

The DataLogz BI Migration Playbook

```
scientist.rb
class Scientist::Result
  # An Array of candidate Observations.
  attr_reader :candidates
  # The control Observation to which the
  attr_reader :control
  # An Experiment.
  attr_reader :experiment
  # An Array of observations which didn't
  attr_reader :ignored
  # An Array of observations which didn't
  attr_reader :mismatched
  # An Array of Observations in execution
  attr_reader :observations
  # Internal: Create a new result.
  #
  # experiment - the Experiment this res
  # observations: - an Array of Observatio
  # control: - the control Observation
  #
  def initialize(experiment, observations =
    @experiment = experiment
    @observations = observations
    @control = control
    @candidates = observations - [control]
    evaluate_candidates
  end
  freeze
end
# Public: the experiment's context
def context
  experiment.context
end
# Public: the name of the experiment
def experiment_name
  experiment.name
end
# Public: was the result a match betw
def matched?
end
lib/scientist/result.rb 1:1
```

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Expediting Your Tableau to Power BI Migration

Migrating from Tableau to Power BI can be a daunting task, but with the right approach, you can streamline the process and ensure a seamless transition. This migration isn't just about moving data; it's about enhancing your analytics capabilities, optimizing performance, reducing cost and leveraging your future BI system's capabilities.

Key Steps in BI Migrations

1. Assess the environments
2. Clean-up the environments (incumbent and target system)
3. Execute the migration
4. Test and validate
5. Plan your rollout

In this document, we focus on the critical first two steps of a successful migration: assessing your current environment and cleaning up existing systems. As the saying goes, “garbage in, garbage out.” To avoid that GIGO dilemma, a successful migration must begin with getting a handle on your current data and reports, including prioritizing what to tackle and when. By following best practices and utilizing automation tools, you can save time, reduce errors, and set the foundation for a smooth migration that takes your business to the next level.

This document provides actionable insights and demonstrates how automation tools like Datalogz's Control Tower (DCT) can expedite and improve your BI migration process.

1. Assess the Environment(s)


Before embarking on the migration journey from Tableau to Power BI, it's crucial to have a clear understanding of your current BI landscape. A thorough assessment ensures you know what to migrate, what can be discarded, and how to address potential challenges. This foundational step not only saves time and resources but also sets the stage for a smooth and efficient migration process. Some of the most important considerations include:

- **Types and locations of data sources:** Various data sources, including Data Warehouses, Relational Databases, Excel files/CSV files, and cloud vs. on-premises environments.
- **Data protection requirements:** Handling PHI/PII with methods like Row-Level Security, tokenization, and encryption.

- **Highlighting complexity:** Identify the most intricate data models, reports, and business logic:
- **Understand the size of data sources:** Number of tables/files and their corresponding rows or GBs.
- **User activity:** Power Users, underutilized licenses, and problem creators
- **Ownership:** Determining the owner of each data asset and identifying orphaned assets.

While this may seem like a lot of information, it can be readily accessed through metadata from the BI tools themselves. Datalogz simplifies this process by automating the extraction and analysis of metadata, generating valuable insights for your migration.

Step 1: Connect Tableau to Datalogz via an access token. This will automatically extract all of your BI metadata and give you detailed context on it.

