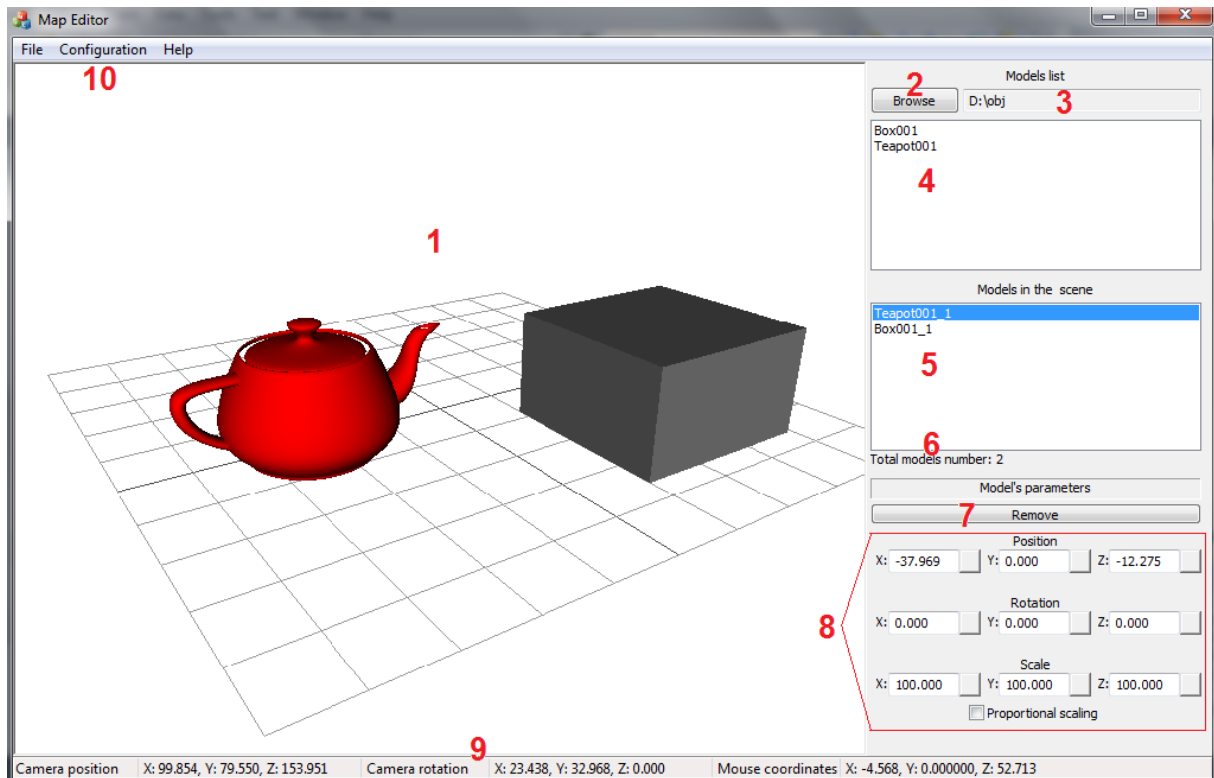


MAP EDITOR FOR 3D GAMES.

Interface



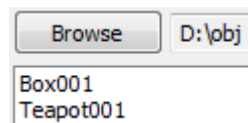
1. Window which contains whole scene with all models. Models are gray-colored, if model is red-colored, it means that the model has been selected from the model's list (5).
2. "Browse" button allows choosing a directory which contains models that can be added to the scene in the future.
3. Field that informs you which directory has been chosen for models.
4. List which contains all models loaded from the directory that could be chosen above.
5. List which contains all models that has been added to the scene.
6. Information that tells us how many models are in the scene.
7. Button that allows you for deleting models from the scene.
8. Parameters which describe model in the scene. By this options you can easily transform model in three ways, positioning, rotating and scaling.
9. Statistics for the camera and mouse coordinates in 3D space.
10. Main menu which allows you to create new map, save the existing one or to load another as well as turning grid on/off.

Models adding

After getting into the program the application automatically creates new map. If you wish to load an existing map go to main menu and select "Load map".

At first (we assume you are creating new map instead of working on an existing one) you need to use "Browse" button to choose a directory which contains all models that will be added to the scene. Model must be in an .obj format using triangles without textures.

After you select a directory you'll need to wait a moment to let the application loads models into memory.



When the application has loaded it, every model will be displayed on the list below the button.

To add a model to the scene you have to select any model on the list and drag your cursor onto the window on the left. By moving your cursor you are able to position it in the 3d space and apply it by clicking the left mouse button. If you wish to put your model higher (along Y axis) you need to hold shift and then move your cursor up or down to position it. After you add a model the cursor will still keep it for adding.

