Aeronautical Data Validation Platform

Standard ATM formats for aeronautical, weather and flight data (AIXM, WXXM & FIXM) are becoming intensively used across all boundaries in the worldwide aviation data exchange process. In an operational context, data validation is essential as the precondition for safety, security and efficiency of operations.

Our award winning Validation Service performs syntactic and semantic validation of aviation data to ensure aeronautical data quality. The validation results are available either in the web client or through the flexible API.

Use Cases

- Data Quality Assessment for Regional and Global Aviation Data Exchange
- SWIM Enabled Collaborative Decision Making
- Structural and Logical Data Consistency Check
- Validation and Business Rules Enforcement in Aviation Workflows
- Semantic Validation using Application Specific Business Rules (SBVR)

Business Benefits

- One-Stop-Shop for Aviation Data Quality Assessment
- Support for Collaborative Decision Making
- Increasing safety of ATM Systems through Improved Data Quality.
- Reducing ATM Costs through Scalable Cloud Services.

Data validation is a cross cutting concern which affects many aviation workflows. Our validation platform contributes to the quality of aviation data by identifying and solving problems, which might occur when inaccurate, wrong formatted or syntactical or semantic incorrect information is consumed or provided by operational ATM services. In the context of data exchange, this service is the only guarantee that the data exchanged between regional SWIM domains remains correctly assessed and interpreted.

The Aeronautical Data Validation Platform is available on the web at **swim.m-click.aero/validator**

Aeronautical Data Validation

- Syntactic Validation based on Aviation Data Schemas (AIXM 5.1, FIXM, IWXXM, AFX, AMXM)
- Service Request Validation (OGC WFS and WPS, SOAP, NM B2B)
- Logical Consistency Check based on SBVR and Schematron Business Rules
- Geospatial Validation Asseertions
- Extensible, domain specific Rules Sets
- Integration into Aviation Workflows via SWIM compatible API
- Geographic and Spatial Business Rules using Custom and ISO Geometry Functions
- Web based Management Tool and SWIM Compatible API

Validation Management

- User Management
- Web based Data Validation Dashboard
- Business and Validation Profile Management

The Aeronautical Data Validation Platform is available both as cloud-based service and on-premise software.

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