# GXP WebView® Rapid visualization and analysis of geospatial data, enabling the development of actionable intelligence The GXP® ecosystem

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

**BAE SYSTEMS** 

# GXP WebView®

# Powered by the GXP Xplorer® Platform

An efficient Electronic Light Table (ELT) allowing you to view, measure, annotate, and disseminate geospatial data directly from a Web browser. Integrated with the GXP Xplorer Search capability, the GXP WebView solution enable users to visualize imagery, exploit it, and publish the resulting finished product.

GXP® pixel streaming powers the GXP WebView capability to load full resolution images from GXP Xplorer software into a standard Web browser without pluq-ins. In addition, real-time alerts based on established GXP Xplorer search criteria enable efficient collaboration as users are continually made aware of newly updated data sets. Accuracy in imagery exploitation comes from server-based processing based on photogrammetric principles.

Built for both the all-source and image analyst, GXP WebView tools support simple, accurate data visualization and analysis, enabling the development of effective and actionable geospatial reports.

## **Exploitation capabilities**

- Detailed annotation (text, points, lines, and polygons)
- Distance, direction, heights and coordinates including elevation and accuracy
- Geographic, Universal Transverse Mercator (UTM) and Military Grid Reference System (MGRS) coordinates including circular errors and linear errors when available
- Manage geospatial layers including graphics, Open Geospatial Consortium (OGC®) Services, and
- View single images, multiple panels, linked panels, and animated panels for time sequential
- Seamless integration with GXP Xplorer software
- Product development including templates and automatic text labels from available metadata
- Publishing to PowerPoint®, PNG, JPEG, and KMZ for Google Earth™ mapping service

In addition, the new GXP WebView with Targeting application streamlines the mensuration process allowing targeteers to efficiently complete their tasks with confidence in the results. Using the Common Geopositioning Services (CGS) 2.3.6 for the derivation of coordinates and estimates of error, GXP WebView software supports the following CGS workflows:

- Single image point measurements
- Image registration with up to three control images
- triangulation of two to four images
- Multi-Image Geopositioning (MIG) –
  Image resection with up to three control images

The GXP WebView software solution has received the SAFETY Act designation from the Department of Homeland Security as a qualified anti-terrorism technology. This special designation was awarded based on extensive operational testing, performance achievement, quality assurance, security assessments, audit and accountability, and a variety of other key metrics.





Imagery courtesy of Maxar.

# GXP Xplorer®

Within the GXP Xplorer Product Gallery, users can launch an image directly into GXP WebView software, which opens in a separate tab in the same Web browser and immediately streams the image into the GXP WebView session.

# SOCET GXP®

With GXP WebView streaming services, imagery can also be launched directly into SOCET GXP® software for advanced imagery analysis and exploitation. Imagery streamed into both GXP Webview and SOCET GXP clients inherit the rigor and accuracy associated industry wide with GXP software products. These advanced capabilities include:

- Automatic feature extraction
- Image orthorectification
- Multi-sensor triangulation
- Automated terrain extraction
- Terrain analysis and editing
- Annotation and feature creation including direct connections to geodatabases
- 3-D modeling
- Multispectral (MSI) and hyperspectral (HSI) analysis
- Synthetic Aperture Radar (SAR) processing
- LiDAR visualization and exploitation
- Precise mensuration
- Precision targeting
- Tracking analytics
- Video exploitation

# Rapid visualization through world-class pixel streaming

GXP pixel streaming powers the GXP WebView capability to load full resolution images from GXP Xplorer software and quickly turns any image, regardless of format or location, into a standards-based stream viewable in a Web browser without plug-ins.

Satellite images can easily approach file distribution limits and downloading from a remote location could take hours or fail completely because of network interruptions. In addition, the file formats may require special software for pixel interaction. The GXP WebView solution, utilizing the power of the GXP Xplorer Platform, streams data natively eliminating the need for full-product download or special software for pixel interaction.

- Delivers pixels from any image file format to GXP WebView software on-the-fly without reformatting to a new file
- Eliminates waiting for very large images to download
- Federation is more versatile by allowing direct access to products
- The SOCET GXP application, amongst others, integrate the GXP pixel streaming functionality
- Turn reference imagery into streamed background map services

Imagery courtesy of Maxar.

- View image as if it were locally on your system
- Automatically displays the optimal image presentation
- Dynamically adjust imagery brightness, contrast, and sharpness in the Web browser as desired
- Adjust view through tools including Pan, Zoom, and Rotate (including Rotate to North, Objects Up, and Shadows Down orientation)

# Mensuration and Annotation

The unique GXP WebView Draw panel offers a set of illustrative annotation and measurement tools.

The Draw panel uses rigorous sensor model measurements to make calculations in ground space, while the Layer Manager allows users to easily toggle, manage, and position additional geospatial content layers including OGC Services, Esri® ArcGIS® Services, Google Maps<sup>TM</sup> mapping service, and others.

