



700 LX Series

# Web Emulator Remote Software Instructions

**California Analytical Instruments**

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# Remote Web Interface Instructions

## A. Cable Required (Connection of PC to Analyzer):

1. Direct cable connection is not necessary if both the PC (or mobile device) and the analyzer are connected to the same network.
2. (Suggested) If the analyzer and PC are connected by IT, verify with your local IT personnel that the analyzer and PC can properly communicate with each other.
3. If both the analyzer and PC are not networked, they you will need to have a crossover cable connected between the two to provide for communication. Obtain an Ethernet crossover cable prior to continuing with this procedure. An example cross over cable can be purchased at OFFICE DEPOT (see below).

Example:

OFFICE DEPOT: Belkin Cat5e Crossover Cable - RJ-45 Male  
Network - RJ-45 Male Network - 7ft - Yellow Item # 526846

## B. Connection Procedure

1. Start the analyzer and record the network settings from the front panel TCP/IP Parameters screen by pressing the keypad sequence: **Main Menu – F3-F4-F3**.

i. IP Address:     \_\_\_\_\_.

ii. Netmask:     \_\_\_\_\_.

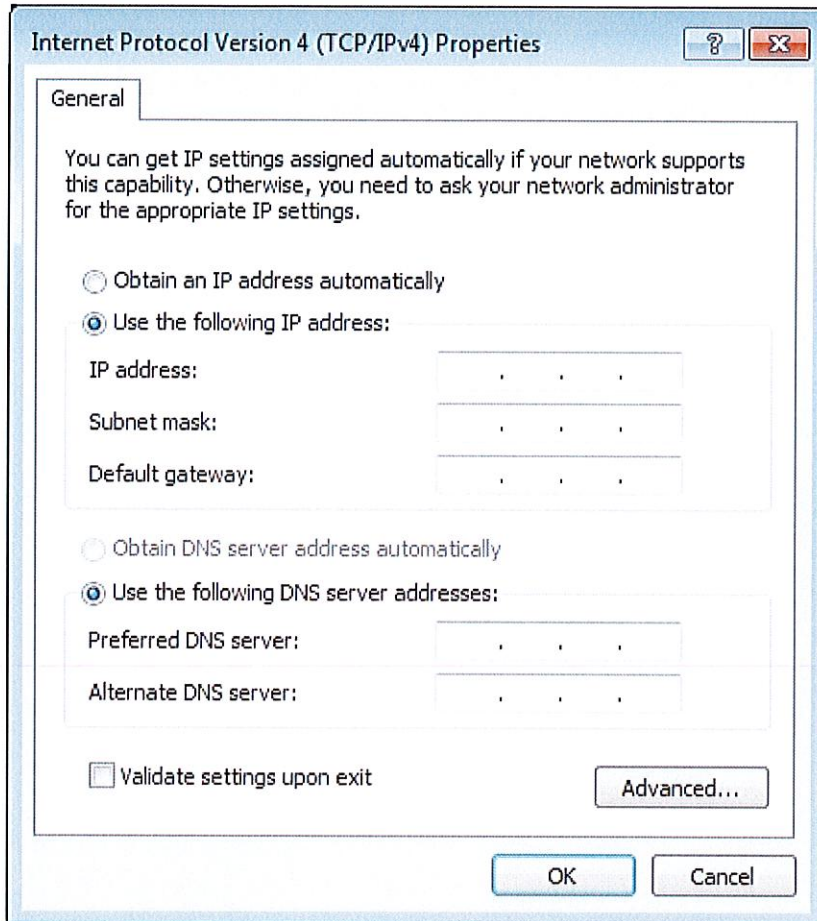
iii. Gateway:    \_\_\_\_\_.

2. (*Direct Connection Only*) Connect a crossover cable between the PC and analyzer.

