

InputAccel for Invoices

with certified integration with SAP R/3



InputAccel for Invoices transforms paper invoices into a digital image that can be exported into any image repository or enterprise content management (ECM) system. It employs intelligent document recognition technologies to capture data such as the invoice number and date, the vendor, the purchase order number, the account number, the total amount and now shipping, tax and line-item information. The system then exports this information to ERP, accounts payable (A/P) and other back-end systems. By utilising connectivity to accounting data, *InputAccel* for Invoices automatically compares and validates the invoice information against purchase order and vendor data. The current version of InputAccel for Invoices also includes the ability to match invoice line items to line items on the purchase order, or assign the costs directly to general ledger (G/L) accounts. Completed invoices are then exported to the A/P or ERP system where it appears as a "parked" invoice, ready to be processed via the workflow or paid directly, without further processing.

Built on InputAccel and using intelligent document recognition technology (IDR), *InputAccel* for Invoices identifies incoming documents as invoices and immediately begins extracting information such as purchase order number, invoice date, total amounts, line item data and more for recurrent and non recurrent vendors. InputAccel for Invoices is a flexible solution that can dramatically reduce the amount of manual intervention typically required to process invoices. It empowers users to streamline and accelerate the processing of invoices, reduce errors and increase financial reporting accuracy. By accelerating invoice processing through automation, organisations can realise immediate benefits and a return on investment in the form of less manual data entry, discounts for early payments and eliminating penalties for invoices paid late.

InputAccel for Invoices Overview

- ▶ **SCAN** - Using the power of EMC Captiva's ISIS® scanner interface, InputAccel for Invoices supports every feature of more than 300 scanners. Capture data from any combination of single- and multi-page invoices, with or without attachments, in portrait or landscape view—all without using separator pages.
- ▶ **IMAGE ENHANCEMENT** - Once invoices have been scanned, they undergo a rigorous, fully automated image cleanup process for despeckling, "noise" reduction, deskewing, page orientation and other functions which prepare them for indexing and data validation.
- ▶ **EXTRACT** - InputAccel for Invoices uses multiple recognition technologies to automatically extract invoice data, even from new and one-time vendors.
- ▶ **VALIDATE AND MATCH** - Extracted data is validated against purchase order and vendor data from A/P or ERP systems. Invoice line items that match with purchase order line items can be automatically linked, including automatic correction of common unit of measure and unit price discrepancies.
- ▶ **EXPORT** - The export module allows users to export the content extracted from invoices to virtually any A/P, ECM, ERP, database, workflow, or other system, including Documentum® Content Server, IBM Content Manager, SAP R/3, Global360, FileNET, Open Text Livelink, Hyland OnBase, and more. InputAccel for Invoices' complete third-party integration allows for new and/or enterprise-specific technologies to be easily integrated. The A/P Connect architecture is specifically designed to facilitate data interchange with AP and ERP systems.

SAP integration overview

Captiva's Certified SAP Connector - provides two area's of integration: **Invoice**

Data (A/P Connect for SAP)

- ▶ Vendor, PO, and G/L data is periodically downloaded from SAP to a cache database (SQL Server). This allows for automatic Vendor and PO matching. A direct "real-time" connection to SAP is possible, however from Captiva's experience, customers prefer a more decoupled integration;
- ▶ Invoice data is exported to SAP using BAPI. This provides a seamless data transfer, parking invoices in SAP for custom processing via an SAP workflow, removing the need for manual data entry into SAP;

Invoice Images (Archive Export for SAP)

- ▶ Exported to an SAP HTTP Content Server using ArchiveLink. Provides a seamless transfer, linking images to invoice data previously exported to SAP;

Or Invoice Images (Std. Image Exporter)

- ▶ Alternatively one of EMC Captiva's standard image exporters may be used to seamlessly transfer images and Meta data to the required Document Management System. EMC Captiva have certified exporters for Documentum, Stellent, FileNET, IBM, OpenText and many more.

