



Minecraft Fabric Mod Development

Schnupperstunde

Was ist Minecraft?

- Open-World-Spiel, in dem jeder Voxel verändert werden kann



Minecraft Java Edition vs. Bedrock

- Java: PC/Laptop
- Java

Bedrock: Smartphone/Tablet
C++



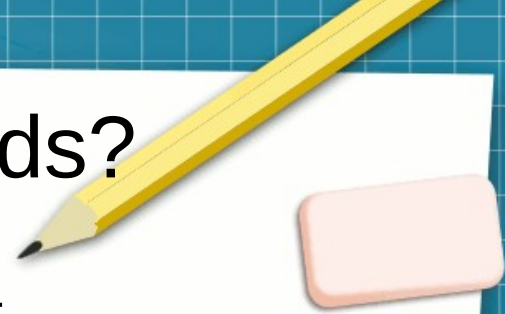
Was ist ein Mod?

- Veränderung des Original-Spiels durch eigenen Quellcode

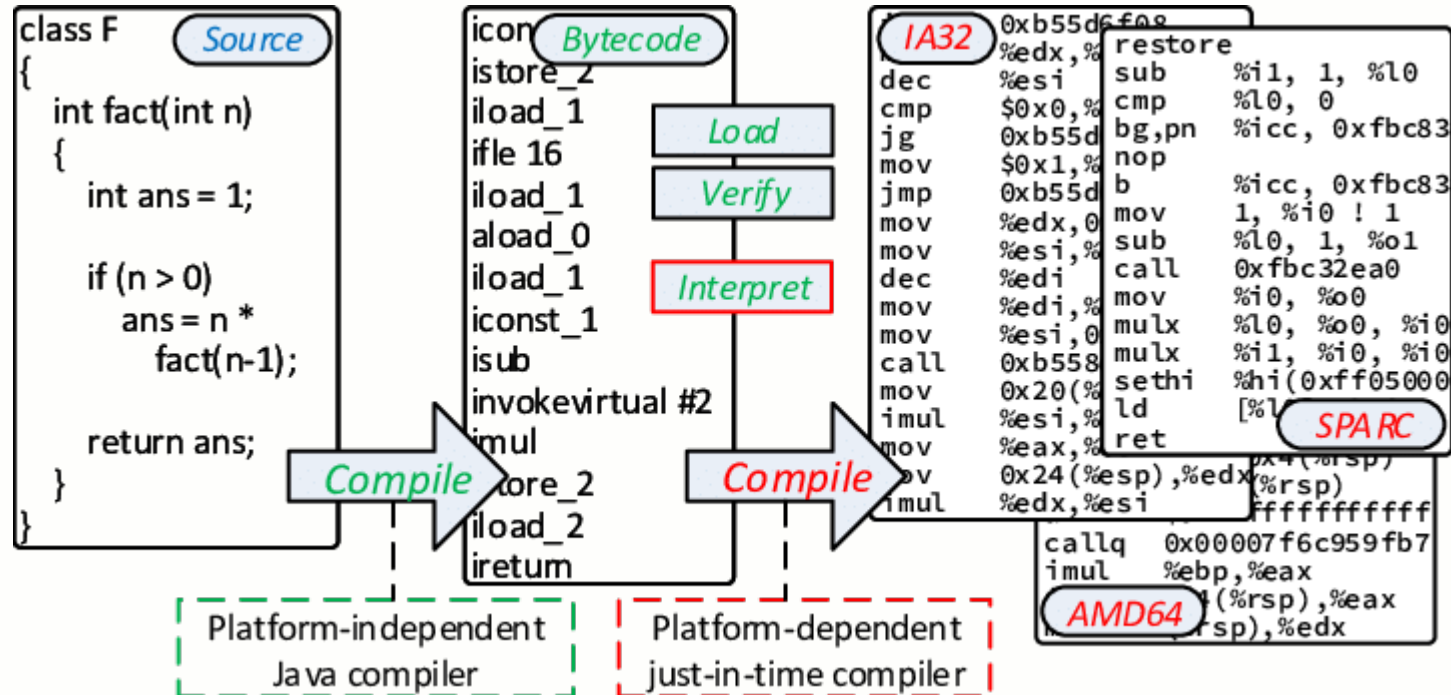


Mod-Portale – Wo finde ich Mods?

