



## Capture Solutions: The Value of Simplicity

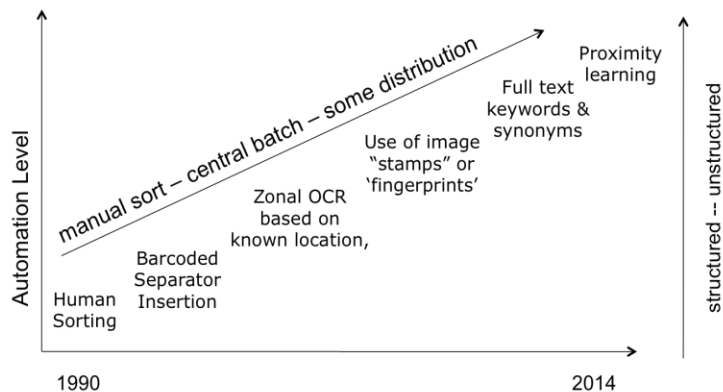
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### Introduction

In today's fast paced business environment it is no secret, paper is not the preferred media format for communication, transfer, archiving or as an information reference source. Documents and the business-critical-data contained in paper format needs to be accessible, understandable, transferable, searchable, secure and available instantly and all the time.

Business information must be in a format understood by people and computers/mobile devices alike. Assuming a document (either softcopy or hardcopy) is legible and reasonably well written, a literate person in that language can interpret that document. They can extract meaning, hone in on key data, and possibly even begin to gain insight into the author's sentiment. If it is important to retain the document, the reader decides what key data will provide the foundation for their filing system, and how to effectively file and store the contents. If the reader wants to share the paper document, the individual decides the best for routing and accessibility. But there is a better way. There are now capture applications that assist in document understanding and can extract relevant information for business process application and automate the filing process.

Since the late 1980's, document capture has been evolving towards document understanding. Much progress has been made over the past several years. Initially a picture was taken of a document, first starting in the 1920's with microfilm, and then in the late 1980s, when a lossless digital image of it could be efficiently rendered. At first, metadata to support information about the image was entered manually. Early document imaging was performed utilizing large high volume scanners to convert documents that were shipped to a central scanning location into images. Image quality tools were then developed to enhance the image, and recognition tools were developed to interpret the information that was contained in the document.





These interpretation tools were key as they led to the ability to classify the document, and extract data from the document. Machine understanding of a document is now getting closer to human intelligent understanding and this automated understanding takes place with greater speed at less cost. As improvements to document capture software were taking place, there were also improvements being made to the scanning hardware. Now the image quality, and enhanced scanning features as well as the ability to handle a wide range of paper types and qualities, which were once associated only with high volume scanners, are available on an individual's desktop.

Over the past five years we have seen a shift from the capture of a simple images destined to be saved in a records management system, to capture in order to utilize the document and the data in that document in a valued, time critical business process. The importance of capture solutions is on the rise. Your business communications and business transactions depend on business documents and the data they contain. These documents need to be:

- Accessible
- Searchable
- Understandable
- Transportable
- Securable
- Storable
- Integrated with other business systems

Documents in a digital format have distinct advantages when it comes to delivering these necessary document and data attributes.

## **Document Capture Solutions - Five Things to Consider**

You are most likely doing some document capture already, if only with your mobile phone, or with advances in technology, you may be doing extensive document capture. Now it is time to take these efforts to the next level. Document capture technology has now come to a point of simplification where individual departments can now successfully deploy and customize their own capture solutions. You need to take a look at the work you are responsible for; look where documents are utilized in the work process and look for improvement opportunities. Capturing information at the point of business impact can be extremely beneficial. The potential payback can be in time, dollars, and improved customer experience. It is important to match the solution to the business problem at hand while planning for the future. All in all don't make this process overly complex – keep the capture solution simple. Here are some of the capture solution essentials to consider.

