

Interactive Learning Exercise for Children With Autism

A TRAIN GAME

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AGENDA

GIRAF

GAME DESIGN

OPENGL ES

GAME IMPLEMENTATION

CONCLUSION

DEMONSTRATION

GIRAF

SIMON REEDTZ OLESEN



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DENMARK

THE GIRAF PROJECT

VISION

AGILE DEVELOPMENT

SCRUM

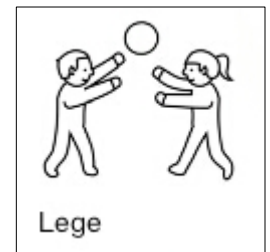
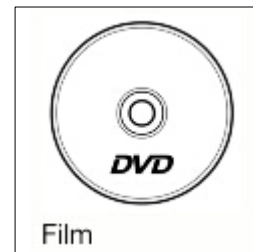
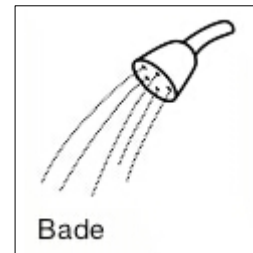
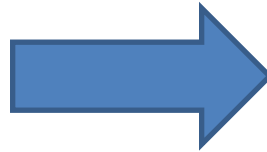
WEEKLY MEETINGS

ISSUE TRACKING

GIT

COMMITTEES

PICTOGRAMS



TRAIN

PROBLEM STATEMENT:

“IN WHAT WAYS CAN WE AID THE PEDAGOGUES IN THEIR WORK WITH CHILDREN WITH AUTISM, BY DIGITALIZING A PHYSICAL EXERCISE ONTO AN ANDROID TABLET?”

