

Engineering technical documents archiving with E-ARK specifications

Pilot project in Airbus

Ángeles Gallego García, AIRBUS



What we do in Airbus

- Airbus Commercial
- Airbus Defense & Space
- Airbus Helicopters



Is E-archiving important in Airbus?

Mehedi SARRI
Ha publicado una entrada en News · 9 de junio de 2023

Compartida con Academies in Operations, Agile, Aftermarket Strategy y 41 comunidades

Today is International Archives Day !



Archiving is the **storage of records** (specific documents, information or data) in a **secured environment** and in a controlled manner to **protect them from loss**, alteration and deterioration.

A company wide Archiving Compliance Project has been launched in order to ensure that AIRBUS is fully protected and compliant with all archiving requirements. In addition, the new digital archiving tool, AIRINA, has been developed and deployed across AIRBUS to replace ZAMIZ.

Check out the video to find more information !

Summary

- What is archiving
- Archiving vs retention
- Record Keeping
- Why archiving is important for Airbus
- How to archive

ARCHIVING VALUES

Why do we need archiving?

Electronic archiving is the **long-term preservation of electronic / digital information** (e.g. data, records, documents) in an independent physical space where the information is **protected from loss, modification and unauthorized access**. An electronic archive provides an environment to ensure the availability, traceability and integrity of the archived information during the whole archiving period.



ARCHIVING VALUES



Long Term retention (> 99 years) of corporate data assets to preserve Airbus corporate knowledge



Long term **accessibility** (> 99 years) of corporate data assets regardless the evolution of formats, technologies and IT Systems



Dispute-free, legally untouchable **evidence** that released data assets haven't been manipulated since



Use of evidence proof data in Airbus Business Processes for A/C production, parts manufacturing, logistics, supply chain etc.



Advanced **search & retrieval** of corporate data assets

AIRBUS

Important Today - EASA Part 21

All relevant design information, drawings and test reports, including inspection records for the product tested...shall be held by the type-certificate or restricted type-certificate holder at the disposal of the Agency and shall be retained

21A.55 Record keeping



For each change, all relevant design information, drawings and test reports, including inspection records ...shall be held by the applicant at the disposal of the Agency and shall be retained....

21A.105 Record keeping



For each repair all relevant design information, drawings, test reports, instructions and limitations ...be held by the repair design approval holder at the disposal of the Agency and be retained...

21A.447 Record keeping



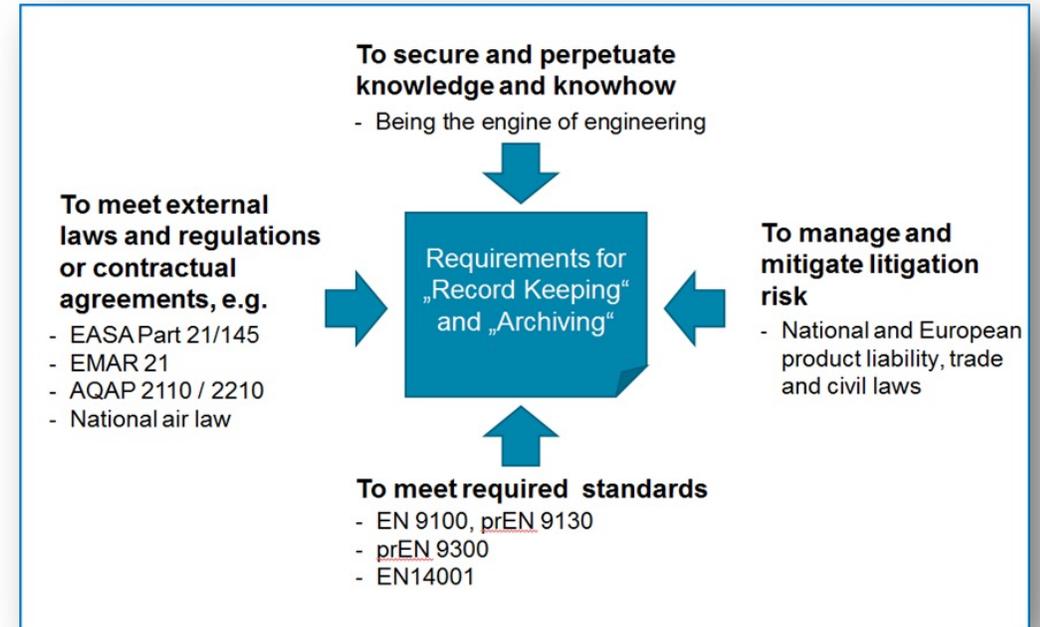
..all relevant design information, drawings and test reports, including inspection records for the article tested...shall be held by the type-certificate or restricted type-certificate holder at the disposal of the Agency and shall be retained...

