EZConvertBI Power BI Analyzer Agent

User Guide

AWS Transform Partner Agent

Wavicle Data Solutions

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Contents

1. Introduction

The EZConvertBI Power BI Analyzer Agent, developed by Wavicle Data Solutions, is a partner agent available on the AWS Transform platform. It automates the analysis and conversion of Power BI dashboards to Amazon Quick Sight, creating all required Quick Sight objects including data sources, data sets, calculated fields, analysis sheets, and dashboards. The Analyzer Agent dramatically reduces analysis time from hours or days of manual effort down to a matter of minutes.

1.1 About AWS Transform

AWS Transform is a cloud-based platform available through the AWS Console that helps organizations modernize their technology estates. Customers already use AWS Transform for mainframe modernization, .NET code modernization, and Windows modernization workloads. Starting April 2026, AWS Transform also supports BI migration through the Wavicle EZConvertBI product, enabling clients to analyze and convert Power BI and Tableau dashboards to Amazon Quick Sight, for AWS clients.

1.2 What Does the Analyzer and Converter Do?

The EZConvertBI product includes two complementary agents. Both Agents uses an agentic, conversational workflow to connect to both your Power BI Service and your Amazon Quick Sight environment. The Power BI Analyzer Agent performs a pre-migration analysis of your Power BI environment, producing a detailed assessment of report complexity, chart types, data sources, and rationalization opportunities.

The Power BI Converter Agent then takes individual reports and converts them to Quick Sight. After conversion, an engineer reviews the Quick Sight output for look-and-feel adjustments such as chart placement, colors, and formatting, then performs final validation testing. The bulk of the structural migration work is handled automatically by the agent.

While you can use the Converter Agent independently, Wavicle recommends running the Analyzer first. The Analyzer's complexity scoring and conversion readiness assessment will help you prioritize which dashboards to convert and anticipate any charts or features that may require manual adjustment after conversion.

1.3 Who Should Use This Guide?

This guide is intended for BI analysts, data engineers, migration project managers, and IT administrators who need to convert Power BI dashboards to Amazon Quick Sight. No specialized coding or scripting knowledge is required.

2. Prerequisites

Before you begin, ensure you have the following:

- 64-bit Windows machine with Power BI Desktop installed.
- An active AWS account with access to AWS Transform.
- Power BI credentials (URL, personal access token, or username/password) are already configured as a Credential Provider in AWS Transform.
- Permission to access the Power BI Service and workspaces containing the reports you wish to convert.
- A modern web browser (Chrome, Edge, or Firefox recommended).

Note:

If your Power BI credentials or Amazon Quick Sight connector have not yet been configured, you will need to set these up in AWS Transform before running the Analyzer. Each connection only needs to be configured once and can be reused across multiple conversion jobs. Refer to the AWS Transform documentation for instructions on creating Connectors and Credential Providers.

2.1 How to configure credential providers:

[placeholder]

Permissions needed for creating credential providers.

Configure credential provider - Amazon Bedrock AgentCore

3. Understanding the Interface

The Analyzer Agent operates within a three-panel interface inside AWS Transform. Understanding how these panels work together will help you navigate the workflow efficiently.

3.1 The Three-Panel Layout

- **Job Plan (left panel):** Displays the step-by-step workflow as an ordered list. Each step shows a status indicator such as “Awaiting user input,” “In-progress,” or “Completed” with green check marks. Clicking a step in the Job Plan activates it and may open a corresponding form on the right.
- **Chat Interface (center panel):** Your primary conversational interface with the agent. You can type responses, read status updates, view the conversion summary, and access download links here. The agent uses an agentic workflow, meaning it autonomously creates and follows a plan based on your initial prompt.
- **Form / Detail Panel (right panel):** Displays dropdown menus, selection forms, and configuration options that correspond to the active Job Plan step. You can use this panel as an alternative to typing in the chat window.

Dual-input interaction: Throughout the workflow, you always have two ways to provide information: type your answers directly in the chat window, or use the dropdown forms on the right-hand side. Both methods are equally valid and produce the same result.

> **Note:**
> Occasionally there may be a brief lag between the three panels synchronizing after a step completes. This is normal and does not affect the conversion. Wait a few seconds and all panels will update.

4. Power BI Service Hierarchy

To use the Analyzer effectively, it helps to understand how content is organized within Power BI Service. The agent will ask you to navigate through each level of this hierarchy during setup:

- **Tenant/Account:** The top-level instance. Your organization may operate one or more Power BI Instances. The Analyzer supports connecting to multiple instances, each configured as a separate Credential Provider.
- **Workspace:** A container for reports and datasets. You will select the workspace containing your reports.
- **Folders** act as an organizational layer within a workspace, allowing you to group related artifacts rather than having a single flat list.
- **Report:** Each workspace contains reports. Report is a collection of related pages and visuals. You will select a specific report for analysis.
- **Page/Visual:** A report contains one or more pages. The agent analyses each page and visuals.
- **Apps**: The distribution layer, pushing finalized reports/dashboards to consumers.

5. Getting Started

Step 1: Open AWS Transform and Select a Workspace

Navigate to the AWS Transform console in your web browser. You will land on the Workspaces tab. A workspace is a container for creating jobs, storing artifacts, and collaborating with your team on transformation workflows.

Select an existing workspace or click “Create workspace” to set up a new one. If you create a new workspace, you may need to configure Connectors for both your Power BI Service and Amazon Quick Sight before proceeding.

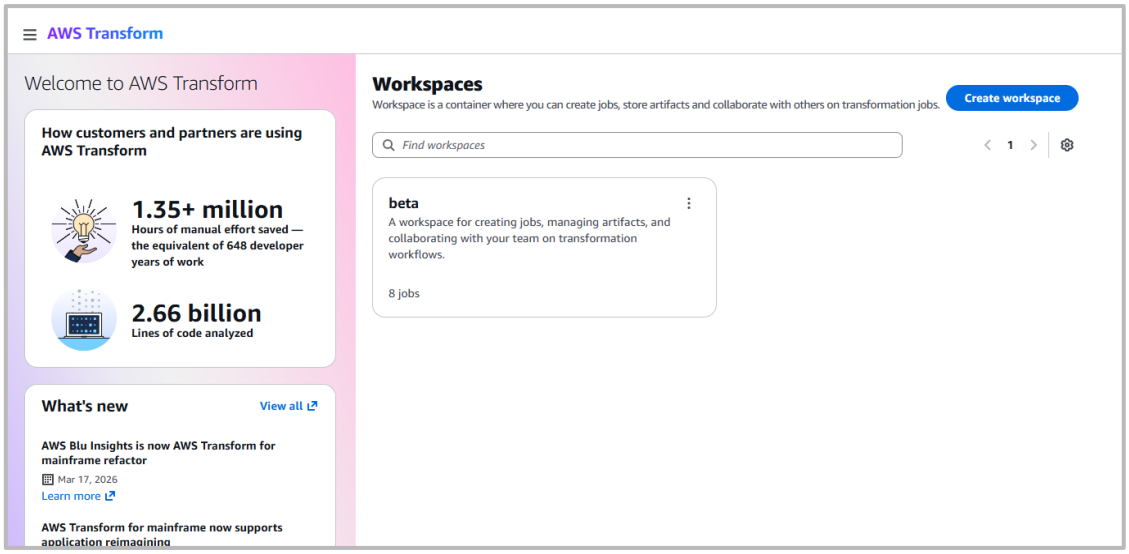

Figure 1: AWS Transform Workspaces tab showing available workspaces.

