



Big Data in Mixed Reality (MxR)

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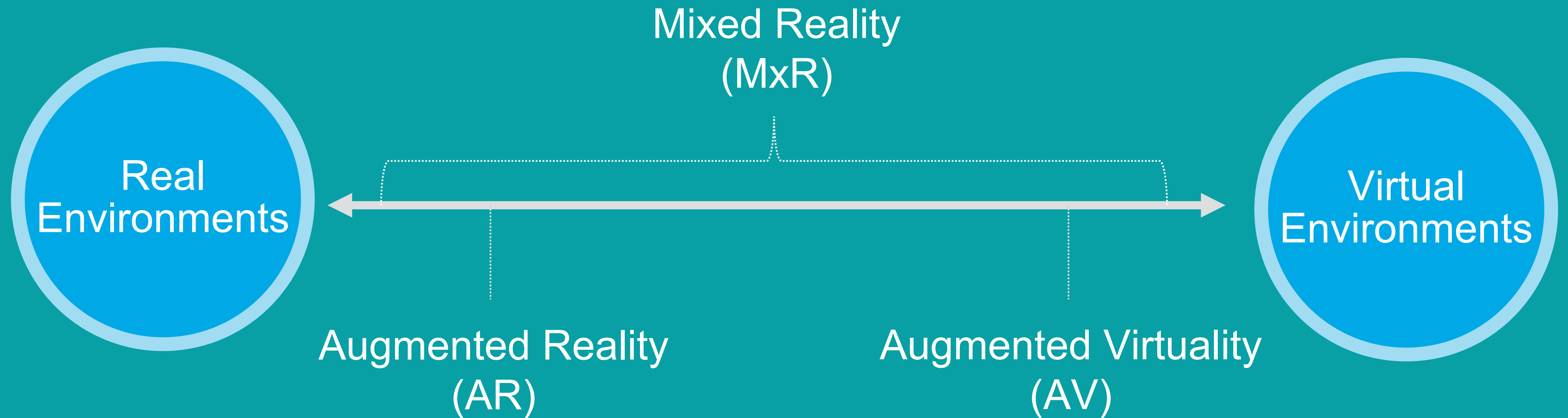
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Big Data in Mixed Reality

Analyzing, understanding, and contextualizing insights from big data in real-time...

```
POST mixed_reality/data/  
{  
  "data" : "BIG DATA"  
}
```

The Reality-Virtuality Continuum



Think: Person of Interest meets Minority Report



Agenda

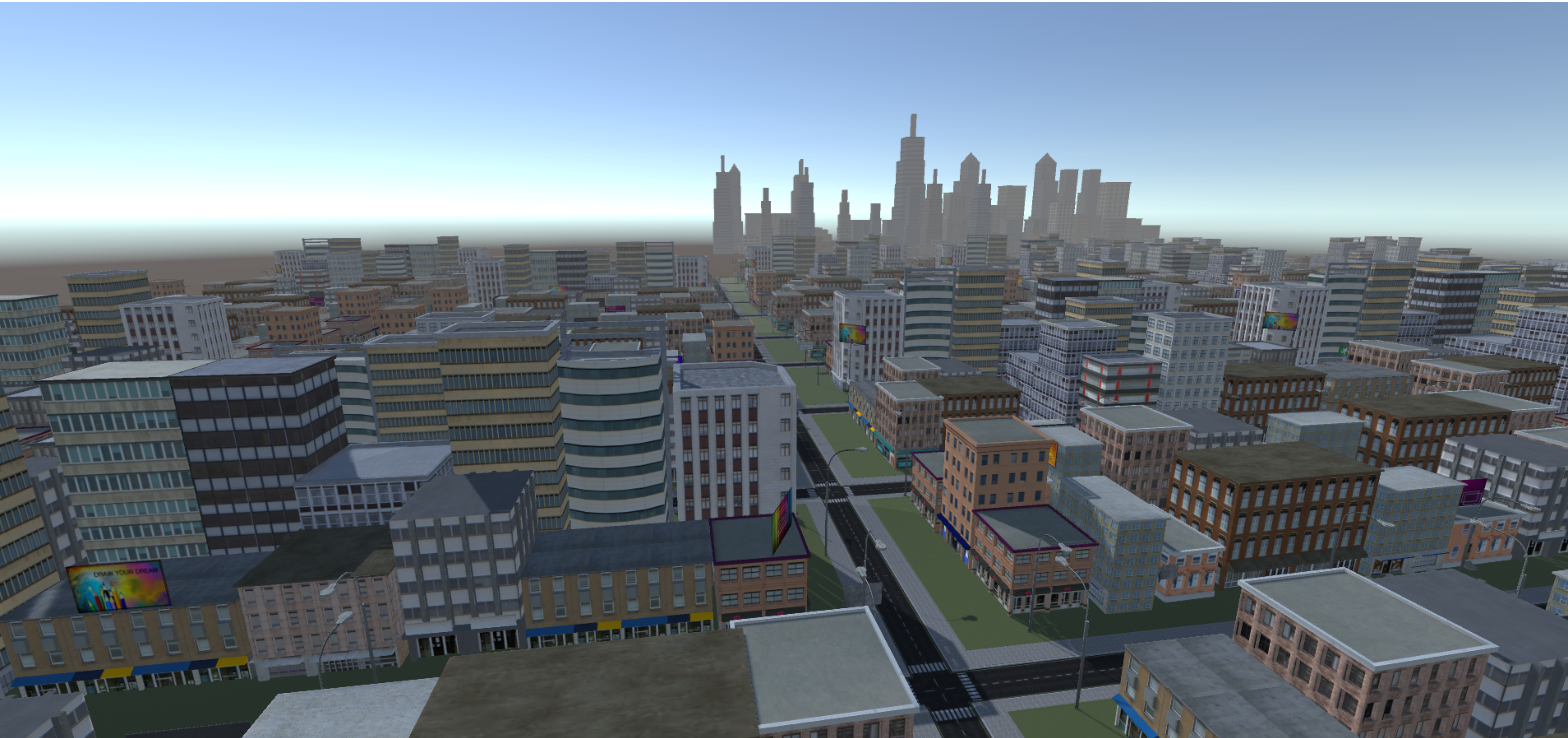
Big Data in Mixed Reality (MxR)

- 1 Introduction, Overview, and Big Picture
- 2 Background and Explanation of the Game
- 3 Walkthrough of the MxR/VR Analytic Environment
- 4 How We Built It!
- 5 Lessons Learned and Insights... and What's Next!

