

Building Buy-In: Creating design tools for better player experiences at EA

Peter Vesti Frendrup - Sr. Level Designer - EA DICE
Krista Parham - Sr. UX Researcher - EA Vancouver

GDC

GAME DEVELOPERS CONFERENCE

MARCH 18-22, 2019 | #GDC19

Peter Vesti Frendrup

Level Design 11 years

Battlefield, Battlefront, Far Cry, Splinter Cell



Krista Parham

UX Research 3 years

Mass Effect: Andromeda, FIFA





Quick Filters

Advanced

Core Filter

Player Tick

Team

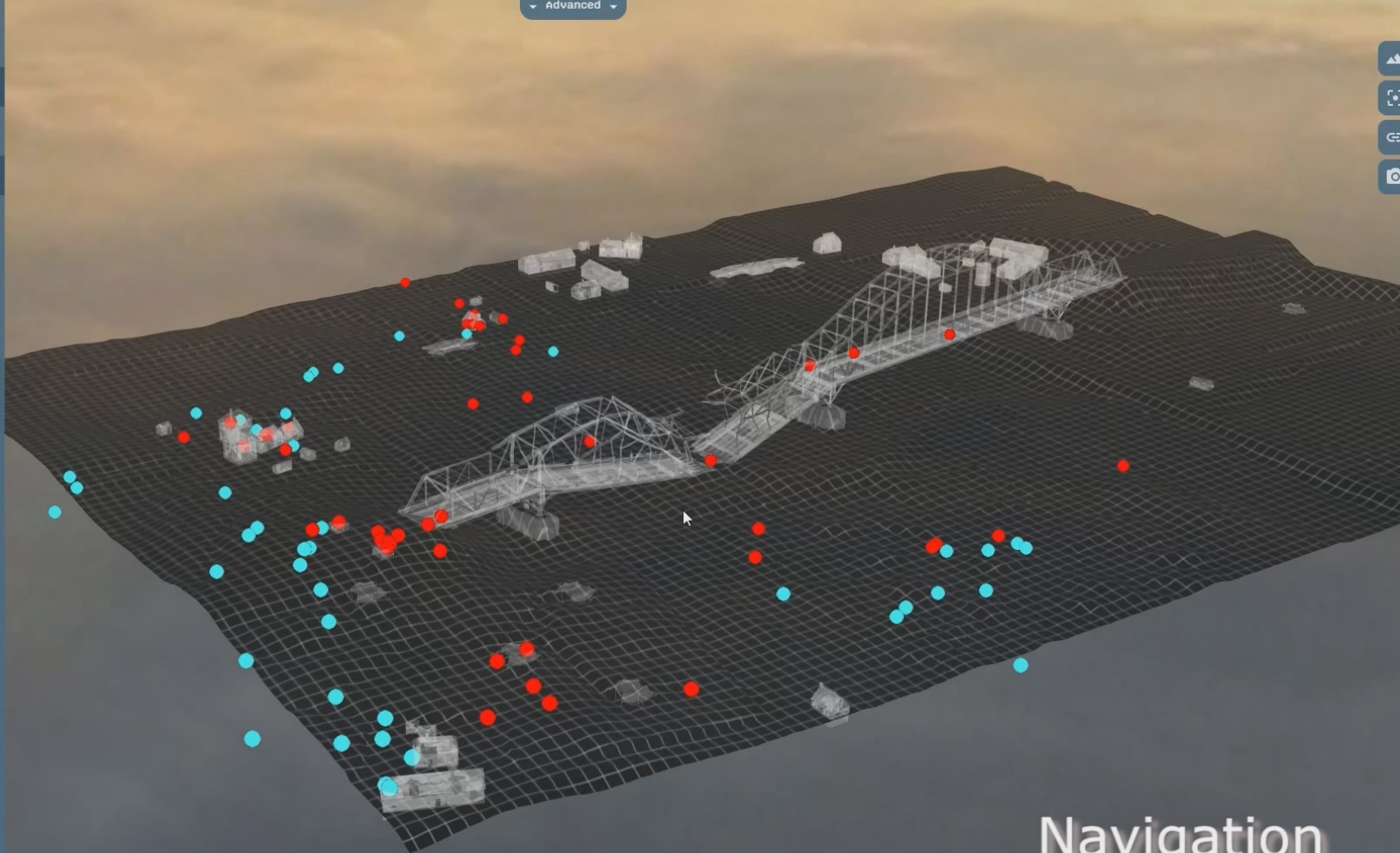
Point Heat

Multiple

94 points

1 8267

2 8463



Navigation

Timeframe 00:29:31

00:34:49

Key Takeaways

How to pitch your own company wide project

How telemetry viewers can help teams make better decisions about their games

The challenges involved in building this type of tool and how to overcome them

Key Takeaways

How to pitch your own company wide project

How telemetry viewers can help teams make better decisions about their games

The challenges involved in building this type of tool and how to overcome them

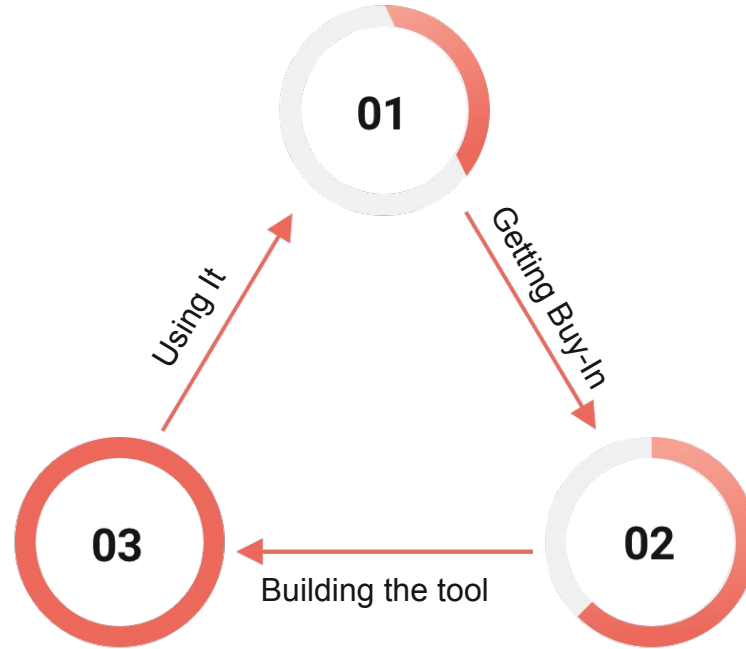
Key Takeaways

How to pitch your own company wide project

How telemetry viewers can help teams make better decisions about their games

