



GIF Tridiem® 863 Upgrade to Gatan Microscopy Suite® 2

Advanced Support for Imaging Filters and Spectrometers

The software for the GIF Tridiem® 863 has been completely updated in GMS 2. New functionality, improved automation and increased ease of use make for a much smoother and more efficient user experience.

In the new software all regular set-up and acquisition functionality is accessible from a new and streamlined AutoFilter® palette, allowing all steps from filter alignment through to final data acquisition to be performed easily.

Gatan Microscopy Suite® 2

The new GIF Tridiem® user-experience is part of the Gatan Microscopy Suite® (GMS) 2. This new generation of the GMS 2 supports the Windows 7 operating system and comes in both 32-bit and 64-bit versions. The support of Windows 7 brings with it a modern look-and-feel and the 64-bit version removes the data size limitations inherent in the 32 bit application. It is now possible to acquire very large data sets in (EFTEM) Tomography, Spectrum Imaging and Diffraction Imaging, giving you more freedom to explore and enhancing your research capabilities.

AutoFilter®

GMS 2 introduces a redesigned AutoFilter® palette which differs from its predecessor both in terms of appearance and also in functionality. The AutoFilter palette is divided into three functional groups:

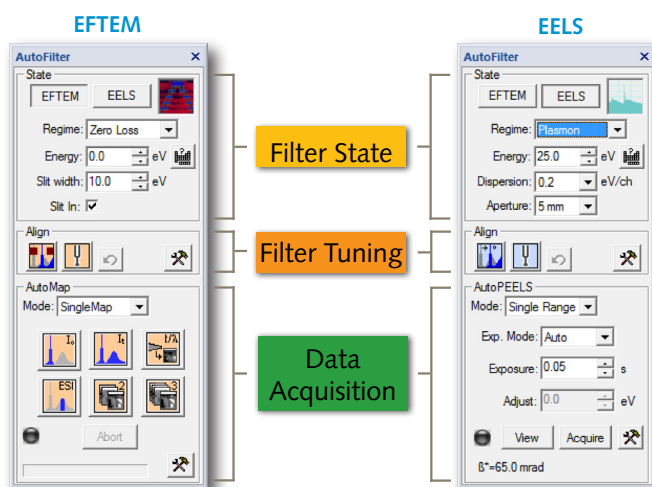
- **Filter status and control:** This group provides the essential controls for monitoring and controlling the status of the instrument. EELS and EFTEM push buttons allow the filter modes to be changed easily, whilst a Regime selector conveniently allows the user to place the instrument into a default or user-specified state for a particular experiment (e.g. pre-carbon imaging).
- **Tuning and alignment:** This group of buttons provides the necessary functionality to ensure the filter is set at the optimal state in a fast, automated manner for both EELS and EFTEM modes. Improvements and new tools for filter and spectrometer alignment ensure that it is quicker and easier to align and start data acquisition in GMS 2.
- **Data acquisition:** Data acquisition in EFTEM and EELS modes is provided by the AutoMap and AutoPEELS panels, respectively. See the detailed description of these panels below.

AutoMap

EFTEM elemental mapping and EFTEM Spectrum Imaging (EFTEM-SI) have been greatly improved by providing auto-exposure & auto-binning for one-click acquisition.

The AutoMap functionality includes support for:

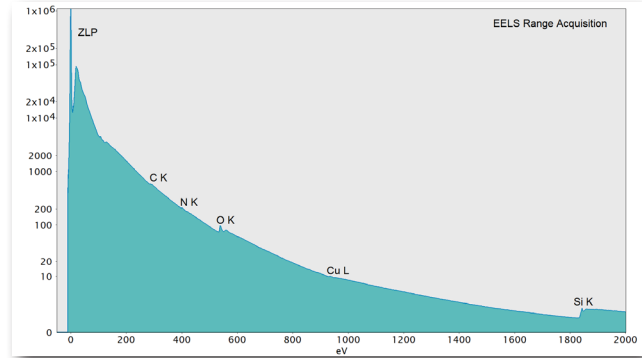
- **SingleMap:** Simplified, single element mapping. Search for “Gatan EFTEM” on YouTube to see how to use this feature.
- **EFTEM-SI:** Dynamic EFTEM-SI for advanced quantification. Allowing set-up by specifying an energy range or a set of edges to be mapped.



AutoPEELS

The EELS acquisition interface has been completely revised in GMS 2, with the interface based on the popular ENFINA® style UI used in earlier versions of GMS.

New features include auto collection-angle determination, predictive auto-exposure, auto-correlation of cumulative spectra and spliced RangeEELS*.



EELS Range spectrum, acquired over 7 spliced segments each with 10 summed spectra.

Advanced AutoFilter® Suite

A new product, Advanced AutoFilter® Suite, is now also available for GIF Tridiem® 863 users. It provides an elemental/sample-centric approach to acquiring data and supports automation and reproducibility. This product includes three tools to unify data acquisition and analysis between EELS and EFTEM:

Advanced AutoFilter® Suite Features	Benefits
EFTEM multi-mapping	<ul style="list-style-type: none"> Acquire multiple EFTEM maps with a single click. (Search for "Gatan EFTEM" on YouTube to see how to use this feature.) Save and recall experimental profile for easy and accurate reproducibility. Auto-save and organize maps for fast results and ease of use.
Advanced EFTEM-SI	<ul style="list-style-type: none"> Acquire data by element via a Periodic table UI. Auto-exposure options for extended EFTEM-SI acquisition.
EELS Range	<ul style="list-style-type: none"> Acquire extended range EELS spectrum in a fully automated manner.

Ordering information

Model	Description
Online modules for 32 bit OS, running on Windows XP and Windows 7	
700.LS.863.0U2.32.1	GIF Tridiem® 863 software upgrade to GMS 2
700.LS.777.00U2.32.1	STEMPack for GIF Tridiem® software upgrade to GMS 2
700.LS.702.90.32.1	Advanced AutoFilter® Suite
Online modules for 64 bit OS, running on Windows 7	
700.LS.863.0U2.64.1	GIF Tridiem® 863 software upgrade to GMS 2
700.LS.777.00U2.64.1	STEMPack for GIF Tridiem® software upgrade to GMS 2
700.LS.702.90.64.1	Advanced AutoFilter® Suite

Primary Applications:

- TEM
- EELS
- EFTEM

*Denotes features that are part of the Advanced Suite.

Please consult your sales representative for details on other modules compatible with the GIF Tridiem® 863, such as Diffraction Imaging, Tomography (including STEM and EFTEM Tomography), and off-line modules for Spectrum Imaging and EFTEM Analysis. Product requirements are subject to change.

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