Step 2: Create a New Job

Once inside your workspace, locate the chat pane at the bottom of the screen. Click the “Create a job” button to begin. The chat pane is your primary interface for interacting with the Converter Agent.

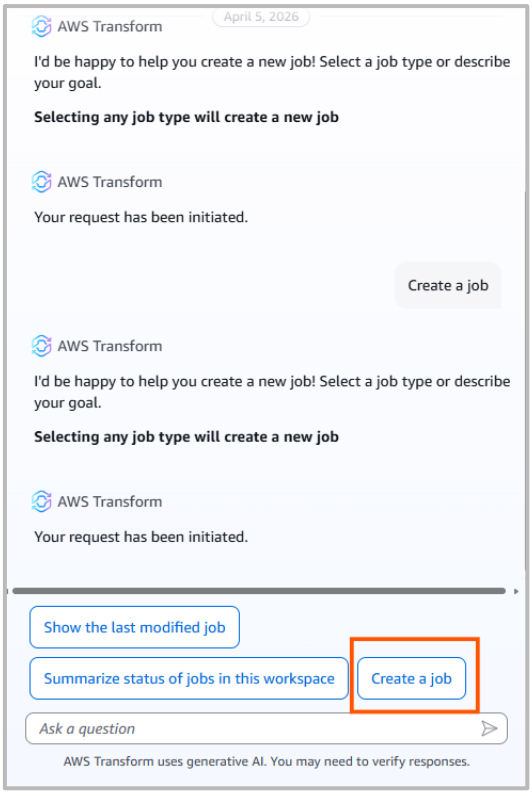

Figure 2: Select Create a job.

Step 3: Select the Power BI Analyzer Agent

After clicking “Create a job,” you will be presented with a list of available job types. Select “BI Migration” and then choose “MarketPlace Wavicle Power BI Analyzer Agent”

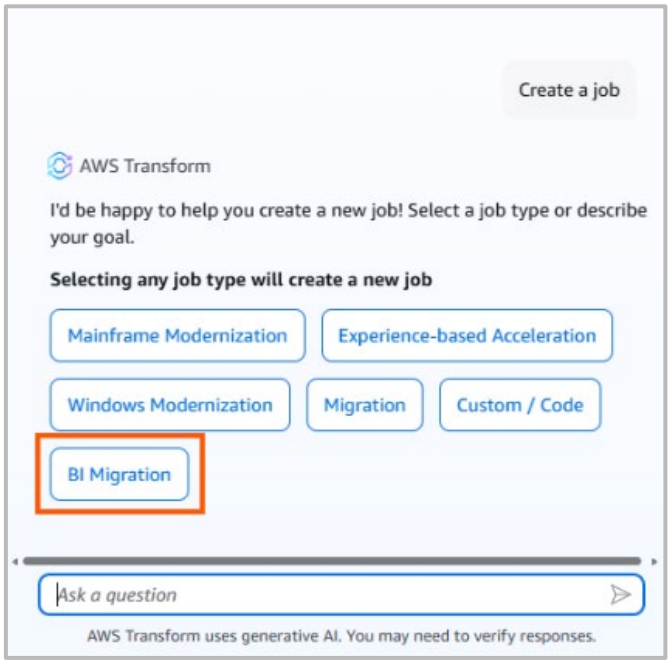

Figure 3: Selecting BI Migration job type.

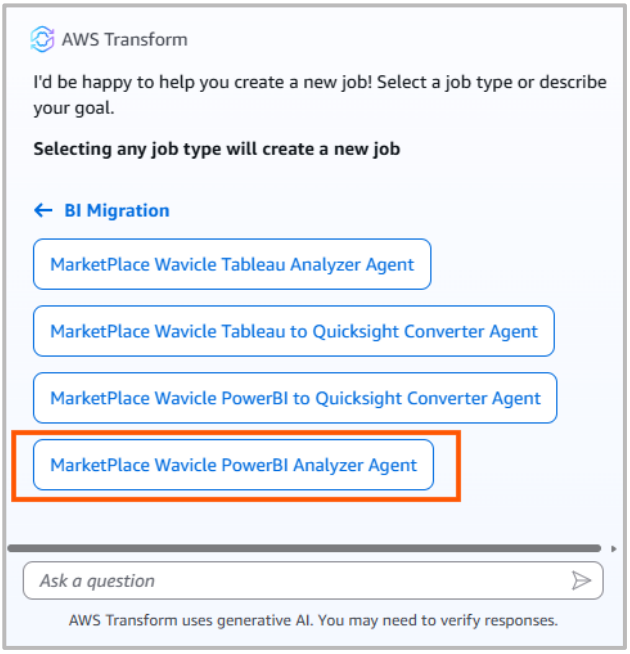

Figure 4: Selecting the Wavicle Power BI Analyzer Agent.

In the chat window that appears, type a prompt such as “Help me analyze reports from Power BI” to instruct the agent to create a Job Plan. The agent will automatically determine all the steps required, from connecting to your Power BI service through to generating the analysis summary. This Job Plan is created in a matter of seconds.

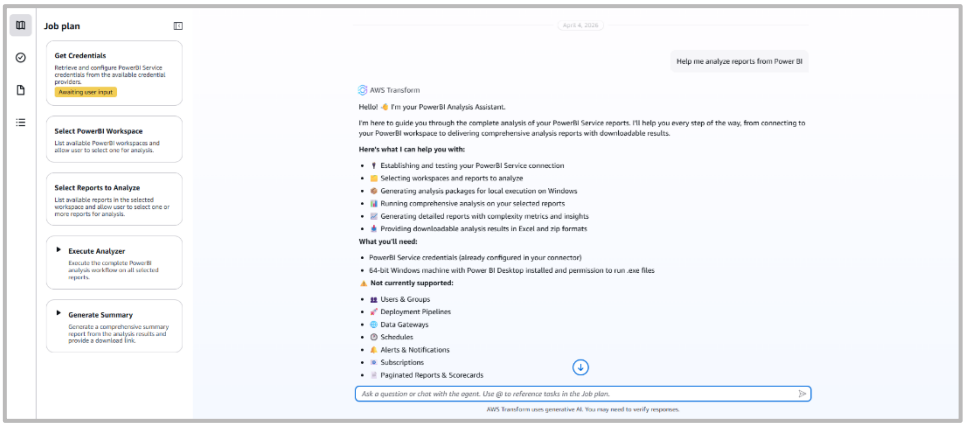

Figure 5: The Job Plan showing all analyzer steps from credentials through to summary generation.