The challenges involved in building this type of tool and how to overcome them

Phases of Building a Tool



STOCKHOLM 2015

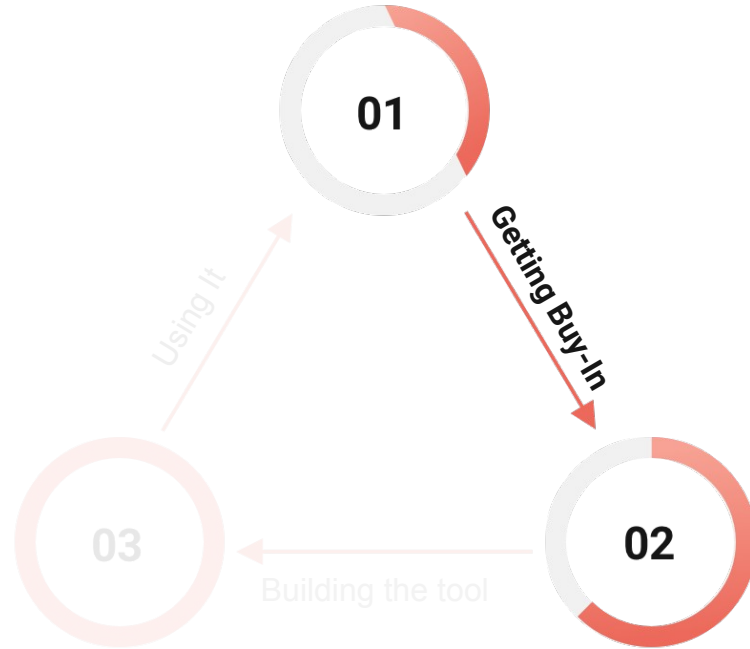
As a level designer, I want to...

Be able to easily understand how people play a level spatially over time

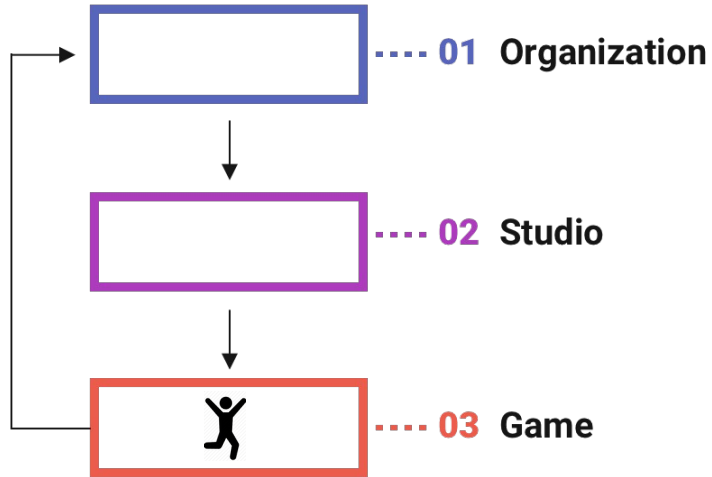
Be able to easily compare players

Goal: Properly understand how people play. An exploratory tool (not a binary 'problem solver')

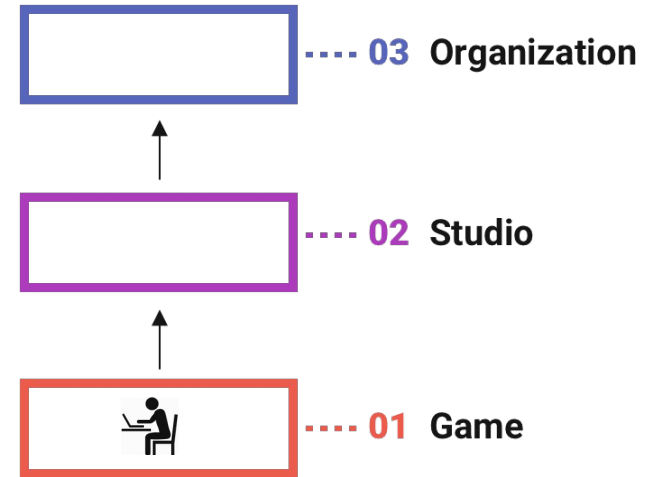
Getting buy-in when top-down fails.



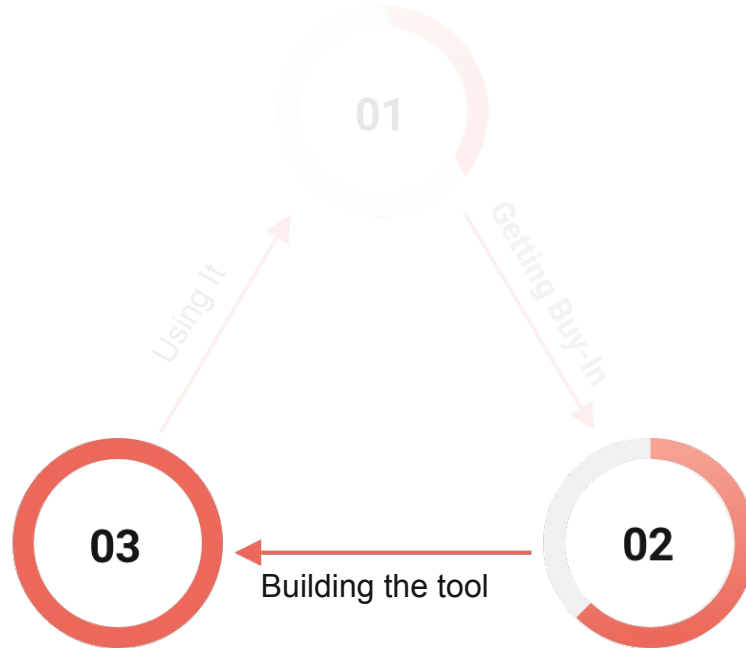
First approach



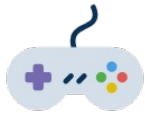
Second approach



Building the tool: game-specific



Thor Prototype Goals



Play over time

Isolate and aggregate player activity over time



Exploratory Tool

Explore data from different perspectives.




3D Tool

Move & navigate the map.
Understand data spatially.



FILTER

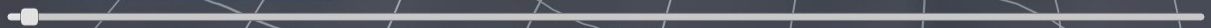
STANDARD 

☒ SHOW AIM DIRECTION

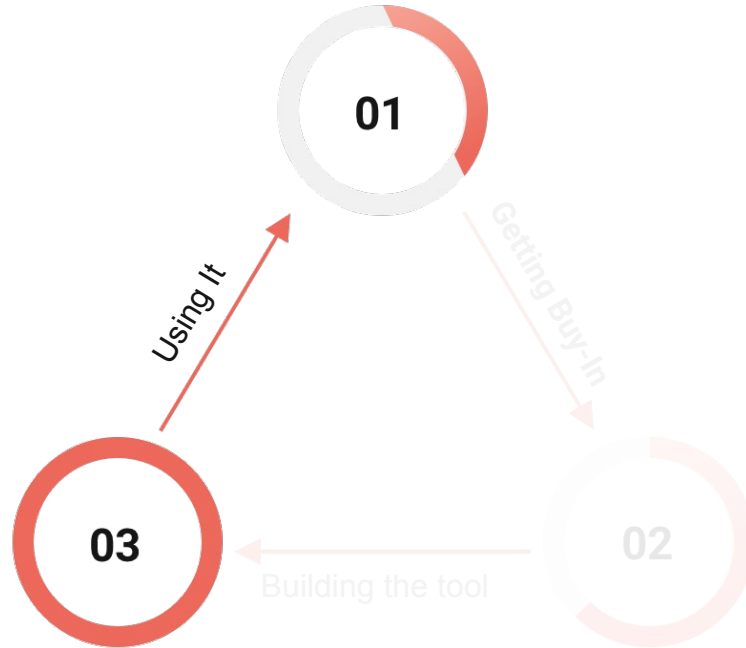


level_started 

 0:01:15



Using the tool: Battlefield 1 SP





A powerful communication tool
that **removes ambiguity.**



0:11:02

UXR 01 (PS4)



