



Cloud service for creating 3D presentations of your product

User guide

Technical support:

E-mail: info@site3d.site

Telegram: osite3d_site

Preparation of 3D models

In what format to work

Our service supports loading models in a variety of formats, but for maximum realism, we recommend working with the GLB format (an optimized version of the GLTF format). This format is specially designed for realistic demonstration of models in the Web space.

The most suitable program for working with this format is **Blender**. This is a modern, actively developing and free 3D graphics editor. Only it allows you to properly prepare a **model with textures**.

In the future, we will mainly focus on this format of 3D modeling.

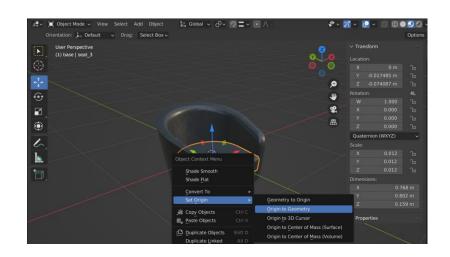
Centering the model

For the convenience of working with the model in the service, it is necessary to set the geometries of all meshes in their geometric centers:

- In Blender, select Set Origin => Origin to Geometry => Bound Center.
- In 3D max, this is done using Pivot Point.

You should also place the model in the center of the coordinates:

- If the model is in the form of a single mesh, then it is enough to set zero coordinates for it.
- Otherwise, you can select all the meshes, clone them, then
 combine them into one mesh, then set it at the center of the
 coordinates, after which, combine all the meshes with this
 mesh through binding to the vertices, and delete it.

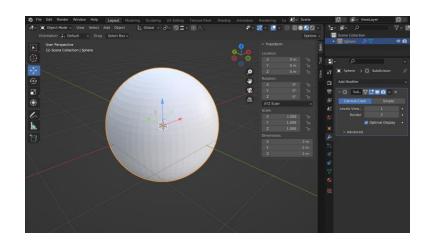


If there is no animation in the model, the service tries to center the model automatically through the setting **Scene Parameters => Start view => Place the model in the center**, but it is better to control this process yourself.

Working with dimensions and details

For correct display in augmented reality, the model must have **real dimensions in meters**.

To smooth the model in **Blender**, select the **Subdivision Surface** modifier and increase the **Levels Viewport** to the appropriate level.



Checking and correcting normals

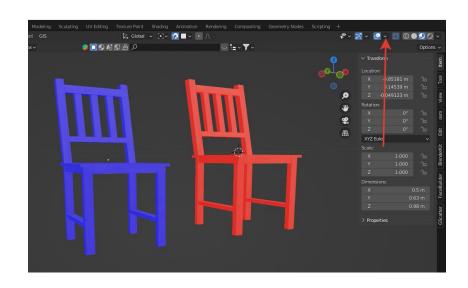
When working with the model, check the state of the normals:

- Select the model and go to Overlays
- Select the Face Orientation checkmark

If the model is red, normals are turned out. To fix this, go into edit mode, select all or part of the model, press ALT + N and select Flip.

To prevent this problem from interfering with your work:

- Go to the Material Properties tab on the right
- Go to Settings and uncheck Backface Culling



Features of working with materials

The GLB format is demanding of materials, so special preparation is needed for it. It is important to familiarize yourself with the <u>acceptable properties of the material for the GLB format</u>.

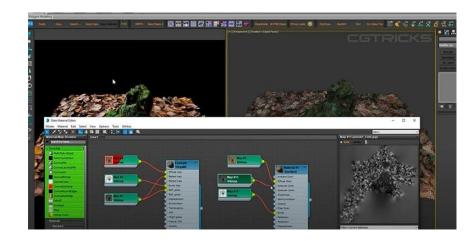
The parts of the model (hereinafter meshes) that users can repaint (change color, texture) should have **only one material**.

We recommend working with materials in Blender, but keep in mind that only **Image Texture**, **Normal Map** and other maps can be used in Shader Editor.

