



the standard for
imaging tools

PixTools/Scan

Maximum Support for High-Performance ISIS Drivers: Get the Most from Your Scanner

Whether you are a corporate programmer writing applications for your company's internal use, or an independent software developer creating a product for millions of users, the right tools are mission-critical. Pixel Translations is the choice of industry leaders for adding document imaging capabilities to applications. And the PixTools® product line provides core imaging technologies that can be integrated readily with your software, such as PixTools/Scan.

One of the biggest strengths driving PixTools/Scan is supporting Pixel Translations' Image and Scanner Interface Specification (ISIS®), the industry standard, enterprise-level interface that unites a universe of scanners and applications, supporting every feature of leading document scanners. ISIS also forms the basis of the scanning API currently standardized by the Association for Image and Information Management (AIIM) as MS61, and at the AIIM 2002 conference, ISIS earned the first-ever AIIM Standards Implementation Excellence Award.

PixTools/Scan drives peak performance from every scanning device, and its unique ScanAhead™ capability maintains maximum throughput by caching image data in the ISIS driver—even when an application is temporarily unable to keep up with a scanner.

PixTools/Scan also includes image decompression, import, conversion, and file handling. For additional document imaging application support, PixTools/Scan can be used in conjunction with other toolkits such as PixTools/View and/or PixTools/IP.

SUPPORT FOR MORE THAN 300 SCANNERS

ISIS drivers allow an application program to work with more than 250 different scanners made by more than 50 different manufacturers. Most supported scanners are mid- to high-speed desktop or production scanners. Manufacturers include

Agfa, BancTec, Bell & Howell, Canon, Epson, Fujitsu, Hewlett-Packard, Inotec, Kodak, Microtek, Minolta, Panasonic, Ricoh, and Umax. Support for lower-speed TWAIN scanners is available through Pixel's PixTWAIN utility.

MAXIMIZE SCANNER PERFORMANCE

PixTools/Scan provides access to every single major scanner feature, and drives them at their rated speeds or faster (200 or more pages per minute). It imposes very little overhead on the process, providing maximum available CPU to the application that must accept and process the data. The ScanAhead feature allows an ISIS driver to pre-fetch and buffer additional image data and pipeline the process to maintain peak throughput. Also, the enhanced MultiStream™ feature produces both color and bitonal images at scan time.

INTERFACE INDEPENDENT

ISIS drivers are available for scanners with SCSI, USB, parallel port, FireWire, and many proprietary interfaces. As the developer is completely shielded from issues surrounding the choice of physical interface, the interface choice can be dictated by issues such as cost, flexibility, and maintainability. By using PixTools/Scan with ISIS support, applications can seamlessly add additional scanner support *without* having to recompile.

ADAPTS TO YOUR ENTERPRISE NEEDS

PixTools/Scan with ISIS support provides access to the full range of available scanner features. Image data can be black-and-white (binary), gray, or 24-bit color. Resolution can range from 50 dpi to 2400 dpi or even higher, and automatic feeder, printer/endorsers, and transparency units are supported as well. Barcode recognition, page separation features, and filters are also available.

OPTIONAL GUI

Each ISIS driver provides a (completely optional) graphical user interface (GUI). Each feature available in the driver GUI can be provided instead by your application's interface, and every GUI provided by ISIS drivers share a consistent look and feel.



FLEXIBLE, MODULAR STRUCTURE

PixTools/Scan with ISIS provides an elegant method for connecting modular “building blocks” to complete specific imaging tasks. For example, a scanner driver can be connected to a CCITT Group 4 compressor, which is connected in turn to a TIFF packager. To scan to a proprietary file format, you may only need to replace the TIFF packager with a proprietary packager. Alternatively, you can replace the scanner driver with a TIFF CCITT G3 reader, and use PixTools/Scan for file conversion. This modularity enables the creation of unique, enterprise-specific imaging solutions.

CROSS PLATFORM FUNCTIONALITY AND LOCALIZATION SUPPORT

PixTools/Scan is available for Windows Me, 98, 2000, NT, and XP. A variety of UNIX environments are supported through a Pixel Translations strategic partner. Localization support is currently available for Italian, French, German, Spanish, and Japanese, with other languages easily added.

PixTools/Scan Interface Overview

Normal use of PixTools/Scan with ISIS involves the following steps:

- initialize library
- load driver
- query scanner capabilities
- (get user input)
- set scanner parameters
- initiate scan
- display/store image
- unload driver

Drivers are loaded dynamically regardless of environment. A “tagged” mechanism is used to get and set parameters and capabilities, so a small number of routines (plus a set of tags) provides access to the scanner; for example:

PixTagGetLong()	gets the current value of a tag
PixTagGetLongDefault()	gets the default value of a tag
PixChoiceGetCount()	gets the number of choices available for a tag
PixChoiceGetLong()	gets a particular choice for a tag
PixTagSetLong()	sets the current value of a tag

Corresponding ASCII and Rational routines exist for tags of those types. The tags consist of the set of tags used in TIFF plus some additional tags necessary for scanner control. These tags include:

TAG_BITSPERSAMPLE	TAG_YRESOLUTION
TAG_CONTRAST	TAG_IMAGELENGTH
TAG_BRIGHTNESS	TAG_IMAGEWIDTH
TAG_XRESOLUTION	etc.

After scanning is initiated, the application provides buffers that the driver fills with data. This data can be displayed, compressed, stored—whatever is appropriate for the application. ISIS provides a very convenient and efficient mechanism for compressing and storing scanned images to a variety of file formats.

PRODUCT CONTENTS

PixTools technology is provided in the form of toolkits that include:

- software libraries
- documentation
- sample source code
- engineering support via phone, fax, and Internet

Our developer support group will work with you throughout your project to help you get your application up and running. After development is complete, we’ll continue to keep you up to date with information on crucial upgrades and new technology.

Contact us today for a free demo of PixTools/Scan!

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