FILTER

PERMA TRAIL

- ☒ SHOW LINE
 - ☒ COLOR LINE BY PLAYER STATE
- ☐ SHOW KILLS
- ☒ SHOW DEATHS
- ☐ SHOW SPOTS
- ☐ SHOW VEHICLE HEALTH CHANGES
- ☐ SHOW OBJECTIVE UPDATES

TRAIL LENGTH



PLAYBACK SPEED



MARKERS

- ☒ Player
- ☐ AI
- ☒ Player Death

WALK LINE

- ☒ Walking
- ☒ Sprinting
- ☒ Crouching
- ☒ Prone
- ☒ In Vehicle
- ☒ In Air
- ☒ Falling
- ☒ Sliding
- ☒ Jumping
- ☒ Climbing

UXR 01 (PS4)
15322965715996359737*

ALIGN TO
START



NO ALIGN



ALIGN TO
END





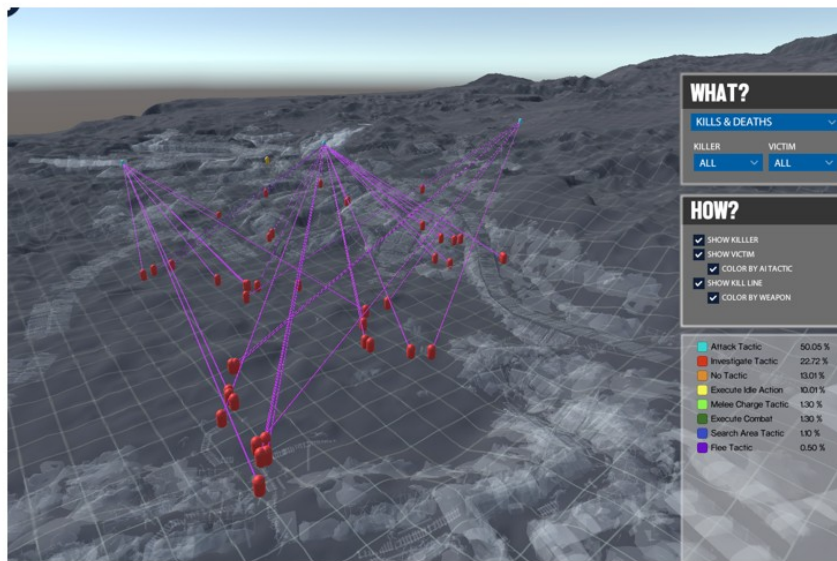
The level was frustrating in the no-mans-land section

Observation

Unclear how to progress combined with deadly machine guns caused player to be frustrated.

Cause

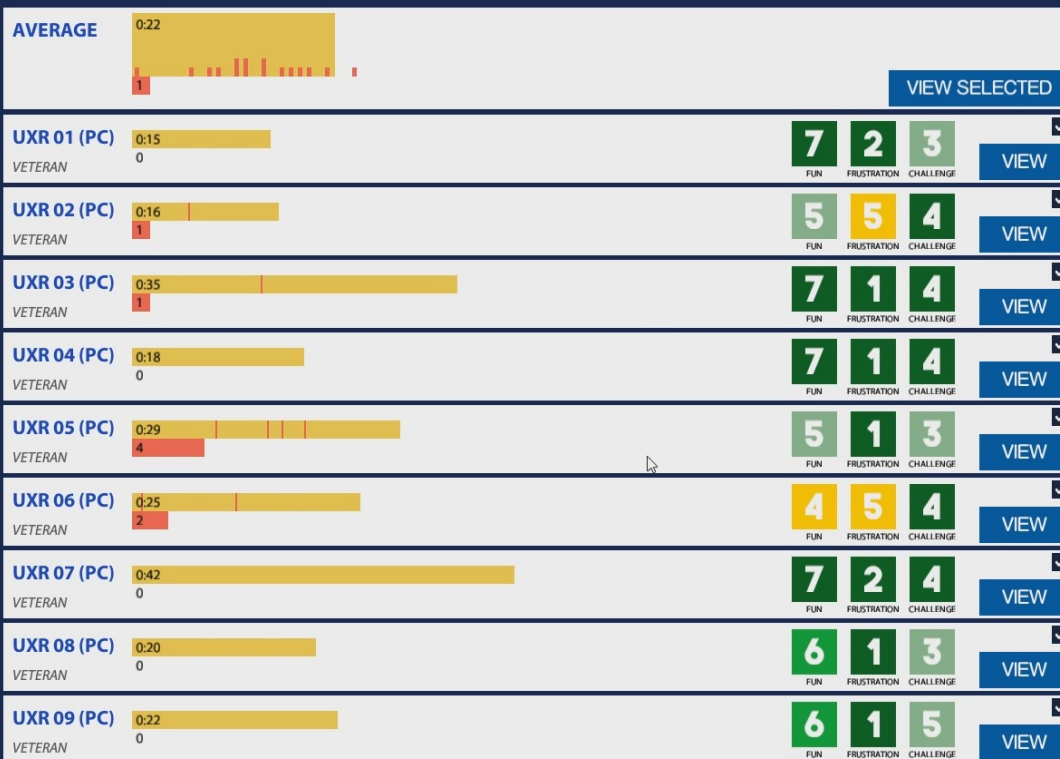
Players were unsure where they should go to avoid gunfire AND complete the mission objective.





Be aware of incorrect analysis.
Context Matters.

TELEMETRY DATA LOADED



SHOW OVERVIEW

SHOW DETAILS

SHOW GRAPH

SHOW TIME BREAKDOWN



It's not only about finding
problems. **Validation is valuable.**



SURVEY FILTER

STEALTH FUN

☒ SHOW LINE

☐ SHOW CAPSULES

☐ USE SLIDER VIEW

☒ SHOW +1/-1

How fun was it to play stealthily?

