Seven Tips for Selecting a Document Imaging Solution

Have you ever needed a RESET button? Do your golf buddies let you take an occasional mulligan (or two)? Unfortunately, there are no “do-overs” in business, including that wrong solution you selected for that big important project. You remember the one…it went way over budget, was delivered very late, was much too complicated for the users, fell far short of anticipated benefits or barely works today but will be too expensive to repair. Good times indeed!

Could you have done some things differently? Perhaps you spent too much time with vendors trying to understand product features and not enough time with users trying to understand requirements. Perhaps you took a few too many shortcuts with the initial budget and ignored (or didn’t fully grasp) the true costs of the solution. Perhaps you moved forward without a clearly defined project scope hoping things would work out for the best.

The concept of going paperless sounds simple (and it can be) which can lead to oversights and mistakes. As consumers, we can Google anything we need from any device we use anytime we want it causing us to be somewhat complacent when it comes to new technology. However, taking solutions, such as document imaging, across an entire enterprise involves many underlying factors that need to be considered. This paper offers seven tips to help you make the best possible decision when selecting a document image solution whether you are just starting to look, are in the process of evaluating vendors or trying to undo what has already been done! They are easy enough to follow and cost nothing to implement!

**Tip 1: Planning** is just as important as the technology you select!

If you don’t know where you are going, there’s a good chance you probably won’t get there! There are no perfect document imaging solutions and every installation is tailored to specific user preferences. More often than not, there is too much emphasis on product features and not enough focus on how to solve the users’ business problem.

While understanding product capabilities is important, the first step before you go shopping should be to gather user requirements and prioritize the needs versus wants. Document imaging solutions do not lack functionality and it is easy to be seduced by the many dazzling features you will be shown. The key questions are “Will these capabilities ever get implemented?” and “At what cost?”.

You don’t have to be a Certified Document Image Architect to gather basic information about how users conduct their business and how going paperless can overcome their challenges.

Here are some sample questions to get organized and start framing the scope of the project:

- **✓** Who are the key users and departments?
- **✓** What business application software do they use?
- **✓** What type of documents do they handle?
- **✓** Where do these documents originate?
- **✓** Who needs access to these documents?
- **✓** How long (and where) are records stored?
- **✓** What happens when files are missing?
- **✓** What bottlenecks and problems need to be addressed?
- **✓** Are there any work measures, counts and standards?
- **✓** Are there any technology considerations and preferences?
- **✓** Are there any systems in place that require conversion?
Tip 2: Start with the User’s Perspective.

Once you have an initial understanding of how things work, the next tip is to determine how content will be delivered to the users. The three most important design objectives should be: (1) to make it as easy as possible for users to access their content, (2) to deliver it in a user-friendly manner and (3) to make it appear as though the image software is just an extension of the user’s business application.

An image system viewer should offer solid features with a simple look and feel which allows users to view, print, fax or email their documents. It should also provide the flexibility to deliver documents as PDF’s as an alternative viewing option.

In terms of how to interface a document image system into the user’s work environment, here are some common approaches that any solution should be able to address:

✓ With an Integrated approach, a user requests all related documents for a particular key field (e.g. customer, vendor or employee) from an application screen. A call is made to the image system which then presents the list of document “hits” for the user to take additional action.

✓ With a Simple Inquiry approach, authorized users can retrieve documents by searching on index values (such as invoice number, employee name, etc…). Multiple index search filters can typically be used making it even easier to locate specific documents.

✓ With a Workbasket approach, users can distribute work items to one another or documents can be delivered automatically as part of an established workflow process. The imaging software should provide workflow capabilities that can track and monitor all workbasket activity.

✓ With a Mobile Access approach, users should have the ability, at a minimum, to retrieve content from their smart devices. Because mobile devices do not use common operating systems, your image software probably won’t have applications supporting every mobile device type.

Tip 3: Content can’t be accessed until it’s Captured.

As a result of your excellent planning efforts with the users, you now know what type of documents are handled, where they came from, how long they are retained and who needs access to them. If you are really fortunate, the users also provided work volume estimates. If not, you can always make an educated guess by counting up the number of on-site file drawers and off-site storage boxes used.

With any image system, there are two capture functions that must be performed - content must first be digitized and then indexed. Once your content is in digital form, users can search on index values for document retrievals (including viewing, printing, faxing or emailing). The capture process can be centralized from one location or distributed to remote sites. Various degrees of automation can be implemented to help minimize the labor involved in the content capture process.

