2016

T-Kartor Imagery Tools

T-Kartor USA

5/18/2016

T-Kartor Tools

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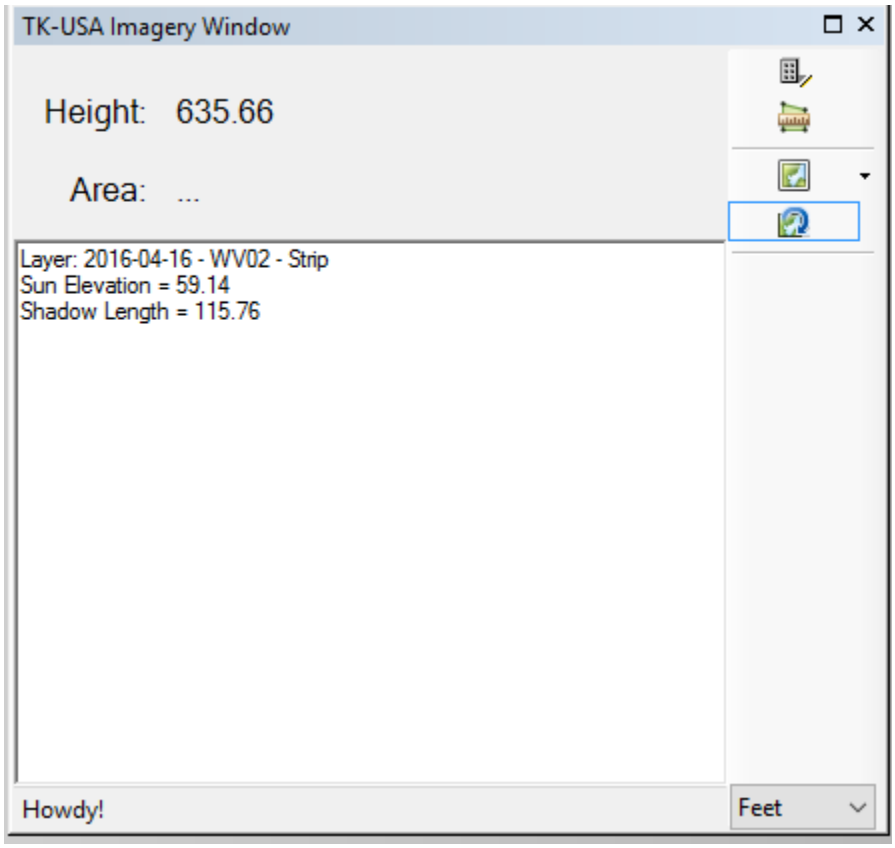
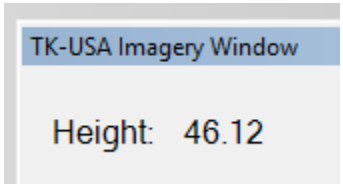
Contents

Changes and Enhancements

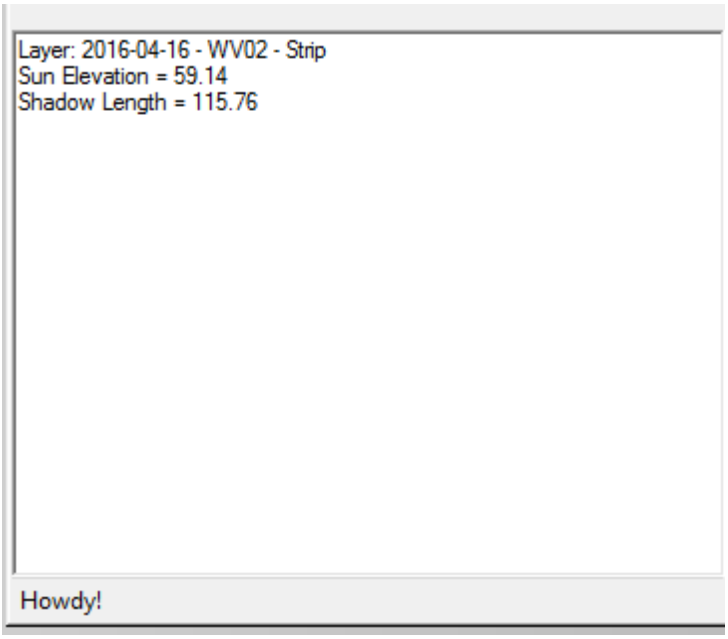
1. Created new window view and button arrangement for clarity and usefulness.



