Release Enhancements

GXP Xplorer® • GXP WebView® • GXP InMotion™

v2.3.4

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

The v2.3.4 release of our GXP Xplorer®, GXP WebView®, and GXP InMotion™ solutions deliver several key enhancements including two brand new capabilities.

First, the integration of the Activity Reporting Tool (ART) with SOCET GXP® for collection, editing and visualization of observations stored in the GXP Platform™ coupled with visualization of ART content in GXP WebView.

Second, the new GXP WebView MOVINT (Movement Intelligence) application is now included in the ever-expanding suite of GXP Platform application products.

» Platform wide updates including installation process upgrades, as well as improved status reporting and system health monitoring

» New cataloging and ingest capabilities within GXP Xplorer

» Enhanced online/offline data synchronization within GXP Xplorer, as well as further integration with SOCET GXP

» Visualization of detailed activity-based information, registered over a period of time, with ART

» Introduction of GXP WebView MOVINT with advanced user roles, heatmaps, search, color classification, and tracking capabilities

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

GXP Platform v2.3.4

Key enhancements across the GXP Platform involve installation improvements, status reporting and system health monitoring, and a variety of additional upgrades.

Key enhancements:

» Improvements in the installation of GXP Platform upgrades

- GXP Xplorer catalog is updated during upgrade installations via database migration, minimizing downtime and risk
- A new pre-install upgrade utility is an optional capability
- The upgrade utility should be considered for large catalog holdings in enterprise installations
- Additional status reporting during the upgrade process

» Upgraded to Java® 8 u162

» Java's WatchService is being used to monitor file system events

» Upgraded GXP WebView with Targeting for CGS 2.3.7

» Upgraded to MSP 1.5.4 with SOCET GXP CoreSDK v4.3.0.3

» Improved status reporting and system health monitoring

- Improved error reportings in the GXP Platform services log files
- Improved housekeeping
  - Delete items in managed and cached locations when downloads are complete
  - Delete RSets when the primary image is deleted
  - Zip files created for download processing are deleted after download completes
  - Remove uploaded files after they have been deleted from the catalog
- Provide mitigation for port conflicts

GXP Xplorer v2.3.4

Updates to GXP Xplorer include enhanced synchronization, integration with SOCET GXP, and a variety of usability improvements.
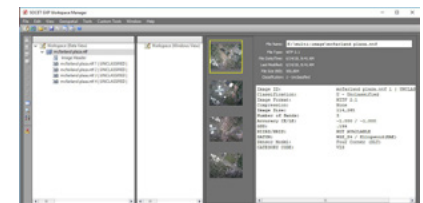
Key enhancements:

» Cataloging and ingest

- 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
- Performance improvements – provide a load balancing service for ingest across multiple nodes
- Support for PeruSat
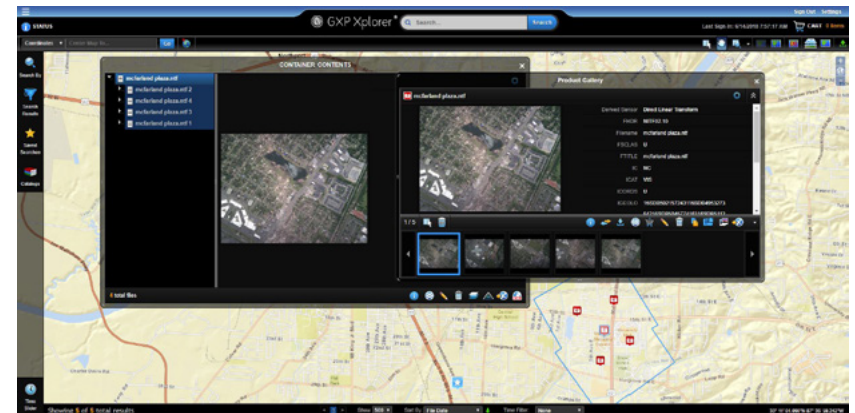
Multi-Image National Imagery Transformation Format (NITF) Cataloged and Discovered in GXP Xplorer.
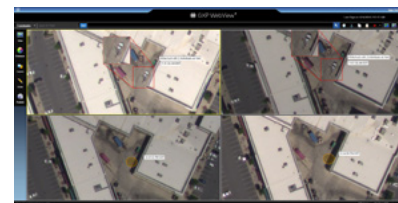
Multi-Image NITF loaded into GXP WebView showing temporal analysis across four containerized time-sequenced images.


