

# TURING MACHINE #8 I

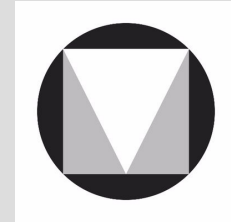
Mohamed El Hedi Atya

Lisanne Haase

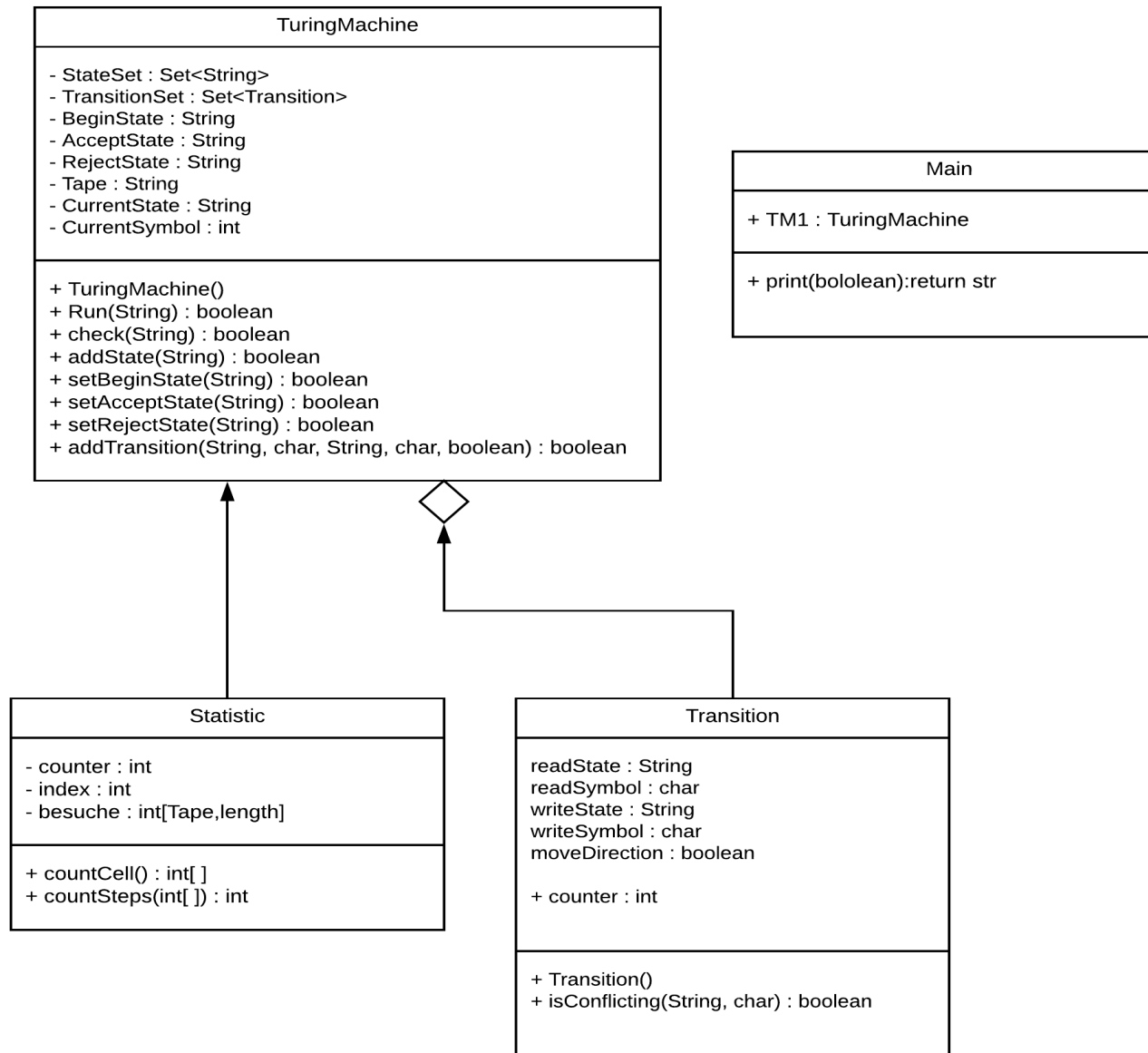
# Gliederung

1. Zielsetzung
2. Tech Stack
3. Klassenstruktur
4. Timeline
5. Besonderheiten und Probleme
6. Issues
7. Live Demo

- Turingmaschine mit Desktopanwendung darstellen
  - ➔ Vorhandene Turingmaschine speichern und laden
  - ➔ Turingmaschine graphisch darstellen
  - ➔ Turingmaschine Eigenschaften einprogrammieren



