GXP® Desktop v4.6.0 cumulative release enhancements

Evan Miller
GXP Product Development

BAE SYSTEMS

GXP Desktop v4.6.0.0 release enhancements

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GXP Desktop v4.6.0.0 release enhancements

- This presentation contains the enhancements included in SOCET GXP® and GXP InMotion™ released December 19th, 2024.

  - GXP Desktop software are full installations.

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SOCET GXP v4.6.0.0 release enhancements

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Infrastructure updates

- Added support for Microsoft Windows® 11.

- Removed LEAD video filter dependencies.

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API updates

- Added the ability to set camera parameters in the 3D Multiport^{TM}.

- Removed WGS-84 dependencies.

  - Now the planetary community can use the API to make image to ground calls without having to do a conversion.

- Added the ability to toggle the 3D North arrow in a 3D Multiport.

- Updated JavaScript® API to support:

  - Jump to Point.

  - Set zoom and rotation.

  - Create graphics/update graphics.

  - Retrieve CE/LE.

  - Textbox support.

- Redesigned API queries to handle larger datasets to get returns quicker.

  - Example: 1-1000, 1001-2000, etc.

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Trackball name preference

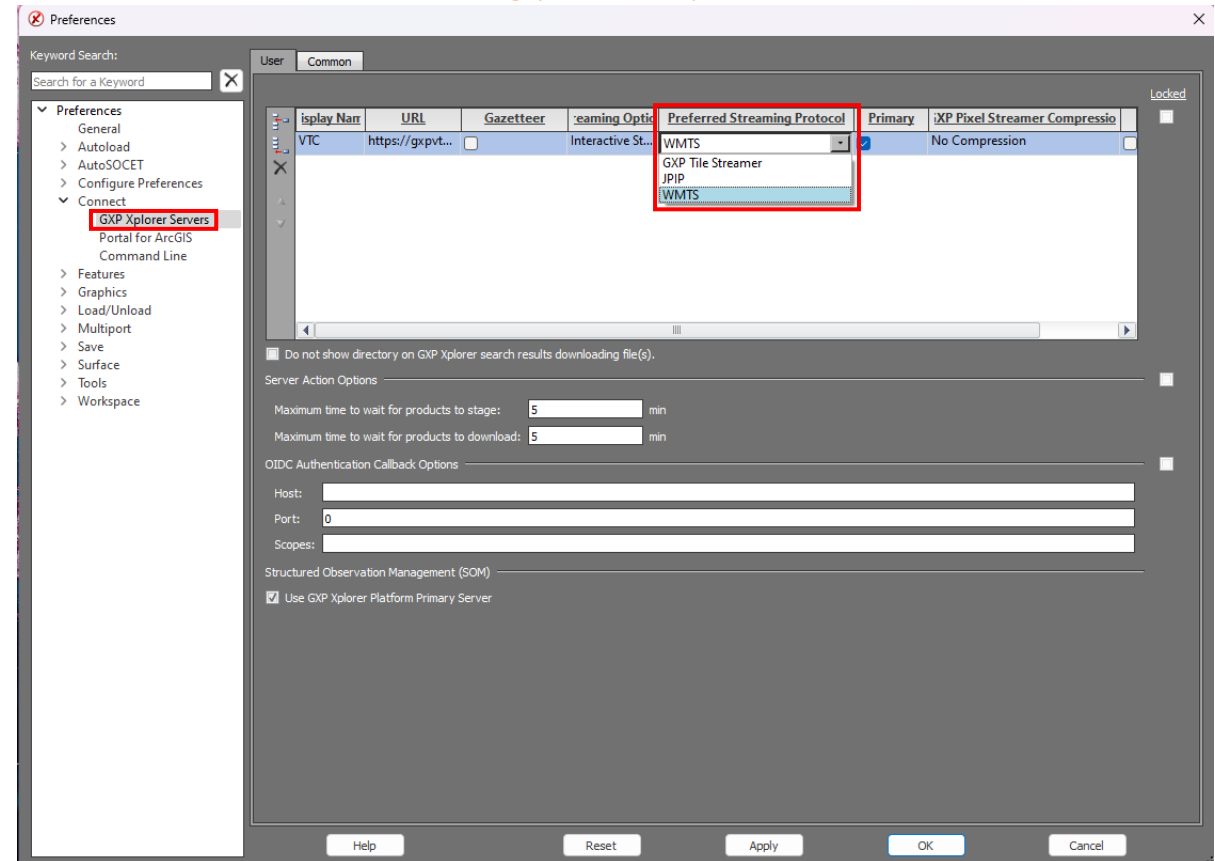- We added trackball as a dropdown to allow users to quickly select their input type.

Input controls preference

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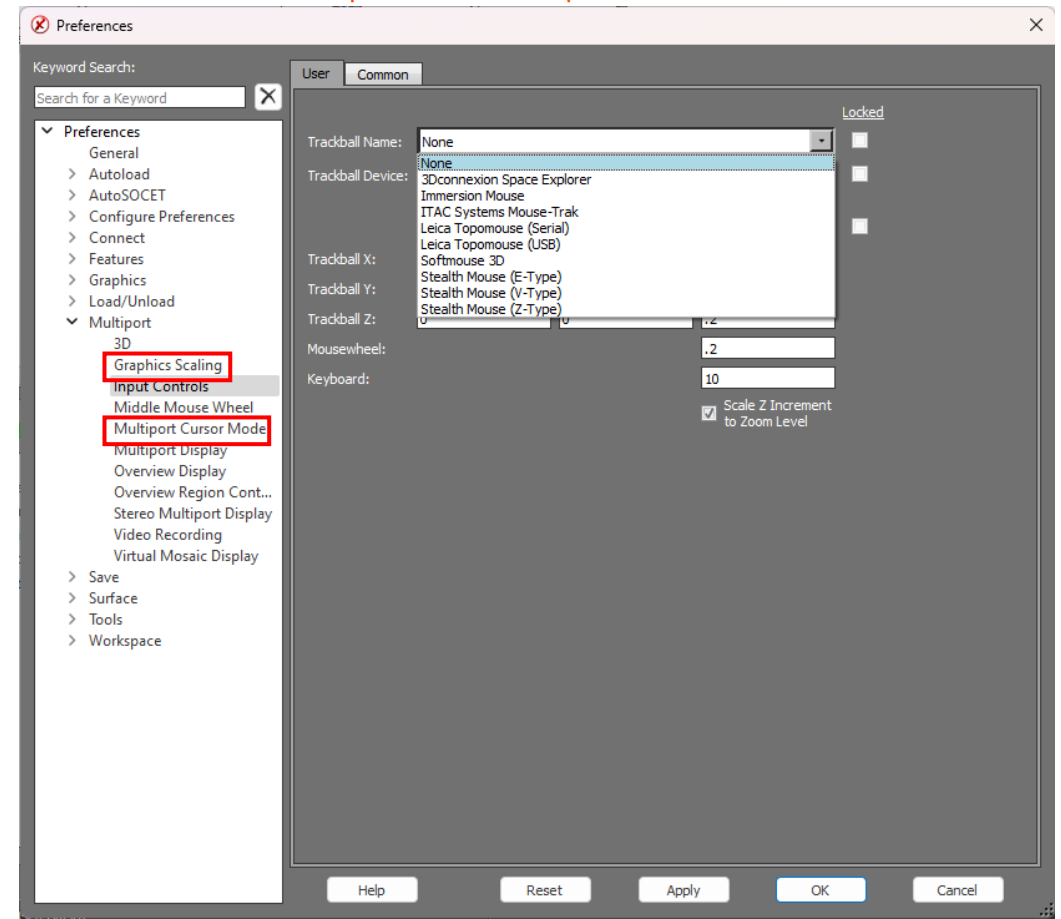
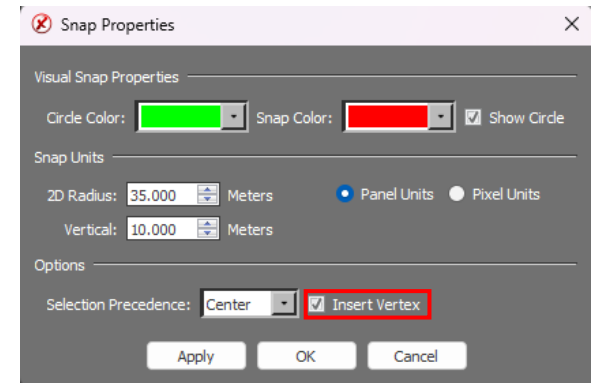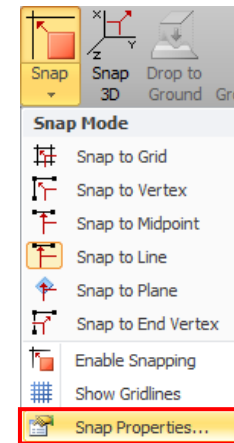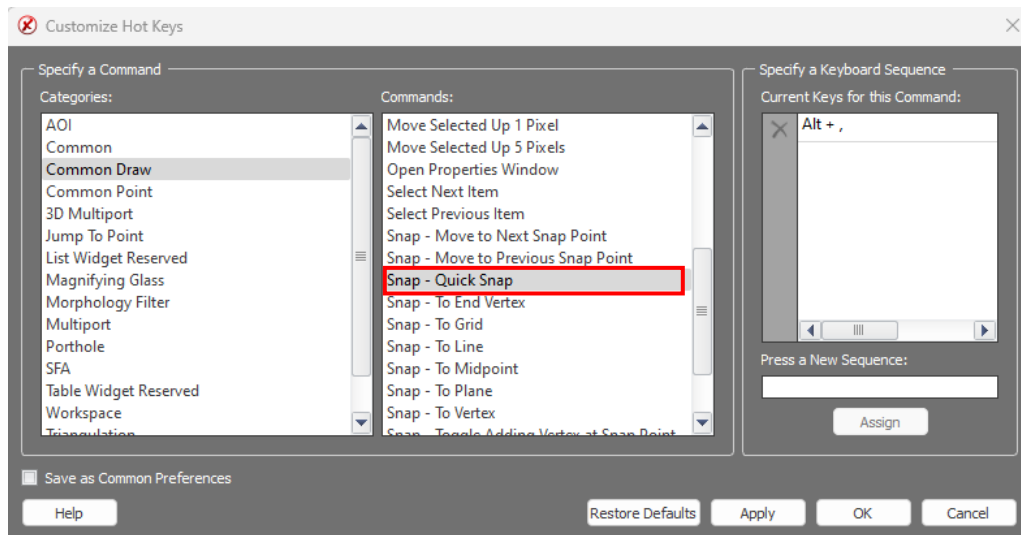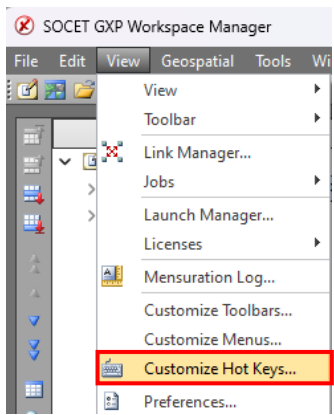# Preferred Streaming Protocol preference

