Sample Vantage Dashboard

Using Reporting API and Microsoft Power Automate

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Power BI Dashboard Integration for ABBYY Vantage

This solution provides a ready-to-use Power BI dashboard that connects to ABBYY Vantage through its Reporting APIs, enabling real-time insights into document processing workflows. By leveraging data from Vantage skills, the dashboard offers visibility into key performance metrics, including processing volumes, extraction accuracy, manual review rates, and Straight-Through Processing (STP) efficiency.

The visualizations are dynamic, filterable, and designed to support operational monitoring and continuous improvement initiatives. Users can track automation performance across time and identify opportunities to optimize document workflows.

This dashboard is offered as a template model to demonstrate how to integrate ABBYY Vantage with Power BI. It is fully customizable, allowing organizations to tailor the visuals and metrics to match their specific reporting needs and business objectives.

Vantage Reporting API

The reporting service provides data for retrospective analysis. Vantage makes use of the following data storage:

•Business Processing Reporting Warehouse

Stores data about transactions steps.

Retention 365 days.

Quality Analytics Reporting Warehouse

Stores data about changes in documents and fields during Manual Review.

Retention 14 Days.

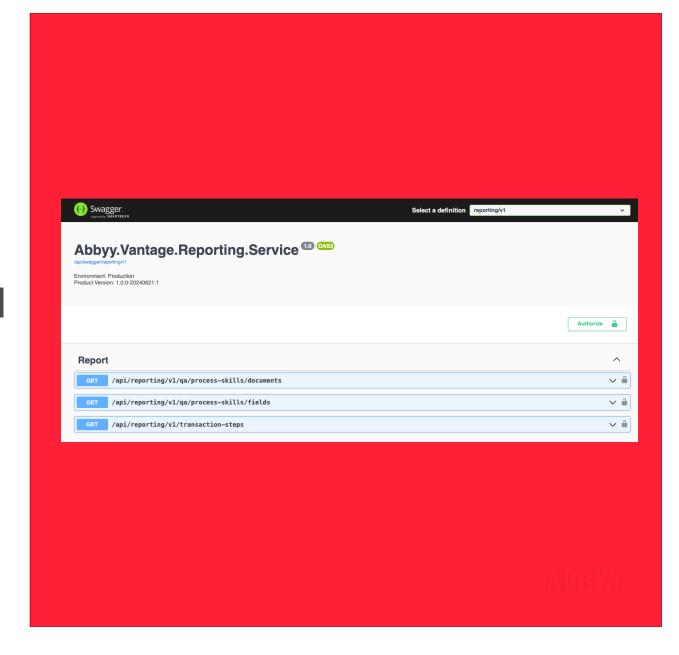
Microsoft Power BI

Microsoft Power BI is an interactive data visualization software product developed by Microsoft with a primary focus on business intelligence (BI). It is part of the Microsoft Power Platform.

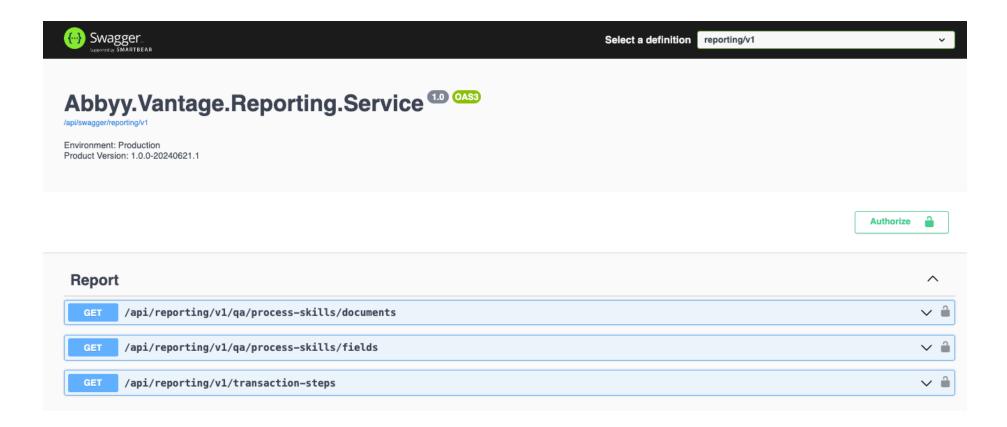
Power BI is a collection of software services, apps, and connectors that work together to turn various sources of data into static and interactive data visualizations.



