

GXP Xplorer® Platform v2.5.3 release details

Presented by GXP® Product Development



Infrastructure

- New licenses are required when upgrading from GXP Xplorer Platform v2.4 or earlier.
- Upgrade is supported from GXP Xplorer v2.4.6+.
 - Reclassification must occur after upgrading (see Release Notes or System Admin Manual).
- Federation is supported for GXP Xplorer v2.5.3 (must be on the same version of the Data Model).
- Synchronization is supported for GXP Xplorer v2.4.6+ (see Release Notes for additional information).
- Data Reformatting Services (DRS) version is 5.6.08.R1 which contains Mensuration Services Program (MSP) v2.1.0
- Core Software Development Kit (CoreSDK) MSP version is 2.1.1

GXP Xplorer v2.5.3 updates



Prioritized ingest

- Administrators can now set priority (High, Medium, or Low) on certain folders when cataloging so data in those folders take precedence when adding new data to the catalog.

The screenshot displays the 'Monitored Directories (1)' section of the Geospatial Exploitation Products interface. A table lists the monitored directories with columns for 'Path', 'Priority', 'Enabled', and 'File types'. The first entry is 'V:/TrustedApps/data\monitor-dir', which is currently set to 'Medium' priority, 'Enabled' (indicated by a blue toggle), and has a gear icon for file types. A dropdown menu is open for the 'Priority' column, showing options for 'Low', 'Medium', and 'High'. Below the table, the 'Total Products Cataloged' is 223. The 'File Discovery' section shows a green progress bar at 100% completion (588 of 588 files). The 'Thumbnails, Overviews, and...' section shows a green progress bar at 100% completion (105 of 105 products) and is currently 'Running' (indicated by a red pause icon). A 'Details' dropdown menu is visible at the bottom left, and an 'Ingest Overview' link is at the bottom right.

Path	Priority	Enabled	File types
V:/TrustedApps/data\monitor-dir	Medium	Enabled	⚙️

Total Products Cataloged 223

File Discovery

588 of 588 Files Complete(100%)

Thumbnails, Overviews, and...

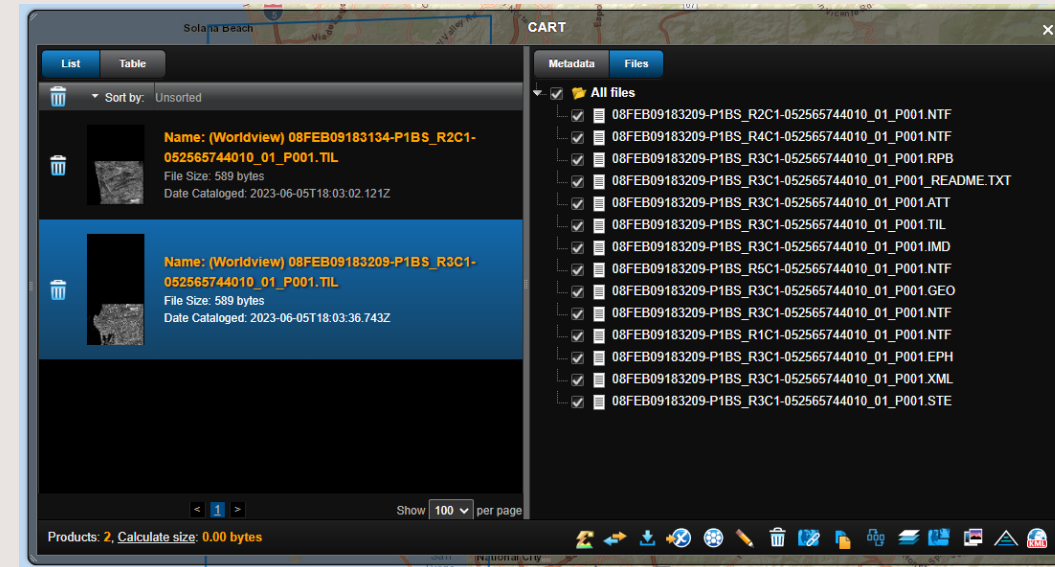
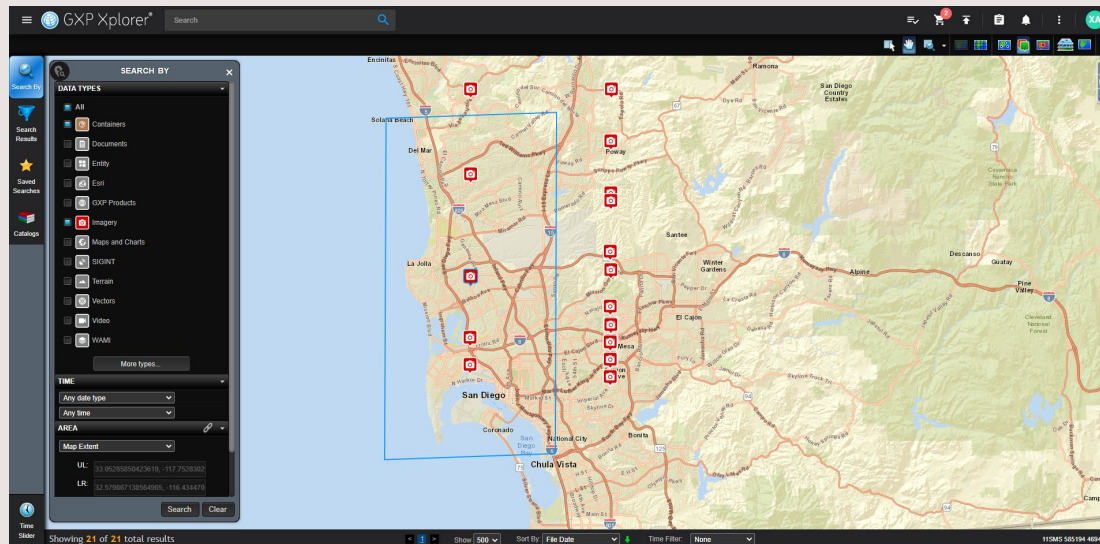
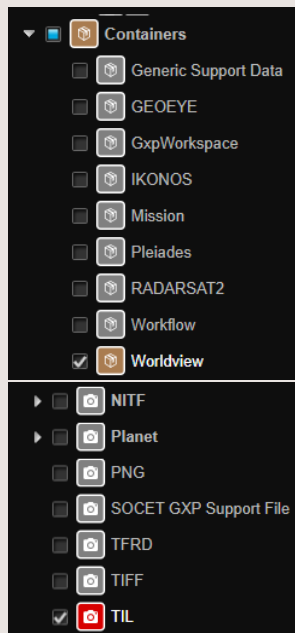
Running || 105 of 105 Products Complete (100%)

Details ▾ !

[Ingest Overview](#)

Support for Maxar TIL files

- GXP Xplorer now supports cataloging and streaming of Maxar TIL files.
 - Bundle of files that include metadata, multiple image files that represent a mosaic, and the TIL file itself.
 - These are represented as a WorldView Container as well as an image type in the catalog.
 - The individual image files are also cataloged.



