Hello World!

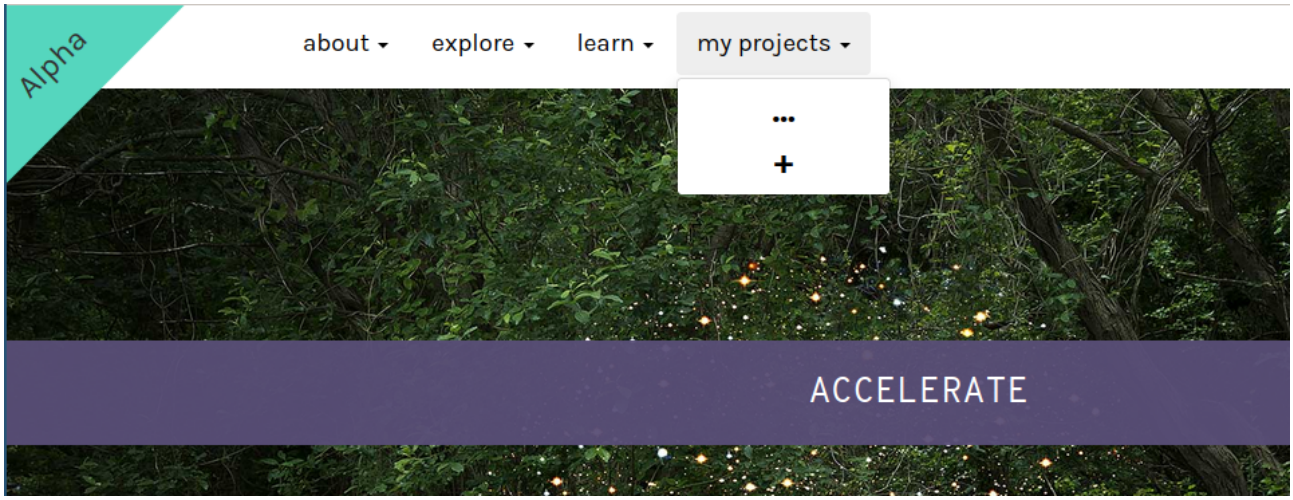
In this first guide we'll walk through the The *Hello World!* of the *Accelerate Editor*. We will cover the basics of adding primitive shapes available to you through the snippet editor, moving and editing these primitives and how you can interact with your basic world in virtual reality!

If you haven't already, first you need to make a profile on the Accelerate Editor by inputting some basic details at the login page here. If you already have an account just login!

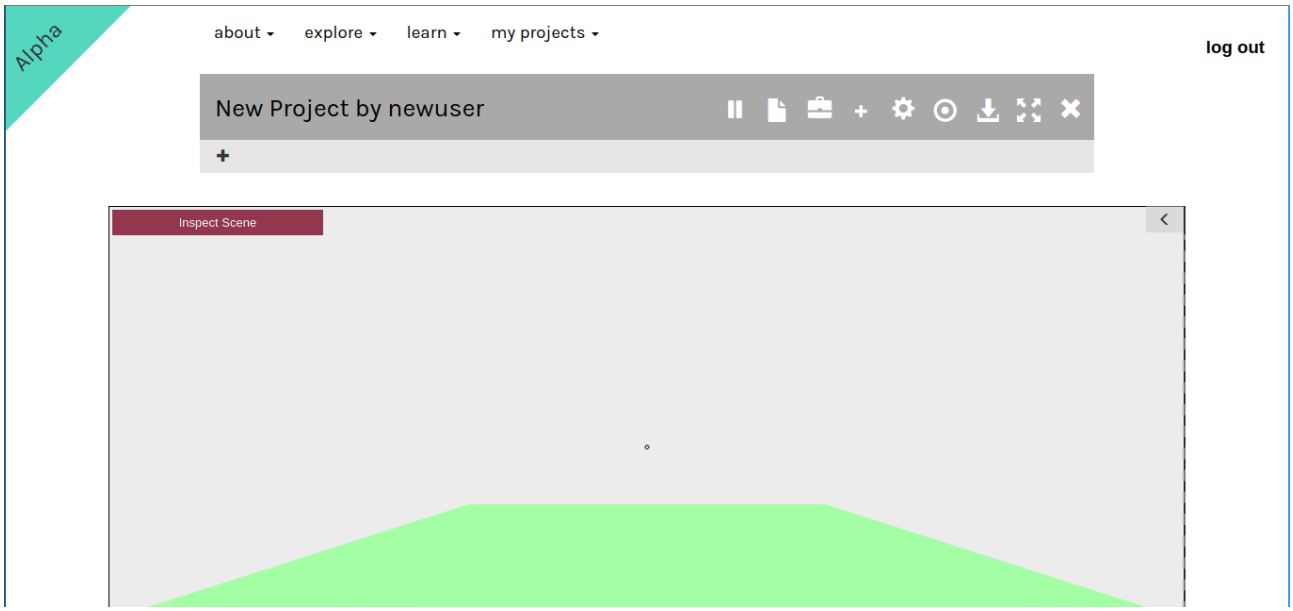
1. Making a new document

As all worlds you build through the editor are ”live documents”, we will refer anything you create through the editor as a *document*, more on this later.

To make a new document click on **my projects** at the top and click on the **+** symbol.



