



## ZEISS UNIVIEW Software Suite for Planetariums

### UNIVIEW 2.1 Panels Tutorial



## UNIVIEW Software Suite

# UNIVIEW Software Suite

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# UNIVIEW Software Suite Panels Tutorial



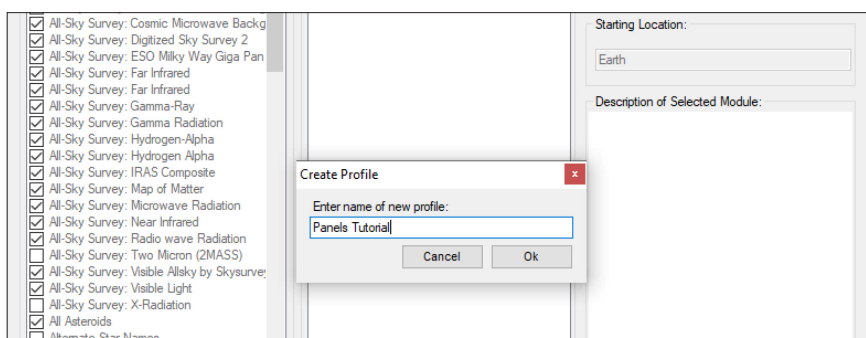
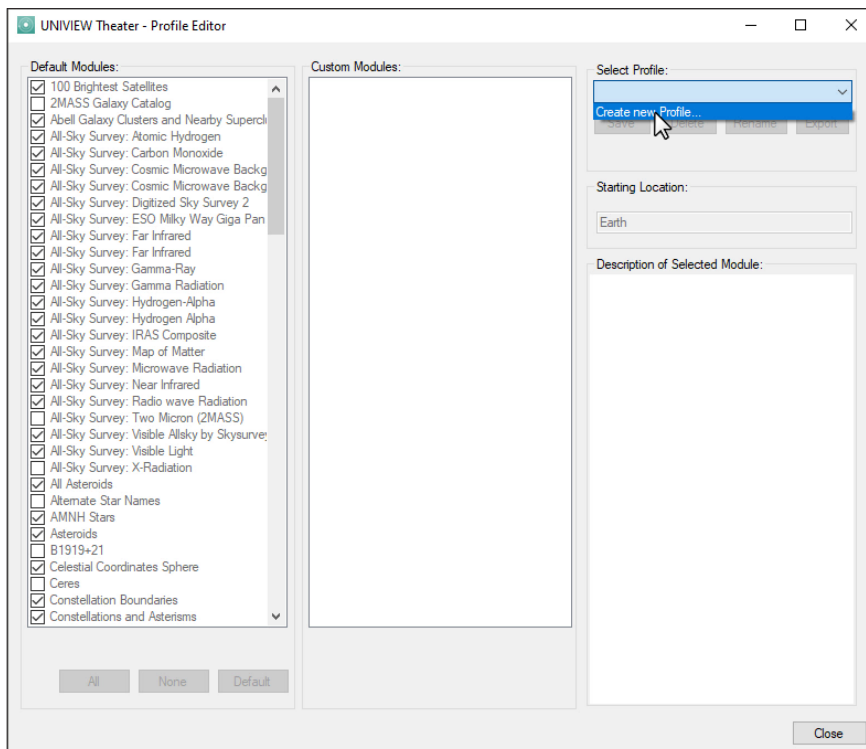
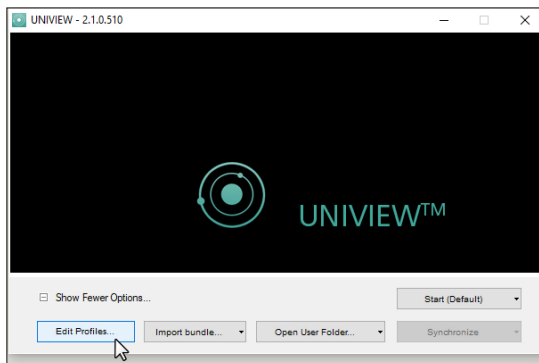
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## Create a Panel presentation

### Preparation

In this Panels Tutorial we will create a short sample presentation to demonstrate the basics of Panels building and presentation.

- Boot up the software suite through the powerdome Control interface.
- Close UNIVIEW and restart.
- Create a new Profile (each profile can contain one Panel Presentation).



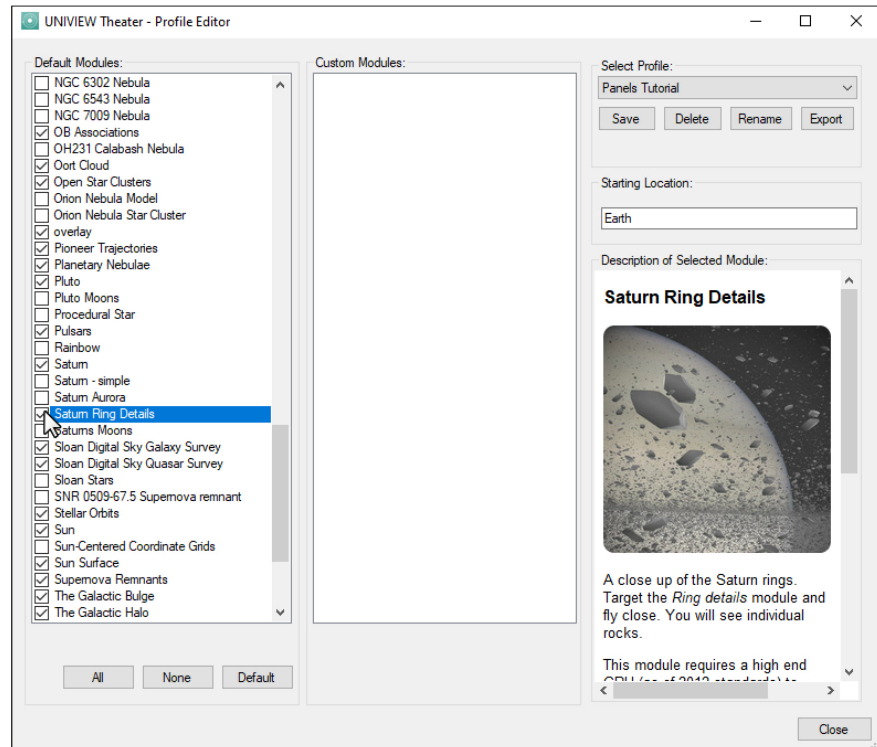


## UNIVIEW Software Suite

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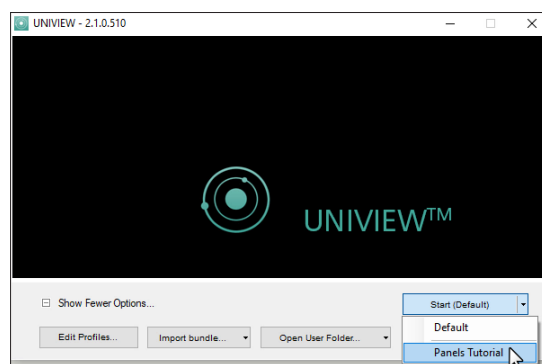
- Choose Modules
- Make sure to include the "Saturn Ring Details" Module in the Profile, we will use it in this Panels Presentation. All others which we will use should be already selected, but you can double check if you like.



Other necessary modules:

- All-Sky Survey: Visible Light
- AMNH Stars
- Earth
- International Space Station (high detail version)
- Jupiter
- Mars
- Mercury
- Milky Way Galaxy
- Neptune
- Saturn
- Sun
- Sun Surface
- The Galactic Bulge
- The Moon
- Tully Galaxy Catalog
- Uranus
- Venus

- Save Profile
- Start Unview with the new profile



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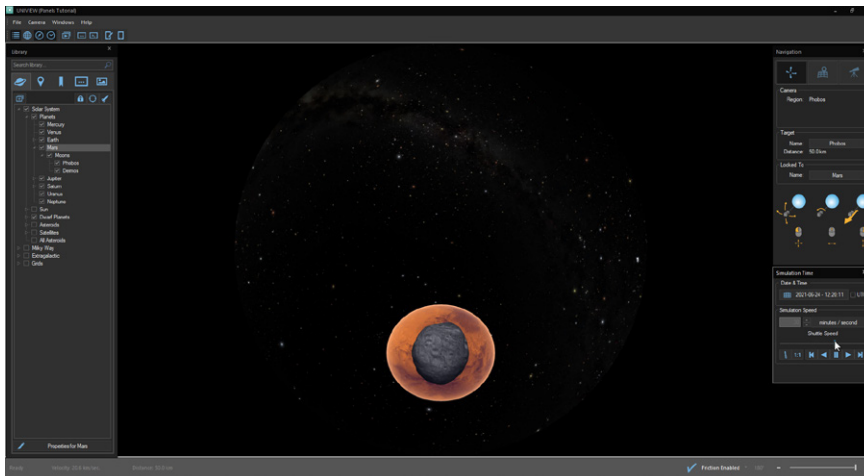
- Create content to populate the Panels Presentation:

### Bookmarks

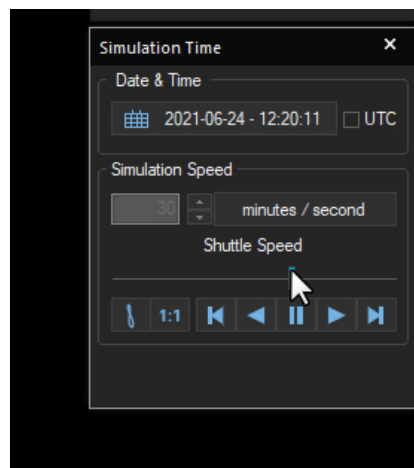
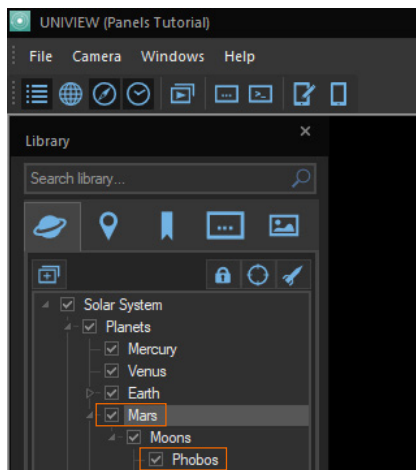
*Phobos night side:*

We will use this Bookmark in the Mars Panel.

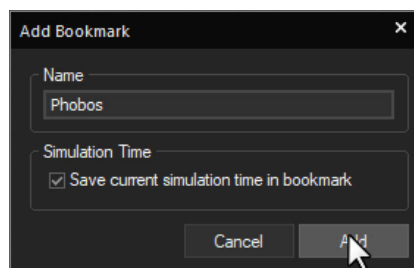
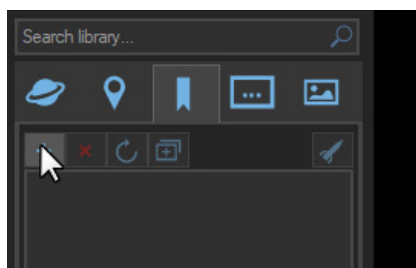
- Pause Simulation Time.
- Right click on Phobos in the Library Object Tree and select Jump to.
- Right click on Mars in the Library Object Tree and select Lock and Align, then move the Shuttle Speed slider in the Simulation Time window (minutes/second) until you have a night view of Phobos with Mars visible in the background.



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- Click on the Bookmarks Tab in the Library Window.
- Click on the "+" to add a new Bookmark.
- Give the Bookmark a name and check the "Save current simulation time in bookmark" checkbox so that you will always return to the same view and time.
- Click Add.





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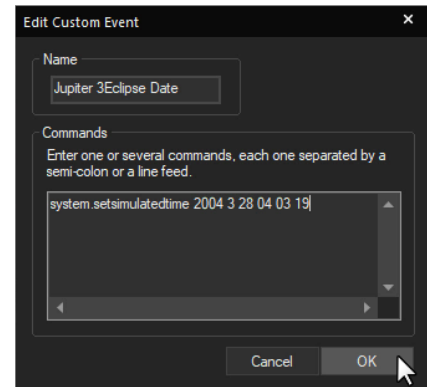
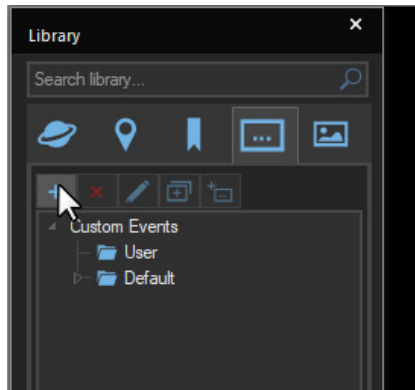
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## Custom Events

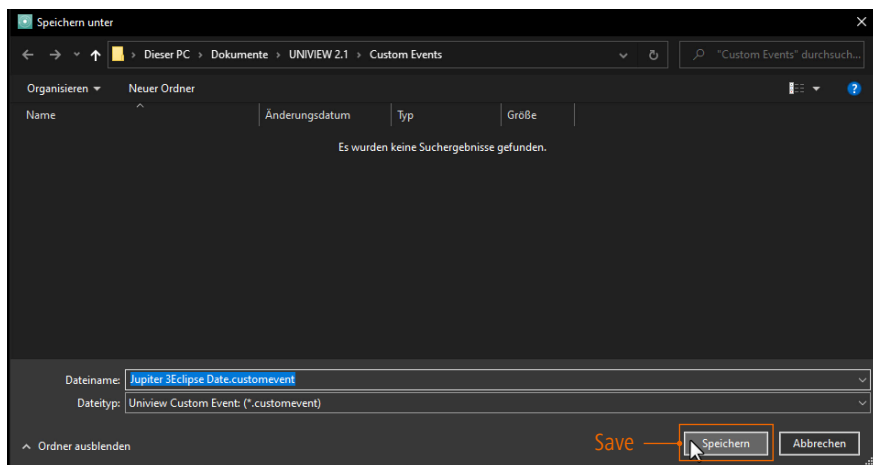
### *Jupiter Triple Eclipse 3/28/2004 View and Date:*

We will use these two Custom Events to set up a "scene" which we will use to demonstrate a triple eclipse on Jupiter.

