ETL Modernization Practice
Automated ETL Migration to ADF

bitwise

Data Platform Cloud Modernization Suite

End-to-End solution comprised of Bitwise Automation Tools, Frameworks and Experience to accelerate migration of Data Warehouse and Business Intelligence to Cloud Platform

ETL/ELT Modernization Practice

End-to-end migration methodology with automation at every phase

Accelerators
- Automated Source ETL/ELT Analyzer
- Automated ETL/ELT Converter
- ETL/ELT Validation Framework

Data Migration Practice

Systematic approach for accelerated and seamless data warehouse migration

Accelerators
- Database Object Analyzer
- Database Object Converter
- Data Migration Framework
- CDC Framework
- Data Validation Framework

AIML & Generative AI Practice

Leverage machine learning algorithms, statistical analysis and deep learning for delivering predictive and NLP solutions. Harness the power of Generative AI to revolutionize migration & modernization projects.

Accelerators
- Code Optimizer
- Code Documenter
- Code Converter

BI Modernization Practice

Migration framework to efficiently re-engineer legacy BI reporting in the cloud

Accelerators
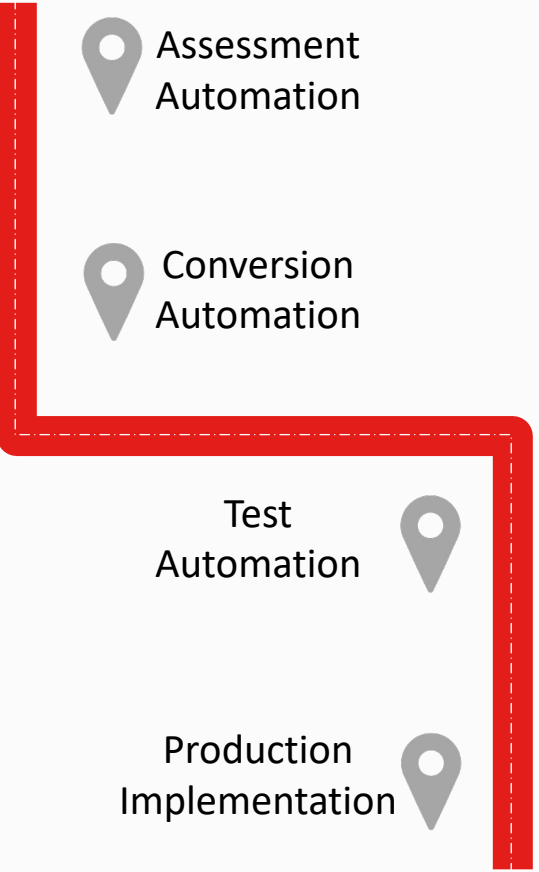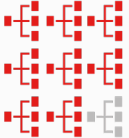- BI Migration Framework

Data Governance Practice

Successful cloud migrations start with a Cloud Data Strategy focused on data governance and data quality. Bitwise helps develop and implement the right strategy and tools for driving successful business outcomes with data.

Data Engineering Practice

With Bitwise Data Engineering Practice, we assess your existing environment and assist you to select appropriate cloud data platform, architecture and tool set to take full advantage of the target cloud platforms with state-of-the-art frameworks, best practices and expertise along with in-house accelerators to seamlessly convert, optimize, and comprehensively document data engineering workloads using Large Language Models that deliver value for your stakeholders.

ETL Modernization Practice

Conversion Methodology	Migration Tools & Utilities	Bitwise Expertise
Assessment Automation **Conversion Automation** **Test Automation** **Production Implementation**	• Flexible to Convert Any ETL to UI Based Cloud ETL Tools or Programmatic ETL • Accelerate overall delivery – Deliver faster & better with high quality of converted target code • Adoptable to specific source and target coding standards & best practices based on client needs • Generates metadata and able to export in any format • Proactive identification of areas needing workarounds through Conversion Report • Adoptable to changes in the ETL landscape • Customization in the Adoption Plugin on discovering common code patterns within the Client's environment	**12+** Years Overall 12+ years of experience in ETL Conversion **30000+** ETL Apps Automation Conversion of more than 30000+ ETL Apps **15+** ETL Tools More than 15+ ETL tool combinations

Modernization Methodology – The Agile Approach

Feedback Loop

Questionnaire Sample Jobs

Assessment (High Level)
Source Code Analyzer

Ball Park Estimates & Budget

Migration Project

Assessment (Detailed)
Inventory
Source Code Analyzer
Conversion Solution – Approach
Planning Timelines

Report

Sprint Backlog

Conversion
POC
Redesign
Code Converter
Optimization
Walkthrough

Implementation
Implementation
Warranty Support
Release Management
User Training

Testing & Validation
Validation of ETLs
Testing & Validation with
Bitwise Home-Grown Utilities
Testing Documents