- Allows users to select how they want their imagery streamed into SOCET GXP from their GXP Xplorer® Platform server.
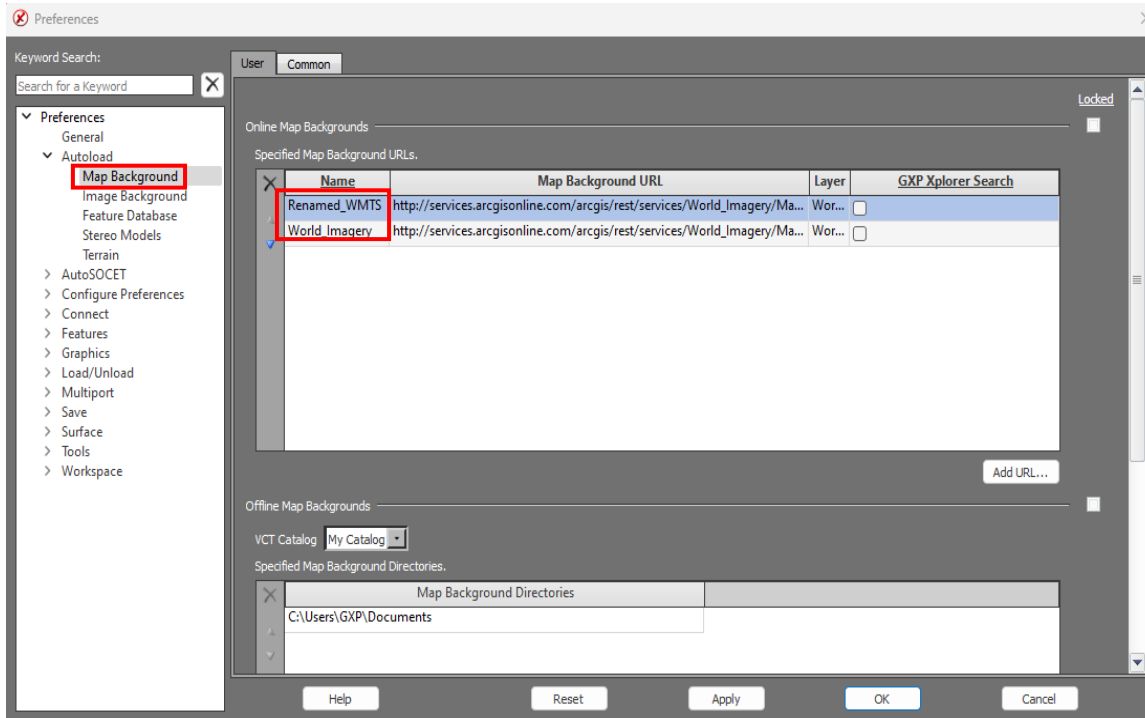
Streaming protocol preference

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Quick Snap Hotkey

- Allows users to quickly snap to a point using a hotkey.
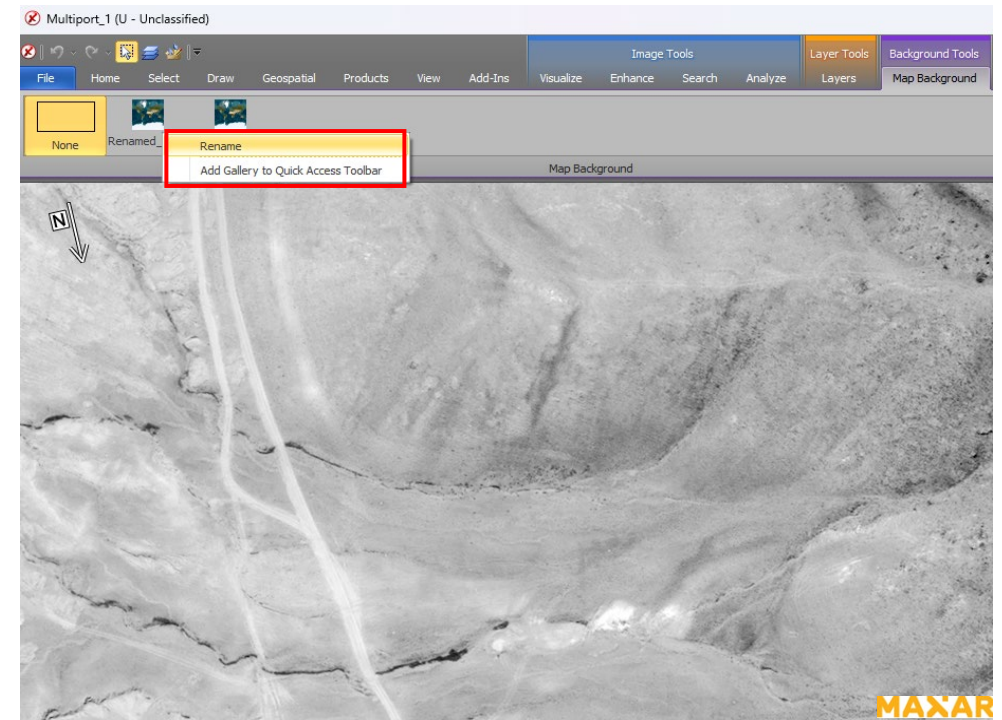
  - Insert Vertex must be enabled.

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Map Background functionality

- Users can rename Map Backgrounds in Preferences and in the Multiport.
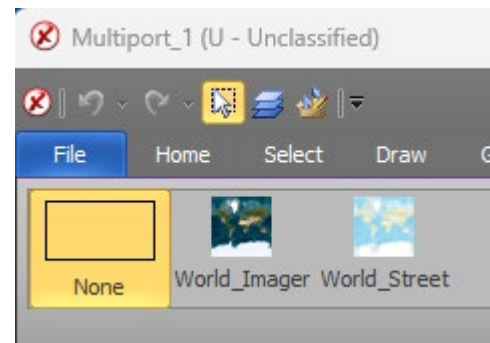
Map Background Preference

Map Background Rename from Multiport

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Map Background thumbnails

- Map Backgrounds are now easily identified by their thumbnails in the Multiport.
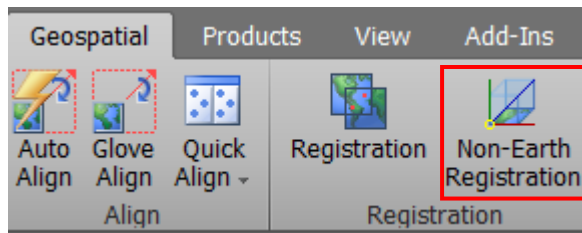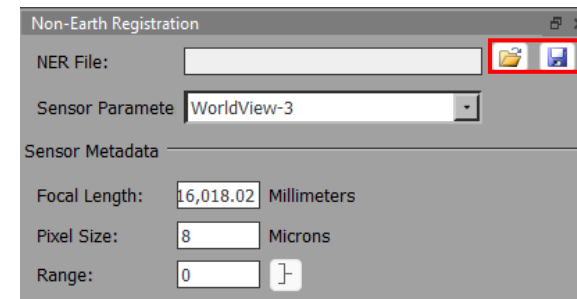
Map Background Thumbnails

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Non-Earth Registration (NER) load/save

- Allows users to load previously saved NER work.

- Enables users to save work prior to workflow completion.
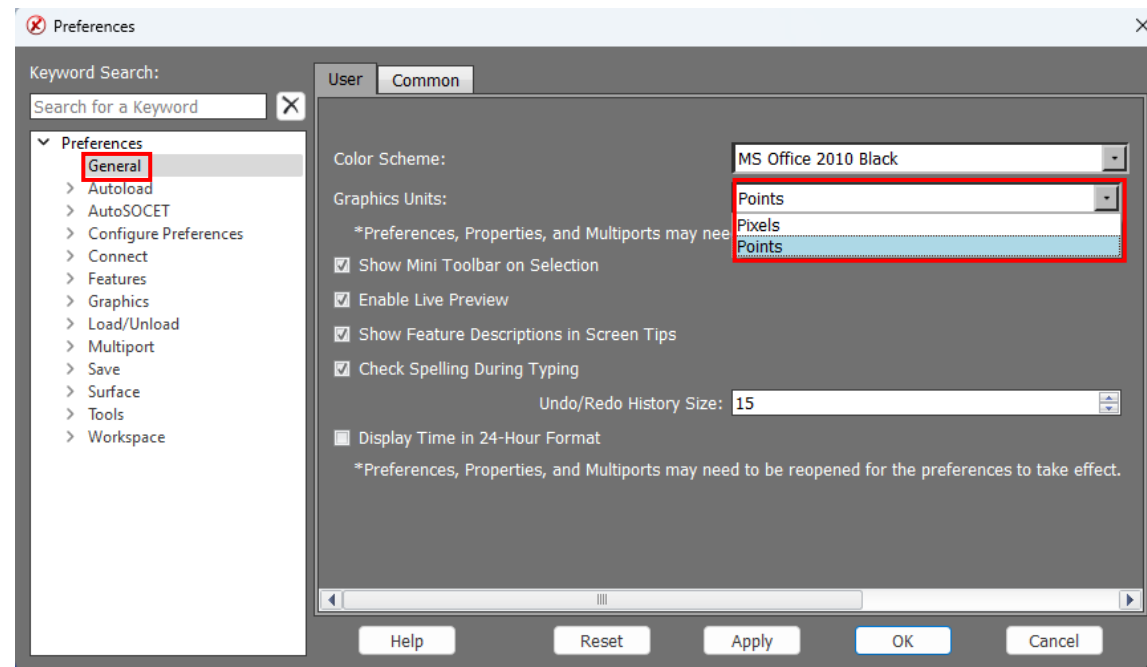
NER button location

NER Open/Save button
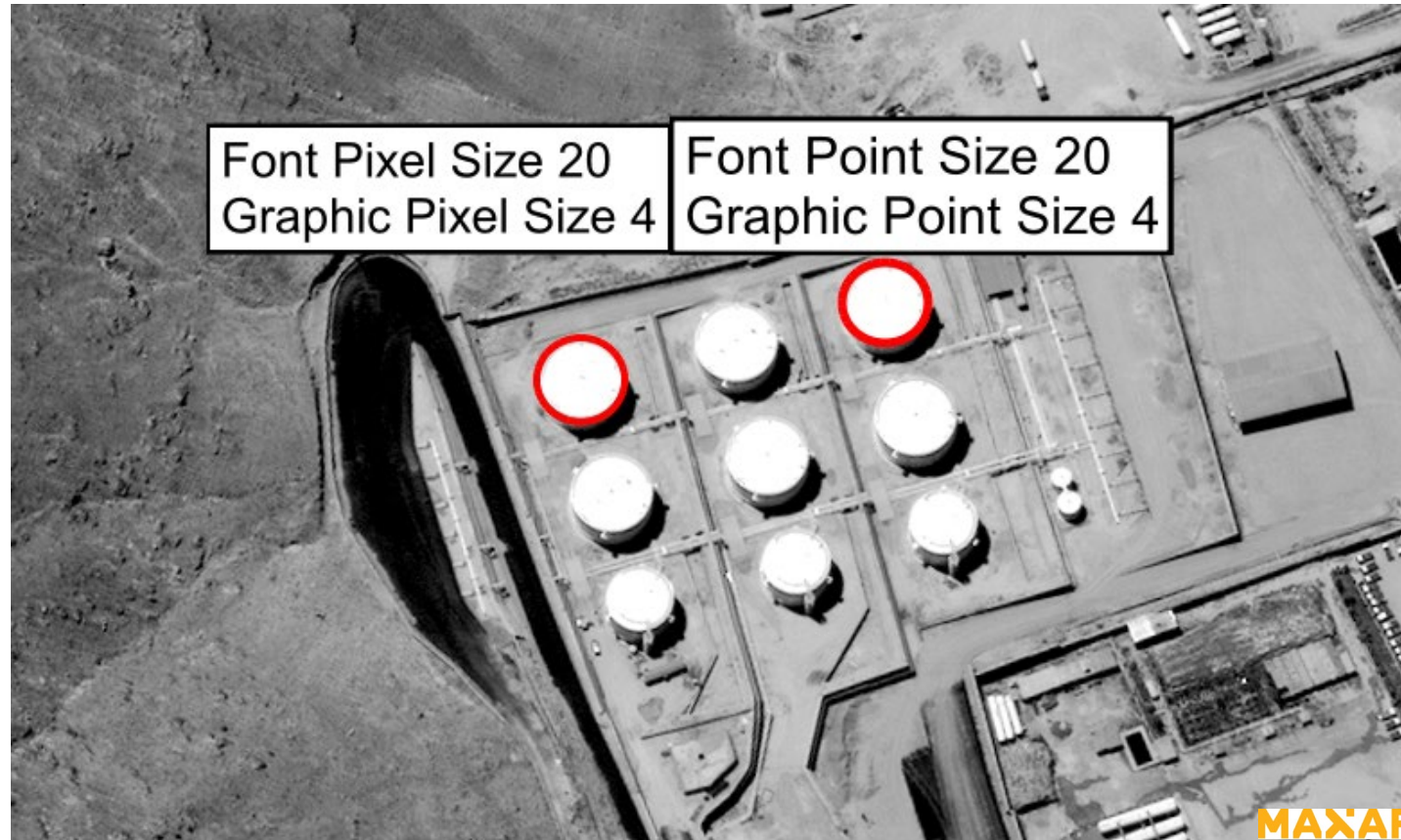
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Point graphics units preference

