



## *Digitech Systems Whitepaper*

### **Intelligent Capture is Essential to Digital Transformation**

Many businesses have set their sights on the lofty goal of “digital transformation,” but few can really envision what that actually means for their day-to-day work life. In our view, digital transformation happens when companies deliver information to the point of need, and it all starts with converting the records you have into digital files and data. In this whitepaper you’ll learn:

- What’s happening in the world of capture technologies and why they are foundational for digital businesses.
- How to distinguish intelligent capture technologies that allow you to capture anything, to organize it without manual effort, and to send it anywhere it’s needed.
- Which key features you need to achieve your digital transformation goals.

Despite the ever-growing amount of electronic files, a great deal of business information is still contained in files and filing cabinets. These records are typically either older paper records that simply haven't been integrated with their newer, digital counterparts, or they are documents that are received in the mail to be processed by departments that are still primarily paper-based, like human resources (HR) and accounting.

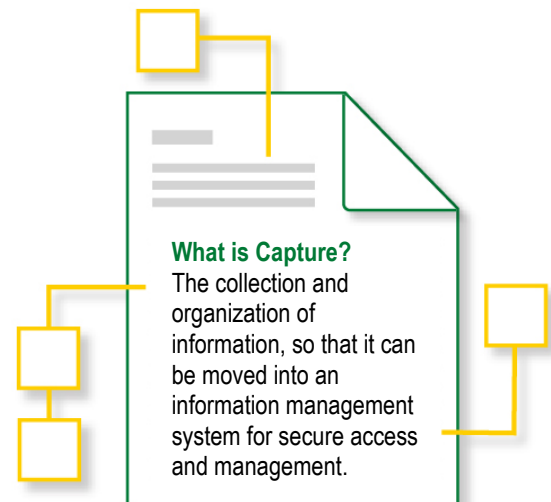
An effective information management system must include a plan for these paper-based records and the important data they contain. To plan for your own digital transformation, you must understand the scanning and capture marketplace and technologies and the important business need they can address. You'll learn to distinguish between market-leading options and legacy systems that, while enabling digitization, don't minimize the human effort required to convert from paper to digital. Finally, you'll get an idea of what features and functions to look for in any capture technology you choose.

You don't have to live with files and filing cabinets. In fact, many successful startup businesses will never use them!

## Market Overview

What is the scanning and capture marketplace? Capture technologies work with scanners and multi-function devices (MFD) to convert paper records into digital images (commonly referred to as scanning). But that's not all that capture products should do!

Think of capture as the collection and organization of information (regardless of what format it is), so that it can be routed into your document management system for secure access and management. With this new, broader understanding, capture becomes the on ramp by which all of your business information can be used to improve process efficiencies, to protect sensitive data from cyber threats, to stay in compliance with regulations, and to streamline and minimize that pesky operational cost associated with having and managing information.



## A Sizeable Opportunity

You may be tempted to think that the size of the marketplace for capture technologies is small, after all, haven't many businesses already converted to digital record-keeping? Think again! According to analysts with Technavia, the global capture software market will grow by \$3.3 billion between 2019 and 2023, with a compound annual growth rate of close to 12%.<sup>1</sup>

## Drivers of Growth

Why is this market still growing? Like you, many businesses are tired of the chaos that has resulted from too many business documents in too many different formats. They are looking to capture software to help them intelligently access the data contained in records of many types. Others simply need to convert analog (paper) information into digital (electronic) records in order to enable process automation and the use of artificial intelligence (AI) to enhance business performance. Let's dive into each of these reasons for market growth.

## **Trend One: Growth of Information Leads to Chaos**

We all feel it. The explosion of digital information has us scrambling to effectively understand what files to keep and how to organize them to protect data from prying eyes and to keep our businesses in compliance with both government and industry regulations. Our effort to control information is further complicated by the variety of formats it can be found in, including digital files, paper records, databases, email and other messaging applications, etc.

