



HEXAGON

Release guide

Release guide

M.App X 2023

Version 16.8.0

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About this release

This document describes the latest enhancements, fixes and system requirements for M.App X 2023.

For information on new features, see [New technology](#). For information on fixes that were made for this release, see [Issues resolved](#). For information on hardware and software requirements, see [System requirements](#).

This document is an overview and does not provide all details about the product's capabilities. See the [product description](#), [online help](#) and other documents provided with M.App X for more information.

M.App X

M.App X provides tools to exploit imagery and create imagery-derived information products and reports deployed in an enterprise platform for system integrators. All M.App X users can create and share information across the enterprise using the rich, web-based client application.

New technology: M.App X 2023

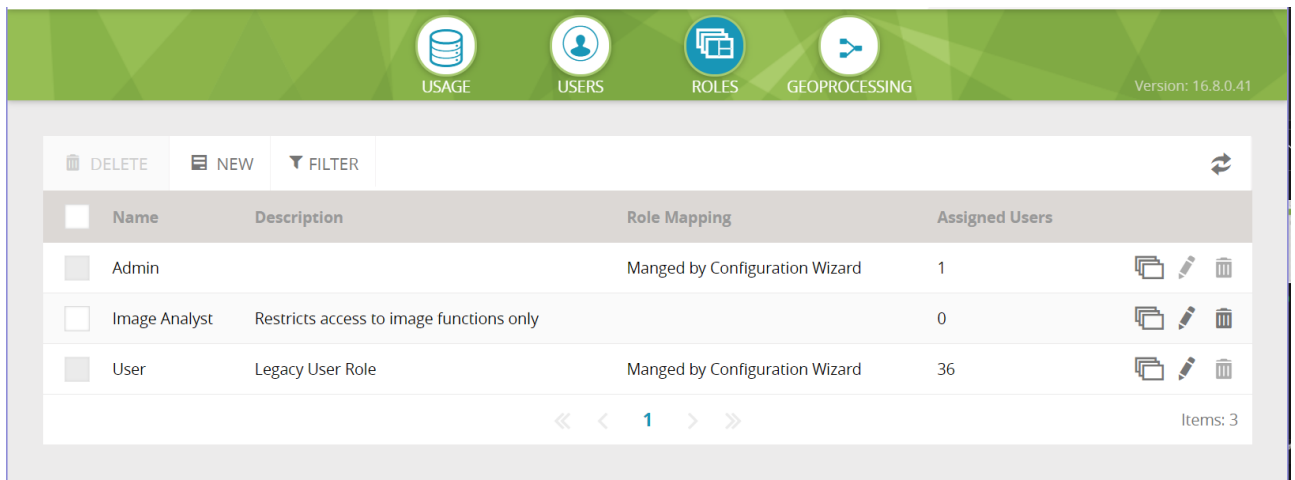
User-facing improvements and additions

The improvements in this section describe changes that affect either the use of the client application or its performance.

User roles

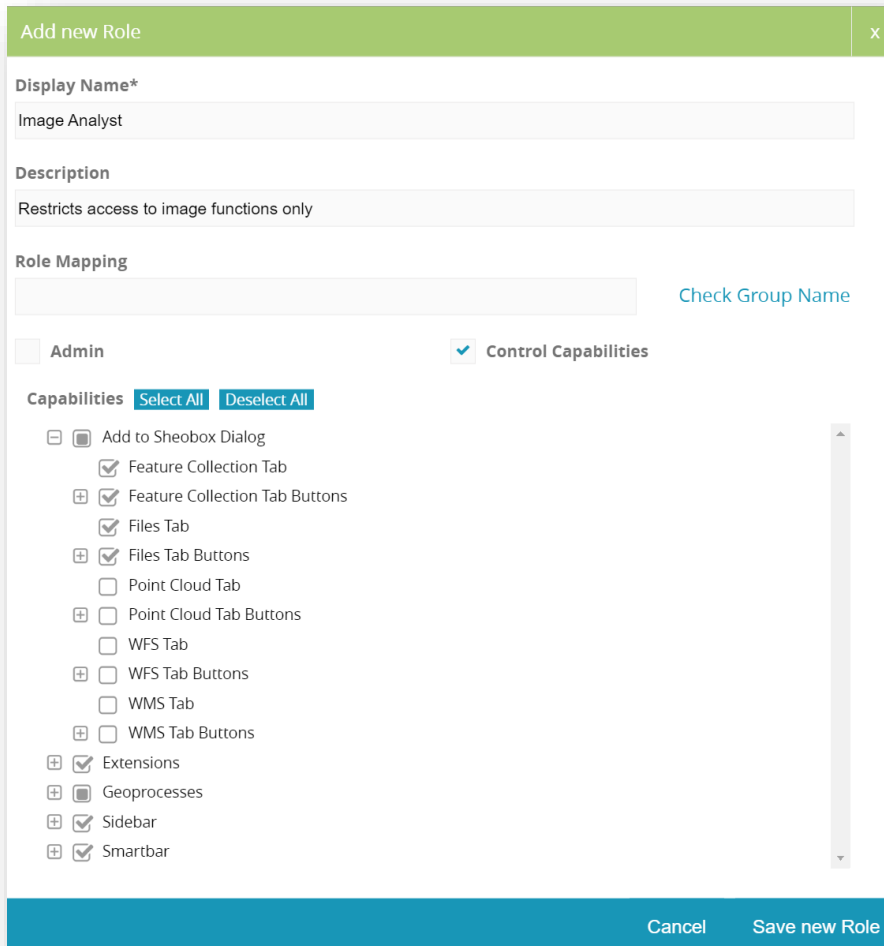
User roles can be created using the Admin console. A user role can restrict which features of the M.App X application are available. This allows roles tailored to specific workflows to be created. Each user is assigned a role in the Admin console.

