

Release Enhancements

GXP Xplorer® • GXP InMotion™ • GXP WebView®
v2.3.2



BAE SYSTEMS

INSPIRED WORK

The background of the slide is a grayscale topographic map with intricate contour lines. An orange vertical bar is positioned to the left of the main heading.

An unrivaled capacity for the discovery, exploitation, and dissemination of mission-critical geospatial data

The v2.3.2 release of our GXP Platform™ based solutions delivers exciting new geospatial capabilities including enhanced data management features within GXP Xplorer®, advanced usability in GXP WebView®, and the continued integration of Movement Intelligence (MOVINT) throughout our platform applications. Current release enhancements include:

- » Data management for GXP Xplorer including ability to move, purge, delete, tag, and bin data based on a variety of criteria set up by an administrator
- » A new welcome page featuring a simple, intuitive user interface and navigation scheme with easily accessible user and administrator options
- » Continued integration of MOVINT capabilities including tracking analytics and a MOVINT database
- » Improved interoperability between GXP® software applications
- » Advanced system administration and software configuration providing browser-based configuration management to customize GXP Xplorer, GXP WebView, GXP InMotion™, and GXP mobile solutions

Based on customer requests, these enhancements ensure an optimal user experience while expanding synergies between all of the GXP Platform solutions.

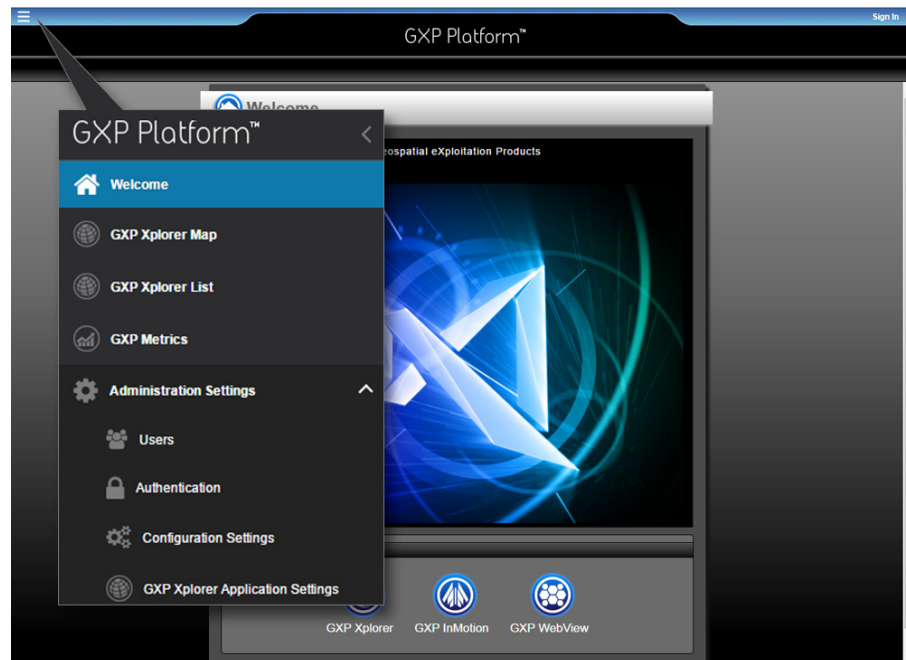
System administration and configuration

System administration and software configuration enhancements provide browser-based configuration management to customize GXP Xplorer, GXP WebView, and GXP InMotion.

Browser-based system administration enables management of:

- » User accounts, user groups, and associated roles
- » Authentication settings and Sign-in settings
- » Network settings, licensing, client services, and hosted Web services
- » GXP Xplorer settings including cataloging, discovery, access controls, services, federation, and plug-ins
- » Cataloged data
- » GXP InMotion Missions
- » Global settings which customize the GXP Xplorer, GXP WebView and GXP InMotion applications

Note: Restarting the server is no longer required for many configuration changes.