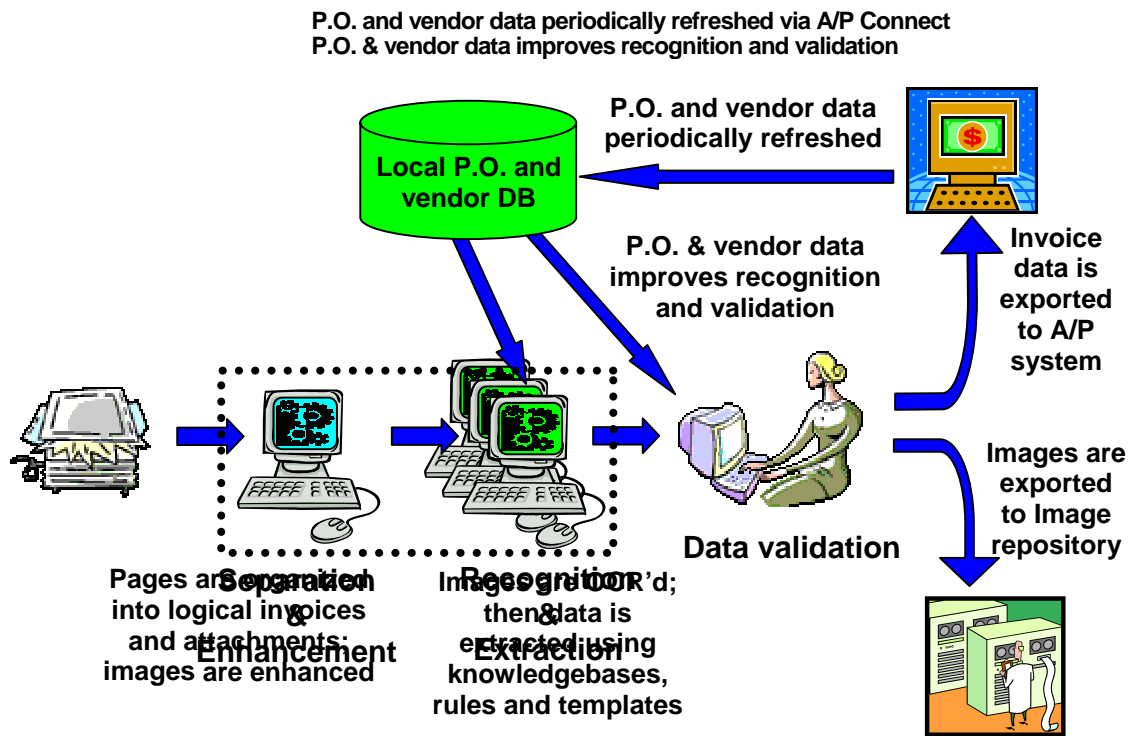


Figure 1 - High level Overview of Captiva's InputAccel for Invoices showing both SAP Connectors - A/P Connect and Archive Export

A/P Connect for SAP R/3 Overview

The A/P Connect module released with *InputAccel* for Invoices provides tight connectivity between InputAccel for Invoices and an SAP R/3 accounting system. This connectivity includes the ability for Vendor and Purchase Order (P.O.) data to be periodically downloaded from the SAP system and used for field look-up and validation purposes. Captured and validated invoice data, in turn, is periodically posted back into the SAP R/3 system for further processing and reconciliation.

The A/P Connect module has been broken out from *InputAccel* for Invoices so that the connector can be certified with a specific version of SAP R/3 software and not require re-certification whenever the *InputAccel* for Invoices software changes. Re-certification will be required whenever the version number for either the A/P Connect module or SAP R/3 changes.