There is a new page in the Admin console for managing roles. They can be created, edited, copied and deleted. The Admin and user roles are permanent and cannot be changed.



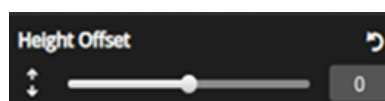
Name	Description	Role Mapping	Assigned Users
Admin		Manged by Configuration Wizard	1
Image Analyst	Restricts access to image functions only		0
User	Legacy User Role	Manged by Configuration Wizard	36

There is a dialog for creating and managing customized roles. The role can have Admin access privilege and it can have reduced functionality. If functionality is removed, its components will be removed from the client user interface.



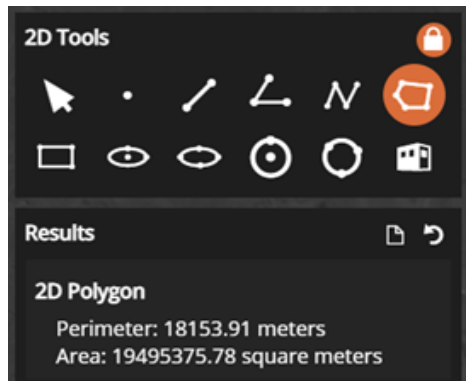
Gap Fill and Height Offset for point cloud

Point cloud appearance can be improved by filling the gaps between the points, and point clouds can now have an offset applied to lift them up if needed.



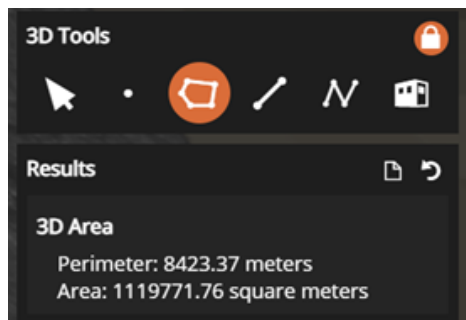
Improved measurements panel and introduction of lock tool

The measurements panel has several usability improvements including a copy button to copy measurements and a lock button to control whether the measurement tool can be used repeatedly.



Measurements in 3D display mode

When the view is in the 3D mode there is now a set of 3D measurement tools available.

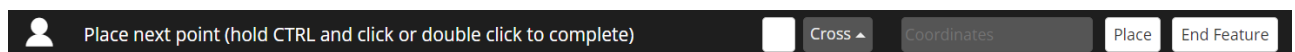


Folder names are now sorted in move/copy dialogs

When there are a lot of shoeboxes, this makes it much easier to find the desired target location.

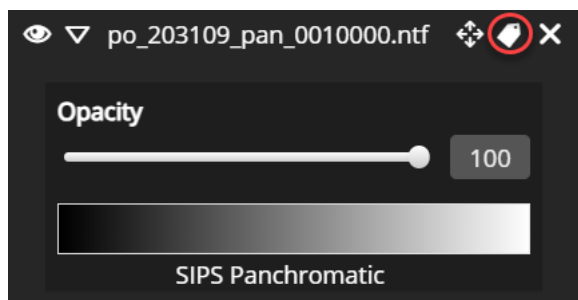
Improved coordinate toolbar

The coordinate bar has been improved to show instructions on the left with tools to enter coordinates on the right.