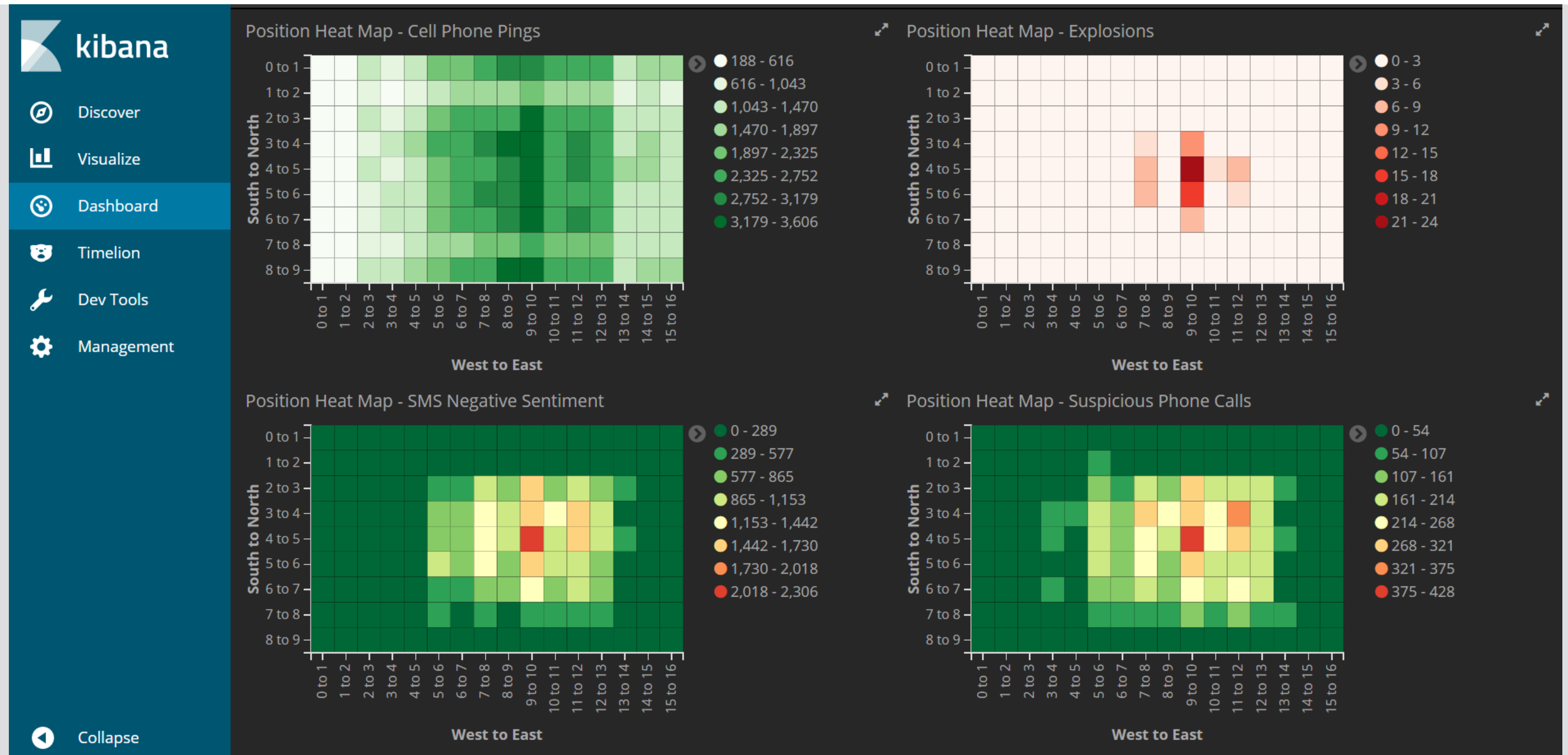
Games

Games? Analytic Games? Analytic Games in VR?

