



WHY CHOOSE EMC CAPTIVA ISIS?

Seven reasons why ISIS is the best
imaging interface technology

This document provides an overview of the competitive advantages of EMC® Captiva® ISIS® (Image and Scanner Interface Specification) as well as how document capture and imaging vendors can leverage it to bring to market more competitive applications and products. The level of interoperability provided by the ISIS interfaces helps software and hardware vendors to drive sales, enhance customer experience, and reduce development costs.

INTRODUCTION

This document provides an overview of the competitive advantages of EMC Captiva ISIS. The focus is on key differentiators, rather than a complete review of features. If you would like specific technical feature and function details, please contact your EMC Account Executive to request white papers or other documents on Captiva ISIS architecture, integration, and connectivity.

EMC Captiva ISIS provides document capture and imaging vendors with an industry-standard scanning interface technology that they can leverage to bring more competitive applications and products to market.

As business cases continue to arise for the development of new document-centric applications, from centralized to ad-hoc scanning systems and digital mailrooms, EMC Captiva ISIS delivers functionality that is easy to integrate, use, and enhance. With its technical features and business model, ISIS reduces the costs and complexities related to the application development needed to support these features.

ISIS compatibility helps hardware and software vendors to realize the following benefits:

- Reliability that raises the level of customer satisfaction and loyalty, ultimately enhancing the total customer experience
- Peripherals work seamlessly with ISIS drivers for true plug-and-play technology
- Integration and set-up problems are greatly reduced
- Support calls are minimized and eliminated
- Administration, development, testing, and support costs are greatly reduced

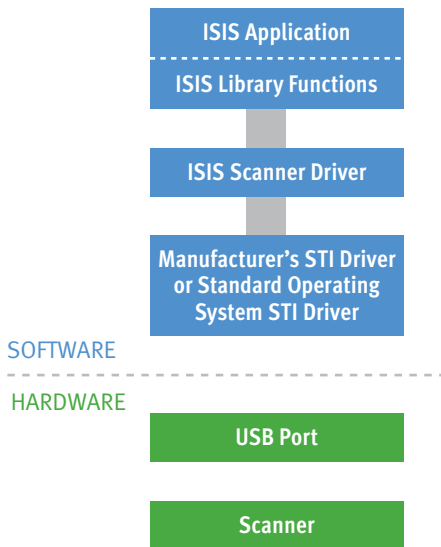
MODULAR AND MESSAGE-BASED ARCHITECTURE

The modular and extensible architecture of the Captiva ISIS driver lends itself to multi-processing and optimized scanning performance for better security and reliability. The ISIS driver is very effective for handling high-volume scanning environments for expedited processing.

KEY POINT

ISIS is the key scanning driver engine for Captiva's InputAccel document capture solution platform. The ISIS engine provides high-volume document scanning, able to process over a million pages per day, which can then be routed to various process steps, based on defined rules. The technology supports streaming, multi-image formats from one scan, multi-processing capabilities, and high-performance processing. In mission-critical processes, imaging users accept as established fact that ISIS interfaces are faster and more consistent than TWAIN interfaces.

USB INTERFACE MODEL



The diagram below illustrates the basic interface model for a USB ISIS application:

ISIS SEPARATES THE USER INTERFACE WITH THE DEVICE DRIVER

This means that the device driver is not tied to a specific graphical user interface environment. Software vendors often prefer to integrate the device driver within their application, using their own graphical interface. This type of implementation allows smooth integration of the driver's operation within the application and avoids complications with new device drivers supporting their applications.

KEY POINT

ISIS is a modular software system in which each image acquisition, format conversion, data extraction and file read/write function exists as a separate software component. This architecture lends itself to end-user ISIS applications that can be easily modified and enhanced as the requirements of the solution change or new technologies are introduced to the market. ISIS is bus-independent and supports Firewire in addition to USB 2.0 implementations. In essence, ISIS supports any kind of hardware, essentially freeing the application from “caring” about its hardware connection.

SPEED AND THROUGHPUT OPTIMIZED

ISIS is designed to maximize the performance of an imaging solution and keep it operating at expected throughput levels. ISIS scanner drivers ensure that hardware operates at its rated speed and includes specialized modules that provide enhanced capabilities.