Streaming updates

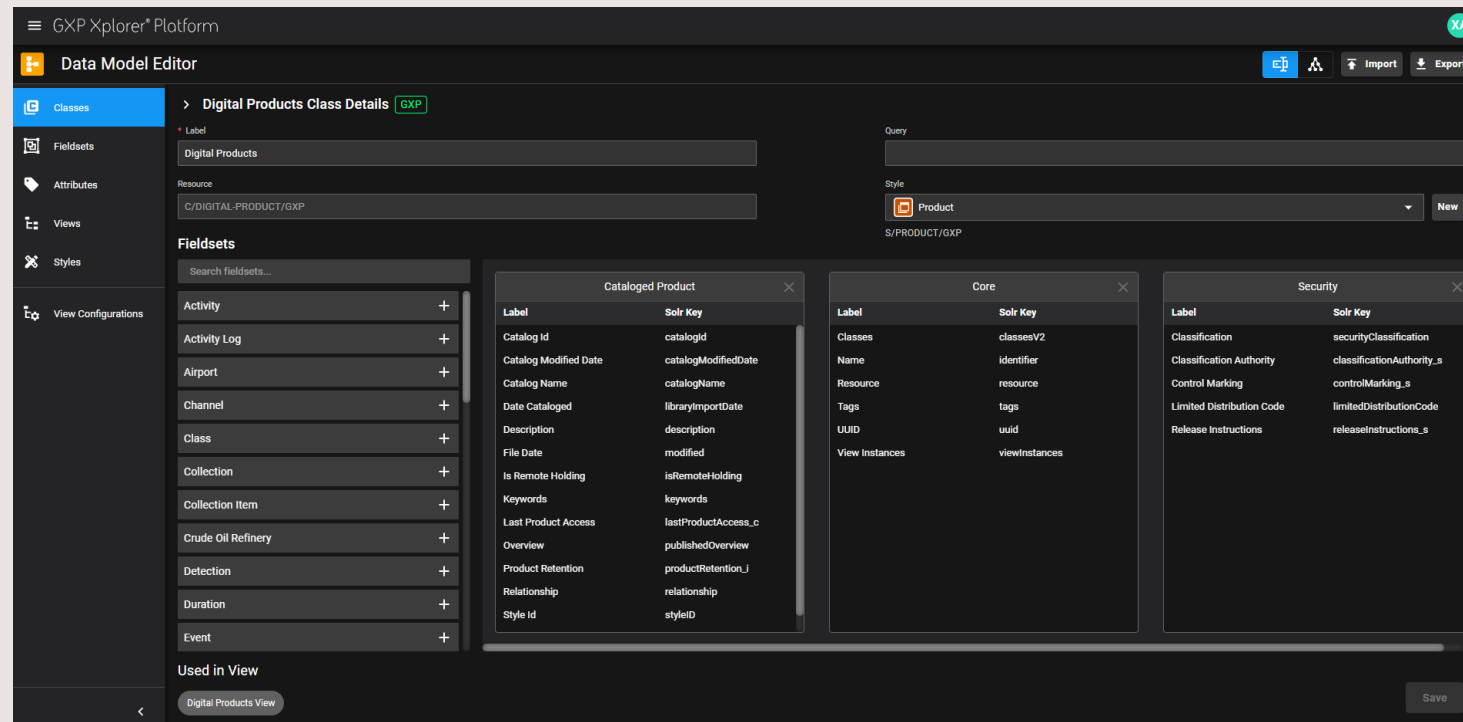
- GXP Xplorer can now stream Computer Graphics Metafile (CGM) graphics.
 - Will be converted to a Portable Network Graphics (PNG) on ingest.
 - Graphics will be displayed, but are not editable.
- GXP Xplorer will now catalog and stream National Imagery Transmission Format (NITF) imagery segments where ICAT=LEG.
 - These are legend graphics and will be displayed when streamed.

Data Model refactor

- The Data Model for GXP Xplorer has been reworked to make it more customizable and flexible.
- The Data Model consists of three primary components.
 - Classes:
 - These are general categories that represent an item that is held in the GXP Xplorer catalog.
 - Can contain many Fieldsets to represent the attribution associated with the catalog entry.
 - Classes also have a Style defined to determine how it will be visually displayed in the GXP Xplorer Platform.
 - Examples include NITF, Terrain, or Observation.
 - Attributes:
 - The most basic level to describe a piece of information about an item in the catalog.
 - Can be tied to metadata fields or entered manually as a part of a Structured Observation Management (SOM) workflow.
 - Examples include Cloud Cover, Predicted NIIRS, Mean Ground Sample Distance (GSD).
 - Fieldsets:
 - These are groupings of attributes that can be added to various Classes that represent the same general type of data.
 - Examples include an Imagery Fieldset that has attributes such as Cloud Cover, Predicted National Imagery Interpretability Rating Scale (NIIRS), Mean GSD, etc. that can be added to all Classes that represent images.

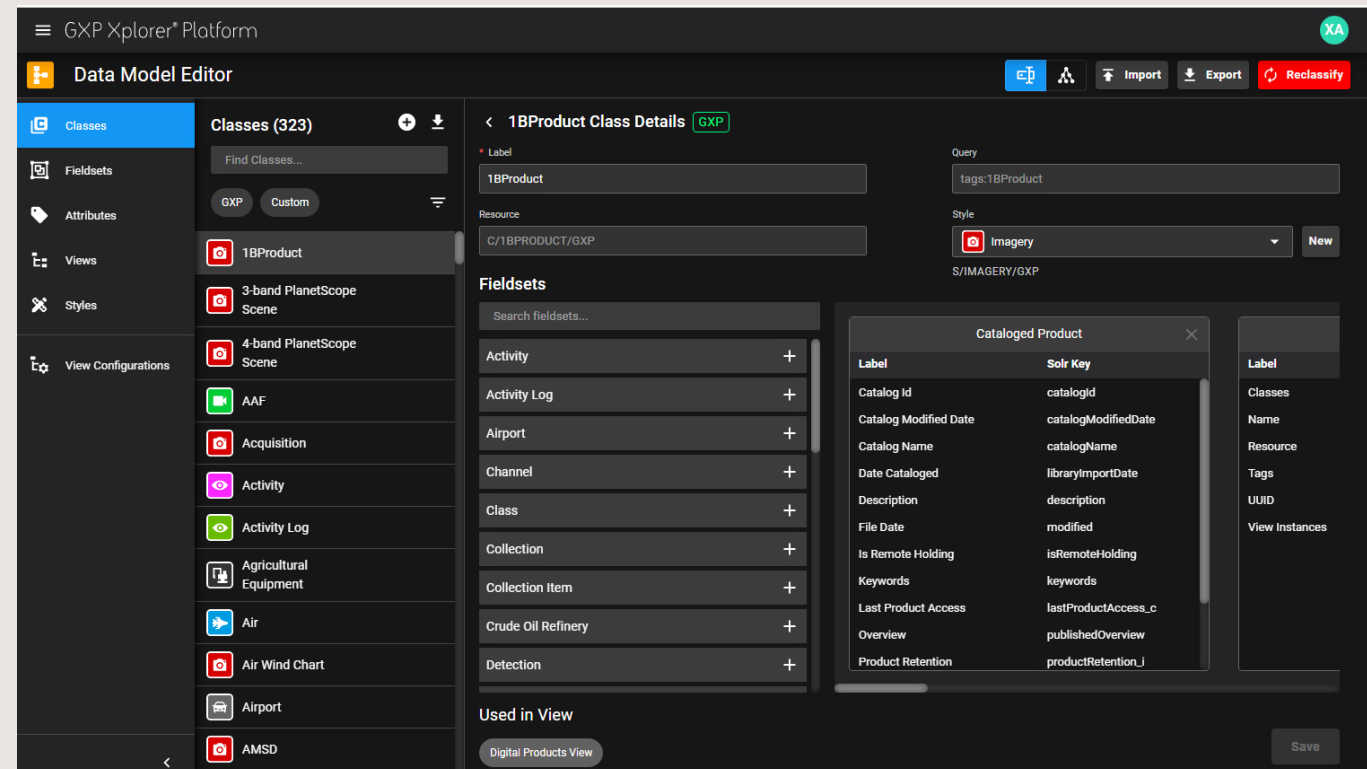
Data Model Editor

- The Data Model Editor can be accessed from the Administration Settings ...Data Model Editor.
- This allows users to create, view, and edit Classes, Fieldsets, and Attributes.



