3DHISTECH

PANNORAMIC™ GEOLOGY SOLUTIONS

The Future of Geological Exploration

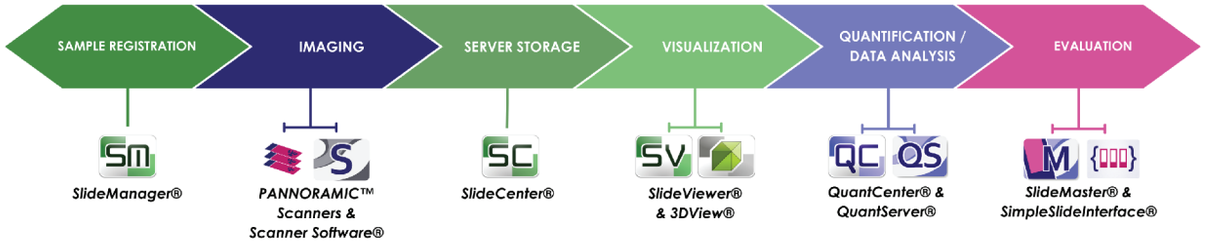
Digital slide scanning presents a versatile solution applicable across various ***geological endeavors***. Our **3DHISTECH PANNORAMIC™** Digital Slide Scanners and accompanying software deliver unparalleled accuracy and efficiency.

- **Superior imaging capabilities**, enabling the digitization, viewing, sharing, storage, and analysis of geological samples with utmost precision. Through microscopic examination, researchers can accurately discern the identification, orientation, structure, and quantification of geological specimens and minerals.

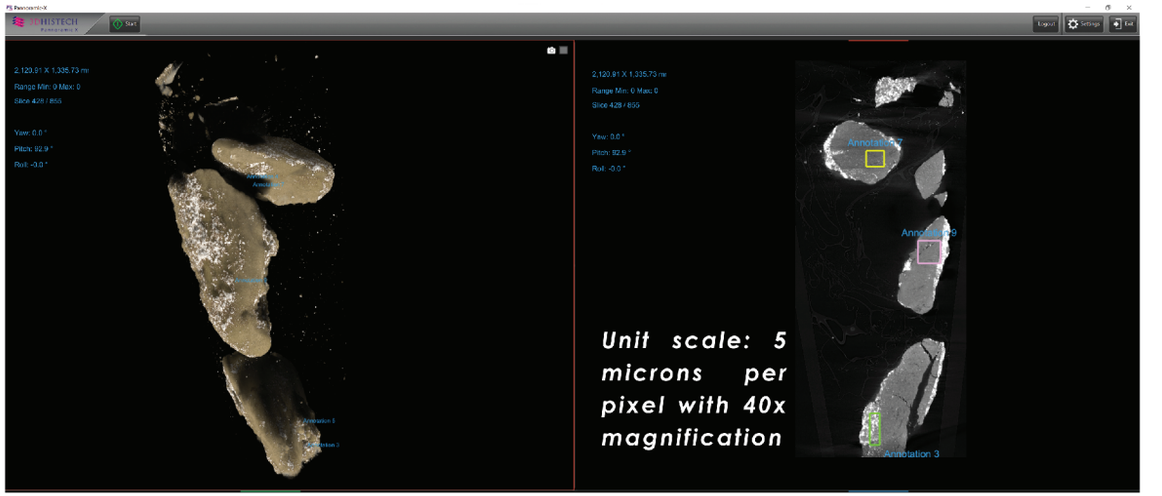
- **Researchers are empowered** to easily share their findings and coordinate entire projects remotely because of our seamless data management options, facilitating storage either locally or in the cloud, and enabling online visualization, distribution, and collaborative efforts.

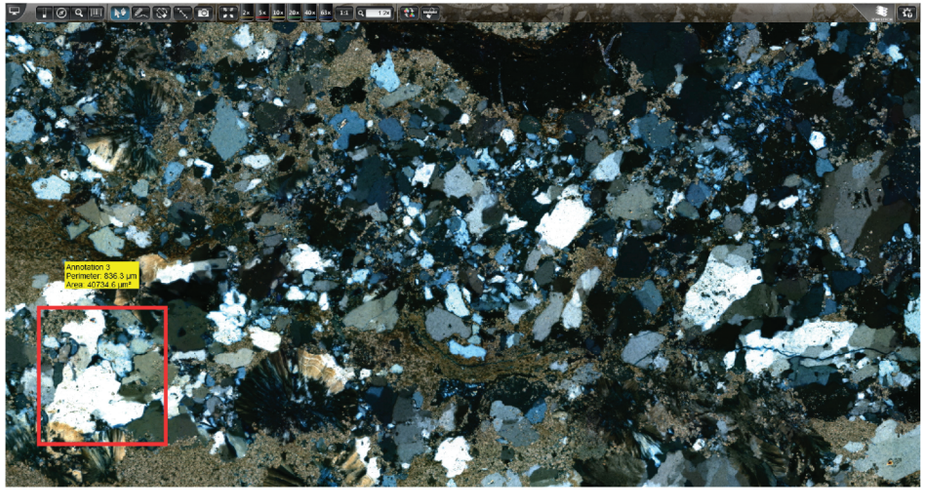
- **The fully automated acquisition process** ensures swift scanning even across extensive sample collections, boasting unprecedented efficiency and accuracy.

