Web User Interface for the Agilent 990 Micro GC including PRO and Mobile licenses

User Manual
Notices

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Manual Part Number
G3588-90011

Edition
First edition, July 2019
Printed in USA
Agilent Technologies, Inc.
412 Ying Lun Road
Waigoaqiao Free Trade Zone
Shanghai 200131 P.R.China

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Introduction

The 990 Micro GC with mobile license provides a web portal access to the devices, allowing you to view instrument status or configure and control instruments through a clean, adaptive, and simplified interface.

To allow access to a Micro GC, first follow the setup instructions in the 990-PRO Micro GC User Manual (G3588-90012) or 990 Micro GC User Manual (G3588-90010). Enter the IP address of the GC into the browser of your mobile device to open the 990-Mobile User Interface.

Available features are determined by license type:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Standard</th>
<th>Mobile License</th>
<th>PRO License</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web browser UI</td>
<td>Yes¹</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>VICI Stream Selector</td>
<td>Yes²</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Sequence</td>
<td>Yes²</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Data Analysis &amp; Report</td>
<td>Yes²</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Data Reprocessing</td>
<td>Yes²</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Verification check</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>App. Alarm</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>App. Alarm relay outputs</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>App. Timerd relay outputs</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>App. Digital Inputs Events</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>App. Analog outputs</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Digital output events</td>
<td>Yes²</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Extension digital IOs³</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Extension analog IOs³</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>LCD</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>LCD (customizable page)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>FTP Storage</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>USB Storage</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>USB WIFI</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Modbus TCP</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Modbus Serial</td>
<td>No</td>
<td>No</td>
<td>Yes⁴</td>
</tr>
<tr>
<td>Energy Meter</td>
<td>No</td>
<td>No</td>
<td>Yes⁴</td>
</tr>
<tr>
<td>History Log</td>
<td>No</td>
<td>No</td>
<td>Yes⁴</td>
</tr>
</tbody>
</table>

¹ For standard 990 GC, web UI only displays the status and maintenance pages.
² Those features are not realized by GC firmware, but supported by OpenLab driver instead.
³ The total number of IOs can be extended by using the extension boards.
⁴ Those sub functions are enabled by default with the PRO license dongle.
Introduction

The 990 Micro GC standard version also provides a web portal access, but with limited features, allowing you to view instrument status and do simple maintenances.

![Figure 1. License Dongle](image)

**Table 2** License dongles

<table>
<thead>
<tr>
<th>Instrument License Key</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>990 PRO</td>
<td>G3588-71100</td>
</tr>
<tr>
<td>990 Mobile</td>
<td>G3588-72100</td>
</tr>
</tbody>
</table>
1 General User Interface

User Interface Overview 8
Navigation Pane 9
Heading Monitors 12
Workspaces 18
User Interface Overview

The Agilent 990 Mobile Micro GC User Interface opens in a browser and automatically adjusts to the PC or mobile device browser that you use.

The User Interface is divided into the following regions:

- **Navigation Pane** on page 9
- **Heading Monitors** on page 12
- **Connection Status** on page 17
- **Workspaces** on page 18

Figure 2. User Interface (Standard)
Navigation Pane

The navigation pane allows you to choose among the Workspaces.

Tap or click \( \uparrow \) in the upper left corner of the interface to view the navigation pane items names. Tap or click \( \downarrow \) again to hide item names.

![Figure 3. Expanded and minimized navigation pane](image-url)
Figure 4 shows the navigation pane of Mobile/PRO License on the left. For standard users, only Status and Maintenance are applicable, as shown on the right of Figure 4.
1. Tap or click the 'Language' button to display the language selection box for the User Interface.

2. Select your language and click 'Yes'.
Heading Monitors

The top of the User Interface is the Heading. The heading displays the Connection Status, the Control box, as well as several other monitors. Some monitors are only available with the Mobile or PRO license.