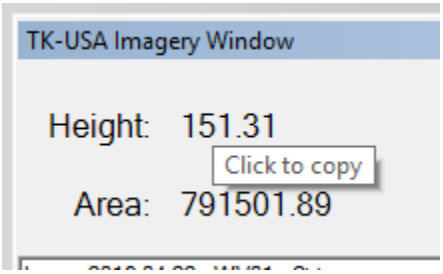
2. Added two decimal places to the returned value. Previously is returned only one decimal place.



3. Added Info Window to display helpful metadata values.



4. Added copy-on-click to grab returned height or area value.



5. Removed Google Earth from Map Sync options.
    a. The latest version of Google Earth plugin/api has been deprecated
    b. Incompatibly between versions of Google Earth causes stability issues and registry errors. These errors cause Map Sync/ArcMap to crash.
    c. May evaluate a replacement for Google Earth in the future.

Installation

NOTE: If you have a previous version of TKImageryAnalysis installed, delete it using the Add-In Manager before installing T-KartorUSA Tools version 1.0 or TKImageryAnalysis_v3. ***Please do not install both!***

Follow these steps to install T-KartorUSA Tools version 1.0 or TKImageryAnalysis_v3:

1. Unzip the provided .zip file to extract the contents.
2. Double-click the T-KartorUSA_Tools.esriAddIn or TKImageryAnalysis_v3.esriAddIn file depending on the version of ImageConnect you wish to use. The *Esri ArcGIS Add-In Installation Utility* dialog box opens.

