



# REMOTE CONTROL OF COMPUTERS USING REAL VNC

## SETUP MANUAL

**Prepared by:** Authors;graham@globalfia.com

**Date Released:** 9/22/2014

Copyright © 2015  
**Global FIA, Inc**  
684 Sixth Ave  
PO Box 480  
Fox Island, WA, 98333

The information in this manual has been carefully checked and is believed to be accurate; however, no responsibility is assumed for inaccuracies.

Global FIA reserves the right to make changes without further notice to any products described herein to improve reliability, function or design. Global FIA does not assume any liability arising out of the application or use of any products described herein; neither does it convey any license under its patent rights.

Global FIA's general policy does not recommend the use of its products in life support or mission critical applications where a failure or malfunction of the product may directly or indirectly threaten life or injury. Any user who employs these products under such conditions assumes all risks of such use and indemnifies Global FIA Inc. against all damages.

Additional Conditions of Sale are given on the Global FIA web site.

# HEATED REACTOR

**SYSTEM LAYOUT** .....ERROR! BOOKMARK NOT DEFINED.

**SAFETY CONSIDERATIONS** .....ERROR! BOOKMARK NOT DEFINED.

**ADDITIONAL RESOURCES**.....ERROR! BOOKMARK NOT DEFINED.

**SYSTEM OPERATION** .....ERROR! BOOKMARK NOT DEFINED.

    STARTUP .....**ERROR! BOOKMARK NOT DEFINED.**

    AUTO TUNE.....**ERROR! BOOKMARK NOT DEFINED.**

    COMMUNICATION VIA THE RS-485 SERIAL PORT .....**ERROR! BOOKMARK NOT DEFINED.**

**INITIAL SETTINGS** .....ERROR! BOOKMARK NOT DEFINED.

**DISPLAY ERROR** .....ERROR! BOOKMARK NOT DEFINED.

## MINIMUM HARDWARE REQUIREMENTS

You will need

- a remote computer that you wish to control, e.g. FloPro analyzer NUC computer,
- the computer you wish to use to view the remote computer. This may be a Windows, Apple, IOS, Android, or Google Chrome device,
- a LAN network, preferably WIFI
- (optional) Internet connection for remote control over Internet

**This Setup pamphlet provides skeleton details on setting up the Real VNC software. For more detailed instructions refer to the Real VNC Guide here<sup>1</sup>.**

## SETUP REAL VNC ON THE SERVER AND VIEWER COMPUTERS

### NETWORK SETUP

Install and configure a suitable LAN router. When moving the systems to remote locations it will be necessary to take this router with you.

Ensure that both your remote computer(s) and your viewing device are assigned an IP address by the router

During setup it is also useful for this LAN to have an Internet connection

If you want to control the devices over the Internet there are a few additional requirements –

- the Internet connection will have to be permanent (obviously)
- you will need a and you will have to map certain ports to the computers you want to control remotely. You can get additional details on this process in the guide mentioned above under the section Getting the computers ready to use

### SETTING UP THE SERVER

The server is the computer you want to control remotely, i.e. the computer connected to the analyzer.

Go to the RealVNC [download](#)<sup>2</sup> page and click on the VNC block


---

<sup>1</sup> <https://www.realvnc.com/products/vnc/documentation/5.0/guides/user/About.html>

<sup>2</sup> <https://www.realvnc.com/download/>

## VNC

Enable remote control connections between computers.

