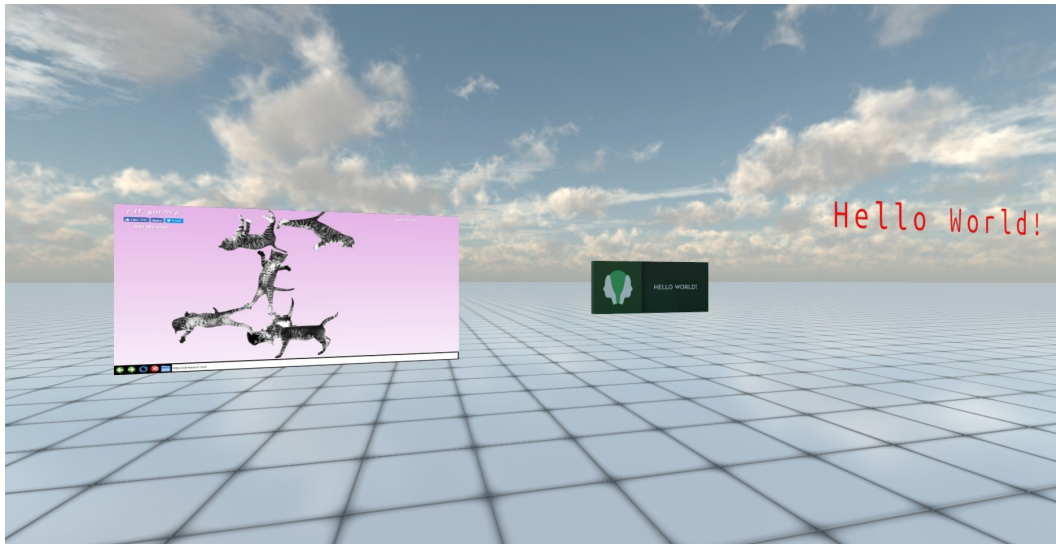




Introduction to JanusVR Lesson 4

HOW TO ADD A WEBSURFACE TO A ROOM



June 2017

This instructional guide is designed to teach some of the fundamental skills needed to create virtual reality spaces using JanusVR.

This fourth lesson will continue on with the room made in previous lessons, and explains how to add a websurface.

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1. Defining the Asset name and location

In this example we have added a 'Websurface' as the 'Asset', set the 'id' attribute for our 'Websurface' as 'cats', and the 'src' as the URL attribute for a website.

```
<html>
<head>
<title>Hello World!</title>
</head>
<body>
<FireBoxRoom>
<Assets>
<AssetImage id="hello_world" src="http://i.imgur.com/yLxgtkE.png" />
<AssetWebSurface id="cats" src="http://cat-bounce.com/" width="1280"
height="720" />
</Assets>
<Room use_local_asset="room_plane" >
<Text pos="0 2 4" xdir="-1 0 0" ydir="0 1 0" zdir="0 0 -1" col="red" scale="2 2
2" >Hello World!</Text>
<Image id="hello_world" pos="0 1.5 8" xdir="-1 0 0" ydir="0 1 0" zdir="0 0 -1"
/>
</Room>
</FireBoxRoom>
</body>
</html>
```

2. Adding the Object to the Room

Websurfaces must be attached to a 3D model object to be viewed.

JanusVR come with a collection of nine default 3D objects (primitives) and unlike normal assets, these do not need to be defined in the 'Asset' section. In this lesson we will use the 'plane' primitive to display our websurface.

The id of the object (id=" ") is 'plane', the position of the websurface in the room (pos=" ") is 8 metres forward, 5 metres to the left and 1.5 metre above the ground. The orientation of the websurface is rotated 180 on the y-axis, and lighting (lighting=" ") is set to false to make the screen bright white. Lastly we add the websurface to the object with websurface_id=" "