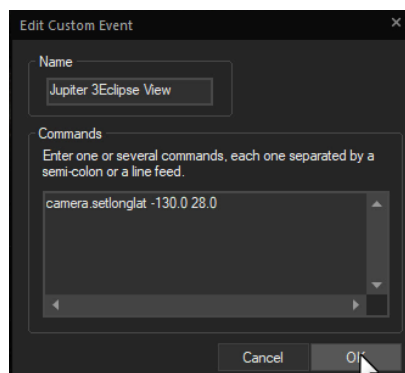
- Click on the Custom Events Tab in the Library window.
- Click on the "+" to add a new Custom Event.
- In the Name box enter a name such as: Jupiter 3Eclipse Date.
- In the Commands box enter: `system.setsimulatedtime 2004 3 28 04 03 19`.



- Click OK and then click Save in the next dialog window. It should by default save to the Custom Events folder.



- Click on the "+" to add a new Custom Event.
- In the Name box enter a name such as: Jupiter 3Eclipse View.
- In the Commands box enter: `camera.setlonglat -130.0 28.0`.
- Click OK and then click Save in the next dialog window. It should by default save to the Custom Events folder.



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### ISS Fly to

We will use this Custom Event to fly to the ISS.

- Click on the "+" to add a new Custom Event.
- In the Name box enter a name such as: ISS Fly to.
- In the Commands box enter: camera.flyto ISS.
- Click OK and then click Save in the next dialog window. It should by default save to the Custom Events folder.

### Lock View Earth

We will use this Custom Event to lock the camera onto the Earth to demonstrate Earth phasing from the point of view of the Moon.

- Click on the "+" to add a new Custom Event.
- In the Name box enter a name such as: Lock View Earth.
- In the Commands box enter: camera.setaim Earth.
- Click OK and then click Save in the next dialog window. It should by default save to the Custom Events folder.

### Jump to Saturn

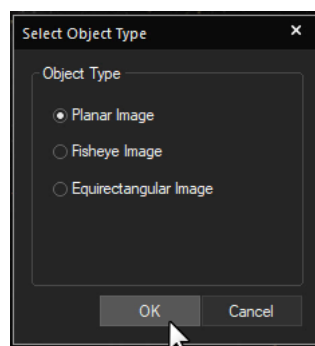
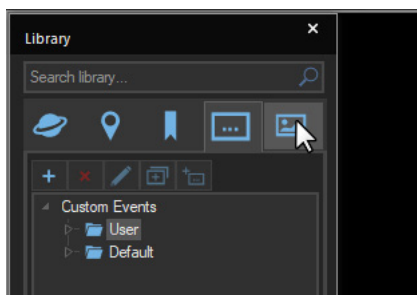
We will use this Custom Event to jump to a centered view of Saturn from Saturn Ring Details.

- Click on the "+" to add a new Custom Event.
- In the Name box enter a name such as: Saturn Jump To.
- In the Commands box enter: camera.jumpto Saturn.
- Click OK and then click Save in the next dialog window. It should by default save to the Custom Events folder.

### Saturn Image

We will use this image in the Saturn Panel.

- Find a suitable image of Saturn from Voyager or Hubble or wherever and save it to your images directory.
- Click on the Dynamic Objects Tab.
- Open windows explorer and navigate to the image.
- Click and drag the image and drop it directly onto the rendering window (dome view). Select object type Planar Image. Grab the image and move it to the desired area of the dome.



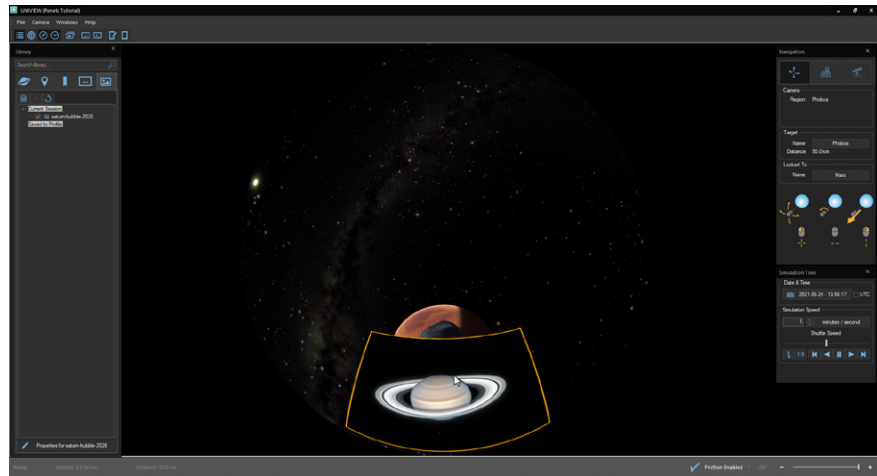
- Select the image in the Dynamics Objects Tab (uncheck the checkbox) and click on the Save icon to save it to the Profile.



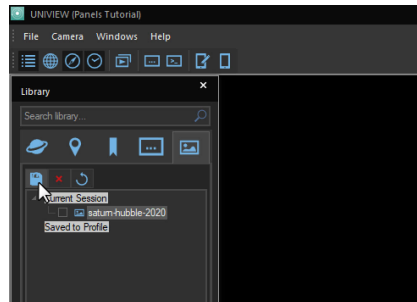


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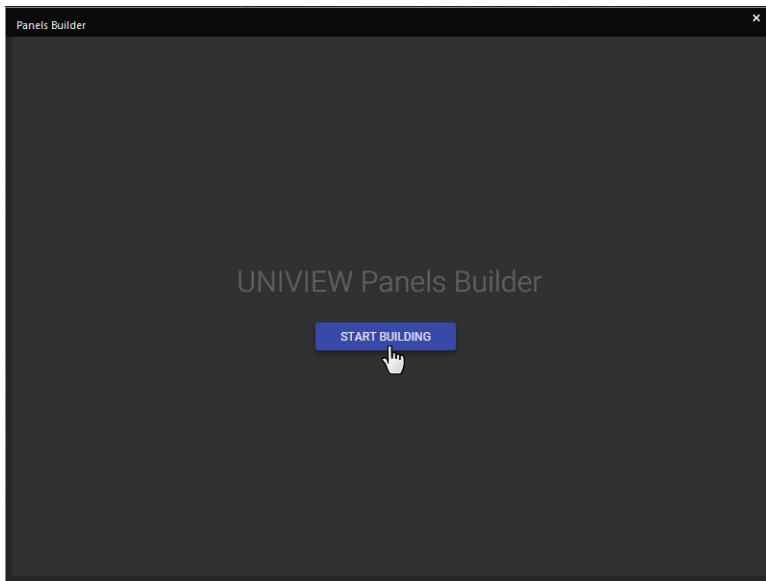
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## Building the Panels Presentation

- Open the Panels Builder window  
(button from the main toolbar or *Windows* menu > *Panels Builder*).

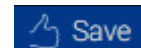


- In the Panels Builder window click on Start Building.



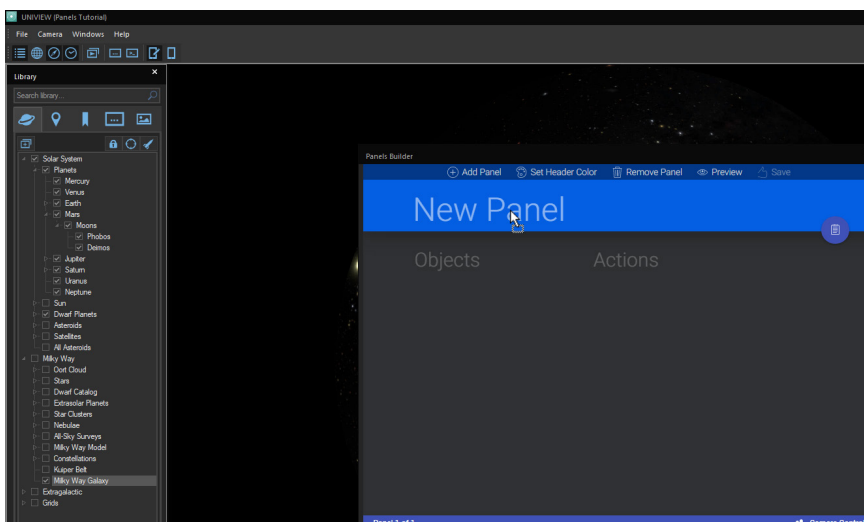
Remember to click on the "Notepad" icon to open the "Notes" area if you would like to add notes to your Panel.

Remember to save the presentation occasionally while you are building!



### Panel 1: Milky Way

- Use a view from outside of the Milky Way as the starting location.
- Click and drag the Milky Way Galaxy object, found under Milky Way in the Library Object Tree, to the title bar of the Panel and select Jumpto and Rotate Right.

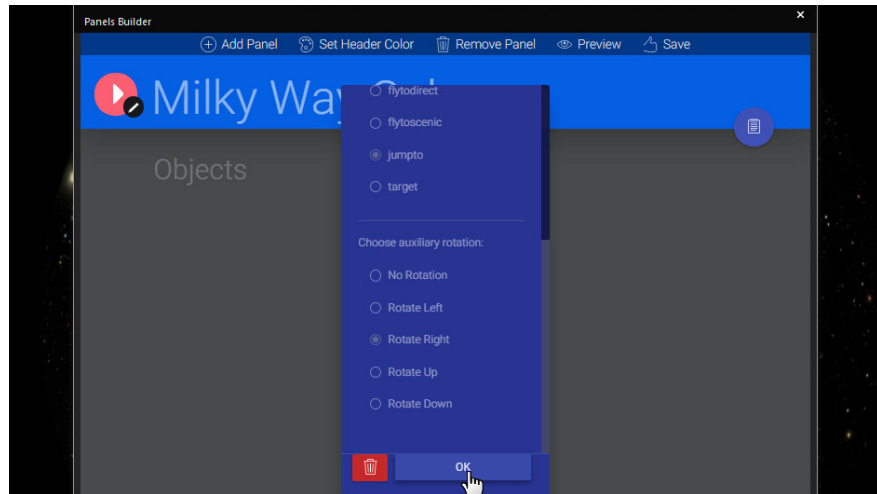




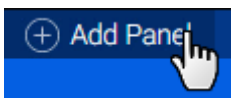
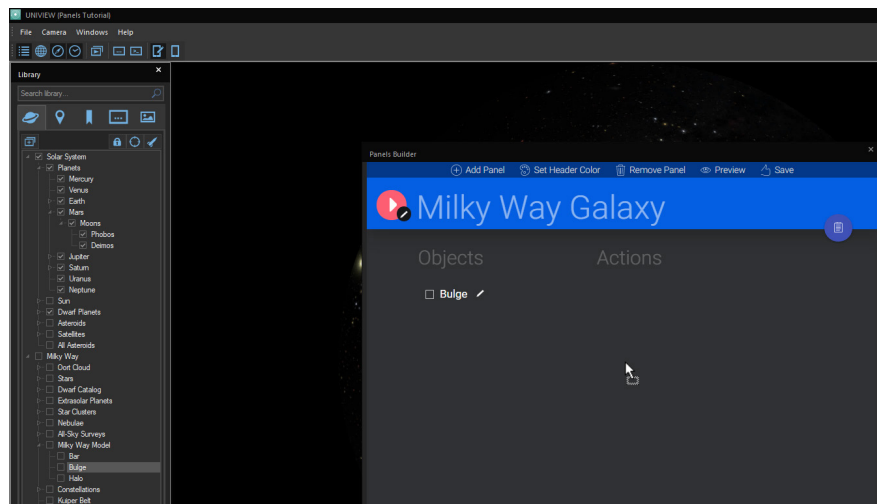
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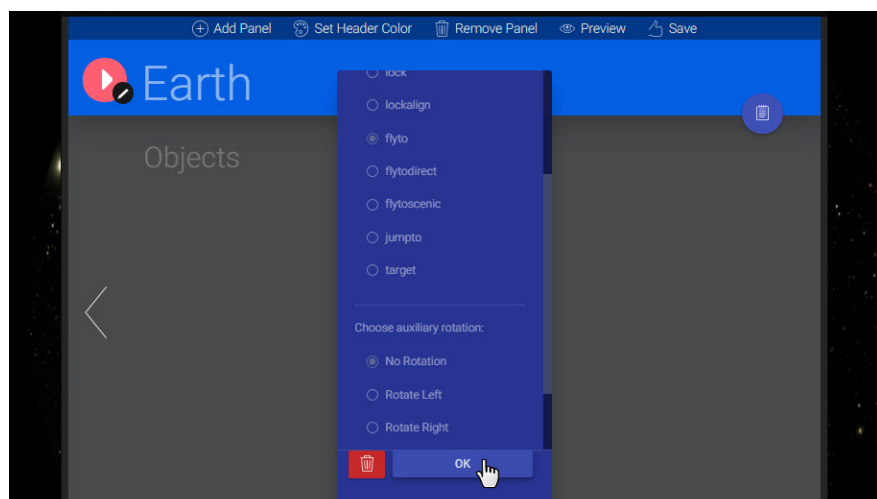


- Include the Milky Way Model Bulge object.
- Click and drag the Bulge object (uncheck the checkbox), found under Milky Way Model, to the Objects area of the Panel.