- Users can now use point size instead of pixels.

  - Maintains graphic size across different screen resolutions.

  - Can be updated on the fly.

Graphics Units Preference

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New point graphics units preference

- Example:

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Additional new features

- Now clean up all files after an MIE4NITF file is unloaded.

- GXP Automatic Tools for Object Recognition (GATOR):

  - Added the ability to support AOI's from Ortho map and imagery.

  - SOCET GXP now gets its source classification for GATOR detections from GXP Xplorer Platform.

- Users can now populate SNSPSB records with eCIB creation.

- Optimized triangulation and terrain convert jobs to look for errant points and remove them.

- Added the ability to Skip gaps in MTI data playback.

  - If the data has a gap in coverage, it will automatically be skipped when animated.

- Added messaging to inform the user if their InSAR data isn't compatible for CCD (Coherent Change Detection) generation.

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GXP InMotion v4.6.0.0 release enhancements

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Point graphics units preference

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Graphics Units Preference

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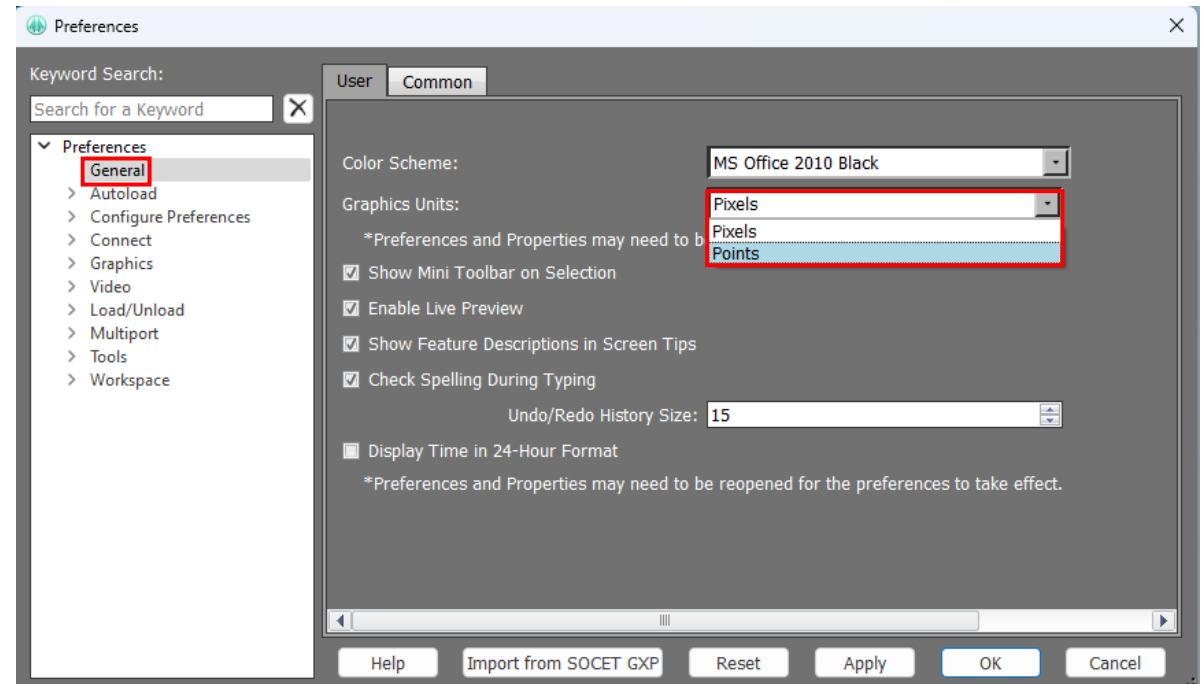
New point graphics units preference

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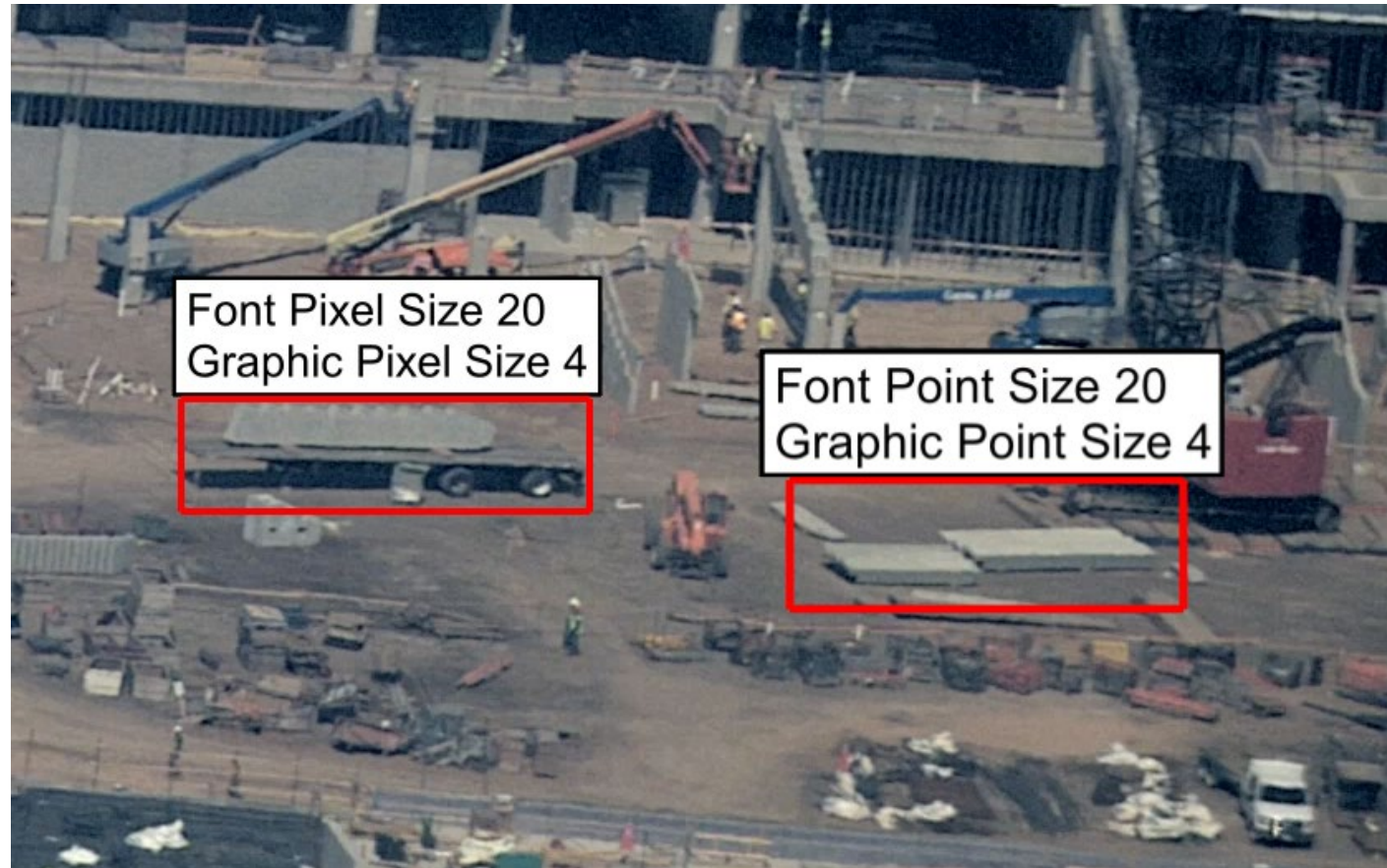
Imagery of MX-15 videos over Ft. Collins, CO; Courtesy of L-3 Communications, EO/IR Inc.

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GXP Desktop v4.6.0.1 release enhancements

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GXP Desktop v4.6.0.1 release enhancements

- This presentation contains the enhancements included in SOCET GXP and GXP InMotion released March 27th, 2025.

  - GXP Desktop software releases are full installations.

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SOCET GXP v4.6.0.1
release enhancements

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Infrastructure updates

- Updated to Java® 11.

- Updated PostgreSQL.

- Updated OpenSSL.

- Added support for .NET 8.

- Integrated OAuth2.0 authentication.

- Updated UnicodeDateTime.

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Added preference for Default Cursor Tool

- Allows cursor to default to Glove tool.

Default Cursor Tool preference

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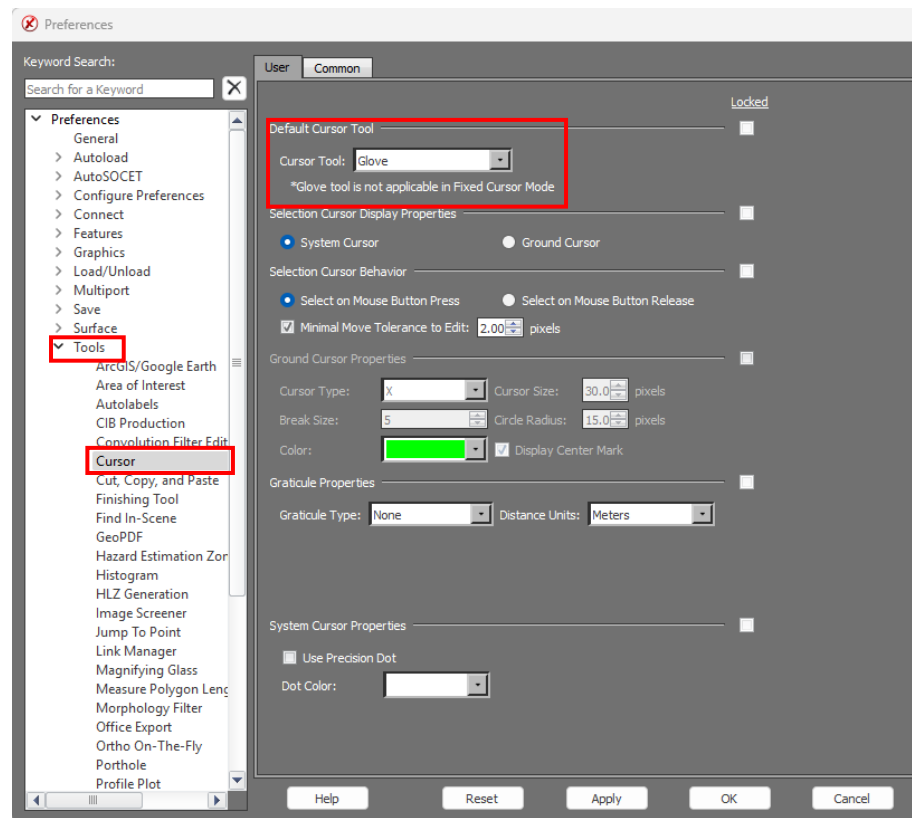
Added Hotkey for Glove tool

- Allows cursor to quickly change to Glove tool.