## C. Software Setup Procedure (PC)

1. No custom software is necessary to be installed to connect to the CAI LX analyzer from your PC or mobile device--other than a web browser. (It is suggested that you use the Google Chrome web browser.)
2. (*Direct Connection Only*) Set the TCP/IP settings of your PC so that the analyzer and PC can properly communicate.
  - i. Open the TCP/IPv4 Properties dialog for your local area connection through the Network Control Panel of your PC.
  - ii. Enter the Subnet mask and Default gateway information from step B.1.
  - iii. Enter a unique IP address for the PC. For example: if the analyzer IP address was 192.168.168.145, enter 192.168.168.100. Only change the value in the last octet. Always keep the values in the first three octets the same. Otherwise the PC and analyzer cannot communicate. Remember to remove any leading zeros from each octet.

- iv. Remember to remove any leading zeros from each octet (e.g., if the IP address entered in step B.1.i was 192.000.030.001, then enter 192.0.30.1 into the IP address entry in the next figure. Do the same for the subnet mask and gateway.
- v. Contact your local IT or CAI for further assistance.



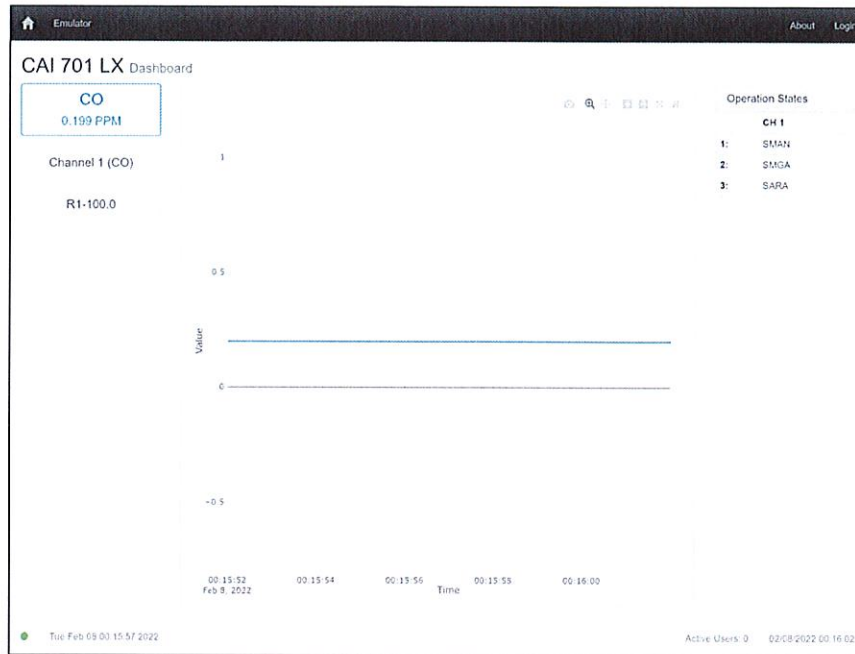
- 3. Launch the Chrome browser on your PC.
- 4. Navigate to the web portal of the analyzer by entering http:// followed by the IP address of the analyzer, from step B.1.i, into the browser top navigation entry and pressing enter. Remove leading zeros as in step C.2.iv. An example would be http://192.0.30.1.



