Uw eigen Tygron project in een online 3D viewer

Wie: Rudolf Koster (Tygron)

Korte beschrijving: Samen met Rudolf Koster kunt U oefenen met de verschillende manieren waarop de Tygron 3D wereld bekeken, gekoppeld, en gedeeld kan worden. We gaan aan de slag met de web-gebaseerde 2D en nieuwe 3D viewer, en verkennen de mogelijkheden voor het delen van de wereld, de rekenopties, en de resultaten. Bovendien kan U deze resultaten gemakkelijk delen met collega's, klanten, vrienden en familie.

Deze presentatie kan gevolgd worden met elk Project naar keuze.

- Heb je een eigen Project (op de Preview server) die je graag wilt zien? Start je project op!
- Heb je geen eigen Project? Maak gebruik van de Demo 3-30-300, of de Demo Heat Stress!

Over de 3D Web Viewer technologie:
https://previewsupport.tygron.com/wiki/3D_Web_Viewer

Aan de slag met de 3D Web Viewer:

How to open the 3D Web Viewer:
https://previewsupport.tygron.com/wiki/How_to_open_the_3D_Web_Viewer

1. Go to Current → Tools.
2. Find the "Web interface" option, and hover over it to open the dropdown.
3. Click on "Show 3D map".

Het verrijken van de 3D Web Viewer:

How to Add a Measure to the 3D Web Viewer:
https://previewsupport.tygron.com/wiki/How_to_add_a_Measure_to_the_3D_Web_Viewer

1. Load or create a project
2. From the Ribbon, select Future Design -> Measures to inspect the Measures in your project.
3. Remember the name of an existing Measure, or create a new Measure.
4. Next, Select Actions.
5. Add a new Action Menu, and click on the Actions tab in its detail panel.
6. Unfold the Measure section and select the recently created Measure.
7. The Measure should now be available in the 3D Web Viewer.
8. To verify this, click on 3D Web link on the top right part of the screen. This should the 3D Web Viewer in a browser.
9. Alternatively, go to Tools -> Web Interface, Show 3D Map (Cesium). This should the 3D Web Viewer in a browser as well.
10. In the 3D Web Viewer, click on the action menu icon. Selecting it will automatically select the Measure, moving the camera to its location.
11. To activate the measure, click on the Apply button in the bottom right corner of the Action Menu.

How to Add a Cinematic to the 3D Web Viewer:
https://previewsupport.tygron.com/wiki/How_to_add_a_Cinematic_to_the_3D_Web_Viewer

1. Load or create a project
2. From the Ribbon, select Tools -> Cinematics to inspect the Cinematics in your project.
3. Remember the name of an existing Cinematic, or create a new Cinematic.
4. From the Ribbon, select Future Design-> Event Bundles.
5. Add a new Event Bundle.
6. In the detail panel, click on the "Server" button.
7. Select the event: "0 NO_DEF". A menu in the bottom opens.
8. Scroll down and select the Logic Event Type: "CINEMATIC_STAKEHOLDER_START".
9. For the parameter "Cinematic ID", select a cinematic.
10. Click on commit.
11. The event should now have the name of the selected event type.
12. Next, Select Actions.
13. Add a new Action Menu, and click on the Actions tab in its detail panel.
14. Unfold the Event Bundles section and select the recently created Event Bundle.
15. The cinematic should now be available in the 3D Web Viewer.
16. To verify this, click on 3D Web link on the top right part of the screen. This should the 3D Web Viewer in a browser.
17. Alternatively, go to Tools -> Web Interface, Show 3D Map (Cesium). This should the 3D Web Viewer in a browser as well.
18. In the 3D Web Viewer, click on the action menu icon to activate the cinematic.

Het delen van de 3D Web Viewer:

How to use the Keep Alive option:
https://previewsupport.tygron.com/wiki/Keep_alive

1. Click on the File Menu tab in the Editor.
2. On the Details page, select the checkbox in the *Keep Active* part.

How to share access to the web viewer:
https://previewsupport.tygron.com/wiki/How_to_share_access_to_the_web_viewer

1. In the Editor, go to Tools → Web Interface. The web viewer will open in the web browser.
2. In the address bar of the web browser, the url of the we viewer can be found. Copy the full url, including the authentication token.
3. The copied url can provided to anyone whom should have access to the web viewer.

How to revoke access to web endpoints:
https://previewsupport.tygron.com/wiki/How_to_revoke_access_to_web_endpoints

1. Go to Tools → Web Interface → Web Tokens
2. Click on "Reset All Web Token"

3D Tiles en Unity (klassikaal):

How to access the 3D Tiles endpoint of a session:
https://previewsupport.tygron.com/wiki/How_to_access_the_3D_Tiles_endpoint_of_a_session

1. In the Editor, in the ribbon, go to Tools.
2. In the API Overview's dropdown, click on "Show 3D Tiles endpoint". The web browser will open.
3. The url of the 3D Tiles endpoint can be found in the address bar of the web browser.

How to set up Cesium components to read data from a Tygron Session:
https://previewsupport.tygron.com/wiki/How_to_use_Unity_to_visualize_data_from_a_Session

1. Ensure you have a 3D Unity Project with a Universal Rendering Pipeline (URP), or HDRP.
2. Add the Unity registry to the Unity Project's package manager.
3. From the Unity registry, install Cesium for Unity.
4. Add a GameObject. Name it "Cesium Georeference".
5. To the "Cesium Georeference", add a "Cesium Georeference" component.
6. As child of the "Cesium Georeference", add a GameObject. Name it "Tygron 3D Tileset".
7. To the "Tygron 3D Tileset" add a "Cesium 3D Tileset" component. For that component:
   Set the Tileset Source to "From Url".
   Set the URL to the 3D Tiles endpoint of the intended running Session.
8. As child of the "Cesium Georeference", add a GameObject. Name it "Tygron WMS".
9. To the "Tygron WMS" add a "Cesium 3D Tileset" component. For that component:
   Set the Tileset Source to "From Cesium Ion".
   Set the Ion Asset ID to "1".
   Set the Ion Access Token to a valid Cesium Ion account token. (See references for a valid token to the Cesium example assets)
10. To the "Tygron WMS" add a "Cesium Web Map Service Raster Overlay" component. For that component:
    Set the Base URL to the WMS endpoint of the intended running Session.
    Set the Layer to "0".
11. Double-click on "Tygron 3D Tileset" to move the camera to the 3D Tiles loaded from the Session.
12. Select the "Cesium Georeference", and click on Place Origin Here.