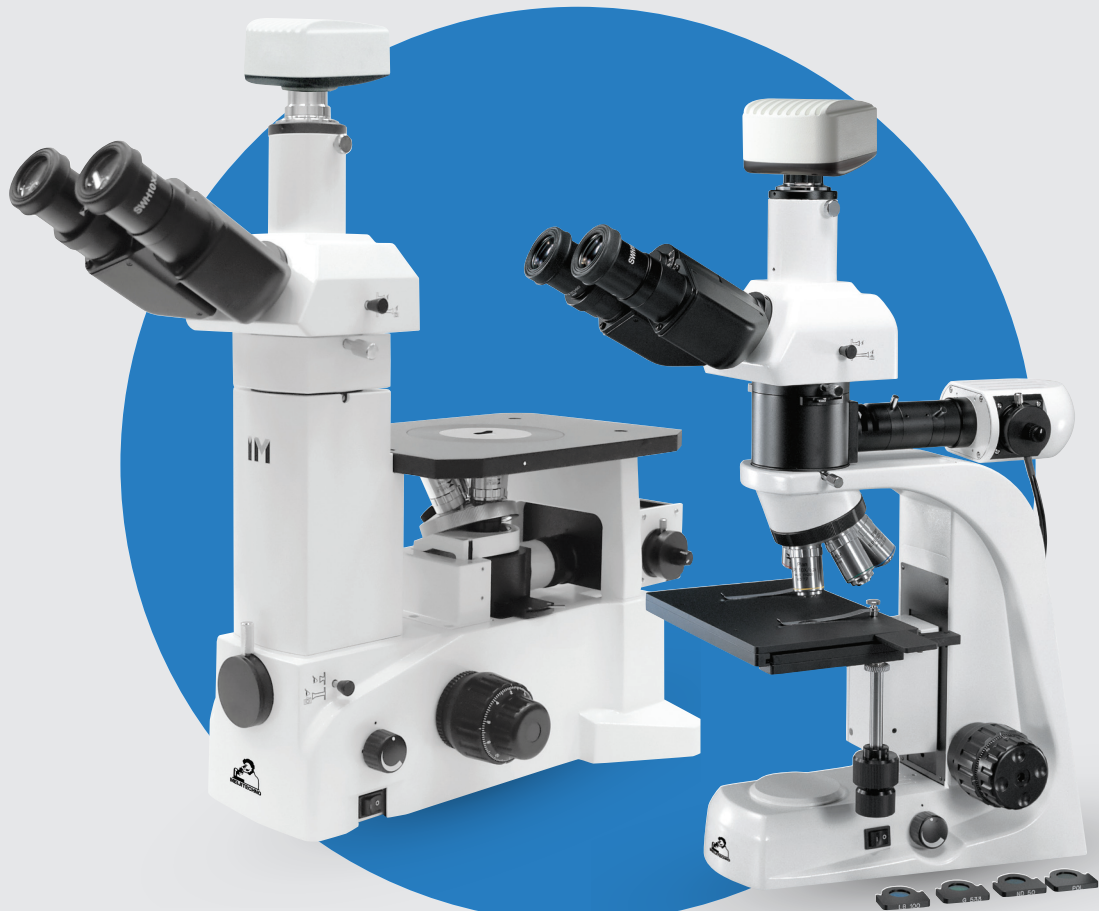


Metallurgical Microscopes

MEIJI TECHNO



MT7000 Series



Features

- Computer Aided Design
- Ergonomically positioned controls
- Comfortable Siedentopf viewing head
- 30W Vertical Koehler Illuminator with auto sensing power supply
- Brightfield observation mode
- Optional Ergonomic binocular viewing head available

