EagleView® for ArcGIS Pro – Connect User Guide

For ArcGIS Pro Version 3.1 - 3.3

October 2024

eagleview™

© 2024 EagleView Technologies, Inc. All Rights Reserved.

No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic or mechanical, including photocopying, recording, or otherwise, without the prior written permission of EagleView Technologies, Inc.

EagleView and the Compass Rose are trademarks or registered trademarks of EagleView Technologies, Inc. All other EagleView trademarks are trademarks or registered trademarks of Eagle View Technologies, Inc. All other brands or products are the trademarks or registered trademarks of their respective owners.

EagleView Technologies, Inc.
25 Methodist Hill Drive
Rochester, NY 14623

Printed in the United States of America
Documentation for Add-in Version 2.0.1
October 2024

Contents

Introduction **1**

Installing the add-in **1**

After installation **2**

The EagleView tab **2**

Logging in **5**

The Image Viewer window **6**

Viewing images **7**

The image polygons and current location marker 7

Synchronization 8

Viewing a different image of the same area 8

Viewing from a different direction 9

Zooming in and out 9

Panning images **9**

Panning while a tool is active 10

Searching for images by street address **10**

What happens next 10

Tips for better search results 11

Searching by coordinates 11

Guidelines for entering coordinates: 11

Viewing GIS layers on your imagery **11**

Using measurement tools **12**

Changing units of measure 12

Measuring distance and perimeter 12

Measuring height 12

Measuring area 12

Measuring elevation 13

Viewing the coordinates of a location 13

Measuring bearing and angles 13

Extracting images **14**

Before extracting 14

Extracting an image 15

Saving orthogonal images **15**

Identifying GIS layers **15**
Why do I see two Identify Results windows? 15

Add-in settings **16**
The EagleView for ArcGIS Pro Settings dialog box 16
Display tab 16
Options tab 18
Update Checker tab 19

Sending feedback **19**

Troubleshooting **20**

Updating ArcGIS Pro **20**

Updating the EagleView add-in **20**

Removing an older version of the add-in **21**

Introduction

The EagleView® for ArcGIS Pro – Connect add-in integrates EagleView imagery into ESRI's ArcGIS Pro product.

After you install the EagleView add-in in ArcGIS Pro, an EagleView tab appears on the ribbon. The EagleView tab gives you access to EagleView tools and features, including tools that let you analyze images (available while logged in) .

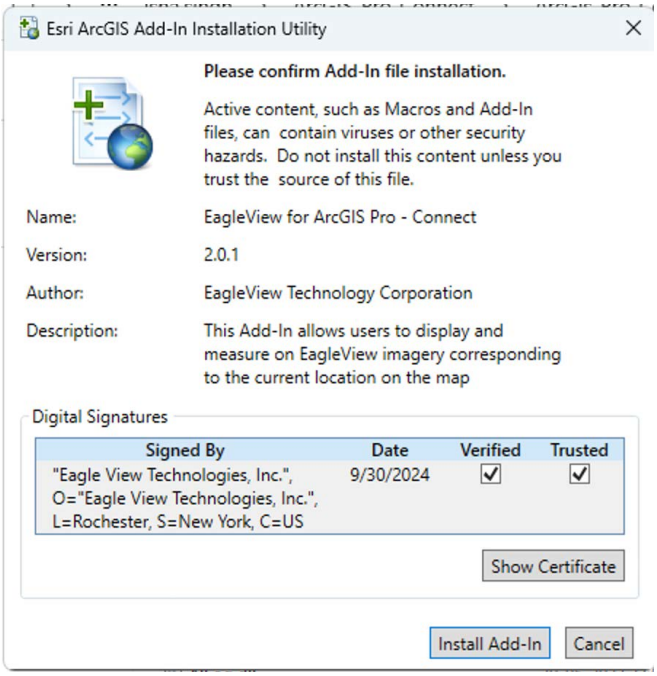
To view EagleView imagery, you'll click the EagleView Select Location button (in the EagleView tab of the ribbon) and then click a point in the ArcGIS Pro Data Frame. Once you've logged in, the add-in opens an EagleView image for the location you clicked.

Installing the add-in

This topic describes the tasks required to install the EagleView for ArcGIS Pro - Connect add-in version 2.0.1 in ArcGIS Pro Version 3.1. You'll install it just as you would any other ArcGIS Pro add-in. The EagleView add-in is called "**EagleView for ArcGIS Pro - Connect.esriAddinX**".

To install the add-in:

1. Make sure that ArcGIS Pro is closed.
   If you don't already have the link to the EagleView Software Downloads website from which you can download the add-in, please contact your EagleView Sales Representative for it.
2. Download and save the EagleView ArcGIS Pro add-in from the EagleView Software Downloads website.
3. Double-click the **EagleView for ArcGIS Pro - Connect.esriAddinX** file. The ESRI ArcGIS Add-In Installation Utility opens and displays the following dialog box.



4. Click **Install Add-In**. The add-in is installed and a dialog box confirms if the installation was successful.

After installation

Once installed in ArcGIS Pro, the EagleView add-in is loaded automatically when you open ArcGIS Pro. In order to see the EagleView tab (on the ArcGIS Pro ribbon), you must have a map open.