<table>
<thead>
<tr>
<th>Solution</th>
<th>State</th>
<th>RunType</th>
<th>Run No.</th>
<th>Time Left</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGA-0429*</td>
<td>Ready</td>
<td>Analysis</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Figure 5. Desktop view

Monitors are shown at the top of the User Interface and include:

- **Solution Monitor** on page 13 (Only available for Mobile/PRO license users)
- **Micro GC State** on page 13
- **Run Type** on page 14
- **Run No.** on page 15
- **Countdown Timer** on page 16
- **Run/Stop** on page 16 (Only available for Mobile/PRO license users)
- **Connection Status** on page 17
Solution Monitor

The solution monitor is only available for Mobile/PRO license users. See Solution Monitor on page 27

Micro GC State

The Micro GC State monitor indicates the current Micro GC state.

![Micro GC State Monitor](image)

Micro GC states include the following:

![Micro GC States](image)

When the state is Error, tap or click the label to display the corresponding error code and descriptions.

![Error State](image)
Run Type

The Run Type monitor displays the current run type.

Run Types include:
- Analysis
- Calibration
- Verification
- Blank

Figure 11. RunType monitor
Run No.

The Run No. monitor displays the sequence repeat, sequence Line #, and line repeat values.

<table>
<thead>
<tr>
<th>Mobile Micro GC</th>
<th>Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solution</td>
<td>State</td>
</tr>
<tr>
<td>NGA-0429*</td>
<td>Ready</td>
</tr>
<tr>
<td>RunType</td>
<td>Run No.</td>
</tr>
<tr>
<td>Analysis</td>
<td>0</td>
</tr>
<tr>
<td>Time Left</td>
<td>120s</td>
</tr>
</tbody>
</table>

Figure 12. Run No. monitor

Tap or click the monitor to view tool tips.

<table>
<thead>
<tr>
<th>Run No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

Figure 13. Run No. designations

If the sequence is in Continuous mode, the Seq Repeat indicator displays an infinity symbol.

<table>
<thead>
<tr>
<th>Run No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>∞</td>
</tr>
</tbody>
</table>

Figure 14. Continuous mode
Countdown Timer

When a run is in progress, the Countdown Timer monitor displays the seconds remaining in the run.

When the current run is completed, the monitor displays the total time in seconds of the next run.

Run/Stop

The Run/stop buttons are only available with Mobile/PRO license users. See Run/Stop on page 30.

Figure 15. Time Left monitor
Connection Status

The connection to a Micro GC is in one of three states:

- **Offline**: No connection to target Micro GC.
- **Online**: Connected to the target Micro GC.
- **Monitoring**: Connected to target Micro GC, but read only. This happens when the target Micro GC is in use by another PC Client software, such as PROstation for 990 Mobile. In this case, the Mobile User Interface cannot get the write privilege from the Micro GC.

You can tap (or hover when using desktop browser) the connection status indicator to reveal a tool tip.

![Connection Status Tool Tip](image)

Figure 16. Connection status tool tip

When multiple mobile users are connected to the same Micro GC, they all can be online. Internally, the mobile User Interface does not maintain a connection to Micro GC, but establishes the connection once it needs to. Each mobile User Interface can control the same instrument separately, as long as it does not request the control privilege at the same time (Micro GC can support only one controller at a time). If multiple requests are made at the same time, only one of them will be accepted and the operations from other clients will be rejected by the instrument. The user will also get a notification that the request has been rejected.
Workspaces

The workspace is displayed in the main area of the User Interface. Each workspace is used for a unique interaction with the Micro GC. Select a workspace from the Navigation Pane. The following workspaces are available for the general user interface:

- **Status**
- **Maintenance** on page 20

The default workspace is **Status**.

From the **Navigation Pane**, tap or click a workspace to view it.