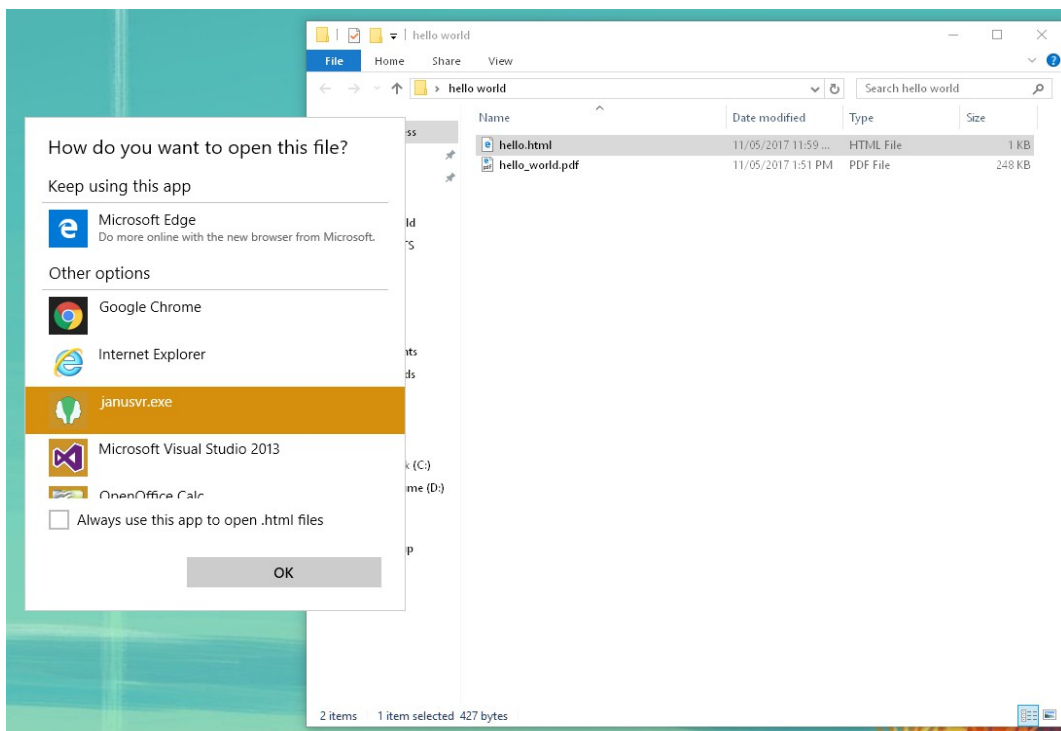
```
<html>
<head>
<title>Hello World!</title>
</head>
<body>
<FireBoxRoom>
<Assets>
<AssetImage id="hello_world" src="http://i.imgur.com/yLxgtkE.png" />
<AssetWebSurface id="cats" src="http://cat-bounce.com/" width="1280"
height="720" />
</Assets>
<Room use_local_asset="room_plane" >
<Text pos="0 2 4" xdir="-1 0 0" ydir="0 1 0" zdir="0 0 -1" col="red" scale="2 2
2" >Hello World!</Text>
<Image id="hello_world" pos="0 1.5 8" xdir="-1 0 0" ydir="0 1 0" zdir="0 0
-1" />
<Object id="plane" pos="5 1.5 8" xdir="-1 0 0" ydir="0 1 0" zdir="0 0 -1"
scale="4 2 1" collision_id="plane" lighting="false" websurface_id="cats" />
</Room>
</FireBoxRoom>
</body>
</html>
```

3. Viewing your Room

Save the file on your local drive as a .html.

There are 2 ways to see the room you have just made:

- i. Right click on the file and select 'open with' (Windows), select 'Choose another app' – scroll down and find JanusVR.
- ii. Start JanusVR and press 'Tab' – type or copy/paste the local file path for the .html file (c:\helloworld\hello.html for example). To paste a link in JanusVR desktop mode press 'Tab', click on input box and press Control-V



You now know how to display a website on a primitive, the next section has some exercises to help you get more familiar with displaying a websurface.

At the end of this document is a list of all the options for loading websurfaces, and a table showing all the different types of 'Primitives'. Have fun!

Exercises:

Change the src="" to see different websites displayed on the screen.

Swap:

```
<AssetWebSurface id="cats" src="http://cat-bounce.com/" width="1280" height="720" />
```

To:

```
<AssetWebSurface id="cats" src="http://www.youtube.com/" width="1280" height="720" />
```

Or:

```
<AssetWebSurface id="cats" src="http://www.google.com/" width="1280" height="720" />
```

Change the size of the websurface by changing the scale="" attribute

Swap:

```
<Object id="plane" pos="5 1.5 8" xdir="-1 0 0" ydir="0 1 0" zdir="0 0 -1" scale="4 2 1" collision_id="plane" lighting="false" websurface_id="cats" />
```

To:

```
<Object id="plane" pos="5 1.5 8" xdir="-1 0 0" ydir="0 1 0" zdir="0 0 -1" scale="20 2 1" collision_id="plane" lighting="false" websurface_id="cats" />
```

Change the default 'primitive' to another type, make a websurface on a pyramid!

Swap:

```
<Object id="plane" pos="5 1.5 8" xdir="-1 0 0" ydir="0 1 0" zdir="0 0 -1" scale="4 2 1" collision_id="plane" lighting="false" websurface_id="cats" />
```

To:

```
<Object id="pyramid" pos="5 1.5 8" xdir="-1 0 0" ydir="0 1 0" zdir="0 0 -1" scale="4 2 1" collision_id="plane" lighting="false" websurface_id="cats" />
```

Or:

```
<Object id="cube" pos="5 1.5 8" xdir="-1 0 0" ydir="0 1 0" zdir="0 0 -1" scale="4 2 1" collision_id="plane" lighting="false" websurface_id="cats" />
```

Defining WebSurface as an Asset:

An AssetWebSurface defines an interactive surface that provides a 2D web view.

The list of attributes are:

- **id** - id of the AssetWebSurface
- **src** - website to use for the AssetWebsurface
- **width** - texture width for rendering the AssetWebSurface
- **height** - texture height for rendering the AssetWebSurface
- **show_url_bar** - When set to false, websurface navigation UI will be hidden.

<http://www.janusvr.com/guide/markuplanguage/index.html#assetwebsurface>

List of Primitives:

Primitives are a collection of basic shapes and objects that come built into JanusVR. They are stored locally in the janusvr/assets/primitives/ folder and do not need to be listed in the 'Asset' section to be used.

- capsule
- cone
- cube
- cylinder
- pipe
- plane
- pyramid
- sphere
- torus