Any image solution you select should be able to capture the three primary types of content:

✓ Scanned content includes paperwork or other source documents that are converted from hardcopy to digital format using a scanner. Indexing can be a manual process or automated using techniques such as barcode recognition, forms recognition or Optical Character Recognition (OCR). Value lists, drop down selections, programming calls and scan profiles are additional methods that can assist with automating the capture process.

✓ Imported content includes files already in digital format such as word processing, spreadsheets, PDF files, other PC output, digital photos or even audio-visual data. Large quantities of PDF files may have been accumulated using scanners or Multi-Function Devices (MFD’s). Sometimes this content has already been digitized, but it may not be indexed or tied to a business application using an image software solution.

✓ Printed Output includes daily printing of reports, invoices, statements, listings and more. It might even be output from a forms product currently in use. Electronic distribution can automate the bursting / delivery process for users. Forms Overlay capability can reduce the dependency and expense of using costly pre-printed forms. Search engines and exporting reports to spreadsheets can result in huge time savings for your users.

Your initial project may not require capturing all three content types, but your enterprise needs certainly will.
Tip 4: Digital Content also needs Storage space.

An enormous amount of floor space (and off-site facilities) is wasted on retaining paper records which are seldom, if ever, accessed again. Not only does this clutter up the office, but this type of records storage is completely exposed to security breach and catastrophic loss due to fires, floods, earthquakes or other incidents.

Retention requirements are dictated by compliance mandates and each document has its own unique lifecycle (frequency of access tends to decline as files age). Additionally, you will need to understand work volumes to do some capacity planning. Your users will know how many transactions they process, but they typically don’t count how many documents they handle.

One way to estimate your storage capacity needs is to count the number of file cabinets and drawers used for on-site storage as well as the number of records transport boxes sent to off-site retention facilities. An estimated page capacity for individual file drawers and record boxes can be converted to an overall document and page count which can then be used to identify your preliminary storage needs.

Make sure the image system you select supports multiple storage options and doesn’t lock you into a proprietary technology format. Network storage devices seem to be the preferred option these days from a price or performance perspective. However, there are also many good “Write Once Read Many” (WORM) options which permanently burn data to the media to ensure it does not get overwritten.

Put some effort into capacity planning to develop an appropriate archive strategy. Storage technology will continue to evolve offering more, better, faster and cheaper options. So regardless of what hardware you select, it will eventually become obsolete. Stick with solutions based on open standards which will likely be upward compatible when future hardware announcements are made.

Tip 5: Taking advantage of new Management features.

A document image system helps you create, handle and store less paper which enables you to become more efficient, find information faster and eliminate exposures to physical security or disaster incidents. With documents now digitized and organized, a significant opportunity exists to improve how you manage your operation. Make sure you understand how your image system addresses these key areas:

✓ Security enables you to control who (individuals, groups or workstations) can access what (systems, index values or document types) and which functions (annotations, notes or caching for example) are permitted.

✓ Disaster Recovery capabilities are immediately improved. Daily backup of digital files is now a routine task and High Availability planning can incorporate all of your business content.

✓ Tracking Reports. Audits log actions taken by all individuals for each document in the system. Statistics provide counts of how many work items are in the system.

✓ Compliance with government regulations or internal mandates consumes an enormous amount of company resources. Document imaging can simplify these efforts and significantly reduce the labor involved.

✓ Purging automates the process of removing documents past their expiration and retention dates.

✓ Workflow allows rules and logic to be established to define how work is processed. It can be as simple as routing items between workbaskets for approval or more sophisticated such as package tracking, callback reminders, priority and reason codes, overdue limits, signature stamping, etc.

An image system provides an opportunity to rethink your current work processes and make changes that can help manage your business more effectively. While you don’t have to know the details up-front (that will be part of the design review), you should have a good idea of which departments are candidates for some of these advanced capabilities. There is quite a bit of variability in functionality so understand what is included with the base products you are evaluating and what will cost extra.
**Tip 6: You are choosing a Partner not just a vendor!**

**You absolutely will need help.** At a minimum, you need the skills to implement the initial solution and train your systems administrator and user personnel. Once the initial system is up and running, there will be an occasional need for technical support. While the end result should be a tightly integrated and easy-to-use system, document imaging is not recommended as a “do-it-yourself” project.

The good news is that every vendor offers expertise to get you started. In fact, every vendor will no doubt have the “absolute best service and support in the industry.” While these are obvious goals for any vendor, some do a better job than others. How can you check their track record?

