DataApex
Clarity™
CHROMATOGRAPHY SOFTWARE

OQ VALIDATION DETECTOR

Clarity Control Module ENG

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

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

Author: DM

Contents

To facilitate the orientation in the **OQ Validation detector** 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 OQ Validation detector Control Module

This manual describes the setting of the virtual **OQ Validation detector**. The detector is purely virtual and does not have any physical representation. 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 **OQ Validation detector** script.

2 Requirements

- **Clarity** installation with LC Control (p/n A24) or GC Control module (p/n A23) license.

3 Installation Procedure

3.1 Clarity Configuration

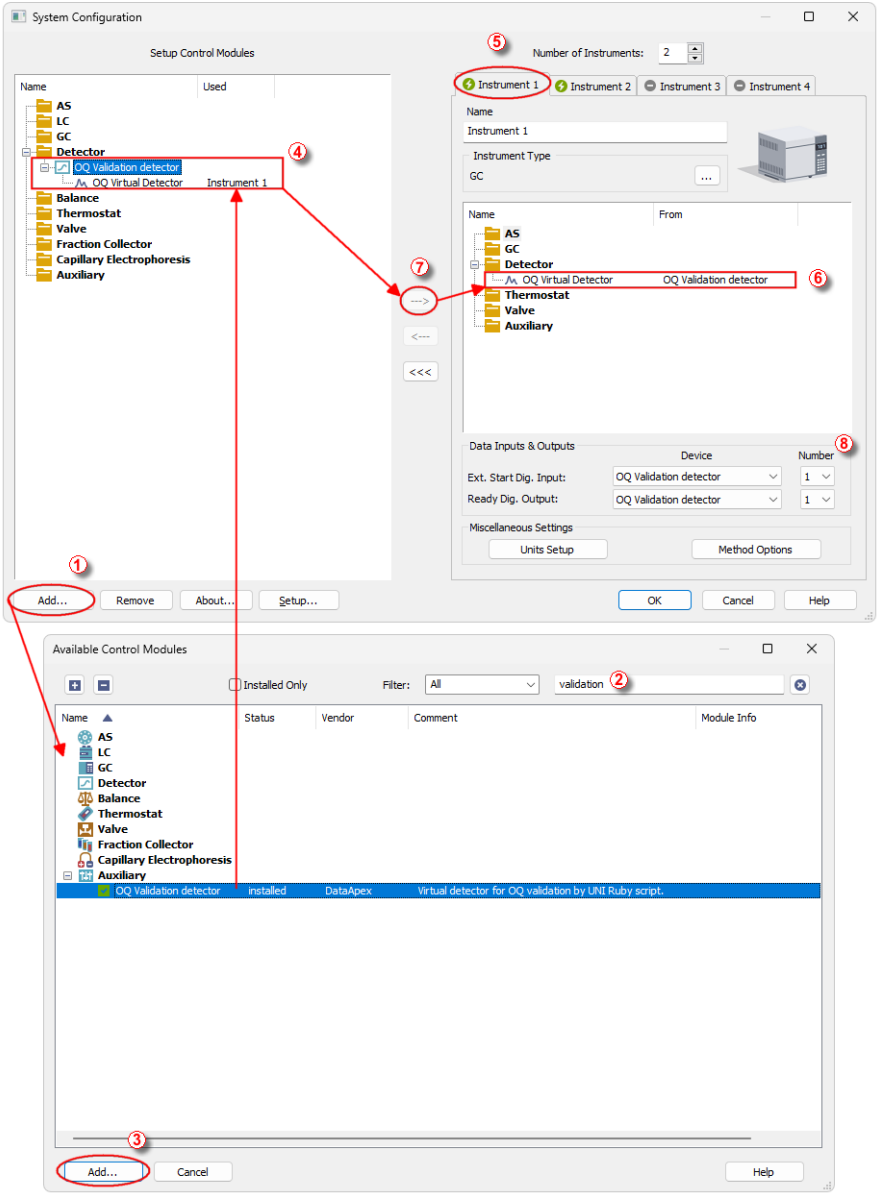

Fig. 1: How to Add OQ Validation detector module

- 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 **3.1** 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 **3.1** 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.

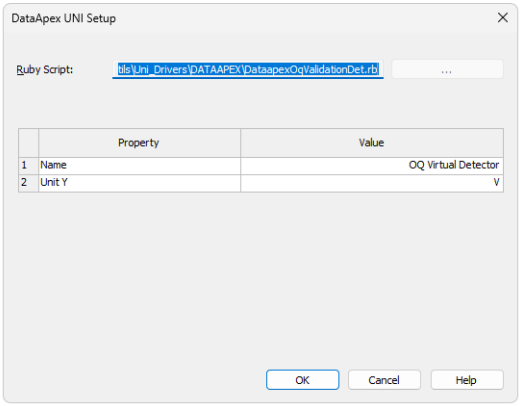

Fig. 2: DataApex UNI Setup

- 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. **8**.

- The **OQ Validation detector** 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 .
- Change the *Ext. Start Dig. Input* and *Ready Dig. Output* devices and numbers ⑧ according to desired starting synchronization option - for performing OQ validation both should be set to **OQ Validation detector**, number *1*.

4 Using the control module

After adding and setting up the detector a new Acquisition tab will appear in the *Method Setup* dialog.