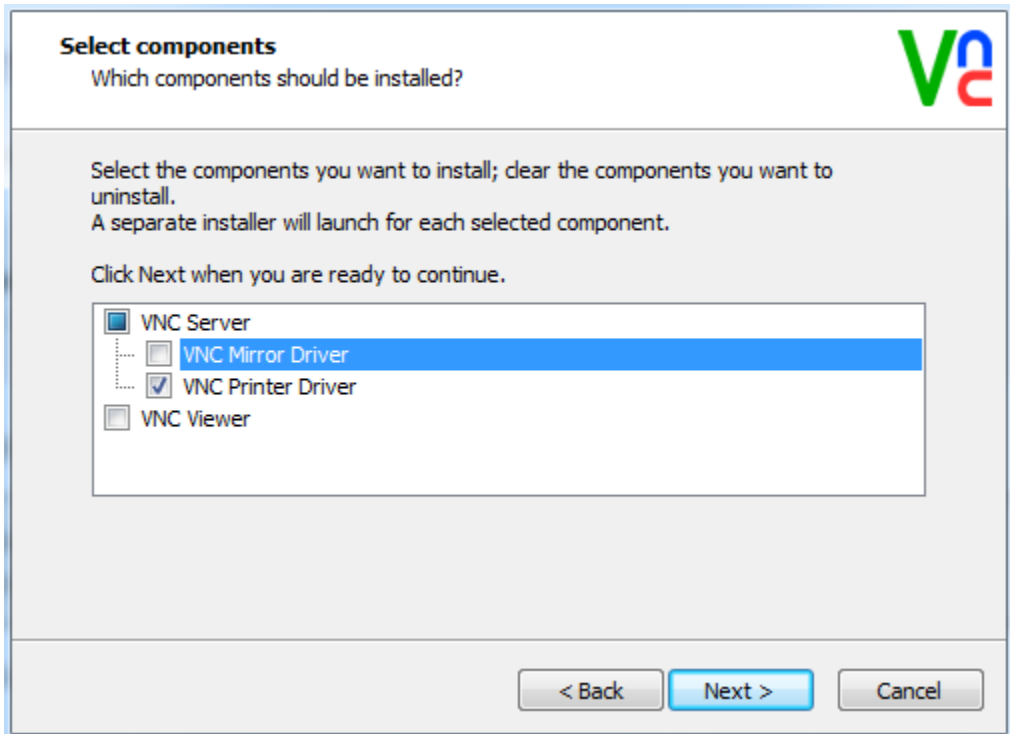


On the next page click on the download button next to VNC for Windows

### Windows

 <b>VNC for Windows</b>	EXE	32/64-bit	5.2.3	<a href="#">Download</a>
--	-----	-----------	-------	--------------------------

Follow the installation wizard and select the components as indicated in the following graphic



**Select components**  
Which components should be installed?

Select the components you want to install; clear the components you want to uninstall.  
A separate installer will launch for each selected component.

Click Next when you are ready to continue.

- VNC Server
- VNC Mirror Driver
- VNC Printer Driver
- VNC Viewer

< Back   Next >   Cancel

Click on Next and follow the prompts.

When the software has been installed, take note of the server IP address, e.g. 192.168.1.226

