



# ImageControls

## ActiveX Controls For Building Production Document Imaging Applications

Kofax® offers the industry's most comprehensive set of ActiveX controls for building production-level document imaging applications. ImageControls® is a set of easy-to-use visual programming tools for commercial developers, VARs, integrators and corporate developers needing to rapidly create powerful imaging applications for use in Windows environments.

ImageControls is fully compatible with Microsoft Visual Basic and Visual C++ versions 5.x or greater. Applications developed with ImageControls are supported by the complete Kofax family of Adrenaline® software engines and hardware accelerators.

## Building a Complete Solution

Using ImageControls, you can develop production-level scanning applications that speed the indexing of images, increase OCR accuracy, and decrease overall image file size to make your application a cost effective and efficient document management solution. ImageControls provides ActiveX controls for scanning, automated recognition, image cleanup, forms processing, viewing, and printing of images. ImageControls comes complete with five 32-bit ActiveX controls; Visual Basic and Visual C++ demo programs; complete documentation; and a royalty-free version of the Adrenaline Retrieval Engine. End users running applications based on ImageControls will need to have either an Adrenaline software engine or a Kofax image processing accelerator installed.

## A Toolkit For Every Need

- Scanning up to 200 ppm (400 images per minute) on leading production scanner from Agfa, Böwe Bell+Howell, Fujitsu, Kodak, Panasonic and Ricoh
- Network printing up to 25 ppm, royalty-free
- Display support for black and white, grayscale, and color images up to 24 images per second, royalty-free
- File storage and retrieval (supports TIFF, Multipage TIFF, PCX, BMP, JPEG file formats)
- Image compression and decompression, scaling and rotation
- Bar Code and Patch Code Recognition (color, bitonal, and grayscale)
- Black Border Removal
- Deskew (color, bitonal, and grayscale)
- Speckle, Streak, and Shade Removal
- Line Removal and Character Repair
- Image Enhancement Filters
- Form Recognition
- Page Registration

Production  
Imaging  
Made Easy



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## Scanning

ImageControls supports all of the industry's leading production document scanners at rated speed. ImageControls supports color, grayscale, and black and white scanning. Images can also be imported directly from disk in a variety of file formats. There are 10 common dialogs, ready for integration, for users to set scanner settings.

Other features include support for:

- Auto-blank page deletion
- Auto rotation (independent rotation angles for front and back sides of a duplex image)
- Auto-length detection
- Independent picking rectangles for front and back sides of duplex images
- Text annotation and endorsing

## Automated Recognition

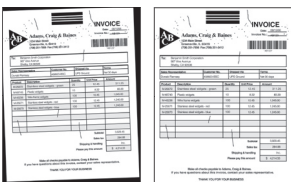
ImageControls speeds the processing of documents that contain patch codes and bar codes by automatically recognizing and translating the coded data each contains.

**Patch Code Recognition.** ImageControls detects and recognizes up to six unique patch code types in color, bitonal, and grayscale. Patch codes can be used to recognize changes in batches, stop the scanner for manual setting adjustment, update scanner settings on the fly or to signify any unique attributes in a set of documents.

**Bar Code Recognition.** ImageControls recognizes 13 different bar code types (1D and 2D), including situations where there are multiple symbologies on the same page. ImageControls can process up to 64 different bar codes on any document, no matter their orientation. The bar code engine works on color, bitonal, and grayscale images.

## Image Cleanup

ImageControls provides improved image quality for OCR processing through a variety of image cleanup controls.



**Black Border Removal.** Performed simultaneously with scanning, this feature eliminates black edges generated by scanners with black backgrounds, thus reducing image file size while improving legibility.

**Deskew.** In order to correct image skew created during scanning, the deskew function employs an algorithm that compensates for it, resulting in images with zero degree skew. This feature does not require lines or leading edge borders to operate.

**Speckle, Shade and Streak Removal.** These modules eliminate random noise (speckles and streaks) as well as shaded backgrounds either present on the original document or generated at scan time.

### Line Removal and Character Repair.

This function serves to eliminate all unwanted horizontal and vertical lines.

Features within the module enable developers to provide automatic character repair when desired text and unwanted lines intersect.

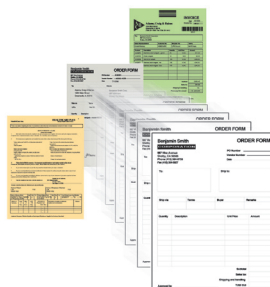
**Image Enhancement Filters.** This module can be used to perform a variety of enhancements on lines and characters. Lines and characters can be smoothed, thickened, thinned, filled or outlined in order to make them more legible and recognizable.

## Form Recognition

ImageControls can match scanned images against sets on known forms by comparing each scanned image against a catalog master forms. Sophisticated algorithms enable ImageControls to learn the properties of each master form, perform page registration, and return a list of the most likely matches.

## For more information

Visit the Kofax web site at [www.kofax.com](http://www.kofax.com) for more information and free white papers. Or give us a call for further assistance!



# Scanner Controllers, Image Processing Accelerators & Software Engines

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