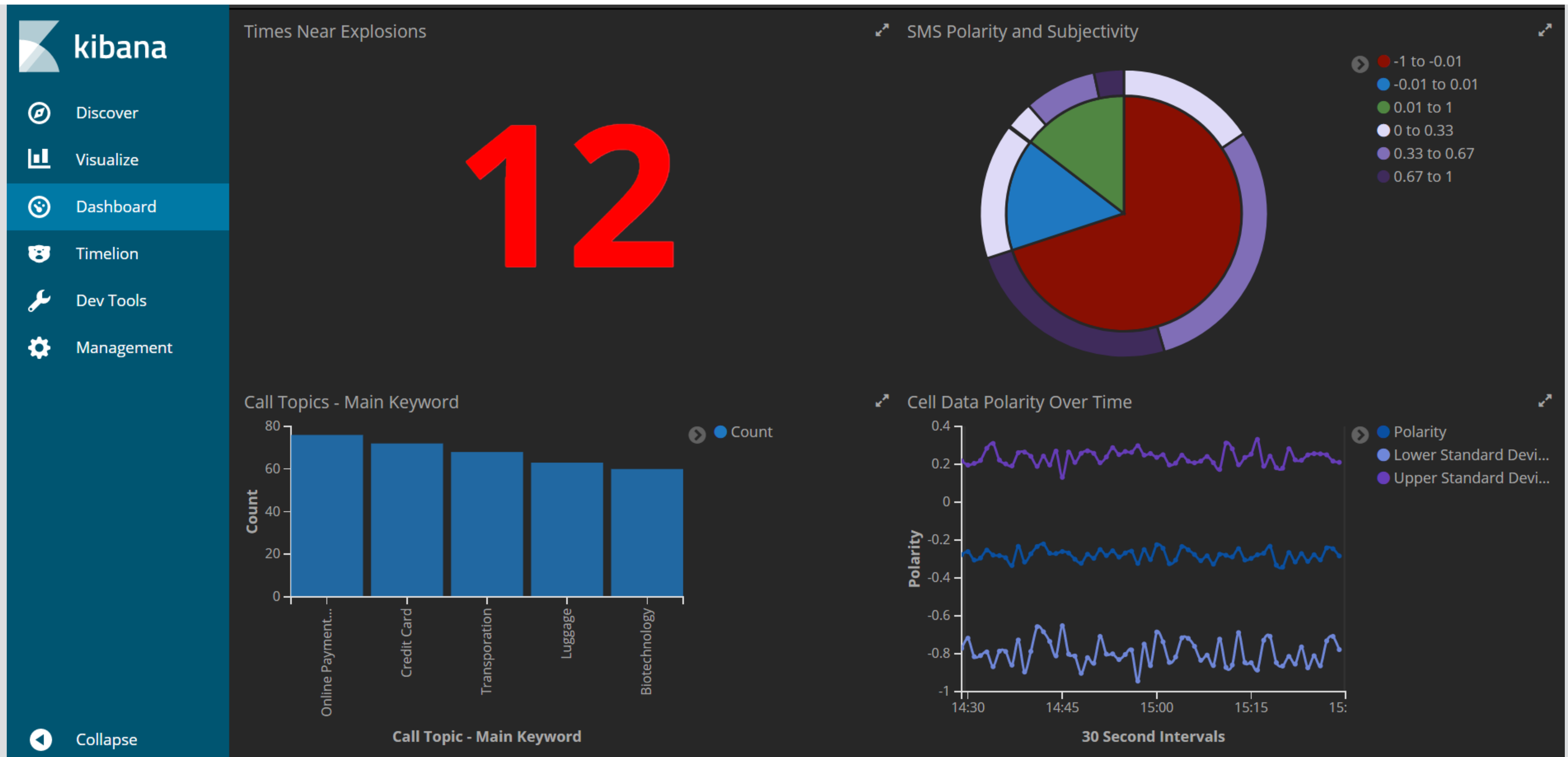
Analytic Games in Dense, Urban Terrains



Demo Dashboard: High-Level State of Play



