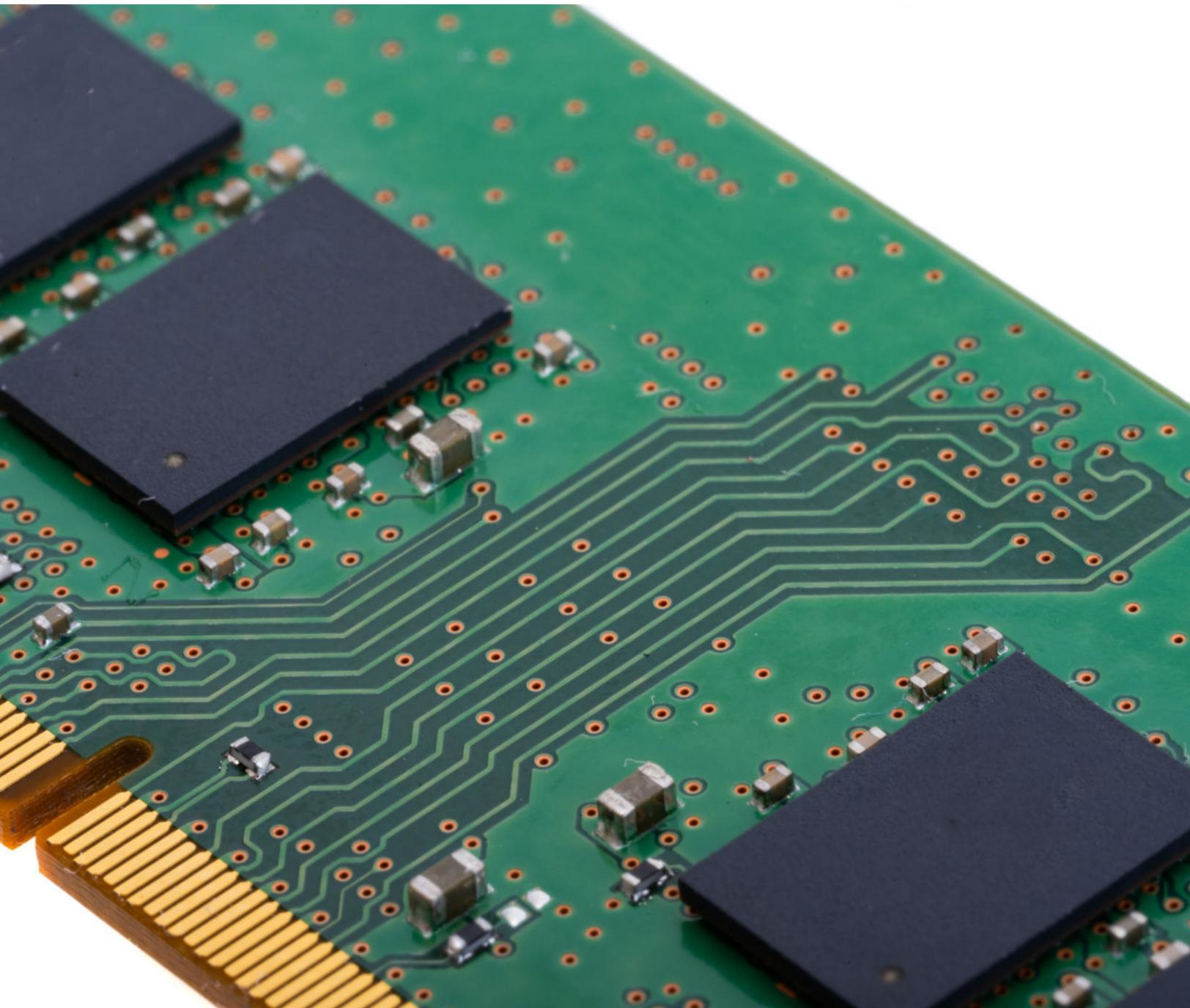


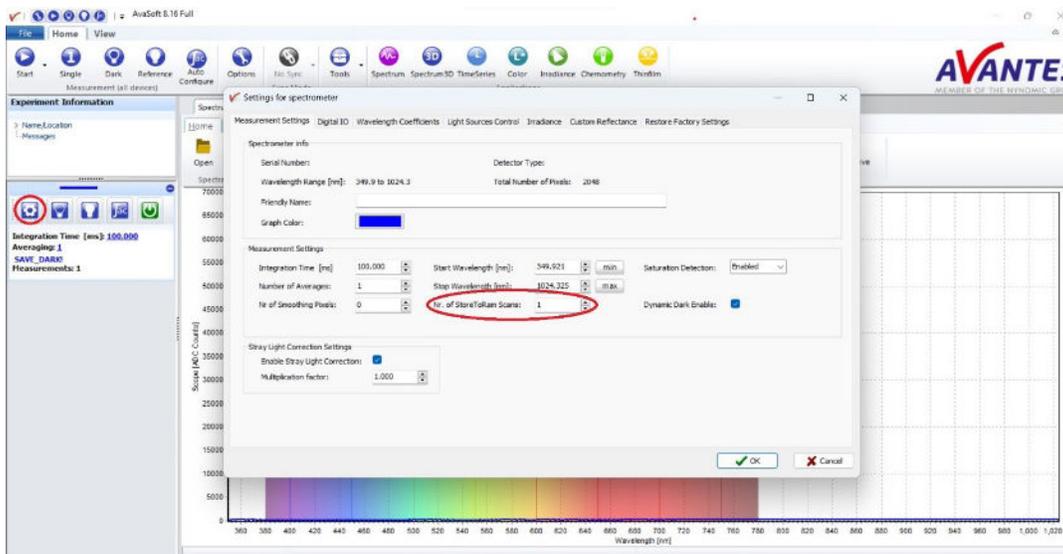
SPECTRAL TIPS AND TECHNIQUES: **USING THE StoreToRam FUNCTION IN AVASOFT 8**



