

# Release Enhancements

GXP Xplorer® • GXP WebView® • GXP InMotion™



v2.3.5

**BAE SYSTEMS**

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 discovery, exploitation, and dissemination of mission-critical geospatial and temporal data

The v2.3.5 release of our GXP Xplorer®, GXP WebView®, and GXP InMotion™ solutions delivers a range of new geospatial capabilities, including a variety of foundational enhancements across the GXP Platform™. Specific product enhancements include the following:

- » Advanced data modeling, Places of Interest (POI) management, notification services, and multi-image support within GXP Xplorer
- » Data animation, mensuration services, workspace management, product generation, targeting, and Movement Intelligence (MOVINT) advances within GXP WebView
- » Support for transcoding, transrating, and transsizing within GXP InMotion

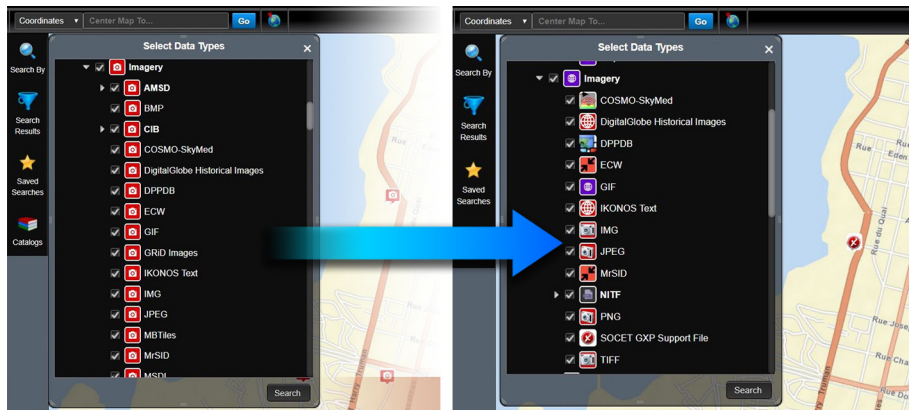
Based on customer requests, these enhancements ensure an optimal user experience while increasing synergies within the expanding GXP® product ecosystem.

# GXP Xplorer v2.3.5

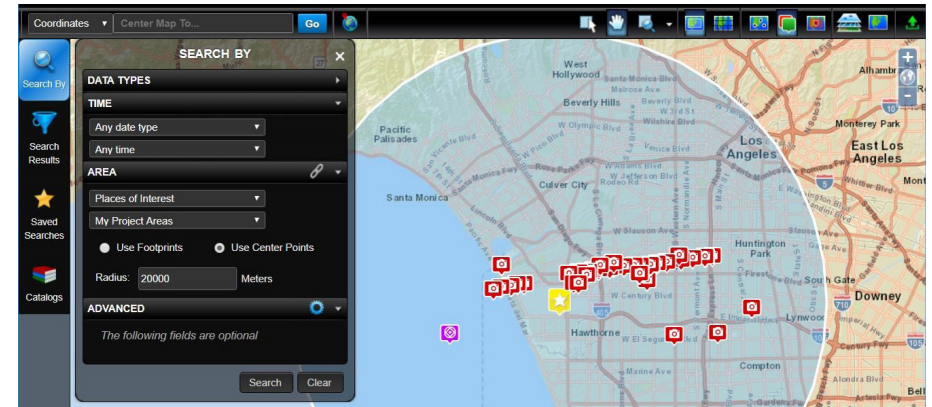
Enhancements to GXP Xplorer include data modeling, POI management, notification services, and multi-image file support.

## Key enhancements:

- » Data model service
  - Default data model for cataloged content
  - Controls for specific data models of geospatial entities including the default catalog entities
  - View, edit, clone, add, delete, and publish data models
  - Modify data in an unpublished data model
  - Provides an interface to edit the GXP Xplorer data model for ingest of entities
  - User can change the default catalog data including map display footprints and icons
  - Properties and Attributes display and edit
    - Edit the icon and icon style from the Properties tab
    - Edit map display for the geospatial footprint
    - Modify, add, and delete attributes and associated display characteristics from the Attributes tab
  - Icons
    - New PNG, SVG, and JPG icons
    - Separate controls for display of icons on the window interface vs. map
    - Change size, color, shape, and outline



Default data model vs. user updated data model for cataloged content in GXP Xplorer.