## Panel 2: Earth

- Click Add Panel at the top of the Panels Builder window.
- Click and drag the Earth object from the Library Tree to the title bar of the Panel and select flyto/No rotation.

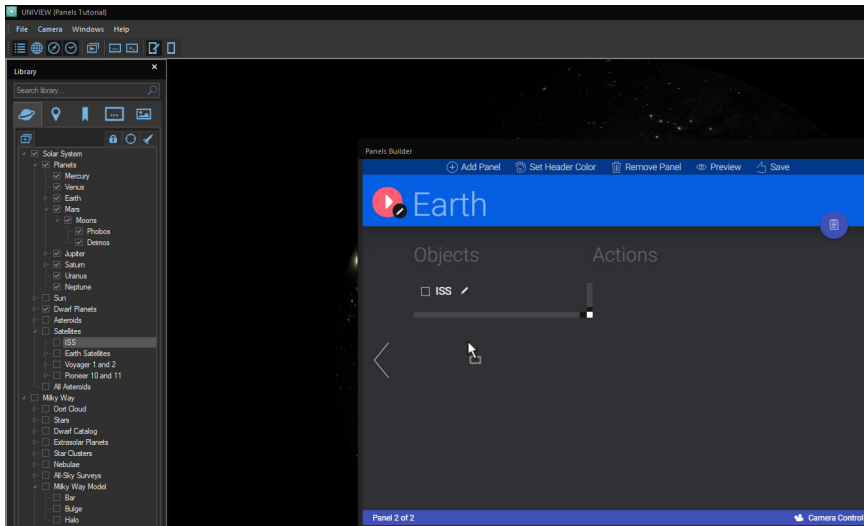


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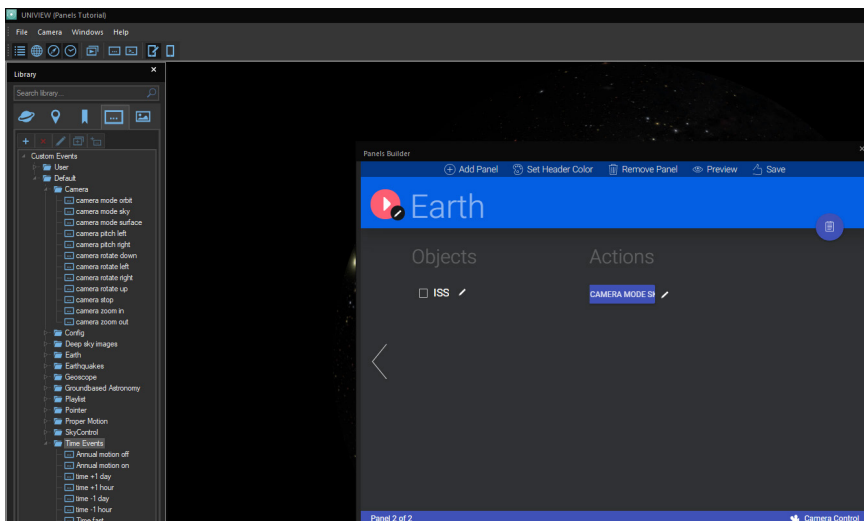


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- Click and drag the ISS object (uncheck the checkbox), found under Satellites, to the Objects area of the Panel.



- Click on the Custom Events Tab in the Library window.
- Drag the camera mode sky Custom Event, found under Custom Events > Default > Camera, to the Actions area of the Panel (if you would like to see the Custom Event command select the Custom Event and click on the "Edit" tab at the top of the Custom Events Tab).



- Drag the time midnight Custom Event, found under Custom Events > Default > Time Events, to the Actions area of the Panel.
- Drag the Connect To SkyControl (Jump to) Custom Event, found under Custom Events > Default > SkyControl, to the Actions area of the Panel. (\*Option) Here you have live control of SkyControl functions.
- Drag the Disconnect From SkyControl (Jump to) Custom Event, found under Custom Events > Default > SkyControl, to the Actions area of the Panel. (\*Option)
- Drag the ISS Fly to Custom Event (which you have created earlier), found under the Custom Events > User, to the Actions area of the Panel.

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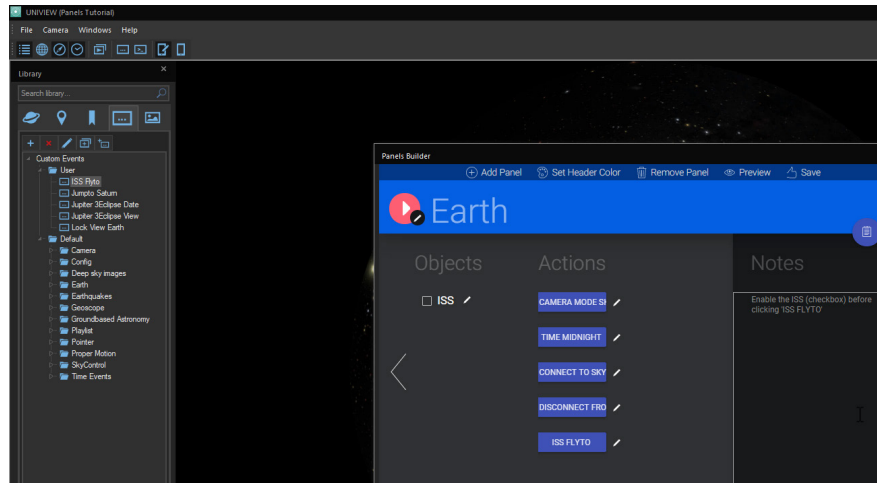
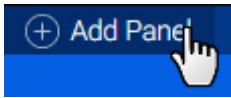




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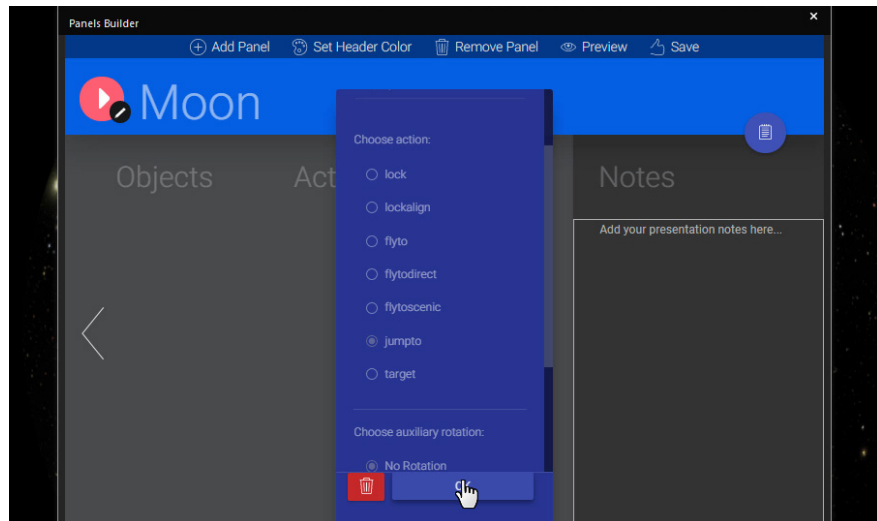
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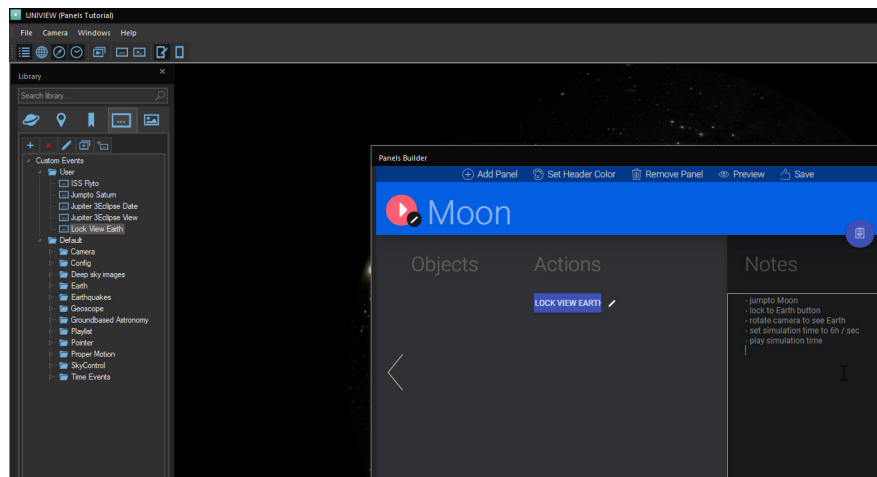


### Panel 3: Moon

- Click Add Panel at the top of the Panels Builder window.
- Click and drag the Moon object from the Library Tree to the title bar of the Panel and select Jumpto/no rotation.



- Click on the Custom Events Tab in the Library window.
- Drag the Lock View Earth Custom Event (which you have created earlier), found under Custom Events > User, to the Actions area of the Panel.



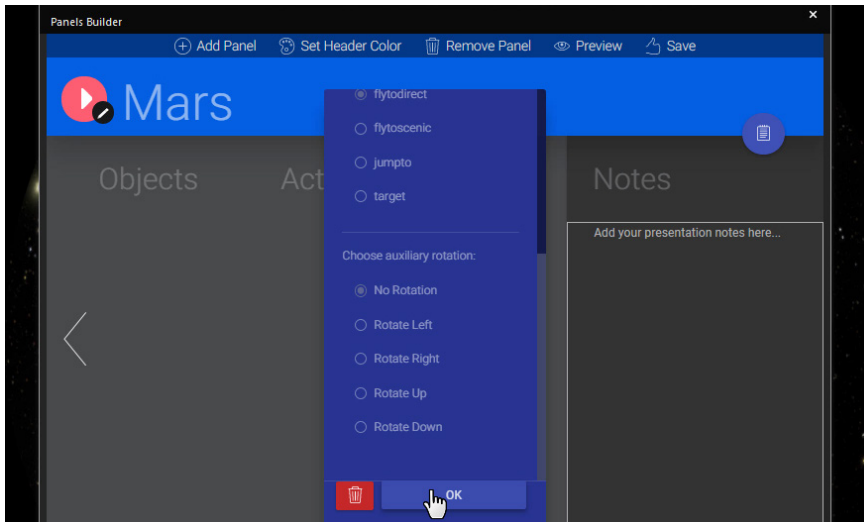
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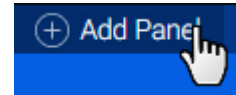
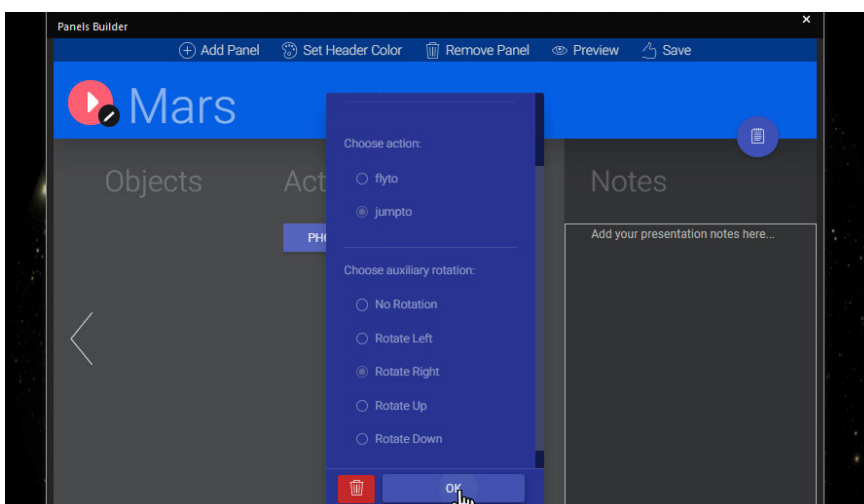
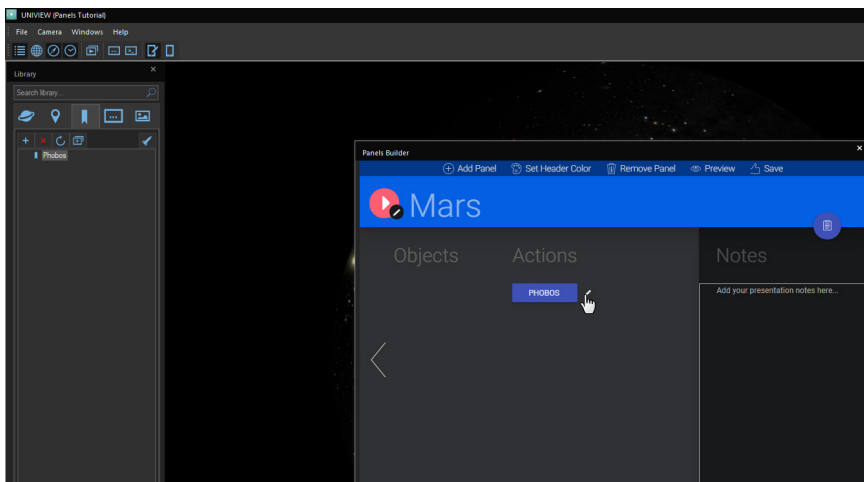
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### Panel 4: Mars

- Click Add Panel at the top of the Panels Builder window.
- Click and drag the Mars object from the Library Tree to the title bar of the Panel and select Fly to direct/no rotation.