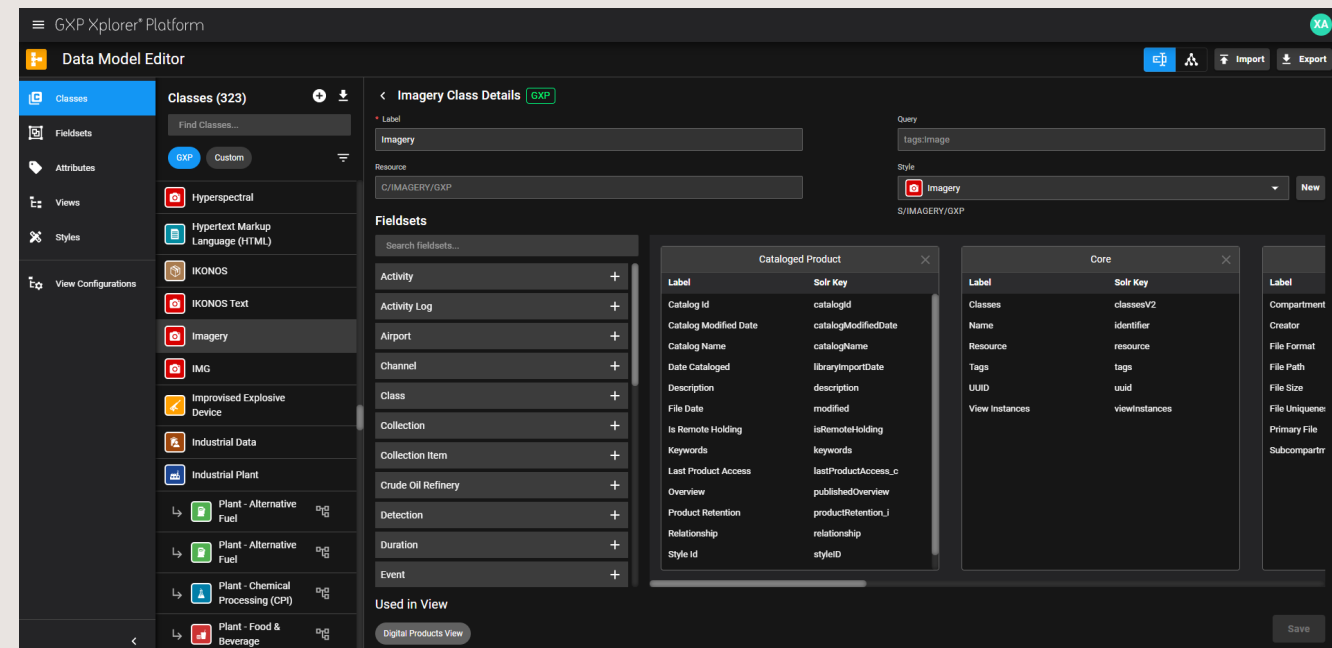
Data Model Editor - Reclassify

- A button has been added to the Data Model Editor to allow users to reclassify holdings.
- This is required after upgrading from GXP Xplorer Platform v2.5.2 or earlier.
- This button will reclassify all holdings.



Data Model Editor - Classes

- Selecting a Class from the list will show the Fieldsets it contains on the right.
- Users can add additional Fieldsets by clicking on the plus sign next to available Fieldsets.
- The Style for a Class can be selected from a drop down list of available Styles or a new one may be created.
- The Views in which a Class is used in are displayed at the bottom of this window.
- Classes may be exported to a zip file which can be imported later.
- Users can create a new Class by hitting the plus sign next to the Classes list.
- Classes can be cloned to be used as the basis for creating a new Class.
- Subtypes can be created which inherit all attributes and Fieldsets from the parent (limited to one depth level).
 - These cannot be edited, but Styles can differ based on metadata.



Data Model Editor - Fieldsets

- Selecting a Fieldset from the list will show the Attributes it contains on the right.
- Users can add additional Attributes by clicking on the plus sign next to available Attributes.
- The Classes in which a Fieldset is used in are displayed at the bottom of this window.
- Users can create a new Fieldset by hitting the plus sign next to the Fieldsets list.
- Fieldsets can be cloned to use as the basis for creating a new Fieldset.

The screenshot displays the 'Data Model Editor' interface within the 'GXP Xplorer Platform'. The left sidebar contains a navigation menu with 'Classes', 'Fieldsets', 'Attributes', 'Views', 'Styles', and 'View Configurations'. The 'Fieldsets' section is active, showing a list of 39 fieldsets. The 'Imagery' fieldset is selected, and its details are shown on the right. The 'Imagery Fieldset Details' panel includes a 'Label' field with the value 'Imagery', a 'Description' field, and a 'Resource' field with the value 'F/IMAGERY/GXP'. Below these fields is a table of attributes for the 'Imagery' fieldset. The table has columns for 'Label', 'Solr Key', 'Type', and 'Resource'. The attributes listed are: Access ID, ACFT Sensor ID, Activities, Activity, Activity Description, Activity Event Type, Activity Type, Address, Address2, Aliases, Cloud Cover, Component Index, Derived Platform, Derived Sensor, Derived Sensor Mode, Look Angle, Mean GSD (m), Obliquity Angle, Obscured Areas, and Operation Code. At the bottom of the interface, there is a 'Used in Class' section showing a list of classes: 1BProduct, 3-band PlanetScope Scene, 4-band PlanetScope Scene, Acquisition, Air Wind Chart, AMSD, AMSD0, AMSD1, AMSD2, Barometric Pressure, Black/White Frame Photography, BMP, and CIR.

Label	Solr Key	Type	Resource
Access ID	imageCloudCover	double	A/CLOUD-COVER/IMAGECLOUDCOVER/DOUBLE/GXP
ACFT Sensor ID	componentIndex	text	A/COMPONENT-INDEX/COMPONENTINDEX/TEXT/GXP
Activities	derivedPlatform	text	A/DERIVED-PLATFORM/DERIVEDPLATFORM/TEXT/GXP
Activity	derivedSensorName	text	A/DERIVED-SENSOR/DERIVEDSENSORNAME/TEXT/GXP
Activity Description	derivedSensorMode	text	A/DERIVED-SENSOR-MODE/DERIVEDSENSORMODE/TEXT/GXP
Activity Event Type	imageLookAngle	double	A/LOOK-ANGLE/IMAGELOOKANGLE/DOUBLE/GXP
Activity Type	imageMeanGSD	double	A/MEAN-GSD-M/IMAGEMEANGSD/DOUBLE/GXP
Address	imageObliquityAngle	double	A/OBLIQUITY-ANGLE/IMAGEOBLIQUITYANGLE/DOUBLE/GXP
Address2	obscurities_r	reference	A/OBSCURED-AREAS/OBSCURITIES_R/TEXT/GXP
Aliases	operationCode	text	A/OPERATION-CODE/OPERATIONCODE/TEXT/GXP