Vantage Reporting API



Vantage Reporting API – Swagger Page



https://vantage-us.abbyy.com/api/index.html?urls.primaryName=reporting/v1

Business processing reporting – transaction steps



Vantage includes a Business Processing Reporting Warehouse. Business Processing Reporting is used to understand if the system copes with the processing of document well, as well as provide traceability for every transaction in the system so that you can audit on what was happening to a particular transaction throughout the entire business process.

The Warehouse stores data about all transactions (both finished transactions and transactions in processing) so that it can be used for further analysis and visualization in business intelligence tools.

Data is stored for 12 months, which allows you to analyze the business process and track data for specific periods of time.

Business processing reporting – Available Data

Column	Description
SkillId	The skill ID.
SkillVersion	The version of the skill.
SkillName	The name of the skill.
TransactionId	ID of the transaction.
StepName	The name of the event or the name of the activity in case of the Process skill.
StepType	The type of event.
ManualReviewOperatorName	The name of the Manual Review Operator.
ManualReviewOperatorEmail	The email of the Manual Review Operator.
StartedUtc	Start time of the event (UTC).
CompletedUtc	End time of the event (UTC).
Status	The status of the event.
Duration	Duration of the event (in seconds).

Quality Analytics Reporting



The Quality Analytics Reporting Warehouse stores data that can be used to analyze the efficiency of document processing within the system. With this data, you can identify which documents require more time for manual verification and why.

Statistics are collected for Process skills that have at least one Manual Review step and include at least one Document skill. The system compares the document's initial pre-manual review state with its state after processing.

The Quality Analytics Reporting Warehouse stores the following data:

- Information about changes in documents
- Information about document fields:

Quality Analytics Reporting – Documents Data

Column	Description
ProcessSkillId	The ID of the Process skill.
ProcessSkillVersion	The version of the Process skill.
ProcessSkillName	The name of the Process skill.
DocumentSkillId	The ID of the Document skill.
DocumentSkillVersion	The version of the Document skill.
DocumentSkillName	The name of the Document skill.
TransactionId	The ID of the transaction.
HasManualReview	Indicates whether the document was manually reviewed. Possible values: 1 or 0.
DocumentId	The ID of the document passed for processing.
DocumentName	The name of the document passed for processing.
PageSize	The size of the document's first page in pixels (width and height).
ImageColority	Indicates whether the document's first page is color, gray, or black and white.
ImageSource	The image source of the document's first page. For example: scan, photo, PDF file, screenshot, etc.
ImageType	The image type of the document's first page. For example: A4, receipt, bank card, etc.
DPI	The number of dots (or pixels) in the document's first page.
TransactionParameter1N	Transaction parameters passed for processing.
DocumentSkillIdUsedBeforeManualReview	The Document skill applied to the document before the Manual Review stage.
NumberOfExportedFields	The number of exported fields in the document.
NumberOfChangedFields	The number of manually changed fields in the document.

Quality Analytics Reporting – Fields Data

Column	Description
ProcessSkillId	The ID of the Process skill.
ProcessSkillVersion	The version of the Process skill.
ProcessSkillName	The name of the Process skill.
DocumentSkillId	The ID of the Document skill.
DocumentSkillVersion	The version of the Document skill.
DocumentSkillName	The name of the Document skill.
TransactionId	The ID of the transaction.

Column	Description
HasManualReview	Indicates whether the document was manually reviewed. Possible values: 1 or 0.
DocumentId	The ID of the document passed for processing.
DocumentName	The name of the document passed for processing.
PageSize	The size of the document's first page in pixels (width and height).
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ImageType	The image type of the document's first page. For example: A4, receipt, bank card, etc.
DPI	The number of dots (or pixels) in the document's first page.
NumberOfExportedFields	The number of exported fields in the document.
NumberOfChangedFields	The number of manually changed fields in the document.
FieldID	The ID of the document field.
FieldName	The name of the document field.
Correct	Information about the correction status of non-repeating fields and the number of instances of repeating fields that weren't corrected.
RecognitionIssue	Information about recognition issues during the processing of document fields.
DetectedIncorrectly	Information about corrections that were made during the manual review.
NotDetected	Information about field values that were not extracted before manual review.
IsInDocument	Indicates if the field has at least one instance in the document. Possible values: true, false.

