



# Viper - ProRAE Guardian Setup



## Table of Contents:

<b>Scenario A: Configuring a local Field Computer running ProRAE Guardian (v14 or higher) to push directly to PRG2CAP (not ProRAE Guardian) on the VM. ....</b>	<b>3</b>
CONFIGURING THE LOCAL INSTANCE OF ProRAE Guardian .....	3
CONFIGURING SURVEY CONTROLLER and PRG2CAP ON THE VIRTUAL MACHINE .....	4
<b>Scenario B: Configuration with local Field Computer Only (NOT pushing ProRAE to a Virtual Machine).....</b>	<b>6</b>
<b>Tips, Tricks and Troubleshooting .....</b>	<b>10</b>
<b>Special Configuration (Survey Manager) .....</b>	<b>12</b>

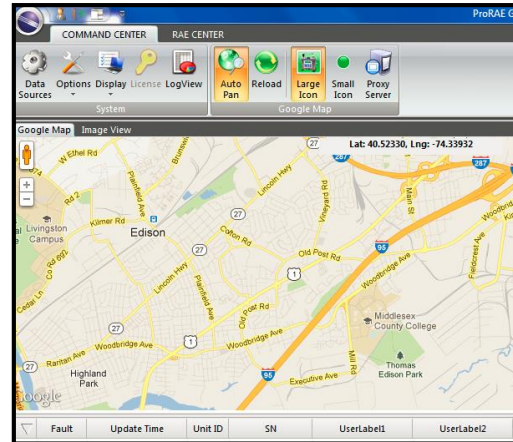


## Acquiring ProRAE Guardian Data in Viper

**Scenario A: Configuring a local Field Computer running ProRAE Guardian (v14 or higher) to push directly to PRG2CAP (not ProRAE Guardian) on the VM.**

### CONFIGURING THE LOCAL INSTANCE OF ProRAE Guardian

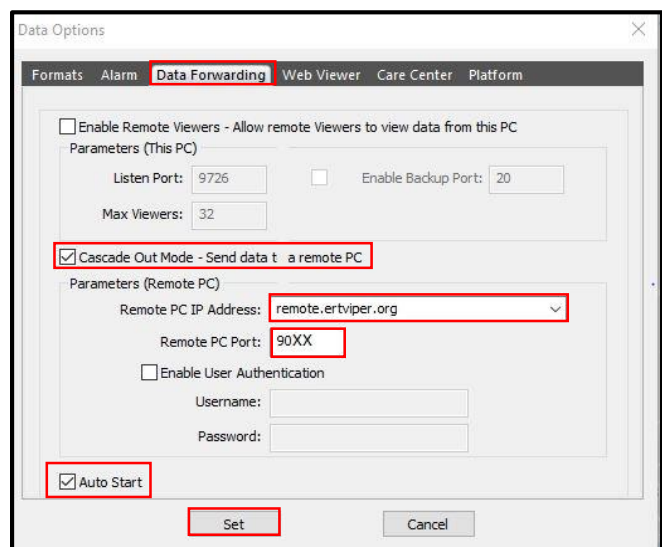
1. In the **Field instance** of ProRae Guardian, open the ProRae Guardian software.



2. In the COMMAND CENTER, click on Options | Data Options



3. Select the Data Forwarding Tab.
  - a. Put a checkmark in:  
-Cascade Out Mode – Send data to
  - b. Change the Remote PC IP Address to:  
**remote.ertviper.org**
  - c. Change the Remote PC Port to **90xx** (xx represents the Virtual Machine that will be used). For example 9001 represents VM01
  - d. Put a checkmark in:  
--Auto Start
  - e. Click Set



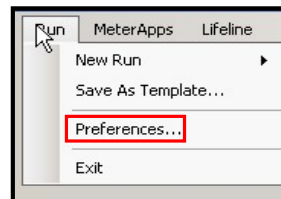


## **CONFIGURING SURVEY CONTROLLER and PRG2CAP ON THE VIRTUAL MACHINE**

After successfully acquiring data through the ProRAE Guardian software, the next step is to capture and display that data in *Survey Controller* on the Virtual Machine. In most cases, the Viper Survey Controller and PRG2CAP software on the Virtual Machine has been pre-configured. For troubleshooting purposes, the following is the correct configuration on the VM.