You will be greeted with a screen like this:

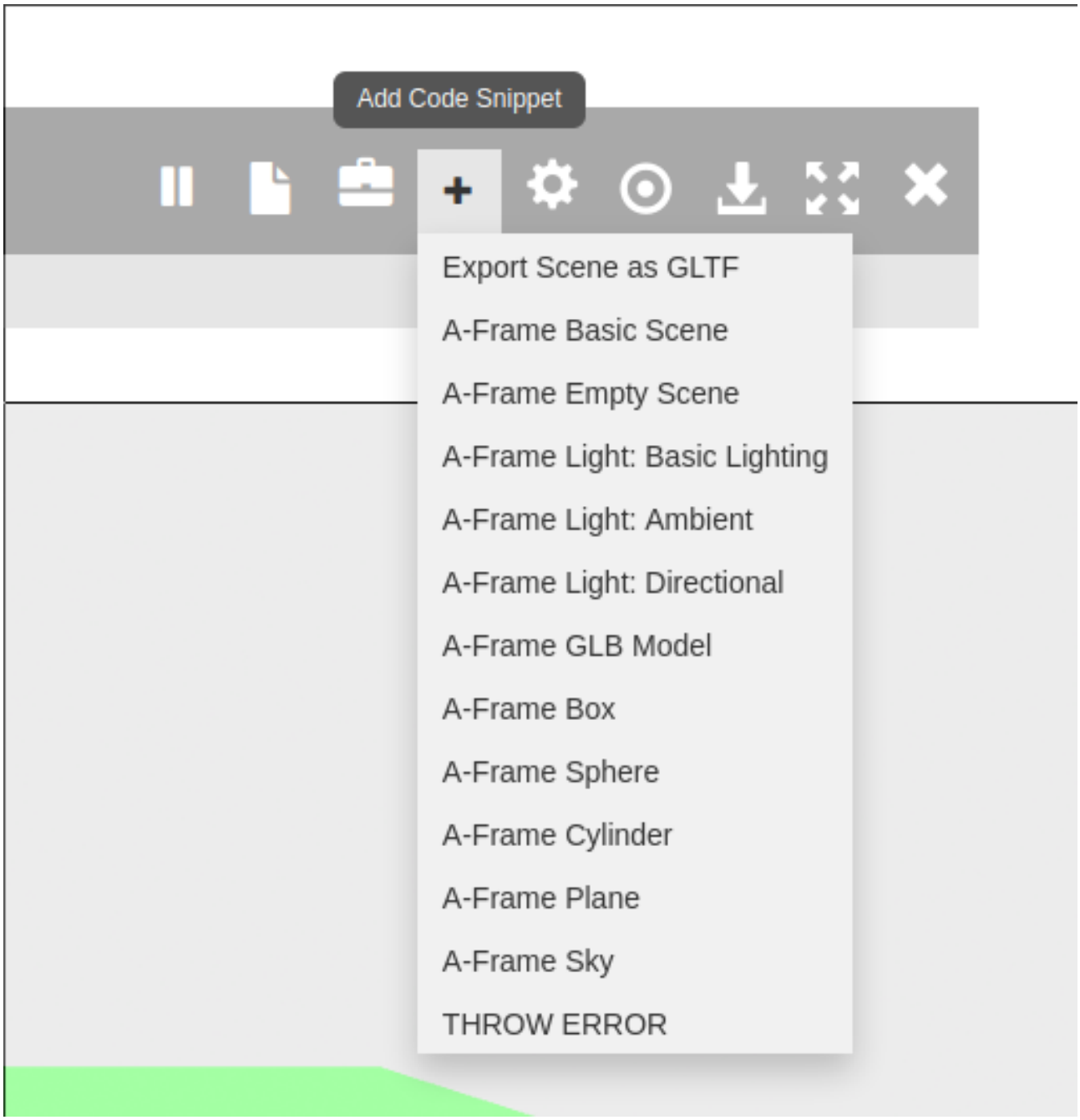


You can change the default document title by simply clicking on it. We recommend you do so simply to make finding your own documents easier. It will also make collaborating easier in future ;)