Detailed Description

To validate captured invoice data, we will be downloading vendor, P.O., and G/L account information from R/3 during "off-hours" using BAPI API calls and store this information locally to *InputAccel* for Invoices. Specific calls include:

```
BAPI_COMPANYCODE_GETLIST
BAPI_GL_ACC_GETLIST
BAPI_PO_GETDETAIL
BAPI_PO_GETITEMS
BAPI_VENDOR_FIND
BAPI_VENDOR_GETDETAIL
```

During Validation, *InputAccel* for Invoices will be validating captured invoice fields using the data retrieved from SAP. Additionally, the Validation operator will match P.O. line items to invoice items, and/or assign G/L accounts. This matching must be done prior to Export in order for the captured invoice data to be accepted by SAP as an invoice document.

At the scheduled Export time, the invoice data will be transferred to R/3 using BAPI_INCOMINGINVOICE_PARK and BAPI_TRANSACTION_COMMIT. The resulting parked invoices will then be available for further processing by an SAP Workflow, or by a user accessing the list of parked invoices through SAP's user interface.

Archive Export for SAP R/3 Overview

Invoice images will be exported to an ArchiveLink-compatible image repository via the EMC Captiva Archive Export module using the SAP Content Server HTTP interface. Both Early and Late archiving will be supported.

Late archiving will be the recommended methodology when exporting both invoice data as well as the image. In this case, *InputAccel* for Invoices will call ARCHIVE_BARCODE_GLOBAL to associate a barcode with the parked invoice and then use BAPI_BARCODE_SENDFORM to associate the image sent to the content server with the parked invoice.

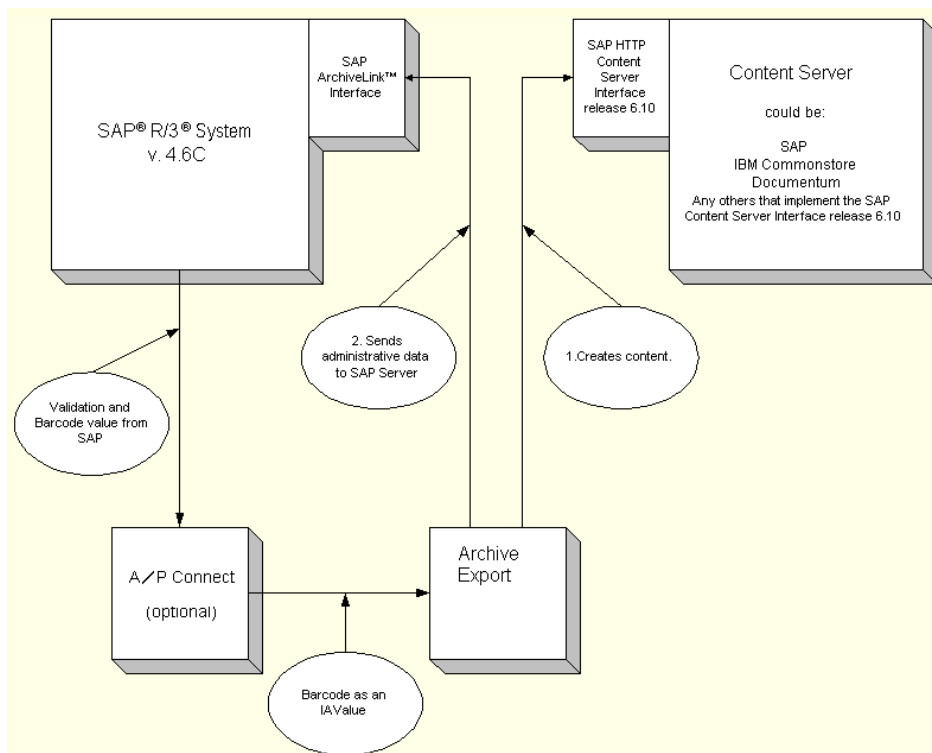
If Early archiving is used, then *InputAccel* for Invoices will call ARCHIV_PROCESS_RFCINPUT to send invoice information as name-value pairs and also associate it with an image stored on the Content Server. It is important to note that when using early archiving, the name-value pairs will not show up as an invoice document in SAP unless additional ABAP code is written by the customer in the USER-EXITeventforARCHIV_PROCESS_RFCINPUT.

