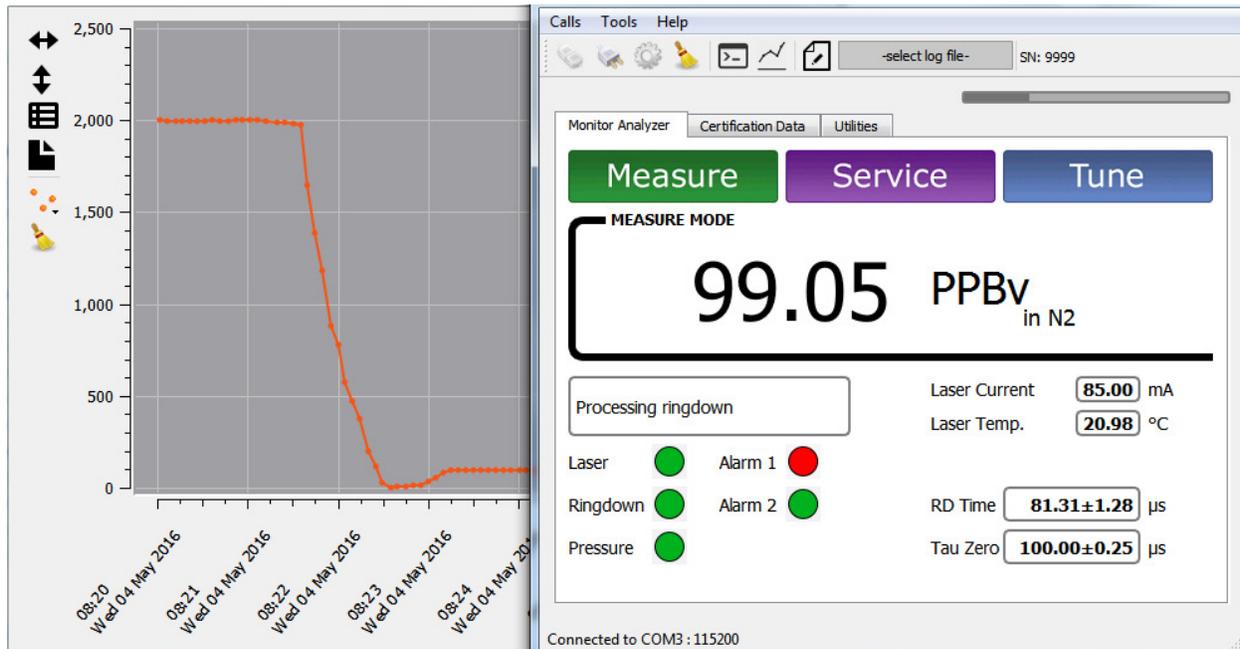


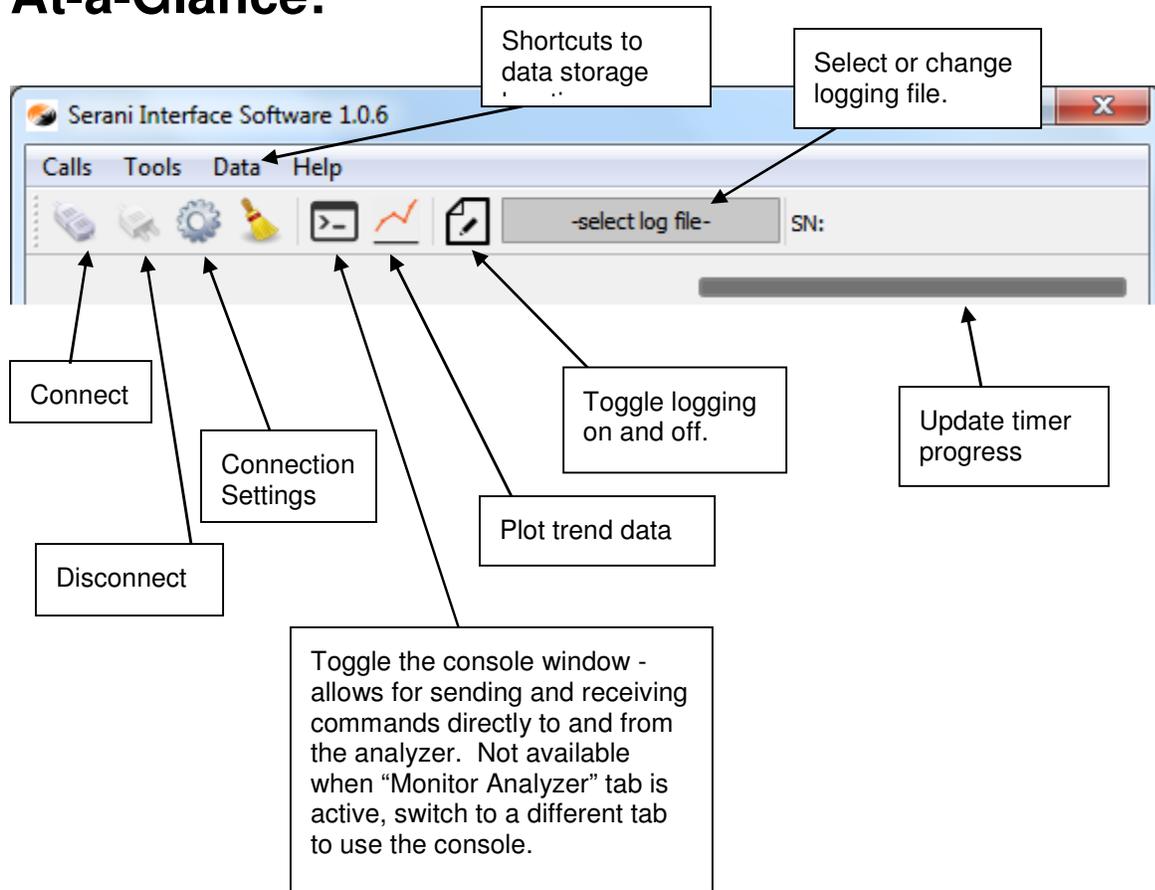
Serani Interface Software



Quick Start Guide

Rev A

At-a-Glance:



Concentration data is automatically obtained and logged in an Excel friendly .csv file while the "Monitor Analyzer" tab is selected.

The plot window allows for zooming with the left mouse button, and click and drag with the right mouse button for concentration statistics.

The "Certification Data" tab allows for the automatic collection of data required for issuing a remote certificate.

1 Requirements

1.1 Licensing

A license key for the Serani software is provided by Tiger Optics and is linked to the serial number of the HALO analyzer. The Serani software can be installed on multiple computers and the same license can be used on multiple computers. Any of those computers will be able to connect to the HALO for which the license was obtained. A Serani installation can also have multiple licenses to connect to multiple HALO analyzers.

1.2 Computer

Operating System:	Microsoft Windows XP, 7, 8, or 10
CPU:	1 GHz or faster recommended
Memory:	512 MB or more