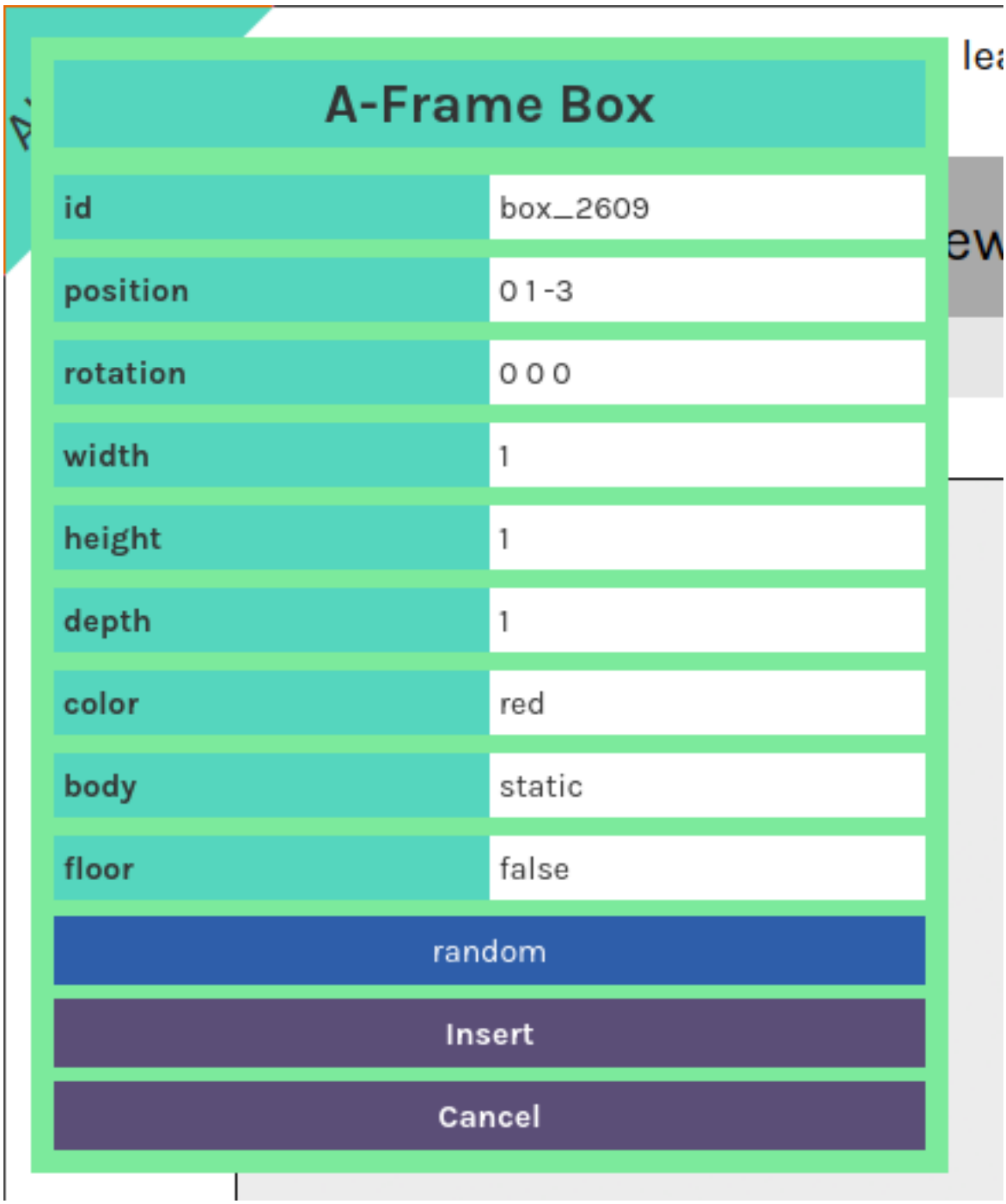
2. Adding Primitives

Basic built in shapes in 3D graphics editing software are often called *primitives*, so we'll stick with that convention too.

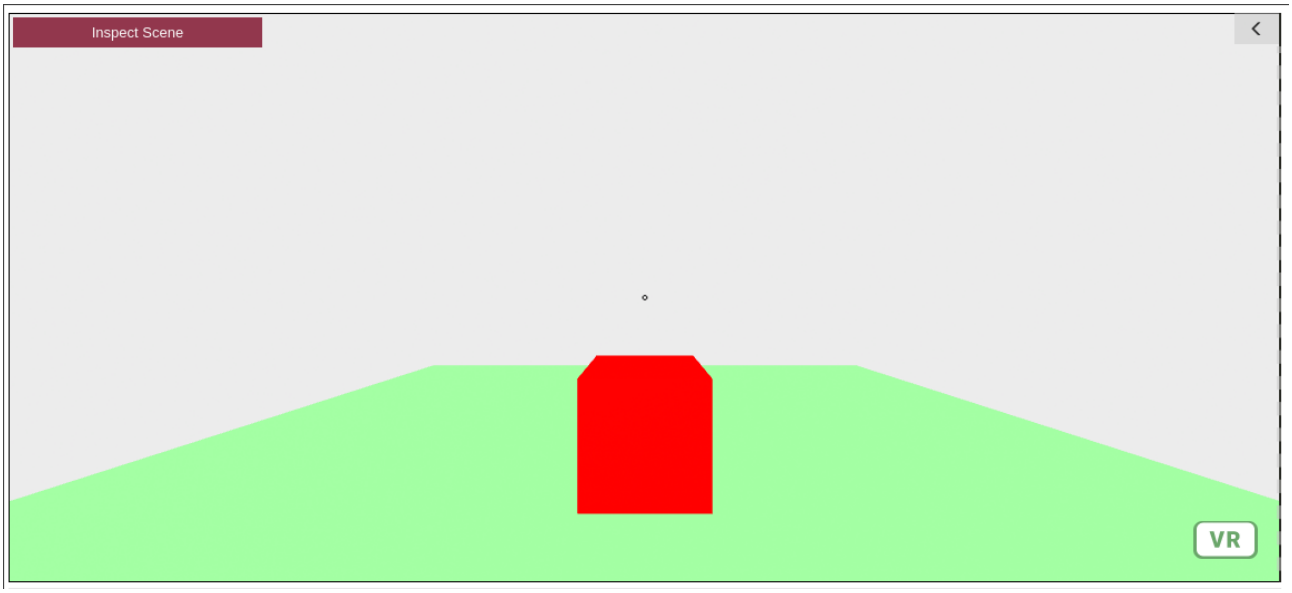
Out basic interface with adding new things to the document (and our scene) will be through the *"snippet editor"*. You can open the snippet editor by clicking on the **+** in the toolbar.



