Gas chromatograph Agilent 7890A and UniChrom

UniChrom users guide – Gas chromatograph Agilent 7890A and UniChrom page 1 of 6

Contents

| Communication options setting | 3 |
|--------------------------------------|---|
| Configuring the GC in UniChrom | 4 |
| Registry parameters for Agilent 7890 | 5 |
| Working with instrument | 6 |

Communication options setting

For setting the instrument IP address is used the keyboard.

[Options] button, sub-menu Communications allows manually specify instrument IP address, network mask and also default gateway. When in local network exists automatic IP configuration server (DHCP-server), then makes sense turning automatic (DHCP) configuration ON.

In the case of automatically assigned instrument address (using DHCP or BOOTP server), you have to examine server settings or contact your network administrator, to determine the assigned instrument IP address, or the host name in local network name service (DNS name).

In the case of manual configuration the parameter DHCP have to be (OFF), and address have to be specified from GC keyboard:

Address: 192.168.0.101 Mask: 255.255.255.0 Gateway: 192.168.0.1

Specified as the example addresses are taken from C-class IP network intended for intranet usage. The last number of IP address have to be chosen to avoid identical IP addresses — IP addresses have to be unique in the bounds of one simple IP network.

If the GC instrument and PC are in one IP -network (e. g. PC: 192.168.0.10, GC: 192.168.0.101), the gateway parameter does not make any sense.

Configuring the GC in UniChrom

For definition of instrument connection parameters is used the "Configuration Editor" of UniChrom. At the page «Port» have to be specified the instrument communication resource (text line defining connection in UniChrom style):

tcp:device name:9110

or

tcp:192.168.0.101:9110

I. e. after **tcp** prefix have to be placed the IP-address of GC instrument (assigned manually of automatically by server), or the name, which is specified in DNS for instrument.

The number **9110**— is mandatory and describes TCP-port number, which instrument listens.

| 墙 Properties: Agilent 78 | 90.Agilent 7890 | ? 🛛 |
|---------------------------|----------------------|---------|
| General Drivers Port Si | gnals Debug Registry | |
| Agilent 7890 | | |
| Connection port: | | |
| ✓ Test the device while c | onnecting | |
| Serial port parameters | | |
| Data rate (bps): | | <u></u> |
| Data bits: | | - |
| Parity: | N | - |
| Stop bits: | 1 | - |
| | | |
| | OK Apply | Cancel |

Registry parameters for Agilent 7890

At the "Registry" page can be specified additional instrument parameters, which are non-standard and generally not required. Additional parameters are shown in drop-down list after clicking "Add" button at "Registry" page.

| Parameter | Intended for |
|-----------|---|
| BindHost | The name of the computer, bound to one of the computer IP addresses |
| | (if there are several) or one of computer IP addresses (if it is multi- |
| | homed machine). |
| | To this IP address of the PC driver would «bind» and «listen» to |
| | incoming connections. |
| | Parameter is used only when GC can not determine where to transfer |
| | data. Parameter is also usable for computers with several network |
| | adapters. |
| Signal0 | Binding of UniChrom channels to corresponding detector signals. |
| | Parameter can have one of the following values: |
| Signal3 | FRONT_SIGNAL, |
| | BACK_SIGNAL, |
| | THIRD_SIGNAL, |
| | FOURTH_SIGNAL, |
| | TEST_PLOT |
| | Does make sense for hard signal binding to prevent keyboard |
| | alteration, or automatic binding behaves in a wrong way. |

Working with instrument

Immediately after successful connection the UniChrom obtains actual and methodical state of the instrument. Because of the manner instrument change it's state after loading "the whole" method, there is no sense in direct editing of «Chromatograph» device mode, the copy of instrument mode have to be done. To copy a mode right click with the mouse at «Chromatograph» tab and select «Make a Copy». All the necessary alteration have to be done in new mode, and after editing the new mode we can «Load» back to the instrument. Working with GC device modes is described in details in «UniChrom users guide and operation manual».