# Animation Production Assignment 1: Primitives

Jonathan Simmonds

## 1 Abstract

# 2 Introduction

## Rupert

- What is automated trading (history)
- What our goal was

# 3 Environment

## 3.1 BSE

#### Jonny

- Limitations
- Restrictions (level of info sealed bid double auction etc.)

## 3.2 Traders

#### 3.2.1 ZIP

#### Jonny

- What was significant key points
- Advantages/disadvantages

#### 3.2.2 GD-Variants

#### Rupert

- Shavers / Sniper / XKCD, etc.
- We implemented it but couldn't do a full implementation

# 3.3 Adaptive Aggressive Traders

## 3.3.1 Short term learning

#### Max

 $\bullet$  Graphs —  $\mathtt{r}$  vs price equilibrium

## 3.3.2 Long term learning

Max

• Theta

#### 3.3.3 Price estimation

Max

- Graph of all trades with projected price equilibrium
- MEGA GRAPH

## 4 Calibration

Group hug

- $\beta_1$ ,  $\beta_2$ ,  $\gamma$ ,  $\eta$
- potential to compare statistically?

## 5 Results

Group hug

- Graph: Average balance over time
- Statistical analysis why you used a certain test Ed's report: "According to the conducted Wilcoxon-Mann-Whitney two-tailed rank-sum tests, the difference in the observed efficiencies is significant ( $U=2, N_1=N_2=10, p < 0.0003$ )."
- Experiment with changing scheduler
- Other graphs

# 6 Conclusion

Group hug

- Thank you and good night
- Hold for applause