 **Connect to Tableau** [See Instructions](#)

* Host

Site Name

* API Version

* Access Token Name

* Access Token Secret

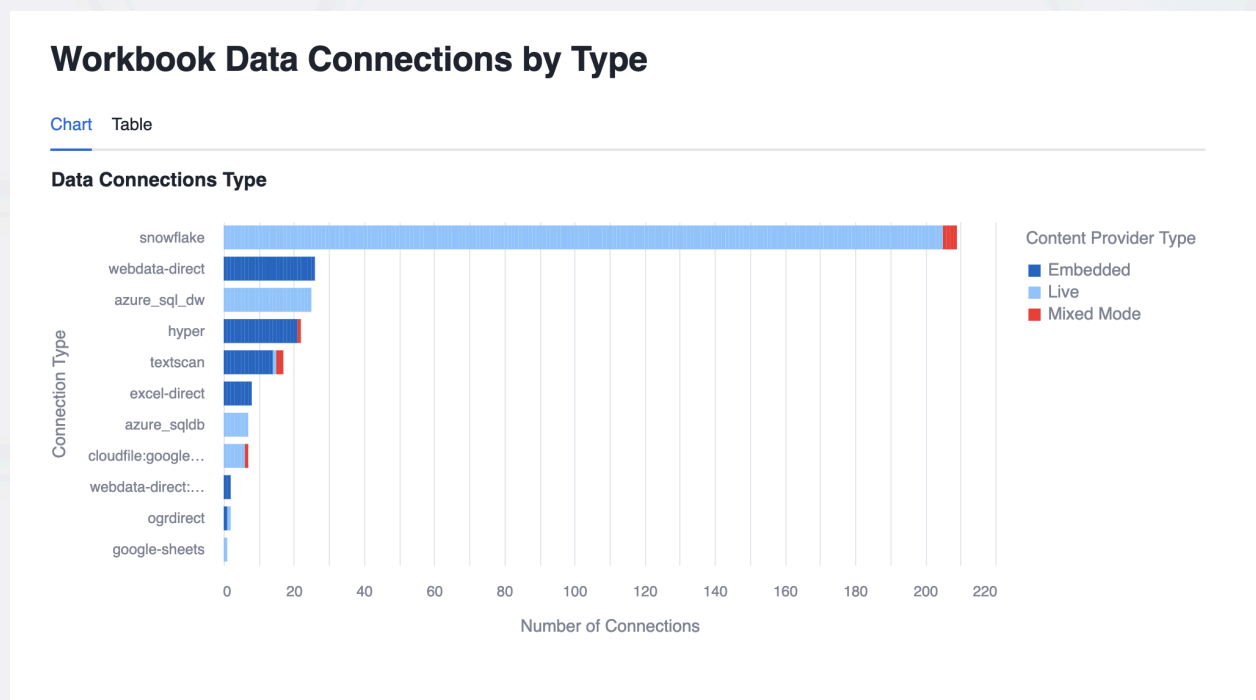
[Connect](#)

[Back](#)

Step 2: You are now ready to complete your BI assessment. This most likely includes the following:

1.1 Data Connections Metadata

You need comprehensive information on every data source, including their names, types, sizes, number of tables, columns, and calculated fields. Identifying overlaps and redundancies in these data sources is crucial, as it can save you countless hours by preventing the unnecessary migration of duplicate data from Tableau to Power BI.




1.2 Duplication of Data sources

Understanding and addressing duplication or overlap in data sources is essential. By avoiding the migration of similar data sources multiple times, you can significantly reduce the time and effort required.

2
Datasets Analyzed

29
Identical Tables

682
Duplicate Columns

Issue - Duplicate Dataset 

Status: To Do Assigned to: Unassigned Priority: High

ISSUE - SUMMARY

The content provider type for this dataset is PbiXInImportMode. There are 1 copies of this dataset. This duplication includes 29 identically named tables, or 100.0% of the tables, and 682 duplicate columns.

Recommendation

It is advisable to clean up the dataset by removing these duplicated columns. This will improve data integrity and processing efficiency.

Metrics | **Lineage**

Similar Datasets

Summary - BESS Zoom Reset Zoom out

■ Removed ■ Added ■ Copied ■ Modified

Dataset Comparison

Base Dataset: [BESS US - Summary \(PbiXInImportMode\)](#)

Similar Dataset: [Summary - BESS \(PbiXInImportMode\)](#)

Overview

Asset Type: Dataset

Asset Name: [BESS US - Summary](#)

Asset ID (LUID): [e9474679-4c70-4242-8000-000000000000](#)

Link: [View Issue](#)

