EDAX Smart Insight

AMETEK® MATERIALS ANALYSIS DIVISION

Product Bulletin - EDS & EBSD

TEAM™ Pegasus Analysis System

- Fully integrated and seamless EDS and EBSD characterization
- Smart Features guarantee optimized acquisition setup and data quality
- Intuitive and easy to use TEAM™ user interface
- Dynamic EDS and EBSD mapping allows real time data analysis

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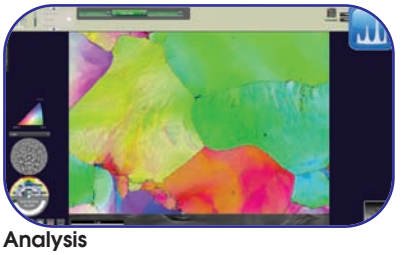
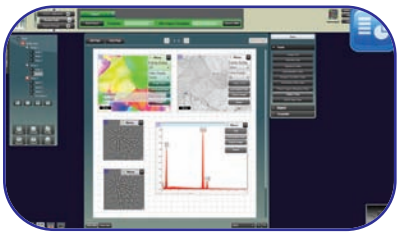
TEAM™ Pegasus is a world-class materials characterization solution providing users with both elemental composition and crystal structure results in one easy-to-use EDS-EBSD package.
Smart Features in the TEAM™ software streamline analysis and facilitate workflow, while optimizing data quality and helping EDAX users solve their characterization problems quickly and more efficiently.

Startup



Analysis



Reporting

Ease of Use

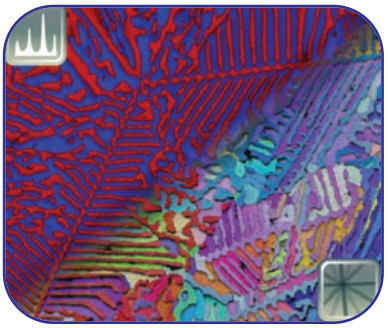
- 3 click workflow from the start of analysis to the final report
- Smart Features optimize system setup, data collection, analysis, and reporting
- User profiles with customizable preferences and settings
- Full access to and control of all advanced level user settings

Smart Features

- Smart Diagnostics - to ensure the best data in the shortest time, detector and microscope conditions are constantly monitored to provide guidance on setup and collection of EDS data
- EXpert ID - automation of Peak ID using analytical intelligence combined with real world analysis techniques
- Smart Mapping - automatically collects a preview spectrum, selects the elements to map and creates phases based on the combination of elements being measured
- Smart Camera - automatic optimization of EBSD camera settings
- Smart Indexing - accurate EBSD solutions through unique triplet indexing and confidence index values
- Smart Data Management - intuitive and flexible data management keeps work sessions organized

Integrated Collection

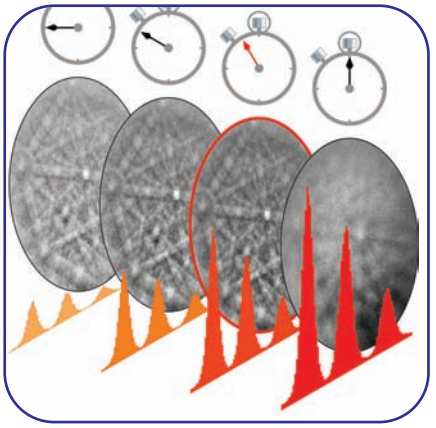
- TEAM™ Pegasus seamlessly integrates EDS and EBSD into a single application
- Easily switch between EDS, EBSD and simultaneous EDS-EBSD acquisition as required
- Collect full spectral map simultaneously with OIM™ for complete characterization of your samples
- Compatible with Octane SDD series EDS detectors and Hikari and DigiView EBSD cameras



Integrated Collection.