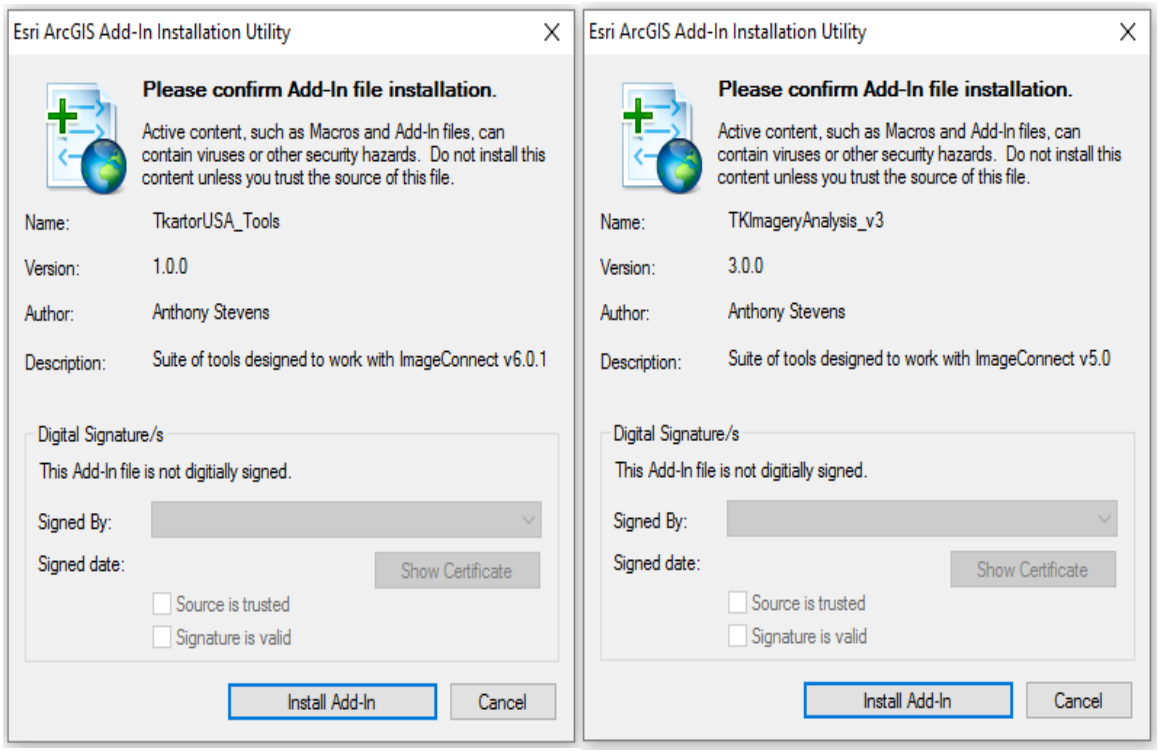


Figure 1. *T-Kartor Imagery Tools will only work with ImageConnect v6.0.1. TKImageryAnalysis_v3 will only work with ImageConnect v5.0 or earlier...*

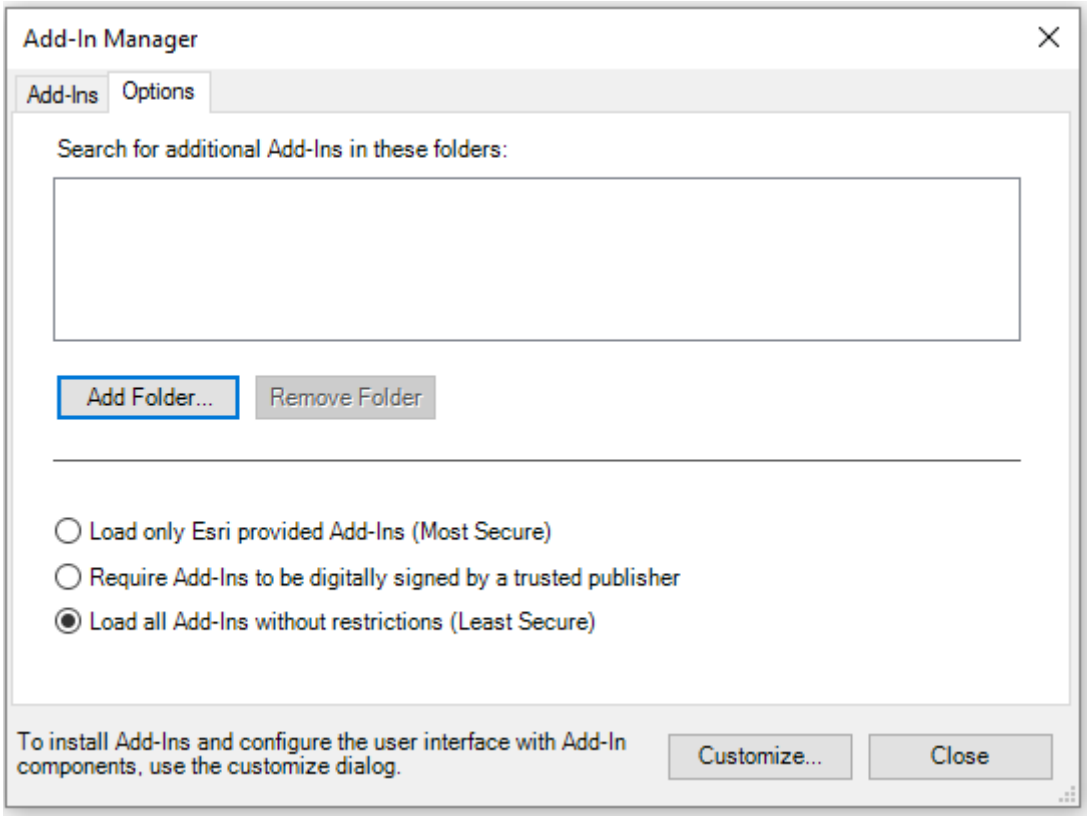
3. Click the Install Add-In button. A success message should open.
4. Click OK.
5. Open ArcMap.
6. Open Customize Mode and click the Commands tab.
7. Scroll down in the Categories window to "TK-USA"; click-and-drag the desired tool from the Commands: window into an ArcMap toolbar.