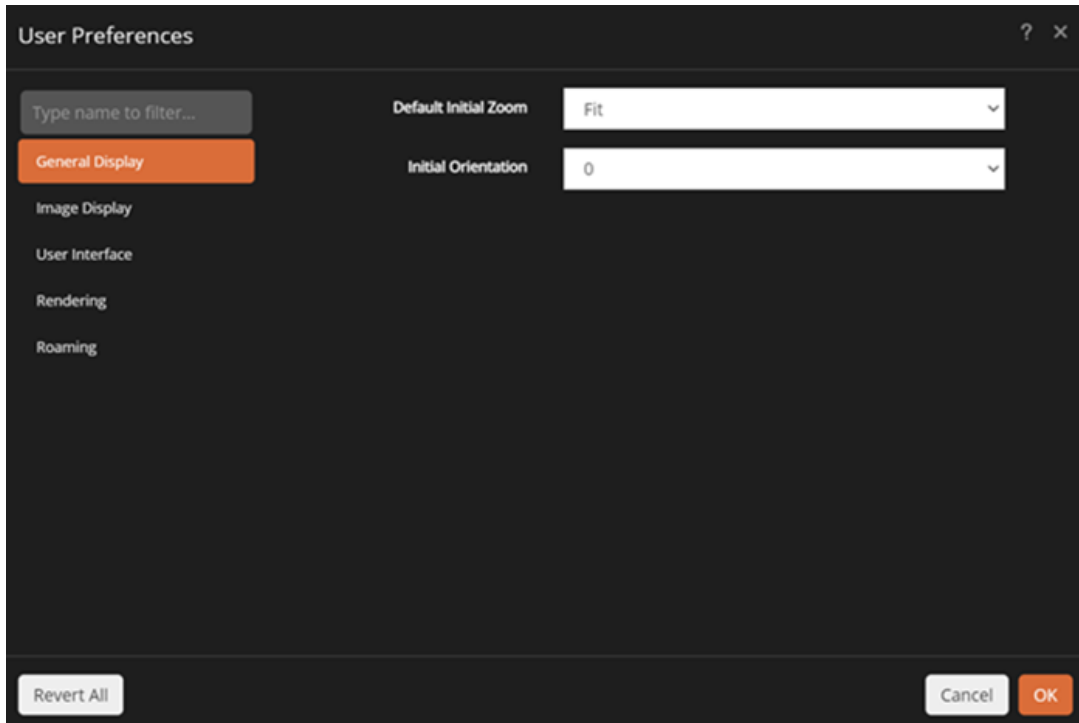
Option to launch metadata for corresponding layers from contents panel

There is now a button that appears on the layer in the contents panel when metadata is available. Clicking on the button shows the metadata dialog.



Search option in User Preferences and Shoebox panel

Both the User Preferences dialog and the Shoebox panel now provide a search feature which makes it easier to find items using a familiar search box approach.



Swap Images option for Stereo Pair shoebox entry

It's common for stereo pairs to be in the wrong left/right order, so this makes it easy to correct with just one button.

Metadata information for the shoebox entries of point cloud and WFS

Shoebox metadata can now be displayed for point cloud data and for WFS entries.

Refresh option for shoeboxes and shoebox entries

When using two or more instances of M.App X and working within the same shoebox, the two can be out of sync. The refresh button allows the contents of the shoebox to be refreshed and reflect any recent changes.

Ability to read/display KML-based features in the form of WMS

When LuciadFusion is installed KML files can be served as a WMS service.

