SOCET GXP® and GXP InMotion™ Desktop v4.5.0 release enhancements

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SOCET GXP v4.5.0 release enhancements

- This presentation contains the enhancements included in SOCET GXP **v4.5.0**.

    - Released June 17, 2021.

    - It is a full release, which requires a new license file for upgrades from previous versions of SOCET GXP.

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Infrastructure updates

- New Sensors, Imagery, and other GEOINT data
  - MSP v1.6.4.
- Coordinate System Support
  - Support CRS-1 (Open Geospatial Consortium Coordinate Reference System) for lossless image space streaming of raw image pixels.
  - Support for Web Mercator EPSG:3857 for Map streaming from sources such as Esri®.
  - Added GEOID18.

- Licensing
  - New licenses are required with the release of SOCET GXP v4.5.0.x.

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Improved Help

New Help documentation template for improved navigation of the online users manual layout and style.

- SOCET GXP, GXP InMotion, and the License Manager have all been updated to the new User Manual format with focus on improvements to the layout and style.

- Improved font and management of content including the table of contents based on Web-Page design practices.

- Expand all / collapse all within a help topic section.

- Highlight and print the document.

- Code snipits – copy and paste command line arguments into a CMD prompt.

Task Manager Image List

- Update the Task Manager user interface.
  - View long image names in the Task Manager Image List simple operations including resizing Image list and/or Task Manager window.

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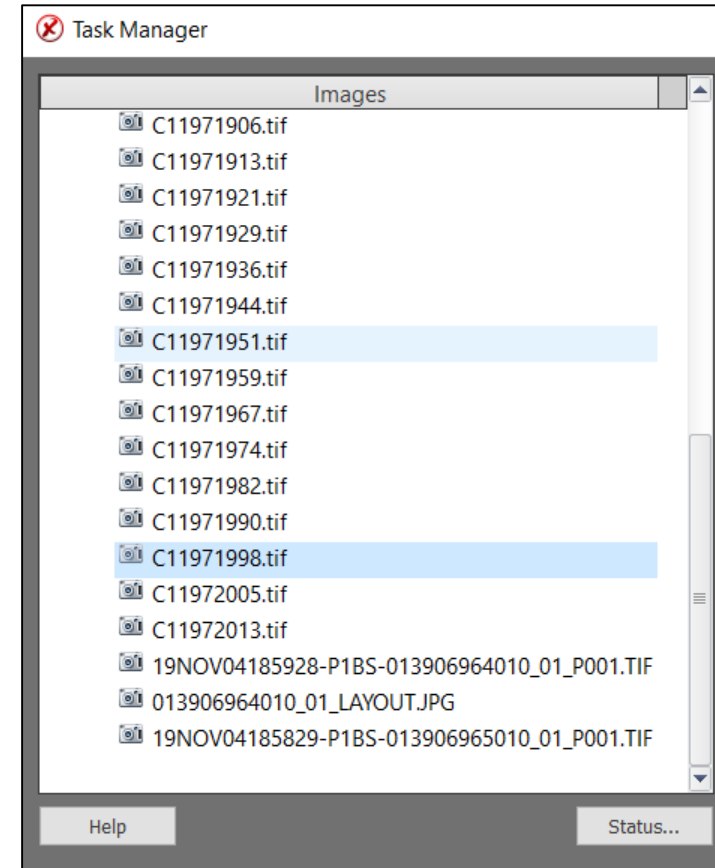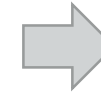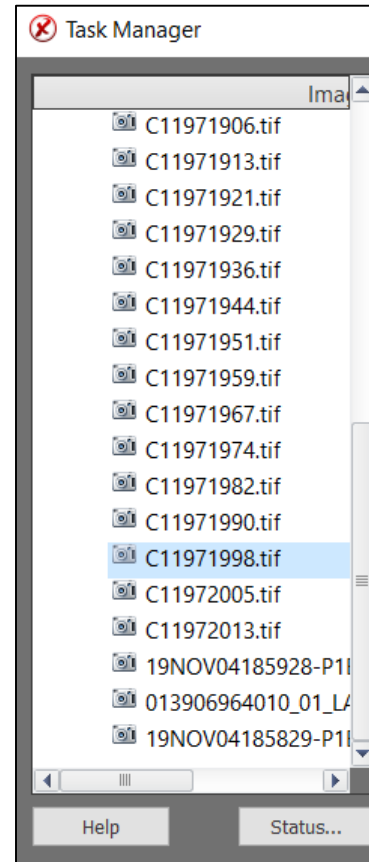
Integration of Esri Services cataloged in GXP Xplorer® Platform

- The Workflow Improvement Module (WIM) has been updated to search Esri Map Servers cataloged by GXP Xplorer.

- Updates include authentication for Esri hosted services.