Hard drive space:	25 MB for the software Additional space required for saving logged data

1.3 Serial Adapter

When connecting to a HALO analyzer over serial port, a serial to USB adapter may be necessary. Avoid adapters using the “Prolific” chipset, these result in unreliable communication. Instead, adapters with the FTDI chipset are recommended.

1.4 Analyzer

Serani software will work with any of Tiger’s compact Flash based analyzers, including HALO, HALO 3, Spark, ALOHA+ H₂O, and Tiger-i. For full functionality, analyzer firmware version 5.00 or greater is recommended. Earlier versions of Tiger’s firmware will work, but in a slightly limited “compatibility mode”.

Analyzer Firmware	Monitor Concentration	Certification Data	Data Filter & Gas Type	Laser Status	Alarms
5.00 and later	✓	✓	✓	✓	✓
Older than 5.00	✓	✓	✓	✗	✗

2 Installation

2.1 Obtaining the installer

The installer can be downloaded from the Tiger Optics website.

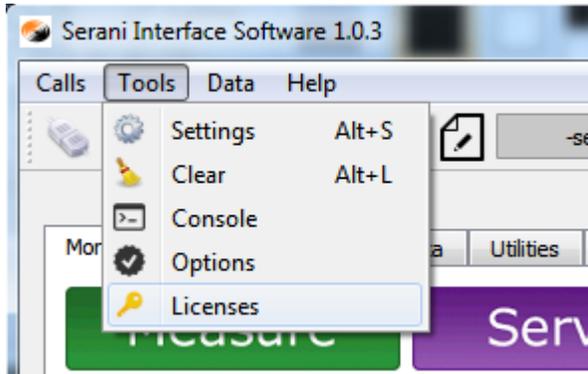
2.2 Installing the software

Double-click on the installer executable to begin installation. You will be prompted for administrator privileges. During the installation you must agree to the Terms of the license.