1

2

3

4

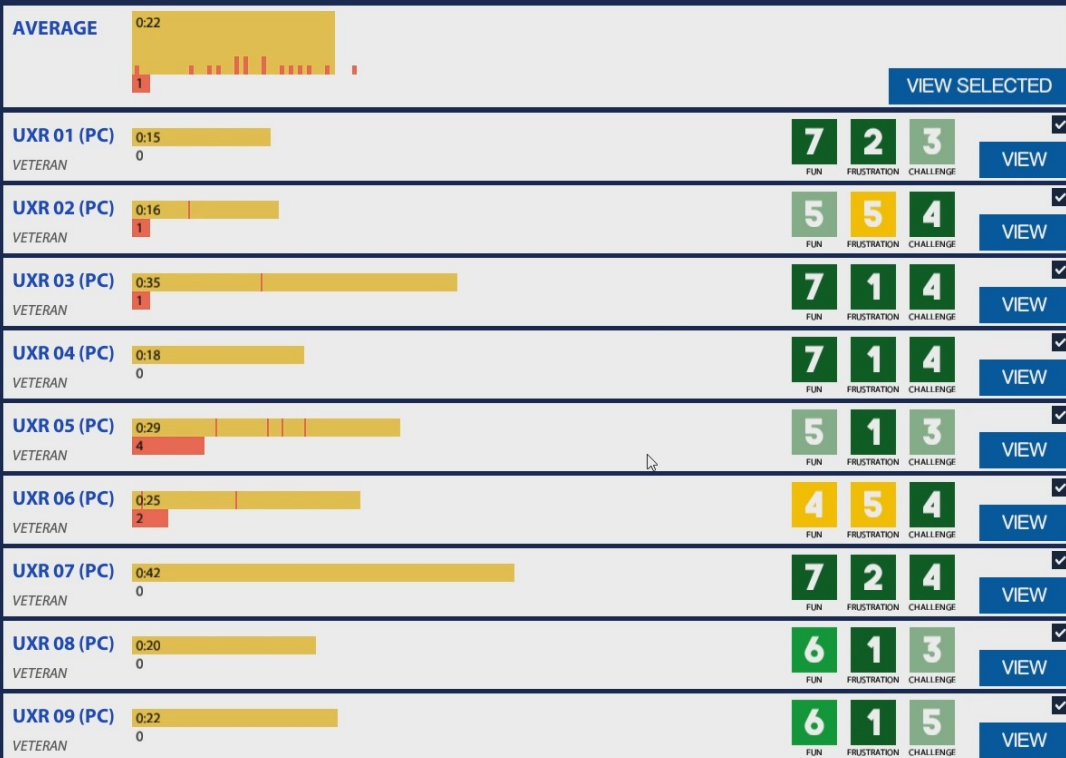
5

6

7



TELEMETRY DATA LOADED



SHOW OVERVIEW

SHOW DETAILS

SHOW GRAPH

SHOW TIME BREAKDOWN



Don't be precious. Embrace player
behavior.

Cool stuff up here

...but people loved to go into this building

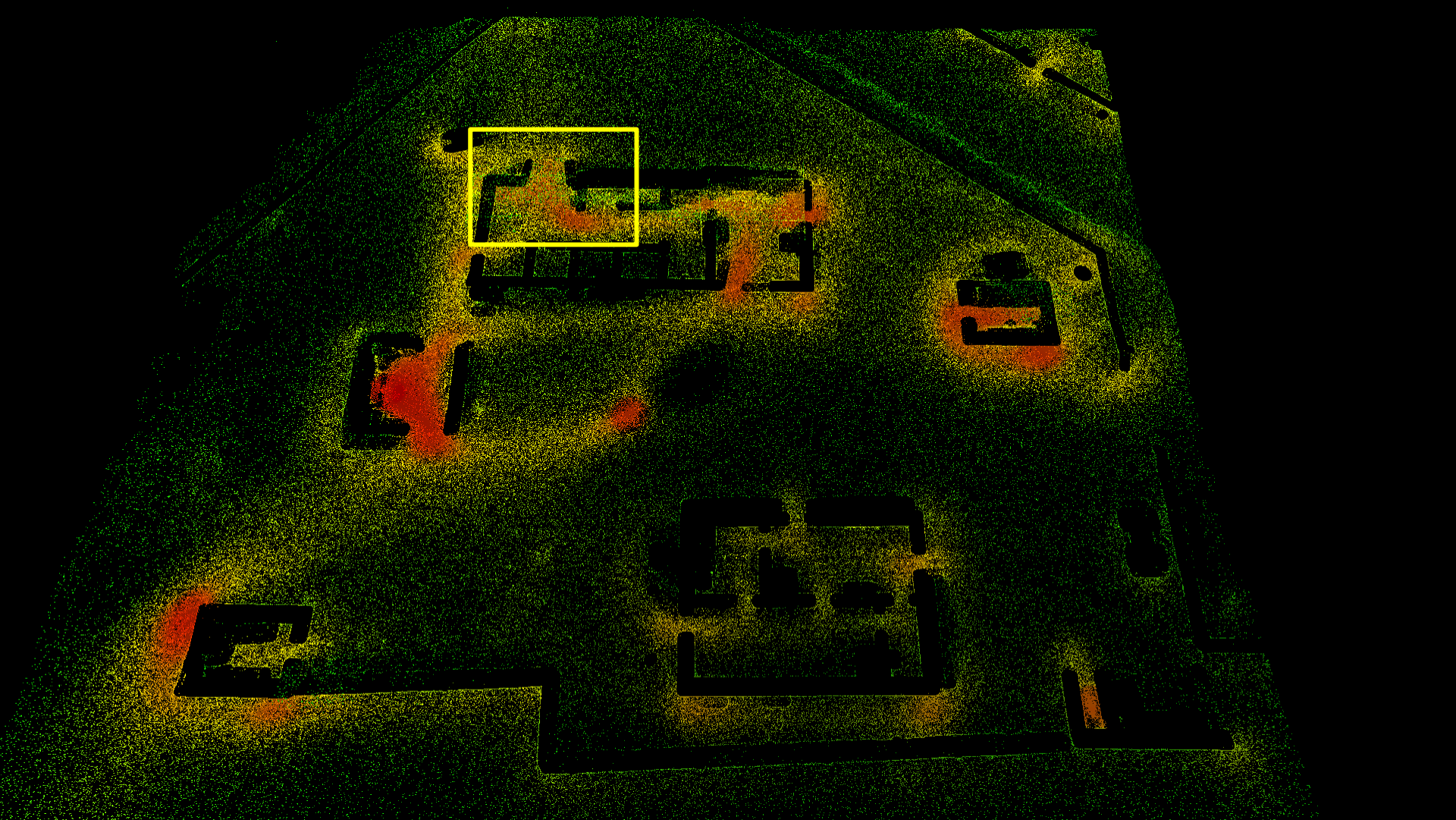
Truck



...no matter what

PLAYER COMING FROM THIS DIRECTION

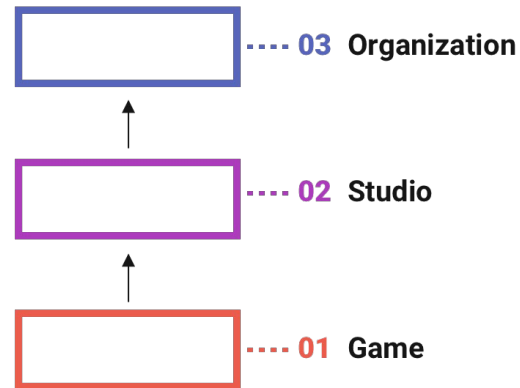




Getting Buy-in: Success of bottom-up

Interest spreads if people can see the value.