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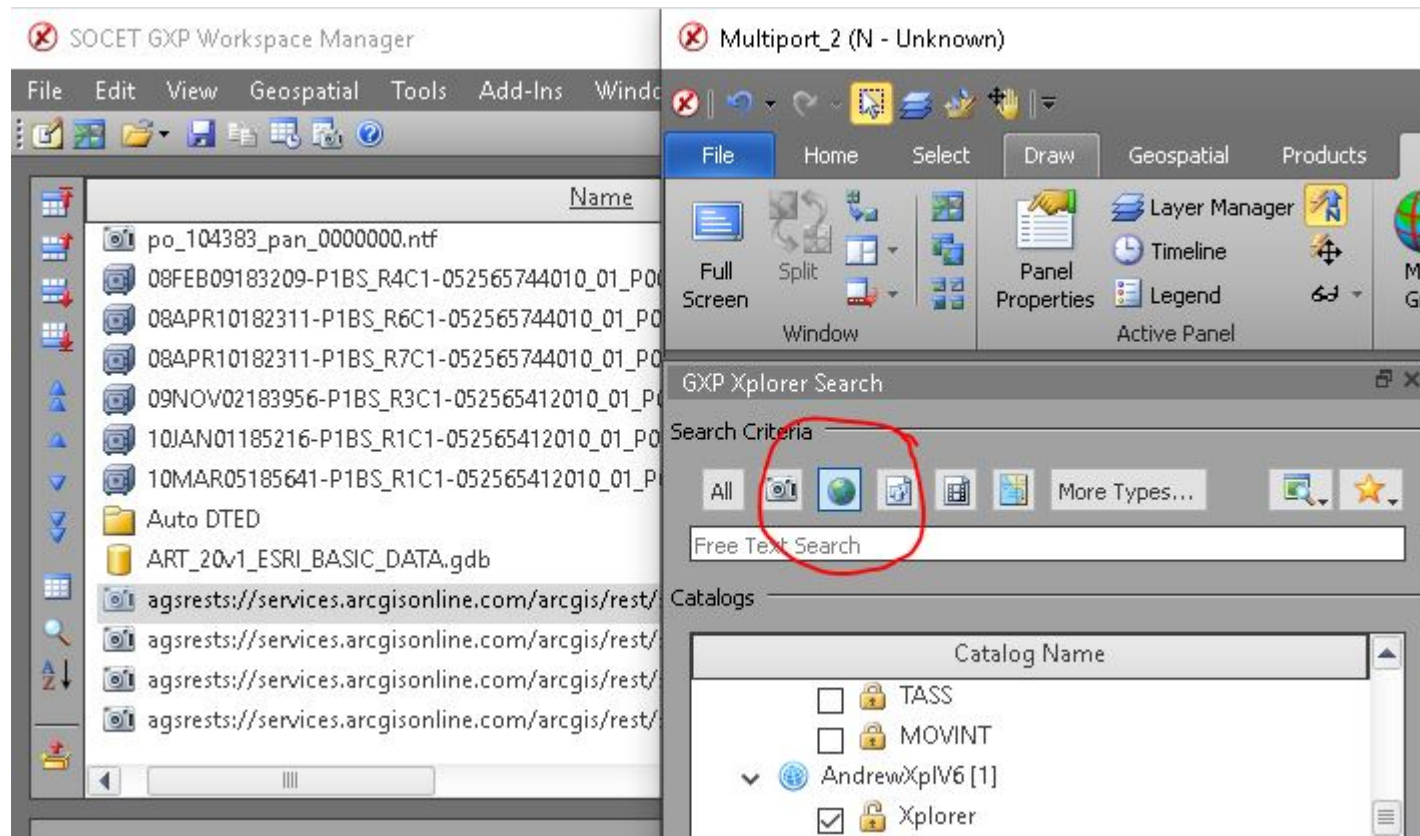
Integration of SOCET GXP with Esri ArcGIS® Earth

- Interface with ArcGIS Earth using a simple button interface from the SOCET GXP Multiport™ Add-ons tab.
  - Add image overlay layer ArcGIS Earth.
  - Add image footprint(s) layer ArcGIS Earth.
  - Add selected graphics layer ArcGIS Earth.
  - Add all visible scene layers ArcGIS Earth.

Image © 2021 Maxar Technologies.
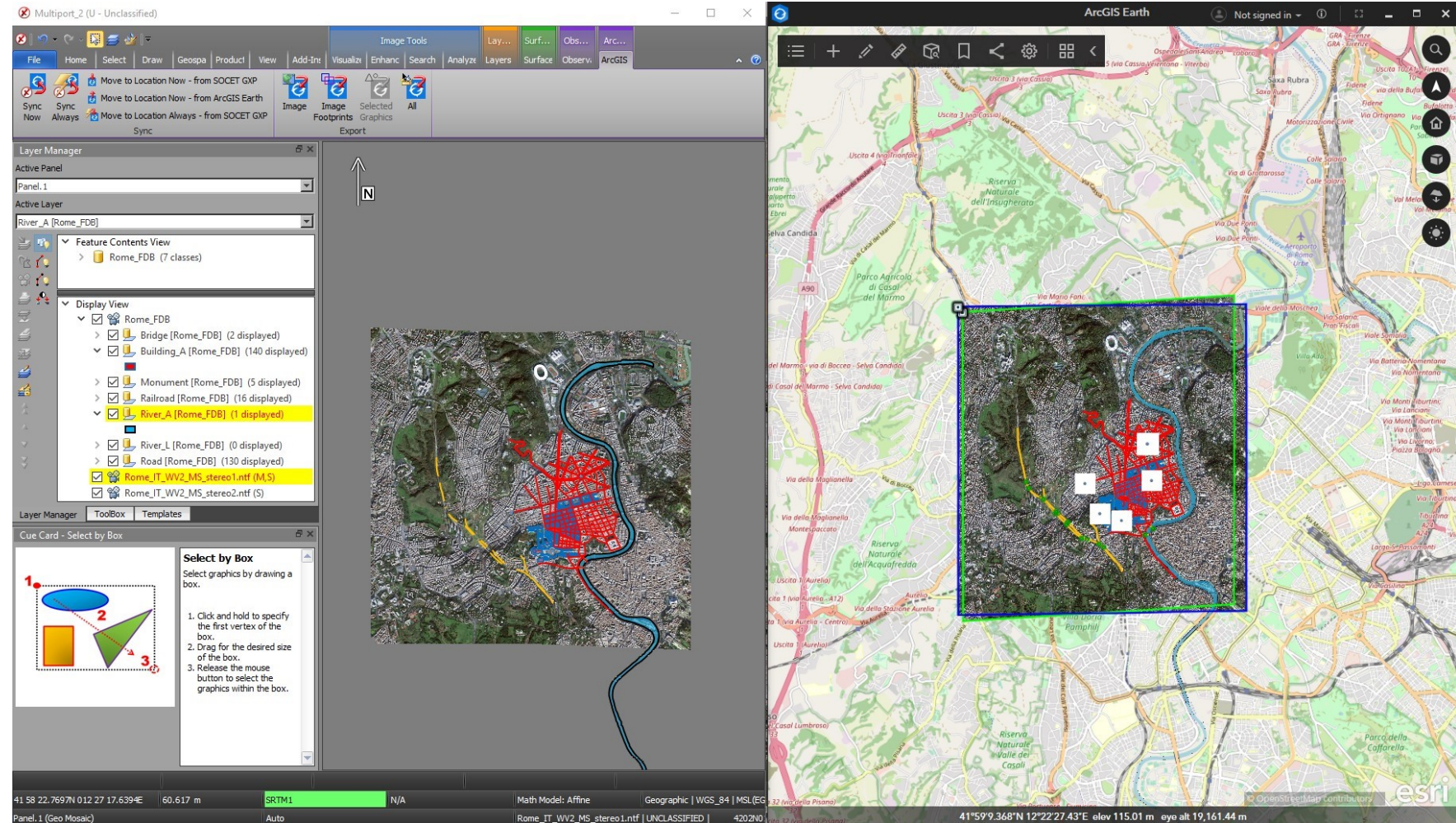
Integration of SOCET GXP with Esri ArcGIS Earth ...2

