

Storing data in Science Archives: striving for a common infrastructure

The **Science Archives Team** at ESAC (European Space Astronomy Centre) is responsible for developing, maintaining and operating the Science Archives for all ESA Astronomy and Planetary missions.

Managing the **storage and ingestion of data** into the Science Archives has always been a challenging process.

Available technology at the time and mission specific restrictions, led to very **heterogeneous ways of extracting and ingesting data** from the various Science Products into many different Relational Databases.

In spite of these limitations, the team succeeded in building the **FIRST GENERATION** of Science Archives



Science Archives reengineered using the **Archives Building System Infrastructure**

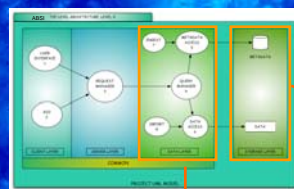
(ABSI)

1st generation

2nd generation

Based on the experience accumulated over the past decade from building several archives, evolution into the **SECOND GENERATION** archives ALL with a **common interface and infrastructure**

to support the storage and ingestion of data in a more flexible way has become possible



- Easier and faster building of new archives
- Reuse of knowledge and tools
- Libraries of components and modules available

ABSI Common Data Layer for storing and retrieving data

EXSA Exosat Science Archive 2009	SSA SOHO Science Archive 2009	PLA Planck Legacy Archive 2009	nPSA Planetary Science Archive	nHSA Herschel Science Archive	nXSA XMM-Newton Science Archive	nISDA Integral Science Data Archive	CFA Cluster Final Archive	Gaia Gaia Science Archive	LPF LISA Pathfinder Science Archive
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UNDER DEVELOPMENT...

Science Archives @ ESAC
<http://archives.esac.esa.int>

European Space Astronomy Centre (ESAC) - Villafranca del Castillo, Madrid (Spain)

07-11 Nov
2010
ADASS XX
Boston

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