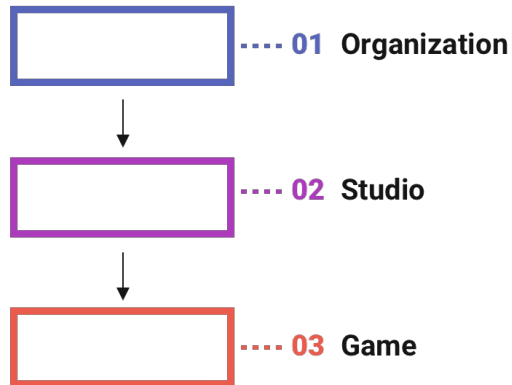
Battlefield 1 MP & Star Wars Battlefront II now also wanted 3D Telemetry.



CROSS-STUDIO COLLABORATION

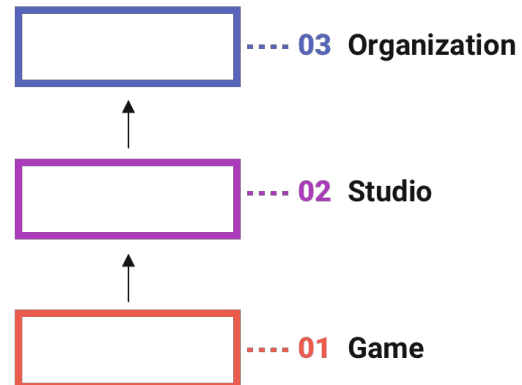
EA Vancouver

Get top-down buy-in for company wide solution.



EA DICE

Generalize viewer & get it online.
Rebrand to THOR.



Web Thor Goals



Access Anywhere

From any computer via the web.



Robust

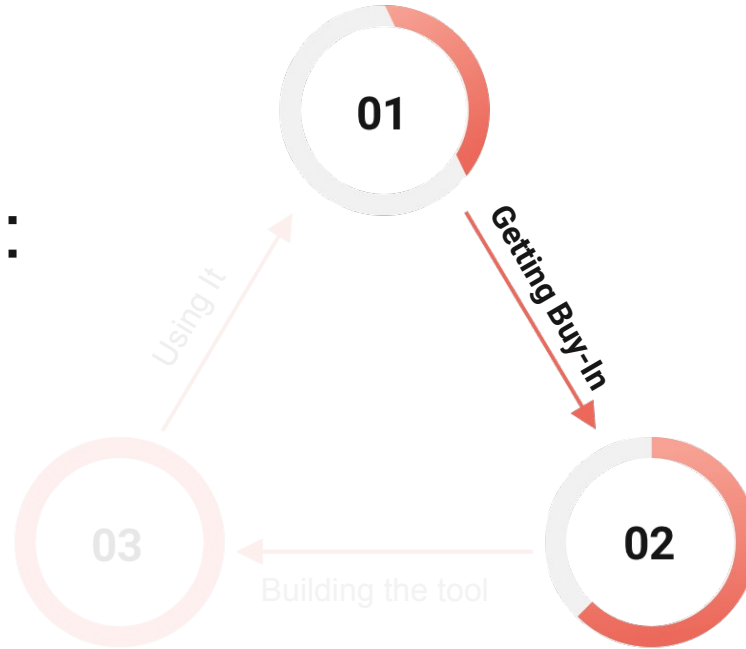
Integrate with other EA tools.



Continuous Support

From a dedicated team keeping the tool online.

Getting Buy-in Part 2: Top-down Thor



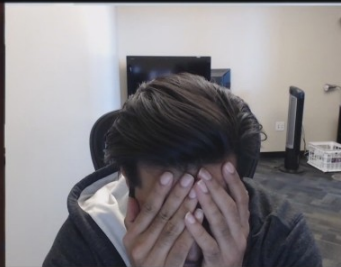
Reason for Thor 1: Make **Data** Human





Context matters. Faces mean
empathy.

Zara Ghufraan
1 8 8 2 - 1 9 1 8



PARTICIPANT 718

13:59:23



Reason for Thor 2: Get Data In Early

Incentivises telemetry implementation

Align product goals with business goals

Main Concern: But who would use it?

A: Peter

Main Concern: But who would use it?

A: Specific use cases - no hypotheticals

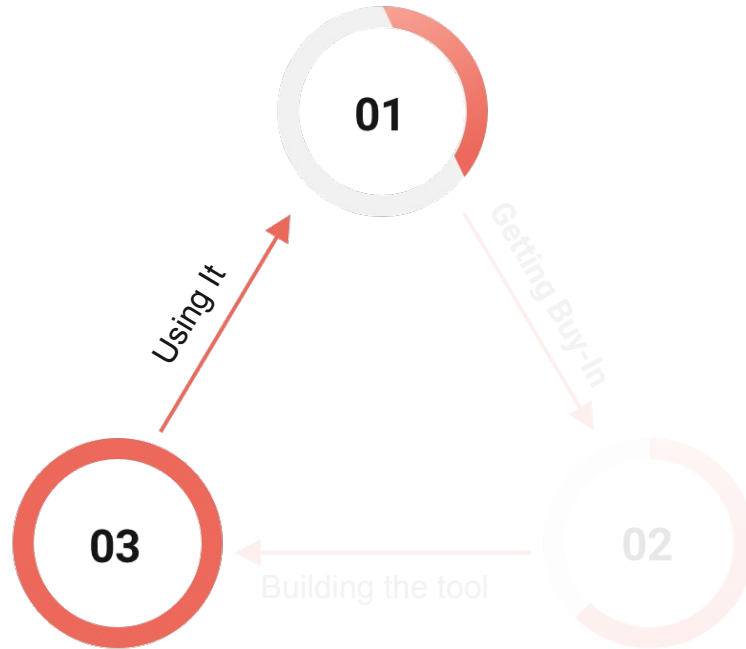
Telling a clear, actionable story using the tool.