IDC predicts that the Global Datasphere (how much electronic information exists) will grow from 33 Zettabytes (ZB) in 2018 to 175 ZB by 2025, which represents a growth rate of 530%.<sup>2</sup> Imagine the impact of that kind of growth on your organization!

### ***It's Not All Digital***

As if this weren't enough of a challenge, The Paperless Project reports that the average office worker still uses 10,000 sheets of paper per year! They go on to explain, "In the last 20 years, the combined usage of today's top ten paper users has increased from 92 million tons to 208 million, which is a growth of 126%. So the use of computers is not slowing the amount paper we use." (Paper use at the average business is growing 22% per year.)<sup>3</sup> And, according to AIIM, 72% of organizations say scanning paper is still the most important part of their information capture strategy<sup>4</sup>

### ***Leads to Chaos***

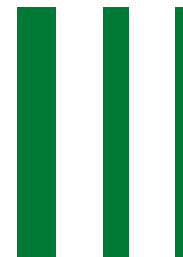
Think about your own office and computer. Do you know where every file is? Can you locate it in a reasonable amount of time—say less than 3 minutes? Do you regularly (quarterly or annually) perform file maintenance by deleting or shredding records older than required retention periods, destroying duplicates, and removing trivial information you probably shouldn't have kept to begin with? If you said no, you're not alone!

AIIM explains that 75% of organizations identify information chaos as a major problem for their organization.<sup>5</sup> Just what does chaos look like?

- Two out of three organizations cannot easily identify basic metadata like the owner and version for over 50% of their documents.<sup>5</sup>
- Sixty-one percent of workers access four or more systems regularly, and 13% need to access eleven or more applications just to do their jobs!<sup>2</sup>
- When an employee leaves, 70% of their knowledge walks out the door with them.<sup>3</sup>

The costs of information chaos can be staggering. Gartner measures the *average* financial impact of poor data on businesses at \$9.7 million per year."<sup>6</sup>

**“ Large economic potential is linked to digitization— and much of it yet to be captured ”** -McKinsey Global Institute, 2019



## Trend Two: Move from Scanning to Intelligent Capture

### *The Scanning of Yesterday*

Receive documents, scan and index documents, save documents, and destroy documents. This capture process no longer suits the growing volume and complexity of business information. In the past, Optical Character and Mark Recognition (OCR and OMR) are the only technologies that helped increase the productivity and accuracy of this capture process, and this recognition technology dates back to the early 1990s.

The downfall of this traditional capture process is its inability to manage large amounts of data and documents without human intervention. Some companies resort to hiring one or more fulltime employees who act as a scanner's assistant by feeding documents into the scanner, and typing or auditing the index data. Not only does this slow down critical approval processes and retention schedules, this system costs businesses time and money in productivity hours and the inevitable inaccuracies of hand-keyed information.



### *Intelligent Capture of Today*

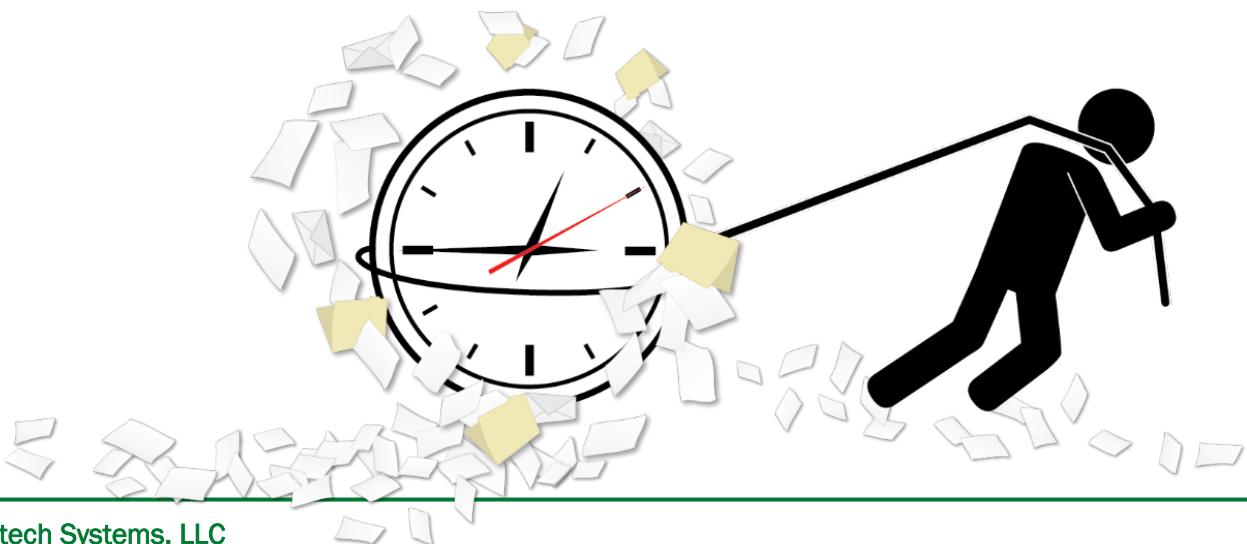
However, today's capture technologies have gotten much smarter in two specific ways.

