# Pictometry<sup>®</sup> for ArcGIS Desktop - CONNECT Guide

For ArcGIS Desktop Version 10.1, 10.2, and 10.3

March 2015



Copyright © 2015 Pictometry International Corp. 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 Pictometry International Corporation.

Pictometry® is a trademark of Pictometry International Corp. Windows® is a registered trademark of Microsoft® Corporation. All other brands or products are the trademarks or registered trademarks of their respective holders.

Pictometry International Corporation 100 Town Centre Drive Rochester, NY 14623 Printed in the United States of America Documentation for add-in version 10.3.1 March 2015

# Contents

Introduction	1
Installing the Pictometry add-in	1
Upgrading from an older Pictometry extension	1
Upgrading your Pictometry add-in	1
Installing the Pictometry add-in in ArcMap	
Installing the add-in manually	
motaling the dad in mandary	
Installing and configuring the Pictometry Image Driver for ArcMap	3
Getting the installation file	3
The Configuration utility	
The installation procedure	3
After installation	6
The Pictometry toolbar	6
Toolbar buttons	
1 OODDA' DARONO	
Logging in to the add-in	8
The Image Viewer window	9
Viewing images	10
The image polygons and current location marker	
Synchronization	
Viewing a different image of the same area	
Viewing from a different direction	
Zooming in and out	
255111119 111 4114 541	12
Panning images	12
Panning while a tool is active	13
Searching for images by street address	12
What happens next	
Tips for better search results	
Searching by location	
Guidelines for entering coordinates:	
Viewing GIS layers on your imagery	14
Using the measurement tools	14
Changing units of measure	
Measuring distance and perimeter	15
Measuring height	
Measuring area	
Measuring elevation	
Viewing the coordinates of a location	16
Measuring bearing and angles	16

Extracting images	17
Before extracting	17
How to extract an image	17
Saving orthogonal images	17
Identifying GIS layers	18
Why do I see two Identify Results windows?	18
Adding images to the ArcGIS Desktop data frame	18
Adding an image using the Add Image to Map button	18
Add-in settings	
The Pictometry for ArcGIS Desktop Settings dialog	
Setup tab	
Display tab	
Options tab	
Updater tab	23
Sending feedback	23
T I I	0.0
Troubleshooting	23
Lindating AraMan	2.4
Updating ArcMap	24
Updating the Pictometry add-in	2/
Opualing the Fiolonietry add-in	24
Removing an older version of the add-in	25
1.CHIOVIHA AH OIACE VELSIOH OF THE AUA-III	

# Introduction

Pictometry® for ArcGIS Desktop - CONNECT (the "Pictometry add-in") integrates Pictometry Oblique imagery into ESRI's ArcGIS Desktop product. After you install the Pictometry add-in in ArcMap, a Pictometry toolbar appears. The Pictometry toolbar gives you access to Pictometry tools and features. For example, clicking the Pictometry Search Image Tool and then clicking a point on the ArcGIS Desktop map causes the add-in to open a Pictometry image for the location you clicked.

This add-in completely replaces and provides the same functionality as the older Pictometry extensions for ArcMap.

# Installing the Pictometry add-in

This topic describes the tasks required to install the Pictometry for ArcGIS Desktop - CONNECT add-in version 10.3.1 in ArcMap Version 10.1, 10.2, or 10.3.

Before installing the add-in, please read the following two topics.

### **Upgrading from an older Pictometry extension**

If you are upgrading from an older Pictometry extension, you must <u>uninstall the older Pictometry extension</u> <u>before you do anything else</u>—before you install the Pictometry add-in and before you upgrade your ArcMap. (If you upgrade ArcMap first, you will not be able to uninstall the Pictometry extension.)

Essentially, you should perform these tasks in this order:

- 1. Uninstall the current Pictometry extension.
- 2. If you are upgrading to a new version of ArcMap:
  - a. Uninstall the older version of ArcGIS Desktop.
  - b. Install the latest version of ArcGIS Desktop 10.
- 3. Install the Pictometry® for ArcGIS Desktop CONNECT add-in in your ArcMap application.
- 4. Install the Pictometry Image Driver for ArcMap.