Comparison table

Model	Body	Eyepieces	Objectives	Stage	Illuminator
MT7000	Binocular	SWH 10x F.N. 22 (O.D. 30mm) Paired	Infinity Corrected Optical System F=200mm	Ceramic Coated Flat-top X-Y Movement Right Handed Drop Down Coaxial Controls	Vertical Koehler 6V 30W Halogen Incident Illuminator
MT7000H	Ergonomic Binocular				
MT7100	Trinocular				
MT7100EH	Ergonomic Trinocular				
MT7000L	Binocular				Vertical Koehler LED Illuminator
MT7000EL	Ergonomic Binocular				
MT7100L	Trinocular				
MT7100EL	Ergonomic Trinocular				

The Meiji Techno MT7000 Series delivers exceptional clarity and precision for metallurgical analysis, featuring ICOS optics, durable construction, and bright LED illumination ideal for research, inspection, and industrial applications. The Meiji Techno MT7000 Series stands out as an exceptional choice for metallurgical applications due to its superior optical performance, precision engineering, and durable construction. Built around Meiji's renowned Infinity Corrected Optical System (ICOS), it delivers crystal-clear, high-contrast images essential for examining metal structures, grain boundaries, surface treatments, and other critical features with outstanding detail and accuracy. Its Plan Epi objectives ensure flat, distortion-free fields of view across the entire image ideal for research, quality control, and industrial inspection environments.



MT7530

Features

- Computer Aided Design
- Ergonomically positioned controls
- Comfortable Siedentopf viewing head
- 50W Vertical Koehler Illuminator with auto sensing power supply
- Incident Light Brightfield/Darkfield and Simple Polarized Light observation modes
- Optional Ergonomic binocular viewing head available

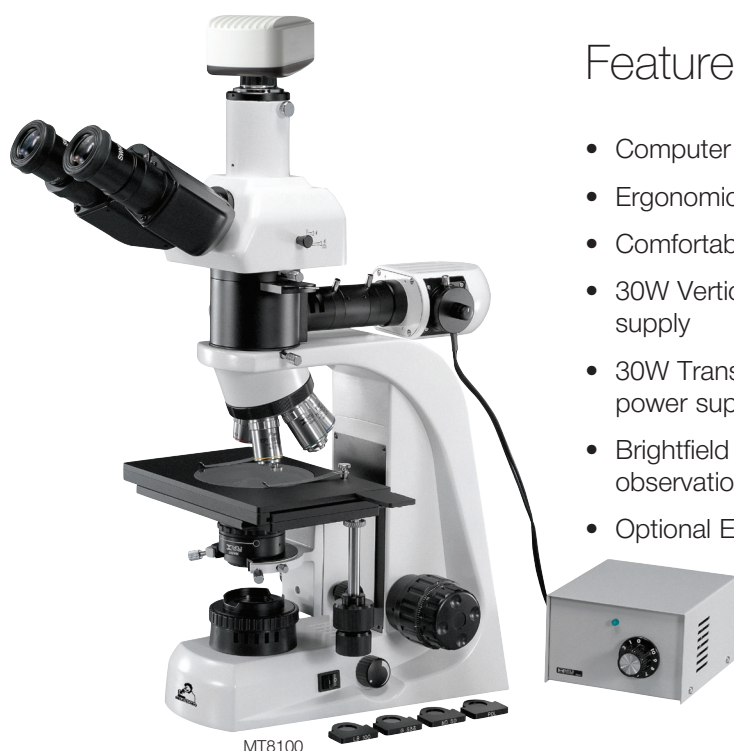
Comparison table

Model	Body	Eyepieces	Objectives	Stage	Illuminator
MT7520	Binocular	SWH 10x F.N. 22 (O.D. 30mm) Paired	Infinity Corrected Optical System F=200mm	Ceramic Coated Flat-top X-Y Movement Right Handed Drop Down Coaxial Controls	Vertical Koehler 12V 50W Halogen BF/DF and POL Illuminator
MT7520EH	Ergonomic Binocular				
MT7530	Trinocular				
MT7530EH	Ergonomic Trinocular				
MT7520L	Binocular		Plan Epi 5X Plan Epi 10X Plan Epi 20X Plan Epi 50X		Vertical Koehler Incident LED BF/DF and POL Illuminator
MT7520EL	Ergonomic Binocular				
MT7530L	Trinocular				
MT7530EL	Ergonomic Trinocular				

The Meiji Techno MT7500 Sseries sets a new benchmark in metallurgical microscopy, combining exceptional optical performance with ergonomic design. Perfect for industrial inspection and research, it delivers unmatched accuracy, reliability, and crystal-clear imaging for the most demanding applications.