21A.613 Record keeping



Establish an archiving system....ensuring conservation of the data used to justify conformity of the products, parts or appliances. Such data shall be held at the disposal of the competent Authority and be retained...

21A.165 Obligations of the holder



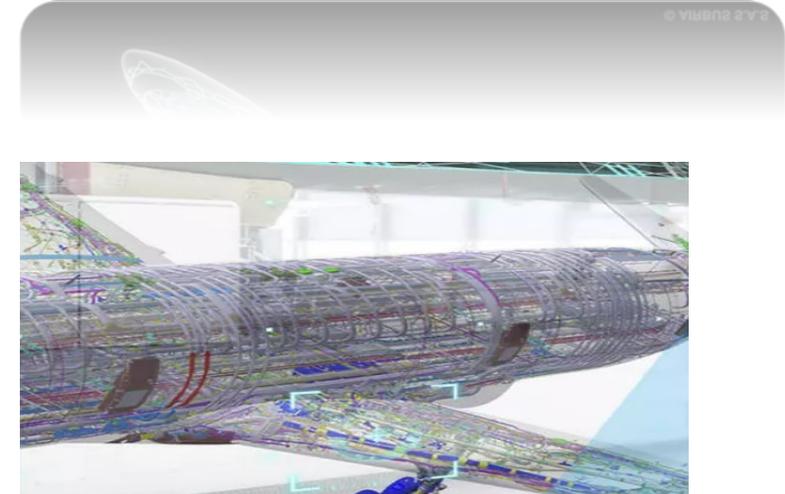
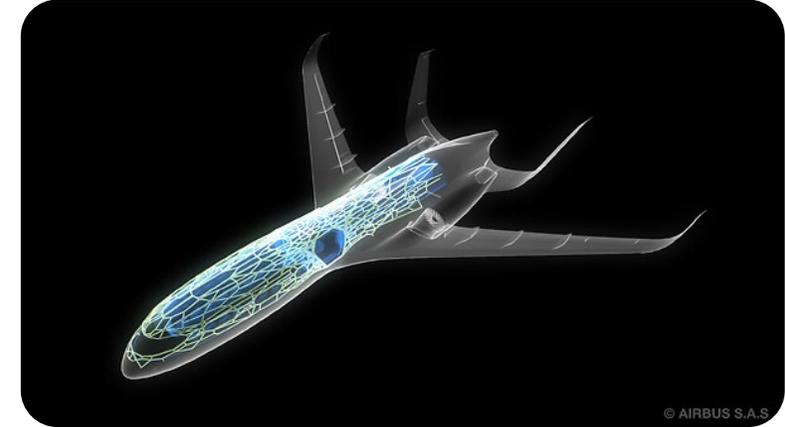
Important for tomorrow – New context

- End to End processes (E2E)
- DDMS (Digital Development Manufacturing and Services)

Digital Design, Manufacturing & Services (DDMS) is a digital-first approach to the way aerospace products are designed, manufactured and operated. At Airbus, our DDMS programme focuses on digital methods and tools for end-to-end business process that ensure we can reduce costs and time to market for our products, while meeting our customers' expectations for quality, safety and environmental performance.

