dPict7

Digital Photo Image Collection Tool

dPict7™ is a Microsoft™ Windows™ application which gives digital imaging capabilities to analog scanning electron microscopes, electron probe microanalyzers, or surface analysis instruments.

dPict7 has the ability to simultaneously collect, with one pass of the electron beam, up to 21 images. The signals include energy dispersive and wavelength dispersive x-ray spectrometers, Auger spectrometers, and secondary, backscattered, specimen current, transmitted electron images, etc.

dPict7 becomes your instrument's scan generator. Faster hardware allows 20 frames per second raster rates, providing an alternative to viewing your sample. The raster scanning speed is determined by the operator's selection of dwell time or sampling rate, and the number of pixels in a line. For electron images on the EPMA, a 3 second capture time with 1000 x 800 pixels produces quite acceptable results! For x-ray images the dwell time is normally increased to produce the desired detectability level. Images up to 3,000 X 3,000 can be recorded and electronically archived. To minimize electron beam irradiation the program has control of the instrument's Faraday Cup or beam blanker.

8 or 16 bit digital images can be recorded in many formats including TIF, JPG, BMP, WMF, etc. These universal formats are used by most desktop publishing, word processing and image analysis programs (i.e. ImageProPlus®). Recorded with the image is the original magnification, micron bar, data collection conditions, date, time, comments and image annotations. Tools for colorizing and assisting with phase analysis are also options.

Digital images can be printed directly from dPict7 to any Windows compatible printer. The 256 gray level output is quite acceptable for most purposes. For quick prints a standard laser printer can be used or for photo quality you may choose die sublimation or ink jet printers. We'd be happy to give you our recommendations.

If the SEM is equipped with our dSspec7 stage automation controller, dPict7 can acquire mosaic images. Mosaic electron and x-ray images at extremely low magnifications (limited by the mechanical range of your stage) can be made without fear of wavelength dispersive x-ray spectrometer defocusing (defocusing occurs when the x-ray or Auger incidence angle from the specimen to the spectrometer becomes too large). By moving the stage and the electron beam and tiling together smaller high magnification images, you are assured of proper signal collection conditions. This rather complicated sounding procedure is brilliantly implemented saving you valuable time. Stage rastered images (fixed electron beam) can also be acquired.

We offer computers, printers and ImageProPlus® as options to dPict7.

dPict7 features:

Pan & Zoom	Line scan profiles	Histogram equalization
Region of interest calculations	Multiple image display	Overlay micron marker
Annotate images with text/graphics	Histogram display	Format (tiff, bmp, jpg, etc).
Contrast reversal	Live image display	Distance measurement
Brightness/contrast	Area fraction measurements	Output to printer
Beam rastered and mosaic images	Image information	On line help
Stage rastered images (requires motorized stage)	Tools to create compositional images from X-ray images	Fast dual electron image acquisition
Image colorization		SEM raster calibration

Requirements for dPict7
Windows based PC. We recommend (and supply) the Dell Optiplex series.
For SEM compatibility, please call.

**DEMO AVAILABLE on our web site.
Please call for downloading instructions.**

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We are certified to ISO-9001

CuxO BEI 15kV   10μm

SEI - Hastelloy Powder   10μm

CuxO Oxygen Map   10μm

BEI - Hastelloy Powder   10μm

SEI Flyash 1024x1024 Pixels   1μm

Mosaic BEI - 40X Tiles 25min.   10mm