**Ask for references.** When you call, there are really just two questions you need to ask. First, does the image software solution work? Second, when there is a problem, does the image software provider fix it? You are obviously looking for a YES response to both of these questions!

References are a great way to gather information about a vendor and build your confidence in their ability to perform. However, understand and appreciate that these contacts have a business to run. While they may be willing to discuss their experiences, they are not an extended briefing center and may not be open to on-site visits.

Additionally, it is usually not possible to find references doing exactly what you want using your exact same products located in your exact geography. When it comes to asking for references, don’t be too restrictive with your requests and don’t go overboard, either!

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**Tip 7: It’s always about the Money!**

Sooner or later, it always comes down to pricing! Not only is there quite a bit of variability in terms of what features are included in a vendor’s base software, but cost structures vary considerably as well. Here are a few recommendations:

- **Beware of complicated pricing** that is hard to understand. There is no shortage of “sneaky variable costs” that can get slipped in. User-based pricing, add-on modules and those secondary OEM components (like a capture system) “they” forgot to mention or additional license charges for High Availability systems are just a few examples. The more of these types of charges, the harder it becomes to plan your expansion costs and the greater your risk of busting the budget.

- **Look for entry level options.** Chances are your initial implementation may be limited to a small user department that doesn’t require every feature an imaging system has to offer. If you ask for everything up-front, a vendor will be more than willing to sell it to you in advance of your needs which may ultimately result in pricing yourself out of the project! Ask what start-up options are available which may be an exact fit for your initial requirements.

- **Scale down** your project scope. While it is important to understand enterprise needs, start with a manageable project that can deliver business value and validate the technology with your users. This will also help contain your start-up costs. Installation and training services are an important cost consideration but understand that you do not have a firm price quote until a final “Scope of Work” has been prepared. Clarifying scope is perhaps the single biggest thing you can do to influence and control the cost of your initial project regardless of what product is selected.

- **Understand the benefits** to be gained. More often than not, project costs are clearly defined but not success criteria. Remember there are two inputs to an ROI calculation; you can’t ignore the Return and consider only the Investment. Of course expenses matter, but so does understanding what it costs to operate the way you are today. There’s a good chance that money will not be spent on problems that are viewed as insignificant.

Understanding the business value of document imaging for your company is an important step. If possible, identify some measurable areas that can validate results to confirm the justification of your project.
Some final thoughts:

Document imaging is really no different from other IT technologies that reach across an entire enterprise. It’s just that benefits such as improved efficiency, better management control and reduced exposures to audit compliance or disaster incidents are typically not line items you can find in a budget which complicates the business case.

At the same time, a lot of effort is spent (probably too much) on researching product capabilities at the expense of understanding the true business value of the solution. Perhaps it is because document imaging has the potential to impact so many areas across an organization.

The recommendations in this white paper can be applied to any significant project. You should **always** understand how things work before you go product shopping. You should **always** concentrate on what problems are being solved instead of what the technology can do. You should **always** prioritize the “must haves” over the “nice to haves”. And your initial project should **always** be small enough to be easily managed but significant enough to validate the benefits of the technology.

Real Vision Software, Inc, with over twenty years of experience in helping solve business problems, is here to assist companies with every phase of their content management / document imaging projects.

Getting yourself organized will make your document imaging evaluation much easier. You don’t have to be an expert (or pay for one) to ask the questions suggested in this paper which will get you started down the right path. Our trained CDIA’s can help. Give us a call and let’s get started with your project!

Good luck!

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Tip 1: Planning Question

- How many company locations are there?
- How many employees work for the company?
- How many active customers/partners are there?
- What departments are candidates for document imaging?
- What is the timeframe for the initial project?
- How many work days/hours to assume per year?
- Specify what **technology** is currently in place:
  - Hardware (servers, storage, workstations)
  - Software (database, core business applications)
  - eMail system (Microsoft Outlook, other)
  - Office Support (Microsoft, Lotus, other)
  - Forms package
  - Facsimile software
  - Document imaging (conversion requirement)
  - Report Output / Spool File capture
  - Scanners or Multi-Function Devices (MFDs)

