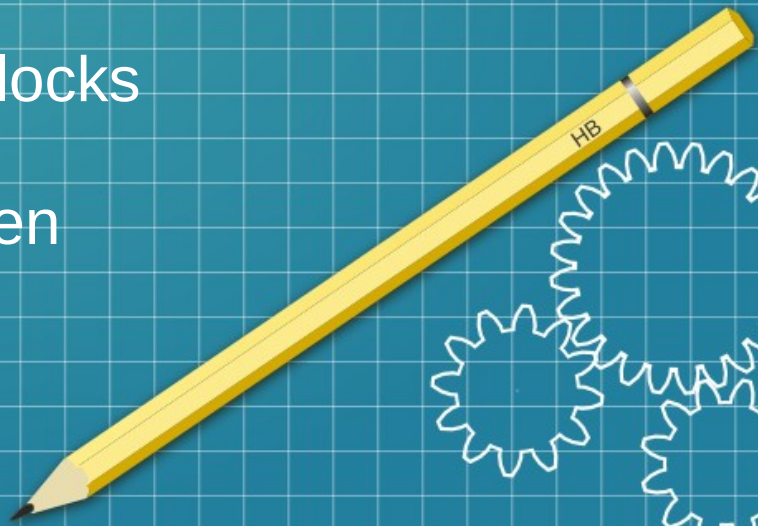
Blocks and Recipes

Einführung von eigenen Blocks

Einführung von Rezepten



Ein erster eigener Block

- Neues Paket **block**, darin neue Klasse **ModBlocks**
  - Block anlegen
  - Block registrieren
  - Registrierung einbinden

Block anlegen

- Was sind Identifier
  - Eindeutig definierte Objekte in Minecraft
  - Gibts immer nur einmal
- BlockSettings – definieren Block-Eigenschaften
- In de.jottyfan.gta.gdp.**block**.ModBlocks

```
public static final Block RUBY_BLOCK = registerBlock(
  Identifier.of(GTAGDP.MOD_ID, "ruby_block"),
  AbstractBlock.Settings.create().strength(4f)
    .requiresTool().sounds(BlockSoundGroup.AMETHYST_BLOCK));
```

Block und Blockitem registrieren

- Blocks und BlockItems
  - Einen Block ohne BlockItem kann man nicht verwenden
- In de.jottyfan.gta.gdp.block.ModBlocks

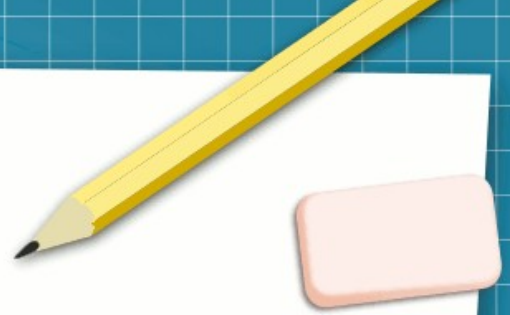
```
private static Block registerBlock(Identifier identifier, Block.Settings settings) {
  Block block = new Block(settings.registryKey(RegistryKey.of(RegistryKeys.BLOCK, identifier)));
  registerBlockItem(identifier, block, new Item.Settings());
  return Registry.register(Registries.BLOCK, identifier, block);
}

private static void registerBlockItem(Identifier identifier, Block block, Item.Settings settings) {
  Registry.register(Registries.ITEM, identifier, new BlockItem(block,
      settings.useItemPrefixedTranslationKey().registryKey(RegistryKey.of(RegistryKeys.ITEM, identifier))));
}
```

