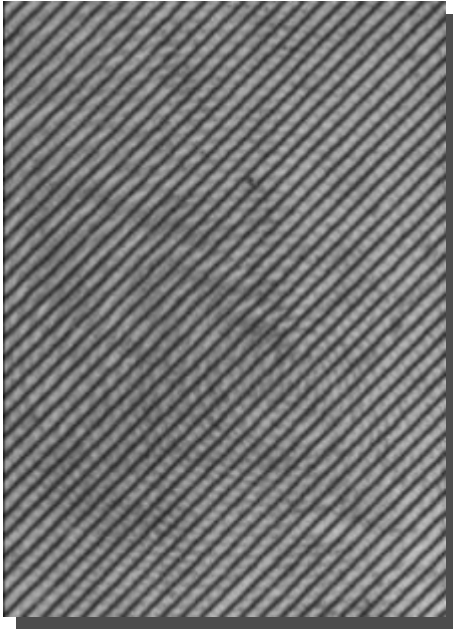


Fast Fourier Transform (FFT) Used to Enhance Fingerprint



Original Image of fingerprint

Image-Pro's Fast Fourier Transform (FFT) feature can be used to remove regular patterns from grayscale images. The example image of a fingerprint on paper is used to show how periodic patterns can be "subtracted" from an image. Regular noise patterns on images caused by electrical interference can also be removed to enhance an image.

A forward FFT is performed. Spikes in the FFT spectrum represent the regular pattern of lines on the image. AOIs (area of interest) are manually defined so that portions of the spectrum can be removed. The transform is inverted and the resulting image shows the fingerprint without the obscuring pattern of lines.

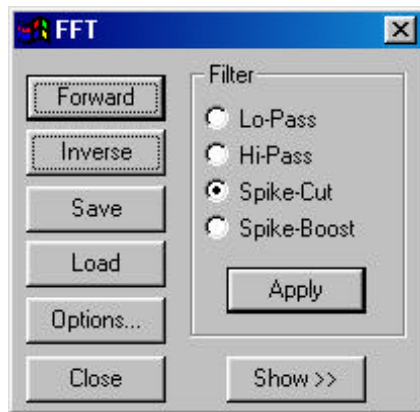


Image after pattern removal