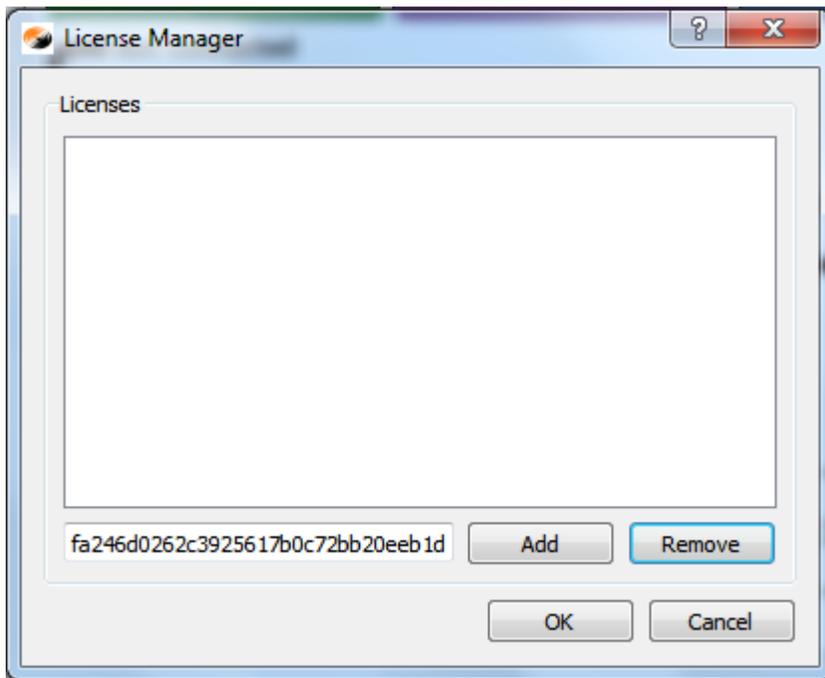
3 Starting the Serani Software

3.1 Setting up a license

The first time the program is started, it will need a license in order to be able to connect to a HALO analyzer.



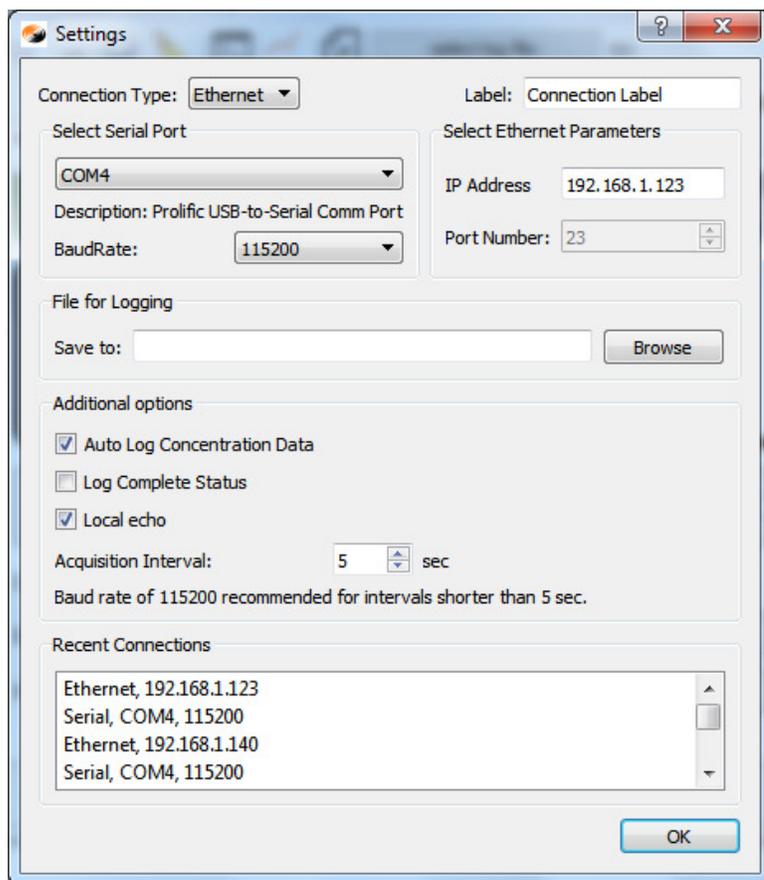
Select Tools -> Licenses on the tool bar to open up the License Manager. Enter (or copy and paste with Ctrl+v) the license key (provided by Tiger Optics) in the entry bar at the bottom of the window and click "Add".