Glove tool Hot Key location
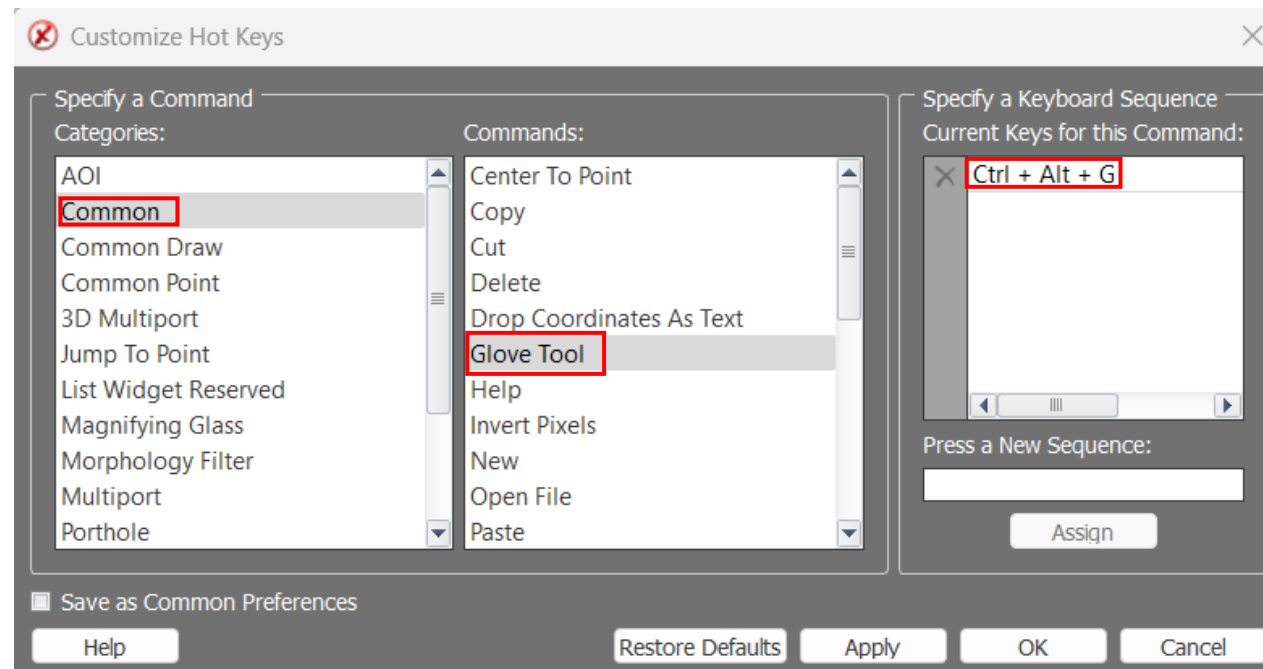
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Added Measurement Override to Preferences

- Measurement overrides were added to Bracket & Range and Bearing graphics preferences.

Measurement preference location
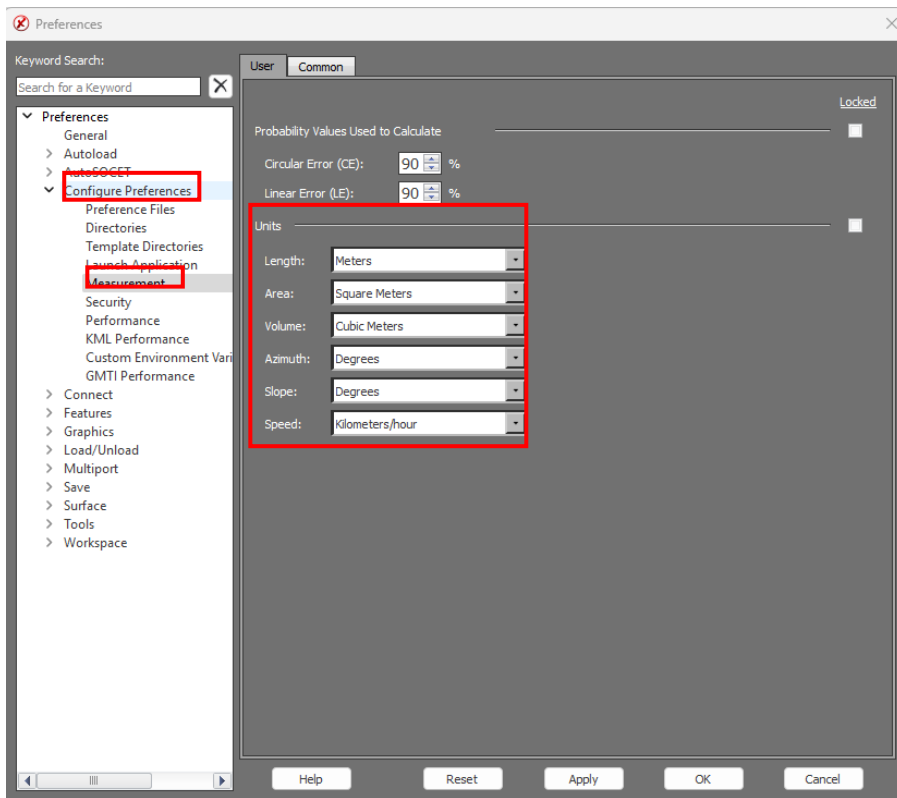
Override Measurement preference location
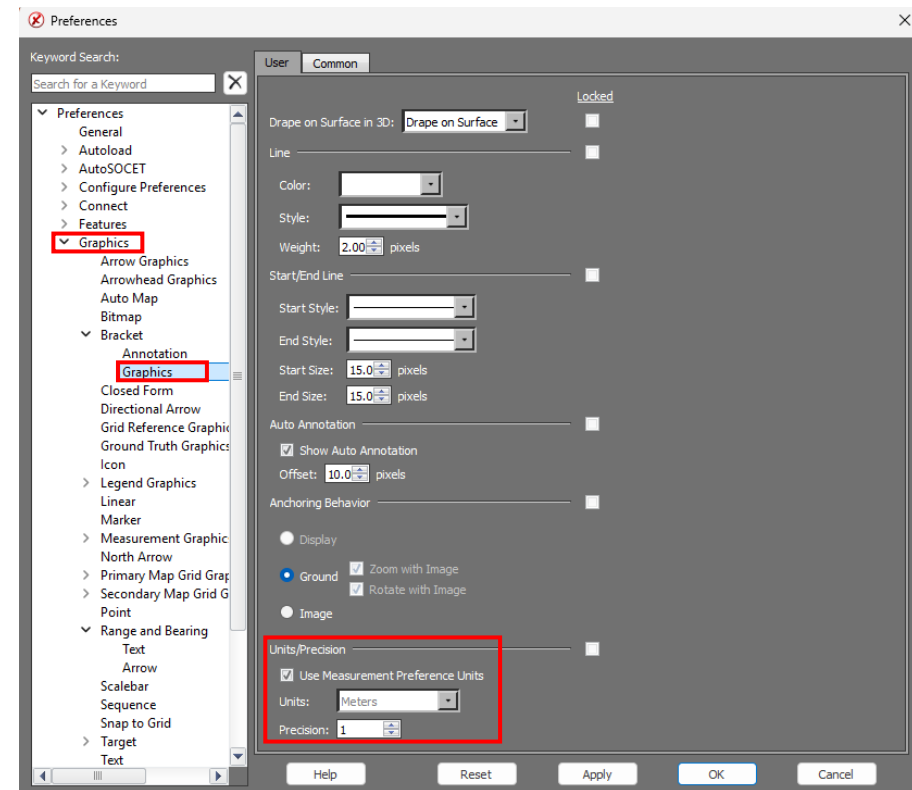
Sync Cursor

- Allows users to sync cursors between SOCET GXP and ArcGIS® Pro

  - Improves QC time

  - Viewing extents automatically update

  - Cursors sync in the following modes:

    - Fixed Image

    - Fixed Cursor

    - Stereo

    - Split Screen Stereo

  - Hotkey is "Alt + Shift + S"

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Sync Cursor ...2

Sync Cursor Preference location
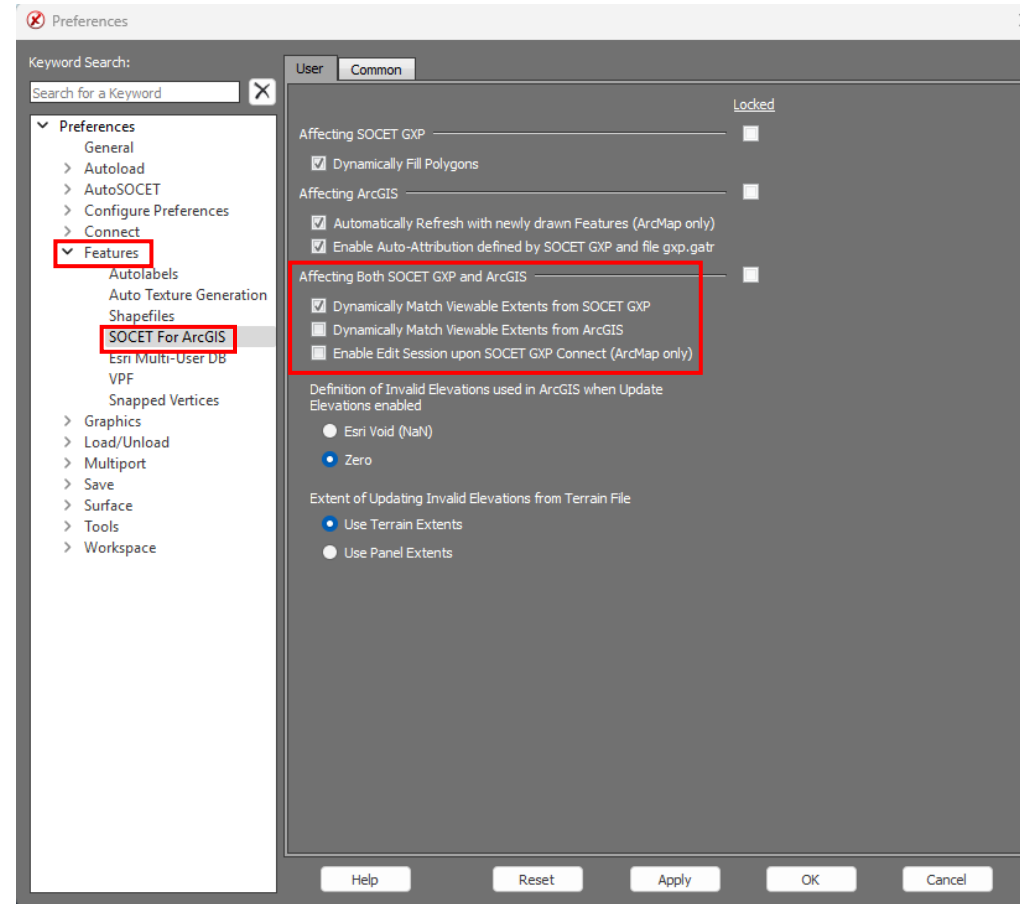
Sync Cursor …3