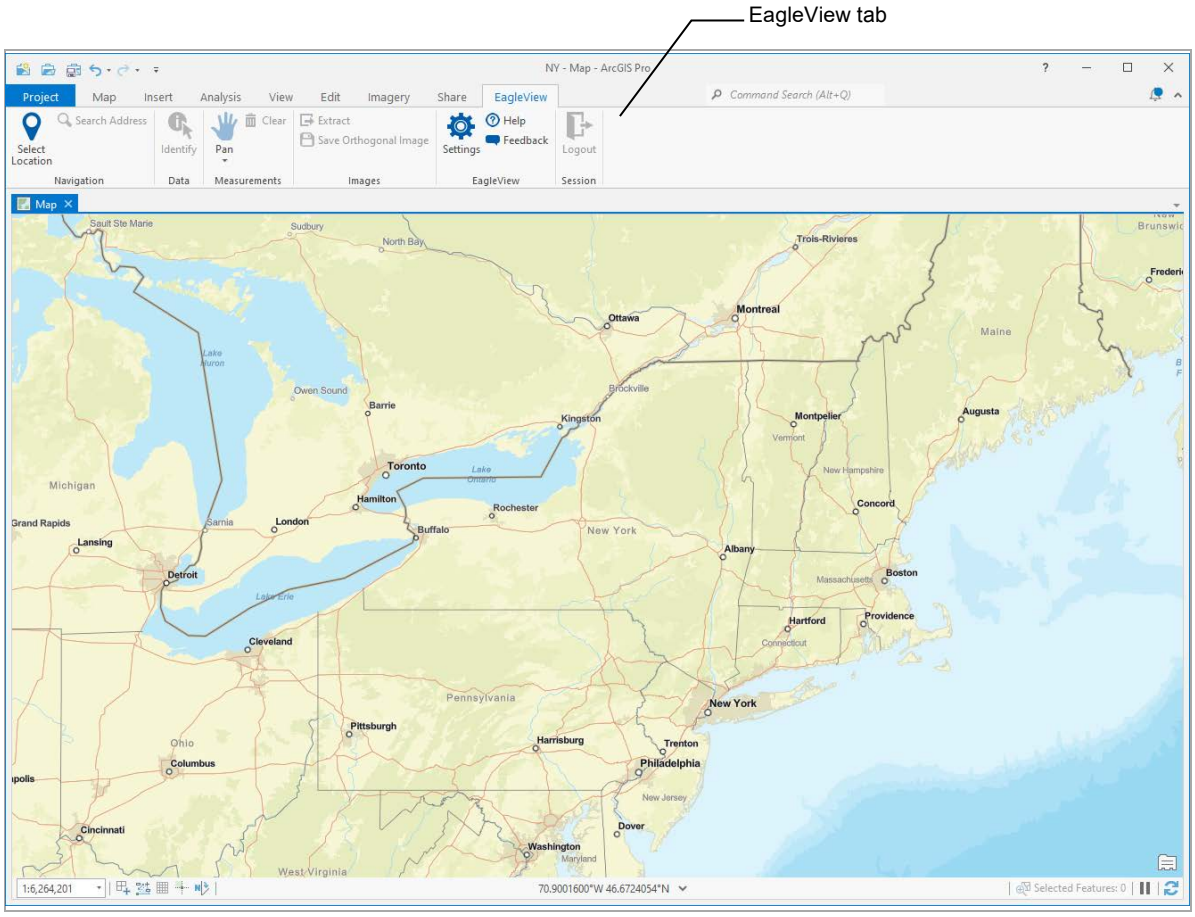


Figure 1: *The EagleView Add-in after installation.*

The EagleView tab

The EagleView tab contains various buttons for using the add-in's features.

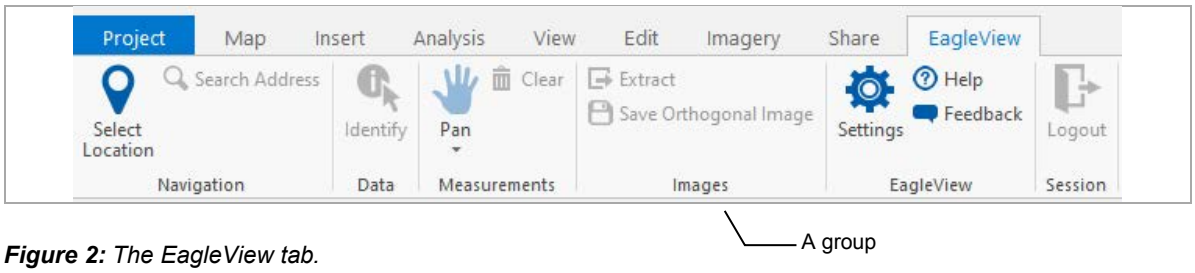


Figure 2: *The EagleView tab.*

> **Note**: Some groups (like Measurements) are not available until you search for and display an image. However, the Select Location, Settings, Help, and Feedback buttons are always enabled.

The “Pan” button in the Measurements group has a pull-down menu that contains a button for each measurement tool.

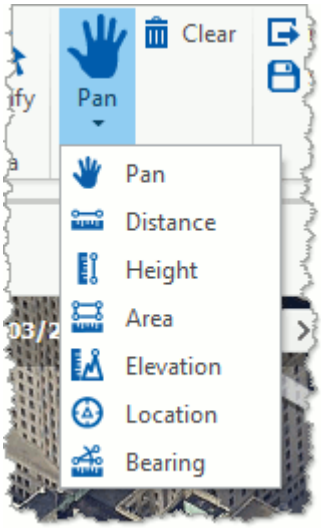


Figure 3: *Measurement tools.*

The EagleView tab contains the following buttons.

Tool	Description
Select Location	Searches for images containing the geographic point you clicked in the ArcGIS Pro Data Frame. **Note**: If the Select Location tool is active, you can pan the ArcGIS Pro map by dragging the map. You don’t need to select ArcGIS Pro’s Pan tool first.
Search Address	Lets you search for an image that shows the street address you enter.
Identify	Lets you identify all GIS layers within a region by drawing a rectangle around that region in the image.
Pan	Scrolls the image around in the Image Viewer window.
Distance	Measures the distance between two points in an image or the cumulative distance along a series of straight-line segments.

Tool	Description
Height	Measures the height of a building or an object in an oblique image, starting from the ground.
Area	Calculates the area of any part of an image.
Elevation	Gives the elevation above sea level of a location in an image.
Location	Lets you view the coordinates of a location in an image.
Bearing	Measures the bearing (the orientation from True North) of an angle you outline in the active image.
Clear	Removes all measurement annotations from the Image Viewer window.
Extract	Lets you select a portion of the image in the Image Viewer window and export it to a JPG file. The extracted image is saved to the file with the options you specified on the EagleView for ArcGIS Pro Settings dialog box.
Save Orthogonal Image	Lets you save an orthogonal image as a GeoTIFF file.
Settings	Opens the EagleView for ArcGIS Pro Settings dialog box so you can change the add-in's settings (such as units of measure).
Help	Opens this user guide locally on your computer.
Feedback	Opens a feedback form. Use this form to provide feedback about the add-in when you do not need a response or technical support. If you need technical support, please follow the normal customer support process so that we can handle your questions or problems as quickly as possible.
Logout	Logs you out of the EagleView for ArcGIS Pro - Connect add-in.

Logging in

Before you can view any images, you'll need to log in to the add-in with the credentials for your CONNECT account. The Login page appears in the Image Viewer window after you click the Select Location button on the EagleView tab and click a location in ArcGIS Pro.