### Status

1. From the navigation pane, select **Status** to display the **GC Status** and the configuration of each Channel.

2. Tap or click a panel to toggle between status and configuration information.

3. Disabled channels are dimmed.
1 General User Interface

Status

<table>
<thead>
<tr>
<th>Channel 1 disabled</th>
<th>GC Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column Temp [°C]</td>
<td>Sample Line Temp [°C]</td>
</tr>
<tr>
<td>30.0</td>
<td>30.0</td>
</tr>
<tr>
<td>Injector Temp [°C]</td>
<td>Cabinets Temp [°C]</td>
</tr>
<tr>
<td>30.0</td>
<td>29.0</td>
</tr>
<tr>
<td>Column Press [kPa]</td>
<td>Cabinet Press [kPa]</td>
</tr>
<tr>
<td>50.0</td>
<td>102.5</td>
</tr>
<tr>
<td>Auto Zero [mV]</td>
<td>Automation State</td>
</tr>
<tr>
<td>0.0</td>
<td>Idle</td>
</tr>
<tr>
<td>Det. State / Calibrated</td>
<td>Current Stream</td>
</tr>
<tr>
<td>Off / X</td>
<td>GC time</td>
</tr>
<tr>
<td></td>
<td>5-2-2016 15:51:50</td>
</tr>
<tr>
<td></td>
<td>External Ready In</td>
</tr>
<tr>
<td></td>
<td>Ready</td>
</tr>
<tr>
<td></td>
<td>Count#</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>
This is the Maintenance page. By clicking the menu items on this entry page, you are able to navigate to below sub-pages. The default username is "admin". The default password is "agilent".

**Firmware Versions**
For reviewing the firmware versions of Micro GC components, including the main board (MPU) version, channel board (IOE) versions, etc.

**Network Configuration**
For getting and setting network configuration of wired Ethernet network.

**Network Configuration (WIFI)**
For getting current wireless network configuration and changing the SSID and Password of the WIFI access point of GC.

**GC Date & Time**
For changing the GC date and time.

**Diagnostic Logs**
For reviewing the GC logs. Note only the last 150 lines of each log file is displayed on the page, however, there is a button for downloading the full package of log files to the local PC.

**GC Reset & Recovery Mode**
You can choose either normal reboot or reboot to the recovery mode of micro GC. Note only when GC is in recovery mode, it supports updating the firmware packages via the web.
1 General User Interface
   Maintenance

   **USB Storage Mapping**
   This is a user instruction on how to mount the micro GC's USB storage as a network driver.

   **USB License Dongle**
   For review the state of attached USB license dongle on micro GC. Please contact Agilent services for license issuing.
1 General User Interface
   Maintenance
2 Mobile and PRO User Interface

Introduction 24
Heading Monitors 26
Workspaces 34
Introduction

This chapter introduces the specific features for the Mobile/PRO license users.

### Table 3  License features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Standard</th>
<th>Mobile License</th>
<th>PRO License</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Yes</td>
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</tr>
<tr>
<td>VICI Stream Selector</td>
<td>Yes⁵</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Sequence</td>
<td>Yes²</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Data Analysis &amp; Report</td>
<td>Yes²</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Data Reprocessing</td>
<td>Yes²</td>
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<td>Verification check</td>
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<tr>
<td>App. Alarm</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>App. Alarm relay outputs</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>App. Timed relay outputs</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>App. Digital Inputs Events</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>App. Analog outputs</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
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<td>No</td>
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<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Extension analog IOs³</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
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<td>LCD</td>
<td>Yes</td>
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<td>USB WIFI</td>
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<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Modbus TCP</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Modbus Serial</td>
<td>No</td>
<td>No</td>
<td>Yes⁴</td>
</tr>
<tr>
<td>Energy Meter</td>
<td>No</td>
<td>No</td>
<td>Yes⁴</td>
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<td>History Log</td>
<td>No</td>
<td>No</td>
<td>Yes⁴</td>
</tr>
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* For standard 990 GC, web UI only displays the status and maintenance pages.

† Those features are not realized by GC firmware, but supported by OpenLab driver instead.

‡ The total number of IOs can be extended by using the extension boards.

** Those sub functions are enabled by default with the PRO license dongle.
User Interface Overview

The Agilent 990 Mobile Micro GC User Interface opens in a browser and automatically adjusts to the PC or mobile device browser that you use.

The User Interface is divided into the following regions:

- **Navigation Pane** on page 9
- **Heading Monitors** on page 26
- **Connection Status** on page 17
- **Control** on page 30
- **Workspaces** on page 34

![User Interface Diagram]

Figure 19. User Interface (mobile license)
Mobile and PRO User Interface

Heading Monitors

The top of the User Interface is the Heading. The heading displays the **Connection Status**, the **Control** box, as well as several other **Heading Monitors**.