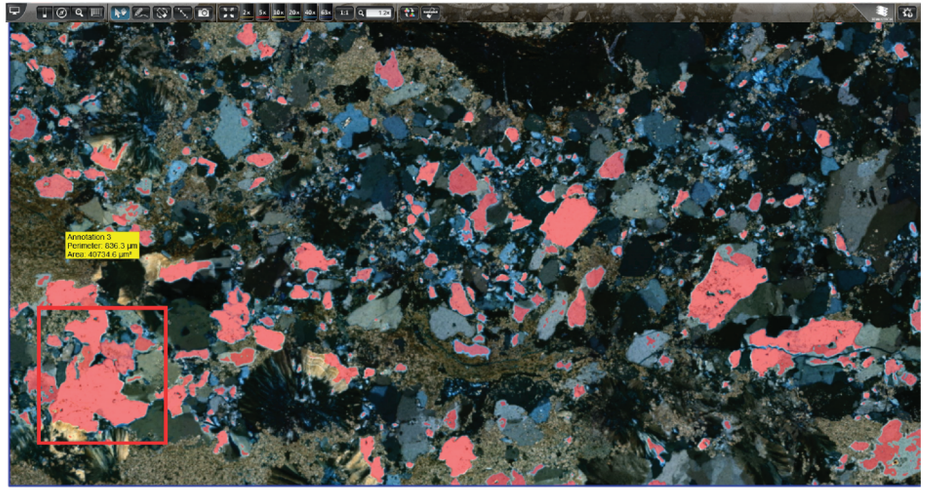
PROJECT MANAGEMENT & WORKFLOW

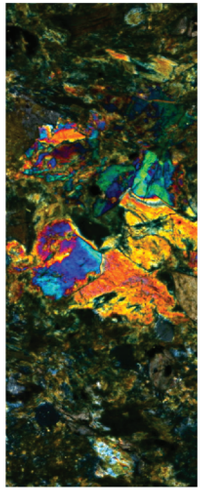


Facilitate geological research with our vanguard technology solutions for project management. Revolutionize your research capabilities and uncover new insights into the complex geological landscape.





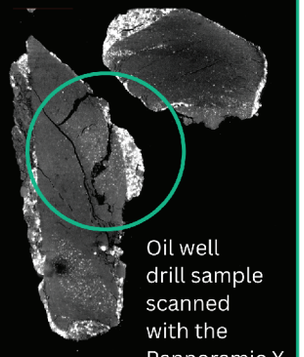




3DHISTECH FOR GEOLOGY RESEARCH

APPLICATIONS:

- **Asteroid & Planetary Geology**
- **Oil & Gas Exploration & Production**
- **Ores & Mining Geology**
- **Palaeontology/ Biostratigraphy**
- **Mineralogy & Petrology Studies**

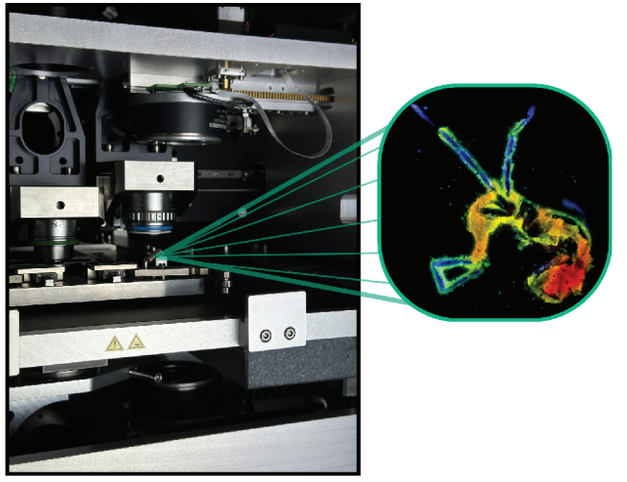


Oil well drill sample scanned with the Pannoramic X

KEY ADVANTAGES OF OUR PANNORAMIC™ SOLUTIONS

- Facilitates observation and identification of cleavage patterns, unique structures, and optical effects present in geological samples.
- Enables comprehensive characterization of mineral properties such as color, transparency, texture, luster, and the presence of impurities or inclusions.
- Supports structural analysis of mineral chemical compositions and their responses to varying environmental conditions, including pressure and temperature.
- Serves as an indispensable tool for educational purposes in the fields of geology, planetary geology , earth sciences and paleontology.
- Provides invaluable resources for research endeavors aimed at understanding planetary evolution, terrestrial processes, and the examination of ore quality, composition, and the presence of materials such as asbestos.

