



White Paper

Background Posting

Maximizing Invoice Processing
Automation

xSuite

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01

Automating operational processes in Purchasing and Accounting

Many companies have already partially digitalized and automated their operational processes in purchasing and accounting. Processes that are only performed manually and on paper are now few and far between. It's now easy to find examples of how digitalization and automation work in practice, especially in the area of invoice processing. When invoices arrive at a company, information from invoice documents is no longer typed in. Rather, it is extracted by OCR and then automatically transferred to the ERP system. In a process that starts this way, the steps for checking and release then proceed by way of a workflow.

These measures mean a significant reduction of the effort required for processing inbound invoices. They also mean that the lead time, i.e., the time span from the receipt of an invoice at a company up to the time it is posted in the ERP system, is considerably reduced. In fact, it is quite realistic to assume that lead times will be cut in half.

When a company has successfully introduced a solution for automating its invoice processing, questions often come up:

- What is the next step?
- How can we further automate processes?
- How can we bring down effort even more and simultaneously reduce lead time?

Which brings us to the primary question addressed in this white paper: How can we bring automation of invoice processing to the next level — and is it even possible to bring it to the point of full automation, i.e., to the point of posting invoices in the background?

02

Background posting defined

“Background processing” refers to the fully automated processing of an invoice from receipt to payment. The invoice data is automatically extracted, automatically checked according to various criteria, and then automatically paid. Automation in invoice processing offers great potential for companies in reducing costs and increasing efficiency.

In general, one can summarize it as follows: the higher the rate of posting in the background, the greater the savings in processing costs.

Background posting of invoices with PO reference

When implementing background posting, it is advisable to be selective. A typical first step would be the implementation of background processing for invoices with purchase-order reference (hereafter referred to as “PO reference”), if invoice criteria such as price and quantity match the values in the purchase order, and a goods receipt has already been posted. This is referred to as a “three-way match”. The idea behind this concept is that the approval process is placed upstream in PO approval and release, removing the necessity of a separate invoice-approval process, so long as the invoice corresponds to the order.

More than any type of system, ERP-integrated solutions are ideal for handling this type of processing — the workflow has access to PO data, MM tolerance customizing, and goods receipt in real time, enabling uninterrupted background approval for three-way matches.

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Posting invoices without PO reference in the background

It is also conceivable to post invoices without PO reference in the background as well. Without a purchase order, however, the three-way match method cannot be used. A different procedure must be used, in which dedicated rules are observed within the strictures of release guidelines and the internal control system. Use cases where background posting is possible, even for FI invoices, are generally ones like the following:

- Invoices originate from certain trusted suppliers with whom a different auditing procedure has been agreed upon.
- Invoices have sums totaling below a certain amount.
- Invoices have been posted to a specific project, if a different form of controlling has been agreed upon internally for this project.

For these scenarios rules could be specified in order to enable background processing for invoices without PO reference. Specifications must also be made as to how account assignment is to proceed, since this step cannot be performed in the approval process. Possible approaches for this would be:

- Performing account assignment in the validation step. Solutions with real-time access to ERP master and account-assignment data during validation are ideal for this purpose.
- Extracting criteria provided by the vendor on the invoice (e.g., cost center, internal orders, or project account assignments such as WBS elements in SAP). This can then be used for automated account assignment.
- Performing automatic account assignment in the background using training or the document extraction tool's AI mechanisms. For this, however, the account assignment is not checked in the case of background processing. In this process, the company should carefully consider how automated account assignment with AI might correspond with the internal control system.

More certainty with random sampling

As described above, background processing can be performed independent of invoice type (with or without PO reference) by means of automated checking rules. If the invoice corresponds to these rules, it can be processed in the background. Many companies perform random checks in order to ensure that automated approval functions anyway, sending a specified ratio of the invoices that have been processed in the background into manual approval as well.

To add this process, the company needs to define rules on how the sampling is to proceed. An example would be a certain proportion of invoices that are normally processed in the background, or invoices that correspond to other criteria such as invoice date, invoice amount, etc.

03

Requirements for background posting

With the solution xSuite Invoice, the steps involved in processing an invoice can be automated to the point that background posting is possible. Ideally, approval rules are automated on the basis of existing data in the SAP system. Certain basic conditions are necessary for this, the most being availability of PO data and accuracy of master data. The following must be provided:

Availability of PO data

Experience has shown that, even when invoices are processed in identical manner, there can be considerable variation in lead time and background posting quota. The cause for this is often to be found in the previous ordering process. If there is no purchase order, or the purchase order is incomplete, then there will be no way to check data, and the invoice must be directed into a verification process in which it can be checked by an agent, which is inevitably longer. When it comes to ensuring that invoices are posted automatically, the simplest way to go is the three-way match, i.e., when the invoice matches to the purchase order that was approved, and the goods have been received or the service performed.

Technically speaking, the ideal scenario is when purchase orders, goods receipts, and confirmations of services performed are all entered into a single system, allowing consistent access to all data. Often, however, several different solutions are used for processing — for example, an external ordering system in combination with an ERP system such as SAP ERP or SAP S/4HANA; and, via interfaces and detours, the PO data must then be made available to the software that is processing the incoming invoice. If the purchase orders are created in another system or in external procurement portals, purchase-order data is best made readable in tabular form. The data from the database can be used for this purpose; or, if this is impracticable, the data from the order confirmations received later can be used.