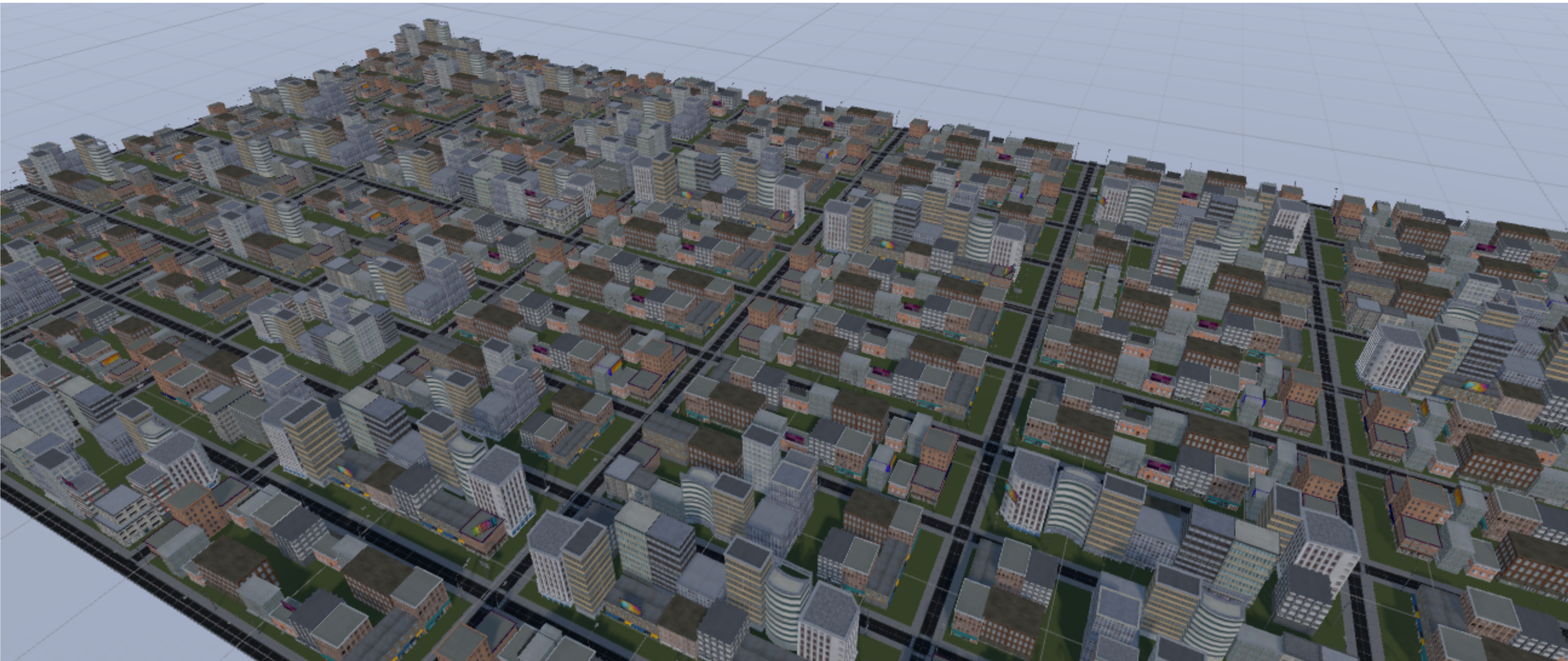
Demo Dashboard: In the Streets

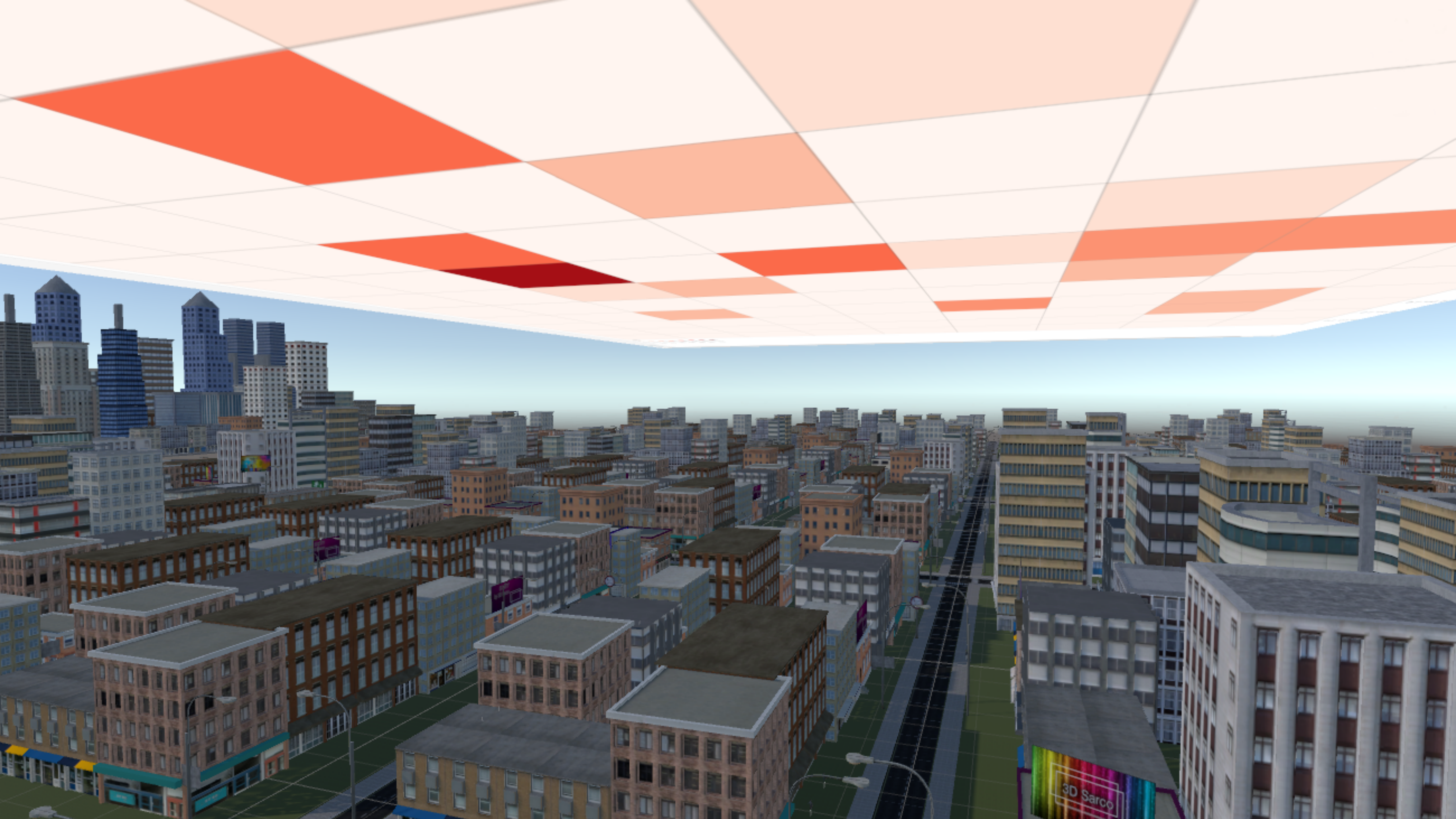


