

# **Feature at a Glance**

Intelligent Invoice Conversion for the SAP Business Network <u>NP-32948</u>

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## Introducing:

## Intelligent invoice Conversion for the SAP Business Network

### **Feature Description**

Intelligent Invoice conversion is a new functionality being provided for invoice automation to suppliers on the SAP Business network using Invoice conversion templates that brings intelligence into the invoice conversion process that includes machine learning which reads simple invoice data automatically and also an intuitive document user interface that suppliers can use to build and review annotation rules for extracting complex invoice data, all built into a guided self service onboarding.

In its initial version, suppliers can *upload* PDF and scanned paper invoices in their SAP Business Network account that is then converted into SAP Business Network invoices using these Invoice conversion templates and sent to their buyer.

### **Key Benefits**

- Self service onboarding : Self service guided onboarding provided in the supplier's test account.
- Efficient document extraction : Invoice data is extracted using machine learning and manually setup annotation rules
- Invoice enrichment : PO based invoices are enriched with PO data similar to the Online PO flip in addition to extracted supplier invoice data.
- Business rule validations : Invoices are validated against the buyer's business transaction rules
- Submission methods : Suppliers can configure their upload their invoices to be saved as drafts for review and submitted manually or auto-submitted for a touchless automation.
- Buyer customization support : Buyers customization fields are available for annotation to create buyer specific templates.
- Invoice status visibility : Suppliers have complete visibility into the conversion process and status

Audience:

Supplier

Enablement Model:

Automatically On

Applicable Solutions: SAP Business Network

## **Prerequisites, Restrictions, Cautions**

### **Prerequisites**

- Currently available only to *Enterprise suppliers*
- Suppliers must have a trading relationship with buyers on the SAP Business Network to send invoices using this solution.
- Suppliers must have a Test account associated with their Production account.
- Suppliers need to complete the onboarding & testing process in their Test account before they process production invoices.
- Supplier Administrator must be enabled with specific permissions for access to the onboarding of intelligent invoice conversion.

### **Restrictions** \*

- The sample file can be in PDF format or images formats (PNG, JPEG or TIFF) of scanned paper invoices.
- Both purchase order-based invoices and non-purchase order invoices are supported.
- Invoices that reference multiple purchase orders are not supported.
- Standard invoices are supported.
- Credit memos, line item credit memos, and debit memos are not supported.
- Material invoices are supported with a restricted set of fields, but service invoices are not supported.

### Cautions

 It is important for the supplier to understand restrictions and supported functionality and ensure they test invoice conversion templates thoroughly in their test account before publishing them to process their production invoices.

\* There are additional restrictions that can be found in the online SAP help documentation



## **User Story**



As a Supplier on the SAP Business network, I need to process my PDF and scanned paper invoices and send them to my buyer in an easy automated process that helps them reconcile the invoices efficiently and pay me for these invoices faster.

As part of this process :

- As a Supplier administrator, I use the guided onboarding in my test account to setup invoice conversion templates that represent the invoice layout and invoice fields
- I will upload few sample invoices to review the basic data extracted automatically using machine learning and additionally setup extraction rules using the Document user interface for more complex invoice data.
- As part of the testing of these templates, I upload test invoices to ensure extracted data is correct and by default, I get to review the data
  as a draft invoice that I can manually submit. I can also try the auto submission configuration to verify the touchless automation of the
  uploaded invoices and send them to my test buyer.
- Once I have confirmed that these templates are tested successfully, I publish them to be available in production.
- I can use the Invoice conversion templates summary page to view, edit and delete these Invoice conversion templates.
- As a Supplier user, I log into my test or production account and upload my PDF or scanned paper invoices.
- I review the conversion status of these invoices in the *PDF conversion tiles* available on my workbench.
- Finally I verify the status of my invoice in the *Invoices tile* of my workbench to see that it was sent successfully to my buyer.
- If there were any failures and my invoice was made available as a draft, I will review and correct any data and resubmit my invoice.