Game Design

NICKLAS ANDERSEN



AALBORG UNIVERSITY
DENMARK

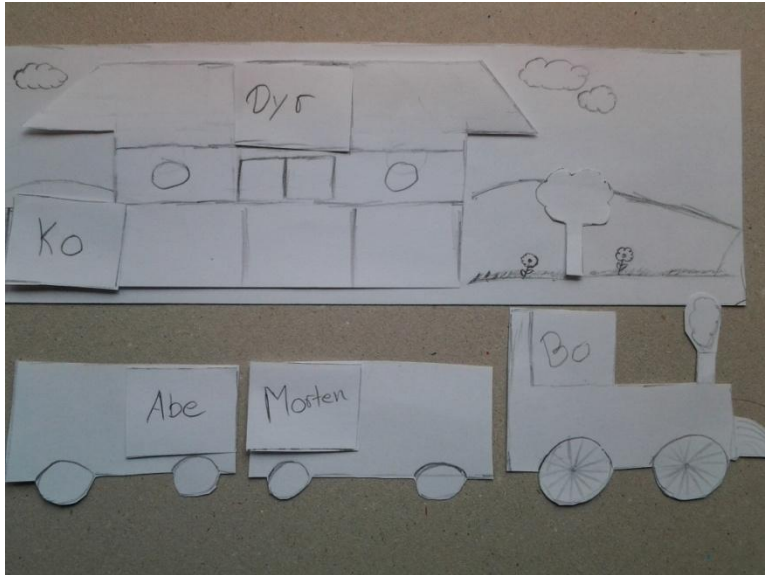
TRAIN DESIGN

IDEA

TOVE SØBY

PROTOTYPE

PROTOTYPE