Sync Cursor UI

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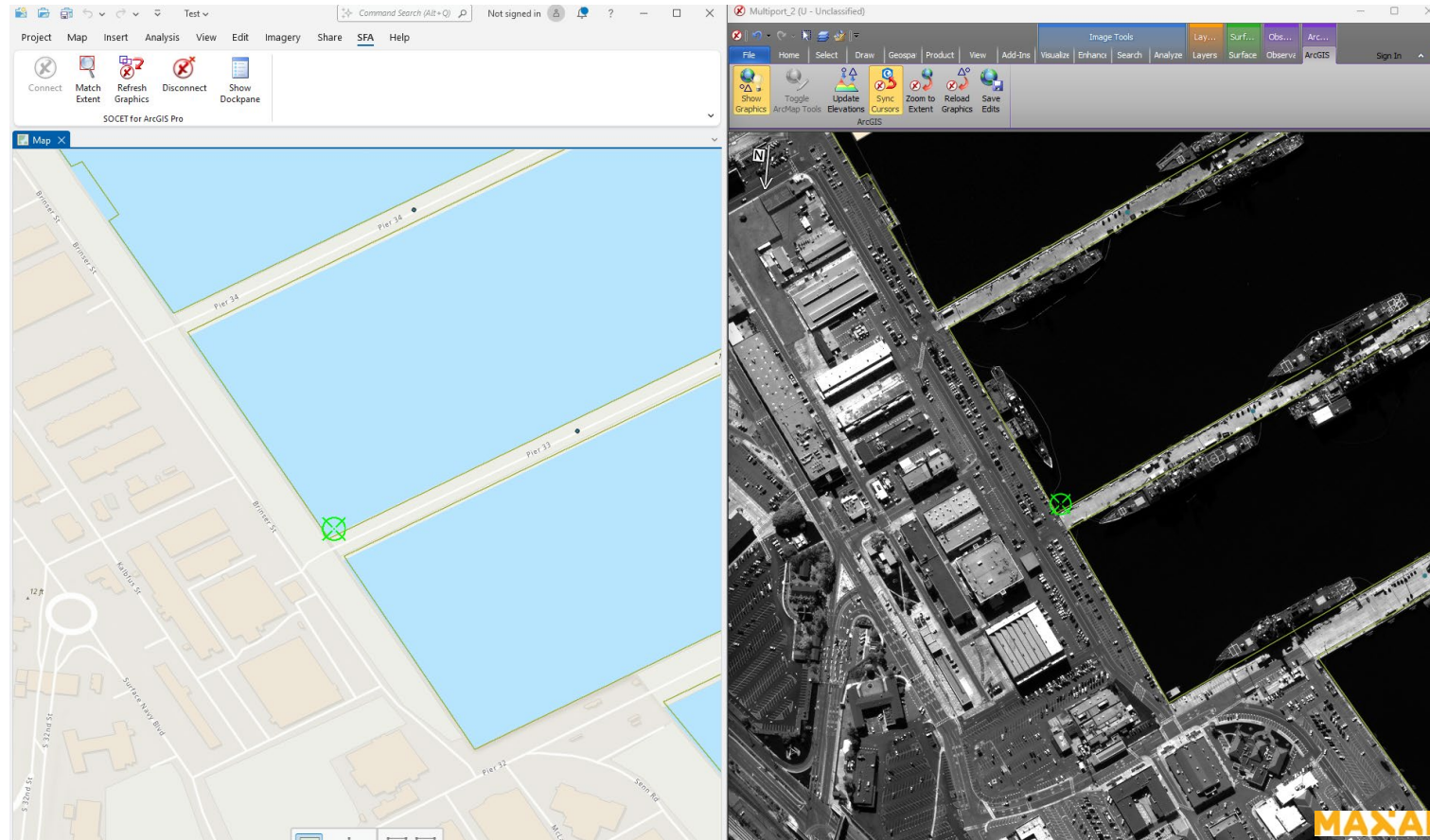
Web Service Layer

- Added a preference for Web Service Layers.

  - Allows for easier configuration and management.

  - Added OAuth2.0 authentication support.

Web Service Layer Preference

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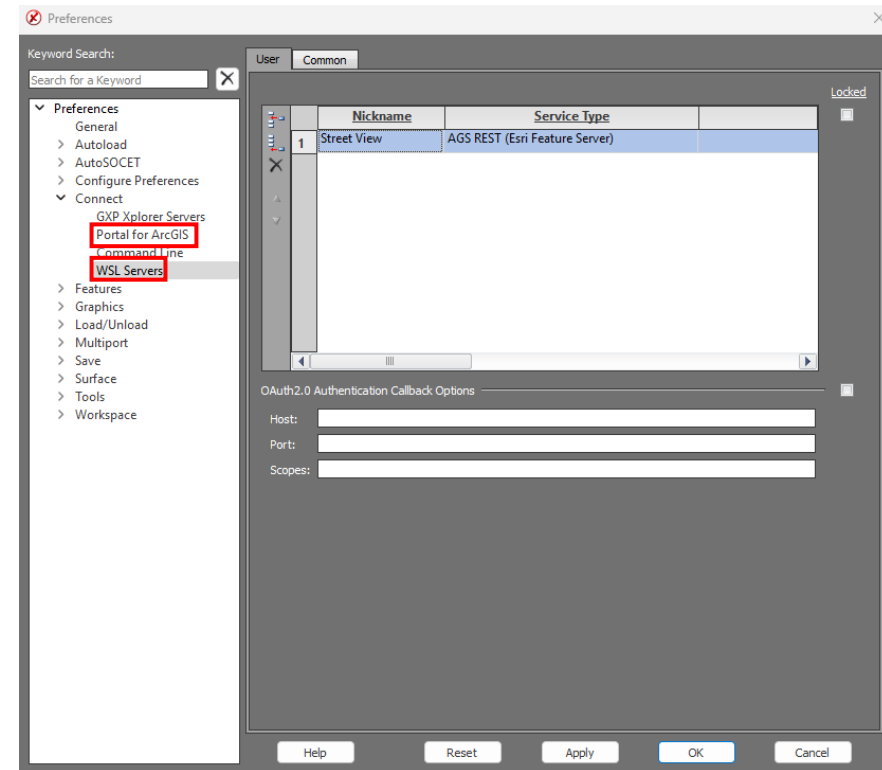
Web Service Layer …2

- Added additional Esri® Authentication using OAuth2.0.

Web Service Layer using OAuth2.0
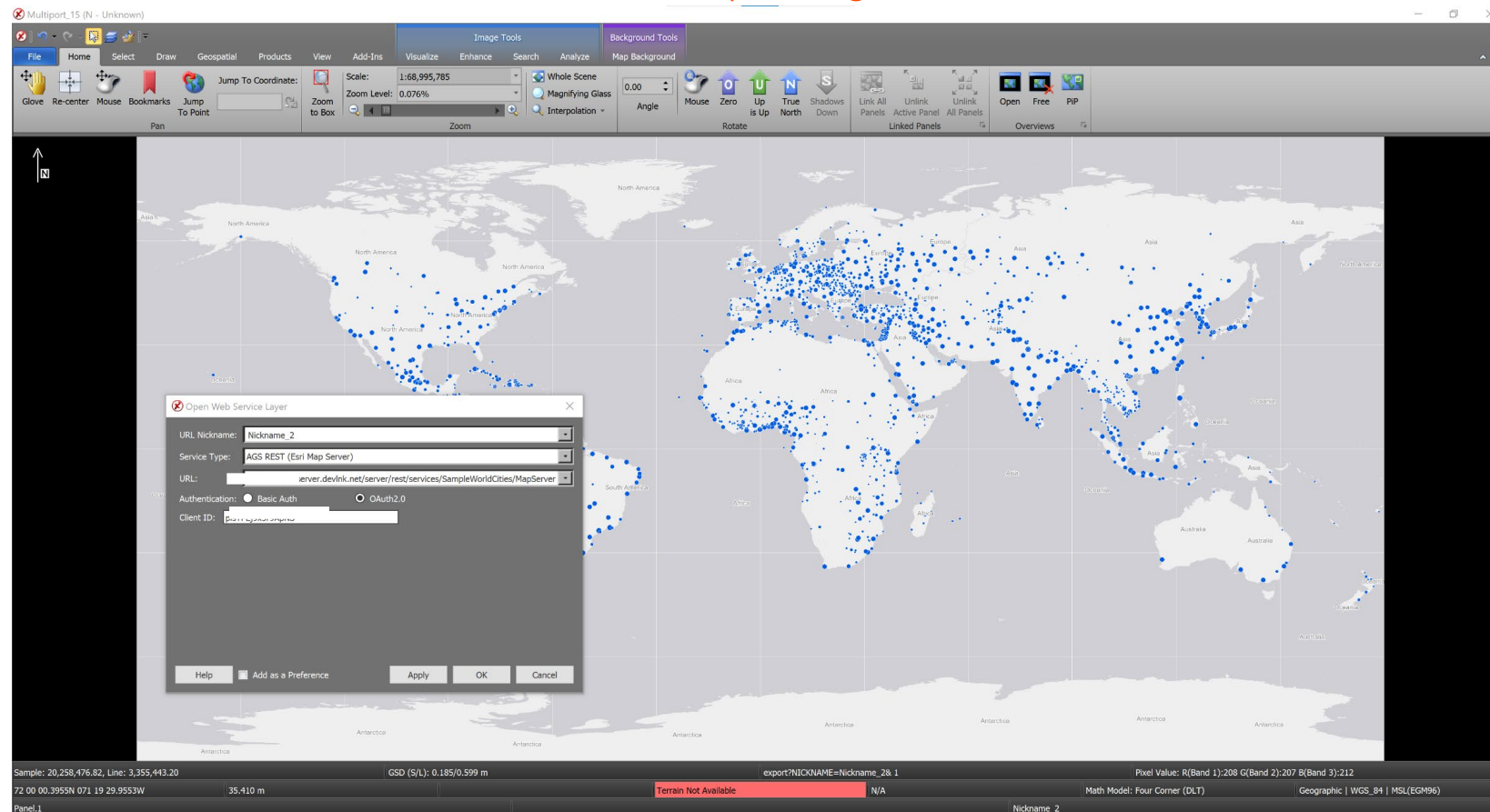
Added Layer Name to Esri results

- When an Esri Feature Service is selected from the GXP Xplorer Connector we return the service URL and Layer Name.

  - Enables users to quickly select and display layers of interest.