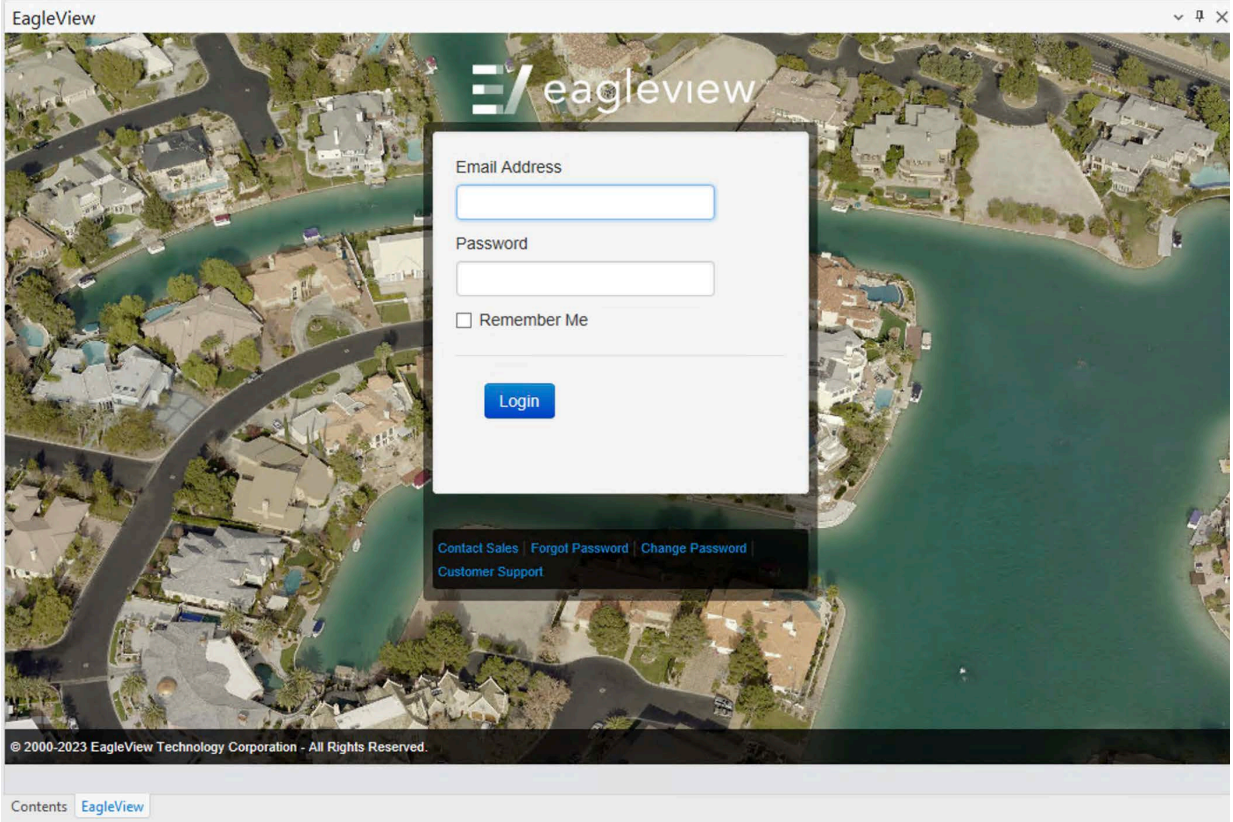


Figure 4: *The Login page.*

The first time you log in to the EagleView add-in, a software license agreement opens. Click **I Accept** to agree to the license terms and open the Image Viewer window.

If you need to change your password at any point, use the following procedure.

To change your password:

1. Click **Change Password**. The Login page now displays fields for you to enter your current and new passwords.
2. Enter the email address you use to log in and your old password. Then enter a new password twice and click **Change**.

The Image Viewer window

The EagleView Image Viewer window opens only after you click the Select Location button and click a point on your ArcGIS Pro map. After you log in, images are displayed in the Image Viewer window.

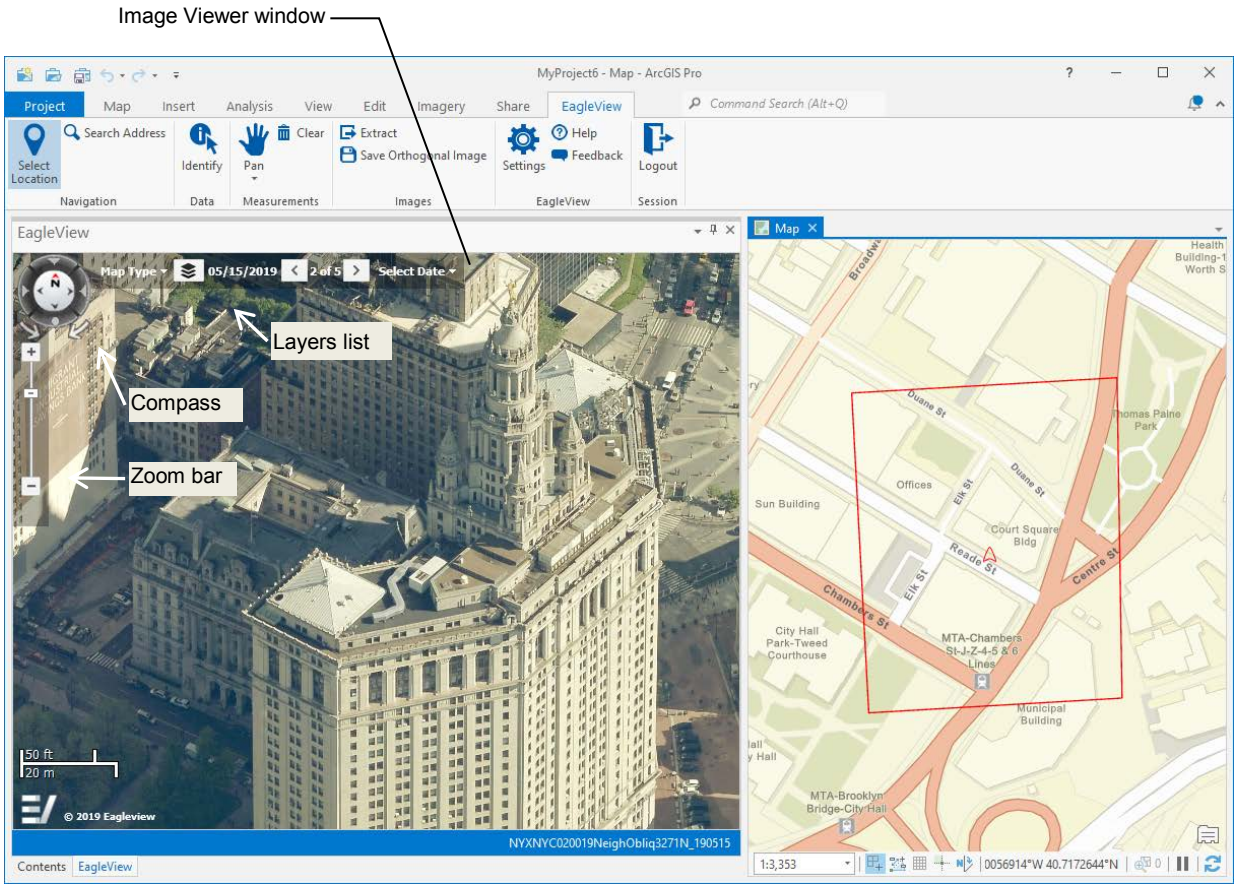


Figure 5: *The Image Viewer window.*

The Image Viewer window can be resized, moved, docked, undocked, or closed, just as with any other window in ArcGIS Pro. On-image navigation controls allow you to change image zoom or view different images or map types. (These features are discussed later in this guide.)

To move the Image Viewer window:

1. With the mouse pointer, grab the title bar of the Image Viewer window and drag it to another spot on the screen.

> **Tip**: When near another docked part of the screen, the window will automatically try to attach (dock) to the other area. To prevent the window from docking, hold down the **CTRL** key until you decide where to locate the window.

2. Release the mouse button. If you're trying to dock the window, release the CTRL key. (The window will not dock as long as CTRL is held down.) If it's not near a docked area, the window floats on the ArcGIS Pro application.

