

# Invoice Scanning and Data Capture



## IN THIS ARTICLE

- What Is Invoice Data Capture?
- What Is OCR?
- How Do You Capture Information From an Invoice?
- What Is the Process of OCR Invoice Scanning?
- What Is OCR Software?
- What Are the Benefits of Invoice Scanning?
- What Are the Challenges of Invoice Scanning?
- What Is the Role of AI in Invoice Scanning?
- Best Practices for Invoice Scanning and Data Capture

More businesses are embracing the latest technology, particularly in the accounts payable department where paper invoices are quickly becoming a thing of the past.

Today, the majority of invoices are received electronically via email, where they are presented in a variety of digital formats that include PDFs and scanned images.

But without the proper automation in place at your end, your invoice processing times will likely remain the same.

To cut down on processing times, many businesses have turned to a variety of solutions including automated invoice scanning software.

This software, powered by optical character recognition (OCR) and artificial intelligence (AI) allows AP departments to capture important data from vendor and supplier invoices received, later sharing that data with their ERP or accounting software solution.

## **What Is Invoice Data Capture?**

Invoice data capture is the process of entering invoice data into a manual ledger, accounting software application, or ERP system.

For smaller businesses that don't process a high number of invoices, the manual process may be sufficient.

However, for businesses that need to process hundreds of invoices received in a variety of formats, having an automated solution in place can help expedite the entire AP process, while eliminating some of the more common problems associated with manual data capturing. That automation starts with OCR.

## **What Is OCR?**

OCR technology use has become widespread in the last twenty years, as more software companies added OCR capability to core applications.

In it's simplest form, OCR is the technology used to convert the image of a text into a machine-readable version of that same text.

While earlier versions of OCR technology use pattern matching and feature extraction, newer systems combine OCR with machine learning, resulting in more accurate data extraction.

For instance, early OCR technology allowed users to scan receipts and other images into an application to serve as backup for expenses.

However, the difficulty arose when it was determined that while the receipts were good for expense backup, the images present on the receipts were unable to be converted into a usable format.

That's where OCR comes in, since it can convert the images on the receipt to a text document, where the amounts can be extracted and recorded automatically.

This eliminated the need to manually enter invoice data into an accounting software application or manual ledger.

## **How Do You Capture Information From an Invoice?**

Every part of an invoice contains valuable information that needs to be captured for proper invoice processing.

The only difference is how the capturing is done. For example, when you're manually entering an invoice for payment, you'll need to enter details such as the vendor's name and address, invoice number, invoice date, the amount due, and the due date.

If you're using OCR software, you'll want to extract the same information which can be used to populate the appropriate AP fields in an ERP or accounting software application, eliminating the need for manual data entry.

Accuracy is critical when capturing invoice data, which is why the use of OCR technology has significantly reduced the number of errors that are commonly found in manually entered data.

These errors often result in duplicate payments, underpayments, overpayments, or late or missing payments.

Unfortunately, the use of OCR technology alone does not completely eliminate the possibility of errors.

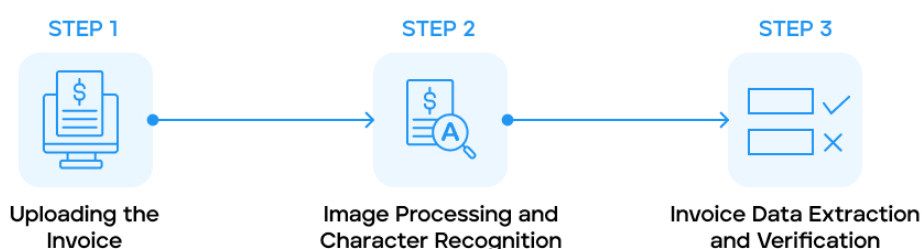
Users of the earliest OCR applications often found errors in the data that was extracted which required AP teams to spend valuable time reviewing scanned documents for accuracy and validation.

Though accuracy levels have improved in recent years, a standalone OCR system will not provide the level of accuracy that businesses desire.

# What Is the Process of OCR Invoice Scanning?

The OCR invoice scanning process follows several steps, including the following:

## What Is the Process of OCR Invoice Scanning



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### 1. Uploading the Invoice

Most older OCR applications rely on scanning a document before uploading it into the OCR application.