The license will then appear in the list of installed licenses. Click "Ok" to close the License Manager. The Serani software will now be able to connect to the HALO which is tied to that license.

3.2 Setting up the connection

If the Serani software will be connecting to a HALO analyzer via serial port, set up the Com port and be sure that the necessary drivers are properly installed. If any changes are made to the Com ports, the Serani software will need to be closed and restarted. Once the Com ports are properly setup (if any), open up the “Settings” window by either selecting Tools->Settings or pressing the Alt+S keyboard shortcut.

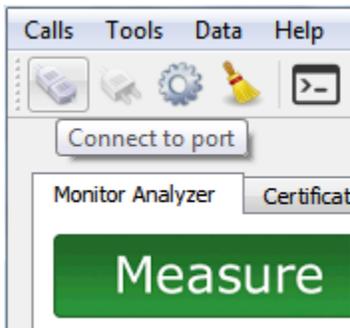


At the top of the window, select either a Serial or Ethernet connection. If the software recognizes valid serial ports, they will appear in the drop down menu. The default BaudRate setting of 115200 should match the default setting that the HALO analyzer was originally shipped with. Be sure that the baud rate matches the setting on the HALO by opening up “Settings” and clicking on the “Outputs & Communications” tab on the HALO analyzer. If the HALO is connected to a network, the IP address will appear on this tab.

If the “Auto Log Concentration Data” box is checked, the software will automatically log concentration data, gas type, and alarms as long as the “Monitor Analyzer” tab is active. This box is checked by default.

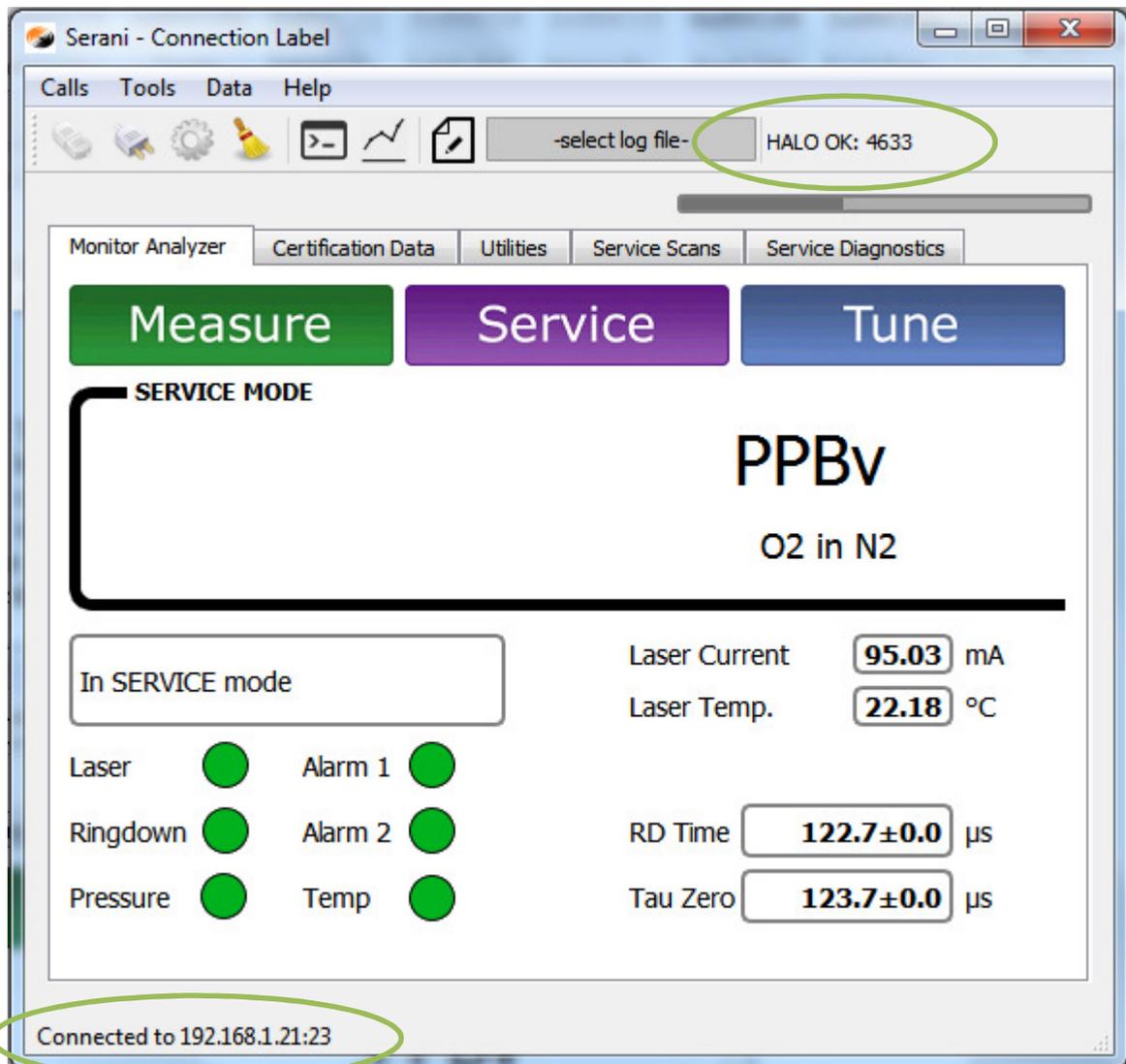
If the “Log Complete Status” check is checked, the automatically generated log file will also record the ringdown time (τ), τ standard deviation, τ empty, and τ empty standard deviation.