Tip:

Throughout the workflow, you have two ways to interact with the agent: type your answers directly in the chat window, or click the corresponding step in the Job Plan panel on the left and use the form that appears on the right-hand side. Both methods are equally valid.

6. Running the Analyzer

Once the Job Plan is created, it will appear as a series of steps in the left-hand panel. The agent will guide you through each step in sequence. A step will display a status indicator such as “Awaiting user input,” “In-progress,” or “Completed” to show its current state.

Step 4: Provide Credentials

The first step in the Job Plan is “Get Credentials.” You need to provide connection details for Power BI.

You can either type the connector names in the chat window or click “Get Credentials” in the Job Plan. When you click the Job Plan step, a form will appear on the right-hand side with dropdown menus listing your available credential providers.

For example, you might type: *“Use the Power BI connector ending in 33v94.”* or Choose a credential provider from dropdown and click submit.

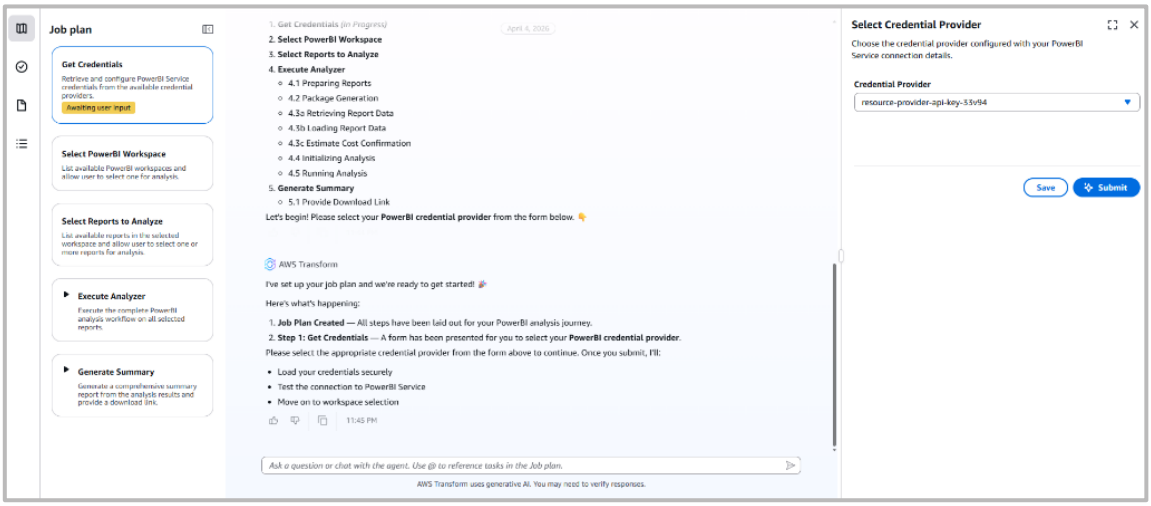

Figure 6: The Job Plan with the Get Credentials step active and the credential selection form on the right.

Once the credentials are validated and the agent confirms it can connect to Power BI Service, the “Get Credentials” step will show a “Completed” status (green check mark) in the Job Plan.

Step 5: Select Power BI workspace, and Report

After credentials are validated, the agent walks you through selecting the Power BI content to analyze. This is a multi-step process:

5a. Select Workspace: The agent retrieves all workspaces available on the connected Power BI service. Type the workspace name in the chat window or use the dropdown on the right-hand side.

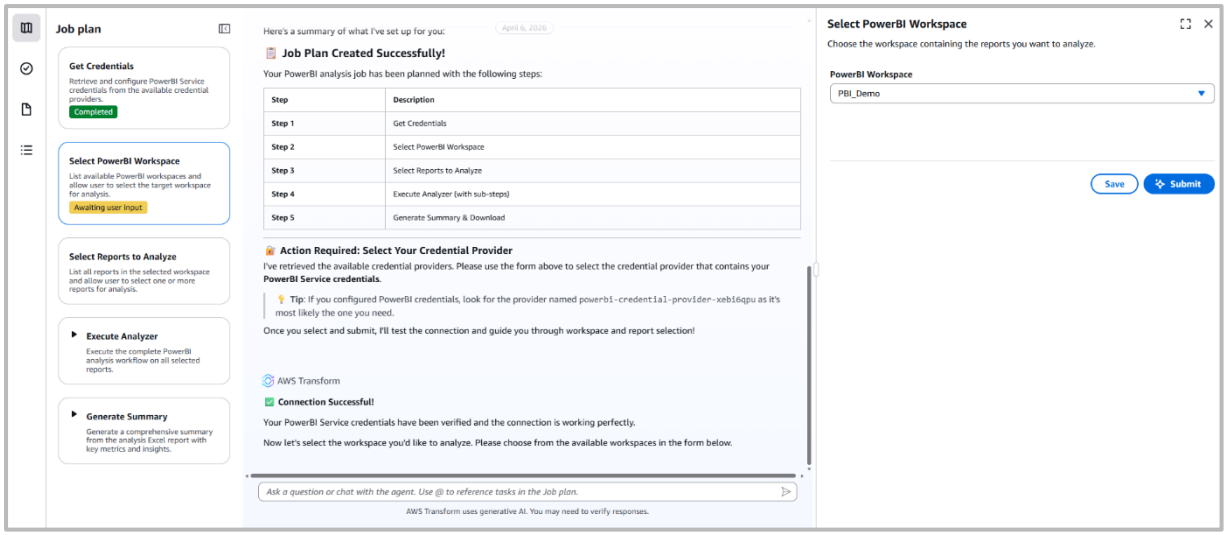

Figure 7: Select a workspace from the available list.

5b. Select Reports: The agent retrieves all reports within the selected workspace and prompts you to choose to analyze.

After you select the report(s), the agent runs an analysis step to inventory the dashboards and their components (sheets, calculated fields, data sources). This analysis may take a moment to complete.