Context sensitive options menu (hamburger menu) for all applicable capabilities based on licensing and user roles.

The GXP Platform v2.3.2

Introducing user metrics for system specifications and product usage.

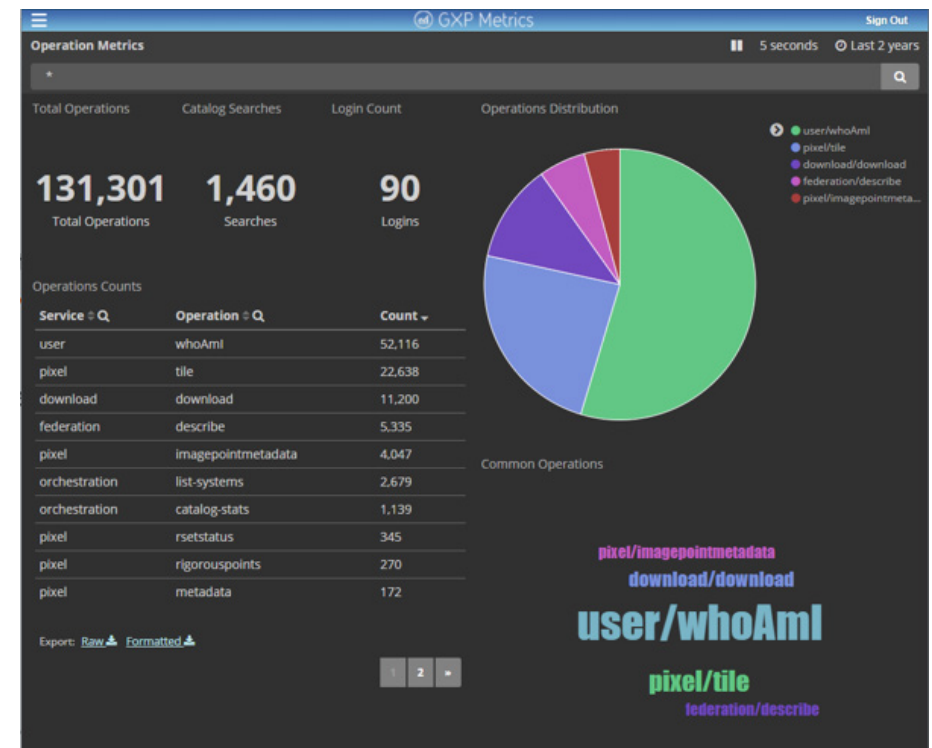
GXP Platform metrics and dashboard for system:

- » RAM
- » Disk space
- » Network
- » CPU

GXP Platform metrics for usage:

- » Individual users
- » Ingest failures
- » Export failures
- » Operations (pixel tiles, download, and federation)

Customizable dashboards



Metrics dashboard for system variables, GXP applications, and users.

GXP Xplorer v2.3.2

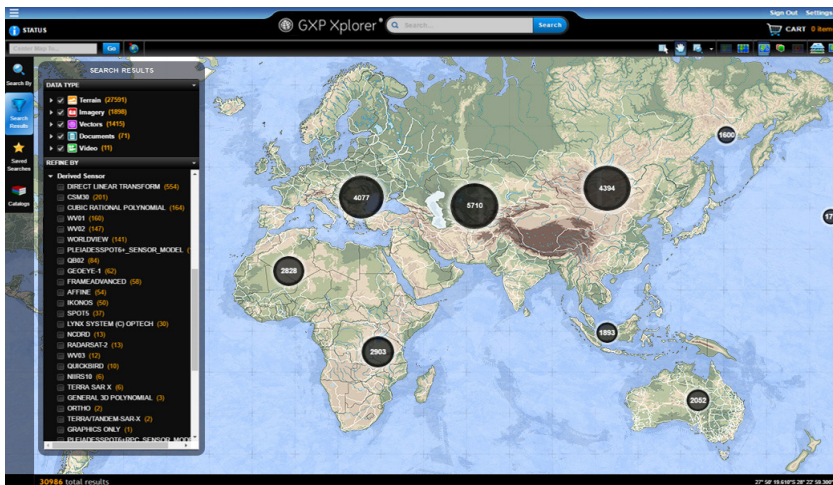
Updates to GXP Xplorer include expanded customization options, increased user control, and standing order enhancements.