### **Feature Details**

### **Process Steps**



- Supplier Administrator logs into their account and go to PDF invoices onboarding and reads about the solution from the Learn More link
- Clicking on the Setup template button takes them to the guided Invoice conversion template setup page.
- Here they can select the **default template** which is used as a base template that can be used to process invoices across buyers.
- Optionally they can use the **custom template**, where they can provide a template name and description to identify the template and select a buyer who has invoice customization fields. This template is buyer specific and will be used to process invoices specifically uploaded for this buyer.
- Rest of the steps are similar which starts with the Upload sample files step, where they upload upto 5 sample files (at least 2 is recommended)
- In the Activate template step, they click on the Review and annotate action available under the Action column for each of their sample files uploaded which takes them to the Document user interface where annotation rules can be setup ie. the assignment of data in the sample file to be extracted, to the available field that it can be mapped to in the SAP Business network invoice.
- Here the uploaded sample file is shown on the left pane and the set of fields available out of the box for extraction are shown in the right pane.
- The automatically extracted fields are highlighted and shown with the extracted data that can be reviewed.
- Additionally for data that was not extracted automatically and needed in the invoice, a bounded box can be drawn around the field label that needs to be captured. An Assign field tool will show the drop down of available fields to map this to. Provide the value of this data and click Apply. Continue this for all the fields in the sample file that have to be extracted.
- Once done, save the annotations using the **Save** button and do the same for all the sample files.
- Toggle the **Associate with template** toggle to associate the annotated sample file to the template and click **Activate template** button to activate the template.
- Use the testing flow to upload test invoices and verify the conversion status of the invoice and review the extracted data in Draft and manually submit the same.
- Finally publish the template to production using the **Publish to production** button
- Supplier user can upload invoices in their production account from Documents > Upload PDF Invoice, select the buyer and submit the invoice to this buyer.
- They can review the status of conversion and the document status using the PDF conversion and Invoice tiles in their workbench.,

### Additional details

• Enterprise suppliers using the existing partner supported PDF invoice solution, can try this new self service solution in their test account.

### Process Steps – Login and Start onboarding

• Step 1 : Supplier Administrator with required permission logs into the Test account and navigates to Settings->Electronic Invoice Routing and clicks on the PDF invoices tab

	I II		•
		Sachin Kumar	
		ANID: AN21000148771-T	•
	R	Premium Package	
3	i e -	Company Profile	•
ne	Account Settings	Settings >	
	Customer Relationships	Logout	
	Users		
	Notifications		
_	Application Subscriptions		
	Account Registration		
	Network Settings		
	Electronic Order Routing		
	Electronic Invoice Routing		

- Step 2 : Supplier Administrator is taken to the Invoice conversion template setup page.
- Click on **Learn More** to review the Online help documentation that covers Concepts, Pre-requisites, Restrictions and Detailed steps for Onboarding, invoice processing and configuration along with workflows.
- **Click on Setup template** to create your first Invoice conversion template.

r Routing Ele	ectronic Invoice	Routing Acco	elerated Payments	Settlement	Data Deletion Criteria	
Tax Invoicing an	d Archiving	PDF Invoices				
						Z
			I		-	s has not been setup for your account yet ad here once you set them up. Learn more
				Tour o	emplates with be liste	a nere once you set them up. Lean more
						Setup template

• Step 3 :Click Yes on the Before you start popup which is to ensure you have gone through the feature details in the Online Help.

### Process Steps – Select type of template

- Step 4: This will open the guided Invoice conversion template setup page where the Default and Custom template options are available.
- Here select the Default template which is used as a base template of standard fields that can be used to process invoices across all buyers.

<ul> <li>Select template type</li> </ul>
Default Template
The default template can be used to extract basic invoice data automatically and annotate additional data in your invoice files. Learn more
Custom Template
The custom template is used to extract customized invoice data from your invoice files based on a custom category, such as invoice for a specific buyer. Learn more

- After a Default template is created, if you want to create a **Custom template** for each of the buyers who have customization fields, you can do so by selecting the buyer from the **Customer** drop down.
- The only additional setup for the Custom template is that you need to provide a Template name and description to identify the template.

<ul> <li>Setup template details</li> </ul>	
Customer*	
Maverick Infotech	$\checkmark$
Template name*	
Custom-maverick	
Template description	
Custom template for buyer maverick infotech	

• Step 5: Click on Next to go to the next step.