If you work in 3D max and use **V-RAY** or **CORONA** materials, then to export to GLB format, you must first export the model to FBX, and then import it into Blender and export to GLB.

If you use CORONA or several V-RAY materials, you will additionally need to reconnect textures in Blender according to their names.

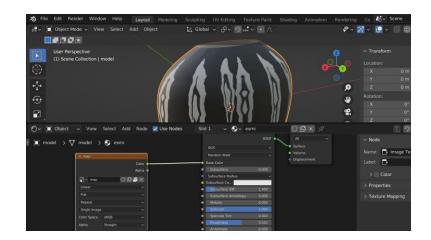
For more information about exporting from 3D max to GLB, see here.



How to apply texture

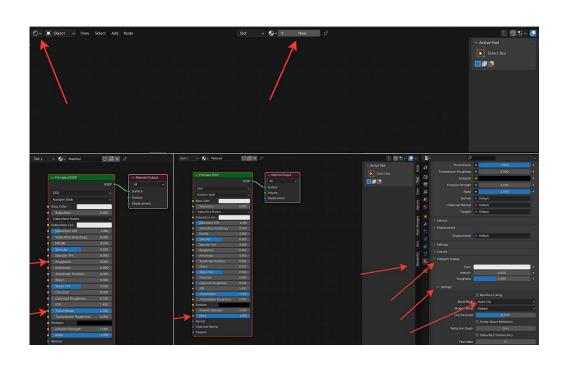
To apply texture to a model in **Blender**:

- We select the model
- At the bottom, select the **Shader Editor** and transfer the desired texture there
- We connect the texture with our model via Color to Base Color
- If the texture does not lie flat, then go to the **UV Editing** panel.
 Two windows appear, in the right window we switch to **Edit Mode** and select the model. The expanded model appears in the left window. Align the texture.



Creating a glass material

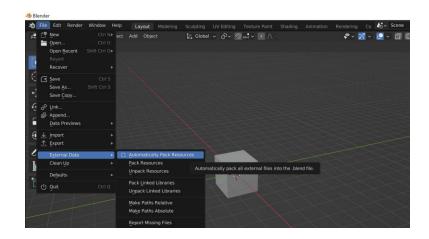
- We select the mesh. Go to the **Shader Editor**.
 Creating a new material using the **New** button.
- We set **Transmission** to 1.0, and **Roughness** to 0.0.
- Go to the *Material Properties => Viewport* Display => Settings on the right and select
 Alpha Clip in the Blend Mode section.
- We return to the **Shader Editor** and set the corresponding value in **Alpha** (the lower, the more transparent the object will be).



Packing textures

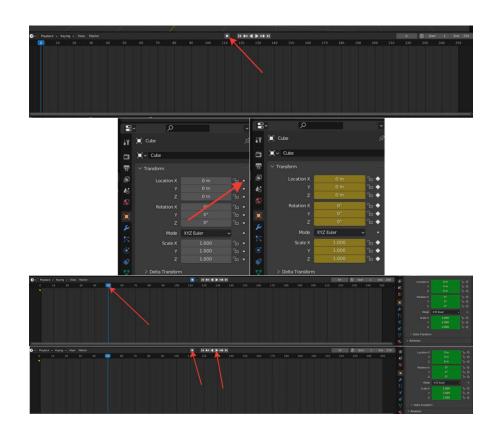
In order for the textures of your model to be displayed in the service, it is necessary that you attach them to your model file. Depending on the program you are working in, this can be done in different ways:

- In Blender, select File => External Data => Automatically Pack
 Resources from the menu
- In order to properly export materials from 3D max, it is important that they are all in the same folder (how to do this).