- Synchronize ArcGIS Earth with SOCET GXP.
  - Move SOCET GXP to ArcGIS Earth location.
  - Move ArcGIS Earth to SOCET GXP location.
  - Move ArcGIS Earth to SOCET GXP location always.

Image © 2021 Maxar Technologies.

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Export to Microsoft® Word

Export products to Microsoft Word directly from SOCET GXP.

- Preference added to allow the format to be portrait or landscape.
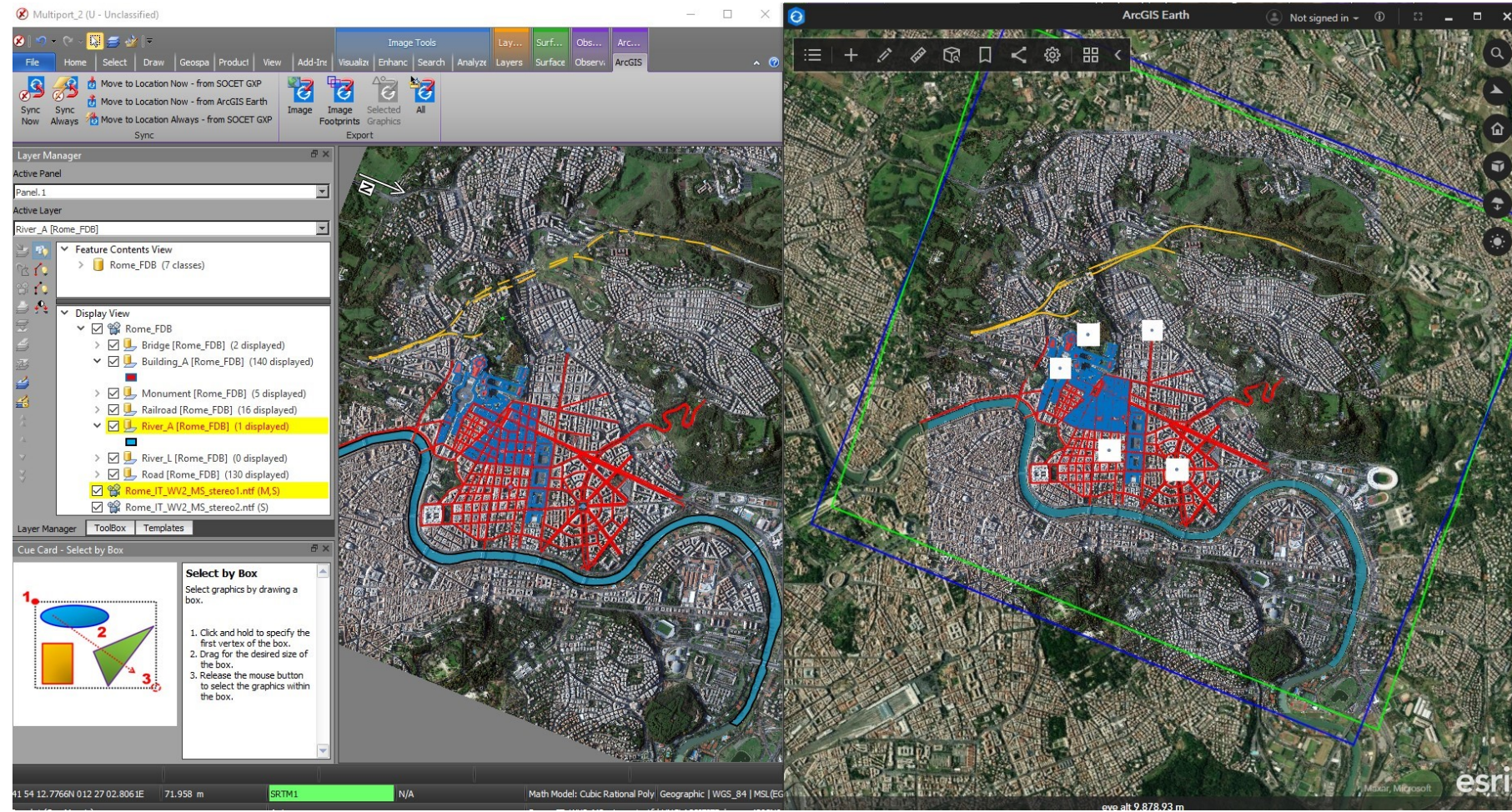- Users can also export to Hangul Word Processor.