Microsoft Power BI



Connecting Power BI to Vantage

This Power BI dashboard solution integrated with ABBYY Vantage using the platform's Reporting APIs enables real-time data extraction from document capture, classification, and data extraction processes, providing full visibility into automated operations.

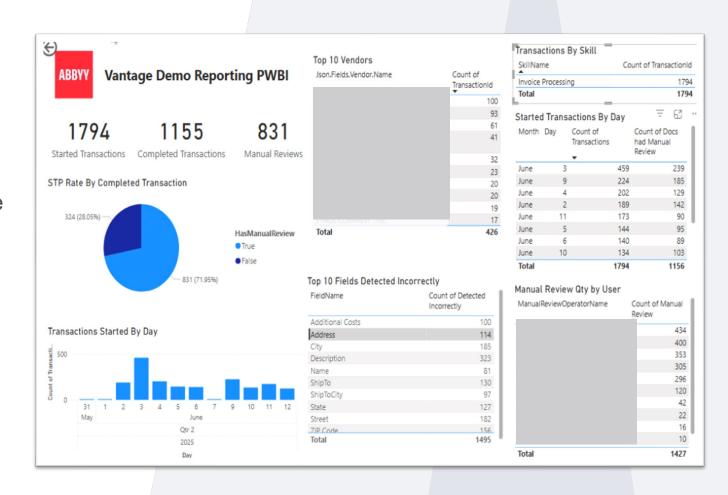
The dashboard consolidates information from key Vantage skills such as **Document Classification**, **Data Extraction**, **STP (Straight-Through Processing)**, allowing users to track metrics like processed volumes, extraction accuracy, and the number of manual reviews. All data is dynamically filtered and visualized in Power BI.

This solution helps identify bottlenecks, uncover improvement opportunities, and monitor automation progress over time—turning operational data into valuable business insights.

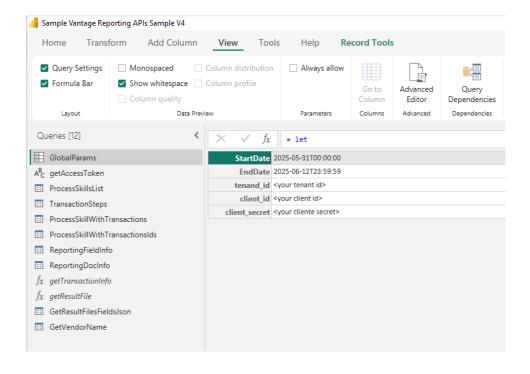
Connecting Power BI to Vantage

This is a sample dashboard designed to demonstrate how to connect and use ABBYY Vantage APIs within Power BI.

Users can adapt and expand the dashboard based on their specific reporting needs and business goals.



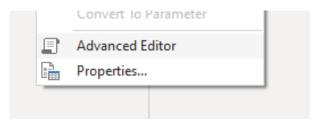
How setup the dashboard



To use the dashboard as designed need only setup the **global parameters**.

- Start Date
- Fnd Date
- Tenant Id
- Client Id
- Client Secret

Select the "Advanced Editor" with the right click.



How setup the environment

```
Advanced Editor
GlobalParams
                                                                                                                        Display Options *
      GlobalParams = let
      // Last 14 Days use this code
      CurrentDate = DateTime.LocalNow().
      StartDateTime = Date.AddDays(CurrentDate, -13),
      EndDateTime = Date.AddDays(CurrentDate, -1),
      StartDt = #datetime(Date.Year(StartDateTime), Date.Month(StartDateTime), Date.Day(StartDateTime), 0, 0, 0),
      EndDt = #datetime(Date.Year(EndDateTime), Date.Month(EndDateTime), Date.Day(EndDateTime), 23, 59, 59),
      StartDate = DateTime.ToText(StartDt, "yyyy-MM-ddTHH:mm:ss"),
      EndDate = DateTime.ToText(EndDt, "yyyy-MM-ddTHH:mm:ss"),
      // Last week (Monday to Sunday) use this code
      //CurrentDate = DateTime.LocalNow(),
      //DavOfWeekToday = Date.DayOfWeek(CurrentDate, Day.Monday)
      //StartOfLastWeek = Date.AddDays(Date.From(CurrentDate), -DayOfWeekToday - 7),
      //StartDateTime = #datetime(Date.Year(StartOfLastWeek), Date.Month(StartOfLastWeek), Date.Day(StartOfLastWeek), 0, 0, 0),
      //StartDate = DateTime.ToText(StartDateTime, "yyyy-MM-ddTHH:mm:ss"),
      //EndOfLastWeek = Date.AddDays(StartOfLastWeek, 6),
      //EndDateTime = #datetime(Date.Year(EndOfLastWeek), Date.Month(EndOfLastWeek), Date.Day(EndOfLastWeek), 23, 59, 59),
      //EndDate = DateTime.ToText(EndDateTime, "yyyy-MM-ddTHH:mm:ss"),
      // Update here the Vantage Connection.
      tenand_id = "<your tenant id>",
      client id = "<your client id>"
      client_secret = "<your cliente secret>"
      [StartDate = StartDate, EndDate = EndDate, tenand_id=tenand_id, client_id=client_id, client_secret=client_secret]
 No syntax errors have been detected.
                                                                                                                          Done Cancel
```

