

## KONTRON 460/465

Clarity Control Module

ENG

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Phone: +420 251 013 400  
Fax: +420 251 013 401  
clarity@dataapex.com  
www.dataapex.com

DataApex Ltd.  
Petrzilkova 2583/13  
158 00 Prague 5  
The Czech Republic

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Author: zte

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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:

**Instrument** (blue text) marks the name of the window to which the text refers.

*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 (when you already are in the topic describing the window).

WORK1 (capitals) indicates the name of the file and/or directory.

*ACTIVE* (capital italics) marks the state of the station or its part.

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:

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**Note:** Notifies the reader of relevant information.

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

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**■ 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 USB 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.

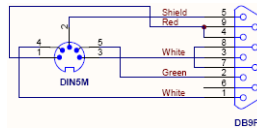


Fig 2: DB9F-DIN5M cable

## 3.2 Clarity Configuration

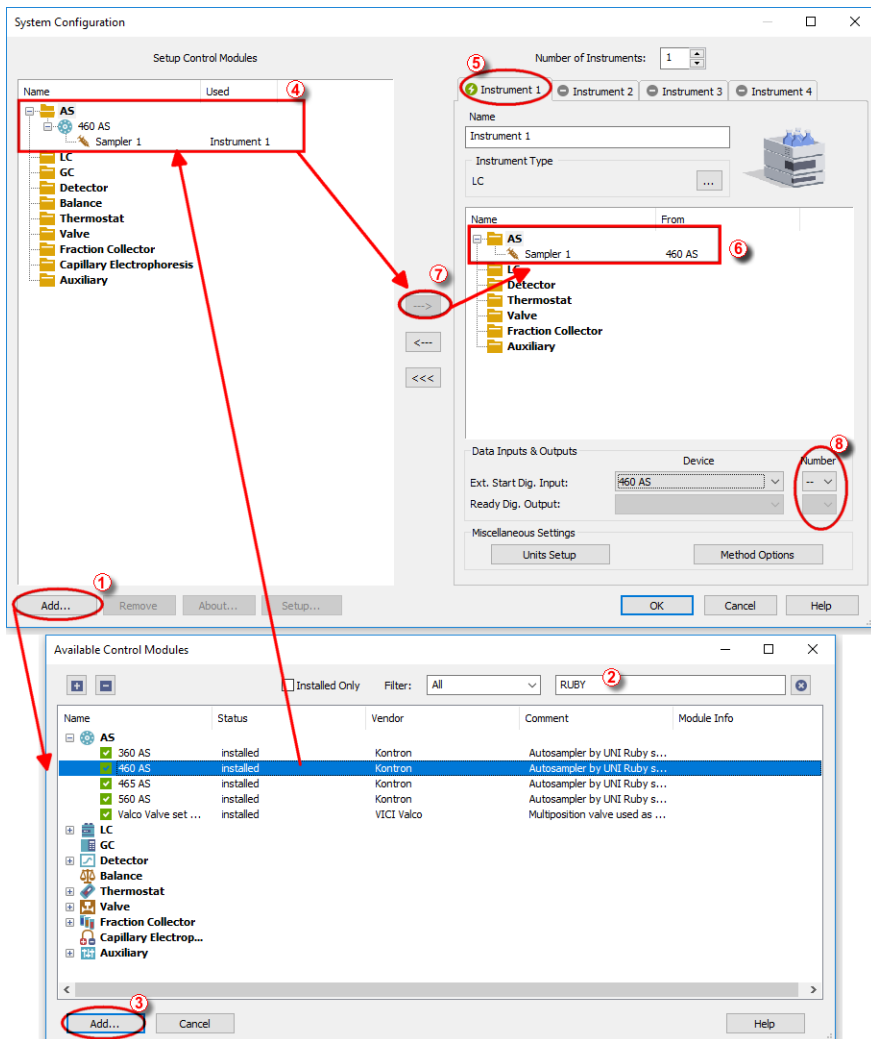



Fig 3: How to Add Kontron 460/465 module



- 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.

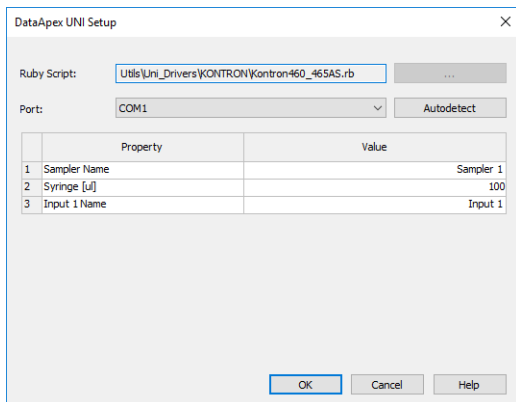



Fig 4: DataApex UNI Setup

- 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.