Image © 2021 Maxar Technologies.

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Updates for Cesium 3D Tiles® v1.0

- Cesium 3D Tiles v1.0 is a format for highly detailed geospatial models adapted by the OGC® Cesium® https://cesium.com/3d-tiling-pipeline/.

- SOCET GXP provides support for allowing visualization, roaming, fly-through in the SOCET GXP 3D Multiport.

- Drape Annotations and Features on 3D Tiles.

- Cursor linking available for 3D to 2D Multiports.
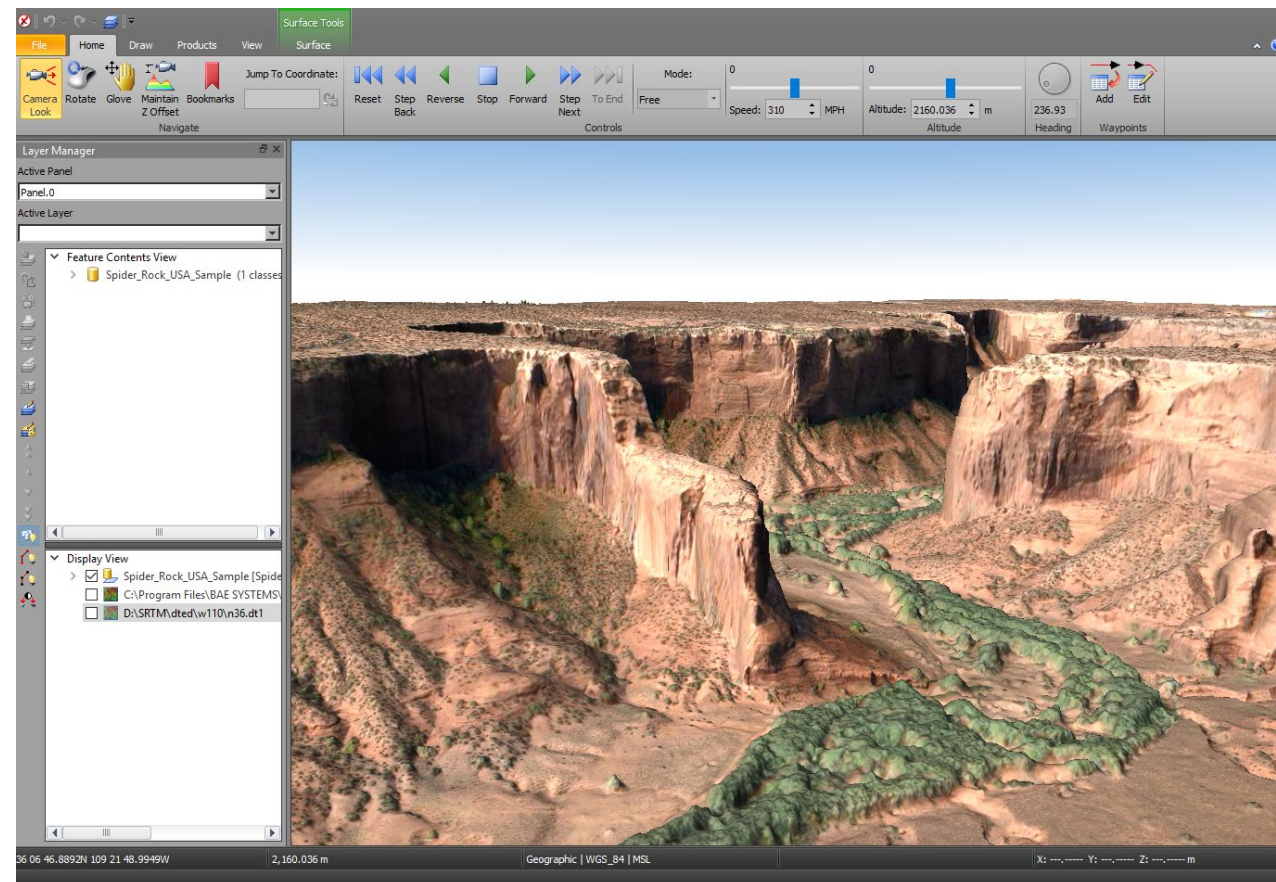
Imagery courtesy of Vricon.

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United States Message Text Format - USMTF Generation

- Create USMTF Messages using information derived from Imagery loaded into a Multiport.

- Transmit USMTF messages via interaction with the Common Message Processor (CMP) and the GTCS systems.

- The text message is created using image metadata and interactive graphics to auto-fill the USMTF with as many fields as possible.

- An XML schema template is provided, which can be customized for specific messaging requirements.