4.1 Method Setup - Acquisition

The *Method Setup - Acquisition* tab serves for setting the common parameters of the **OQ Validation detector** detector. If more than one detector is available, it is possible to select between them by using the *Select Detector* combobox on the top of the dialog.

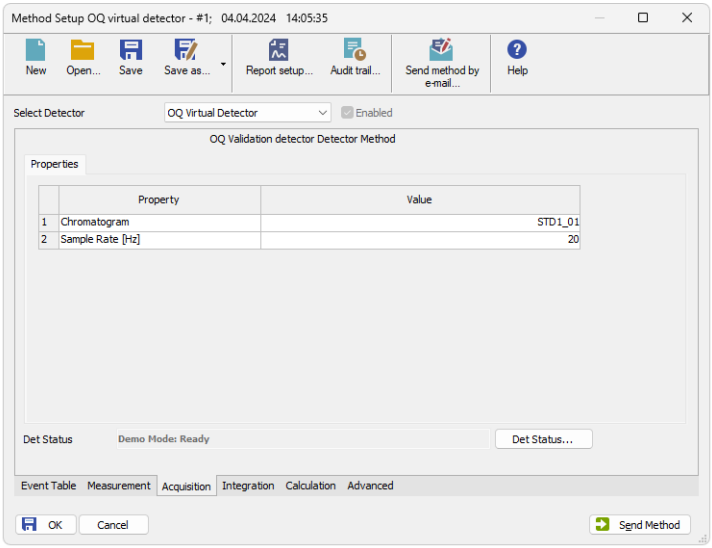

Fig. 3: Method Setup - Acquisition

Chromatogram

Selects which of the chromatograms will be replayed within the given method. Only chromatograms used for validation with the virtual detector are preloaded in the module. After the chromatogram replaying is finished, the rest of the analysis is filled with zero data points.

Sample Rate [Hz]

Sets the sample rate for replaying the preloaded chromatograms. Available sample rates are *1*, *2*, *5*, *10* and *20* Hz.

Note: For the validation purposes, the chromatograms should be replayed with *10 Hz* sample rate, the run time should be *3 minutes*.

4.2 Hardware Configuration

The *Hardware Configuration* dialog (invoked by using the *Det Status* button from the Method Setup - Acquisition dialog) displays the configuration of the **OQ Validation detector**, namely the detector name and signal units selected.

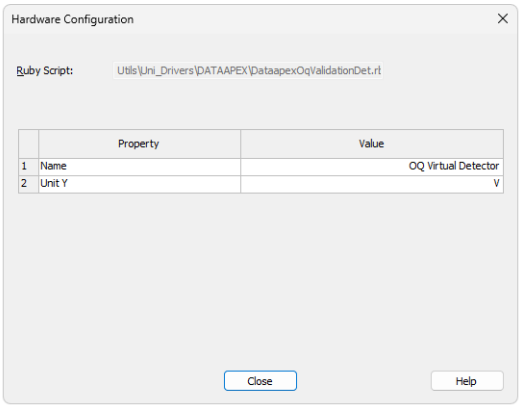

Fig. 4: Hardware Configuration

4.3 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.

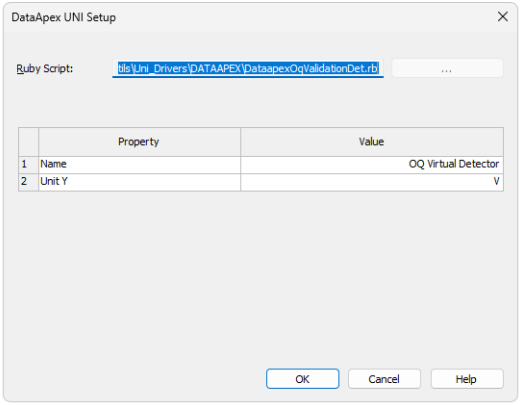

Fig. 5: DataApex UNI Setup

Ruby Script

Displays the selected Ruby Script. The correct DATAAPEXOQVALIDATIONDET.RB script for the **OQ Validation detector** detector can be found in the UTILS/UNI_DRIVERS/DATAAPEX subdirectory (accessible through the ... button) of the **Clarity** installation folder (C:\CLARITY\BIN by default).

Name

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

Unit Y

Allows you to set the detector signal units. Default units are *V*.

5 Report Setup

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

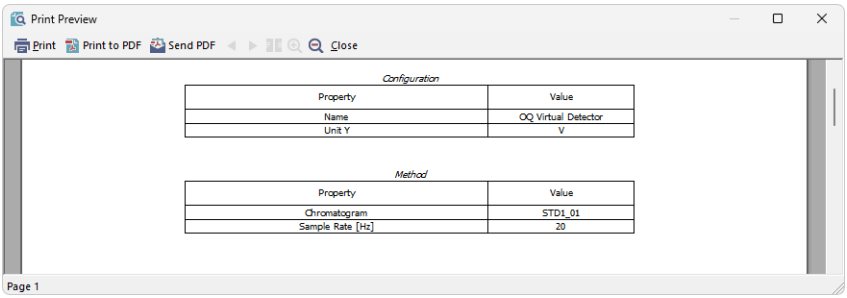

Fig. 6: Report Setup

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