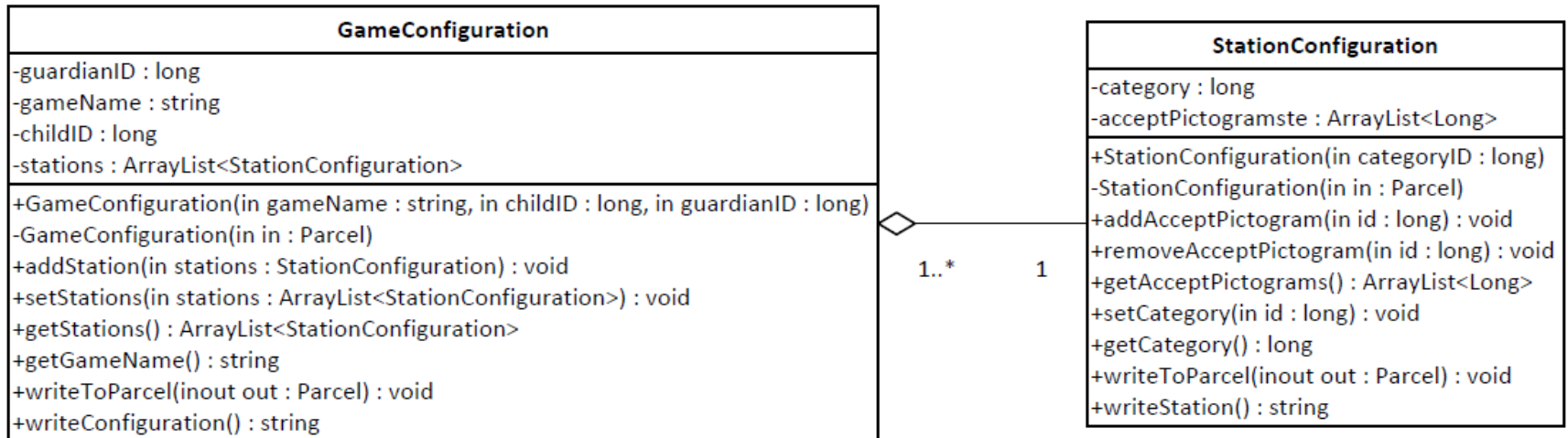
GAME CUSTOMIZATION



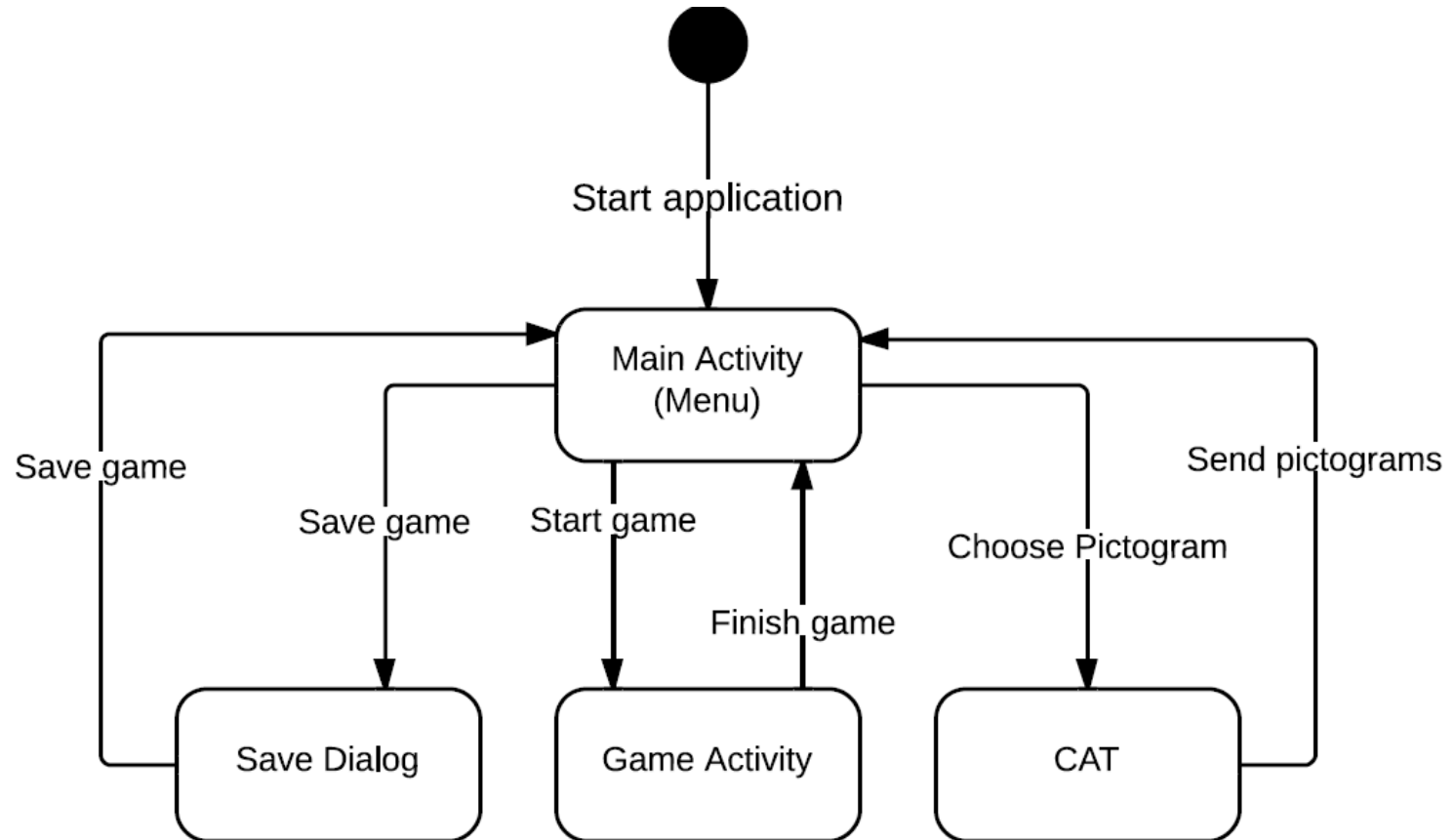
CONFIGURATIONS

GAME CONFIGURATIONS

STATION CONFIGURATIONS



