



ERDAS APOLLO Professional Product Description

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ERDAS APOLLO Professional is the most advanced product tier of ERDAS APOLLO. It is a fully interoperable Spatial Data Infrastructure (SDI) that offers on-the-fly geoprocessing through a powerful implementation of the OGC Web Processing Service (WPS) specification. Users can run an entire model, such as change detection, site analysis or elevation change, completely contained within a single web processing service (WPS). ERDAS APOLLO Professional is unrivaled in the complexity of algorithms stored under the hood. Results may be immediately downloaded or visualized in 2D and 3D clients, including APOLLO Web Client and ERDAS TITAN Viewer.

ERDAS APOLLO Professional fully integrates both ERDAS APOLLO Advantage and ERDAS APOLLO Essentials – SDI. Please read the ERDAS APOLLO Advantage and *ERDAS APOLLO Essentials - SDI* product descriptions for imagery, vector data, and custom objects workflows.

Key Features

The Geoprocessing Service

ERDAS APOLLO Professional provides an OGC-compliant Web Processing Service (WPS) able to run spatial models published from ERDAS IMAGINE®.

Remotely Control the Geoprocessing – ERDAS APOLLO Professional provides server-side asynchronous processing through a web service, distributing the computational power of the server everywhere, inside and outside the enterprise.

- Remotely select, configure, and execute the spatial models using the ERDAS APOLLO Web Client or the ERDAS TITAN Viewer.
- Connect and login anytime, from any computer, to monitor the progress.
- Visualize and/or download the processing results.

Server-Side Technology – The ERDAS APOLLO WPS and the ERDAS APOLLO Catalog work together closely in the optimized server environment.

- Any imagery dataset or collection registered in the ERDAS APOLLO Catalog can be used as input data for geoprocessing.
 - Imagery stays on the server, no need to download onto the local system.
 - Saves bandwidth, time, and disk space.
 - Reduces data duplication.
 - End-user works with data from the collective data pool.
- The spatial models run on the server, benefiting from optimized data access and optimized hardware environment.
- The geoprocessing results are added back into the ERDAS APOLLO Catalog.
 - Others can visualize and download the results.
 - Results can be used as inputs for additional geoprocessing

Reduced Need for Domain Knowledge – The workflow has been designed so that end-users can execute the spatial models with very little domain knowledge. When publishing a new spatial model, the image analyst is able to:

- Define the spatial model description.
- Define human-readable titles for each spatial model input parameter.
- Define default values for each input parameter.
- Predefine the catalog query that will automatically propose valid imagery data inputs to the end-users.

OGC-Compliant Web Service – The ERDAS APOLLO geoprocessing service implements the OGC Web Processing Service (WPS) 1.0 specification.

- List published spatial models through the WPS GetCapabilities response.
- Provide full spatial model description through the WPS DescribeProcess response.
- Remotely execute spatial models through the WPS Execute request.

Manage Processes

The ERDAS APOLLO Data Manager allows you to manage the published spatial models and configure the level of access for each role.

Manage WPS Processes and Jobs – The ERDAS APOLLO Data Manager allows you to manage the WPS processes and jobs.

- Browse and view the WPS process tree.
- Delete processes from the tree.
- Manage Read and Execute rights to each process.
- View and manage the WPS “jobs” running on the server.

Execute Processes over the Web

The ERDAS APOLLO Web Client allows end users to select, configure, and execute the processes remotely.

Fully Described Processes – The ERDAS APOLLO Web Client provides multiple panels that fully describe the processes.

- Process View: Displays all processes that the user has the right to read and execute.
- Process Description panel: Provides detailed description of the model that the user has selected to execute.
- Process Input Panel:
 - Displays all process arguments and allows you to configure them.
 - Provides support for multiple data inputs.
 - Provides configurable alpha-numeric and color input fields.
 - Provides default values for arguments.
 - Highlights required arguments.
- Input Data Search Results:
 - Provides separate panels to display each imagery data input required to execute a process.
 - Display imagery search results for the area the user is looking at in the map.
 - Prompts the user to select the valid input data to “load” as the process input.

Process Monitoring – The ERDAS APOLLO Web Client provides panels to monitor the process execution and access the processing results.

- My Process View:
 - Lists all processes that the user has run.
 - Displays job metadata: when the process was run, which process was run, and its progress.
- Process Arguments View: Displays all arguments used in the process run.
- Process Output View: Lists each process output with metadata, thumbnail, extent, and the tools to visualize and download the processing results

Visualize and Download Process Outputs – The ERDAS APOLLO Web Client allows visualization and downloading of the processing results.

- Add process outputs to the map as map layers.
- Use any map and layer tools to manipulate the outputs.
 - Configure layer opacity, visibility and styling
 - Zoom in, zoom out, and pan.
 - Measure distances and identify pixel values.
 - Generate a Web Map Context (WMC) for distribution of a user-created map.
- Use the Clip, Zip and Ship feature of the ERDAS APOLLO Web Client to download the process results.

ERDAS Geoprocessing Workflow

- Using ERDAS IMAGINE[®], the remote sensing data analyst can:
 - Author spatial models.
 - Publish spatial models to the ERDAS APOLLO WPS.
- Using the ERDAS APOLLO Data Manager, the ERDAS APOLLO administrator can:
 - Browse processes, which can be easily organized by category.
 - Manage access to the processes.
 - Delete processes.
- Using the ERDAS APOLLO Web Client or the ERDAS TITAN Viewer, the end user can:
 - Execute complex spatial models in a map area of interest, with no required knowledge of the process or data.
 - Immediately visualize the WPS process outputs on the map and download them.

About ERDAS

ERDAS – The Earth to Business Company – helps organizations harness the information of the changing earth for greater advantage.

ERDAS creates geospatial business systems that transform our Earth's data into business information, enabling individuals, businesses, and public agencies to quickly access, manage, process, and share that information from any location.

Using secure geospatial information, ERDAS solutions improve employee, customer, and partner visibility to information, enabling them to respond faster and collaborate better. It also means better decision-making, increased productivity, and new revenue streams.

ERDAS is a part of the Hexagon Group, Sweden. For more information about ERDAS or its products and services, please call +1 770 776 3400, toll free +1 866 534 2286, or visit www.erdas.com.