brillio
ADAM
Agentic Data Management

Agentic Data Engineering

An ADAM Foundational Solution

Reimagine Data Engineering and Pipelines with Agentic ETL Migration.

Business Challenge

Enterprises relying on legacy ETL platforms like IBM DataStage face mounting pressure to modernize their data infrastructure for agility, scalability, and cloud-native performance. However, traditional migration approaches are often rigid, rule-based, and limited in automation, resulting in high manual effort, prolonged timelines, and suboptimal outcomes. These static tools struggle to adapt to the complexity and variability of real-world ETL workloads, making modernization a costly and error-prone endeavor. There is a critical need for an intelligent, adaptive solution that accelerates the migration to Azure-native platforms like Azure Fabric and continuously learns and optimizes the process, minimizing manual intervention and maximizing automation efficiency.

Brillio's Agentic AI Solution for Data Engineering

Our Agentic Data Engineering solution uses the following agents for IBM DataStage to Azure ETL migration:

- **DataStage Parsing Agent:** Analyzes DataStage jobs, stages, links, and parameters to extract end-to-end ETL logic.
- **Logic Abstraction Agent:** Converts transformation logic (joins, filters, aggregations, lookups) into a structured intermediate format.
- **JSON Conversion Agent:** Translates the abstracted logic into JSON schemas aligned with Microsoft Fabric pipeline configurations.
- **Intelligent Mapping Agent:** Maps each DataStage component to the appropriate Fabric pipeline activity or transformation, ensuring compatibility and optimization.
- **Source Control Integration Agent:** Pushes the generated pipeline definitions to Azure Repos or any Git-based version control system for version tracking.
- **CI/CD Orchestration Agent:** Integrates with Azure DevOps or GitHub Actions to automate testing, validation, and deployment of pipelines across environments.

Use Case Examples

Consider a scenario where a user extracts customers from Oracle, filters the active ones, collates their transactions, aggregates spending, and loads the data into Azure SQL. AI agents can analyze it, convert the logic into an Azure Fabric-compatible JSON construct, and deploy it via Git to Microsoft Fabric. The outcome? The data migration is automated with minimal manual effort and is ready for cloud deployment.

Benefits

- **Accelerated** migration with reduced manual effort required for analyzing and converting legacy DataStage jobs.
- **Consistent** and accurate logic transformation with reduced human error.
- **Self-learning** solution that improves with every successfully migrated data pipeline.

ABOUT BRILLIO

Brillio is a digital technology services company that drives AI-first engineering and design-led experiences for global enterprises. Born digital in 2014, its consulting-led services span Customer Experience, Data & AI, Product Engineering, and Digital Infrastructure. With an industry-leading NPS of 71, Brillio accelerates time to market through its proprietary BrillioOne.ai platform, powered by AI-ready talent with deep domain expertise.

Brillio is the official Digital Transformation Partner and the official Data and AI Services Provider of Atlassian Williams Racing. Brillio partners with leading technology providers including Microsoft, AWS, Google Cloud, Salesforce, Adobe, Databricks, and Snowflake and operates with 6,000+ “Brillians” across 15 global delivery centers. Consistently recognized as a Great Place to Work® since 2021, Brillio blends innovation, talent, and purpose to deliver measurable outcomes for clients and fulfilling careers for employees.

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