CONFIGURATIONS



OpenGL ES

JESPER RIEMER ANDERSEN



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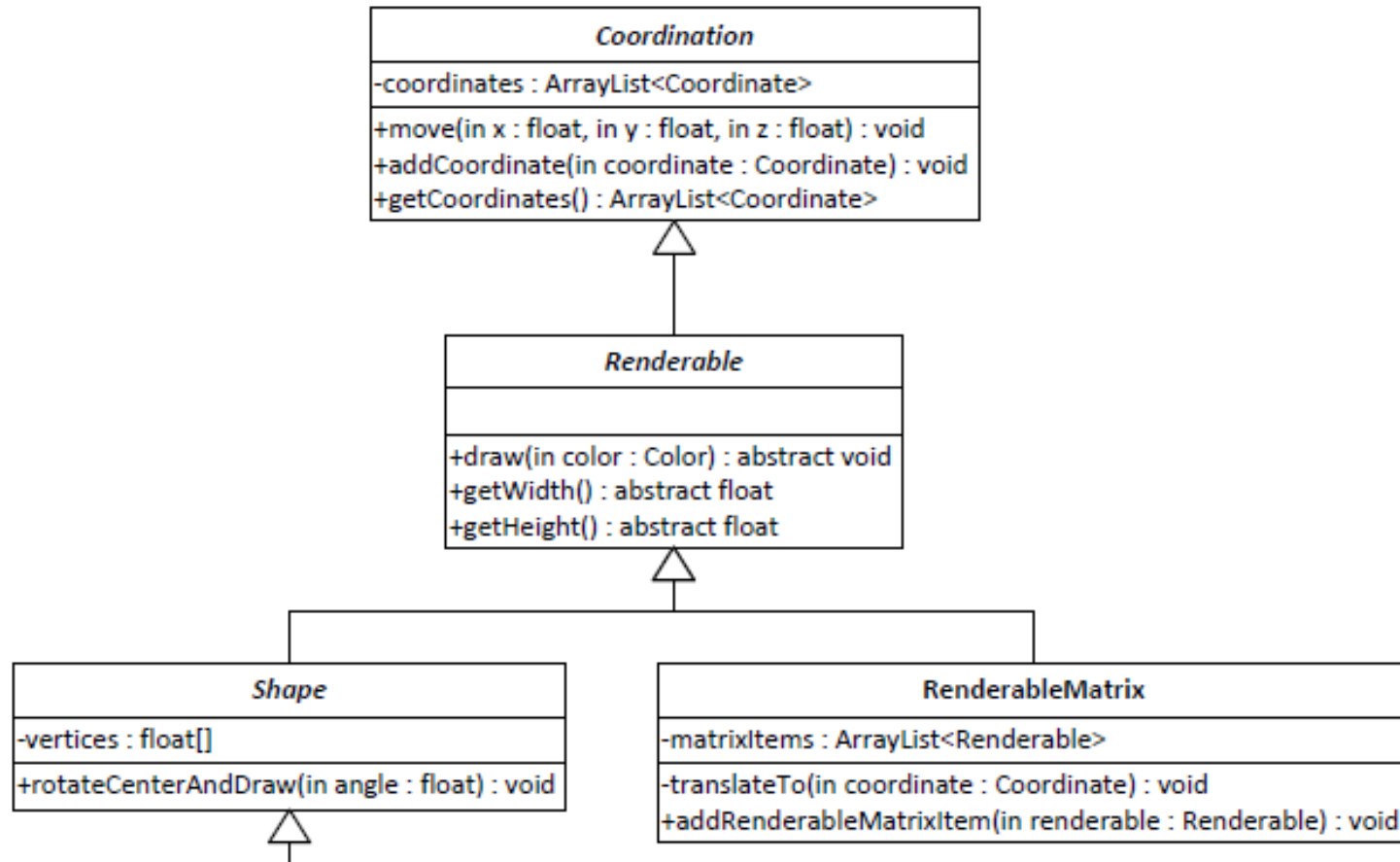
OPENGL ES