Tools touch more teams than
planned. **Buy-in is continuous.**

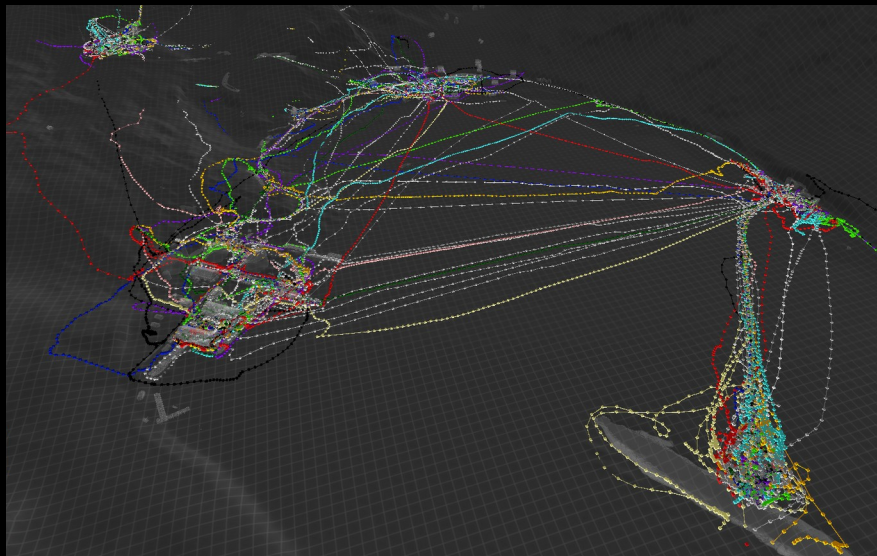
MEANWHILE, IN SWEDEN

Using the tool: Multiplayer versus Single Player



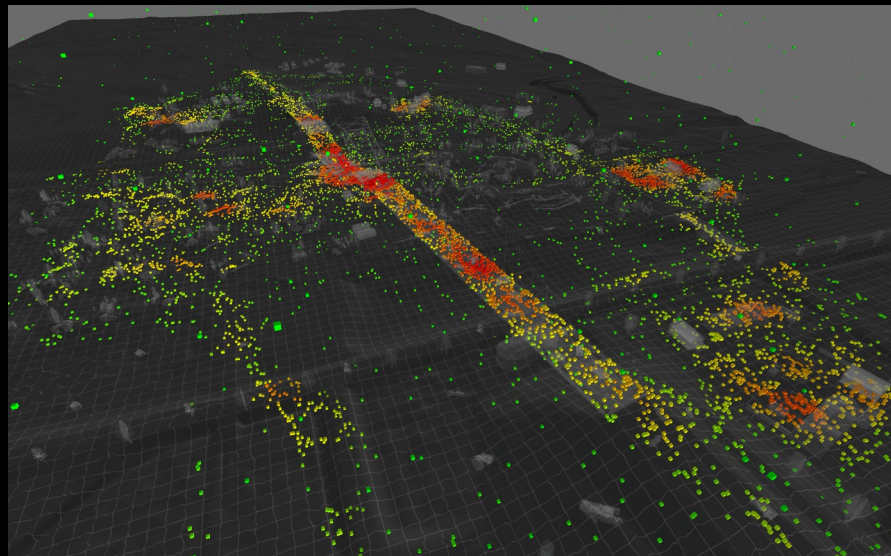


Different lenses for different
modes. **One size does not fit all.**



Single Player

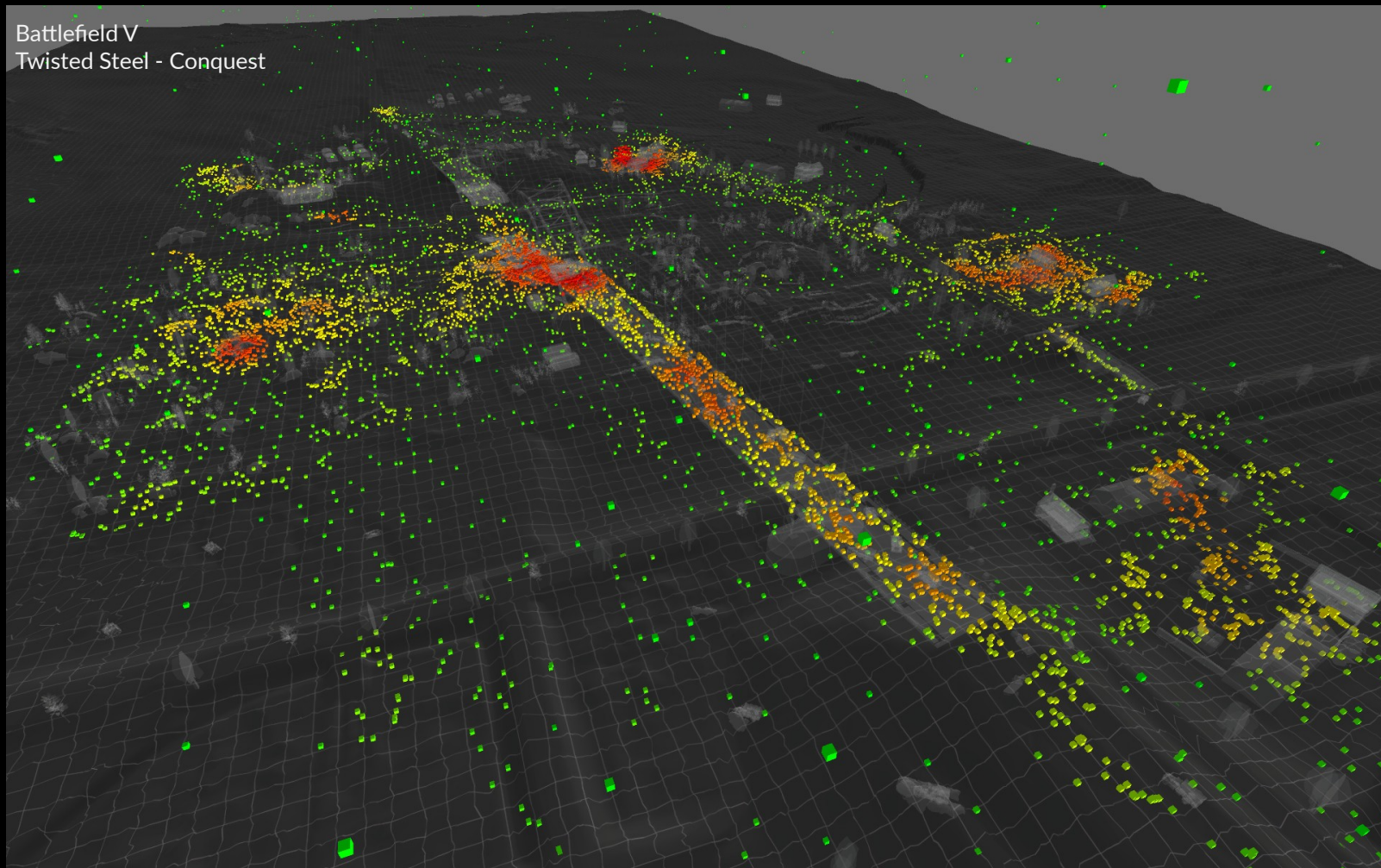
Individual player paths shown at the same time.