Creating an animation

- We select the mesh. Go to the **Timeline** bottom menu. Turning on the animation.
- On the right, go to **Object Properties**. We include coordinates and degrees. So we set the origin.
- Move the blue cursor to the required time interval.
 At the same time, we move the mesh to the required place.
- Repeat these actions until the end of the animation.
 After the end, turn off the animation and click on start to view what happened.



Model optimization

To display a 3D model in a browser, especially on most mobile devices, requires good optimization:

- Apply all modifiers
- Remove unnecessary vertices and polygons that do not make a significant contribution to the visual component
- Reduce the size of textures (for most cases, **1024 by 1024 jpeg** images are sufficient, which can be compressed, for example, in Photoshop with an optimization value of 60%)

The recommended final size of the uncompressed model is **up to 3 MB**.

Preparation of additional models

To show different variants of parts of the model (for example, the shape of the roof at the house), it is necessary to prepare separate model files.

If you want to replace only geometry, then you need to take into account (in this case, you need to specify the *Use only geometry* switch inside the service in the model change settings):

- Only the first mesh in the scene is taken as a replacement geometry
- To reduce the weight of the model, it is better to exclude materials, because only geometry is replaced

Preparing to change textures

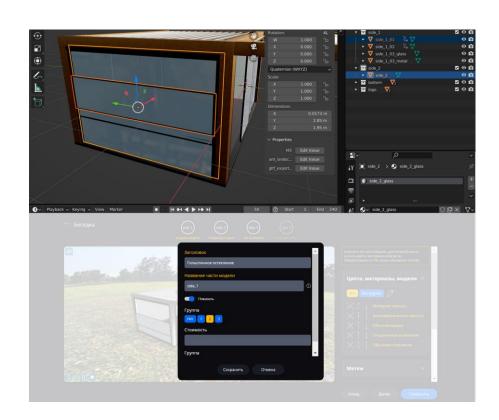
For those parts of the model where textures are supposed to be changed, apply low-quality textures inside the model so that it is visually possible to form a uv scan, and the weight of the model does not increase significantly, because when loading the model in the service, these textures will be replaced with options uploaded in the personal account in good resolution (this applies to both conventional textures, and elevation maps).

Preparation for changing parts of the model

If you need to show different versions of parts of the model, then you can place meshes of different variants in one place of the model.

In the model, they may intersect each other, but in our service you can add a visibility switch for each option, indicate its initial state and the same group number so that your options switch automatically, showing the desired option and hiding the rest.

To apply the switch to several bags at the same time, it is convenient to include the same parts of the names in the names of such meshes. This common part can be specified in the properties of the switch.

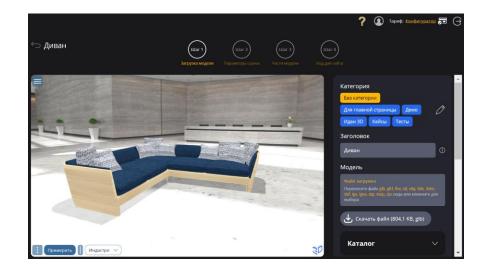


Creating a 3D widget

Uploading a model to the service

You can upload either a single file or a zip archive if the model has separate texture files or other data. **There should be no directories in the archive** (only files).

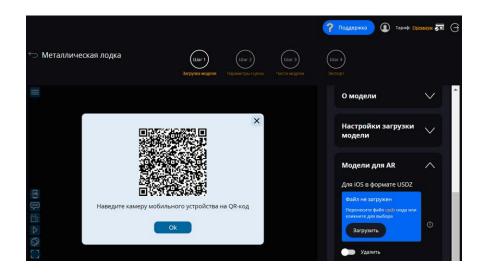
To test the service, you can use the catalog of ready-made models.



Uploading additional models for AR

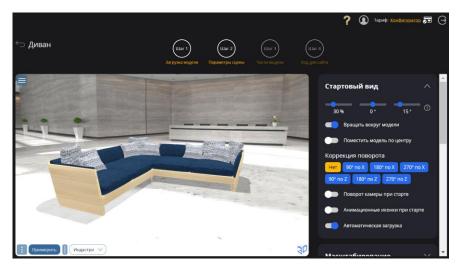
At the first step of the project creation wizard, it is possible to download a separate model file in USDZ format to demonstrate augmented reality mode for iOS.