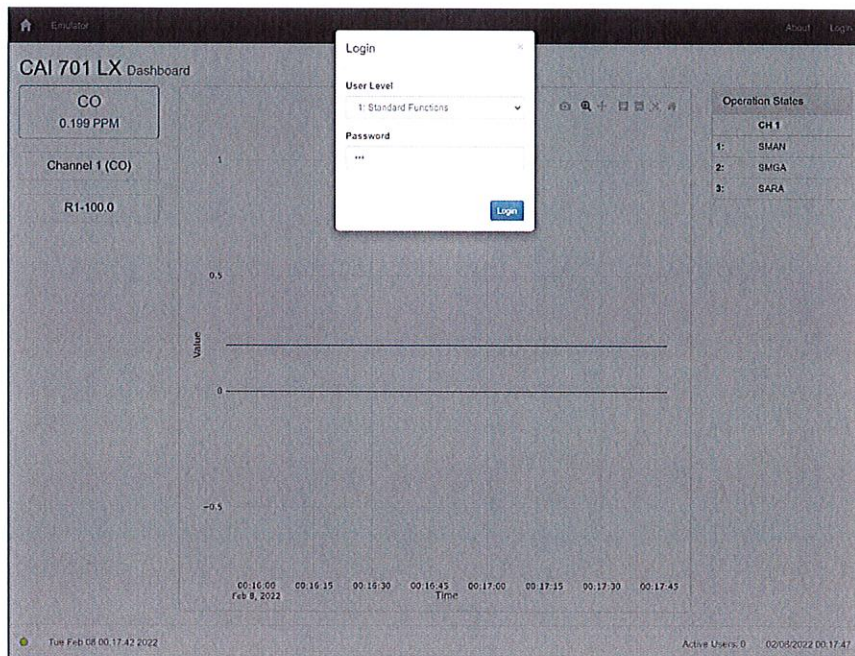
- 5. Assuming the networking between the analyzer and PC is properly configured and operational, the web portal of the analyzer will display in the browser.

#### D. Dashboard

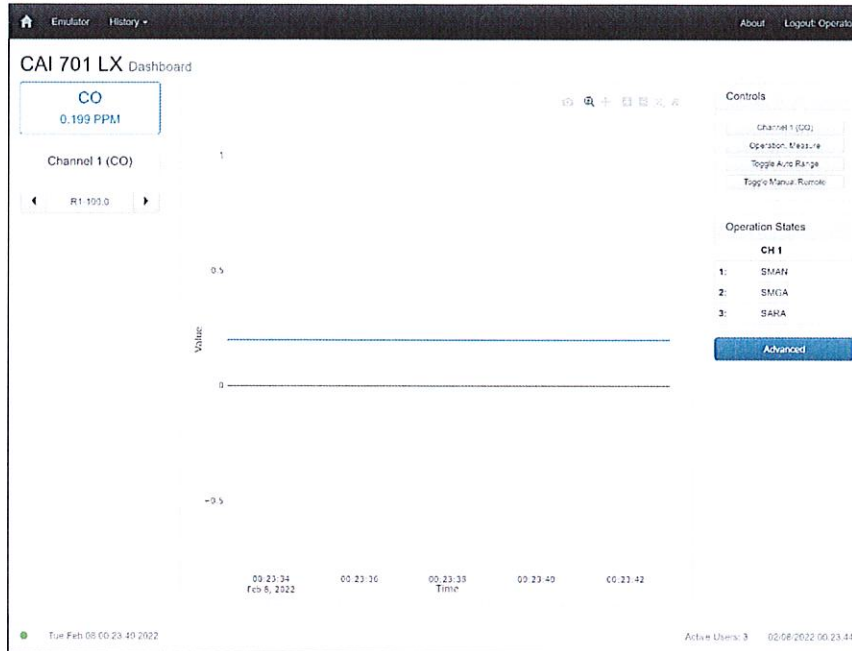
1. If you are following along from Setup C.5, you will have the web portal of the analyzer open and ready to operate.



2. Open the login dialog by clicking on the Login link in the upper right-hand corner of the Web browser
3. Login to the analyzer from the Login dialog as user level 1 by selecting User Level 1: Setup Functions and entering the password 111; then Press Login.