Reduced product development lead time and increased value,

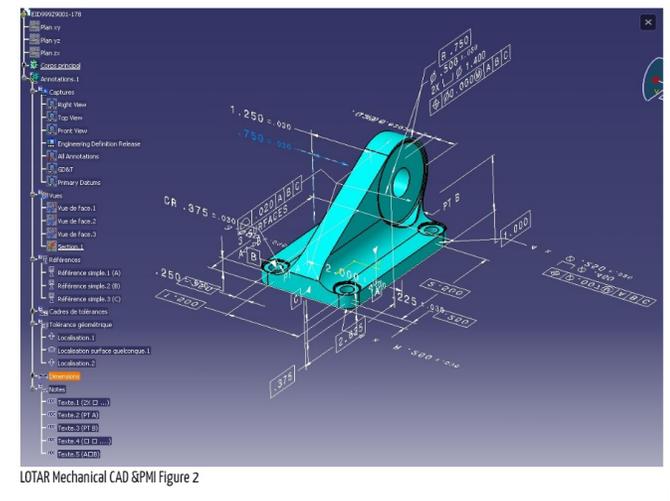
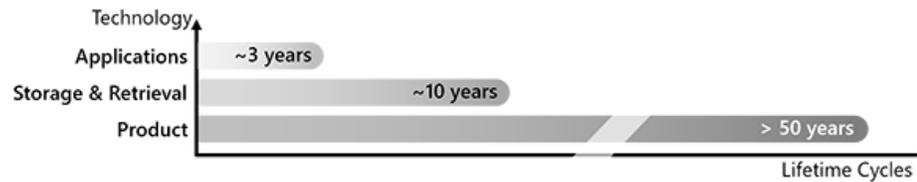
And CAD and 3D Models + all associated info required to be retained for years. But the product life is longer.



Important for tomorrow – 3D models

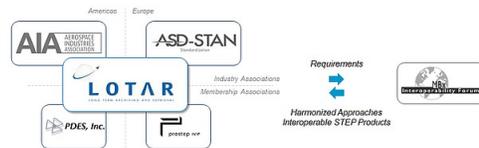
- CAD and 3D Models required to be retained for years.

The life cycle of applications and storage technologies has to be considered by setting up a long term archiving and retrieval standard. Approximately every three years a change in the application technology and every ten years in the technology of storage and retrieval happen. In comparison with an archiving period of fifty up to one hundred years in the aerospace and defense industry the technology life cycle plays a major role.



Welcome to LOTAR International

LOTAR is an international consortium of Aerospace manufacturers, jointly facilitated by AIA, ASD-Stan, AFNET, prostep ivip and PDES, Inc.



The prime objective is the creation and deployment of the **EN/NAS 9300 series of standards** for long-term archiving and retrieval of digital data, based on standardized approaches and solutions. The integration of LOTAR requirements into software tools is ensured by close cooperation with the **MBX Interoperability Forum** and the **PDM Implementor Forum**.

<https://lotar-international.org/lotar-workgroups/3d-visualization>

<https://lotar-international.org/lotar-workgroups/3d-mechanical/>



E-Archiving in Airbus

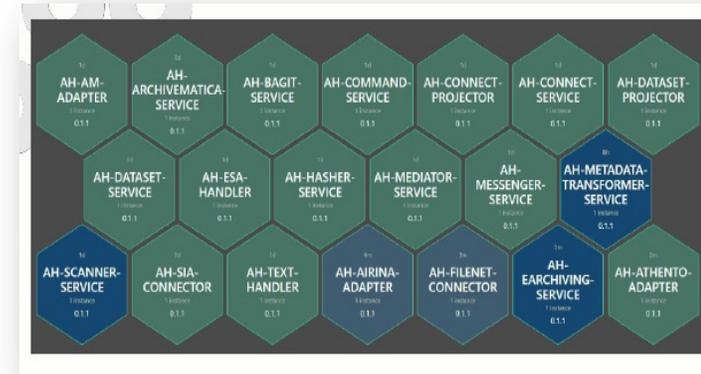
What is : eArchiving is an EU project funded by the CEF Telecom instrument. The CEF program finances a set of generic and reusable Digital Services Infrastructures (DSI), also known as Building Blocks. Currently, there are eight Building Blocks: Big Data Test Infrastructure, Context Broker, eArchiving, eDelivery, eID, eInvoicing, eSignature and eTranslation.

Objective : The goal of eArchiving is to provide the basic specifications, software, training and knowledge necessary to help Airbus (as data creators) to develop their digital archives. It is a challenge to manage and reuse data in the short, medium and long term in a sustainable, authentic, profitable, manageable and interoperable way. One of the priorities is to promote the adoption of electronic archiving solutions and standards for digital preservation beyond the National Archives.