#### Upgrading your Pictometry add-in

If you are upgrading from one version of the Pictometry add-in to a newer Pictometry add-in, there are no special tasks you need to complete before installing the newer add-in.

#### Installing the Pictometry add-in in ArcMap

To use the Pictometry add-in, you'll need to install it just as you would with any ArcMap add-in. The Pictometry add-in is called "Pictometry for ArcGIS Desktop – Connect 10.3.1.esriAddIn".

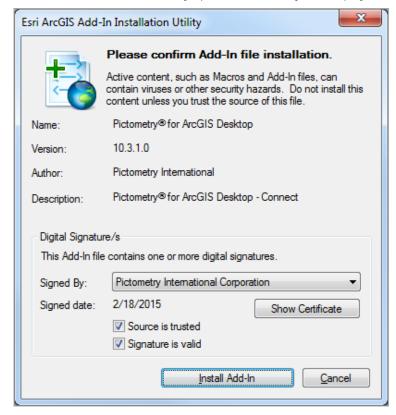
**Note:** For information about installing an add-in in ESRI ArcMap, see your ESRI ArcGIS documentation.

<u>Click here</u> to open the ArcGIS help system online, or access "Guide Books/ArcGIS Desktop Python add-ins/Sharing and installing add-ins" in your ArcGIS local help system.

### Installing the add-in manually

#### To install the add-in:

- 1. Make sure that ArcMap is closed.
  - If you don't already have the link to the Pictometry Downloads website from which you can download the add-in, please contact your Pictometry Sales Representative for it.
- Download and save the Pictometry Desktop CONNECT add-in from the Pictometry website. The
  file that is downloaded is a zip file that contains both the add-in and the Pictometry Image
  Driver for ArcMap setup program.
- 3. Navigate to the folder where you downloaded the zip file and unzip the zip file.
- 4. Double-click the **Pictometry for ArcGIS Desktop Connect 10.3.1.esriAddIn** file. The ESRI ArcGIS Add-In Installation Utility opens automatically and displays the following dialog.



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

If you want to use the Add Image to Map feature, you'll need to install and configure the Pictometry Image Driver for ArcMap. (See the next topic.)

# Installing and configuring the Pictometry Image Driver for ArcMap

This topic provides instructions for installing and configuring the Pictometry Image Driver for ArcMap, which must be done before you can add Pictometry images to your ArcMap data frame (with the Add Image to Map feature).

# Getting the installation file

If you don't already have the link to the Pictometry Downloads website from which you can download the Pictometry Image Driver for ArcMap Setup file, please contact your Pictometry Sales Representative for it. (The zip file you download contains both the Pictometry add-in and the Pictometry Image Driver for ArcMap Setup file.)

# The Configuration utility

The Pictometry Image Driver for ArcMap installation program includes a utility that configures the Image Driver. You can run the configuration utility immediately after installing the Image Driver or you can run it at any time from the Windows Start Menu. You can also run it more than once, if needed.

If you have changed your User Account Control (UAC) settings so you are not notified when a program tries to make changes to your computer, the Image Driver configuration utility might run in silent mode. When running in this mode, no confirmation will be displayed that the configuration has succeeded.

To verify that the configuration succeeded, use the Add Image To Map feature, or look for a file named "gdal\_PICT.dll under Program Files (x86)\ArcGIS\DesktopNN.N\ bin\gdalplugins" (where NN.N is your ArcMap version, for example, 10.3). If this file is present or if the Add Image to Map feature works as expected, then the configuration has succeeded.

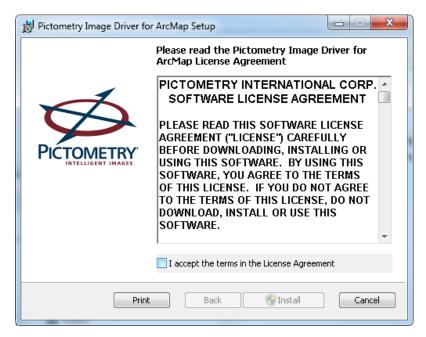
**Note:** If you update your ArcMap to a newer version, you must run the configuration utility again to configure the Pictometry Image Driver for the new version of ArcMap. The Pictometry Image Driver for ArcMap configuration utility is available on the Windows Start Menu.