Optional Installation Method…

NOTE: If you have a previous version of TKImageryAnalysis installed, delete it using the Add-In Manager before installing T-KartorUSA Tools version 1.0 or TKImageryAnalysis_v3. ***Please do not install both!***

Follow these steps to install T-KartorUSA Tools version 1.0 or TKImageryAnalysis_v3:

1. Unzip the provided .zip file to extract the contents.
2. Save file to a well-known folder on local computer or accessible server location.
3. Open ArcMap.
4. Click Customize at top of ArcMap document and click Add-In Manager…
5. Click Options tab, then click Add Folder… and drive-down to the well-known location of the saved file folder.

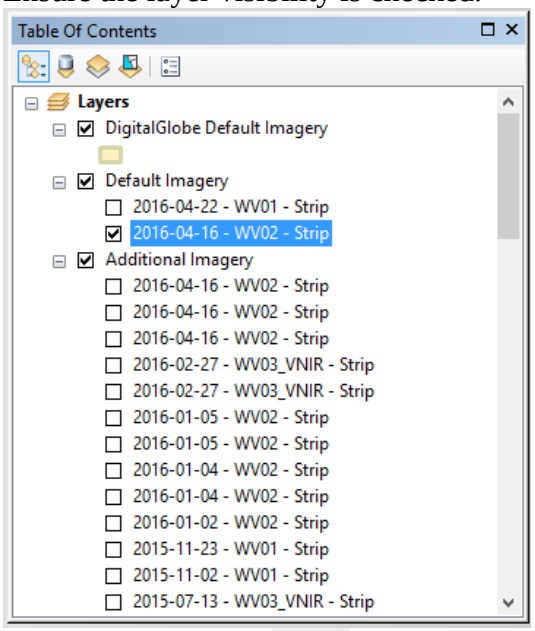


6. Click OK.
7. Click Customize… on the Add-In Manager window.
8. Click the Commands tab once Customize Mode opens.
9. Scroll down in the Categories window to “TK-USA”; click-and-drag the desired tool from the Commands: window into an ArcMap toolbar.

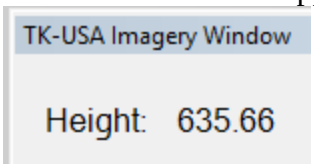
T-Kartor Imagery Tools

For ImageConnect v6.0.1

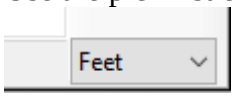
1. Height from shadow
    a. Select a DigitalGlobe layer in either the Default Imagery or Additional Imagery group from the ArcMap TOC.
    b. Ensure the layer visibility is checked.



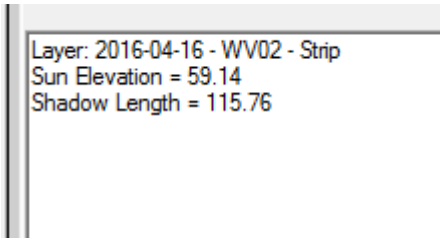
    c. Click the Height tool  from the TK-USA Imagery window.
    d. Start at the base of target object and click once to begin drawing.
    e. Double-click at the top of the target object's shadow where that point would approximately be the same relative to the target object.
    f. Calculated value will appear in results window.



    g. Use the pick-list on the bottom-right corner to toggle between Feet and Meters.



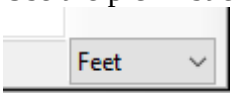
    h. The name of the Selected Layer, Sun Elevation, and Shadow Length are reported in the Info Window.

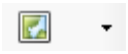


2. Estimate area
    a. Click the Estimate Area tool  from the TK-USA Imagery window.
    b. Click at one corner of target object to start drawing.
    c. Make consecutive clicks around the target object.
    d. Double-click to finish the drawing.
    e. The sq-unit value is reported in the results window.

    f. Use the pick-list on the bottom-right corner to toggle between Feet and Meters.

