



## SOLV3D encompass™ Overview

SOLV3D encompass (Encompass) is a web-based solution for empowering data consolidation, visualization and collaboration. With the ability to bring together geospatial datasets from many sources, Encompass provides a wholistic view in which visualization and collaboration between team members is intuitive and easy, yet incredibly powerful.

There are two types of users that can access projects stored within Encompass:

1. **View only users**

Users who see “View Only” in the top right are not logged into the application and have likely been sent a URL or clicked on a link provided. The View Only view allows to viewing, turning on and off layers of data, viewing measurements and assets as well as bookmarks which have been created and shared by a standard user.

2. **Authenticated users**

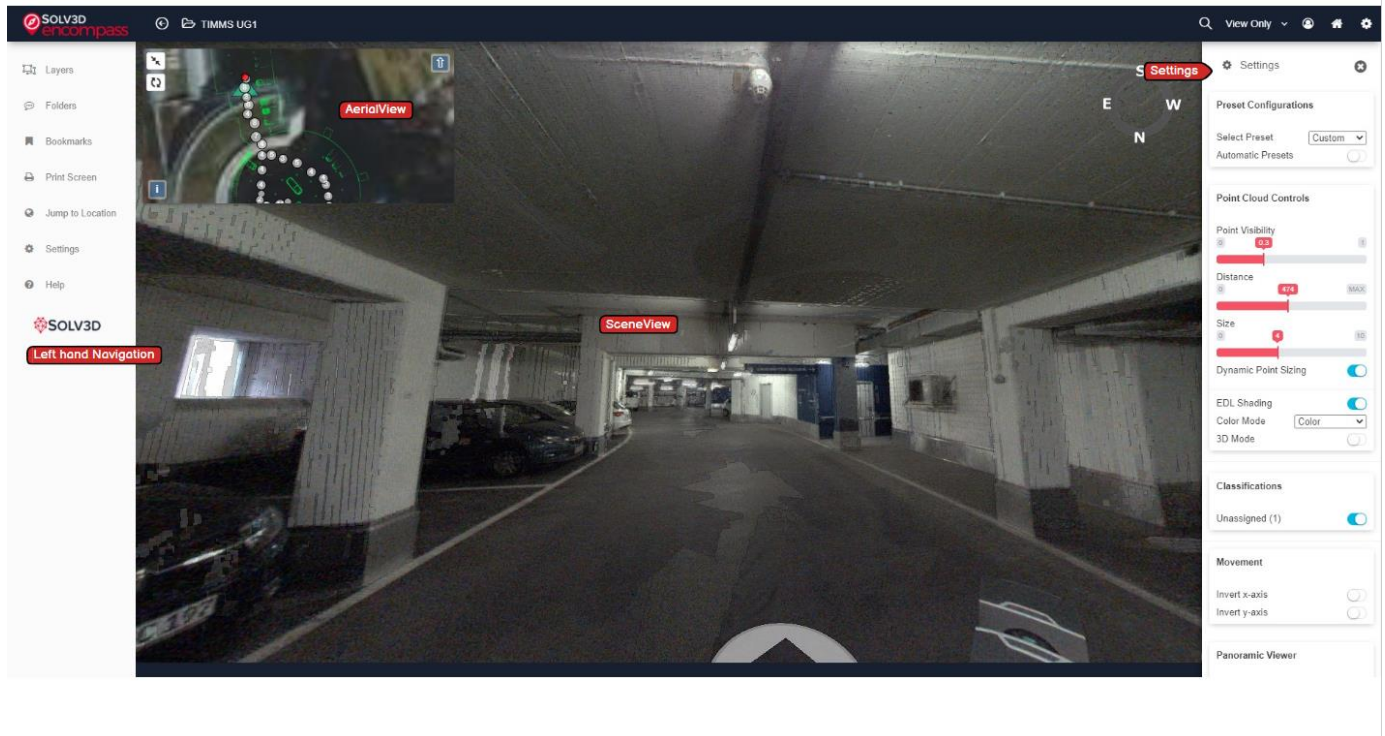
If you have log-in credentials for Encompass, the viewer will allow you to make measurements, create asset tags, export and save point cloud, image and asset information as well as load additional data layers such as CAD/GIS models, 3D models, WMS/WFS/WMTS layers and even data pulled from your Esri ArcGIS Online account.

To learn more about Encompass or for a full demo visit our [website](#).

## View Only Mode

### Overview

Encompass has four main areas as defined in the following image:



1. AerialView, the minimap in the top left corner
2. SceneView, the main large view in the center
3. Left Hand Navigation, the section of links on the left hand side
4. Settings, on the right hand side, accessible via Settings link in left hand navigation or gear icon in top right of application

### Navigation

Navigating within the project can be done in the AerialView, SceneView or 3D Mode by pressing and holding the left mouse button and moving it around.