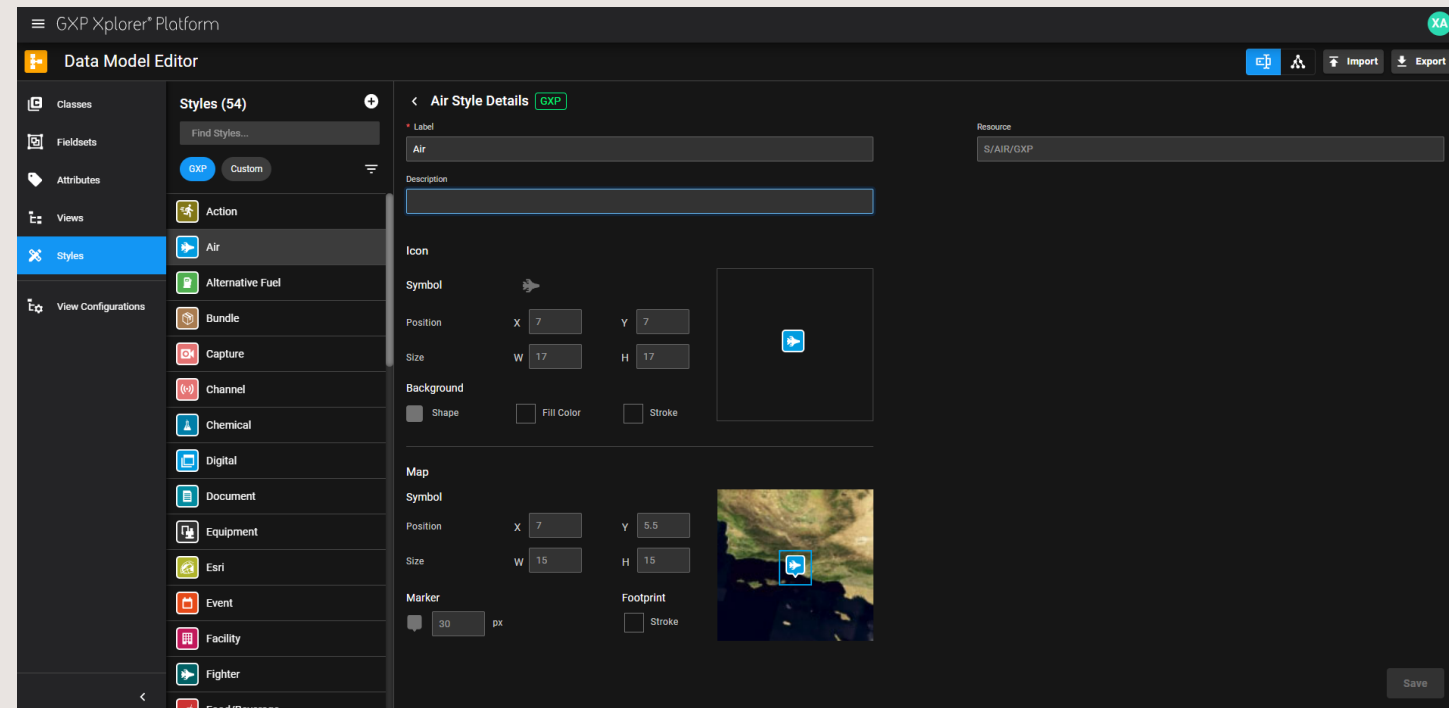
Data Model Editor - Attributes

- Selecting an Attribute from the list will show information about the Attribute on the right.
- The Fieldsets in which an Attribute is used in are displayed at the bottom of this window.
- Users can create a new Attribute by hitting the plus sign next to the Attributes list.
- Users can create a new Attribute by hitting the plus sign next to the Attributes list.
- Attributes can be cloned to use as the basis for creating a new Attribute.
- Filters can be added to allow users to dynamically filter results based on the Attribute from the table in the list page.

The screenshot displays the 'Data Model Editor' interface within the 'GXP Xplorer Platform'. The left sidebar contains a navigation menu with options: Classes, Fieldsets, Attributes (selected), Views, Styles, and View Configurations. The main area is titled 'Attributes (372)' and includes a search bar 'Find Attributes...'. Below this is a list of attributes, with 'Cloud Cover' selected. The right pane shows the 'Cloud Cover Attribute Details' form, which includes fields for Label, Description, Type (set to Double), Minimum number, Maximum number, Sort Key (set to ImageCloudCover), and Filter Options (set to Select...). The 'Used in Fieldset' section shows 'Imagery' as the selected fieldset. A 'Save' button is located at the bottom right of the form.

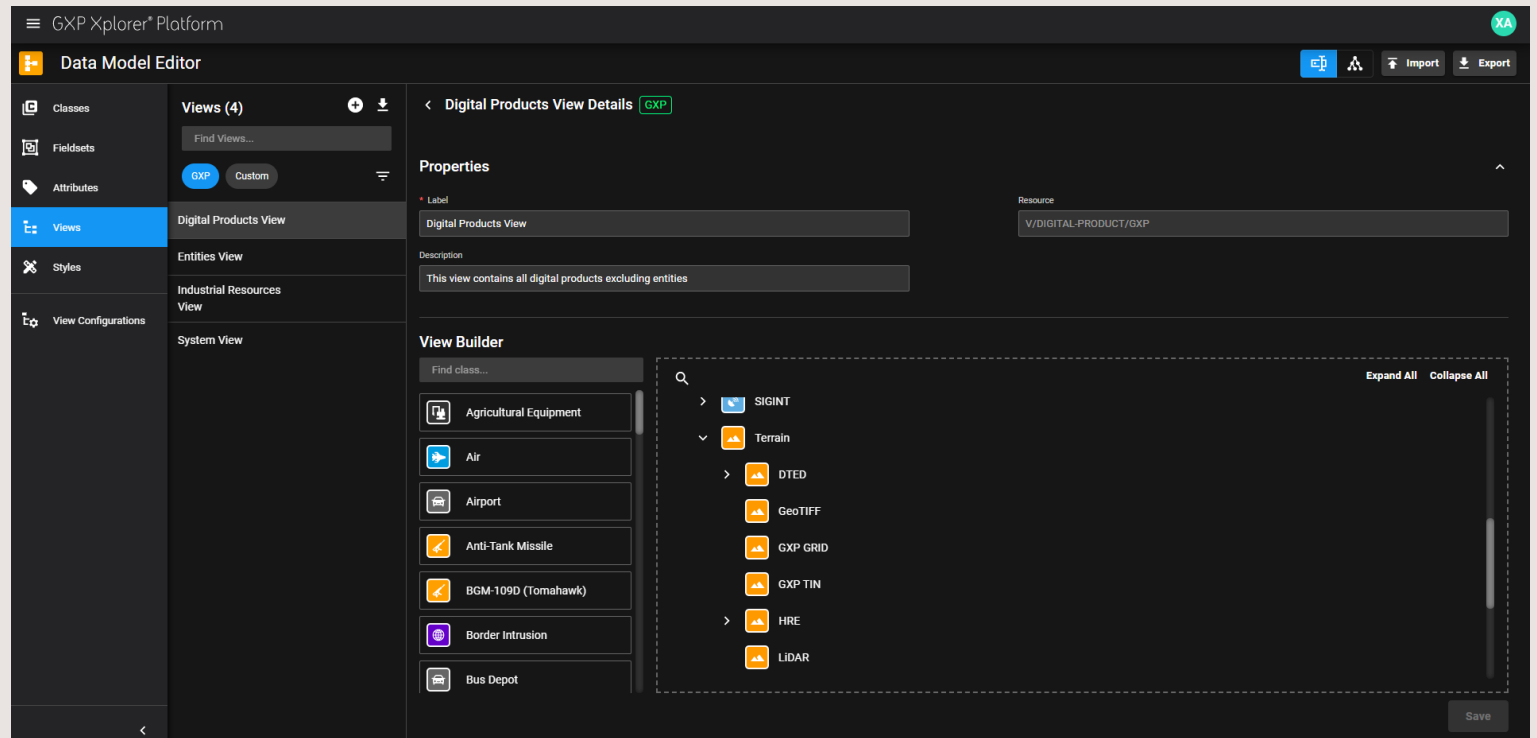
Data Model Editor - Styles

- Styles are what defines how a Class is visually represented in the GXP Xplorer Platform (map page, list page, GXP Fusion®, etc.).
- Users can set what icons to use for display on maps as well as icons to use on the user interfaces throughout the GXP Xplorer Platform.
- Colors, sizes, and backgrounds can also be configured.
- New styles can be created by clicking the plus sign next to the Styles list.



Data Model Editor - Views

- Views allow users to define sets of Classes to be grouped together either as peers or children.
- Children don't inherit Attributes from their parents, rather this is just a way to represent how classes are related.
- An example is Digital Terrain Elevation Data (DTED) being a child of a Terrain Class.
- Users can create a new View by clicking the plus sign next to the Views list.



Data Model Editor – View Configurations

- View Configurations allow users to customize what is shown in various user interfaces in the GXP Xplorer Platform.
 - Allowing search to only show certain data types relevant to a specific customer for example.
- There are 14 View Configurations tied to different interfaces in GXP Xplorer Platform.
- Users can select Classes from the defined Views to appear in a specific View Configuration.
- For each Class, users can define if they are visible in that particular View Configuration.
 - Individual Attribute visibility can also be toggled on or off.
 - Users can mark Attributes as Required and Editable as well in each View Configuration.
 - The style for any Class can be customized on a per View Configuration basis.

Data Model Editor – View Configurations ...2

The screenshot displays the GXP Xplorer Platform Data Model Editor interface. The left sidebar contains navigation options: Classes, Fieldsets, Attributes, Views, Styles, and View Configurations (selected). The main panel is titled 'View Configurations (14)' and shows a list of view configurations. The 'Entity View Configuration' section is active, displaying a tree structure of classes. The 'Agricultural Equipment' class is selected, and its configuration is shown in the right panel. The configuration includes a 'Style' dropdown set to 'Equipment' and a 'Visible' checkbox checked. Below this is a table of attributes with columns for Label, Visible, Editable, and Required.