### **#1 - Image Quality**

Image quality is the foundation of document capture. The basis of effective document capture is to have an image quality level that meets or exceeds the quality needed to achieve the task at hand. Depending on the application, it is important to consider quality hardware and software that has the ability to deliver document images that are legible and Optical Character Recognition (OCR) ready with machine identifiable fields for data extraction. When you develop process requirements make



sure that the hardware and software is able to deliver the appropriate level of image quality. Ensure that requirements for image quality for auto-document classification, index data extraction, data validation / quality control, and advanced image processing are met. It is important to choose capture software that allows you to easily configure to meet these requirements so, once your documents are captured, the image and associated data can be leveraged in the business process.

It is always beneficial to seek guidance from an established, reliable document capture vendor. They should be able to assist you by providing the necessary information in assessing your image quality needs for the business process under consideration to either improve or implement your new data capture solution.

## #2 Scalability

The business environment is in a state of constant change. Business systems enabled by technology are also changing. New standards, regulations, customer requirements and other business needs continue to evolve. What do you think your business process will look like in 5 years? When considering capture software it is important that the software not only meets the current requirements but will also provide the flexibility to meet future needs. Capture Solution flexibility and scalability can be an important consideration for many reasons. For example, where will you handle the paper intake and how much volume do you anticipate? Among some other important considerations are future business process modifications and data transfer.

As the technology landscape of your organization changes, it is important that your document imaging capabilities are able to meet your future needs. If manual indexing is required today, automated indexing very well may be in order for the future. There may be a new business application that will require data extraction from a document and you should be able to automate that process. Possibly a document needs to be classified for routing to a particular location. Today you might be looking for a system that works with a particular model of scanner, but in the future you may want to integrate a variety of scanner models provided by different manufacturers. Possibly, you will move from simply scanning documents to integrating these documents with other electronic documents into further business processes. You should take a look not only at your needs for the present but, to the best of your ability, look to what the future needs will be for document capture.

When it comes to agility and scalability, web-based "thin client" software applications have some definite advantages. Instead of having software reside on each individual PC, web-based thin client software can serve multiple PCs / devices through browser based applications. As you scale your operations, software deployment speeds are improved. New versions of software can be implemented at the providers' web server level without impacting your organization. Thin client software can improve your computing power adding little additional software and without adding more computing capacity to your organization.

Depending on the software license, scanning volumes can impact the price you pay now and the price in the future if your needs change. Does the pricing model under consideration provide the flexibility to scale volumes up or down? For document capture software that provides higher capability, software pricing models typically fall into two different categories: price per page ("price per click") or price based on associated scanner type. Price based on equipment type means that the license purchased is associated with a particular scanner model or class. For example



software associated "Scanner A" that has a duty cycle of 200 documents a day would be priced lower than "Scanner B" with a duty cycle of 500 documents per day. The "price per click" model means that you are charged based on volume bands of documents to be processed per month. There are also potentially extra charges for "modules" that provide additional capability such as extraction, and analytics.

We have found that for most capture solutions "all-in-one" pricing models are a simple and cost effective approach that allows for flexibility in scanning volume. In today's business environment it is critical that there be no management surprises. You need to know all the associated solution costs upfront. It is important to stay within budget while being able to handle variability in workflow volumes. An inclusive "all-in-one" pricing model guarantees that there will be not budgetary surprises.

There are distinct advantages in capturing information as close as possible to the information source (distributed capture). Today you may be collecting documents from remote locations and then processing them at a central location/office, but future plans could include scanning documents from these remote locations, thus speeding up the business process. If you want to change the location of the scanner or reconfigure the process to employ multiple scanners to handle additional volumes, you should look for a software license that provides the flexibility to move to distributed capture with no additional cost. Lastly, consider bundling a service agreement, which includes software upgrades and on-site training and other services, to ensure the software is fully up to date when future needs arise.

### #3 Design & Ease of Use

Although sometimes overlooked, design is important. In the consumer world, design drives purchase decisions. The user experience is key. This is not just a consumer phenomenon... it impacts business as well. Several well-known leading consumer market companies are setting standards for "out-of-the-box experience", and ease-of-use. Their software and hardware work together seamlessly to create a successful user experience. Design and "out-of-the-box" experience is important when you consider a document capture solution.