Let's just add an *A-Frame Box*. This will open up the snippet editor itself:

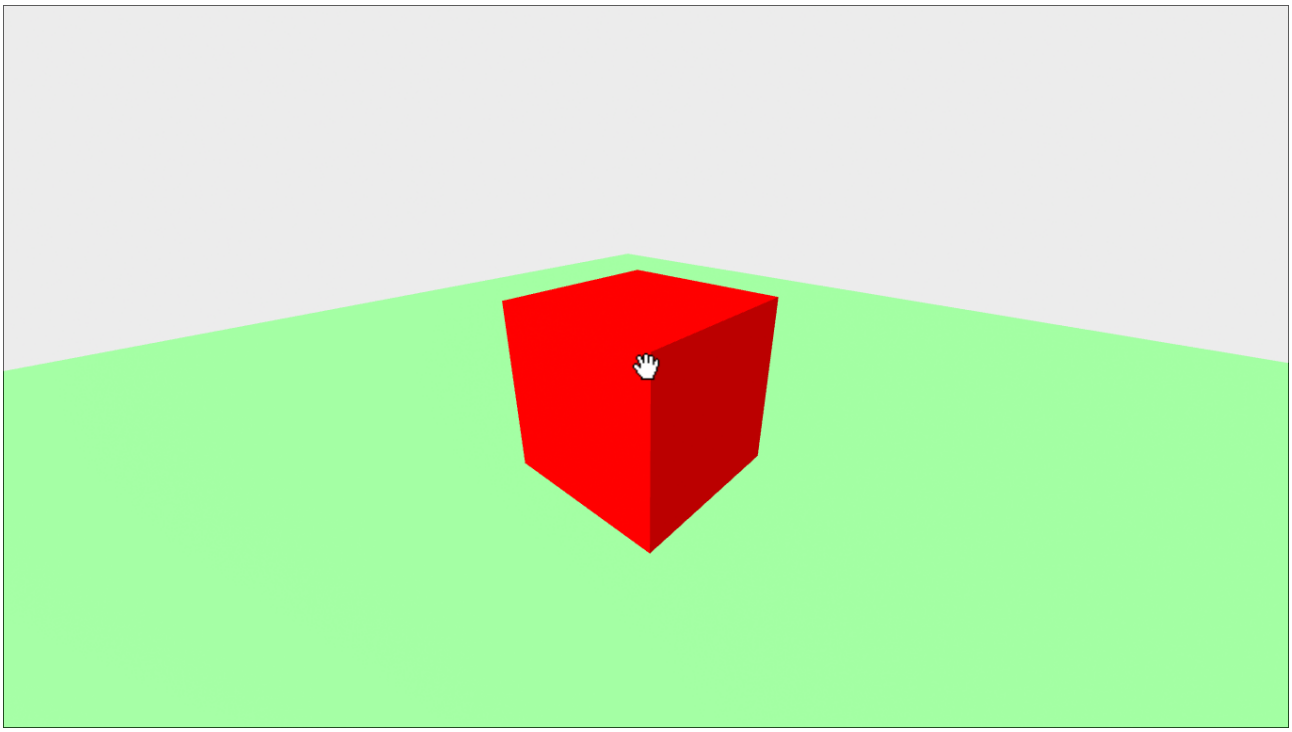


For now leave all the values as they are and just press **Insert**. This should insert a humble red box into your scene (it might not appear immediately, give it a second).



3. Entering Virtual Reality

How exciting! We are building a world. You can *enter* this world by clicking on the **VR** button in the **bottom right-hand corner** of your scene. When you click on this you will enter the virtual reality space and you can move around this space as you would most other first-person video games. This means using the mouse (or trackpad) to look around, and the arrow keys (up, down, left and right) to move around (you can also use the **w**, **a**, **s** and **d** keys instead of the arrow keys if you prefer). You will also noticed that clicking on the VR button will make your scene full screen, you can **exit** fullscreen mode and the VR world by pressing the **escape key** on your keyboard.

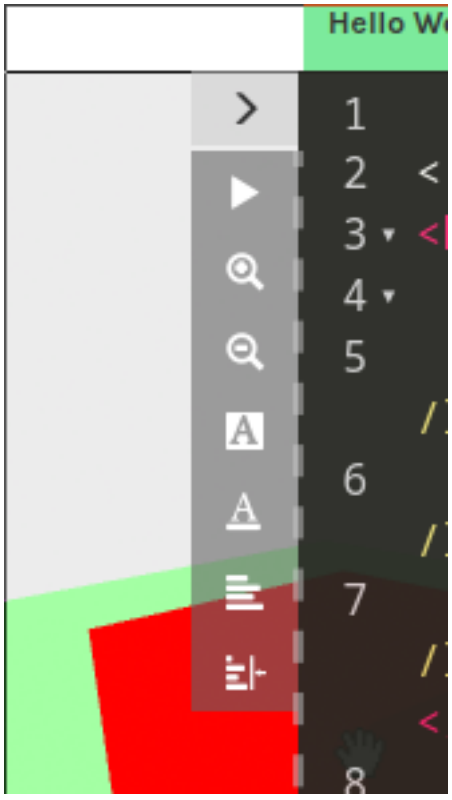


4. The Live Document

The special thing about the Accelerate Editor is that your 3D world exists in virtual reality, but also as code, and that code is available to you at all times - this is the **live document**. To view the code click on the little arrow in the **top right-hand corner** of your scene.

