# Immersive Sketching to Author Crowd Movements in Real-time

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## Introduction

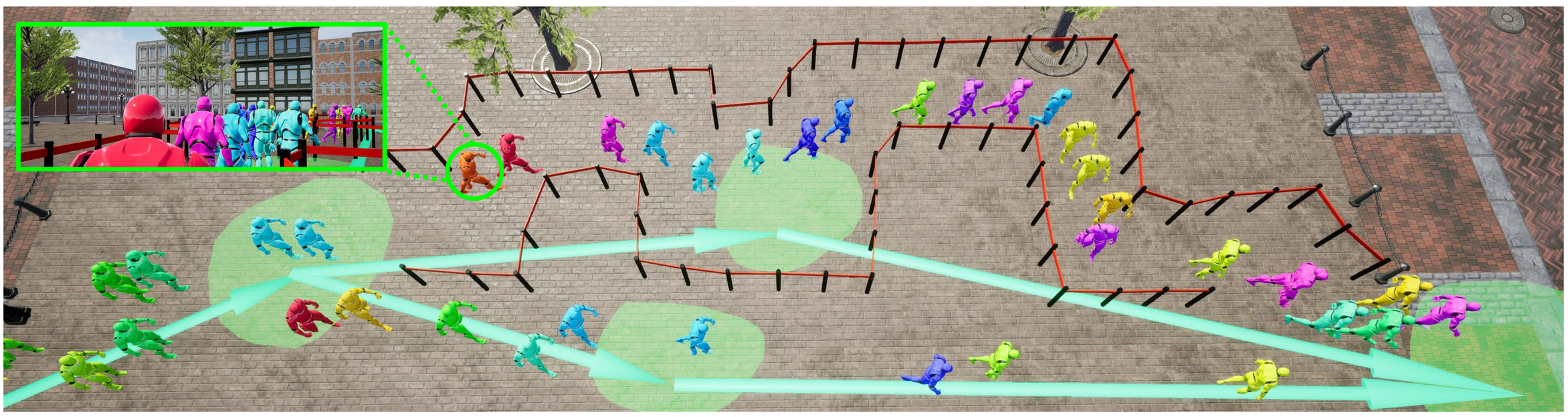
**Scenario Description**
Immersive virtual environments enlivend by virtual agents driven by a crowd simulation

**Requirements**
- Direct and interactive, VR-based authoring tool for pedestrian flows
- Usable for experts and novice users

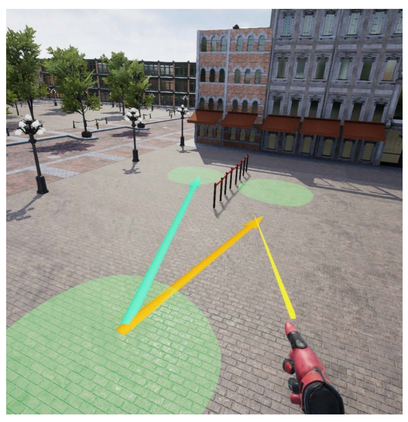
**Long-term Research Objectives**
- Difference between VR-based and state-of-the-art 2D authoring w.r.t. usability, time to author, plausability of resulting flows, etc.
- Useful tool during scene explorations

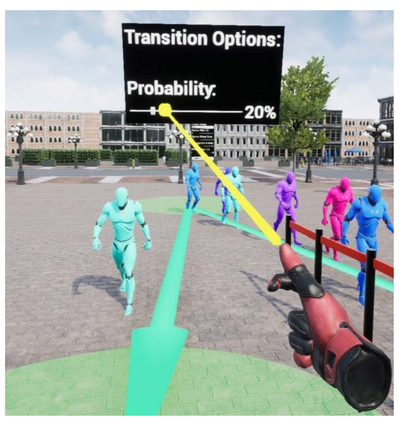
## WiP: Sketching

- *Barriers* as invious obstacles in the navMesh
- Configurable *sections* as waypoints, editable as graph
- Allows for *3rd person* and *1st person* experience



- *FlowControl* elements for section and transition configuration



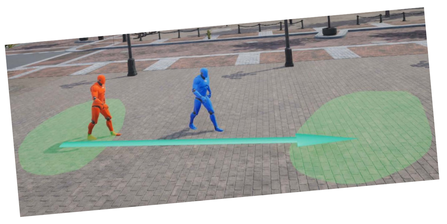

## Proof-of-Concept

Pilot study task: reconfiguring a pre-defined pedestrian flow

## Take Aways

- Sketching applicable to VR
- VR mode offers meaningful option to evaluate flows
- Promising start of reseach

**Next Steps:**
- Improving design, e.g., position of UIs, extension of sections, deletion of complete barriers
- Extending feature set
- Research on objectives



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