It is also important that you make sure that the capture software will support the necessary file formats that meet your output requirements. For example does the software support PDF, TIFF, JPEG, and other file formats?

The setup and installation process should be easy to accomplish without the need for extensive technical assistance. If multiple workstations need to be installed at various locations, an installation process that is provided remotely over a network could be advantageous. After the installation process is complete then comes configuration of the software. Many capture software applications provide a host of capabilities that may or may not be needed for the business process. The ability to easily configure these capabilities is important. Also you may enable different features for different users. Typically features can be turned on or off, and screens can be configured to provide a simplified, easy to use interface. Look for software that is easy to setup and install, and for a vendor that can provide the support when you need it.

Document capture is employed to improve productivity. The level of ease-of-use is key as it can enhance or potentially detract from productivity. Ease-of-use facilitates a quick learning curve for training allowing capture solution benefits to be



recognized sooner. Also ease-of-use also will allow the occasional users to retain operational knowledge and improve productivity. If the capture software solution is easy to use the person using the solution will find the process of document capture a pleasure rather than a daunting task. If the user has a good experience they will become an advocate and encourage others in the organization to use document capture effectively. Ease of use enables a productive work environment.

As business needs change, the user interface should allow authorized users to make simple modifications. If the requirements call for manually modifying index data fields, the system should support those efforts and do so in a way that is easy for the user. If in the future, a more automated process is called for, the solution in place will ideally be able to handle that new requirement through easy to use tools, and working with a software vendor that is committed development improvements and frequent upgrades.

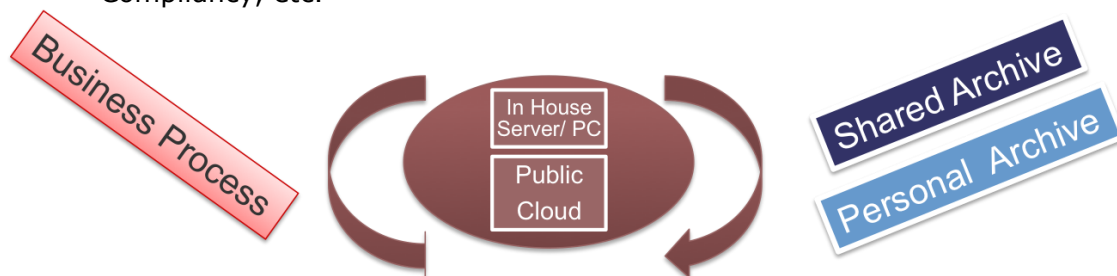
Ease-of-use can extend from performing simple capture to utilizing advanced capture software tools that further enable automated business processes. A properly designed capture software application will provide an interface that the user can easily use for indexing, data extraction, modification and validation, as required to meet current and future needs. Again look for a vendor that provides software that is easy to set up, intuitive to use and can be reconfigured easily as your capture solution needs change.

#### #4 Ease of Integration

Capture solutions are typically not a "destination" but a means to an end. Documents are captured and processed with some business need in mind. Capture could be for simple storage and retrieval for a personal or work team file, or they could be captured to become part of a larger business process. Data contained in a document could be extracted and could be used to index the document or place it directly into a business workflow. In order to understand capture solution integration requirements one must consider the potential "destinations" or future needs for that document and associated information.

The destination for scanned documents and/or associated data could be:

1. Simple storage: to a personal computer; to email; to a network folder; to a cloud document service or to a team collaboration site
2. Departmental storage: collaboration tools
3. Enterprise Content Management: corporate document /data management infrastructure
4. Business application specific: Invoice Processing, HR Onboarding, Case Management, Claims Processing, Customer Application Processing, Mailroom, Compliancy, etc.





It is important to make sure that your document capture software can hand information off smoothly to the associated business process. You must evaluate your processes and map the points where documents or data will be handed off. Then make sure that the capture solution has the appropriate connectors to those transfer points and their associated business process applications. The capture solution needs to be easily integrated into third party systems without the development of costly connectors.