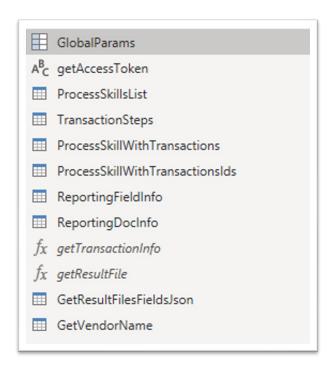
Select the filter type period (commented code)

- Last X days (Maximum 14 for Quality Analysis)
- Last Week (make easy compare periods)

Type the vantage API credentials.

- Tenant Id
- Client Id
- Client Secret

The API Client needs admin permission to access the reporting Database.



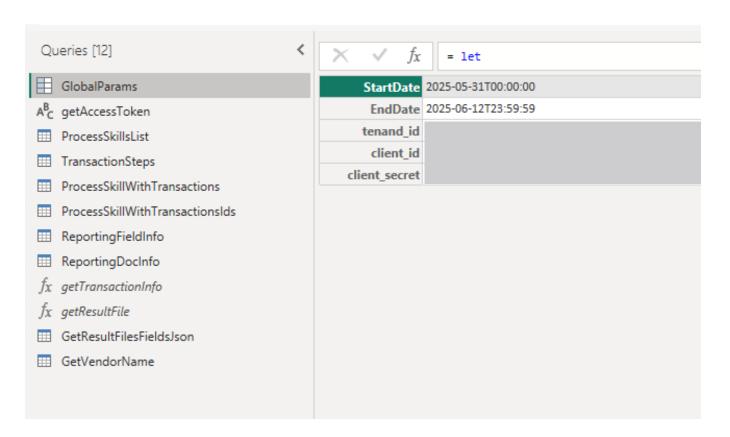
After setup the global parameters, click in each one query in sequence to make sure all queries are working before close the "transform data" windows to apply the changes.

After make sure all queries are working with no errors, select to close the "transform data" windows and select to apply changes.

Wait until Power BI update all data to refresh the dashboard data.

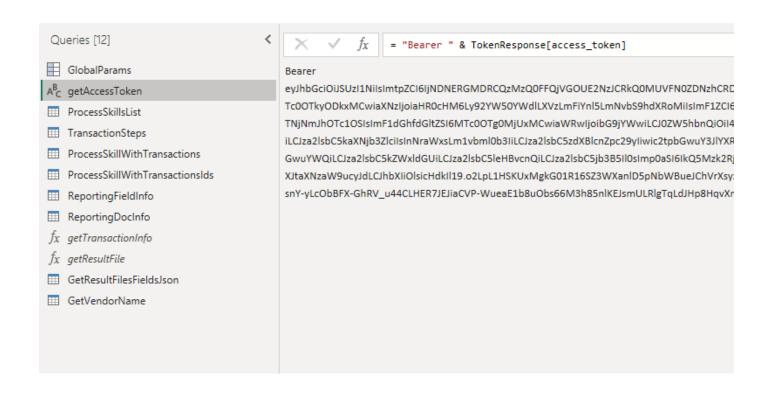
1. GlobalParams:

Read the credentials and define dates to filter.



