

Tower Defense

Overview

This is a simple tower defense game made by students at Gymnasium Landau a.d. Isar in the year 2016. It was a project work done as training exercise in groups of 5.

Project documentation

- 13.06.2016
 - Game opens a window and draws the playing field
- 16.06.2016
 - Game recognizes mouse and has a store
- 17.06.2016
 - Tests with various different textures
- 20.06.2016
 - Health and money display
 - New textures
 - Mobs and pathfinding implemented
- 21.06.2016
 - Meeting
 - Tests with various mobs
- 25.06.2016
 - First implementation of turrets
 - Turrets can fire and damage mobs
 - Added kill counter
- 26.06.2016
 - Added pause and spawn wave buttons
 - Tests with the mob spawner
 - Implemented various different towers
- 30.06.2016
 - Meeting
 - Bug-Fixes:
 - Multiple mobs stacked inside each other
 - Game-crashes (NPE)
 - Kills counting double (for each shooting turret)
 - More textures added

Original file: [DIA2.docx](#)

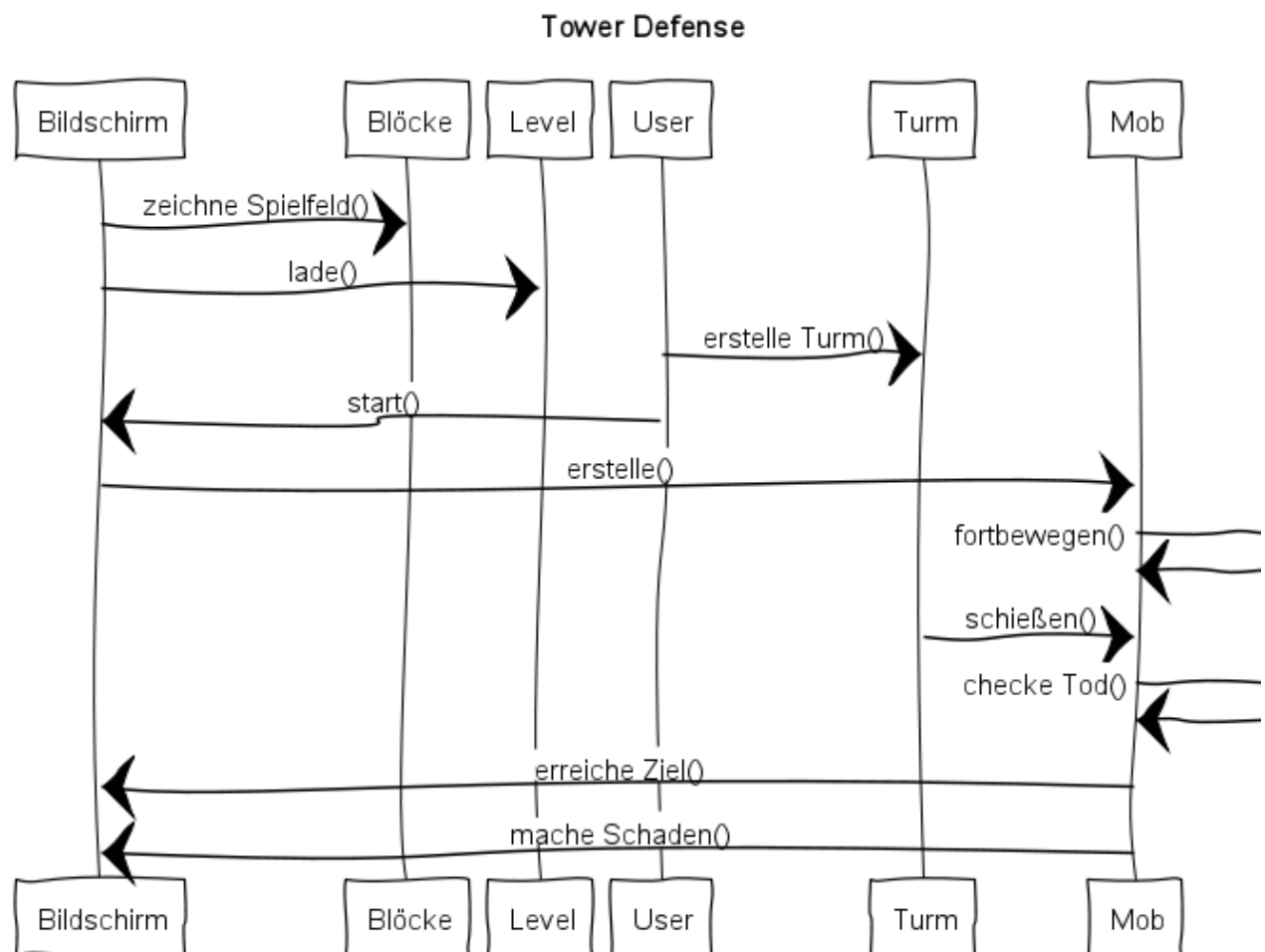
Decisions

- Level storage
 - External file, easier to be edited
 - Scanner reads integers from file
- Texture storage in grids and division into 2 layers
 - One layer as background
 - One layer for turrets, mobs, trashcan, etc.
 - Enables easy access to the textures
- Storing integer values for i.e. textures in a extra class
 - Easy access
 - Can be managed and edited centrally
- Wave-spawn-button
 - Fixes problems with the mob spawner
 - More control by the player
- Graphics decision: No animations
 - Would make the project too complex

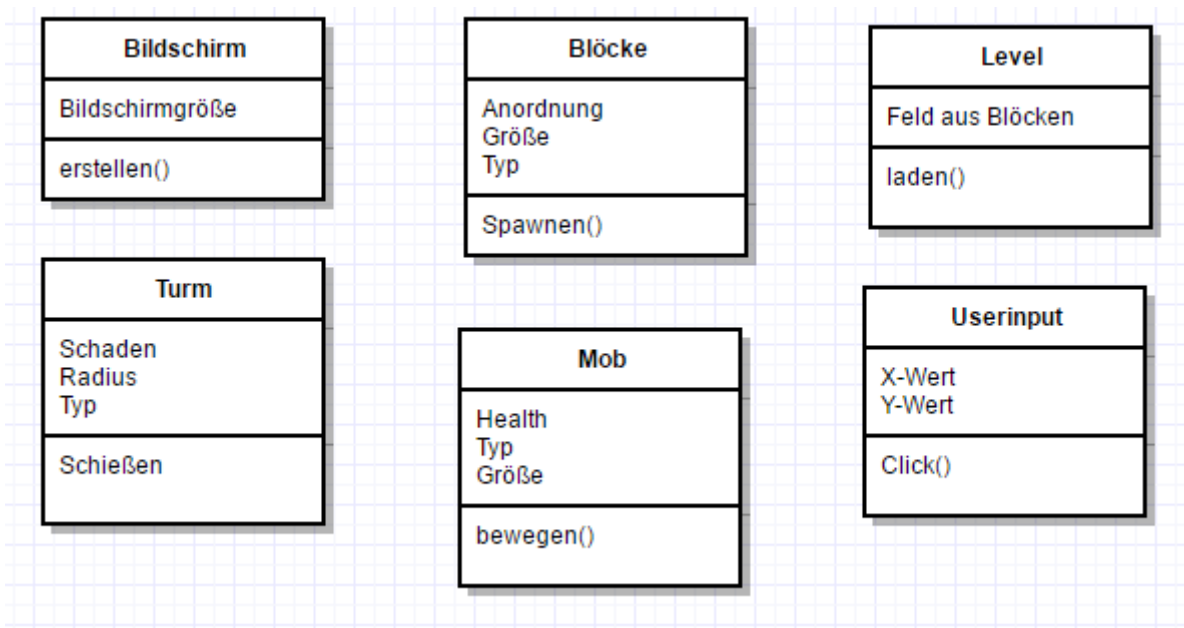
Original file: [DIA3.docx](#)

Diagrams

- Sequence diagram



- Class diagram (first mockup)



- Class diagram (final)



Tileset assignment

Air



Ground



Releases

Alle releases are documented at git.greinet.com. The final release was release 4.0.0.

All documents

[Documents.zip](#)

Revision #6

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