IMAGERY FOR ARCGIS

Manage and Understand Your Imagery

Credit: Image courtesy of DigitalGlobe®
ARCGIS IS AN IMAGERY PLATFORM

Empowering you to make informed decisions from imagery and remotely sensed data

Integrated Image and Spatial Data Exploitation
ArcGIS provides powerful image management, processing, and analysis capabilities integrated as a single platform, along with the most advanced geospatial visualization, modeling, and analytics tools available.

Scaling from Desktop to the Cloud
ArcGIS scales from powerful desktop workstations to servers running on local infrastructure or in elastic cloud environments. Collections of imagery that were previously difficult to locate are now quickly accessible to many users in a wide range of applications. Image processing and analysis tasks that were too large or complex can now run quickly, leading to actionable intelligence.

Content Is Fundamental
ArcGIS includes access to the world’s largest collection of online digital maps and imagery in ArcGIS Online. World Imagery provides global high-resolution imagery to augment your own collections. Easily access content such as global elevation data, Landsat, and NAIP as services for both visualization and analysis. ArcGIS provides access to imagery from many sensors; from imagery providers and partners; as local files and cloud storage; or as web services.

Image Platform Bundles Make It Easy
ArcGIS Image Platform Bundles combine ArcGIS with best-practice workflows and consultancy. Each bundle includes time with a platform expert to review your requirements and provide optimized workflow recommendations and configuration assistance to quickly get you up to speed and productive.
Imagery starts at the desktop

The **Image Analysis Bundle** integrates imagery exploitation, image processing, and GIS analysis into a single geospatial solution capable of producing innovative information products. With an advanced image processing and analysis workstation anchored by ArcGIS Desktop, you can exploit the powerful capabilities of modern desktops with high-resolution displays, a fast CPU and GPU, and extensive memory and storage.

**THE IMAGE ANALYSIS BUNDLE INCLUDES:**

- Access to a wide range of sensors, file formats, and web services
- Fast display, enhancement, and processing of imagery
- Raster functions that perform on-the-fly processing and persist results as files on disk
- Spatial analysis, including suitability modeling and 3D analysis
- Automated and accurate image georeferencing
- Generation of digital terrain models and orthophotos, including color correction and mosaicking
- Image segmentation, classification, and machine learning
- Tools for managing and processing large imagery collections
- Exploitation of lidar point clouds and Full Motion Video
- Extensive modeling and open development environment
- All the most powerful GIS functionality
The Image Management Bundle extends the Image Analysis Bundle workstation with highly optimized workflows for processing and serving massive collections of imagery on enterprise or cloud storage. Use ArcGIS to share your imagery with a wide range of users in highly informative and engaging applications.

THE IMAGE MANAGEMENT BUNDLE INCLUDES:

- Ability to manage massive collections of temporal imagery from:
  - Sensors on satellites, aircraft, ships, and drones
  - Collections of orthoimages and elevation data
  - Categorical rasters and scientific data
- Support for a wide range of data formats and compression types to minimize storage and improve performance
- Scalable image services with dynamic mosaicking and on-the-fly processing
- Fully automated ingest, management, and serving of imagery
- Support for open standards, including OGC WMS, WMTS, WCS, KML
- Creation and serving of basemap tile caches for static content
- Option to deploy in your private infrastructure without disrupting IT policies, or to scale elastically in public cloud environments

MANAGE EXTENSIVE COLLECTIONS OF IMAGERY

Make imagery rapidly accessible through modern image services
The full value of imagery comes from extraction of information through analytics. With the ever-increasing volumes of imagery data and size of problems to solve, extend your analysis beyond your desktop.

The **Image Analytics Bundle** includes ArcGIS Image Server, which leverages distributed processing and storage to perform advanced image analytics, transforming remotely sensed data and other rasters into actionable information. ArcGIS Image Server scales from a single server under your desk to a cluster of thousands of servers running on cloud infrastructure. The Image Analytics Bundle also provides workflows for transforming imagery and rasters into valuable information products like nationwide land classification, suitability analysis, feature identification, or terrain analysis.

**THE IMAGE ANALYTICS BUNDLE INCLUDES:**

- Optimized and streamlined data flows that scale to utilize all available computing resources
- A solution for image processing and raster analysis challenges that were once considered too hard or too large
- Workflows that seamlessly integrate into enterprise GIS deployments
- Compatibility with a wide variety of data sources, including scientific data sources such as NetCDF, HDF, and GRIB
- Integration of both rasters and vectors as part of the analytics input and output
- Extensibility using Python NumPy and SciPy
- Flexible licensing with “Infinite Scalability,” providing demand-based, elastic utilization of servers in the cloud
THE ORTHO MAPPING BUNDLE INCLUDES:

• Workflows for satellite, aerial, and drone imagery, including tools for:
  – Automated image registration
  – Tie point collection and bundle block adjustment
  – Automated seamline generation, color correction, and mosaicking

• Fast quality control utilizing on-the-fly processing

• Capability to rapidly persist the product as either a tile cache or as orthoimages with full, dynamic range and fidelity

• High-speed processing, so production processes that used to take days can now be completed in hours or minutes

• Workflows for partial change to quickly maintain products as newer imagery becomes available

• Dissemination of photogrammetrically derived orthoimages, terrain, and point clouds as web services

The Ortho Mapping Bundle extends the tools available in the desktop products, scaling up on clusters of servers to enable surge processing and rapid generation of orthoimage basemaps and terrain models used for updating maps and change analysis.

By integrating photogrammetric workflows into a single, scalable, geospatial platform, the Ortho Mapping Bundle significantly improves production efficiencies and reduces software costs for organizations that collect or purchase large volumes of optical imagery.

ORTHOMAPPING

Production-level generation of accurate basemaps and terrain products
COMPREHENSIVE PLATFORM

One environment for all spatial information

ArcGIS provides a comprehensive, professional platform for managing, analyzing, and serving overlapping, temporal, multiresolution imagery from multiple sources, formats, and projections.

The Image Platform Bundles extend ArcGIS to provide a:

**System of Record**
To manage and process imagery into authoritative data sources that are appropriately and efficiently disseminated to those that need access.

**System of Insight**
To derive actionable information from imagery and rasters by performing analytics on the massive volumes of data available from multiple sources.

**System of Engagement**
To enable access to imagery and analysis through a wide range of integrated desktop, mobile, and web applications that are interactive, informative, and engaging.

With the Image Platform Bundles, leverage The Science of Where™ to achieve your imagery goals.

www.ArcGISImagePlatform.com

Credit: Image courtesy of DigitalGlobe®
Esri inspires and enables people to positively impact their future through a deeper, geographic understanding of the changing world around them.

Governments, industry leaders, academics, and nongovernmental organizations trust us to connect them with the analytic knowledge they need to make the critical decisions that shape the planet. For more than 40 years, Esri has cultivated collaborative relationships with partners who share our commitment to solving earth’s most pressing challenges with geographic expertise and rational resolve. Today, we believe that geography is at the heart of a more resilient and sustainable future. Creating responsible products and solutions drives our passion for improving quality of life everywhere.