AIRBUS IMPROVES FLIGHT TESTING EFFICIENCY

For AIRBUS, leveraging their data means speeding innovation and product development by optimizing flight test campaigns and improving test analysis – all while maintaining safety and compliance.

Complex Testing, Greater Efficiency

The AIRBUS flight test program is a key component of aircraft development. Every part in every possible configuration must be tested in as many scenarios as possible. This creates multiple types of data, all in different silos — plane configuration criteria, flight data criteria, flight event behaviors, crew reports, and other unstructured content criteria. Historically, each test flight required manual research into previous tests to create a set of specific requests, and the effort to leverage data to optimize those new flight tests was considerable.

While a lot of data was generated during testing, AIRBUS' process to search within the data in order to simply retrieve a specific condition and its result was a slow, manual one. And, flight test environments are constantly changing, with a series of maneuvers done at specific locations, which meant that traditional data approaches couldn't keep up with this complex data challenge.
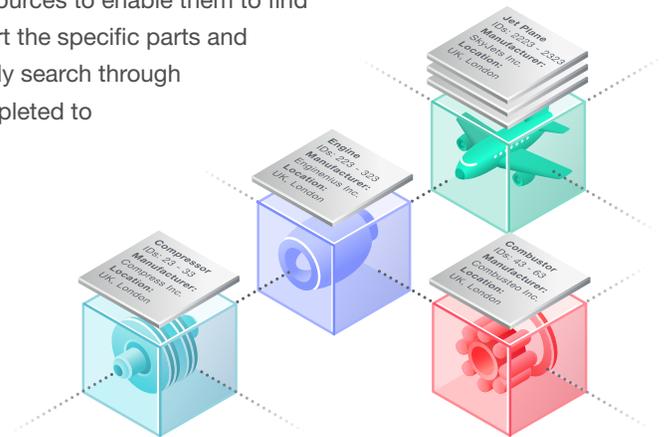
> " For testers and specialists, the platform is a revolution. Two years ago, they used to do time-consuming flight-by-flight analysis. Today, they can compare thousands of tests quickly—this is part of the multi-flight analysis revolution."
>
> Laurent Peltiers, Test Data Processing Expert, Flight & Integration Test Center

MarkLogic Data Hub Platform

AIRBUS needed to integrate all the test data from the multiple data sources to enable them to find a historical test that matched the exact parameters needed to support the specific parts and components they were testing. They then needed to be able to quickly search through existing flight data to see if a certain flight test had already been completed to reduce duplicating tests and speed the development of new tests.

With MarkLogic's Data Hub Platform, they were able to integrate the diverse data, map those data points to the aircraft parts and components of each tested aircraft, and then search across that data to find test data with precise queries, including specific conditions, locations, components and temporal patterns in sensor data.

Flight Test Optimization and Shortened Lead Time

AIRBUS is now leveraging previous flight test data to reduce test preparation times, optimize new flight tests and avoid running redundant tests. This allows AIRBUS to reduce the time and costs of conducting those critical tests without compromising safety.

Snapshot of benefits:

- Results of complex test data queries in seconds
- Complex search over massive diverse data sets
- Address new requirements in hours, not days
- Adaptability for new source data

MarkLogic Unleashes the Power of Your Data

MarkLogic's Data Hub Platform empowers our manufacturing customers to more quickly achieve a unified, 360 view of their data – at less cost. Find out why leading manufacturing organizations trust MarkLogic to help them deliver innovative products, increase the value of their content, and gain a competitive edge.

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