



Eagleview Oriented Imagery Layers User Guide

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About Oriented Imagery Layers

Oriented imagery layers in Esri applications refers to a feature layer that allows users to visualize images other than those taken from a top-down view in the context of a map or a 3D scene. Although many mapping applications support the view of a typical orthogonal image (overhead view), oriented images can be images taken from any angle. Eagleview takes advantage of Esri's support for oriented imagery by creating a blazing-fast image service for our obliques (our unique hi-resolution 45-degree side angle images). This type of imagery is particularly useful for applications that require a detailed view of specific locations from the side, such as for tax assessment, urban planning, environmental monitoring, and even disaster management.

An **oriented imagery layer** is created from an oriented imagery feature service or an oriented imagery dataset. When added to a map, each point in the layer represents the camera location where an image was captured. The attributes of these points include the path to the stored image and the metadata required to visualize the image in the oriented imagery viewer.

Prerequisites

Eagleview's imagery works with any Esri application that supports oriented imagery layers. As of writing this, the following Esri applications have been confirmed to work with Eagleview's imagery.

- ArcGIS Pro 3.6.3 and higher
- ArcGIS Online
- ArcGIS Enterprise 12.1 and higher
- Experience Builder

Not supported –

- Web App Builder
- Any version of ArcMap

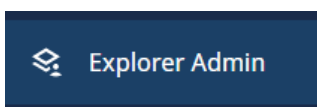
QuickStart Guide

Adding Eagleview's imagery to Esri's Oriented Imagery Layers is easy and powerful, bringing our oblique imagery directly into applications where you need them most.

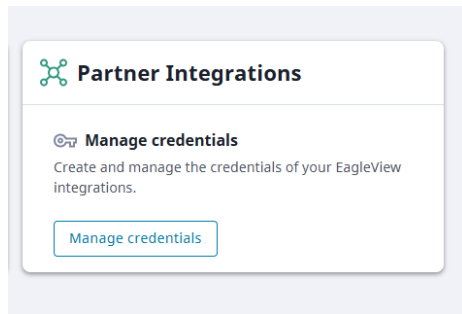
Note - there are small differences between setup of ArcGIS Pro vs ArcGIS Online, so please follow the steps for the specific application.

Creating an API Key

1. Sign into Eagleview Cloud, similar as signing into to Cloud Explorer. <https://apps.eagleview.com/>
2. Select the Explorer Admin application from the blue navigation menu on the left.



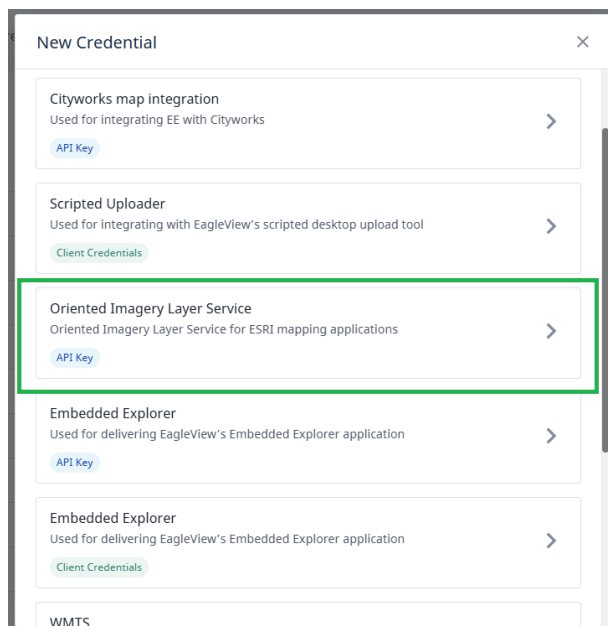
3. Select Manage Credentials under Partner Integrations



If you **do not** see this option within the Explorer Admin app, you need to have the Credential Manager role added within user management. See the user management user guide for tips for how to add roles to users or reach out to [Eagleview customer support](#) for help.