If you wish to remove it from your cursor, simply click Esc button on your keyboard.

```
v -21.8199 0.0000 19.5712
v -21.8199 0.0000 -22.4855
v 21.9272 0.0000 -22.4855
v 21.9272 0.0000 19.5712
v -21.8199 24.4964 19.5712
v 21.9272 24.4964 19.5712
v 21.9272 24.4964 -22.4855
v -21.8199 24.4964 -22.4855
# 8 vertices
```

```
vn 0.0000 -1.0000 -0.0000
vn 0.0000 1.0000 -0.0000
vn 0.0000 0.0000 1.0000
vn 1.0000 0.0000 -0.0000
vn 0.0000 0.0000 -1.0000
vn -1.0000 0.0000 -0.0000
# 6 vertex normals
```

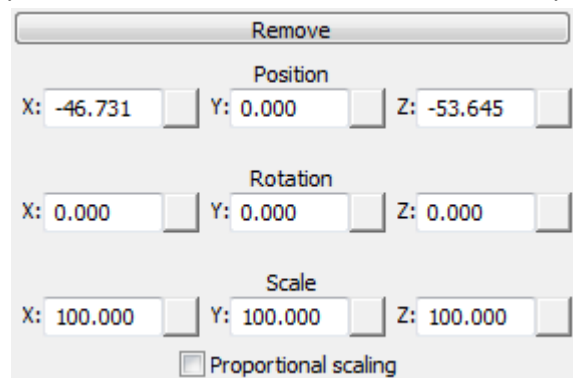
```
g Box001
f 1//1 2//1 3//1
f 3//1 4//1 1//1
f 5//2 6//2 7//2
f 7//2 8//2 5//2
f 1//3 4//3 6//3
f 6//3 5//3 1//3
```

1 OBJ file structure

Models managing

After you have added a model to the scene you are able to transform it in a different ways. At first you need to select a model which you want to transform. To do this you need to select it from the second list below. When you select anything on the list, on the right-bottom of the application new fields will be displayed.

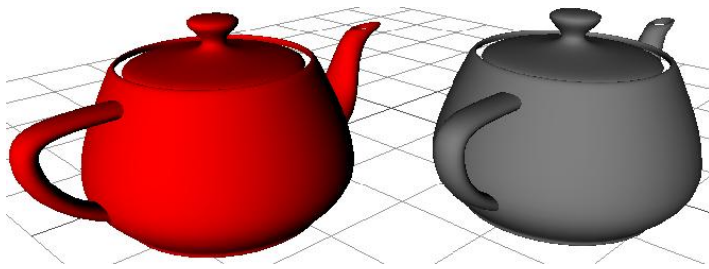
By using Remove button you are able to delete model from the scene (permanently,



2 Model parameters

there's no "undo" option), alternatively you can just press Delete on your keyboard after selecting a model.

Below the button there are edit fields with boxes next to them. To transform selected model



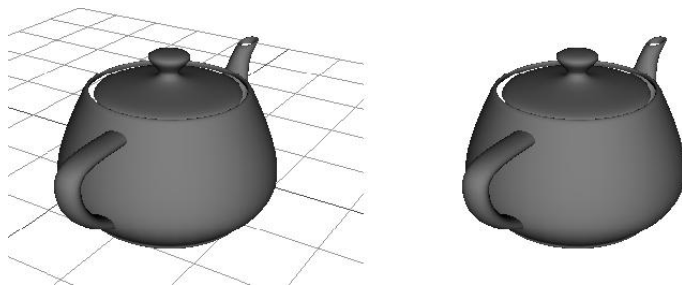
3 Selected and unselected model

you can easily type any value to the specific edit field and press enter or you can use the boxes. To use it, simply hold the left mouse button on it and then move your cursor to change specific parameter.

Using main menu

In main menu you can create new map, save existing map or just load another one. When you are working with a map, after choosing "New map" or "Load map" you will be asked if you wish to save your existing map. Maps are saved into xml format which is easy to read and edit. The same format can be loaded.

By using main menu you can turn on/off the orientation grid as well. Just simply click on the



4 On the left grid is on, on the right grid is off

"Configuration" menu and choose the option. Grid will be on if an "accept" mark will be displayed next to the text, otherwise there will be nothing.

Operating camera

Operating camera is easy and intuitive. To move the camera to a specific direction just hold middle mouse button and start moving your mouse to move the camera.

If you wish to zoom in/out, simply roll your wheel (zoom out – towards you) on your mouse.

To rotate a camera you need to hold left Control and then rotate your camera by using middle mouse button. Remember that the camera rotates always on a "sphere" (or around a point), in other words if you move your camera you also move the center of the "sphere".