1. Login to the Virtual Machine and **Open VIPER Survey Controller**

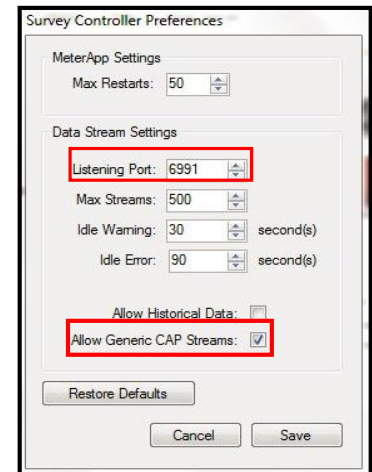
a. Click on **Run | Preferences**



b. Set the **Listening Port** to **6991**.

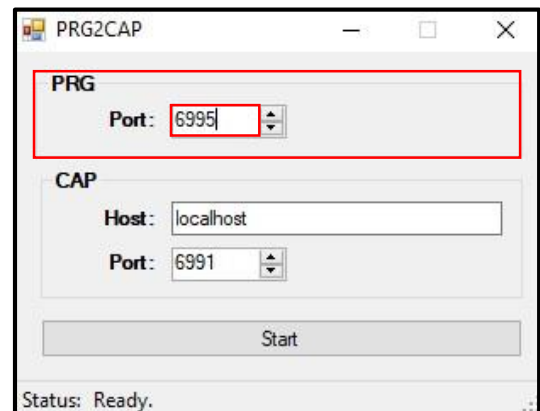
c. Place a checkmark in **Allow Generic Cap Streams** and select **Save**

d. Keep Survey Controller open



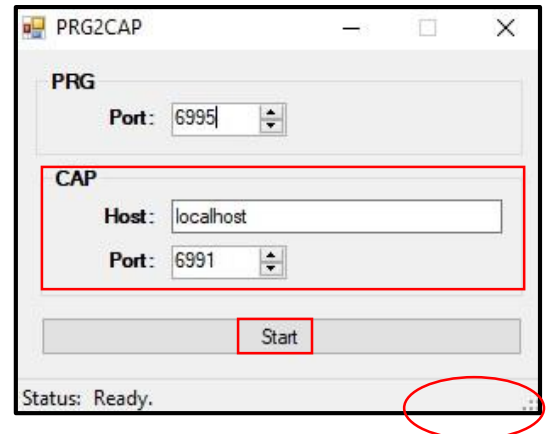
2. On the Virtual Machine, **Open the PRG2CAP software** (available for download at [www.epaossc.org/viper](http://www.epaossc.org/viper)).

a. In the PRG section, change the Port to **6995**





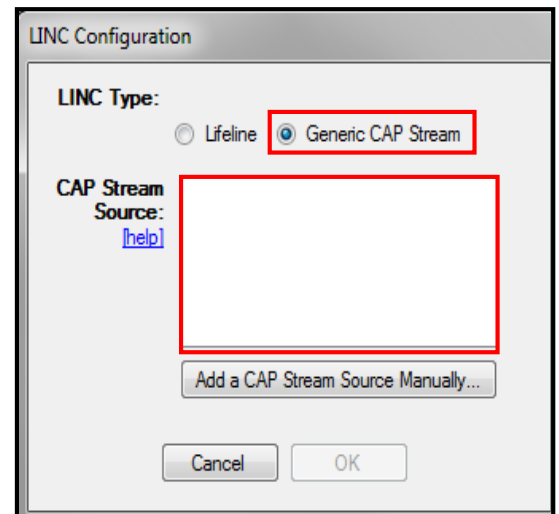
- b. In the CAP section, **Host** should be set to **localhost**
- c. **Port** should be set to **6991**
- d. Click **Start**
- e. Verify that samples are incrementing. That indicates that ProRae Guardian is pushing data to PRG2CAP. If the samples are not incrementing, check the Tips, Tricks and Troubleshooting Section for possible port conflict.