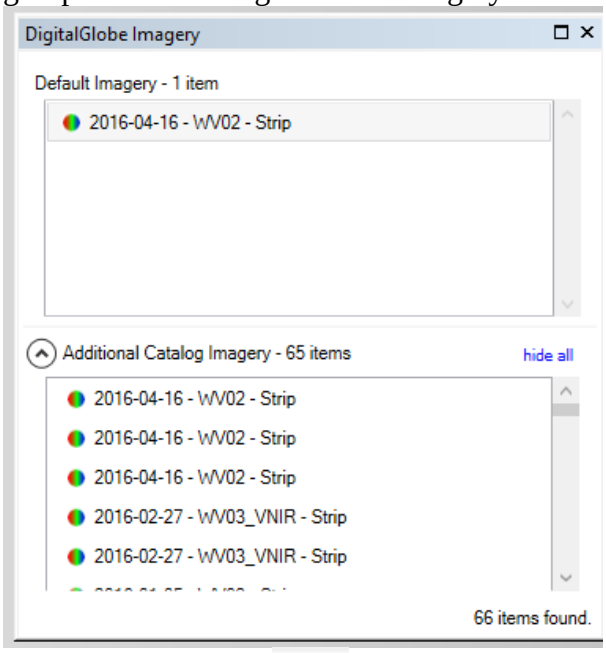
    

3. Map sync
    a. Click on the Map Sync tool  from the TK-USA Imagery window.
    b. Click on the Wikimapia tool from the drop-down list.
    c. Begin moving panning/zooming in ArcMap.
    d. Use the Toggle Following button  to stop or continue Wikimapia from syncing when panning/zooming in ArcMap.

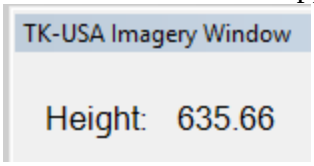
TKImageryAnalysis_v3

For ImageConnect v5.0 and earlier

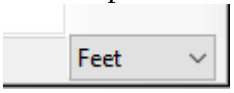
1. Height from shadow
    a. Select a DigitalGlobe layer in either the Default Imagery or Additional Imagery group within the DigitalGlobe Imagery dockable window.



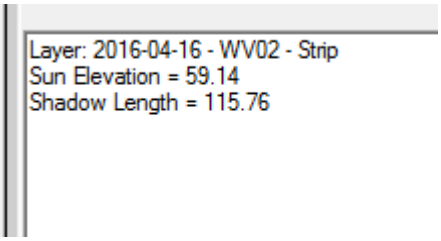
    b. Click the Height tool  from the TK-USA Imagery window.
    c. Start at the base of target object and click once to begin drawing.
    d. Double-click at the top of the target object's shadow where that point would approximately be the same relative to the target object.
    e. Calculated value will appear in results window.



    f. Use the pick-list on the bottom-right corner to toggle between Feet and Meters.



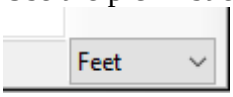
    g. The name of the Selected Layer, Sun Elevation, and Shadow Length are reported in the Info Window.

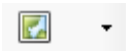


2. Estimate area
    a. Click the Estimate Area tool  from the TK-USA Imagery window.
    b. Click at one corner of target object to start drawing.
    c. Make consecutive clicks around the target object.
    d. Double-click to finish the drawing.
    e. The sq-unit value is reported in the results window.

    f. Use the pick-list on the bottom-right corner to toggle between Feet and Meters.