To close the Image Viewer window:

- Click its Close button (**X**).

Viewing images

To view images in the Image Viewer window, click the **Select Location** button (on the EagleView tab) and then click a location in your map. The Image Viewer window shows the best north-up image for the location you clicked. (If there are no north-up images, then the best available image is displayed.)

If overlays are enabled (on the Settings dialog box) , the image displays any line, point, and polygon layers currently displayed on your ArcGIS Pro map.

The image polygons and current location marker

Depending on your display settings, the following polygons might appear on the ArcGIS Pro map when you open an image in the Image Viewer window:

- **view-region polygon** (footprint of the area currently visible in the Image Viewer window)
- **image polygon** (footprint of the entire image)

These polygons help you stay oriented between the image in the Image Viewer window and the map in the Data Frame.

> **Tip**: To change your user settings, click the **Settings** button on the EagleView tab.

The add-in also displays a **current location marker** in the Data Frame. The current location marker indicates the location you are currently viewing in the Image Viewer window. If you click a new location in the image (or use the Select Location button to navigate to a different location), the add-in updates the current location marker on the map.

The following map shows an image polygon, view-region polygon, and current location marker.

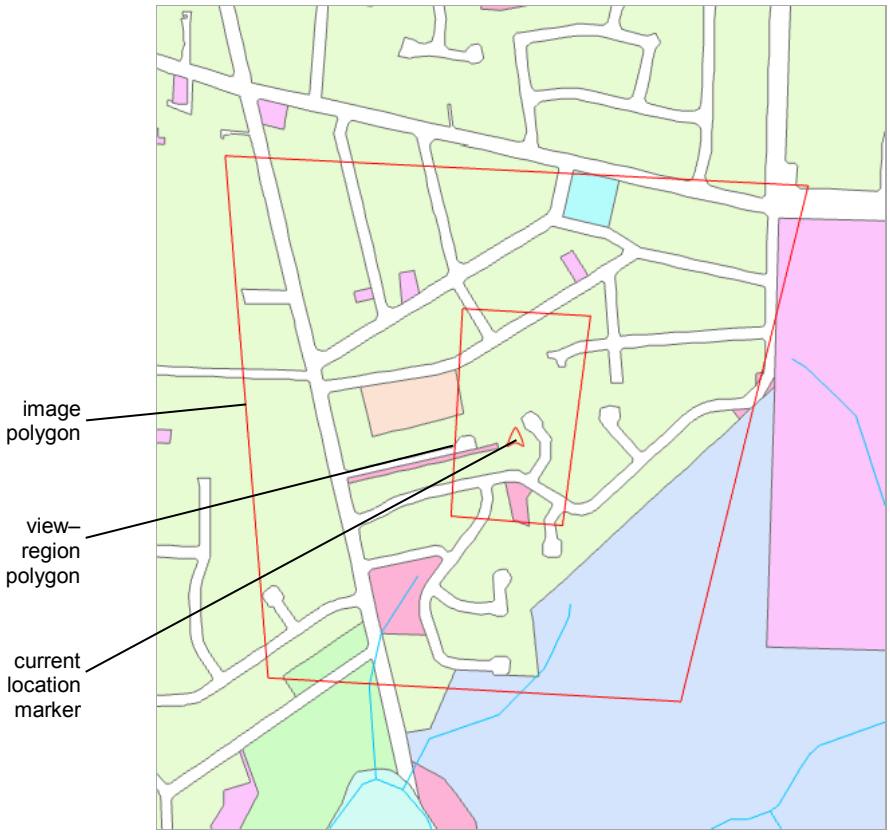


Figure 6: *Image polygon, current location marker, and view-region polygon in the Data Frame.*

Synchronization

By default, the image and the ArcGIS Pro map are not synchronized. However, if synchronization is turned on (in Settings) , then when you click a new location in the image or navigate to a different location, the add-in moves the current map to the same location, so the image and map stay synchronized. (You can turn on synchronization or change how the image and map are synchronized on the Settings dialog box. See page 17 for more options.)

Viewing a different image of the same area

If more than one image of the same (or similar) orientation is available for the current location, you can view those other images. The EagleView add-in keeps a list of available images. The Image Viewer window shows how many images are in the list, as well as which of the images you're currently viewing. (For example, "1 of 44" means the first image of 44 is currently displayed.)

To view a different image of the same area:

- Use the Previous image and Next image buttons.



A different image of the same location, taken from the same direction opens.

> **Note**: At the end of the list, the Next image button retrieves the first image in the list. At the beginning of the list, the Previous image button returns the last image in the list.

Zooming in and out

Zooming in and out allows you to view images taken at different altitudes (shot levels). For example, Neighborhood images are taken from a lower altitude, allowing you to focus in on details, such as fire hydrants or building heights. Community images—shot at a higher altitude to show more geographic area—are helpful for locating and navigating to points of interest.

You'll use the Zoom bar to zoom in or out.

To zoom in or out:

Do either of the following:

- To change the zoom incrementally, either drag the Zoom bar's slider, or click the Zoom bar's minus sign (-) to zoom out and its plus sign (+) to zoom in.
- To jump directly to a zoom level, move the mouse to the right of the Zoom bar until the Zoom Shortcuts (icons) appear. Click the icon for the level you want to zoom to.

Panning images

The Pan tool lets you see a different part of an image by dragging your mouse. When you pan to the edge of an image, the application automatically displays the next adjacent image.

If the "synchronize map and image to each other" option is selected (on the Display tab of the Settings dialog box) , the map and the EagleView image automatically stay synchronized on the same geographic area when you pan.

To pan the image:

1. On the EagleView tab, click **Pan** (if the tool is not already active).
2. Drag the image in the desired direction, and then release the mouse button.

Panning while a tool is active

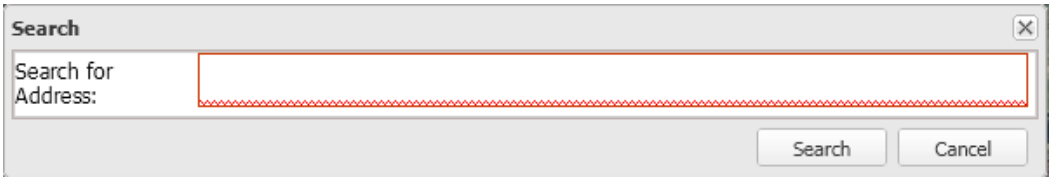
You can easily pan the current image while a measurement tool is active by simply holding down the left mouse button and dragging the image. When you release the mouse button, the tool that was active before you panned is still selected, so you can continue to use that tool without having to click it again.

Searching for images by street address

You can search for images by a street address in a specific city by entering the address, city, state, and zip code as search criteria. But you can also search more generally for that address to find it in multiple cities by leaving the city, state, or zip code out of the search criteria you enter. Alternatively, you can enter lat/long coordinates to search for images that show that location.