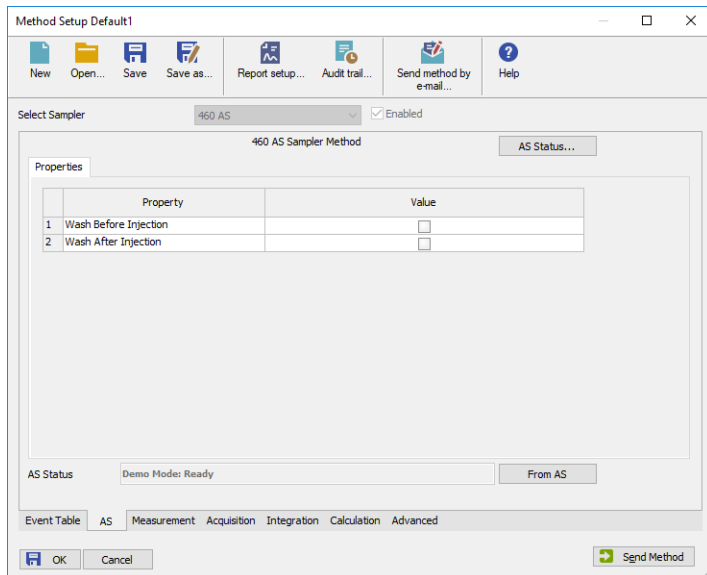


Fig 5: Method Setup - AS

### 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 the [Method 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.

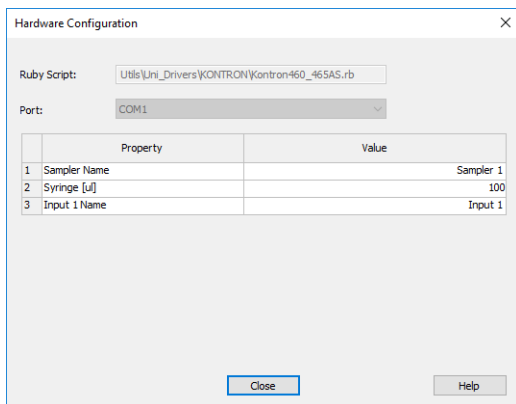



Fig 6: Hardware Configuration

### 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

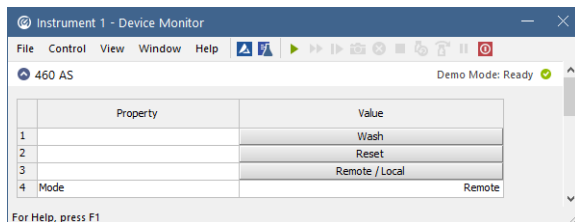


Fig 7: Device Monitor - Autosampler

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.

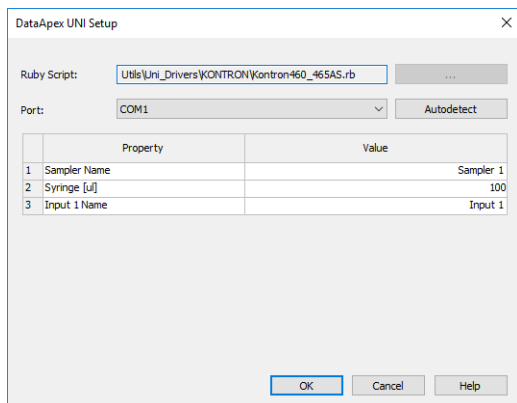


Fig 8: DataApex UNI Setup

### 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.

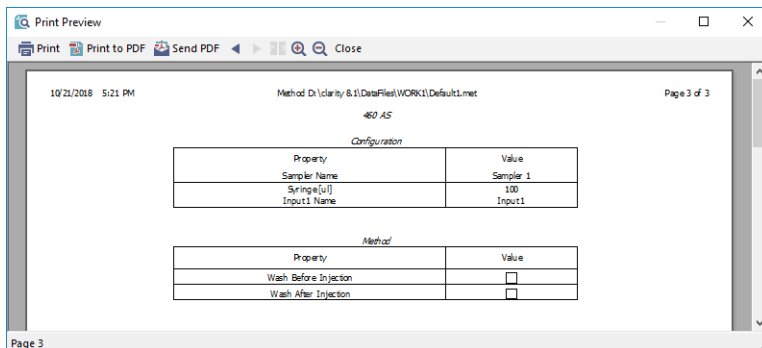


Fig 9: Report Setup

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.

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*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.