Feature Service Layer

Loading Observations Status

- Users can now get feedback when loading Observations into a SOCET GXP Multiport.
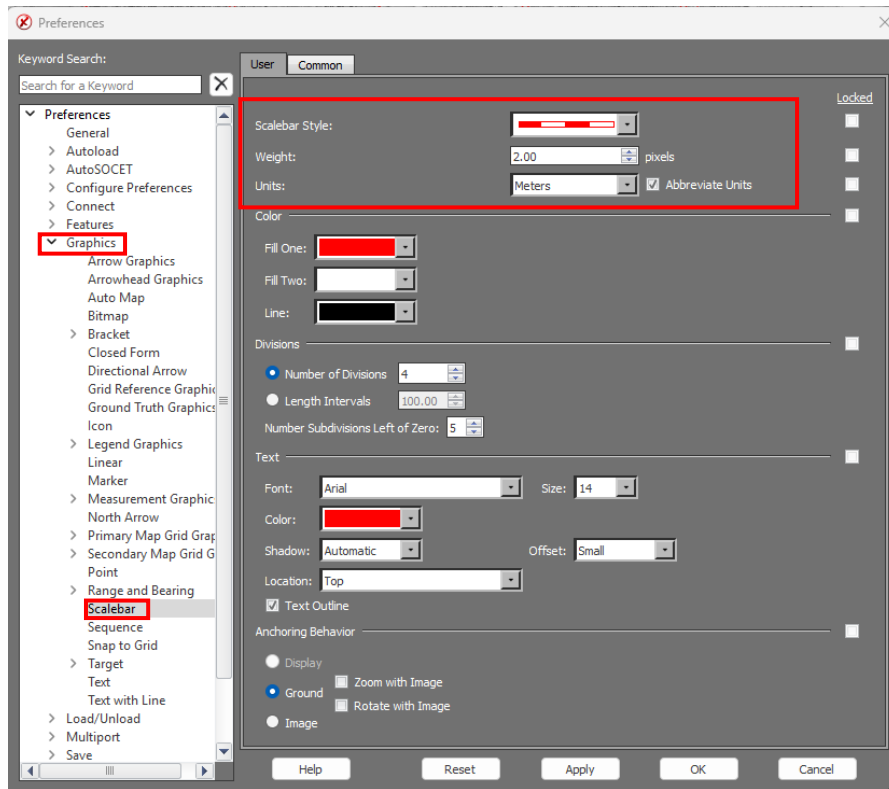
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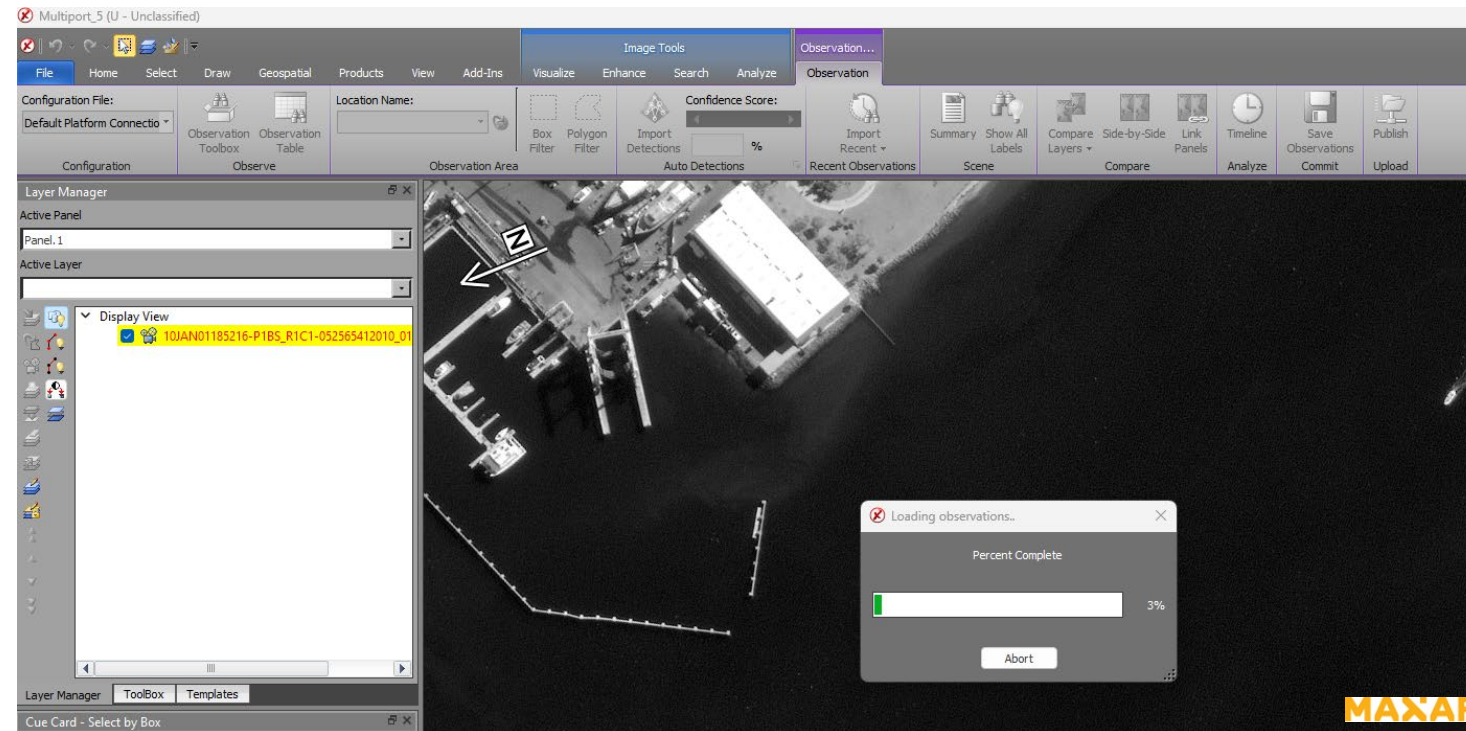
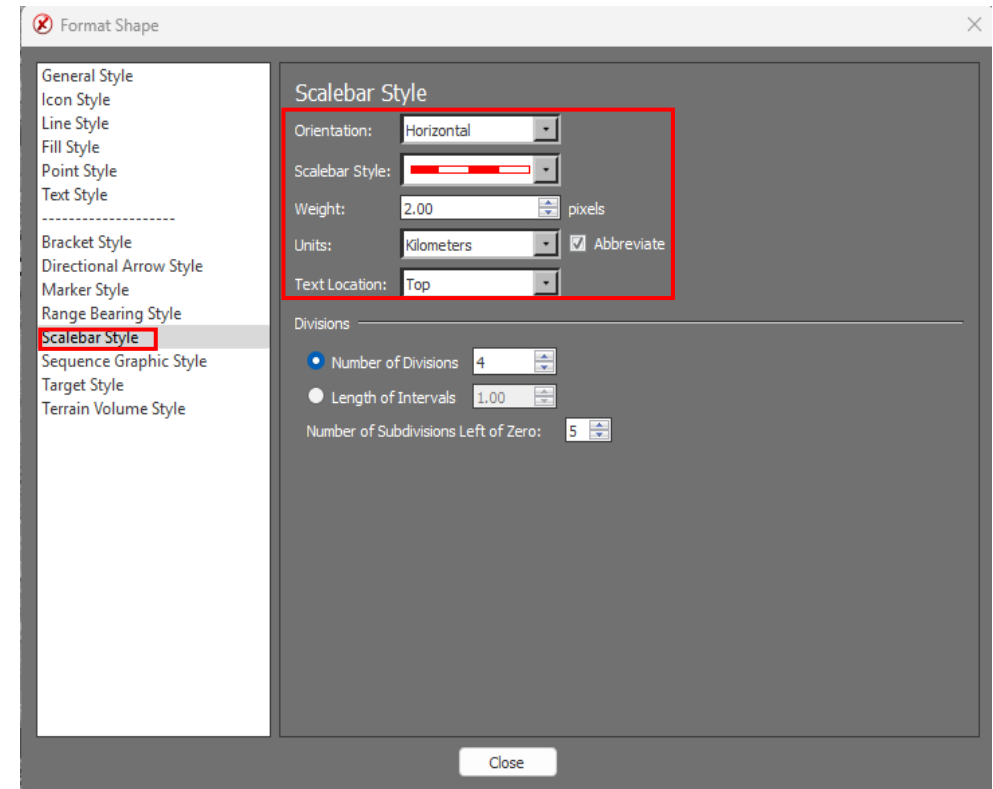# Scalebar improvements

- Abbreviated units of measurement.

    - m = Meters.

    - km = Kilometers.

- Dynamically update via preferences.

- Enables users to save work prior to workflow completion.

- Convert orientation of scalebar.

    - Vertical/Horizontal.

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Scalebar improvements ...2
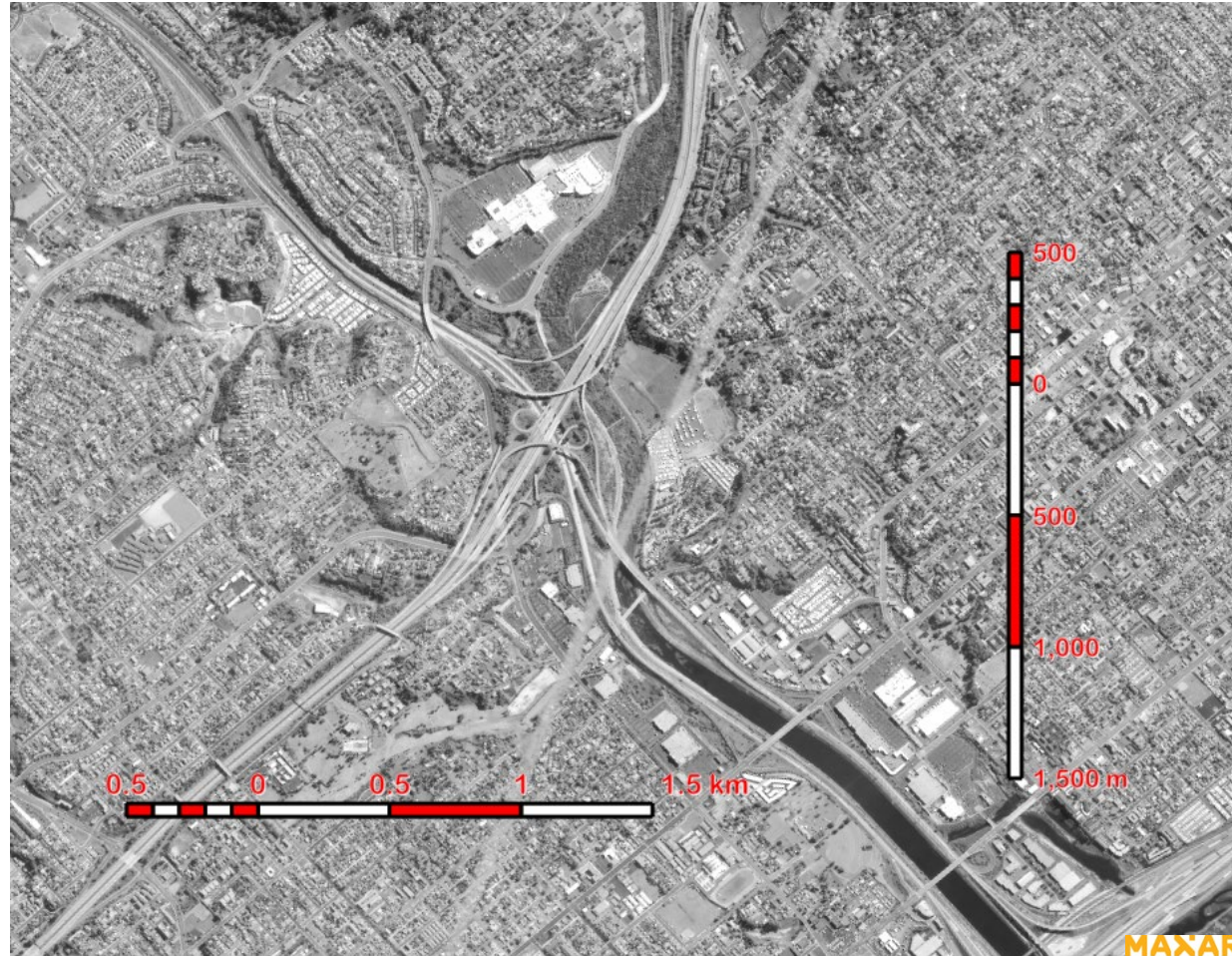
Scalebar Preference