3.3 Connecting



Click on the “Connect” icon, or use the Ctrl+O keyboard shortcut to connect to the HALO.

The software will then attempt to connect and validate the license. Allow 5-10 seconds for the software to initialize communication with the analyzer. If it is successful, the serial number of the analyzer will appear on the toolbar and the connection status will appear at the bottom of the window. If you are connecting with a temporary trial license, the tool bar will show how many days are left before it expires.



4 Using the Serani Software

4.1 The “Monitor Analyzer” Tab

The Monitor Analyzer Tab queries the HALO analyzer with an adjustable time interval. It obtains an updated concentration reading, laser status, ring-down times, and alarm status. The concentration readings will only be updated while this tab is selected.

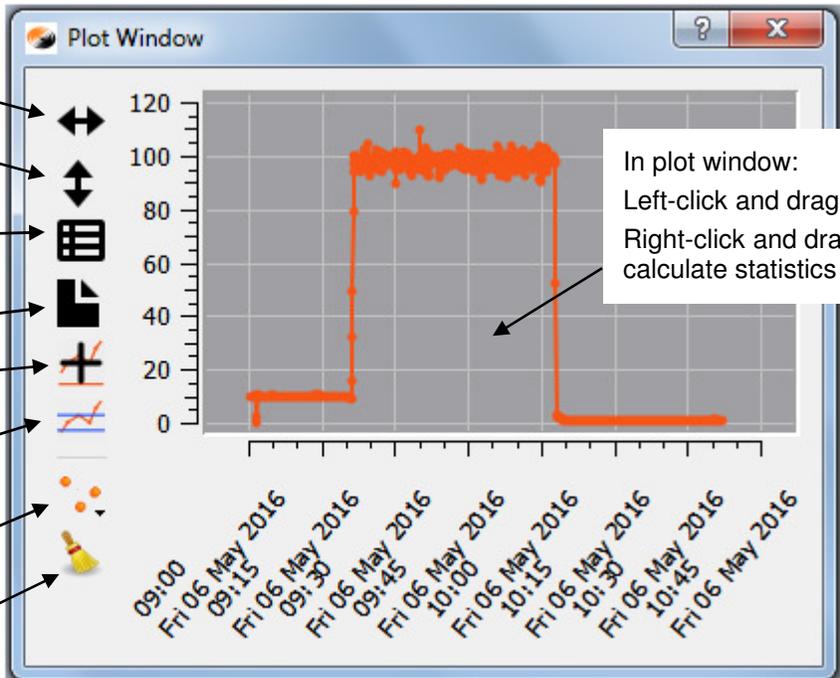
If the “Auto Log Concentration Data” box is checked in the Settings window, the software will record the concentration readings and alarms to a comma separated values (.csv) in the default user writeable location for the computer system. In windows it will be:

C:\Users\ACCOUNT\TigerOpticsDataTrend

Where *ACCOUNT* is the name of the user’s account



Clicking the plot window icon will toggle the plot window which updates with new concentration readings.

