



## **SpatialLabs Experience on zSpace**

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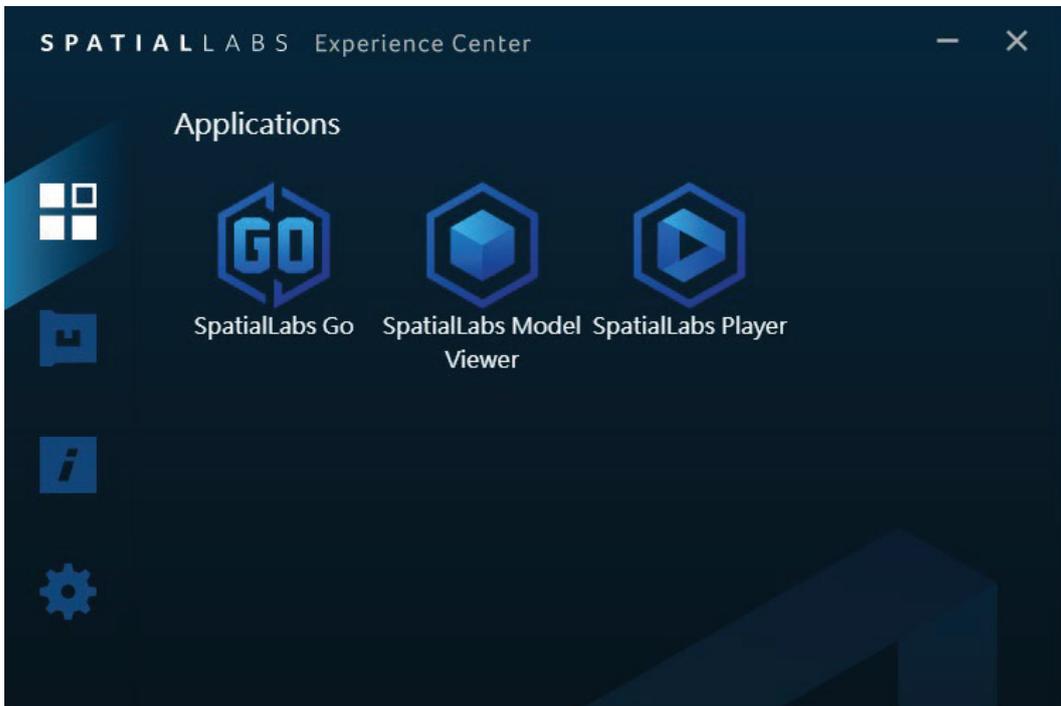
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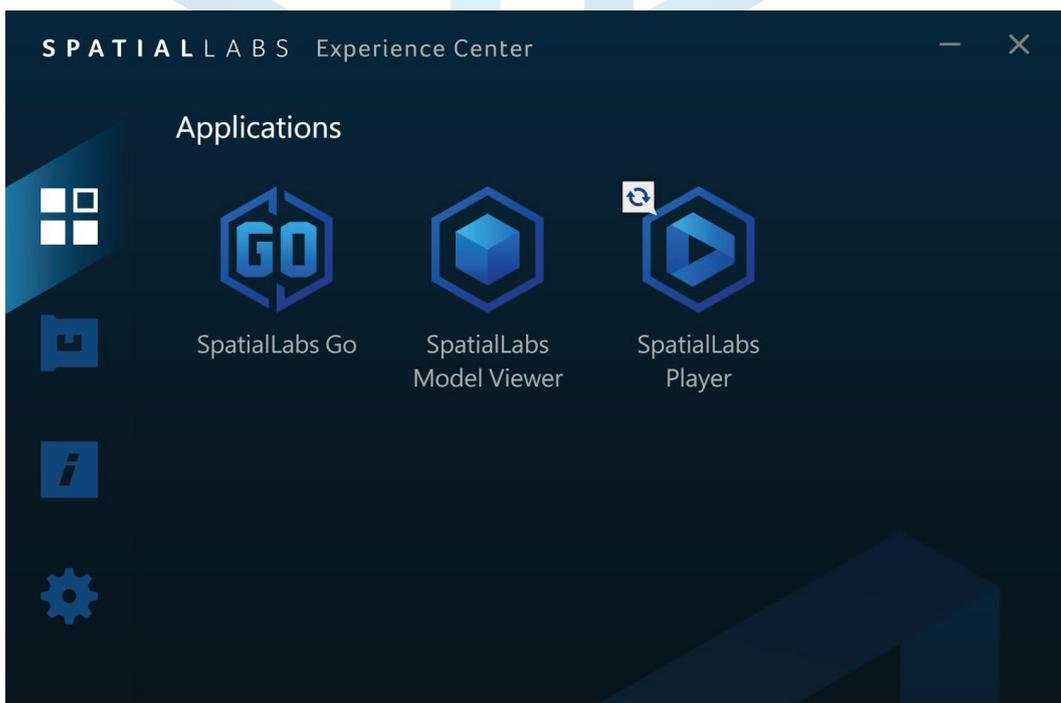
# 1 Experience Center

## 1.1 Applications



SpatialLabs Experience Center includes three applications: SpatialLabs Model Viewer, SpatialLabs Go, and SpatialLabs Player. Acer developed these applications to ensure that users and creators can utilize this device out-of-box.

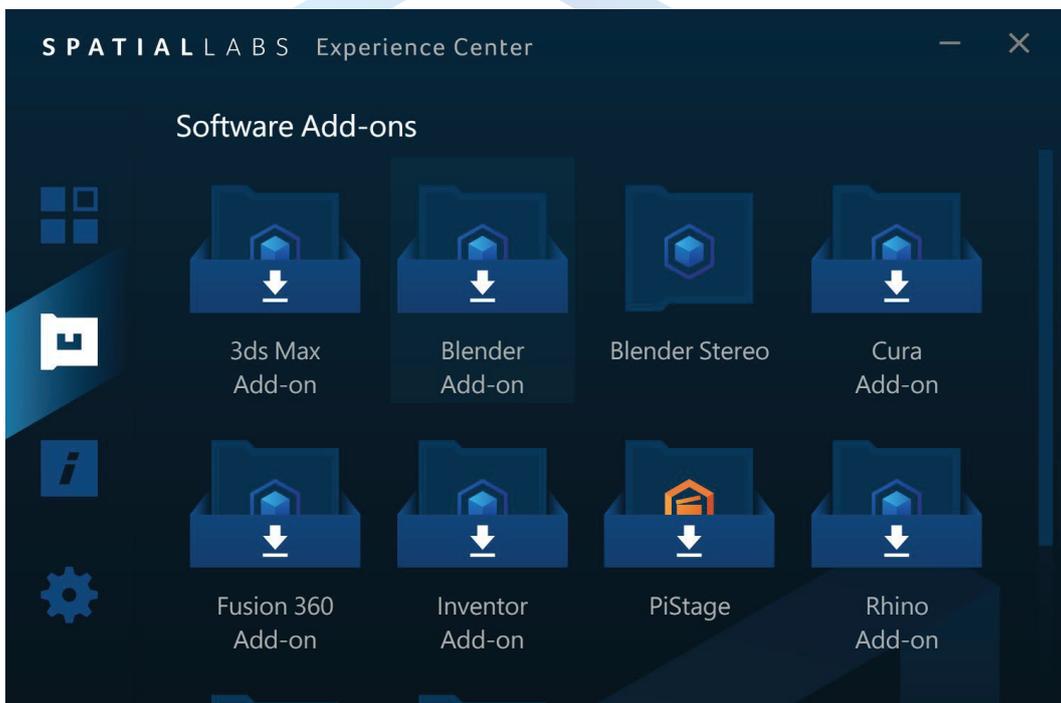
The icon that appears at the upper left-hand corner of an application indicates that an update is available.