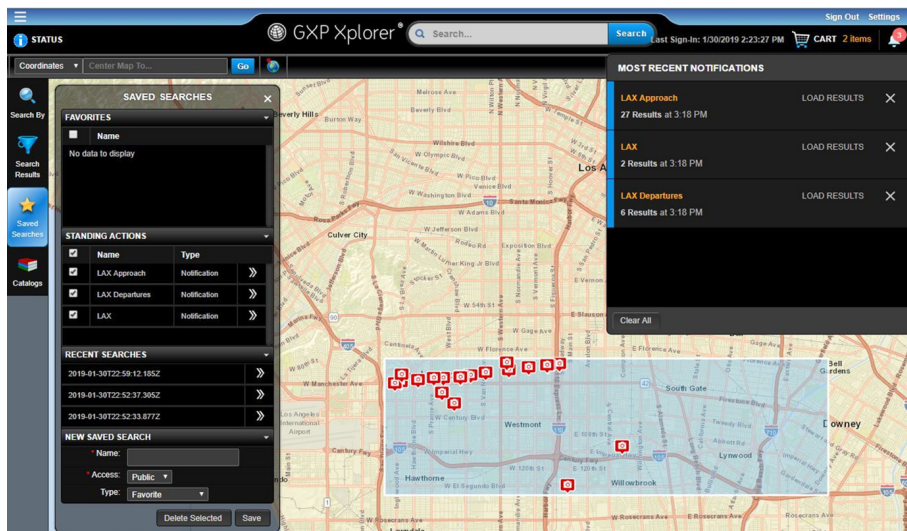
POI radius displayed in GXP Xplorer Map View.

- Change color for geospatial footprint on the map
- User updated data model for cataloged content
- » POI ingest and management
  - Save and recall search results to/from a POI list
  - User Interface POI entry through Regions or cataloged geospatial data activated with a new button in the Product Gallery
  - Application Programming Interface (API) with schema for POI ingest including attributed shapefiles
  - Manage POI
    - Public and private POI geospatial list management
    - Create, name, and manage POI lists and folders
      - Delete, Rename, Cut, Copy, and Move POI lists
      - Search for lists and folders
      - Search selected lists for content
      - Manage content within a list (including Delete and Add)
  - POI Search By functionality
    - Area search includes POI
    - Select from the last ten POIs or choose more for a complete list
    - Search by footprints
    - Search by center points and radius
    - POIs are displayed on the map prior to selecting the POI list
    - Just like any Search By functionality, the POIs with a footprint or radius can be used with Notification services



## Key enhancements (continued):

- » Notification services
  - Set up notifications for any GXP Xplorer search criteria
    - Geospatial (including POI points and lines with buffers and polygons)
    - Temporal
    - Data types
    - Keywords
    - Metadata
  - User notified upon ingest and cataloging when criteria is met
  - Manage notifications – Load, Delete, and Clear
  - System administration
    - Poling frequency for notification updates
    - Limits for the number of results per event criteria
    - Limits for the number of notifications per user
- » Multi-image file support
  - Processing including Chipping, Browse and RSet Generation, and Reformat
  - Exploit the primary or sub-images directly in GXP WebView or SOCET GXP®
  - Illustrate relationships and subcomponents
  - Graph User Interface synchronized with selected components in the table view



Most recent notifications for saved searches loaded into GXP Xplorer.

## GXP WebView v2.3.5

A wide variety of updates were made to GXP WebView involving data animation, mensuration services, workspace management, product generation, and targeting capabilities.