Label	Visible	Editable	Required
Classes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Name	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Resource	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tags	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
UUID	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
View Instances	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
File	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Compartment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Data Model Editor ...View Configurations ...3

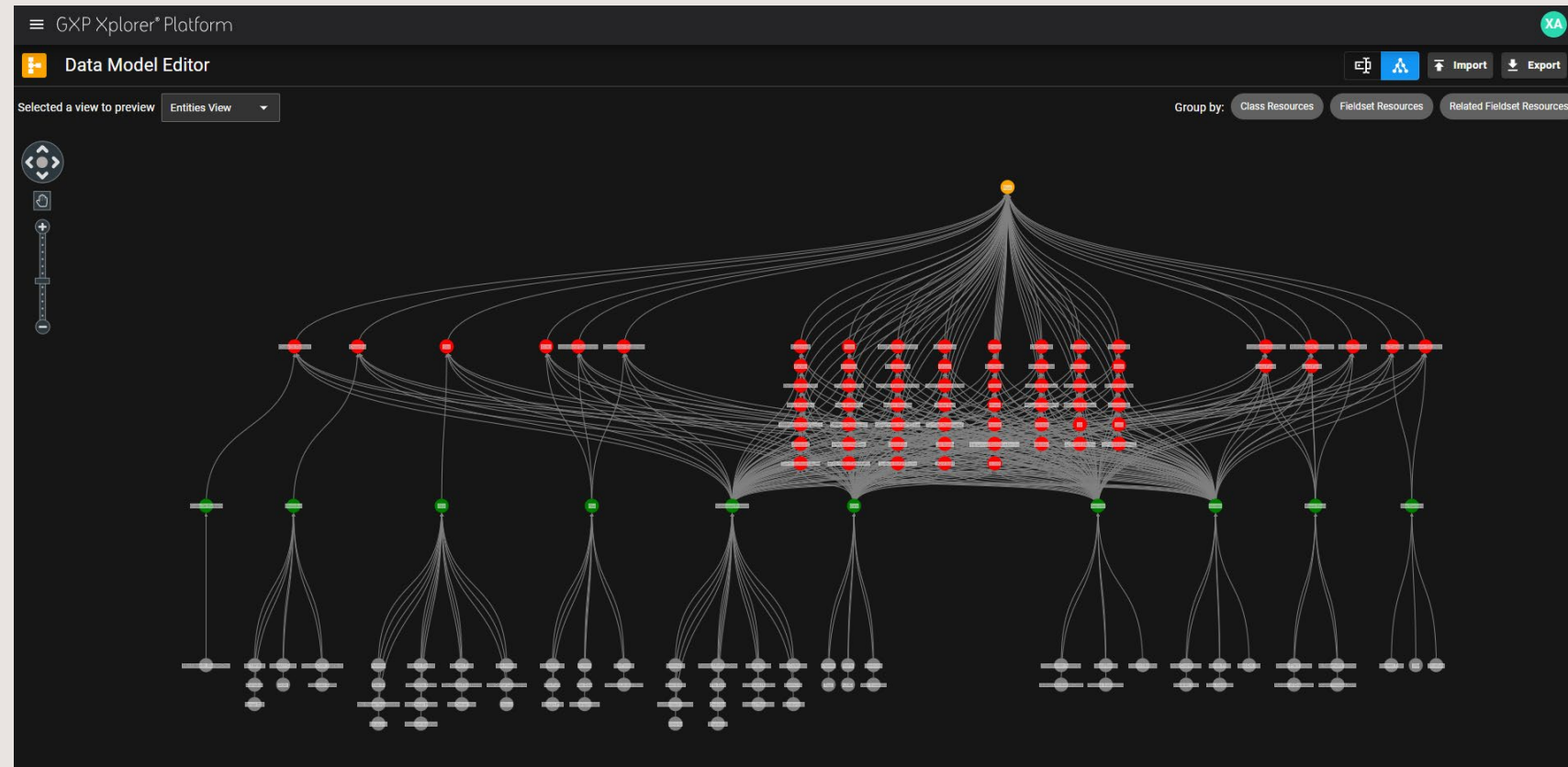
View Configurations

- Collection – Used to define what is visible when creating Collections in GXP Fusion.
- Discretionary Access Control (DAC) – Used to define what Classes are given discretionary, restricted, or access.
- Detection – Used to define what is visible when creating Detections using natural language processing in GXP Fusion.
- Digital Product – A View Configurations to define all the possible products in the GXP Xplorer Platform.
- Document – Used to limit client functionality that only operates on documents such as the all-source analysis workflow
- Entity – Populates the Observation Toolbox in GXP WebView® and which Classes and Attributes are available when creating an Entity in GXP Fusion.
- Event – Used in text analysis in GXP Fusion to define what Classes and Attributes are available when creating an Event.
- Imagery – Used to limit client functionality that only operates on images such as Orthomosaic or the image analysis workflows.
- Mission – Used to define what is visible when creating Missions in GXP InMotion™
- Mission Objectives – Used to define what is visible when creating Mission Objectives in GXP InMotion.
- Observation – Used to define what attributes are visible and editable in the Observation Table/Form in GXP WebView* and GXP Fusion.
- Place – Used to define what Classes are shown when picking Places such as defining Data Management Rules, Workflows, DAC rules, Places of Interest (POI), etc.
- Reference Data Import – Defines what Classes are shown during Reference Data Import in Configuration Settings ...Reference Data.
- Scene – Defines what shows in the Scene Summary when publishing Observations from GXP WebView*.
- Search – Defines what shows in the Search By menus.

*Future Release

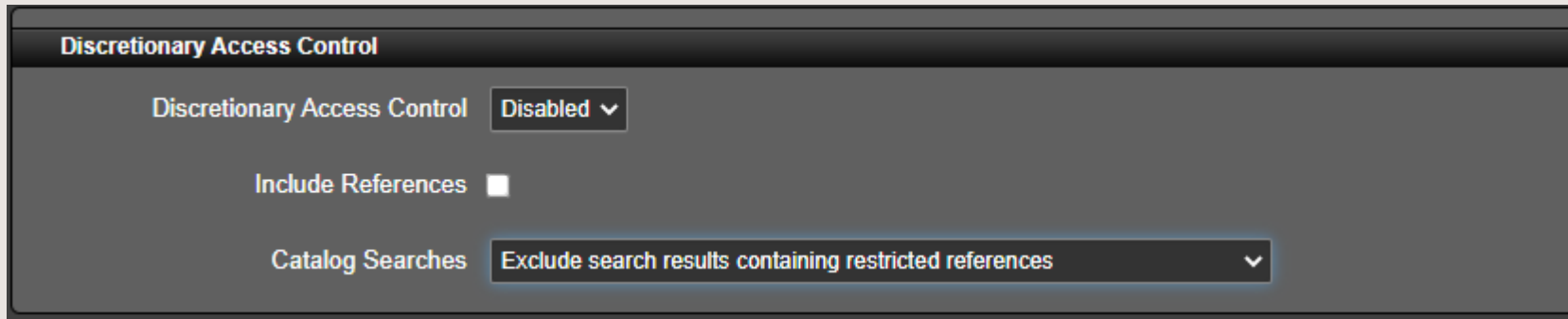
Data Model Editor – Graphical view

- Users can switch the view of the Data Model to a graph view to see relationships between Classes, Fieldsets, and Attributes.
- Classes are shown in red, Fieldsets in green, and Attributes in gray.



DAC Updates

- New options were added to allow additional control on restricting access to items in the catalog that reference other items.
 - Include References checkbox lets users decide if they want referenced catalog items to be included in the DAC rule.
 - Catalog Searches allows users to decide if an item has a reference to a restricted item if the original item should be hidden or displayed, but with reference metadata stripped out.
 - An example would be if an Observation was collected on an image that is hidden behind a DAC filter.



The screenshot shows a window titled "Discretionary Access Control". Inside the window, there are three settings:

- Discretionary Access Control**: A dropdown menu currently set to "Disabled".
- Include References**: An unchecked checkbox.
- Catalog Searches**: A dropdown menu currently set to "Exclude search results containing restricted references".