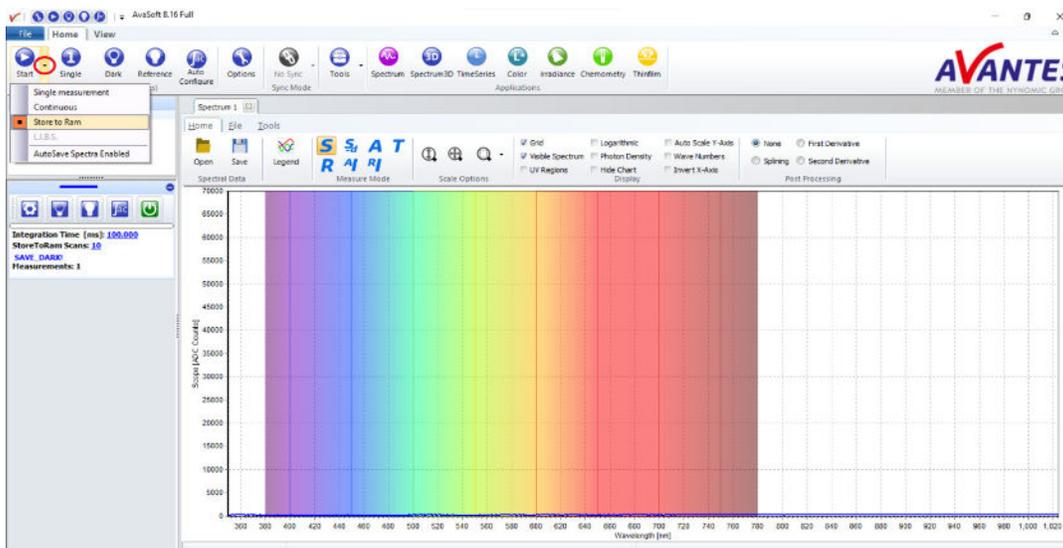
INTRODUCTION AND STEPS

In the field of spectroscopy, measurement time can vary widely. Some applications may require measurements that take multiple seconds, such as Raman or fluorescence measurements, while other techniques need time resolutions on the order of milliseconds, as is the case with laser-induced breakdown spectroscopy. When measurement times start to approach microseconds, communication time between the spectrometer and computer can start to become a factor and cause issues resolving the measurement time in such a small window. To combat this issue, Avantes spectrometers are equipped with a StoreToRAM function that allows a set amount of data to be stored on the instrument's onboard RAM, which is then sent to the computer after all of the measurements are taken. This ensures high-speed measurements are taken without being slowed down by communication time between the spectrometer and computer. Below is a short guide on using the StoreToRAM function in AvaSoft 8.

To use the StoreToRAM function, the number of scans to be stored must be set. This can be done by accessing the spectrometer settings (the cog wheel icon on the left of the window, shown here circled in red) and setting the number of StoreToRAM scans (also circled in red).