<table>
<thead>
<tr>
<th>Solution</th>
<th>State</th>
<th>RunType</th>
<th>Run No.</th>
<th>Time Left</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGA-0429*</td>
<td>Ready</td>
<td>Analysis</td>
<td>0 0 0</td>
<td>120s</td>
</tr>
</tbody>
</table>

Figure 20. Desktop view

Monitors are shown at the top of the User Interface and include:

- **Solution Monitor** on page 27
- **Micro GC State** on page 13
- **Run Type** on page 14
- **Run No.** on page 15
- **Countdown Timer** on page 16
- **Run/Stop** on page 30
- **Connection Status** on page 17

Figure 21. Mobile view

Figure 22. Monitor view
Solution Monitor

The current solution name is displayed in the **Solution** monitor.

![Solution Monitor](image)

An asterisk indicates there are unsaved changes to a method or application.

![Unsaved changes asterisk](image)

Reloading the original, unedited solution, will remove the asterisk.
Alarm

An alarm notification displays once the alarm is triggered, if the alarm table is enabled. See Enable Alarm Table on page 28 for more information.

1. Tap or click the alarm notification to view which alarms have been triggered.

The alarm status will clear after next run if the result has no alarm triggered.

2. To manually clear the alarms, tap or click Reset All.

Enable Alarm Table

The alarm table is configured from the PROstation for 990-Mobile. For information on setting alarms, see the PROstation for 990-Mobile manual.

To enable alarms in PROstation for 990-Mobile:

1. From the Application menu, select Alarms. The alarms table opens.

2. From the Alarm Settings tab, select Alarm table enabled.
2 Mobile and PRO User Interface
Enable Alarm Table

Alarm notifications configured in the alarm table will now display in the Mobile User Interface when triggered.
Run/Stop

Control
The control area contains buttons used to start and stop a run. See Start a Run on page 30 and Stop a Run on page 32 for more information.

Figure 25. Control area

Start a Run
1 Tap or click the run button.

2 Choose which type of run to start.
When **Single Run** or **Calibration Run** is chosen and a stream selector is configured in the Micro GC, you must input the **Stream No.**

A **Sequence Run** does not require **Stream No.**

If a stream selector is not configured, the **Stream No.** field will not display.
Stop a Run

1. Tap or click the stop button.

2. Select when to end the run. The run can be stopped immediately or after the completion of the current run or sequence.
2 Mobile and PRO User Interface
Run/Stop

Stop Run

- Stop current run now
- Stop after current run completed

Cancel  Stop
Workspaces

The workspace is displayed in the main area of the User Interface. Each workspace is used for a unique interaction with the Micro GC. Select a workspace from the Navigation Pane. The following workspaces are available for the Mobile and PRO user interfaces:

- **Status**
- **Data** on page 36
- **Solution** on page 41
- **Calibration** on page 46
- **Sequence** on page 48
- **Maintenance** on page 20

The default workspace is **Status**.

Figure 26. Navigation pane workspace options

From the **Navigation Pane**, tap or click a workspace to view it.
2 Mobile and PRO User Interface

Status

1. From the navigation pane, select **Status** to display the **GC Status** and the configuration of each Channel.

2. Tap or click a panel to toggle between status and configuration information.

3. Disabled channels are dimmed.
Data

To view the last data and report:
Select **Data** from the navigation pane to display the chromatogram of the last data and report saved to the Micro GC from the Data workspace.

![Select Data from the navigation pane](image1)

To view historical data

1. Plug a USB mass storage device into the Micro GC.
2. Configure the USB mass storage in PROstation. See **Configure USB Storage** on page 37.
3. From the **Data** workspace, select a chromatogram and application report to view from the **Data List** on page 36.

**Data List**

In the **Data**, the data list displays the available chromatogram and application report data.
For a Micro GC without a USB storage device attached, only the single Micro GC data is shown.

For a Micro GC with a USB storage device, after each run, data will also be saved to the USB device and shown in the data list. You must have a correctly configured USB mass storage in PROstation for 990-Mobile. See Configure USB Storage on page 37.