Other significant enhancements

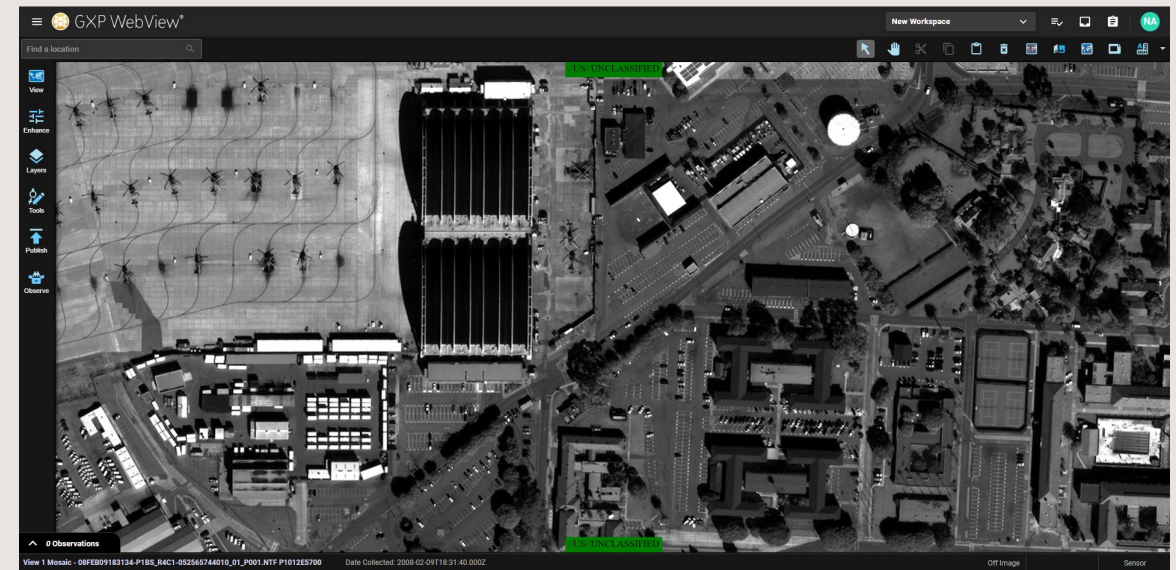
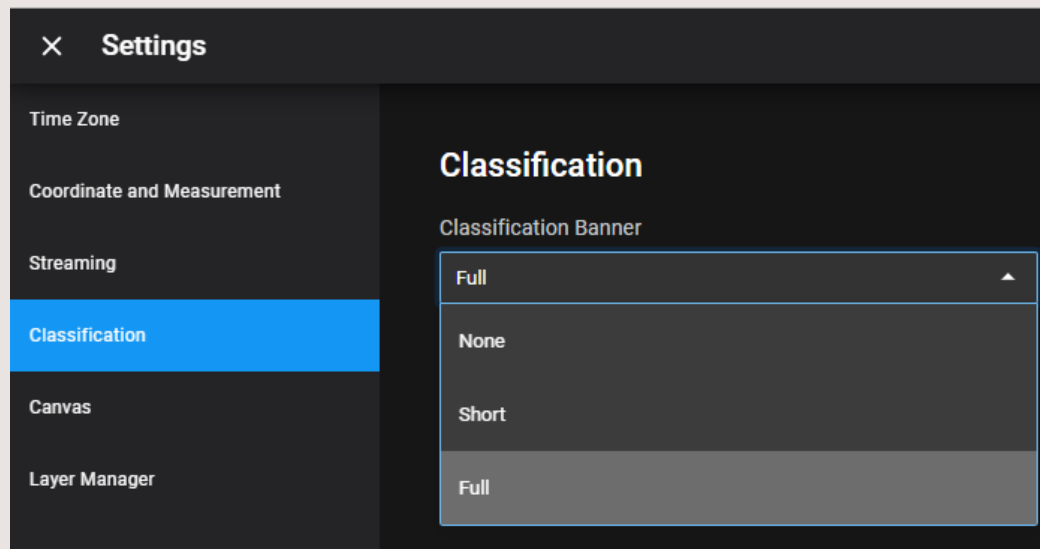
- The Maxar catalog plug-in now supports additional data providers including Planet®, BlackSky®, Capella®, ICEYE, and Umbra.
- Users can now start an ad-hoc form workflow from the GXP Xplorer List and Map pages.
- Users can import and export a Data Model from the Data Model Editor page.
- Anonymous users can no longer access the Job Queue.
- Anonymous users are now able to convert and download imagery from the Product Gallery.
- Users can now sort by column on the failed files table in the Catalog Control Panel.
- Users with Text Analysis and Text QA roles can now be used as Candidate Analyst and Candidate QA respectively when setting up Workflow rules.
- The Cassandra debug log has been renamed to `cassandra_debug.log`
- A new component has been added to the form builder in Workflows.
 - Launch – Allows users to launch SOCET GXP®, GXP WebView, or a third party executable.
 - This was formerly a part of the Hyperlink component.

GXP WebView v2.5.3 updates



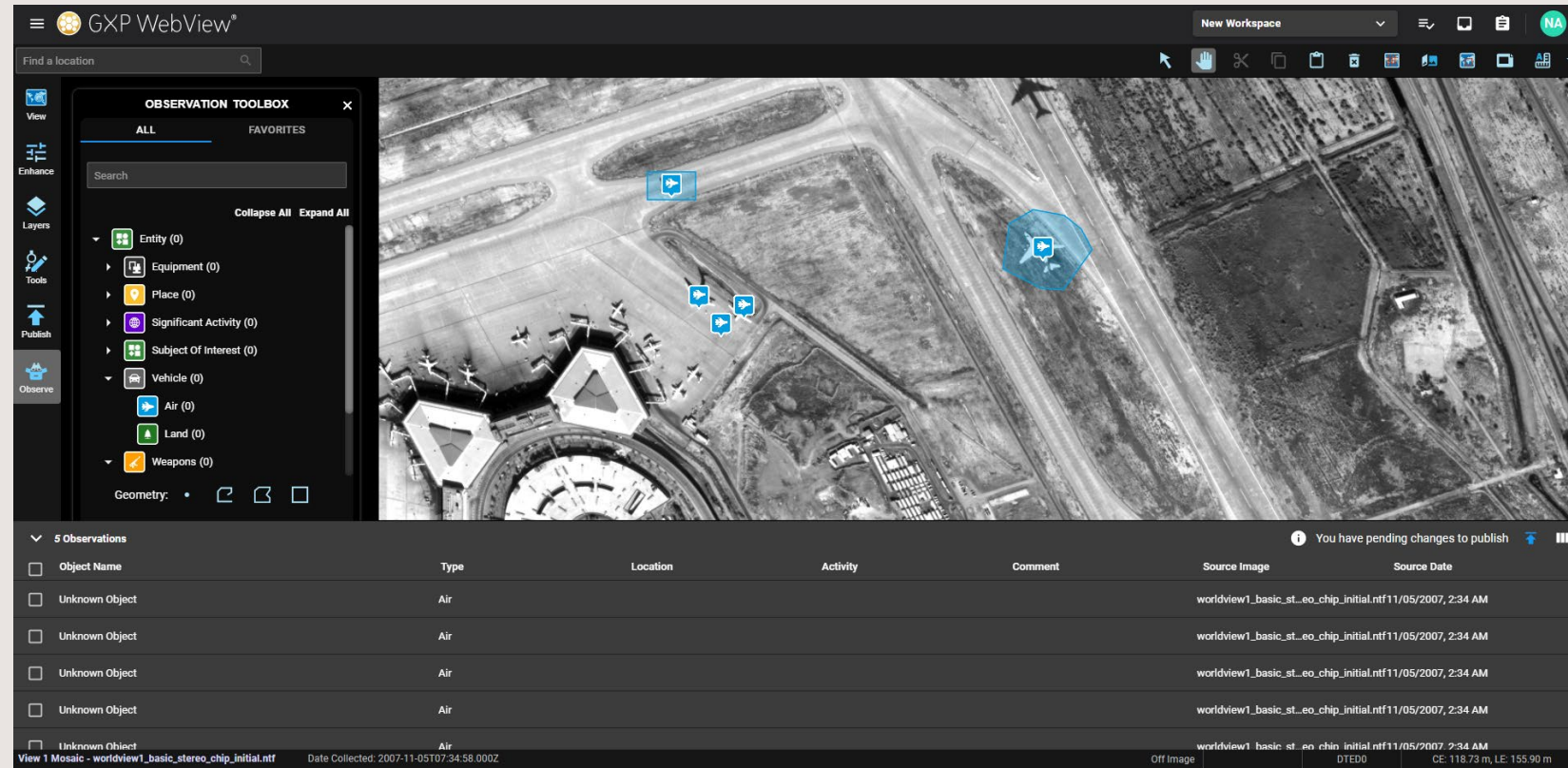
Classification Banner updates

- Users of GXP WebView can now choose between seeing the full Classification banner, a shortened version, or none.
- User setting is accessed from GXP WebView Settings ...Classification.
 - This also affects GXP Fusion.
- Admins can also set this in Administration Settings ...Shared Global Settings.
 - This will affect GXP WebView and GXP Fusion.