What can Archive Export do?

Archive Export takes data captured by an InputAccel document capture system and exports it to SAP R/3 System when you have set up Archive Export for the early archiving mode. Late archiving does not export any captured data. Late archiving only sends the image to the Content Server and sends a small amount of information to the SAP R/3 System to link the image to the already existing business object data that was stored in the database earlier. The repository server for this configuration consists of:

- An SAP R/3 System, version 4.6C, that has been configured with the SAP ArchiveLink Interface
- A Content Server that has been configured with the SAP HTTP Content Server Interface, version 4.5.
- An InputAccel custom exporter for Archive Export
- EMC Captiva Software A/P Connect (optional)
- The required networking infrastructure to interconnect these components.

The following illustration shows how the components interrelate in a complete document capture/storage/retrieval system.



The Captiva Archive Export module:

- 1. Exports captured data to an SAP R/3 System** - Archive Export enables you to populate an SAP System with content and administrative data. Administrative data (indexing and other metadata) is stored on an SAP R/3 System. Content (captured images from your pages and other binary data) is stored in a separate repository called a Content Server via the SAP HTTP Content Server Interface. Content Servers from third parties that support the SAP HTTP Content Server Interface Release 4.5 can be used in this configuration.
- 2. Supports early and late archiving modes** - If you are doing early archiving, administrative data is exported to the SAP R/3 System via the SAP ArchiveLink Interface. If you are doing late archiving, administrative data has already been stored in the SAP R/3 System by traditional SAP data entry methods. Content (captured images and other binary data) is exported to the Content Server via its SAP HTTP Content Server Interface together with data that uniquely identifies the content and associates it with its corresponding administrative data that has already been stored in the SAP R/3 System. The Content Server uses data to locate the SAP document via its

DocID.

3. **Exports content first, followed by administrative data** - The Archive Export module always exports its content (image) data first, and then checks to see if the export to the Content Server was successful. Only if content export was successful does the module then export the administrative data. After exporting the administrative data, the module checks to see if the export to the SAP R/3 System was successful. If it was not successful, the module rolls back the content export, removing the task's image data from the Content Server.
4. **Maps index fields** - During module setup, Archive Export enables you to specify and assign IA Values to SAP Index values for each document definition.
5. **Exports single- and multi-page images as well as non-image data** - Archive Export can convert images it exports into a variety of file types, colour formats, and compression settings. The *InputAccel* administrator specifies the image settings during module instance setup. In addition to image data, the module can export non-image data without conversion. In this case, the module passes through the data without attempting to perform any type of conversion. For both image and non-image data, the module can also specify a MIME type.
6. **Uses IA Values to control many module settings** - To reduce the need for frequent changes to your IPPs, Archive Export can use IA Values selected during module instance setup to automatically configure many export parameters.

During production, many IA Values are automatically populated with important data such as dates, times, image characteristics, operator names, and so forth. Other IA Values may be populated by the IDR module during classification and data extraction steps.

Captiva's Suggested Architecture

The following section provides an indication of the typical architecture of an *InputAccel* for Invoices solution. This architecture (based upon customer needs and volumes) would be sized by EMC Captiva's Professional Services Group.

Thanks to EMC Captiva's modular architecture, an *InputAccel* for Invoices solution may be scaled once volumes increase, adding further scan stations and correction stations as required. If volumes significantly increase then an additional Captiva server may be added. Thanks to Captiva's load balancing technology we ensure all servers and clients are fully utilised.