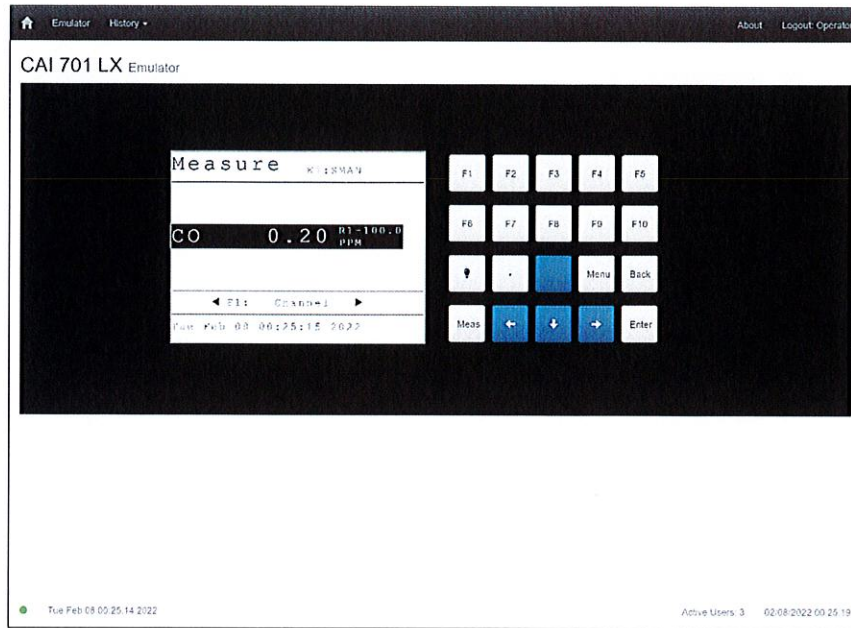
- The controls for the instrument are in the upper-right hand corner. The user can change the channel, operational mode, toggle auto range and switch from manual to remote mode in the dashboard. The user can also change the manual range of the analyzer on the left-hand side of the dashboard below the Channel indicator.



- Additional Diagnostic and Alarm information can be viewed by pressing the Advanced button.

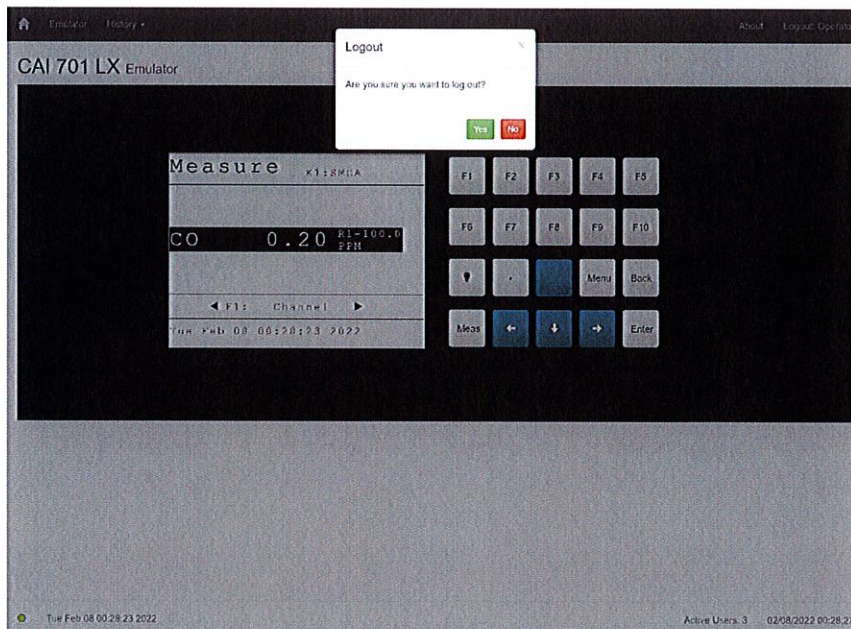
#### E. Front-Panel Emulator

- Continuing from Section D, the Level 1 user has access to the front panel emulator. In the upper navigation bar, press the Emulator button.
- The user will be presented with a mimic-panel of the instrument front panel. The user will be able to see the LCD as displayed in the actual front panel. In addition, any logged-in user can press the front panel buttons.