PANNORAMIC™ 480 with POLARIZATION



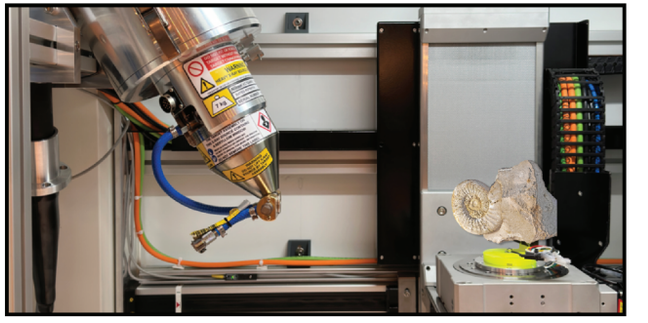
Our primary objective in integrating polarization into the P480 is to improve the visibility of crystalline structures while minimizing interference from surrounding elements during examination. To achieve this, we employ a two-step methodology: initially capturing the overall sample area using brightfield imaging, then scanning the same region using polarization techniques.

Fossilized insect wing

By adjusting the angles of the polar filter, we create a composite scan that combines both brightfield and polarized images, providing seamless access for enhanced visualization and analysis. The P480 allows for the capture of high-resolution images of full thin sections in plane, cross, polarized light, and brightfield, offering extensive flexibility for segmentation and quantitative analysis. This versatility enables observation of minerals with varied appearances within a sample due to variable pleochroism and birefringence/extinction in polarization light modes, surpassing mere visualization of digital datasets.

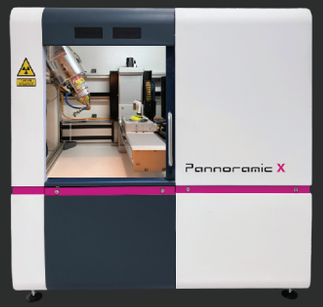
PANNORAMIC - X (Micro CT) for Geology

The Pannoramic-X is a CAT scanner optimized for scanning samples in high to medium resolution, in three dimensions, using X-rays. It uses soft X-rays, resulting in superior sensitivity to chemical composition. The micro-focus X-ray source enables very high-resolution scans of the samples. The micro CT offers both low maintenance requirements and a cost-effective continuous operation, making it easily integratable into existing research centers without the need for specialized facilities.



Join the Exploration Revolution with *PANNORAMIC™ Geology Solutions*

Pannoramic X



- Sample format: few mm to 150mm
- X-ray source: micro-focus, 70kV, 7W source. 250W option in 2025.
- Scanning time: typical 20 minutes to few hours for very high quality images
- 24/7 operation
- Multiple samples can be loaded at once, sample changer is optional
- Format: MRXS, Dicom, raw (fully documented format)
- Dimension: 1790W1820Hx929D, without the monitor console
- Weight: 1150kg over 2000x2800mm, below 300kg/mm2

P480

- Capacity: 480 slide with 25 x 76, 50 x 75 mm slide formats
- Objectives: 20X, 40X, W40X, W63X
- Resolutions: 0,25 um/pixel at 20x, 0,12 um/pixel at 40x
- Scanning time: 25/sec/slide
- Throughput: 100 slide/hour (BF)
- Polarization possibility with Z – stack scanning
- 24/7 scanning performance
- Format: MRXS, DICOM
- Barcode: 1D, 2D
- Automated generation of adaptive focus mapping with focus quality check
- Continuous BF image
- Motorized switch between various imagine modes
- Driven by a motorized condenser and a powerful FLASH light source
- Light source: Xenon Flash light source (BF)
- Dimensions (cm) W – D – H: 154 X 100 X 90
- Weight: 270 kg

GEOLOGY SOFTWARE

- *SlideManager®*
- *Pannoramic™ Scanner Software*
- *SlideCenter®*
- *SlideViewer®*
- *3DView®*
- *QuantCenter®*
- *QuantServer®*
- *SlideMaster®*
- *SimpleSlideInterface®*

AWARDS

- 2020 — GHP Life Sciences Award
- Hungarian Innovation Grand Prize (2003) — 2019
- 2016 — International Scanner Contest Award (2012, 2010)
- Exporter of The Year Award — 2013
- 2012 — Ányos Jedlik Award
- European Inventor Award — 2011
- 2010 — First European Scanner Contest Award
- Dénes Gábor Award — 2006

DEVELOPED AND PRODUCED BY

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