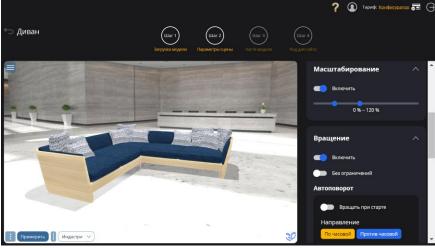
This function will be useful if the automatic generation of this file does not occur properly.



Basic settings

To start working with the model, we recommend setting up the starting view and scaling and rotation parameters.





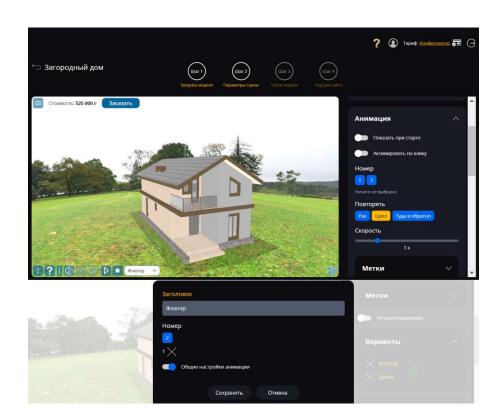
Animation

Animation tracks only work in GDB format and must be embedded in the model itself.

The following features are available:

- Adding labels text explanations that appear during animation playback
- Adding a list of animation options
- Manual control by scrolling with the mouse wheel or gesture on the touch screen

Multiple selection of tracks for playback for the model as a whole and for variants is supported.



Dimensions and floor

You can enable the display of the overall dimensions of the model and the floor of the desired size and color.



Panorama and lighting

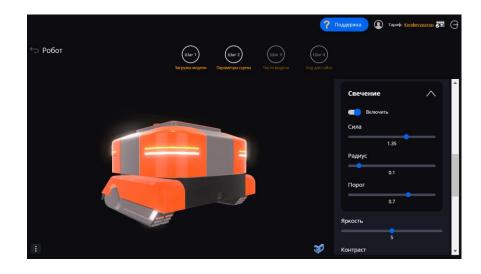
The model often looks more impressive together with a panorama that fits the meaning. There may be several of them, then the user will be able to choose the appropriate one when viewing from the list.

Lighting is also of great importance for the visual display of the model. You can adjust the color and power of the general lighting, as well as the color, power and direction for the directional light coming from above and below.



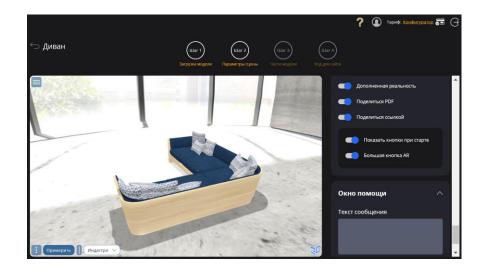
Graphics and optimization settings

You can customize: graphics quality, glow, brightness and contrast parameters, shadows, hiding small details, general material, etc.



Navigation and help window

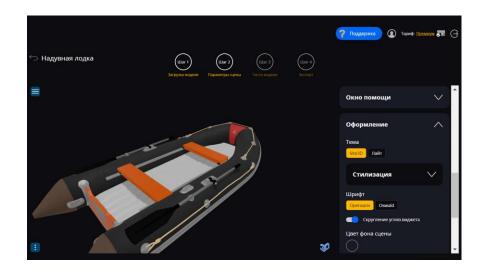
Next, we configure the navigation buttons and, if necessary, the content and the moment when the help window appears.