SOM Improvements - Geometry

- Users can now make Observations for any Class in GXP WebView using point, polyline, polygon, or rectangle geometries using the selection tools at the bottom of the Observation Toolbox.



Imagery © 2023 Maxar Technologies

SOM Improvements – Apply to All attribution

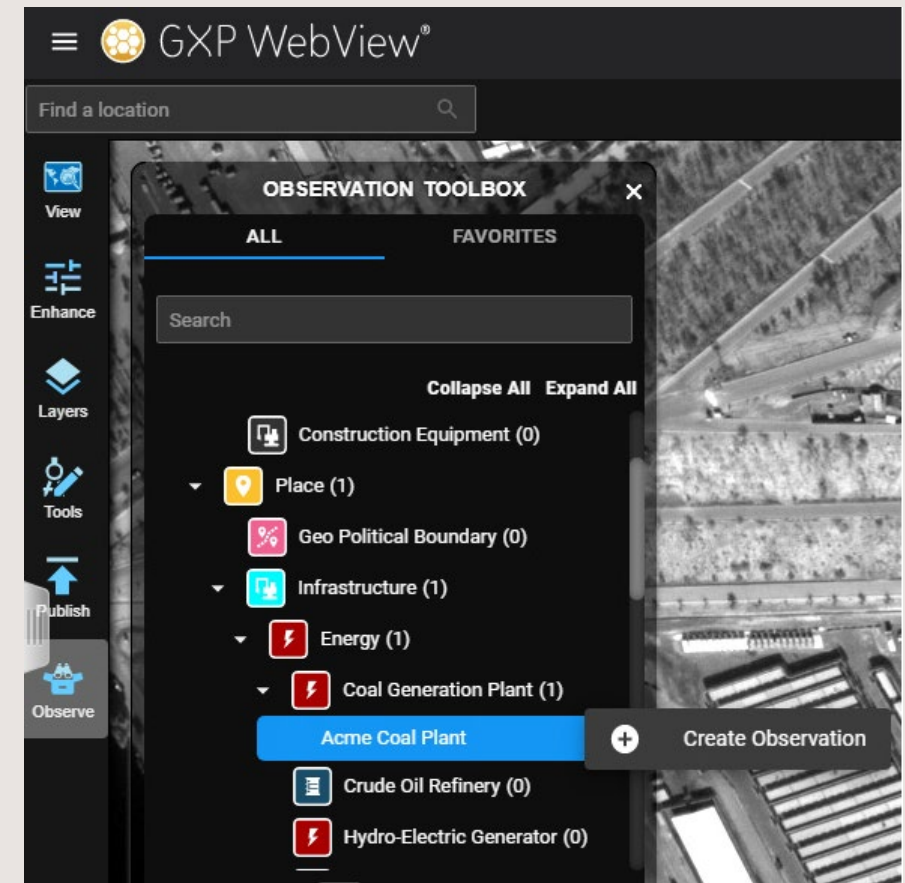
- Users can now apply an attribute to all Observations in an image or a selected subset.

	Object Name	Type	Location	Activity	Comment	Source Image	Source Date
<input checked="" type="checkbox"/>	Unknown Object	Air			Related to Exercise Bra...	 Apply to All	chip_initial.ntf11/05/2007, 2:34 AM
<input type="checkbox"/>	Unknown Object	Air				 Apply to Selected Rows	chip_initial.ntf11/05/2007, 2:34 AM
<input type="checkbox"/>	Unknown Object	Air				worldview1_basic_st...eo_chip_initial.ntf11/05/2007, 2:34 AM	
<input type="checkbox"/>	Unknown Object	Air				worldview1_basic_st...eo_chip_initial.ntf11/05/2007, 2:34 AM	

	Object Name	Type	Location	Activity	Comment	Source Image	Source Date
<input checked="" type="checkbox"/>	Unknown Object	Air			Related to Exercise Bra...	worldview1_basic_st...eo_chip_initial.ntf11/05/2007, 2:34 AM	
<input type="checkbox"/>	Unknown Object	Air			Related to Exercise Bra...	worldview1_basic_st...eo_chip_initial.ntf11/05/2007, 2:34 AM	
<input type="checkbox"/>	Unknown Object	Air			Related to Exercise Bra...	worldview1_basic_st...eo_chip_initial.ntf11/05/2007, 2:34 AM	
<input type="checkbox"/>	Unknown Object	Air			Related to Exercise Bra...	worldview1_basic_st...eo_chip_initial.ntf11/05/2007, 2:34 AM	

SOM Improvements – Site Observations

- Users can now create an Observation directly from a specific Entity in the Observation Toolbox in GXP WebView.
- The Observation will be automatically dropped at the location stored in the specific Entity.