▼ **Get Started**

VNC Viewer users can connect using the address **192.168.1.226**

▼ **Connectivity**

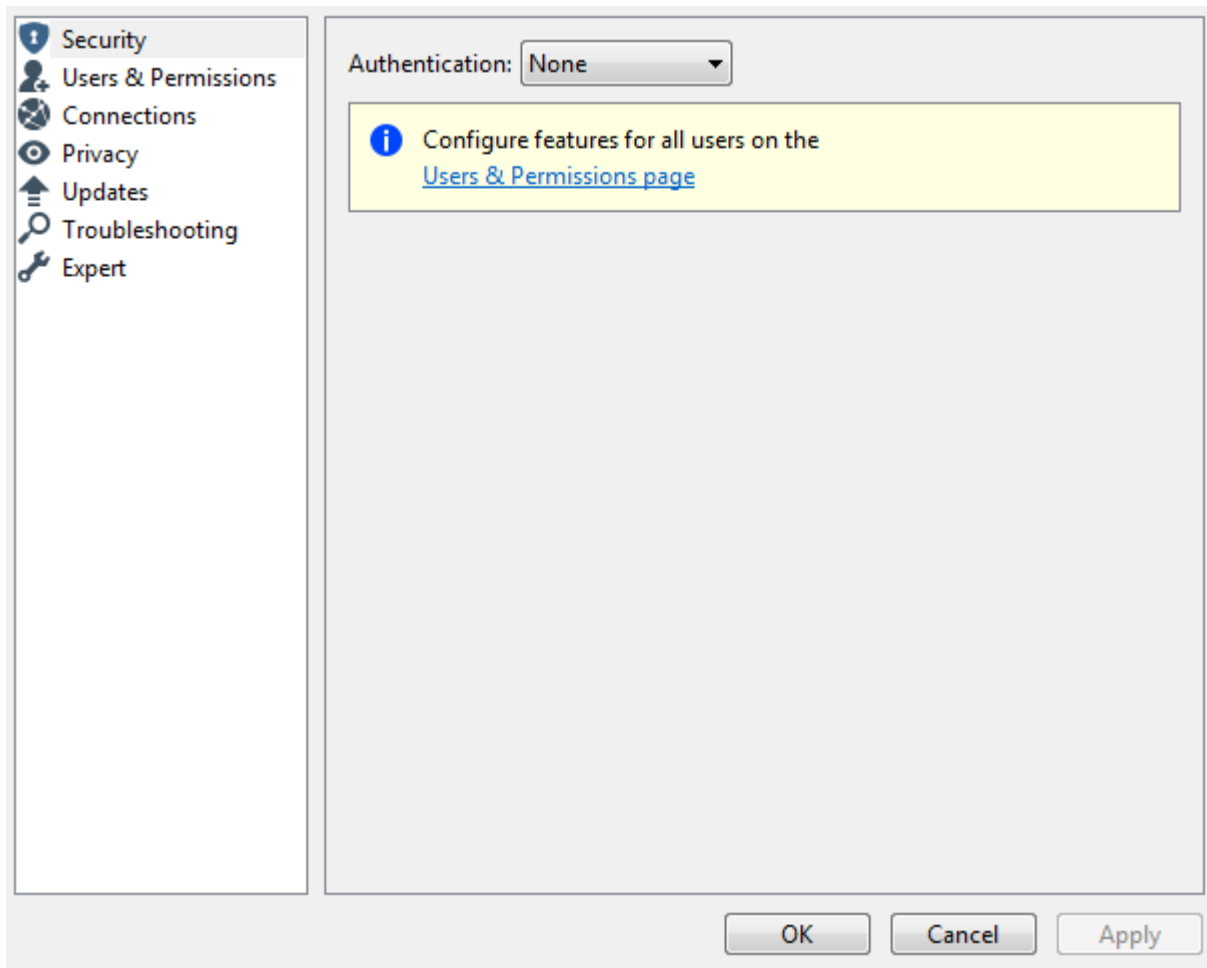
192.168.1.226

▼ **Details**

Last update check succeeded on 9/22/2015 8:35:31 PM

On your system this IP address will probably be different

You will now have to setup security. You can get to the options pages by clicking on the Resolve errors/warnings button. If you choose to require the viewer to provide a password you will need to set up the password under Users & Permissions. If no password is required you can select Authentication: None under Security in the Options window.



Repeat this process for each system that must be controlled remotely and in each case take note of the IP address of the remote computer.


## SETTING UP THE VIEWER

Return to the Real VNC [download](#)<sup>3</sup> page using the Viewer computer and click on the VNC viewer block

### VNC Viewer

Control VNC-enabled computers.

Standalone application; no installation required.



Select, download and install the appropriate VNC viewer software for your device. To access VNC viewers for iOS and Android devices go to [VNC Products](#)<sup>4</sup>

Windows					
	VNC Viewer for Windows	EXE	32-bit	5.2.3	<a href="#">Download</a>
	VNC Viewer for Windows	ZIP	32-bit	5.2.3	<a href="#">Download</a>
	VNC Viewer for Windows	EXE	64-bit	5.2.3	<a href="#">Download</a>
	VNC Viewer for Windows	ZIP	64-bit	5.2.3	<a href="#">Download</a>

When requested enter appropriate biographical data

---

<sup>3</sup> <https://www.realvnc.com/download/>

<sup>4</sup> <https://www.realvnc.com/products/>

## Download VNC® Viewer

[All downloads](#) » [VNC Viewer](#) » [Windows](#) » VNC Viewer for Windows

Fields marked \* are required.

