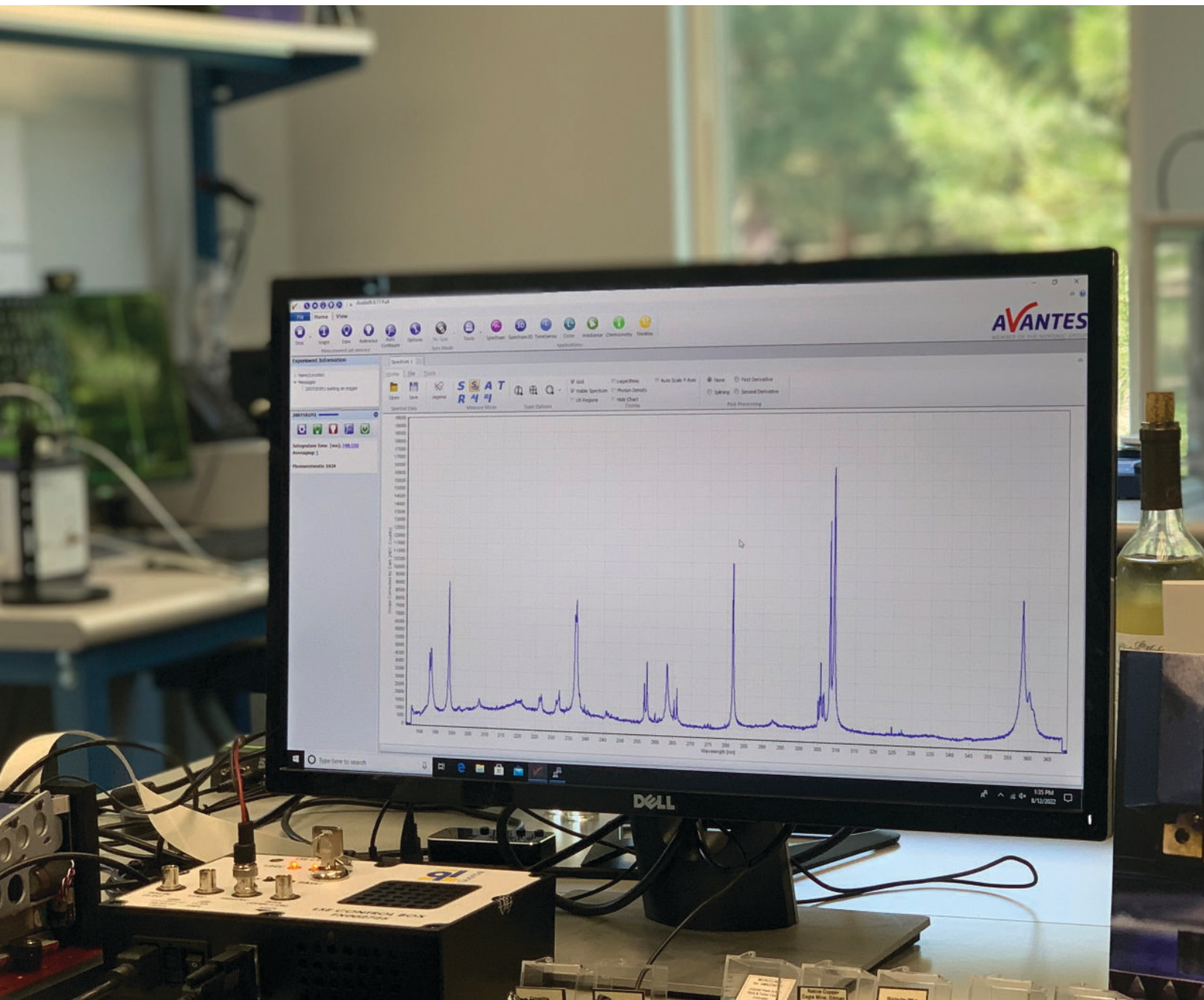


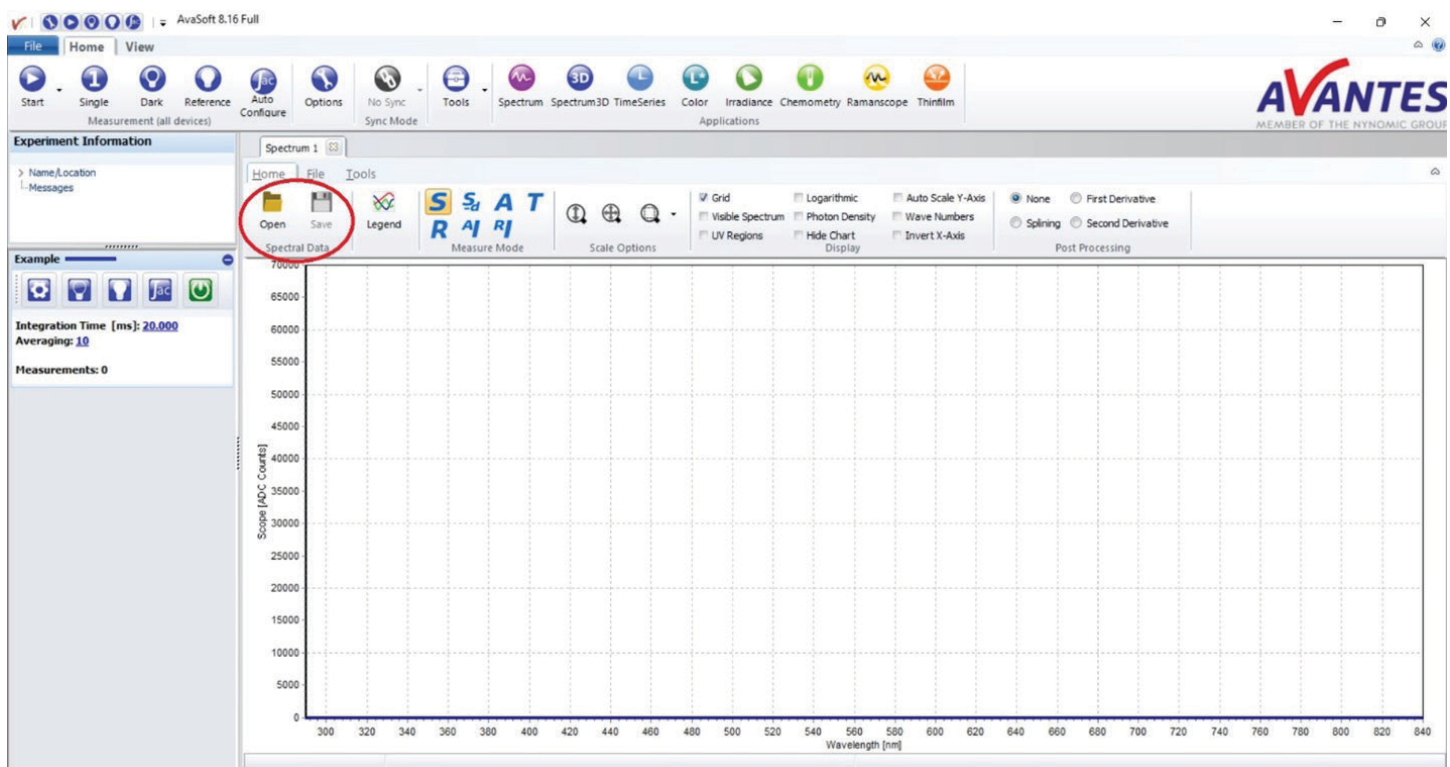
SPECTRAL TIPS AND TECHNIQUES: USING SPECTRUM TOOLS IN AVASOFT 8: OPEN SPECTRAL DATA AND LEGEND



INTRODUCTION AND STEPS

Many users of AvaSoft 8 are aware of the different measurement modes and modules available in the software, such as absorbance and irradiance measurement modes and TimeSeries and Color modules. Just within the standard Spectrum module, however, are many useful tools for analyzing data. Previously, we discussed the scaling, display, and post-processing tools available in the Spectrum module. In addition to these, the Spectrum module also offers means of saving and opening data directly in the module, as well as