### Key enhancements:

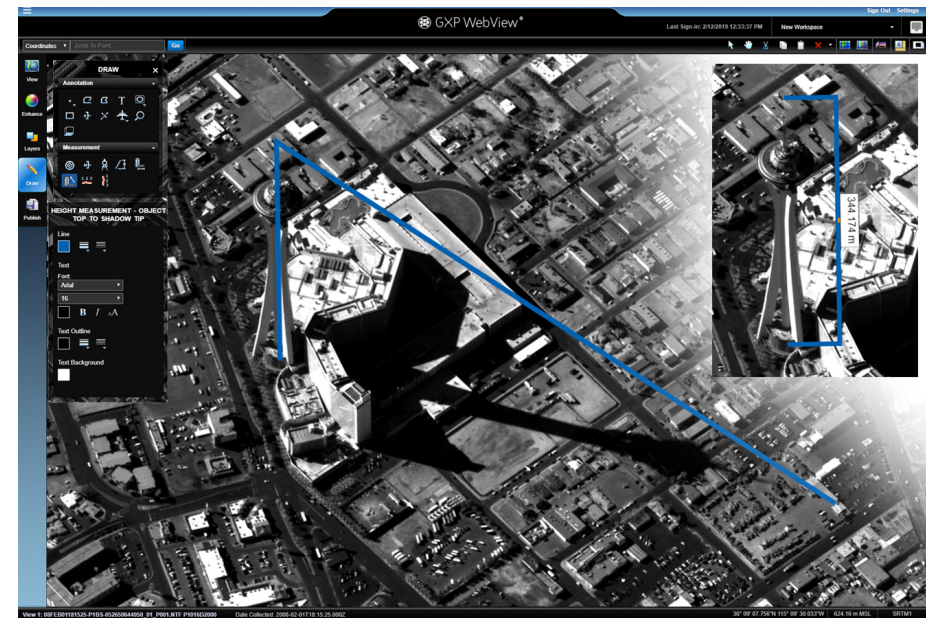
- » Animation
  - View data in time sequence
    - Image acquisition time included in metadata allowing views of mixed image sources
    - New to old or old to new
    - Images rotated and scaled to the same direction and size
  - Layer manager
    - Graphic overlay support
    - Customize image sequencing
  - VCR-type controls
    - Adjustments for frame rates
    - Reset, advance frames forward/reverse, play, pause, fast forward, and loop
  - Graph User Interface synchronized with selected components in the table view
- » Date collected is displayed in the status bar at the bottom of the image viewing window
- » Mensuration log
  - Format replicates the measurement log of SOCET GXP
  - Provides entries for vertex line and sample image coordinates
  - Logs vertices in ground coordinates: Geographic, Universal Transverse Mercator (UTM) or Military Grid Reference System (MGRS) coordinates
  - Provides measurements in feet or meters
  - Provides length and height results
  - Area measurements and perimeter provided for polygon features
  - Measurements computed in 2-D and 3-D (horizontal and terrain tracking)
  - Options to print or save recorded measurement
  - Clear log entries
  - Restore log entries by selecting graphics



Elevation of buildings displayed using GXP WebView's object height measurement tool. Imagery provided by DigitalGlobe®.

## Key enhancements (continued):

- » Object height measurement
  - Change text fonts and sizes
  - Change graphics lines, weights, and colors
  - Units noted in either feet or meters
  - Results reported in the measurement log
- » Shadow measurement to determine object heights
  - Dual modes
    - Top of object to tip of shadow
    - Bottom of object to tip of shadow
  - Line movement tracks to shadow direction in the image
  - Change text fonts and sizes
  - Change graphic's lines, weights, and colors
  - Units noted in either feet or meters
  - Results reported in the measurement log



Length of shadow is utilized to calculate object height. Imagery provided by DigitalGlobe.