## 1.2 Software Add-ons

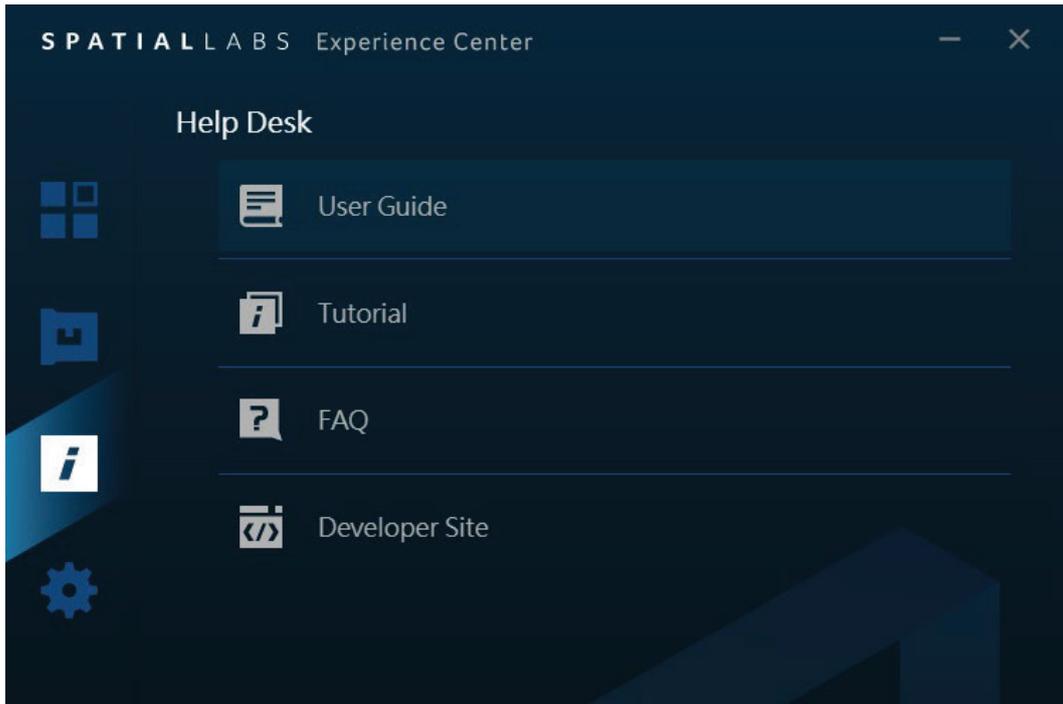
SpatialLabs Model Viewer add-ons for 3D software are available in the SpatialLabs Experience Center. In addition, you are also able to find PiStage, the middleware for Maya, here as well.

The drawer under the application icon indicates that you have not yet installed the add-on and it is available for download; the ones without meaning that you have downloaded and installed the software. If you have more than one version of the same 3D software on your system, and you wish to use SpatialLabs on both versions, you need to install the add-on for each of the versions. Simply click on the corresponding icon and you can install the add-on again for other versions.



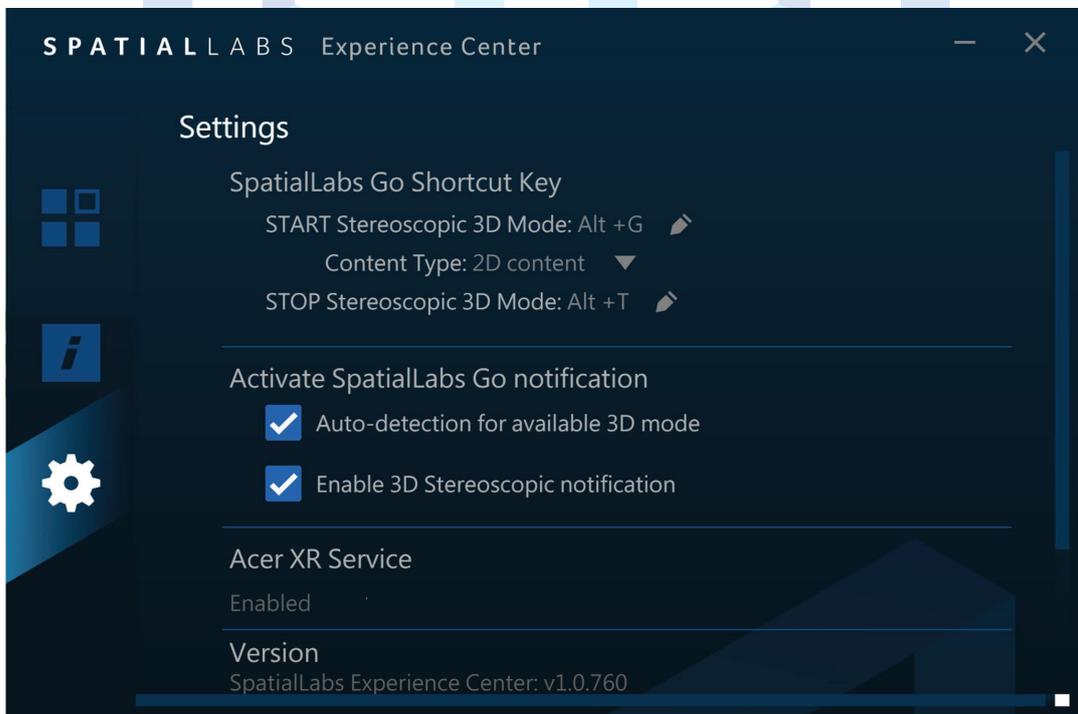
## 1.3 Help Desk

Here you are able to find additional materials, such as the FAQ, which consists of the frequently asked questions and answers. Moreover, you can also get access to the SpatialLabs Developer Site, where you can find the SpatialLabs Developer Guide for supported software or engines, and our SpatialLabs Developer Support, where you can log a ticket if you encounter any issues developing content with or for SpatialLabs experiences.



## 1.4 Settings

In the settings menu, you are able to set shortcut keys to quickly activate Stereoscopic 3D Mode. The default setting is [Alt+G] to get into the mode and [Alt+T] to exit it.



## 2 SpatialLabs Model Viewer



SpatialLabs Model Viewer is a real-time visualization tool that lets you import and convert your 3D files in the supported formats from your CAD and CGI 3D software and present them in full geometric 3D.

Utilizing real-time rendering technologies, you can interact with your creations and view them in different environment settings.

The add-on serves as a shortcut that allows you to take your 3D creation in the 3D software you are using and automatically transfer it to SpatialLabs Model Viewer with just one click. Currently supports Autodesk Fusion 360, Autodesk 3DsMax, Autodesk Inventor, Blender, Cura, ZBrush, SketchUp, and Rhinoceros.

### 2.1 Tool Bar



#### Choose Input Scheme

Change the input scheme to the same input setting as the 3D software you are familiar with. Options include Maya, Blender, 3Ds, Rhinoceros, and ZBrush. The Input Mapping Overlay can be toggled by clicking the button on the right bottom corner of the window.



#### Camera Actions



##### Reset View

The size and position will be reset to the original state when it was first imported.



##### Fit Model to Frame

The size of the model will be set to the maximum size that best fits the screen you're using for the application.



##### Set True Scale

Set a model to 1:1 scale - showing the exact size of your design as it would be in real life.



#### Import Models

Browse through your folders and select the file you wish to import. You will only be allowed to import files in the supported formats.



#### Example Models

You can save models that you have modified, get access to previously saved files, or use preloaded example files.



#### Saved Models

Access your previously saved files.

**Save Current**

Once you are done editing, you can click here and save to save your file, allowing you to later access that file later via the “Saved Models” button.

**Open Library**

Access preloaded models to examine or try out various functions before importing your own work.

**Lighting Settings**

Key Light simulates a ring-shaped light above the model’s head. You can see how the light changes at different angles on the model when you change the direction of Key Light.

- **Light Direction**  
You are able to change the light direction along the overhead light. The position is fixed at the relative position to the object, which means that the light will be fixed on one side of the object regardless how you rotate the object.
- **Light Intensity**  
Light intensity is scaled from 0 to 20 LUX. 0 is the dimmest and 20 is the brightest.
- **Color**  
You are able to change the color of the light.

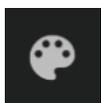
**Ambient Light**

Ambient light is an environmental effect that shines evenly in the entire environment, including the model itself.

- **Light Intensity**  
Dragging the bar left or right, you are able to change the overall brightness of the set.

**Environment Settings**

You can choose to use the HDRI background, which is a panoramic image acting as a light source to illuminate your scene, creating natural lighting effects. If you are working without an HDRI background, you can choose between a solid or linear color for the background. Choosing the linear color for the background allows you to have a better sense of depth for the set.

**Material Library**

If you have lost the texture on your model during the process of transferring your file to the SpatialLabs Model Viewer, you have different material options preloaded in the application for you to apply however you wish.

**Object Tree**

Your object tree created in the 3D software will be carried along to the SpatialLabs Model Viewer. You’ll be able to choose specific layers or objects and edit them.

**Presentation Mode**

You can create a slide show presentation here with a fixed set of preferred settings for each models, making it easier to change from model to model for review.

**Setting**

DLSS activates the plug-in developed by Nvidia which allows you to run the content on a lower performance consumption.

**Toggle Grid**

Toggle the grid in the background to give your set a more in-depth look and feel.

**Toggle Input Mapping Overlay**

You can hide the Input Mapping Overlay to stop it from blocking your window when you are reviewing the model.



**Start Tutorial** If you would like to skim through the description for each function, the tutorial will walk you through different areas of the SpatialLabs Model Viewer.

## 2.2 Mouse Commands

By pulling the object out along the Z axis, you are able to see that the object floats in front of your screen.