the ability to adjust the display color and line width of the spectral data. Below is a short guide covering opening spectral data and the legend tool in the Spectrum module in AvaSoft 8.

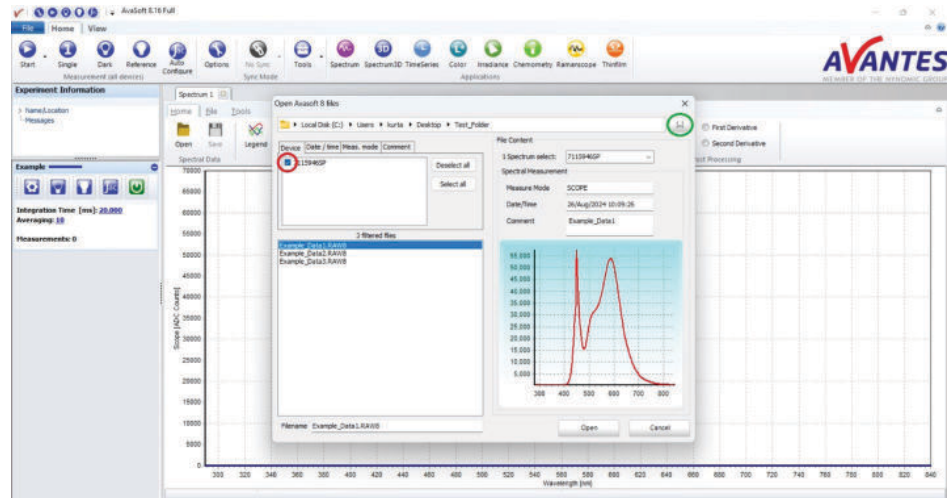
The 'Open' and 'Save' buttons are located in the Spectral Data box at the top-left portion of the Spectrum window (circled in red below). The 'Save' button will simply save the most current measured data when the button is clicked. A small window to add comments will open first, followed by a window to set the file name and save location. The comments window is a good spot to add information about the data, such as the integration time and number of averages used for the measurement.