4. Select “+ New Credential”

5. Select “Oriented Imagery Layers, API Key”



6. For the name field, you can type anything you like. We recommend entering the name of the application in which you are adding the oriented imagery. For example, if you are adding it to ArcGIS Pro, enter a memorable name like “OIL_ArcGISPro”. It will make it easier to find this key in the future if you need to reset it.
7. For the description, add any helpful information. It is an optional field.
8. For the Referral Method, you will need to enter the domains or IP addresses for which you will use this key. There are different domains per product.

Product	Domain
ArcGIS Online	https://<your organization>.maps.arcgis.com

	http://www.arcgis.com (must add both)
ArcGIS Pro (add both in the	http://www.esri.com https://orientedimageryassets.assets (must add both)
Experience Builder (AGOL)	https://experience.arcgis.com
Your ArcGIS Enterprise Server (Portal, Map viewer, or Experience Builder)	The domain of your enterprise server

As an example, for ArcGIS Online, add the domain for **your instance** of ArcGIS Online. In the example of Eagleview, it would be something like eagleview.maps.arcgis.com.

The referral method when properly entered will look something like this:

Referral Method *

☐ IP addresses
List IP Addresses below

☒ HTTP referrers
List Domain names below

Domain Names *

Enter up to three domain names. This controls which domain names can use your API key.

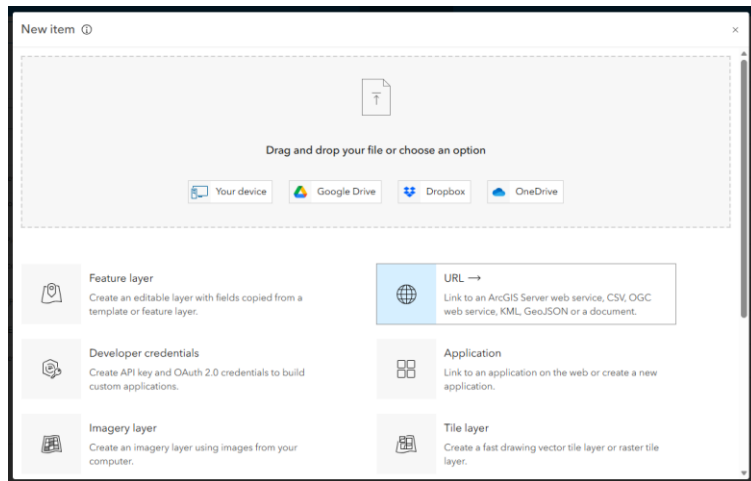
 Delete Credential

Note: You can only add 3 domains per credential. It is recommended you create a separate credential for each Esri product rather than try to create one credential to support all Esri products.

9. Click on "Create". An API key will be generated. Save the API key for step 16 below.

View in ArcGIS Online

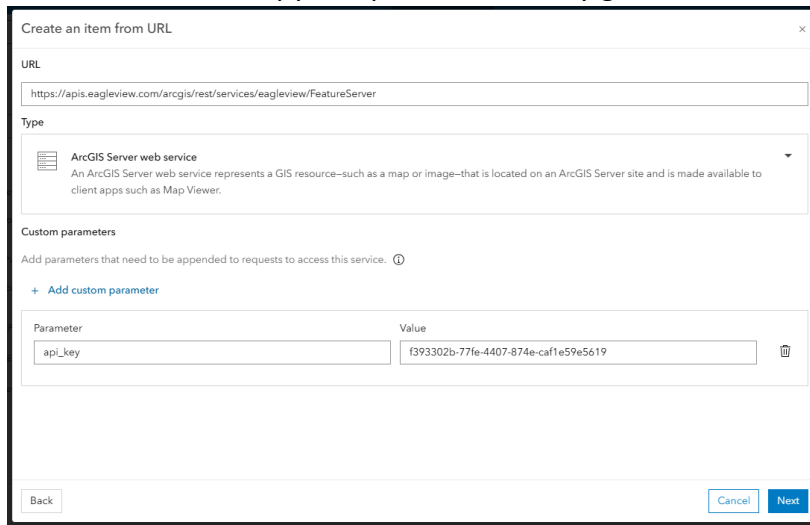
1. Sign into ArcGIS Online
2. You can add from within either the Map Viewer directly or go to the Content page
3. From the Content page top left, select **+New** to add content. From the Map Viewer, select Layers and add Layer from URL.
4. Select **URL** as the content to add