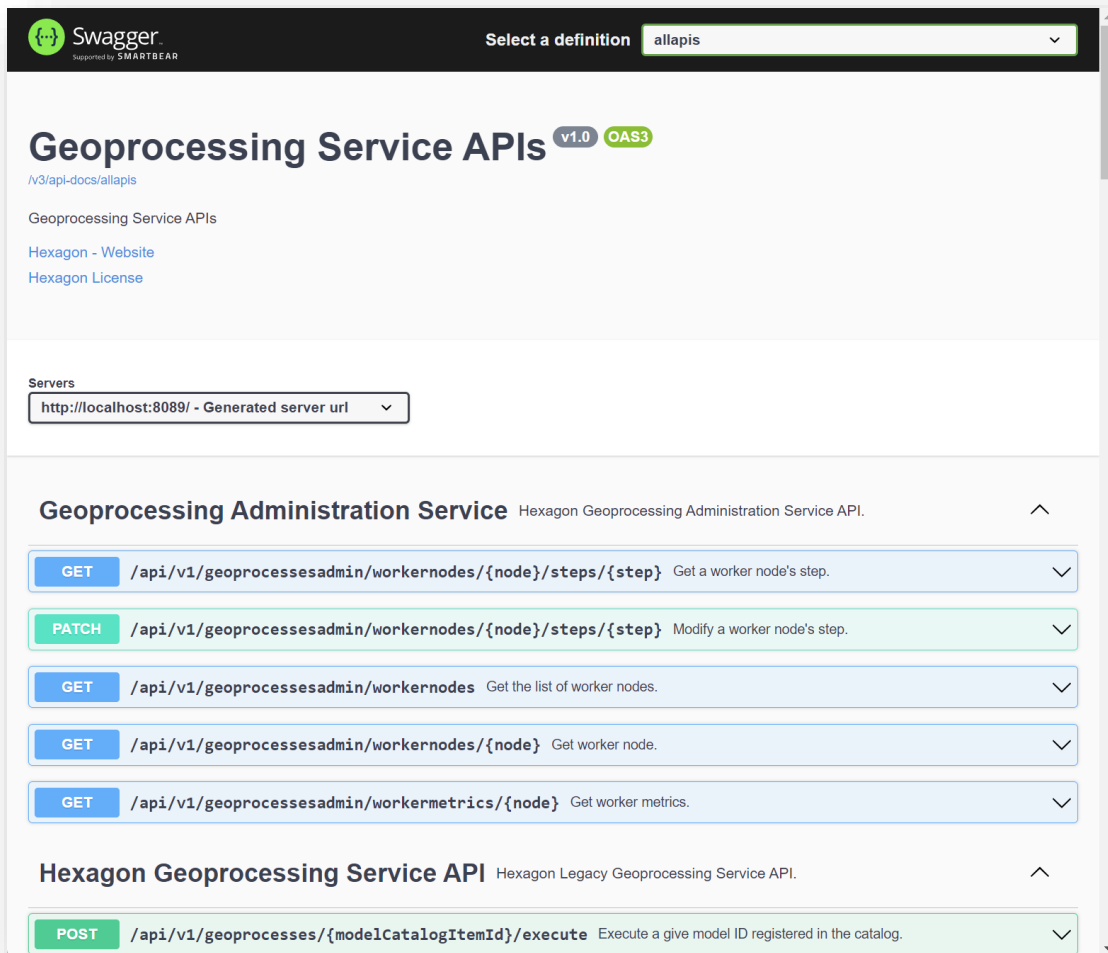
Ability to view (contents) of the text-based files in the shoebox

Text files that are registered in the shoebox as "Other" can now be viewed in a simple text viewer.

Swagger Console

The Swagger Console is a web-based tool for exploring available REST APIs. In the past this console was an optional installation and configuration. Now this is installed and configured by default.

The URL is <https://<mappx-domain>/swagger-ui/index.html>.



The screenshot shows the Swagger UI interface for the Geoprocessing Service APIs. At the top, it says "Swagger supported by SMARTBEAR" and "Select a definition allapis". The main title is "Geoprocessing Service APIs" with version "v1.0" and "OAS3" tags. Below the title, there are links for "Hexagon - Website" and "Hexagon License". A "Servers" section shows a dropdown menu with "http://localhost:8089/ - Generated server url". The interface is divided into two sections: "Geoprocessing Administration Service" and "Hexagon Geoprocessing Service API".

Geoprocessing Administration Service Hexagon Geoprocessing Administration Service API. ^

- GET** /api/v1/geoprocessesadmin/workernodes/{node}/steps/{step} Get a worker node's step. v
- PATCH** /api/v1/geoprocessesadmin/workernodes/{node}/steps/{step} Modify a worker node's step. v
- GET** /api/v1/geoprocessesadmin/workernodes Get the list of worker nodes. v
- GET** /api/v1/geoprocessesadmin/workernodes/{node} Get worker node. v
- GET** /api/v1/geoprocessesadmin/workermetrics/{node} Get worker metrics. v

Hexagon Geoprocessing Service API Hexagon Legacy Geoprocessing Service API. ^

- POST** /api/v1/geoprocesses/{modelCatalogItemId}/execute Execute a give model ID registered in the catalog. v