Command	Function
Press left mouse button & drag	Rotate
Press right mouse button & drag	Move
Scroll with the mouse wheel	Zoom in & out
Press wheel & drag	Pop out & push in

## 2.3 Supported File Formats

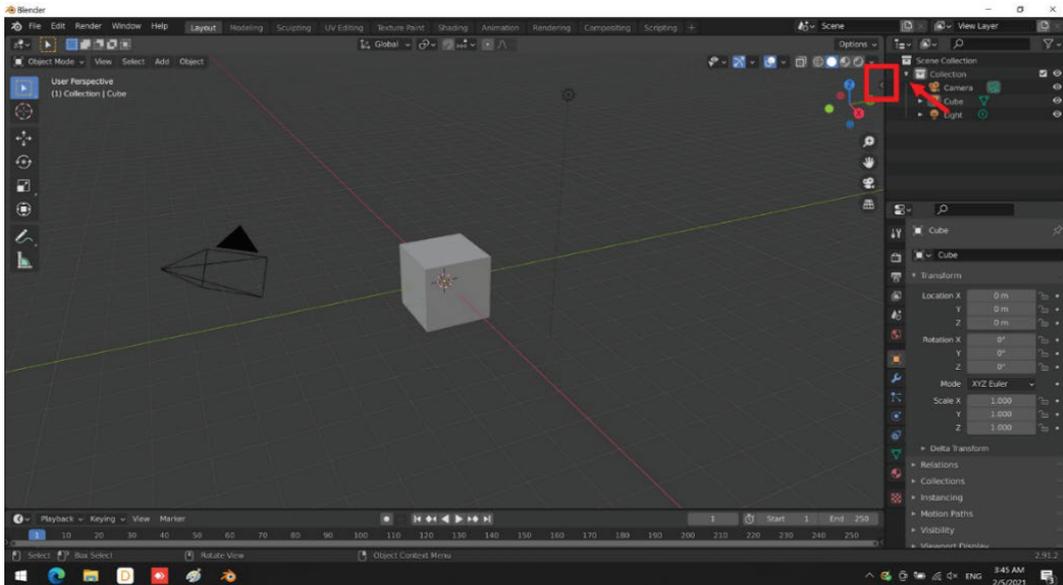
3DS	GCO	glb	IGES
	DAE (COLLADA)		STP
FBX		IGS	

## 3 SpatialLabs Model Viewer Add-ons

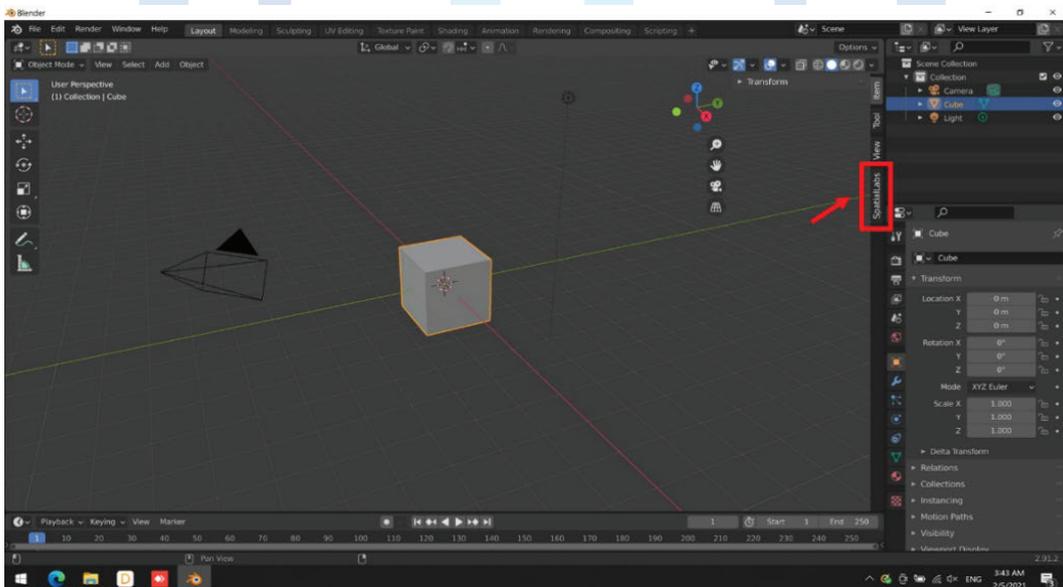
The add-on serves as a shortcut that allows you to take your 3D creation from different 3D software and import them automatically to SpatialLabs Model Viewer. You don't have to launch SpatialLabs Model Viewer in advance as everything will be done with just a single click. The examples below will describe the various shortcut buttons as it varies from software to software.

### 3.1 Blender

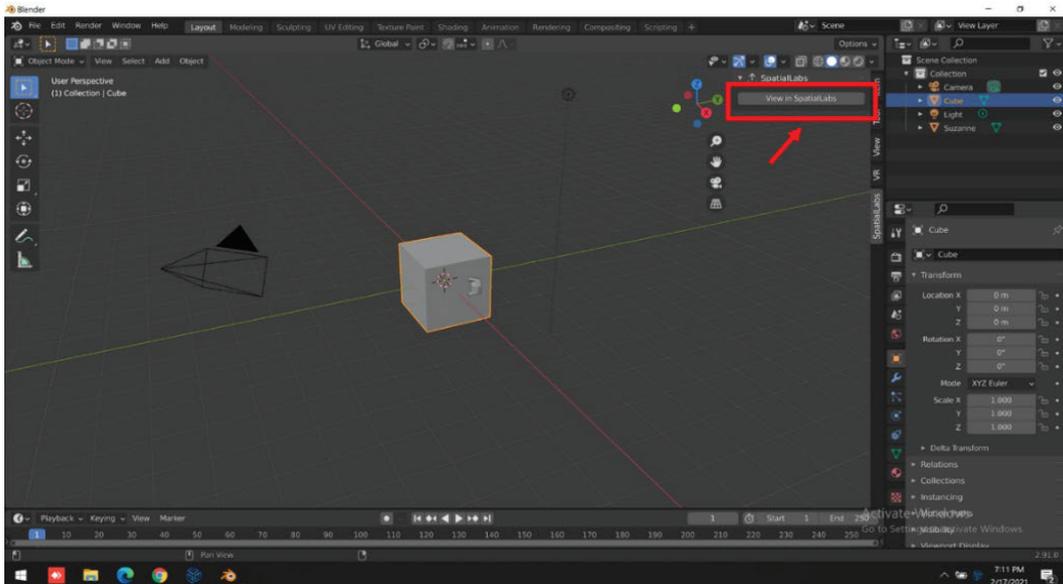
Once the add-on is installed, you can see the shortcut tab on the right-hand side. There is a small tab with an arrow.



Unfold the bar by clicking the tab. You will be able to see the “SpatialLabs” tab at the very bottom.



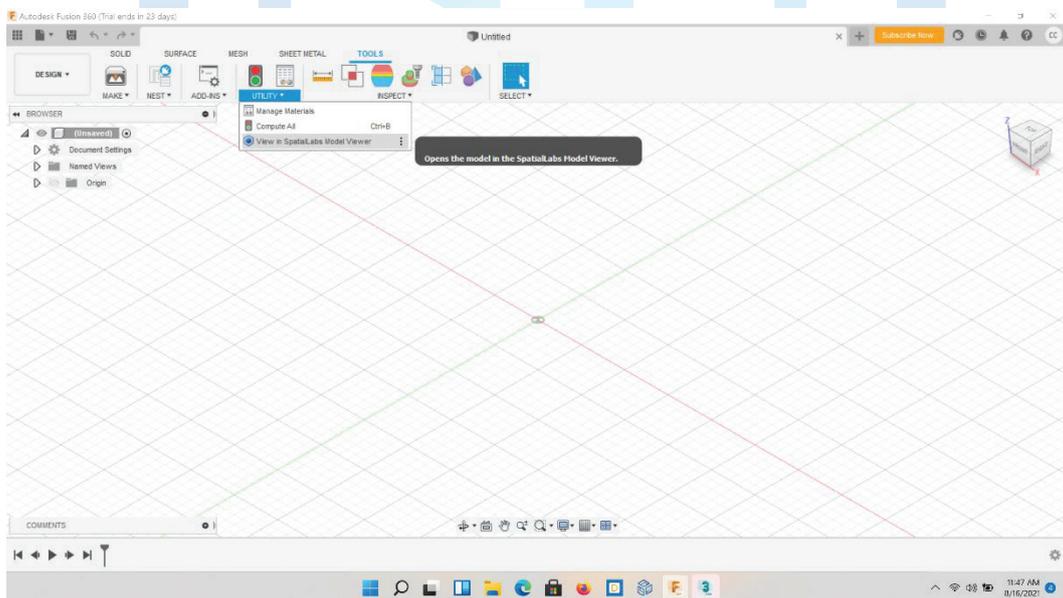
Left click the tab to see the “View in SpatialLabs” button.