Daily Scrum Meeting

Sprint Retrospective

Sprint Review

Finished Work

More accurate conversion timelines

Subject Area & Complexity Identification

Configure the conversion tool

Import the ETL in Target

Identify the pattern for configuration

Production Implementation

Automated Assessment

Automated Conversion

Optimization & Manual updates
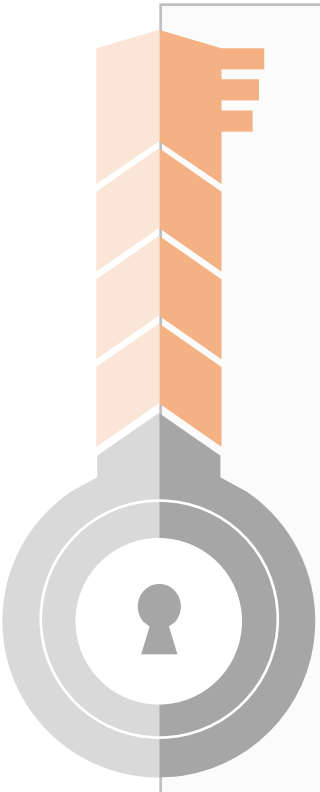
Automated Testing & Validation

Source ETL Analyzer

The **Source ETL Analyzer Tool** conducts a comprehensive analysis of the source ETL code base, identifying any uncertainties, intricacies, and data lineage. Generates detailed and Summary reports that helps in better planning and effort estimation in short time.

Key Features

- **Real quick** automated analysis of Source ETL Code

- **Comprehensive Detailed** and **Summary** report

- **Assess** the complete subject area and derive reports which are **easy** to understand

- Reports can be easily leveraged to identify and derive the Source ETL **code complexity**

- Complete **code lineage understanding** before conversion

- Supports ETL tools like **Informatica, SSIS, DataStage and Ab Initio**

- **Minimal** System Requirements to run the tool.

- **Reduces Migration Risk** by identifying the **unknown complexities**

- Helps in solutioning and migration **planning**

- Reports helps to get the **accurate estimates, time & cost** required in migration

ETL Conversion Tool

ETL Conversion Tool is a proprietary migration solution that uses automation to convert any ETL code to any other ETL tool. Built on two decades of extensive experience and research across all major data integration platforms. This Conversion Tool works with all leading ETL tools including Ab Initio, DataStage, SSIS, Talend, Informatica, and cloud UI based ETL tools like ADF or programmatic data processing frameworks like Databricks, MS Fabric Notebook, etc. with PySpark Code for any migration requirements

Key Features
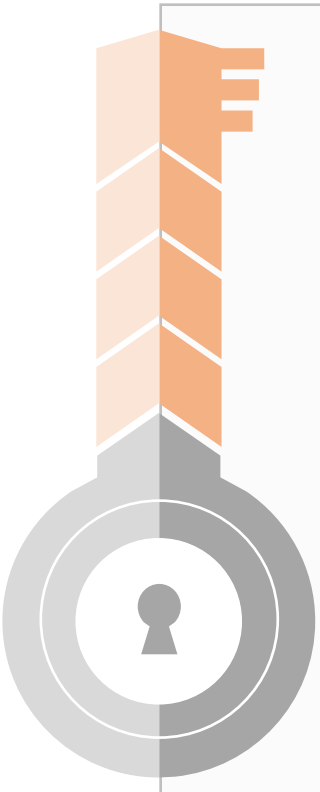
- Automates conversion from one Data Integration platform to another using **Hub and spoke architecture** that improves developer productivity and vastly reduces coding efforts.

- Generated python code adheres to Python & Spark **coding standards**

- Support for **external parameters**

- **Compatible** with all major ETL platforms or programmatic data processing platform like Databricks

- **Accelerates** overall delivery

- Migrates ETL code in **disparate** systems across platforms with minimal manual effort.

- Generates Optimized code adhering to **Coding standards**

- **Comprehensive** conversion **report** which provides proactive identification of areas where workarounds and manual intervention is required.

- **GUI**, **Command Line** Interface

- **Minimal** System Requirements to run the tool.

ETL/Data Validation Accelerator

Python based automated validation utility which helps to perform Schema and Data validation during ETL migration from source to target, also can be leveraged for Stored Procedure, View, MV migration testing.

Key Features
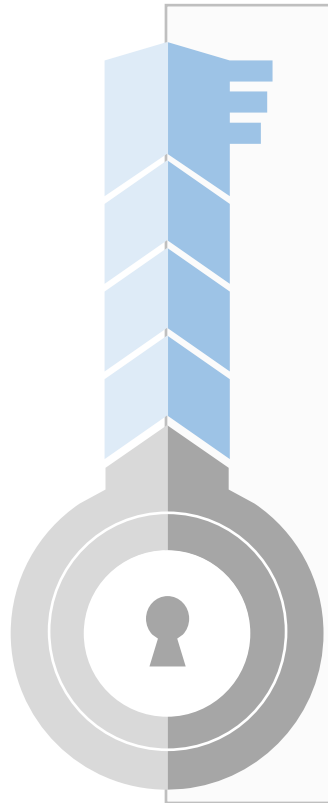
- Automate Testing of **Relational**, **Flat Files**, **NoSQL**, Cloud **Databases**.
- Support for **Full** and **Sample** Validation.
- Support **Schema** Validation
- High **Performance** and highly **Scalable**.
- Support for **Multiple database**.
- **Comprehensive** comparison and summary **report**
- Support **Manual** or **Scheduled** execution
- **GUI**, **Command Line** Interface
- Easy Integration with any **CI/CD tools** and **schedulers**
- **Platform agnostic** (can be hosted on Windows, Linux, On-premises or Cloud)
- **Minimal** System Requirements.

Thank You!

Inquiries?

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