1. They will **ingest information in a variety of formats** including scanning paper records and importing digital files, email messages, and more.
2. Today's capture software is "intelligent," meaning it **leverages AI to reduce the human costs** of going digital.

For example, PaperVision® Capture includes the optional AI engine PaperVision® Forms Magic™, which recognizes documents and categorizes them by type while simultaneously extracting important data as the document is scanned, virtually eliminating manual effort.

## Trend Three: Digitization Enables Automation

Automating processes is a top priority for businesses regardless of industry or size, because it can reduce the cost of doing business while simultaneously providing numerous benefits such as better customer service, happier employees, and speedier results. However, as Troy Brown, Director of Innovation and Tools at Arvato discovered, automating processes is impossible unless all your important information is digital, allowing other applications to read and analyze it.



### Case Study: Arvato

Arvato specializes in the development and implementation of custom solutions for more than 150 million customers around the globe. When asked by a large IT/High-tech company to streamline and simplify licensing, they were stymied by critical business information trapped in paper contracts. The license agreements were too complex for ordinary OCR to capture, so the AI engine in PaperVision Forms Magic was critical for Arvato to recognize and extract the data that mattered to their client. They provided an automated solution that turned paper contracts into digital files, and extracted the information their client needed. Arvato was able to:

- Trim **10 minutes from every license processed**, recovering more than **10,000 productive hours annually**
- Eliminate manual data entry, **reallocating 70 employees** in four data centers across the globe
- **Save \$3.15 million** by streamlining license processing

**arvato**  
BERTELSMANN

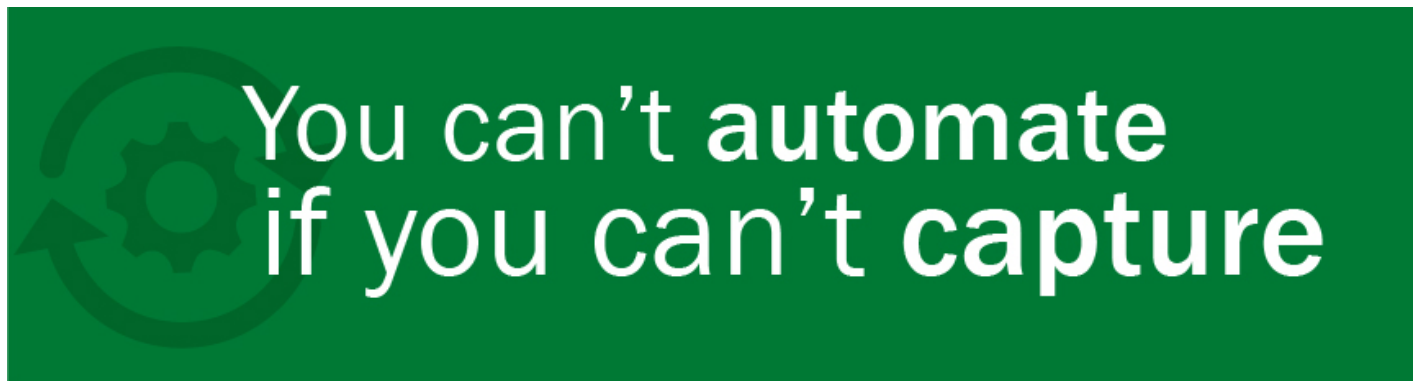
“You can’t automate something you can’t read or look at. PaperVision® Capture and PaperVision® Forms Magic enabled us to access the critical information we need. Being able to extract the data with artificial intelligence has enabled us to automate our entire business process, saving more than \$3 million annually.”