# The installation procedure

Before starting the following procedure, make sure that ArcMap is installed and that it is not currently running.

### To install the Pictometry Image Driver for ArcMap:

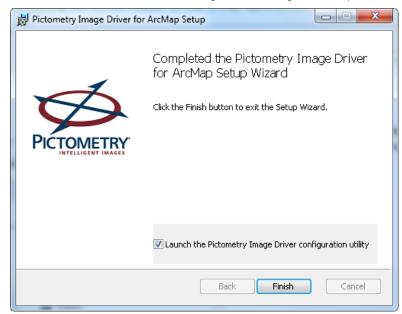
- 1. If not already downloaded, download and save the zip file from the Pictometry Downloads website.
- 2. If not already done, open the folder where you downloaded the installation zip file and unzip the file.
- 3. Double-click the Setup file **Pictometry I mage Driver for ArcMap.msi**. The Setup Wizard opens and displays the License Agreement.



- 4. After reading the terms and conditions, select the I Accept the terms in the License Agreement check box, and click Install. The User Account Control (UAC) dialog box opens.
- On the User Account Control dialog, click Yes to allow the Pictometry Setup program to make changes to your computer.

A progress bar appears while the driver is installed.

When the driver has finished installing, the following window opens:

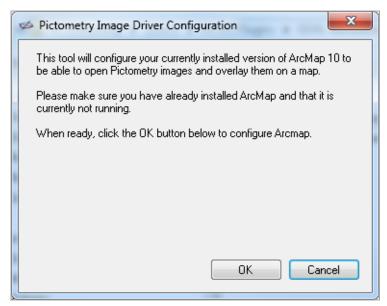


**Notes:** Notice that the check box is selected by default. If you don't want to launch the Pictometry Image Driver for ArcMap configuration utility next, then clear this check box. (The configuration utility is also available on the Windows Start Menu.)

Click Finish. The Setup Wizard closes.

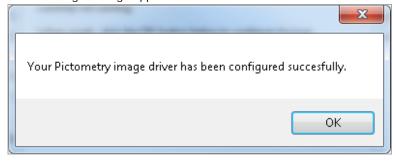
If you selected the option to launch the Pictometry Image Driver for ArcMap configuration utility and if User Account Control (UAC) is enabled, then the following window opens.

**Note:** If UAC is disabled, the Configuration utility might run silently and you might not see the following dialog box. In that case, steps 7 – 10 of this procedure would not apply. (See "The Configuration utility" on page 3 for more information.)



- 7. Make sure that ArcMap is installed and that it is not currently running.
- 8. Click OK. The User Account Control (UAC) dialog box opens.
- 9. Click **Yes** on the User Account Control dialog box to allow the Configuration utility to make changes to your computer.

The following message appears:



10. Click **OK** to exit the Pictometry Image Driver for ArcMap configuration program.

Now that the Pictometry Image Driver for ArcMap is installed and configured, the Add Image to Map feature will be available the next time you start ArcMap.

# **After installation**

Once installed, the Pictometry add-in is loaded automatically the next time you start ArcMap. The Pictometry toolbar appears and floats over the ArcGIS Desktop application. You can move the toolbar to a different part of the screen or you can dock it. (For more information, see "The Pictometry toolbar" on page 6.)

**Note:** If you don't see the Pictometry toolbar, you can enable it by selecting **Customize**⇒**Toolbars** and then selecting the Connect Add-in.

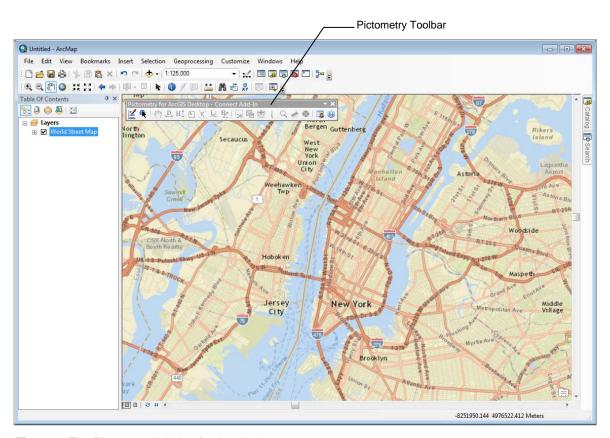


Figure 1: The Pictometry Add-in after installation.