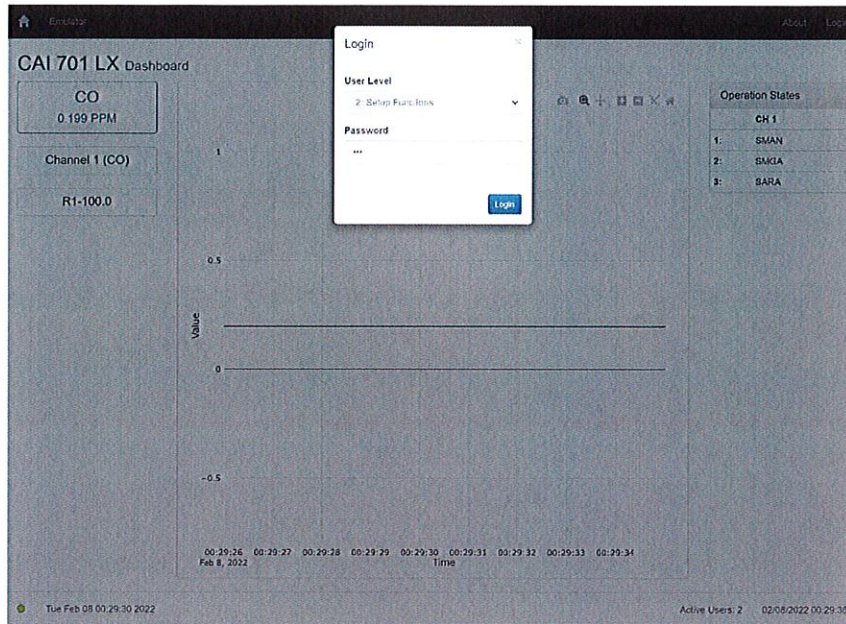


#### F. Data Logging Procedure (Setup/Configuration)

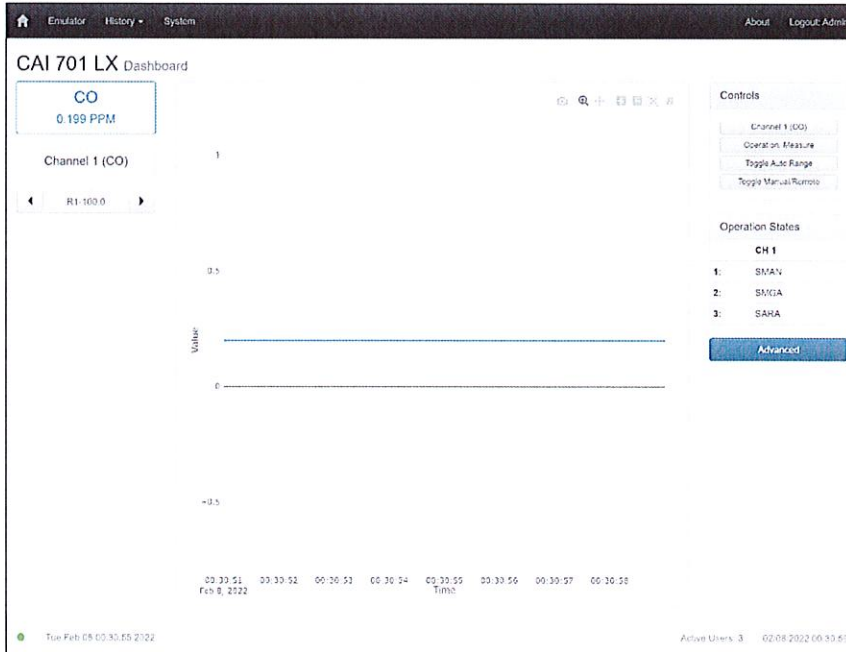
1. If you are following this procedure from Setup C.5, you will have the web portal of the analyzer open and ready to operate for this section. If you are following along from the previous section, you will be you will need to logout as user level 1. In this section, the user level 2 data logging configuration functions are described.



