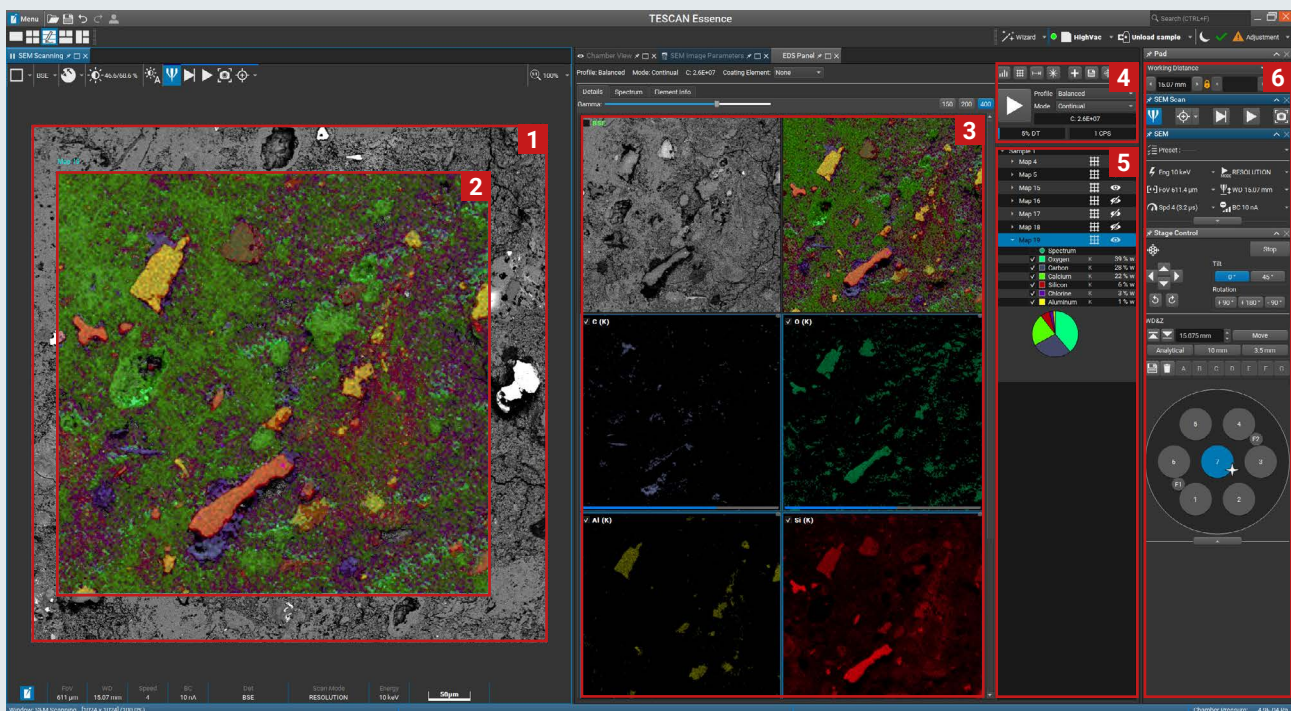




TESCAN Essence™ EDS

Acquire microanalysis data quickly and easily with this fully integrated module for Essence™ microscope operation software

Make analytical SEM operation easy and fast for all users with TESCANA's optional Essence™ EDS. Essence™ EDS combines microanalysis and SEM imaging in a single live view window within TESCANA's Essence™ graphical user interface to maximize operational efficiency. In addition, as a fully integrated solution, Essence EDS provides immediate access to the elemental spectrum at any point or region of interest, presenting data – atomic weight, concentration of elements present or the distribution of detected elements – as maps or line profiles.



▲ Layout of Essence™ EDS within the Essence™ software GUI. Analysis can be operated directly in the live SEM window.

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|--|----------------------------|
| 1 Live view SEM window | 4 EDS control panel |
| 2 EDS map in SEM window | 5 Data tree |
| 3 Display of complete EDS results | 6 SEM control panel |

**Key benefits:**

- ✓ **Improve analytical workflow efficiency for all users, even those new to SEM and EDS**, with the easy to learn and use, fully integrated Essence™ EDS module, which replicates the operating principles of TESCANA's Essence™ software
- ✓ **Provide experienced EDS users with sophisticated tools built-in to Essence™ EDS**, like the choice of up to 8 electron-based signals for correlation with EDS, and fast analytical pre-screening of features of interest, without leaving the live view SEM window
- ✓ **Collect, survey, zoom and view EDS data at the precise acquisition location** using the coordinate-anchored EDS overlay in the live SEM scanning window
- ✓ **Efficiently access and view EDS information from your sample** using the clear, auto-stored data-tree structure with both SEM image and corresponding EDS results available together
- ✓ **Validate and complement your microanalytical results at any time** by recalling the auto-stored dataset for the analyzed area of interest
- ✓ **Rapidly acquire EDS data** with TESCANA's Essence™ EDS detector, which performs extremely well at the nano Ampere range (30 mm² window and input count rate up to 1 mil cps)
- ✓ **Rely on high EDS data quality**, TESCANA Essence™ EDS is built on 10 years of experience developing EDS algorithms for demanding analytical applications (TESCAN TIMA)
- ✓ **Benefit from the advantage of consolidated support**, with upgrades, updates, training and service available from a single vendor

Applications:

- Routine EDS inspection of metal samples in industrial quality control or failure analysis labs
- Characterization of elemental heterogeneity for a wide variety of materials
- Phase identification by combining backscattered electron microscopy with quantitative elemental analysis