Tony Brown  
Director of Innovation and Tools, Arvato

Just how important is process automation to organizational success? The following statistics help paint a grim picture for companies who have not yet started their digitization and automation journey.

- IDC explains that the average knowledge worker spends about 25% of their time managing information, yet we only find what we need 56% of the time.<sup>7</sup>
- 96% agree that process automation improves business processes.<sup>8</sup>
- 79% believe automation is significantly needed for the success of a business.<sup>8</sup>
- According to IDC, 62% of businesses believe slow processes actually limit revenue!<sup>9</sup>

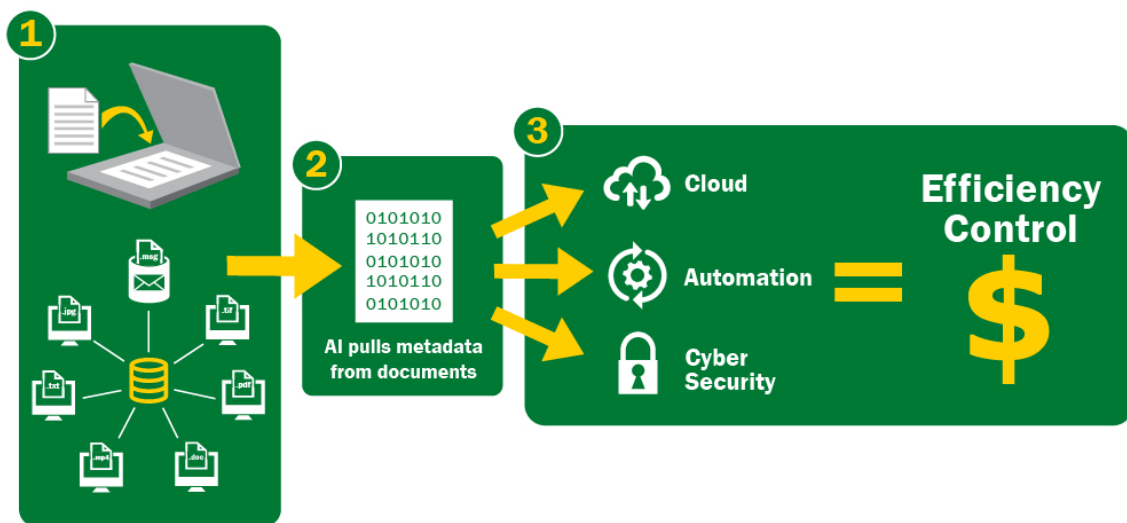
Every day you delay moving toward automation, you not only lose money, but also fall further and further behind your competitors. Doesn’t it make sense to get started today?



## Distinguishing Intelligent Capture Technologies

With our broader definition of intelligent capture, we are now prepared to talk about specific product capabilities needed to enable the critical business results you need to help you thrive in today's competitive economy. To refresh your understanding, intelligent capture technologies should minimize manual effort as you collect and organize information so that it can be routed into your document management system for secure access and management. You want this on ramp of information flowing into your organizational systems to be as automated and accurate as possible. To keep this simple, we've narrowed down the list of critical capabilities to just three. Your intelligent capture system should allow you to:

- Capture any type of information, including scanned documents, images, electronic files, and even email
- Organize and index documents without lifting a finger to sort or type.
- Send the captured files and data into virtually any information management system (whether on premise or in the cloud), business analytics applications, or automated processes without compromising security.