To search by street address:

1. On the EagleView tab, click **Search Address**. The Search dialog box opens.



2. Type the search criteria (the partial or complete street address).
3. Click **Search**.

What happens next

If …	This happens …
The address is found	The Image Viewer window displays an image that shows the location of the address you typed.
The application cannot find an image that shows that address.	No image appears. The address might be outside the area for which you have image coverage.
You entered a partial address	The Image Viewer window displays the center of the geographic area in which that address is located. For example, if you entered a zip code only, you'll see the center of the geographic area that has that zip code.

Tips for better search results

You might get better results when searching if you use more commas between the parts of the address than you would normally use.

For example:

Instead of "**Apt. B 123 Main Street, Anywhere, NY**"
Enter this "**Apt. B, 123, Main Street, Anywhere, NY**"

Searching by coordinates

To search by coordinates:

1. On the EagleView tab, click **Search Address**. The Search dialog box opens.
2. Type the lat long coordinates of the location you wish to search for. (See the following guidelines.)
3. Click **Search**.

Guidelines for entering coordinates:

- Enter the latitude and longitude as degrees. Example: 43.067112,-77.643156
- Enter a comma between latitude and longitude. Do not use a slash (/).
- Do not use the symbol for seconds (') or the symbol for minutes (").
- Enter only one space between degrees minutes and seconds. (More than one space is considered invalid.)

Viewing GIS layers on your imagery

You can view GIS layers on your imagery by selecting them from the Layers list. If you have layers visible in the ArcGIS Pro map, you can also view those layers on your images.

To view EagleView GIS layers:

1. Click the **Layers** button  in the Image Viewer window.
2. Select the check boxes for the layers you wish to view.

To view layers shown on the ArcGIS Pro map:

1. On the EagleView tab, click **Settings**.
2. On the Settings dialog box, click the **Display** tab.
3. In the “Vector overlays on Image” section, select or clear the buttons and check boxes, as desired.
   - *To overlay all visible elements*, select **Overlay all Elements**.
   - *To overlay only selected elements*, select **Overlay Selected Elements**. Then use the ArcGIS Pro Selection tool to highlight the elements on the map. Those elements will be drawn on EagleView images.

   The overlays are drawn in the same color as the layer in the map.

Using measurement tools

The EagleView add-in offers various tools for measuring what you see in an image. For example, you can measure the distance between two points, the elevation of the terrain, building heights, bearing, area, perimeter, and the coordinates of a point. After measuring, you'll see the measurements on the image in the Image Viewer window.

Before using the measurement tools, be sure that the unit of measure is set as desired.

Changing units of measure

To change units of measure:

1. On the EagleView tab, click **Settings**. The EagleView for ArcGIS Pro Settings dialog box opens.
2. Click the desired units: **Meters** or **Feet**.
   Your changes remain in effect until you change units again.

Measuring distance and perimeter

You'll use the Distance tool to measure the distance between two or more points in one or more images, and to measure perimeter—the distance around the outside edge of any object.

To measure distance or perimeter:

1. On the EagleView tab, in the Measurements group, click the down arrow, and then click **Distance**.
2. Click the point at which to start measuring.
3. (Optional) Click multiple points to measure multiple segments.
4. Double-click where you want to stop measuring.

Measuring height

The Height tool lets you measure the height of an object in an oblique image. (Because orthogonal images are captured straight down, the Height tool does not apply to them.)

To measure height:

1. On the EagleView tab, in the Measurements group, click the down arrow, and then click **Height**.
2. To measure from the ground up, click the ground point of the object to be measured.
   To measure from the top down, click the top point of the object to be measured.
3. Double-click where you want to stop measuring.

Measuring area

The Area tool lets you measure the area of any shape, whether it has curved or straight sides.

To measure the area of a shape:

1. On the EagleView tab, in the Measurements group, click the down arrow, and then click **Area**.

2. Click the desired starting point.
3. Outline the shape to be measured, by clicking points on its perimeter.
4. When you've outlined the entire shape, double-click to end the measurement.

Measuring elevation

Use the Elevation tool to measure the elevation (height above sea level) of a location in an image.

To measure the elevation:

1. On the EagleView tab, in the Measurements group, click the down arrow, and then click **Elevation**.
2. Click the point whose elevation you want to measure.

Viewing the coordinates of a location

Use the Location tool to view the coordinates of a location in an image or map.

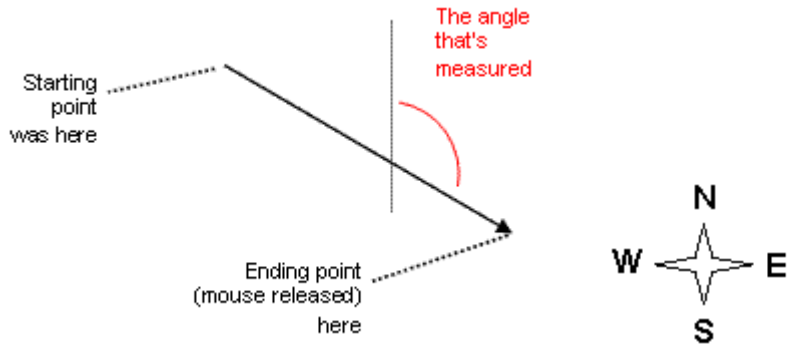
To view a location's coordinates:

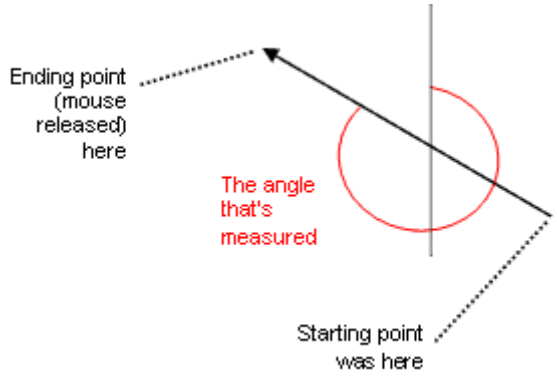
1. On the EagleView tab, in the Measurements group, click the down arrow, and then click **Location**.
2. Click the desired location in the image.
   The current location marker moves to the new location on your map.

> **Note**: For oblique images, click nearby the base of buildings for more accurate coordinates.

Measuring bearing and angles

Use the Bearing tool to measure the bearing of a line or the angle formed by the intersection of two lines in an image. How you draw the line is important, as shown in the following illustrations:



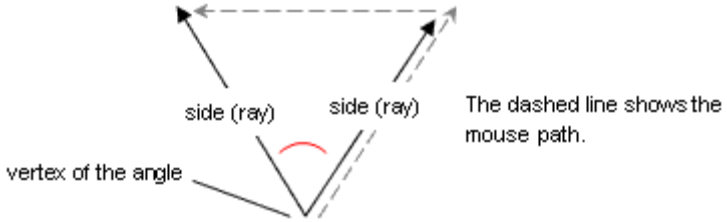


To measure bearing:

1. On the EagleView tab, in the Measurements group, click the down arrow, and then click **Bearing**.
2. Click the starting point.
3. Double-click the ending point.