Data can be sorted based on File Name or modified date. By default, the latest data is shown on top.

You can select a chromatogram and application report to view from the data list, see View Chromatograph and Report on page 39.

Configure USB Storage

To use a USB mass storage device with the Micro GC, you must configure it in PROstation for 990-Mobile.
2 Mobile and PRO User Interface

Data

1. From the Automation menu in PROstation, select USB Storage.

2. Enter parameters for the USB mass storage device.

After each run, the data will be saved to the USB device. You can access the list, see Data List on page 36, of the stored data from the Mobile User Interface.
2 Mobile and PRO User Interface

Data

View Chromatograph and Report

1 In the Data, tap or click the ... in the Details column to display the details of the chromatogram and the application report for that row.

Chromatograms are displayed by channel.

2 Click a channel button to switch among channels.

3 Adjust the X-axis by sliding the bar handlers to zoom in and out. The Y-axis will adjust automatically based on the signal.
2 Mobile and PRO User Interface

Data

4 Tap or click [Zoom out] to view the entire chromatogram.

5 Scroll to see the remaining content of the report.

<table>
<thead>
<tr>
<th>#</th>
<th>Component</th>
<th>Chan#</th>
<th>Retention</th>
<th>Area</th>
<th>Height</th>
<th>ESTD</th>
<th>Norm.ESTD%</th>
<th>RF</th>
<th>Rw</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Propane</td>
<td>1</td>
<td>10.5</td>
<td>704.9</td>
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<td>27.1</td>
<td>1379.4</td>
<td>200000.0</td>
<td>15.0000</td>
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<td>0.01097</td>
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<tr>
<td>3</td>
<td>Helium</td>
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<td>2850.0</td>
<td>400000.0</td>
<td>20.0000</td>
<td>48.78</td>
<td>0.0087018</td>
<td>1</td>
</tr>
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</table>

Totals 16773.017 41.0000 100.0000

Calculation Method: ISO 6976

<table>
<thead>
<tr>
<th></th>
<th>Dry</th>
<th>Saturated</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Mol.</td>
<td>0.00</td>
<td>0.60</td>
<td>[%]</td>
</tr>
<tr>
<td>Molar Mass</td>
<td>39.9339</td>
<td>39.8024</td>
<td>[g/kmol]</td>
</tr>
<tr>
<td>Relative Density, Ideal</td>
<td>1.3788</td>
<td>1.3743</td>
<td>[-]</td>
</tr>
<tr>
<td>Relative Density, Real</td>
<td>1.4063</td>
<td>1.4019</td>
<td>[-]</td>
</tr>
<tr>
<td>Gas Density, Ideal</td>
<td>1.7816</td>
<td>1.7768</td>
<td>[g/ml3]</td>
</tr>
<tr>
<td>Gas Density, Real</td>
<td>1.8162</td>
<td>1.8137</td>
<td>[g/ml3]</td>
</tr>
<tr>
<td>Compress Zmix</td>
<td>0.9799</td>
<td>0.9797</td>
<td>[-]</td>
</tr>
<tr>
<td>Superior Heating Value (Volume Ideal)</td>
<td>82.96</td>
<td>82.46</td>
<td>[MJ/m3]</td>
</tr>
<tr>
<td>Superior Heating Value (Volume Real)</td>
<td>84.66</td>
<td>84.17</td>
<td>[MJ/m3]</td>
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<tr>
<td>Superior Heating Value (Mass)</td>
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<td>0.00</td>
<td>[MJ/kg]</td>
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<tr>
<td>Superior Heating Value (Molar)</td>
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<td>0.00</td>
<td>[kJ/mol]</td>
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<tr>
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<td>76.32</td>
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<tr>
<td>Inferior Heating Value (Volume Real)</td>
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<td>[MJ/m3]</td>
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<tr>
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</tr>
<tr>
<td>Inferior Heating Value (Molar)</td>
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<td>[kJ/mol]</td>
</tr>
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<td>Wobbe Index (Real)</td>
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<td>[MJ/m3]</td>
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<tr>
<td>Wobbe Index inferior</td>
<td>66.08</td>
<td>65.79</td>
<td>[MJ/m3]</td>
</tr>
</tbody>
</table>

Tap or click [Back to List] or [Back to List] to view the Data List.
Solution

A solution is comprised of a method and its application. It contains both instrument control and data analysis information.