- <https://www.curseforge.com/> – nicht nur Minecraft
- <https://modrinth.com/>
- <https://www.planetminecraft.com/mods/>



Java-Bytecode



Obfuscation

Bytecode

Before Rename Obfuscation:

After Rename Obfuscation:

```
1 private void
2 CalcPayroll (SpecialList employee-
3 Group) {
4     while(employeeGroup.HasMore()) {
5         employee =
6         employeeGroup.GetNext(true);
7         employee.UpdateSalary();
8         DistributeCheck(employee);
9     }
10 }
```

```
1 private void a(a b) {
2     while (b.a()) {
3         a = b.a(true);
4         a.a();
5         a(a);
6     }
7 }
8
9
10
```

Modloader

- Forge (since 2011)
- Bietet Funktionen zum Modden an, mit denen man Minecraft anpassen kann

Fabric (since 2018)

Hängt sich direkt in Minecraft-Code und bettet sich dazwischen



```
static void Main(string[] args)
{
    int numberContinue = Prompt("Please select an option by typing a number.", "New Game", "Continue Game");
    Console.ReadLine();

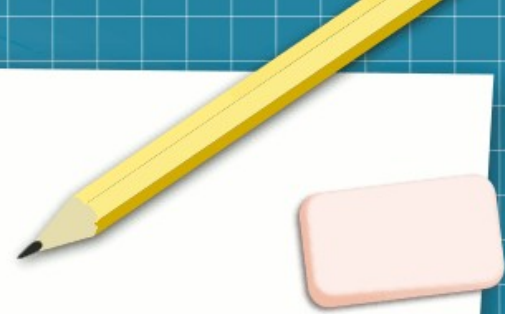
    // Prompt Method (will probably move later)
    int Prompt(string text, params string[] options)
    {
        // Write the prompt
        Console.WriteLine(text + "\n");

        // Write the options
        for (int optionNumber = 1; optionNumber < options.Length + 1; optionNumber++)
        {
            Console.WriteLine(optionNumber + ". " + options[optionNumber - 1] + "\n");
        }

        // Return the selected option
        TryAgain:
        try
        {
            int chosenOption = int.Parse(Console.ReadLine());
            if (chosenOption > 0 && chosenOption <= options.Length) {
                return chosenOption;
            }
            else {
                Console.WriteLine("Invalid number!\n");
                goto TryAgain;
            }
        }
        catch (Exception) {
            Console.WriteLine("Invalid number!\n");
            goto TryAgain;
        }
    }
}
```

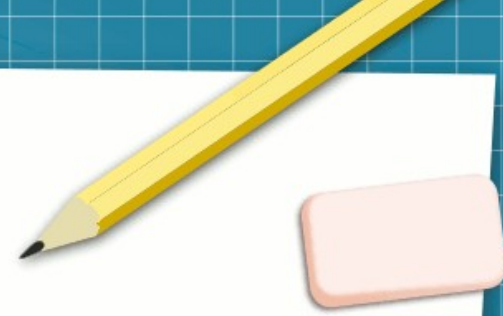
Mein Mod

Werkzeuge zum Modden



- Java
 - <https://www.learnj.de/doku.php?id=start>
- JSON
 - https://www.w3schools.com/js/js_json_intro.asp
- PNG
 - <https://www.gimp.org/>

Versionsverwaltung – Git

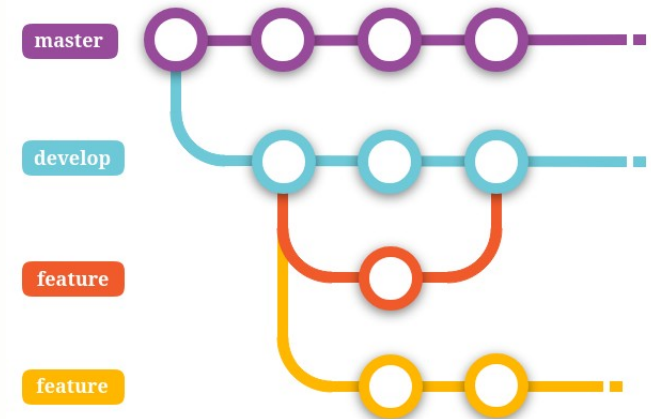


- Sichern der Arbeit
- Dokumentieren von Entwicklungsständen
- Gemeinsames Arbeiten mit Konfliktvermeidung
- Wir brauchen: git **pull**, git **commit** und git **push**
- <https://www.w3schools.com/git/>

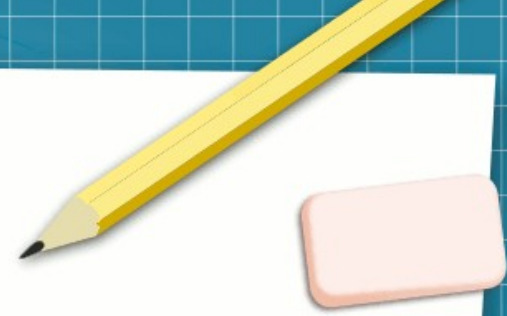
> <https://git.jottyfan.de> ?

<https://github.com>

<https://about.gitlab.com/>



Registrierung in Lernsax



- Gruppe „Minecraft Fabric Mod Development“
- Registrierung ab 5.2.2025, 16:00 Uhr
- 16 Schulsticks, daher nur 16 Plätze
- Termine:
 - 5.3. ~~19.3.~~ 2.4. 16.4. 30.4.
 - 14.5. 28.5. 11.6. 25.6.



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