### Process Steps – Upload Sample files

- Step 6: Click on Upload sample files button to upload the files that represent the layout and fields of the PDF or scanned invoices that will be processed in the Test and production account.
- Click on Review sample file requirements for sample file restrictions and additional details provided in the online help link



<ul> <li>Upload sample files</li> </ul>			+ Add sample files
Name	Upload date	Status	Action
TestInvoice001.pdf	Oct 11, 2023	Uploaded	1
TestInvoice002.pdf	Oct 11, 2023	Uploaded	8
		•	
			Next



### Process Steps – Activate Template



Step 10: In this step, for each of the listed files with Status as Pending annotation, use the Review and Annotate action to open the
 Document user interface in a separate browser, where you will review and edit or create annotations of data from your PDF or scanned invoice

<ul> <li>Activate template</li> </ul>			
Please use this step to annotate the files you uploaded, assoc	iate them with the template you have created and finally act	vate the template. Learn more	
Name	Associate with template	Status	Action
TestInvoice001.pdf		Pending annotation	Review annotate
TestInvoice002.pdf		Pending annotation	6
	Invoice date:	dueAmount	
	2023.05.17	fromCity	
		fromCountry	Activate template
Seller:	Customer:	fromDistrict	
PDF Supplier Ltd 4 Estrada calle	PDF Buyer Ltd	fromExtraAddressPart	
EPI Área Industrial Mos	8 calle la peregrina Zona Industrial Acola	fromHouseNumber	
36001 Pontevedra ES	Poio	fromName	
TLF: +34 999 99 99 -999 99 91 FAX 900 01 01 01	36002 Pontevedra E\$ TLF, #34 888 89 89 - 888 99 99	fromPostalCode	
e-mail: testing-supplier@pdf.es	FAX 800 01 01 01	fromState	
http://www.pdfinvoice.es	e-mail: testing-buyer@pdf.es	fromStreet	
NIF/IVA: ES \$10110111	Identificación del impuesto: ES B10110111	grossAmount 2000	
		invoiceDate 2023-05-17	
	Ship to:	invoiceNumber TestInvoice001	

• **Step 11:** Review the **basic header data** that was **automatically extracted** in the right hand pane of the Document user interface and verify corresponding data in the PDF invoice on the left hand pane.



### Process Steps – Activate Template (Contd.)

• Step 12: Similarly you can expand the Line items to also see and review the automatically extracted Line item data for each line item

NO.	Material Number	Description	Quantity	Unit	Unit Price	Sub Total	chargeName1	
1	46252890	box of pen	10	EA	100.00	1000.00	chargeCode1	
2	35467898	box of pencils	20	EA	50.00	1000.00	chargeStartDate1	
	(3340/638	and a practice	(29	(EA)	3000	110000	chargeEndDate1	
							chargeAmount1	
							chargePercent1	
							chargeName2	
					Sub 1	otal: 2000.00 Gross Amount: 2000.00	chargeCode2	
						mount: 2000.00	chargeStartDate2	
							chargeEndDate2	
lan	k Details:	ES000000000000000000000000000000000000	DOOD SWIET PRSM	INI			chargeAmount2	
	ment Terms						chargePercent2	
							c_idmi&CustomAttr	
							description	ox of pencils
							quantity 20	0
Supp	lier Ltd . NIF/VAT	ES B1111111 Inscrita en el Registro Mercantil de Po	ontevedra.				unitPrice 50	0
							unitOfMeasure E	A
							netAmount 10	000

Step 13: The automatically extracted data/annotations are automatically saved. Though the recommendation is to save the manually annotated data by clicking on Save button at regular intervals, this can be done automatically by checking the Autosave checkbox which will automatically save your manually created annotations.

	materialNumber	35467898	
<b></b> A	utosave		Save

### Process Steps – Activate Template (Contd.)

• Step 14: Now you start the exercise of manually mapping /annotating the rest of the data you want extracted. For this you use the Assign Field tool by clicking the mouse on the data you are interested in and verify the bounded box has captured the value as you want. Review the data in the Value textbox. Then in the Field drop down, where all the available fields are shown, select the field you want to map this to, after extraction.



**Step 15:** For a custom field in a custom template, this will mean you map/annotate the custom buyer invoice field in a similar manner and review the mapped data in the right hand pane.

ity	Price	Header Fields	Linetotal
5	100.50 \$	c_h&CustomAttribute3	502.50 \$
10	100.00 \$	c_h&CustomAttribute2	1000.00 \$
	E1 00 \$	c_h&CustomA	E10.00 th
10	51.99\$	currencyCode	519.90 \$
		Line Item Fields	
		classification	2022.40 \$
	-	<b>c</b> lassificationDomain	202.24 \$
	*Field:	c_h&CustomAttribute3	25.49 \$
	*Value:	2250.13	2250.13 \$
	Field Index:	- 1 +	
		Apply Can	cel

c_h&CustomAttribute1	ACC:123006705	
c_h&CustomAttribute2	01.09.2022	
c_h&CustomAttribute3	2250.13	

• Step 16: Click on Apply after each field assignment.

