Park SmartAnalysis
The Park AFM Image Analytics Software

Park SmartAnalysis™ is an atomic force microscopy image processing and data analysis software for Park AFM. It is the next generation image analytics software with powerful features and newly added automated functions. Park SmartAnalysis enables users to swiftly prepare, analyze and publish their AFM acquired images and measurements.

- Precise image analysis via multi-layer and line function
- Effortless image processing with EZ Flatten producing optimal images
- High-quality 2D, 3D images, histogram, and region statistics analysis
- Image export and publishing without degrading the image resolution

Unleash More Knowledge from your Data

Park SmartAnalysis comes with various tools to help users analyze, measure, and perform statistics from the acquired AFM image and data. It speeds the analytics process, enabling users to execute diverse types of work in shorter time with simultaneous and intuitive functionality.

Users can apply layer shapes onto the image for various analytics:

Layer Function

- Extract roughness statistical values from the area.
- Select and compare multiple specific areas of the histogram to their mean values.
- Separate and analyze specific layer shape among the multiple layers.
- Display the height and width measurements of the shapes.

Line Function

Users can apply up to 10 lines onto the image to analyze the sample along the lines, such as the height, roughness, and other desired measurements. Users can compare data among the different line measurements.
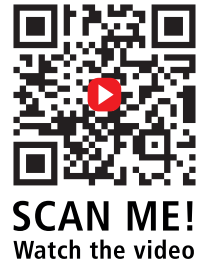
Advanced Multi Profiling

It allows the user to quickly see the number of data measured when analyzing an image using the Layer Function and the Line Functions.

2D Image Analysis

The features include (1) storing of processing and analysis tasks into history, (2) return to the task in the history, and undo or redo a task.
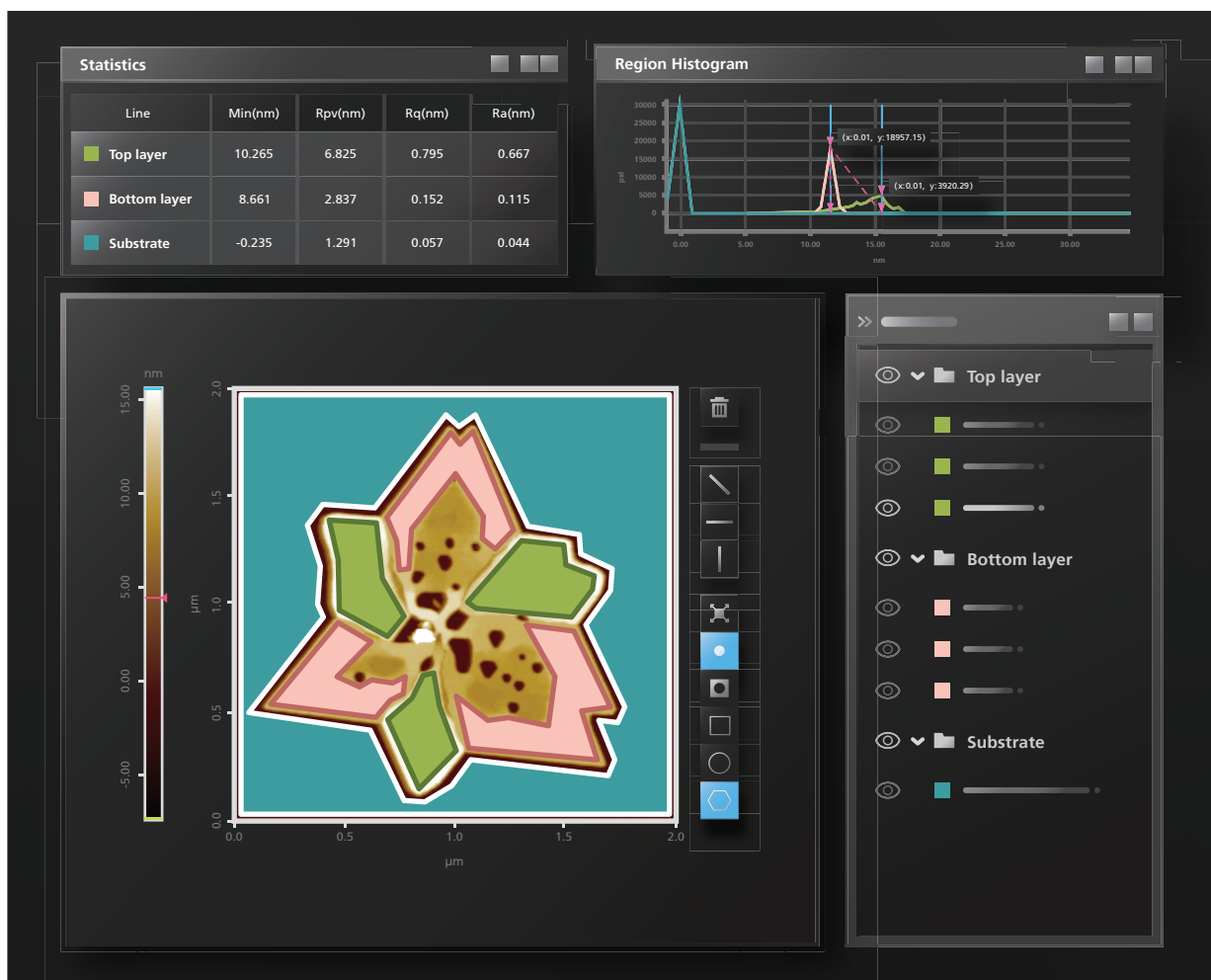
Easy Flattening with Deep-Learning System