3. In **VIPER Survey Controller**, start a **new run**

- a. When prompted, **Add a LINC/Instrument**
- b. Select the "**Generic CAP Stream**" radio button.

A list of instruments from the ProRAE Guardian software should appear. This list is updated in real-time as Survey Controller receives data. If an instrument is missing, it may take a few moments for PRG2CAP to receive that instrument's data from the ProRAE Guardian software. If no instruments are listed, make sure you clicked START on the PRG2Cap software configured in step 2 above.



- c. **Select the desired instruments.** Ctrl and Shift clicks are supported, allowing multiple instruments to be selected. **Click "OK".**
- d. Complete the run.

Note: PRG2CAP writes an error log next to its executable (.exe) for troubleshooting purposes. Call ERT Support if assistance is required.

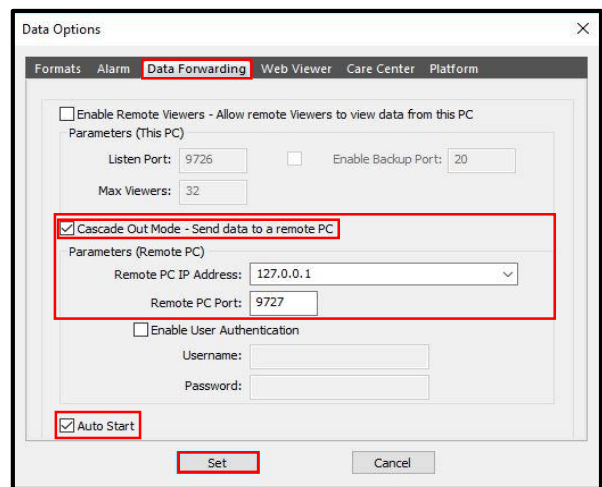


## Scenario B: Configuration with local Field Computer Only (NOT pushing ProRAE to a Virtual Machine)

1. Open the *ProRae Guardian* software.
2. In the COMMAND CENTER, click on Options | Data Options



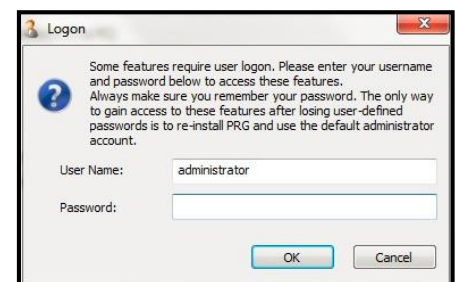
3. Select the Data Forwarding Tab.
  - a.. Put a checkmark in”
    - Cascade Out Mode and Auto Start
    - The Default Remote PC IP Address should be 127.0.0.1 and Remote PC Port should be 9727.
  - Click on Set.



4. A logon screen appears after you have **Set** the Data Forwarding Parameters. Enter the following logon information:

**Username:** administrator

Contact [ertsupport@epa.gov](mailto:ertsupport@epa.gov) to obtain the password



5. On the Command Center, click on Data Sources, and click on Start.

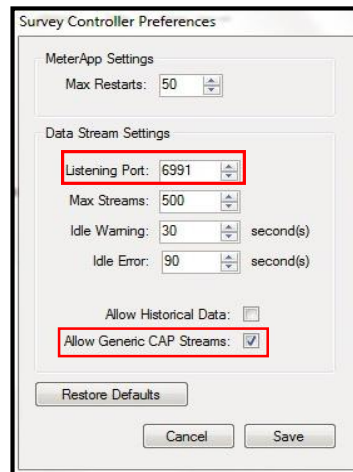
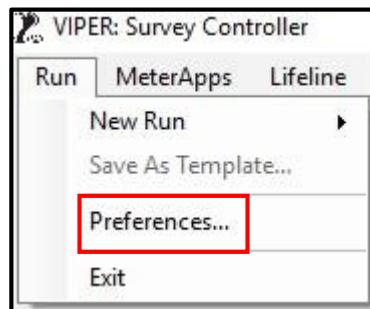