Foundational support:

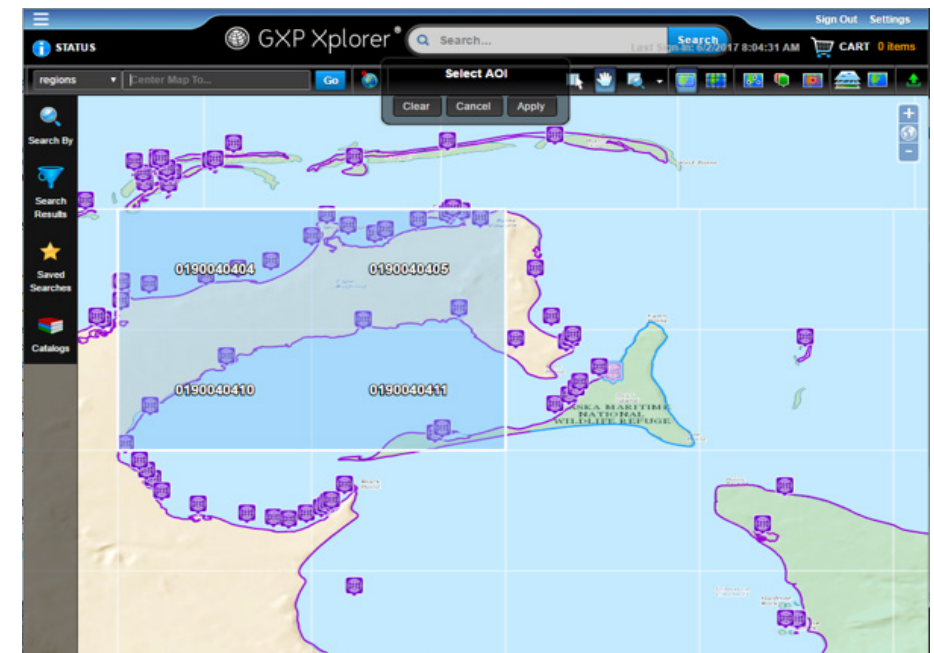
- » Supporting Operating Systems Windows® 10 64-bit along with Windows 7 64-bit, Windows Server 2008 R2, 2012 R2, and 2016
- » Mensuration Services Program (MSP) updated to version 1.5.1
- » Data Reformatting Service (DRS) 5.5.01.R2 or later
- » Apache® Web Server 2.4.20
- » Hypertext Preprocessor PHP 5.6.21
- » JavaScript runtime environment NodeJS 4.1.2
- » GeoServer® 2.8.2
- » LEADTOOLS® 19.0
- » Supporting SOCET GXP® CoreSDK v4.3.0
- » FFMpeg 3.2.2
- » TerraGo® Software Developer's Kit 7.1.0.0011

Key enhancements:

- » Expose services to allow customization of the GXP Platform with user-defined location services
 - Ingest individual features from shapefiles as reference data stores available for searching and display
 - Gazetteer lookup for place names and reference data stores
 - Discretionary Access Controls (DAC) for regions
 - World Aeronautical Chart Target Mosaic (WTM) Grid cells for DAC and location service
- » GeoAxis support for user authentication
- » Standing order enhancements
 - Set priorities and time based on individual standing orders
 - Status specific standing orders
 - Provide a pause/start capability
 - Ability to edit destination information for standing orders
- » Customize the data management services to allow specification for the number of products to delete or purge
- » Track file retrieval date
- » Add controls for file download
- » PDF streaming services
- » Addition of new activity type for GXP InMotion observations