Images produced by an AFM exhibit various artifacts including curvature distortion, high and low frequency noises, and planar tilt. Accordingly, image processing is a necessary step to fix image artifacts before it is analyzed. This is a time consuming, laborious process requiring good level of AFM expertise. Park SmartAnalysis features EZ Flatten™ that automatically processes the scanned image ready for the analysis.

EZ Flatten generates Park AFM images that are free from curvature and in-plane images. It employs deep-learning system, which scans and classifies the convex and concave features and automatically segments with accurate boundary detection. EZ Flatten provides the user with six output images from which the user can select the desired one for subsequent image analysis.

Furthermore, Snapshot Function is available to advanced users to store and draw specific areas of interest for EZ Flatten on the image.

Before EZ Flatten

After EZ Flatten

Excute
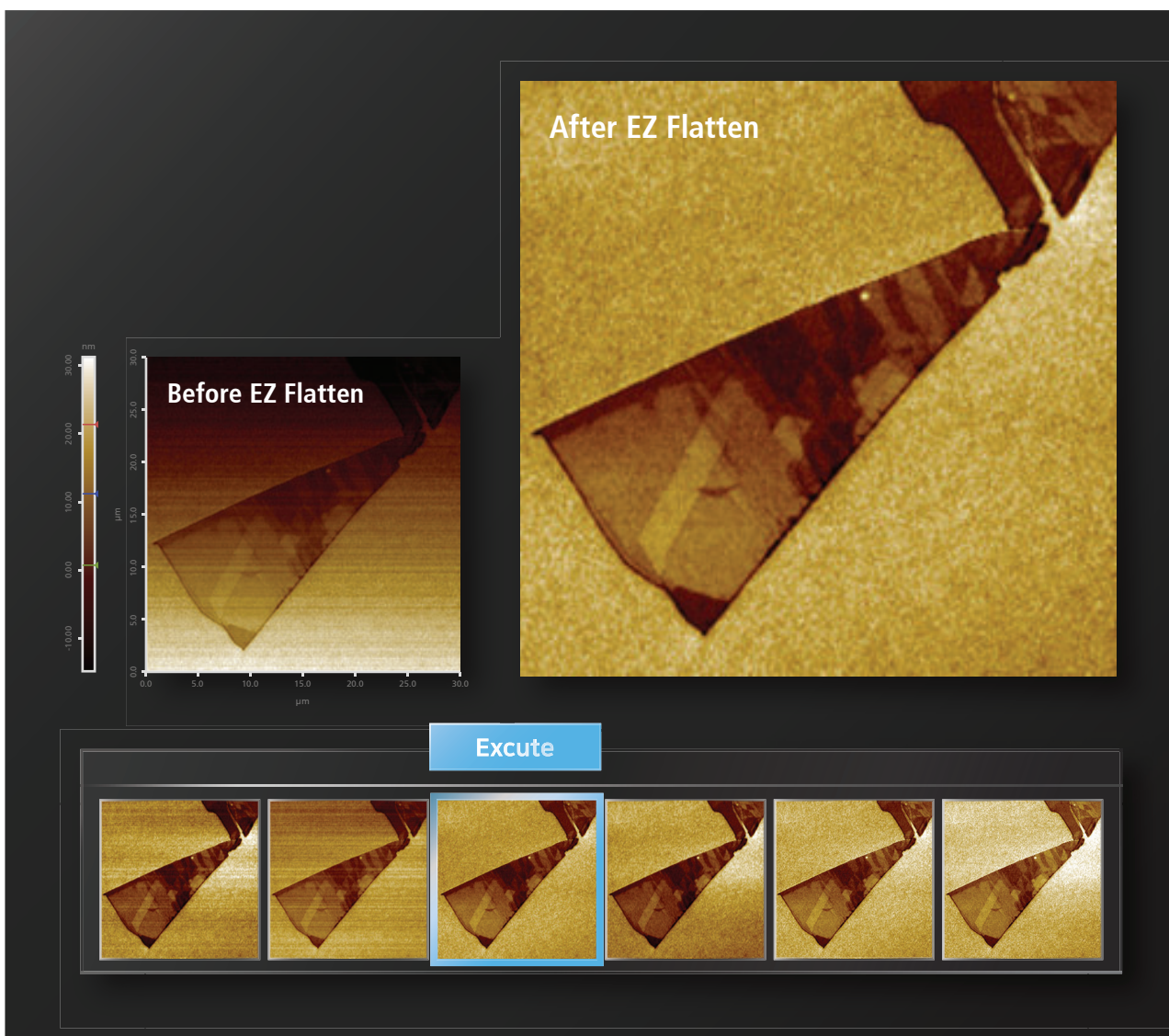
Practical 3D Image Analysis