1. Select **Solution** to review or **Load a Solution** from the solution workspace.

A solution is created and saved in the Micro GC by PROstation for 990-Mobile. A maximum of 9 solutions (from 1 to 9) can be stored on an instrument. (0 is reserved for the current active solution).

The example below shows there are 3 solutions downloaded into 1, 2, and 5 of this Micro GC.

2. Tap or click any solution item to review the details.
Set and Download Method Properties

Set method properties and download a method to the Micro GC.
2 Mobile and PRO User Interface
Solution

1 From the **Method** menu in PROstation for 990-Mobile, select **Properties**.

2 Select desired method properties.

3 Select **Method** to download the method settings.
Load a Solution

1. Select Solution from the Navigation Pane.

2. Tap or click any solution item to review the details. The below image shows there are 3 solutions downloaded into 1, 2, and 5 of the Micro GC.

The solutions you selected is displayed.

3. Tap or click Load into GC to make this the active solution.
4 When prompted, click Yes at the confirmation dialog.

The solution is loaded into the Micro GC.

5 Once the solution is loaded by the instrument, you can verify the solution name in the Solution Monitor on page 54.

6 If the Micro GC configuration is changed after a solution is stored (by changing in carrier gas or replacing the channel with another PN), the configuration mismatch will produce an error. A solution cannot load when the system detects an error.
Calibration

You can view and edit calibration info in the **Calibration** workspace.

1. Select **Calibration** from the navigation pane.

2. Click **Upload** to refresh the table with latest data from the instrument.

3. With the Mobile User Interface, the only change you can make is the level 1 calibration amount.

4. Click **Download** to download the data to the instrument. If you have made changes to the calibration, a warning message will display:

   ![Warning Message]

   The **Run** button starts a calibration run.

**Change level 1 amount settings**

You can change the level 1 amount settings before starting the calibration run. Change the level 1 amount by clicking each row to edit it.

**NOTE**

You cannot add or remove any component from this table.
After downloading to the instrument, you can upload again to check if the Level 1 amount is updated. Note that the linear coefficient of calibration curve should not change because no calibration run has been executed.

After completing a calibration run, the linear coefficient should be updated according to your Level 1 setting and the peak detection result.

---

**Figure 31. Level 1 settings**

<table>
<thead>
<tr>
<th>ID</th>
<th>Ch#</th>
<th>Peak Names</th>
<th>Level</th>
<th>Linear coeff</th>
<th>Ret. (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Nitrogen</td>
<td>0.976</td>
<td>1.01352e-4</td>
<td>4.35</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>Methane</td>
<td>94.26537</td>
<td>1.31503e-4</td>
<td>5.32</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>CO2</td>
<td>0.049</td>
<td>8.56989e-6</td>
<td>12.69</td>
</tr>
</tbody>
</table>

**Figure 32. Changing Level 1 settings**

<table>
<thead>
<tr>
<th>ID</th>
<th>Ch#</th>
<th>Peak Names</th>
<th>Level</th>
<th>Linear coeff</th>
<th>Ret. (s)</th>
</tr>
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<td>1.31503e-4</td>
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<tr>
<td>3</td>
<td>1</td>
<td>CO2</td>
<td>0.1</td>
<td>8.56989e-6</td>
<td>12.69</td>
</tr>
</tbody>
</table>

**Figure 33. Updated level 1 settings**
Sequence

The **Sequence** workspace displays the current sequence table. It is the same sequence as that of PROstation for 990-Mobile.

If stream selector is configured, you can modify the sequence table by inserting, deleting, and editing.

Figure 34. Select Sequence from the navigation pane
Use the **Load from GC** and **Load to GC** buttons to get and save data from/to instrument. When **Load to GC** is clicked, you will be asked if you want to apply the changes.

![Figure 35. Sequence settings](image)

![Figure 36. Confirmation dialog](image)
If no stream selector is configured, the sequence table is hidden.

Figure 37. No stream selector notification