

# Bimplus Renderer Reference

## Introduction to Bimplus Renderer

bim+ renderer is a javascript renderer core based on three.js.

## Installation

Bimplus WebSDK library is distributed via npm repository.

### npm registry

<https://www.npmjs.com/package/bimplus-renderer>

### npm installation

To install package via npm you need to install nodejs and npm . Then in command line run :

```
npm install bimplus-renderer
```

## Github

Public github repository with latest bundle is here :

<https://github.com/Bimplus/bimplus-renderer>

## Usage

In the next sections you can find some basic tutorials how to initialize and use Bimplus Renderer.

### Bimplus WebSdk initialization example

```

import Renderer from 'npm:bimplus-renderer';

var defaultViewportSettings = {
  "defaultOpacity": 0.5,
  "disciplineOpacity": 0.1,
  "pinSizeScaleFactor": 2,
  "maxWebGLBufferSize": 350e12,
  "mixedModelMode": true,
  "pinFlyToDistance": 20000,
  "nearClippingPlane": 0.01,

  "slideThmbSize": [
    180,
    112
  ],
  "units": {
    "mm": {
      "weight": {
        "multiplier": 0.001,
        "unit": "kg"
      },
      "length": {
        "multiplier": 0.001,
        "unit": "m"
      },
      "width": {
        "multiplier": 0.001,
        "unit": "m"
      },
      "height": {
        "multiplier": 0.001,
        "unit": "m"
      },
      "area": {
        "multiplier": 0.000001,
        "unit": "m²"
      },
      "volume": {
        "multiplier": 1e-9,
        "unit": "m³"
      }
    },
    "inch": {}
  },
}; // END defaultViewportSettings

// init viewport with json object
// canvasElementId - it's the canvas element id in html which renderer will use for rendering
var viewport = new Renderer.Viewport3D({
  settings: defaultViewportSettings,
  domElementId: 'canvasElementId',
  GPUPick: false
});

// object selection handling
$(viewport.domElement).on('select3DObject', () => {
  viewport.highlightObject(n.id);
});

```