Many OCR applications also allow users to snap a photo of an invoice and upload the file for extraction if desired.

Once uploaded, image preprocessing begins, which removes image noise such as dust and distortions, while sharpening the text, making it easier for the application to recognize the images.

### 2. Image Processing and Character Recognition

Once the image has been uploaded, the application begins the process of recognizing and converting images to text by comparing the images on the document to matching patterns found in the database, which contains

a complete library of common fonts, words, and even phrases.

If you're using a more advanced OCR application, this process is enhanced by the use of AI and machine learning algorithms.

While most OCR applications can recognize and properly extract standard text, the use of AI can be helpful if you're looking to extract data from handwritten letters or other documents that don't have a traditional format.

### 3. **Invoice Data Extraction and Verification**

The extracted data will need to be verified for accuracy, with any corrections made at this time.

AI and machine learning play an important role in the accuracy of the extracted data as each time the data is processed or a correction made, the application remembers the correction and applies it to future extractions.

## **What Is OCR Software?**

OCR software is designed to scan and archive documents as PDFs for easier document management capability.

While OCR scanning software can certainly save time and reduce the amount of paper you need to process daily, for companies looking to automate AP processes, consider an application that not only scans documents, but offers other features essential to a the AP department such as automated three-way matching along with integration with your accounting or ERP system.

Though invoice processing software is more technologically sound than a stand-alone, template-based OCR application, they still lack the complete functionality that AP automation software can provide.

# What Are the Benefits of Invoice Scanning?

Taking the first step towards automation is important, and many businesses do this by using OCR technology, which allows them to scan and upload invoices and other documents to the system, where the data is read and extracted in a usable format for faster invoice processing.

Using OCR technology to capture invoice data automatically offers a long list of benefits for businesses of any size while helping to reduce invoice processing costs and ensuring more efficient AP operations across the board.

## ■ What Are the Benefits of Invoice Scanning



Reduces Data Entry Errors



Increases Productivity



Creates a More Efficient Document Management System



Improves Invoice Processing Times



Makes Audits Easier

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## 1. Reduces Data Entry Errors

Automated invoice capture works to eliminate many of the issues that typically plague the AP department, including the elimination of time-consuming data entry.

The majority of issues that AP departments face such as duplicate payments, transposed numbers, typos, and late payments can all be rectified by automating invoice data capture.

## 2. **Increases Productivity**

Without the need to spend days manually entering invoice data and routing invoices, AP staff can focus on more important tasks, while also improving workflow capabilities.

## 3. **Creates a More Efficient Document Management System**

We all know how easy it is to lose or misplace a document. Using automated invoice scanning, it's easy to know exactly where a document is at all times.

Digital document processing also eliminates the need to file documents and remedies the issue of lost or misfiled documents.

## 4. **Improves Invoice Processing Times**

The time it takes to process an invoice is critical. Using OCR software, the invoice is scanned immediately, reducing invoice processing times considerably.

If you're using a complete AP automation system, processing times will be reduced further.

The invoice will also be electronically forwarded to the appropriate parties for approval, eliminating invoice approval delays, resulting in more timely invoice payments and improved vendor and supplier relationships.

## 5. **Makes Audits Easier**

Using invoice automation software and electronic invoicing provides the audit trail a business needs to make both internal and external audits easier.

# What Are the Challenges of Invoice Scanning?

Using OCR technology is not without its challenges, particularly if you're using a standalone solution that doesn't use AI or machine learning.

While learning new applications may present a challenge to some new users, the biggest challenge faced when using OCR technology is a lack of data accuracy.

Although most OCR software applications claim "up to 99% accuracy", that result may not be as impressive as it seems.

Even with a 99% accuracy rate, which is not always the case, if the 1% error falls into the wrong category, you're left with extracted data that doesn't accurately reflect invoice data.

For example, a extraction error of data in the due date field can result in a late payment and additional penalties.

Companies that receive invoices with multiple font types and poorly distinguished character sets may be particularly vulnerable to extraction inaccuracies since OCR technology relies on database comparisons and may not have the technological capacity to distinguish an "O" from an "0".

And with the error rate potentially higher than it should be, any time saved by scanning documents may be used up reviewing and correcting mistakes.

That's why the best solution is to use OCR technology in combination with more advanced technologies such as machine learning and AI.

