Minecraft Modding

Setting up an MC Modding Machine

Adapted from Minecraft Modding with Forge by Arun Gupta & Aditya Gupta

Outline

- Downloading and Installing Tools
  - Java Development Kit
  - Minecraft Forge
  - Eclipse
- Setting Up Forge in Eclipse
- Setting Up a Forge Workspace

Downloading & Installing Tools

Get Latest Java

http://bit.ly/TEA7iC

Download the correct Java 8 for your machine

Once downloaded, open the zip to complete the installation

- Check the correct java version
  - `$ java -version`
  - `Java version “1.8.0_131”`

Get Mod-Building Tool: Minecraft Forge

http://files.minecraftforge.net/

The mods in the O'Reilly book originally work with Forge 1.8

- Under the drop-down menu, select 1.8.9
- Under "Download Latest" click the Mdk link
- WAIT ~5 SECONDS, then click Skip Ad in the upper-right corner to download the ZIP file

Get Eclipse IDE

http://www.eclipse.org/downloads/

Download the correct Eclipse for your machine (should automatically do this for you)

Eclipse IDE for Java Developers

- Eclipse is an *integrated development environment (IDE)*
  - Any IDE is a development tool used to edit files, package and run files, and help you find and fix the errors found within those files.
  - You will use Eclipse to edit files, make new ones, and run the game to test them.

Setting Up Forge in Eclipse

Before Creating Mods

Type these series of commands below in your Command Prompt or Terminal window:

```
$   cd Desktop

$   mkdir forge

$   cd forge
```

Setting Up Forge in Eclipse CONTINUED

Now, move (or extract) the downloaded forge file into this newly created directory.

Change to that directory by using the `cd forge` command (in command prompt or terminal).

You can check the contents of the directory you are currently in:

- On Windows: `$ dir`
- On Mac: `$ ls`

```
techem-mb-4:forge te-admin$ ls
forge-1.8.9-11.15.1.1902-1.8.9-mdk
techem-mb-4:forge te-admin$ cd forge-1.8.9-11.15.1.1902-1.8.9-mdk/
techem-mb-4:forge-1.8.9-11.15.1.1902-1.8.9-mdk te-admin$ ls
CREDITS-fml.txt
LICENSE-fml.txt
MinecraftForge-Credits.txt
MinecraftForge-License.txt
Paulscode IBXM Library License.txt
Paulscode SoundSystem CodecIBXM License.txt
README.txt
bin
build
build.gradle
eclipse
forge-1.8.9-11.15.1.1902-1.8.9-changelog.txt
forge-1.8.9-11.15.1.1902-1.8.9-mdk_Client.launch
forge-1.8.9-11.15.1.1902-1.8.9-mdk_Server.launch
gradle
gradlew
gradlew.bat
run
src
techem-mb-4:forge-1.8.9-11.15.1.1902-1.8.9-mdk te-admin$
```

Setting Up a Forge Workspace

Command to Set Up Forge

- On Windows: `gradlew setupDecompWorkspace eclipse`
- On Mac: `./gradlew setupDecompWorkspace eclipse`

The above command will download the required files on your computer and prepare the directory for modding.

The length of this process will depend on your computer's speed and internet connection.

If all goes well, you should see:

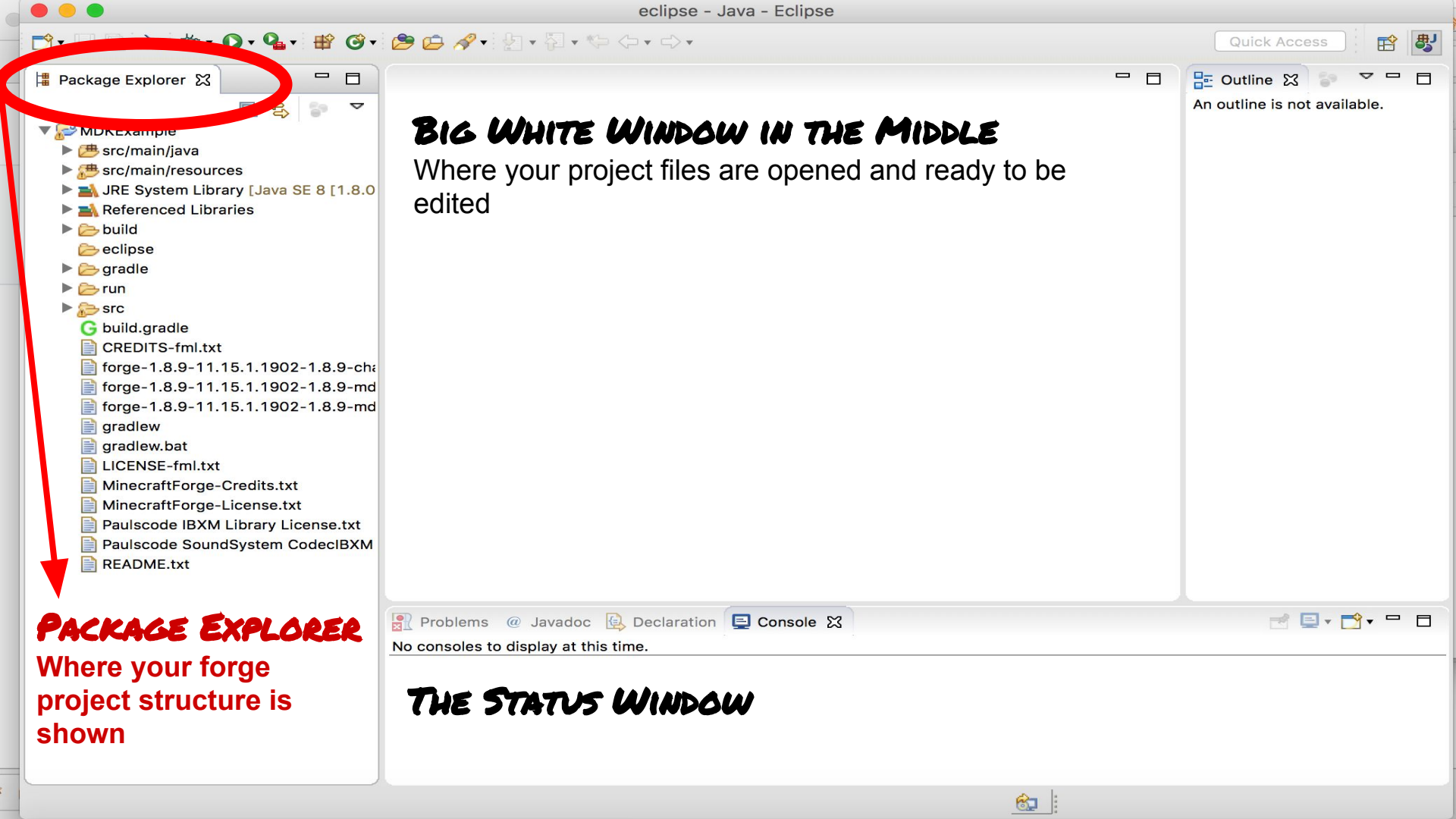
```
BUILD SUCCESSFUL
```

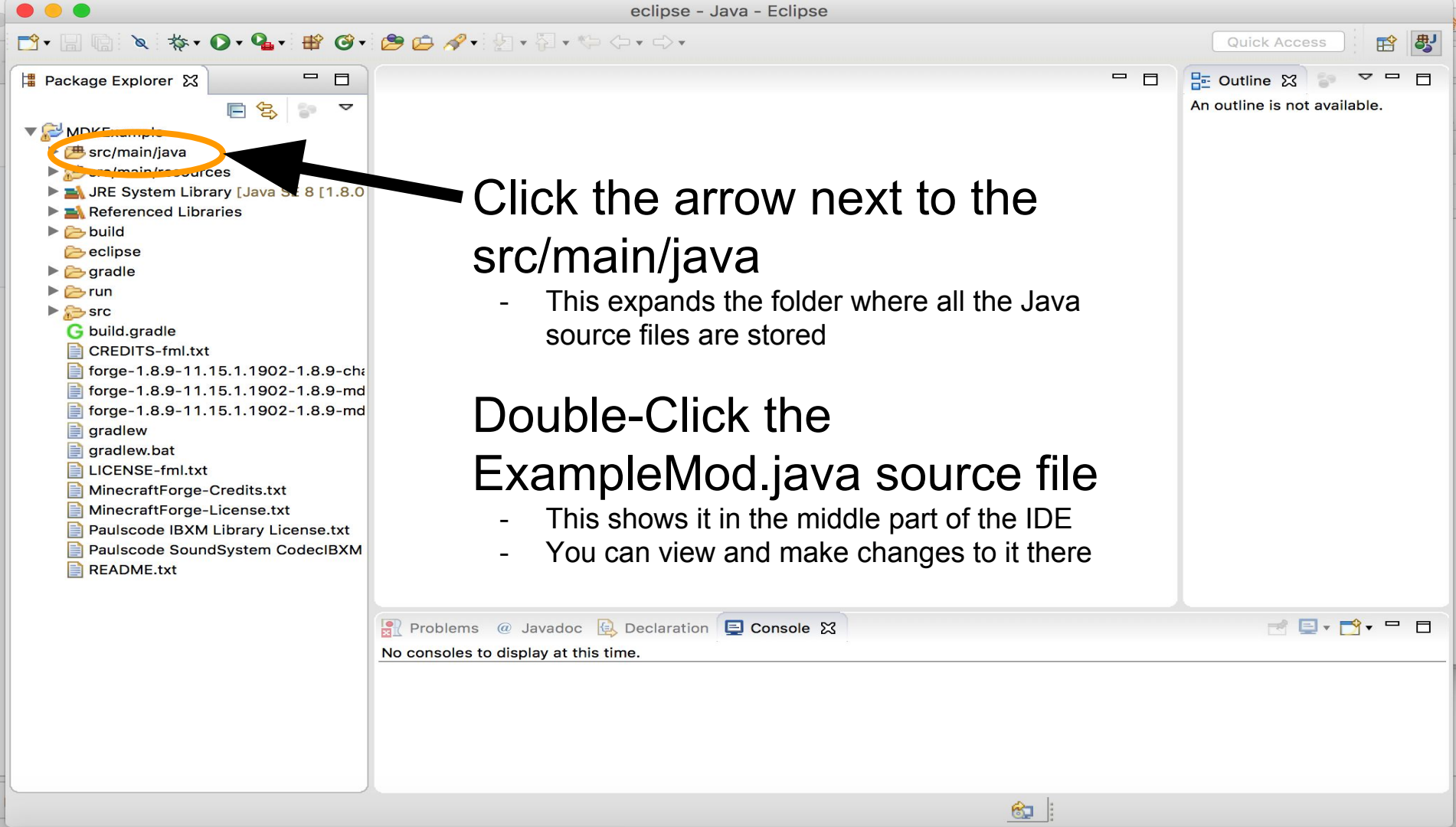
If not, open the gradlew.bat file in Notepad ++ → `DEFAULT_JVM_OPTS =` **`-Xmx1024m`**