A typical solution would comprise of the following components:

- ▶ **Captiva Server** - this is the central server for the Captiva solution enabling a true client server platform that provides robust security and transaction roll-backs or disaster recovery capabilities. Client PCs will connect to this central point (via TCP/IP). It is used to perform background tasks (image clean-up, OCR, Export, etc) and workload balancing for client tasks (scan, correct, etc). The Captiva Cache database would typically be located on this server. This would be used for Supplier / Purchase Order matching. It is recommended that this be a dedicated server. However, Captiva may happily co-exist with other applications, if required (performance analysis required)
- ▶ **Captiva Scan Stations** - Used to control scanning hardware for digitisation of paper based invoices. This may be an existing PC of sufficient specification;
- ▶ **Captiva IDR WorkStations** - Invoices with exceptions or that require manual coding would be routed to a knowledge worker for resolution. Once resolved, invoices would be passed for export. Invoices without exceptions (validated and matched) would be passed straight to export. This may be an existing PC of sufficient specification;
- ▶ **SAP Server** - invoice data (and optionally images) would be exported to SAP from the EMC Captiva solution using our certified connectors. Invoices would be Parked within SAP for further processing/Posting. Images would be linked to invoice records for on-line retrieval purposes.

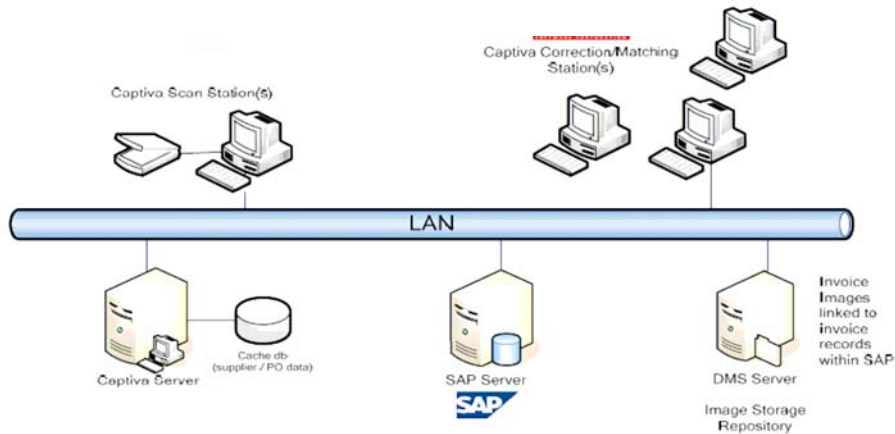


Figure 2 - A typical architecture for InputAccel for Invoices solution

Captiva's Requirements

The following section details Captiva's minimum requirements for the *InputAccel* for Invoices solution. Exact specifications would be based on volume throughputs and customer requirements. This would be established with Captiva's Professional Services Group.

Captiva Server

Software Requirements:

- Microsoft Windows 2000 (Server or Adv. Server)
- SQL Server 2000 SP3

Minimum Hardware Requirements:

- Pentium 4 - 1 GHz Processor (or better)
- 2Gb RAM
- 40 GB free disk space
- CD ROM drive
- USB ports

Scanner Station(s)

Software Requirements:

- Microsoft Windows 2000 or XP

Minimum Hardware Requirements:

- Pentium 4 - 2 GHz Processor (or better)
- 512 MB RAM minimum
- 500 MB free disk space
- CD ROM drive
- ISIS compatible scanner
- Available expansion slot for scanner interface card

IDR Station(s)

Software Requirements:

- Microsoft Windows 2000 or XP

Minimum Hardware Requirements:

- Celeron - 800 MHz Processor (or better)
- 256 MB RAM minimum
- 17" (1280x1024) screen recommended
- 500 MB free disk space

SAP Environment

The SAP R/3 system must be version 4.6c or higher;

- Patch Level 29, or higher required for data and image export (Late Archiving - store image with transaction number reference)
- Patch Level 47 required for Image Export - Early Archiving

SAP ArchiveLink must be configured to use a content server that is certified by SAP for the HTTP Content Server Interface 4.5.