ZeeScan®

MICROSCOPE 3D ADD-ON

FAST • PRECISE • AFFORDABLE

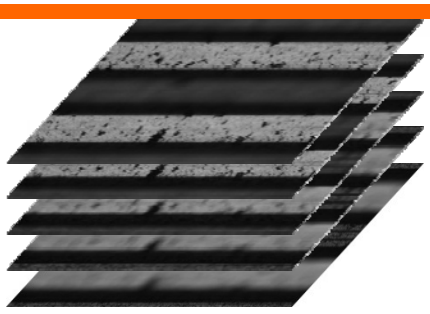
3D ADD-ON FOR MICROSCOPES

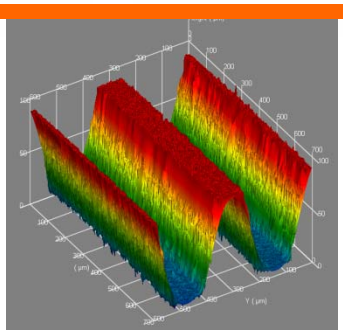
- 3D Surface Analysis
- Form & Roughness Measurement
- Automatic Depth Composition
- Z Depth Measurement

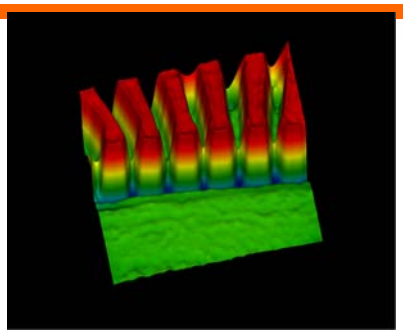
Compatible With Compound Microscopes & Stereo-Microscopes

Industrial Quality Control & Material Microscopy

Metal Paint Electronics Coatings Ceramic Polymers Semiconductor Materials Gemology Museum Forensics







PhaseView Patented Technology

PhaseView®
THE SIMPLEST WAY TO 3D

ZeeScan®

MICROSCOPE 3D ADD-ON

Compatible with any C-mount camera

Fast Z scanning,
Flexible Z range & Nanopositioning
Robust & reliable optical device

Compatible with any microscope equipped with video port

Single USB connection to PC

No bulky controllers and cumbersome accessories

Use Video Port To Add 3D Imaging Capabilties

No objective or stage movement
Sample space kept totally free
No sample perturbation & vibrations

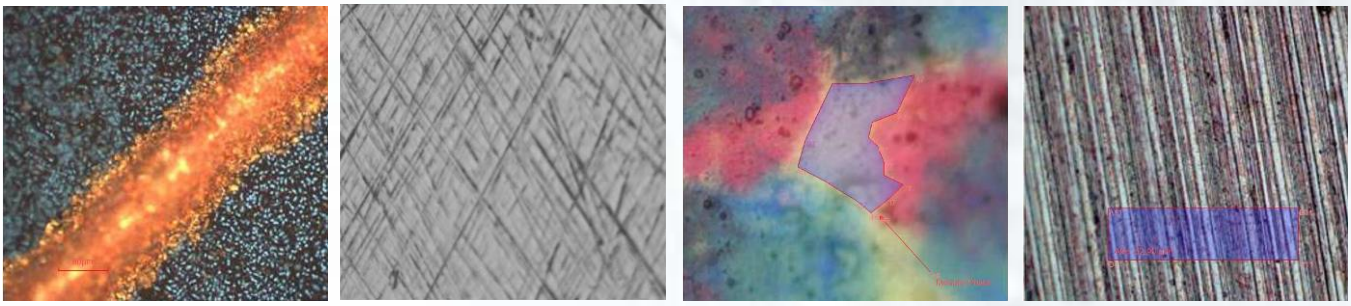
No motorization : maintenance free
No microscope adaptation required
Do not alter standard camera use