A window will slide in with all the code which is actually the nuts-and-bolts of the 3D world you are creating. If this is meaningless to you don't worry! This is why we have tools like the snippet editor. In theory you will never need to engage with the code, but it is good to know how the Accelerate Editor works.

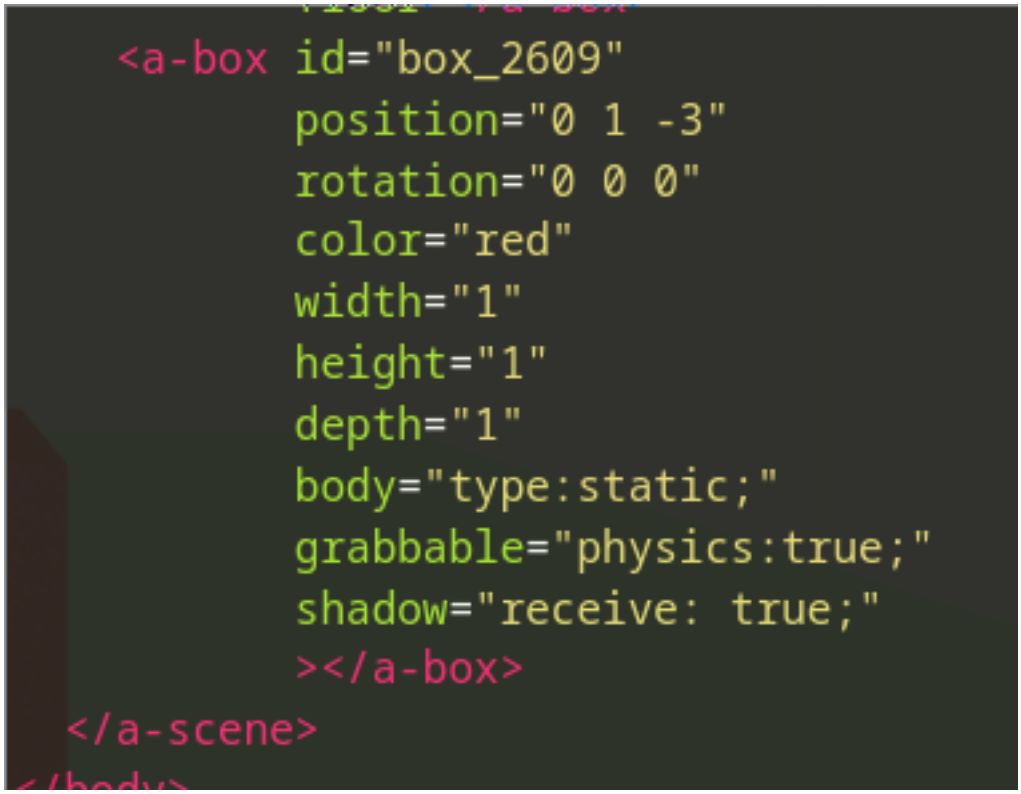
First of all I will introduce some useful buttons which appear with the code. From top to bottom you can:



- Close the code window
- Play / Pause the running scene
- Enlarge the font size
- Reduce the font size
- Toggle high-contrast mode
- Cycle through code colour schemes (this could be down to preference, or to better suit accessibility needs)

- Auto format the code (to neaten things up)
- Toggle line-wrapping (this can be useful as sometimes lines get quite long)

I would recommend clicking the **Auto Format Code** button. If you scroll down to the bottom of the code you will see a block which looks like this:

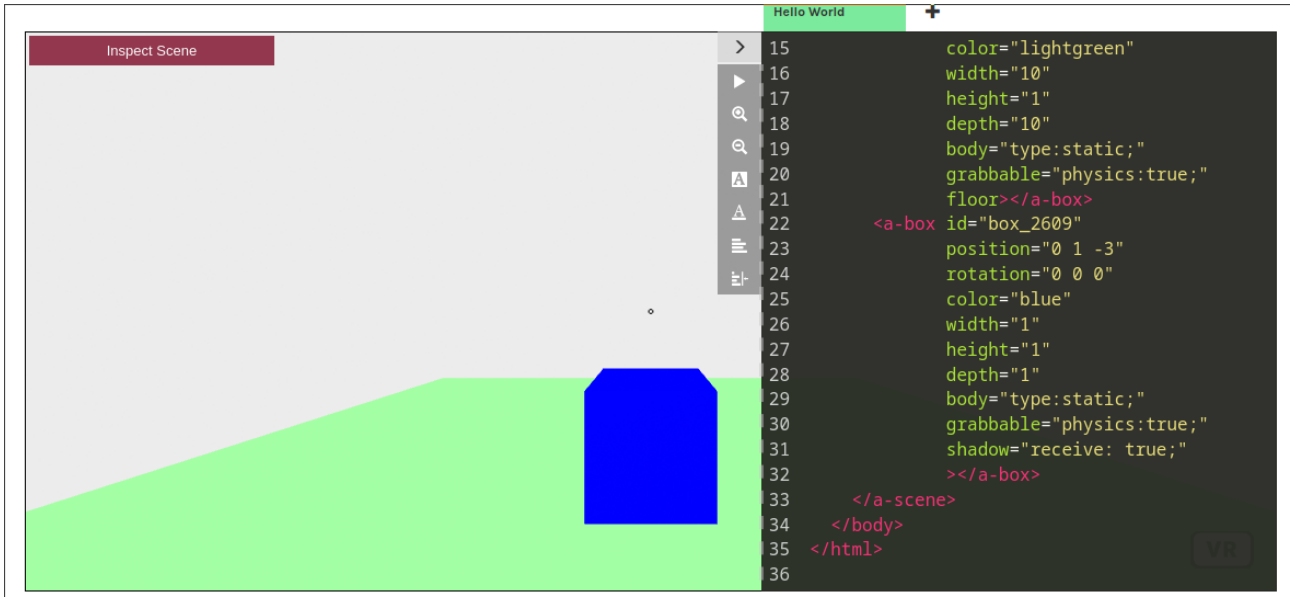


That code block which starts with `<a-box id="box_2609"` and ends with `</a-box>` is the code that the snippet editor inserted into the document, which created the red box in the scene! You can live-edit this code and watch the scene update. Try changing the color to **”blue”** (make sure to keep the quotation marks).

> Sometimes we will leave code snippets in the guide. Here is an example of what that code snippet will look like *after* changing the colour to blue:

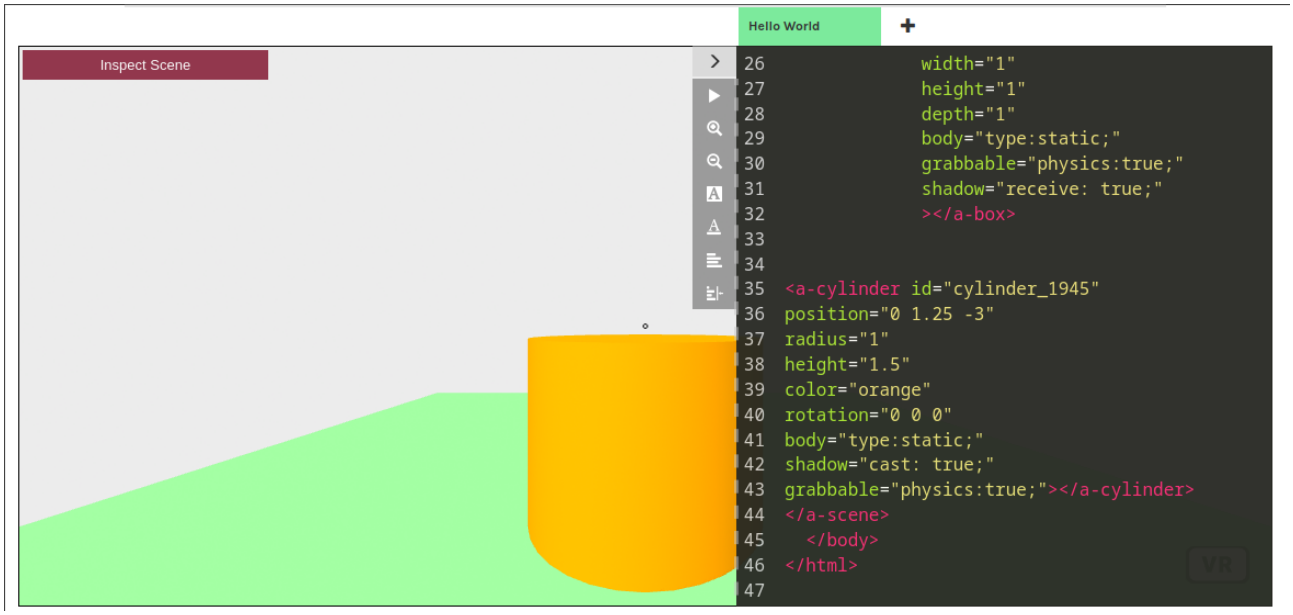
```
<a-box
  id="box_2609"
  position="0 1 -3"
  rotation="0 0 0"
  color="blue"
  width="1"
  height="1"
  depth="1"
  body="type:static;"
  grabbable="physics:true;"
  shadow="receive: true;"
></a-box>
```

After making the change the document will **automatically update** and the red box should turn blue!



To see another example and to connect the snippet editor, the VR scene and the code, let's add another primitive. Open the snippet editor and click on **A-Frame Cylinder**. Again, leave the default values and press **Insert**.

If you left the code editor open while you did so, you will have see the cylinder appear in the scene *and* in the code at the some time.