Scalebar Properties

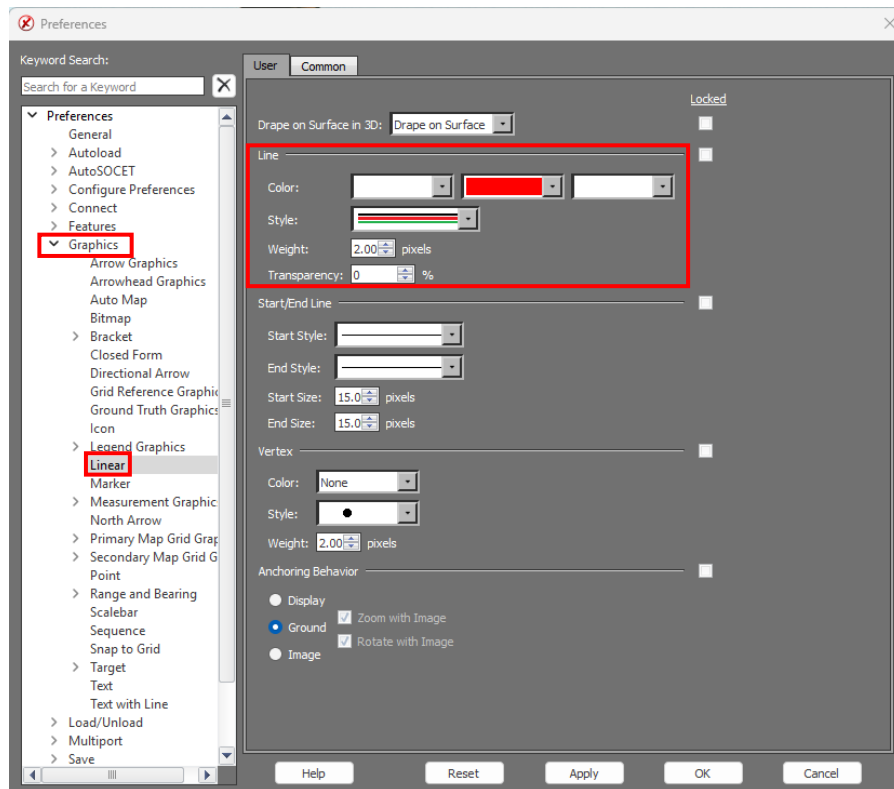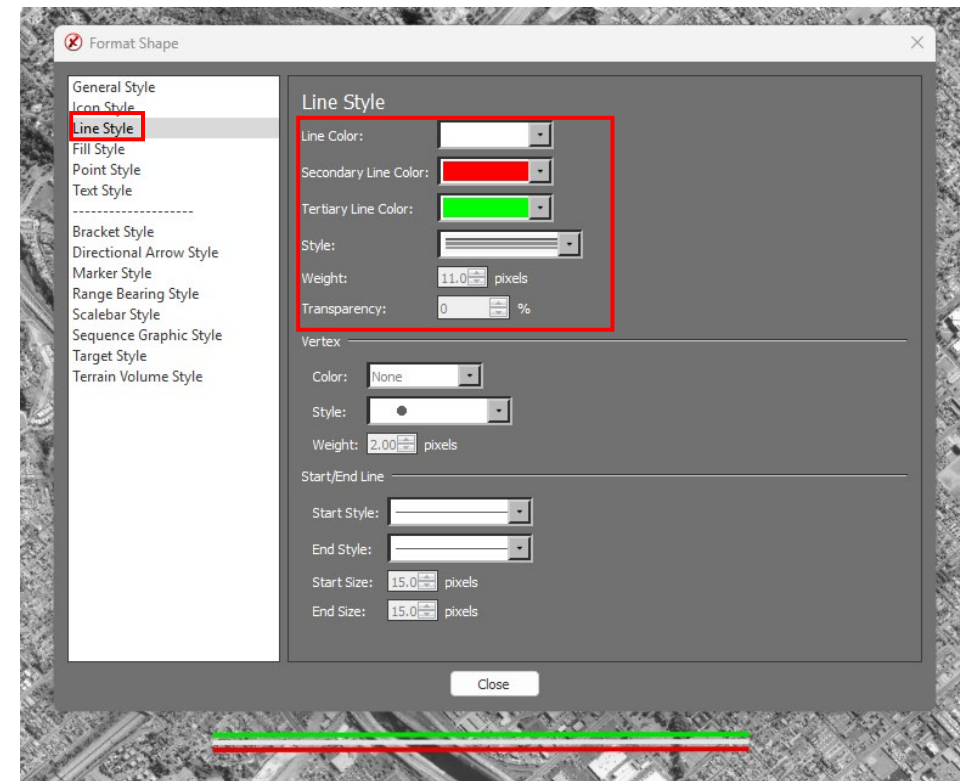# Scalebar improvements …3

Scalebar Visualization

Multi-line style improvements

- Line style weights are now the entirety of the line style.

Linear Graphics Preference

Linear Graphics Properties

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Additional new features

- Cleaned up Debug log.

- Added GATOR GPU support.

  - UI change in GXP Xplorer Platform.

  - Environment variable change in SOCET GXP.

    - GPU is enabled when environment variable is set to: GXP_GATOR_USE_CUDA=TRUE.

  - Default is set for GPU optimization.

- Improved Epipolar rectification for oblique viewing.

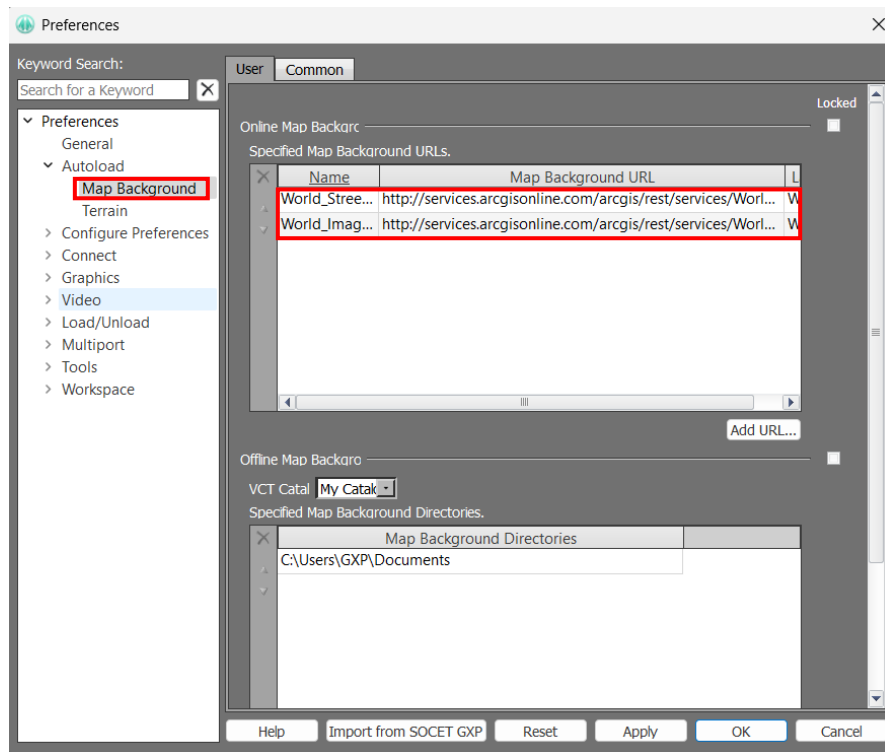 - A new sensor model was created for viewing extremely distorted imagery in stereo.

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GXP InMotion v4.6.0.1 release enhancements
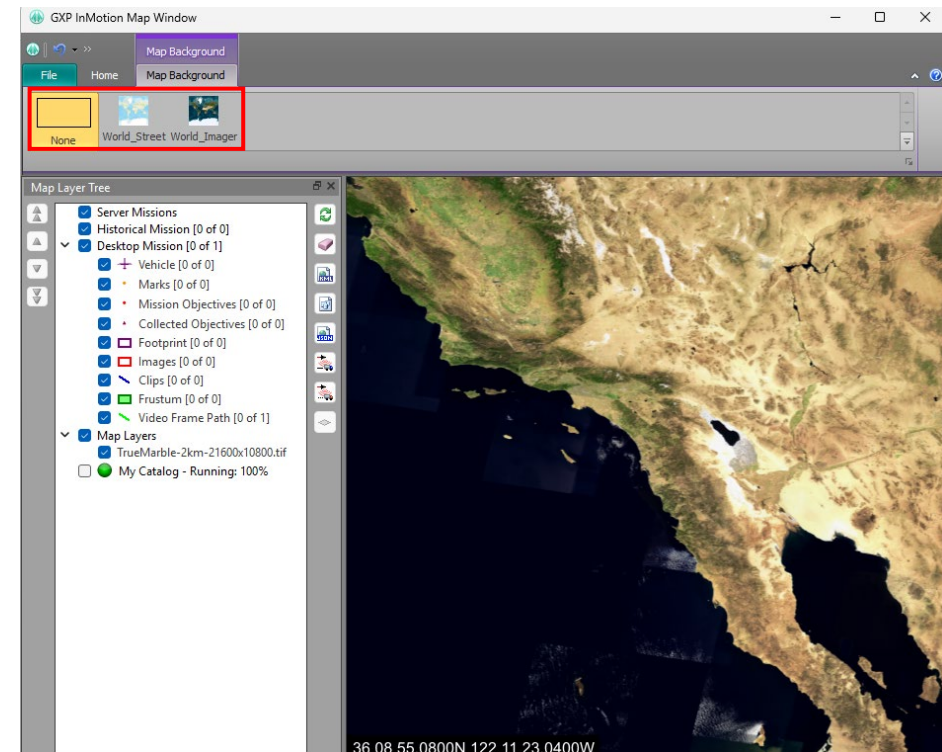
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Map Background functionality