KEY POINT

Examples of ISIS-specific functionality that improves scanning throughput include Scan & Rotate and ScanAhead™. Scan & Rotate allows users to take advantage of the increased speed associated with scanning in landscape mode by automatically rotating images after scanning, boosting productivity by 20 percent. ISIS ScanAhead technology optimizes and conserves system resources by eliminating the need to cache an entire image in memory. The driver scans and buffers images that have not yet been requested by the application and stores them in memory. This prevents delays when the application is ready for the next image.

ISIS IS AIIM MS-61 STANDARDIZATION

ISIS is the basis for a public domain standard, ANSI/AIIM MS61 Application Programming Interface (API) for Scanners in Document Imaging Systems. It is also issued as ISO 14984.

KEY POINT

As an ISO standard, the MS-61 subset of ISIS is available to an international community of developers who provide ISIS enablement to “boutique” scanners and applications beyond those certified with the ISIS logo.

INTEROPERABILITY IS THE KEY

ISIS removes much of the risk involved in implementing imaging solutions, particularly over a large enterprise with a variety of hardware and software capture platforms. An imaging solution that fails due to incompatibility, performance, or installation issues can have a major negative impact on the company and employees involved.

KEY POINT

ISIS is backed by EMC Corporation, a proven and secure company heavily invested in this technology. ISIS will continue to be developed as part of a viable, well funded business unit. EMC Corporation continues to be a source of support for ISIS developers and maintains the ongoing high quality of ISIS drivers and toolkits.

LOWERING THE COST OF DEVELOPMENT, TESTING, AND TECHNICAL SUPPORT

By standardizing on a consistently interoperable standard, hardware and software manufacturers can quickly and easily fit solutions into environments where document imaging hasn't previously been implemented, thereby increasing revenue opportunities.

Furthermore, vendors who rely on the ISIS interface can supplement the revenue generated through new sales and customer retention with lower operating costs. By building an interface with proven ISIS building blocks, vendors reduce costs for development, testing, and technical support. EMC Corporation also provides the option of outsourcing entirely the development and testing of a solution, allowing vendors to focus internal development resources on enhancing core products.

KEY POINT

Because the basic functions of imaging are already defined, implemented, and tested in the ISIS interface, developers can concentrate on the structure and functionality of their applications and not on the details of the hardware device interfaces. All ISIS scanner drivers and all modules provided with EMC Corporation's Captiva ISIS PixTools® toolkits have been tested rigorously and extensively and certified for ISIS compatibility. This means that all ISIS modules with functions that can be meaningfully linked together will be compatible with one another. The resulting reduction in development cycles lets vendors get to market faster and with fewer man-hours required for hardware integration.

ENTERPRISE CONTENT MANAGEMENT (ECM) EXPERTS RECOMMEND ISIS

ECM analysts and consultants agree that ISIS is a proven and solid scanning interface platform that simply outperforms TWAIN.

KEY POINT

Bernard Chester is an ECM consultant who focuses on implementation and integration issues. He is a principal with IMERGE Consulting, an independent ECM consulting firm. In an August 2009 AIIM Infonomics article, Chester says, "I have to admit a personal bias for ISIS when it is available. ISIS is tried and true, and tends to keep up with new scanner capabilities as they appear. There is no question that an ISIS interface will run at rated speeds in most situations."

CONCLUSION

The ISIS architecture and reliable interoperability features provide a path for vendors to increase revenue while reducing infrastructure and development cycle costs. This ultimately delivers improved productivity and frees up resources for more advanced development of a vendor's core application product line.

CONTACT US

To learn about ISIS PixTools for .NET, visit www.EMC.com, call 800.607.9546 (outside the US: +1.925.600.5802; German office: +49 (0) 89 93091-557; French office: +33 (0) 1 4695 8798; UK office: +44 (0) 20 8758 5850), or send e-mail to ptSales@emc.com.

¹ AIIM 2009 Infonomics Magazine, "Driving Documents" by Bernard Chester, August 2009