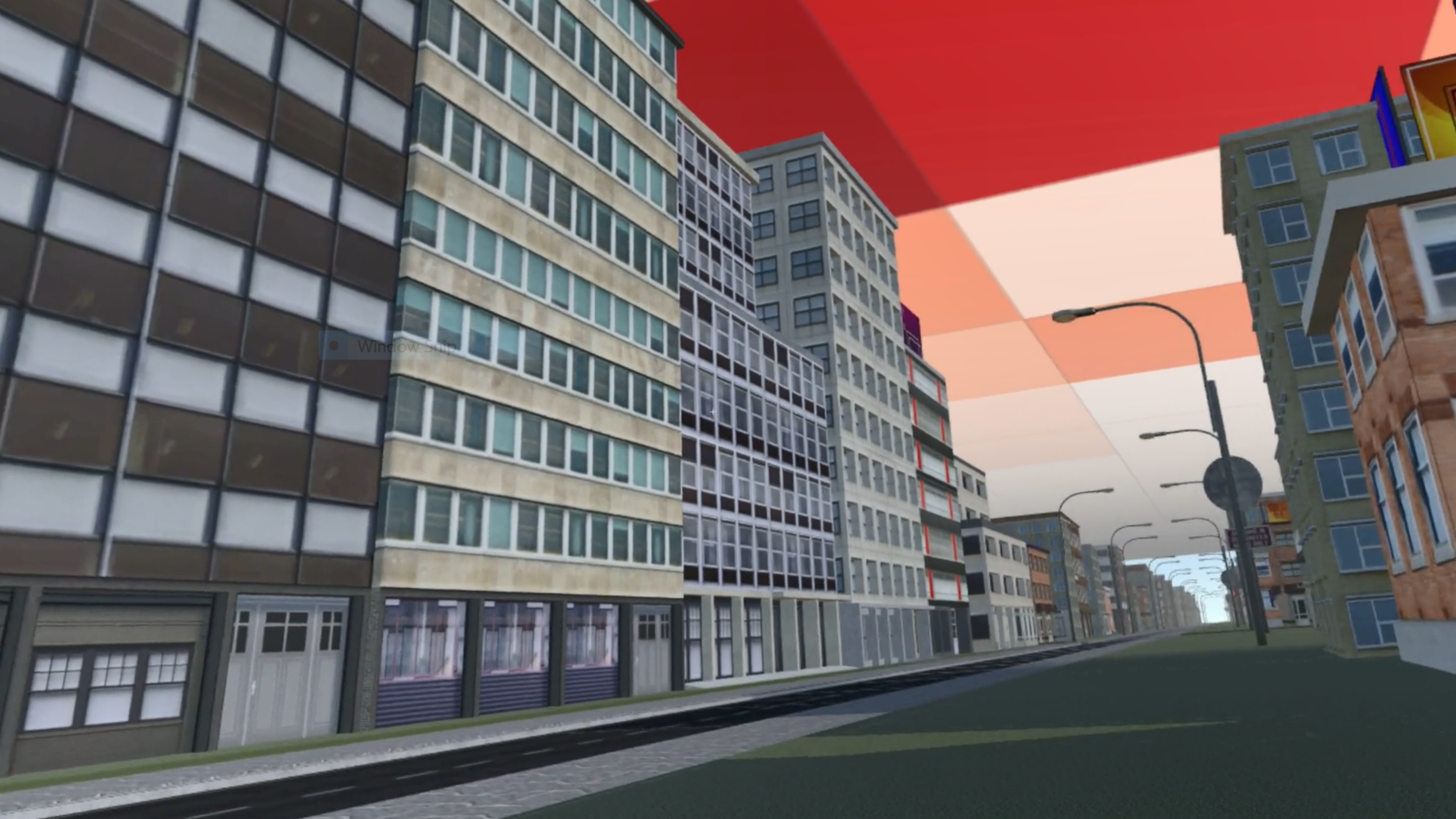
MxR/VR Analytic Environment

Walkthrough

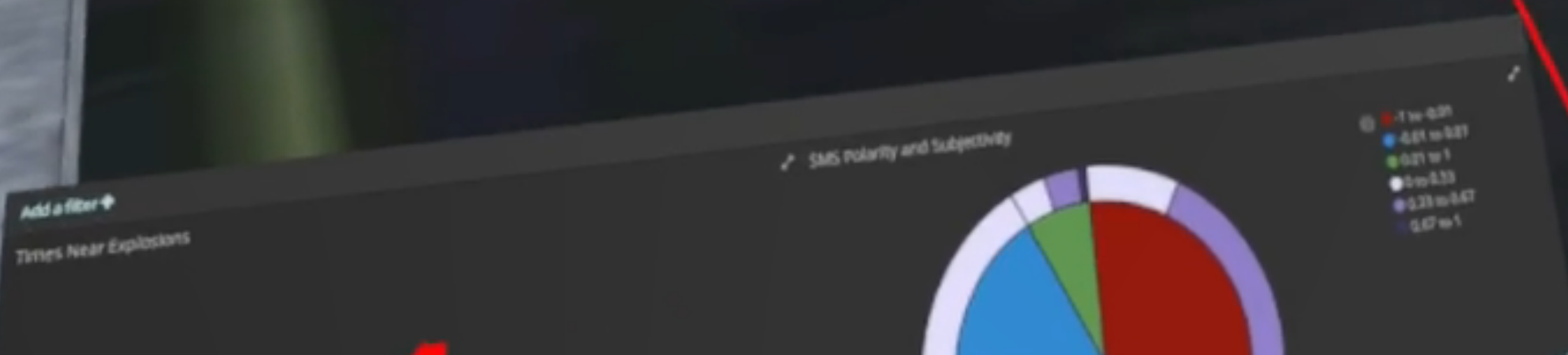
So... Where Do You Start?