### Process Steps – Activate Template (Contd.)

- Step 18: Close the Document user interface page and return to the Onboarding page where the files that were annotated will show with the Status as Pending association. Toggle on Associate with template which will update the status to Associated.
- This associates the annotated files to this Template.

Name	Associate with template	Status	Action
TestInvoice001.pdf	(*)	Associated	6
TestInvoice002.pdf		Pending association	6

- The template will be in **Draft Status** till now.
- Step 19: Once ALL the files are Associated, Click on the Activate button to activate this template.



<sup>•</sup> Step 20: Click Continue on the popup which will then take you also to the next step

### **Process Steps – Testing**

• Step 21: The Status of the template will be in Ready to test which means you are ready to test the template and so keep your test invoices ready. The workflow guides the supplier to required steps for this.



- Step 22: The upload invoice user interface is shown, with the drop down of buyers who have a relationship with this supplier.
- Select the buyer you are uploading an invoice for and click on Browse to select the test invoices.
- The pre requisites and restrictions for the invoice file that can be uploaded is provided in a popup (and a link to the online help). You can
   Close this after going through.
- Now click on **Upload** (you can select upto 10 files at a time).
  - Step 23: From here you can upload another set of invoices using the Continue uploading files or click on View invoice conversions to go to the supplier workbench





### Process Steps – View converted invoices

• Step 24: Once you are on the workbench, you can use the following tiles to see the listing of your Invoices (PDF and Scanned invoices).



Click on the PDF invoice conversions tile to see the list of the uploaded invoices which will initially have Status as Conversion Pending

Source File Name	Customer	Submission Method	Status	Reference	Submission Date $~\downarrow~$
InvoiceWithoutPO.pdf	Maverick Infotech	Online	Conversion Pending		Oct 11, 2023

- Step 25: Once the conversion is completed in a few seconds, the Status will change to Converted. The Reference column will show the following :
  - By default the invoices after conversion will be in Manual submission mode which means the converted invoice data will be left as a Draft invoice for your review. The reference document number will then refer to the Draft invoice.
  - There is also a configuration to change to **Automatic submission** in which case the invoice will be automatically submitted and in this case the reference document number will refer to the **invoice**.

Status	Reference
Converted	542-Fuzzy-Partid-1

- Step 26: Click on the Reference document number and if this is a manual draft invoice, it will take you to the Draft invoice page. You can also use the Draft PDF invoices for review tile to list the Draft invoices and use the View Draft action to go to the Draft invoice page.
- If this is an **auto submitted invoice**, then clicking on the **Reference** document, will take you to the **Invoice page** which you can also access using the **Invoice tile**

### **Process Steps – Review Draft /Manual submission invoices**





View original invoice

Invoice Header

Service Description

the data.

Supplier Tax ID:

Summary

.

### Process Steps – Review Draft /Manual submission invoices contd.

• Step 29: Click on Next to go to the review page to ensure all the data is fine. This is especially true if you click on Update and there were any amount fields recalculated

Invoice Number: 542-Fuzzy-PartId-1 Invoice Date: Wednesday 17 May 2023 12:00 PM Original Purchase Order: 64234	/I GMT-07:00	Subtotal: Total Tax: Total Gross Amount: Total Net Amount: Amount Due:	2,000.00 EUR \$0.00 USD 2,000.00 EUR 2,000.00 EUR 2,000.00 EUR	
	SUPPLIER:		BILL FROM:	
			ome more test invoid od and additionally als	oice to your buyer. <b>ces</b> to ensure that the Invoice data so test if the invoice reaches the Test





**Process Steps – Invoice conversion template management** 

 Step 31: You can manage your templates in the Invoice conversion templates page by going to Settings->Electronic Invoice Routing and clicking on the PDF invoices tab.

Step 32: The template details of your templates like Name, Type, Customer (if a custom template) and timestamps will be listed in this page and as you can see the Status is still in Ready to test which means you are currently testing the template.

