

# Ayres Lidar Online Instructions



Click the zoom slider button to zoom in or out on the map.



The Home Button widget is automatically enabled when the app starts. Clicking the widget resets the map extent to the map's initial extent.



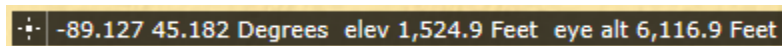
Click the Pan button and drag the scene in the direction you want to pan. Alternatively, right-click to pan the scene if you have a two-button mouse. Click the Rotate button to return to the default behavior.



Click the Compass button on the scene to reorient your scene north. Alternatively, press N on your keyboard.



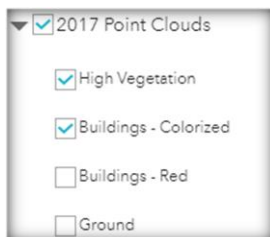
Click the Full Screen button on the scene to open full-screen mode. Exit full-screen mode by clicking Exit Full Screen (Esc) or pressing Esc on your keyboard.



Click the coordinate system button to enable clicking the scene to get coordinates and elevation. In this way, you can add a point to the scene, highlight all the values, and make a copy of them.



Click the Layer List widget to open it. Check the check boxes to turn layers on and off in the scene. Optionally hover over the layer and click the Go to full extent button on the right to zoom your scene to the layer's full extent.



Click the small triangle in front of the layer name to expand or collapse layer groups.



### Distance measurement

Click the Distance tool to activate distance measurement. Start to measure by clicking in the scene to place your first point. A horizontal laser line is drawn to indicate the height at the current pointer position. This line can help in analyzing the heights of objects relative to each other and the terrain. A second laser line shows the intersection of the scene with the vertical plane that passes through the checkered line. The widget labels the direct, horizontal, and vertical orange distance lines and displays the same values in the user interface panel. Optionally start a new measure by clicking the New Measure button on the widget.

### Area and perimeter measurement

Click the Area tool to activate area and perimeter measurement. Start to measure by clicking in the scene to place your first point. When starting the area measurement, a horizontal laser line is drawn that indicates the height at the current pointer position. This line can help in analyzing the heights of objects relative to each other and the terrain. Optionally start a new measure by clicking the New Measure button on the widget.



When you type a place-name in the search box, suggestions appear as you type. If an arrow appears in the search box, you can search on all sources, or click the arrow and choose a locator from the drop-down list. A pop-up appears at the location of the place-name and displays any available attribute information.



Click the Basemap Gallery widget to display all the basemaps. Click one of the basemap thumbnails to set it as the active basemap for the app.



Click the Slides widget to open the slides pane at the bottom of the app. If the web scene does not contain any slides, nothing displays in the pane. Click a slide to change the view of the scene. Click the Slides widget again or the X icon on the pane to close it.



Click the Share widget icon to open it. Copy the short link under Share a link to this app and paste it into your email, instant message, and so on. You can also use the provided buttons to post your app to your Facebook, Twitter, or Google+ accounts, or to add it to an email. Under Embed this app in a website, copy the HTML code and paste it into your website. If you want, click Embed Options to choose the size of your app to be embedded.

## Scene Viewer requirements from ESRI

You can use Scene Viewer in desktop web browsers that support WebGL, a web technology standard for rendering 3D graphics. For best results in Scene Viewer, verify that your browser and computer hardware meet the Scene Viewer requirements. It is also recommended that you use the latest version of Chrome or Firefox.

### Browser requirements

Scene Viewer requires a desktop web browser that supports WebGL. The latest versions of the most common desktop browsers have built-in WebGL. To test whether your browser has WebGL enabled, open [get.webgl.org](http://get.webgl.org). To troubleshoot WebGL-related issues, visit [WebGL troubleshooting](#). Make sure you keep your browser up to date as WebGL is an evolving technology and each browser version brings improvements that Scene Viewer uses for optimal performance. To use Scene Viewer, your browser should have hardware acceleration enabled. Scene Viewer supports the following web browsers:

Chrome

Firefox

Internet Explorer 11\*

Edge\*

Safari 11 and later\*

\*The WebGL implementation of this browser is not optimized for memory-intensive applications, and it may not work reliably when opening certain scenes.

Tip:

For best performance, it is recommended to use 64-bit browsers.

Adjust the performance-quality settings in your browser to optimize performance or quality in your scene.

When using Internet Explorer 11 (IE 11), make sure to update your browser to the latest version. Scene Viewer is only supported in IE 11 with WebGL 0.94. Earlier WebGL versions are outdated and do not work with Scene Viewer. You can check your WebGL version by visiting [www.khronos.org/webglreport.com](http://www.khronos.org/webglreport.com).

Note:

There is a known memory issue when using IE 11 with Scene Viewer. If you experience performance issues, close your browser and reopen it. Reloading the page or opening a new tab will not clear the memory. You must close and reopen your browser.