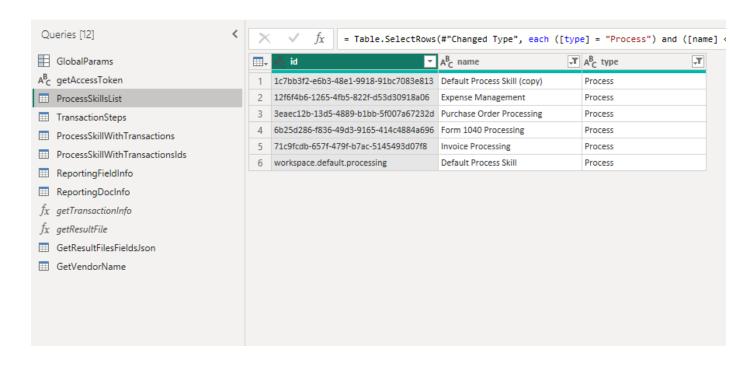
2. getAccessToken:

Connects to Vantage API to get access token to de used in other requests.



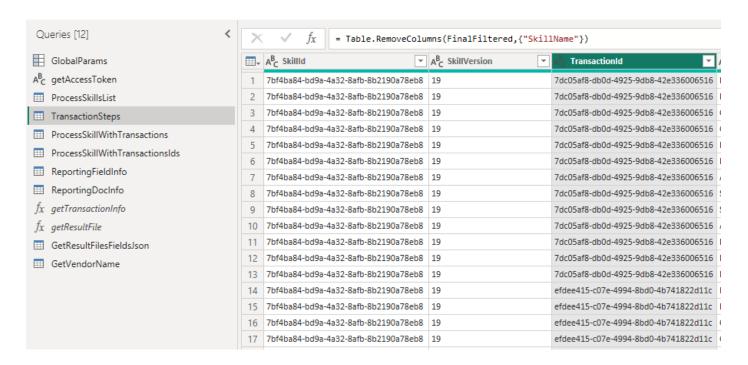
3. ProcessSkillList

Connects to Vantage API to a list of all Process Skills available on the skill catalog. (Only process skill data is included on Reporting API).



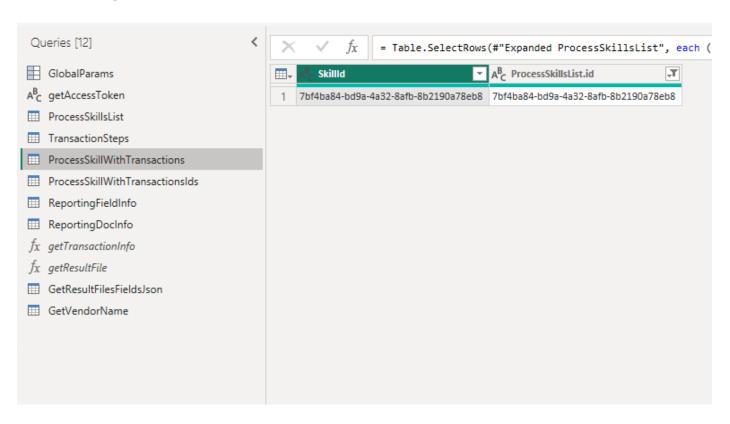
4. TransactionSteps

Connect to Vantage Reporting API to get transaction steps based on the start and end date from global parameters. Using the **transaction start date** as filter.



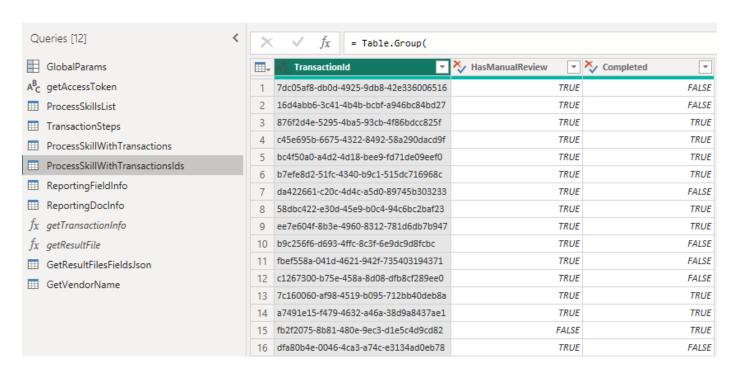
5. ProcessSkillTransactions

Filter only the process skill with transactions.