Category: -

Cost Issue: -

Workspace: -

Identified At: 12/16/2023 09:30 AM

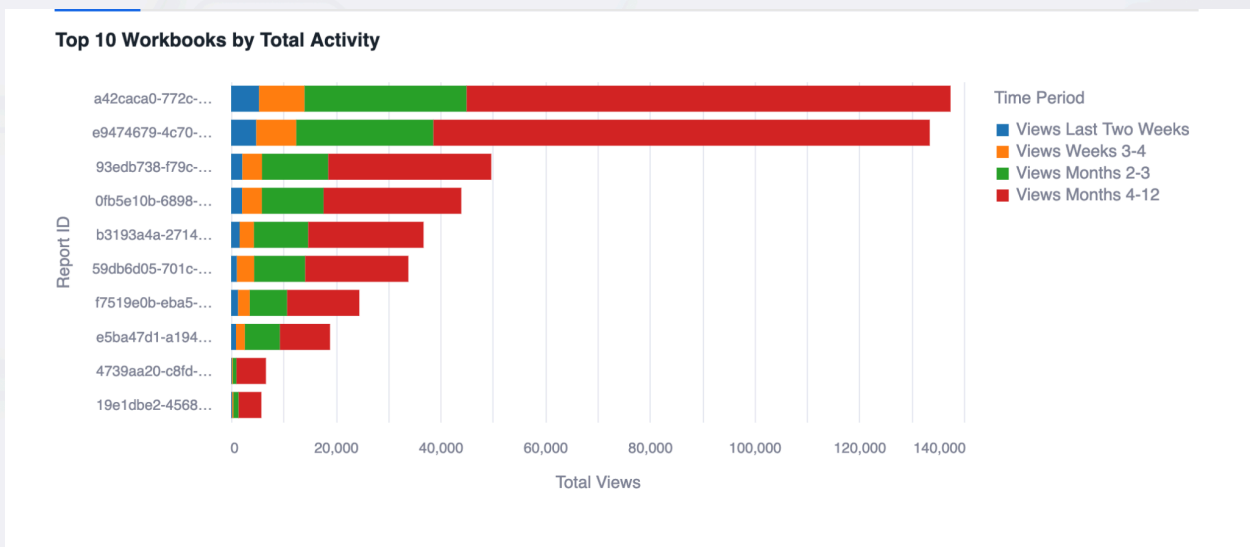
Owner(s): [PbiXInImportMode](#)

Datasource(s): -

Capacity(s): -

1.3 Activity Data

Gaining insights into activity at the data source and workbook level is vital. It may seem straightforward, but many migrations simply lift and shift everything, including assets that haven't been used in years. DataLogz automatically identifies and provides detailed insights into what is important and what is unnecessary to migrate, ensuring a more efficient and streamlined process.



1.4 Identify Power Users, Department Access, and Asset Owners

Datalogz automatically identifies the owners of each BI asset and the most significant users, providing valuable insights for your Power BI workspace strategy. This helps in organizing reports effectively to prevent future clutter. By integrating with AD Groups, Microsoft Graph API, or Workday, Datalogz offers detailed information on who owns and accesses each asset.

1.5 Create Complexity Metrics

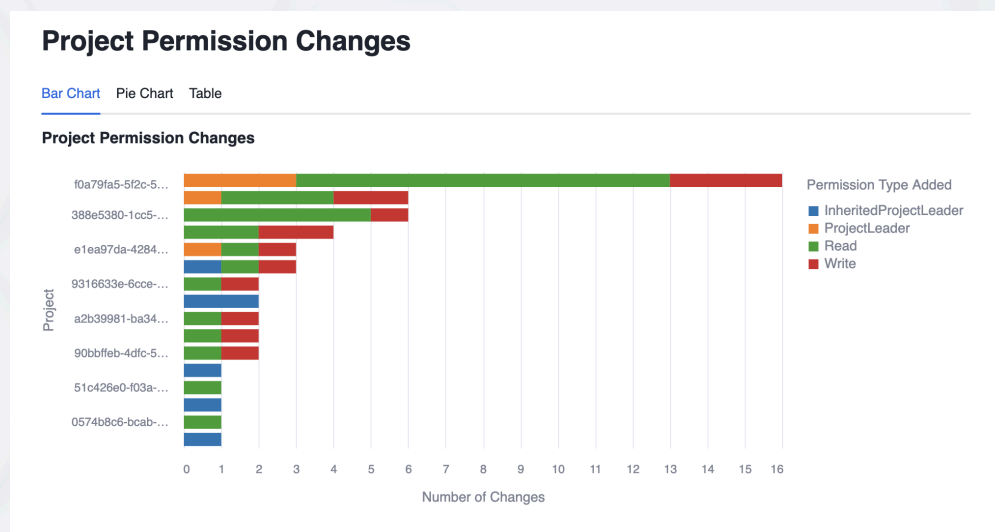
A complexity score for a BI migration is a measure of how difficult it will be to move a specific data source or workbook, considering factors like size, custom logic, dependencies, and refresh types. It helps prioritize simpler, high-ROI items first, maximizing migration efficiency and team adoption.

