

ABBYY



ABBYY Vantage

Invoice JP Document Skill Guide

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About ABBYY Vantage


ABBYY Vantage is a comprehensive Content Intelligence platform that provides AI-powered cognitive services and pre-trained and trainable skills that can "understand" business documents and extract actionable data and insights.

This no-code / low-code platform makes today's digital worker and processes smarter and empowers the new citizen developer to accelerate digital transformation initiatives and expand automation to new processes in a fast and simple way, making an immediate impact on business results and customer experience.

Types of documents that can be processed with Vantage

Vantage is capable of processing structured, semi-structured, and unstructured documents in a variety of input formats and languages.

- **Structured documents** are documents which always include the exact type of information in the exact same locations. One example of structured documents are pre-formatted forms.
- **Semi-structured documents** are documents which generally include the same or similar information, but in each document the location, size, and number of fields may vary from document to document. Examples of semi-structured documents are bills, payment orders, and invoices.
- **Unstructured documents** are documents which consist of continuous text. Required information is usually located inside a sentence that can be on any page of the document. Examples of unstructured documents are contracts, lease agreements, and e-mail messages.

 **Note:** Use Advanced Designer to create skills for extracting data from unstructured documents.

The Vantage platform comes with a set of built-in skills, which can extract data from certain document types out-of-the-box (i.e. invoices, purchase orders, receipts, bills of lading, delivery notes). These skills can be adjusted according to specific requirements and further trained based on customer-specific documents.

Vantage users have also the option to design and train a completely new Document skill, Classification skill, and/or Process skill based on their own document set.

Invoice JP - Document Skill

The **Invoice JP** skill extracts data from Japan invoices.

An invoice is a document issued by a seller to a buyer that lists the goods or services supplied. An invoice typically contains the following information:

- the list of goods or services supplied and their quantity and price,
- the total amount payable for the goods or services,
- the currency to be used for payment,
- a description of the goods or services,
- details about the seller and the buyer,
- the number and date of the invoice,

- applicable taxes.

The Invoice JP skill is a preview skill. It has been trained on a small document set and is intended to be used by citizen developers as a quick-start basis for processing consignment notes. The skill may require further training on your specific documents in order to be used in production.

The settings of the Invoice JP skill are described below.

Countries and Languages

Countries	Languages
Japan	<ul style="list-style-type: none"> • Japanese • English


Extracted Fields

Field	Description	
Invoice Number	The number of the invoice.	
Invoice Date*	The date when the invoice was issued.	
Total*	The total cost of goods or services.	
Currency	The currency of the invoice.	
Vendor	Name	The vendor's name.
	Tax ID	The official company ID of the vendor.
	Address	The vendor's address. The address will be extracted into this field, if no vendor databases are used or if the vendor has not been found in a database.
	State	The vendor's address. The address will be extracted into this field, if no vendor databases are used or if the vendor has not been found in a database.
	City	
	Street	
	Postal Code	
	Country	The vendor's country.
ID	The vendor's unique identifier in an external system. This field will only be filled in if a database of vendors is used.	
Bank Information	Account Number	The vendor's account number.

Field		Description
	Account Type	The vendor's account type.
	Bank Name	The name of the bank used by the vendor.
	Branch Name	The name of the bank branch used by the vendor.
Delivery Date		The date the goods were delivered or services performed.
Due Date		The date by which the invoice should be paid.
Taxes	Total Net Amount	The total cost of goods and services without tax.
	Total Taxes	The total tax amount.
	Non Taxable Amount	The amount on which no tax is payable.
	Tax Rates (repeating group) <ul style="list-style-type: none"> • Net Amount • Tax Amount • Tax Rate 	For each tax group: <ul style="list-style-type: none"> • Cost of goods or services without tax • Tax charged • Tax rate
Invoice Type	Invoice	Indicates the Invoice type of the invoice.
	Credit Note	Indicates the Credit Note type of the invoice.
Purchase Order	Order Number	The number of the purchase order.
	Order Checked	Specifies whether the order number is verified. The value of the field can be True or False .
	Total	The cost of the goods or services listed in the purchase order. This field is filled in if a database of purchase orders is used.
Line Items (repeating group)	Order Number	The number of the purchase order.
	Is Valid	Specifies whether the order number in the Line Item group matches any checked order number in the Purchase Order group. The value of the field can be True or False .
	Order Date	The date when the purchase order was created.