To measure an angle:

1. On the EagleView tab, in the Measurements group, click the down arrow, and then click **Bearing**.
2. Click the starting point (the vertex of the angle) .



3. Double-click the end point of the second ray of the angle.

Extracting images

To export only a portion of the (oblique or orthogonal) image shown in the Image Viewer window, you'll draw a rectangle around that part of the image with the Extract tool. The rectangle defines the part of the image to be extracted. The file is generated in the format currently selected on the Options tab of the Settings dialog box.

Before extracting

Before you extract an image, set up image-extraction defaults on the EagleView for ArcGIS Pro Settings dialog box.

To set up extraction defaults:

1. On the EagleView tab, click **Settings**.
2. On the Settings dialog box, click the **Options** tab.
3. Select a default file format from the File type list.

4. (*Optional*) Select or clear the checkboxes for removing the compass, overlays, and shot date, as desired.

Extracting an image

To extract a portion of an image:

1. On the EagleView tab, click **Extract**.
2. Click one corner of the rectangle that will define the region to be extracted.
3. Click the corner that is diagonally opposite to the first corner.
4. Save the file to your hard drive and note the name of the folder to which the file was saved. (Your browser might automatically save the file to the "Desktop" folder, or it might allow you to navigate and choose the folder to download the file to.)

Saving orthogonal images

If you're viewing an orthogonal image, you can use the **Save Orthogonal Image** button on the EagleView tab to save the entire orthogonal image shown in the Image Viewer window as a GeoTIFF file. (This option applies only to orthogonal images and always saves the image in GeoTIFF format.)

Identifying GIS layers

If you have access to GIS data for your imagery, you can identify all GIS layers within a region by drawing a rectangle around that region in the image. All GIS objects within or touching the boundary of that region are outlined and shaded in color.

> **Note**: To identify GIS layers, you must have access to GIS data for your imagery.

To identify GIS data within the EagleView add-in:

1. On the EagleView tab, click **Identify**.
2. In your image, click one corner of the rectangle that will define the region to be identified.
3. Click the corner that is diagonally opposite to the first corner.

   The Identify Results window (or windows) appears and displays the data.

Why do I see two Identify Results windows?

If EagleView street or parcel layers are turned on (in the Image Viewer window's Layers list), those layers can be identified, in addition to any layers in the ArcGIS Pro Data Frame. Results from EagleView layer data appear in a separate Identify Results window from that of ArcGIS layer data.

Add-in settings

The EagleView add-in has various properties that affect searching for and viewing images. Clicking the Settings button in the EagleView tab opens the EagleView for ArcGIS Pro Settings dialog box, on which you can set options such as units of measure.

> **Note**: The settings are updated when you click **Ok**. There is no need to restart ArcGIS Pro.

The EagleView for ArcGIS Pro Settings dialog box

Display tab

You'll use the Display tab the EagleView for ArcGIS Pro Settings dialog box to set up various options that affect how images are displayed and how labels appear in your ArcGIS Pro Data Frame.

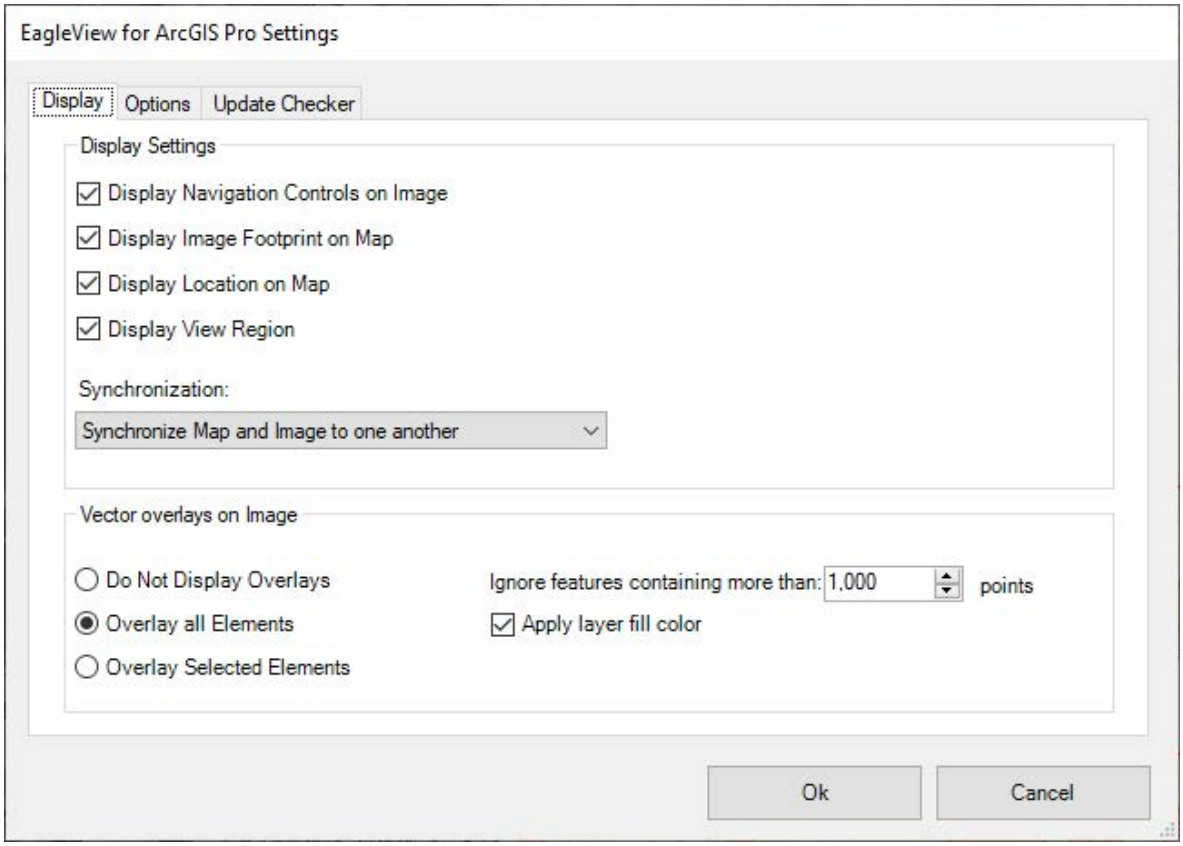


Figure 7: *Display tab.*

The Display tab contains the following options.