Registrierung einbinden

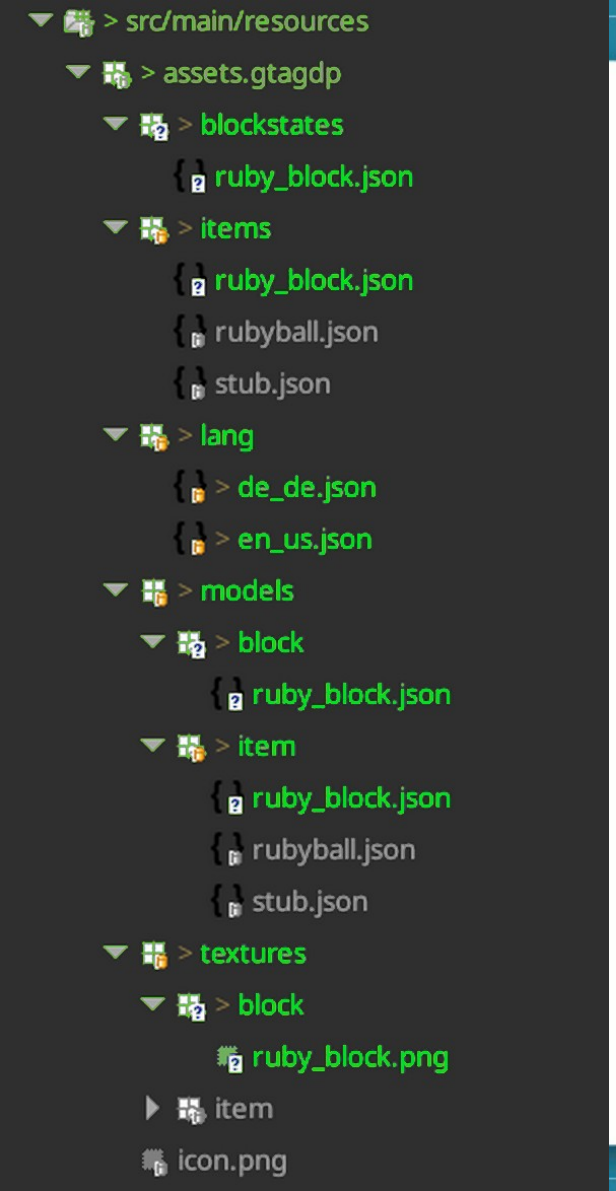
- In de.jottyfan.gta.gdp.block.ModBlocks

```
public static void registerModBlocks() {
  GTAGDP.LOGGER.info("Registering Mod Blocks for {}",
                     GTAGDP.MOD_ID);

  ItemGroupEvents
    .modifyEntriesEvent(ItemGroups.BUILDING_BLOCKS)
    .register(entries -> { entries.add(RUBY_BLOCK); });
}
```

In GTAGDP.onInitialize()



```java
public class GTAGDP implements ModInitializer {
    public static final String MOD_ID = "gtagdp";
    public static final Logger LOGGER = LoggerFactory.getLogger(MOD_ID);

    @Override
    public void onInitialize() {
        ModItems.registerModItems();
        ModBlocks.registerModBlocks();
    }
}
```



JSON-Dateien und Bilder

- Blockstates
  - Aktueller Anzeigezustand eines Blocks
- Items
  - Damit Blöcke in der Hand sichtbar werden
- Übersetzung
- Models
  - Damit Blöcke in der Welt sichtbar werden
- Texturen
  - Damit Blöcke schick aussehen

Blockstates

- In assets.gtagdp.**blockstates**
  - Neue JSON-Datei ruby_block.json

```
{
  "variants": {
    "": {
      "model": "gtagdp:block/ruby_block"
    }
  }
}
```

Items

- In assets.gtagdp.**items**
  - Neue JSON-Datei ruby_block.json

```
{
  "model": {
    "type": "minecraft:model",
    "model": "gtagdp:block/ruby_block"
  }
}
```

Models (Blocks)

- In assets.gtagdp.**models.block**
  - Neue JSON-Datei ruby_block.json

```
{
  "parent": "minecraft:block/cube_all",
  "textures": {
    "all": "gtagdp:block/ruby_block"
  }
}
```

Models (Items)

- In assets.gtagdp.**models.item**
  - Neue JSON-Datei ruby_block.json

```
{
  "parent": "gtagdp:block/ruby_block"
}
```

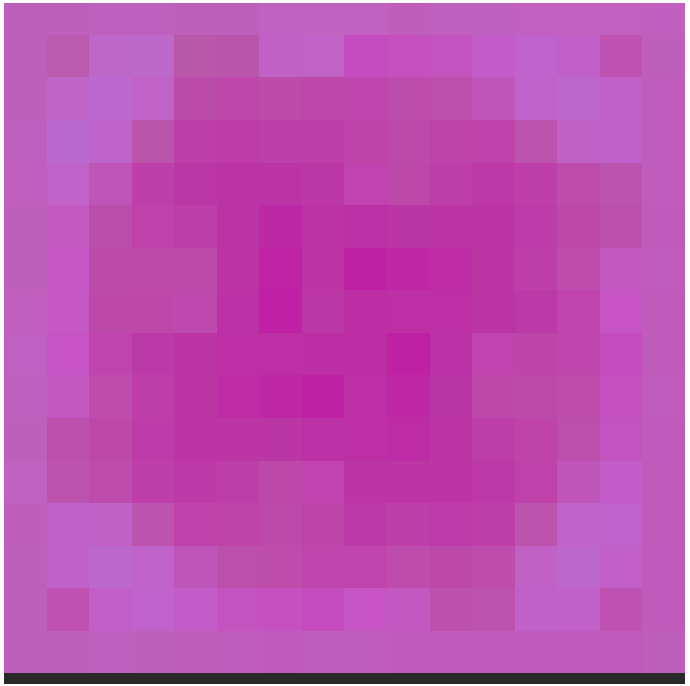
Übersetzungen

```
{
  "item.gtagdp.stub": "Stummel",
  "item.gtagdp.rubyball": "Rubinball",

  "block.gtagdp.ruby_block": "Rubinblock"
}
```

```
{
  "item.gtagdp.stub": "Stub",
  "item.gtagdp.rubyball": "Ruby ball",

  "block.gtagdp.ruby_block": "Ruby block"
}
```