# The Pictometry toolbar

After the Pictometry add-in is installed in ArcMap, it is loaded automatically whenever you open ArcMap and the Pictometry toolbar is visible. However, not all toolbar buttons are enabled. Image-analysis toolbar buttons (like the Distance Tool) are not available until you search for and display an image.

**Note:** The Settings, Search Image Tool, Feedback, and Help toolbar buttons are always enabled because they're not image-analysis tools.



Figure 2: The Pictometry toolbar (after searching for and displaying an image).

### To dock the toolbar:

- 1. With the mouse pointer, grab the left side of the toolbar and drag it to the toolbar area.
- 2. Release the mouse button. The toolbar snaps into place.

**Note:** If you wish to hide the Pictometry toolbar, you can do so in the same way as for other ArcGIS Desktop toolbars. (Right-click the toolbar and select it from the list.)

#### **Toolbar buttons**

The Pictometry toolbar contains the following tools and buttons.

Tool	Description
Pictometry Connect Settings	Opens the Pictometry for ArcGIS Desktop Settings dialog box so you can change the add-in's settings (such as units of measure).
Search Image Tool	Searches for images containing the geographic point you clicked in the ArcGIS Desktop data frame.
Pan Tool	Scrolls the image around in the Image Viewer window.
Distance Tool	Measures the distance between two points in an image or the cumulative distance along a series of straight-line segments.
Height Tool	Measures the height of a building or an object in an Oblique image, starting from the ground.
Area Tool	Calculates the area of any part of an image.
Elevation Tool	Gives the elevation above sea level of a location in an image.
Location Tool	Lets you view the coordinates of a location in an image or map. Updates the current location marker on your map.
Bearing Tool	Measures the bearing (the orientation from True North) of an angle you outline in the active image.
Extract Tool	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 Pictometry for ArcGIS Desktop Settings dialog.
Save Orthogonal Image	Lets you save an ortho as a GeoTIFF file.
Add image to Map	Allows you to add a Pictometry Oblique image (PSI file) to the ArcGIS Desktop data frame and Table of Contents.

Tool	Description
Identify Tool	Lets you identify all GIS layers within a region by drawing a rectangle around that region in the image.
Search an Address	Lets you search for an image that shows the street address you enter.
Clear Annotation	Removes all measurement annotations from the Image Viewer window.
Logout	Logs you out of the Pictometry for ArcGIS Desktop - CONNECT add-in.
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.
Help	Opens the Help system, which provides more information about the Pictometry add-in's features.

# Logging in to the add-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 Search Image Tool on the Pictometry toolbar and click a location in ArcMap.

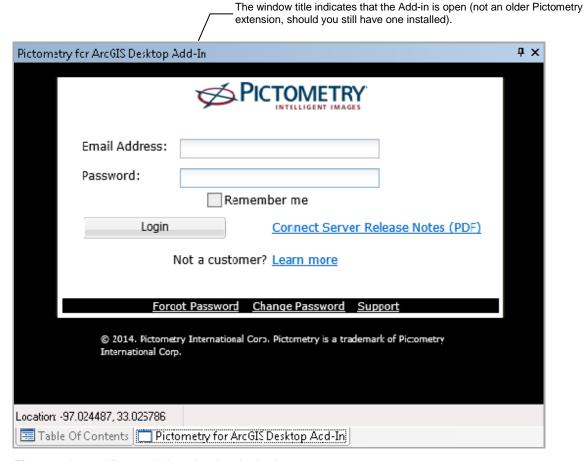


Figure 3: Image Viewer window showing the Login page.

The first time you log in to the Pictometry 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** (at the bottom of the window). 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 Pictometry Image Viewer window opens only after you click the Search Image Tool and click a point on your ArcMap map. After you log in, images are displayed in the Image Viewer window.