The Meiji Techno MT7500 Series represents the perfect balance between Japanese craftsman ship, optical innovation, and ergonomic design. Built for professional material analysis and industrial inspection, this advanced metallurgical microscope delivers bright, high-contrast images through Meiji's Infinity Corrected Optical System (F = 200 mm). Equipped for Brightfield, Darkfield, and Simple Polarization observation, it ensures unmatched clarity and accuracy when examining metals, alloys, coatings, and other solid specimens.

MT8000 Series



Features

- Computer Aided Design
- Ergonomically positioned controls
- Comfortable Siedentopf viewing head
- 30W Vertical Koehler Illuminator with auto voltage sensing power supply
- 30W Transmitted Koehler Illuminator with auto voltage sensing power supply
- Brightfield Reflected Light and Brightfield Transmitted Light observation modes
- Optional Ergonomic binocular viewing head available

Comparison table

Model	Body	Eyepieces	Objectives	Stage	Illuminator
MT8000	Binocular	SWH 10x F.N. 22 (O.D. 30mm) Paired	Infinity Corrected Optical System F=200mm	Ceramic Coated Flat-top X-Y Movement Right Handed Drop Down Coaxial Controls	Vertical Koehler 6V 30W Halogen Incident Illuminator
MT8000EH	Ergonomic Binocular				
MT8100	Trinocular				
MT8100EH	Ergonomic Trinocular				
MT8000L	Binocular		Plan Epi 5X Plan Epi 10X Plan Epi 20X Plan Epi 50X		Vertical Koehler LED Illuminator
MT8000EL	Ergonomic Binocular				
MT8100L	Trinocular				
MT8100EL	Ergonomic Trinocular				

The Meiji Techno MT8000 Series delivers exceptional clarity and precision for metallurgical analysis, featuring ICOS optics, durable construction, and bright LED illumination ideal for research, inspection, and industrial applications.

The Meiji Techno MT8000 Series stands out as an exceptional choice for metallurgical applications due to its superior optical performance, precision engineering, and durable construction. Built around Meiji's renowned Infinity Corrected Optical System (ICOS), it delivers crystal-clear, high-contrast images essential for examining metal structures, grain boundaries, surface treatments, and other critical features with outstanding detail and accuracy. Its Plan Epi objectives ensure flat, distortion-free fields of view across the entire image ideal for research, quality control, and industrial inspection environments.



MT8530

Features

- Super Widefield 10X, High Eyepoint Eyepiece
- Ergonomically positioned controls
- Siedentopf type binocular or Siedentopf type trinocular viewing head
- 30W Vertical Koehler Illuminator with auto voltage sensing power supply
- Vertical illuminator with full Koehler design equipped with 12 50W Halogen light source or LED
- Infinity corrected, Plan EPI Brightfield /Darkfield Objectives

Comparison table

Model	Body	Eyepieces	Objectives	Stage	Illuminator
MT8520	Binocular	SWH 10x F.N. 22 (O.D. 30mm) Paired	Infinity Corrected Optical System F=200mm	Ceramic Coated Flat-top X-Y Movement Right Handed Drop Down Coaxial Controls	Vertical Koehler 12V 50W Halogen BF/DF and POL Illuminator
MT8520EH	Ergonomic Binocular				
MT8530	Trinocular				
MT8530EH	Ergonomic Trinocular				
MT8520L	Binocular		Plan Epi 5X Plan Epi 10X Plan Epi 20X Plan Epi 50X		Vertical Koehler Incident LED BF/DF and POL Illuminator
MT8000EL	Ergonomic Binocular				
MT8530L	Trinocular				
MT8530EL	Ergonomic Trinocular				

The Meiji Techno MT8500 Series sets a new benchmark in metallurgical microscopy, combining exceptional optical performance with ergonomic design. Perfect for industrial inspection and research, it delivers unmatched accuracy, reliability, and crystal clear imaging for the most demanding applications.

