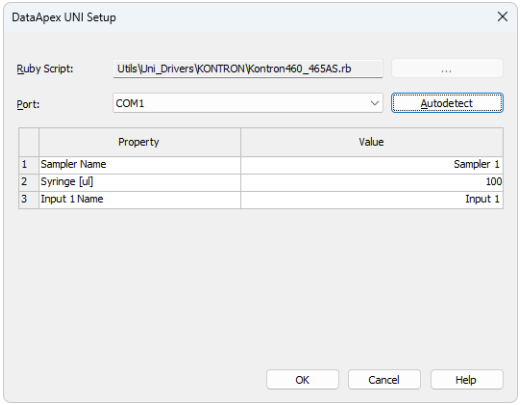

Fig. 8: DataApex UNI Setup

Ruby Script

Displays the selected Ruby Script. The correct KONTRON460_ 465AS.RB VALCOVALVEAS.RB script for the **Kontron 460/465** instrument can be found in the UTILS/UNI_DRIVERS/KONTRON subdirectory (accessible through the ... button) of the **Clarity** installation folder (C:\CLARITY\BIN by default).

Port

Defines the communication port used, possible values dependent on the type of communication of the device and/or available ports in the PC.

AutoDetect

It is used for verifying the device communication over the serial port selected above.

Instrument Name

Allows you to set the custom name of the instrument. This name (entered into the *Value* column) will be used throughout the **Clarity** station.

Syringe [µl]

Defines the volume of the syringe for the **Kontron 460/465** autosampler. Allowed volumes for the**Kontron 460/465** autosampler are *50*, *100*, *250* and *2500* µl.

Input 1 Name

Sets the name of the Digital Input available on **Kontron 460/465**autosampler. This input may be used for the start synchronization in the sequence measurements.

5 Report Setup

The autosampler section on the method report can be enabled by checking the *Injection Control* checkbox on the ***Method*** tab of the ***Report Setup*** dialog.

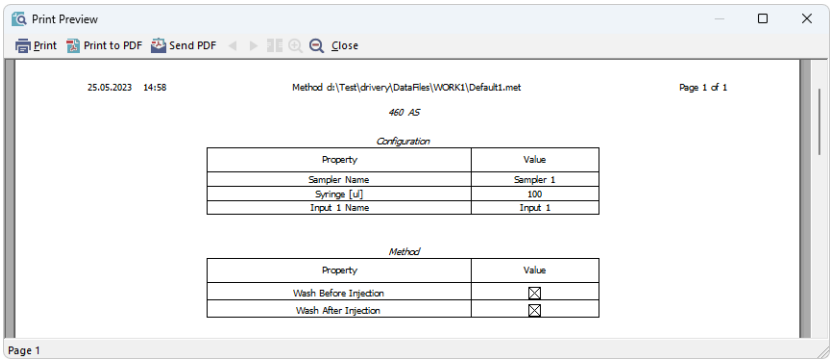

Fig. 9: Report Setup

All of the parameters set in the ***Method Setup - AS*** dialog are reported, as well as the custom *Autosampler Name* and other parameters set in the ***DataApex UNI Setup*** dialog.

6 Troubleshooting

When the solution to a problem cannot be found easily, a recording of the communication between **Clarity** and the autosampler will significantly help **DataApex** support.

The data recording can be enabled by adding or amending the COMMDRV.INI file in the **Clarity** installation directory (C:\CLARITY\CFG by default). The file can be edited in any text editor (e.g. Notepad). The following section should be edited or added:

```
[COM1]
echo=on
textmode=on
filename=CommDrvCOM1_%D.txt
reset=off
```

Note: Instead of COM1, type the communication port used to communicate with the autosampler. This port number is displayed when the *AS Status* button in the Method Setup - AS dialog is invoked.

Note: *%D* (or *%d*) in the filename parameter means that the log will be created separately for each day. The *reset=off* parameter disables deleting the content of the log each time the station is started during the same day.

The created *.TXT files will be of great help in the diagnosis of not documented errors and communication issues.