ALTERNATIVE: SURFACE VIEW

OPENGL ES

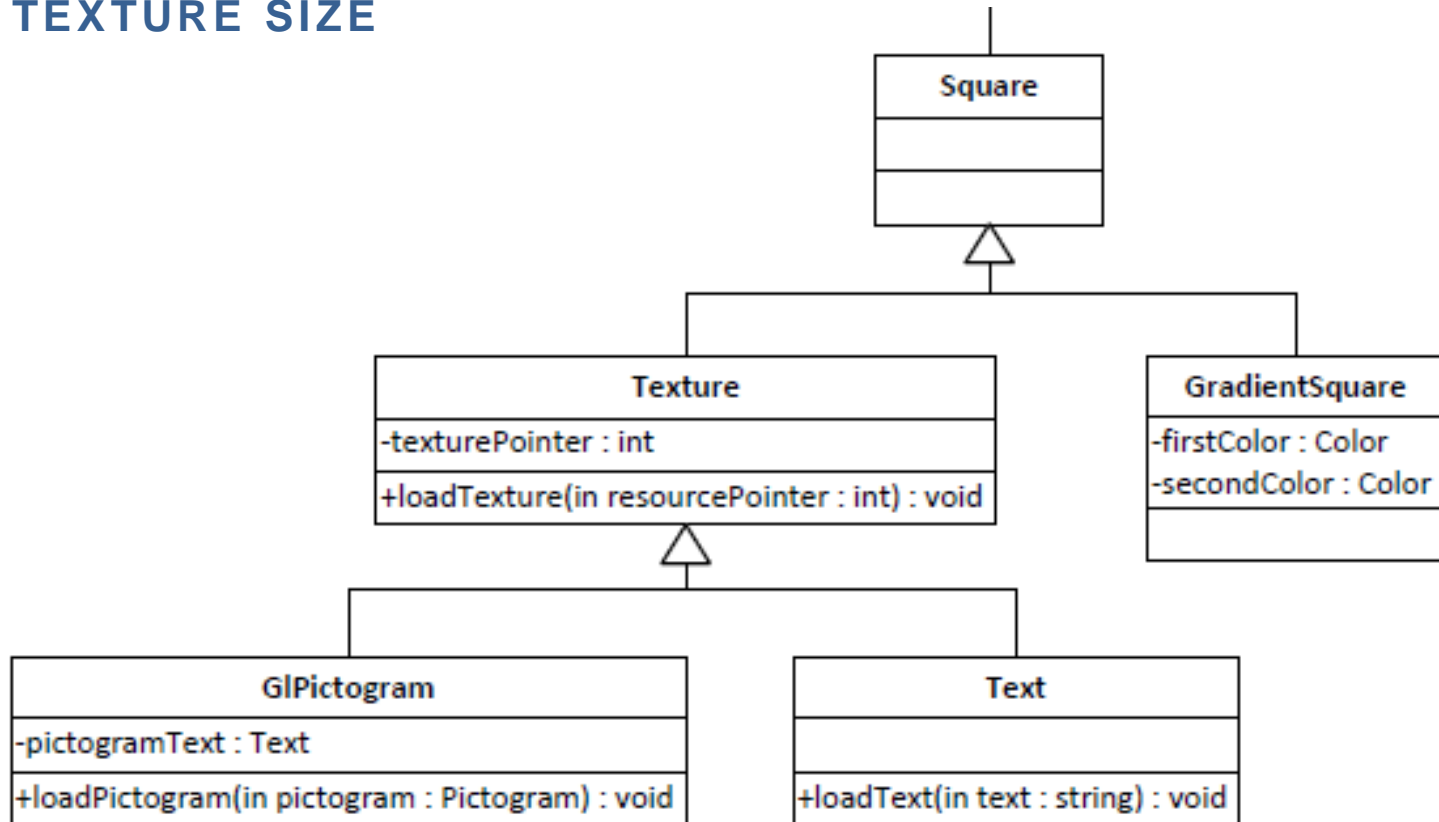
VERSION 1.X

RENDERABLES

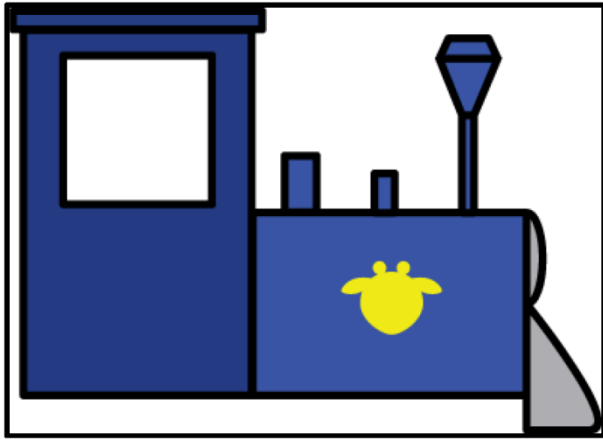


RENDERABLES

