Luciad

Next generation visualization tools for AIXM 5

Frank Suykens, Product Manager

LUCIAD - High performance visualization
Overview

- Luciad introduction
- LuciadMap & AIXM 5
About Luciad

- Software product company
  - Software components for ATC/ATM
  - High performance visualization
  - Standards
Who are Luciad customers in ATM?

- EUROCONTROL
- LOCKHEED MARTIN
- THALES
- NATS
- DFS (Deutsche Flugsicherung)
- HARRIS
- IDS (INGEGNERIA DEI SISTEMI)
- Indra
- HELIOS Technology
- LVNL (Luchtvuckerkeuring Nederlant: Air Traffic Control the Netherlands)
- skyguide
- COMSOFT
- Fraport
- Avitec
- AirData
- NAV CANADA
- ENAV S.p.A.
- Aena (Aeropuertos Espana: and Navegacion Aen
- Sicta
- Belgocnrol
- NLR
- FREQUENTIS
- SERVICE TECHNIQUE DE LA NAVIGATION AERIENNE

LUCIAD - High performance visualization
Luciad Products

LuciadMap
Software platform for ATM application development

- High performance visualization (2D & 3D)
- Open, object-oriented architecture
- On-the-fly merging of different data sources
- Direct support for Aeronautical Data Standards: ARINC424, AIXM, DAFIF, AMXS, ASTERIX, ASDI-ETMS
- Terrain and Weather
- Web and SOA enabled
- High-precision geographical calculation
- Support for mission critical applications
Luciad Products

Standards compliant

- OGC Compliant (WMS, WFS, WCS)
- Support for OGC GML, SLD, Filter specifications
- Multiple data formats and database support
- OGC clients, from thin to rich
Luciad Products

**ATCPlayback**

End user application for analysis and playback of recorded and simulated flights

- High-performance visualization of ATC fast-time simulations
- Direct support for TAAM, RAMS and SIMMOD
- Intuitive and highly interactive graphical analysis capabilities
- Graphical reporting capability to stakeholders
Luciad Professional Services

- Consultancy
- Custom software application development
- Training & Coaching

- Advanced product knowledge
- ATM Domain expertise
- Knowledge transfer
- On- and Off-site
- Networking
- Security clearance
Expertise and Strengths in ATM

High performance visualization for mission-critical applications

- Flight Planning
- Weather
- Air Traffic Flow Management
- Air Space Management Procedure Design
- Simulation and Training
- Security
- Surveillance - ATC
- Safety - Efficiency - Environment

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LuciadMap & AIXM 5

- LuciadMap strengths for AIXM 5
  - Standards support
    - GML 3
    - ISO 19115/ISO 19139
    - XML
  - Knowledge and support for aeronautical formats
    - ARINC 424, DAFIF, AIXM 3.3, AIXM 4.5
  - High performance visualization
  - Dynamic data
LuciadMap AIXM 5 package

- Detailed domain object model
  - Programmatic access to all AIXM 5 features & attributes
  - Generated directly from XML Schema
  - Reuse support for GML 3 & ISO 19115

- AIXM 5 Decoder
  - Read AIXM 5 baseline files
  - Read updates & NOTAMs (Delta’s) on top of baseline

- Visualization
  - ICAO Symbology
LuciadMap AIXM 5 package

- Temporality
  - Full support for temporality (timeslices)
  - Two types of models
    - Full model: has all time slices available
    - Snapshot model: snapshot at a specific time
- Currently supported: AIXM 5 RC 2
  - Eurocontrol Digital NOTAM trials
Demo
LuciadMap AIXM 5 future

- AIXM 5 & LuciadMap
  - Follow closely AIXM 5 evolution
  - Work with customers from early developments up to operational systems
  - Use lessons learned from Digital NOTAM trials, ...

Flexible, high performance AIXM 5 software platform
Questions?

Frank.Suykens@luciad.com
www.luciad.com