Time Machine

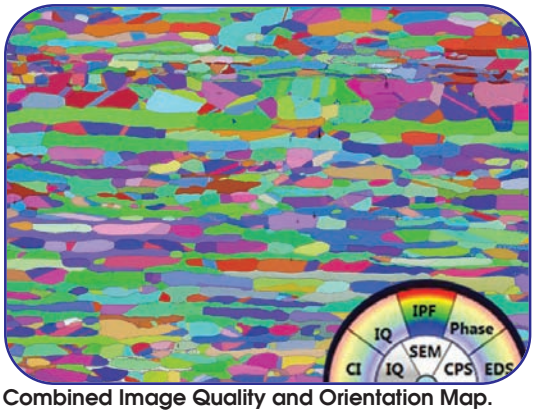
- Patented approach for optimizing EBSD pattern quality
- Simultaneous EDS-EBSD collection synchronized over acquisition time
- Data are time stamped to enable users to recall any portion of the data after collection
- Ideal for samples where beam damage, contamination or drift might be an issue



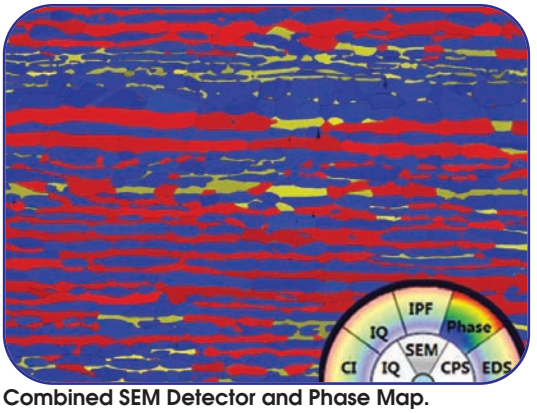
Time Machine.

Dynamic Mapping

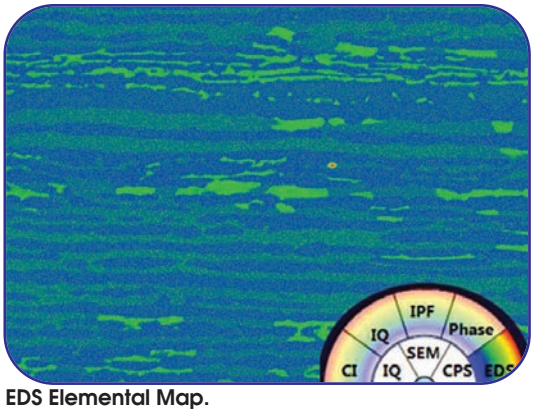
- See results live during data collection
- Select interactively from different EDS, EBSD, and SEM imaging maps including orientation, composition, and phase
- Combine gray scale and color images to maximize information content



Combined Image Quality and Orientation Map.



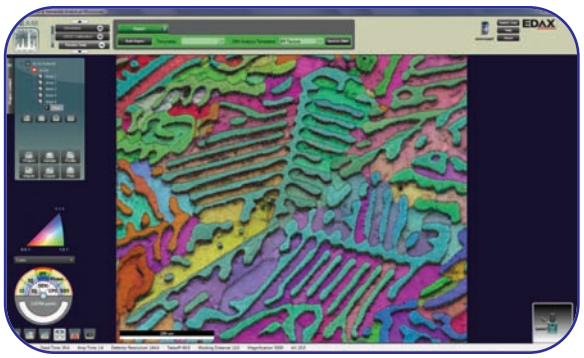
Combined SEM Detector and Phase Map.



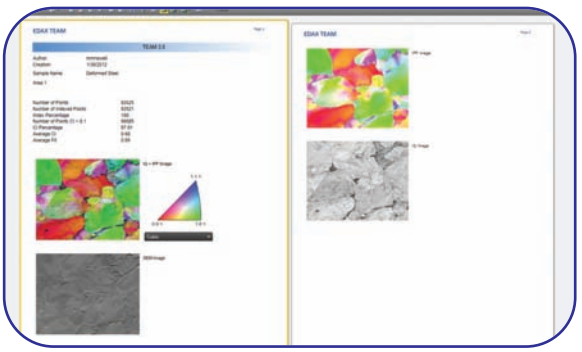
EDS Elemental Map.