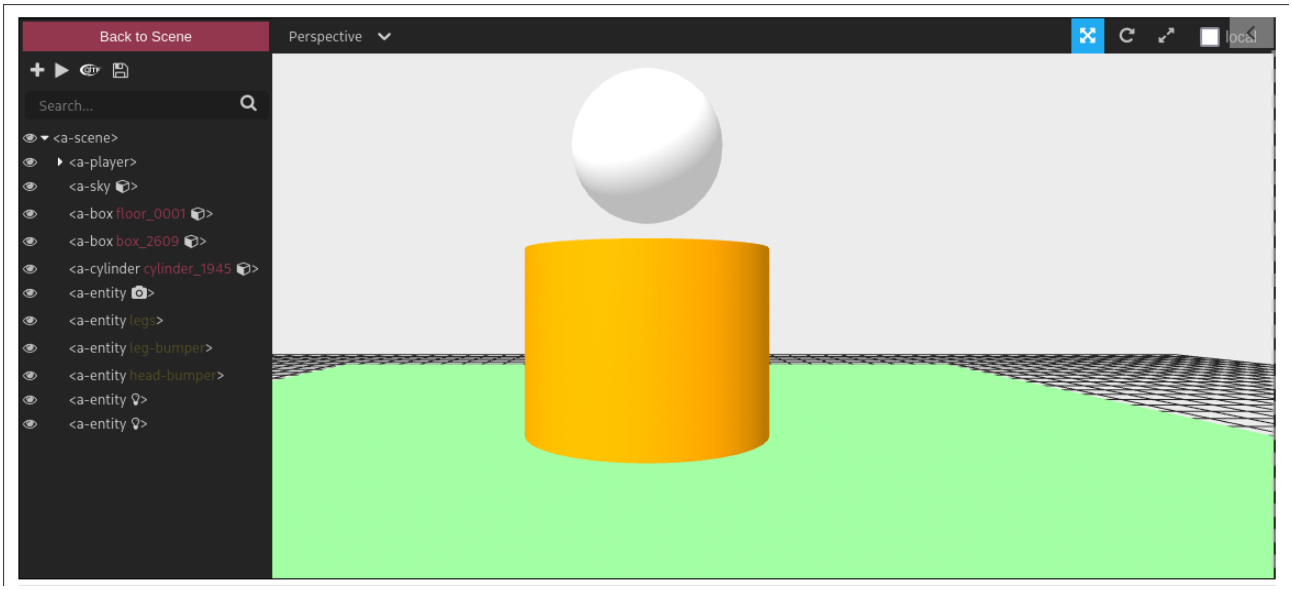


You can auto-format the code to neaten things up again if you'd like. We will likely make use of the code editor in future, but for now you can hide the code.

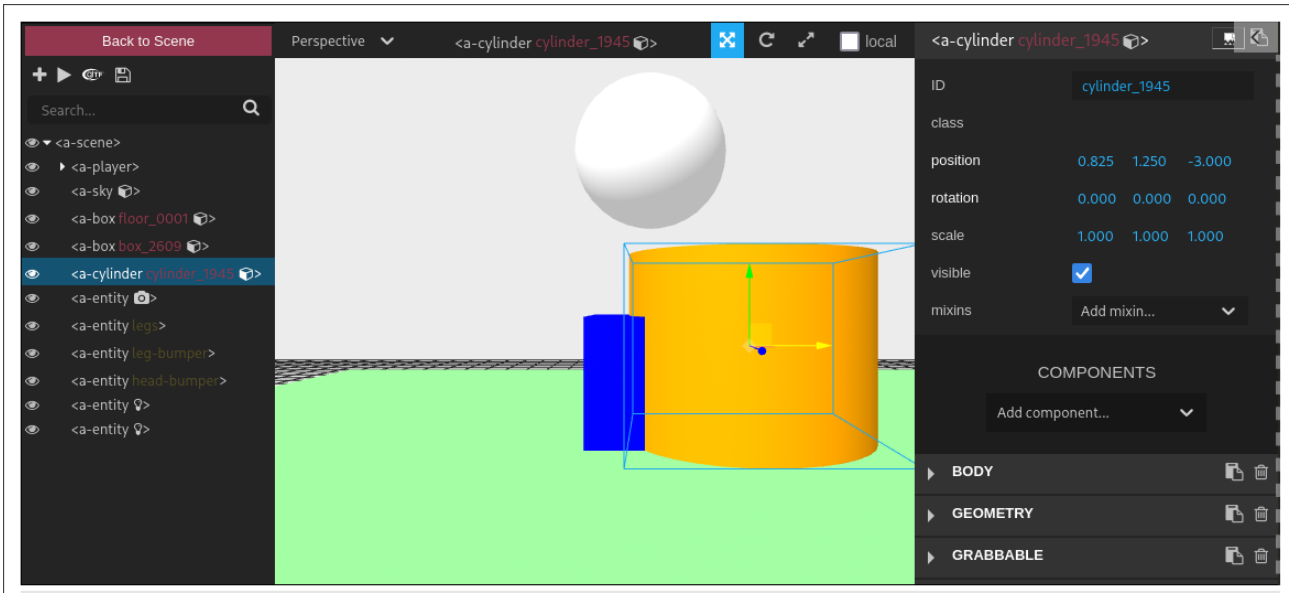
5. The Scene Inspector

You will have also noticed that our blue box has disappeared? Another way we can inspect and manipulate our scene is with the **Scene Inspector**. Open the scene inspector by clicking on the **Insect Scene** button in the top left of your scene - will use this to find our blue box.

