

A banner image with an orange background. It features a world map with white lines connecting various points, suggesting global connectivity. A blue and red airplane is flying over the map. The title 'Aeronautical Data Repository' is written in large white letters across the center.

# Aeronautical Data Repository

The powerful, easy to use Aeronautical Data Repository for modern aviation data formats (AIXM, D-NOTAM, FIXM/GML, IWXXM). Build on top of our document-based, state of the art spatial database for aeronautical, weather and flight information management.

It supports spatial and temporal queries and filters provided through an OGC compliant, open standards and SWIM compatible WFS 2.0 interface with WFS Temporality Extension (WFS-TE).

## Use Cases

- ▲ The Aeronautical Data Repository serves as the backbone for modern AIM
- ▲ Supports all kinds of aeronautical data exchange processes (ATM, ASM & AIP)
- ▲ D-NOTAM backend with support for data enrichment
- ▲ AIXM data base for fast data exchange and visualization
- ▲ AIXM data storage to support the AIP production process
- ▲ Solution for all aeronautical information providers, airlines, airports and other aviation stakeholders.

## Business Benefits

- ▲ High performance database enables fast and reliable data access
- ▲ Additional SWIM enabled connectors for easy data integration
- ▲ SWIM integration for legacy operational systems



## Aeronautical Data Repository

The repository is based on the deegree GML Framework that covers all aspects of modern data management including schema aware loading and publishing of complex aviation data. The data base offers an innovative feature and timeslice oriented data store concept for optimized fast data access.

- ▲ Support for SWIM and GML compatible aeronautical data types (AIXM, D-NOTAM, AMXM, AFX, FIXM/GML, IWXXM)
- ▲ Spatial and temporal queries and filters based on OGC compliant WFS 2.0
- ▲ WFS-TE Temporality Extension for on-the-fly Timeslice Projection and Snapshot Generation
- ▲ High performance and scalability thanks to the optimized internal architecture



The Aeronautical Data Repository provides a **SWIM compatible API Environment**

## NM Network Manager Gateway

The additional Network Manager Gateway offers B2B access to EUROCONTROL NM data. It provides notification service support and automatic data import, clearance, enhancement, semantic validation and caching.

The gateway is equipped with a powerful OGC compliant WFS-T interface to interact with the Aeronautical Data Repository.

- ▲ Management web frontend
- ▲ Notification service support and continuous automatic data import using AMQP
- ▲ Data enhancement and caching
- ▲ Seamless integration with other aeronautical data such as D-NOTAM
- ▲ Uniform access via SWIM compatible WFS 2.0 interface
- ▲ Fine grained data querying via WFS-TE spatial and temporal filters

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

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