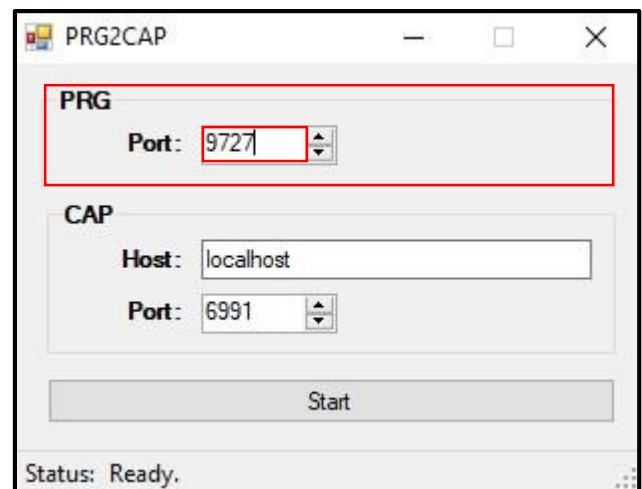
6. The instruments will now be displayed in the ProRAE Guardian software.

	Fault	Update Time	Unit ID	SN	CO(ppm)	VOC(ppm)	H2S(ppm)	LEL(%)	Gamma(uR/h)
●		12:03:29	1	282-500001	0.0	0.0	0.0	0.0	10
●		12:03:29	3	282-500003	0.0	0.0	0.0	0.0	10

7. Open VIPER Survey Controller, click on Run | Preferences. **Make note of the Listening Port Number (6991).** You will need this number to configure the PRG2CAP. Make sure there is a checkmark in 'Allow Generic CAP Streams'



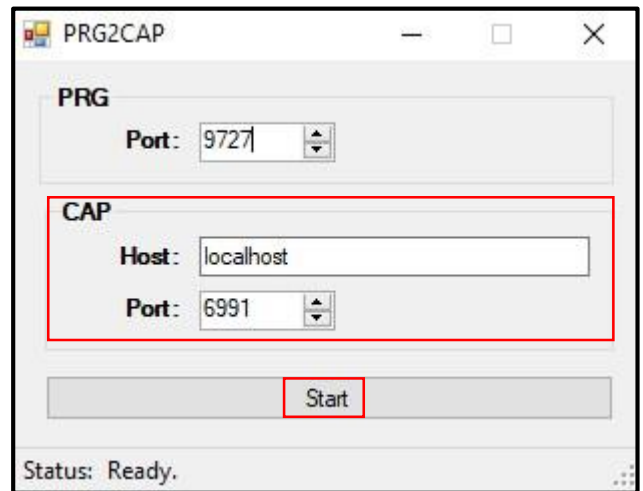
8. Open the PRG2CAP software (available for download at [www.epaosc.org/viper](http://www.epaosc.org/viper)). In the PRG section, the Port number should be 9727. This number should match what was entered in Step 3 in the ProRae Guardian software.



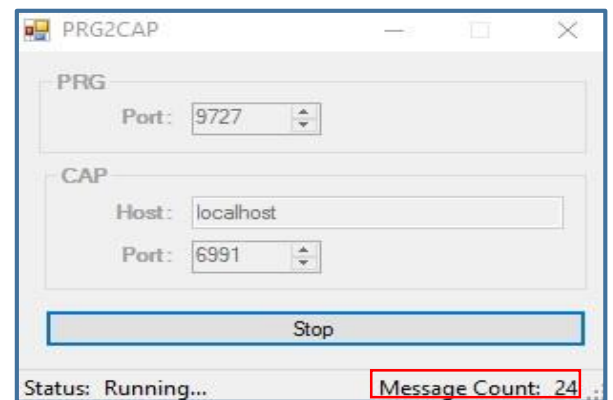
**NOTE:** The PRG Port number and the CAP Port Number must be different.