The Meiji Techno MT8500 Series represents the perfect balance between Japanese craftsman- ship, optical innovation, and ergonomic design. Built for professional material analysis and industrial inspection, this advanced metallurgical microscope delivers bright, high-contrast images through Meiji's Infinity Corrected Optical System (F = 200 mm). Equipped for Brightfield, Darkfield, and Simple Polarization observation, it ensures unmatched clarity and accuracy when examining metals, alloys, coatings, and other solid specimens.

Features

- ∞ Infinity Corrected Optical objectives (F=200)
- Stable cast-aluminum triangular frame
- Siedentopf type binocular and trinocular heads
- Planachromat EPI objectives (5X, 10X, 20X, 50X)
- Brightfield/Darkfield illumination
- 30W Vertical Koehler Halogen lamp (with optional LED)



Comparison table

Model	Body	Eyepieces	Objectives	Stage	Illuminator
IM7100	Binocular	SWH 10x F.N. 22 (O.D. 30mm) Paired	Infinity Corrected Optical System F=200mm	Stage with circular insert (109 mm diameter anodized ring)	Vertical Koehler 6V 30W Halogen BF/DF and POL Illuminator
IM7100E	Ergonomic Binocular		Planachromat E5X Planachromat E10X Planachromat E20X Planachromat E50X		
IM7200	Trinocular				

The IM7000 Series Inverted metallurgical microscopes are engineered for professionals who demand precision, clarity, and uncompromising performance in material analysis. Built on a stable cast aluminium triangular frame.

The IM7100 and IM7200 deliver exceptional durability and vibration resistance—critical for achieving ultra-sharp images at higher magnifications. With ergonomically placed controls, Siedentopf viewing heads, and smooth coaxial focusing, these systems ensure user comfort during long inspection sessions. Their integrated 6V, 30W Vertical Koehler Halogen Illuminator provides brilliant, uniform lighting, supported by included Blue, Green, Neutral Density, and Polarizing filters for enhanced contrast. Designed for bright, high-resolution imaging, the IM7000 Series offers unmatched reliability for microstructure evaluation, routine metallurgical inspection, QA/QC testing, and high-quality photomicrography.



Features

- ∞ Infinity Corrected Optical objectives (F=200)
- Stable cast-aluminum triangular frame
- Siedentopf type binocular and trinocular heads
- Plan EPI objectives (5X, 10X, 20X, and 50X)
- Brightfield/Darkfield illumination
- 50W Vertical Koehler Halogen lamp (with optional LED)

Comparison table

Model	Body	Eyepieces	Objectives	Stage	Illuminator
IM7510	Binocular	SWH 10x F.N. 22 (O.D. 30mm) Paired	Infinity Corrected Optical System F=200mm	Attachable mechanical stage 112 mm with drop down coaxial controls	Incident Koehler Illuminator 12V, 50W Halogen
IM7520	Ergonomic Binocular		Planachromat Epi BD E5X Planachromat Epi BD E10X Planachromat Epi BD E20X Planachromat Epi BD LWD E50X		
IM7530	Ergonomic Trinocular				

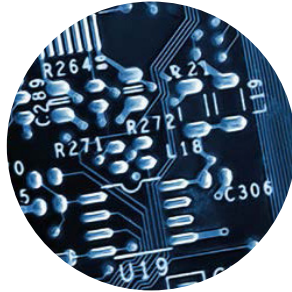
Versatile solution for demanding metallurgical applications. The IM7500 Series represents a new standard in metallurgical inspection, combining advanced optical engineering with a rugged inverted design tailored for real world industrial environments.