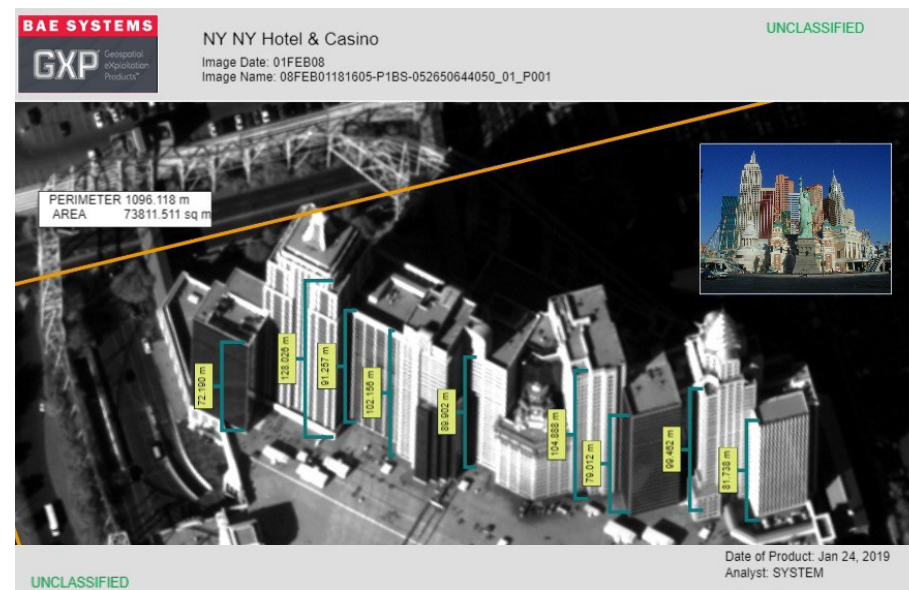




Examples of vertical and horizontal scale bars overlaid on top of satellite imagery. Imagery provided by DigitalGlobe.

## Key enhancements (continued):

- » Scale bars
  - Horizontal
  - Vertical
  - Change text fonts and sizes
  - Change graphic's lines, weights, and colors
  - Units noted in either feet or meters
  - Change number of divisions, length of divisions, and number of sub-divisions
  - Two different styles
  - Top/bottom text placement
- » Save/restore GXP WebView workspaces
  - Save all imagery and graphics as private or public entities
  - Restore loads the display at the same location with all layers loaded
    - Public workspaces can be used for collaboration and data sharing
    - Important for targeting workflows that include point validation
  - Manage workspaces including public/private settings, names and descriptions, filter, load, and delete



GXP WebView product exported in a customized PowerPoint® template. Imagery provided by DigitalGlobe.

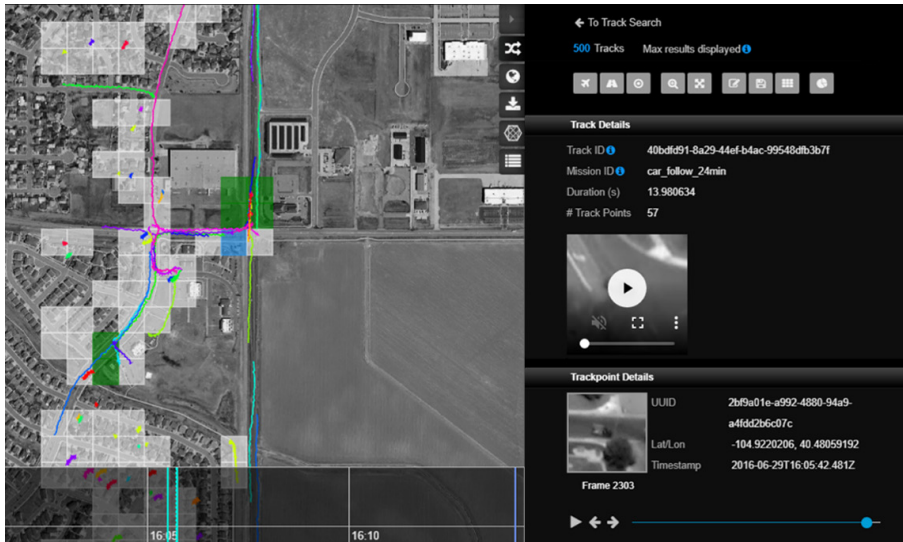
- » Product generation
  - Microsoft® PowerPoint templates using OOXML format (\*.pptx)
  - Add, remove, and manage templates used in GXP WebView
  - Auto-labels from image and system metadata
  - Geolocation of PowerPoint products cataloged using the notes section
  - Output templated products as PNG, JPG, or PPTX
- » GXP WebView with Targeting
  - Updated to Common Geopositioning Services (CGS) 2.3.7.1
  - User interface allowing updates for CGS mensuration accuracy configuration
  - Updates for PowerPoint product generation including releasability values
  - Workspaces supporting save/restore for both private (continued work) and public (quality assurance) workflows
  - Updates for the user interface to display Digital Point Positioning Database (DPPDB) metadata including segment, stock, and version of the stereo imagery
  - Display of residuals for registration workflows
  - Ease-of-use updates for download and visualization of the triangulation summary report

## GXP WebView MOVINT v2.3.5

Our recent GXP WebView MOVINT configuration includes new mission filtering options, Spatial Network Activity Analytics for Relating Entities (SNAARE), and database query enhancements.

