Directions for running Agilent 7890 GCs and OpenLAB software
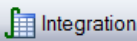
A. Basic Operation:

1. Sign log book.

2. The GCs stay on in shutdown mode. If needed, turn on the computer (front left power button). Wake up the computer, and enter password (written on instrument).

3. Click on the instrument online icon to open software and connect to the instrument. Sometimes an error message occurs saying that the instrument cannot be launched. If this happens, go to Control Panel icon on desktop and launch from there. To work with existing data or to explore the OpenLAB software without connecting to the GC, you can choose the offline icons.

4. When program opens, choose Download to Instrument option (the top of the three choices).

5. There are 4 sections of the OpenLAB software: Method and Run Control, Data Analysis, Review, and Report Layout. **Choose Method and Run Control** through the View menu on the top toolbar, or from the window in the lower left. Each section of the software gives different menu options.

6. **Method/Load Method** from top menu or use the pull down menu directly beneath the word **Method** in the top tool bar to load an existing method.

7. To run a single sample, select single vial icon in the top left. Select **RunControl/Sample Info** from top menu. Enter sample name and, in comments, enter operating parameters that will print on your chromatogram. Check the data file path (C:\Users\Public\Documents\ChemStation\1\Data) and Subdirectory (typically something like Chem230Fall2018).

8. When green **Ready** light is on in upper left computer screen, inject sample (usually 0.2 µL) and press **Start** on the GC instrument panel (top right white button).

9. On the online plot, (main portion of bottom window) click on the scroll arrows to change vertical or horizontal scale. Click on **Adjust** to reset baseline (you may have to do this several times.)

10. To end a run before the time specified in the method, press **Stop** button on the GC instrument panel, or select **Run Control/Stop Run** from the top menu. The data will be saved. **Abort** will stop the run without saving data.

11. A report will appear on the screen at the end of the run (set up in the **Report/Specify Report options** in the Data Analysis view). To print report as is, click on the printer icon on the tool bar. To fix vertical scale, see **Data Analysis**, below.

B. Data Analysis

1. To enter the Data analysis view, choose **View/Data Analysis** from the menu, or select in lower left. By default, the most recently run data will be loaded. To load other data use **File/Load** Signal from the menu.

2. To fix vertical scale on a chromatogram (e.g. large solvent peaks) use **Report/Specify Report** from top menu bar, then **Signal Options** button on the right. Adjust maximum

response range. To print this modified report, choose **Report** from top menu bar, then **print report.**

3. The ⬛ Integration button should be highlighted. Use the manual integration tools, 🔲🔲🔲🔲❌🔲🔲🔲🔲 to define or delete integrals. The red X button is particularly useful for getting rid of solvent peaks.

4. To adjust vertical scale in Data Analysis display, use the mouse to drag a box on the chromatogram. To adjust vertical scale in the printed report, mode use **Report/Specify Report** from menu as described above.

5. To Print a report use **Report/Specify Report** from menu, or 📄, select Use Classic Reporting, set other desired options. **Report/View Report File** or 🔍, then **Report/Print,** or 🖨.

C. To shut down for the day
1. From Method & Run Control, load SHUTDOWN.M on both GCs.
2. Close all open windows on the computers.
3. From the lower left blue Windows icon on computer screen, choose the power button, sleep.