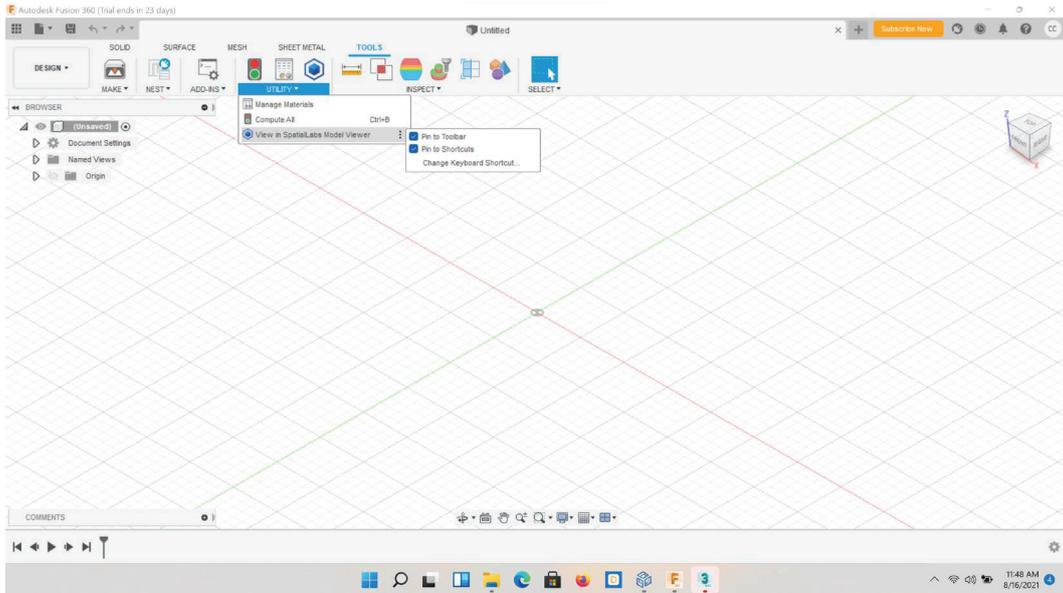
Left click the button and the model will automatically open in SpatialLabs Model Viewer. The content will take a short period of time to transfer and render in SpatialLabs Model Viewer.

### 3.2 Autodesk Fusion 360

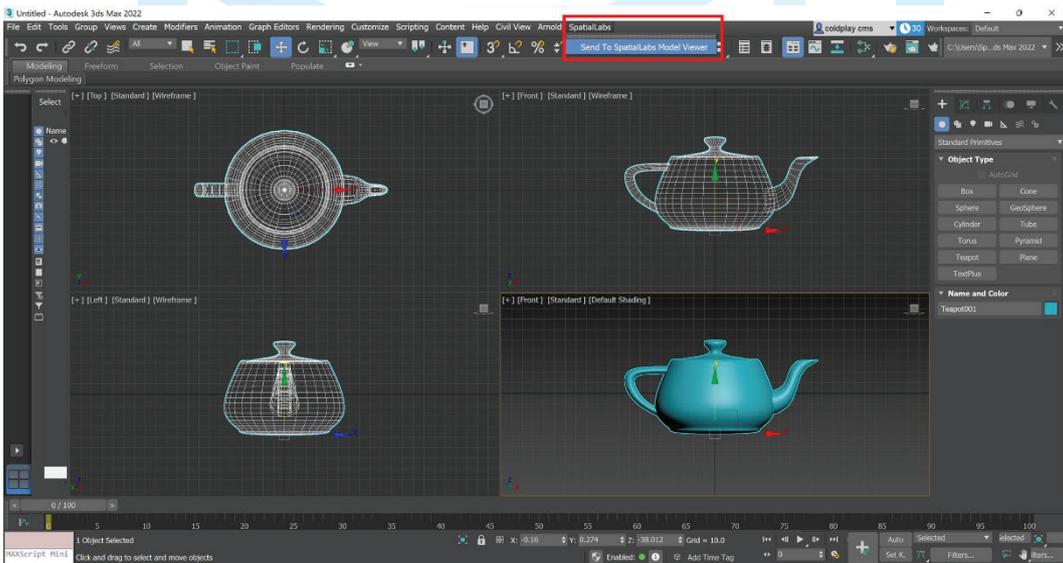
You will be able to find “View in SpatialLabs Model Viewer” under the “Utility” tab.



You can also pin this button on your main tool bar via the steps below.

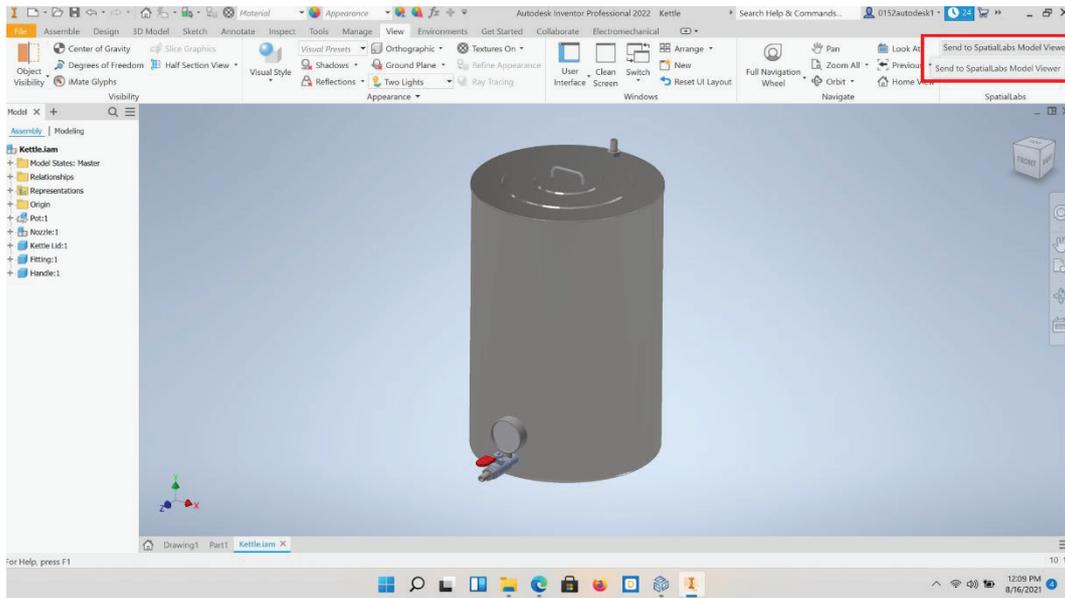


### 3.3 Autodesk 3DS MAX



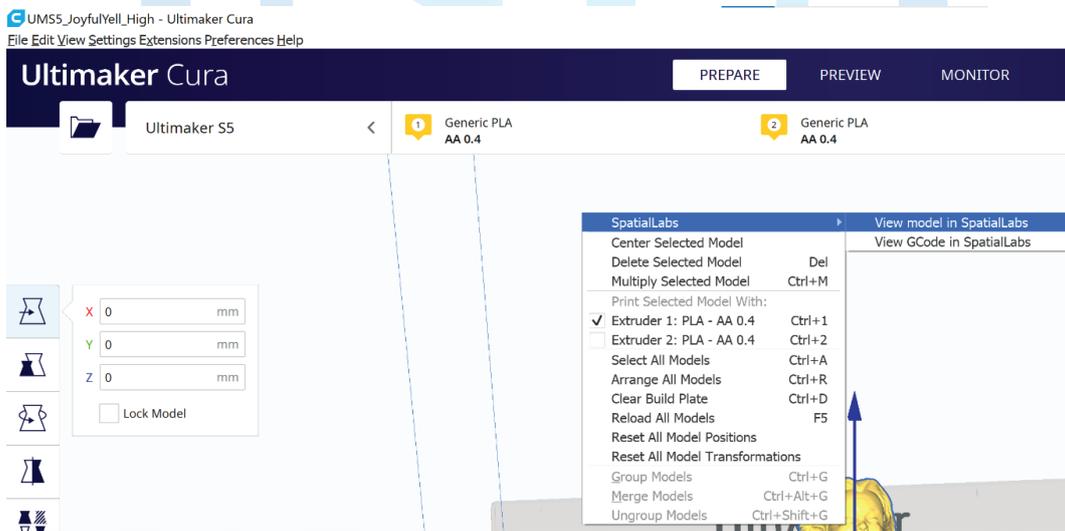
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### 3.4 Autodesk Inventor



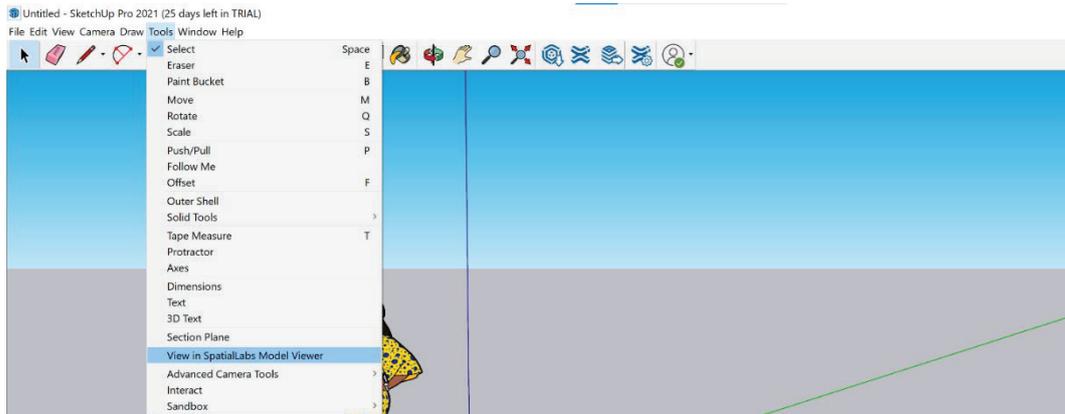
### 3.5 Cura

Right click the mouse to bring up the menu and find the SpatialLabs options.