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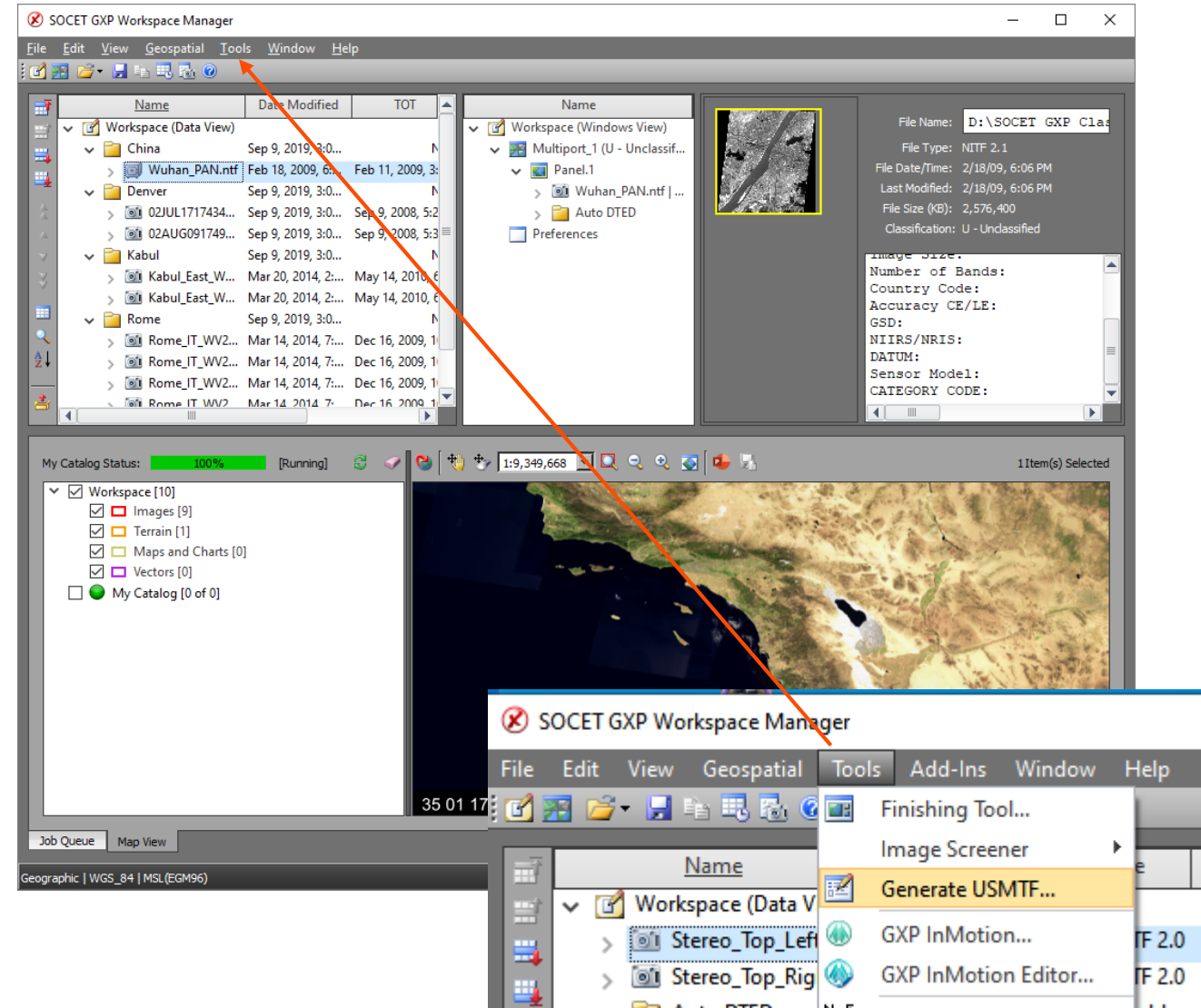
Modernized Intelligence Database (MIDB) Integration

- GXP Xplorer Platform Integration.
  - Data model updates including MIL-STD 2525B symbols.
  - New SOCET GXP Ribbon connection for MIDB.
- Updated layer manager to include content filters based on attribution.
- Switch between MIL-STD 2525B symbols and customer, or simple symbols.
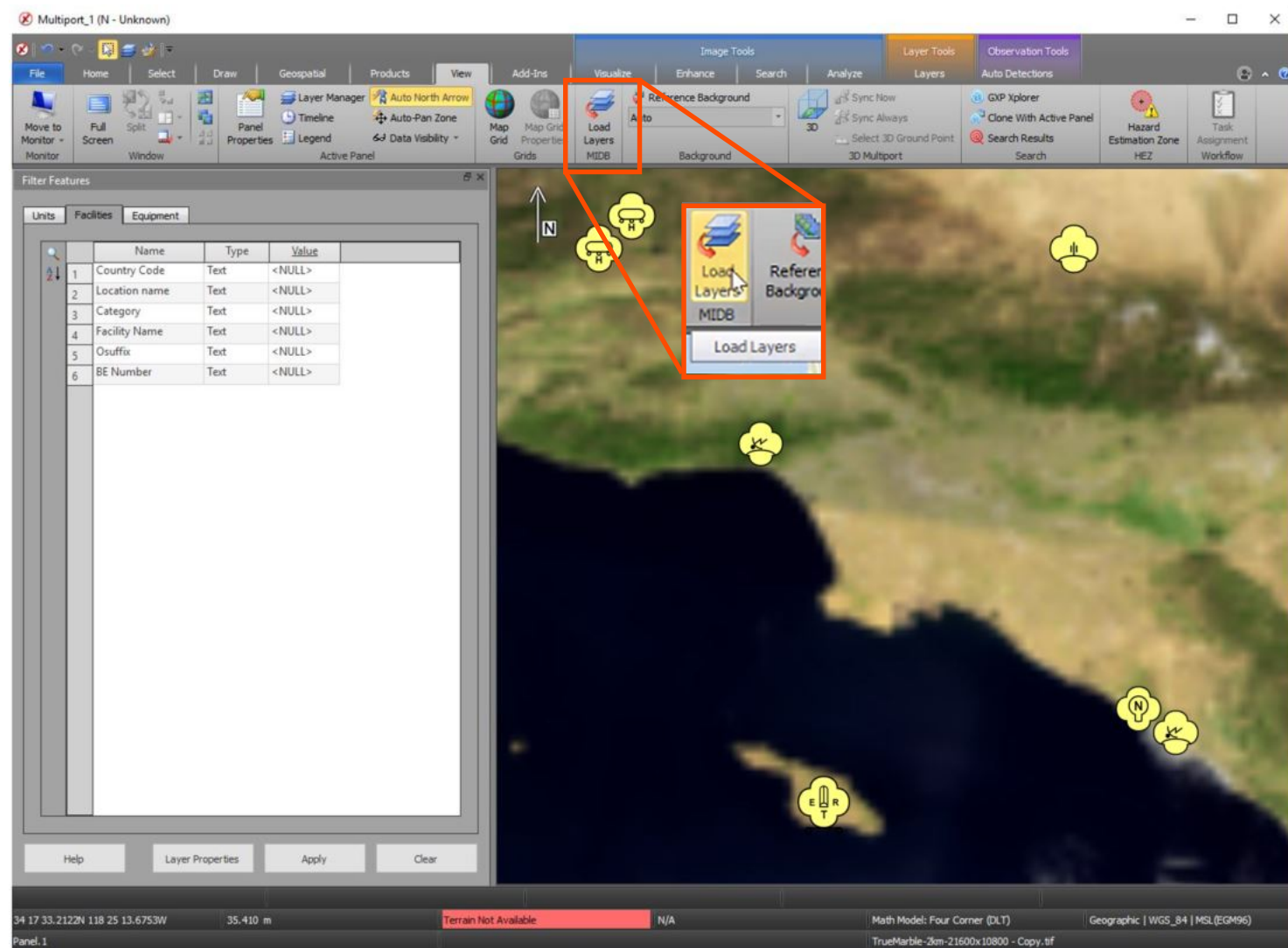
GXP Automated Tools for Object Recognition (GATOR)

