
SPIP Image Processing from Image Metrology

NANONIS INTEGRATION

Nanonis directly integrates Image Metrology's award winning Scanning Probe Image Processor. SPIP is installed as an additional module together with the Nanonis SPM Software and can be called with a single mouse click from within the scan control.

SPIP is the de-facto standard for nanoscale image processing and 3D visualization and serves to produce print ready images of the acquired data. Apart from the base package a huge variety of additional modules are available from Image Metrology.

In the "sniffer" mode SPIP recognizes newly acquired images right as they are stored to the hard disk. SPIP then opens them and displays them with using either standard settings or user-customizable color palettes, range settings and more.

User interface available in English and Japanese. Printed documentation available. More information available from <http://www.imagemet.com>.

BASE PACKAGE FEATURES

The base package of SPIP includes

- Plane correction (flattening)
- Cross-section profile analysis
- Histogram analysis
- Fourier transform
- Auto correlation
- Cross correlation
- Gradient images
- Image addition and subtraction
- Color manipulation
- Contrast enhancement
- Zoom
- Mirror and Rotation
- Copy, Print and Save
- Customizable user interface

FULL PACKAGE FEATURES

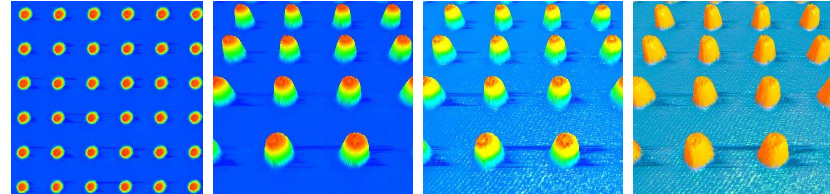
Important: Note that these modules are not included in the base package and are not shipped unless offered and ordered explicitly.

SPIP can be extended by a wealth of different modules of which a selection includes

- Batch Processing
- Calibration and tip characterization
- Noise reduction filters and feature enhancements
- Modules for measuring and analyzing images and CITS data
- Time series analysis
- Advanced 3D visualization module

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From Left to right:

2D View: In 2D view the finer surface details are unresolved.

3D Rendering: In 3D view more surface details are resolved

3D Rendering: When you add directional light sources to the 3D image, even small surface corrugations caused by the interference pattern of the AFM laser beam are resolved. SPIP™ allows you to work with up to 8 different light sources. This gives you full control when working with the enhancement of surface details in 3D view.

This example demonstrates how the 3D rendering of an image can enhance small details unresolved in normal 2D view. By changing the color scaling and adding light sources it is possible to give even more impressive results.



NANONIS
The SPM Application Experts

Nanonis GmbH | Zürich, Switzerland
support@nanonis.com | www.nanonis.com