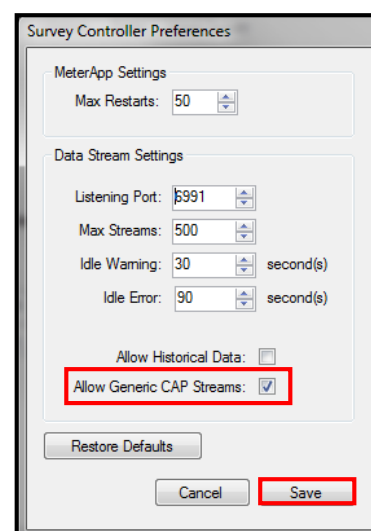
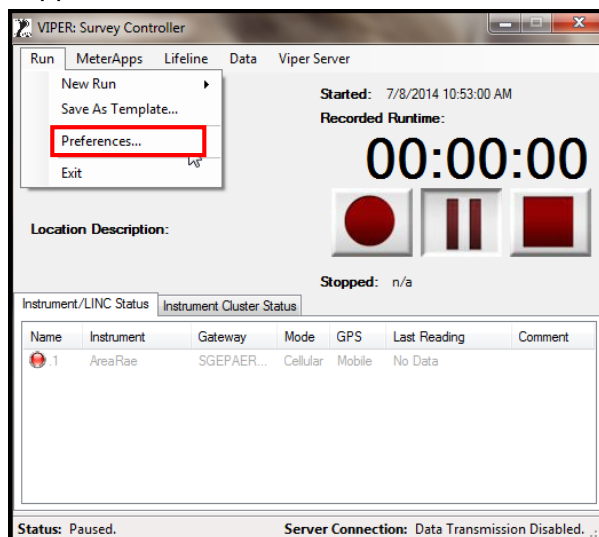
9. In the CAP section, the Host should be set to localhost and the Port should be set to 6991. This number is found in the Viper Survey Controller, Run | Preferences. (see Item 7 above).
10. Click Start.



11. Verify that samples are incrementing. That indicates that ProRae Guardian is pushing data to PRG2CAP. If the samples are not incrementing, check the Tips, Tricks and Troubleshooting Section for possible port conflict.



12. PRG2CAP isn't a traditional MeterApp, and doesn't get added to the MeterApp inventory. It is a Generic CAP Stream Source. From **VIPER Survey Controller's** Run Menu, select "Preferences...", and check the box that enables Generic CAP Stream support. Click Save.



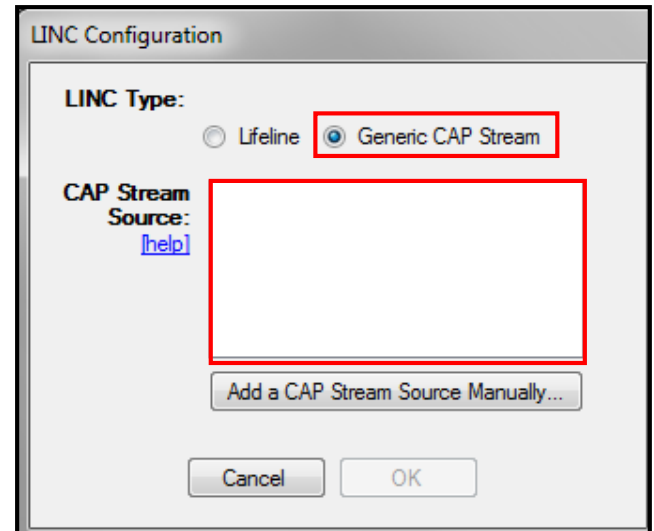




13. Generic CAP Streams are added when a run is being created in VIPER Survey Controller's "Run Configuration Wizard". It is very similar to the way LINC/Instruments are added.

14. In VIPER Survey Controller, start a new run. When prompted, Add a LINC/Instrument.

15. In the Add LINC/Instrument dialog, select the "Generic CAP Stream" radio button. A list of instruments from the ProRAE Guardian software should appear. This list is updated in real-time as Survey Controller receives data. If an instrument is missing, it may take a few moments for PRG2CAP to receive that instrument's data from the ProRAE Guardian software.



16. Select the desired instruments. Ctrl and Shift clicks are supported, allowing multiple instruments to be selected. Click "OK".

17. If no instruments appear when adding a LINC/Instrument, PRG2CAP is not sending CAP to Survey Controller. The issue is either between the ProRAE Guardian software and PRG2CAP, or between PRG2CAP and Survey Controller. PRG2CAP may need to be configured to behave as a Server (as opposed to a Client) by clicking its "Server" radio button.