- Software developed under a Research & Development (R&D) program.

- Productized as a SOCET GXP Job service.

- Identifies objects over a Region of Interest (ROI) based on the selection of a 3-D model.

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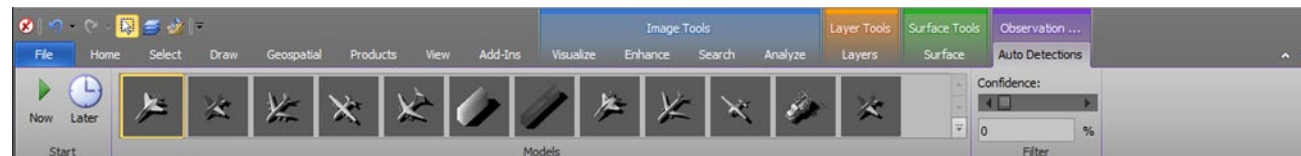
GXP InMotion™ v4.5.0.0 release details

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GXP InMotion v4.5.0.0 – Live Rewind in one panel

- When Live Rewind was introduced, it was developed with a specific customer in mind; The initial implementation focused on that customers CONOP of having a real time instance of the video next to a forensic instance of the same mission.

- In v4.4.1.2 we've expanded Live Rewind's flexibility to allow for side by side panels of 'Live' and 'Rewind'.

- In **v4.5.0.0**, Live Rewind is able to function <u>all within one panel</u> of one GXP InMotion instance.
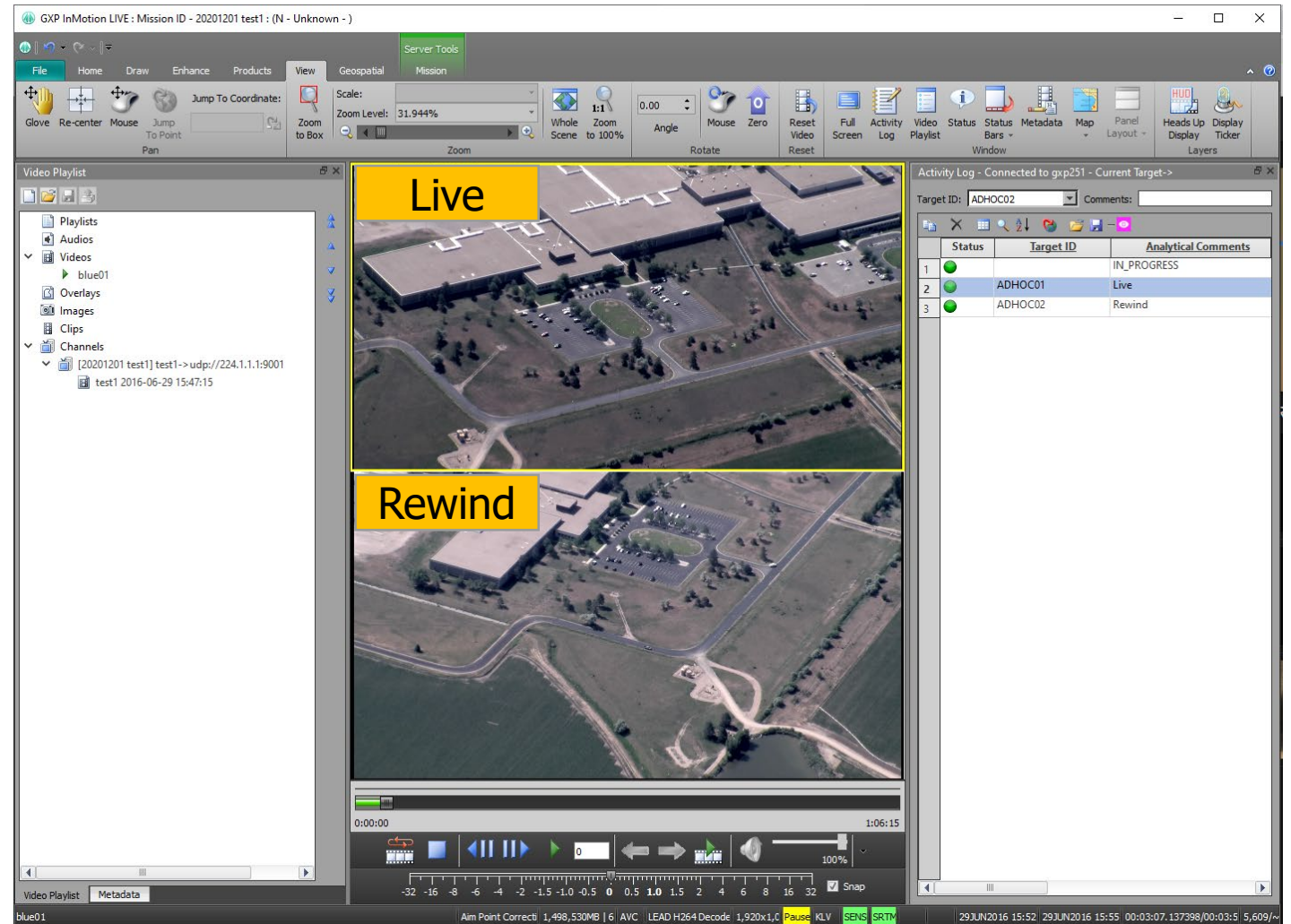
Imagery of MX-15 videos over Ft. Collins, CO; Courtesy of L-3 Communications, EO/IR Inc.