### Capture Anything

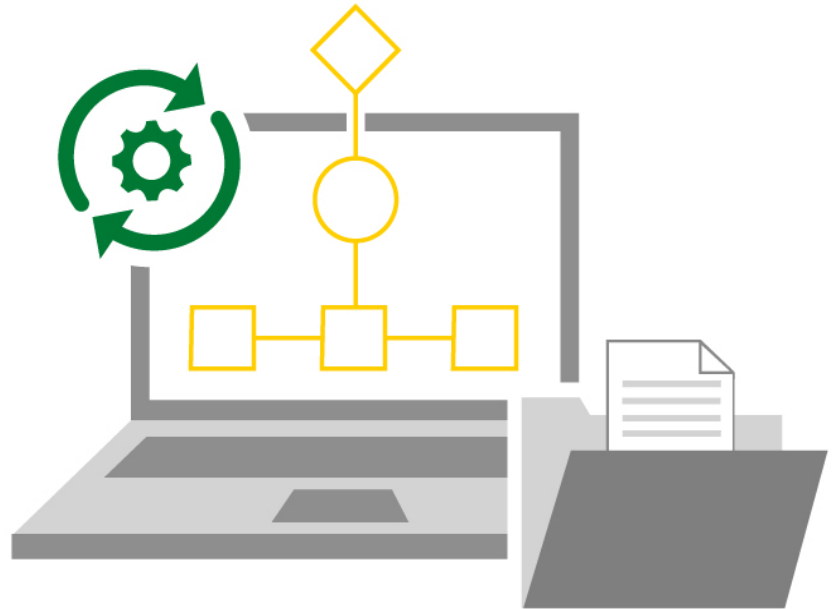
As previously mentioned, at this point in technological development, you should not settle for any capture application that only works with scanned documents! Though this is a critical feature, capture technology should also be able to import electronic files in many file type varieties. Why would this matter?

Doesn't it make sense to leverage the automated indexing and data extraction capabilities of intelligent capture for electronic files in addition to your scanned documents? Why hand-key some files but not others? You should be leveraging these time and money saving capabilities across the broadest possible collection of information, including any electronic files your organization may have.

## Organize and Index Without Manual Effort

The best capture applications leverage artificial intelligence to “read” and extract key data to populate not only the index values you’ll use to find the document later via keyword search, but also to send to any other business application you have. For example, if you’re scanning invoices you’ve received in the mail, you’ll want the invoice number, date, and amount to be automatically extracted not just for indexes but also to send to your accounting application. You’ll save even more by eliminating manual effort in both systems!

Many businesses instantly understand the efficiency gain of extracting information rather than hand-keying it into system, but they don’t always think of the second major benefit of organizing and indexing records without manual effort. Introducing humans to a business process also increases the potential for errors. It’s not that our employees are intentionally making mistakes. Rather, even when doing the best they can, all humans are subject to error. But, automated technologies don’t make mistakes. You’ll instantly improve data accuracy when extracting data with AI.



## Securely Send Information Anywhere

Whichever capture application you choose, you’ll want to ensure it can be configured to automatically send files and information to your Enterprise Content Management (ECM) system. (Digitech Systems is the only company that has written both types of applications, so every other option will require an integration.) You can choose to maintain your data on your own corporate network using on-premise ECM software, or you can move your data into a cloud ECM service. Regardless, make sure you’ve thoroughly explored how information is protected from cyber-attack and inadvertent disclosure during transmission and once it resides in the ECM. Your customers and regulators don’t care how or when their data was stolen from you. They just care that it was, so make sure you’re closing every loophole.

You’ll also want to ensure your capture application can be setup to send information into systems that leverage artificial intelligence to create business insights (typically called analytics) and into process automation tools like workflow that route business documents from step-to-step through business processes. Process automation tools can speed virtually any business function and provide unprecedented insight into the status of requests and projects. These benefits can lead to real business growth, as discovered by Bob Butterfield at Real Property Management Vancouver.

