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White Paper

Getting a Handle on Documents

Take advantage of advanced paper handling technology to optimize scanning

Document capture is the critical first step for automating paper-based business processes. Scanners that offer advanced paper handling capabilities in addition to fast and efficient image processing significantly reduce the time spent digitizing documents. Many organizations overlook the bottlenecks related to paper handling that slow down the capture process. Removing unnecessary manual steps when preparing documents is critical to saving time and money, and ensures valuable information flows seamlessly into business systems.

Tackling the paper mountain

According to AIIM*, nearly 40 percent of organizations are dealing with an unprecedented volume of information that must be retained due to governance policies and legal or regulatory guidelines. Keeping on top of this can challenge even the most digitally advanced organizations, who are using technology to seamlessly and swiftly capture and digitize business inputs. An over-reliance on paper alongside ineffective processes to seamlessly capture and digitize business inputs impedes operational efficiency, customer responsiveness and profitable growth.

In today's competitive economy, digital transformation takes time, and time is money. One of the most time-consuming elements of digitization is document preparation — it's the first and most important step in a batch scanning process. Half of the staff involved in most scanning operations are dedicated to document preparation. This can include removing paper clips, staples and other binding materials; checking to ensure all edges are unfolded; and inspecting for tears or other damage to pages. There is also a requirement to pre-sort papers that may cause problems during the scanning process. When scanners can't handle documents of mixed shapes and sizes, staff have to spend significant time to pre-sort or add steps like gluing smaller documents onto A4/letter sheets or cutting longer documents to align with A4 documents. Pre-sorting is also a workaround to address instances where scanners fail to deliver consistent output when processing documents with mixed-quality color and contrast.

Reliable feeding is one of the top 5 purchase criteria for a production scanning application. For 67% of decision makers, reliable feeding is important or extremely important when selecting a low volume scanner.

Alaris sponsored survey of global LVP users, October 2018

In many organizations and within the public sector, digitization starts in the mailroom. Incoming mail has to be dealt with efficiently on a daily basis and often staff have time-sensitive targets to scan documents and make them available for processing by a certain time of day. Where scanning is outsourced, Business Process Outsourcers (BPOs) and Scan Service Providers have to meet customers' service-level agreements (SLAs), which drive challenging goals for throughput and productivity. Even in lower volume client-facing scanning applications, paper feeding issues can occur, resulting in a frustrated clerk and an unhappy customer.

Documents are not perfect

In a perfect world, every digitization project would begin with neatly stacked batches of same the size and weight paper. But in reality, organizations handle a wide variety of document types every day — including A4/letter, A3/tabloid and larger or longer format documents, envelopes, postcards, checks, vouchers and ID cards. The majority of production scanning applications involve batches with mixed sizes, mixed paper quality or batches including very lightweight documents.**

Documents do not arrive in perfect condition. They are folded, corners are bent or torn, and papers may be wrinkled, lightweight or fragile. Documents may have photographs glued on, post-it notes attached, or be bound together by staples or paperclips.

The mix and condition of documents to be scanned helps define the paper handling requirements of the scanner used for the project.

Where are your documents going?

It's also important to consider what happens with the documents after scanning. This determines the requirements for output stacking.

- Scenario 1: Paper documents will be put back into folders after scanning so original order must be maintained.
- Scenario 2: Paper documents will be stored in boxes for archival purposes so order is not always critical. However, when retaining original order is imperative, image addressing permits sequential numbers to be applied to each scanned document and each batch to be accurately tracked using patch codes.
- Scenario 3: Paper documents will be destroyed after scanning so the document output order is not important.**

A survey sponsored by Kodak Alaris highlighted that more than 48% of low volume production scanning applications fall into scenario 1, thus the order of documents is critically important.