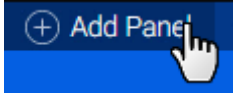


- Click on the Bookmarks Tab in the Library window.
- Drag the Phobos Night Side Bookmark (which you have created earlier) to the Actions area of the Panel and select Jumpto/Rotate right.





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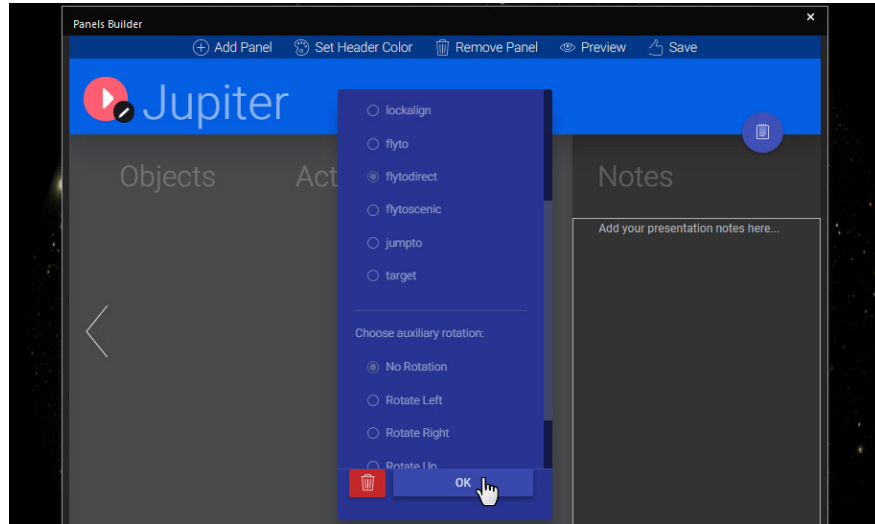
14



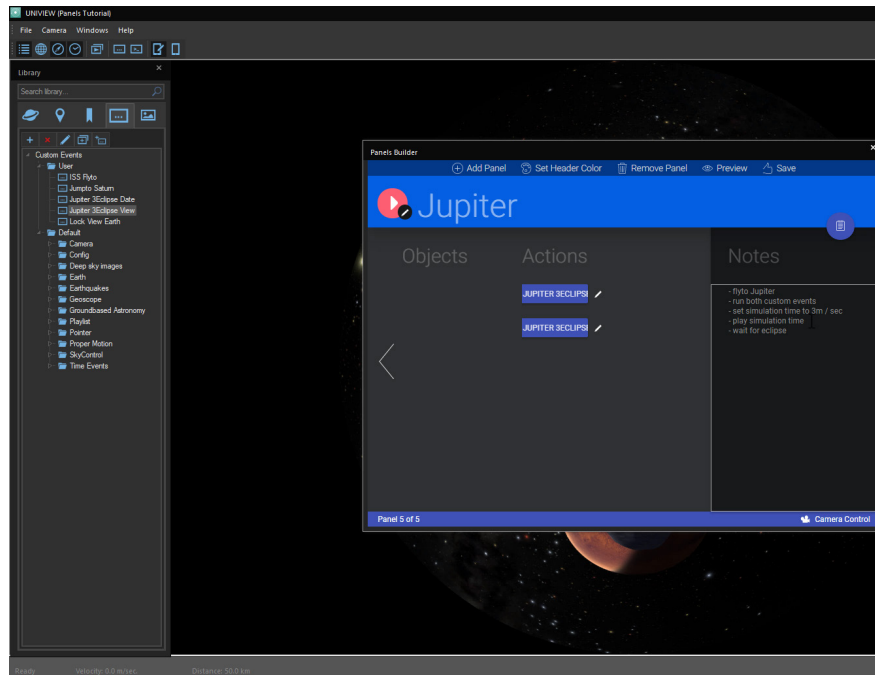
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### Panel 5: Jupiter

- Click Add Panel at the top of the Panels Builder window.
- Click and drag the Jupiter object from the Library Tree to the title bar of the Panel and select Fly to direct/no rotation.



- Drag the Jupiter 3Eclipse Date Custom Event (which you have created earlier), found under Custom Events > User, to the Actions area of the Panel.
- Drag the Jupiter 3Eclipse View Custom Event (which you have created earlier), found under Custom Events > User, to the Actions area of the Panel.



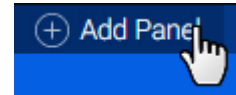
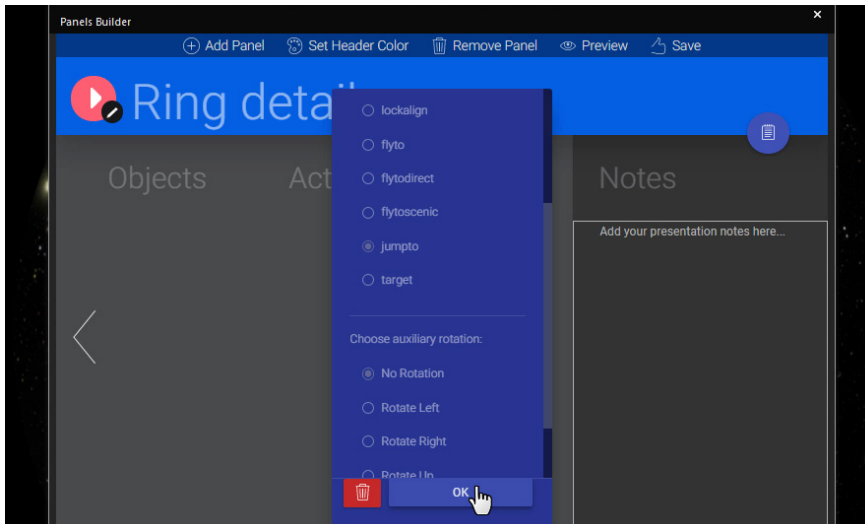
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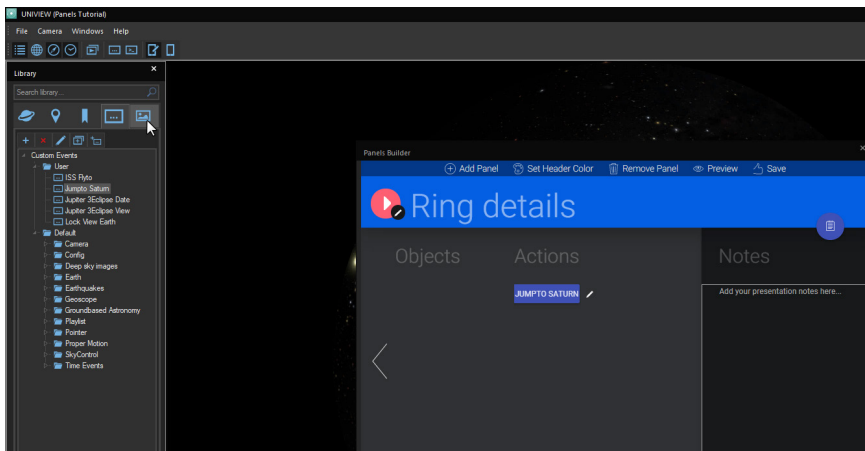
### Panel 6: Saturn Ring Details

- Click Add Panel at the top of the Panels Builder window.
- Click and drag the Ring Details object from the Library Tree, found under Saturn, to the title bar of the Panel and select Jumpto/no rotation.

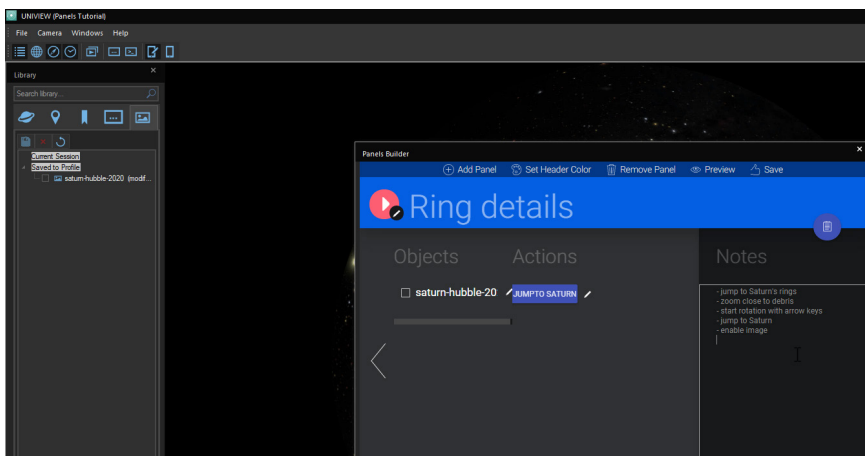


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- Drag the Jumpto Saturn Custom Event (which you have created earlier), found under Custom Events > User, to the Actions area of the Panel.

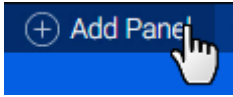


- Drag the Saturn Image (which you have saved earlier, uncheck checkbox) from the Dynamics Objects Tab to the Objects area of the Panel.





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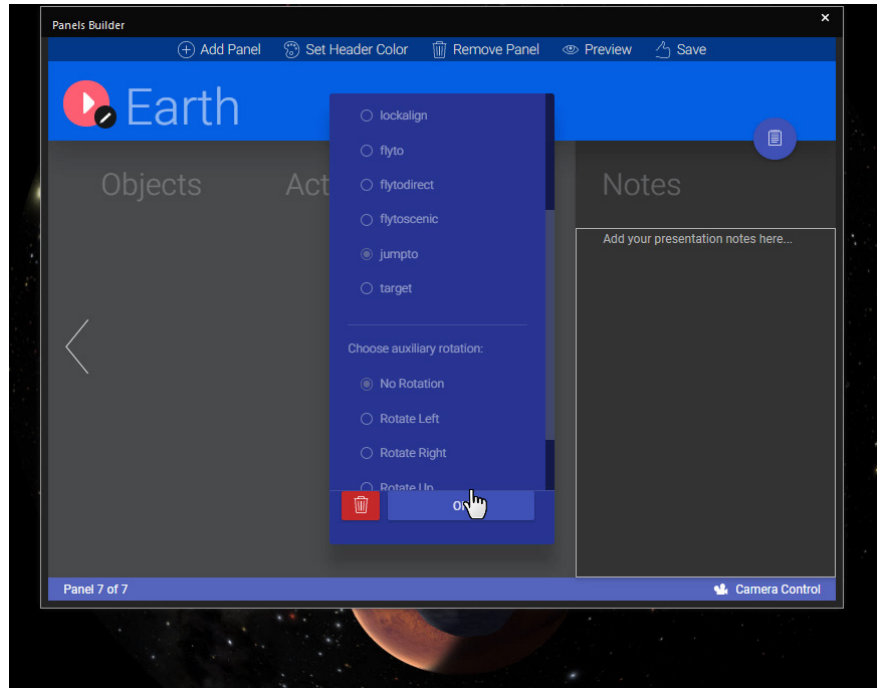


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### Panel 7: Earth

- Click Add Panel at the top of the Panels Builder window.
- Click and drag the Earth object from the Library Tree to the title bar of the Panel and select Jump to/no rotation.

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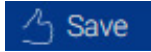
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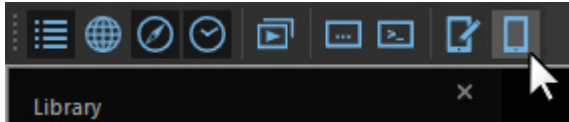
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## Running the Panels Presentation

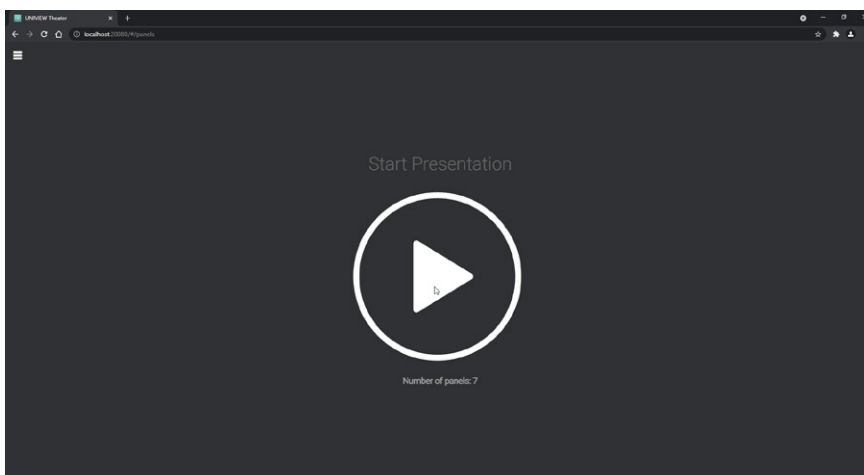
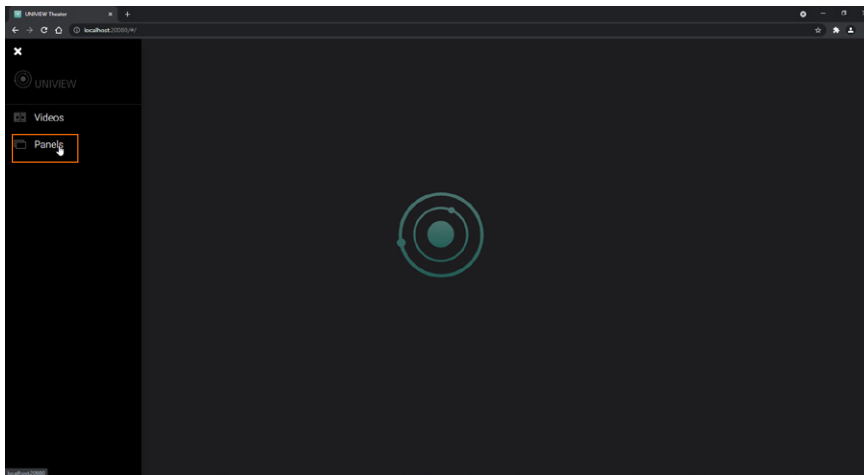
- Save the Panels Presentation.