Datalogz automatically assigns a complexity score to each data source and workbook based on criteria such as asset size, number of custom logic or expressions, number of dependencies, and type of refresh. These scores can be customized to fit the specific needs of your environment.

Complexity Score (CS) = $w_1 * \text{Asset Size} + w_2 * (\# \text{ of calculated fields}) + w_3 * (\# \text{ of dependencies}) + w_4 * (\text{Refresh Type})$

1.6 Understand Proper Access and Permissions

Ensure that permissions are consistent across both BI systems to avoid expanding access to sensitive data. Datalogz flags personally identifiable information (PII) and provides the current access radius, which can be utilized in your validation process to maintain data security.

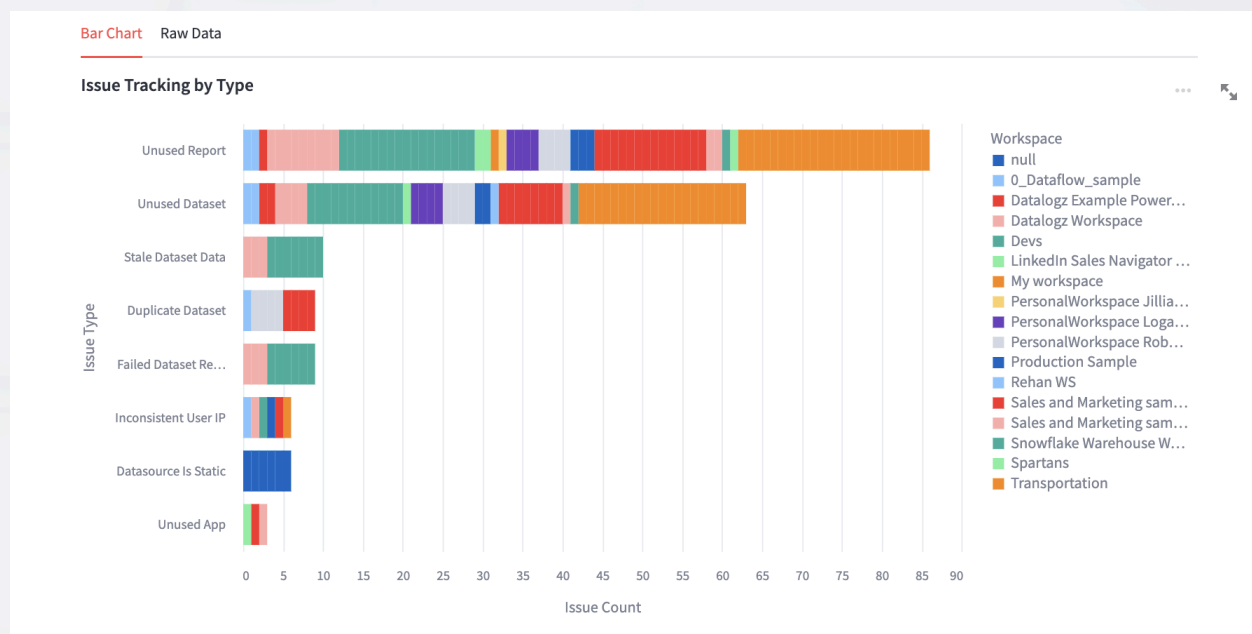


2. Clean-up the Environments

Once you have a clear understanding of your environment, the next step is to clean it up before migrating. Imagine the time it would take to email every business user to check if they still need the "Sales 2022 Performance Report" – a task that is both outdated and inefficient.

