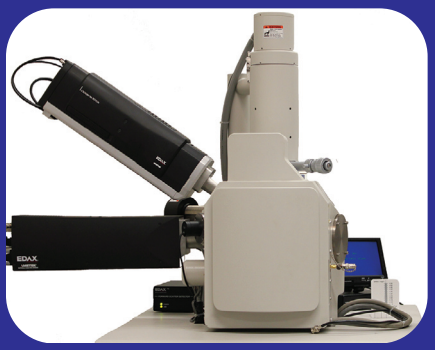
EDAX Smart Insight

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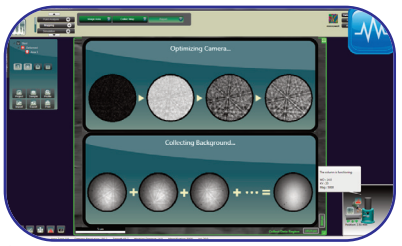
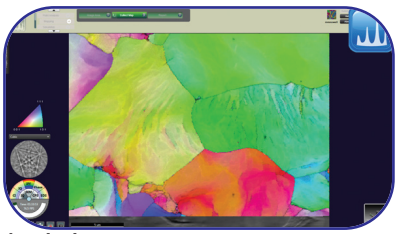
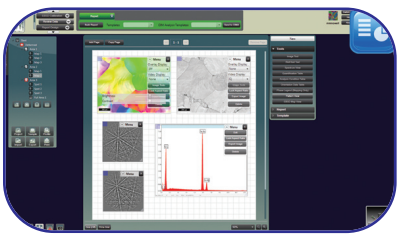
TEAM™ Pegasus is a world-class materials characterization solution providing users with both elemental composition and crystal structure results in one easy-to-use EDS-EBSD package.
Smart Features in the TEAM™ software streamline analysis and facilitate workflow, while optimizing data quality and helping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



Startup



Analysis



Reporting

Ease of Use

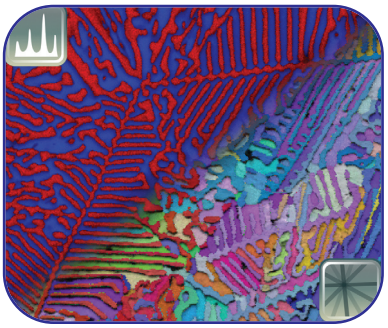
- 3 click workflow from the start of analysis to the final report
- Smart Features optimize system setup, data collection, analysis, and reporting
- User profiles with customizable preferences and settings
- Full access to and control of all advanced level user settings

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

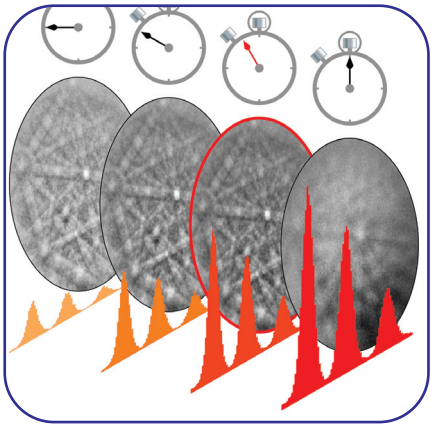
- TEAM™ Pegasus seamlessly integrates EDS and EBSD into a single application
- Easily switch between EDS, EBSD and simultaneous EDS-EBSD acquisition as required
- Collect full spectral map simultaneously with EBSD data for complete characterization of your samples
- Compatible with Octane SDD series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



Integrated Collection.

Time Machine

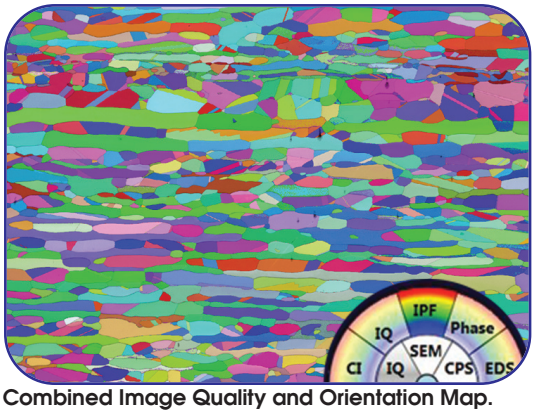
- Patented approach for optimizing EBSD pattern quality
- Simultaneous EDS-EBSD collection synchronized over acquisition time
- Data are time stamped to enable users to recall any portion of the data after collection
- Ideal for samples where beam damage, contamination or drift might be an issue



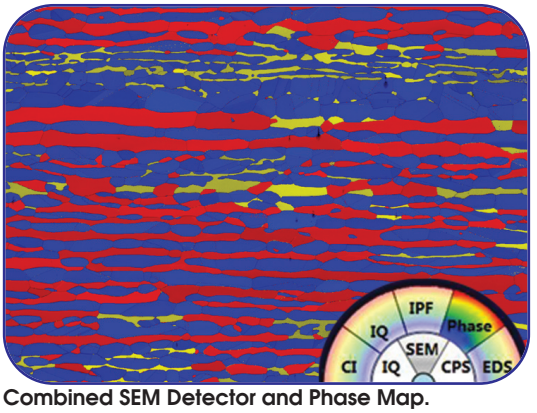
Time Machine.