The IM7500 Series is engineered for high-precision metallurgical inspection, delivering dependable performance in both brightfield and darkfield imaging. Its ergonomic inverted design allows operators to examine large, heavy, or irregularly shaped samples with ease, all while maintaining exceptional optical clarity and consistent illumination. This makes it an ideal choice for demanding industrial environments such as electronics, aerospace, automotive, machining, and materials research laboratories.

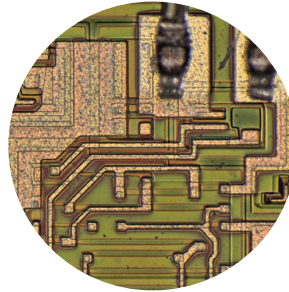
Industry



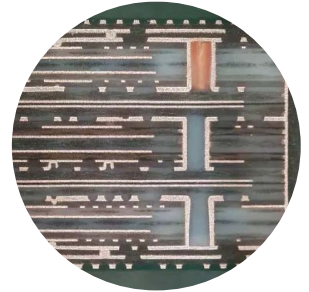
Heat Treatment
Evaluation



Microstructure
Examination
of Metals

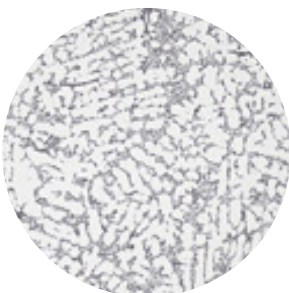


Failure
and Fracture
Analysis

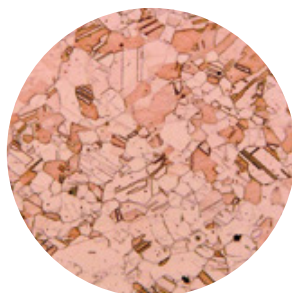


Weld and Joint
Inspection

Research



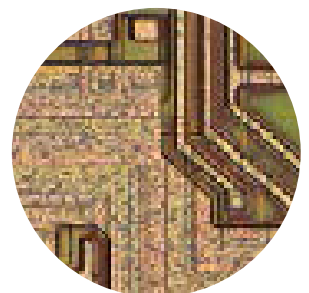
Microstructure
Evaluation



Environmental
Studies

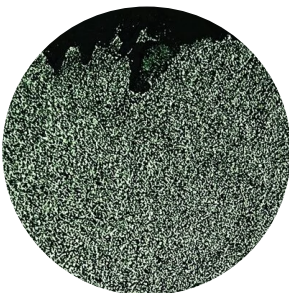


Materials
Research

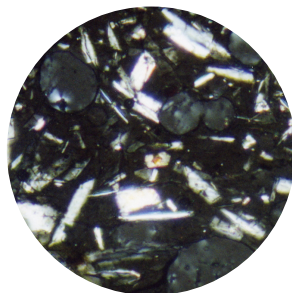


Electronics

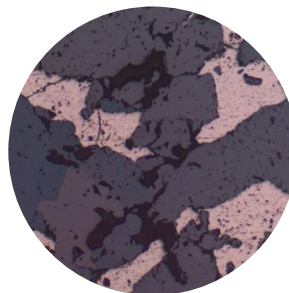
Specialized Applications



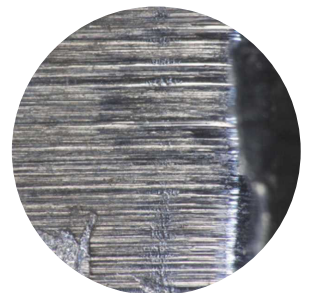
Geology



Petrology



Mineralogy



Forensic Medicine



Vision Material

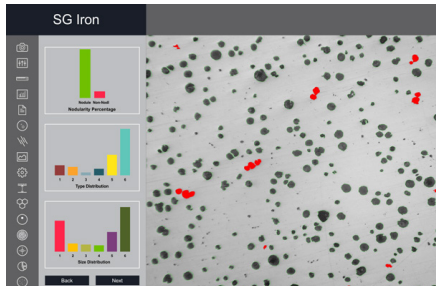
Image Analysis in Metallurgy

Sort microscopic slides into digital albums and use professional image processing tools with Vision Material software

