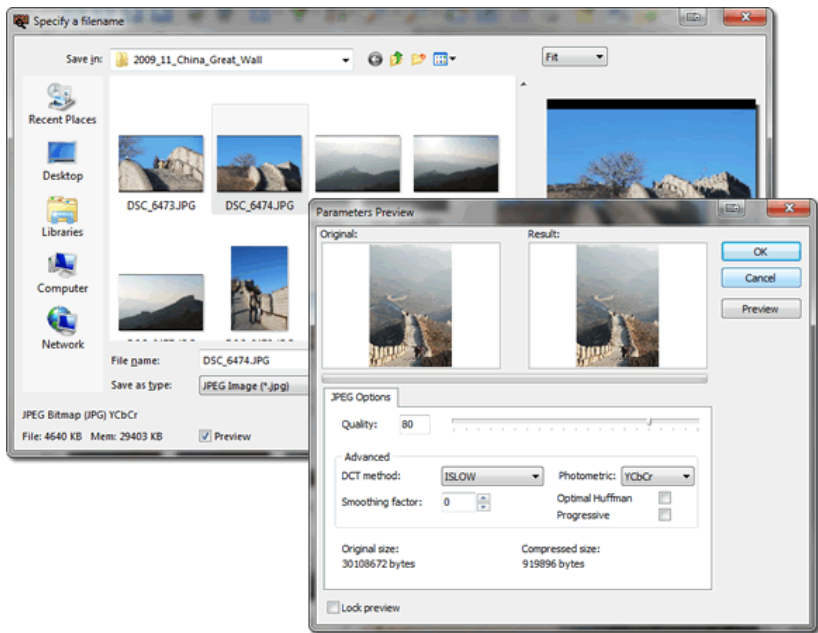


File Operations

- Asynchronous loading and saving
- Lossless JPEG rotation and cropping
- Support for Color Management Systems to process ICC profiles
- Loading and saving of digital camera (EXIF) fields in JPEG, TIFF, RAW and HD Photo files (without modifying the original image)

Property name	Value
Make	Canon
Model	Canon PowerShot A75
Orientation	1
XResolution	180
YResolution	180
DateTime	2005:02:24 20:07:23
ExposureTime	1/4 sec
FNumber	2.8
ExposureProgram	0
ExifVersion	0220
DateTimeOriginal	2005:02:24 20:07:23
DateTimeDigitized	2005:02:24 20:07:23
CompressedBitsPerPixel	3
ShutterSpeedValue	2
ApertureValue	2.96875

- Loading and saving of EXIF GPS fields
- Loading and saving of Adobe XMP fields from JPEG, TIFF, HD Photo and PSD files
- Raw camera support including access to internal thumbnails and other data fields
- Loading and saving of IPTC data (most commonly used by Photoshop) from JPEG and TIFF files (without modifying the original image)
- Quick reading of image properties (dimensions, color depth, etc) without loading image
- Image load and save dialogs which include a preview and relevant save settings



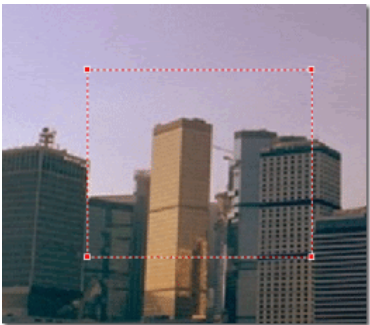
- Support for alpha channel in GIF, TIFF, PNG, ICO, CUR, TGA, PSD files
- Load images directly from the internet (using http/ftp protocol)
- Encryption and decryption using a 128 bit key

Image Display

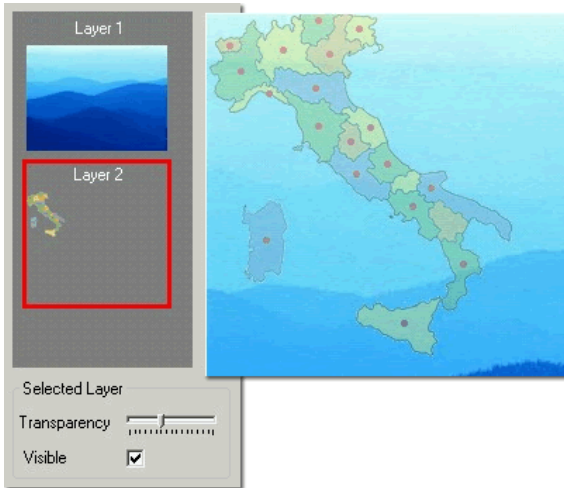
- Images can be automatically displayed "To-Fit" or with real time zoom. Six quality settings are available to enhance its display (from fastest to best quality)
- Images from digital cameras that support EXIF rotation data can be automatically displayed with the correct orientation
- 180 stunning image transition and Pan-Zoom effects



- Many selection types: rectangle, ellipse, polygon and "magic wand" (to instantly select a colored area) and other options (including selection intensity and feathering)