Dynamic Mapping

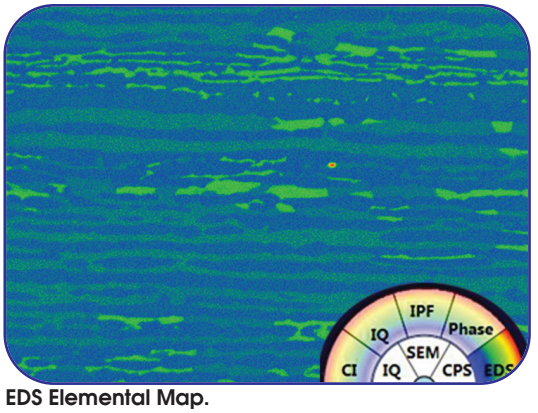
- See results live during data collection
- Select interactively from different EDS, EBSD, and SEM imaging maps including orientation, composition, and phase
- Combine gray scale and color images to maximize information content



Combined Image Quality and Orientation Map.



Combined SEM Detector and Phase Map.



EDS Elemental Map.

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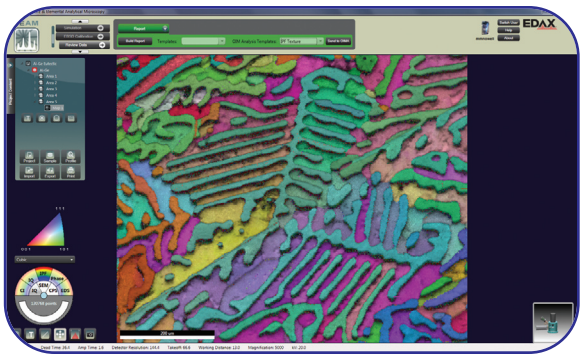
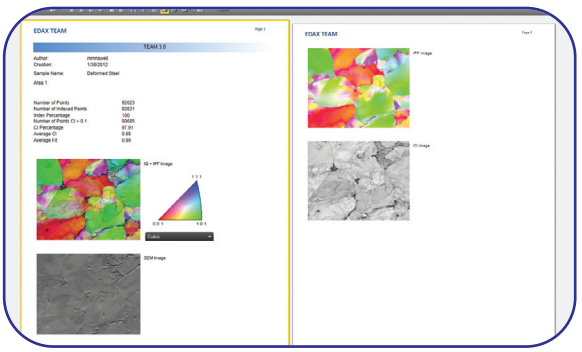
Reporting

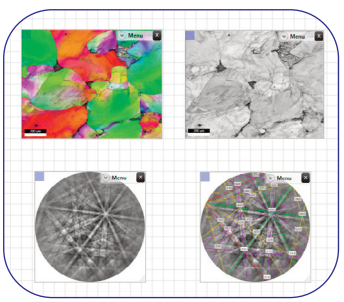
- Organize and communicate results efficiently with TEAM™ Reporting
- Quick Reports provide a complete summary of data from both Point Analysis and Mapping modes for EDS, EBSD, and integrated analysis
- Custom Reports allow the user to tailor report content and layout to specific analytical needs
- Direct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



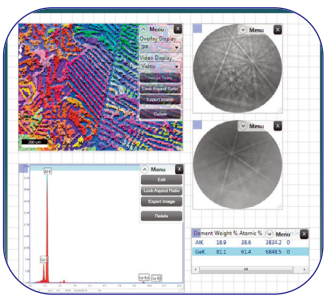
Mapping results screen.



Quick Report.



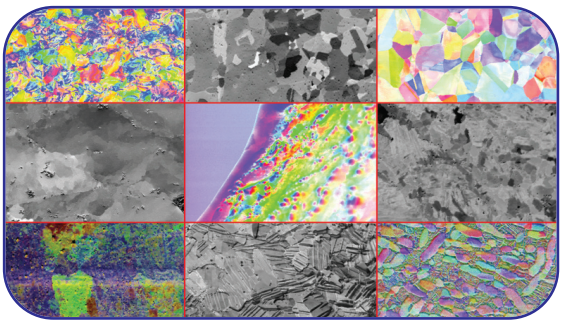
Custom EBSD Report.



Combined EDS and EBSD Report.

PRIAS™

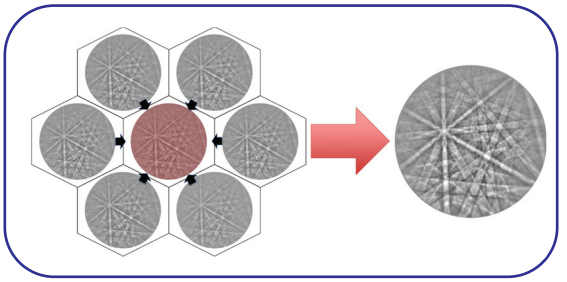
- Innovative EBSD imaging system for synchronous collection from multi-positional electron detectors
- 3 modes of operation to meet imaging requirements



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 Octane 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.

Octane Elect and Octane 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

For **EBSD**, the available choices are the market leading Hikari, DigiView and Velocity™ cameras.

Hikari Super EBSD Camera

- High speed and high sensitivity for 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

DigiView EBSD Camera

- 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

Velocity™ EBSD Camera Series

- Fastest acquisition for efficient EBSD data collection
- CMOS imaging sensor for high sensitivity and low-noise performance