Key Features

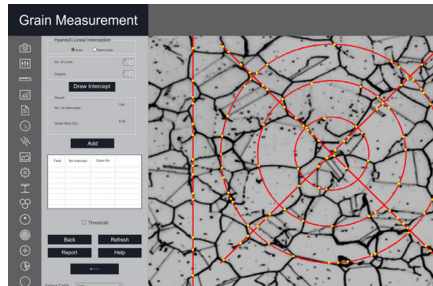
- Visualization of microscopic images
- Organization of digital slides
- A set of image processing tools: creation, editing, organization, classification, and annotation
- Convenient access to digital slides
- Storage, statistical processing, fast search, collaboration, remote access via the Internet, and integration with other information systems (LIS/GIS)
- Report operations: search, viewing, editing, printing, emailing, and exporting to popular formats

Specialized Modules of Vision Material



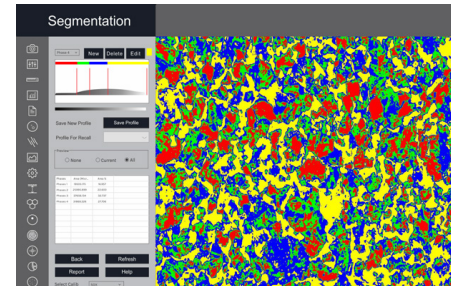
SG IRON

SG Cast Iron or Nodules are also called DUCTILE IRON or SPHEROIDAL GRAPHITE IRON.



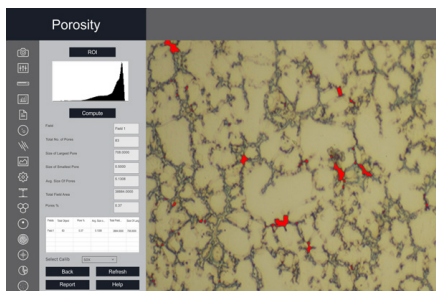
GRAIN SIZE

This module can quickly perform automatic, objective and repeatable analysis to determine ferritic & austenitic grain size in steel according to industrial standards.



SEGMENTATION

Segmentation is a method of image partition by intensity / grayscale range of its parts.



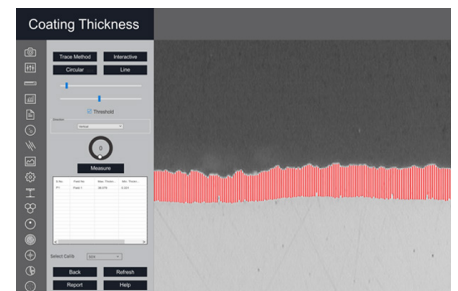
POROSITY

Pores, due to their contrast with the rest of the image, are relatively easy to detect automatically.



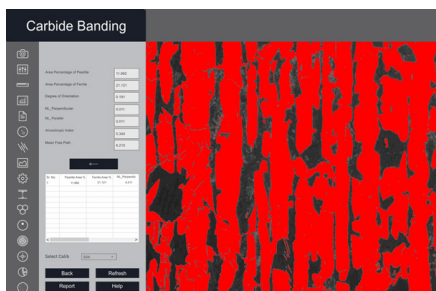
INCLUSION

Vision Material software allows to identify 4 types of inclusions: Sulfide (A Type), Alumina (B Type), Silicate (C Type), Globular (D Type).



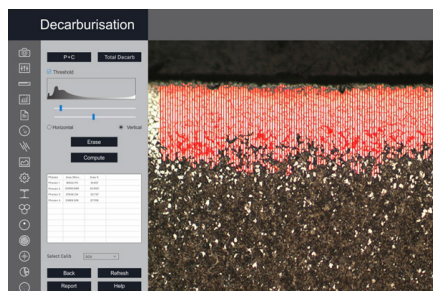
COATING THICKNESS

Plating or coating thickness is determined by cross-sectional microscopy method.