Multi-Image NITF loaded into SOCET GXP.

All imagery provided by the National Oceanic and Atmospheric Administration (NOAA) National Geodetic Survey (NGS).

Key enhancements (continued):

» Enhancements for GXP's Synchronization utility

  – Support for offline / online synchronization of data that is cataloged but not on the enterprise file system supporting cross domain systems (using guards)

  – Offline / online synchronization is strictly a pull event for data migration

  – Offline / online synchronization provides a mechanism to pull data when synchronization of metadata has been performed without the migration of data

» Integration with SOCET GXP for enhanced discovery and exploitation

  – Shapefiles, graphic files, and terrain discovered by GXP Xplorer on the network can be opened in SOCET GXP directly
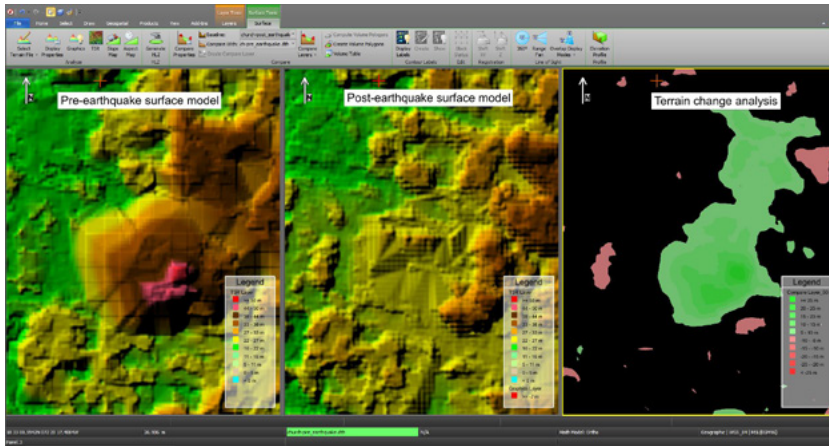
Terrain loaded from GXP Xplorer directly into SOCET GXP showing processing for terrain change detection resulting from the 12 January 2010 magnitude 7.0 earthquake in Haiti.

» New administration configuration turn off scan (crawling) of the file system

» New download options

  – Download of Digital Terrain Elevation Data (DTED) retaining the directory structures

  – Provide download services for large quantity of data sets where a single download is managed by providing links to each product instead of a single zip file

Key enhancements (continued):

» Add Lightweight Directory Access Protocol Secure (LDAPS) support to GXP Xplorer

» Integration of Geospatial Repository and Data Management System (GRiD) for Web Map Service (WMS) / Web Map Tiled Service (WMTS) services and user interfaces

  – Improve zoom performance

  – Provide geospatial reference of GRiD snapshots into PowerPoint®

» New customer requested usability improvements

  – Use arrow keys to scroll through film strip in Product Gallery

  – Provide a global setting for the default "Sort by" option including ascending or descending order

  – Improvements for documentation that allows system administrators and integrators to change the banner and color the GXP Platform applications' user interfaces

GXP WebView v2.3.4

Updates to GXP WebView include enhanced WMS / WMTS streaming, and an Activity Reporting Tool (ART).

Key enhancements:

» Performance improvements for WMS / WMTS streaming

» ART

- Disseminate observations collected in SOCET GXP ART to others using GXP WebView
- New user interface in GXP WebView to view the observations stored in GXP Xplorer
- See locations of objects observed over time overlaid graphically on the image
- Visualize changes in the scene with time slider
- See metadata about the activities observed
- Observations can also be inserted through the GXP Xplorer API by developers and viewed in GXP WebView
- GXP WebView dynamically reflects all attributes stored with the observations, without pre-configuration

ART in GXP WebView delivers browser-based viewing and analysis of objects and activities recorded over time.