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GXP InMotion v4.5.0.0 – Esri AGS Map/Imagery/Feature Support

- Added the ability to display any layer of an Esri MapServer, ImageryServer, and FeatureServer in the GXP InMotion Map Window.

- Added the ability to display multiple OGC layers in Map Window.
  - For example, the image to the right is displaying a MapServer layer as the base image, and on top of the imagery are two feature server layers (Overlays).

- https://services.arcgisonline.com/arcgis/rest/services/World_Imagery/MapServer

- https://sampleserver6.arcgisonline.com/arcgis/rest/services/Military/FeatureServer

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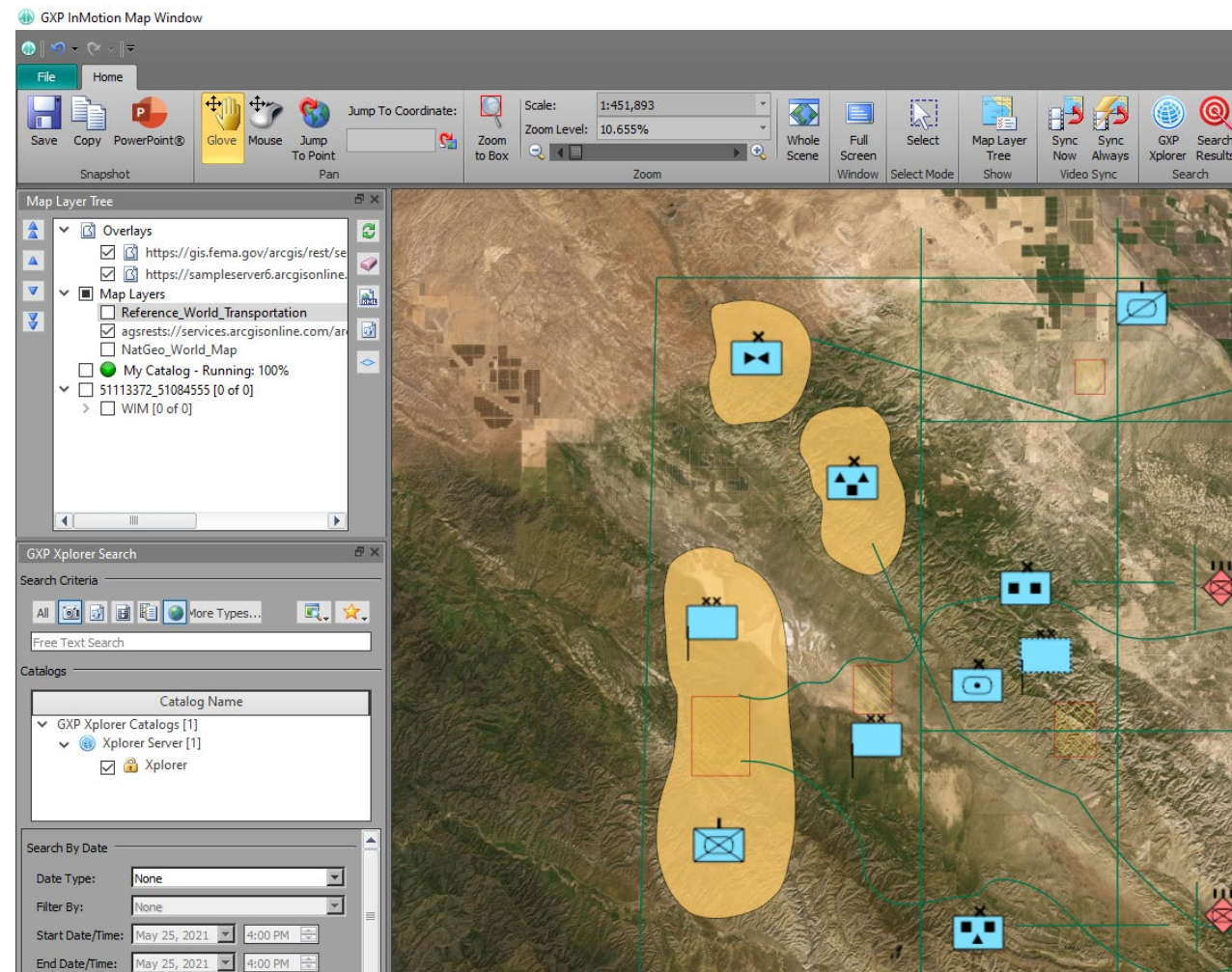
GXP InMotion v4.5.0.0 – New Heads Up Display (HUD) editing capabilities

- Ability to reposition and edit HUD elements while video is playing.

