

EMC Captiva ISIS vs. TWAIN

The Big Picture

Competitive businesses are moving rapidly toward the use of digital documents and automated content management systems to drive their business processes. To stay competitive, organizations must capture the content that feeds those systems and fuels those processes with more speed, accuracy, and flexibility than ever before—which means more powerful scanners with more powerful drivers. EMC has the answer—ISIS.

Developers are finding that, when it comes to scanner drivers, none are more powerful than EMC® Captiva® ISIS® (Image and Scanner Interface Specification), the industry standard, enterprise-level interface that unites a universe of scanners and applications, supporting every feature of leading document scanners.

Today's scanners are increasingly complex and powerful and loaded with functions that not all TWAIN drivers are equipped to handle. Only ISIS drivers consistently enable you to take full advantage of the built-in power of your scanner, running at its rated speed and making the most of every scanner feature. And only ISIS won The Association for Information and Image Management's (AIIM) first "Standard Implementation Excellence" award.

More control, more flexibility, more support

ISIS gives the software developer much more programmatic control than TWAIN. For example, ISIS allows control over scanner features such as display, file writing, and printing—just three of the many functions that cannot be controlled with TWAIN.

With TWAIN, functionality differs from device to device. You could test your application and get it working perfectly with one particular device, but if you introduce a different scanner with a different TWAIN driver, the interaction between application and scanner can be very different. With ISIS, there is far less testing required due to its inherent ability to communicate flawlessly with more than 400 different document scanners in a consistent way. Your application will be more reliable, and you'll be up and running faster.

The superior support you get from EMC, creators of the ISIS application programming interface (API), is unmatched. EMC develops virtually every ISIS driver on the market, and fully supports each certified driver with personal service from live representatives on dedicated phone lines and a website. TWAIN support relies on e-mail communication through the TWAIN mail list. To support TWAIN you must create multiple relationships with multiple hardware scanner vendors. With ISIS you need only one contact—EMC.

The origins of ISIS and TWAIN

The differences in the two APIs start at the beginning. TWAIN was originally developed by a committee of interested parties for use at a desktop level, supporting whatever simple scanning application was provided with the document scanner. As document scanners and imaging applications have grown more complex and incorporated more functionality, TWAIN development has rarely kept pace.

ISIS, on the other hand, was originally developed for use at a production level, and is maintained by a single commercial entity—EMC. As user requirements expand and new, more complex document scanners are introduced into an information system, ISIS is already there, usually developed in parallel with the hardware and often provided in the box with the document scanner.

Benefits

Below, you will find more compelling reasons why today's imaging environment simply requires using ISIS over TWAIN. For flexibility, programmability, and compatibility with more than 400 document scanners, there is no choice but ISIS.

Attribute	ISIS	TWAIN	Benefit
Driver interface	Consistent from scanner to scanner	Varies from scanner to scanner	ISIS users need not learn interface of every scanner
Scanner features	Provides the most robust scan feature support	Drivers generally do not support advanced scanner features	With ISIS, every scanner feature is supported no matter what scanner is being used
Speed	Always scans at rated speed of scanner	Doesn't always scan at rated speed	ISIS enable you to take full advantage of the power built into your scanner
Application interaction	Provides consistent interaction with all ISIS scanners and vice versa	Interaction is not consistent across all scanners; a new scanner may interact differently with an application	ISIS is readily compatible—less testing is required, which lowers development costs
Viewing images	Native to ISIS architecture	Not included in TWAIN specifications	TWAIN only does scanning, whereas ISIS supports image display; if you scan with TWAIN and you need image display, you must write it yourself or license it from someone else
Rotate images	Yes	No	ISIS allows an application to scan in landscape orientation and rotate in realtime to portrait to increase pages per minute
Consistently write to popular file formats (JPEG, TIF, PCX, BMP, etc.)	Yes	No	ISIS conforms to your needs and existing file formats; TWAIN drivers depend on the individual drivers
Scanner interaction	ISIS driver intelligently queries scanner as to capabilities and relays only appropriate choices to application user interface	TWAIN driver often does not interact with application user interface	Simplifies scanner setup; allows control of scanner from within application
Compress to JPEG 2000 and other formats	Yes	No	Images scanned using ISIS may be easily compressed, saving valuable storage space and speeding transfer times

Attribute	ISIS	TWAIN	Benefit
Read image files from disk, website, or database	Yes	No	ISIS enables you to create a centralized document imaging solution that can collect information in varied formats and from varied mediums
Read and write multipage image files	Yes	No	More often than not, scanned documents are not standalone and contain more than one image on more than one page; ISIS allows you to streamline the processing of this input by not forcing you to treat every page as a separate document



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