Users can obtain high quality 3D image analysis using x-y-z sliders, control the surface hardness, brightness strength of the 3D image, and recall of 3D parameters. This provides the user with preset function and specific x-y-z preset position view. It enables the 3D line profile histogram analysis.
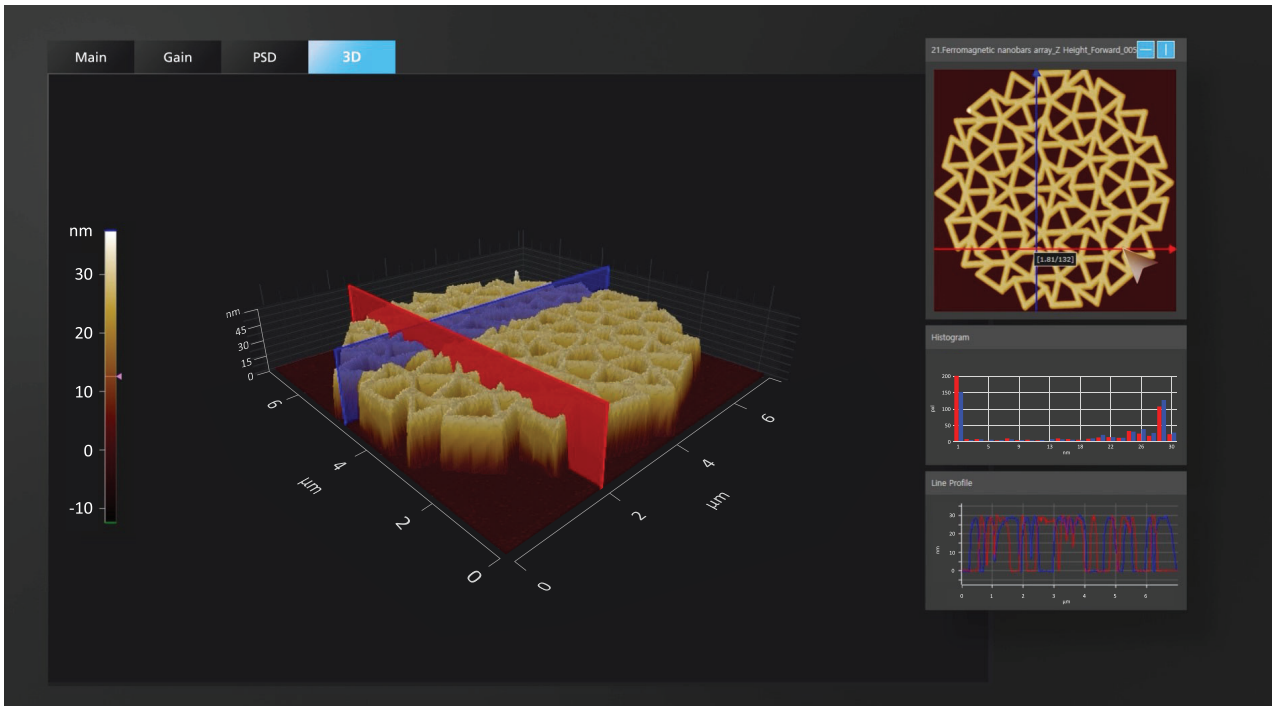
Generate Superior Reports Easily

Park SmartAnalysis makes it easy and convenient to publish detailed information about the research imaging conditions and histograms into user defined report.

Park SmartAnalysis Export function provides the user with the following.

- Export images of desired sizes without any loss of resolution
  - support various formats including PNG, JPG, BMP, TIFF and PDF.
- Create a report including 2D/3D line profile histogram.
- Customize title, fonts, color palettes, scale bar, and document layout.
- Place the desired measurement data and export it to report in PDF output.

Park SmartAnalysis greatly reduces your time from AFM image acquisition to final report of your research.

Park SmartAnalysis
More insight in much less time

Park Systems
Enabling Nanoscale Advances

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