

Maps 3 Software for Materials Science

Multi-Scale Materials Characterization Correlative Workflow Package

Thermo Scientific™ Maps™ Software is an automation and correlative workflow software suite for Thermo Scientific SEM, DualBeam™ and TEM platforms. As part of the operation workflow, Maps Software allows you to easily and automatically acquire large 2D mosaic datasets. As part of an inspection workflow, Maps Software allows you to inspect the complete sample in more detail, while correlating data from multiple sources. Accepting a wide range of image formats, Maps Software provides you with an easy way to import, align and co-visualize multi-modal, multi-scale imagery.

Automate your acquisition

Maps Software is wrapped within an intuitive user interface that allows you to set up and acquire individual or multiple mosaics with ease. The automation of image acquisition removes the need to spend hours looking for regions of interest. You can easily and quickly collect overview mosaics, locate regions of interest and then set the system to automatically collect higher-resolution data at chosen sites, with minimal oversight. A single user can set up and run multiple mosaic collections on multiple samples to ensure the time spent on the microscope is maximized for acquiring high-quality, impactful data.

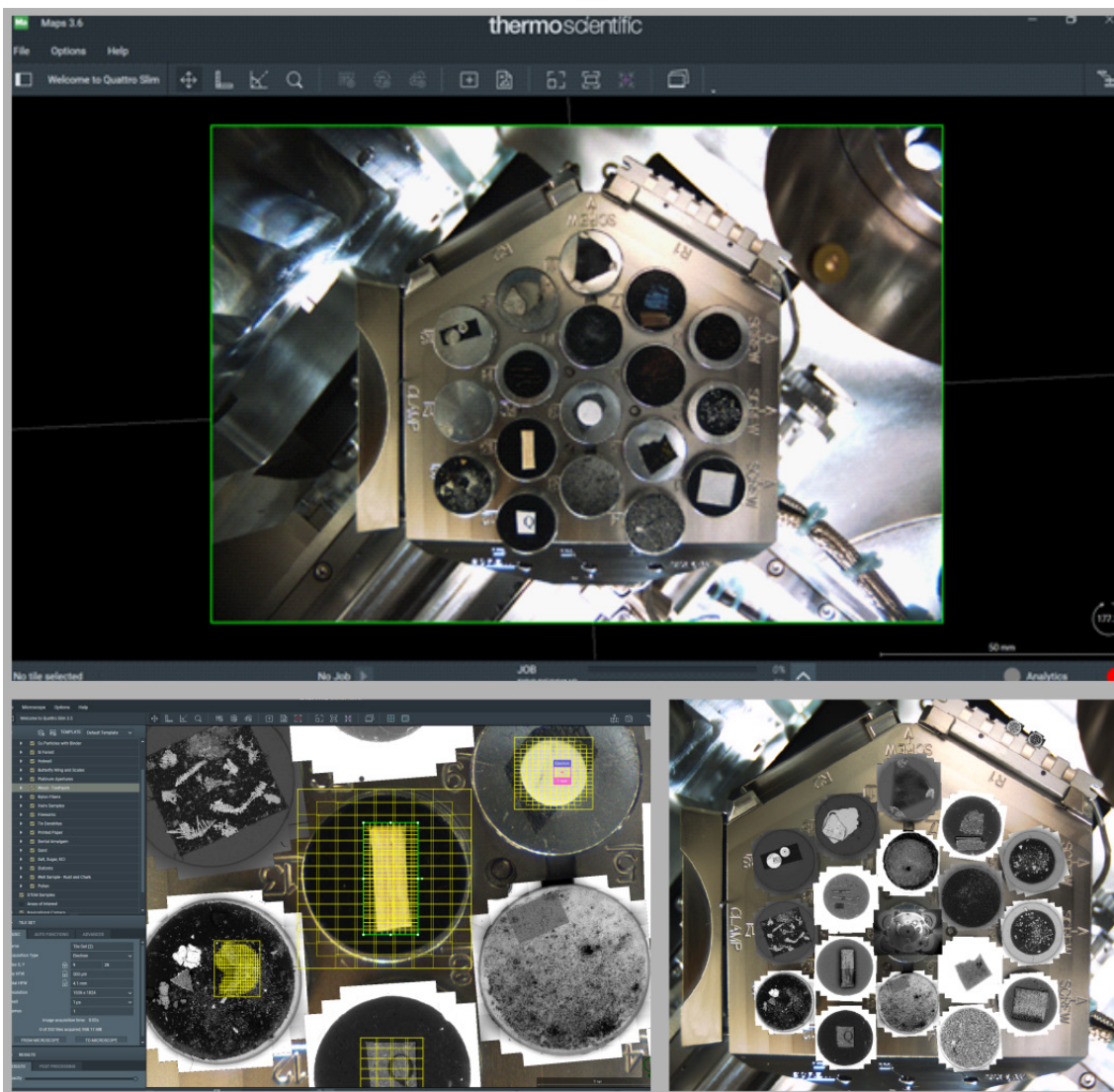


Figure 1: Maps Software makes it easy to set up automated acquisition on single or multiple samples during a single session. (Shown: Thermo Scientific™ Quattro SEM multi-sample holder.) Making it easy to set up and control your experience, Maps Software brings the power of context to every dataset you collect.