18. PRG2CAP also writes an error log next to its executable (.exe) for troubleshooting purposes.



## Tips, Tricks and Troubleshooting

### Tips:

- RAE Systems has a service called “Care Center SVC” that also listens in on Port 9727. If there is a conflict, change the Port in ProRAE Guardian and PRG2CAP to 9728.

### Tricks:

- If you need two (2) different instances of ProRae Guardian to push to the same VM, one instance of ProRae Guardian will be configured using the standard method (Port 90XX). The other instance of ProRAE Guardian will be configured to use Port 80XX.

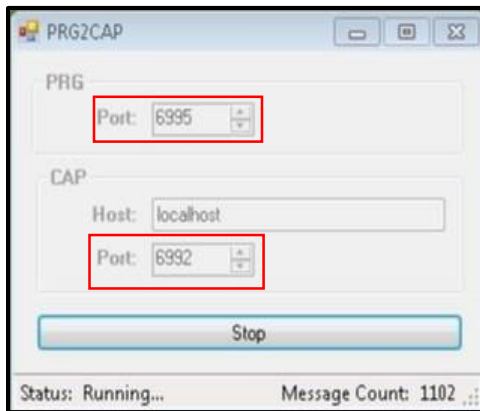
Instance #1

Instance #2

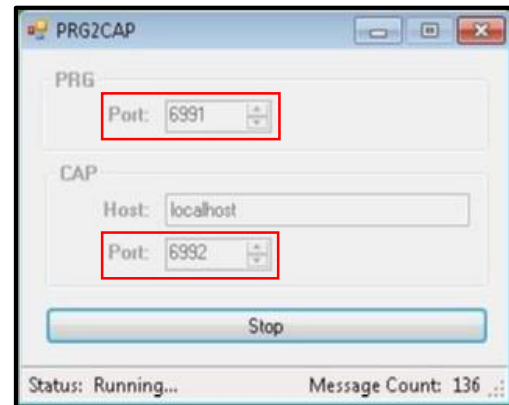
The listening port in Survey Controller (on the VM), the Preferences needs to change to Port 6992.



The settings in PRG2CAP for the first instance need to be configured for PRG Port 6995 and CAP Port 6992. The settings in PRG2CAP for the second instance need to be configured for PRG Port 6991 and CAP Port 6992



Instance #1



Instance #2

- If Google Map is not displaying in ProRAE Guardian (version 14), click on the circle in the top left. Go to About ProRAE Guardian. Check for Updates. It will take approximately 15 minutes to download. Upgrade the previous version.

## Troubleshooting:

If you receive SQL Server errors after a fresh install of the ProRAE Guardian software, try the following steps:

- 1) Uninstall VIPER Field Survey Controller
- 2) Uninstall ALL 2012 files related to Microsoft SQL Server 2012 – select main version of file first (underlined here), this will get most associated files, exit and return to Uninstall/Change Program and see what Microsoft SQL files remain (only worry about 2012, if there are any 2014 you can ignore them). You may still see “Microsoft SQL Server 2012 Native Client, uninstall this and any other 2012 files.
- 3) Uninstall ProRAE Guardian
- 4) Restart the laptop
- 5) Make sure you have the PRG 1.14.X version from RAE; VIPER Survey Controller install (can be downloaded at [www.response.epa.gov/viper](http://www.response.epa.gov/viper)) and the 2012 SQL Server Express Local DB install (<https://www.microsoft.com/en-us/download/details.aspx?id=29062>)
- 6) Install: PRG 1.14.X; 2012 SQL Express LocalDB; and Viper Field Survey Controller

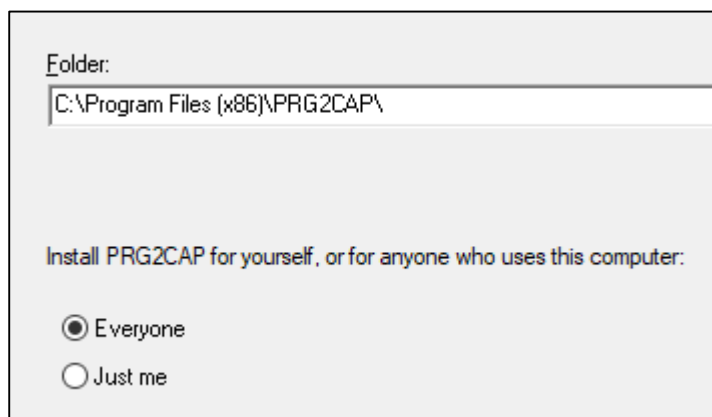
**Note:** For ProRAE Guardian to recognize instruments, those instruments must be set to the same Network ID as the RAE Host. ERT/EPA uses a Network ID of 438.