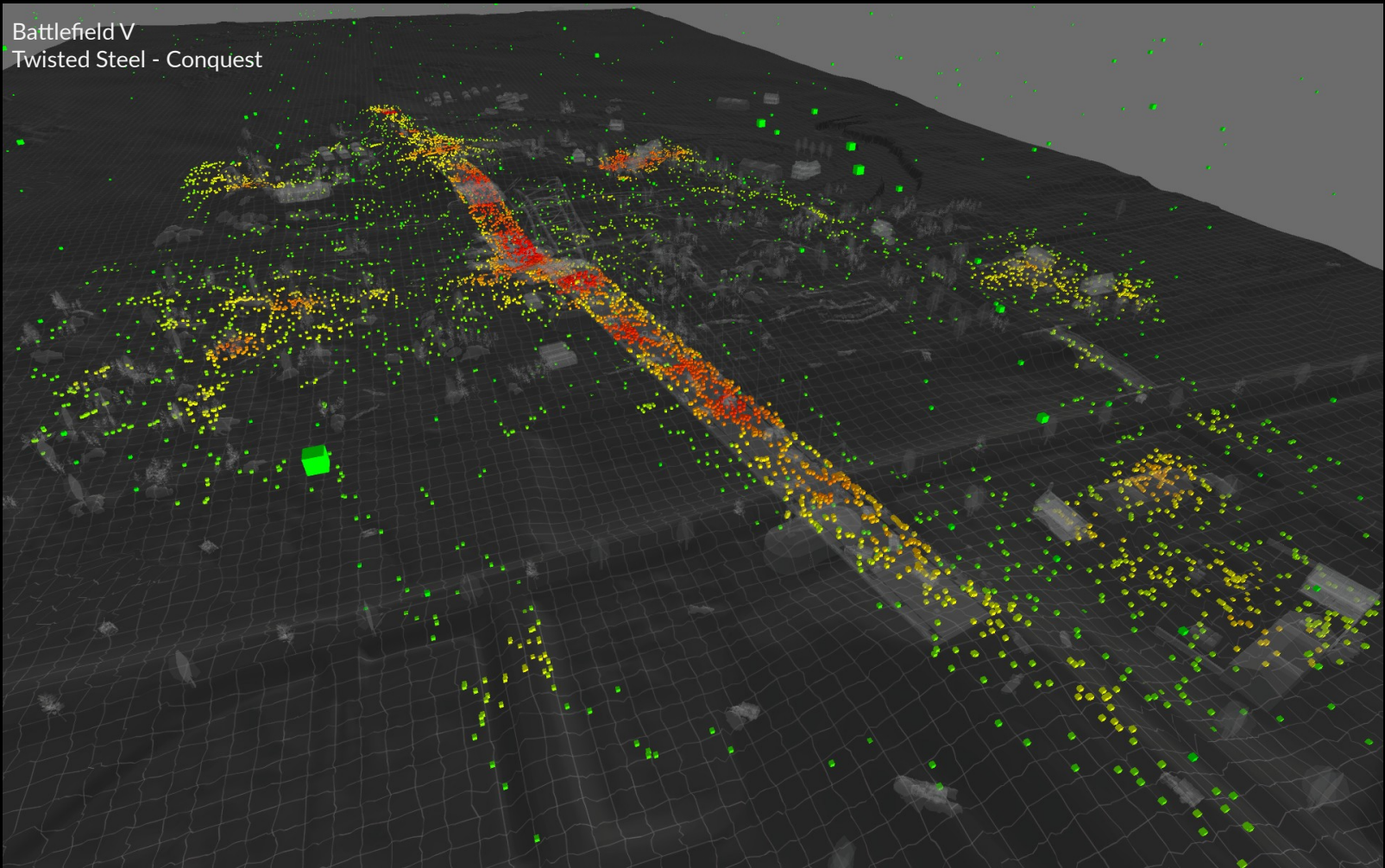
Multiplayer

Individual matches (player positions colored by heat)