- Other mouse interaction options include mouse wheel support and click-dragging to navigate and zoom the image
- Multilevel undo and redo
- Support for alpha channel (transparency) and multiple layers (with 37 layer blend modes). All layers can be moved, resized and rotated (programmatically or by the user)



- Display and navigate images using Coverflow-style animation

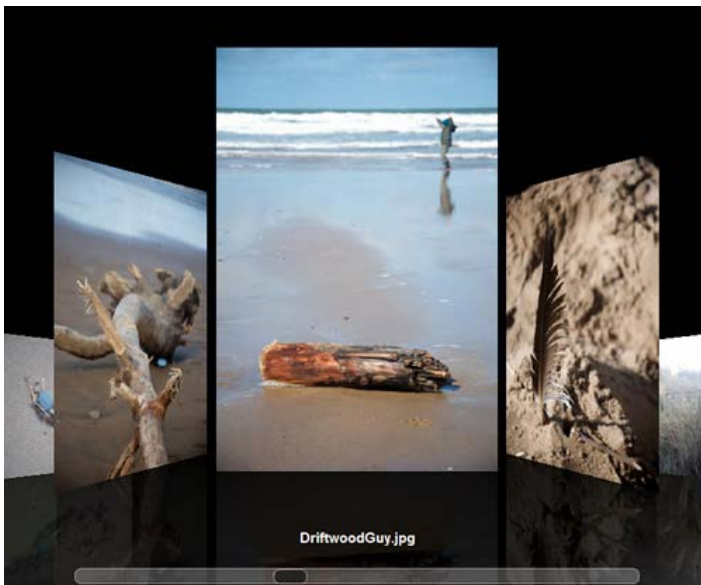
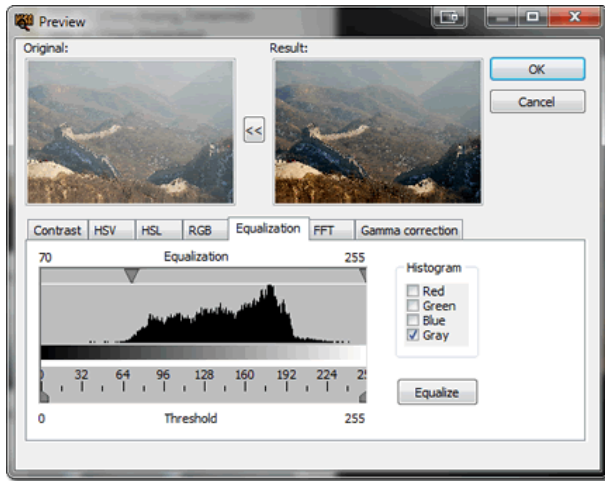
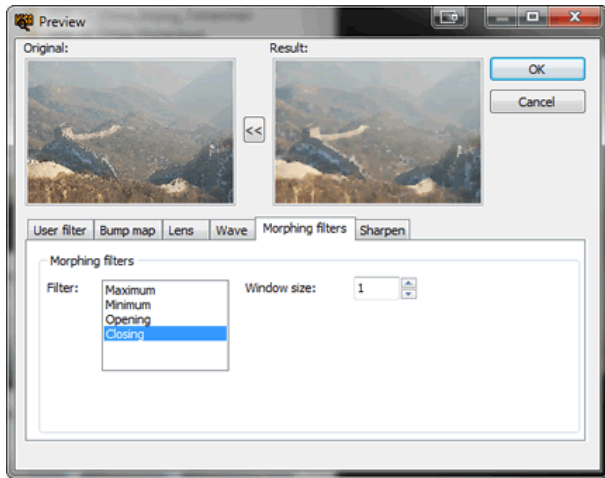


Image Editing and Processing

- Image resizing with 11 quality filters including Triangle, Hermite, Bell, BSpline, Lanczos3, Mitchell, FastLinear, Bilinear and Bicubic
- Many color adjustment facilities including contrast, HSL, HSV channel separation, RGB, histogram equalization, Fast Fourier Transformation (FFT), gamma correction, temperature and noise removal. All can be applied programmatically or using the built-in dialog



- Image effects including custom filters, bump map, lens, wave, morphing, Gaussian and motion blurring and sharpening. All can be applied programmatically or using the built-in dialog



- Conversion to gray scale and negative
- Conversion of color ranges
- Image cropping, auto-cropping, flipping and rotation with anti-alias
- Edge and skew detection



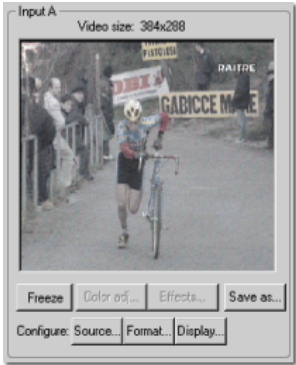
- Red-eye removal
- Soft shadow and inner shadow effects



- Supports a wide range of native pixel formats: 1 bit, 8 bit paletted, 8 bit grayscale, 16 bit grayscale, 24 bit RGB, 32 bit float point, 24 bit CMYK, 48 bit RGB, CIE Lab