-Tech Stack -



## Components

## Controller

```

- mainBox : HBox
- config_pane : AnchorPane
- x1 : Font
- x2 : Color
- x3 : Font
- x4 : Color
- transitionTable_txt : TableView<Transit>
- statChangeOfState_txt :
  TableView<Program>
- TextField setName_txt : TextField
- setAlphabet_txt : TextField
- setState_txt : TextField
- setTransition_txt : TextField
- startState_txt : TextField
- acceptState_txt : TextField
- operations_txt : TextField
- input_txt : TextField
- statesList_txt : TextArea
- actionsList_txt : TextArea
- outputTape_txt : TextArea
- StateChanges_txt : TextArea
- steps_txt : TextArea
- setAlphabet_btn : Button
- setTransition_btn : Button
- load_btn : Button
- save_btn : Button
- load_btn : Button
- save_btn : Button
- setAlphabet_btn : Button
- setState_btn : Button
- setName_btn : Button
- setState_btn : Button
- setAcceptState_btn : Button
- operations_btn : Button
- setState_btn : Button
- stepBack_btn : Button
- stepForward_btn : Button
- setStartState_btn : Button
- setTransition_btn : Button
- start_btn : Button
- editTransition_btn : Button
- stop_btn : Button

```

```

+ Controller()
+ setPrimaryStage(Stage) : void
+ actionPerformed(ActionEvent) : void
+ initialize(URL, ResourceBundle) : void

```

```

load
save
setName
setAlphabet
setState
setTransition
editTransition
setStartState
setAcceptState
setOperations
start
stepBack
stepForward
stop

```

## model

## TuringMachine

```

- NameTM : String
- StateSet : Set<String>
- TransitionSet : Set<Transition>
- AlphabetSet : Set<String>
- BeginState : String
- AcceptState : String
- Tape : String
- CurrentState : String
- CurrentSymbol : int

```

```

+ TuringMachine()
+ getNameTM() : String
+ setNameTM(String) : void
+ addState(String) : boolean
+ setStartState(String) : boolean
+ setAcceptState(String) : boolean
+ setAlphabetSet(String) : void
+ getAlphabetSet() : String
+ setRejectState(String) : boolean
+ addTransition(String, char, String, char,
boolean) : boolean

```

## Transition

```

readState : String
readSymbol : char
writeState : String
writeSymbol : char
moveDirection : boolean

```

```

+ Transition()
+ toString() : String
+ isConflicting(String, char) : boolean

```

## Program

```

+ statCells : int[]
+ statSteps : int
+ statChangesofstates : int

```

```

+ launch(String) : boolean

```

## ProgramsList

```

- ProgramsList()
+ EqualWordSize() : Program
+ Anagram() : Program

```

## Transit

```

- one : SimpleStringProperty
- two : SimpleStringProperty
- three : SimpleStringProperty
- four : SimpleStringProperty
- five : SimpleStringProperty

```

```

+ Transit(String, String, String, String,
String)
+ getOne() : String
+ setOne(String) : void
+ getTwo() : String
+ setTwo(String) : void
+ getThree() : String
+ setThree(String) : void
+ getFour() : String
+ setFour(String) : void
+ getFive() : String
+ setFive(String) : void

```

## io

## Module

```

+ myWriter : FileWriter
+ scanner : Scanner
+ formatter : Formatter

```

```

+ printActions(String) : void
+ createFile(String) : void
+ addText(String) : void
+ closeWriter() : void
+ openFile(String) : void
+ readFile() : void
+ closeFile() : void

```

## view

## Print

```

+ generateConfig(String) : void

```

- Klassenstruktur - Finaler Entwurf

```
/mnt/d/81-master tree src
```


```
src
├── main
│   ├── java
│   │   └── de
│   │       ├── uni_hannover
│   │       │   ├── hci
│   │       │   └── turing_machine
│   │       │       ├── App.java
│   │       │       └── components
│   │       │           ├── Controller.java
│   │       │           ├── io
│   │       │           │   └── Module.java
│   │       │           ├── model
│   │       │           │   ├── lib
│   │       │           │   │   └── Templates.txt
│   │       │           │   ├── Program.java
│   │       │           │   ├── ProgramsList.java
│   │       │           │   ├── Transit.java
│   │       │           │   └── TuringMachine.java
│   │       │           └── view
│   │       │               └── Print.java
│   └── resources
│       ├── GUI.fxml
│       ├── icon.png
│       └── style.css
└── META-INF
    └── MANIFEST.MF
```

```
13 directories, 13 files
```


#### **v0.6**


 [d2288aa5](#) · v0.6 New GUI · 1 day ago

#### **v0.5**

 [72f27912](#) · file manipulation, popups on save & load, GUI changes · 4 days ago