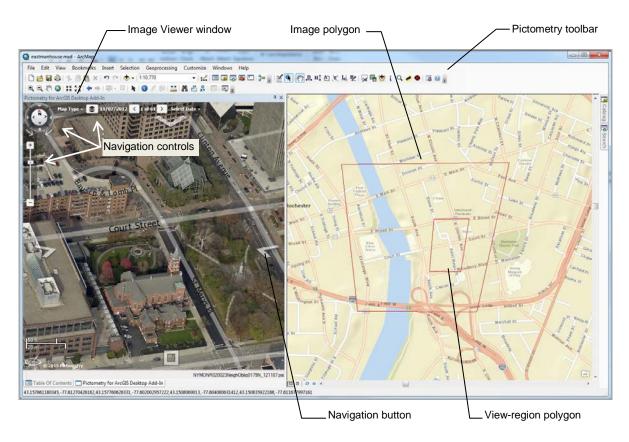


Figure 4: The Image Viewer window.

The Image Viewer window can be resized, moved, closed, undocked and docked, just as with any other window in ArcGIS Desktop. 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 dock or undock the Image Viewer window:

1. With the mouse pointer, grab the top edge of the window (if docked) or the title bar (if undocked), and drag it to another spot on the screen.

**Note:** 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 Desktop application.

#### To close the Image Viewer window:

Click its Close button (X).

# **Viewing images**

To view images in the Image Viewer window, click the **Search Image Tool** (on the Pictometry toolbar) 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 Desktop map.

**Note:** To open the Settings dialog box so you can change your user settings, click the **Pictometry Connect Settings** toolbar button.

### The image polygons and current location marker

Depending on your display settings, the following polygons might appear on the ArcGIS Desktop 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.

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 Search Image Tool to navigate to a different location), the add-in updates the current location marker on the map.

image polygon

current location marker

view-region polygon

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

Figure 5: Image polygon, current location marker, and view-region polygon in the data frame.

# **Synchronization**

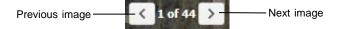
By default, the image and the ArcMap map are not synchronized. If synchronization is turned on (in Settings) then when you click a new location in the image or navigate to a different location, the add-in moves the current map to the same location, so the image and map stay synchronized. (You can turn on synchronization or change how the image and map are synchronized on the Settings dialog box. See page 21 for other 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 scene, you can swap the current image for another. The Pictometry 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 is currently in view. (For example, "1/5" means the first image of 5 is in view.)

#### To view a different image of the same area:

Use the left and right arrow buttons.



A different image of the same scene, 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.

# Viewing from a different direction

While viewing an image, you can easily view the current scene from a different direction—north, south, east, west, and orthogonally (straight down). **Navigation buttons** (semi-transparent buttons at the edges of the image) let you view north-up, east-up, south-up, west-up, and orthogonal views.





Figure 6: Navigation buttons (View from East, and View Ortho).

Click the Navigation button that corresponds to the desired orientation.

**Hint:** Move your mouse over the button to see which side of its image will be up (at the top of the Pictometry Image Viewer window). For example, if you want to see the current scene from the south (a north-up image), find the button whose tool tip shows the word "North".

An image of the desired orientation opens in the Image Viewer window.

### Zooming in and out

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

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

#### To zoom in or out:

Do either of the following:

- To change the zoom incrementally, either drag the Zoom Slider, or click its minus sign (-) to zoom out and its plus sign (+) to zoom in.
- To jump directly to a Neighborhood or Community image, move the mouse to the right of the Zoom Slider until the Zoom Shortcuts (icons) appear. Click the icon for the image 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 Pictometry image automatically stay synchronized on the same geographic area when you pan.

#### To pan the image:

- 1. If not already active, click the **Pan Tool**.
- 2. Drag the image in the desired direction, 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. Click the Search an Address toolbar button. 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	No image appears and the message "No matching images found" is shown in the Status bar.
that address.	Explanation: 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 location

#### To search by location:

- 1. Click the Search an address button in the toolbar. 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 that are listed in the Image Viewer Layers list on your imagery. If you have layers visible in the ArcMap map, you can also view those layers on your images.

# To view Pictometry 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 map:

- 1. Click the Pictometry Connect Settings button on the Pictometry toolbar.
- 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 Desktop Selection Tool to highlight the elements on the map. Those elements will be drawn on the Pictometry images.