- Draw points, lines, and polygons
- Insert icons in many shapes and sizes (e.g., tanks, planes, markers)
- Enter textual annotations
- Provide textual automatic labels from metadata including imagery metadata, as well as system and user information
- Measure geographic coordinates using sensor model geometry and best available terrain (not approximations)
- Underlying terrain used if available for geospatially correct measurements
- Measure distances, direction, and point locations using rigorous sensor models
- Measure object heights based on ground to object height, or from cast shadow based on shadow tip to object top, or shadow tip to object bottom
- Change graphic attributes including color, line style, line weight, text fonts, and more
- Overlay a Web Feature Service (WFS) on the image for additional detail
- Superimpose shapefiles discovered in GXP Xplorer software and published as a Web Map Service (WMS) layer



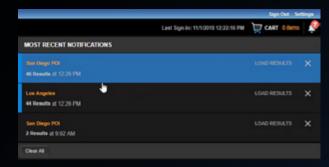
Imagery courtesy of National Oceanic and Atmospheric Administration (NOAA).

2

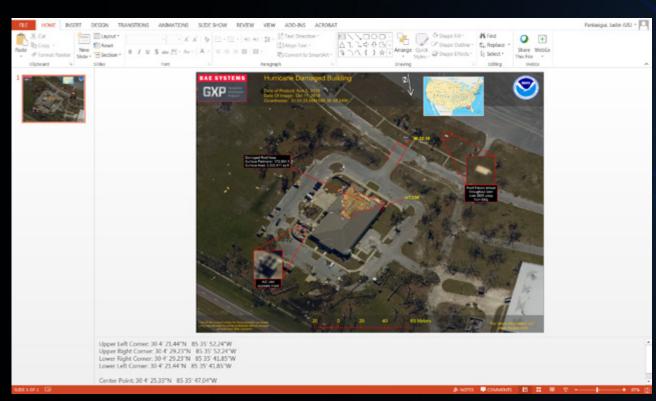
# Simplified product creation, collaboration, and publishing

Once image exploitation is completed with required location and zoom, measurements and annotation, and additional content layers, GXP WebView software generates a What You See Is What You Get (WYSIWYG) product to be published for further review.

- Build the final brief in the Web browser using product templates supported with automatic text labeling
- Customize aspect ratio to PowerPoint dimensions
- Collaborate by sharing published products back to GXP Xplorer software, which supports direct cataloging and subsequent discovery
- Publish the annotated image product into PowerPoint,
  PNG, and KMZ for Google Earth mapping service
- Deliver via email and FTP
- Deliver notifications using RSS or alerts through GXP Xplorer notification services
- Catalog the products in GXP Xplorer software for subsequent use and availability
- Save GXP WebView Workspaces as private or public to provide updates at a later time, or for collaboration within a workgroup for QA or RFI and continued analysis



To enhance collaboration among workgroups, GXP Xplorer tools provides user notification services for published products based on customized search criteria.



Imagery courtesy of NOAA.

# Worldwide support and training

GXP Customer Technical Solutions offers flexible training modules and support options for your organization, whether you require training for an entire project team or simply need supplemental one-on-one instruction.

Our worldwide training centers deliver complimentary customer training with curriculum tailored specifically to your learning requirements. Onsite training, which is available at the time of initial installation to introduce you to the functionality of GXP WebView software, can be supplemented at a later date with refresher courses or advanced workflows.



# BAE Systems, Inc.

BAE Systems, Inc. is the U.S. subsidiary of BAE Systems plc, an international defense, aerospace and security company which delivers a full range of products and services for air, land and naval forces, as well as advanced electronics, security, information technology solutions and customer support services.

BAE Systems, Inc. provides support and service solutions for current and future defense, intelligence, and civilian systems; designs, develops and manufactures a wide range of electronic systems and subsystems for both military and commercial applications; produces specialized security and protection products; and designs, develops, produces, and provides service support of armored combat vehicles, artillery systems, and munitions.

### **GXP** software solutions

Supporting development of the most advanced geospatial intelligence, BAE Systems GXP software enables rapid discovery, exploitation, and dissemination of mission-critical geospatial data. From key military, security, and incident response operations, to a variety of commercial development and research initiatives, GXP provides a comprehensive suite of solutions to inform effective decision making and ensure a safer world.

GXP software solutions support image, video, and all-source analysts at defense and intelligence agencies, as well as commercial organizations, around the world including:

- » Defense forces, intelligence agencies, and homeland security (including all major branches of the military)
- » Private security and first responder personnel
- » Photogrammetry, mapping, and surveying agencies
- » Systems integrators

- » State, local, and regional governments
- » Transportation departments
- » Natural resource management consultants
- » Universities and research organizations

# More information on BAE Systems and GXP products:

### **Americas**

Toll free: 800 316 9643 gxpsales@baesystems.com

### Australia and New Zealand

Telephone +61 2 6160 4000 gxpsales.apac@baesystems.com

### Asia

Telephone +603 2730 9475 gxpsales.asia@baesystems.com

Europe, Middle East, and Africa gxpsales.emea@baesystems.com

For additional contact information and worldwide distributors, please visit our website: www.baesystems.com/gxp

© 2023 BAE Systems. All Rights Reserved. Geospatial eXploitation Products, GXP, GXP Fusion, GXP OpsView, GXP WebView, GXP Xplorer, and SOCET GXP are registered trademarks of BAE Systems. This document gives only a general description of the product(s) or service(s) offered by BAE Systems. From time to time, changes may be made in the products or conditions of supply. Approved for public release as of 02/26/2019; revised 10/05/2023. This document consists of general information that is not defined as controlled technical data under ITAR Part 120.10 or EAR Part 772. 20190220-07.