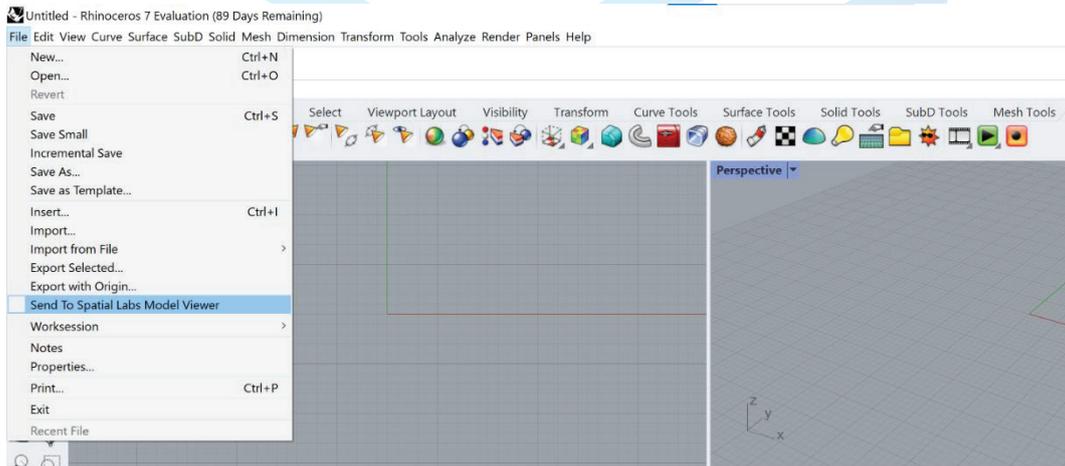


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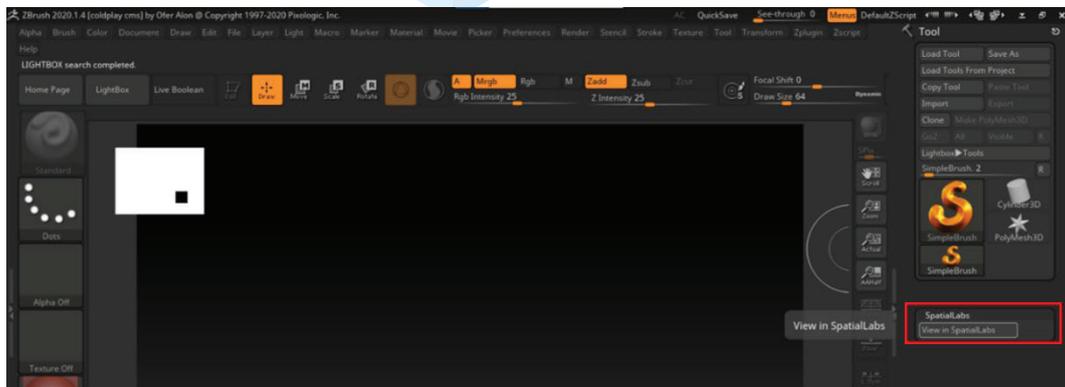
### 3.6 SketchUp



### 3.7 Rhinoceros



### 3.8 Zbrush



## 4 SpatialLabs Go



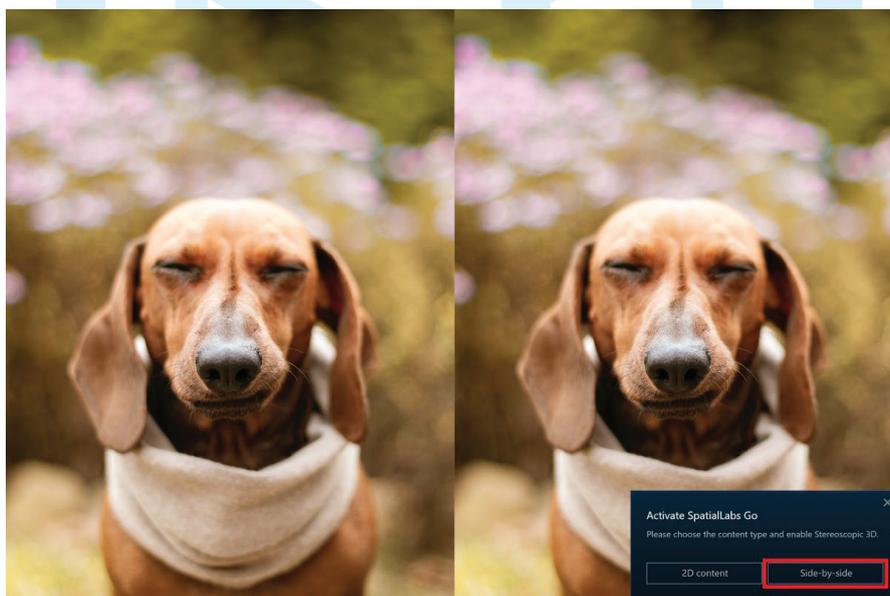
SpatialLabs Go allows you to view your content in Stereoscopic 3D Mode with just one click.

Whether it's user-generated 2D content such as photos, videos, games, video conferencing and messaging applications, or already existing side-by-side content already available on applications or platforms like YouTube, SpatialLabs Go can generate real-time stereoscopic 3D content from it.

You can find SpatialLabs Go in the SpatialLabs Experience Center. After launching the application, the icon will show on the top layer of your desktop. Make sure the photo viewing application\* or media sharing platform (such as YouTube) you are using can be toggled into full-screen.

Open your applications or search for the keyword "side-by-side" or "SBS" videos and then set the screen in full-screen mode. Click on the SpatialLabs Go icon, and there will be a dialogue window

If you are looking at a side-by-side content:



Or if it is a 2D picture:



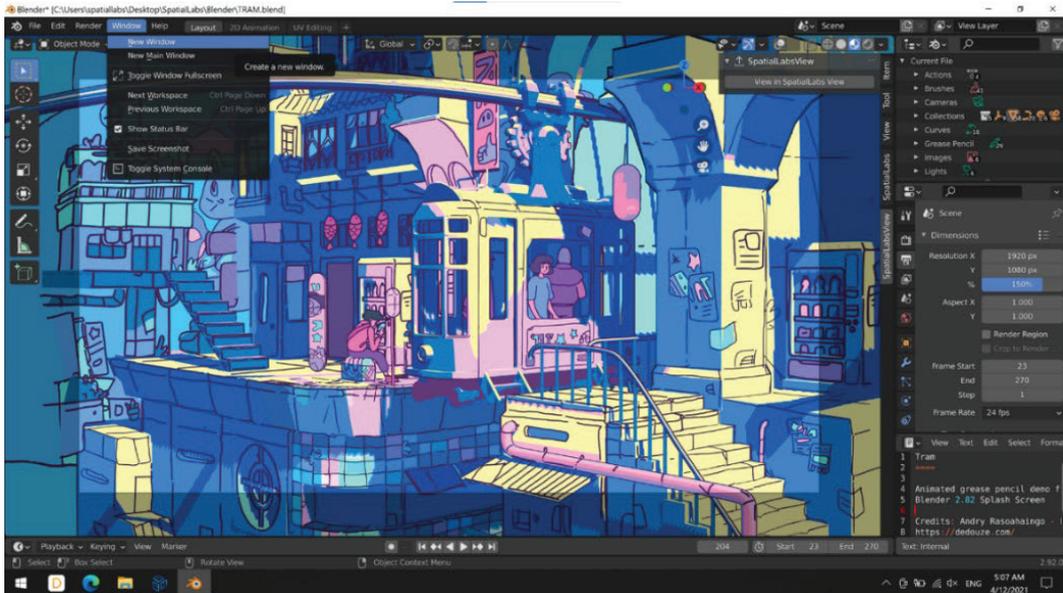
Just choose the corresponding button, and it should start the weaving automatically. Press [Alt + T] to exit Stereoscopic 3D Mode.

If you are using MPC-HC, Windows Media Player, Microsoft Movie & TV, or Microsoft Photos, the application may prevent you from seeing the SpatialLabs Go icon. To activate stereoscopic 3D mode or view side-by-side content in these applications, use the associated hotkey as defined in the SpatialLabs Experience Center shortcut key settings.