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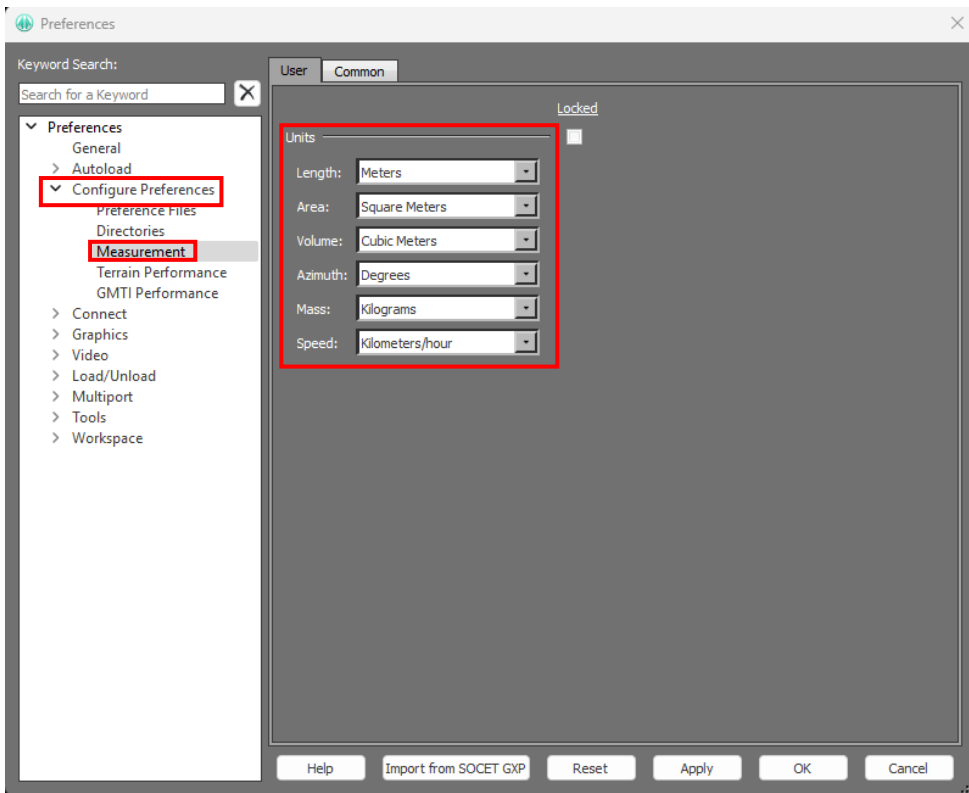
Map Background Preference

Map Background View and Rename from Map Window
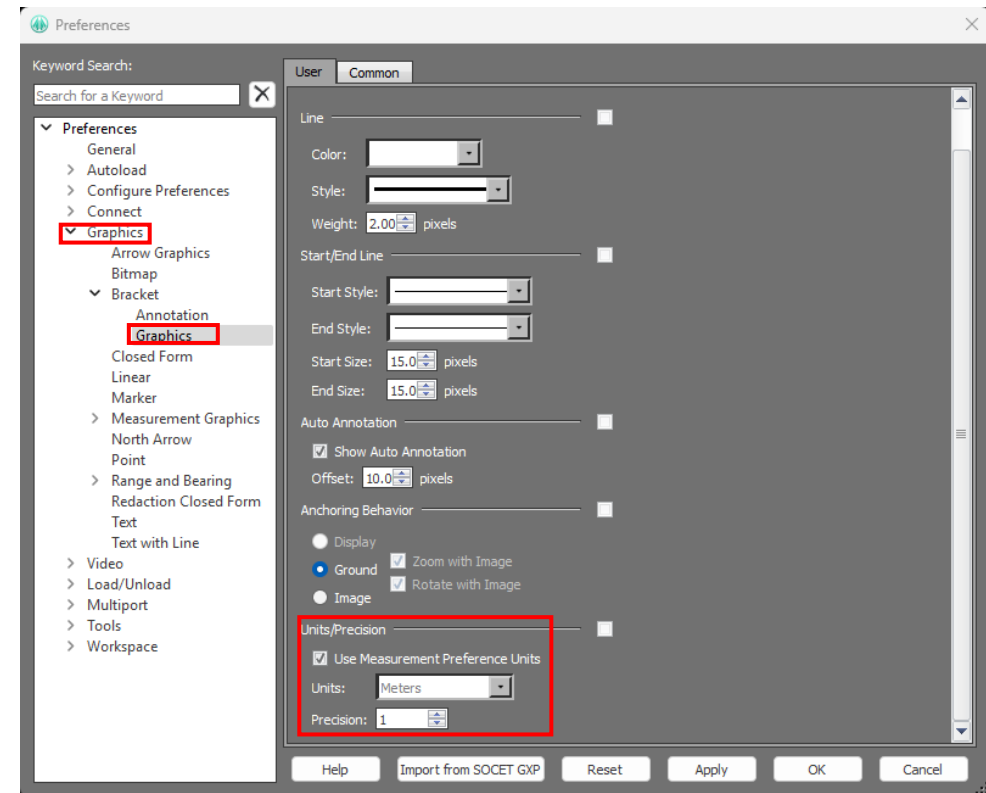
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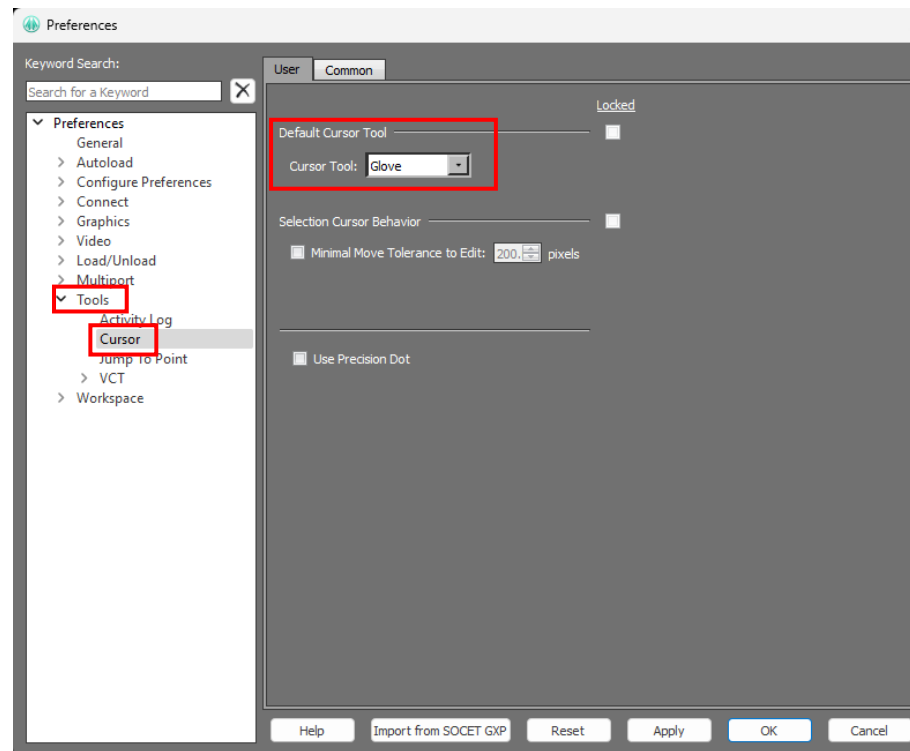
Measurement preference location

Override Measurement preference location

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Added preference for Default Cursor Tool

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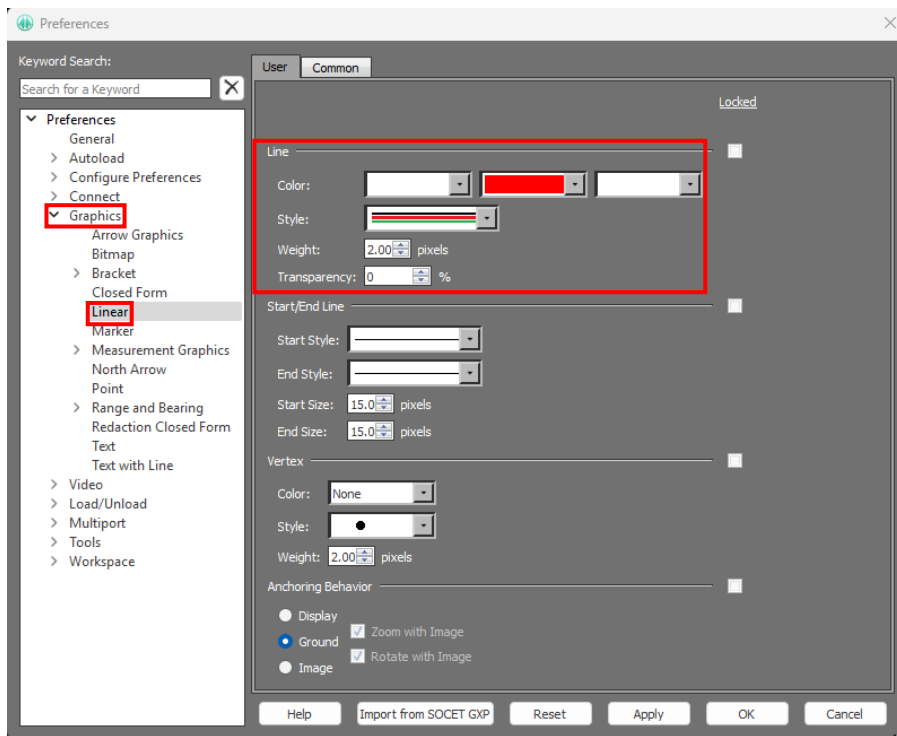
Default Cursor Tool preference
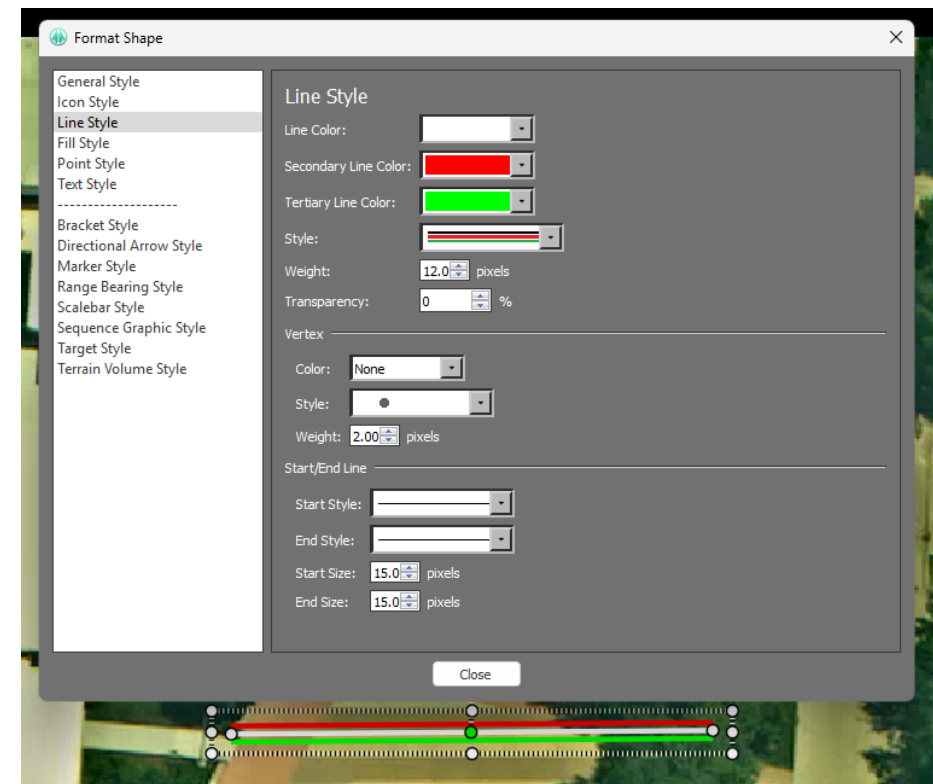
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Multi-line style improvements

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Linear Graphics Preference

Linear Graphics Properties

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

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Thank you

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