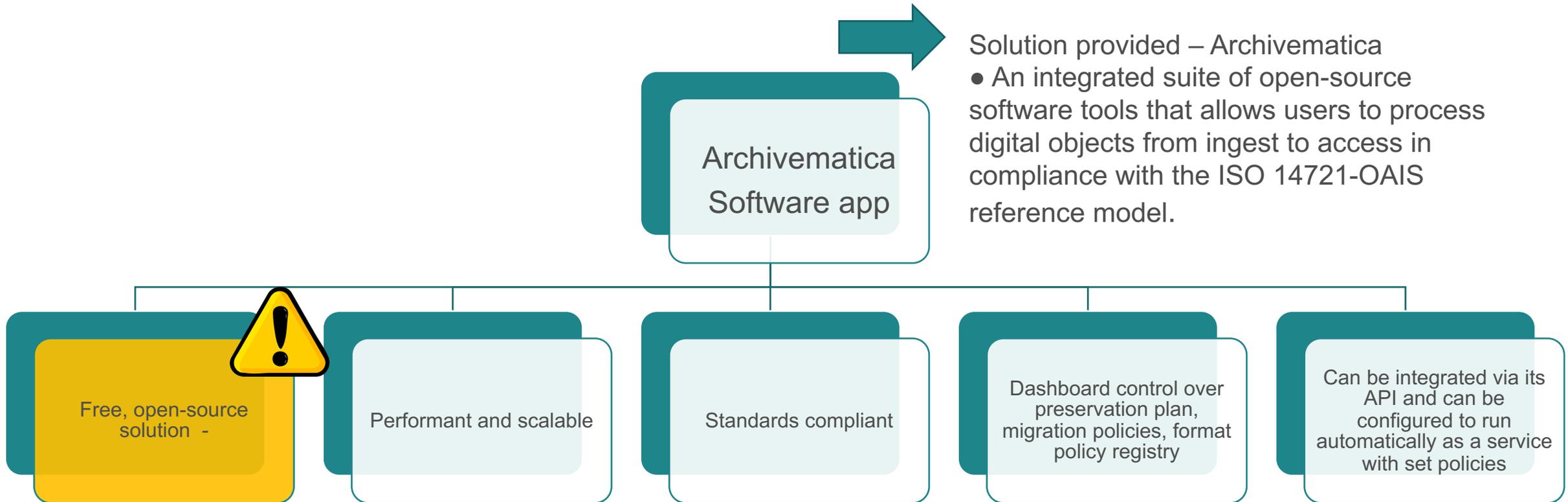
Airbus Defence and Space Engineering objective : Digital preservation in the long-term :

- Certification Documents
 - Engineering Technical Documents
 - Drawings
 - 3D models (in the future)
-
- Evolve current Archiving tools to standards
 - Gain internal knowledge about eArchiving

Building Blocks



E-Archiving in Airbus DS



E-Archiving in Airbus DS

Usage

The timeframe of the project was too short to do an official installation of Archivemata in Airbus Defence and Space Production environment. Therefore it was installed exceptionally in a test environment.

Archivemata is an Open Source Software. With several 1000 Archive Users at Airbus. We need a big company behind a solution to keep things running.

When we launched the eArchiving project, we as Airbus Defence and Space had to take a decision what the future corporate archiving solution will be

Benefit

The requirements from Archivemata/eArchiving project were added to the requirements dossier and to the statement of work for the Airbus Defence and Space corporate solution and supposed a big benefit for the corporate solution

E-Archiving in Airbus DS

Lessons Learned

Archivemata may have been integrated in a company like Airbus.

Archivemata would have fulfilled the business needs, but due to the issue in regard of “open source” compared to the task Archivemata would have to fulfill as well as other security constraints forced Airbus to take a different solution.

All groups had a good knowledge exchange:

The restrictions in a defence industry were much higher than in cultural heritage institutions

All steps take longer in a big company like Airbus Defence and Space (e.g. rights for different infrastructure parts are separated and many commands have to be processed by dedicated systems in order to be executed)

Our strategy

Install corporate digital archiving solutions following OAIS in all Airbus Defence and Space core countries and interface all systems which contain records to be archived with the corporate archives in the dedicated countries and domains.



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