#### 4.1 Blender

Activating Blender's native side-by-side feature through our add-on "Blender Stereo," the viewing window will be set to side-by-side full screen. With just one click on SpatialLabs Go, the viewing window can be changed to Stereoscopic 3D Mode. Please note that when using SpatialLabs Go, the 3D effect will be more obvious in more complex scenes as opposed to a simpler scene with a basic model. This is currently a limitation of the native side-by-side feature in Blender that we aim to improve in future updates. Blender also gives you the flexibility of duplicating your window. As such, when connecting to an external monitor, you are able to edit on a 2D external display while viewing the changes on the SpatialLabs device in real-time. Load your preferred project, then go to "Window" -> "New Window." It will launch a secondary window.

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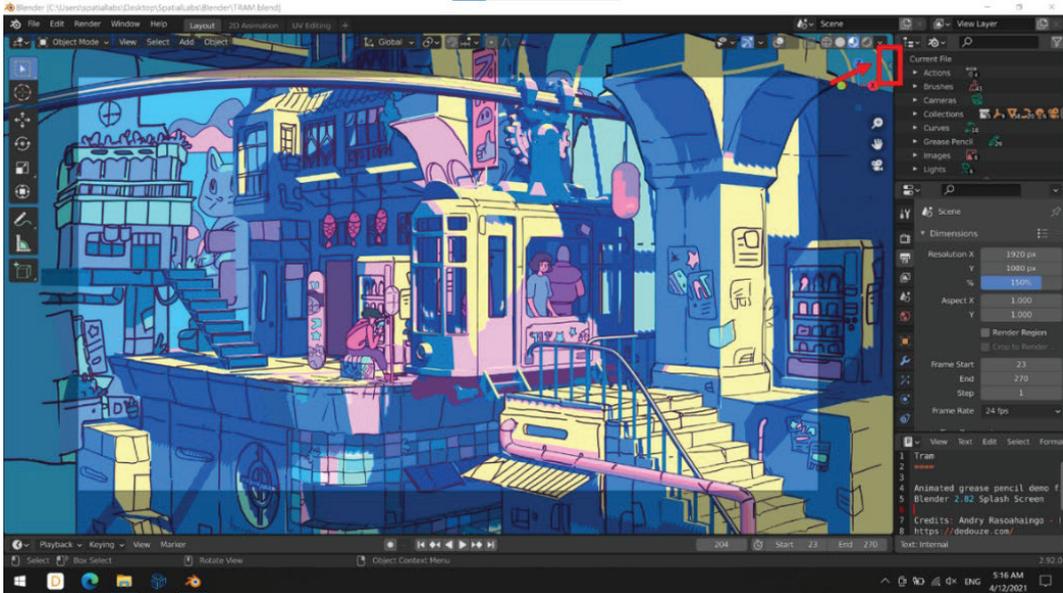


The secondary window will not have the top toolbar. Drag the main window to your extended screen and keep the secondary window on your laptop.



Go to the laptop screen and click on the little arrow to unfold the right hand side add-on bar.

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Go to “SpatialLabs View” -> “View in SpatialLabs View.”



The window will be automatically toggled into side-by-side full-screen view.

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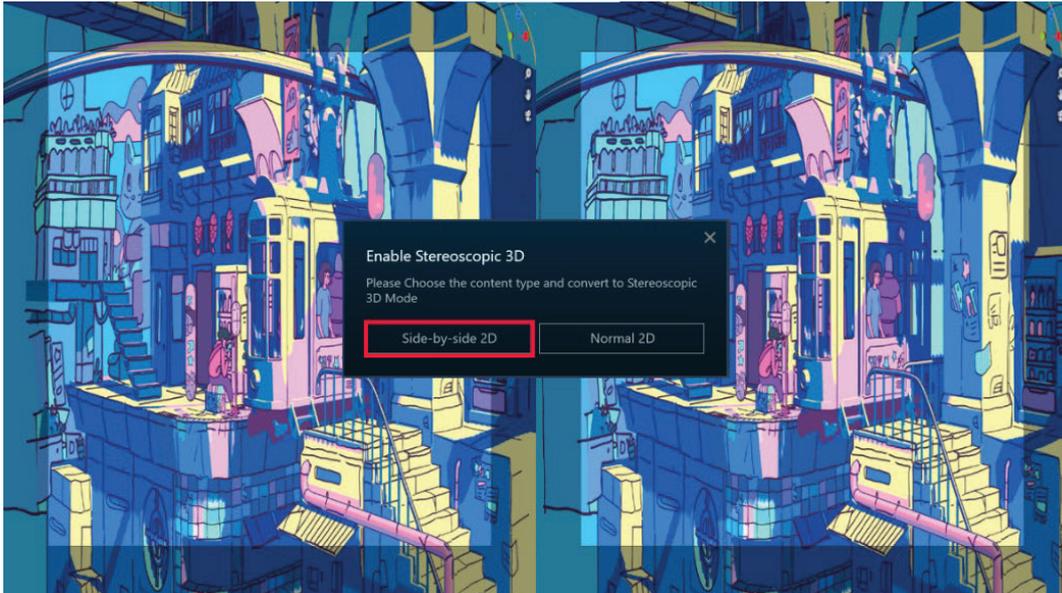


Launch SpatialLabs Go, and click on the SpatialLabs Go icon.



A dialogue window will pop up. Click on the “Side-by-side 2D” button. The image will be converted into stereoscopic 3D.

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If you want to exit the mode, press [Alt + T]. This key combination can be changed via the Settings tab in SpatialLabs Experience Center.

## 4.2 2D Content Generation and Selection Guideline

### 4.2.1 Photos/Videos

User generated content such as photos and videos can be converted into stereoscopic 3D. You can use your preferred application to view your photos and videos as long as they can be set into full screen. Once set to full screen, click on and launch SpatialLabs Go. Your content will be converted into stereoscopic 3D in real-time. As the technology uses AI to generate depth for creating a stereoscopic 3D viewing experience, some layouts are preferred as the end result would be more obvious. For example:



Not preferred.

There is no obvious depth set from the dog and the background, which causes difficulty in creating a depth map for such a picture.

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Preferred.

There is a clear sense of depth with the portrait mode of the camera, which is easier for AI to detect the object and create a depth map for it. You'll see a very obvious popping out effect with the dog in the picture.

#### 4.2.2 Games

Games with third person point of view are preferred considering how the stereoscopic image is formed. For example:



### 4.2.3 Live Video Streaming

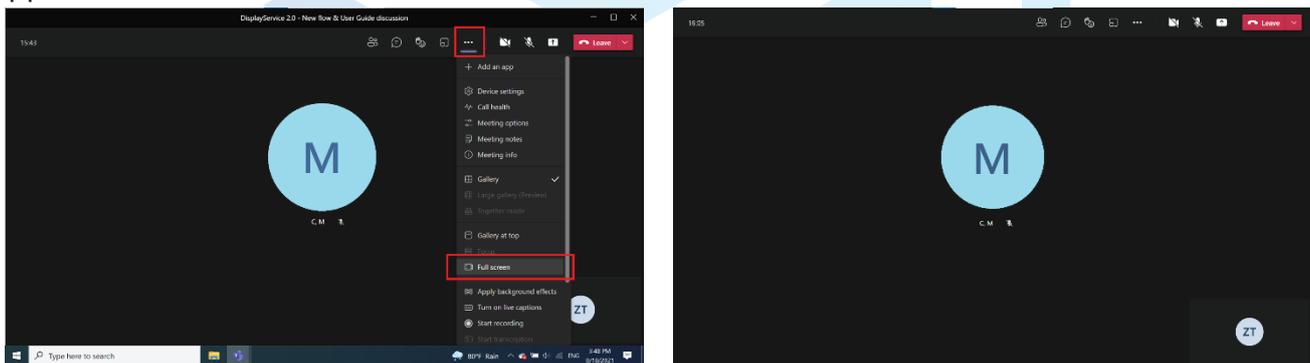
SpatialLabs Go can use AI to turn your live video feed into stereoscopic 3D. All you have to do is to set the application on your laptop into full screen, then press the SpatialLabs Go button - the application analyzes your feed and generates a stereoscopic 3D view in real-time.

Conferencing applications such as Microsoft Teams, Zoom, Google Meet, BlueJeans, and WebEx are tested to support full screen mode. Further, messaging applications like Line, Skype, WeChat, and Facebook Messenger support full-screen as well.