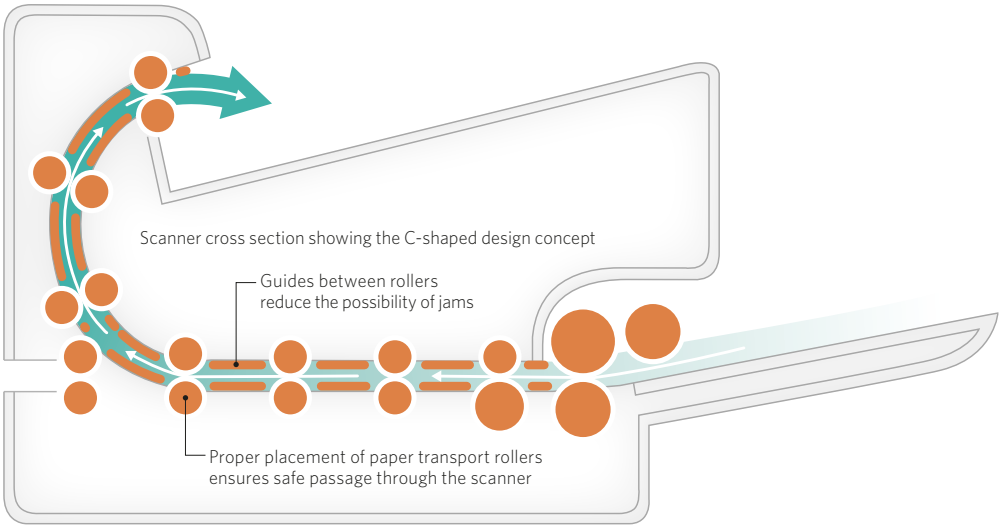
Making the right technology choices at the outset can have far-reaching benefits such as ensuring the media handling features are fit for purpose, so operators can complete the scanning process with minimum fuss.

Paper feeding challenges

Feeding challenges increase exponentially in high volume production type environments. For example, a double feed (where two pages stick together) stops the scanning process and forces the operator to determine where the multi-feed occurred. The operator typically needs to delete a partial image and rescan all documents involved. If the documents are damaged during the multi-feed, additional time-consuming steps may include taping or gluing pages to another document for additional stability. This brings the scanning operation to a standstill for several minutes and has a significant negative impact on productivity.

Paper runs smoothly

The paper path is an important part of a scanner's design. Leading manufacturers focus much of their attention and engineering expertise on developing the best paper feeding technology available. The design must take into consideration the range of document types that need to be handled. Often this requires trade-offs, as the width of the paper path influences the image quality, depending on the document type. There are simple yet essential design aspects like ensuring there are no catch points in the paper path where pages can get stuck. The "waterfall" design concept is important to ensure that the paper flows through smoothly.



Designing an efficient paper path starts with choosing between a C-shaped or straight-through transport. In terms of user comfort, ease of use and reliability, a C-shaped transport is far superior for most uses. A well-designed, C-shaped paper path can handle thicker weight papers. Alternatively, a straight-through paper path maintains order for very thick or stiff documents but has no other advantages.

Minimizing operator intervention

For scanner input trays, size and design requirements vary based on the needs of the scanning operation. Operators may prefer an input tray that aligns with batch sizes, which vary based on the business application and to a lesser degree the individual operational requirements of an organization.

It's also key to ensure that the input tray is capable of processing long documents without requiring operator intervention.

For ad-hoc scanning applications, a scanner's form factor comes into play. For example, the ability to fold up the input tray to minimize footprint when the scanner is not in use can be a value-added feature.

Giving productivity a major lift

Users of high-end scanners with large input trays benefit from an automatic elevator design, which accommodates various stacks of documents such as 25, 100, 250, 500 or 750 sheets. When the input elevator is set to the document feeder position, it will remain in the highest position. When set to accommodate a specific number of pages, it will automatically raise to feed documents and lower after the last document in the stack has been fed. This saves valuable time when loading and switching batches.

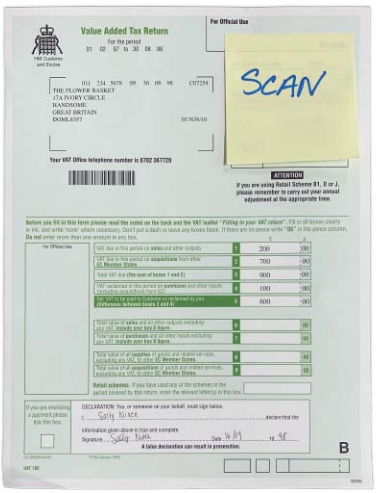
Active Feed Technology

For scanning projects that involve messy document stacks, which are particularly common in applications involving mixed-size document batches, the operator needs to align all pages before they can be fed. This is important to control the skew of documents as they enter the transport to avoid clipped corners. The design of the registration gates supports the alignment of a batch. Alaris has optimized the design to be located at the bottom and fold out.

In a production type scanning operation this is often done using a jogging device, which requires an extra step in the process. Advanced technology like Alaris Active Feed Technology, introduced with the Alaris S2000 Series Scanners, optimizes feeding performance to make scan preparation simpler, removing the requirement to stack documents perfectly in the document feeder. Active Feed Technology jogs the pages to align them for error-free scanning. Stacks of small documents can be pulsed for optimal feeding. This significantly reduces misfeeds and poor alignment — which require time-intensive manual work to re-scan documents.