Explore your data

Once data has been collected, Maps Software allows you to explore your data away from the microscope. Having all your full-resolution data at your fingertips increases the value gained from your analysis and provides a digital archive of your sample or experiment. Optional offline versions of Maps Software provide an easy way to review, annotate and share observations of your data away from the SEM. Collaborate, plan for future imaging work or just peruse your data from your own laptop—Maps Software increases productivity while accelerating research and discovery.

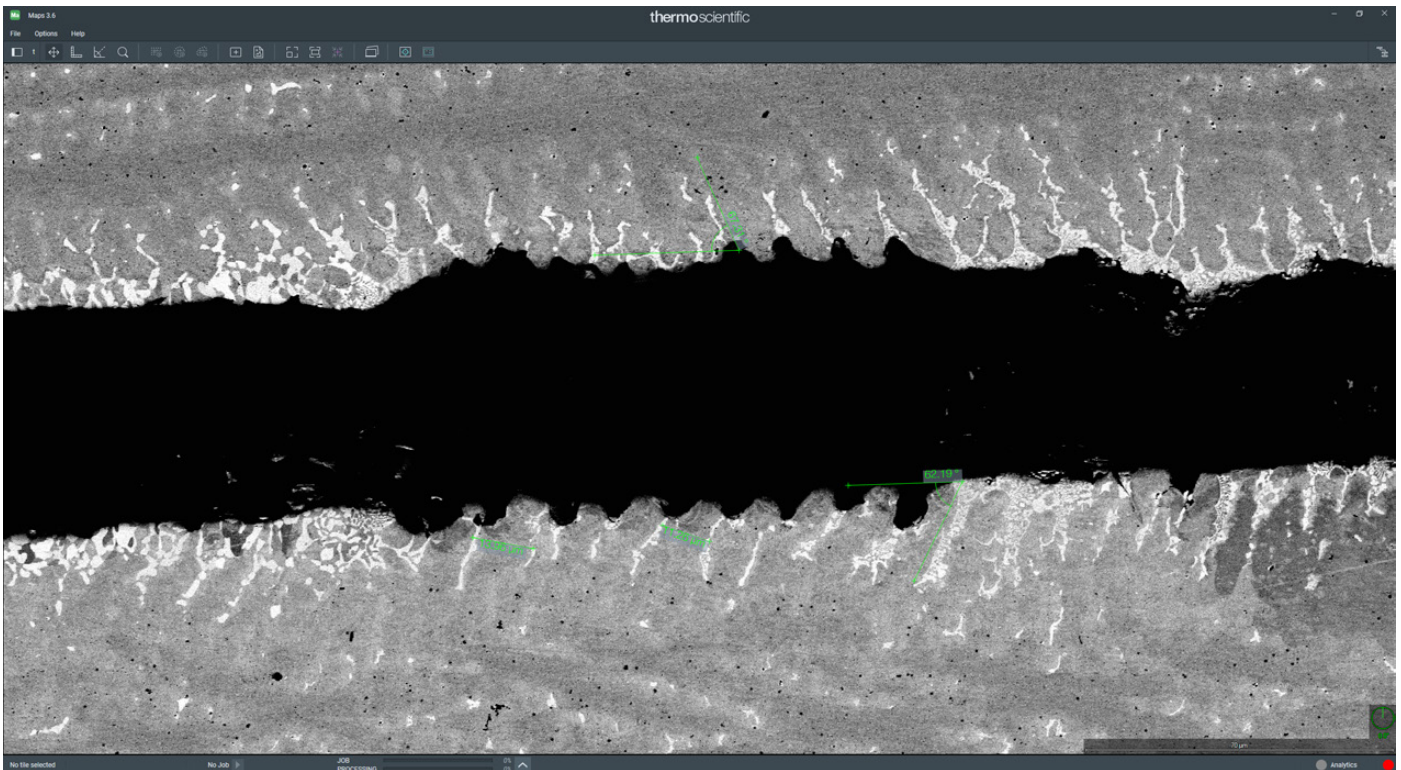


Figure 2: Backscattered electron image of a fracture induced by concentration of a melt phase developed during additive manufacturing of an Inconel-based part. Maps Software makes it easy to go from observation to quantification using an array of measurement and annotation tools. Annotations, notes and measurements are all preserved in a project file for storage, which also makes it easier to share interpretations of your data.

Correlate your data, extend your observations

No single image modality has all the information needed for complete materials characterization; Maps Software was built with this knowledge in mind. The centerpiece of Thermo Fisher Scientific's correlative imaging workflow, Maps Software is compatible with all Thermo Scientific SEM and DualBeam systems. You can easily move samples across any of our EM imaging platforms, realign and continue adding to a dataset within a single dedicated project. Maps Software also handles automatic stitching and exporting of mosaic datasets. You simply choose between several stitching algorithms and then export directly to RAW, tile TIFF or HDview-compatible formats.

