Laserfiche Connector for ABBYY Vantage

" Seamlessly Integrate Intelligent Document Processing with Secure Content Management."

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About Laserfiche Connector for ABBYY Vantage

The Laserfiche Connector for ABBYY Vantage enables seamless integration between ABBYY Vantage and Laserfiche's repository. It allows organizations to automatically export extracted data and source documents from ABBYY Vantage into the Laserfiche repository. By connecting ABBYY's intelligent document processing capabilities with Laserfiche's document management system, users can streamline their workflow, ensuring captured data is securely stored and easily retrievable in Laserfiche.

System Requirements and Limitations

To successfully install and use the Laserfiche Connector for ABBYY Vantage, ensure the following system requirements are met:

Operating System:

- Windows 10 or later
- macOS 10.15 (Catalina) or later
- Linux distributions supporting Google Chrome or Mozilla Firefox

Web Browser:

- Google Chrome (latest version recommended)
- Mozilla Firefox (latest version recommended)
- Microsoft Edge (latest version recommended)
- Safari (latest version recommended)

Hardware:

- Processor: Intel Core i3 or equivalent
- Memory: 4 GB RAM (8 GB recommended)
- Storage: 200 MB of available disk space for installation
- Internet Connection: Broadband or higher

Software:

- ABBYY Vantage platform with appropriate access to custom scripting.
- A Laserfiche Cloud subscription or on-premises installation supporting API connections.

Additional Requirements:

- OAuth 2.0 authentication for Laserfiche API access.
- Laserfiche repository ID and folder structure accessible via API.
- Internet access for both ABBYY Vantage and Laserfiche platforms.

Limitations:

- The connector requires a valid OAuth token to access Laserfiche repositories, which must be refreshed periodically.
- File uploads are limited by Laserfiche's API size constraints, typically up to 50 MB per file.
- ABBYY Vantage only supports specific export formats that can be mapped to Laserfiche document entries.

Installing the Connector

ABBYY Vantage Integration with Laserfiche is a script that runs in an Output or Custom Activity of a Process Skill. The current version of ABBYY Vantage Integration with Laserfiche is configured by modifying the script (see Configuring the Connector below).

Setting Up Laserfiche Project

Before setting up the connector, you need to set up a Laserfiche Project to enable the Laserfiche API. Follow these steps:

1. Log into your Laserfiche account.
2. Create or select an existing repository where ABBYY Vantage data will be stored.
3. Define the folder structure in the Laserfiche repository for storing documents from ABBYY Vantage (e.g., invoices, contracts).
4. Ensure API access is enabled for your Laserfiche repository by setting up OAuth 2.0 credentials.

Setting Up OAuth 2.0 for Script

OAuth 2.0 authentication is required for secure access to the Laserfiche API from ABBYY Vantage.

To set up OAuth 2.0 in your script:

1. Create a Laserfiche developer account or log into your existing account.
2. Navigate to 'API Applications' and register a new application.
3. Obtain the client credentials (client ID and client secret) for your application.
4. Use the credentials to request an OAuth 2.0 token from the Laserfiche authorization endpoint.
5. In your script, make an HTTP POST request to the token endpoint, passing the client credentials to retrieve the access token.
6. The access token is then used to authorize subsequent API requests for uploading files.

Configuring The Connector in ABBYY Vantage

When integrating ABBYY Vantage with Laserfiche, it is crucial to define certain environment variables in ABBYY Vantage to ensure secure and smooth communication between the platforms. These environment variables store important information like repository IDs, file paths, and authentication tokens without hardcoding them in your script. The following environment variables should be set up:

Environment Variables:

- **Laserfiche_repository_id:** Stores the ID of the Laserfiche repository where documents will be uploaded. Example: "Laserfiche_repository_id": "abc123"
- **Laserfiche_folderPath:** Specifies the folder path in the Laserfiche repository where files will be stored. Example: "Laserfiche_folderPath": "/Invoices/2024"
- **Laserfiche_access_token:** Contains the OAuth 2.0 access token required to authenticate API requests to the Laserfiche API. Example: "Laserfiche_access_token": "your_oauth_token_here"

These variables should be securely stored and accessed using ABBYY Vantage's Context.GetSecret() method, which retrieves the values without exposing them in plain text within the script.