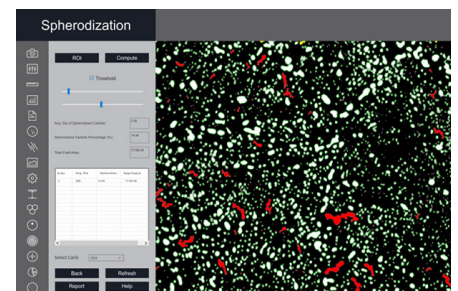
CARBIDE

Iron carbide or Cementite is an intermetallic component of iron and Carbon.



DECARBURIZATION

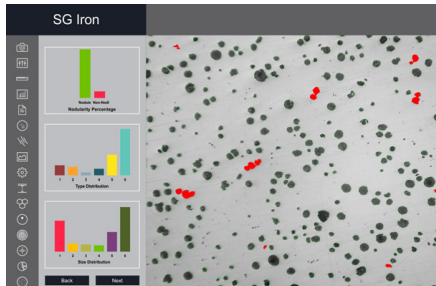
The module is used to determine the depth of Decarburization in structural quality.



SPHERODIZATION

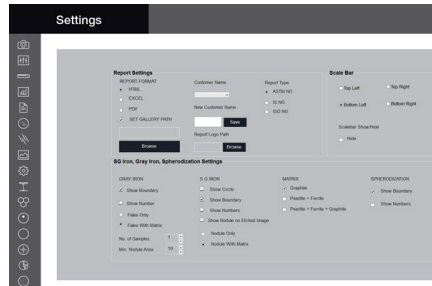
This module is designed to analyze spheroidal graphite (nodules). The nodules are separated from non-nodules on pre-defined spheroidicity.

General Modules of Vision Material



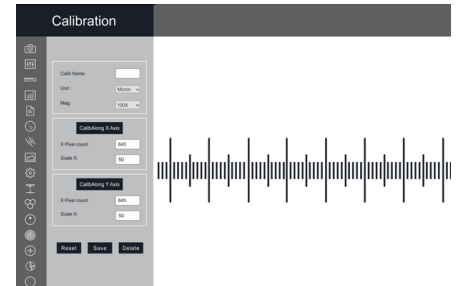
CAMERA

One can select different display/capture sizes along with other setting like white balance, brightness, contrast, Hue, Saturation can be changed on live displayed image.



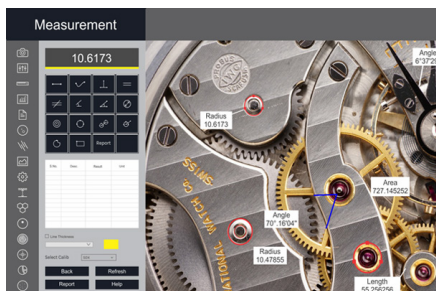
SETTINGS

This module is designed to set various parameters for first time when software is installed.



CALIBRATION

Calibration should be performed on all the objectives of the microscope, where Digital Camera is installed.



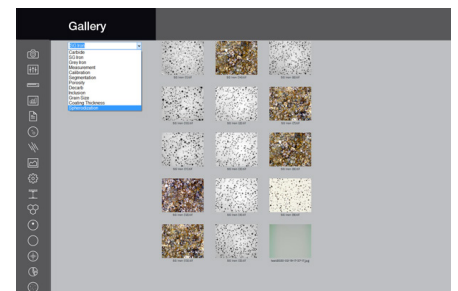
MEASUREMENT

With the Measurement module one can obtain measurement on manually drawn lines on traces, shapes or by outlining an object.



REPORTS

All reports are saved in the folder and can be viewed anytime.



GALLERY

Several folders are available to view any Captured images.

Quantitative Image Analysis

Used by scientists, metallurgists, laboratory technicians, and research teams

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