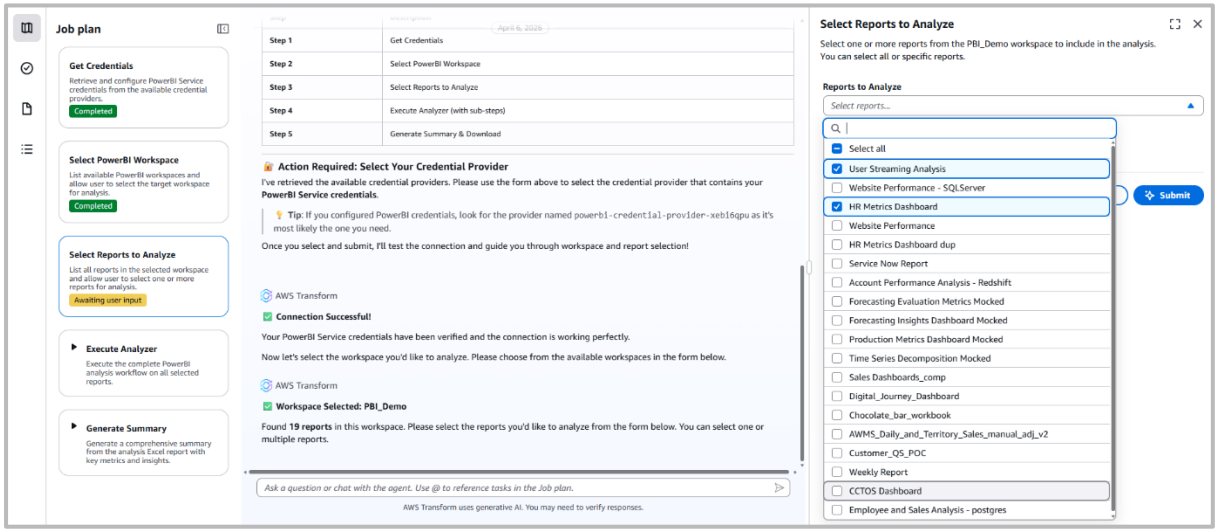

Figure 8: Select workbooks from the available list.

Step 6: Automatic Analysis

After report selection, the agent automatically proceeds through the remaining Analyzer steps. You will see status updates in the chat and the Job Plan as the agent:

6a. Preparing Reports: The Analyzer will download the chosen reports and prepare them for analysis.

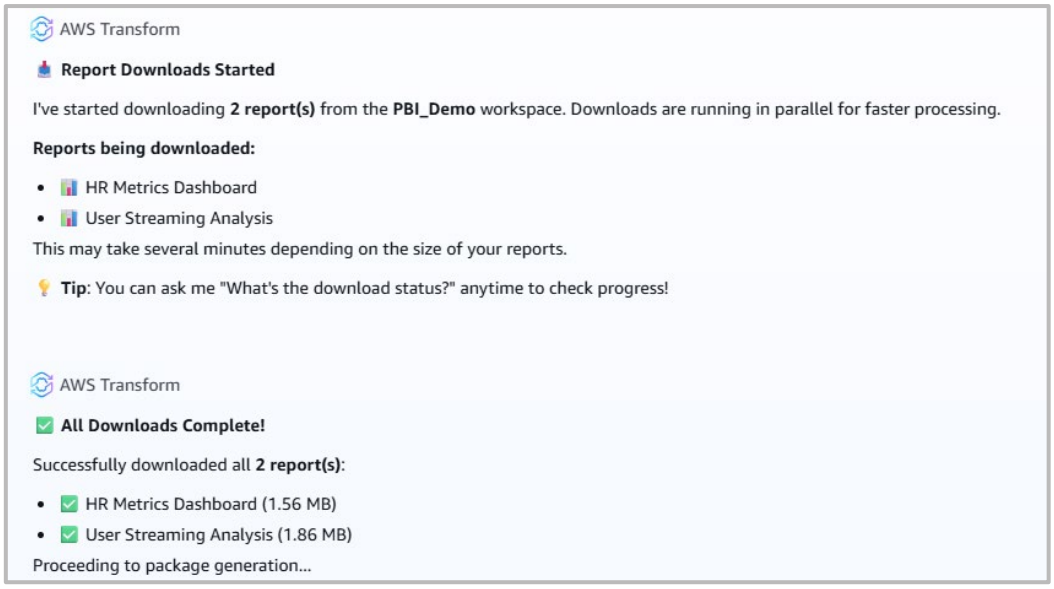

Figure 9: Preparing Reports.

6b. Package Generation: The Analyzer creates a package to download. Follow the instructions shown in the chat interface.

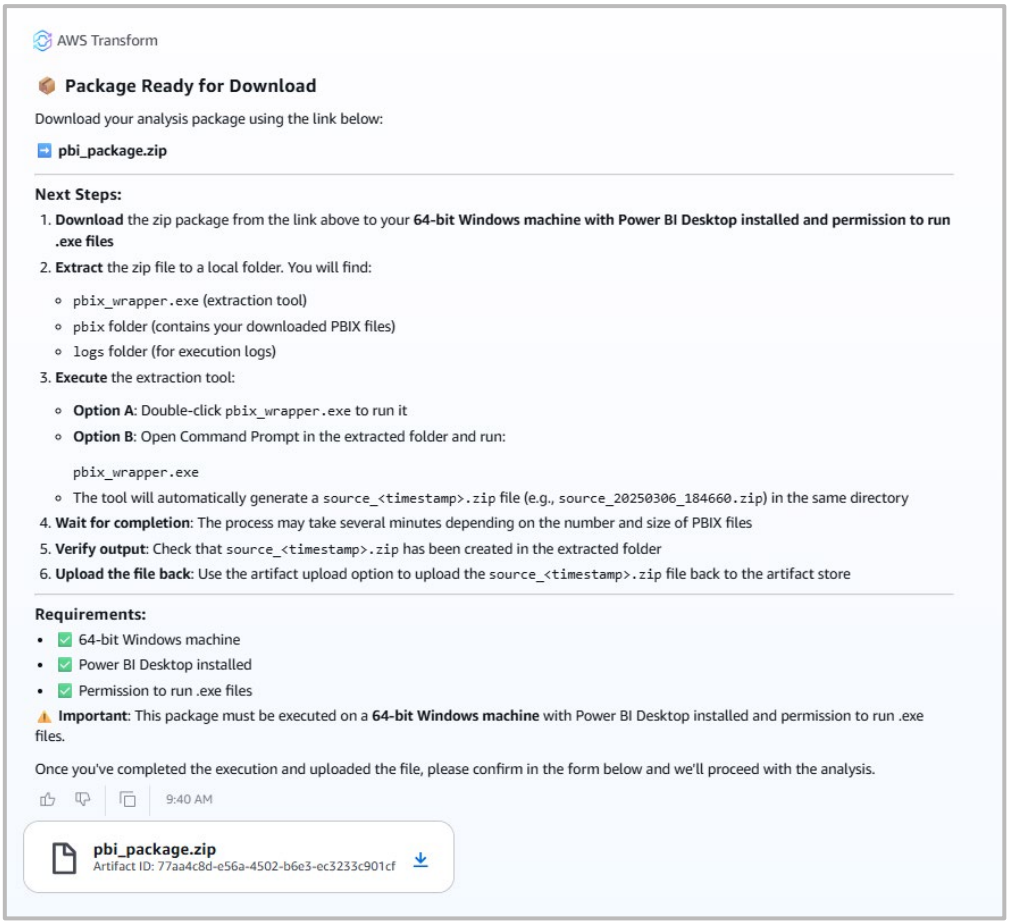

Figure 10: Package Generation.

