

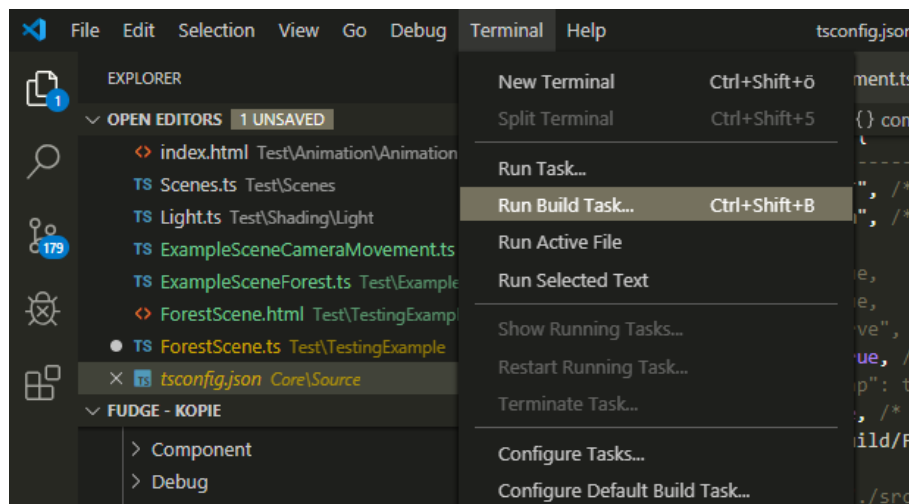
## L01 Hello World – First steps with Visual Studio Code and Typescript

You can control your local code and code on GitHub with Visual Studio Code (VS Code). For this you need to copy the URL of the wanted repository than you need to go to *Source Control* in VS Code, press *F1* and type *gitClone* inside the appearing search panel. Enter the copied URL and choose a local path to save the repository. After this you can also commit changes to GitHub. Under *Source Control* can you find at the top a text field for writing a message and to commit it. If you have done so you can open a drop down menu by clicking the icon with the three dots. Now choose *Push* to push your commitment to the repository.

Now we can start with Typescript.

Get the *tsconfig.json*-, *tslint.json*- and *typedoc.json*-file (*..FUDGE//Code/Source/*) and open it with VS Code. Search for the lines starting with *"outFile": "../Build/FudgeCore.js"*, *"declaration": true* and *"composite": true* and comment those lines out.

Next we generate a new folder with name *L01-HelloWorld*. Inside this folder we generate a file *helloWorld.ts* and write inside this file: `console.log(„Hello World“);`. To see our output we have to build the code. For this we go in VS Code to the tap *Terminal* and choose *Run Build Task...* in the drop down menu.



At the top of VS Code will appear an input field and a new drop down menu. We scroll down and choose *tsc: watch*. With this it should appear *.js*-files inside our folder. Now we can open the code with the terminal by right clicking on the *.js*-file and choosing *Open with terminal*. Inside the terminal we type `node helloWorld.js` and press enter. We should get the output *Hello World*.

We can also see this output with our browser. For this we have to generate in our folder *L01-HelloWorld* a new .html-file. We write inside this file following code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-
scale=1.0">
  <meta http-equiv="X-UA-Compatible" content="ie=edge">
  <title>Hello World</title>
  <script type="text/javascript" src="../../Core/Build/FudgeCore.js">
    </script>
  <script type="text/javascript" src="helloWorld.js"></script>
</head>
<body>

</body>
</html>
```

Important is to call the *helloWorld.js* with the script-tag. We don't need to write all the doctype html-tag by ourself. In VS Code we just need to type *!* and press enter and it generates it for us.

Now we can open the .html-file inside our browser and see *Hello World* in the web console. To see it on our html-site we need some change in the .ts-file.

We go back to our *helloWorld.ts*-file and add an Event Listener. With this, the function will be called if the complete site is loaded so that we can change the body of our .html-file by script.

```
window.addEventListener("load", handleLoad);

function handleLoad(_event: Event): void{
  document.body.innerHTML = "Hello World";
}
```

We save our script and reload the .html-file inside our browser. Now we should see "Hello World".