Image and Video Acquisition

- Acquire images from Twain (modal and modeless) and WIA compatible scanners and cameras
- Capture from screen
- Visual and non-visual components for video capture (supporting freeze frames and real-time processing). Supports all installed codecs and video capture cards

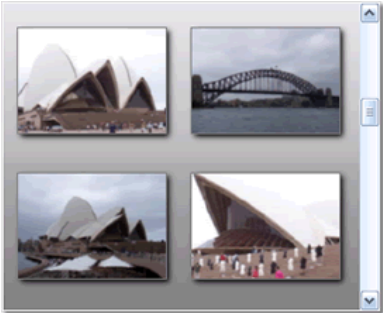


- Video capture and saving of multimedia using DirectShow

Thumbnails

Powerful thumbnail components that displays a grid of images (e.g. read from a folder or database table):

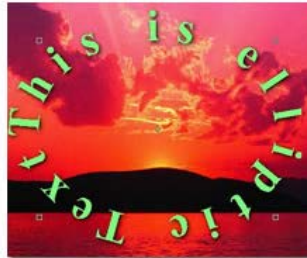
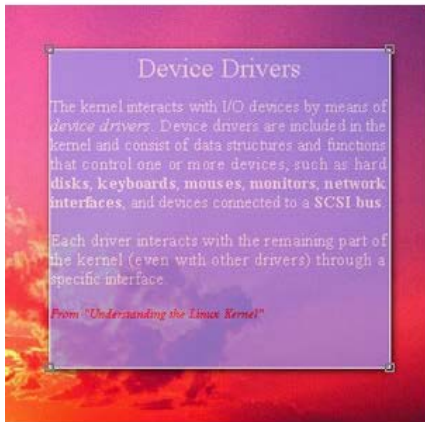
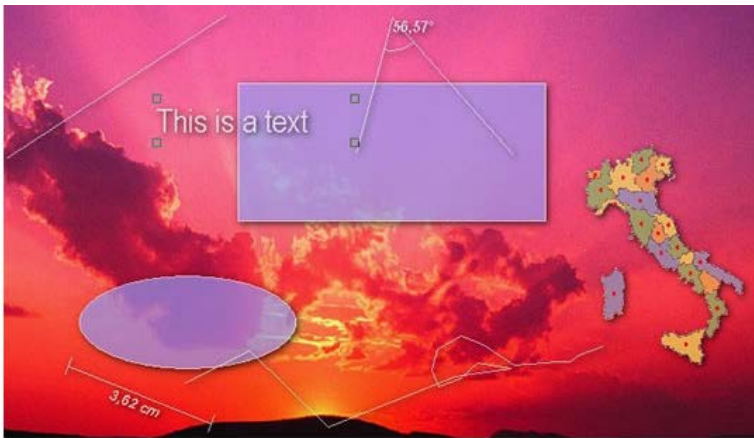
- Many style and other customizations, including wallpaper
- Supports multiple selection
- Display all frames/pages of: AVI, GIF, TIFF or video files (using Directshow)
- Very memory efficient and fast with multi-threading background image loading, caching and optional use of embedded thumbnails



Vectorial Object Component

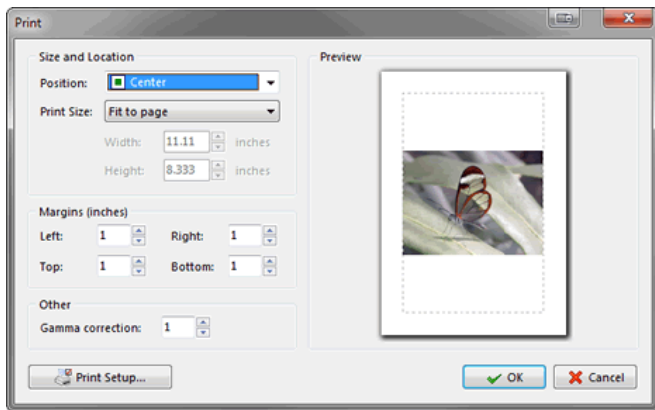
Vectorial Editing component that allows you to add and manipulate objects on a background image:

- Width object support: lines, boxes, circles, ellipses, bitmaps, text (including curved, multi-line and formatted), rulers, polylines, polygons, angles and arrows
- Many object options including transparency, soft-shadow and anti-alias
- Save/Load to compressed IEV format and import from AutoCAD DXF files
- Undo and redo support
- Measurement of lines, perimeters, areas and angles
- Full clipboard support



Other Features

- Over 170 actions for all common ImageEn functions, allowing you to build applications with minimal code
- Printing of single images and sheets of multiple images, including print preview support



- Data-aware versions of image and thumbnail components to automatically display files stored as blob or path references in a database table
- One-click selection of languages for all dialogs with support for: English, Italian, German, Spanish, French, Portuguese, Greek, Russian, Dutch, Swedish, Polish, Japanese, Czech, Finnish, Farsi, Chinese, Danish, Turkish and Hungarian
- Also works with the standard TImage component and TPicture class