- Ability to edit the HUD across all six multi-panels.
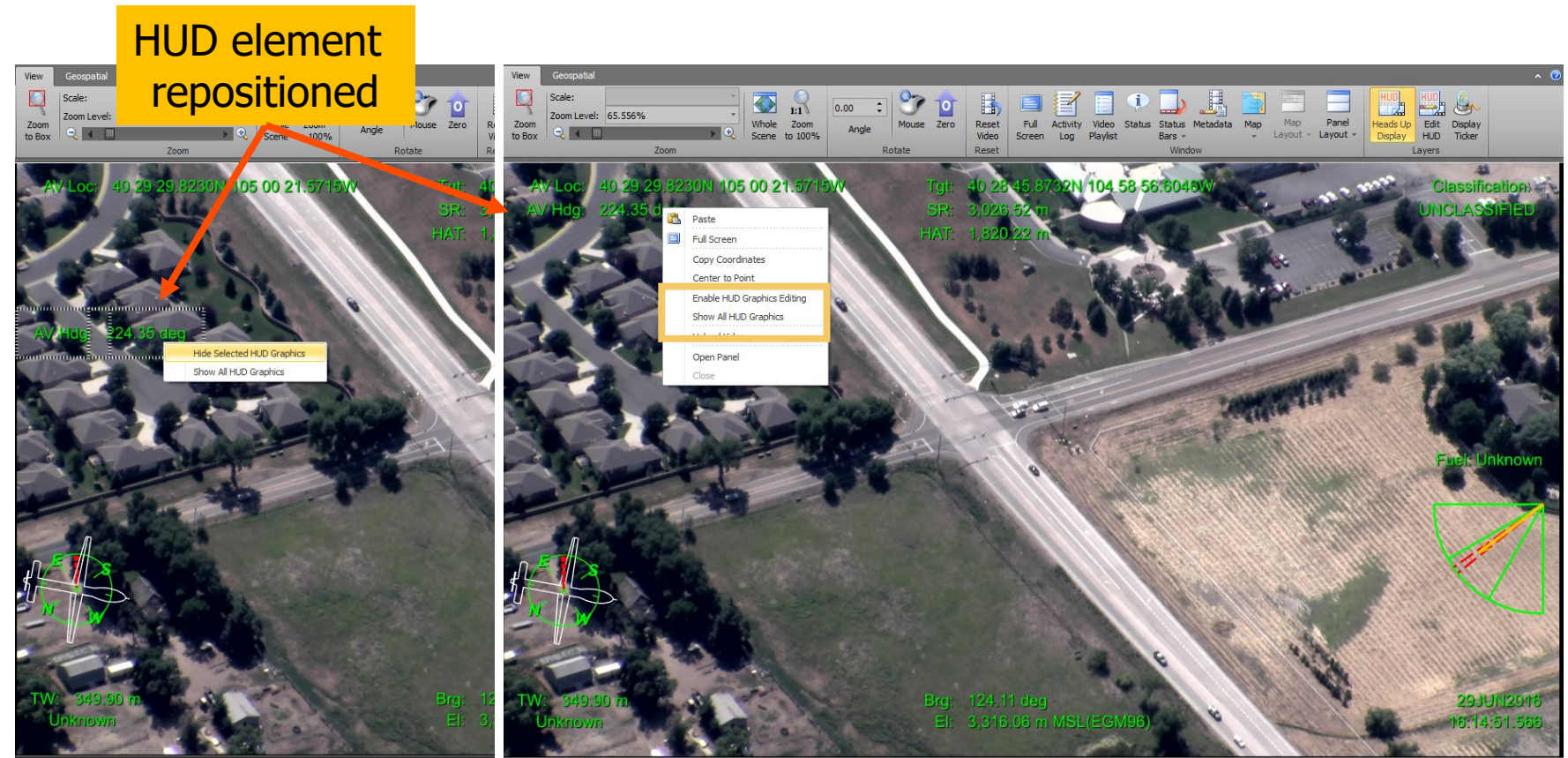
HUD element repositioned

Imagery of MX-15 videos over Ft. Collins, CO; Courtesy of L-3 Communications, EO/IR Inc.

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GXP InMotion v4.5.0.0 – New supported vector formats

- New feature and graphics performance constraints were added to GXP InMotion to better manage feature rendering during video exploitation.

- The GXP InMotion video scene now supports the following vector formats:

  - MIE4NITF embedded Shapefiles.

  - GeoJSON files.

  - 4676B (XML) files.

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GXP InMotion v4.5.0.0 – New supported encoding features

- *"Video encoding converts a given video input into a digital format that is compatible with most types of Web players and mobile devices. In the most basic sense of the term, video encoding is compressing video files so that they are not saved as individual images but as fluid video."*

- GXP InMotion supports converting H264 (TS) video data with metadata out to MP4, WMV, and AVI files. Previously this process only converted the original video and did not include any graphics overlays a user might have overlain during exploitation. GXP InMotion v4.5.0.0 added support for embedding (or burning in) both KML and Shapefile vector formats into the resultant video product.

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Thank You

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