# What Is the Role of AI in Invoice Scanning?

AI plays an important role in invoice scanning, increasing the accuracy of standard OCR technology.

OCR alone is a great place to start when automating your AP processes, but the technology is much more useful (and accurate) when paired with artificial

intelligence.

This is because OCR technology is template-based, making it difficult to handle invoice variations and layouts.

By combining OCR with AI, invoice scanning becomes more accurate, since the combination works to better recognize differences in invoices without the need for human intervention.

Because OCR alone works with its internal database, it's unable to recognize and extract data at the same level that OCR combined with AI can.

Referred to as cognitive data capture, this method can easily mimic the human thought process.

For example, if you scan invoices with the same format, OCR alone would have no issue extracting data from them.

However, even small businesses receive invoices in a variety of formats from multiple vendors.

Using cognitive data capture, businesses can accurately extract data from a variety of invoice formats, with the results becoming more accurate as more data is processed.

## **Best Practices for Invoice Scanning and Data Capture**

Whether you're still using a manual accounting system, have some technology in place, or have completely automated your processes, you still have to capture accounts payable invoice data.

The smart way is to eliminate manual processes and switch to automation.

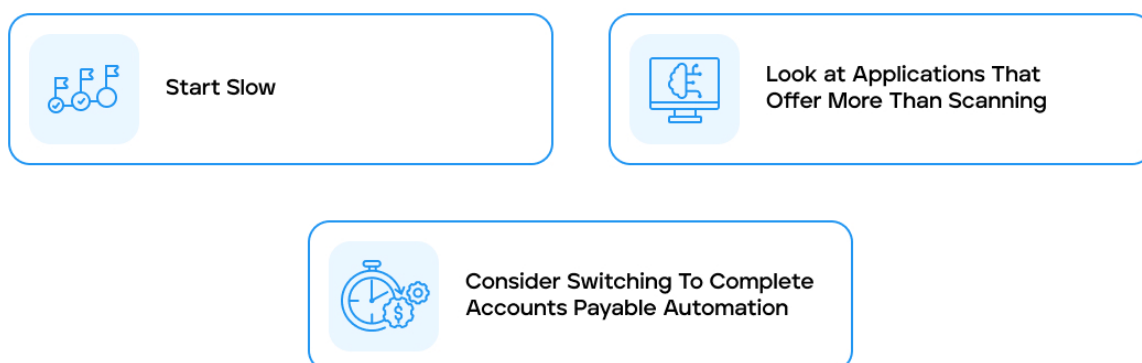
In Ardent's The State of ePayables 2023, it's noted that 72% of enterprise businesses surveyed have adopted a document imaging and scanning solution while only 42% of businesses use a complete procure-to-pay solution.

While utilizing document imaging and scanning is a good start, it will not provide

the level of automation needed to improve both invoice processing times and the cost of processing a single invoice, which according to the ePayables report, was between \$10 and \$13.70 in 2023.

If you're ready to make some changes, here are some best practices for automating invoice scanning and data capture.

## ■ Best Practices for Invoice Scanning and Data Capture



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### ▪ **Start Slow**

If you're still using a manual accounting system or keeping your books using Excel spreadsheets, the thought of automation can feel overwhelming.

Instead of making a drastic change at all once, start by introducing OCR technology into your business.

While OCR alone won't provide complete automation, it's a great place to start for those still processing supplier invoices manually.

### ▪ **Look at Applications That Offer More Than Scanning**

If you already use OCR technology, consider upgrading to AI-powered OCR technology, which provides more accurate data extraction results.

Doing so can eliminate the amount of time needed to review and correct any extraction errors.

It's also important to look at an application that will integrate with your current accounting software or ERP system, which eliminates the need for manual data entry.

## ▪ **Consider Switching To Complete Accounts Payable Automation**

It can be frustrating to extract and populate invoice fields only to find your staff spending hours or even days manually routing those invoices for approval.

Switching to an all-in-one procure-to-pay application automates the entire AP process, providing complete invoice scanning and data extraction, automatic three-way matching of invoices, purchase orders, and shipping receipts, and automated invoice approval routing.

While reducing the time spent processing invoices is paramount for businesses, automation also provides better spend management and more accurate reporting.

AP automation streamlines the entire accounts payable process.

Even if you're starting at the beginning, it's important to make the transition.

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