ZeeScan on upright microscope with a Jenoptik Progres camera

ZeeScan on stereo microscope with a Micrometrics camera

ZeeScan on upright microscope with a fluorescence camera

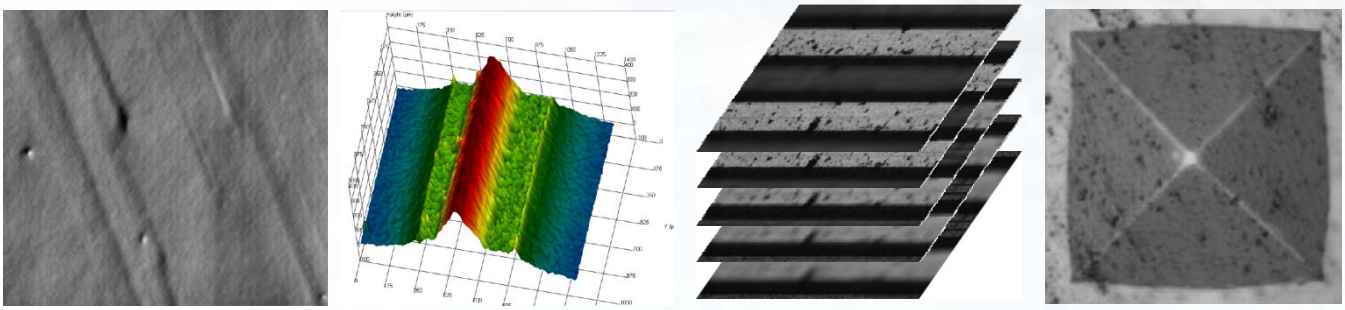
High Resolution Digital Imaging



Any c-mount cameras can be used with ZeeScan, with no alteration for the regular use of the camera. The ZeeScan optical assembly provides sharp & crisp digital for digital image documentation in high resolution.

Multiple Imaging Capabilities

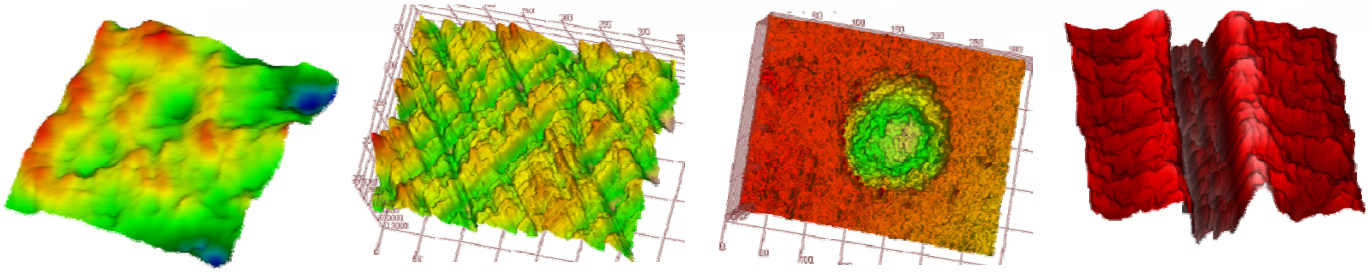
AutoFocus • Depth Measurement • Z-Stacking • Extended Depth of Field • 3D Reconstruction



ZeeScan performs all 3D critical tasks in material microscopy while using a standard upright or inverted microscope.

3D Surface Metrology

Surface Shape • Roughness • Waviness • Step Height



ZeeScan is the quickest and easiest way for precise surface topography measurements versus complex, bulky and expensive systems.

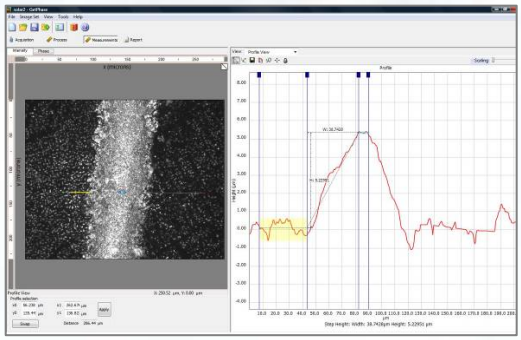
Software

- GetPhase® GUI software (included) is compatible with Windows 8, 7, XP & Vista. GetPhase® provides comprehensive tools from automatic acquisition to 2D / 3D image analysis, documentation and reports. An optional API / SDK includes ZeeScan acquisition controls, routines for Z-stack, 3D reconstruction, EDF, DIC, Phase, and 3D surface analysis.