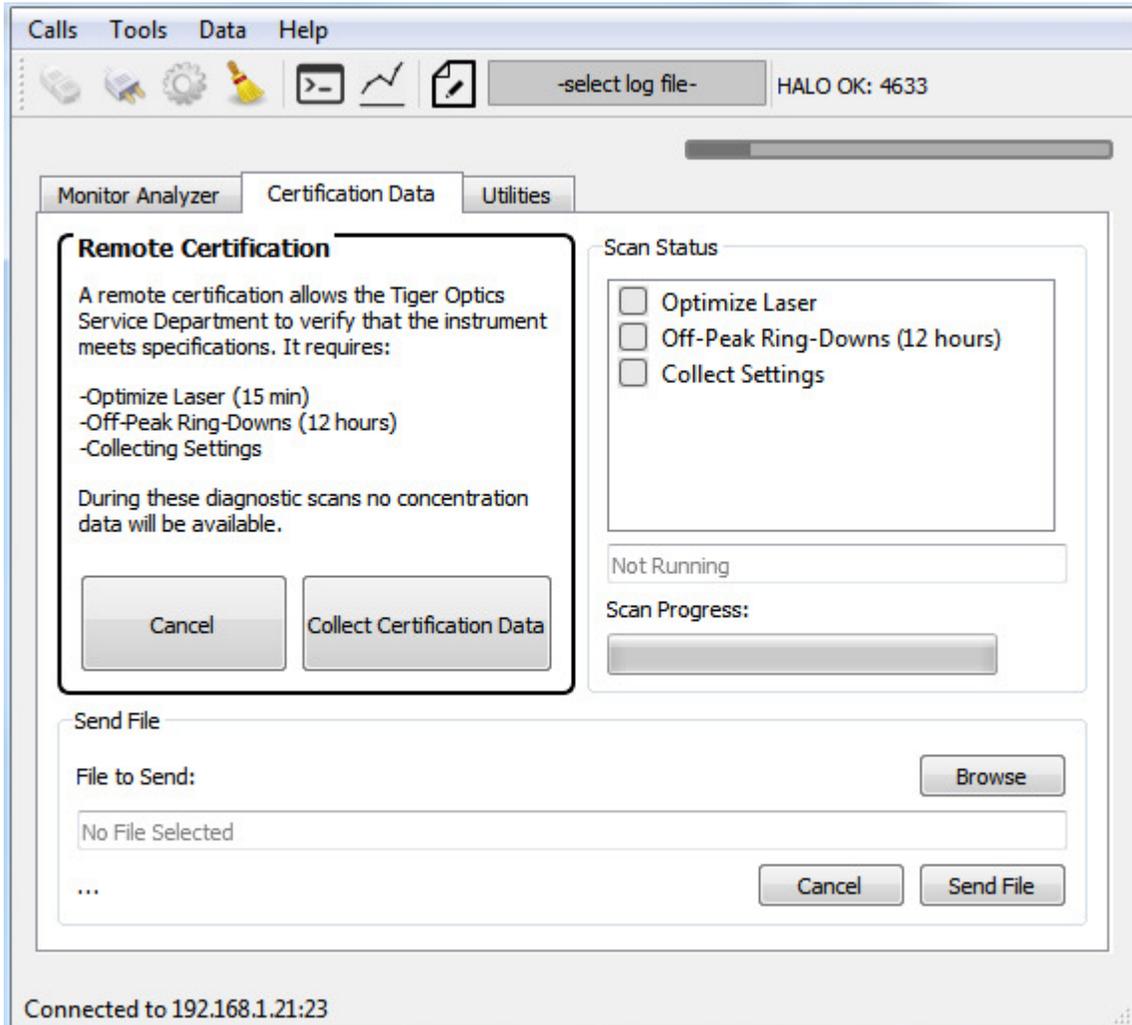


- Auto Scale X-axis
- Auto Scale Y-axis
- Export plot data as .csv file
- Export plot image as image file (.png or .jpg)
- Load previous trend data file to plot
- Add horizontal lines for visual reference
- Toggle connecting lines between plot points
- Clear plot