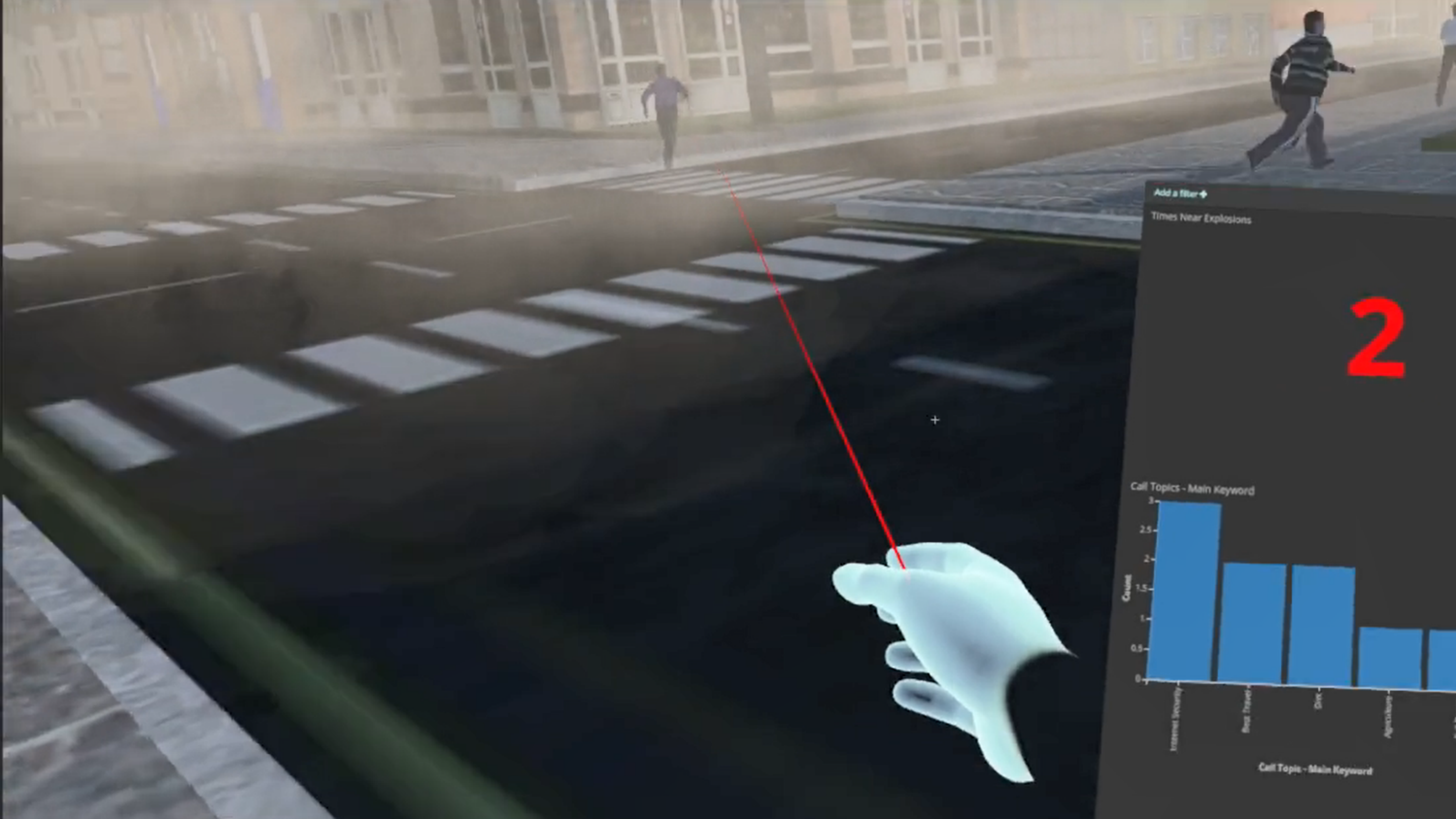






● Window Snip



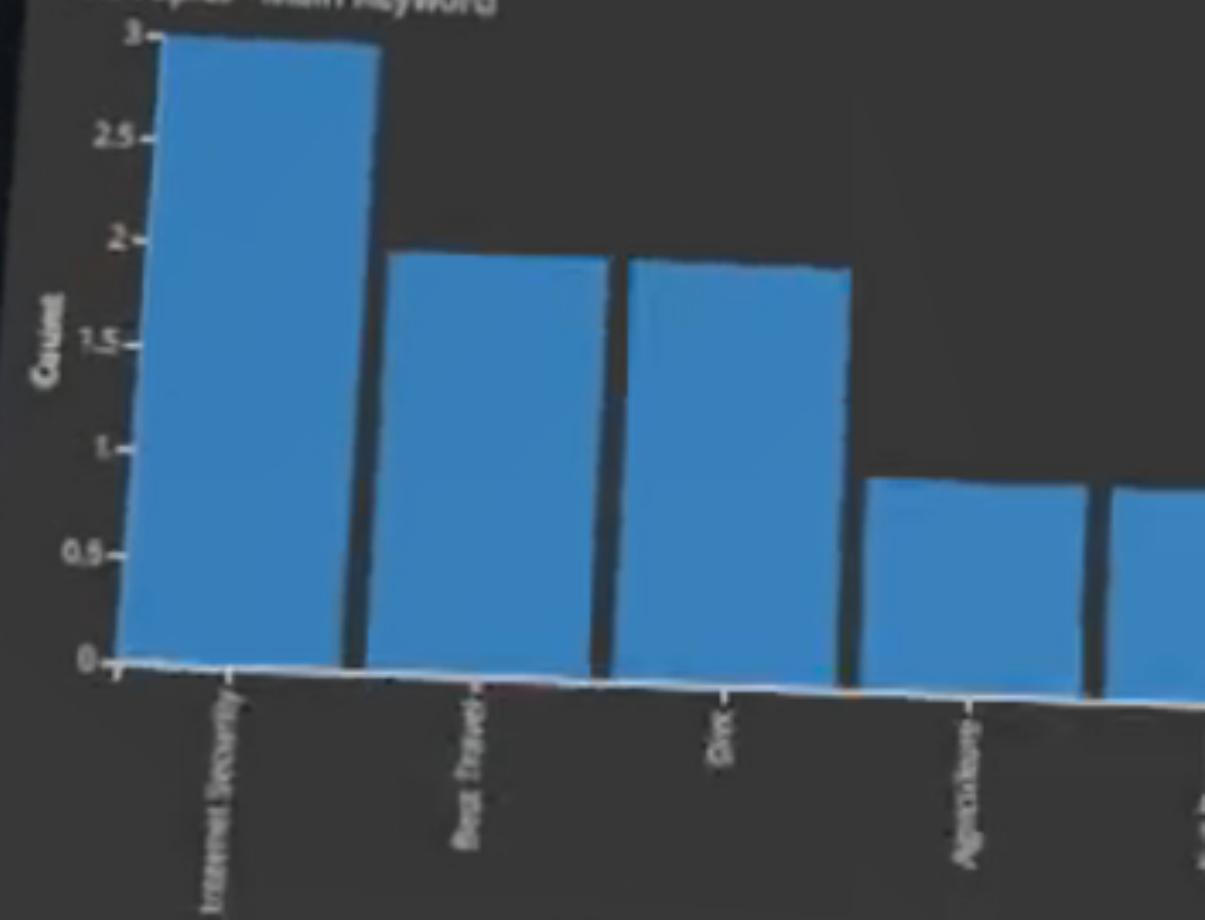


Add a filter +

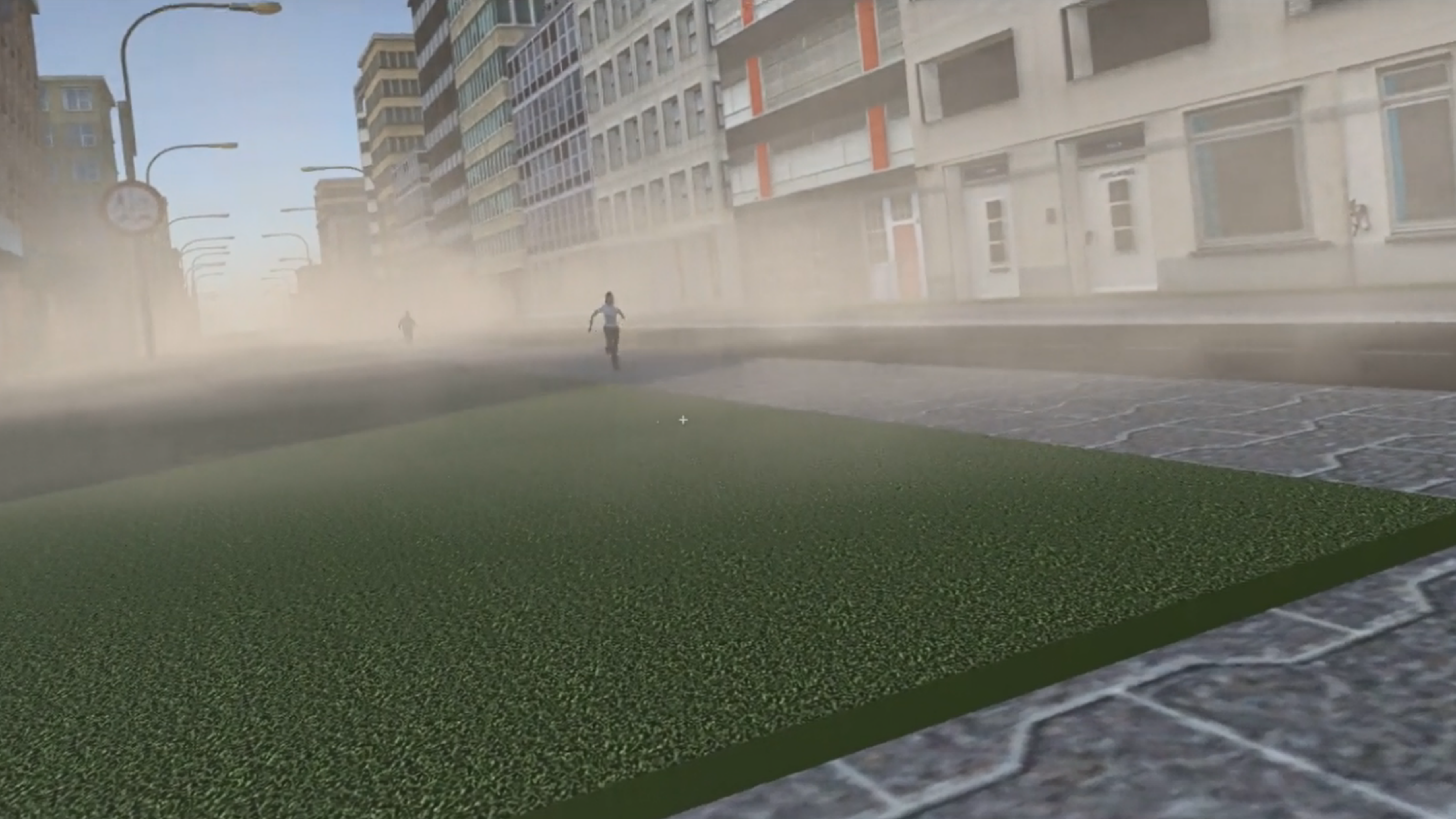