### Key enhancements:

- » Track summary filter
  - Displayed tracks can be queried by object classification and mission name
  - Provides a number of tracks for each category
- » SNAARE
  - Breaks the Area of Interest (AOI) into small geospatial nodes
  - Processes missions to build association tracks that correspond to the selected node
  - Offers first, second, and third degree separation of associated nodes
  - Color coding of nodes denotes the density of track associations
- » Query data while processing
  - Perform track queries in GXP WebView MOVINT and analyze tracks processed
  - See vector footprints when searching the GXP Xplorer map



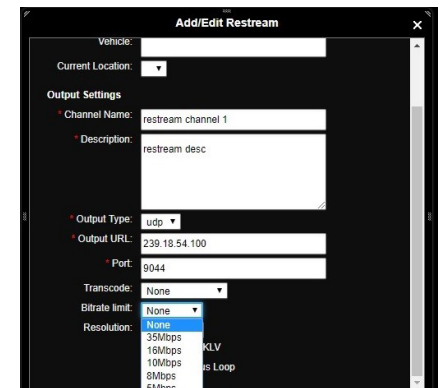
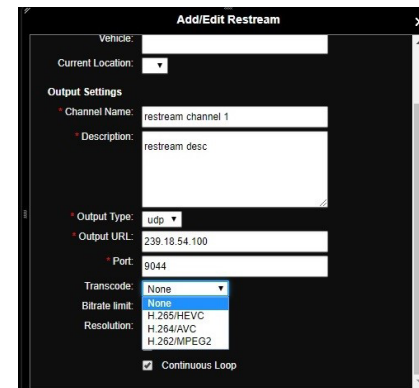
Movement tracks displayed in SNAARE. Imagery provided by L-3 Communications, EO/IR Inc.

## GXP InMotion v2.3.5

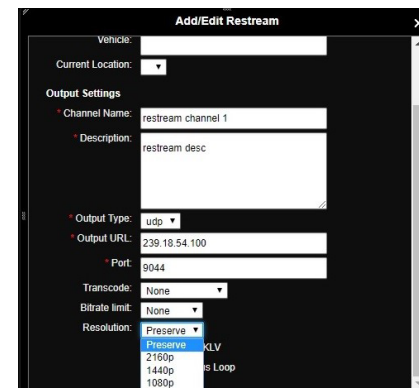
Updates to GXP InMotion include a variety of precise controls over final video output.

### Key enhancements:

- » GXP InMotion Server now supports:
  - Transcoding: the direct conversion of one video encoded format to another
  - Transrating: control over output bitrate
  - Transsizing: control over output resolution



Transcoding function (left) and transrating function (right) in the Add/Edit Restream menu.



Transsizing function in the Add/Edit Restream menu.

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## GXP Platform v2.3.5

Enhancements across the GXP Platform include additional Web Map Tile Services (WMTS) support, data ingest enhancements, and a variety of additional system upgrades.

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### Key enhancements:

- » Zooming out with WMTS retains imagery tiles before refreshing those tiles with new data (eliminating black tile displays)
- » WMTS EPSG:3857 support for publishing content into map displays
- » Load balancing for data ingest
- » Custom file metadata and derived metadata ingest methods utilizing customer defined XML schemas
- » Allow File Transfer Protocol (FTP), Secure FTP, and FTP Secure to have unique configuration settings
- » Support for 4K monitors
- » Improved support for Key-Length-Value (KLV) metadata and video transcoding
- » SOCET GXP CoreSDK v4.4.0
- » Mensuration Services Program (MSP) 1.5.4
- » CGS 2.3.7.1



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

## GXP Customer Support

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