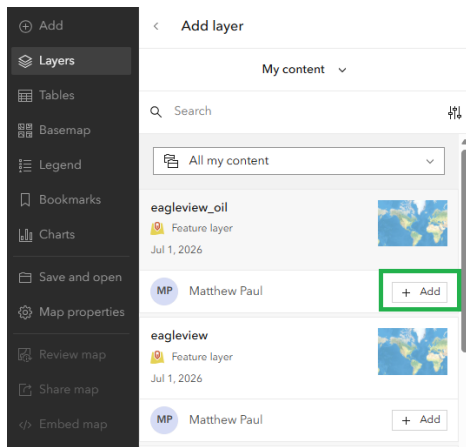
5. Paste in <https://apis.eagleview.com/arcgis/rest/services/eagleview/FeatureServer>
6. You may see an error message. Ignore it. You can click the “X” to close the message.



7. Click + Add custom parameter
8. For the parameter, add “api_key”
9. And for the value, copy and paste the API key generated in the earlier steps.



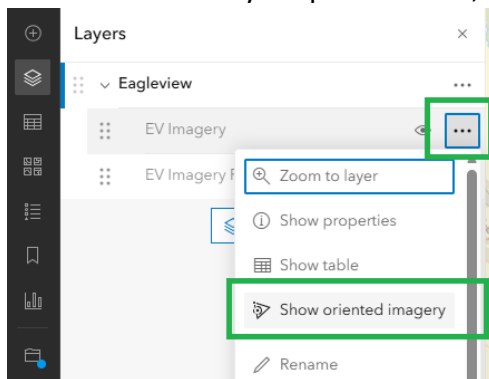
10. Click **Next** and then click **Save** to add the layers to your content.
11. To view the oriented imagery layers either click on “Open in Map Viewer” or in an existing map, click on Add layer and select the oriented imagery layer from the list.



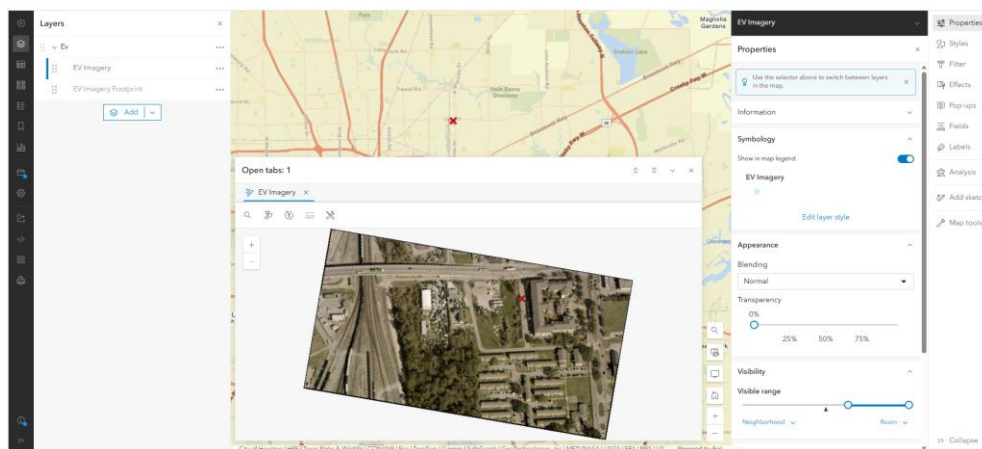
12. Once the layers have been added to the map viewer, now you will see a group of layers (“Eagleview”) with 2 layers underneath it – EV imagery and EV imagery footprint

13. To view obliques, click on the Options icon (3 dots) beside the EV Imagery layer. This will open the options menu for the layer.

14. From within the layer options menu, select **Show oriented imagery**.



15. The Oriented Imagery Viewer will appear, but without any imagery in it. To view obliques, select a point on the map for which you want to view an oblique.