Times Near Explosions

2

Call Topics - Main Keyword

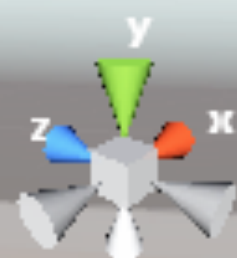


Call Topics - Main Keyword



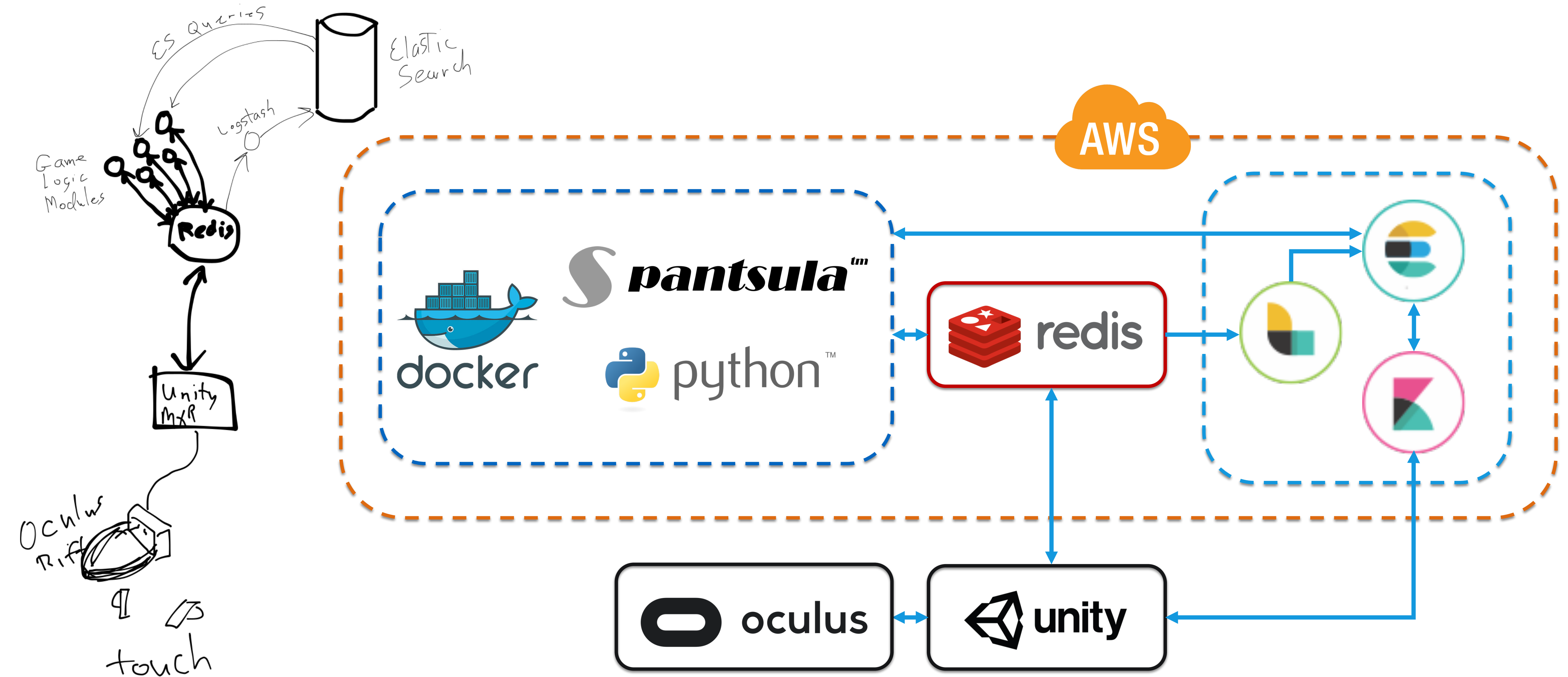
How We Built It!