Preventing loss of critical data

For scanning operators and knowledge workers alike — speed is of the essence. Maximizing hourly and daily throughput in a production environment is particularly critical because any delay can impact efficiency, productivity and profitability. Paper jams halt the scanning process and cost users valuable time clearing jams and figuring out which documents have and have not been scanned. This may seriously impact the ability to meet customer and internal SLAs.



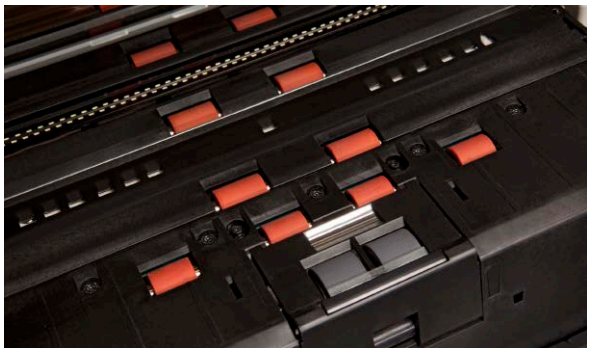
Interactive Multi-Feed Detection, a feature unique to Alaris production scanners, instantly detects a multi-feed or multi-layer document, such as a sheet of paper with a sticky note attached. Alaris has raised the bar on multi-feed detection with built-in ultrasonic sensors that use multiple microphones to listen for sheets that are starting to crumble. Documents that set off an alert are pushed to the scanner's exit path, without stopping the scanning process, and the operator can then make a decision whether to accept, ignore or rescan images.

Additionally, this Alaris functionality enables operators to skip what would be registered as a multi-feed, to allow items such as envelopes to be scanned alongside other documents. This ensures no pages are missed in the scanning process and prevents loss of critical data.

Interactive Multi-Feed Detection delivers 99.999% document feed accuracy using scanners from Alaris, based on Keypoint Intelligence-Buyers Lab testing.

Intelligent Document Protection

The best approach to dealing with paper feeding issues is to proactively identify and address them. Alaris' research and development team has developed another proprietary technology called Intelligent Document Protection, which defends against damaged documents and lost data to improve efficiency with no compromise on quality control.



Intelligent Document Protection monitors the condition of paper being scanned using ultrasonic sensors to 'listen' for problems and alert the user before jams or misfeeds occur. It immediately stops the scanning process at the first indication of document damage, so users can preserve the document and the information it contains. This feature also detects staples that may have been missed in the pre-scan preparation process.

Document collection and stacking

As noted earlier, output stacking requirements depend on how the paper documents are handled after the scanning process. For situations where the documents need to be re-assembled in the same order or even moved back into binders, the order and quality of stacking play an important role. More than 52% of low volume production decision makers consider the output stacking quality an important or extremely important purchase criteria.**

Where mixed-size batches and in particular those involving lightweight documents are scanned, this presents a significant challenge and may result in operators spending unnecessary time post-scan dealing with messy output stacks. The order of documents can easily be mixed up, making it difficult to locate specific documents that need to be found or cause issues in a BPO environment where originals often need to be returned to the customer.

Alaris offers leading technology for controlled output stacking on Kodak production scanners and the Alaris S2000 Series, which reduces time and effort by placing paper neatly in the output tray.

Scanners from Alaris ensure lightweight papers such as rice paper are slightly bent in the middle for additional stiffness. In addition, the exit deflector 'holds' pages down, which is particularly important to ensure that small sheets settle down next to the scanner and allow the following pages to settle on top. It is adjustable to easily align the edges of the documents after exiting to form a neat stack and can also be popped out of the way if desired.

Controlled output stacking is also enhanced with software that controls and changes the velocity of the sheet as it lands on the exit tray. Operators can capture the images at high speed and slow down the output speed through the software to ensure lightweight pages, for example, rest on the exit tray as opposed to the floor.

Greater productivity starts with smarter sorting

Most high-volume scanners with sorting capability require proprietary software. Alaris has designed the i5650S and i5850S Scanners to enable most sorting jobs via standard drivers such as TWAIN and ISIS. This makes it much easier for operators to get to the next level of productivity without having to learn a completely new system.

