IMPETUS | leaplogic

Trail Manual

For modernization to the Databricks Lakehouse

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1 Objective

This document aims to guide the first-time users how to access and use LeapLogic for the following:

- · Automated assessment of data warehouse and ETL workloads
 - How to configure an assessment pipeline in LeapLogic
 - What is available in a LeapLogic assessment report
- Automated code transformation of data warehouse and ETL workloads
 - How to configure the code translation pipeline in LeapLogic
 - How to download the converted code and execute in Databricks workspace

2 LeapLogic Value Proposition

2.1 Workloads assessment using LeapLogic

Automated assessment provides actionable recommendations that helps users to plan the migration. With automated inventory and profiling of data warehouse, ETL, and analytics workloads, assessment using LeapLogic can help users to:

- Create a robust plan to ensure business continuity
- Chalk out a prioritized roadmap of use cases based on risk, SLAs, and enterprise business goals
- Create a phase-wise, prioritized blueprint of migration plan
- Strategize the offload program based on data-driven analysis and insights
- Craft a full-scale transformation strategy as per the business use case

2.2 Automated code transformation

LeapLogic's intelligent transformation engine automatically converts the code in batches, offering the following benefits:

- Creation of a drag-and-drop-based code transformation pipeline
- Automated code transformation for a variety of code types and sources
- Code packaging and orchestration directly executable using Databricks-native wrappers
- Preservation of the core business logic with automated transformation to native-Databricks Lakehouse equivalent format
- Code optimization recommendations for better performance on Databricks
- Repeatable, extensible, and verifiable transformation methodology

3 Legacy data warehouse and ETL platforms supported by LeapLogic

#	Data warehouse	Input type
1	Teradata	SQL/BTQ/Procedure
1		KSH
2	Netezza	SQL/Procedure
3	Oracle	SQL/Procedure
4	SQL Server	SQL/Procedure
5	Vertica	SQL/Procedure
5		KSH/BASH/SH

#	ETL	Input type
1	Ab Initio	KSH
2	Informatica	XML
3	DataStage	XML/DSX
4	SSIS	DTSX

#	Analytical platform	Input type
1	CAC	SAS Script
1	SAS	EGP

4 Demo videos

Demo videos are available to guide the users with automated assessment and code transformation pipelines using LeapLogic

4.1 Assessment

<u>Watch this video</u> to understand how to use LeapLogic for creating a data warehouse or/and ETL assessment pipeline and review the assessment report.

4.2 Code transformation

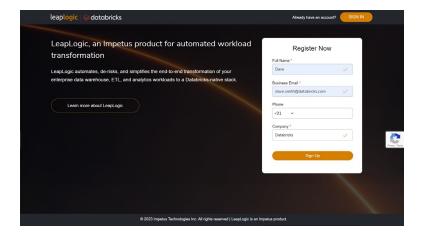
<u>Watch this video</u> to understand details how to create a code transformation pipeline and execute the code in the Databricks workspace.

5. Registration and login

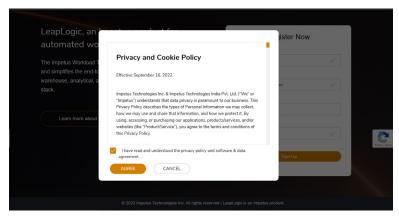
Follow these steps to experience LeapLogic assessment and witness how it produces actionable, descriptive, and diagnostic Insights.

1. Click https://trial.leaplogic.io/ to access the self-hosted LeapLogic environment. Fill the Registration form to Sign Up for the trial.

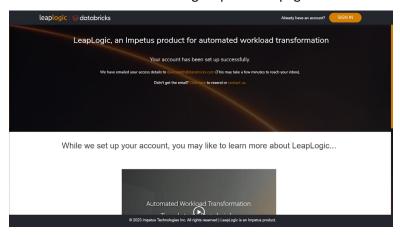
Note: If you already have an account, click SIGN IN button at the top right corner of the page and go to step no. 7



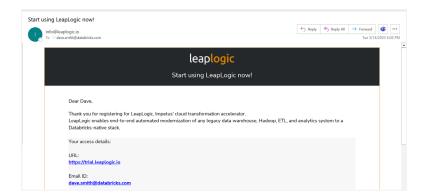
- 2. Click Sign Up
- 3. Read and agree to the Privacy and Cookie policy



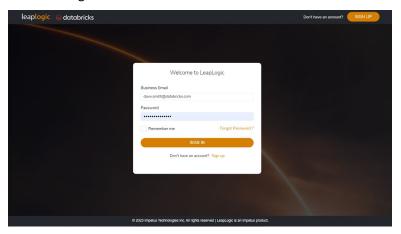
You will be redirected to the Sign-Up success page.



