

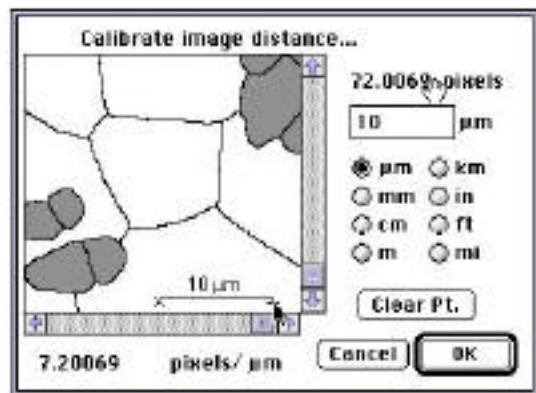
IPTK

The Image Processing Tool Kit (IPTK) provides a comprehensive set of image processing and analysis tools in the form of Photoshop-compatible plug-ins. They include plug-ins that duplicate Photoshop functions, but make them easier (usually with a fewer number of steps). Examples include image math functions (subtraction, addition, division, multiplication), image brightness and contrast functions, image color manipulation functions (color filter, median calculation, and optimal gray), and some of the convolution functions. Other plug-ins provide advanced image processing functions that only exist in high level image processing programs, such as measurement functions (features, fractal dimension, grain size, size and shape), morphology functions (erode, dilate, close, open, skeletonize), rank filters (top hat, rolling ball, median), and fast Fourier transforms (forward, backward, power spectrum, and so on).

The installation CD also provides a nice tutorial on various aspects of image processing. The tutorial is in PDF format and can be read using the free Adobe Acrobat Reader (provided on the CD). There are eight main sections, with three appendices. The main sections describe image acquisition, image processing to correct defects, image processing for enhancement, frequency space processing, thresholding and segmentation, binary image processing, stereology, and feature-specific measurements. The appendices cover the plug-ins themselves (briefly), the sample images, and other image processing programs.

The Photoshop Plug-In routines are located in a series of hierarchical sub-menus under the main Filters menu, organized by the main topics listed below. IP-Process, IP-Rank, IP-Math, IP-Adjust, IP-Color, IP-FFT, IP-Morphology, IP-EDM, IP-Boolean, IP-Threshold, IP-Measure, IP-Render. Many of the routines in the plug-in modules are adapted from the dedicated high-end Macintosh image analysis program Prism, also written by Reindeer Games and distributed worldwide through Scanalytics (you can also contact them by e-mail).

FYI, The Image Processing Toolkit was produced by John Russ, a professor of Materials Science and Engineering at North Carolina State University with much of the programming work having been done by his son Chris.



Please refer to the following URL for further information: <http://members.aol.com/IPTK/>

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