middleton SPECTRAL VISION

Product Sheet
MRC-923-032

RevealScan™ Analysis Software

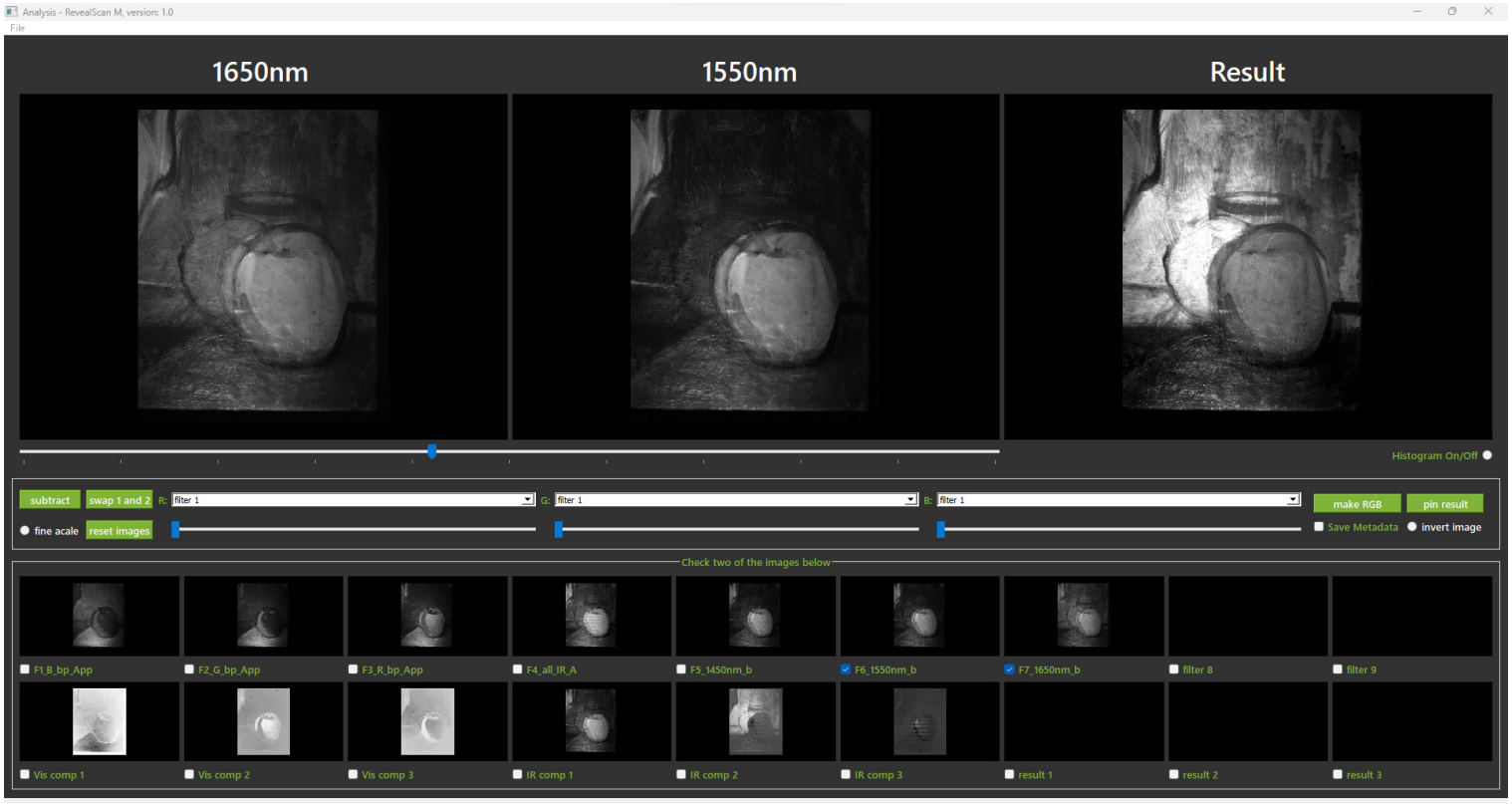
for Art, Cultural Heritage and Art Restoration

Unlock the potential of art analysis with RevealScan™ Software, a useful companion in the world of infrared study and art preservation. Designed with a straightforward user interface, this software places the most essential tools front and center, stripping away the complex utilities or user created routines that often accompany other infrared reflectance (IRR) cameras. The output of RevealScan™ Analysis is an easily interpretable image that can be effortlessly saved in popular file formats such as TIF, PNG, or JPG. This compatibility enables you to easily generate results for publications, presentations, and other reports. Transform the process of analyzing artwork with RevealScan™ Analysis, the cutting-edge software optimized specifically for the art world's unique needs. RevealScan™ Analysis enhances your ability to obtain results where traditional IRR imaging falls short.