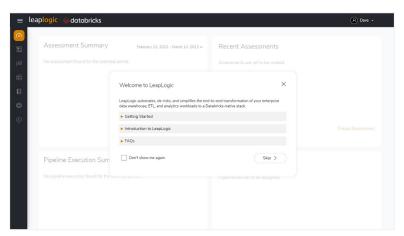
4. Check your inbox for an email from info@leaplogic.io with the subject 'Start using LeapLogic now!' and copy the login credentials.



- 5. Go back to https://trial.leaplogic.io/ and click SIGN IN button at the top right corner of the page
- 6. Paste the log in credentials and click SIGN IN.



You will be redirected to the Welcome screen



7. Click Skip

You will see a dashboard showing recent assessments and pipelines

8. Go to **Assessment > View Report** from the left navigation menu.



You will see the Assessment reports page

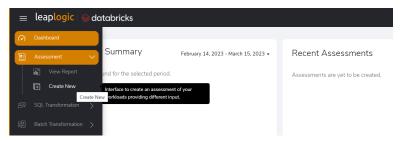
6. Prerequisites

To get useful insights from the LeapLogic assessment, you need to have:

- Required access of the database and steps to extract the ETL scripts
- · The ETL scripts that you need to transform

7. Assessment

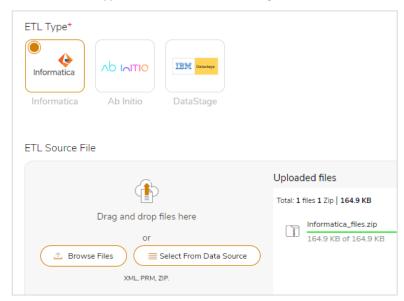
Click **Assessment > Create New** on the left navigation menu



7.1 Create an Assessment pipeline

Creating an assessment pipeline is the first step to get the required insights. To create a pipeline, follow these steps:

- 1. Give a name to your assessment
- 2. Select ETL Script in the Source Code Type
- 3. Select ETL type as Informatica, DataStage, etc.



- 4. Select Databricks as target
- Once the configuration is complete, click Execute.
 You will be redirected to the listing page that shows your assessment
- 6. Click your assessment to see detailed analysis and download reports.

7.2 Insights & recommendations

Assessment identifies and reports the following insights and recommendations:

7.2.1 Source inventory

Complete source inventory on the application UI and in downloadable Excel reports. For example,

For Informatica, workflows, mappings, sessions, expressions, source queries, procedure blocks, etc.

For DataStage, file-wise jobs, activities, stages, transformations, and job info

7.2.2 Code complexity

Complexity of ETL scripts, queries, files, and analytics scripts. Based on the complexity identified, you can estimate the conversion effort.

7.2.3 Dependency analysis

End-to-end dependency structure displayed as an interactive graph on the application UI and can be downloaded as Excel reports. It provides various options to filter and search by specific target tables, entities, jobs, etc.

Insights	Benefits		
Dependency structure: end-to-end lineage	 Identify the phase-wise scope for migration by dividing migration into separate logical units. 		
 Triggering orchestration scripts 	Sprint planning		
 Participating scripts 			
 Input and output tables 			
Orchestration sequence			

7.2.4 Recommendations

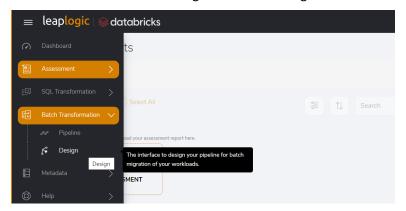
- Recommends files, queries, entities, applications, and users for migration
- Provides optimization recommendations for schema, code, and orchestration
- Recommends a future-state architecture blueprint for Databricks Lakehouse

7.2.5 Downloadable reports

Detailed downloadable reports for offline business use. Access them from the top right corner of the screen and download the required ones

8. Transformation

Click Batch Transformation > Design on the left navigation menu



8.1 Create a transformation pipeline

To create a transformation pipeline for ETL code conversion, follow these steps:

- 1. Drag-and-drop the ETL Conversion stage from the transformation library
- 2. Double-click to configure it
- 3. Select ETL source as Informatica or DataStage as required
- 4. Select target type as Databricks Notebook (Python Notebook-compatible code) or Databricks Lakehouse (SQL-compatible code)
- 5. Once configured, click Save
- 6. Click **Execute** on the top right corner of the screen to execute the pipeline You will be redirected to the listing page that shows your pipeline
- 7. Click your pipeline to see detailed reports and download the generated artifacts.

8.2 Reports

8.2.1 ETL conversion report

The ETL conversion report shows a summary followed by the transformed ETL scripts. You can drill-down individual scripts to see the converted transformations or components.

8.2.2 Downloadable artifacts

The Transformation report provides the converted artifacts in a downloadable format for execution on the Databricks platform. Click **Download** to download the converted artifacts.

9. Getting help

Contact LeapLogic technical support at info@leaplogic.io for any help.