Image courtesy of ©Airbus DS 2013.

AIRBUS

GXP WebView MOVINT v2.3.4

Our new GXP WebView MOVINT configuration includes enhancements to user roles, heatmaps, advanced search, color classification, and tracking capabilities.

Key enhancements:

» MOVINT roles

- Non-MOVINT users
  - Query, filter, and export tracks
  - Cannot display heatmaps
- Analyst
  - Editing permissions, but changes must be reviewed by supervisor
- Supervisor
  - Review editing commits by Analysts
  - Edits are committed without review by a secondary approval source
- Administrator
 - Same as Supervisor, plus account creation

MOVINT in GXP WebView.

Imagery courtesy of L-3 EO/IR.

Key enhancements (continued):

- » Heatmaps
  - – Heatmaps can display even without querying for tracks
  - – Display multiple track sets simultaneously
  - – Heatmaps update with temporal filtering
  - – Legend automatically applied and automatically updates with density
  - – Currently limited to display for an area less than 10,000 km^2 in the panel
  - – Will not display for Non-MOVINT users

- » Advanced properties search
  - – Utilize data-type specific attributes to query advanced search fields
  - – Create complex rules for search using logical operators (i.e., and/or)

- » Color-code tracks by object classification, and deselect unwanted classification types

- » Track editing and review
  - – Enter from the track results tab or the right-click menu
  - – Review Tracks
  - – Delete – remove track from the MOVINT database
  - – Classification Modification – set a new object classification
  - – Merge – join two temporally separate tracks
  - – Split – split track into two tracks; one which retains the UUID, one that inherits a new UUID
  - – Trim Start – set new start point with selected track point
  - – Trim End – set new end point with selected track point
  - – Batch Delete – all displayed tracks can be purged

- » Edit Tracks
  - – A set of edits are submitted for approval each time the Analyst selects 'Save' from the track editing menu
  - – Approval / Rejection of track edits is all or nothing for each submittal

- » Export tracks
  - – Intended for use with a set of tracks for finished intelligence, rather than bulk export
    - • Export sent to "My Products" menu for status and options
  - – Supported formats:
    - • KMZ
    - • Shapefile
    - • PNG
    - • PowerPoint
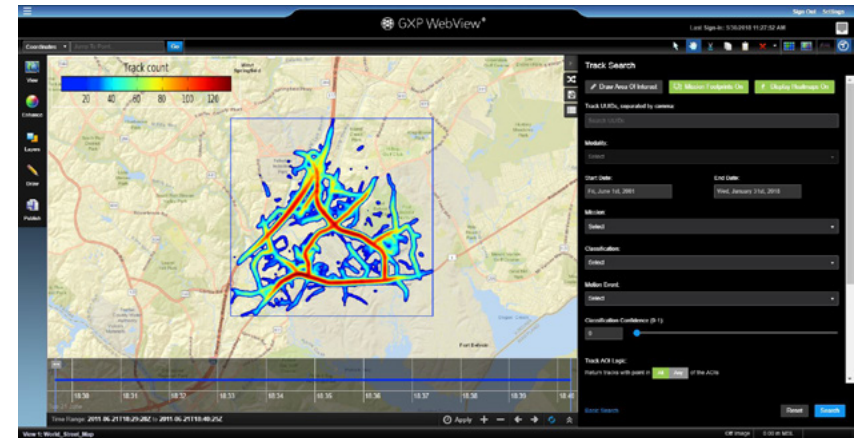
Heatmaps in GXP WebView MOVINT. *Basemap layer courtesy of Esri.*

Color-code tracks in GXP WebView MOVINT. *Imagery courtesy of L-3 EO/IR.*

GXP

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

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