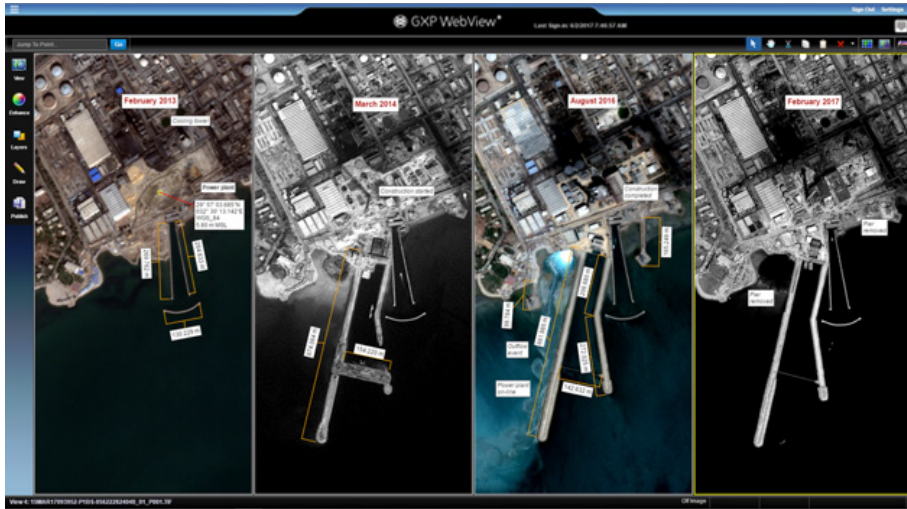
Metadata search filters showing derived sensor types.



WTM cells and shapefile reference data providing new search, display, and gazetteer lookup.

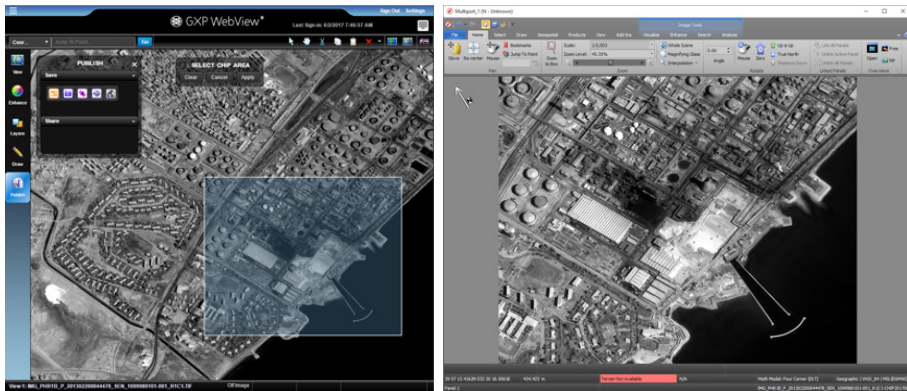
GXP WebView v2.3.2

Updates to GXP WebView include native image chipping, image viewing preferences, Web Map Tile Service (WMTS) support, and Object Based Production (OBP).



Linked panels and graphics showing changes over time. Data courtesy of Pleiades © CNES 2013 & 2016, Airbus DS Geo GmbH (1&3), and DigitalGlobe® WorldView1 and WorldView3 2014 & 2017.