Step-by-Step Explanation

Here's a breakdown of the key steps within the custom script used for exporting documents to Laserfiche from ABBYY Vantage:

1. **Log Script Execution**:
   Logging helps track the progress and any potential issues. The log() function is used to capture key information.

```
// Function to log messages in the ABBYY Vantage environment
function log(msg) {
    Context.LogMessage(msg);
}
```

2. **Retrieve Exported Data**:
   The script accesses the extracted data and export results from the ABBYY Vantage document transaction.

```
// Retrieve document export results from the current ABBYY Vantage transaction
log("Retrieving document export result.");
// Get all export results from the current document in the transaction
var exports = Context.Transaction.Documents[0].Exports;

// Find the JSON export result (extracted data) and the PDF export result (source file)
var extractedDataExportResult = exports.find(element => element.ExportFormat === ExportFormat.Json);
var pdfExportResult = exports.find(element => element.ExportFormat === ExportFormat.Pdf);
```

3. **Retrieve Fields (e.g., Invoice Number)**:
   Key document fields (such as "Invoice Number") are extracted from the document, which can be used in filenames or metadata.

```
// Get the value of the "Invoice Number" field from the extracted data
log("Retrieving 'Invoice Number' from extracted data.");
var invoiceNumberField = Context.Transaction.Documents[0].GetField("Invoice Number");
var invoiceNumber = invoiceNumberField.Value;
```

4. **Get OAuth 2.0 Access Token**:
   The script requests an OAuth 2.0 access token for API authentication.

```
// Send the OAuth token request to Laserfiche API
var request = Context.CreateHttpRequest();
request.Url = "https://signin.laserfiche.com/oauth/token";
request.Method = "POST";
request.SetHeader("authorization", "Bearer " + accessToken); // Use stored access token for authorization
request.SetUrlFormEncodedContent(authDataContent);
request.Send();
```

5. **Upload JSON and PDF Files**:
   Using the access token, the script uploads both the extracted JSON data and the PDF document to the Laserfiche repository via multipart form data requests.

```
// Prepare to send the JSON file to Laserfiche repository
var multiPartRequest_json = Context.CreateMultipartFormDataRequest();
multiPartRequest_json.Url = "https://api.laserfiche.com/repository/v1/Repositories/" + repository_id + "/Entries/" + folderPath + "/" + jsonFileName;
multiPartRequest_json.Method = "POST";
multiPartRequest_json.AuthToken = authResponseObject.access_token; // Use the access token obtained from OAuth
multiPartRequest_json.AuthScheme = "Bearer";

// Add the extracted JSON data as the file content to the multipart request
multiPartRequest_json.AppendFileContent(extractedDataExportResult, "electronicDocument");

// Send the request to upload the JSON file
multiPartRequest_json.Send();
log("JSON Upload Complete"); // Log successful JSON upload

// Prepare to send the PDF file to Laserfiche repository
var multiPartRequest_pdf = Context.CreateMultipartFormDataRequest();
multiPartRequest_pdf.Url = "https://api.laserfiche.com/repository/v1/Repositories/" + repository_id + "/Entries/" + folderPath + "/" + pdfFileName;
multiPartRequest_pdf.Method = "POST";
multiPartRequest_pdf.AuthToken = authResponseObject.access_token; // Reuse the OAuth token
multiPartRequest_pdf.AuthScheme = "Bearer";

// Add the exported PDF file content to the multipart request
multiPartRequest_pdf.AppendFileContent(pdfExportResult, "electronicDocument");
```

Summary

This project involves creating a seamless integration between **ABBYY Vantage**, a leading intelligent document processing (IDP) platform, and **Laserfiche**, a secure content management system. The goal is to enable the automatic export of documents and associated data from ABBYY Vantage to a specified Laserfiche repository using **OAuth 2.0 authentication** and RESTful API calls.

The integration leverages ABBYY Vantage's **custom activity scripts**, which retrieve document data from transactions, transform it into the desired format (JSON or PDF), and send the data to Laserfiche via **HTTP POST requests**. The solution supports exporting multiple document formats such as JSON and PDF while ensuring secure communication using environment variables for credentials and repository details.

Key features of the integration:

- **Automated document export:** Extracted data and original files are automatically sent from ABBYY Vantage to a designated Laserfiche folder.
- **OAuth 2.0 secure authentication:** Token-based authentication ensures secure communication with the Laserfiche API.
- **Configurable repository settings:** Users can configure target Laserfiche repositories and folders through environment variables, allowing flexibility and customization.

This integration simplifies content management workflows by enabling ABBYY Vantage to seamlessly interact with Laserfiche, automating data storage and document archiving.