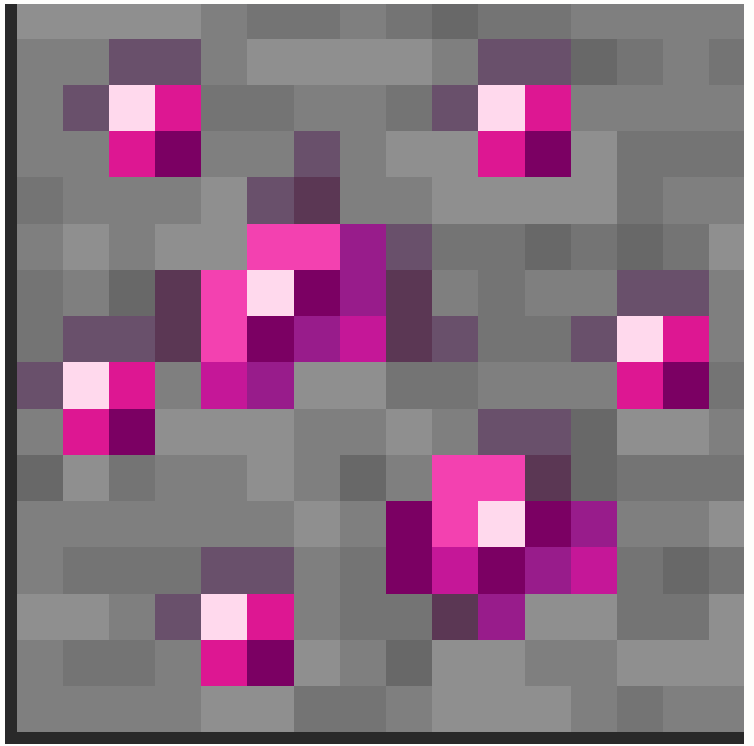
Textur anlegen

- assets/gtagdp/textures/block/ruby_block.png



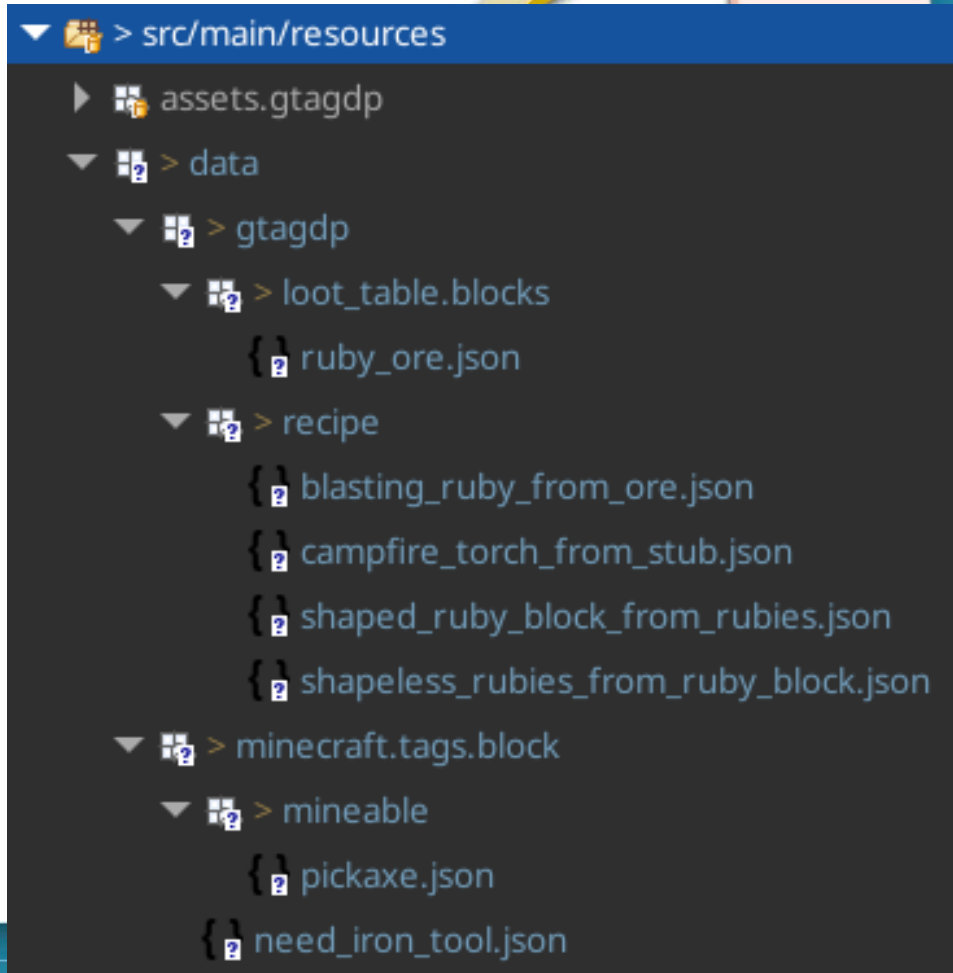
Erstelle einen 2. Block und binde ihn ein

