



elpical  
**claro**premedia 

## Complete image workflow solution for automatic individual image analysis and enhancement.

Elpical Claro Premedia provides a complete image processing workflow for printers publishers and online communication companies that require fast processing of high volumes of images while achieving cost reduction and improved quality.

Through the **Claro Individual Image Analysis** Claro Premedia individually analyzes each image for a range of specific parameters, then enhances the image for highest-quality results... even images inside a PDF.

Claro Premedia also automates other image processing tasks such as **intelligent ICC-based DeviceLink conversions** or file format conversions.

The **Elpical Claro JobClient for InDesign** offers seamless integration of the Claro Premedia workflow into InDesign. The **Claro Inspector for Photoshop®** allows side-by-side viewing of original and processed image versions.

Claro Premedia is **easily integrated** in nearly any **editorial** or production automation system.

### Claro Individual Image Analysis

Automatic image enhancement is a real challenge. What is good for one image is not good for the other. Although it seems contradictory, automatic image enhancement needs an individual approach. With its Claro Individual Image Analysis, Claro analyzes every individual image thoroughly, looking for such parameters as sharpness, brightness, contrast, color balance, natural greens, skin tones Exif information, ... and more.

This extensive individual analysis is fundamental to Elpical's image enhancement technology. Because of this fundamental approach, the Claro products achieve consistent high-quality results even when the origin and quality of the original images vary significantly.

Claro utilizes superior enhancement techniques. The sharpening that will be applied to a given image varies in amount and threshold, depending on the sharpness and (reduced) noise levels in the original image, a sophisticated anti-halo filter is applied to reduce the undesirable side effects of sharpening, it will even reduce existing JPEG artefacts.

Claro's local contrast-enhancement allows for details to be preserved and enhanced both in the bright as well as in the dark areas of the image, without effecting overall brightness of the image. Individual image analysis ensures that this technique is only applied to images that require it.

### Benefits

- Provide consistently high-quality image enhancements across varied individual images
- Save massive amounts of time on producing image-specific enhancements
- Process with confidence, knowing Claro Premedia will only enhance images where needed and even perform batch image enhancement inside PDF files
- Stay in control of your workflow with Elpical Claro Inspector that route images to Adobe® Photoshop® for side-by-side comparisons
- Seamless integration with leading workflow solutions like CCI, K4, Switch, WoodWing, EIDOS Media, InDesign, Protec, and more



Press & Publishing

System integrator &  
Software developers

Photo processing  
for web & print

Printing & Copying

## Key Features

### General

- Claro Individual Image Analysis (CIIA) for automated image enhancement based on each image's specific requirements
- Web based user interface for easy remote server control



- Consistent enhancements across a wide range of image types (TIFF, JPEG, DCS-RAW, EPS, BMP, PSD, etc.)
- File output support for TIFF, JPEG, EPS, PSD, GIF, PNG (incl. original layers, compatibility layer and processed layer)
- Up to 4 parallel image-processing threads for maximum performance and multi-processor capability
- XML job file support for easy integration into existing workflows

### Image processing

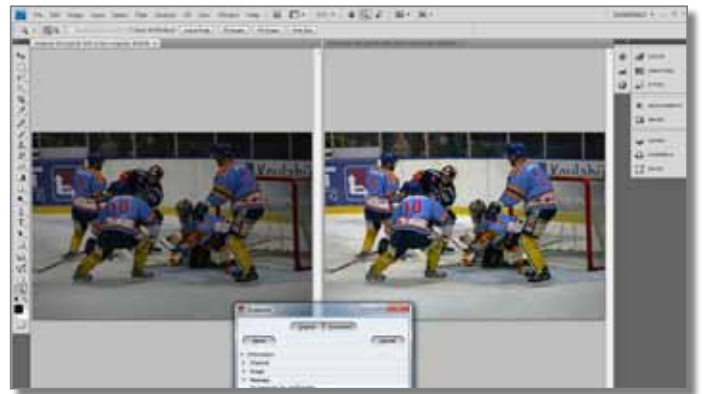
- Images inside PDF files can be enhanced, resampled and color converted
- ICC based color conversion and profile assignment & embedding
- CMYK-to-CMYK conversions without conversion to LAB
- Save Ink (limit total area coverage)
- Device link profile generation, based on source and destination profile
- DeviceLink Channels for CMYK to CMYK conversions
- Resampling and resizing of images

### Image optimization

- Local contrast enhancement of image details with respect for overall image brightness
- Superior control over and dynamic optimization of sharpness, brightness, saturation, noise, black point/white point, and color balance
- Skin-tone specific recognition and treatment to achieve natural looking people
- Reduce JPEG artefacts

### Workflow

- Easy XML based integration into existing workflows
- Claro Jobclient for Adobe Indesign® seamlessly integrates image optimization in page layout workflow
- Claro Inspector for Photoshop®. Integration for optimum side-by-side control of specific images (Mac & PC)



- Create unlimited number of hot folder based workflows
- Professional backup of original and/or processed files
- Routing channels based on IPTC (Route to a Claro channel, a folder, ftp destination and/or email address)
- Embed processing information into XMP

## About Elpical Software

Elpical Software, an international company with offices in The Netherlands and Germany, develops and markets software solutions for the production and enhancement of digital images and the automation of the image workflow. Based on extensive image analysis, the technology enables publishing houses to automate the enhancement of produced images. Elpical was established in 1997 by a management buy-out of the Electronic Imaging department of Victor Hasselblad AB. Since then, Elpical has become a leading specialist in the field of digital image enhancement and management.

The manufacturer's key products include Claro Layout, Claro Single, Claro Premedia Server, 4LeafClover and EmailManager. Elpical's core competence in the field of digital images makes the company an ideal partner for other software suppliers who want to combine Elpical products with their own applications, or for system integrators who want to integrate expanded image functions in their own products. Elpical has concluded an OEM agreement with, among others, Océ® for the enhancement of embedded images from PDF documents.

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