Tip 2: User’s Perspective

- What is the initial department?
- How many users are there?
- What is their primary function?
- What core business software do they run?
- What customers do they serve?
- Describe a typical transaction/processing cycle?
- How many transactions do they handle?
- Any performance standards/measurements?
- Describe the contents of a typical file folder?
- Do they use off-site facilities to archive records?
- How long are records retained on-site/off-site?
- What is the budget for supplies, folders, boxes, etc.?
- Is there secured access to the records center?
- What triggers a request for a file retrieval?
- How many daily/monthly file requests?
- What is the turnaround time for a file request?
- What is the impact of this retrieval delay?
- Are couriers used for expedited requests? Costs?
- How often are records either lost or misfiled?
- Are there penalties/exposures for missing files?
- What is the process to reconstruct a missing folder?
- What would happen if a disaster eliminated records?
- Is there a significant impact to staff during audits?
- Is there a requirement for web/mobile access to files?
- Is there a goal to provide file access to customers and partners?
- Are there business processes that would benefit from workflow?
- What other business problems (or bottlenecks) exist in this department?
Tip 3: Capturing Content Questions

✓ What is the approximate daily page volume (for scanning)?
✓ What indexing criteria is planned?
✓ Recognition of Barcodes? Optical Character Recognition (OCR)?
✓ Unique characteristics (oversize, thickness, colors, pre-printed or multi-part forms)?
✓ Total number of scanning / indexing workstations planned?
✓ What is the source of incoming documents? Any plans for remote capture?
✓ Signature pad capture requirements?
✓ Importing PC files (word processing, spreadsheets, PDFs, digital photos, audio-visual)?
✓ Any requirement for capture of spool file / report / forms output?
✓ Is a back file conversion of existing documents, files or indexes required?

Tip 4: Storage Capacity Questions

✓ How many months of records are available on-site? off-site?
✓ Are records periodically purged after a certain retention period?
✓ Is the retention schedule a legal or corporate mandate?
✓ Is there a requirement for Write-Once-Read-Many (WORM) storage?
✓ Count the file drawers used for records retention. How long (# inches) are the drawers?
✓ Count the transport boxes used for records retention. How long (# inches) are the boxes?
✓ Estimated calculations for # pages using 2” per ream of paper (500 sheets):
  - 42” cabinet drawer = 10,500 pages x 70% capacity = 7,350 pages
  - 28” cabinet drawer = 7,000 pages x 70% capacity = 4,900 pages
  - 16” transport box = 4,000 pages x 70% capacity = 2,800 pages
 Adjust your assumptions and use 50K per page for capacity planning

Tip 5: Management Features Questions

✓ What security restrictions are required (systems, indexes, document types, functions)?
✓ Are there any Disaster Recovery / High Availability considerations?
✓ What requirements are there for management reporting? Audit tracking? Statistics reports?
✓ Any special compliance mandates (industry, corporate or government requirements)?
✓ What is the process / timeframe for purging archived records past their expiration date?
✓ Is workflow a current (or future) need for this specific department or elsewhere in the company?
Tip 6: Partner and Product Questions

**Partner questions:**
- ✔ Who developed the software?
- ✔ Who provides technical support?
- ✔ Who does installation and training?
- ✔ How long has the vendor been in business?
- ✔ How many customers are using their software?
- ✔ Can they provide a reference list?
- ✔ What are their five major strengths?

**Product questions:**
- ✔ What does the proposed software cost?
- ✔ What costs extra (scanners, users, workflow, other modules)?
- ✔ What viewer options are available (Windows, Browser, PDF, Mobile)?
- ✔ What does a High Availability license cost?
- ✔ Is a warranty period offered?
- ✔ Does annual support include future versions?
- ✔ Are there application program calls / API's for integration?
- ✔ What documentation is included?
- ✔ Are there any hardware restrictions (servers, storage, scanners)?
- ✔ Is there a cloud (hosted system) alternative?
- ✔ What entry level systems are offered?

Tip 7: Money Questions

- ✔ What process / documentation is required for approval?
- ✔ Any key financial criteria to meet (Payback, ROI, IRR)?
- ✔ Why is this department considering document imaging?
- ✔ Rank **justification criteria** in order of importance (1 to 15):
  - Worker productivity
  - Improved responsiveness
  - Customer satisfaction
  - Extended access (web, mobile, customers / vendors)
  - Recaptured floor space
  - Off-site storage expenses
  - Budget (supplies, copies, file cabinets, couriers)
  - Automated workflows / processes
  - Better management tracking / audits
  - Reduced security exposures
  - Disaster recovery protection
  - Long term preservation of documents
  - Compliance / Regulations / Audits
  - Competitive advantage
  - Other (industry driver, impending event)