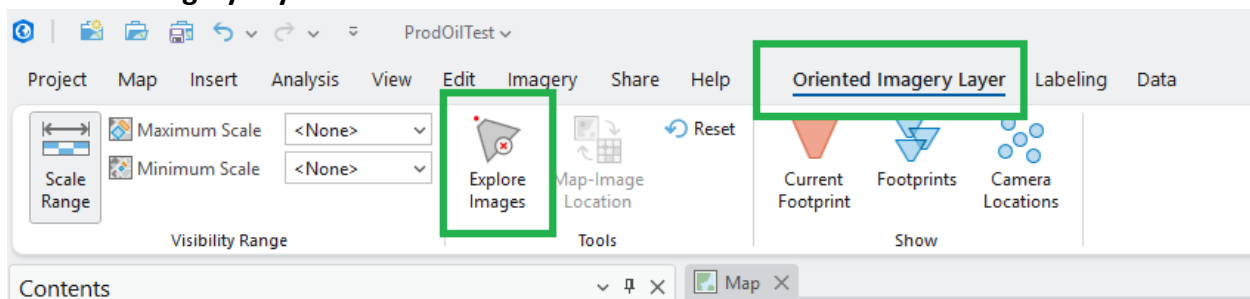


16. Once you have confirmed that obliques are appearing, you can navigate either by continuing to click on the map or by using the navigation tools within the oriented imagery viewer.

View in ArcGIS Pro

Note: You must be on ArcGIS Pro 3.6.3 or higher to use this feature. For the best experience, we recommend you upgrade to the very latest version of ArcGIS Pro.

1. If you haven't already, follow the steps presented earlier in the "Create an API key" for creating a credential and ensure that you have added <https://www.esri.com> to the Referral Method.
2. Sign into ArcGIS Pro
3. Open a new or existing Map
4. In the Map tab, select **Add Data** → **Add Data from Path**
5. Paste in <https://apis.eagleview.com/arcgis/rest/services/eagleview/FeatureServer>
6. Click > to expand Custom request parameters and add
7. For the parameter, add "api_key" (lowercase)
8. And for the value, copy and paste the API key generated in the earlier steps.
9. After clicking on "Add", a prompt will come up asking for a username and password to continue. Do not enter any legitimate combination of credentials or click on cancel. Instead, enter some short, fake credentials and click "OK" three times. This is a known issue within ArcGIS Pro and will be fixed in future versions.
10. The Oriented Imagery viewer will appear on the right side, but for obliques to appear, click on the **Oriented Imagery Layer** tab.



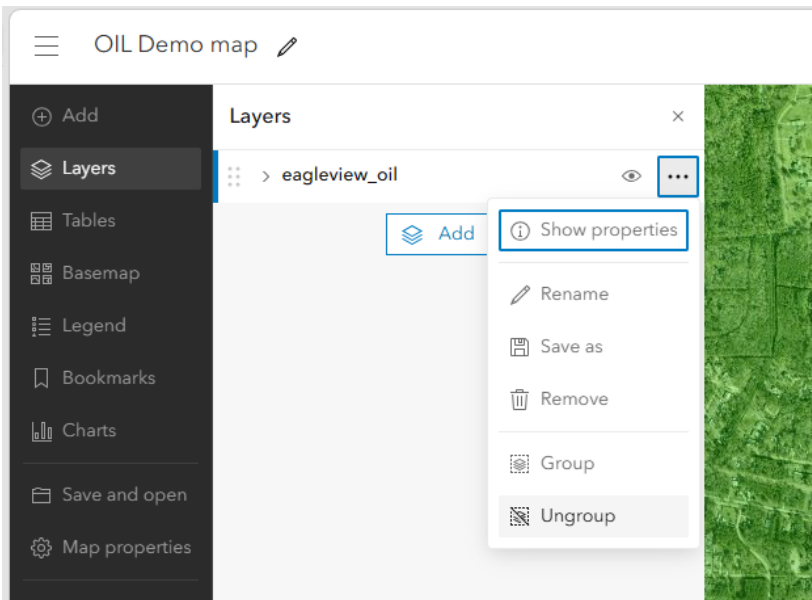
11. And click on **Explore Images**.
12. Then click anyplace on the map and the obliques will appear.