6c. Download the zip file, extract, and double-click on pbix_wrapper.exe to initiate the extraction tool.

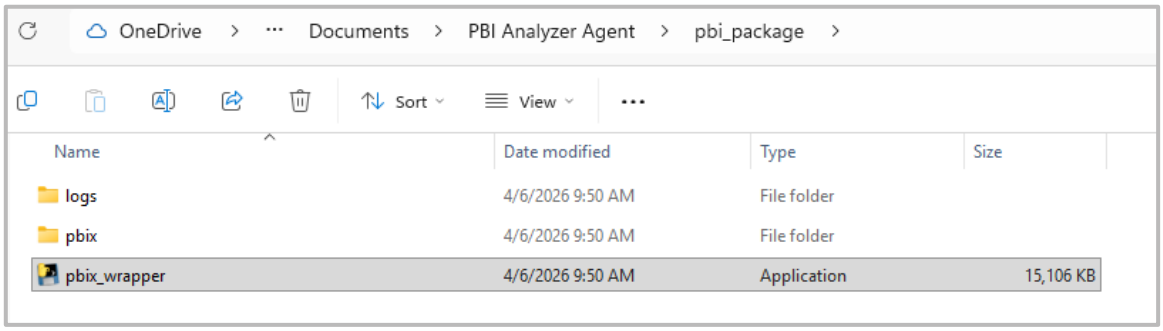

Figure 11: Extracted pbi_package zip file

Tip:
If you encounter a “Windows protected your PC” message from Microsoft Defender SmartScreen when launching the application, you can manually unblock the file to proceed.

Steps to Unblock the File:

1. Navigate to the downloaded .exe file.
2. Right-click the file and select Properties.
3. In the General tab, locate the Security section at the bottom.
4. Check the box labeled Unblock.
5. Click Apply, then OK.
6. Re-run the application.

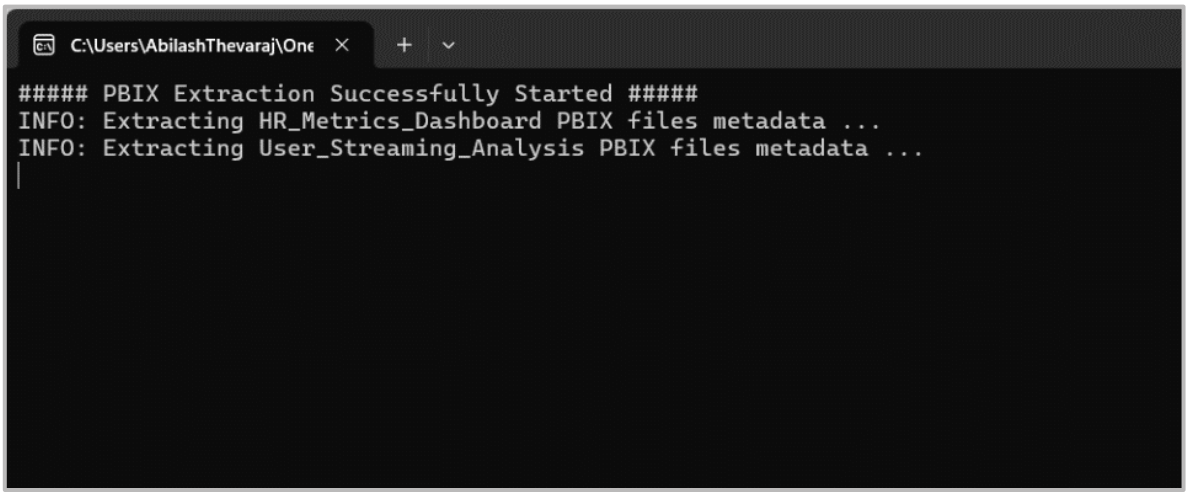

Figure 12: Execution of .exe file

6d. After completion (which may take several minutes depending on the number and size of pbix files), verify the **source_<timestamp>.zip** file is generated in the extracted folder.

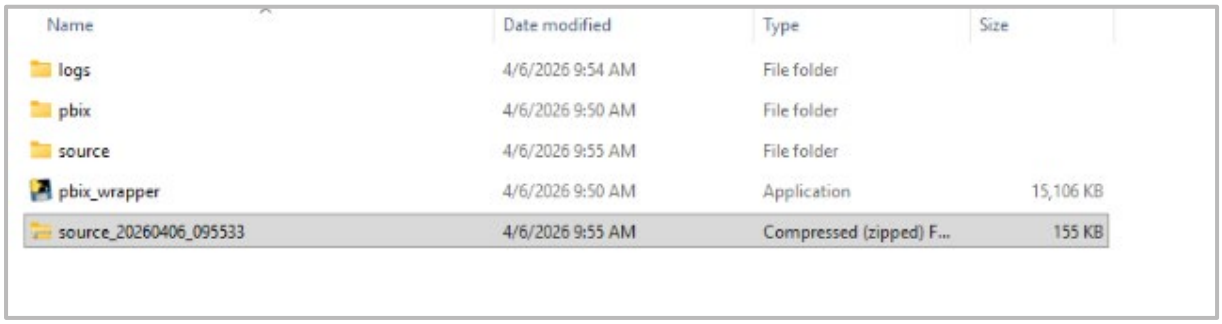

Figure 13: Generated source zip file

6e. Upload the source_<timestamp>.zip file back: Use the artifact upload option to upload the zip file back to the artifact store. Click on the Artifact menu icon on the left and select 'Upload artifact'.

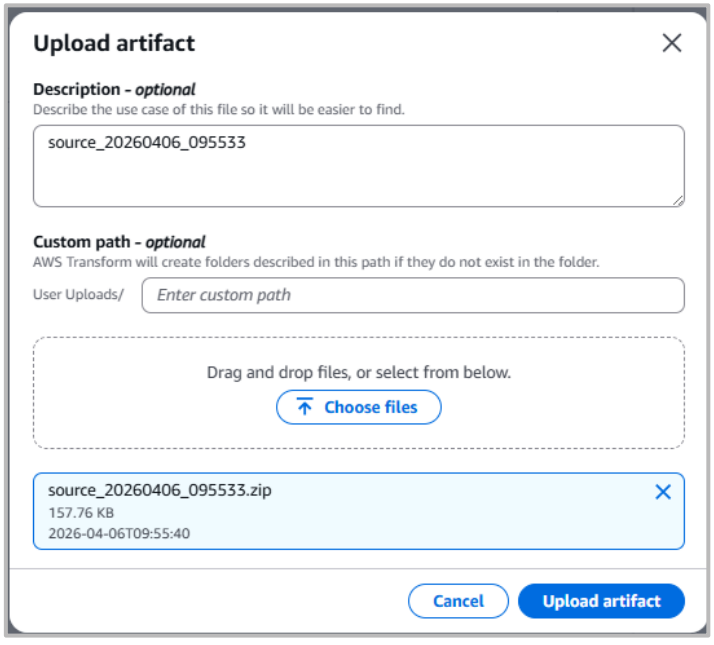

Figure 14: Upload artifact screen

6f. Once the file is uploaded, navigate to **Job Plan**, click on **Package Generation** step in the Job Plan, select the confirmation checkbox, and click **Submit** to continue.

