

## Auto Slice & View G3

Automated serial sectioning for high resolution 3D characterization

Auto Slice & View™ is software for automated acquisition of high resolution 3D images: it acquires data by milling serial sections (slices) and imaging each slice of a user-defined volume of the sample.

The latest generation of Auto Slice & View incorporates enhancements that increase reliability and improve performance. Its improved user interface facilitates the setup and monitoring of the whole acquisition process. Advances in automation enable the collection of multiple images from each slice with different column and stage settings, utilizing multiple detectors to acquire multiple data sets that can be used for the reconstruction of 3D volumes of images.

Data acquisition and storage of images is managed in Projects. Each new Project can be set up easily from the user interface using a step-by-step process and represents an experiment on a sample at one particular area of interest. Multiple consecutive Projects can be defined for the same sample. After setup, the execution of the Project(s) automates the slicing and image acquisition process and can be left unattended. System stability and reliability enable Projects that can execute over long periods of time (up to days) with a very high success rate. Status and progress of a running Project can be monitored and reviewed. Notifications of important events can be sent to selected email addresses. After completion, images of slices acquired and stored in each project can be converted to a three-dimensional volume for further analysis and viewing using third-party software.

Auto Slice & View utilizes the latest features of FEI's DualBeam™ technology to automatically and precisely mill through a sample, and, image consecutive slices of a well-defined thickness down to 10nm, enabling the internal structure and three-dimensional nature of the sample to be fully revealed. Accurate slice spacing and precise image alignment enable the exact reconstruction of the sample features in 3D for further measurements and analysis.

Non-conductive samples are accommodated by using several integrated features such as drift suppressed milling and charge neutralization mode. Low vacuum electron beam imaging is enabled for supporting Quanta™ 3D FEG and Versa 3D™ instruments enabling 3D imaging and analysis of an even more extensive range of samples.

### KEY BENEFITS

Fully automated workflow.

Easy-to-use interface.

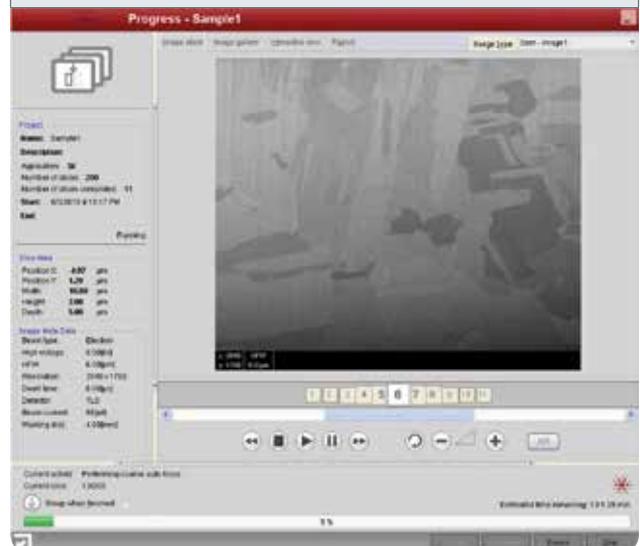
High throughput.

Advanced image recognition for alignment.

Supports acquisition of multiple images per slice.

Minimum slice thickness down to 10 nm.

Reliable execution.

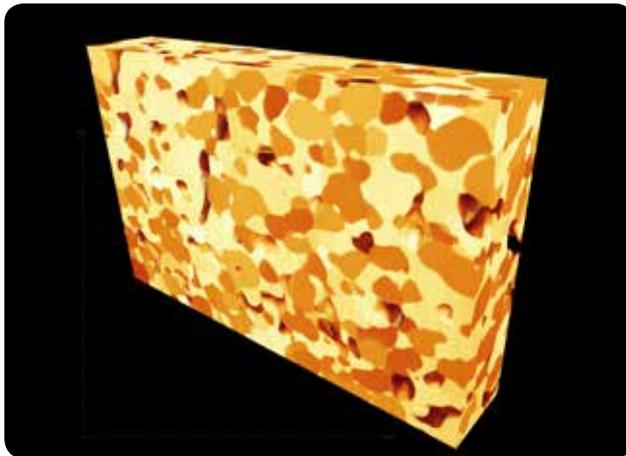
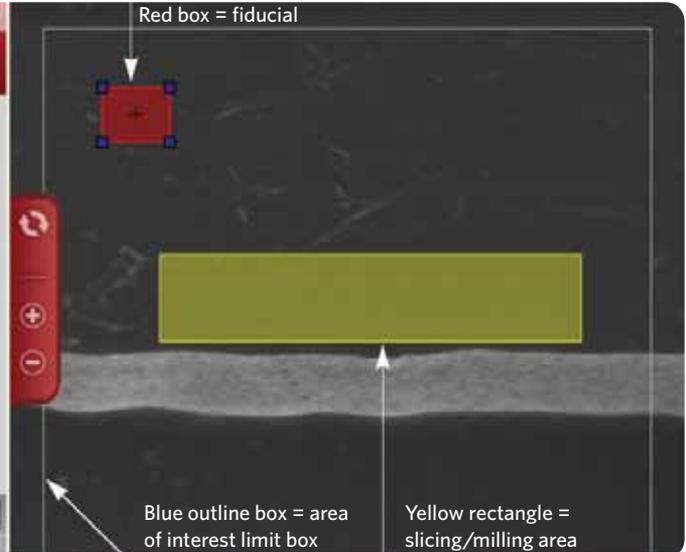


### Auto Slice & View G3 extended

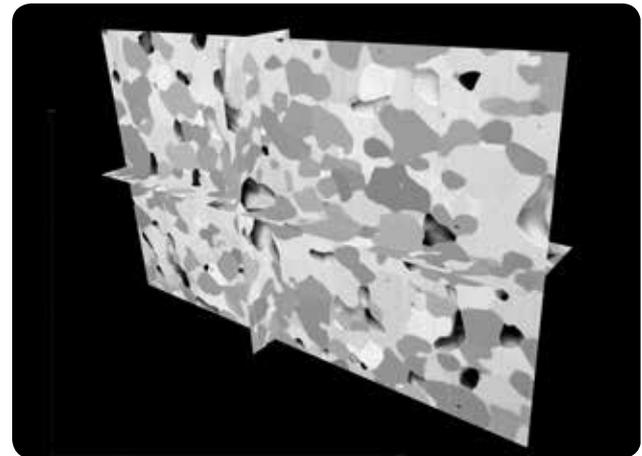
Auto Slice & View is available as a base and extended version. The extended version supports additional features like slice thickness measurement, image alignment, advanced autofocus and image tiling that allows precise acquisition of larger areas at higher pixel resolution.

### Step-by-step setup process

A project is created using a step-by-step process that leads the operator through the Auto Slice & View workflow that includes set up of microscope configuration, milling parameters, sample preparation, imaging parameters and auto focus parameters.



↑ **Offline reconstruction of 3D volumes.** Reconstructed 3D volume of a fuel cell electrode using ResolveRT\*. Sample courtesy of Sabanci University, Turkey.



↑ Orthoslices of the fuel cell electrode. With ResolveRT, the slices can be moved through the sample exhibiting details in the 3D volume. Movies can be created that display the movements through the sample.

\*ResolveRT, Amira and Avizo are high-performance 3D visualization software packages from VSG (an FEI Company), and can be ordered separately. More information can be found at [www.vsg3d.com](http://www.vsg3d.com).

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