- Go to the Windows menu and click on "Open Panels Interface in Browser...".



- Run through the Panels Presentation.



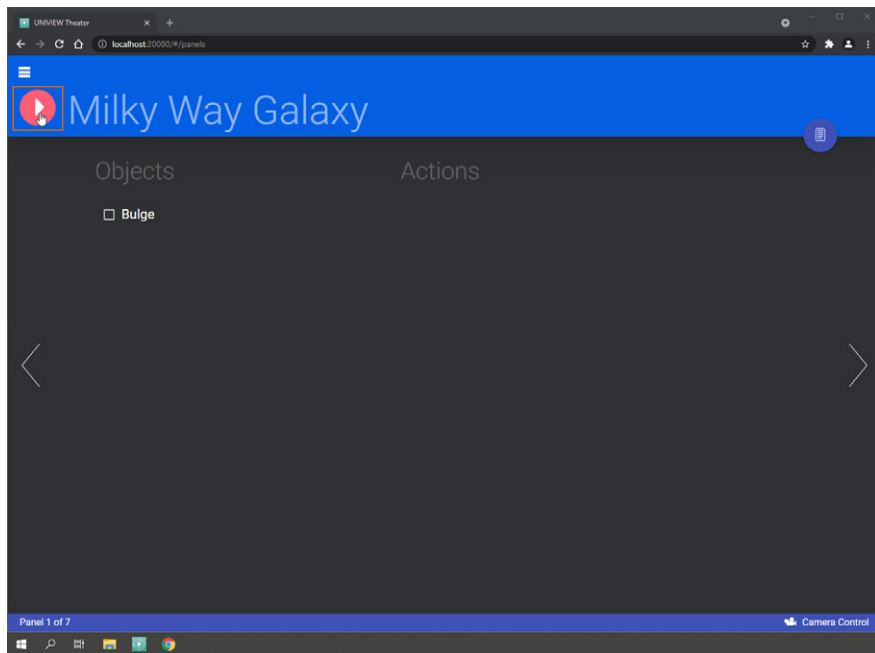
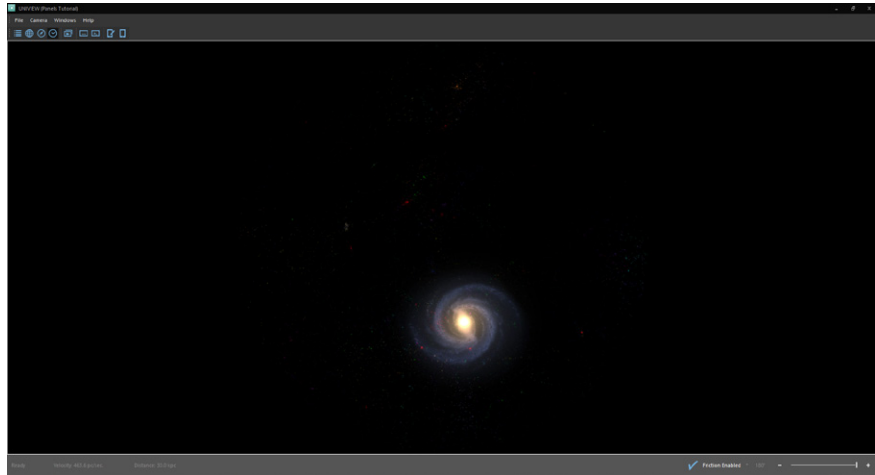


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Panel 1 Milky Way  
- Milky Way

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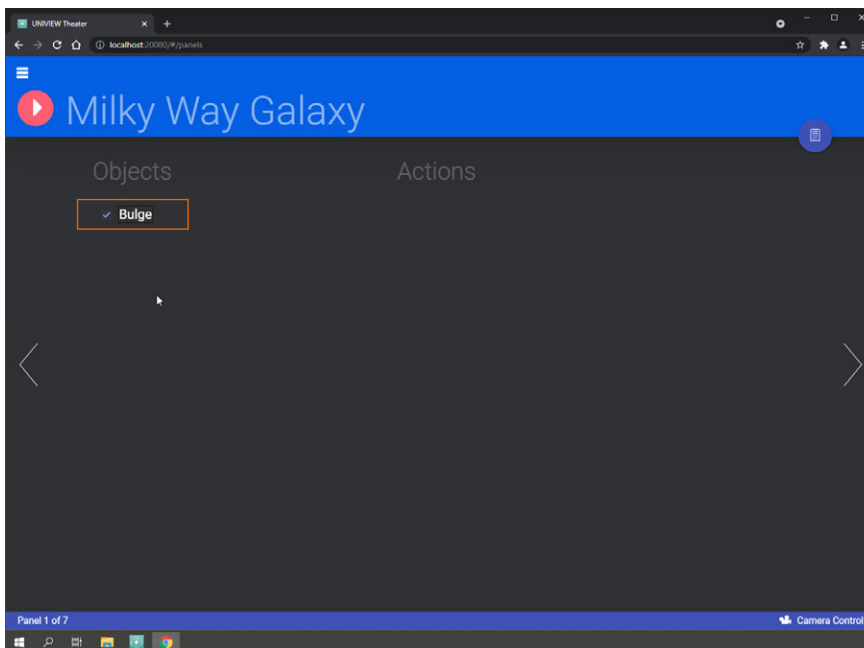
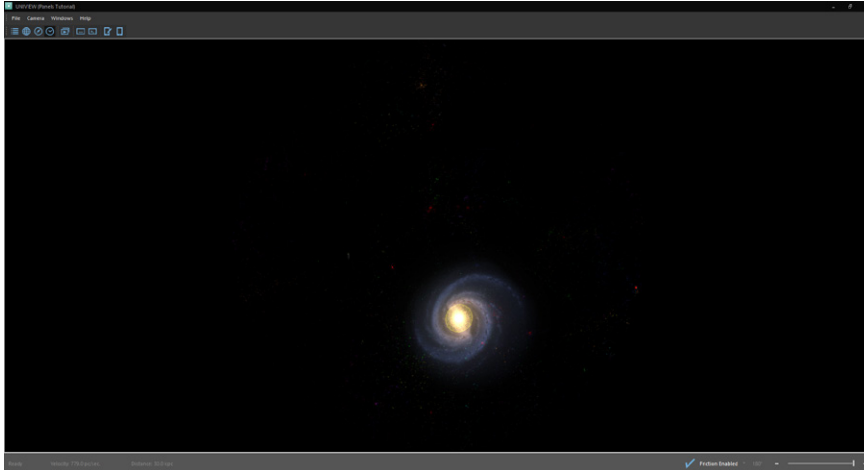


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Panel 1 Milky Way  
- Bulge

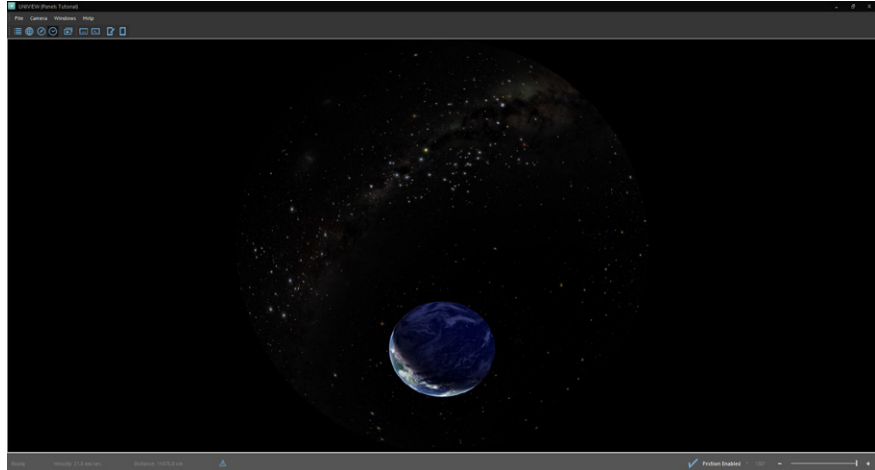




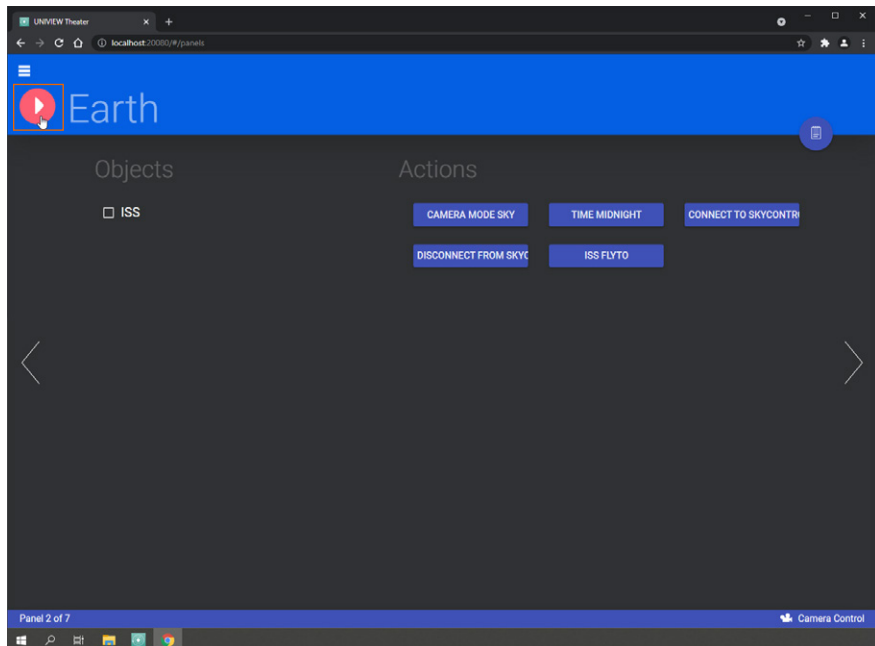
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Panel 2 Earth  
- Flyto Earth



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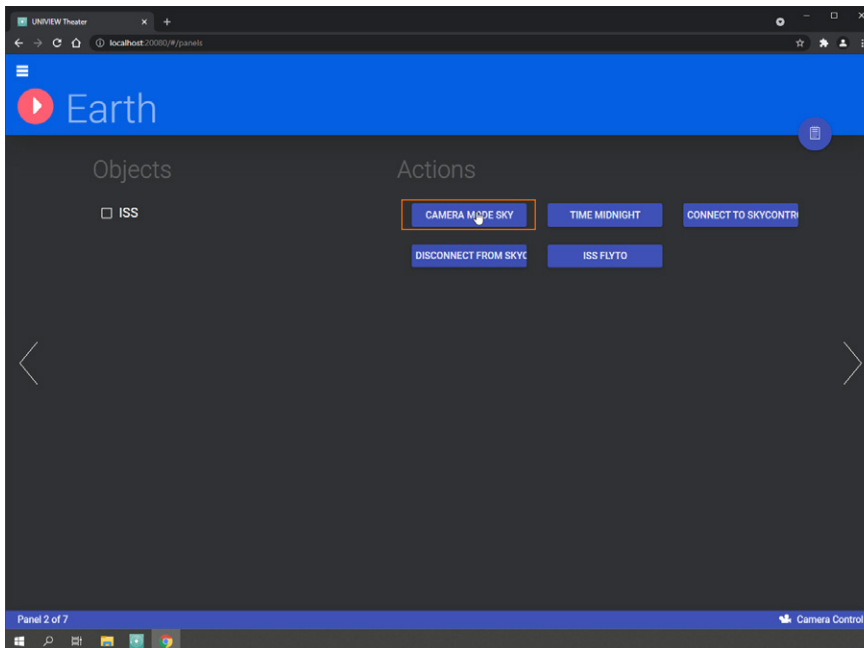