Field	Description
Position	The number of the line item in the list.
Article Number Vendor	The article number or code from a database of vendors or from a data set.
Article Number BU	The article number or code from a database of business units or from a data set.
Description	A description of the line item.
Quantity	The number of units purchased.
Unit of Measurement	The unit of measurement used for the goods.
Unit Price	The price of one item of goods.
Discount Percentage	The discount percentage on the initial line item price.
Discount	Discount applicable to the line item.
Net Price	The price of the line item without tax.
Tax Rate	The tax rate for the line item.
Tax Amount	The amount of tax payable on the line item.
Tax Code	The code of the tax.
Total Price	The price of the line item including tax.
Currency	The currency of the line item.
Order Item ID	The unique line item identifier. This field is filled in only when a purchase order items catalog is used.

*Required field or field group: values cannot be empty.

 **Note:** Older versions of this skill extracted the tax information into fields named **Tax Rate X**, **Tax Amount X**, and **Net Amount X**. In Vantage 2.4, these fields are grouped into a repeating group called **Tax Rates**. If you are updating a copy of a built-in skill, please check that the new **Tax Rates** group works for you. If you are satisfied with the results, you can simply remove the individual fields used in the older version. If not, create new fields to suit your processing scenario.

Key Fields

- Vendor/Name
- Invoice Date

- Invoice Number
- Total
- Currency


Validation Rules



Rule	Description
Total is required field	Checks whether the Total field is filled in. If it is not, displays a message saying that it is a required field.
Separate currency from amount in money fields	Splits the amount and the currency in fields containing currency amounts and copies the currency into the Currency field if it is empty.
Invoice date is required	Checks whether the Invoice Date field is filled in. If it is not, displays a message saying that it is a required field.
Currency is required	Checks whether the Currency field has been detected on the document. If not, displays a message saying that it is a required field.
Vendor Tax ID is required	Checks whether the vendor Tax ID field is filled in. If it is not, displays a message saying that it is a required field.
Check item amount	<p>Checks that:</p> <ul style="list-style-type: none"> • The number of units of each type (Quantity) multiplied by the unit price (Unit Price) is equal to the total amount charged before tax (Net Price) minus the applicable discount (Discount). • The total amount charged before tax (Net Price) multiplied by the tax rate (Tax Rate) is equal to the value of the Tax Amount field. • The sum of the values of the Net Price and Tax Amount fields is equal to the value of the Total Price field. <p>For each invoice line item, suggests values for the following fields (wherever calculating them is possible): Quantity, Unit Price, Discount, Net Price, Tax Rate, Tax Amount, and Total Price.</p>
Separate currency from amount in LI money fields:	Splits the amount and the currency in the corresponding field and copies the currency into the


Rule	Description
<ul style="list-style-type: none"> • Line Items/Unit Price • Line Items/Net Price • Line Items/Total Price 	<p>Line Items/Currency field if it is not filled in.</p>
<p>Check invoice and line items currency</p>	<p>Checks that the value of the Currency and Line Items/Currency fields is a supported currency. If the currency is not supported or has not been extracted, suggests currency values from the appropriate invoice region. Currency descriptions are replaced with ISO codes.</p>
<p>Check LI Total Prices against Total Amount</p>	<p>Checks the value of the Total Amount field. If it is not equal to the sum of the Line Items/Total Price fields, suggests filling in the fields with their calculated values.</p>
<p>Check LI Net Prices against Total Net Amount</p>	<p>Checks the value of the Total Net Amount field. If it is not equal to the sum of the Line Items/Net Price fields, suggests filling in the fields with their calculated values.</p>
<p>Check Total Tax</p>	<p>Checks that the sum of the Tax Amount fields across the Tax Rates repeating group is equal to the value of the Total Taxes field.</p> <ul style="list-style-type: none"> • If the values are not equal, suggests filling in the fields with the calculated values. • If the Total Taxes field is not filled in, fills it in with its calculated value. <p>For each instance of the Tax Rates group:</p> <ul style="list-style-type: none"> • Checks that $(\text{Tax Rate} / 100) * \text{Net Amount}$ is equal to Tax Amount. • If Tax Rate, Net Amount, or Tax Amount is not filled in, suggests filling in these fields with their calculated values. • Removes the percent sign (%) from the value in the Tax Rate field.
<p>Check Total field</p>	<p>Checks that the sum of the Total Net Amount and Tax Amount fields is equal to the total invoiced amount (Total). If the values are not equal or if the Total field is not filled in, suggests filling in the</p>