In plot window:
Left-click and drag to zoom
Right-click and drag to calculate statistics

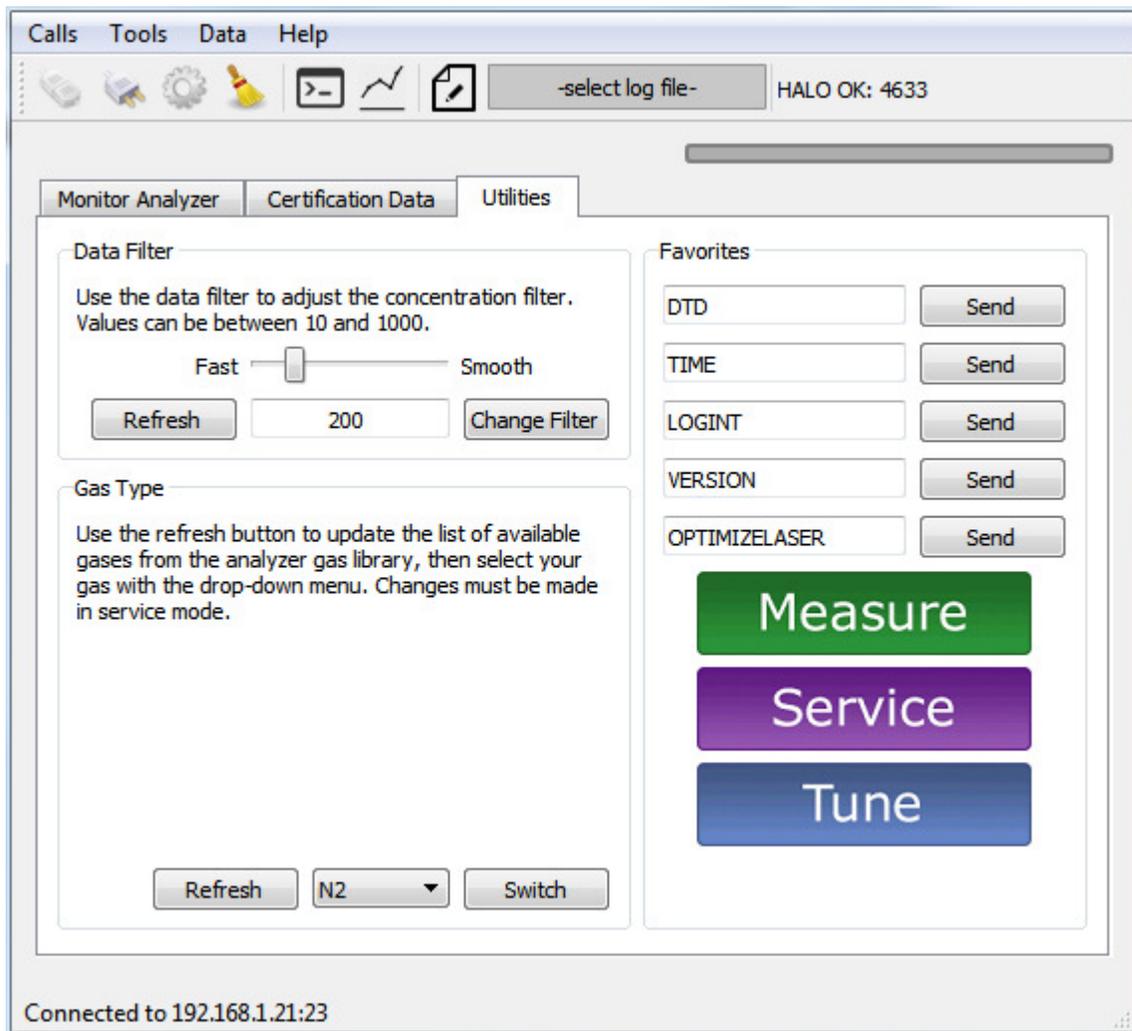
4.2 The “Certification Data” Tab

The “Certification Data” tab is used to automate data collection used to issue a Remote Certification. In most cases, the default settings should be correct, but the specifics of the data collection can be adjusted in the Options window in Tools. Please note that while this tab is selected, concentration readings are not updated or recorded.