Reporting

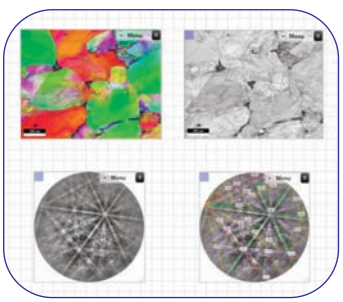
- Organize and communicate results efficiently with TEAM™ Reporting
- Quick Reports provide a complete summary of data from both Point Analysis and Mapping modes for EDS, EBSD, and integrated analysis
- Custom Reports allow the user to tailor report content and layout to specific analytical needs
- Direct access to OIM Analysis™ and application-specific and customizable analysis templates for advanced and interactive EBSD reports



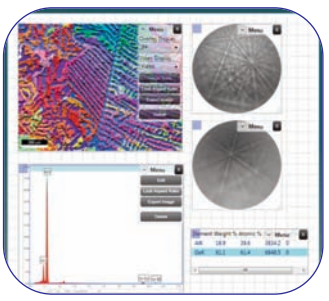
Mapping results screen.



Quick Report.



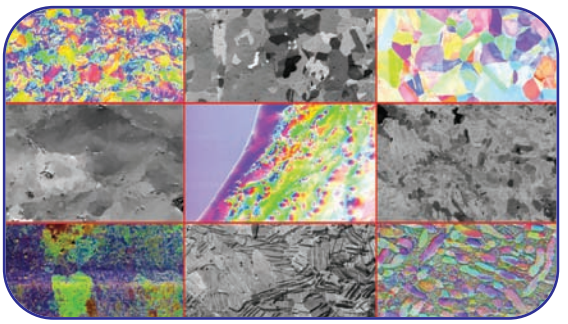
Custom EBSD Report.



Combined EDS and EBSD Report.

PRIAS™

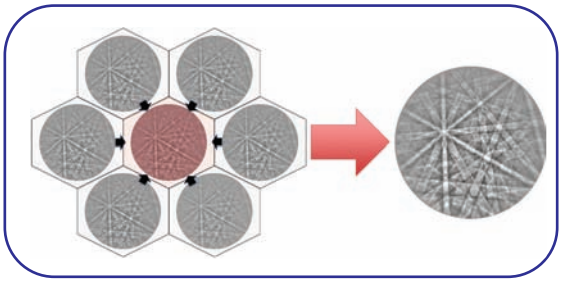
- Innovative EBSD imaging system for synchronous collection from multi-positional electron detectors
- 3 modes of operation to meet imaging requirements



Array of PRIAS™ images.

NPAR™

- New EBSD approach to improving signal to noise while maintaining acquisition speeds
- Collect EBSD faster and/or at lower beam currents
- Get more from the data you collect



NPAR™ Spatial Pattern Averaging.

Conclusion

TEAM™ Pegasus is the answer to difficult material characterization problems. By providing both elemental and crystallographic results quickly and easily, TEAM™ Pegasus enables users to focus their efforts on understanding their materials, rather than on collecting data.

Specifications

TEAM™ Pegasus Software Suite

TEAM™ EDS and TEAM™ EBSD Software

- Smart Track
- Smart Diagnostics
- Smart Data Management
- Smart Acquisition
- EXpert ID
- Smart Mapping
- Smart Camera
- Smart Background
- Smart Indexing
- OIM Analysis™
- Triplet Indexing Algorithm
- Built-in Confidence Index

Additional EBSD Software options

- PRIAS™
- NPAR™

Cameras and Detectors

TEAM™ Pegasus is compatible with the following silicon drift detectors (SDDs) and cameras:

For EDS, the Octane Elect and Elite SDDs include industry leading electronics providing outstanding efficiency and resolution across the full range of count rates. These detectors offer a solution for every analysis problem.

For EBSD, the available choices are the market leading Hikari camera with an excellent blend of speed and sensitivity, and the high resolution DigiView camera.

Octane Elect and Elite Silicon Drift Detectors

- Octane Elect and Elite detectors designed specifically to meet the demands of key microanalysis applications
- Best light element sensitivity with silicon nitride (Si_3N_4) window
- Vacuum enscapsulated module
- Highest throughput SDDs available with unparalleled resolution
- Safe for plasma cleaning

Hikari EBSD Camera Series

- High speed and high sensitivity EBSD camera for maximum performance across the widest range of sample and system operating conditions
- Integrated forward scatter detector for orientation, topographic, and phase contrast imaging on tilted samples
- Bellows-sealed motorized interface to preserve vacuum integrity and protect your SEM

DigiView EBSD Cameras

- Versatile EBSD detector offers a high resolution solution for both EBSD mapping and point analysis
- Optional forward scatter detector for orientation, topographic, and phase contrast imaging on tilted samples