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

# Using the measurement tools

The Pictometry 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 measure distance or perimeter:

- Click the Pictometry Connect Settings button on the Pictometry toolbar. The Pictometry for ArcGIS Desktop 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

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. Click the Distance Tool.
- 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**

Use the Height Tool to 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. Click the Height Tool.
- 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. Click the Area Tool.
- 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:

• Click the **Elevation Tool**, then 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:

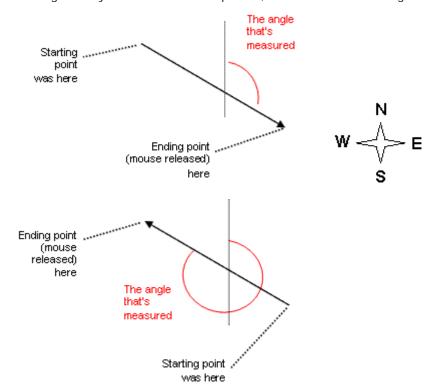
- 1. Click the Location Tool.
- 2. Click the desired location in the image.

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:

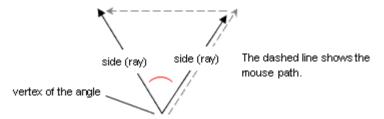


#### To measure bearing:

- 1. Click the Bearing Tool.
- 2. Click the starting point.
- 3. Double-click the ending point.

### To measure an angle:

- 1. Click the Bearing Tool.
- 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 Pictometry for ArcGIS Desktop Settings dialog box.

### To set up extraction defaults:

- 1. Click the Pictometry Connect Settings button on the Pictometry toolbar.
- 2. On the Settings dialog, 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.

#### How to extract an image

### To extract a portion of an image:

- 1. Click the Extract Tool.
- 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 Pictometry toolbar 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 Pictometry add-in:

- 1. Click the Identify Tool.
- 2. In your image, click one corner of the rectangle that will define the region to be identified.
- 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 Pictometry 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 Desktop data frame. Results from Pictometry layer data appear in a separate Identify Results window from that of ArcGIS layer data.

# Adding images to the ArcGIS Desktop data frame

You can add Pictometry Ortho and Oblique images (PSI files) to the ArcGIS Desktop data frame by using the **Add Image to Map** button. This allows you to use ArcGIS Desktop features with a Pictometry image.

In order to use this feature, you must first install and configure the Pictometry Image Driver for ArcMap. See "Installing and configuring the Pictometry Image Driver for ArcMap" on page 3 for instructions.

**Note:** Although you can add up to 25 images, adding more than a few images may adversely affect ArcGIS Desktop performance.

### Adding an image using the Add Image to Map button

Use the **Add I mage to Map** button to automatically locate the Ortho and Oblique images that correspond to a point you click on the map. This method allows you to view an image before adding it and adds only one image at a time to the data frame. You can add up to 25 images to the data frame, or you can get a license from Pictometry to remove this limitation. Please contact your Pictometry Sales Representative to obtain such a license

Use the following procedure to add an image to ArcGIS Desktop by using the Add I mage to Map button.

#### To add an image to ArcGIS Desktop:

- 1. Pan to the area of interest in the ArcGIS Desktop data frame.
- 2. Click the **Search Image Tool**, then click the point of interest in the ArcGIS Desktop data frame. The corresponding image opens in the Pictometry Image Viewer window.
- If the Oblique image is not the one you want to add, repeat Step 2 or use the Navigation buttons to select a different image until you have found the Pictometry image you want to add to ArcGIS Desktop.

4. Click **Add I mage to Map**. The corresponding Oblique or Ortho image opens in the ArcGIS Desktop data frame and is added to the Table of Contents.

You can now use ArcGIS Desktop tools with the Pictometry Oblique image.

Note: An error message appears if you try to add more than the limit of 25 images.

# **Add-in settings**

The Pictometry add-in has various properties that affect searching for and viewing images. Clicking the Pictometry Connect Settings button causes the Pictometry for ArcGIS Desktop Settings dialog box to appear. From this dialog box you'll set various options such as units of measure and image display options.

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

# The Pictometry for ArcGIS Desktop Settings dialog

### Setup tab

The Setup tab allows you to set up a license file, if you have a custom Pictometry license.



Figure 7: Setup tab.