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Panel 2 Earth  
- SkyMode

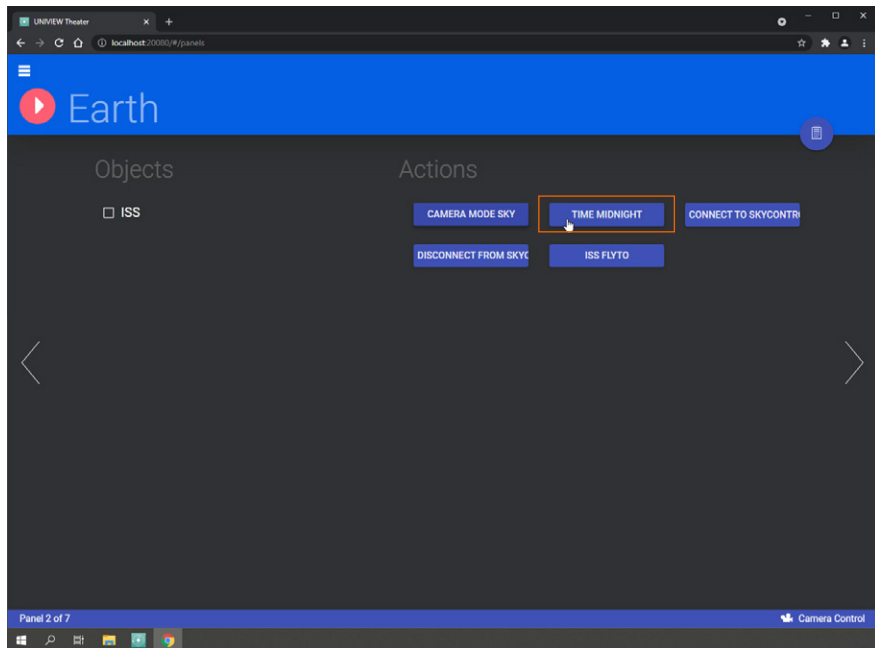
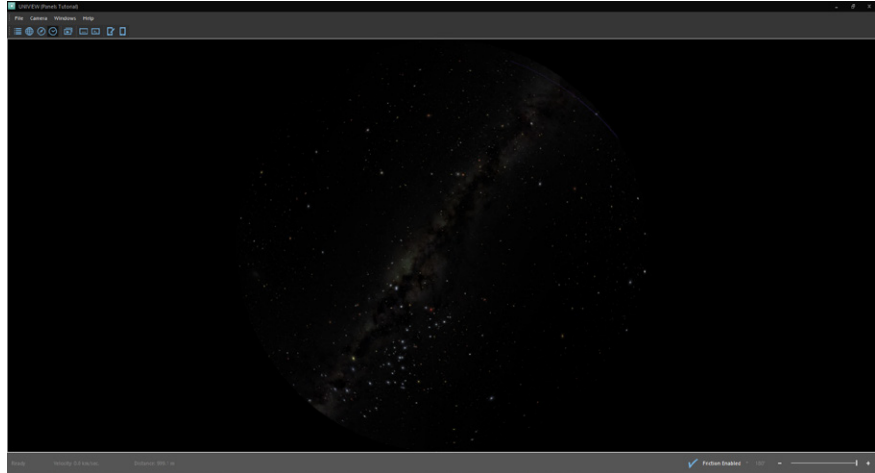




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Panel 2 Earth  
- Midnight



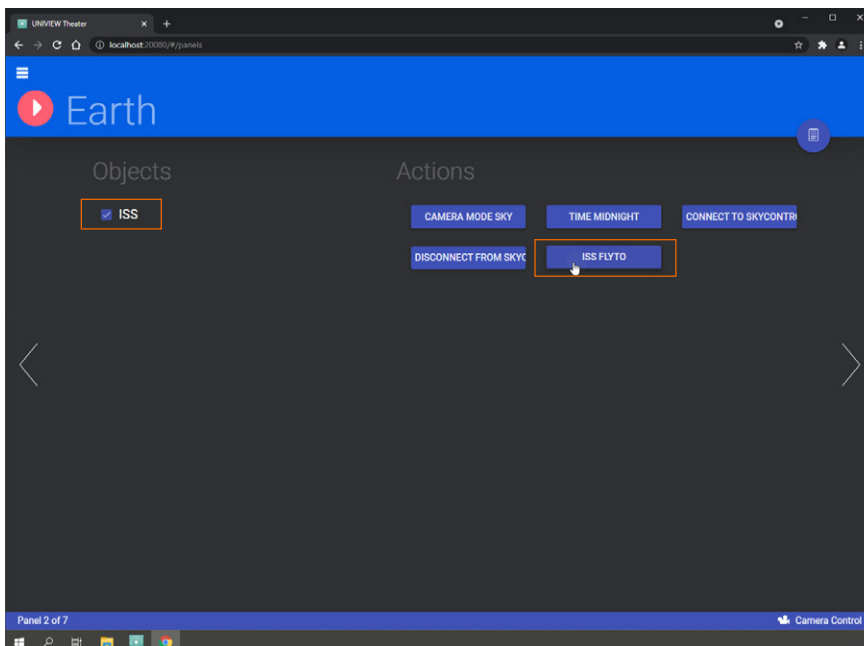
Connect to SkyControl for live control of SkyControl functions (\*Option)

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Panel 2 Earth  
- ISS



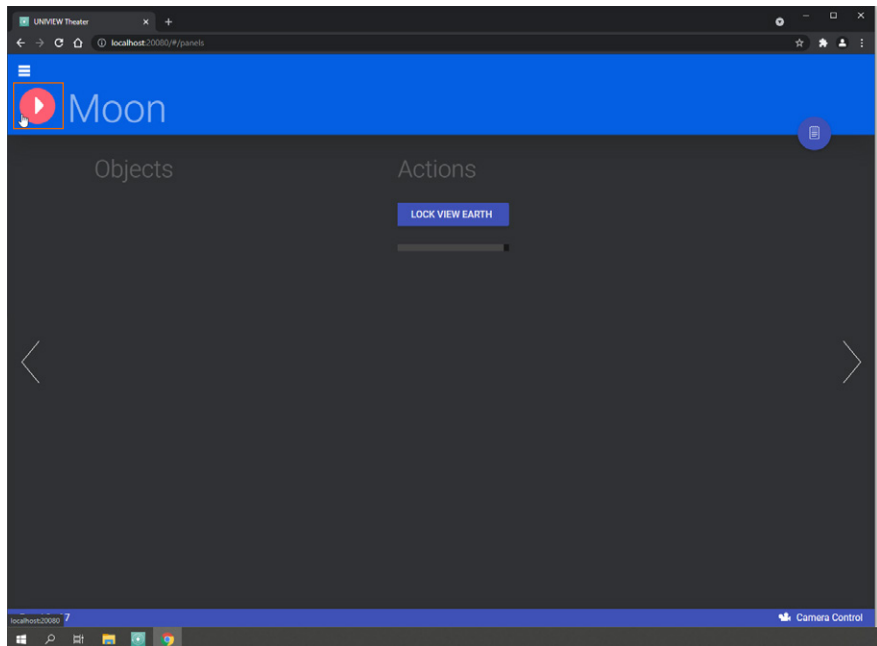
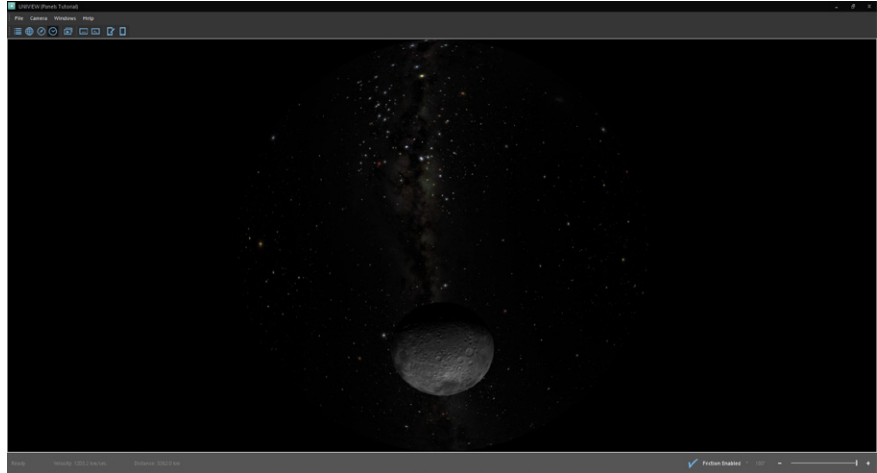
ISS checkbox should be checked before flying there.



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Panel 3 Moon  
- Jumpto Moon





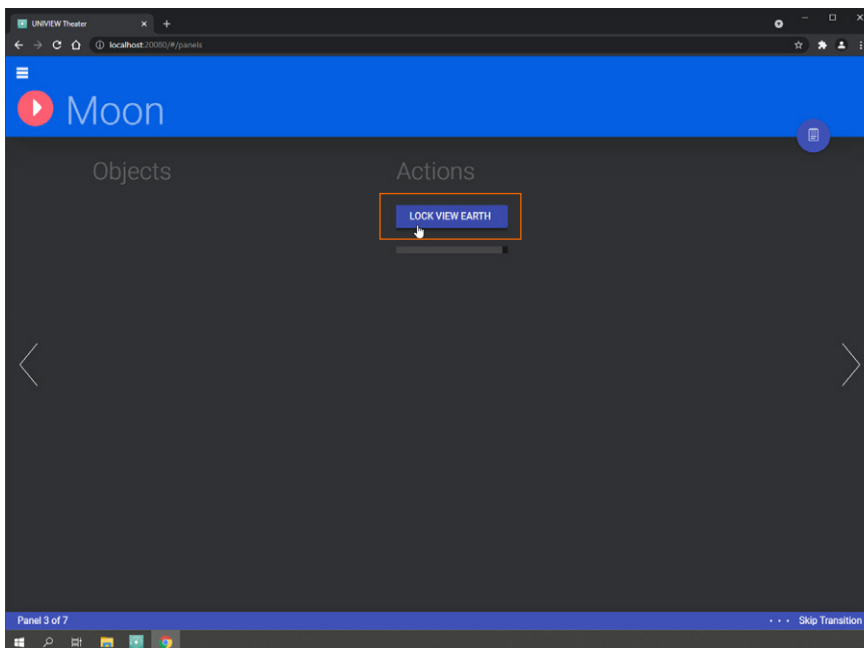
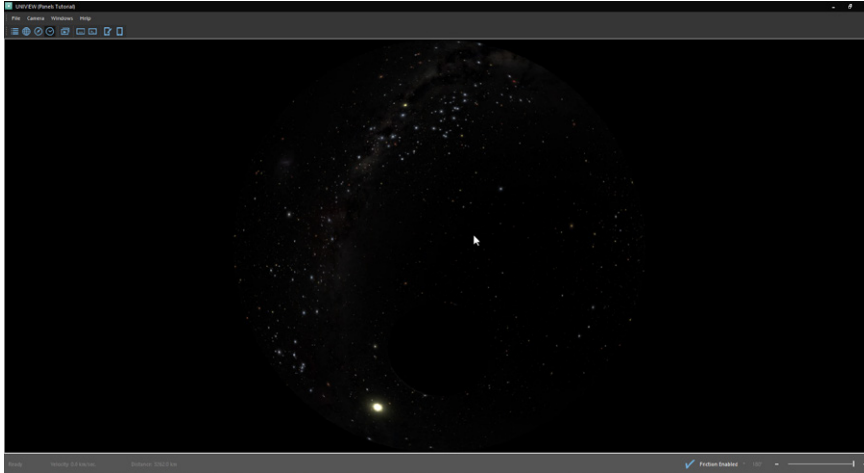
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## Panel 3 Moon

- Lock View Earth





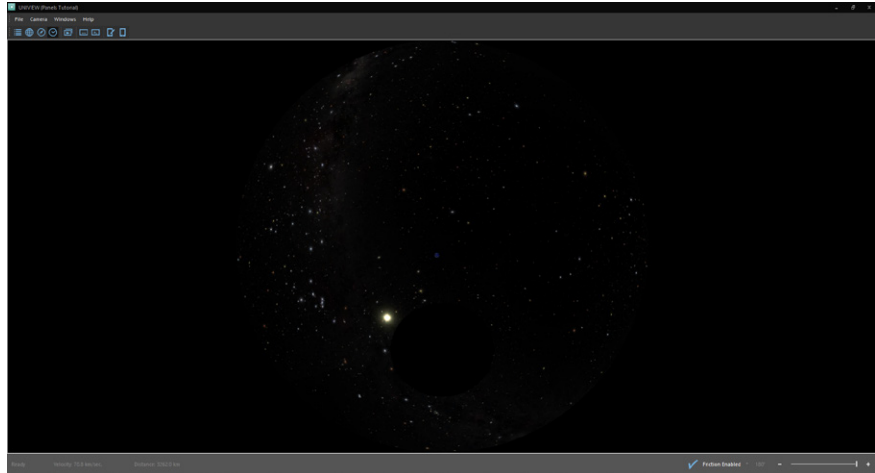
## UNIVIEW Software Suite

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### *Panel 3 Moon*

- Rotate Camera
- After you have jumped to the Moon and executed the Lock View Earth Custom Event rotate down with the left mouse button until the Earth can be seen behind and just above the Moon.