### Case Study: Real Property Management Vancouver (RPMV)

RPMV is a property management company serving both residential and commercial properties. They manage the listings for rental properties, vet potential tenants, and negotiate leases for property owners for more than 115 properties. When they were unable to locate a packet for an owner who visited their offices, RPMV converted from paper-based filing to an electronic process using PaperVision® Capture. The switch has allowed RPMV to:

- **Save \$115,920** annually by locating information in minutes rather than hours.
- **Reduce setup time** from 3-4 hours **to less than 30** minutes for new owners.
- **Enabled remote work** in response to stay-at-home orders during the COVID-19



“I knew we could do things more efficiently by leveraging newer technologies and eliminating the archaic paper filing system. For us, the efficiencies of PaperVision Capture and ImageSilo just can’t be beat. Our customers and owners really appreciate ImageSilo. The most common compliments we get are that it’s electronic, easy-to-access, and time-efficient. We love what it’s done for our business!”

Bob Butterfield  
Owner & President, RPMV

pandemic.

## The Features You Need to Digitally Transform Your Business

Finding the right capture software for your business doesn’t have to be complicated! Now that you understand how to distinguish older, legacy scanning applications from the best of today’s intelligent capture systems, let’s take a look at key features you must have to enable your digital transformation. For simplicity, they’ve been grouped according to our digital transformation goals:

- Capture any type of information
- Automatically organize and index documents
- Enable process automation
- Keep information secure throughout its lifecycle

Intelligent Capture Goal	Capability	Advantage/Benefit
Capture any type of information	Convert paper records to digital files	Work with many brands and types of scanners running at their full speeds
	Ingest a wide variety of electronic files as needed	
	Extract business data from documents as they are scanned	





Intelligent Capture Goal	<i>Capability</i>	Advantage/Benefit
Enable process automation	<p>Route records through business processes</p> <p>Customize process steps and permissions based on your unique business needs</p> <p>Audit tracking</p>	<p>Records automatically move step-by-step through processes by routing documents to specific users at specific times or when certain conditions are met.</p> <p>Your technology accommodates your business rather than asking you to change everything simply to digitize.</p> <p>Audit tracking enables supervisors to view the status of any item in any process, showing process bottlenecks, and allowing supervisors to adjust assignments as needed.</p> <p>Improves customer service, because you always know where items are in service and order fulfillment processes.</p>
Keep information secure throughout its lifecycle	<p>Securely store on-premise or in the cloud, utilizing AES 256 bit encryption</p> <p>Protect information during transmission</p>	<p>Secure storage should be available either on your own corporate network or through the provider's cloud service. (The best systems will be available in either on-premise or cloud options, allowing you to switch if your business need change over time.)</p> <p>Additional security protocols should protect all communications between users and the document management repository, regardless of where it's located.</p>



## Conclusion

As data continues to grow, our need to get control of it and to better leverage it to make smart decisions becomes more and more important. These digital transformation goals start with intelligent capture of business information—whether it's found in paper documents or digital files. Just how much value does better information management have?

Find more [information on intelligent capture software](#) on our website, and discover what capture technology can do for your business.

A study conducted by the University of Texas at Austin found that if the median Fortune 1000 business **increased the usability of its data by just 10%**, it would translate to an increase of \$2 billion in total revenue every year.

**(\$55,900 in additional sales per employee annually)<sup>10</sup>**



## Additional Resources

There are a lot more opportunities to learn about intelligent capture. Take advantage of the resources below to answer your questions.

### Digitech Systems

At Digitech Systems, ECM is our bread and butter. We want to help you understand what ECM is and our website is one of the best places for you to learn more about the technology, accompanying products, education and expertise we offer.

<https://www.digitechsystems.com>

<https://www.digitechsystems.com/features/scanning-capture/>

<https://www.digitechsystems.com/products/papervision-capture/>

<https://www.digitechsystems.com/products/papervision-forms-magic-technology/>

### AIIM

Get more information on ECM news and industry research from the ECM industry perspective. This organization follows the industry closely, including the capture market, for news, updates, market watch and more.

