

Migrating 40,000+ Data Objects from WhereScape to dbt in Six Months

CLIENT

The client is a global consumer goods leader operating across complex supply chains, production, and commercial environments worldwide.

THE CHALLENGE

The client needed to replace a legacy DWH automation platform with dbt without risking existing operations, governance, or data quality.

- Migration of 40,000+ database objects within a strict six-month timeline
- Delivery of a 1:1 migration with no functional or structural changes
- Preservation of the Data Vault model exactly as implemented in WhereScape
- Minimal disruption to reporting and business users

SOLUTION

UD4D designed a fully automated migration framework, using Python-based code generation instead of manual rewrites.

- Analysis of existing WhereScape metadata and object dependencies
- Development of Python scripts translating WhereScape metadata and logic into dbt models
- Preservation of full object parity and Data Vault structures through automation
- Implementation of a validation framework comparing source and target objects
- Transition of documentation and lineage from a visual tool into dbt's documentation framework

BUSINESS IMPACT

40K+ objects migrated in six months: Python-based code generation handled tens of thousands of objects within months rather than years.

1:1 data parity verified: Systematic testing confirmed source and target parity, preventing human error in the complex Data Vault logic.

0 downtime during the migration: Identical system behaviour across all migrated objects kept business operations running without interruption.

100% Data Vault architecture preserved: The existing Data Vault model transferred fully intact, protecting prior architectural investment.

TECHNOLOGY STACK

WhereScape | dbt | Data Vault | Python