

Effective Data Management with APOLLO Archive

Quality-Assured Automated Data Processing

In order to perform fast analyses and data evaluation for reports or strategic planning, huge amounts of data must be validated, prepared, processed, and harmonized into memory or databases. This requires effective automated data processing in the form of:

- Monitoring of incoming data
- Standardization of data processing
- Automatic assignment to the target memory
- Validation of data (for example, checking for errors, completeness, usability)

In addition, data flow management, event logging, and clearing of orders must be ensured as well.



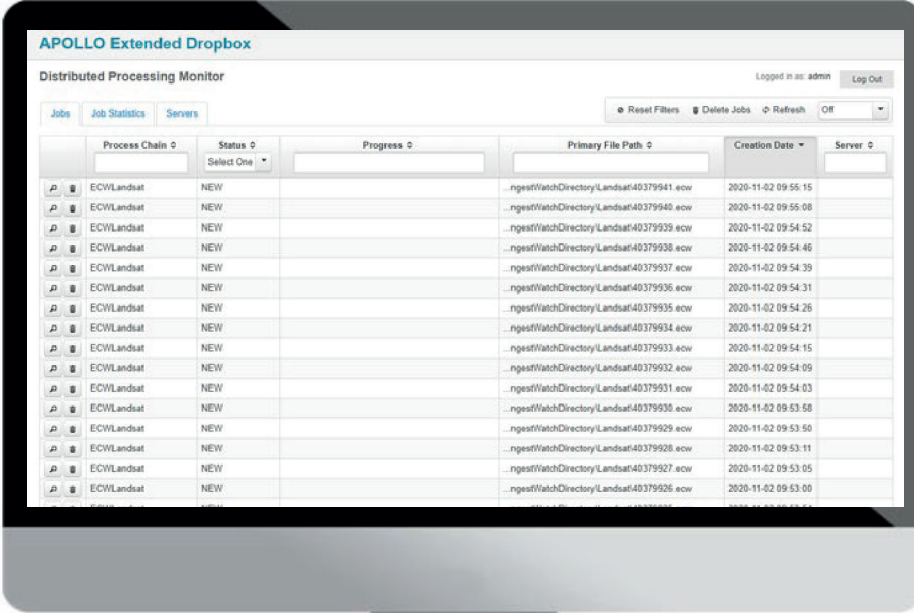
Management of Large Data Volumes and Intelligent Data Processing

Designed according to these customer requirements, APOLLO Archive provides a powerful enhancement to ERDAS APOLLO from Hexagon. With this flexible, scalable add-on solution, large volumes of quality-assured data from various data sources can be automatically imported into ERDAS APOLLO catalog, saving time and resources. All file types (for example, satellite images, aerial photos, UAV data) can be processed, as well as vector data, raster data, text, and metadata (for example, text information, statistical data).

APOLLO Archive is based on ERDAS APOLLO dropbox functionality. With extended dropbox service, processing service, and management service, APOLLO Archive delivers the components that are crucial for effective and intelligent data management.

Extended Dropbox Service

A powerful Dropbox Service is available with APOLLO Archive. This proven, reliably running service enables you to simultaneously monitor multiple directories and network paths. Targeted filter mechanisms can be configured based on XML. For example, you can scan for specific names or file extensions. In addition, you can create a scheduling of scans. Specify your own scan intervals, and set the exact time periods for scanning. With the Dropbox Service, you can also define a pre-processing of incoming data to activate specific data validation processes automatically in advance.



The screenshot displays the 'APOLLO Extended Dropbox' interface, specifically the 'Distributed Processing Monitor' section. The interface includes a navigation menu with 'Jobs', 'Job Statistics', and 'Servers'. A top bar shows 'Logged in as: admin' and a 'Log Out' button. Below the navigation, there are several filter buttons: 'Reset Filters', 'Delete Jobs', 'Refresh', and 'Off'. The main content is a table with the following columns: 'Process Chain', 'Status', 'Progress', 'Primary File Path', 'Creation Date', and 'Server'. The table contains 15 rows of data, all with a status of 'NEW' and a process chain of 'ECW Landsat'. The primary file paths are all variations of 'ngestWatchDirectory\Landsat\40379941.ecw' through '40379926.ecw'. The creation dates range from 2020-11-02 09:55:15 to 2020-11-02 09:53:00.

Process Chain	Status	Progress	Primary File Path	Creation Date	Server
ECW Landsat	NEW		ngestWatchDirectory\Landsat\40379941.ecw	2020-11-02 09:55:15	
ECW Landsat	NEW		ngestWatchDirectory\Landsat\40379940.ecw	2020-11-02 09:55:08	
ECW Landsat	NEW		ngestWatchDirectory\Landsat\40379939.ecw	2020-11-02 09:54:52	
ECW Landsat	NEW		ngestWatchDirectory\Landsat\40379938.ecw	2020-11-02 09:54:46	
ECW Landsat	NEW		ngestWatchDirectory\Landsat\40379937.ecw	2020-11-02 09:54:39	
ECW Landsat	NEW		ngestWatchDirectory\Landsat\40379936.ecw	2020-11-02 09:54:31	
ECW Landsat	NEW		ngestWatchDirectory\Landsat\40379935.ecw	2020-11-02 09:54:26	
ECW Landsat	NEW		ngestWatchDirectory\Landsat\40379934.ecw	2020-11-02 09:54:21	
ECW Landsat	NEW		ngestWatchDirectory\Landsat\40379933.ecw	2020-11-02 09:54:15	
ECW Landsat	NEW		ngestWatchDirectory\Landsat\40379932.ecw	2020-11-02 09:54:09	
ECW Landsat	NEW		ngestWatchDirectory\Landsat\40379931.ecw	2020-11-02 09:54:03	
ECW Landsat	NEW		ngestWatchDirectory\Landsat\40379930.ecw	2020-11-02 09:53:58	
ECW Landsat	NEW		ngestWatchDirectory\Landsat\40379929.ecw	2020-11-02 09:53:50	
ECW Landsat	NEW		ngestWatchDirectory\Landsat\40379928.ecw	2020-11-02 09:53:11	
ECW Landsat	NEW		ngestWatchDirectory\Landsat\40379927.ecw	2020-11-02 09:53:05	
ECW Landsat	NEW		ngestWatchDirectory\Landsat\40379926.ecw	2020-11-02 09:53:00	