• **Acquisition & Processing**	• **2D/3D Display & Analysis**	• **Image Data Export & Report**
- 2D / 3D Acquisition Wizard	- BF, DF, Ph, DIC, 3D views	- Project Archiving
- Auto Focus & Exposure	- Text & Graphics overlay	- 3D Data in Excel Format
- Region-of-Interest	- 2D / 3D measurements	- 3D Data for 3rd Party Software
- Navigator	- Image fusion (EDF)	- Report Editor
- Stitching	- Roughness ISO standards	- HTML Compatible Presentation
- Macro Recording	- Step Height Measurements	

Powerful Imaging Tool

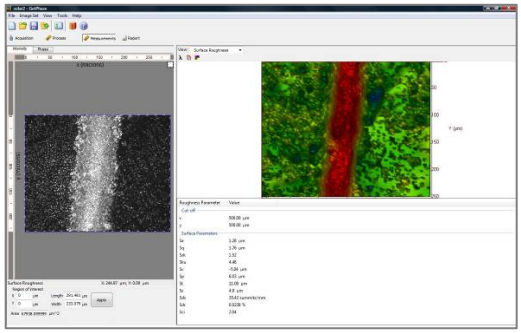
Z-stacking of high resolution images can be automatically achieved providing image fusion image (Extended depth of Fiel image, Z depth measurement or 3D reconstruction. In addition, GetPhase provides 2D measurements and image documentation tools.



- ***Reveals finest structure details without specialized optics***
- ***On click Image documentation with multiple views***
- ***Automatic image fusion (Extended Depth of Field)***
- ***2D measurements & report***

Fast & Accurate 3D Surface Metrology

ZeeScan with GetPhase performs 3D acquisition and analysis in a remarkable fast and easy way. Non contact optical surface profiling is highly repeatable.



- ***3D surface analysis in micrometer and nanometer range***
- ***Measurement capabilities from smooth to rough surfaces***
- ***ISO Roughness and step heights measurements***
- ***High throughput thanks to fast acquisition & processing time***

Smart Hardware Architecture

No internal or external motorization, no additional accessories for the microscope are required, ZeeScan is connected to your PC using a single USB2 connection. Accurate calibration is achieved using an automated procedure and stored in an internal memory to prevent any losses.

Camera compatibility (not included)	Format 2/3" or Less, C-mount (see compatibility list)
Microscope Interface	Video Port – Recommended 1X C-mount adapter
PC Interface	USB 2.0
Power Supply	110 / 220 AC
Physical Dimensions (mm)	ZeeScan Head: 110(H) 80(W) 56(D) Control Unit: 40(H) 158(W) 150(D)
Weight	ZeeScan Head: 470g Control Unit: 150 g

3D Measurement Performance

Z range and resolution are objective and c-mount coupler magnification dependant. The table here under gives typical performance for standard objective magnification with 1X coupler. For any other magnification and /or c-mount coupler configuration, the following formulas can be applied: Z Range = 16mm / (G_Obj * G_adapt)² Z Resolution = Objective Depth Of Field /4

G_Obg = Objective magnification G_adapt = c-mount coupler magnification

Objective Mag / NA	Z Range (µm)	Z Resolution (µm)
5X / 0.10	640	0.32
10X / 0.25	160	0.08
20X / 0.45	40	0.02
50X / 0.8	6.4	0.003

Z accuracy: 1%

Z Repeatability: 0.35%

Max slope: 90°

XY Spatial resolution determined by camera resolution and objective magnification

Roughness Measurement

12 analysis parameters are provided in total, including the frequently-used Ra (Sa), Rq (Sq), Rz (Sz), parameters. Parameters conform to ISO 4287, 25178 DIN 4768

Measuring range: Ra, Rq: 0.01-500µm Measuring accuracy: ≤±10% Repeatability: ≤ 6%

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