Rule	Description																
	fields with their calculated values.																
Check Net Total	Checks that the sum of the Net Amount fields across the Tax Rates repeating group is equal to the total amount charged for the goods or services before tax (Total Net Amount). If the values are not equal, suggests filling in the fields with their calculated values. If the Total Net Amount is not filled in, fills it in with its calculated value.																
Set default country	<p>If a country has not been detected on the image, specifies the default country for the invoice as follows:</p> <table border="1" data-bbox="804 745 1463 1346"> <thead> <tr> <th data-bbox="804 745 1145 817">Invoice Skill</th> <th data-bbox="1145 745 1463 817">Country by default</th> </tr> </thead> <tbody> <tr> <td data-bbox="804 817 1145 889">Invoice</td> <td data-bbox="1145 817 1463 889">Default country not set</td> </tr> <tr> <td data-bbox="804 889 1145 960">Invoice AU-NZ</td> <td data-bbox="1145 889 1463 960">AU</td> </tr> <tr> <td data-bbox="804 960 1145 1032">Invoice CA</td> <td data-bbox="1145 960 1463 1032">CA</td> </tr> <tr> <td data-bbox="804 1032 1145 1104">Invoice ES</td> <td data-bbox="1145 1032 1463 1104">ES</td> </tr> <tr> <td data-bbox="804 1104 1145 1176">Invoice UA</td> <td data-bbox="1145 1104 1463 1176">UA</td> </tr> <tr> <td data-bbox="804 1176 1145 1247">Invoice US</td> <td data-bbox="1145 1176 1463 1247">US</td> </tr> <tr> <td data-bbox="804 1247 1145 1319">Invoice JP</td> <td data-bbox="1145 1247 1463 1319">JP</td> </tr> </tbody> </table>	Invoice Skill	Country by default	Invoice	Default country not set	Invoice AU-NZ	AU	Invoice CA	CA	Invoice ES	ES	Invoice UA	UA	Invoice US	US	Invoice JP	JP
Invoice Skill	Country by default																
Invoice	Default country not set																
Invoice AU-NZ	AU																
Invoice CA	CA																
Invoice ES	ES																
Invoice UA	UA																
Invoice US	US																
Invoice JP	JP																
Check vendor details against database	<p>Checks whether the appropriate entry in the Vendors catalog has been found for the vendor bank details detected on the image. If the values in the catalog are different, replaces the field values with entries from the catalog.</p> <p>If the vendor was not detected correctly, the operator may select a different vendor from the catalog manually during Manual Review.</p> <p>The Vendor Id, Name, Street, Country, and Business Unit ID fields should be filled in in the Vendors catalog.</p>																
Business unit must be found in database	Checks that the business unit details detected on the document image are the same as those in the Business Unit catalog. If some entries are different, replaces the field values with values from the catalog.																

Rule	Description
	<p>If the business unit was not detected correctly, the operator may select a different business unit from the catalog manually during Manual Review.</p> <p>The Business Unit Id, Name, Street, and Country fields should be filled in in the Business Unit catalog.</p>
<p>Check purchase order number and amount</p>	<p>Checks that the order number and amount detected on the document image are the same as those in the purchase order catalog. If several order numbers are detected, checks all of them and their amounts against the values in the catalog.</p> <p>The Order Number field should be filled in in the Purchase Order catalog.</p>
<p>Match invoice line item with order item</p>	<p>Checks invoice line item information against records in the Purchase Order Items catalog. If the catalog contains an entry for a particular line item, fills in the corresponding Order Item ID field using the value from the catalog.</p> <p>The Order Item ID and Order Number fields should be filled in in the Purchase Order Items catalog.</p>
<p>Check purchase order total amount</p>	<p>Checks if the value in the Total field equals the value of the Total field in the Purchase Order group when one purchase order is found.</p> <p>Checks if the value in the Total field equals the sum of values in Total fields in the Purchase Order group when several purchase orders are found.</p>
<p>Check matching of line items to unique order items</p>	<p>For all line items whose purchase order number is equal to the one extracted in the Purchase Order group, checks that the value in the Order item ID field in the Line Items group is unique for every purchase order number if the value of the Order Checked field is True.</p>
<p>If order is checked make line items valid</p>	<p>For each item in Purchase Order group that has the Order Checked field set to True, compares the order number to the order number in all line items of the Line Items group. If they match in the Line Items group row, the value of the Is Valid field in the Line Items group value in that row is set to True.</p>

Rule	Description
Copy order number	If there is only one value in the Order Number field in the Purchase Order group and the values in the Order Number field in the Line Items group are empty, copies the value of the Order Number field in the Purchase Order group to the values of the Order Number field in the Line Items group.
Detect invoice type	Sets the type in the Invoice Type checkmark group. If the document is marked as credit note or if the value of the Total field is negative, sets the type to Credit Note . Otherwise, sets the type to Invoice .
Reversed Charge field is empty or completed	If the document contains references to reversed charges, checks the values of the taxes fields. If they are empty, marks the Reversed Charge checkmark.  Note: Does not apply to AU-NZ, CA, US, and JP regions.


 **Note:** To fill in a field with its calculated value, click the  button in the value region of the field and select one of the suggestions from the drop-down list.