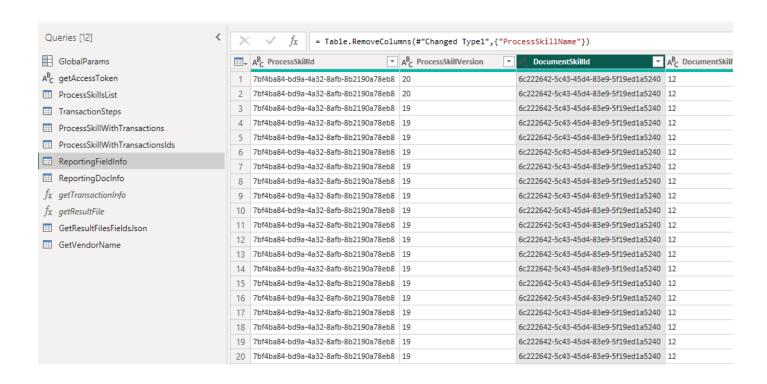
6. ProcessSkillTransactionsIds

List all transactions and define if has manual review step and if it is completed.



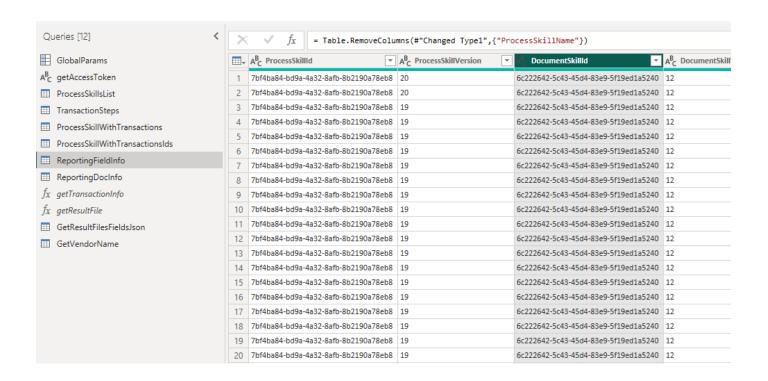
7. ReportingFieldInfo

Get results from Vantage Reporting API fields for each process skill from step 5.



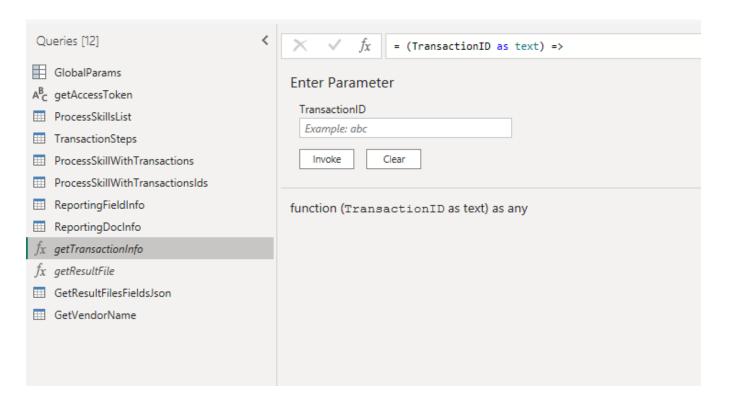
8. ReportingDocInfo

Get results from Vantage Reporting API documents for each process skill from step 5.



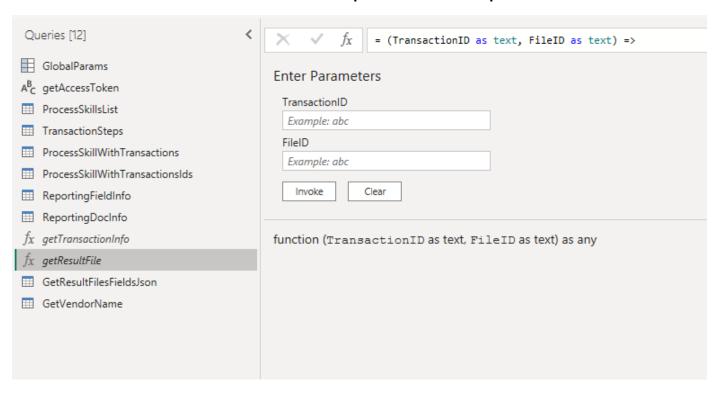
9. GetTransactionInfo

Function to call vantage API and get the transaction info. Needs the transaction id as parameter to get the Json result file.