- For reference, within the AerialView frame:
  - The red dot indicates where the SceneView frame is currently positioned.
  - The grey spheres indicate other camera positions for which there is a Scene View available.
  - The large green triangle indicates which direction the SceneView is facing. It expands outward to indicate the field of view.

- Click on a grey sphere, the SceneView will now display the panoramic photos and data for that position.
- By clicking and holding on the AerialView, drag the map to move the view in the SceneView.
- Scroll wheel on the mouse, or the pinch and spread actions on a control pad, will zoom in and out of the displayed map in the AerialView frame.
- Within the SceneView:
  - SceneView displays a panoramic picture from (usually) the ground level.
  - Within the SceneView frame there will be circular discs shown as arrows or grey spheres which correspond to the grey spheres in the AerialView frame.
  - Click the arrow or sphere, this will move the camera position and angle in the SceneView frame. The AerialView frame will correspondingly adjust to the new camera position.
  - By clicking and holding on the SceneView you can pan to various camera angle views from that point in the map. You can pan left, right, up and down.
  - The wheel on the mouse, or the pinch and spread on a control pad, will zoom in and out of the display angle in the SceneView frame.
- 3D Mode
  - 3D Mode can be accessed through the right click menu or from the setting tab.
  - 3D Mode will turn off the panoramic images and provide a view of the point cloud, using the settings (opacity, color mode) you have set.
  - Use the space bar to do a walk through of the point cloud. You can change the speed using the wheel of the mouse or +/- on the keyboard.
  - The wheel on the mouse, or the pinch and spread on a control pad, will zoom in and out of the display of the 3D Mode frame.

## Settings

Settings are used to change how the images and point cloud are viewed in the SceneView. Click on the Settings icon to bring up a menu that provides functions to change the display parameters of the point cloud (if available) and the panoramic views.

### Point Cloud Controls

#### Point Visibility

This setting controls the opacity of the points in the SceneView, with 0 being fully transparent and 1 being fully opaque.

### Distance

This setting controls the farthest distance (in meters) that points should be rendered in the SceneView.

### Dynamic Point Sizing

When this setting is enabled, points in the SceneView will be dynamically resized based off of the distance from the current position so that the point cloud appears to be more "full."

### EDL Shading

Gives each point a black border. Useful for defining edges or visualizing depth within the point cloud.

### Color Mode

Changes how the point cloud is colored. The options are:

- Height
  - Colorizes points with respect to their vertical distance from the ground based off the color map selected.
- Distance
  - Colorizes points with respect to how far they are away from the current view based off the color map selected.
- Intensity
  - Shows each point a different shade of grey depending on the intensity value stored for each point.
- Classification
  - Shows each point a different color based on available classification.
- Color
  - If available, shows each point in the color that was applied from imagery when the scan took place.
- X-Ray
  - Hides cameras and assets that are behind walls (behind other points) giving the illusion that there is something within your field of view blocking that object.

### Color Map

This setting allows the user to select a color scheme for the points in the SceneView when "Height" or "Distance" color mode is selected.

### 3D Mode

Shows only the point cloud. Click and drag with the left and right mouse buttons, use the scroll wheel, and press space to navigate the point cloud.

This can also be accessed by right-clicking in the scene.

## Classifications

The classifications section allows users to show/hide points of different classifications in the SceneView. Only classifications which are currently present in the point cloud will be displayed in this section.

## Movement

This section contains settings which allows the user to invert the x-axis and y-axis controls when viewing a point cloud in 3D Mode.

## Panoramic Viewer

### Image Markers

This setting allows the user to select arrows, spheres or none for the image markers in the SceneView. Arrows allows the user to click and move within the scene, sphere shows all image locations and none is great for taking screenshots.

### Asset Draw Distance

Changes the render distance for collection items and image markers.

## Left Hand Navigation Tools

Many of the left navigation tools are hidden or have reduced functionality for View Only. The following outlines the tools, their visibility and uses:

- The Measurement suite is hidden entirely.
- The Layers tool allows the user to turn on and off available datasets but they are unable to add additional layers or remove layers.
- Folders which have been made public are visible, including asset tags and measurements which have been saved in a public folder.
- Bookmarks which have been made public are accessible. View Only users are unable to create and save new bookmarks.
- Data Export is hidden entirely.
- Print Screen is available.
- Jump to Location allows the user to input an address, Northing and Easting or Lat/Long of a location with within the project and the views will move to that location.
- Settings is another access point for the setting window, which can also be accessed in the top left and through the right click menu.
- Help provides links to additional documentation related to the application.