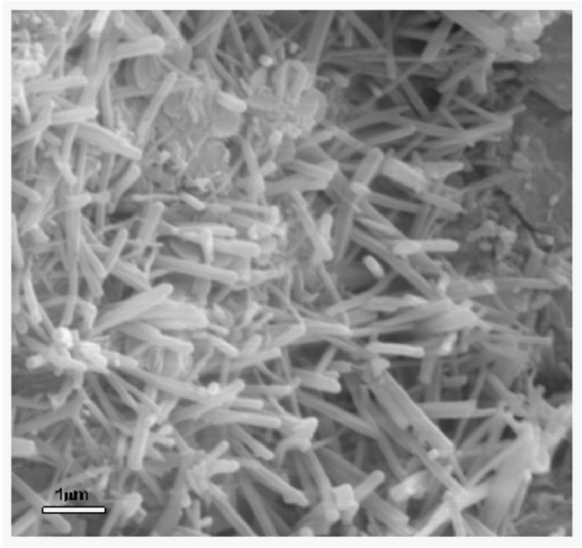
DELTA PATENT
PRESENTS

INNOVATIVE METHOD OF PREPROCESSING IMAGES TO BE FILED AS PARTS OF PATENT APPLICATIONS

Patent attorneys and agents as well as many applicants are well aware of the problem of losing a substantial part of information represented in photographs and photorealistic images of patent applications due to automatic processing application images by Patent Offices. This happens because Patent Offices use high-speed scanners adapted to scan text and drawings, but not photographs.

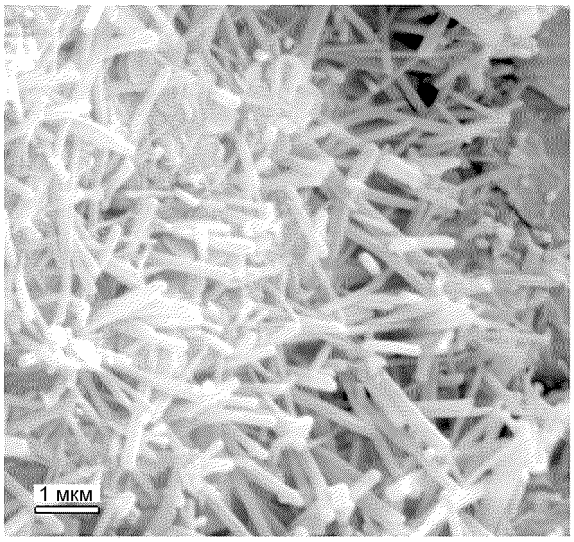
What can we see usually?



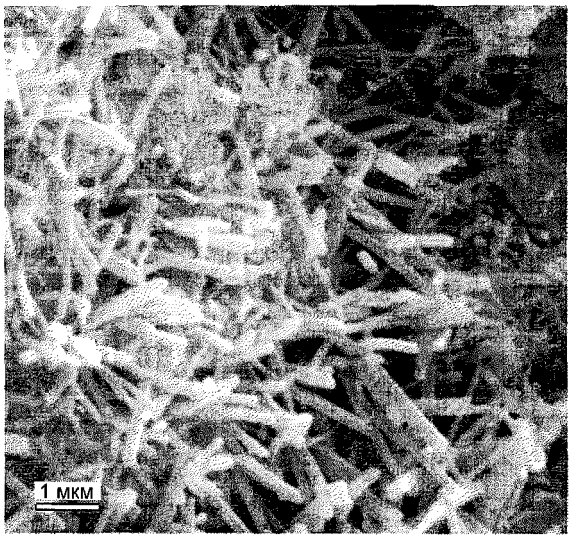
This is an image as filed as a part of a patent application

This is the same image as published by a Patent Office

What we can do to remedy this situation?



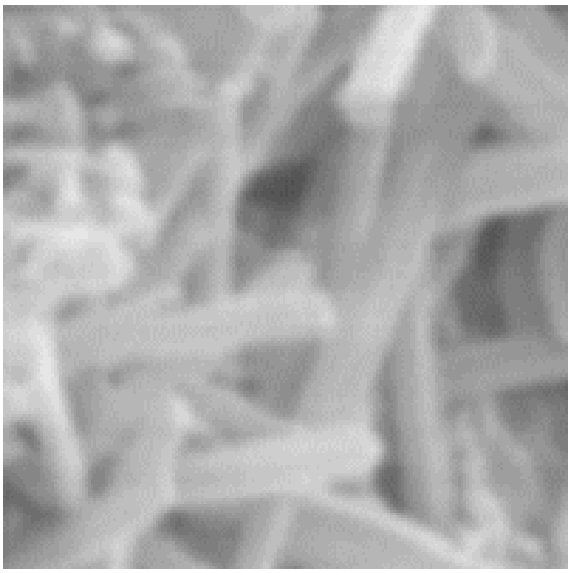
This is the same image being preprocessed and ready for filing