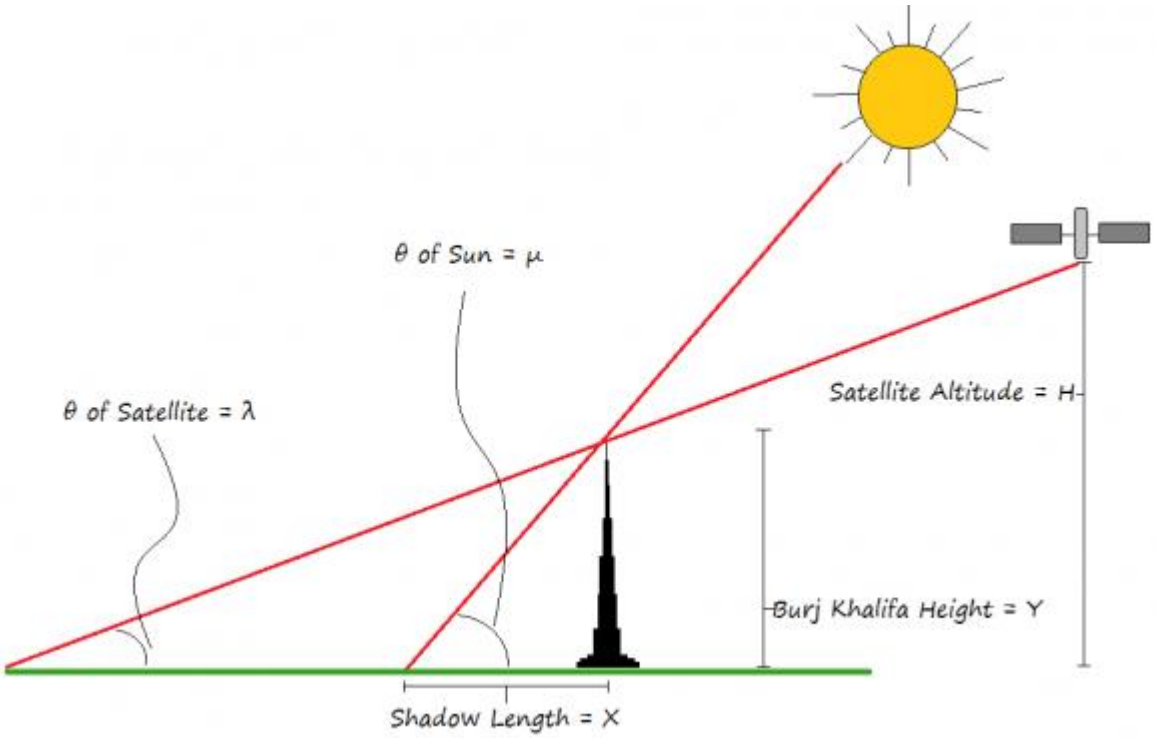
    

3. Map sync
    a. Click on the Map Sync tool  from the TK-USA Imagery window.
    b. Click on the Wikimapia tool from the drop-down list.
    c. Begin panning/zooming in ArcMap.
    d. Use the Toggle Following button  to stop or continue Wikimapia from syncing when panning/zooming in ArcMap.

Contact and Miscellaneous Information

Anthony Stevens
T-KARTOR USA
1310 Papin Street
Saint Louis, MO 63103
e. anthony.stevens@t-kartorusa.com
p. +1 (314) 621-8411

Calculate object height from shadow manually…



tan(Sun Elevation) = (Height of the Object) / (Length of the shadow)

- Ensure the length measured in ArcMap or Other is Geodesic and Not Planar.
- Convert Sun Elevation to radians if necessary.
- Ensure length measured is over generally flat terrain and – if possible – able to see full length (no length blocked by target object) of shadow. NOTE: Often a little portion is blocked but it usually does not affect calculated value too much…

Limited Swipe and Flicker in ImageConnect v5.0

1. Ensure ImageConnect v5.0 is installed.
2. Open ImageConnect and login.
3. Zoom to AOI where DigitalGlobe imagery is available in the DigitalGlobe Imagery dockable window.
4. Ensure the Effects toolbar is open.
5. Select an image strip from the Additional Catalog Imagery window.
6. Ensure the Default Tiled Imagery and Additional Catalog Image layers appear in the TOC.
7. Select the DigitalGlobe Additional Catalog Image layer from the pick-list on the Effects toolbar.
8. You can now use Flicker and Swipe from the Effects toolbar.