## #5 Simplified Purchase Process

As consumers we know that there is a difference between price and cost of ownership. It is important when making a decision concerning a capture solution to consider the cost of ownership, ease of purchase and implementation. Depending on the purchase this cost could include: hardware capital cost (or recurring payments), hardware service, software license, software maintenance, professional service, and software upgrades. These costs are associated with payments going out to the vendor, but there are costs to your organization as well that need consideration. The staffing cost associated with solution planning, internal purchasing processes, initial solution set up & integration, testing, training staff, routine maintenance, future solutions modifications, and any associated downtime, although possibly difficult to estimate should be factored into the purchase decision. Ease of use can be an important cost saving factor. Software used to be shipped in boxes and vendors protected licenses through "dongles" that were attached to the associated personal computer. Not anymore. While some software is still delivered on CDs, options to purchase, deliver, register, manage and upgrade software online is now available. These delivery methods can save you time and thus money. The ability to have timely, reliable online software upgrades is important as capture technology rapidly evolves.

There is a cost to every purchase transaction. Options provided to bundle hardware, software and maintenance/service together could be very advantageous in managing project costs over the years. As previously mentioned, by bundling the software maintenance cost you are assured to have all the latest software upgrades and that your capture system is operating peak performance. Depending on your financial department goals, it may be advantageous to have the flexibility to book your capture solution either under capital cost or operating cost.

Simple capture solutions in many cases are available direct from the manufacturer. In many cases there can be customer reviews of the scanning solution to provide guidance on customer experience. Many software vendors also provide videos, FAQs and documentation that provide guidance. It is important to work with respected, established vendors. They should be trusted partners in your capture solution. \

## Conclusion

There are many benefits of having business documents in electronic form. With today's technology and resources the implementation of a capture solution is less complex. Ask yourself - Where could a capture solution have the most impact on your organization, or, how could I improve my bottom line by enhancing my current document capture process?



**In summary here are the main points to consider when you are upgrading or integrating a new capture solution:**

- Implement a solution that can provide the image quality required for later process and needs. Be sure the solution incorporates high quality image processing. This feature will save you time and resources reviewing and enhancing images post capture.
- Make sure the solution is scalable to meet future needs eliminating additional costs for increased paper volume and a potential distributing scanning model.
- Scalability can be advanced through the use of thin client applications. Explore the benefits of web-based capture software and see if this type of solution will work best for you.
- Match the ease of use needed to the personnel and the staff management who will be utilizing the capture solution. Ease of use translates universally to a smoother, easier and more productive work experience.
- Ensure that the capture solution can connect to all the necessary business process touch points. Productivity is enhanced because systems can be connected and integrated, and can easily leverage captured data and information.

Finally make sure that you assess the total cost/benefit of implementing a capture solution, remembering that the price of hardware, software, and service do not equal "total cost". To arrive at the "total cost/benefit", assess the impact on the capture solution has on your staff and the business process benefits that you reap when a good quality, easy to implement, easy to use, flexible/scalable capture solution is in place. Having a well-matched scanner hardware and capture software combination that is easy to integrate can be the key to unlock capture solution business process benefits.

Advances in document capture now make it much simpler and cost effective to benefit from an effective and proper capture solution. Vendors have been investing in bringing high performance scanning and capture software solutions together, which are increasingly easy to use and integrate. This is all happening at a time where the demands information access and the speed of business is intensifying. Now is the perfect time to take action, capture documents and simplify your business processes. Remember ... keep it simple!

*About HSA, Inc.*

Since 1989, HSA, Inc. based in New York (tel: 1+ 631.368.8393) <http://www.hsassoc.com>) has been specializing in electronic information (image based and electronic transaction) capture technologies. Our services include Market Analysis, Technology Planning Assistance, Product Positioning, Product Management, Client Sponsored Research and Strategic Planning Services. These products include high-speed document scanning hardware, image acquisition software, character recognition software (OCR, ICR), optical mark recognition, barcode recognition and other pattern recognition and classification tools.