Note: When using ArcGIS Pro, the red X that denotes the location clicked on the basemap may not exactly appear at the same location on the oblique image in the oriented imagery layer widget. This may be because the projection for the spatial coordinate system selected in ArcGIS Pro differs from our imagery. Eagleview imagery uses WGS1984. In future releases, we will automatically reproject the correct coordinate system.

View In Experience Builder

Eagleview does have a custom widget for Experience Builder, but the advantage of OIL over the custom Experience Builder widget is that you don't need to build your app within Experience Builder Dev Edition. No installation of software for your computer is necessary to build using OIL.

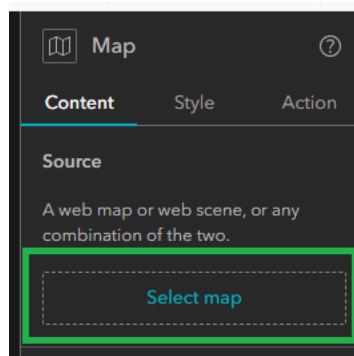
To view oriented imagery in Experience Builder, the oriented imagery layers must first be added to a map in ArcGIS Online. In addition, the OIL layers work best when they are ungrouped. To ungroup the layers after you have added them, click on the **Options** (three dots) to the right of the layer group name. At the bottom of the pull-down menu, select **Ungroup**.



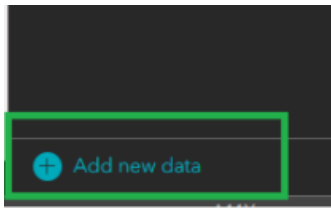
Once the layer has been successfully saved as ungrouped layers to a named map in AGOL, then open Experience Builder.

From within Experience Builder, here are the basic setup instructions to get OIL working.

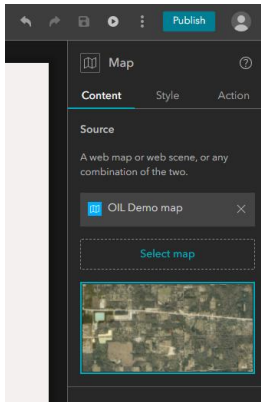
1. In the widget menu on the left, drag a standard map widget into the blank canvas. A map widget is always required to get OIL to work.
2. To configure the map for OIL, click on **Select Map**



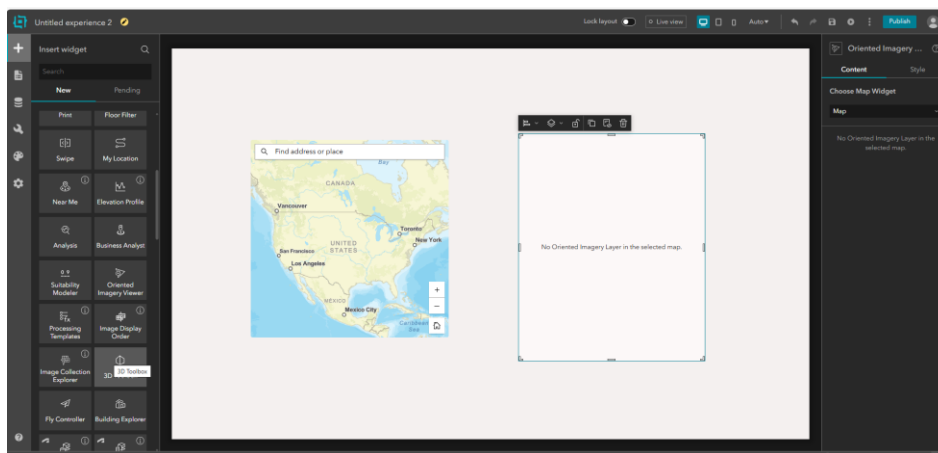
3. At the bottom, click on **Add new Data**



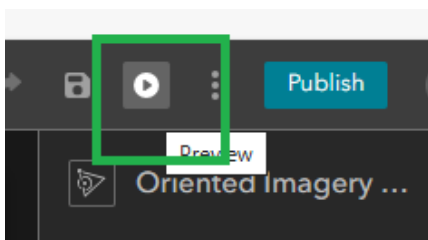
4. Now select a Web Map that you've already created in ArcGIS Online that has the ungrouped Oriented Imagery Layers added to it.
5. If you've done it correctly, the settings for the map will look like this.