With Datalogz, you receive immediate insights into all the issues within your current environment. For migrations, we recommend addressing the following:



- Unused data sources
- Unused workbooks
- Unused dashboards
- Unused views
- Consistently failing refreshes
- Stale datasets
- Duplicate datasets



To avoid these problems in the future, you need a BI Ops strategy with long term governance...a proactive effort to prevent these issues of progressive data and BI sprawl. But, for the clean-up initiative it doesn't stop there. Let's show you how to address these issues.

2.1 Automating Workflows for Cleaning

Instead of having your team perform manual cleanup, redirect the task to business users using automated workflows. For each unused report, Datalogz provides the necessary context and assigns it to the relevant end user for resolution. This triggers an email alert with follow-up notifications, shifting the responsibility from a small migration team to the end users who know their business and can confirm the need or lack thereof for each BI asset. The workflow can be customized to include additional notifications or set a final decision date before the report is automatically archived.

Issue - Unused Report 
X Close  Save

Status: To Do


Assigned to: PL Pablo Lerdo

Priority: Low

Overview

Asset Type: Report

Asset Name: Report for push dataset

Asset ID (LUID): c091055d-ce5a-496e-bcf9-6e09b5ca7291 

Link: <https://app.powerbi.com/groups/6ce801d6-10a2-44c9-8456-0e8cde22fcfe/directreports/c091055d-ce5a-496e-bcf9-6e09b5ca7291>

Category: Cost Issue

Workspace: Devs

Identified At: 7/1/2024 12:40 AM

Owner(s): Zaheer

Datasource(s): ANALYSIS SERVICES
pbiazure://api.powerbi.com//sobe_wowvirtualserver-4d707706-62a9-4422-872d-d4bdac9dcb82

Capacity(s): PP3 Premium Per User - Reserved

Report for push dataset

This report has not been used by anyone in the last 762 days.

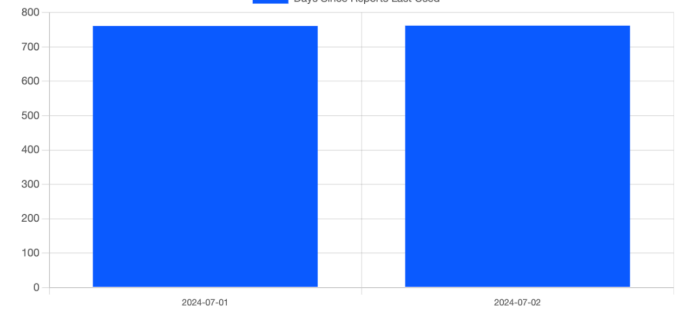
Recommendation

Metrics Lineage

Choose Metric: Days Since Reports Last Used

Choose Chart type: Bar Chart

Days Since Reports Last Used Over Time



Date	Days Since Reports Last Used
2024-07-01	~750
2024-07-02	~750

With a clear understanding of what needs to be migrated and having eliminated unnecessary BI assets, it's time to begin the migration process. There are several more steps in the process and Datalogz's Control Tower can help with many of them, but if you followed these instructions you should be off to a great start in your migration program.

By using Datalogz's Control Tower software, you can expedite your BI migration and reduce the effort on your central team by up to 60%. Unlike traditional migrations that are often time-consuming, inefficient, and poorly executed, Datalogz's

software automates the thorough assessment of your environment and the design of the end state, ensuring a smooth and efficient process.

In conclusion, a successful migration from Tableau to Power BI hinges on thorough preparation and strategic execution. By leveraging tools like Datalogz's Control Tower, you can automate and streamline the assessment and cleanup phases, ensuring a smooth transition. Properly evaluating and optimizing your BI environment not only saves time and resources but also enhances data quality and performance. With these best practices, you're well on your way to a more efficient and effective BI system.

To illustrate the impact of these strategies, let's explore a real-world example. In this case study, we examine how Datalogz facilitated a seamless and efficient migration for a Fortune 500 consumer packaged goods (CPG) company, addressing key challenges and optimizing its data environment.