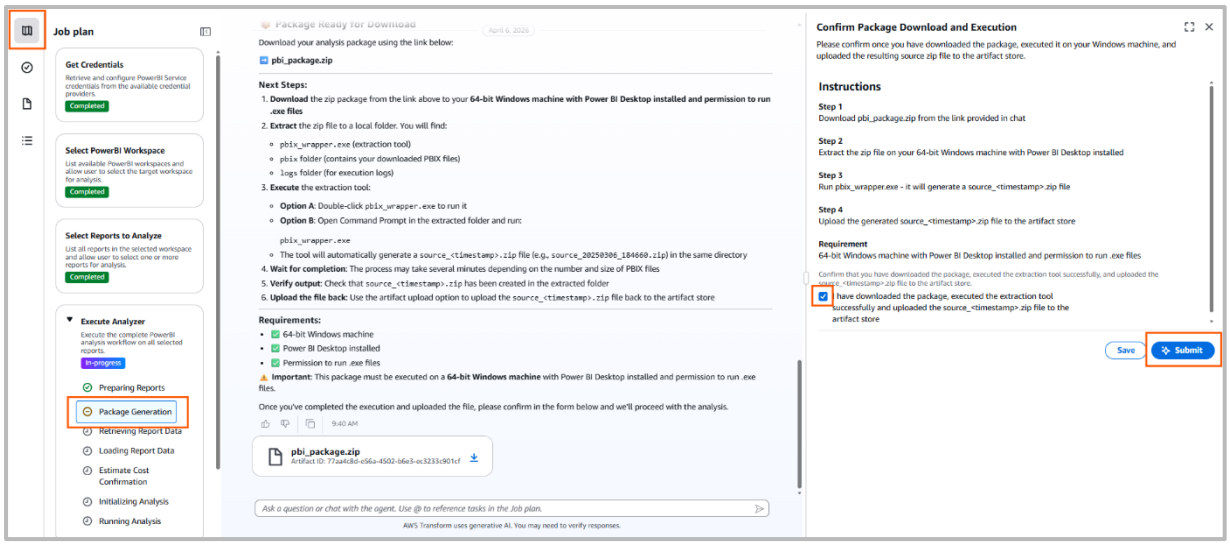

Figure 15: Upload artifact confirmation submit screen

This process may take several minutes depending on the complexity of the dashboard.

6g. Confirm Source File to Process: Confirm the source zip file found in the artifact store before proceeding with analysis.

Click on **Retrieving Report Data** step in the Job Plan, select **Yes, proceed with this file,** and click on **Submit.**

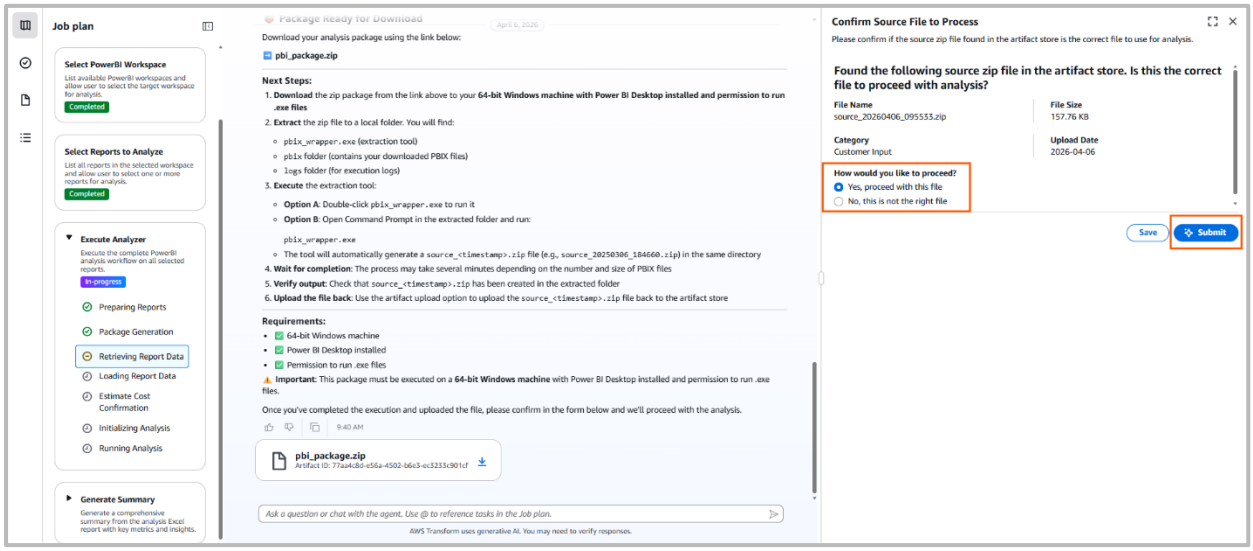

Figure 16: Source file confirmation screen

6h. Confirm Cost: Review the estimated cost for the analysis and confirm whether you would like to proceed.

Click on **Estimate Cost Confirmation** step in the Job Plan, select **Yes, proceed with this file,** and click on **Submit.**

