

MATERIALS SCIENCE

# PRECIV

for Digital Microscopes

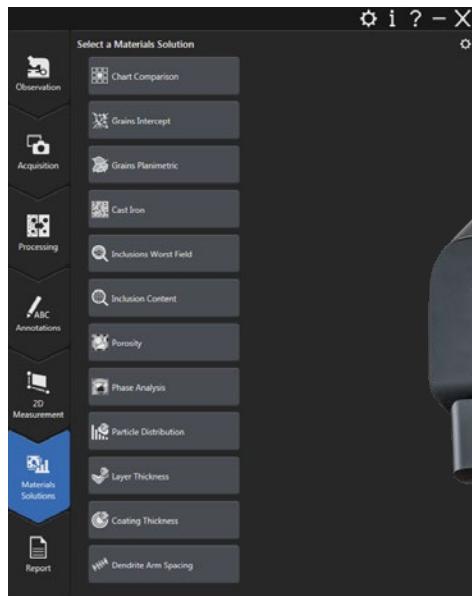
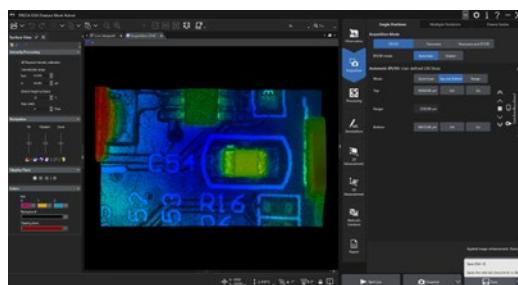
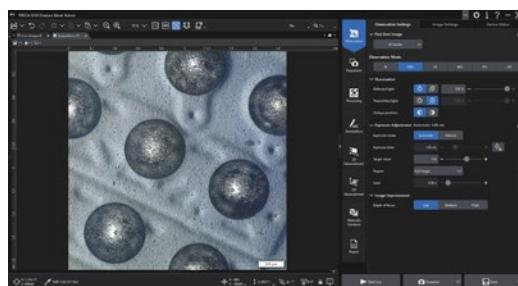


**EVIDENT**

# 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



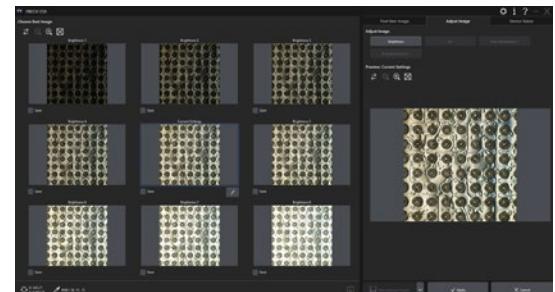
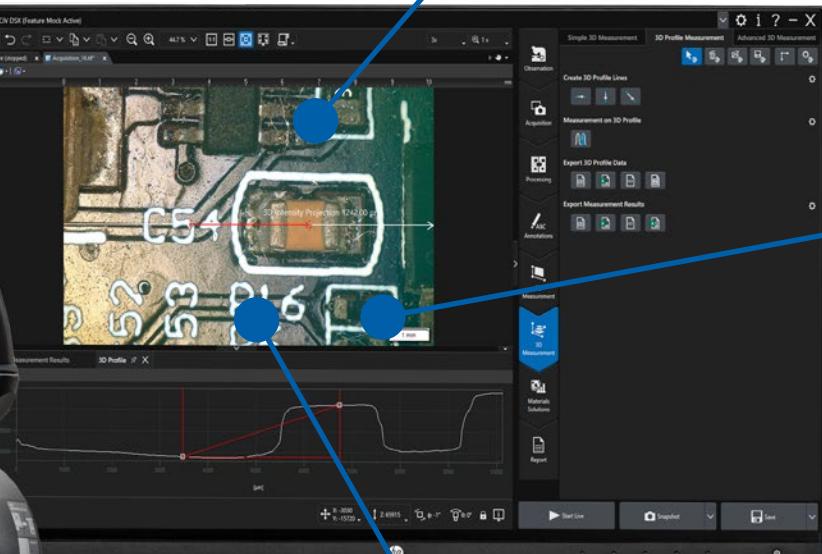
## Powerful Imaging Tool

- 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

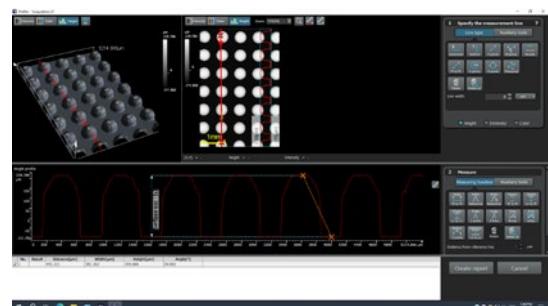


## Image Processing

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

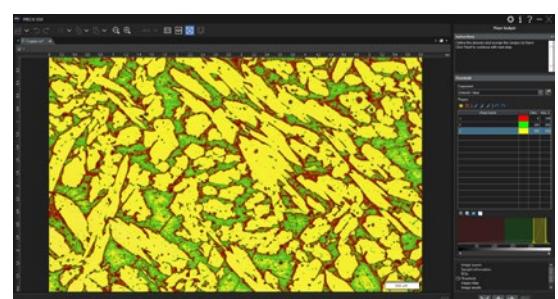
\*Through the optional 3D analysis application

\*\* 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

<b>Device Support</b>	
DSX2000/DSX1000 system, console, and macro camera	●
Macro camera unit	●
<b>Image Acquisition</b>	
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)	●
<b>Imaging and Customization Tools</b>	
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)	●
<b>Measurements/Image Analysis</b>	
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	●
<b>Reporting</b>	
Data export to an Evident workbook	●
Data export to Microsoft Excel	●
Report and presentation creation in Microsoft 365, Office 2019, and Office 2021	●

<b>DSX</b>	
<b>Optional Modules</b>	
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	○

<b>PC Requirements</b>	
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 x 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 x 1080 (Full HD) 3840 x 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.



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• Images on the PC monitors are simulated.  
• Illumination devices for microscopes have suggested lifetimes. Periodic inspections are required. Please visit our website for details.