-  **Note:** When you update a copy of this skill to a derived skill, the rules will also be updated:
1. Some of the rules will get new versions. The outdated versions will receive numbered postfixes (for example, **Check item amount 1**). Review these rules and remove any unnecessary versions from the derived skill.
 2. If you remove outdated **Tax Rate X**, **Tax Amount X**, and **Net Amount X** fields, the rules that checked them will become unnecessary. Remove those rules from the derived skill.

Parameters


The Invoice skills have default skill parameters that refer to data catalogs used for Vendor, Business Unit, and Purchase Order lookup. You can change the values of these parameters in Vantage or Advanced Designer to modify the field extraction process. For more information, see Skill parameters.

Parameter	Description
Vendors	The predefined data catalog used for Vendor lookup. The default value of this parameter is Vendors . You can change this value by choosing another available data catalog of the same type (Document Issuer Companies).
BusinessUnits	The predefined data catalog used for Business Unit lookup.

Parameter	Description
	<p>The default value of the parameter is BusinessUnits. You can change this value by choosing another available data catalog of the same type (Document Receiver Companies).</p> <p> Note: This parameter is not available for the Invoice JP skill.</p>
PurchaseOrders	<p>The predefined data catalog used for Purchase Order lookup.</p> <p>The default value of this parameter is PurchaseOrders. You can change this value by choosing another available data catalog having the same structure.</p>
PurchaseOrderItems	<p>The predefined data catalog used to check if the Purchase Order details match.</p> <p>The default value of this parameter is PurchaseOrderItems. You can change this value by choosing another available data catalog having the same structure.</p>

Using a Skill in ABBYY Vantage

To use a skill in ABBYY Vantage, you need to import it to your **Skill Catalog**.

To import a skill, open the **Skill Catalog** and click the  **Import** button in the toolbar. In the dialog box that will open, specify a path to the archive that contains the skill you are importing.


This skill will be uploaded to your **Skill Catalog** and published.

If the chosen archive is larger than 2 GB, you will see a dialog box with a link to a shared folder and its credentials.

You should open this folder and upload the archive. The skill will be imported to Vantage automatically. The archive will then be deleted from the shared folder. All files uploaded to this folder afterwards will be transferred to the exception folder. Hence you may use this folder to import only one skill. The folder remains active for 14 days.

The version of the imported skill will be 1.0. If such a skill previously existed in the tenant and was deleted, the version number of the deleted skill will be incremented and assigned to the imported skill. The version number of the imported built-in skills is always the same as at the time of export.

If the skill you are importing already exists in your **Skill Catalog**, ABBYY Vantage will display a warning message and will ask whether you want to create a new version of the existing skill or save the new skill under a different name. If you choose the latter, the new skill will be called *<Imported skill name New>*.

 **Note:** Vantage supports the import of skills exported from Advanced Designer. However, such skills will only be trainable in Vantage if a Fast Learning activity was added to the document processing flow in Advanced Designer.

Importing a Document skill with data catalogs

Data catalogs exported with a skill are imported according to the table below:

Does a catalog with the same name exist in your tenant?		Import of the catalog	Import of the data (if data was exported)
No		The catalog is imported.	The data is imported.
Yes	The set of columns and their types are the same.	The catalog is not imported.	The data is imported. Previous data in the catalog is lost.
	The set of columns and/or their types differ.	The catalog is imported with the name <Catalog_name Skill_name>.	The data is imported.

Importing a Process skill

If you import a Process skill that was exported without referenced skills, you have to make sure that all the referenced skills exist in the **Skill Catalog**. If necessary, such skills should be imported before the Process skill, otherwise you'll get an error when importing the Process skill.


If you import a Process skill that was exported with referenced skills, they will be imported as follows:

- If such a skill exists in the Catalog, it will not be imported. The skill from the Catalog will be used, even if the skill in the import archive has a newer version.
- If a skill with the same name exists in the Catalog, the skill will be imported and renamed. The link in the Process skill will be updated.

If the imported skill has shared folder import set up, this feature needs to be enabled manually after the import.

Note: The availability of this feature depends on the user's role. For more information about roles, see Role-Based Access Control.

To publish a skill:

1. Select one by left-clicking it and then click  **Publish** in the toolbar. This will open the Skill Designer's **Publish** tab, where you will have to fill out some information.
2. Click the **Publish Skill** button either at the bottom of the Skill Designer window or in the **Actions** pane.

Note: The availability of this feature depends on the user's role. For more information about roles, see Role-Based Access Control.

You can start using a skill right away or try it out on your documents first. To try out a skill, click the **Try** button in the **Skill Catalog**.

For more information on importing, publishing, or trying out skills, please refer to the ABBYY Vantage Skill Catalog Guide.

If a skill does not fully meet your processing requirements, you can edit it to suit your needs. For detailed instructions, please refer to the ABBYY Vantage Skill Designer Guide.

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