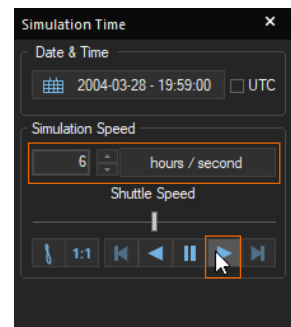
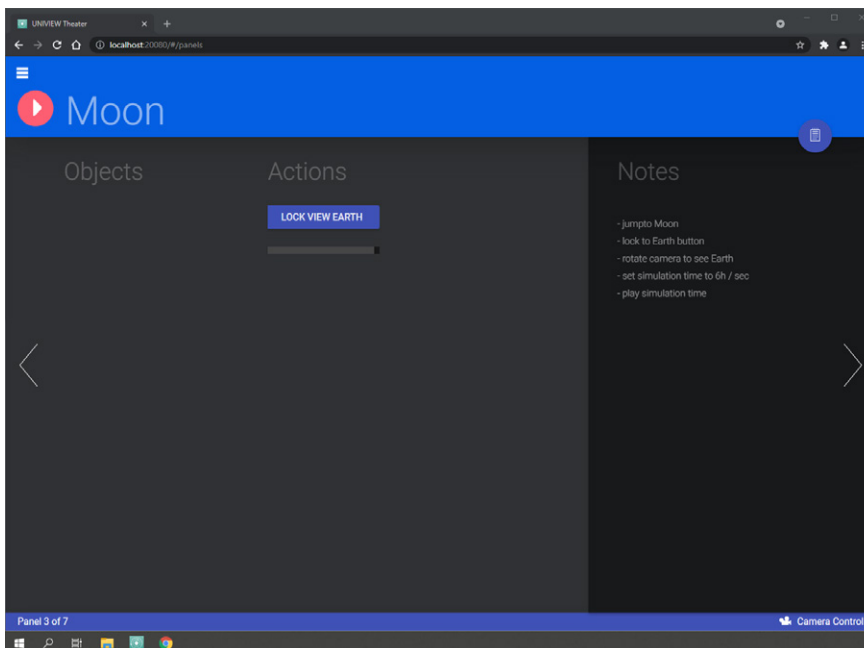
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### Panel 3 Moon

- Set Simulation Time to 6h per second. This will show the phasing of the Earth and Moon from a point of view above and connected to the Moon while also looking at the Earth.

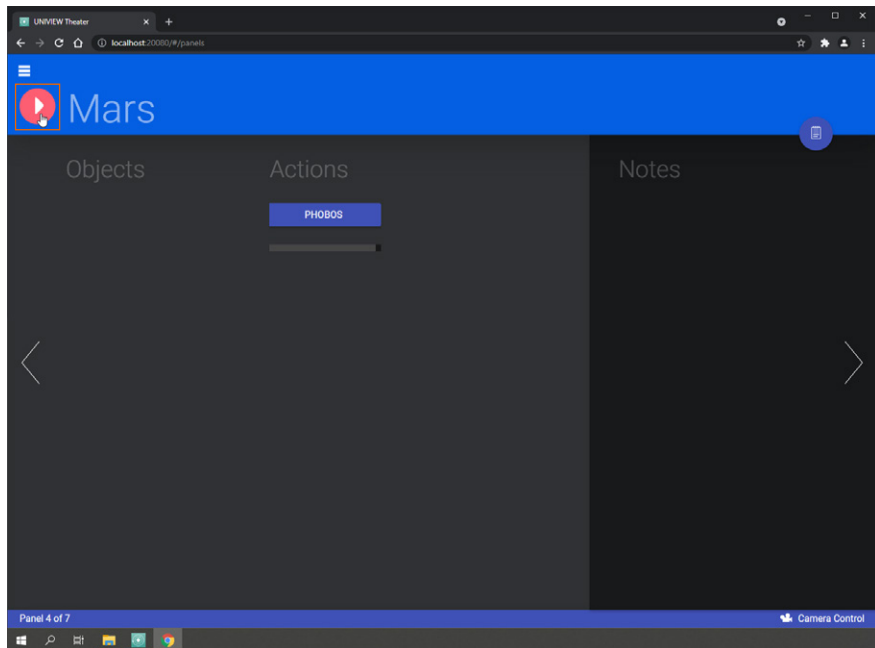
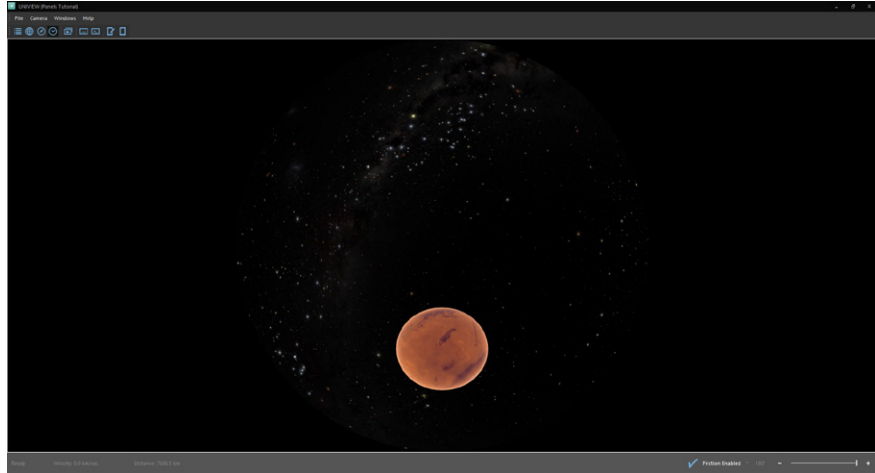




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Panel 4 Mars  
- Flyto Mars

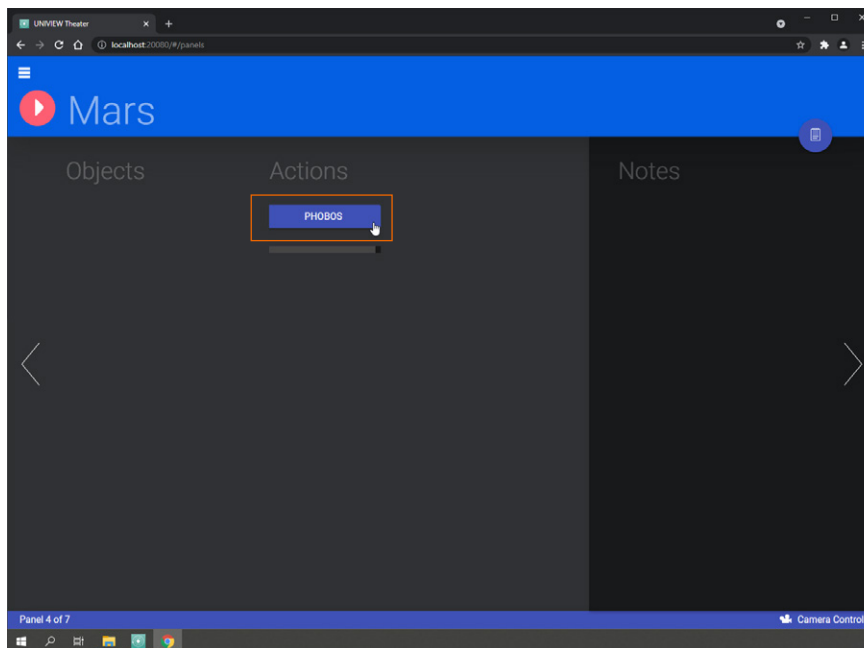
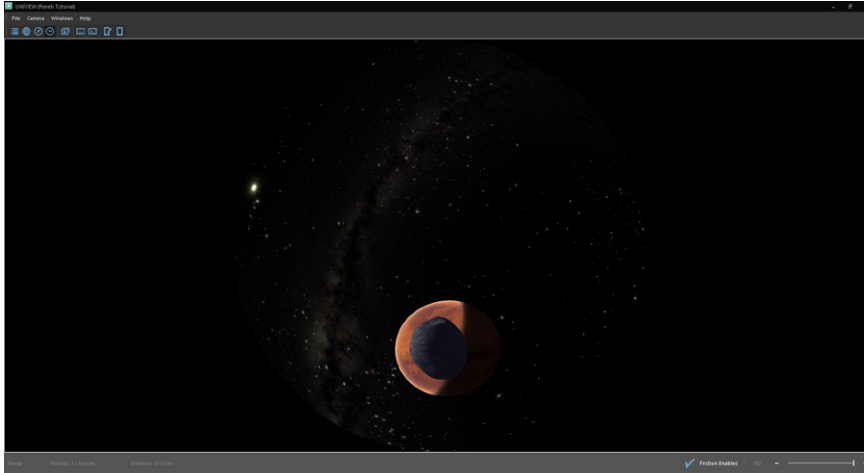


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Panel 4 Mars  
- Jumpto Phobos



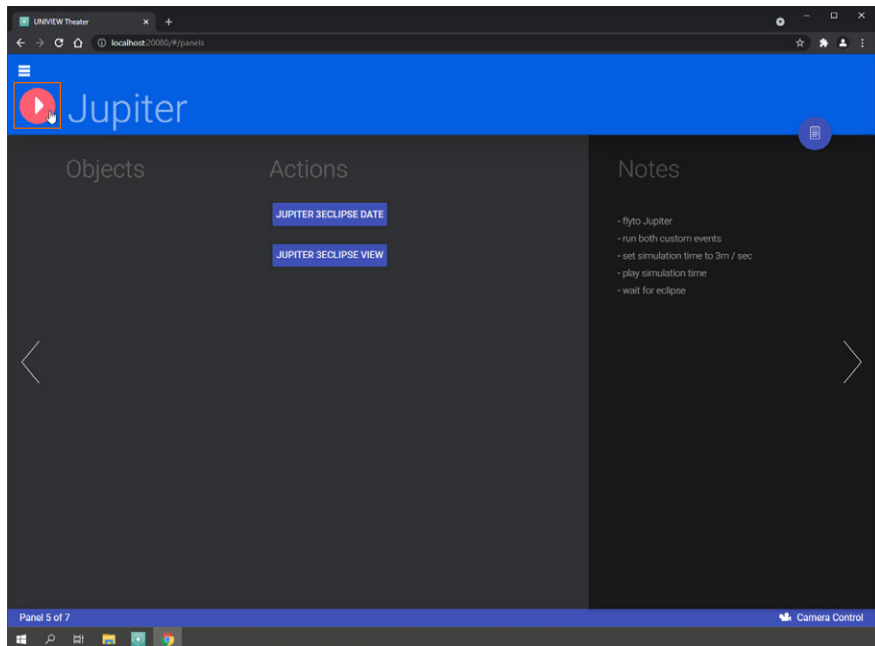
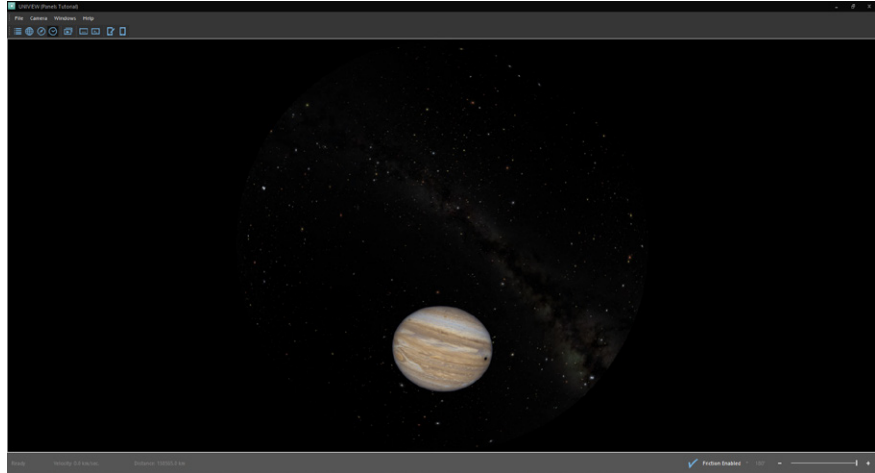


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# UNIVIEW Software Suite Panels Tutorial

Panel 5 Jupiter  
- Flyto Jupiter

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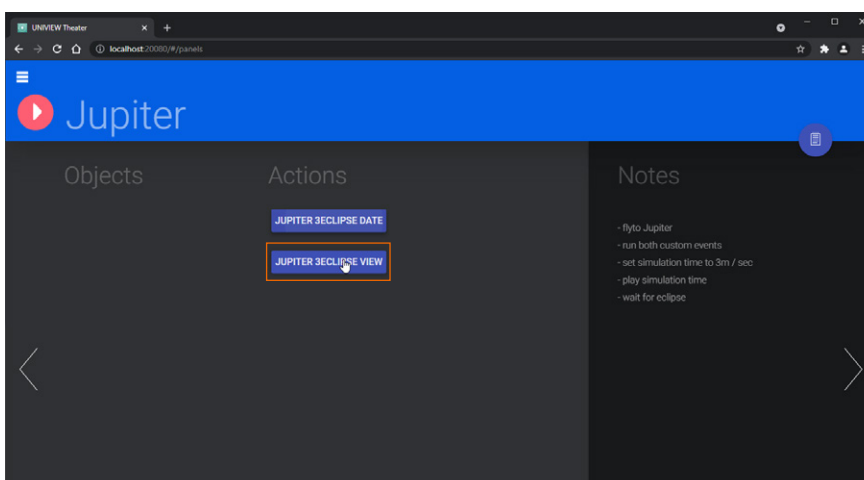
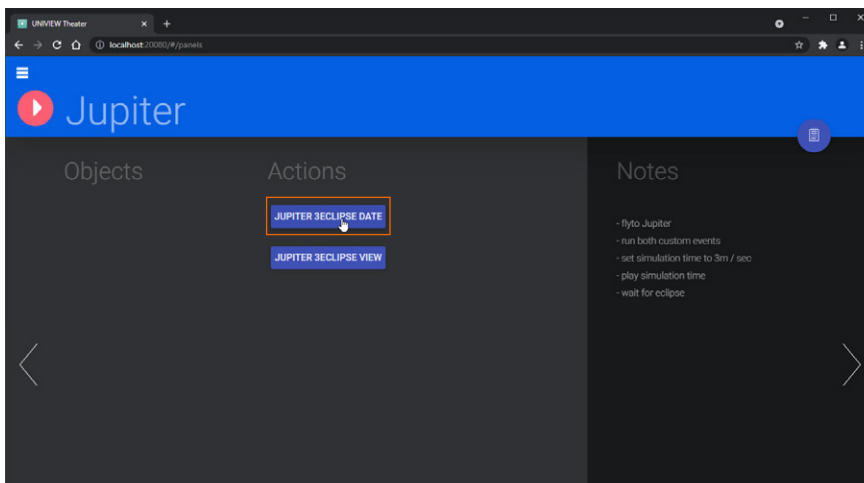
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## Panel 5 Jupiter