### Display tab

You'll use the Display tab to set up various options that affect how images are displayed and how labels appear in your ArcGIS Desktop data frame.

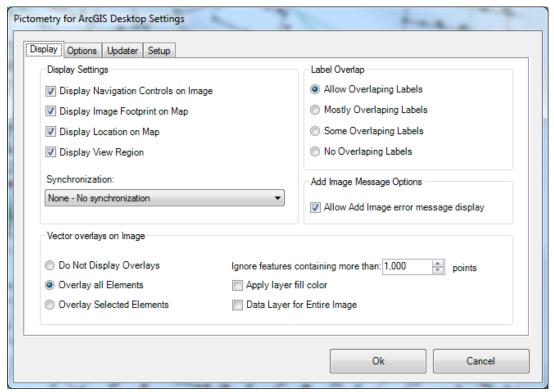


Figure 8: Display tab.

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 4 on page 9.)
Display I mage 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 image 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. The current location marker corresponds to the red crosshair in the Image Viewer window.
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.

In this field	Do this
Synchronization	Select one of these options for synchronizing the map and Pictometry image.
	<b>None - No synchronization</b> — Does not synchronize the workspace and the image to each other when one is moved or panned.
	<b>Rotate Map to Image Footprint</b> — Automatically rotates the map to match the orientation of the image in the Image Viewer window. For example, if your image is southup (taken from the north), selecting this checkbox causes the add-in to rotate the map so it is south-up.
	<b>Zoom Map to I mage Footprint</b> — Automatically magnifies the map to show the area within the Pictometry image footprint.
	Synchronize I mage to Current Map Location — Automatically synchronizes the Pictometry image to match the center of the map as the map is moved.
	<b>Synchronize Map to Current I mage</b> — Automatically synchronizes the center of the map to match the center of the Pictometry image, as the image is panned.
	<b>Synchronize Map and I mage to one another</b> — Causes the map and the Pictometry image to automatically stay synchronized on the same geographic area when you pan either one.
Label Overlap	Select the preferred density for showing ArcGIS Desktop labels in the ArcGIS Desktop data frame. "Allow Overlapping Labels" causes all feature labels within the Pictometry image polygon to be shown on the map. "No Overlapping Labels" causes all feature labels within the Pictometry image polygon to be hidden from view on the map. Less overlapping makes the Pictometry location marker and image polygons easier to see in the ArcGIS Desktop data frame.
Allow Add Image error message display	Select this option if you want an error message to appear whenever you attempt to add an image after having reached your limit for adding images.
Vector overlays	Select how you want vector overlays displayed on Pictometry images.
on Image	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 Desktop Selection Tool to highlight the elements on the map. Those elements will be drawn on the Pictometry images as well.
Ignore features containing more than <xxx> points</xxx>	Very large polygons can take a long time to draw on the Pictometry image. This option allows you to ignore very large polygons when displaying overlays on Pictometry 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 Pictometry layers on images.

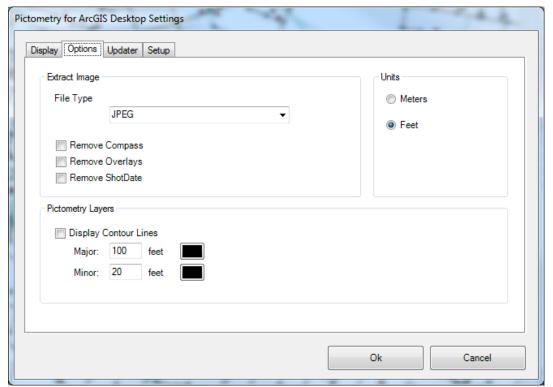


Figure 9: Options tab.

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.
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.

### Updater tab

You'll use the Updater tab if you want to turn on or off the automatic checking for updates. (By default, the Updater is turned off.) You can also check for updates from this tab.

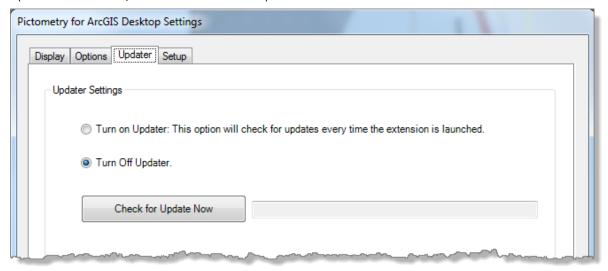


Figure 10: Updater tab.