(Using Elastic!)



← Persp

Architecture Diagram

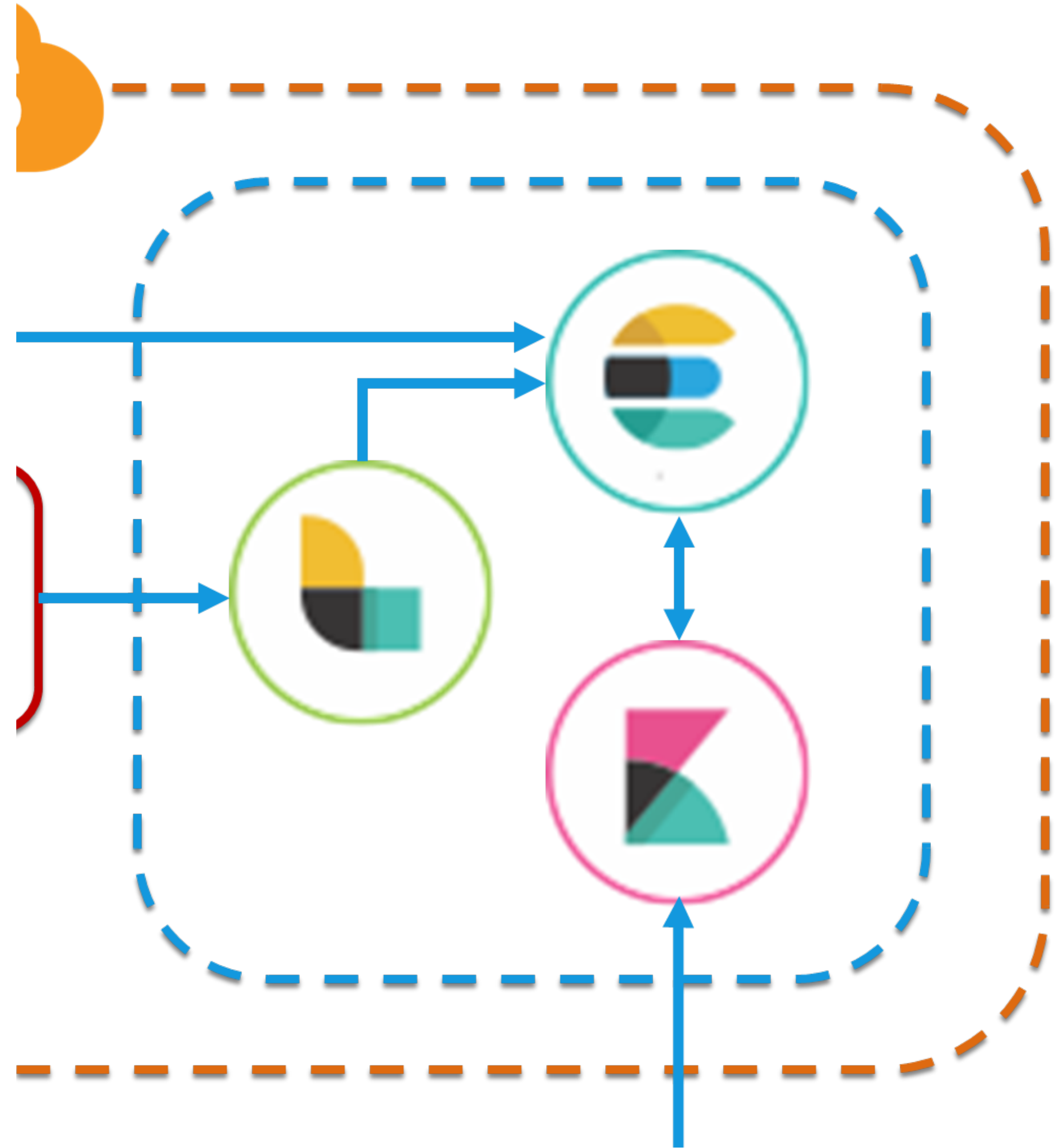


Lots of (Big) Data Comes from these Sims!

E.g., We had Over 45M Records Generated in a Week While Just Developing!

t	component	🔍 🔍 📄 *	unity_client
t	event_uuid	🔍 🔍 📄 *	ee0d91e4-708a-446d-aaf3-8a01bb96905e
#	grid_position.x	🔍 🔍 📄 *	9
#	grid_position.y	🔍 🔍 📄 *	4
t	index	🔍 🔍 📄 *	mxx-bigdata-bombing_events-groundtruth
t	simulation_node_name	🔍 🔍 📄 *	Explosion Detector 9, 4
t	simulation_node_type	🔍 🔍 📄 *	Explosion Detector
t	simulation_run_uuid	🔍 🔍 📄 *	6e5d3d70-...

Elasticsearch, Logstash, and Kibana



Lessons, Insights and What's Next!

For Stormfish and Anyone Else Interested!



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More Questions? Visit us at the AMA