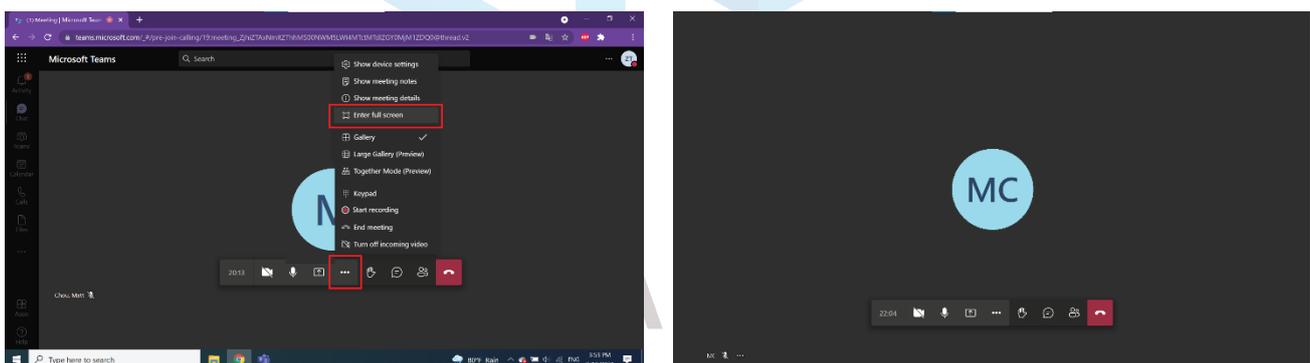
You can follow the below steps to set your viewing window into full screen with these applications.

#### 4.2.3.1 Microsoft Teams

Application:

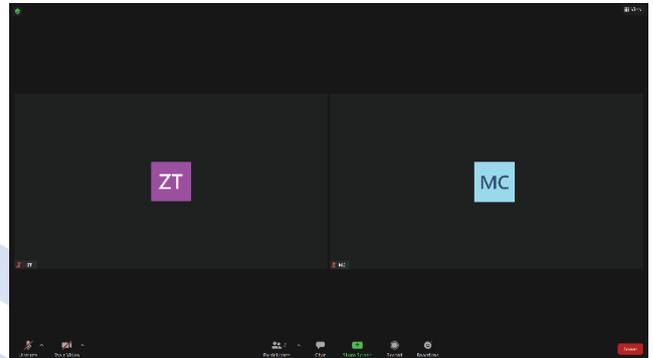
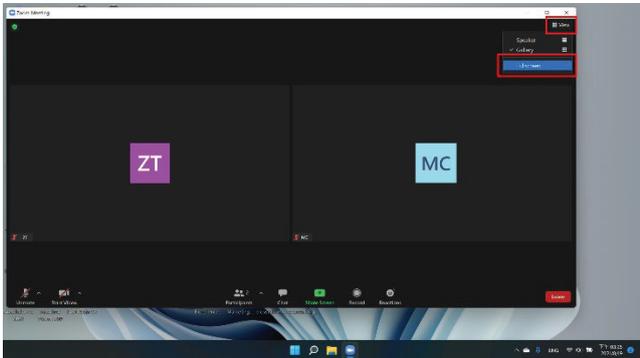


Web version:

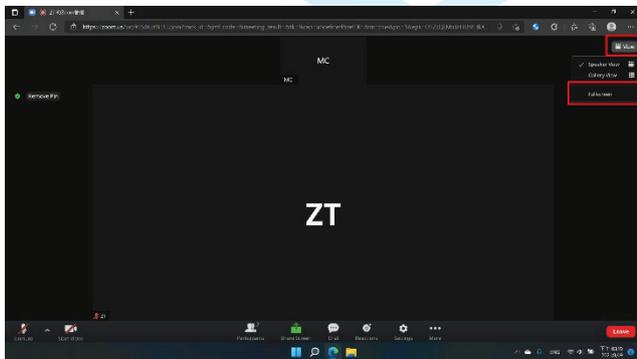


### 4.2.3.2 Zoom

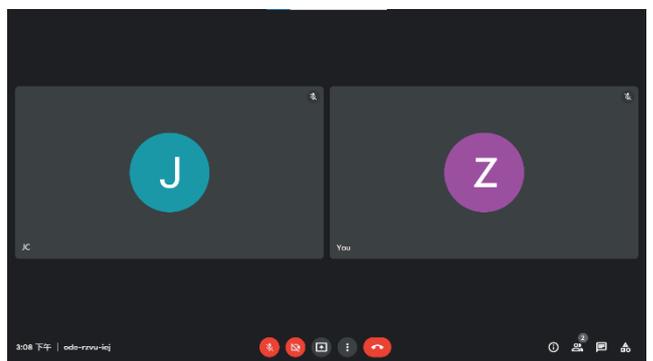
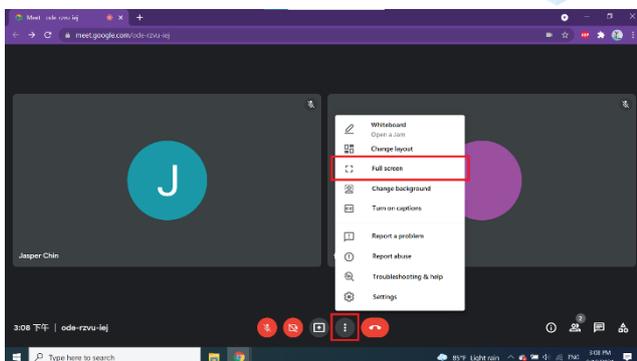
Application:



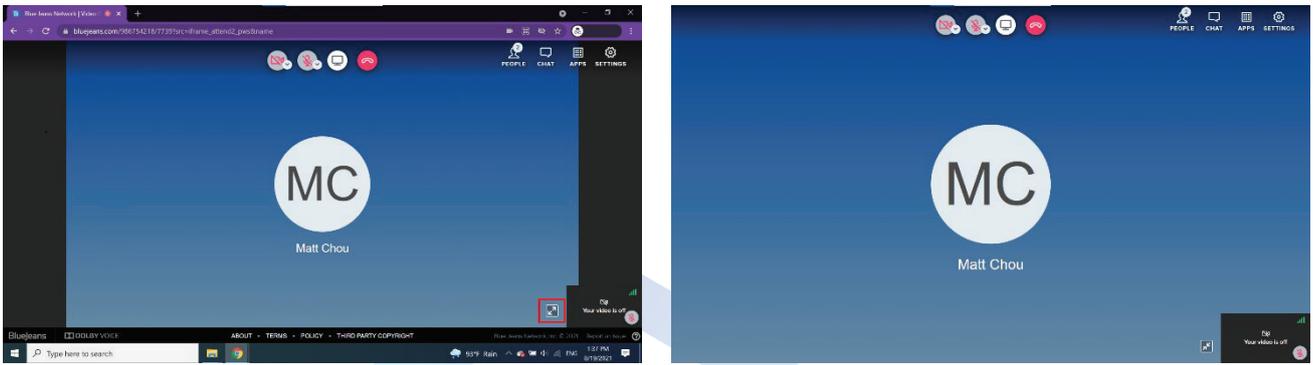
Web version:



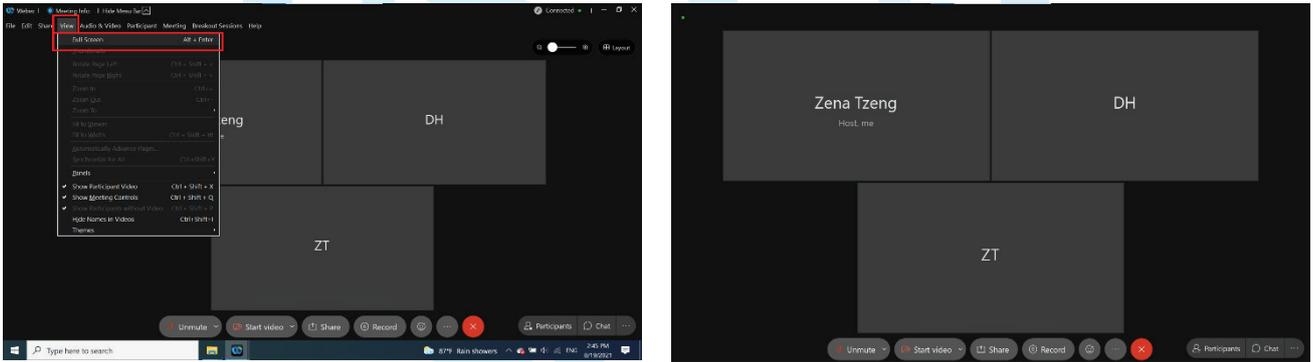
### 4.2.3.3 Google Meet



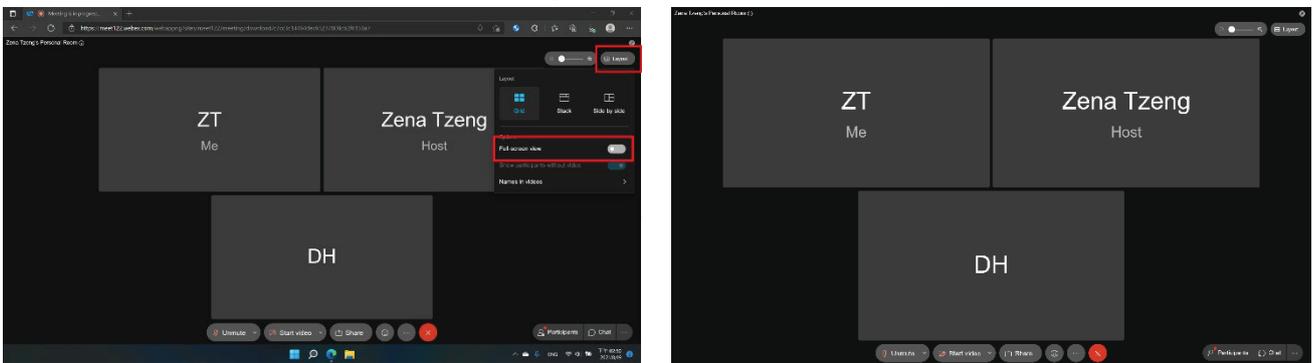
### 4.2.3.4 BlueJeans



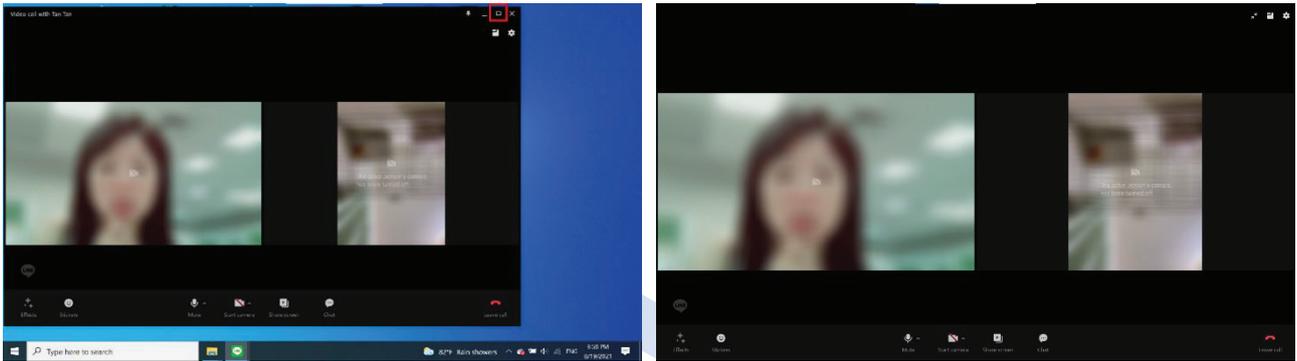
### 4.2.3.5 WebEx Application



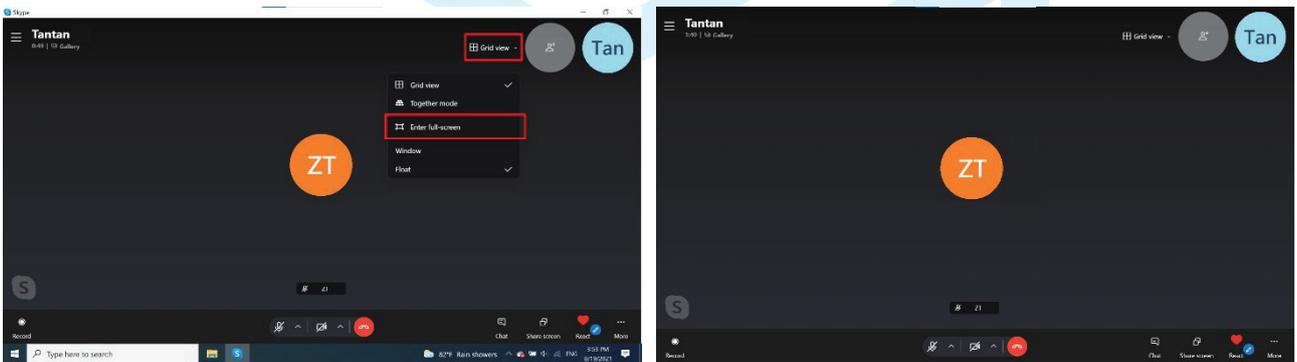
### Web version



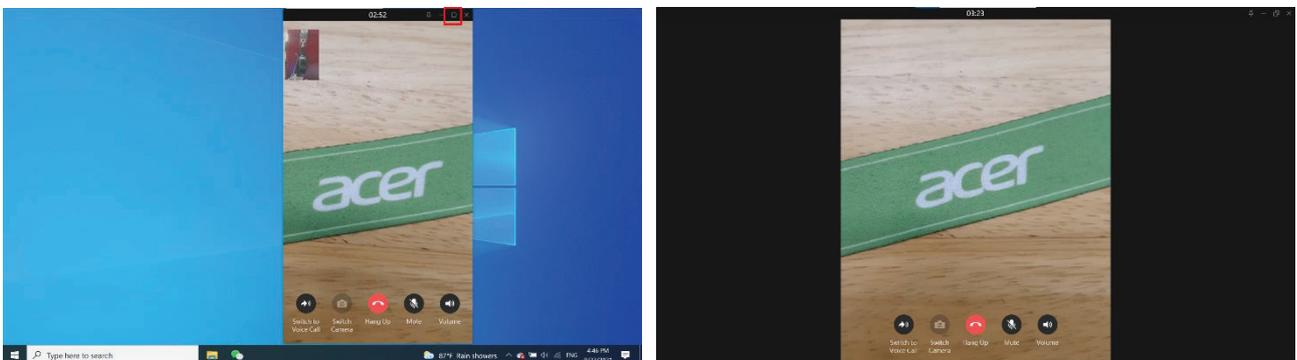
### 4.2.3.6 Line



### 4.2.3.7 Skype



### 4.2.3.8 WeChat

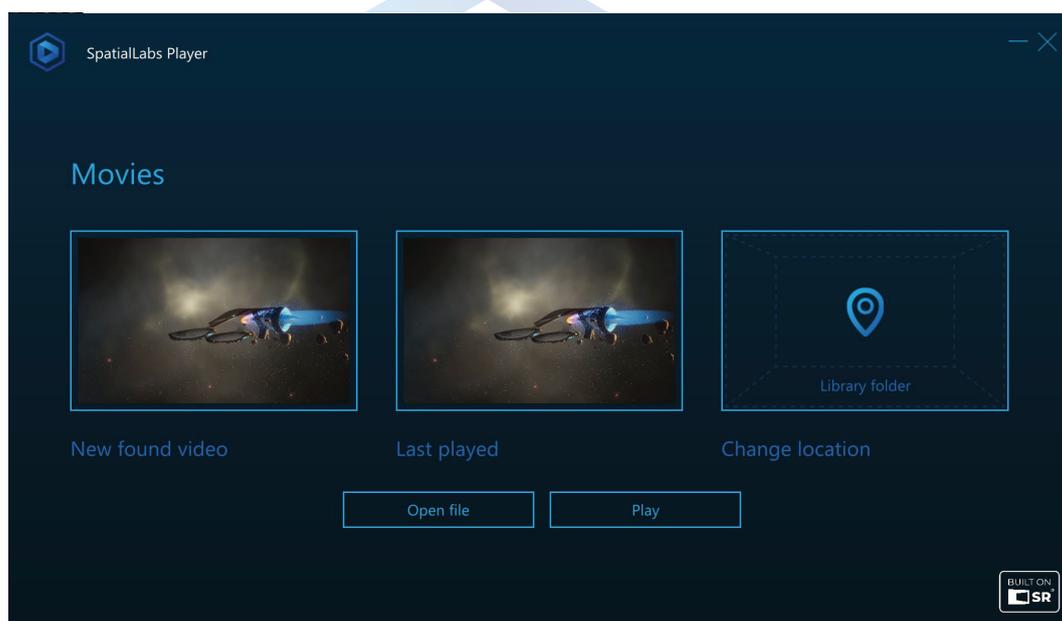


## 5 SpatialLabs Player



The SpatialLabs Player allows you to view side-by-side videos in Stereoscopic 3D Mode.

### 5.1 Functions



Button	Description
New Found Video	The latest file put into the identified library folder at “Change location” will be shown here.
Last Played	The last video played will be shown here.
Open File	You can skim over the files in your drive and play any side-by-side videos.
Play	When either “New found video” or “Last played” video is selected, you can hit the “Play” button and the video will play in the video play window.
Change Location	You can identify a library folder for your side-by-side stereo or 3D videos. Files you put in the folder will be reflected on the “New found video” section.

You are able to switch between 2D and 3D effects with the button indicated below.



## 5.2 Shortcut Keys

Keyboard Button	Description	Keyboard Button	Description
[F4]	Change between 2D and Stereoscopic 3D Mode	[Left]	Rewind 10 seconds
[F3]	Loop the video	[Up] / [Down]	Raise/lower the volume
[Space]	Pause or play the video	[R]	Repeat
[Right]	Fast-forward 10 seconds	[Esc]	Exit the video play window

## 6 Game Engines Support

You can get access to assets like plugins, developer guides, and developer support via either the link in SpatialLabs Experience Center under the Help Desk tab, or the following link

<https://spatiallabs.acer.com/developer>.

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