- Run Eclipse Custom Events





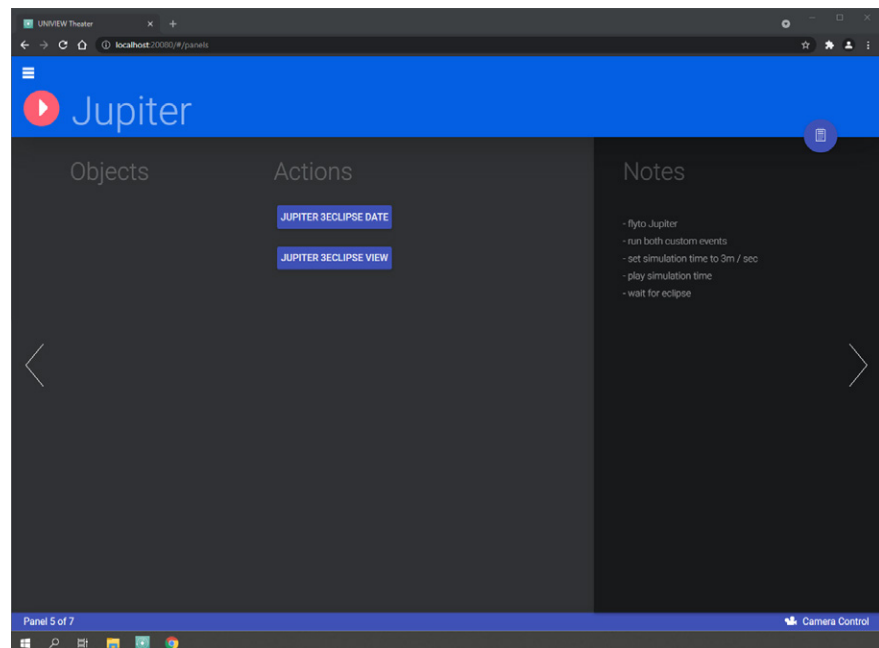
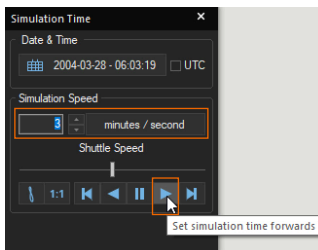
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### Panel 5 Jupiter

- After you have flown to Jupiter and have executed both of the Custom Events in the Actions area do the following:
- Set Simulation Time to 3m per second (recommended) and click Play.
- Wait for it.....wait for it.....after the third shadow appears on Jupiter pause Simulation Time.



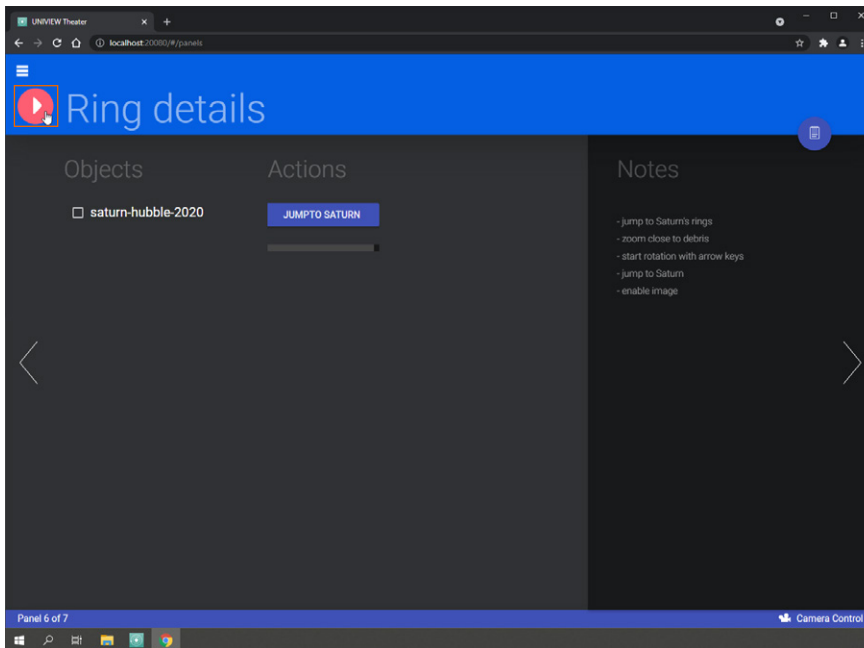
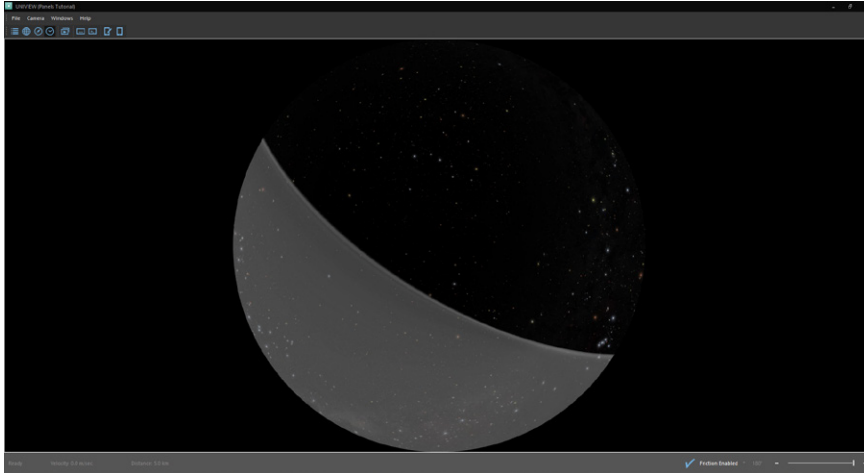


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Panel 6 Saturn  
- Flyto Saturn Rings



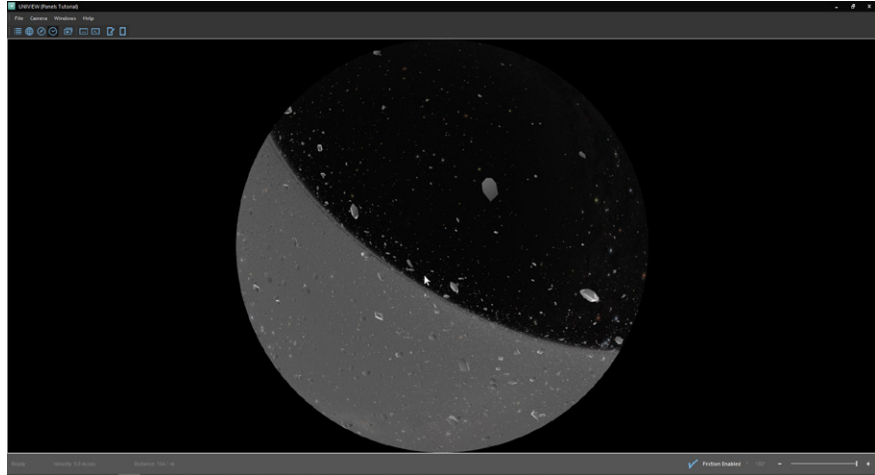


# UNIVIEW Software Suite Panels Tutorial

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## Panel 6 Saturn

- Rotate camera in Saturn rings



- After you have jumped to the Saturn Ring Details try zooming in with the mouse until you are clearly within the "debris" field of the rings.
- One fun and interesting thing you can try is to temporarily disable the Rotational Friction setting and give the scene a slight rotational motion (also possible with the arrow keys, click "end" or the opposite direction arrow key to stop rotation) while you talk about the ring system. However, don't forget to reenable Rotational Friction!
- The Jumpto Saturn Custom Event is included in this Panel because when you flyto/jumpto the Saturn Ring Details your camera view is centered on a location within the ring system and not on the Saturn object itself. So, when you want to control the Saturn object while in this Panel then click on the Jumpto Saturn Custom Event button.

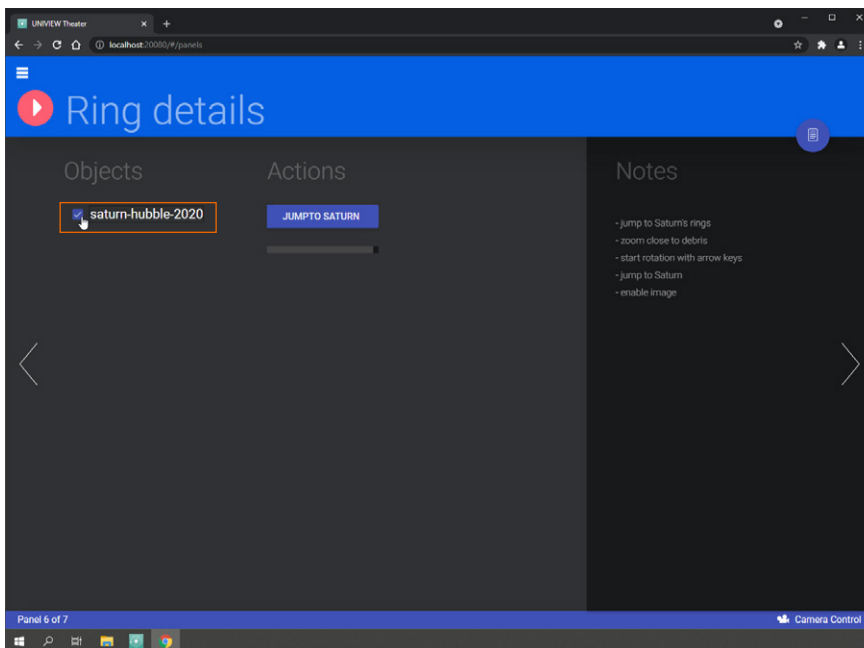
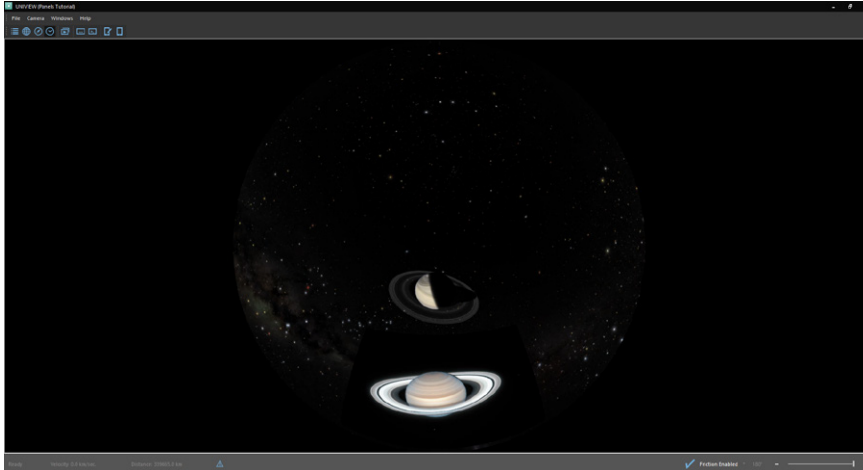
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## Panel 6 Saturn

- Jumpto Saturn, show Saturn image

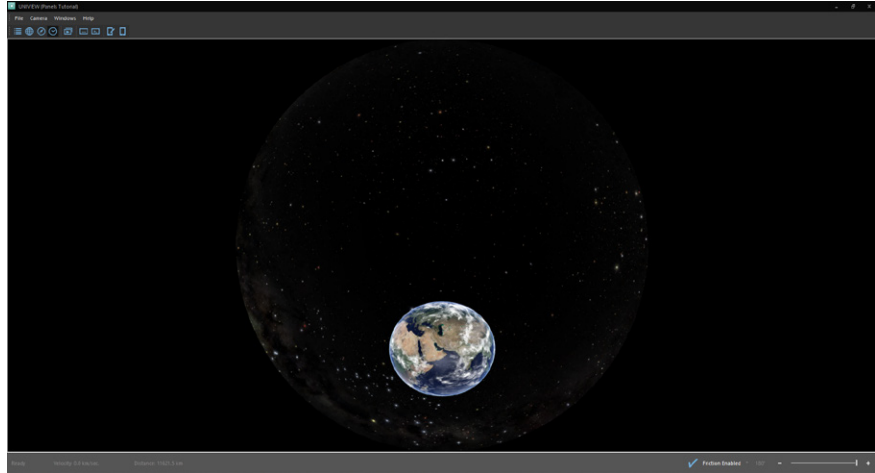




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Panel 7 Earth  
- Jumpto Earth



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