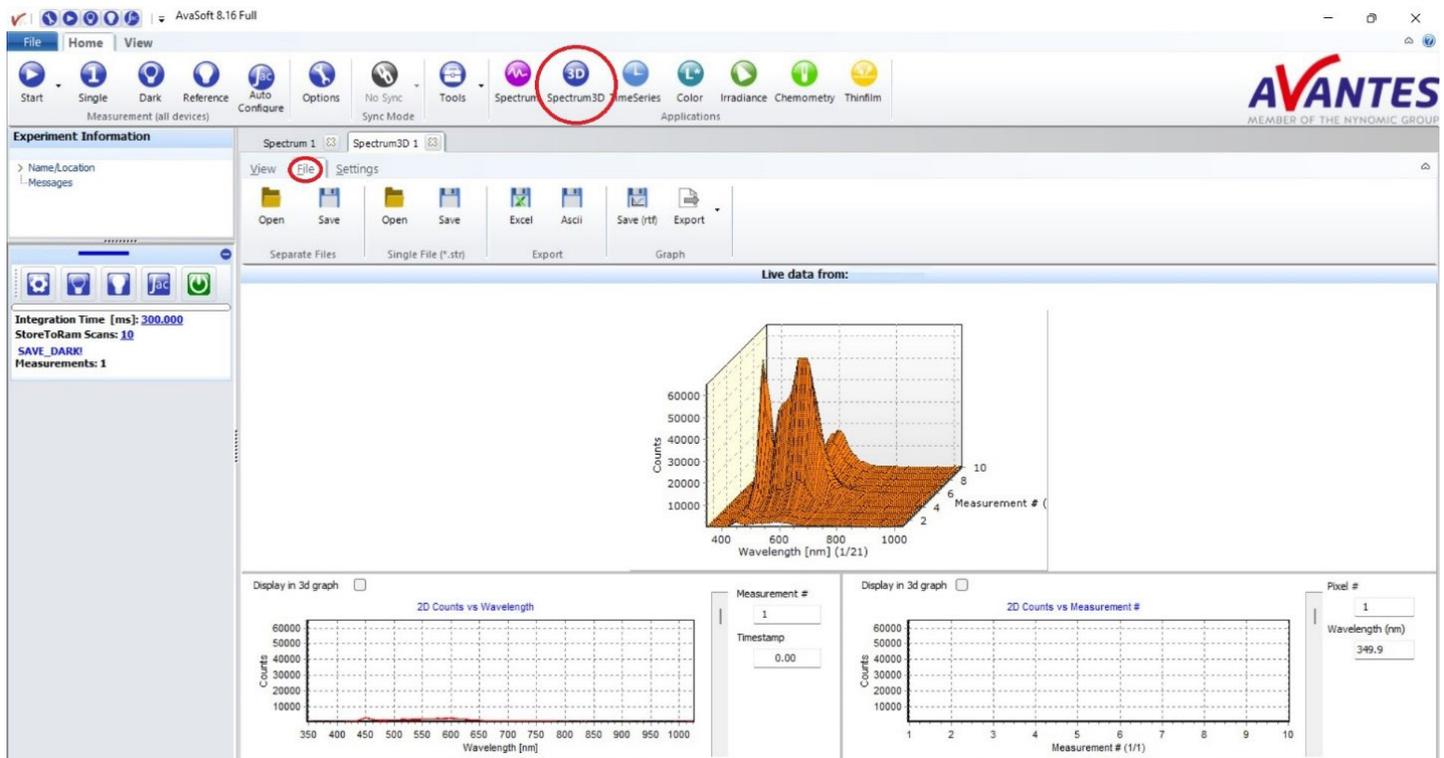
After this number is set, click OK and navigate to the Start dropdown menu (circled in red in the upper left corner below), select Store to RAM as the measurement mode, and click Start to begin taking measurements and storing these to the device's onboard RAM.



Under the Start button in the Experiment Information window, a message should appear indicating “store to ram busy”, and a progress bar should be visible just above the spectrometer integration time. Both circled in red in the following image:

Under the integration time, the number of StoreToRam Scans is seen and can be easily changed by clicking the number. It should be noted that, if dark or reference measurements are needed for the measurements, these should be taken first in continuous measurement mode before switching to the Store to RAM measurement mode.

Once the StoreToRAM scans are complete, the scans can be analyzed and saved through the Spectrum3D module. To open a window for this module, simply click the Spectrum3D button at the top of the window (circled in red below). This will auto populate the window with the scans saved on the instrument’s RAM. This data can be saved as separate AvaSoft files, a single AvaSoft file, an Excel or ASCII file, or a graph via the File tab (also circled in red below). Other tools available in the Spectrum3D module will be covered in a future guide.



With these steps complete, data has successfully been stored to the spectrometer’s onboard RAM and saved to the computer. Please reach out to our support team at support@avantes.com for further explanation or troubleshooting options.

SUPPORT & ADVICE

Providing high-quality equipment is only part of what we do. The other equally important factor is the high level of service we deliver. Our organization includes various services to provide you with the best support and advice:

Feasibility studies

Our sales engineers perform free feasibility studies to find your most ideal measurement setup.

Support team

Our support team never sleeps and provides you with the best possible service.

Demo program

Our demo program allows you to try our products for free to ensure that you find the perfect solution.

MyAvantes

Personal platform including AvaSoft software and other helpful material for you to download.

Online support

Helpful documents and tutorial videos on demand regarding to your products.



ABOUT AVANTES

We are Avantes, a leading player in the compact spectrometer industry. We operate in various industries, including (bio)medical, agriculture, semiconductor, and consumer electronics. Our instruments are found in world-class research laboratories, embedded in devices, or playing a crucial role in quality control during production.

With a long history of consulting with clients across various industries, Avantes is an **experienced partner** equipped to guide customers who want a solution tailored to their application and research needs.

Through our headquarters in the Netherlands and offices in the USA and China, our sales engineers work closely with our customers to find the most ideal measurement solution. In addition to our direct offices, Avantes has a **worldwide network** of distributors in over 35 countries ready to assist you. All of our products are made in our own production facility in the Netherlands.



Let our solutions empower your application

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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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