Design themes

Here you can customize the appearance of the widget interface to match the style of your brand. There is a reason for this:

- Design themes
- Additional styling of interface colors and shapes
- Fonts
- The design of the screensaver
- Watermark Overlay
- · And much more

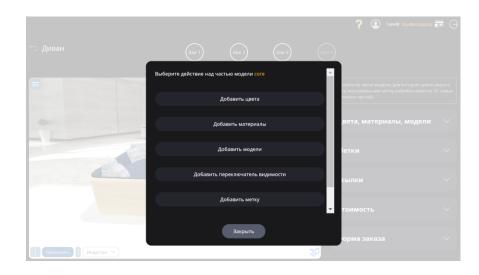


Selecting a part of the model

At the third step of creating a project, you can click on the desired part of the model and select the desired setting.

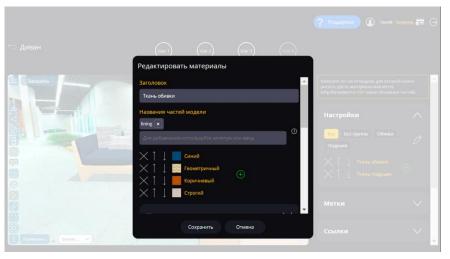
Any setting has a field for the name of a part of the model, where you can specify only part of the name so that the setting applies to several elements of the model that have this part of the name.

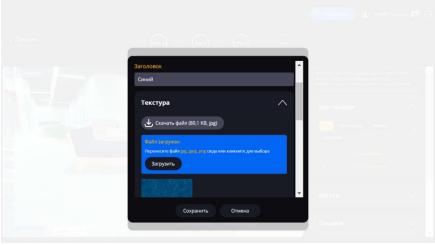




Configuring Materials

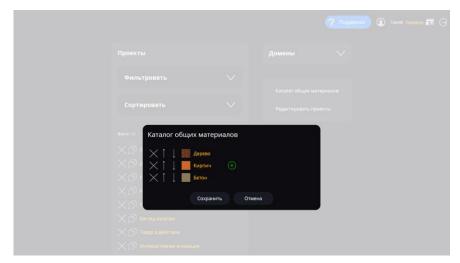
For any part of the model, you can configure the change of textures and colors.





General catalog of materials

For each material setting, it is possible to add both your own materials and select the appropriate material from the general catalog, which is edited on the main page of your personal account. You can also select material from the library of the service.



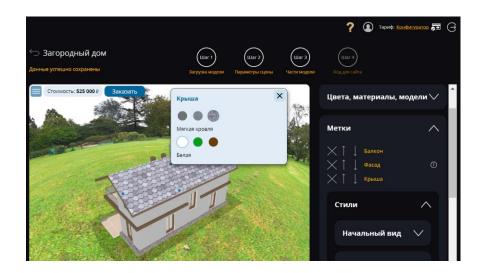


Tags and links

A block of labels is used for visual text hints of individual parts of the model. They can be styled to suit your preferences.

When you click on the label, a **convenient selection of colors and textures** is displayed (if there are appropriate settings for the same part of the model as the label).

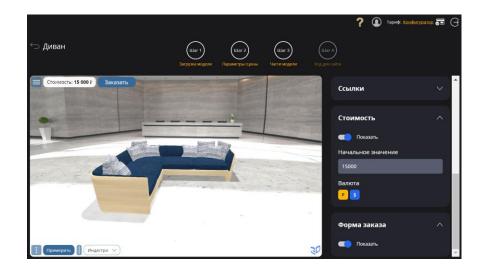
Each element of the model can serve as a link to internal sections of the site or external resources.



Cost and order form

The cost of the finished product, which can be displayed in the widget, may depend on the choice of materials and other settings.

You can also enable the ability to apply directly from the widget.