In this field …	Do this …
Display Navigation Controls on Image	Select this option if you want navigation controls (Zoom bar, Compass, Map Type list, etc.) displayed in the upper left corner of the Image Viewer window. (The navigation controls are shown in Figure 5 on page 6.)
Display Image Footprint on Map	Select this option if you want an image polygon to be shown on the map. The image polygon represents the footprint of the entire image, not just the portion shown in the Image Viewer window.
Display Location on Map	Select this option if you want the current location marker to be shown on the map.
Display View Region	Select this option if you want a view-region polygon to be shown on the map. The view-region polygon represents the part of the image that is currently visible in the Image Viewer window.
Synchronization	Select one of these options for synchronizing the map and EagleView image. • **None - No synchronization** — Does not synchronize the workspace and the image to each other when one is moved or panned. • **Rotate Map to Image Footprint** — Automatically rotates the map to match the orientation of the image in the Image Viewer window. For example, if your image is south-up (taken from the north), selecting this checkbox causes the add-in to rotate the map so it is south-up. • **Zoom Map to Image Footprint** — Automatically magnifies the map to show the area within the EagleView image footprint (image polygon) . • **Synchronize Image to Current Map Location** — Automatically synchronizes the EagleView image to match the center of the map as the map is moved. • **Synchronize Map to Current Image** — Automatically synchronizes the center of the map to match the center of the EagleView image, as the image is panned. • **Synchronize Map and Image to one another** — Causes the map and the EagleView image to automatically stay synchronized on the same geographic area when you pan either one.
Vector overlays on Image	Select how you want vector overlays displayed on EagleView images. If you choose to display overlays, the vectors are drawn in the same color as the layer in the map. To overlay selected elements, use the ArcGIS Pro Selection tool to highlight the elements on the map. Those elements will be drawn on the EagleView images as well.

In this field …	Do this …
Ignore features containing more than <XXX> points	Very large polygons can take a long time to draw on the EagleView image. This option allows you to ignore very large polygons when displaying overlays on EagleView images. The value can be anywhere from 10 points to 10,000 points, with a default value of 1,000.

Options tab

You'll use the Options tab to set the units of measure in which measurements are shown, extract image options used by the Extract tool, and options for displaying EagleView layers on images.

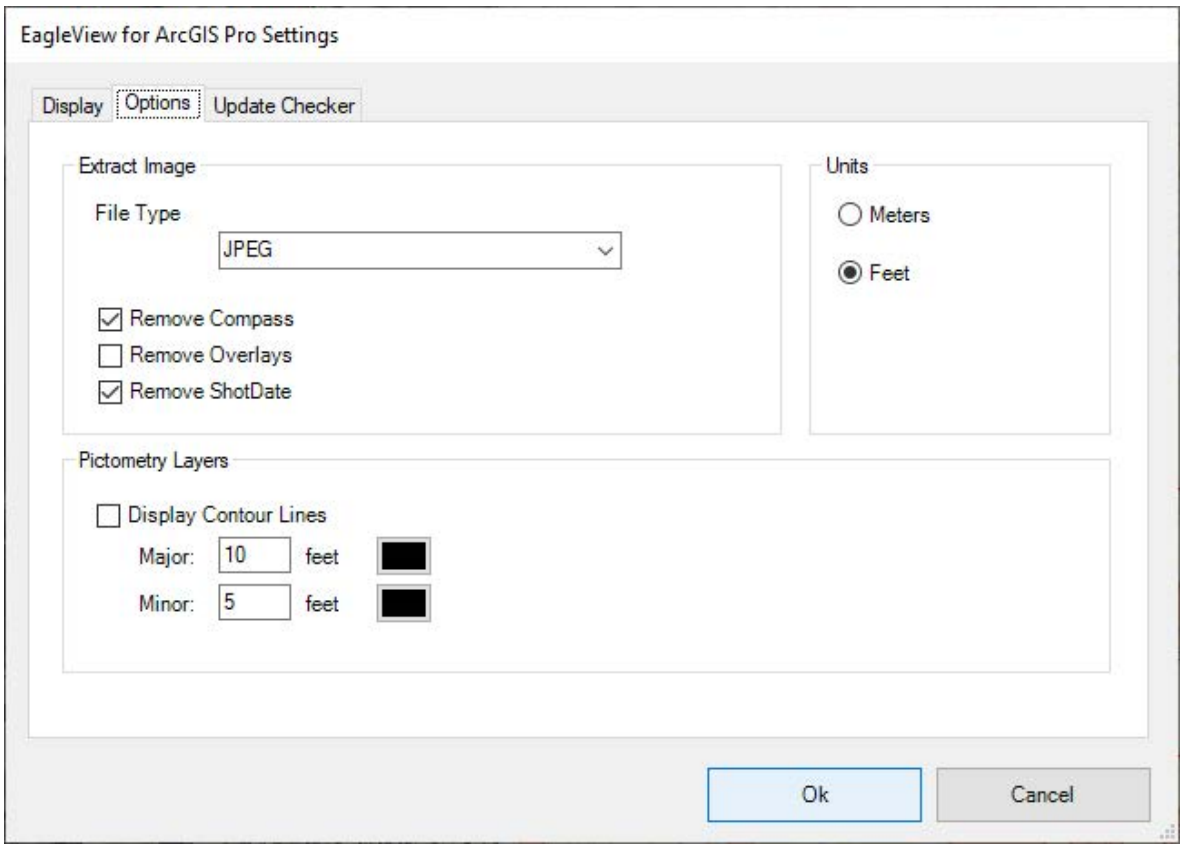


Figure 8: *Options tab.*

The Options tab contains the following options.

In this field …	Do this …
File Type	Select the format in which to save the extracted image.
Remove Compass	Select this option if you do not want a compass overlaid on the extracted image.
Remove Overlays	Select this option if you do not want overlays on the extracted image.

In this field …	Do this …
Remove ShotDate	Select this option if you do not want the shot date overlaid on the extracted image.
Units	Select the unit of measure in which measurements should be displayed.
Display Contour Lines	Select this option to view contour lines on your images. You can also change the distance between major contour lines and between minor contour lines, if desired.

Update Checker tab

You'll use the Update Checker tab if you want to turn on or off automatic checking for updates. (By default, the add-in checks for updates every time it's started.) You can also check for updates at any time while the add-in is open by clicking **Check for updates now** on this tab.