#### **v0.4** New package structure

 [dd2d99a0](#) · neue Packagestruktur · 1 week ago

 Release [v0.4](#)

- Added new package structure to coordinate with MVC model
- Base structure for included programs and user savings
- Added conflict solutions to the Turing Machine (duplicate Transition bug)

#### **0.2** Implemented Gradle with successful build

 [31f2e6fc](#) · Build successful and generated javadoc · 2 weeks ago


#### **0.1** First running backend version of the program

 [df99be76](#) · Added package structure · 2 weeks ago



- Gruppenmitglied 1 nicht aufgetaucht
- Gruppenmitglied 2 ist abgesprungen
- Javafx SDK wegen Betriebssystemarchitektur (Ubuntu) nicht kompatibel  
➔ Neues Betriebssystem (Win 10) + Azul Zulu SDK Build
- Abhängigkeitsmanagement in Gradle

#1

Closed Opened 1 week ago by  **Mohamed El Hedi Atya**Reopen issueNew issue

## Version conflict


FAILURE: Build failed with an exception.


- What went wrong: java.lang.UnsupportedClassVersionError: org/openjfx/gradle/JavaFXPlugin has been compiled by a more recent version of the Java Runtime (class file version 55.0), this version of the Java Runtime only recognizes class file versions up to 52.0


org/openjfx/gradle/JavaFXPlugin has been compiled by a more recent version of the Java Runtime (class file version 55.0), this version of the Java Runtime only recognizes class file versions up to 52.0

- Try: Run with --stacktrace option to get the stack trace. Run with --info or --debug option to get more log output. Run with --scan to get full insights.
- Get more help at <https://help.gradle.org>

BUILD FAILED in 2s

 1

 0




Oldest first ▾


Show all activity ▾

Discussion 1

Designs 0







Mohamed El Hedi Atya @med\_attia changed due date to July 14, 2020 1 week ago



Mohamed El Hedi Atya @med\_attia · 1 week ago

Developer



DSL script to call the dependencies from Maven repositories.

- Issues-

#2

## Exception in Application start method (<https://scans.gradle.com/s/lddqrctxhygq>)



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Discussion **1**

Designs **0**



Mohamed El Hedi Atya @med\_attia changed due date to July 15, 2020 1 week ago



Mohamed El Hedi Atya @med\_attia · 1 week ago

Developer



build.gradle sourceSets added. "/" on the resource call path


- Issues-

# Gradle Scan

 Gradle Enterprise

M

✖ 81 run Jul 12, 2020 2:30:58 AM CEST


 Summary


 Console log

 Failure

 Timeline

 Performance


 Tests

 Projects

 Dependencies

 Build dependencies

 Plugins

 Switches

 Infrastructure

 Delete build scan

 81 lines [view raw](#) [download raw](#)

```
:compileJava UP-TO-DATE
:processResources UP-TO-DATE
:classes UP-TO-DATE
```

```
:run FAILED
Exception in Application start method
```

```
java.lang.reflect.InvocationTargetException
```

```
    at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
```

```
    at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)
```

```
    at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
```

```
    at java.lang.reflect.Method.invoke(Method.java:498)
```

```
    at com.sun.javafx.application.LauncherImpl.launchApplicationWithArgs(LauncherImpl.java:389)
```

```
    at com.sun.javafx.application.LauncherImpl.launchApplication(LauncherImpl.java:328)
```



```
    at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
```

```
    at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)
```

```
    at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
```

```
    at java.lang.reflect.Method.invoke(Method.java:498)
```

```
    at sun.launcher.LauncherHelper$FXHelper.main(LauncherHelper.java:873)
```

```
Caused by: java.lang.RuntimeException: Exception in Application start method
```

```
    at com.sun.javafx.application.LauncherImpl.launchApplication1(LauncherImpl.java:917)
```

```
    at com.sun.javafx.application.LauncherImpl.lambda$launchApplication$1(LauncherImpl.java:182)
```

```
    at java.lang.Thread.run(Thread.java:748)
```

```
Caused by: java.lang.NullPointerException: Location is required.
```


```
    at javafx.fxml.FXMLLoader.loadImpl(FXMLLoader.java:3207)
```

[Home](#) > [Console log](#)

- Issues -

#3

Open

Opened just now by  **Lisanne Haase**

Close issue

▼

New issue


---


## Save() and Load() of configuration files


File can not be read. Exception occurs in Scanner, when file is loaded.

Edited just now by Mohamed El Hedi Atya

---

 0

 0



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Show all activity ▼

Create merge request ▼

LIVE DEMO