Well-organized display of job status information with the Monitoring Dashboard

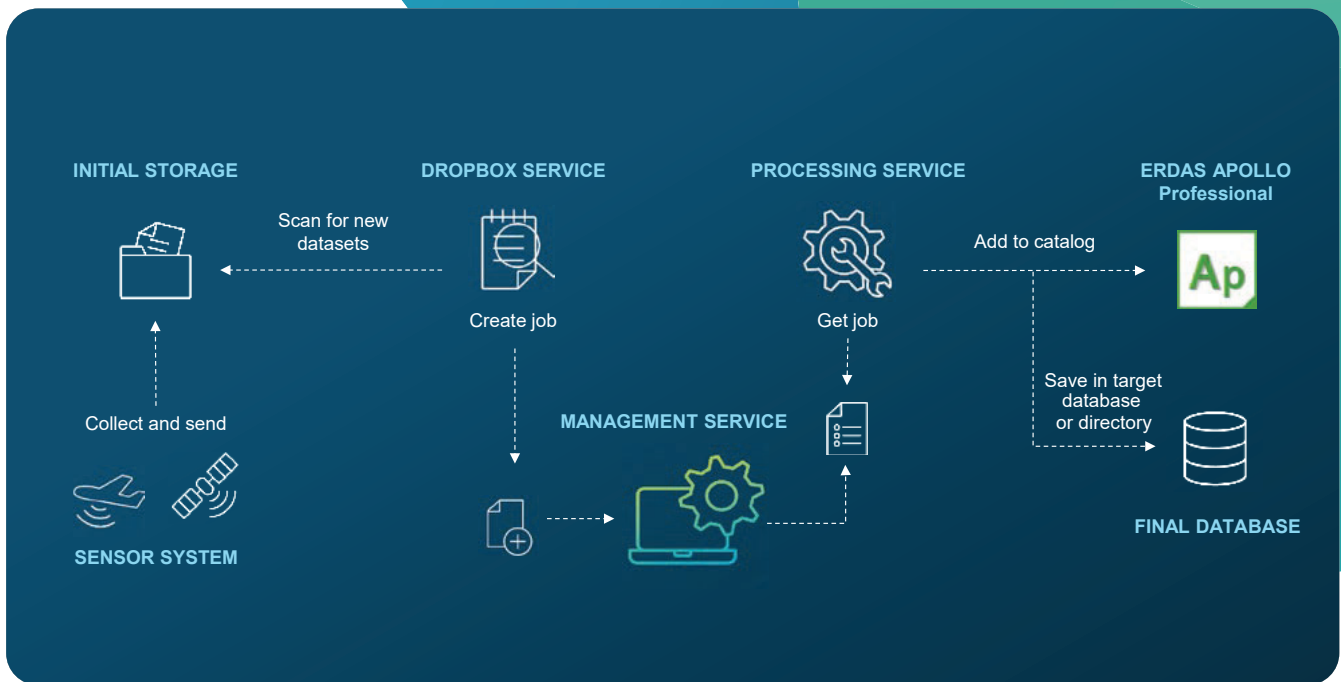
Monitoring and Management of Data Processing

In order for this data processing to be automated, suitable monitoring options and functionalities are required if changes need to be reversed or if error-prone processing needs to be stopped.

The Monitoring Dashboard component offers a clear, user-friendly web interface for monitoring data processing. Sorting of the information provided is easily done using filters such as status, time, and process category, as well as accessing detailed information as required.

To ensure the required security, users are authenticated via login credentials in order to have access to information.

In addition to seeing an overview of all job and server activities, an authorized user can also manage jobs. In this way, in-progress jobs can be canceled and failed or finished jobs can be removed from the jobs database.



Data flow processing and management in APOLLO Archive

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In the Processing Service component, task/process chains can be defined to control optimized data processing and data flow. Collected data can be processed by configuring meaningful task/process chains.

Error checks and automated quality improvements can be configured as well, for example, automated image enhancements such as contrast optimization.

Automated error management can also be implemented with the Processing Service. If an error occurs during the data processing / input into the catalog, appropriate steps are initiated based on configured back-office chains. For example, false data can be automatically moved to a problem folder and be deleted from the working directory. All steps are customizable up to the complete unwinding of the manufacturing processes.

APOLLO Archive Processing Service makes work much easier by automating the processing steps, and at the same time ensures quality standards in data processing. Authorized users are provided with an overview of all processes at any time in the Monitoring Dashboard.

Flexible, Infinitely Scalable Solution

The service components of APOLLO Archive are versatile. Several services can be operated in parallel on different servers.

Thus, the solution can be dynamically extended by adding more processing servers or configuring more processing threads per server according to your requirements and allows an optimal use of existing processing capacity.



Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications. Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon's Geospatial division creates solutions that deliver a 5D smart digital reality with insight into what was, what is, what could be, what should be, and ultimately, what will be.

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