AIRBUS DigitalGlobe



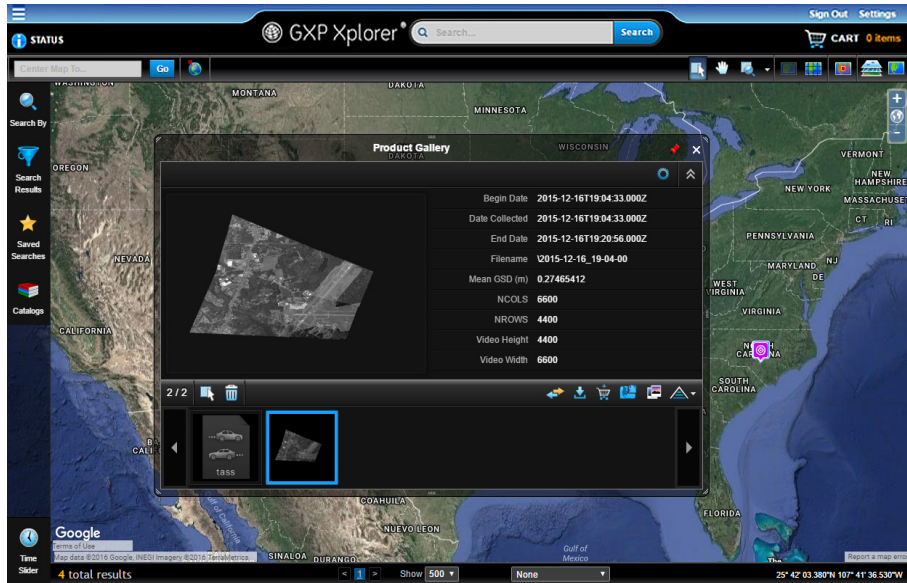
Chipping from GXP WebView (right) includes metadata allowing georeferencing in applications like SOCET GXP (left). Data courtesy of Pleiades © CNES 2013 Airbus DS Geo GmbH.

Key enhancements:

- » Native image chip
 - Full resolution output in native format
 - Maintains metadata with chip offsets and rotation
 - Chip export (FTP) or download
- » Preferences for single and multi-image viewing
 - Image list/time lapsed viewer capability
 - Maintain zoom and rotation between views
 - Maintain graphics between views
 - Hotkeys for moving forward/reverse through the list of images
- » WMTS support
- » OBP
 - Users create, retrieve, and analyze observations about objects in the scene stored in a feature object database
 - Features automatically attributed from source metadata when possible
 - Network graph view shows relationships between objects

Continued integration of Movement Intelligence (MOVINT) solutions

Catalog, process, discover, and exploit track data.



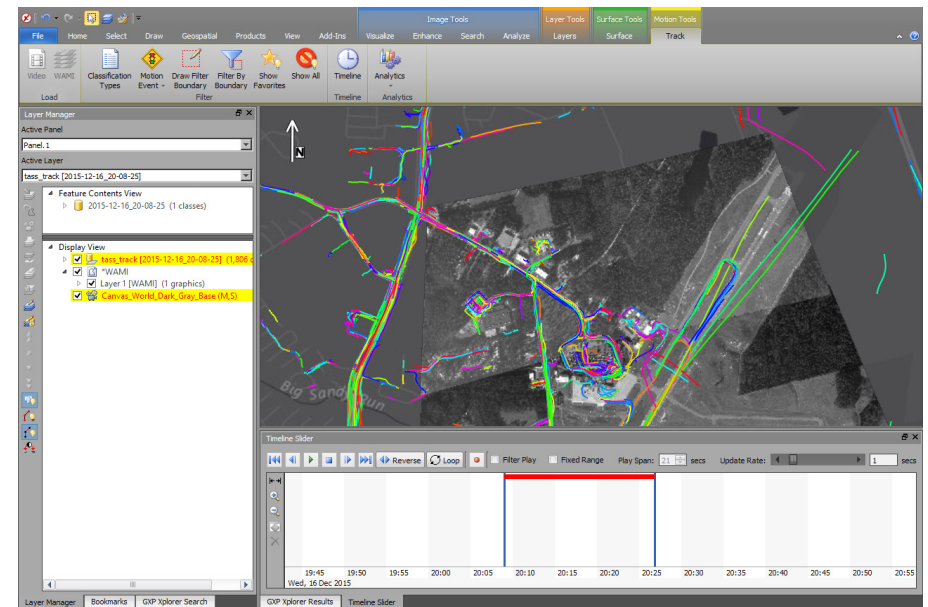
CorvusEye WAMI and TASS Track data sets shown in GXP Xplorer's Product Gallery. Data courtesy of Harris CorvusEye.