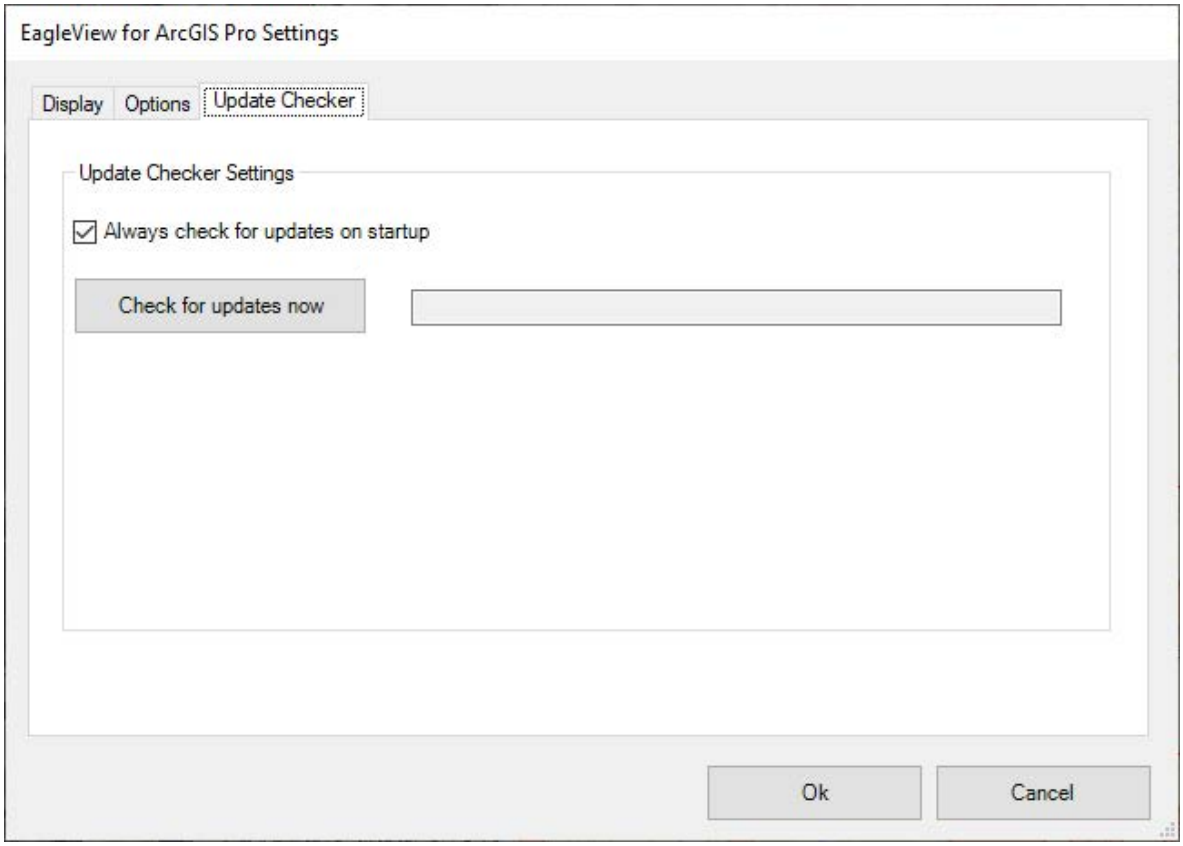


Figure 9: *Update Checker tab.*

Sending feedback

To provide feedback about the Connect add-in, click **Feedback** (on the EagleView tab) and complete the feedback form. Use this form to provide feedback when you do not need a response or technical support.

If you need technical support, please follow the normal customer support process so that we can handle your questions or problems as quickly as possible. Thank you!

Troubleshooting

Problem	Explanation
No image appears in the Image Viewer window	You clicked the Select Location button and clicked your map in the ESRI Data Frame, but no image appears in the Image Viewer window. You might not have available images for the area you clicked. -or- You might have clicked the map outside of the region covered by your images.

Updating ArcGIS Pro

If you install a newer version of ArcGIS Pro, you should download and install the latest EagleView add-in.

Updating the EagleView add-in

By default, the Update Checker is turned on so the EagleView add-in automatically checks for updates at startup. (See “Update Checker tab” on page 19.)

> **Note**: If you want to turn the Update Checker off, click the **Settings** button on the EagleView tab and clear the **Always check for updates on startup** check box on the **Update Checker** tab.

If any updates are found, a dialog box opens and provides a link to download the new version. To update the add-in immediately, click the link in the dialog box. (See the following procedure.)

To update the add-in immediately:

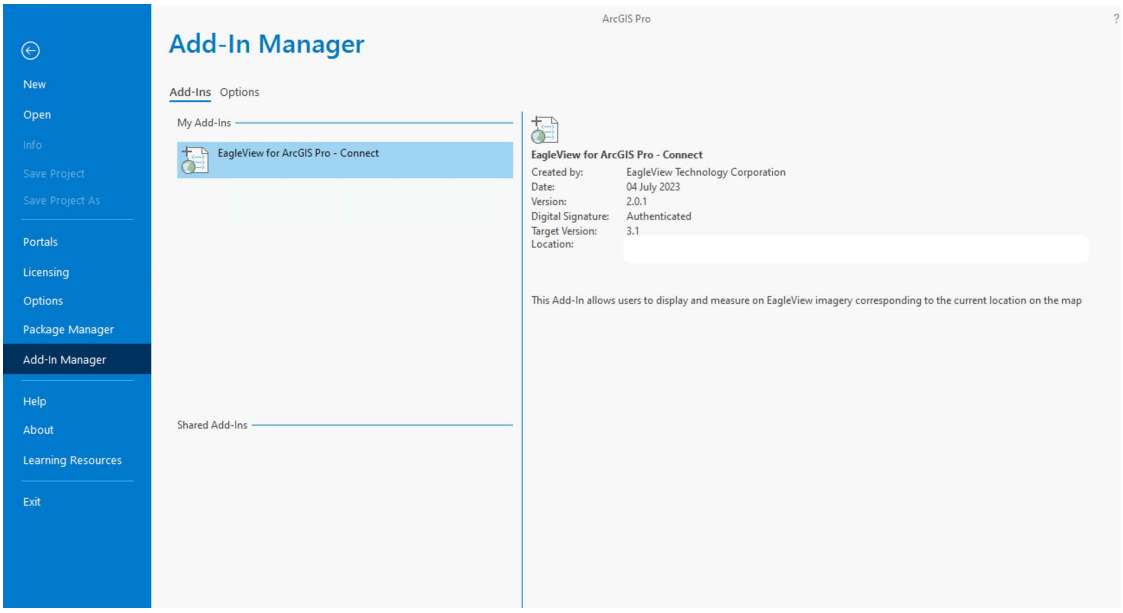
1. Click the link in the “New Version Available” dialog box. The EagleView Software Downloads page opens in a browser window.
2. From the list of software titles, select the name of the software you want to update.
3. In the Application column, click the link that corresponds to the version you want to download.
4. Save the file to your hard drive and note the name of the folder to which the file was saved. (Your browser might automatically save the file to the "Desktop" folder, or it might allow you to navigate and choose the folder to download the file to.)
5. When the download is complete, close any open download dialog boxes.
6. Exit the software if you want to install the update right away.
7. Install the new add-in as you would for any other ArcGIS Pro add-in. See page 1 for more information.

Removing an older version of the add-in

The following procedure for removing an older version of the EagleView add-in applies only if you installed it manually by using the "EagleView for ArcGIS Pro – Connect.esriAddinX" file. (If you installed the add-in automatically from a folder, it appears under the "Options" section of the Add-In Manager dialog box and the "Delete this Add-In" button will not be available.)

To remove an older version of the add-in:

1. In ArcGIS Pro, on the Project tab, click **Add-In Manager**.



2. On the **Add-Ins** tab, select **EagleView® for ArcGIS Pro - Connect** and click **Delete this Add-In**.
3. Click **Yes**. Make sure the add-in is no longer displayed.

Now that you've removed the older version, you can install a newer version of the add-in. Close the Add-In Manager and close ArcGIS Pro, then install the new version as described on page 1.