



CRONOS

Dynamic AIM system



CRONOS

CRONOS is a very innovative product, designed from the ground up as a digital dynamic AIS and ATS management system - a step ahead of the upcoming ICAO and EUROCONTROL specifications.

A set of web-modules for dynamic aeronautical and weather data management and features such as embedded modularity and extensibility meet the specific requirements of today while allowing for future enhancements and expansions for tomorrow.

Based on the latest available technology and fully integrated with the IDS AirNav Suite System, which is based on an AIXM51 compliant aeronautical database, CRONOS pro-

vides functionalities to manage both traditional and digital NOTAM messages, MET data, Flight plans & ATS messages and Pre-Flight Information Bulletins (PIB).

The CRONOS platform can be connected to Aeronautical Communication Networks of different types (AFTN / AMHS / SWIM) to pass/receive real-time aeronautical and weather information with confidence and dispatch Bulletins over different network communication patterns (s-FTP, e-mail)

CRONOS can be configured as a standalone product or can be fully integrated within IDS AirNav's Suite of Aeronautical System Solutions.

CRONOS Web-UI

Users interact with the system using CRONOS Web-UI. This web-based portal provides several modules for:

- NOTAM and Digital NOTAM management (and other x-TAM messages) and Proposals
- FPL management (and ATS related messages) and Proposals
- MET management (and visualization of digital weather charts)
- Advanced PIB management
- SDO (world-wide international and/or national Aerodb) Data consultation
- EAD PAMS Products (Publications, eAIS Packages, Charts)

CRONOS-UI provides authorized users with a rich web-GIS responsive environment for managing aeronautical information. The integrated environment enables collaborative decision making, without compromising security, and brings uniformity to ground data networks. Web-based user interfaces are a must-have in any enterprise level solution, as it enables users to access their system services from any networked device (computer, or tablets) regardless of location or operating system and with no local software installation.

CRONOS Dynamic DB

CRONOS Dynamic Database is the core of the system. It is a high-performance and high-availability dynamic aeronautical data store for the management of all types of dynamic aeronautical information, forming a single platform and fully integrated with the IDS AirNav AeroDB aeronautical static database.

SDO Baselines

IDS AirNav AeroDB serves as a managed and validated repository of static AIS data in compliance with AICM-AIXM v5.1. This data is shared with CRONOS for the composition and validation of dynamic aeronautical information, ensuring a high level of data integrity which even extends to dynamic AIS.

SDO data – used for validation and reference of dynamic information managed by CRONOS – can be also be updated by importing AIXM snapshots and updates into the repository of static AIS data.

CRONOS Portal Webservice

Through the use of service-oriented architecture, dynamic aeronautical data stored within CRONOS Dynamic Database can be shared securely with other 3rd-party systems over SWIM infrastructure (REST APIs). A set of APIs are securely available for other external systems that request data and information managed by CRONOS Portal Web-Services. These information are both aeronautical messages and digital AIXM51 packages.

Benefits

Increased efficiency: the information is encoded only once, at the point of origin. For the end user, using a digital platform will enable radical improvements in information filtering capabilities, in stopping information overload and in reducing the time spent on analyzing irrelevant information.

Consistent quality: with digital information, it is possible to put in place exhaustive and cost-efficient data validation and evaluation procedures. For example, the unavailability of a critical navaid could immediately trigger incremental PIB notifications to pilots with affected flight plans.

Better pre-flight briefing: in a digital aeronautical information platform it is possible to structure PIB by applying human factor principles that maximize the transfer of information to the pilot's working memory. For example, information can be grouped by feature affected or ordered by the criticality of the information. It can include images, weather charts and a structure that facilitate reading and create a clearer picture of a situation which could affect a pilot's flight.

Innovation: by embedding a digital NOTAM platform, CRONOS is a cutting-edge system, ready for the ICAO AIS to AIM Roadmap

Data Quality: by allowing Pilot Users or Regional Sites or Entities to request and propose Proposals of Flights or Aeronautical Events onto a digital platform, any modification changes is tracked from the point of data origination to the information distribution.