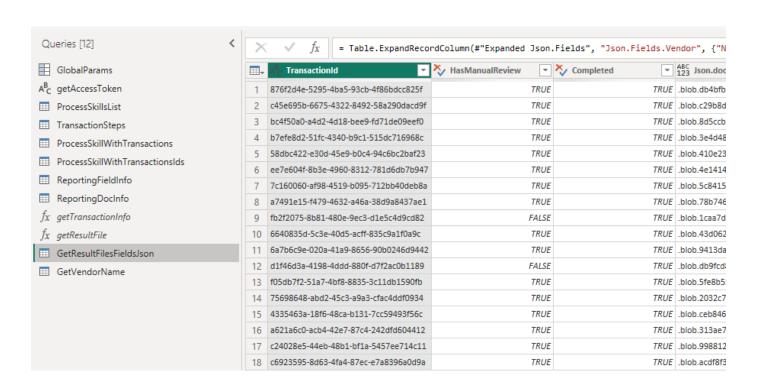
10. GetResultFile

Function to call vantage API and get the Json result file to get the field values. Needs the transaction Id and Output File Id as parameter to download the results.



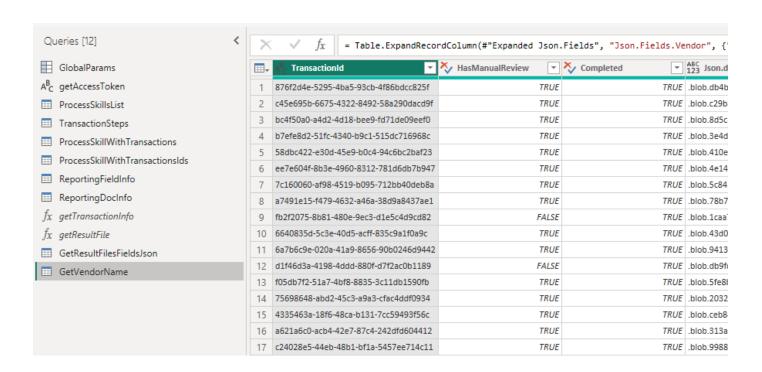
11. GetVendorName

Reads the fields from Json result file to get the field values.



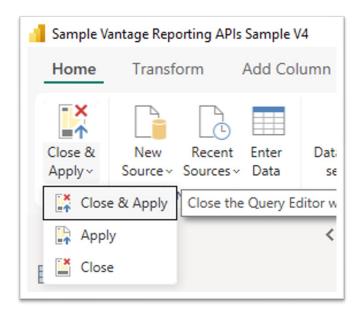
12. GetVendorName

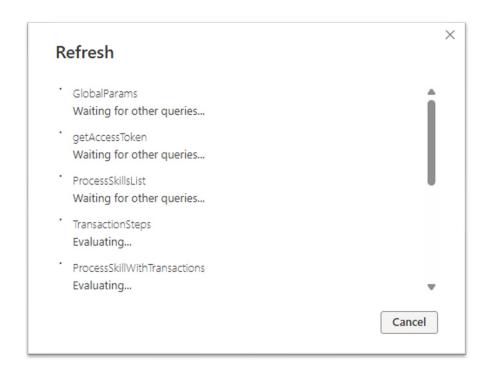
Prepare the field values to be used on the dashboard.



Publish the Dashboard

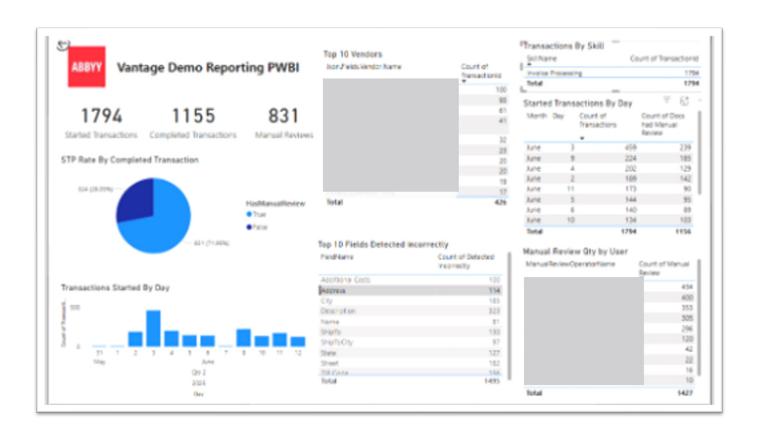
After test all queries, click in Close & Apply to load the data into the dashboard.





Publish the Dashboard

After complete the update, the dashboard will be available.



Questions or Suggestions

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