MATERIALS SCIENCE

PRECiV

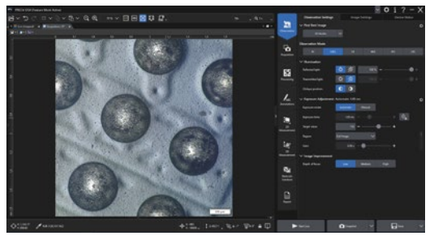
for Digital Microscopes

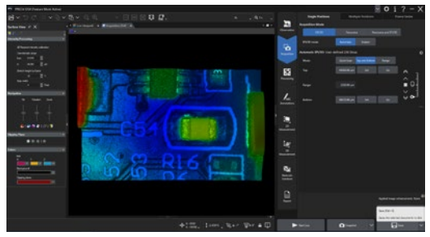
EVIDENT

Imaging Platform for Digital Microscopy

Simple to Learn and Use

- Intuitive software for all DSX series digital microscopes
- Easy to configure the interface for everyday tasks
- Integrated hardware control for consistent, reproducible inspection
- Complete geometric measurement toolset for 2D and 3D images
- Safe and secure network connectivity





Powerful Imaging Tool

- Controls DSX2000/DSX1000 digital microscopes
- Controls all imaging modes
- Continuous autofocus (DSX2000 only)
- Rapid scan with large panorama and 3D imaging combination (DSX2000 only)
- Large magnification power with optical zoom and wide variety of lenses
- Macro camera for quick capture of sample overview images

Efficient Sample Observation

- Select the best illumination and observation mode for your sample in one click
- Unique shaded relief observation mode instantly reveals surface defects (DSX2000 only)
- Live image enhancement with anti-halation, Live AI, and Live HDR

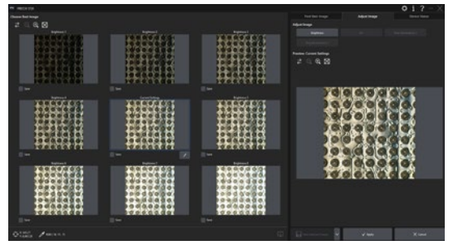
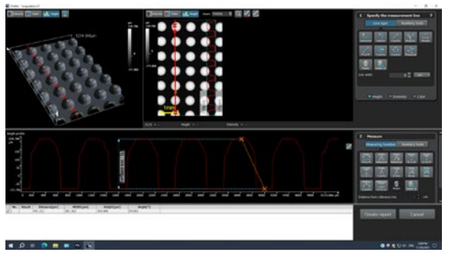


Image Processing

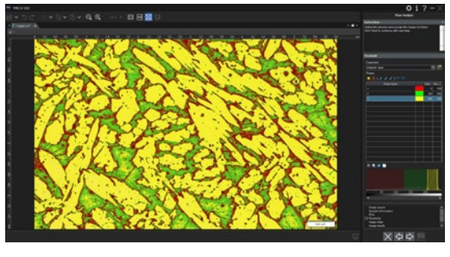
- 2D geometric measurements
- 3D profile measurements*
- Image analysis using AI methods
- Password-protected system calibration (guaranteed by Evident Service)**

*Through the optional 3D analysis application
** To guarantee XY accuracy, the calibration must be performed by an Evident service technician.



Expandable Software

- Materials Solutions for specialized applications
- Dedicated customized software and hardware solutions



PRECiV™ DSX Version 2.2.1 Specifications

●: Standard Feature; ○: Optional Feature; — Not Available

Device Support	
DSX2000/DSX1000 system, console, and macro camera	●
Macro camera unit	●
Image Acquisition	
Best image function (all modes, SR, BF, OBQ, DF, MIX, PO, DIC)	●
Halation removal (MIX and DF)	●
Video recording	●
Time-lapse acquisition	●
Extended focus imaging (EFI) using manual or instant mode	●
Large-size image acquisition (panorama) using manual or instant mode	●
Combined EFI and panorama using manual mode	●
Automatic EFI using motorized devices, including quick scan mode	●
Automatic panorama using motorized devices	●
Sample navigation and position list management using motorized devices	●
Combination of automatic EFI and Panorama using motorized devices (including rapid scan)	●
Imaging and Customization Tools	
User interface with functions grouped per purpose	●
Overlay information layer (scale bar, crosshair, digital reticle)	●
On-screen magnification	●
Macro Manager	●
Static annotations	●
Live zoom	●
Continous Autofocus (DSX2000 only)	●
Measurements/Image Analysis	
Basic interactive geometric measurements (horizontal line, vertical line, arbitrary line, polyline, 3-point circle, rectangle, rotated rectangle, 3-point angle, 4-point angle, perpendicular line, parallel line distance, polygon area, XY distance, distance between two crosslines, circle-to-circle distance, linear ruler, point coordinates)	●
3D line profile measurement and simple 3D measurements	●
3D analysis application: 3D line profile roughness, advanced 3D measurements, and surface roughness analysis of 3D images	○
2D line profile measurements	●
Advanced interactive geometric measurements, including auto-edge detection and auxiliary lines (angle ruler, 2-point circle, rotated ellipse, closed polygon, magic wand, interpolated polygon, multiple perpendicular lines, asymmetry lines, throat thickness)	●
Neural network labeling	●
Live AI	●
Offline EFI, offline panorama	●
Image enhancement filters (edge detection filters, smoothing filters, and sharpening filters), intensity and contrast adjustment, shading correction and background subtraction, dynamic contrast enhancement, morphological filters	●
Reporting	
Data export to an Evident workbook	●
Data export to Microsoft Excel	●
Report and presentation creation in Microsoft 365, Office 2019, and Office 2021	●

	DSX
Optional Modules	
Motorization	●
3D Acquisition	●
Count and Measure	○
Grain Sizing	○
Non-Metallic Inclusions	○
Cast Iron	○
Layer Thickness	○
Measurement Sequence	○
Porosity	○
Particle Distribution	○
Coating Thickness	○
Phase Analysis	○
Neural Network Training	○
Dendrite Arm Spacing	○
Chart comparison on select standards for grain size, graphite evaluation, non-metallic inclusions, and hard metals	○
Customized software solutions	○

PC Requirements	
CPU	Intel Core i5, Intel Core i7, Intel Xeon
HDD	10 GB hard disk space for installation Min. 50 GB for saving images and data
RAM	32 GB RAM (2 × 16 GB) Special requirements to the memory for certain functionality: Training of neural networks: 32 GB RAM 3D analysis application: 32 GB RAM
Operating system (OS)	Windows 10 (64-bit), Windows 11 (64-bit); Editions: Pro, Pro for Workstations, Enterprise
.Net framework	Version 4.8.1 or higher
Optimized resolution	1920 × 1080 (Full HD) 3840 × 2160 (4K), 27 in./32 in. (150% display scaling)
License activation	Using an Internet connection or code-based
Graphics card	64 bit Graphics board equivalent to NVIDIA Quadro P620 / T600 / T400 / T1000 / A400 / A1000 with minimum 4 GB RAM Special requirements to the graphics board for certain functionality: • Training of neural networks: • NVIDIA graphics board compatible with CUDA 11, 8 GB RAM
OS languages	Available languages: English, Simplified Chinese, Spanish, Japanese, Portuguese, Korean, French, German, Polish, Czech, and Russian.

EVIDENT

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