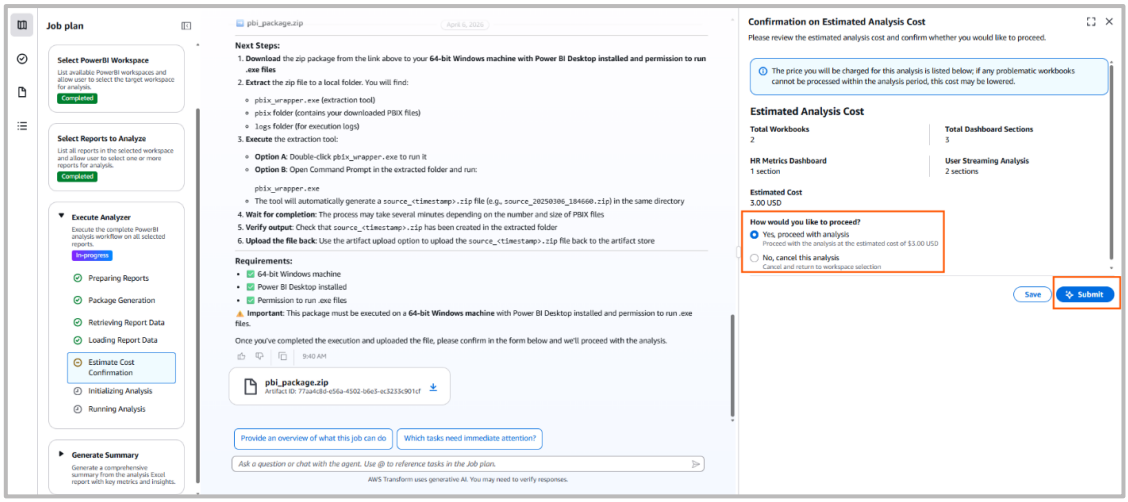

Figure 17: Estimated cost confirmation screen

Step 7: Review the Conversion Summary

When the analysis finishes, the agent displays a summary directly in the chat window. This summary includes the overall extraction status and a breakdown of all objects captured in Power BI, typically including:

- Number of data sources/semantic models
- Number of calculated fields extracted
- Number of reports and pages extracted
- Number of database connections extracted

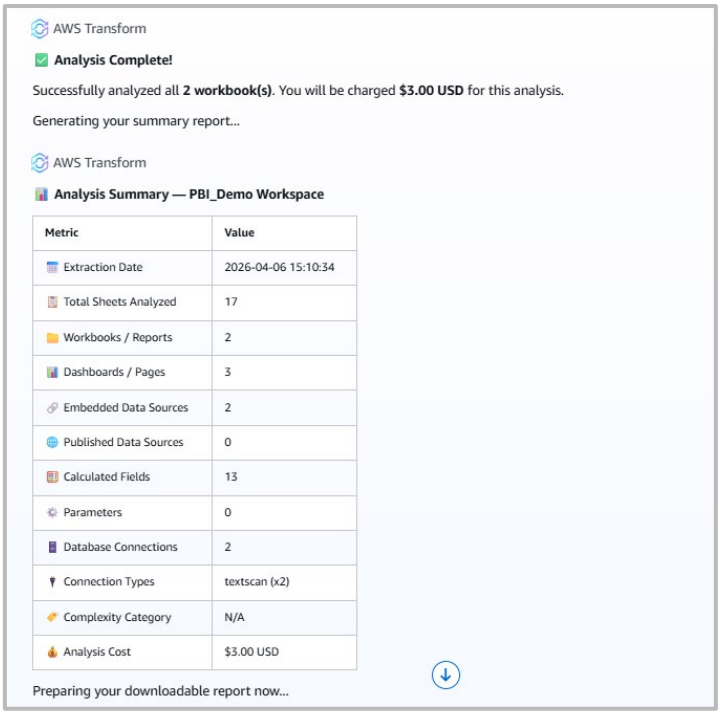

Figure 18: Review analysis summary

7. Verifying the Analysis Results

After the analysis completes, you are provided with a link to download the Analysis Results.

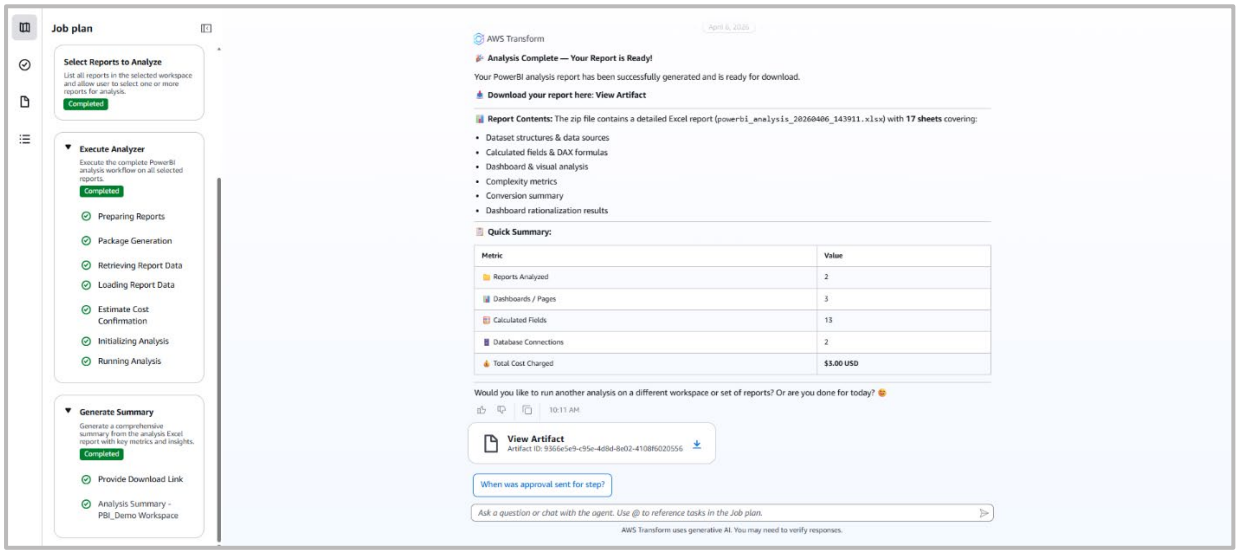

Figure 19: Analysis completion screen

Click on the link to download. And extract the analysis results zip file. Then, Open the analysis report Excel file and verify the results.