System requirements

Server

Computer processor	Xeon 2.9GHZ 4-core (Or better)
Memory (RAM)	16GB (or better)
Operating system	<ul style="list-style-type: none"> • Microsoft Windows Server 2016 • Microsoft Windows Server 2019 • Microsoft Windows Server 2022
Software	<ul style="list-style-type: none"> • Internet Information Services (IIS) • JSON MIME Type Support • Java Runtime Environment Version 11 • Microsoft .NET Framework 4.7

Client

Computer processor	Any Intel or AMD x64 CPU running at 1.9GZ or greater
Graphics card	Any modern graphics card with full 32-bit support; a GPU is required to use the 3D features of the client
Network connectivity	An ethernet or Wi-Fi connection of at least 10MBs is required for good performance (NOTE: This is not for connection to the Internet, just for connection from the client to server)
Operating system	<ul style="list-style-type: none"> • Windows 10, Windows 11 • Other operating systems such as MacOS and Linux are viable as the M.App X client runs entirely in the browser with no plug-ins
Browser	<ul style="list-style-type: none"> • Google Chrome (current versions) • Mozilla Firefox (current versions) • Other browsers such as Safari, Opera and Microsoft Edge are viable as long as they are not mobile versions

Issues resolved: M.App X 2023 (v 16.8.0.xxx)

CR #	Summary	Description/How to reproduce
WG-7486	"This field is required" should not be shown for all entries under the Acceptable Landcover Types option.	Helicopter Landing Zones geoprocessing panels lists several landcover type options. The "This field is required" message was showing under each option. Only a single landcover option must be selected for the model to run correctly.
WG-10625	`Apply Style` button in the contents panel does not stay disabled in all the cases when there is no change to apply	"Apply Style" buttons is only enabled when layer style changed
WG-11583	Adding a file to Shoebox after deletion of a file is considering the deleted file also.	When adding files to the shoebox, previously deleted entries can no longer be taken into account.
WG-11987	All the selected entries are not considered if layers are added to the shoebox after a session is re-logged in.	If Log-in dialog pops up when adding files to the shoebox all files are going to be added after user logs in again.
WG-12424	Annotation element would disappear if selected when the warning message is up in 3D View.	Annotations no longer "disappear" while being edited in 3D mode.

WG-12404	Applied Brightness/Contrast for Point Cloud incorrect while swiping.	Brightness and contrast do not change when using Transitions.
WG-11428	Arrow is always at the bottom even though it is placed on top of a polygon annotation.	Annotations stay in order which they were added in.
WG-12057	Auto-hide Smart bar, if done for the first time would need a mouse hover on Smart bar for it to auto-hide.	Sidebar panel autohides once preference change is confirmed.
WG-11275	Blend (in Transitions) does not seem to apply for Annotation, Features and Point Cloud.	This has been corrected.
WG-7638	After resetting Line of Sight panel and changing the coordinate system the previously collected points show up	Previously collected line for Line of Sight Geoprocessing Panel no longer shows up once the panel is reset.
WG-12208	Cuda DLL missing	M.App X was missing certain DLLs required for GPU acceleration of certain geoprocess execution these are now present.
WG-2865	Distance from Signature Error Handling	Entering an incorrect signature name causes the Distance to Signature geoprocess to fail with an error in the status panel. It should report that the signature name is not present in the file.
WG-12006	Entering "-0" in Stereo Offset does not remove the minus automatically.	Stereo Pair offset/separation input should no longer show "-0" value (which is technically correct but may cause confusion)
WG-7426	Export to PowerPoint option is resulting in an empty slide if the report consists of any WMS layers.	This has been corrected.
WG-10718	Extract Terrain needs to migrate into non-third-party operator	Extract Terrain geoprocessing panel was added to M.App X