Production scanners from Alaris offer three-pocket sorting designed for the extreme scanning demands of Service Bureaus, BPOs and corporate mailrooms. Combining smart sorting with high speed throughput and superior image quality leads to increased productivity and significantly lower document capture costs.

In some applications within the banking and insurance sectors, original documents such as proof of ID have to be returned to the customer after digitization, which means operators have to carefully prepare documents before scanning begins, then separate them once scanning is complete. This manual process can be prone to error, labor intensive and costly.

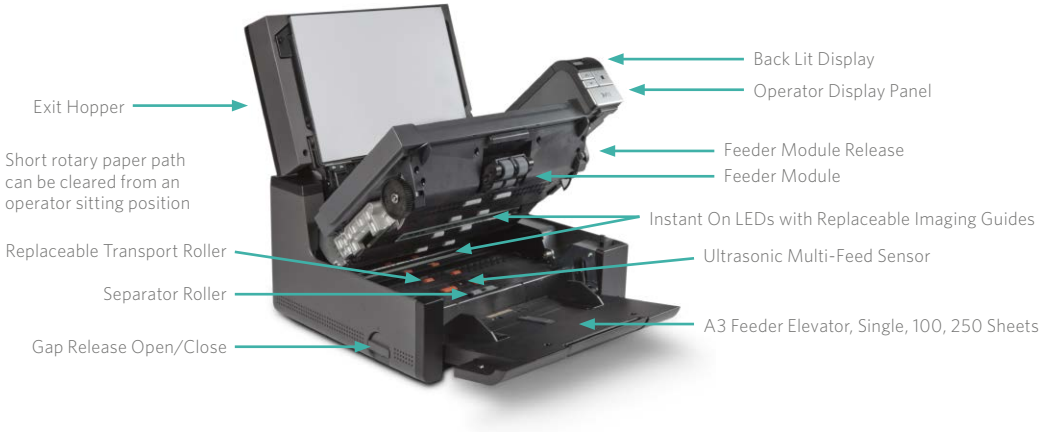
The i5650S and i5850S Scanners simplify the process by reducing the amount of manual labor. Using the patch-sheet recognition feature to separate document batches, reusable patch sheets are separated and output to the rear exit tray, while original customer documents are automatically separated and output to an exception tray at the front of the scanner. With the automated sorting capabilities these scanners deliver, separator sheets can now be used many times. Scanning service providers no longer have to throw away millions of separator sheets each year. The ability to re-use separator sheets delivers substantial cost savings and reduces the waste footprint.

Optimize passport scanning

Scanning passports presents a headache for many scanner operators. The passport typically needs to be inserted into a sleeve or pushed (forced) into the scanner's automatic document feeder (ADF). The Alaris S2000 Series Scanners work with the Alaris Passport Flatbed Accessory, which docks conveniently under the scanner for outstanding ease of use. Operators can scan small or delicate documents and complete a passport photo page scan in as little as two seconds with no danger of passport damage.

Conclusion

Advanced paper handling capabilities can take a lot of the complexity and manual intervention out of the scanning process. Alaris offers best-in-class technology for handling and feeding mixed batches without causing paper jams, especially for batches involving a mix of document shapes and sizes and documents ranging from thin to thick.



- Scanners from Alaris offer an innovative C-shaped transport, which has been optimized for latitude and paper condition to ensure a wide range of paper sizes and thickness pass through smoothly.
- Active Feed Technology ensures that paper documents are fed smoothly and efficiently.
- Controlled Output Stacking makes sure documents are neatly stacked in the correct order in the output tray.
- Intelligent Document Protection ensures multi-feeds and paper jams are either avoided or discovered before they happen, which brings significant productivity benefits.
- If a multi-feed does occur, for example when a post-it note is left on a document, Alaris' Interactive Multi-Feed Technology ensures this event has minimal impact on productivity.

Partners and customers accredit Alaris' paper handling capabilities as a significant competitive advantage along with its leading image processing capabilities.

A partner you can trust

Alaris, a Kodak Alaris business, is a leading provider of information capture solutions that simplify business processes. Alaris' smart, connected solutions, powered by decades of image science innovation, offer advanced paper handling features designed to improve scanning efficiency and ensure better results, regardless of the mix of document types.

The Alaris IN2 Ecosystem is a unique combination of best-in-class scanners, software, services and partnerships that take complexity out of information capture and enable customers to transform data into a powerful competitive advantage.

*https://info.aiim.org/the-true-cost-of-data-retention?_ga=2.8876469.1272755517.1539683935-727303936.1537178082
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