New capabilities in GXP Xplorer:

- » Catalog Wide Area Motion Imagery (WAMI)
- » Submit WAMI, Full Motion Video (FMV), and GMTI to the Tracking Analytics Software Suite (TASS) for track generation
- » Catalog track data from TASS / MOVINT database
- » Stream video directly to the GXP InMotion Desktop

New capabilities in SOCET GXP / GXP Xplorer Search:

- » Refine search time window down to the minute
- » Discover track sets
 - Display track footprints in SOCET GXP Multiport®
 - Load in Multiport as Web Feature Service (WFS)
- » Initiate track generation for WAMI, FMV, and GMTI data, which do not already have tracks
- » Search for mission activities by platform, sensor, and observations



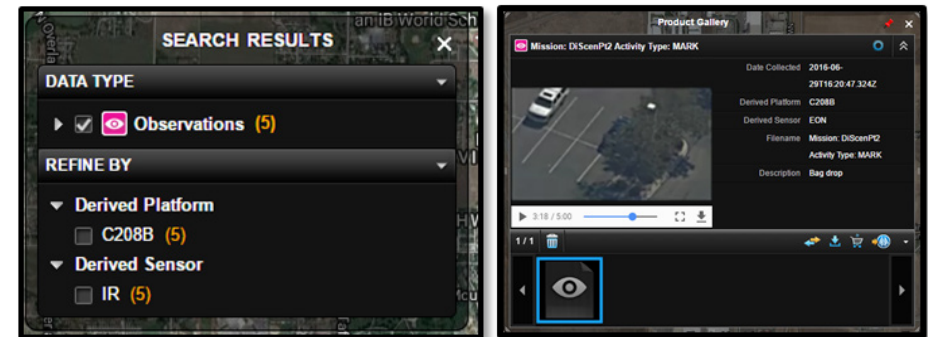
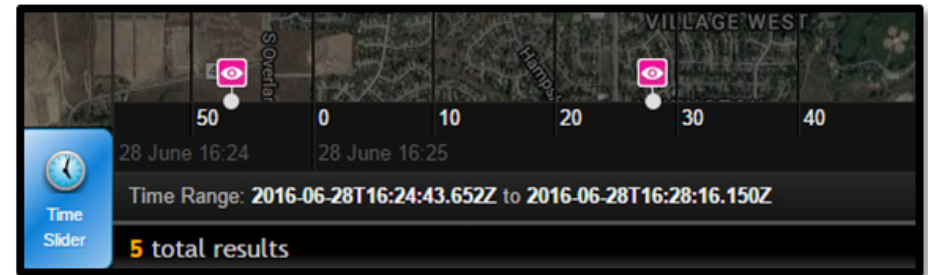
WAMI track data overlaid on top of WAMI background in SOCET GXP. Data courtesy of Harris CorvusEye.

Exploitation capabilities in SOCET GXP:

- » Geospatially constrain track sets by Area of Interest (AOI)
 - » Temporally constrain track sets using timeline tools
 - » Filter tracks by classification (truck, car, person)
 - » Filter by track classification confidence (0–100%)
 - » Filter by motion events (stop, start, turn, u-turn, etc.)
 - » Display Web Map Service (WMS) heat maps for tracks and sensor dwell
 - » Animate the entire track set with a filter applied
 - Record animation as a video product
 - » Animate an individual track
 - FMV tracks will play a video chip of the track inside the feature metadata bubble
 - » Load corresponding FMV in GXP InMotion
 - » Identify a track as a “Favorite” for rapid recall
 - Export “Favorites” to Keyhole Markup Language (KML)
-

New capabilities in GXP InMotion Server:

- » Multiple channels per mission
 - » Mission activities cataloged in GXP Xplorer with video preview
 - » Free-text searchable mission activities in GXP Xplorer
 - » Filtering videos and mission activities by platform and sensor
 - » Filter mission activities with GXP Xplorer timeline
 - » Import Essential Elements of Information (EELs) with target list
-



*Mission Activities shown in GXP Xplorer's timeline, filter, and Product Gallery.
Data provided by L-3 EO/IR MX-15.*

Enhanced interoperability between GXP products

- » Publish from SOCET GXP to the GXP Xplorer catalog
 - JPEG products contain geospatial metadata (Exif tags)
- » Single button to open data in SOCET GXP
 - Stream imagery to SOCET GXP when data files are not directly accessible
 - Direct File Open (DFO) in SOCET GXP v4.2.0.1 or later for data located on network drives
 - JPEG2000 Interactive Protocol (JPIP) streaming with metadata into SOCET GXP
- » View image thumbnail and open data in SOCET GXP from an RSS notification
- » The GXP pixel streamer and JPIP streamer provide image pixel streaming with full metadata for imagery to accommodate all SOCET GXP workflows as if the imagery were opened directly from within SOCET GXP
 - Auto-map, band selection (even for Hyperspectral Imagery (HSI)), spectral processing algorithms, triangulation, Automatic Terrain Generation (ATG), stereo imagery exploitation, ortho-rectification, etc.

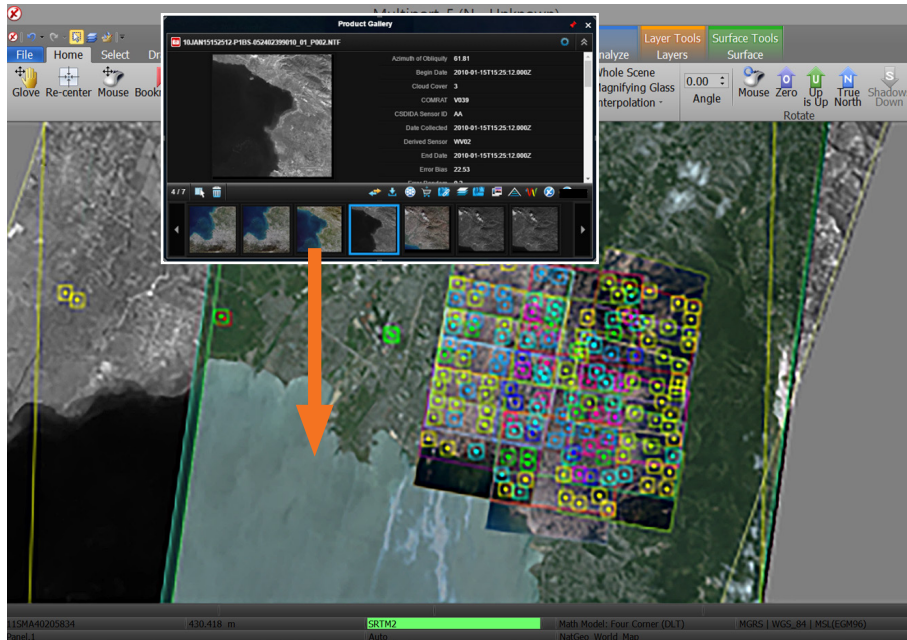


Image streaming services with full metadata supporting operations in SOCET GXP such as triangulation. Imagery courtesy of DigitalGlobe WorldView1.

GXP® Geospatial solutions to ensure **a safer world.**

GXP Customer Support

Americas

800 316 9643

Asia

+603 2191 3000

Australia and New Zealand

+61 2 6160 4000

Europe, Middle East, and Africa

+44 1223 370 022

Customer Portal

www.MyGXP.com

Email

gxp.support@baesystems.com

Licensing

Software licenses may be requested
on the MyGXP Customer Portal:

www.MyGXP.com

For additional support and contact
information, please visit our website:

www.baesystems.com/gxp