

Albert Zach, Sahin Er, Daniel Ziese, Matthias Hainz

# Recap

- Competitive cleaning/dirtying game
- One team keeps order and the other cuases chaos
- Online multiplayer



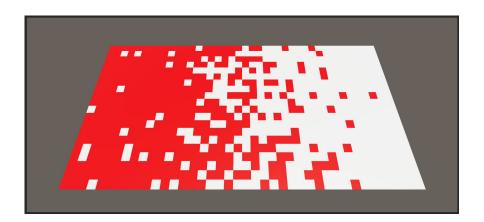


# Networking

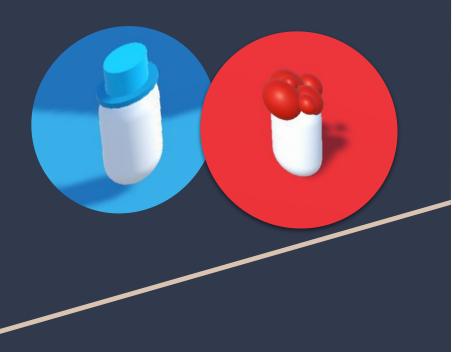
- Lots of time spent on implementing networking
- Server-client infrastructure working
- Multiple players locally dropped for now
  - Each client has one player and one accepted input device
- Game state synchronized over server
- Join "Lobby" rooms, start game and declare winner when timer ends

#### Grid

- Clean/Dirty mechanic implemented on custom grid
- Efficient data structure for keeping track of gamestate and score
- Currently: Grid is displayed directly
- Later: Visualization can be decoupled from data



# Player



- Simple movement
- Automatically apply their teams effect of creating or cleaning dirt to the tile they currently stand on
- Can destroy/repair boxes which are placed in the scene
- Can use their skills:
  - Dirt Team: Grenade creates circular area of dirt upon impact
  - Clean Team: Water Hose cleans conical area in front of the player
  - Implemented efficiently using rasterization algorithms on the grid
- Skills just dirty/clean a circular are around the player in current version

# Challenges and Learnings

- It is difficult to simultaneously support local and online multiplayer, so we'll focus on online play
- It is challenging to keep all players synchronized
- Current visualization of grid causes performance issues with high resolutions
  - Has to be replaced with a custom rendering pipeline

Time for questions, comments and opinions.