WG-12465	Feature info balloon is displaying always with same height	Feature info balloon should render based on the count of properties attached to the feature.
WG-12272	Feature information tool detects Annotation, Measurements also as features.	With Feature Information tool active mouse pointer no longer changes to "hand" icon when hovering Annotation and Measurements.
WG-6362	Feature Tools do not work (but highlight) when switching with top mouse modes	
WG-12468	Firefox throws an error when redirecting to login page when loading	
WG-9676	Stereo layers offset can be changed in only one direction.	Stereo Cursor separation can be both increased and decreased by holding CTRL key and using mouse wheel
WG-9671	Inconsistency in the UI behaviour after a WFS layer is added.	
WG-10606	Light theme colour palette makes disabled controls hard to discern.	Colour of disabled buttons in Light Theme makes it easier to distinguish such buttons from active ones.
WG-6124	Line Of Sight chart does not redraw on window resize	Line of Sight graph resizes when browser window changes size.
WG-11835	M.App X crashes trying to draw histogram of SAR data	SAR data can be displayed with no issues.
WG-9267	M.App X cursor does not come out of the selection mode and needs an app restart.	Cursor style was not updated correctly when deleting features.
WG-11979	Misalignment in the add to shoebox dialog in the Split View mode or browser is resized.	Improved the looks of the Add to Shoebox dialog when browser window is small
WG-7417	Mosaic reset locks the elevation source on null, NITF output	Resetting Mosaic geoprocessing panel would cause one of the inputs to be locked with "null" value
WG-4309	Mosaic service has unexplained "Security Data is read" checkbox	Changed label of the Security Data checkbox in Mosaic Panel to be more self-explanatory

WG-8631	Offset separation of stereo pair is not reflected in Overview until the layer is switched OFF and then ON.	Stereo Pair offset/separation is updated live
WG-11638	On Firefox only, the contents of the shoebox are shown after reordering a shoebox.	Shoebox no longer opens when reordering shoeboxes in Firefox
WG-11718	Overview window does not update automatically after removing point cloud.	This has been corrected.
WG-12425	Print (to PDF) preview never shows the correct location of the data in 3D View.	This has been corrected.
WG-11610	Re-ordering of the shoebox items does not work as expected if the filter is ON.	Reordering is disabled when filters are on
WG-12241	Rename labels in the Results section of Measurements panel to match with the tool used.	Improved descriptions of Measurement results
WG-7344	Save Snail Trail dialog should check if a Shoebox is opened	Saving Snail Trail is not available if there is no shoebox open.
WG-11794	Scale Bar misalignment in the Print dialog launched from Report dialog.	Corrected alignment of elements in Create Report
WG-8614	Selected option for sort in shoebox panel isn't persisted even though the items are displayed in the same sort order.	Currently active Shoebox content sorting option is correctly highlighted
WG-11667	Selection tool isn't automatically switched ON if features layer is removed/switched off with Feature Information tool ON.	Default mouse pointer is enabled if there are no layers supporting Feature Info tool are visible.
WG-10990	Some tiles of Point Cloud missing the colouring method while rotating/panning/zooming.	This has been corrected.
WG-6364	Terrain Profile graph does not resize when application is resized	Terrain Profile graph resizes when browser window resizes
WG-9732	Text Box Annotation does not allow line breaks	Text Annotations no longer trim new lines and whitespaces
WG-9693	The disabled Link Views option can be switched ON while auto roam is ON.	The Link Views option can no longer be forced enabled while automatically roaming.
WG-12018	The legend for thematic layer in the Contents panel does not change if Colour Table is changed.	Legend for Thematic Layer shows currently used Colour Table
WG-10579	The order of the features in annotation should be consistently maintained.	Annotations are kept in order of creation

WG-12344	Unable to download Geospatial PDF file.	This has been corrected.
WG-12166	Unable to login into M.App X in Firefox browser.	This has been corrected.
WG-12390	Unable to Remove/Clear the shoebox once after renaming the shoebox.	This has been corrected.
WG-11584	Unchecking the box for one search result should uncheck the box in the header.	"Select All" checkbox is unchecked if all results are not checked
WG-11594	The view goes blank while deleting features.	This has been corrected.
WG-12267	WFS Search does not deselect items after adding them	Added WFS layers get unselected in Add to Shoebox dialog
WG-11823	WFST changes persistence fail with 'Cannot read properties of undefined (reading 'slice')	Persisting edited features works correctly
WG-3443	When you rename shoebox, its current name should be excluded from list of names that are already in use	This has been corrected.
WG-9139	With the moved polygon selected, switching off the feature layer would still display the moved polygon.	All features associated with given layer are hidden when layer is hidden.
WG-12434	With WMS, coordinates are not shown if the base image is removed from the display.	Coordinate readout is no longer hidden when only WMS layer is visible
WG-3822	WMS Connection requires third party service to support WMS v1.1.1	Added support for WMS 1.3.0



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Our technologies are shaping production and people-related ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon's Safety, Infrastructure & Geospatial division improves the resilience and sustainability of the world's critical services and infrastructure. Our solutions turn complex data about people, places and assets into meaningful information and capabilities for better, faster decision-making in public safety, utilities, defense, transportation and government.

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