

ABBYY Vantage

AI-Powered Supply Chain - Intelligent
Document Orchestrator powered by
n8n and ABBYY Vantage

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About AI-Powered Supply Chain - Intelligent Document Orchestrator Solution

The AI-Powered Supply Chain – Intelligent Document Orchestrator combines the workflow orchestration capabilities of n8n with the Document AI capabilities of ABBYY Vantage to automate end-to-end supply chain document processing.

The solution leverages n8n to intelligently detect incoming documents and route them to ABBYY Vantage's Document AI, where the documents are classified and structured data is extracted. The extracted results are returned in JSON format for downstream processing. By synchronizing AI-driven orchestration with intelligent document processing, the solution eliminates manual handoffs, accelerates processing times, and improves accuracy across supply chain operations.

Together, n8n and ABBYY Vantage enable seamless, scalable, and intelligent automation of document-driven supply chain workflows.

Why this solution is needed

- **Supply chain documents arrive in many formats and channels:** Invoices, purchase orders, shipping documents and delivery notes vary widely in structure, making manual handling complex and error prone.
- **Manual document handling slows down operations:** Reviewing, classifying, and extracting data from documents manually increases processing time and creates bottlenecks across supply chain workflows.
- **Disconnected systems create handoffs and delays:** Without orchestration, documents and data move across systems through manual steps, emails or scripts reducing efficiency and visibility.
- **High document volumes overwhelm manual and rule-based processes:** As volumes grow, traditional automation struggles to scale, leading to backlogs and inconsistent processing.
- **Inaccurate data impacts downstream systems and decisions:** Errors in extracted or delayed data affect ERP, finance and analytics systems, increasing operational and compliance risk.
- **Lack of end-to-end automation limits scalability:** A unified approach combining workflow orchestration with Document AI is required to achieve reliable, scalable, end-to-end supply chain automation.

Solution Benefits

- Automatically detects and classifies incoming supply chain documents.
- Extracts accurate, structured data using ABBYY Vantage Document AI.
- Delivers standardized JSON output for seamless downstream integration.
- Reduces manual effort and accelerates document processing cycles.
- Improves data accuracy, consistency, and reliability across workflows.

System Requirements

To deploy and run the solution effectively, ensure the following system and infrastructure prerequisites are met:

ABBYY Document AI

- Active ABBYY Vantage account
- API access enabled for integration and API request

N8N

- Active N8N account

Setup and configure the solution

To set up the solution, perform the following steps:

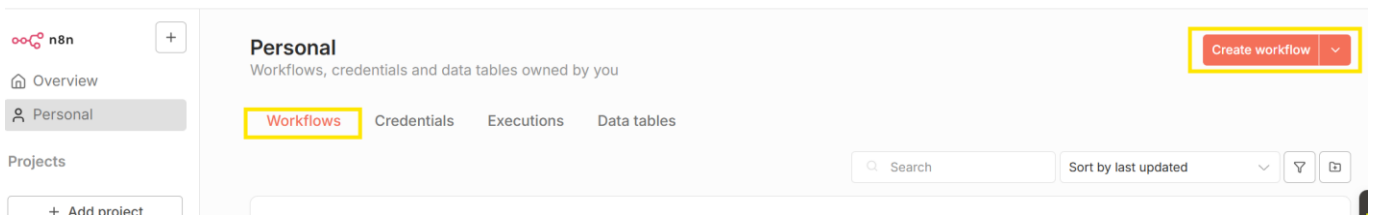
Importing the solution in N8N

The solution consists of two workflows:

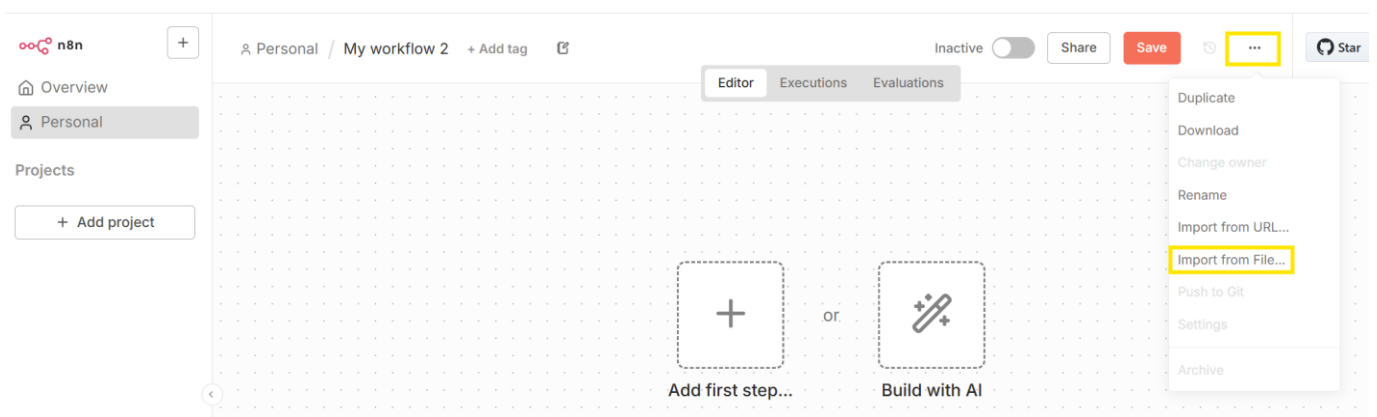
- **AI-Powered Supply Chain – Intelligent Document Orchestrator** workflow
- **ABBYY Vantage – Document Processing** workflow