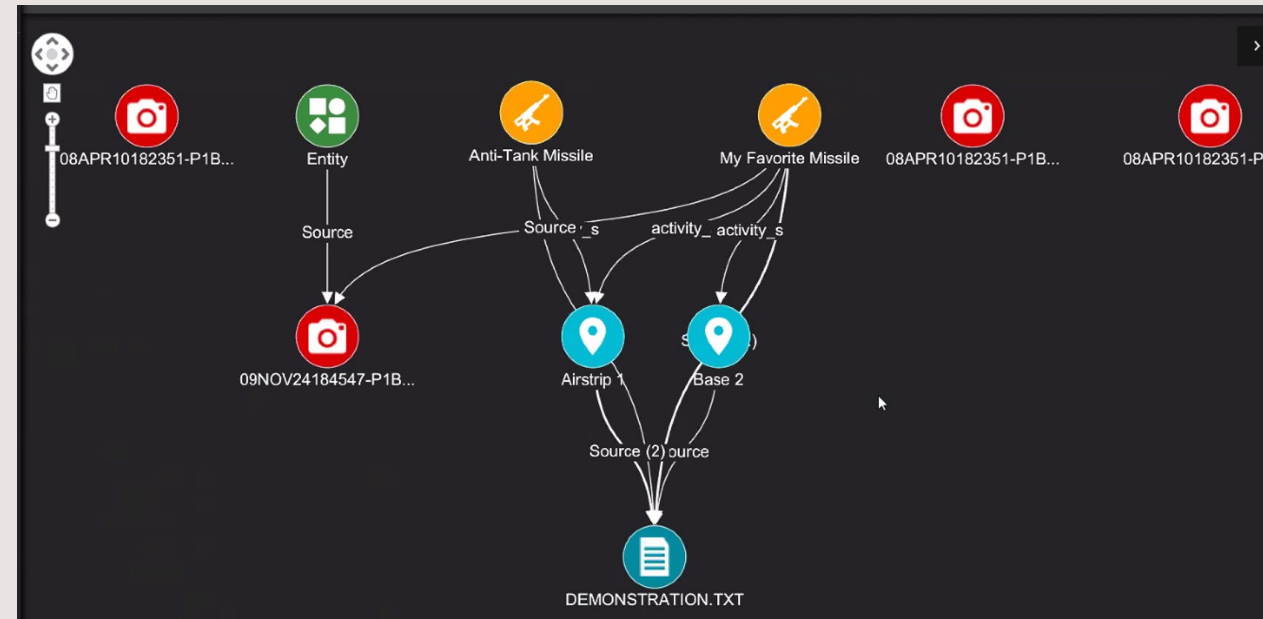
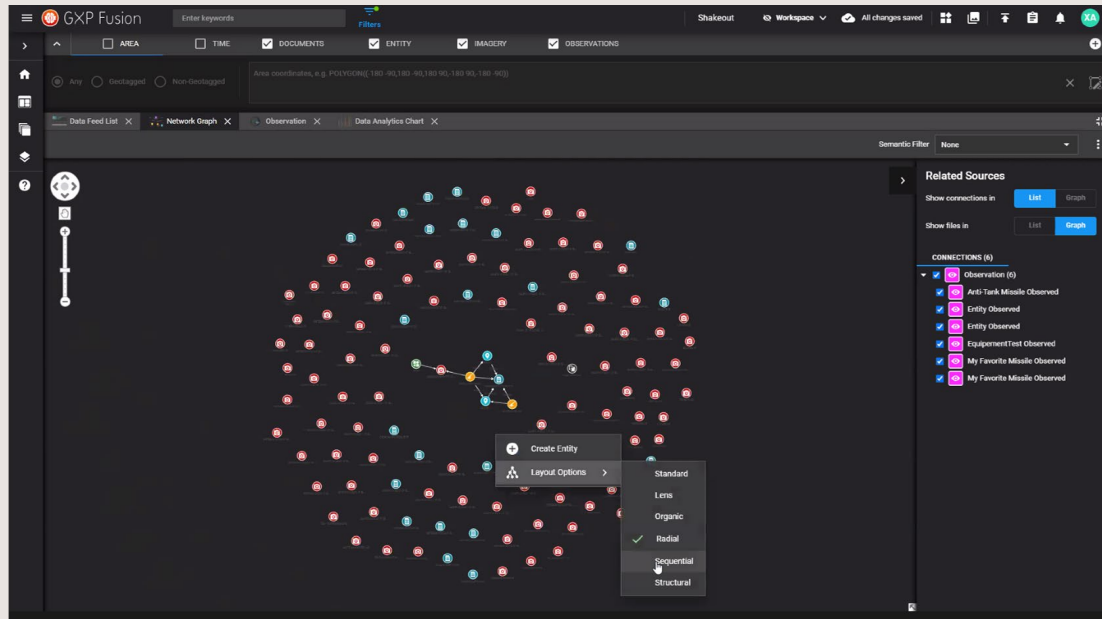


GXP Fusion v2.5.3 updates



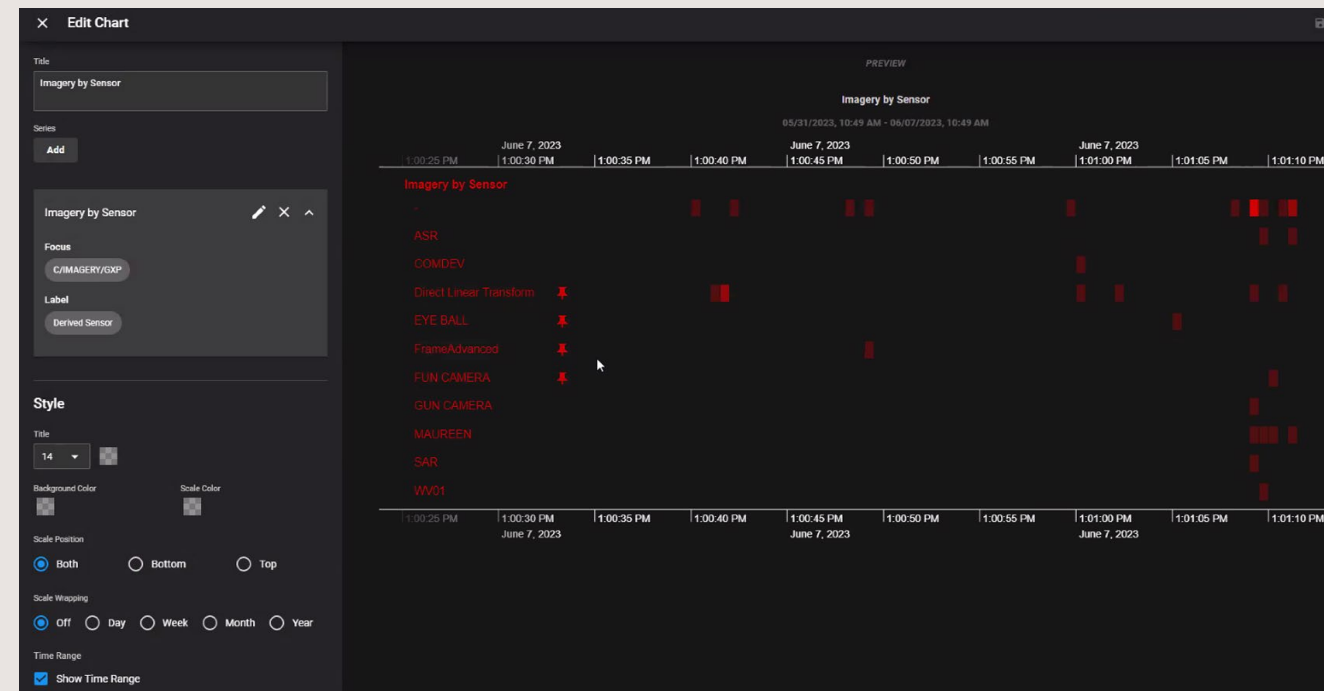
Network Graph

- Users can now select from six different graph layout options: Standard, lens, organic, radial, sequential, or structural.
- Grouping of nodes also eases the number of visible nodes for better organization of graphs.
- The creation of new entities and editing of node links improves user flexibility within the network graph.



Timeline Widget

- An updated Timeline Widget allows for:
 - More granularity in understanding duration of events.
 - Pinning and filtering of labels.
 - Additional scale and focus options.
 - Customizable color palate selections and flexibility.



Count Widget

- The Count Widget allows users to set a focus (Entity, Observation, etc.) and a given threshold. If the threshold is met in the selected timeframe, the Widget will change colors alerting the user to the change.



GXP InMotion v2.5.3 updates



GXP InMotion significant enhancements

- STANAG 4676B collections will allow files to be added to missions.
 - Previously, GXP Xplorer did not support adding additional files to be queued for track generation in a STANAG 4676B collection. Instead of creating new, or additional missions, GXP Xplorer will now append new files to an existing Tracking Analytics Software Suite (TASS) mission containing track data for STANAG 4676B collections.
- Prevent users from restarting a mission once completed.
 - Starting in v2.5.3, the Mission Management User Interface (UI) has been changed, this will prevent users from restarting or updating a Mission once it has been marked as complete.
- Expose TASS Web Feature Service (WFS) (bridge endpoint).
 - SOCET GXP/GXP InMotion Desktop will now be able to retrieve track data over WFS through the GXP Xplorer Platform and will no longer directly query TASS for WFS data.
 - Additionally, the TASS WFS endpoint for the desktop now exposes https connectivity.
- Added specific error message if video to load is not H.264
 - Currently, GXP InMotion web client only supports H.264 video data. If a source video is not H.264, it will still be captured as is, but the web client will not be able to play that captured video. The intent of this feature is just to display a warning such that the web client can indicate the video is not supported instead of just spinning.
- Ground Moving Target Indicator (GMTI) capture updates for 'Add Stream to TASS' option.
 - Added the following options to allow GMTI streams to be pushed directly to TASS for processing: live track generation, an option break up GMTI data into frames, unicast GMTI restreamed to TASS, and multicast restreaming GMTI.
- Track enhancements.
 - Track Playback/Animation was added to see tracks on the screen as they exist in the timeframe described by the timeline filter.
 - Filter search results by track length before the search is made. Adding this ability will greatly make GMTI searches more valuable by being able to filter out single point and/or short tracks.

Thank you