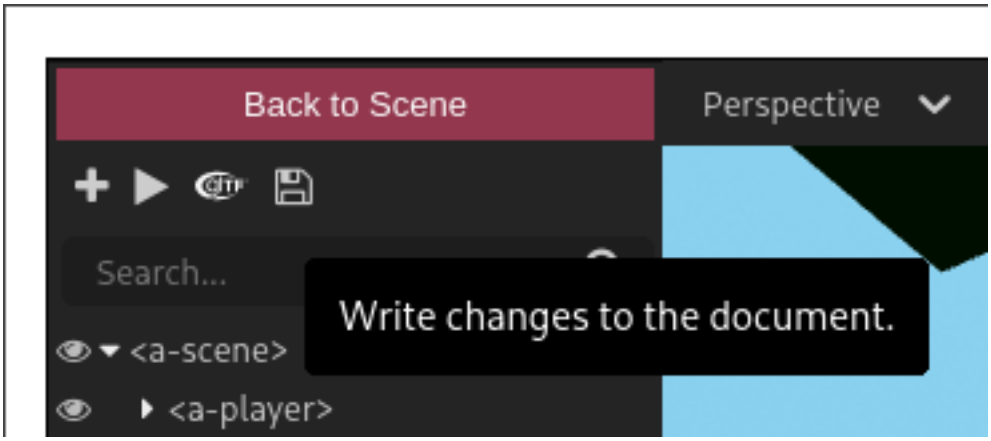
The basic scene inspector view looks like this:



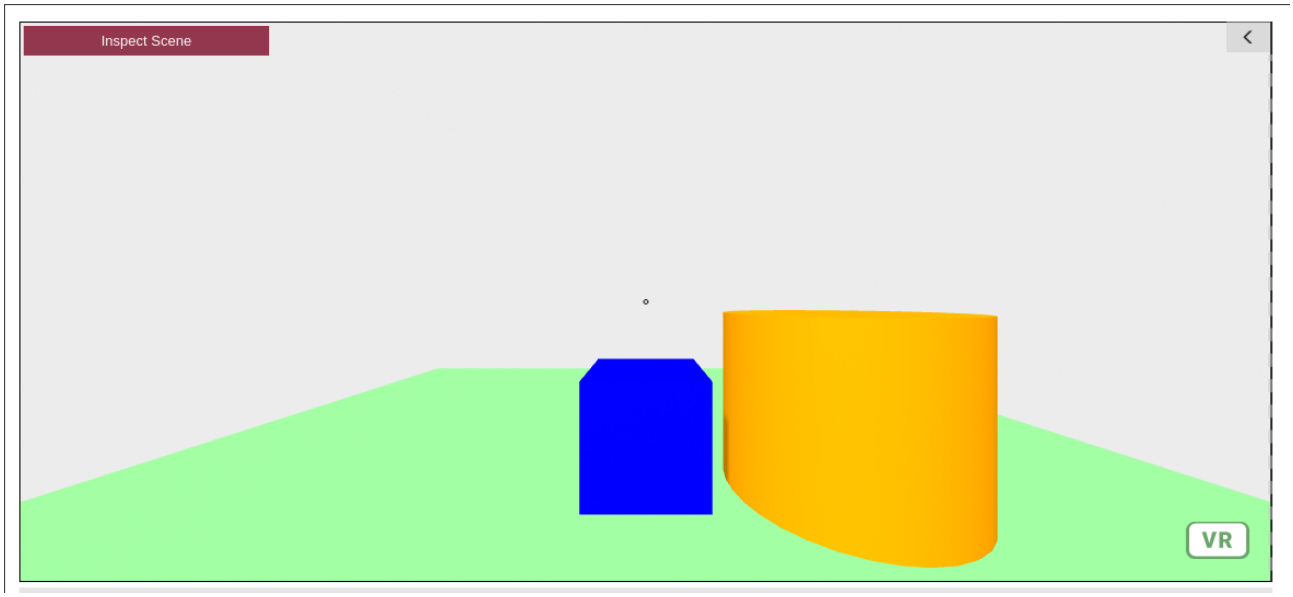
There is a list of elements in the scene on the left. There may be more here than you would expect, but the list includes the green floor, a sky, and various entities which actually make up the player which you control when you move around. If you click on the cylinder, some control arrows will appear which you can **click and drag** to move the element in **X**, **Y**, and **Z** directions. If you drag the red arrow you will see that the cylinder has just covered up our blue box.



Feel free to move the objects around a bit more, but when you are done make sure to click on the save button in the **top left-hand corner** of the inspector. It is the button which looks like an old floppy disk, and when you hover over it you will see the text ”Write changes to the document.”



When you click on this, the changes you have made in the inspector are used to update the live document and your scene should now look like this:



6. Wrapping Up

We have covered a lot of ground in this first intro to the Accelerate Editor, so that's a good time to pause! We will be returning to all of the concepts introduced in this guide in future guides so don't worry about memorizing any of it. It was simply our intention to introduce the many features of the Accelerate Editor and ways it can be used. The aim of the editor is to allow for those with little or no coding experience an enjoyable and simple process of creating VR worlds, and those with more coding experience the ability to look under-the-hood and manipulate the world in code if they prefer.

In the next guide we will load more complex 3D models and start building a more exciting scene.