Follow the steps below to import the solution:

1. Log in to the n8n platform, navigate to your Workspace, and create a new workflow.



2. In the workflow editor, click the three-dot menu(...) and select Import from File.



3. Select the downloaded workflow file and import it

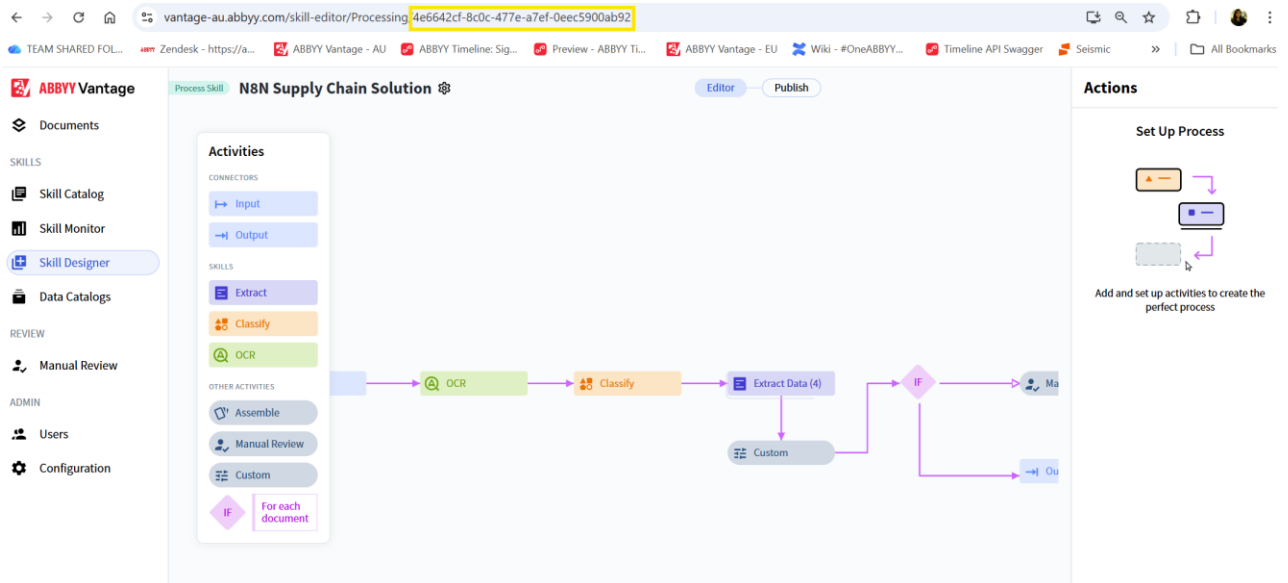
4. Once the workflow is imported, configure the workflow input parameters as required.

Configuring the solution

To configure the solution, create a **ABBYY Vantage** Public API Client by following these steps:

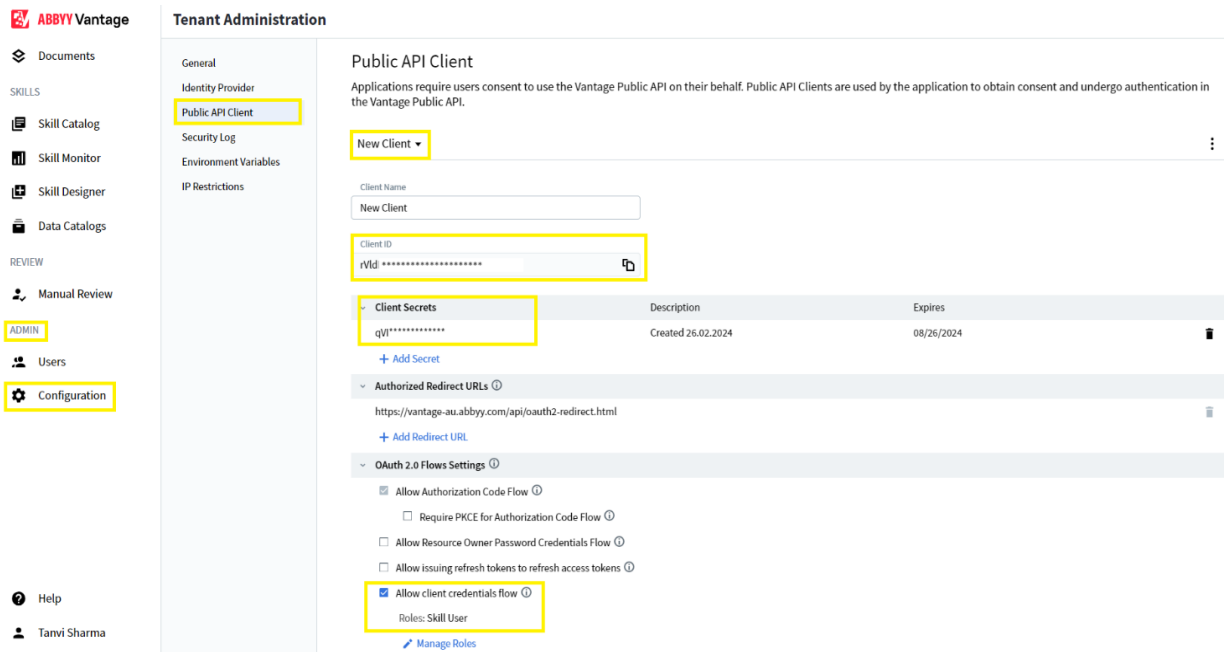
ABBYY Vantage(Document AI) Setup

- Create or access an active **Vantage account** with API access enabled by creating Public API Client.
- Build or duplicate the Invoice Skill to extract required fields (invoice number, invoice date or vendor/business unit details)
- Publish the skills and note the skill id from the URL.
- To use the solution, you need the Vantage Skill ID. You can find it in the Skill URL. When you open a Skill in ABBYY Vantage, the URL will look like this: `https://<your-vantage-url>/skills/<skill-id>`. The Skill ID is the part after /skills/. Example:
 - URL: `https://vantage-au.abbyy.com/skill-editor/Processing/4e6642cf-8c0c-477e-a7ef-0eec5900ab92`
 - Skill ID: `4eefb3e8-5c67-4ff6-ba3a-d8e9339ebb5c`
 - Copy this ID and provide this to the “Vantage Skill ID” variable when setting up the solution.



- ABBYY Vantage Public API Client: To integrate ABBYY Vantage with the connector, create a Public API Client by following these steps:
 - Go to Admin and Configuration in your ABBYY Vantage tenant.
 - Navigate to Public API Client and create a new client.
 - Save the Client ID and Client Secret generated, as they will be used as input parameters in the connector.

- Assign the role Skill User to the client and enable the Client Credentials flow in the OAuth 2.0 Flow Settings.



N8N Setup

After importing the workflow, configure the input parameters for the ABBYY Vantage - Document Processing workflow. This configuration enables the workflow to send documents to ABBYY Vantage and receive either the extracted data or a Manual Review link as output.

Required Input Parameters: Set the following input variables in the workflow:

- ABBYY Vantage Base URL: Base URL of your ABBYY Vantage environment.
- ABBYY Vantage Client ID: Client ID used for authentication.
- ABBYY Vantage Client Secret: Client secret associated with the Client ID.
- ABBYY Vantage Skill ID: Identifier of the ABBYY Vantage Skill used for processing.
- ABBYY Vantage Transaction ID: Required when checking the status of an existing ABBYY Vantage transaction.
- Process_New_File: Boolean flag to control workflow behaviour:
 - true - Process a new document
 - false - Check the status of an existing ABBYY Vantage transaction

Additional Configuration: Configure credentials for other workflow actions as required, such as OpenAI connectivity, to enable AI-driven orchestration and decision-making within the workflow.

Customizing the solution

The application is built for flexibility and can be tailored to suit your specific business processes. You can:

- Configure any other document sources such as email, APIs, file systems or cloud storage.
- Apply conditional logic based on document type, confidence scores or extracted field values to control workflow behaviour and apply additional custom validation rules.
- Trigger downstream workflows such as ERP updates, inventory synchronization or analytics ingestion using the extracted JSON data.
- Customize workflow by routing low-confidence documents to Manual Review or alternative workflows.
- Reuse the ABBYY Vantage - Document Processing workflow independently or integrate it into other solutions and use cases, enabling consistent document AI processing across multiple workflows.