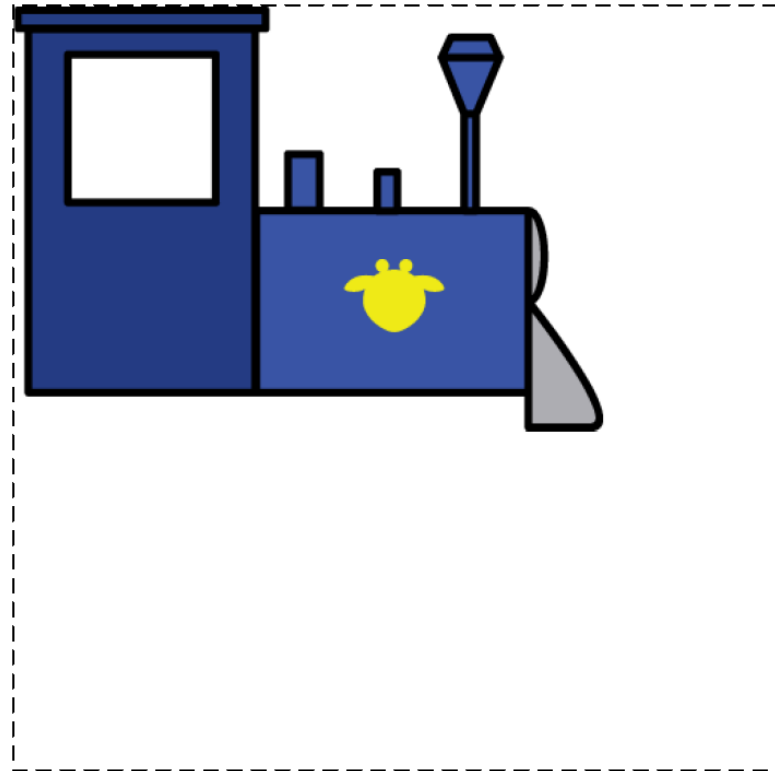
MAX TEXTURE SIZE



POWER-OF-TWO CONVERSION

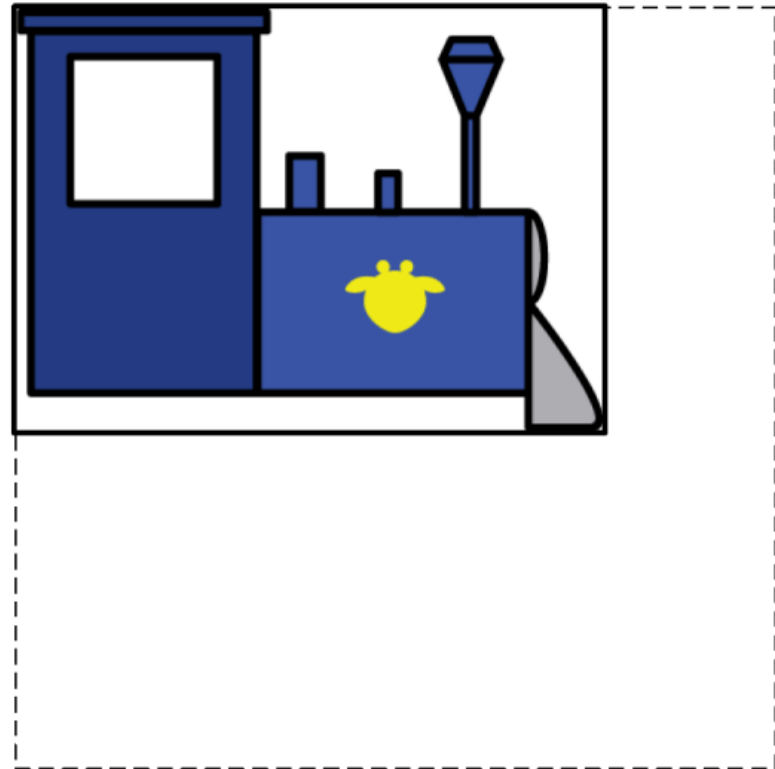
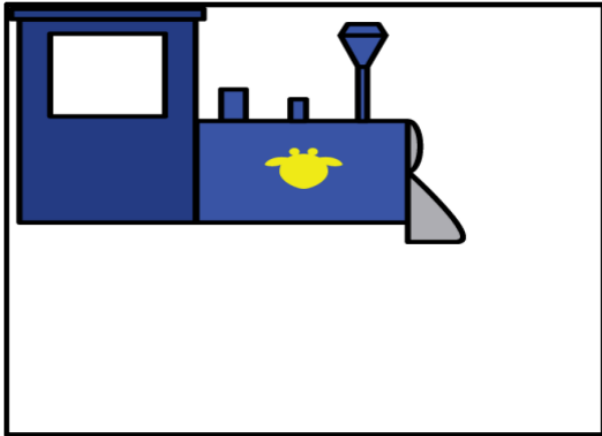