4.3 The “Utilities” Tab

The “Utilities” tab makes it simple to change the gas type and data filter. Concentration readings are not updated or recorded while this tab is selected.

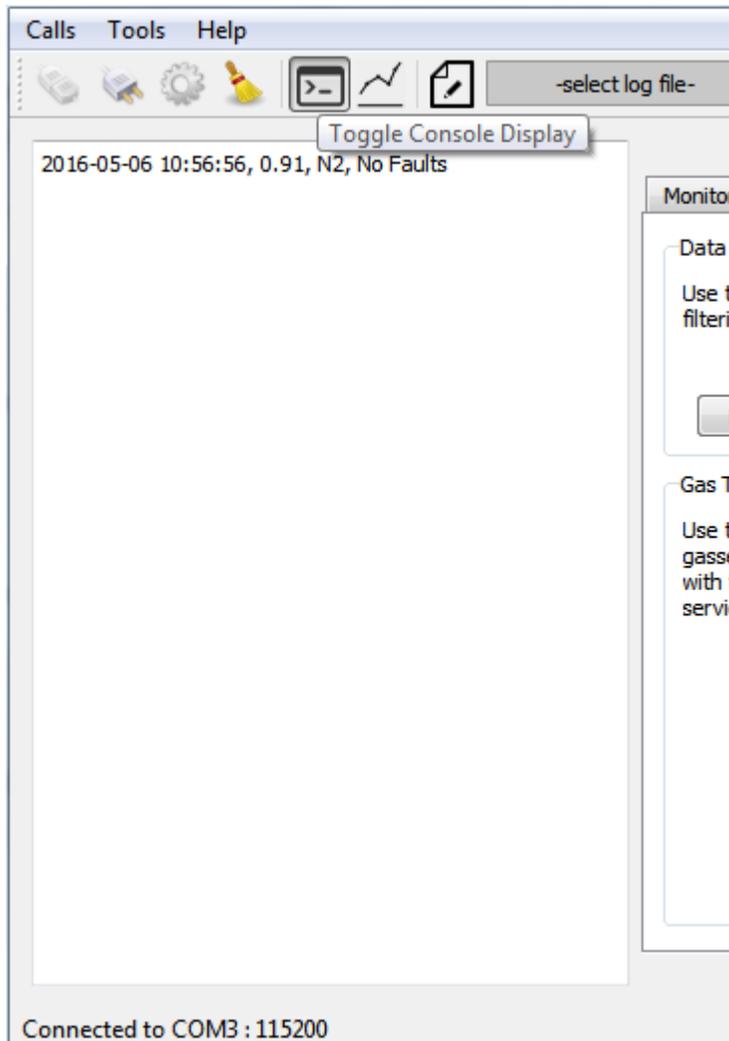


It is necessary to first click the “Refresh” button to obtain updated gas type or filter settings from the HALO. Note that in order to change the gas type, it is necessary to first switch the HALO to Service mode.

The Favorites section allows for the convenient re-sending of commonly used commands. This is most useful in combination with the console (see section 4.4 of the Quick Start Guide).

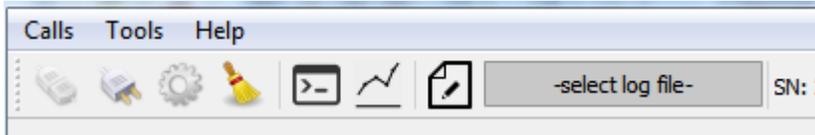
4.4 The Console

The console allows sending and receiving commands to and from the HALO analyzer. Toggle the console window with the Console button. The Console only works on tabs other than the "Monitor Analyzer" tab. Type in text and press enter to send data. Responses from the HALO will be displayed. See the section called "Remote Communications" in the HALO analyzer manual for a command summary.



4.5 Logging Communications

In addition to the “Auto Log Concentration Data” for recording the concentration readings to a file, there is a user-definable logging option. This is useful for capturing communication to and from the HALO when using the console or logging concentration data in continuous files.



To set the name of the logging file, click on the button next to the logging icon. If no logging file has been chosen, it will display the text: “-select log file-”.

After naming the file, toggle logging on and off by clicking on the paper and pencil icon.



When logging, the filename box will appear white and the logging icon will turn green.



Quick Start Guide

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