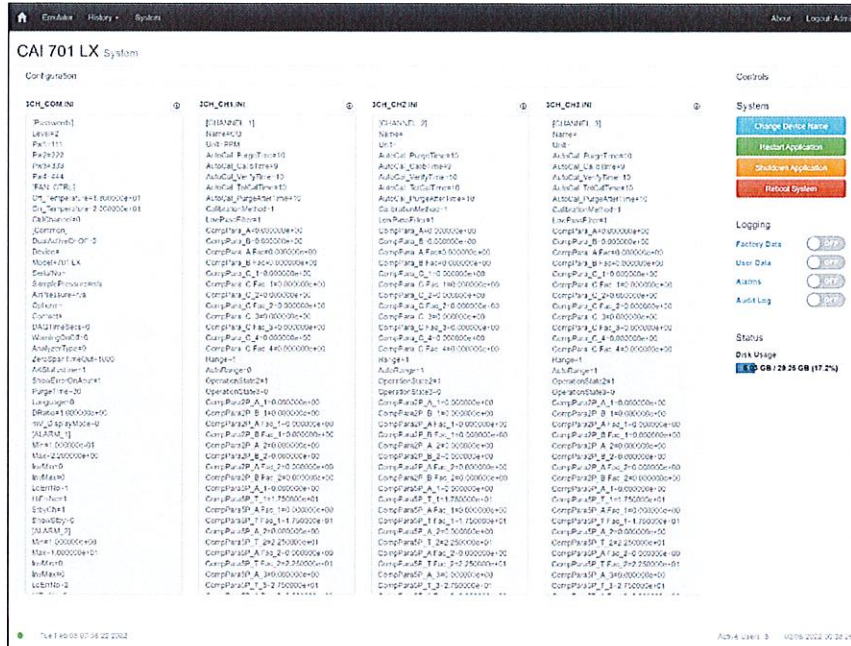
2. Open the login dialog by clicking on the Login link in the upper right-hand corner of the Web browser.
3. Login to the analyzer from the Login dialog as user level 2 by selecting User Level **2:Setup Functions** and entering the password **222**; then Press Login.



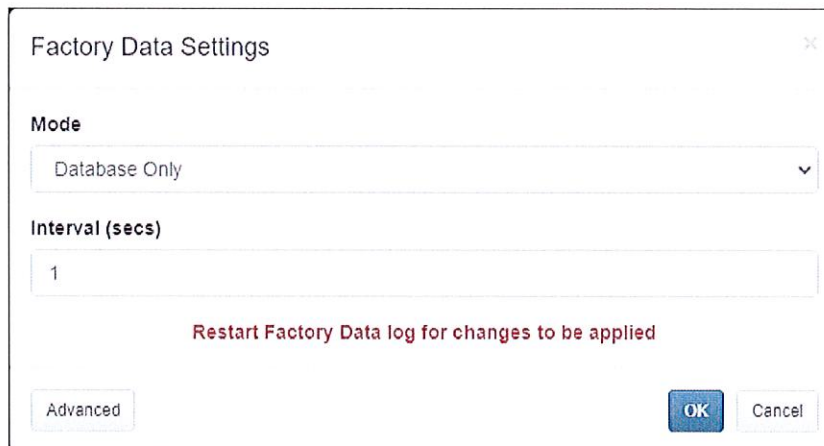
- Once logged into the system as User Level 2, the navigation bar will include the System tab, as in the following figure.



- Click on the System link in the top navigation bar, to gain access to the logging (and other) settings. (See following figure)

