

WebGL 3D Viewer Configuration for Developers

1 Viewer Configuration

Configuration settings are defined via JavaScript before loading the viewer package into your HTML page. This typically involves a custom UI configuration. All configurations properties are optional: if a property is not set by the developer, the viewer will fall back on the default configuration. Custom configuration is set via the **config** attribute of the **viewer-app** HTML element in your index.html file. This attribute expects a JSON string with sections and properties described below.

1.1 Section "locations"

Includes paths to data and resources. Can include properties:

- "resources" - path to application resources like icons and pictures. Default value: assets/resources.
- "bson" - path to converted model data. Default value: assets/models.

1.2 Section "pmi"

Includes the "actions" array property that defines types of PMI objects available for creation in the UI. The array can contain values:

- "ann" enables annotations in UI
- "p2p" allows measuring distance between points in UI

Default value: ["ann", "p2p"].

1.3 Property "settings"

An array that lists the settings available to the user in the Settings window. Possible values:

- "PMI_COLOR" for the "PMI color" setting
- "VIEWER_BACKGROUND_COLOR" for the "Background color" setting
- "SELECTION_COLOR" for the "Selection color" setting
- "ANIMATION_TRANSFORM" for the "Enable/disable animation transformation" setting
- "SHOW_TRIHEDRON" for the "Show trihedron" setting
- "DISPLAY_DETAILS" for the "Show Details Panel" setting
- "LANGUAGE" for the "Change user interface language" setting

By default, all values are included in the array.

1.4 Property "actions"

An array that lists actions (buttons) available to the user in the left-hand sidebar and in the context menu.

Available values:

- "gallery" - shows the "Gallery" action
- "pmi" - shows the "PMI" action
- "clipping" - shows the "Clipping" action
- "exploding" - shows the "Exploded view" action
- "views" - shows the "Select view" action
- "view_axo" - shows the "Set axonometric view" in the "Select view" panel
- "view_front" - shows the "Set front view" in the "Select view" panel
- "view_back" - shows the "Set back view" in the "Select view" panel
- "view_left" - shows the "Set left view" in the "Select view" panel
- "view_right" - shows the "Set right view" in the "Select view" panel
- "view_top" - shows the "Set top view" in the "Select view" panel
- "view_bottom" - shows the "Set bottom view" in the "Select view" panel
- "displaymodes" - shows the "Display modes" action
- "shaded" - shows the "Shaded" action in the "Display modes" panel
- "wireframe" - shows the "Wireframe" action in the "Display modes" panel
- "shaded_wireframe" - shows the "Shaded with wireframe" action in the "Display modes" panel
- "hlr" - shows the "Hidden line removal" action in the "Display modes" panel
- "transparent" - shows the "Transparent" action in the "Display modes" panel
- "transparent_wireframe" - shows the "Transparent with wireframe" action in the "Display modes" panel
- "fitall" - shows the "Fit all" action
- "screenshot" - shows the "Make screenshot" action
- "resetScene" - shows the "Reset scene" action
- "undo" - shows the "Undo" action
- "redo" - shows the "Redo" action
- "seltype" - shows the "Sticky selection" action
- "cameramode" - shows the "Camera mode" action
- "settings" - shows the "Open settings" action
- "fullscreen" - shows the "Full screen" action
- "info" - shows the "Information and Help" action
- "showall" - shows the "Show all" action
- "showonly" - shows the "Show only" action
- "hide" - shows the "Hide selected" action
- "fit" - shows the "Hide selected" action

By default, all these values are included in the array.

1.5 Section "sidebar"

Adjusts the layout of the sidebar.

Properties:

- "enable" - can have values "true" or "false". Shows/hides the sidebar. By default it is shown.
- "selectorlayout" - can have values "vertical" or "horizontal". Defines layouts of the long UI panels for "Select view" and "Display modes". The default is "horizontal".

1.5.1 Section "top"

Properties:

- "actions" - an array of visible actions on the top of the sidebar. Its items are to be taken from the list of available actions in the global property "actions". Default values:
 - "gallery" - shows the "Gallery" action
 - "pmi" - shows the "PMI" action
 - "clipping" - shows the "Clipping" action
 - "exploding" - shows the "Exploded view" action
 - "views" - shows the "Select view" action
 - "displaymodes" - shows the "Display modes" action
 - "fitall" - shows the "Fit all" action
 - "screenshot" - shows the "Make screenshot" action
 - "resetScene" - shows the "Reset scene" action

1.5.2 Section "bottom"

Properties:

- "actions" - an array of visible actions on the bottom of the sidebar. Its items are to be taken from the list of available actions in the global property "actions". Default values:
 - "undo" - shows the "Undo" action
 - "redo" - shows the "Redo" action
 - "seltype" - shows the "Sticky selection" action
 - "cameramode" - shows the "Camera mode" action
 - "settings" - shows the "Open settings" action
 - "fullscreen" - shows the "Full screen" action
 - "info" - shows the "Information and Help" action

1.6 Section "contextmenu"

Adjusts the elements of the context menu.

Properties:

- "enable" - can have values "true" or "false". Enables or disables the context menu entirely. By default it is enabled.
- "actions" - an array of visible actions in the context menu. Available values:
 - "showall" - shows the "Show all" action
 - "showonly" - shows the "Show only" action
 - "hide" - shows the "Hide selected" action
 - "fit" - shows the "Fit selected" action

By default, all values are included in the array. Note that these values can also be listed as the sidebar actions.

1.7 Property "displaymodes"

Sets an array of available display modes in the "Display modes" panel. Available values:

- "shaded" - shows the "Shaded" action in the "Display modes" panel
- "wireframe" - shows the "Wireframe" action in the "Display modes" panel
- "shaded_wireframe" - shows the "Shaded with wireframe" action in the "Display modes" panel
- "hlr" - shows the "Hidden line removal" action in the "Display modes" panel
- "transparent" - shows the "Transparent" action in the "Display modes" panel
- "transparent_wireframe" - shows the "Transparent with wireframe" action in the "Display modes" panel

By default, all values are included in the array.

1.8 Section "trihedron"

Properties:

- "enable" - can have values "true" or "false". This is a way to show/hide the trihedron via configuration, but not via the viewer UI settings. By default it is set to "true".

1.9 Section "details"

Properties:

- "enable" - can have values "true" or "false". This is a way to show/hide the Details panel via configuration, but not via the viewer UI settings. By default it is set to "true".

1.10 Section "properties"

Properties:

- "enable" - can have values "true" or "false". Show or hides the Properties panel. By default it is set to "true".

1.11 Section "icons"

Properties:

- "size" - sets the size of action icons. Default value: 28.
- "padding" - sets the padding of icons. Default value: 10.
- "color" - sets the color of icons. Default value: "#2d89bb".

1.12 Section "language"

Properties:

- "default" - sets the default language for the UI. Default value: "en".
- "translations" - an array that sets the available UI languages. Possible values: ["en", "ru"]. By default, all available values are supported.
- "use_locale" can be "true" or "false" (boolean type). Enables or disables locale usage (browser language, not the system language). Default value: false.