6. In the widget menu on the left, scroll down until you find the Oriented Imagery Viewer widget. Drag that widget into the canvas next to the map widget you've already placed.



7. Now do a test run to see if the widget works correctly. Save the Experience builder widget and click on Preview



Clicking on the main map will now bring obliques in the OIL viewer

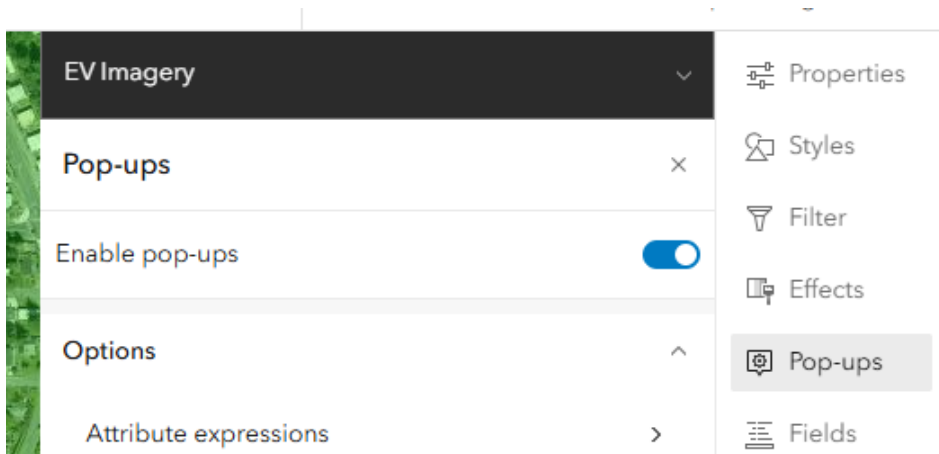
Tips for Using OIL with Eagleview imagery

Esri provides a full user guide for OIL [here](#). However, there are also some helpful tips to improve your experience.

Navigation. OIL supports several navigation tools to view the full imagery catalog. For Eagleview imagery, we recommend you turn on the compass navigation to view the obliques in the 4 cardinal directions. Clicking on a blue dot in the compass will switch to the oblique in that direction.

Note: Currently only the most oblique recent imagery is available. In future updates, we will support the ability to select from older imagery captures.

Viewing the image date. It is possible to view the date of when the image was captured from within OIL. Ensure that pop-ups are turned on and that an oblique image is selected.



The date will be the top item in the meta data table.

A screenshot of a metadata table for 'EV Imagery: 1909495858'. The table has two columns: 'Name' and a value column. The values include acquisition date, camera heading, height, offset, pitch, roll, distances, HFOV, image path (with a 'View' link), rotation, and VFOV. The 'OI Type' is listed as 'oblique'.

Name	
Acquisition Date	2026-04-26T19:39:57Z
Camera Heading	96.99093627929688
Camera Height	3071.95767385629
Camera Offset	-4716.004548968747;583.1753544555977
Camera Pitch	46.169647216796875
Camera Roll	-8.455763020181024
Far Distance	5167.669320930727
HFOV	7.763131303673875
Image Path	View
Image Rotation	6.990936279296875
Near Distance	2941.5486633718806
OI Type	oblique
VFOV	4.098364883098249

Troubleshooting

Issue: I'm not seeing any obliques at a location.

Solution: If you click on the map and there are no obliques, imagery may not be available at that location, or you may not be entitled to imagery at that location. To confirm if there are obliques available, zoom in so that the EV Imagery Footprint is visible. It will display a green tint on the map. If you do not see the EV Imagery Footprint, then it is likely that you cannot access the imagery at this location.