Case Study:

Streamlining a F500 CPG Company's BI Migration

1. Introduction

To boost its data analytics capabilities and cut costs, a Fortune 500 Beverage company strategically migrated from Tableau to Power BI. This effort involved moving 10,000 Tableau reports into an existing Power BI environment with over 70,000 reports. The transition aimed to capitalize on Power BI's advanced features and ensure better integration with their current data infrastructure. Datalogz was instrumental in facilitating a smooth and efficient migration process, overcoming key challenges, and optimizing the company's data environment.

2. Challenges Faced

Challenge	Details	Impact Category*
Dataset Duplication	Numerous redundant datasets cause unnecessary storage costs and confusion	C, O, G
Asset Management	Inefficient usage and lifecycle management of data assets	C, O, G
Ecosystem Understanding	Lack of comprehensive understanding of the existing Tableau and Power BI ecosystem	G, O
Resource Utilization	Optimal allocation of data assets within current capacities	G, O
Licensing Costs	High costs associated with Tableau licensing	C

C = cost, G = governance, O = operational efficiency, S = security

3. Our Approach

To address these challenges, Datalogz implemented a structured and comprehensive migration support strategy, focusing on several key areas:

1. Dataset Duplication & Consolidation

- Conducted a thorough analysis to identify and recommend the consolidation of over 1,600 duplicate datasets.
- One Dataset example revealed 682 duplicate columns and 29 identical tables, streamlining the data environment significantly.

2. Asset Prioritization

- Identified critical assets for prioritization based on usage patterns and the company's business inputs to ensure they were migrated first, reducing the risk of data loss and ensuring business continuity.
- Created a strategic roadmap for the migration of less critical assets, optimizing resource allocation, which includes complexity scores, dependencies, and migration order.

3. Asset Life Cycle Management of Unused Assets

- Implemented a lifecycle management process for unused assets, identifying and deprecating obsolete data assets, finding over 64,000+ clean-up opportunities
- Ensured that only active and necessary datasets were migrated, reducing clutter and improving data quality.

4. Understanding the Existing Power BI Ecosystem

- Conducted an in-depth analysis of the existing Power BI ecosystem to understand its structure and usage patterns.
- Identified potential duplication and inefficiencies, thereby reducing the effort required for migration and minimizing disruptions.

5. Best Asset Destination Given Current Capacities Utilization

- Analyzed current capacity utilization to determine the optimal landing spots for migrating assets.

- Ensured efficient use of existing capacities, preventing overloading and underutilization of resources.

6. Tableau Licensing & Contract Savings

- Identified opportunities for significant cost savings by terminating redundant Tableau licenses and contracts.
- Provided actionable insights that led to a streamlined and cost-effective licensing strategy scheduled for implementation in 2024.

4. Outcomes

- **Cost Savings:** Significant reduction in licensing costs (our business case estimated \$1.1 million) due to the elimination of unnecessary Tableau licenses and better resource utilization within Power BI.
- **Improved Data Quality:** Enhanced data accuracy and reliability through the consolidation of duplicate datasets and the deprecation of unused assets.
- **Optimized Performance:** Efficient asset allocation and capacity management resulted in improved performance and reduced downtime.
- **Seamless Migration:** A well-planned and executed migration strategy minimized disruptions and ensured a smooth transition from Tableau to Power BI.
- **Future-Ready Ecosystem:** The company now benefits from a streamlined, efficient, and scalable Power BI ecosystem, better suited to their analytical needs and growth plans.

5. Conclusion

The migration from Tableau to Power BI for this large CPG player was a complex but highly successful project. Through a strategic approach focusing on dataset consolidation, asset prioritization, lifecycle management, and cost optimization, Datalogz facilitated a seamless transition that significantly enhanced the company's data analytics capabilities while delivering substantial cost savings. This case study highlights the effectiveness of Datalogz's methodology in large-scale BI migrations and optimizing data environments for better performance and cost-efficiency.

For more information about this and other BI Migration success stories, please contact us at sales@datalogz.io.