Select a Directory as Workspace

- Install Eclipse (by opening the Eclipse file you downloaded earlier)
- Launch Eclipse
- Under Workspace launcher:
  - Click Browse… navigate to the forge directory you just made. Select the eclipse folder inside by clicking it once, click Open, then Click OK.

Project details are stored in a workspace. This is so you can work on your mods in one place.


eclipse - Java - Eclipse
Quick Access
Package Explorer
MDKExample
src/main/java
src/main/resources
JRE System Library [Java SE 8 [1.8.0
Referenced Libraries
build
eclipse
gradle
run
src
build.gradle
CREDITS-fml.txt
forge-1.8.9-11.15.1.1902-1.8.9-cha
forge-1.8.9-11.15.1.1902-1.8.9-md
forge-1.8.9-11.15.1.1902-1.8.9-md
gradlew
gradlew.bat
LICENSE-fml.txt
MinecraftForge-Credits.txt
MinecraftForge-License.txt
Paulscode IBXM Library License.txt
Paulscode SoundSystem CodecIBXM
README.txt
Big White Window in the Middle
Where your project files are opened and ready to be edited
Outline
An outline is not available.
Problems
Javadoc
Declaration
Console
No consoles to display at this time.
The Status Window
Package Explorer
Where your forge project structure is shown


eclipse - Java - Eclipse
Quick Access
Package Explorer
src/main/java
JRE System Library
Referenced Libraries
build
eclipse
gradle
run
src
build.gradle
CREDITS-fml.txt
gradlew
gradlew.bat
LICENSE-fml.txt
MinecraftForge-Credits.txt
MinecraftForge-License.txt
README.txt
Outline
An outline is not available.
Problems
Javadoc
Declaration
Console
No consoles to display at this time.
Click the arrow next to the src/main/java
- This expands the folder where all the Java source files are stored
Double-Click the ExampleMod.java source file
- This shows it in the middle part of the IDE
- You can view and make changes to it there

Key Java Concepts

Each Class belongs to a Package

```
package com.example.examplemod;
```

```
import net.minecraft.init.Blocks;
import net.minecraftforge.fml.common.Mod;
import net.minecraftforge.fml.common.Mod.EventHandler;
import net.minecraftforge.fml.common.event.FMLInitializationEvent;
```

For the classes to be used, they need to be imported

```
@Mod(modid = ExampleMod.MODID, version = ExampleMod.VERSION)
public class ExampleMod
{
    public static final String MODID = "examplemod";
    public static final String VERSION = "1.0";

    @EventHandler
    public void init(FMLInitializationEvent event)
    {
            // some example code
        System.out.println("DIRT BLOCK >> "+Blocks.dirt.getUnlocalizedName());
    }
}
```