This is how the preprocessed image looks like after publication

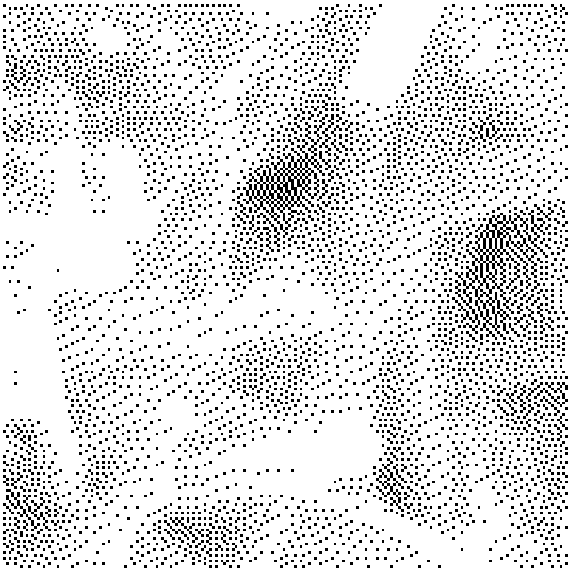
As we can see in the above pictures, the original image lost more than 70% of its information content, while the preprocessed image lost less than 10% of its information content after publication.

Let's see the difference in details



Original image (upper left corner)

Original image after publication



Preprocessed image

Preprocessed image after publication

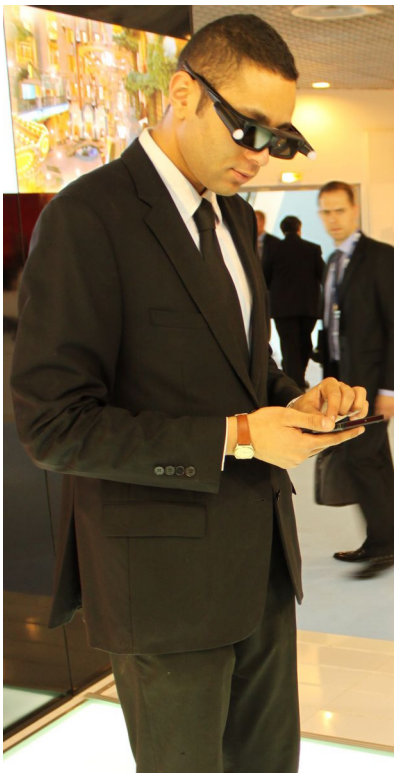
The method of preprocessing photographs generally includes resizing the image (i.e. changing the image size in pixels), tonal correction, saturation and hue correction, contrast increase, removal of color data and stochastic screening.

The image size in pixels is set so as to exactly match the physical resolution of 300 dpi while printing. Tonal correction, saturation and hue correction, as well as contrast increase are performed by way of expert assessment. The type of stochastic screening is selected based on the nature of the image and some formal parameters like optical density histogram data.

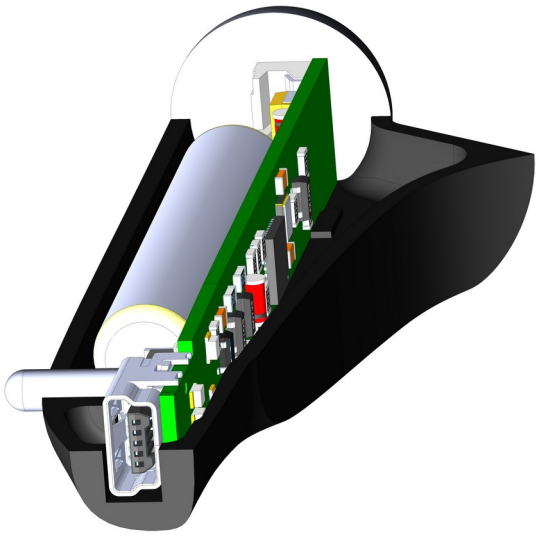
Sometimes, the image treatment has to be done in iterative way (i.e. it is repeated several times with different process parameters) until acceptable result is achieved. Quality control includes visual inspection of the resulted image and/or printing with further scanning or copying. Instead of physical printing, some filters able to simulate printing and scanning or copying may be used.