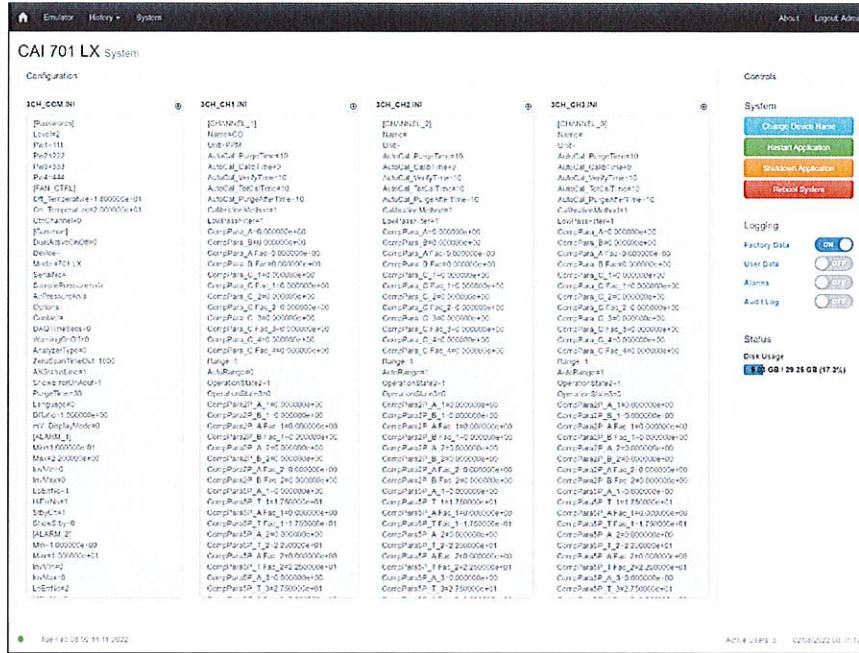


- In the Logging area of the Controls Panel, click on the Factory Data link to open the Factory Data settings dialog.
- Change the logging interval (if desired). The default setting is 1 second. The range for the interval is 1 to 60 seconds. The onboard database will only retain the last 30000 rows. So, if you set a 1 second interval, only the last 8.3 hours will be retained.



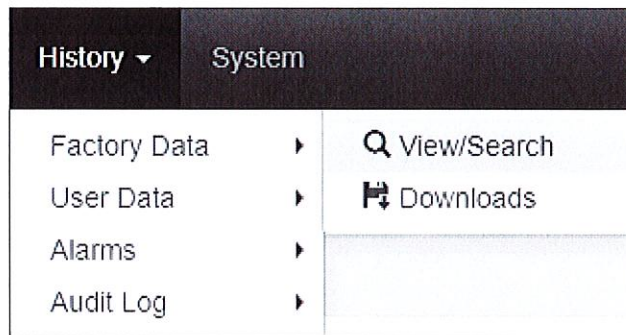
- Slide the Factory Data logging switch to the ON position to start data logging data to the onboard database. It is important to save your data before retention time is up. Again, in the case of 1 second data interval, the last 8.3 hours will be retained. The user can always manually turn off the data logging at the end of an experiment so that the data does not get written over. The user will then need to save their data before restarting data logging as described in the next section.