### Additional WebGL requirements

In addition to basic WebGL support, Scene Viewer has the following requirements for WebGL:

High precision fragment shaders

Vertex shader samplers

Uint vertex indices (OES\_element\_index\_uint extension)

You can verify your browser meets these requirements at [www.khronos.org/webglreport.com](http://www.khronos.org/webglreport.com). For more detailed information about WebGL requirements, visit [WebGL troubleshooting](#).

## Hardware requirements

Your desktop browser needs to have a minimum of 8 GB system memory and a video graphics card that supports WebGL with 1 GB of video memory.

### Graphics cards

Your graphic card needs to support OpenGL 3.0 (Shader Model 4.0) with the following specs:

AMD/ATI: Radeon 4xxx or higher

NVIDIA: GeForce 2xx or higher, Quadro FX 3800 or higher

Intel: HD 4000 or higher

Nonmobile versions of graphics cards typically have better performance than mobile graphics cards (denoted with m or mobile).

### Note:

Some systems can automatically switch between integrated graphics and dedicated graphics cards to render 3D graphics. Scene Viewer works best with a dedicated graphics card; therefore, in your graphics card driver settings, make sure the per-application settings for your web browser are set to the dedicated graphics card. If this is not set, some point symbols and labels may not display correctly.

### Mobile requirements

Scene Viewer offers mobile support for the following:

iOS Safari on iPhone 8, iPhone XS, iPad Pro

Android Chrome on Samsung S8, Samsung S9, Samsung S10, Samsung Tab S3, Samsung Tab S4

If you're using a mobile device other than those listed above, your device should have a minimum of 2GB of RAM (4 GB recommended), a powerful multi-core processor and GPU, and the latest Android or iOS version installed.

### Troubleshoot rendering problems

Scene Viewer requires optimal browser functionality to perform properly. You will see a Problem loading Scene Viewer message when Scene Viewer detects that rendering in your browser is compromised. Furthermore, the error message will give additional details as to the nature of the problem:

Your browser isn't using hardware acceleration for rendering

Your browser doesn't seem to support WebGL

Additionally, Scene Viewer might open without an error message but the rendering quality is still compromised.

Your browser isn't using hardware acceleration for rendering

When Scene Viewer doesn't detect hardware acceleration in your browser you will get this message. Common reasons why the hardware acceleration isn't enabled can be that your browser settings aren't configured properly or the browser has blacklisted your graphics card.

Configure hardware acceleration in your browser settings

Each browser has its own configuration options, and the hardware acceleration can get disabled.

To enable hardware acceleration for rendering in your browser, see below:

For Chrome, do the following:

Go to Settings > Advanced > System.

Click the Use hardware acceleration when available toggle key to turn on the graphics card rendering.

Restart your browser.

For Firefox, do the following:

Go to Tool Options > Advanced > Browsing.

Check the Use hardware acceleration when available option.

Restart your browser.

For IE 11, do the following:

Click Advanced settings.

Uncheck the Use software rendering instead of GPU option. If it is checked and unavailable, your graphics card or video driver needs updating.

Restart your computer.

Your browser has blacklisted your graphics card

Some browsers will determine that a specific graphics card doesn't meet the requirements of the browser and will block or "blacklist" the graphics card. In this case, you still have the option to bypass the browser's decision to block your graphics card. Although this is not always recommended, it may resolve the issue in Scene Viewer.

For Chrome, do the following:

Type `chrome://flags` in the address bar.

Click Enable under Override software rendering list.

Restart your browser.

For Firefox do the following:

Type `about:config` in the address bar.

Type `webgl.force-enabled` in the search bar.

Set the value to true.

Restart your browser.

Your browser doesn't seem to support WebGL

You will get this message when Scene Viewer doesn't detect WebGL in your browser. A good way to confirm this is to go to [get.webgl.org](http://get.webgl.org). You should see a spinning cube to confirm WebGL is available in your browser. Otherwise, the website will indicate your browser doesn't support WebGL. If you don't see a spinning cube, you can try the following:

Ensure WebGL is enabled through your browser settings.

Ensure that your browser and hardware meet the Scene Viewer requirements.

Scene Viewer opens but the rendering quality is compromised

Sometimes Scene Viewer will open without an error message, but you still may experience a problem. Some examples of these are the following:

All icons and labels are missing, but they display in another browser or device.

Rendering artifacts (i.e., atmosphere and shadows rendering in black, geometry rendering with dots).

Major color problem in the scene (i.e., all colors are inversed, all colors render green or black).

If you are experiencing any of the above issues, confirm the following:

Your browser has hardware acceleration enabled.

Your browser has WebGL enabled.

Your browser and computer meet all the Scene Viewer requirements.

If you're still seeing an issue in Scene Viewer, try switching to another browser. Another option is to update your video driver. It is recommended that you go to the vendor's website to download the latest driver. Finally, if all the above suggestions haven't fixed the problem, report your problem in the GeoNet forums or contact Esri Technical Support for additional help.