Reveal features below the surface

Using patent pending technologies, you can combine images to reveal underpaintings and underdrawings not visible to the naked eye. The user interface has a intuitive slider to make very easy, continuous coarse and fine adjustments to arrive at the best resulting image.

Effortlessly pin any partial result image for your use in further continuous image processing. The result display box is equipped with a histogram adjustment tool and an invert button to reveal even finer differences in the paintings. You can keep track of the process used to create an image by checking the Save Metadata box.



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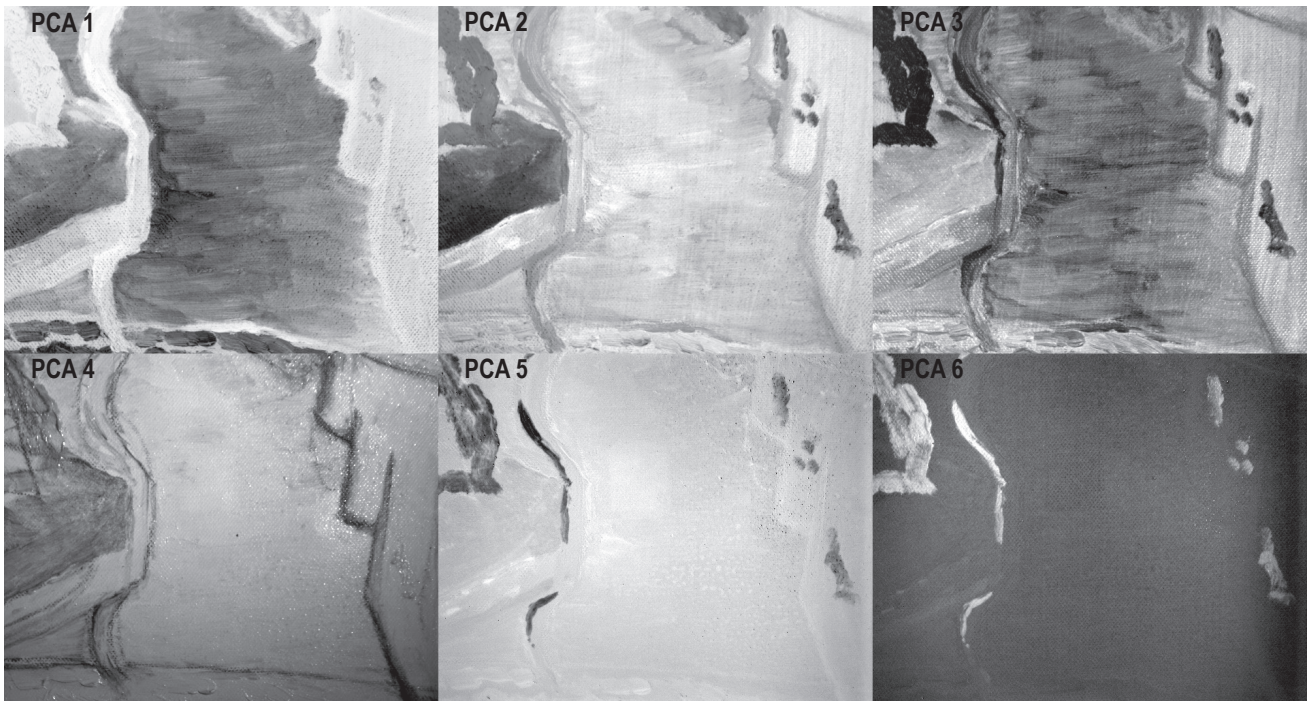
Automatically generate principal components

RevealScan™ Analysis features principal component analysis (PCA) that is automatically performed when the series of images are loaded. An example of the resulting PCA component images the software generates from the loaded images of a painting is shown below. The software can also perform PCA separately on the visible and infrared images depending on which bands were selected during aquisition. Important hidden features like underpaintings can be highlighted in one or more of the components. These components can also be useful in removing specific features from the painting that you want to minimize in the final image. The calculated components, which have the same pixel-by-pixel size, can also be used in combination with other images to enhance the underpainting by removing particularly dark or light features of the outer paint layers for the best visualization of the hidden information.

Create False-color images

RevealScan™ Analysis can create false color images from any of the wavelength images or PCA components to quicky highlight differences between images and enhance particular features or areas of the image. The three colors have a corresponding slider to adjust how much each channel is weighted, allowing for subtle color adjustments. The software also generates a black and white rendering of the false color image to use for additional refinement.



The first six principal components generated from images of the same section of a painting. Note the graylevels change for the same detail in all six components.