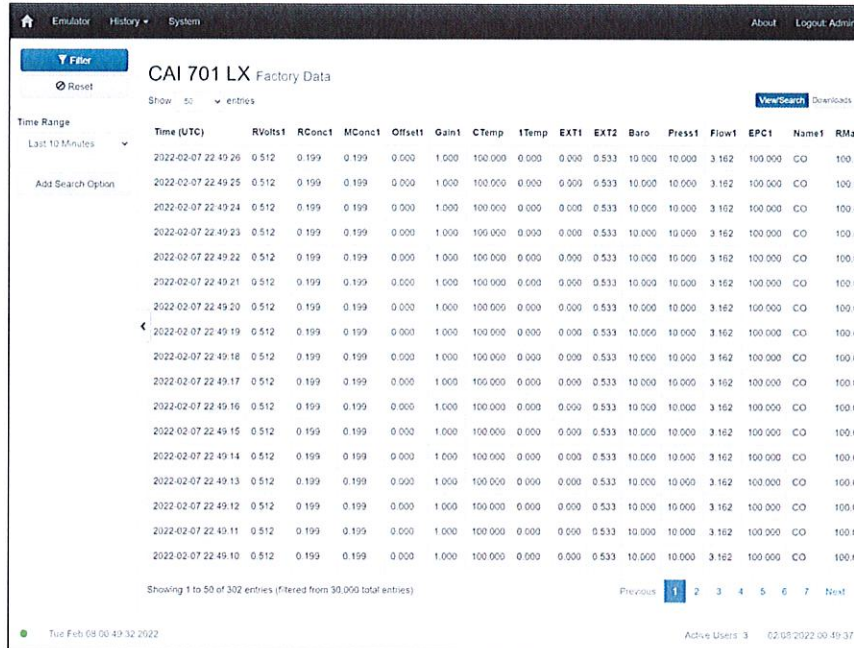


## G. Data Logging Procedure (Operations)

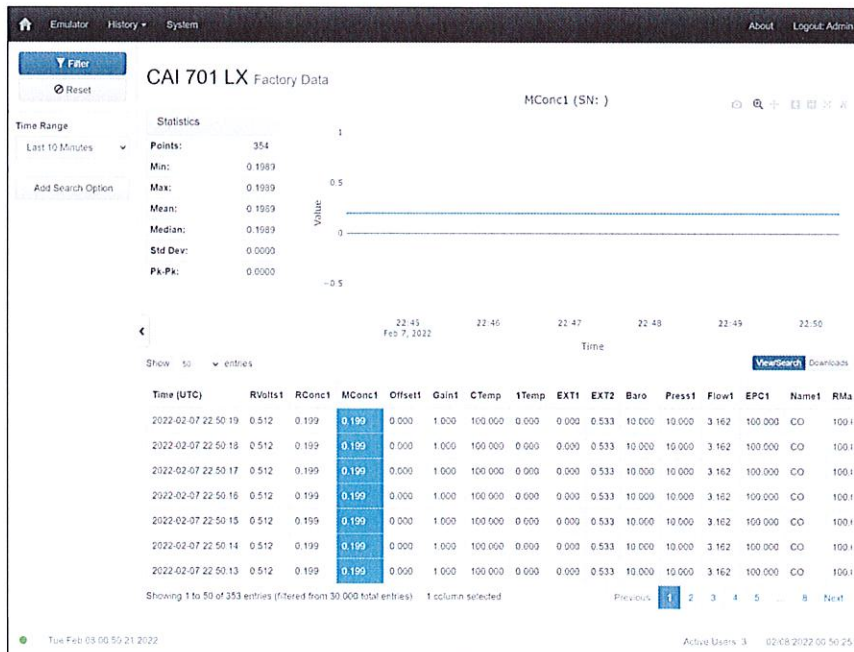
- From the top navigation bar in the web portal, pull down to Factory Data-View/Search. Note: A Level 1 user will have access to the History page.



- By default, the last 10 minutes of data will display in a table. Please wait until the table is populated.



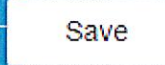
- To show a plot for a given column, click in one of the cells in a the column you would like to see plotted. A plot area will display above the table for the selected column.



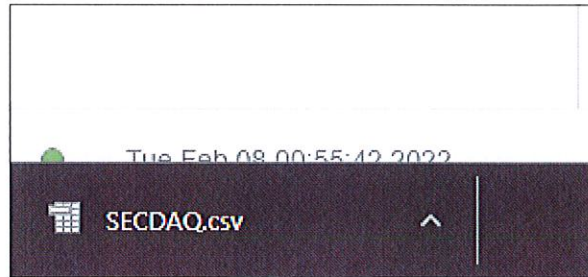
- You can display a wider range of data by pressing on the time selector button in the right side of the screen. By default, 10m is selected. You can change this to a longer time frame if desired. There are selections for 30m, 1h, and 8h.

- To export data in the form of a csv file, right-click on the table and select the Save option from the pop-up menu, as below.

MConc1	Offset1	Gain1	CTemp
0.199	0.000	1.000	100.000
0.199	0.000	1.000	100.000
0.199	0.000	1.000	100.000
0.199	0.000	1.000	100.000



- The data will download to the browser as shown in the lower-left of the following figure as SECDQA.csv. If there has already been a file downloaded previously, then the SECDQA file name will name will have an increment number (1, 2, 3, etc.) appended to the end. For example, SECDQA (1).csv will be the downloaded name if there is already a downloaded csv file.



- The CSV file can be opened with a standard text editor or Excel (as shown in the following figure).

