

AI Driven S/4HANA Transformation for a Leading Automotive Audio Manufacturer

Client overview

A leading automotive and lifestyle audio manufacturer is undertaking a complex brownfield SAP S/4HANA transformation from a highly customized ECC environment. Preparing for a global big bang release across its manufacturing plants, the client needed to ensure absolute test readiness. The objective was to build a comprehensive, risk-based test library of scenarios spanning all core workstreams and cross-functional requirements to safeguard the deployment.

Challenge

The client needed to:

- **Zero baseline repository:** The client lacked an existing test library and needed to build a comprehensive foundation for SIT and UAT readiness in weeks, not months.
- **Fragmented legacy knowledge:** Decades of process customizations were scattered across disjointed formats (PDDs, TSDs, FSDs, RICEFWs), leaving no single source of truth.
- **Constrained SME bandwidth:** With business users already stretched thin, QA needed a highly efficient method to produce test assets without overwhelming process owners during reviews.
- **End-to-end traceability gaps:** The team required a reliable way to map L1 through L4 processes directly to test cases and seamlessly migrate those assets into a central test management tool.

Solution

- **Centralized Knowledge Graph:** Ingested decades of structured and unstructured SAP documentation (PDDs, FSDs, TSDs, RICEFWs) into COCO to build a dynamic knowledge base. This preserved historic brownfield customizations while mapping the client's future-state processes.
- **Agentic process extraction:** Deployed COCO bots to automatically scan and extract Level 4 processes with Level 5 activity steps, accurately identifying connected systems, business roles, and transaction codes.
- **Automated test suite generation:** Accelerated the creation of full coverage SIT, UAT and Regression scenarios, shrinking the timeline from months to mere hours.
- **Traceable test case:** Scenarios converted into execution-ready test cases with traceability back to the original L4 processes, fully formatted for immediate upload into the client's test management tool.
- **Streamlined SME validation:** Implemented a human-in-the-loop (HITL) model that shifted business user involvement strictly to final output validation, drastically reducing the upfront effort required from at-capacity teams.
- **Dynamic continuous generation:** Leveraged the agentic workflow to quickly re-run and generate updated testing artifacts on demand as new documentation was created.

Key benefits

~70% prep time saved

Accelerated test preparation through an AI-infused delivery model compared to traditional manual authoring.

1,000+ test cases in hours

Rapidly auto-generated test assets grounded in historical business knowledge, condensing months of work into days.

~75% scenario selection rate

High usability and accuracy, with majority of AI-generated scenarios locked in as Priority 1 and 2 for SIT and UAT.

3X greater test coverage

Uncovered critical processes and business variants upfront that original project estimates missed, significantly reducing the risk of late-stage scope creep in UAT.