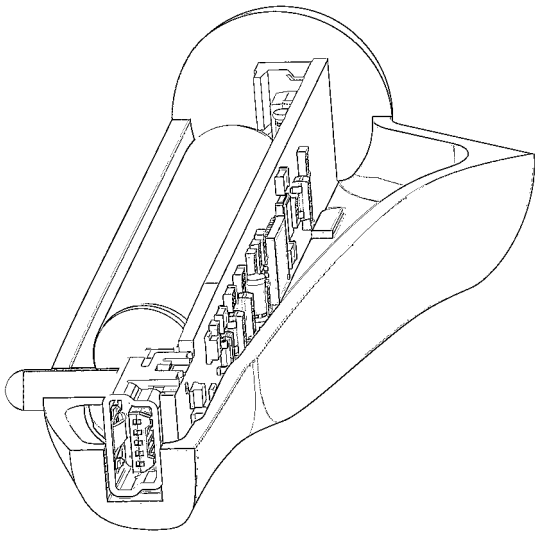
Alternative ways of preprocessing images

Instead of stochastic screening, alternative options may be used for some types of images, e.g. customized filters able to transform a photograph into a kind of black and white sketch which meet drawing requirements of Patent Offices.



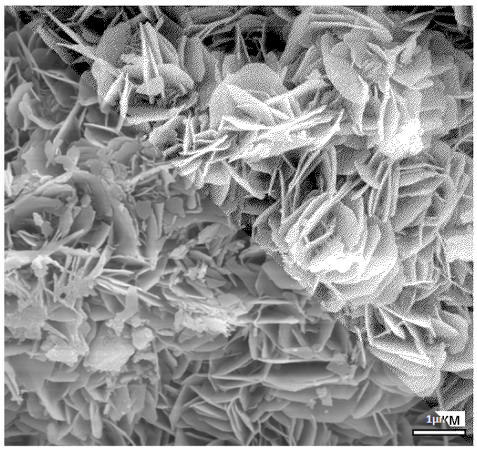
These filters allow readily deriving black and white raster images looking like vector drawings, from color and half-tone computer 3D models.



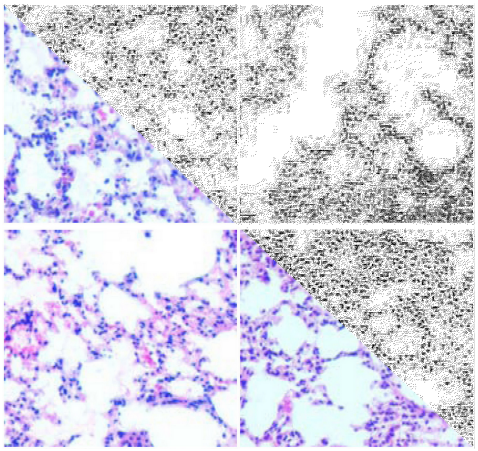


Thus, preprocessing photographs and photorealistic images allows increasing the quality of images in figures of new patent applications, as they appear in patent databases, and at the same time it allows substantial decreasing the cost of preparation of patent figures, as compared to conventional drafting engineering drawings.

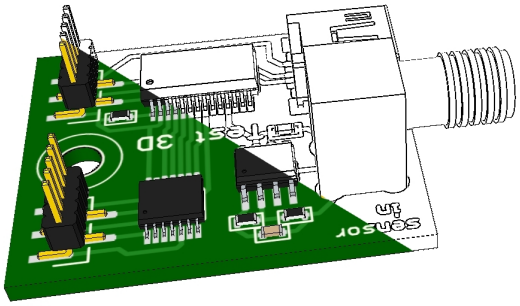
How much does it cost?



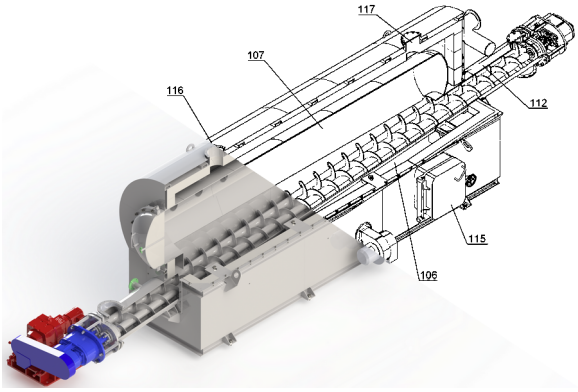
Material photomicrographs (like crystalline structures, cracks and fissures, weld joints details, nanotechnology objects, etc.) — $10 per image



Biotechnology images (like immunological blots, auto-radiographs, histological tissue cross sections, stained cell culture views, thin layer chromatography plates, etc.) — $10 per image



Simple 3D models — $20 per image



Complex 3D models — up to $50 per image

If you need more information on preprocessing patent images, please download a PowerPoint presentation from our website:
http://delta-patent.com/Presentations/Preprocessing_Photos_for_Patent_Applications.ppt

For ordering our services please contact us by email: eng@delta-patent.com