Exporting a project

There are several ways to embed a project on a website:

- Inserting the 3D widget code (you need to specify the site domain in the list of domains, as well as the product code in the first step, if you want to use the container type for the widget "With the product code")
- Adding a link to view in a separate browser tab
- Creating a video review

It is possible to copy the simplified code to insert the widget in **Wordpress**.

The widget can work on any website creation engines, including inside website builders.



Working with a large number of

projects (models)

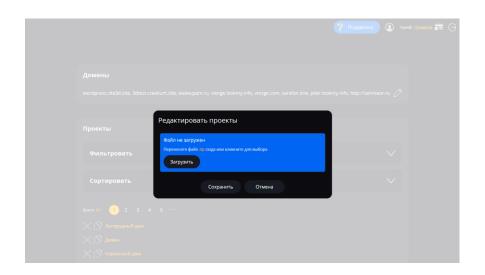
Massive loading of models

To download multiple models at the same time (create a large number of projects), there is a button "Edit projects" on the main page of your personal account.

Before that, you need to create a zip archive with the models (they can be nested in folders). In this case, the names of the model files will be used as the title and product code.

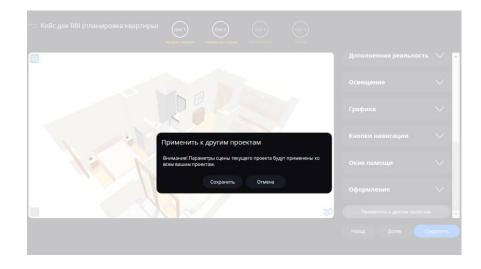
This code can be used for more convenient integration into the site, when instead of the project ID, you can use a combination of the user ID and the product code (for more information, see the export section).

If the product code matches, the previously created project will be updated.



Applying scene parameters to other projects

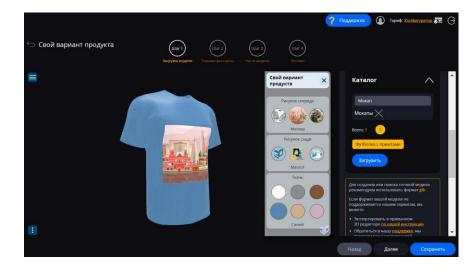
At the second step of creating a 3D widget, there is a button so that you can apply all the settings of the scene parameters to our other projects.



Examples of using the service

Creating mockups

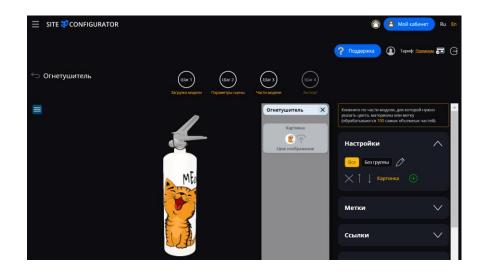
- Upload your 3D model or one from our catalog (we recommend models with the "Mockups" tag)
- Upload materials (our models have already prepared places to insert your design)
- Export the mockup in a convenient form for you



Constructor with user textures

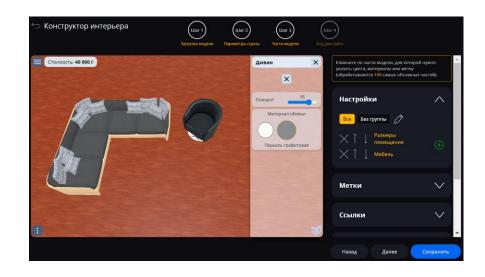
- You are uploading a 3D model.
- You add material with the "Uploading your own texture" mode enabled to the part of the model where the custom image should appear.

Along with a variant of your own image, you can also find prepared materials with different textures.



Configurator with moving models

- Upload your 3D model of the floor of a room or the ground of a street space or choose the appropriate option from our catalog (we recommend models with an area of 1 sq. m).
- Add, if necessary, settings for sizing and changing materials for the uploaded model.
- You add settings for model variants that can be placed on the surface of the loaded floor or ground model, with the movement mode enabled.



Contact us