Maps Software is compatible with most standard image formats and is completely open to the source of imagery. Whether your data is based on imaging technologies from a SEM, DualBeam or TEM platform, or it is sourced from external or third-party platforms, Maps Software provides a robust home to correlate and interrogate your imaging data. Once data is imported, you are provided with guided workflows to register, scale and visualize any number of image layers. All of your data, while in one place, can be correlated for powerful integrated interpretation for microstructural characterization.

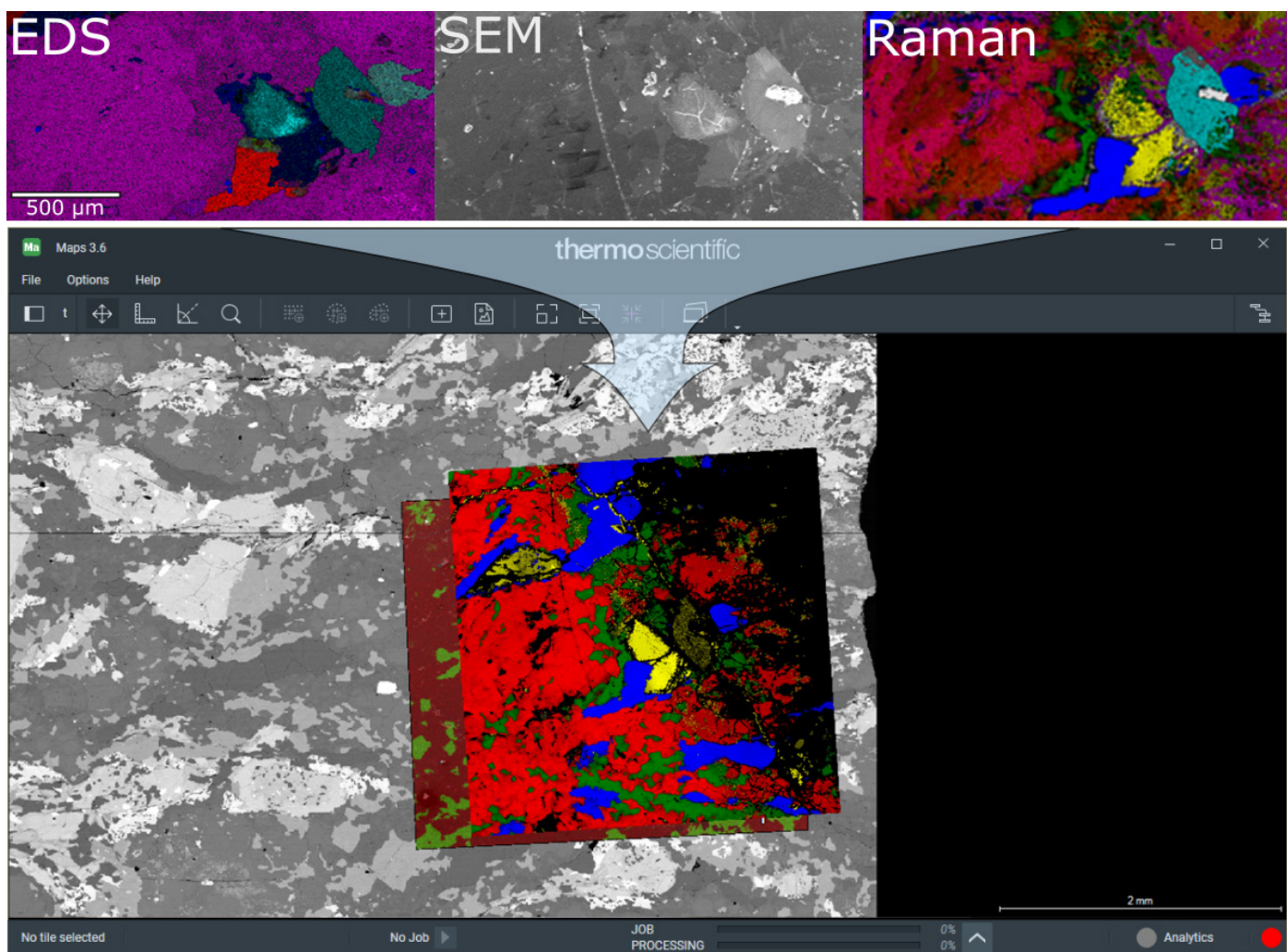


Figure 3: Context is key. Example from a geologic sample merging data from SEM, SEM-EDS and standalone Raman microscope (Thermo Scientific™ DXR™2xi Raman Imaging Microscope). Maps Software provides a guided import and correlation workflow, making it easy to bring in all your imagery for simultaneous viewing and interpretation within a single environment.

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Find out more at thermofisher.com/EM-Sales

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