

Questions and Exercises

These questions and exercises is an opportunity to see what you've learnt from the lecture as well as practice the new things we've been talking about. In other words, these questions and exercises are completely optional but it's recommended to do them. In the end of the document you will find the answers to the questions as well as possible solutions to the exercises, note that one can solve an exercise in different ways. There will also be some suggestions about what one could code if one want to continue with some more advanced things. These suggestions will not come with a possible solution and might include things that haven't been covered in the lecture.

Question 1

After creating a model in Techne you probably want to export it. What do you export it as and how do you import it into minecraft?

Question 2

It's possible to use models when rendering blocks, what should we do with the block itself to allow it to use that kind of rendering code?

Question 3

How does one load a model from a .obj file?

Exercise

Create a model in Techne that looks like cupboard, then render a block with that model. When right clicked, make one of the drawers slide out.

Further explorations 1

When you're ready there's an assignment waiting for you.

Further explorations 2

Create and import a .obj model and make it animate.

Answers and solutions

Answer to Question 1

When you export the model from Techne you can simply export it as java code. Save that code as your model, you will probably have to add some imports and change the package but apart from that your model should be pretty much ready to be used. Then you can just use and render it like any other model.

Answer to Question 2

A block that wants to be rendered as a model needs to be rendered through a tile entity. This means that the block has to have a tile entity. The other thing the block itself has to do is to disable its normal rendering code. Let `renderAsNormalBlock` and `isOpaqueCube` return false and let `getRenderType` return -1.

Of course you'll have to do more things to make it work which are not directly related to the block. For instance, creating the `TileEntitySpecialRenderer` and register it for a tile entity.

Answer to Question 3

To load a .obj file in minecraft you'll just have to just Forge's `AdvancedModelRenderer` and tell it to load the model at the specific file path, it could look something like the following:

```
model = AdvancedModelLoader.loadModel("/assets/example/models/bomb.obj");
```

To render the model simply use `model.renderAll()`. However, you should set up a rendering class that does the appropriate translations and binds the textures and such.

Possible solution to Exercise

<https://dl.dropboxusercontent.com/u/46486053/CupboardSolution.zip>