## Special Configuration (Survey Manager)

This configuration is not intended to be used routinely when EPA and its Contractors are sending ProRAE Guardian readings to Viper. Use of this configuration requires advance notice to ERTSupport and subsequent approval from ERT Viper Managers and/or ERT Support.

1. Download PRG2CAP v 1.6
2. Extract the PRG2CAP Setup.msi file
3. Un-install any previous versions for PRG2CAP (search Windows for Add/Remove Programs or Programs and Features)
4. Install v1.6 on the laptop running ProRAE Guardian. During the install select the option for 'Everyone'. See Screenshot below.

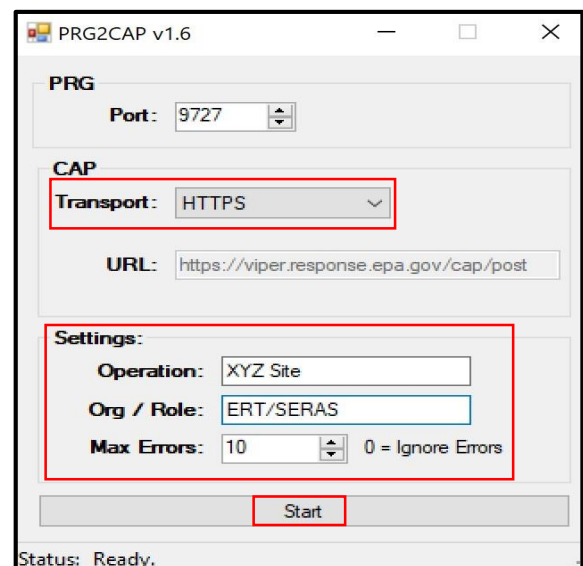


5. Configure ProRAE Guardian as you normally would for pushing to a Local PRG2CAP and not a VM (cascade out to 127.0.0.1, port 9727).

6. Run PRG2CAP







PRG2CAP starts “pre-configured” to push (transport) CAP via TCP. Click on the down-arrow in the Transport box and select ‘HTTPS’. **Note:** *ERTSupport will provide the settings for completing the “Operation” and “Org/Role” sections of PRG2CAP. Complete those sections using the information obtained from ERTSupport.* Click **Start**.

After the ‘Start’ button is clicked you should see Samples incrementing at the bottom of PRG2CAP





7. Contact ERT Support and let them know data is being sent to Survey Manager. If you would like to identify the instruments with a descriptive location, please provide ERTSupport a list of instrument serial numbers and the description that should be added for display on Deployment Manager. Also let ERTSupport know if you would like all readings sent to Deployment Manager or if you would prefer readings intervals be configured for each instrument.

AreaRAE Pro(s):																		
~	Instrument ID	Connection	Location	SO2	O2	H2S	LEL	GAMMA	SPEED	DIR	Temp	R.H	VOC	PH3	CL2	HCN	NH3	Received
	(3001) AreaRAE Pro Location 1	 Down	 40.5108000, -74.3584200	0.0 ppm	12.2 %	0.0 ppm	0 %LEL	2 urem/h	2.1 m/sec	217 °	39 °F	53 %	155 ppb					1/6/2021 4:06 PM
	(3002) AreaRAE Pro Location S/NW01A00002186	 Down	 40.5107700, -74.3584000			0.0 ppm	0 %LEL	2 urem/h	1.2 m/sec	259 °	40 °F	52 %	41 ppb	0.0 ppm	0.2 ppm	0.0 ppm	0 ppm	1/6/2021 4:06 PM