396 x 284



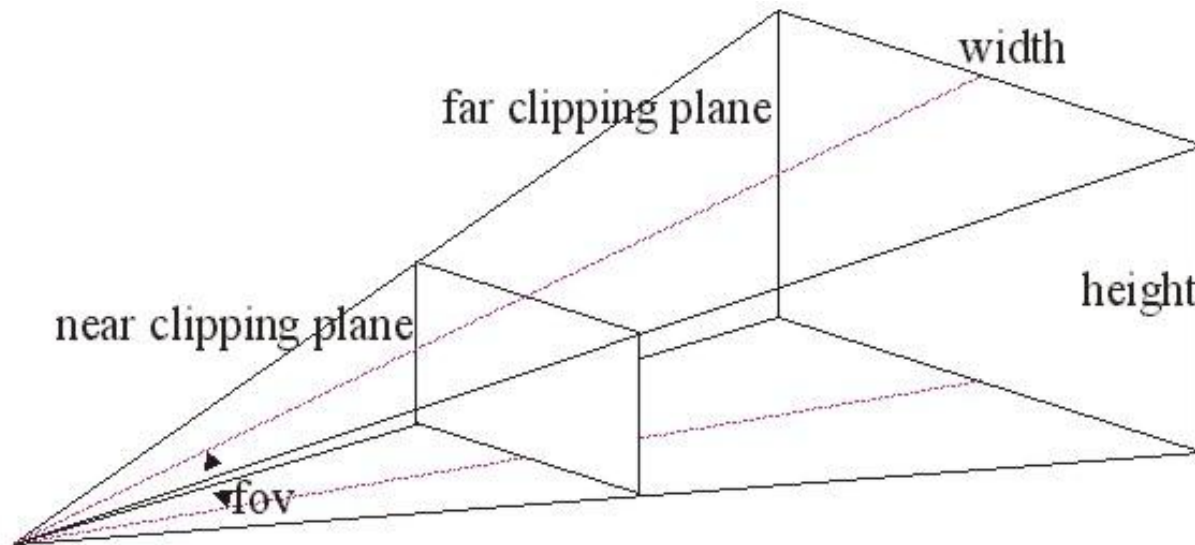
512 x 512

POWER-OF-TWO CONVERSION



FRUSTUM

THREE-DIMENSIONAL SPACE

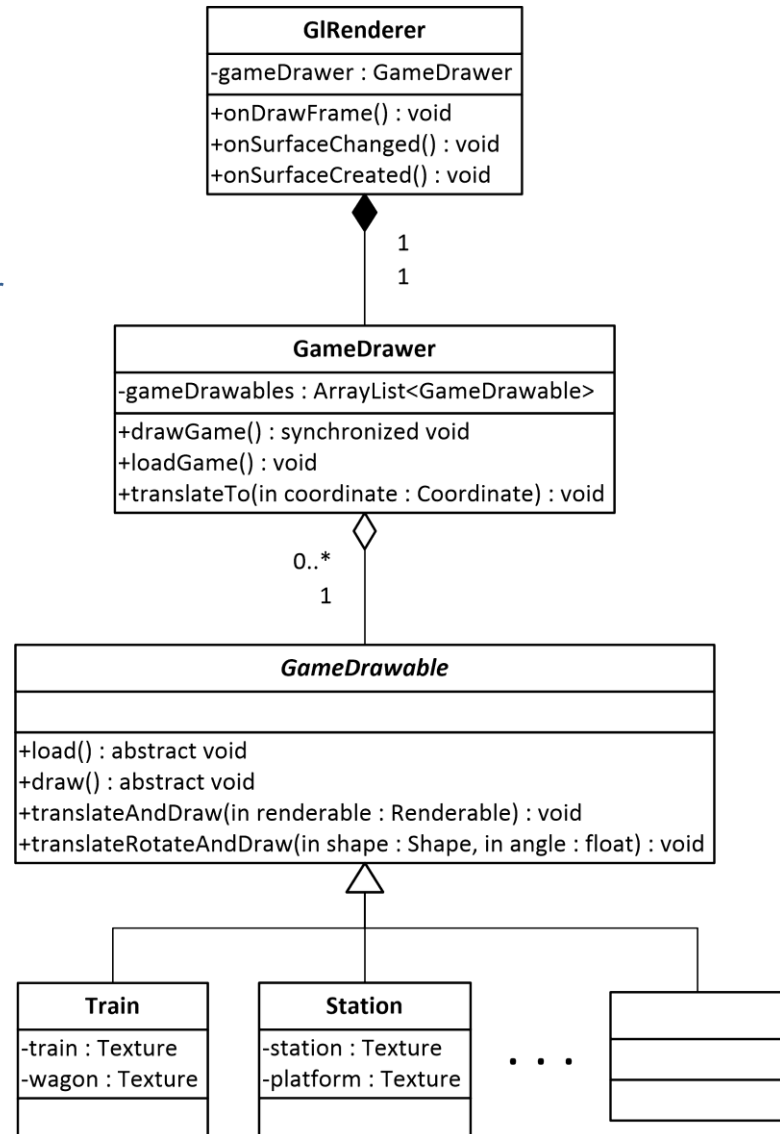
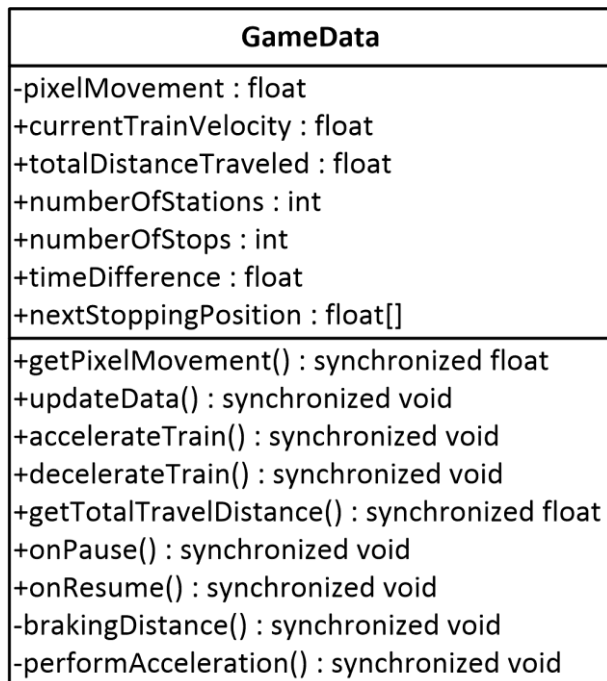


RENDERING

ANDROID OPENGLES

android.opengl.GLSurfaceView

android.opengl.GLSurfaceView.Renderer



Game Implementation

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DRAG AND DROP

EVENTS

GAME DRAWABLES

TRAINS AND WAGONS

WHEELS

TRAIN SMOKE

STATION

RANDOM SEQUENCE

GAME BACKGROUND

HILLS

TREES

COWS

CLOUDS

Conclusion

JACOB KARSTENSEN WORTMANN



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CONCLUSION

PROBLEM STATEMENT

“IN WHAT WAYS CAN WE AID THE PEDAGOGUES IN THEIR WORK WITH CHILDREN WITH AUTISM, BY DIGITALIZING A PHYSICAL EXERCISE ONTO AN ANDROID TABLET?”

HES?

Demonstration

SIMON REEDTZ OLESEN



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