The availability of order numbers and order items as described above is critical in achieving a high recognition rate in automatic invoice data extraction. If this data is not available, extracting line items will involve more time and effort. However, the purchase order data also contains details of the requisitioner and the releaser of the purchase requisition, which provides a way out if discrepancies come up between the invoice and the purchase order.

These contact persons can be used in the invoice release process. In fact, they can even be determined automatically in the event of quantity or price discrepancies. If these details are missing, the degree of automation will be reduced. Reconciliation with the ordering processes and the recording of delivered services is therefore a decisive factor in how the electronic processing of incoming invoices is designed.

Accuracy of master data

The automated processing of incoming invoices particularly benefits from the accuracy of stored vendor data:

When the master data saved for vendors is complete and accurate, a high identification rate of the sender is assured. In particular, when the VAT ID is stored and the company name is correct, there will seldom be need for corrections in the validation. If the master data for the items ordered contains the correct prices, easy verification is ensured for item prices in incoming invoices.

Of course, cost centers, G/L accounts and internal project numbers must also be maintained so that invoices are correctly pre-assigned, and so that the correct releasers are determined based on the invoice amount, cost center, etc.

But that's not all — different information is required for the release of invoices lacking PO reference than for those that have a PO reference. The core of all incoming invoice processing is a release metric (programmed or as a stored table). It defines which individuals are allowed to release invoices with a given amount for which cost centers. This information can be maintained manually in a release table corresponding to it, or it can be imported automatically. Whichever way data is imported, access to HR master data is necessary.

04

Implementation with xSuite Invoice

xSuite Invoice is an SAP-integrated workflow solution for automated processing of incoming invoices. The following will give you a clear picture of how background posting is implemented with this solution.

Basic implementation

In the approval process, all steps that enable an automated check are carried out in the background by an automated batch user. If an automated check is not possible because a discrepancy (e.g., missing goods receipt, price or quantity variance) was found, only the associated processes will be subjected to a manual check.

This also applies to prerequisites that are required in SAP customizing for parking or posting (open period, goods receipt posting, and so on). In addition, you can configure which variance is to be reacted to in MM invoices and how the check is to be carried out in the event of a variance.

Background processing is set up using the xSuite agent determination table. In this table, rules are stored for the entire background process. These rules exist on a mutually independent basis for invoices with and without PO reference.

xSuite agent determination

The automatic assignment of the workflow tasks to the responsible agents is managed through one central instance, the agent determination table. Here, you can define which user is responsible for processing which documents.

User administration is used to define in advance which users are allowed to perform which roles (tasks) within the workflow. This defines which xSuite user or xSuite user group is the corresponding reviewer, approver, etc. for a specific task. Then, the agent determination table will indicate which user or user group will actually receive which task for processing.

The way the dynamic agent determination table works is basically founded on subsets which are determined based on a possible number of possible agents. This way, the number of possible agents will be reduced based on diverse criteria to the point that one clear agent is responsible for the defined number of records in the end. The aim is to achieve the highest level of automation based on the settings made here.

xSuite Invoice agent determination table offers a series of decision-making criteria enabling the greatest possible precision in determining an agent or a group of agents. The procedure for finding an agent essentially consists of:

- Search priorities
- The agent table

To set the sequence in which the criteria is to be analyzed in the agent table, search priorities are used. Search priorities define the sequence in which the criteria of the agent table are applied. With the information from the record, a search for the corresponding entries is performed. If the system does not find an entry, it continues with the next priority level. When an entry is found, the agent search is complete. The record is directed to the respective user or user group for processing.

This way rules can be specified to decide in which particular cases an automated check will be performed by the background user.

Exceptions that are excluded from this rule can be checked in a sample inspection via a user exit that is to be specified.

Customizing for invoices with PO reference

Rules can be defined directing invoices with PO reference to a mandatory approval task in the case of almost any blocking reason, account assignment category, or item category. They can be stored in the xSuite customizing.

Apart from these customizing options, invoices with a purchase order reference can also be processed automatically via settings in the agent determination for individual verification processes or the entire process in which no verification takes place when a certain rule is met.

This means that automated background processing can be set up as a background posting through the interaction of workflow design, customizing, agent determination and automated checking of variances in the background — in accordance with the regulations of the individual company.

About the xSuite Group

xSuite is a software manufacturer of applications for document-based processes and provides standardized, digital solutions worldwide that enable simple, secure, and fast work. We focus mainly on the automation of important work processes in conjunction with end-to-end document management. Our core competence lies in accounts payable (AP) automation in SAP (including E-Invoicing), for leading companies worldwide, as well as for public clients. This is supplemented by applications for purchasing and order processes as well as archiving. Delivering everything from a single source (software components and services), xSuite solutions operate in the cloud, on-premises, or in hybrid scenarios. We are proud of the superior quality products we offer, proven by the SAP solutions and deployment environment certifications we regularly receive. With over 300,000 users benefitting from our solutions, xSuite processes more than 80 million documents per year in over 60 countries.