# **Sending feedback**

Your feedback is important. If you find errors in this guide, or if you have comments about it, we would like to know. Please email documentation@Pictometry.com.

To provide feedback about the CONNECT add-in, click **Feedback** 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
Toolbars and windows are not visible when the add-in is opened, or ArcGIS Desktop fails to open.	The startup position of toolbars, windows, and other ArcGIS Desktop components is defined in the "Normal.mxt" file. Occasionally toolbars and windows may not be visible due to this startup document template (Normal.mxt). Generally the solution to these kinds of problems is to delete this file and let ArcGIS Desktop re-create a new default Normal.mxt file.
	Tip: Re-name or make a backup copy of the file before deleting it.
	On XP computers, "Normal.mxt" is located in "C:\Documents and Settings\ <user>\Application Data\ESRI\ArcMap\Templates".</user>
	On Windows 7 computers, "Normal.mxt" is located in  "C:\Users\ <user>\AppData\Roaming\ESRI\Desktop10.2\ArcM ap\Templates"</user>

Problem	Explanation
The error message "No matching images found" appears.	You clicked the Search Image Tool and clicked your map in the ESRI data frame, but no image appears in the Image Viewer window and the message "No matching images found" appears on the Status Bar.
	You might not have available images for the area you clicked
	-or-
	You may have clicked the map outside of the region covered by your images.

# **Updating ArcMap**

If you install a newer version of ArcMap, you <u>don't need to</u> uninstall and reinstall the Pictometry Add-in or the Pictometry Image Driver for ArcMap. However, you must *re-configure* the Pictometry Image Driver for ArcMap, and you might need to select **Pictometry for ArcGIS Desktop – Connect Add-In** in Customize⇔Toolbars (if you don't see the Pictometry Toolbar in ArcMap).

**Note:** The Pictometry Image Driver for ArcMap configuration utility is available on the Windows Start Menu.

# **Updating the Pictometry add-in**

By default, the Updater is turned off. (See "Updater tab" on page 23.) However if you select "Turn on Updater" on the Updater tab of the Pictometry for ArcGIS Desktop Settings dialog box, the Pictometry add-in automatically checks for updates when you open the add-in. If any updates are found, a dialog box opens and lists any new releases that are available.

To update the add-in immediately, click the link in the dialog. (See the following procedure.)

**Note:** To <u>enable</u> the automatic check for updates, click the **Pictometry Connect Settings** button on the Pictometry toolbar and click **Turn on Updater** on the **Updater** tab of the Pictometry for ArcGIS Desktop Settings dialog.

#### To update the add-in immediately:

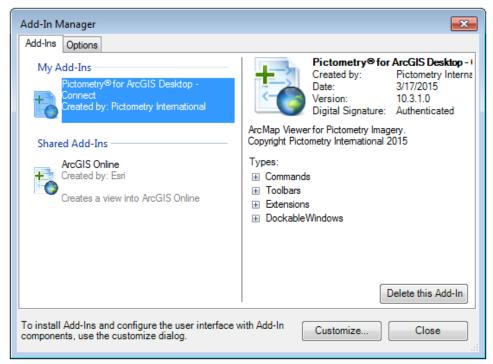
- 1. Click the link in the "New Version Available" dialog. The Pictometry updates page opens in a browser window.
- 2. From the list of software titles, select the name of the software you want to update.
- 3. In the Download column, click the link that corresponds to the version you want to download.
- 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 dialogs.
- 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 ArcMap 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 Pictometry add-in applies <u>only if</u> you installed it manually by using the "Pictometry for ArcGIS Desktop – Connect 10.3.1.esriAddIn" file. (If you installed the add-in automatically from a folder, it appears under the "Shared Add-Ins" section of the Add-In Manager dialog box and the delete button will not be available.)

#### To remove an older version of the add-in:

1. In ArcMap, click Customize⇒Add-In Manager.



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

To install a new version of the add-in, close the Add-In Manager and close ArcMap, then install the new version as described on page 1.