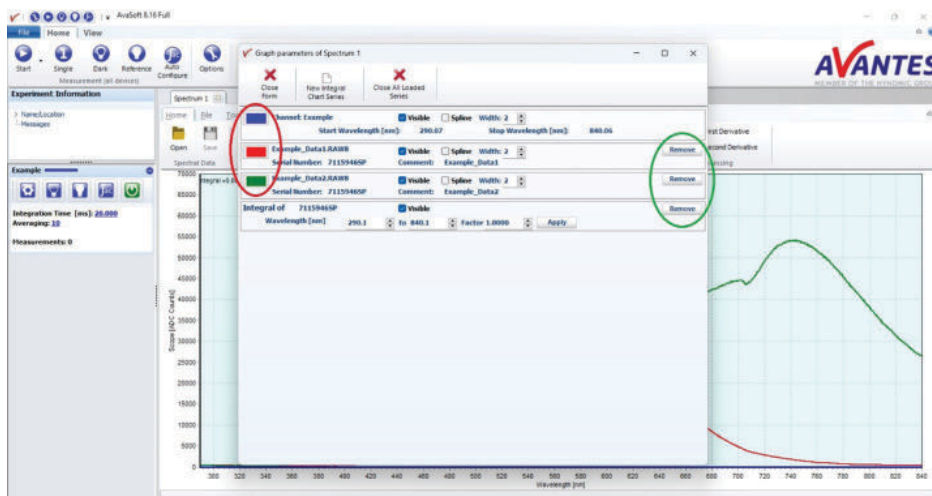
The 'Open' button will open a new window to select which data to open. By default, this will filter data sets in the folder by the serial number of the spectrometer used to take the measurement. The selected spectrometers can be changed by checking the box next to each spectrometer (circled in red below). Additionally, the 'Select all' and 'Deselect all' buttons can be used to toggle all spectrometers in the folder to be selected or deselected. Besides this means of filtering data, there are also options to filter data by data/time, measurement mode, and comments, each of which can be accessed by the respective tabs in the top-left of the window. To change the folder that is accessed, click the bracketed ellipses button in the top-right corner of the window (circled in green below). To select a data set to open, simply click one of the file names in the filtered files section of the window. 'Example_Data1.RAW' is selected below, as denoted by the filename at the bottom of the window, as well as the file content on the right side of the window.

The content shown includes the spectrometer serial number (if multiple spectrometers are used for one measurement, their data is saved and opened individually), the measurement mode, the date and time when the measurement was saved, the comments added when the data was saved, and a preview of the spectral data. Multiple data sets can be selected to open at one time by either holding the Shift or Ctrl keys, similar to other Windows software (there may be variation for Mac and Linux operating systems). Once the data is selected, click the 'Open' button at the bottom of the window to open the data.

The data will open in a pre-determined color order and at the same scale as the current spectrometer accessed by the software. If the opened data has a broader scale than the current spectrometer, simply click the 'Graphic Reset' button in the top-middle portion of the Spectrum window. To make adjustments to the individual data sets, such as changing the line color or closing loaded data, click the 'Legend' button next to the Spectral Data box.



This will open a new Legend window that lists each data set opened and the corresponding color for each data set. To adjust the color of a data set, click the color box to the left of the data set name (circled in red below). Here, the user can select either a predefined color or define a custom color by RGB or HSL values, as well as save this custom color for later use by clicking the 'Add to Custom Colors' button (the custom colors will reset when AvaSoft is closed). To toggle the visibility of a data set without closing the loaded data, click the 'Visible' box to the right of the data set name. To the right of this, the splining tool can be applied to individual data sets to smooth the data. The line width of the data can be changed using the scale to the right of the spline tool, where the default value is 2. On the rightmost side of each data set, the user can remove the data from the loaded set by clicking the 'Remove' button. To remove all loaded data sets, click the 'Close All Loaded Series' button at the top-middle portion of the window, displayed as a large red X. To the left of this button, the user can open an integral for an individual data set over a defined wavelength range by clicking the 'New Integral Chart Series' button. The user will then be prompted to select a data set. AvaSoft will automatically select the whole range of the data set, but this can be changed by the user later. Lastly, the 'Close Form' button will close the Legend window, as will the X button in the top-right corner of the window. It is important to close the Legend window rather than minimize it, as sometimes minimizing the window will place it outside of



the AvaSoft window where it cannot be accessed, and clicking the 'Legend' button will not pull up the window again. If this occurs, AvaSoft must be closed and reopened.

With these steps complete, opening spectral data and the legend tool can be utilized in the Spectrum module

CONTACT

WE'RE HAPPY TO HELP

Curious how spectroscopy can help you reveal answers by measuring all kind of materials, in-line, at your production facility, in a lab or even in the field? Please visit our website or contact one of our technical experts, we're happy to help you.

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