



SuperMap Software Co., Ltd.

How to Load 3D Data

SuperMap Software Co., Ltd.



Preparations before Development



Realization of 3D data loading function

Step:

- 1) Including a script library
- 2) Adding container for 3D scene
- 3) Obtaining 3D scene objects
- 4) Adding the 3D data to the layer of the scene

Realization of 3D data loading function

1) Including a script library

- Create a project directory-helloWorld
- Copy Build, examples\js folders of SuperMap iClient 3D for WebGL to the project directory
- Open the js\main.js file to modify the reference path for Cesium

```
} else{
    require.config({
        paths: {
            'Cesium': '../Build/Cesium/Cesium',
            'Zlib': '../Build/Cesium/Workers/zlib.min'
        },
        shim: {
            Cesium: {
                exports: 'Cesium'
            },
            Zlib : {
                exports : 'Zlib'
            }
        }
    });
}
```

Realization of 3D data loading function

1) Including a script library

– Create HTML file

- Create a HTML file—`helloWorld.html` in the project directory

– The code is as follows:

```
<!DOCTYPE html>
<html>
<head lang= "en" >
  <meta charset= "UTF-8" >
  <meta http-equiv= "x-ua-compatible" content= "IE=Edge,chrome=1" >
  <title>hello, world</title>
</head>
<body>
</body>
</html>
```

Realization of 3D data loading function

- 1) Including a script library
 - Add references to script libraries

```
<!DOCTYPE html>
<html>
<head lang= "en" >
  <meta charset= "UTF-8" >
  <meta http-equiv= "x-ua-compatible" content= "IE=Edge,chrome=1" >
  <title>hello, world</title>
  <link href= "./Build/Cesium/Widgets/widgets.css" rel= "stylesheet"/>
  <script type= "text/javascript" src= "./js/require.min.js" data-main= "js/main"> </script>
</head>
<body>
</body>
</html>
```

Realization of 3D data loading function

2) Adding container for 3D scene

- Add DIV element
- Instance a Viewer object

```
<!DOCTYPE html>
<html>
<head lang= "en" >
  <meta charset= "UTF-8" >
  <meta http-equiv= "x-ua-compatible" content= "IE=Edge,chrome=1" >
  <title>hello, world</title>
  <link href= "./Build/Cesium/Widgets/widgets.css" rel= "stylesheet" />
  <script type= "text/javascript" src= "./js/require.min.js" data-main= "js/main" ></script>
  <script type= "text/javascript" >
    function onload(Cesium){
      var viewer = new Cesium.Viewer( 'sceneContainer' );
    }
  </script>
</head>
<body>
  <div id= "sceneContainer " style="width:100%;height:100%"></div>
</body>
</html>
```

Realization of 3D data loading function

3) Obtaining 3D scene objects

```
<!DOCTYPE html>
<html >
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
<title>getting started</title>
<link href="css/widgets.css" rel="stylesheet">
<script type="text/javascript" src="js/require.min.js" data-main="js/main"></script>
<script type="text/javascript">
    var viewer,url;
    function onload(Cesium) {
        viewer = new Cesium.Viewer('cesiumContainer');
        var scene = viewer.scene;
    }
</script>
</head>
<body>
    <div id="cesiumContainer" style="width:100%; height:100%"></div>
</body>
</html>
```


Realization of 3D data loading function

- 4) Adding the 3D data to the layer of the scene
 - Interface: scene --3D scene object

```
scene.addS3MTilesLayerByScp(url, options)
```

url:

eg. "http://192.168.2.23:8090/realspace/services/3D-jinjiang/rest/realspace/datas/jinjiang/config"

Realization of 3D data loading function

```
var viewer,url;
url = "http://localhost:8090/iserver/services/3D-osgb/rest/realspace/datas/jinjiang/config";
function onload(Cesium) {
    viewer = new Cesium.Viewer('cesiumContainer');
    var scene = viewer.scene;
    var widget = viewer.cesiumWidget;
    try{
        var promise = scene.addS3MTilesLayerByScp(url,{
name : 'jinjiang'});
        Cesium.when(promise,function(layer){
            scene.camera.setView({
                destination : Cesium.Cartesian3.fromDegrees(118.548,24.803, 600)
            });
        },function(e){
            if (widget._showRenderLoopErrors) {
                var title = 'An error occurred while rendering. Rendering has stopped.';
                widget.showErrorPanel(title, undefined, e);
            }
        });
    }
}
```

Realization of 3D data loading function

Loading the terrain data:

```
var viewer = new Cesium.Viewer('cesiumContainer', {  
  terrainProvider : new Cesium.CesiumTerrainProvider({  
    url : '  
    http://www.supermapol.com/realspace/services/3D-zf_tin_  
    image_z/rest/realspace/datas/info',  
    requestWaterMask : true,  
    requestVertexNormals : true,  
    isSct : true  
  })  
});
```

Realization of 3D data loading function

Loading the image data:

```
var imageryLayers = viewer.imageryLayers;  
var imageryProvider = new Cesium.SuperMapImageryProvider({  
    url : '  
    http://www.supermapol.com/realspace/services/3D-zf_tin_imag  
    e_z/rest/realspace/datas/image'  
});  
var layer = imageryLayers.addImageryProvider(imageryProvider);  
viewer.flyTo(layer);
```

Think you!