General Tax Invoicing a	nd Archiving PDF Ir	ivoices						
pice conversion templa	tes							
know more about invoice con	version templates, click	here.					Add new template	Configuration
Implate name †	Invoice type	Template type	Customer	Created date	Last updated date	Created by	Status	Action
ustom-maveričk	Standard	Custom	Maverick Infotech	11 Oct 2023 5:58:02 PM	11 Oct 2023 6:03:31 PM	fnSmith InJohn	Ready to test	

Assessments

ices pendi

Exact m

days

Account Settings

Users

Notifications

**Customer Relationships** 

Application Subscriptions

Electronic Order Routing

Electronic Invoice Routing

Account Registration

Network Settings

Remittances

Audit Logs

Data Deletion Criteria

Network Notifications

fnSmith InJohn

My Account

Link User IDs

Sachin Kumar

**Premium Package** 

**Company Profile** 

Marketing Profile

×

XLS

Submission Date 👃

Oct 11, 2023

Reset

Settings

Logout

Contact Administrator

ANID: AN21000148771-T

test-sachin kumar@parastraders.con



**Process Steps – Invoice conversion template management** 



- Step 33: Under the Action column you can do the following actions - View/edit or Delete.
- Click on View/edit to open the template details page in read only/view mode.
- Once you are on this page, you can click on Edit ٠ button to open the template in edit mode to be able to modify the uploaded files or annotations etc.

Step 34: Once you are ready to use this template in production, you can go to the last step of **Publish to production** and **enable the checkbox** to confirm that the template is ready to be published to production

ew invoice conversi	ion template: Custom-maveric	k			Publish to production Edit	Configuration Close	Rublish to production	Configuration Close	
oice type andard	Created by fnSmith InJohn	Created date Oct 11, 2023	Updated by fnSmith InJohn	Updated date Oct 11, 2023	Schema Version 1	Status Ready to test	Schema Version 1	Status Ready to test	
Upload y Click the Start ter invoice files. Make	need to complete the following steps. Leav your test invoice files sting button to upload your test a sure that the layout of the files a that of the template.	View     The template     files and you ci	the converted invoice extracts data in your test invoice an check the conversion status of the PDF conversions tile of the Workbench.		Review and submit invoice e converted invoice are available in the Drafts enu under Invoices, where you can review the invoice data and submit the invoice.	Start testing	<ul> <li>The Publish to page will be the page will be on the sage will be an addition of the start of the sta</li></ul>	enabled n the <b>Publish to</b> ne process of mal le in production.	production
Publish to produc	tion								
S	e template, you should confirm that you are d start processing their invoices.	ready to publish the template to your prod	uction account by checking the below che	eck box, and then click the Publish	to production button on the top of this page. Your	users can now login to			
The template is read	dy to be published to production.								18

### Process Steps – Publishing your template to production

• **Step 36**: The **Status** of the template will be **Publishing to production** while the template is being published. Once completed, the **Status** will be **Published to Production**.



- Once completed, the Status will be Published to Production.
   Ensure that at least the Default template is published to production followed by any customer specific Custom templates.
  - Now your users can start uploading their invoices in their production account and the corresponding template will be used to process the conversion of these invoices

This completes the onboarding process for Intelligent Invoice conversion in your Test account and sets up your production account for processing your production PDF and scanned invoices.



Published to production

### **Process Steps – Invoice conversion template Configuration**

• There are two options available for configuring the invoice conversion templates and for this you can click on the **Configuration settings icon** on the **Invoice conversion templates page** under the **PDF invoices tab** or the **Configuration button** in the **Template details page**.

invoice conve	rsion template: Custom-maverick				Publish to production Edit	Configuration Close
type	Created by	Created date	Updated by	Updated date	Schema Version	Status
ard	fnSmith lnJohn	Oct 11, 2023	fnSmith InJohn	Oct 11, 2023		Ready to test

- Submission Method configuration defaults to Manual Submission and puts invoices in Draft for the user to review and manually submit.
- Step 37: The Submission Method can be updated in the Configuration page by selecting the radio button for Auto submission so

Submission Method

Template Name	Invoice Type	Туре	Customer	Description	Manual submission (1) Auto submission (1)
Custom-maverick	Standard	Custom Template	Maverick Infotech	Custom template for buyer maverick infotech	
Notifications	email addresses.				
Send a notification	tion when the invoice of	onversion fails.		* sachin_kumar@parastraders.com	<ul> <li>Step 38: Configuration for sending Notifications are supported where you can provide the email addresse</li> </ul>
Send a notifica	tion when the status of	the template changes.		* sachin_kumar@parastraders.com	(comma separated) who should receive these different types of notifications
Send a notifica	tion when an invoice is	set for manual submission aft	er conversion.	* sachin_kumar@parastraders.com	









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