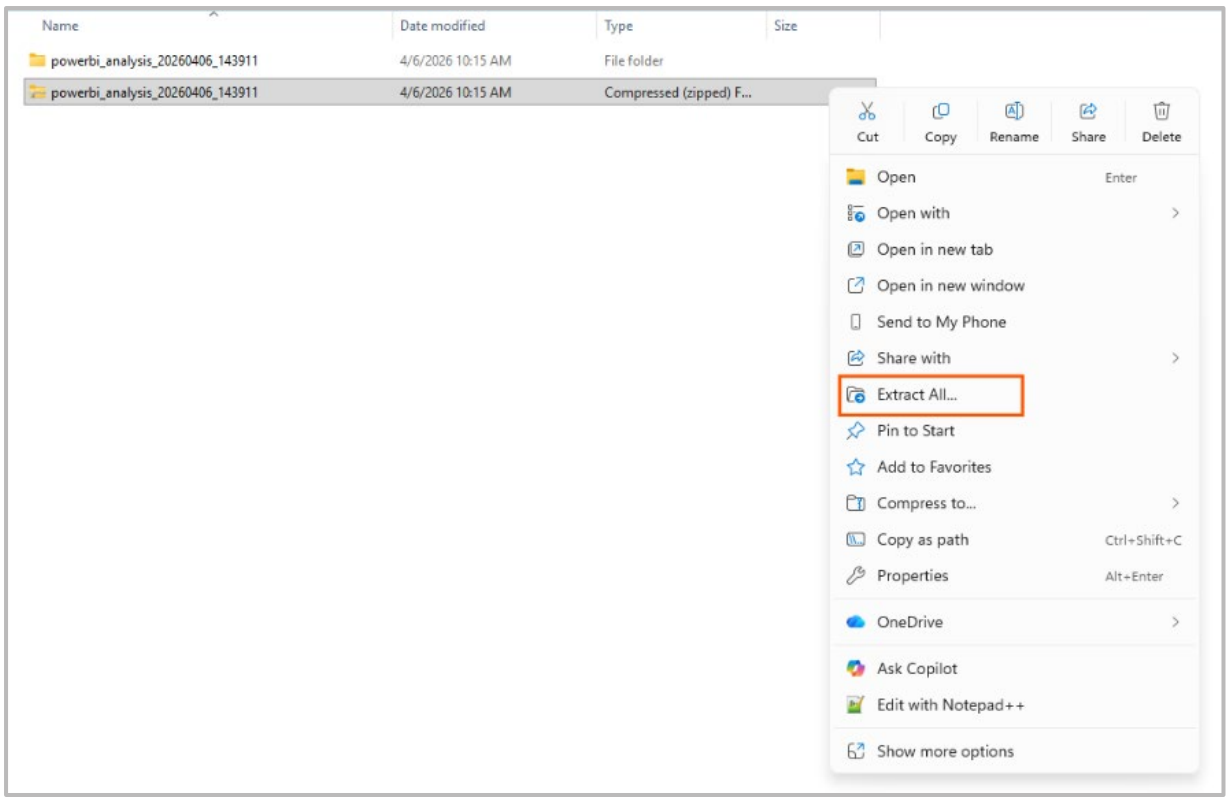

Figure 20: Extract results zip file.

8. Reading the Analysis report

8.1 What is in the report

During an Analyzer execution, the agent creates the following sheets in the analysis summary file:

- **Summary:** Provides a high-level overview of the analysis output, including total number of objects, Power BI server URL, and a complexity categorization summary.
- **Chart Types:** Details all **charts detected across dashboards**, including the raw chart type, inferred type, predicted type, and the associated workbook/dashboard. This sheet is used to understand visualization distribution and for conversionreadiness assessments.
- **Dashboards:** Lists each page with attributes such as **complexity score**, sheet count, calculated field count, creation/update information, and adjusted complexity metrics. Useful for understanding page size and transformation complexity.
- **Workbooks:** Captures metadata for each report, including name, project name, filename paths, page count, and visual count. Helps identify source PBIX file structures.
- **Data Sources:** Describes all data sources used in the report, including the list of fields, columns, queries, calc field count, and upstream database details.
- **Parameters:** Lists data parameters used in visualizations or queries within the reports.
- **DB Connections:** Documents database connection information such as file paths, connection type, and database ID. This includes details for underlying CSV/extract sources used by Power BI.
- **Calculated Fields:** Lists all DAX or calculation expressions used in the reports, including formula text, data type, whether parameters are involved, and what pages use them.
- **Rationalization Summary:** Compares dashboards against each other to identify overlap, duplicates, or content similarities. Shows matched sheet percentages, helping assess dashboard consolidation opportunities, **deduplication, and optimization** efforts.

8.2 Complexity and Conversion Time

Report complexity (as measured by the Analyzer Agent) directly impacts conversion time. A medium-complexity dashboard with 7 sheets and 19 calculated fields typically

converts in a few minutes. More complex dashboards with many data sources, multiple relationships, or dozens of calculated fields will take longer.

Industry Insight:

Organizations migrating from Power BI to Quick Sight typically see the Converter Agent reduce per-dashboard migration time from hours or days of manual development down to minutes of automated conversion plus a short period of manual look-and-feel adjustments.

9. Tips and Best Practices

- Run the Analyzer first. Use the EZConvertBI Power BI Analyzer Agent to assess your Power BI environment before converting. The Analyzer's complexity scores and conversion readiness ratings will help you prioritize which dashboards to convert and anticipate potential issues.
- Use the Analyzer's rationalization results to eliminate duplicate dashboards before converting. This avoids unnecessary conversion work.
- Remember that Power BI service credentials only need to be configured once. For subsequent Analysis, simply select the existing Credential Providers.

10. Troubleshooting

Issue	Resolution
Credential validation fails	Verify that both your Power BI service Credential Provider and Amazon Quick Sight Connector are correctly configured in AWS Transform. Ensure access tokens have not expired.
No workspace appear after credentials are accepted	Confirm that the Power BI service user associated with the credentials has access to at least one workspace. Contact your Power BI service administrator if needed.
No reports appear	Check that the selected workspace contains published reports, and that the authenticated user has view permissions on the target content.
Analyzer takes a long time	Complex reports with many pages, calculated fields, and data sources take longer to analyze. This is expected. Monitor the Job Plan and chat window for progress updates.
Chat interface and Job Plan are out of sync	Occasionally there may be a brief lag between the chat interface, the Job Plan panel, and the right-hand form panel updating. Wait a few seconds and the panels will synchronize. This does not affect the conversion.

11. Glossary

Term	Definition
Workspace (AWS)	An AWS Transform container for organizing jobs, artifacts, and team collaboration.
Job Plan	The step-by-step workflow displayed in the left panel that guides you through the conversion process.
Credential Provider	A pre-configured set of connection details (URL, tokens) for accessing your Power BI Service. Each PBI connection only needs to be configured once.
Connector	The AWS Transform configuration object that defines how to reach an external system such as a Power BI service or Amazon Quick Sight. A Connector is associated with one or more Credential Providers.
Artifact	An output file generated by the agent (e.g., the manifest file or analysis summary).
Manifest File	A configuration file that describes the data source structure and location (typically in S3) used by Quick Sight to create a data source.
Data Source	In Quick Sight, a connection to an underlying data store such as S3, a relational database, or a data warehouse.
Data Set	In Quick Sight, a prepared and queryable representation of data built on top of a data source. Includes column definitions, joins, and calculated fields.
Analysis	A Quick Sight object that contains one or more sheets (visuals) and can be published as a dashboard. This is the primary output of the Converter Agent.
Calculated Field	A derived field created using a formula or expression. The Converter Agent translates Power BI DAX calculated field syntax into Quick Sight syntax.
Complexity Score	A numeric value assigned by the Analyzer Agent to each dashboard based on factors like sheet count, calculated fields, data source complexity, and chart types. Used to estimate conversion effort.

Agentic Workflow	An AI-driven, conversational workflow in which the agent autonomously creates and executes a step-by-step plan based on your instructions.

*For additional support, contact **Wavicle Data Solutions.***