<b>Name *</b>	<input type="text" value="Graham Marshall"/>
<b>Email *</b>	<input type="text" value="graham@globalfia.com"/>
<b>Telephone</b>	<input type="text" value="253-549-2223"/>
<b>Organization</b>	<input type="text" value="Global FIA, Inc."/>
<b>Category</b>	<input type="text" value="Company"/>
<b>Country</b>	<input type="text" value="United States"/>
<b>Deployment</b>	<input type="text" value="Up to 10 computers"/>
<b>Comments</b>	<input type="text"/>

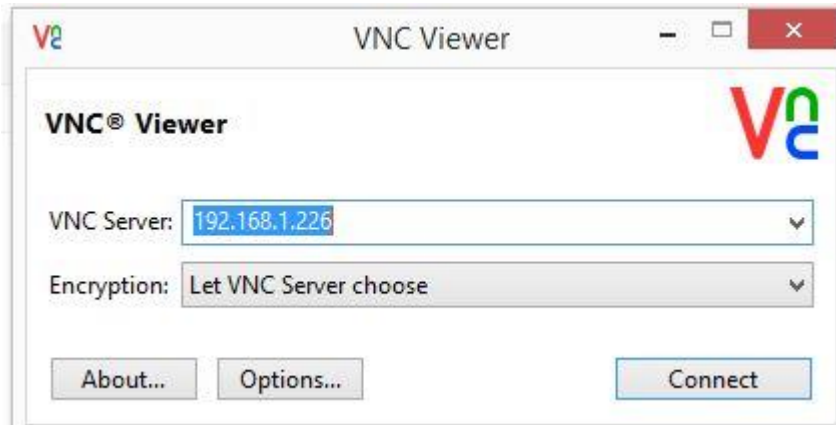
By continuing, you agree that we may update you about VNC. We will not disclose your details to a third party.

In the download folder of your computer, right click on the VNC viewer and select whether you want to:

- pin it to the start bar
- pin it to the task bar or
- create a shortcut. Move the shortcut from the download folder onto the desktop

Run the Viewer program and enter the connection details





Repeat this process to open up a viewer with appropriate IP address for any other remote systems you want to access. Where appropriate change the names of the viewer icons to allow easy identification of each remote system.

You can then swap between remote systems by selecting the appropriate button on the taskbar of your viewer computer.

## SETTING UP YOUR NUC COMPUTER TO OPERATE WITHOUT A SCREEN

To operate the NUC computers without an attached screen, you must make the following changes to the Display settings of the NUC computer.

Enable a VGA display in Windows\*:

- Right-click on the Windows Desktop and select Screen resolution.
- Click the Detect button.
- Click the option "Another display not detected."
- From the Multiple displays list, select "Try to connect anyway on: VGA".
- Click Apply, then click OK.
- Shutdown the Intel NUC. Remove the HDMI or DisplayPort cable and boot the system without the display connected.

Connect to the Intel NUC with the remote access software.

Other options for configuring the NUCs as "headless computers are detailed [here](#)<sup>5</sup>, however we have found the above described procedure to work well and allow screens to be hooked up to the NUC via the DP or mini HDMI ports of desired.

---

<sup>5</sup> <http://www.intel.com/support/motherboards/desktop/sb/CS-034652.htm>

## LICENSING

The free version of VNC server will allow you to evaluate the software without incurring any charges. Once you are happy with the operation you can select the appropriate license for your organization. You only license servers and can have as many viewers as you like.

Technical Assistance:  
253-549-2223 (T)  
Graham@GlobalFIA.com