- Git commit und push – erst dann mit neuen Features starten
- Namen überlegen (z.B. ruby_ore)
- Block-Bild malen
- In ModBlocks einbetten
- Testen
- Git commit und push



Rezepte

- Umwandeln von Objekten
  - Lagerfeuer
  - Werkbank
  - Ofen
  - Block drop
  - Loot Tables
- https://crafting.thedestruc7i0n.ca/



Fackeln vom Stummel am Lagerfeuer

- In src/main/resources/**data/gtagdp/recipe/** campfire_torch_from_stub.json

```
{
    "type": "minecraft:campfire_cooking",
    "ingredient": "gtagdp:stub",
    "result": {
        "id": "minecraft:torch"
    },
    "experience": 0.1,
    "cookingtime": 20
}
```

Werkbank: rubyball ↔ ruby block

```
{
    "type": "minecraft:crafting_shaped",
    "pattern": [
        "###",
        "###",
        "###"
    ],
    "key": {
        "#": "gtagdp:rubyball"
    },
    "result": {
        "id": "gtagdp:ruby_block",
        "count": 1
    }
}
```

```
{
    "type": "minecraft:crafting_shapeless",
    "ingredients": [
        "gtagdp:ruby_block"
    ],
    "result": {
        "id": "gtagdp:rubyball",
        "count": 9
    }
}
```

Schmelzofen: rubyball aus ruby_ore

```
{
    "type": "minecraft:blasting",
    "ingredient": "gtagdp:ruby_ore",
    "result": {
        "id": "gtagdp:rubyball"
    },
    "experience": 0.1,
    "cookingtime": 200
}
```

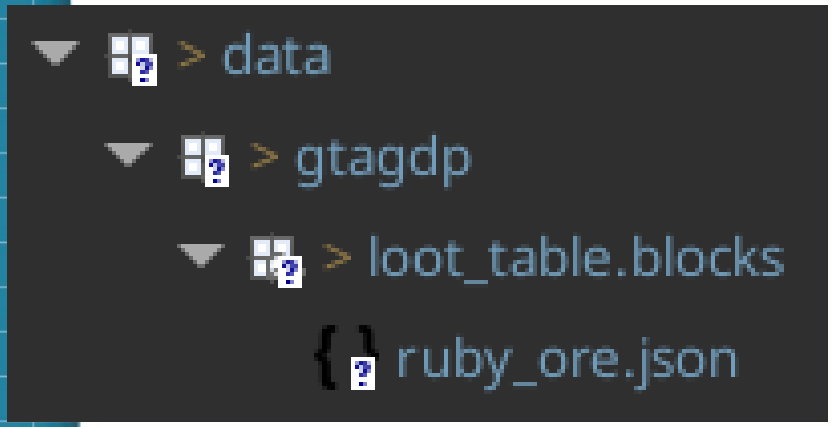
Loottables

- Registrieren von Blöcken, die Werkzeuge brauchen
- Werkzeugauswahl festlegen
- Drop von bestimmtem Block festlegen

Blockabbau auf Werkzeuge einschränken

```
{
  "replace": false,
  "values": [
    "gtagdp:ruby_block",
    "gtagdp:ruby_ore"
  ]
}
```

ruby_ore soll rubyball droppen



https://misode.github.io/loot-table/

```
{
  "type": "minecraft:block",
  "pools": [
    {
      "bonus_rolls": 0.0,
      "conditions": [
        {
          "condition": "minecraft:survives_explosion"
        }
      ],
      "entries": [
        {
          "type": "minecraft:item",
          "name": "gtagdp:rubyball"
        }
      ],
      "rolls": 1.0
    }
  ]
}
```

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