<http://www.aiim.org/community/capture>

## Vocabulary and Terminology

### Capture

The process of physically scanning your paper documents into electronic files. Although scanning is the most common way to capture documents, additional capabilities enable systems to automatically recognize and capture electronic files from network directories and email servers.

### Digitization

The conversion of text, pictures, or sound into a digital form that can be processed by a computer.

### Document

A piece of written, printed, or electronic matter that provides information or evidence or that serves as an official record.

### Document Capture

The process of physically scanning your paper documents into electronic files. Although scanning is the most common way documents are “captured” into an ECM, additional capabilities enable systems to automatically recognize and capture electronic files from network directories and email servers.

### Enterprise Content Management (ECM)

ECM provides businesses with the ability to capture, manage, store and securely access any information, including electronic files, paper documents, images, and email that delivers any document, anywhere, anytime on virtually any device. ECM services, such as PaperVision Enterprise, can either be hosted on-premise or hosted in the cloud like ImageSilo. This is also known as content services or document management. These technologies enable records management.

### Indexes

Customizable fields that make files easier to find by creating a path to your information. Also called metadata.

### Intelligent Capture Software

The process of scanning and capturing critical paper and electronic documents – such as invoices, contracts, claims, receipts and shipment documents – to replace manual input and processing. The captured content is then stored in an organized manner complete with metadata and classification. That information is organized, analyzed, and automatically processed using AI and analytics platforms.

### Intelligent Character Recognition (ICR)

ICR technology is designed to recognize hand-written block print that is contained in designated boxes within a form.



## Offsite and Onsite Scanning

In offsite scanning, the service provider scans the documents at its location, typically in a department known as a service bureau that specialized in scanning massive volumes of documents for many customers.

In onsite scanning, the customer/end user scans individual documents for themselves at their own business offices.

## Optical Character Recognition (OCR)

OCR technology scans images of paper documents that have been typed and turns them into text that can be easily searched and categorized.

## Intelligent Capture Case Studies

Want some examples to really get a feel for how intelligent capture helps businesses enable digital transformation goals? Check out the following case studies for real-world explanations of how this really works and the extraordinary business results it can enable.



[Arvato](#) saves \$3.15 million and 10,000 productive hours annually by automating licenses processing



[Real Property Management Vancouver](#) saves \$115,920 annually by locating information in minutes rather than hours for property owners and tenants.



[Prestige Care](#) reducing invoice processing times by 57%, saving them \$88,000 annually.



[MSI Mold Builders](#) reduced their cost per invoice processed from \$63 to less than \$16, resulting in annual savings of \$676,000.

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## Digitech Systems, LLC

Digitech Systems, LLC enables businesses of any size to more effectively and securely manage, retrieve and store corporate information of any kind using either [PaperVision Enterprise](#) content management (ECM) software or the world's most trusted cloud-based ECM services, [ImageSilo](#) and [PaperVision.com](#). By significantly reducing the cost, Digitech Systems has moved ECM from a luxury convenience to an essential element for every well-managed business.

Digitech Systems continues to raise the standard of excellence in the ECM sector, as evidenced by the numerous awards they have received including multiple Nucleus Research ROI Awards. In addition, Buyer's Lab has repeatedly chosen [PaperVision Capture](#) as the best data capture and workflow solution, [ImageSilo](#) and [PaperVision.com](#) as the outstanding cloud content management systems, and [PaperVision® Enterprise](#) as the most outstanding ECM software in the marketplace. The company's [Process Automation Tools](#) were recently named as a Top Ten solution. To learn more about the company's software and services that deliver any document, anywhere, anytime, visit [www.digitechsystems.com](http://www.digitechsystems.com). You can also connect with us on:

- LinkedIn (<https://www.linkedin.com/company/digitech-systems>)
- YouTube (<https://www.youtube.com/user/DigitechSystemsInc>) and
- Twitter (@ECMNow)

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