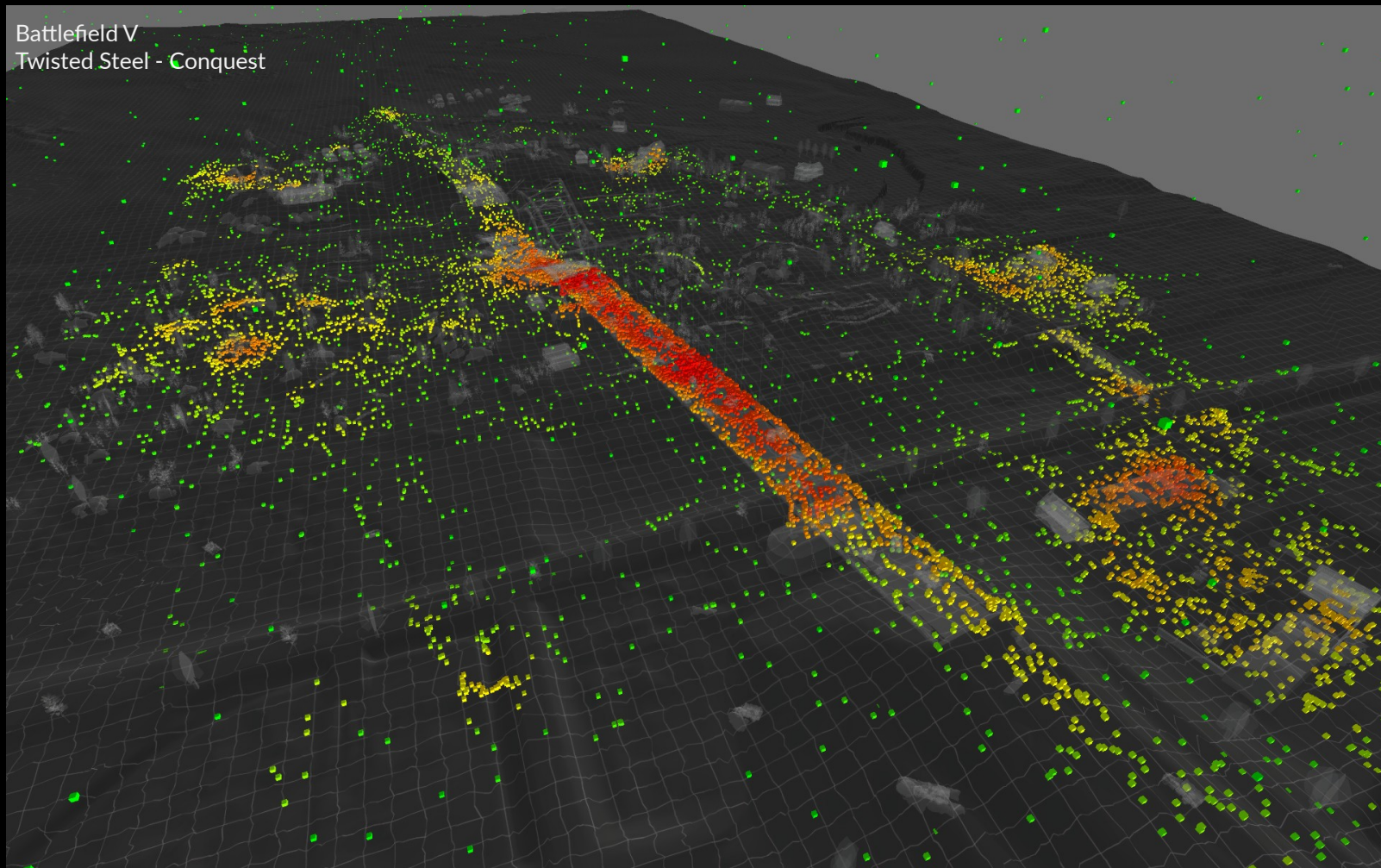
Battlefield V
Twisted Steel - Conquest



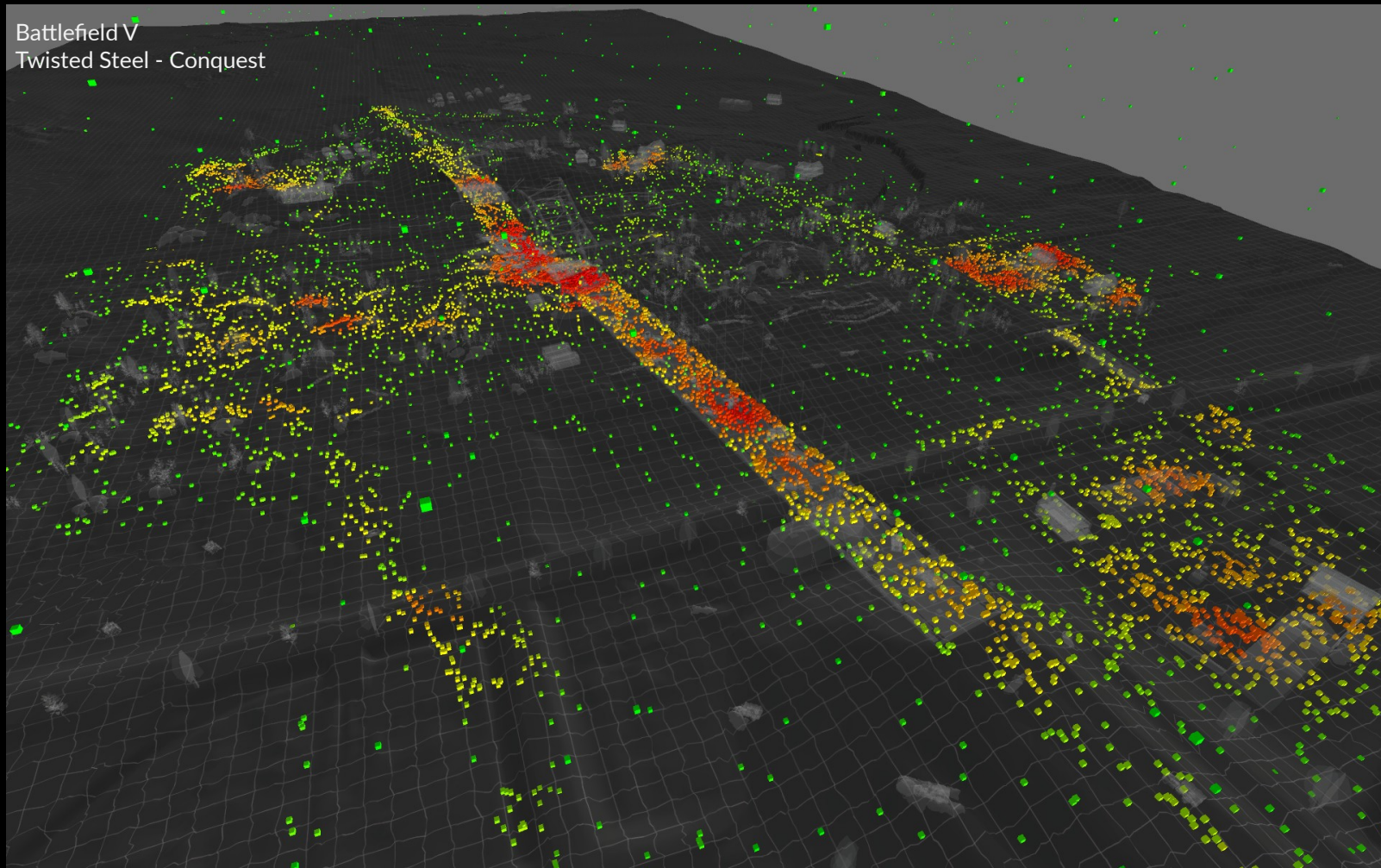
Battlefield V
Twisted Steel - Conquest



Battlefield V
Twisted Steel - Conquest

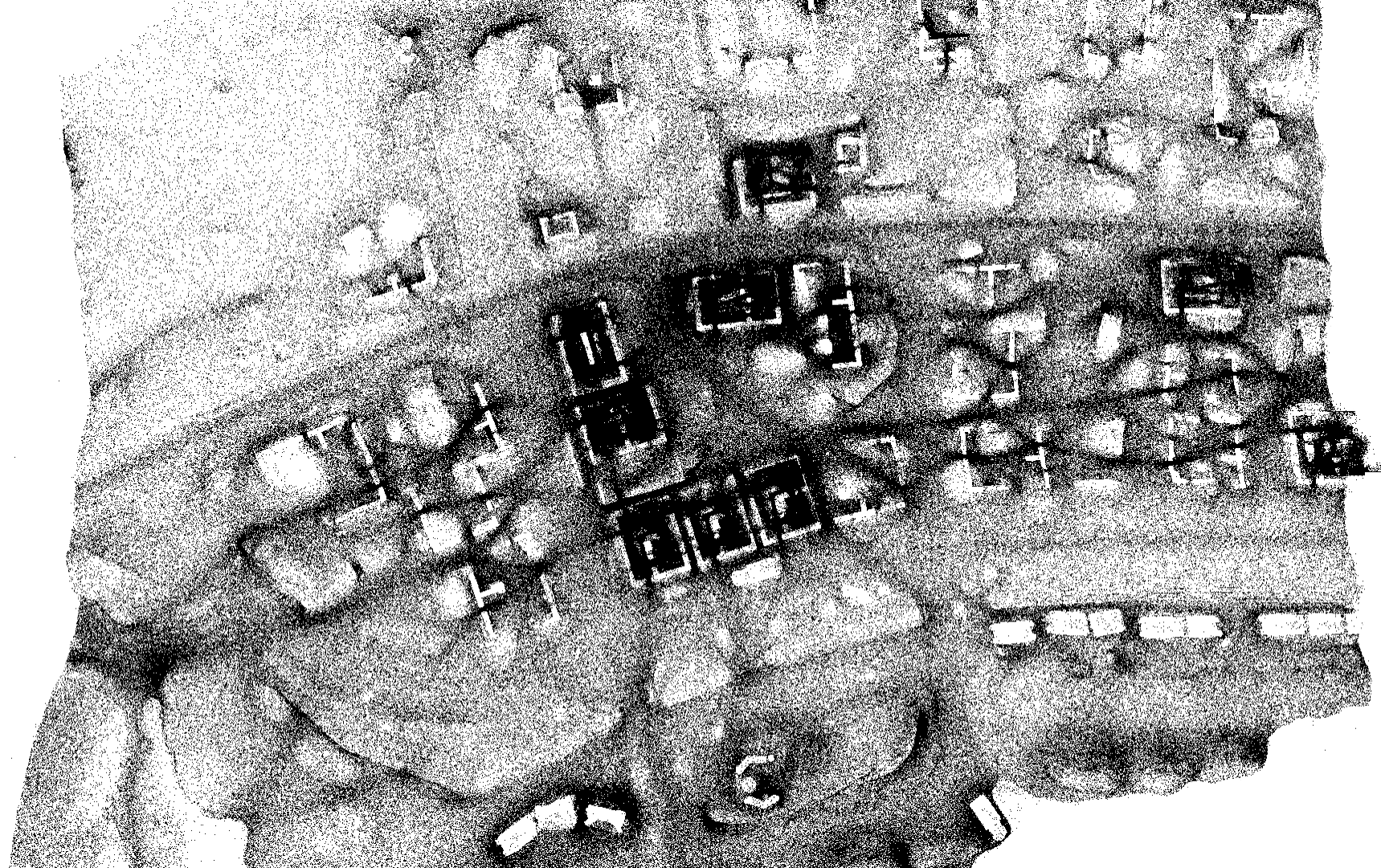


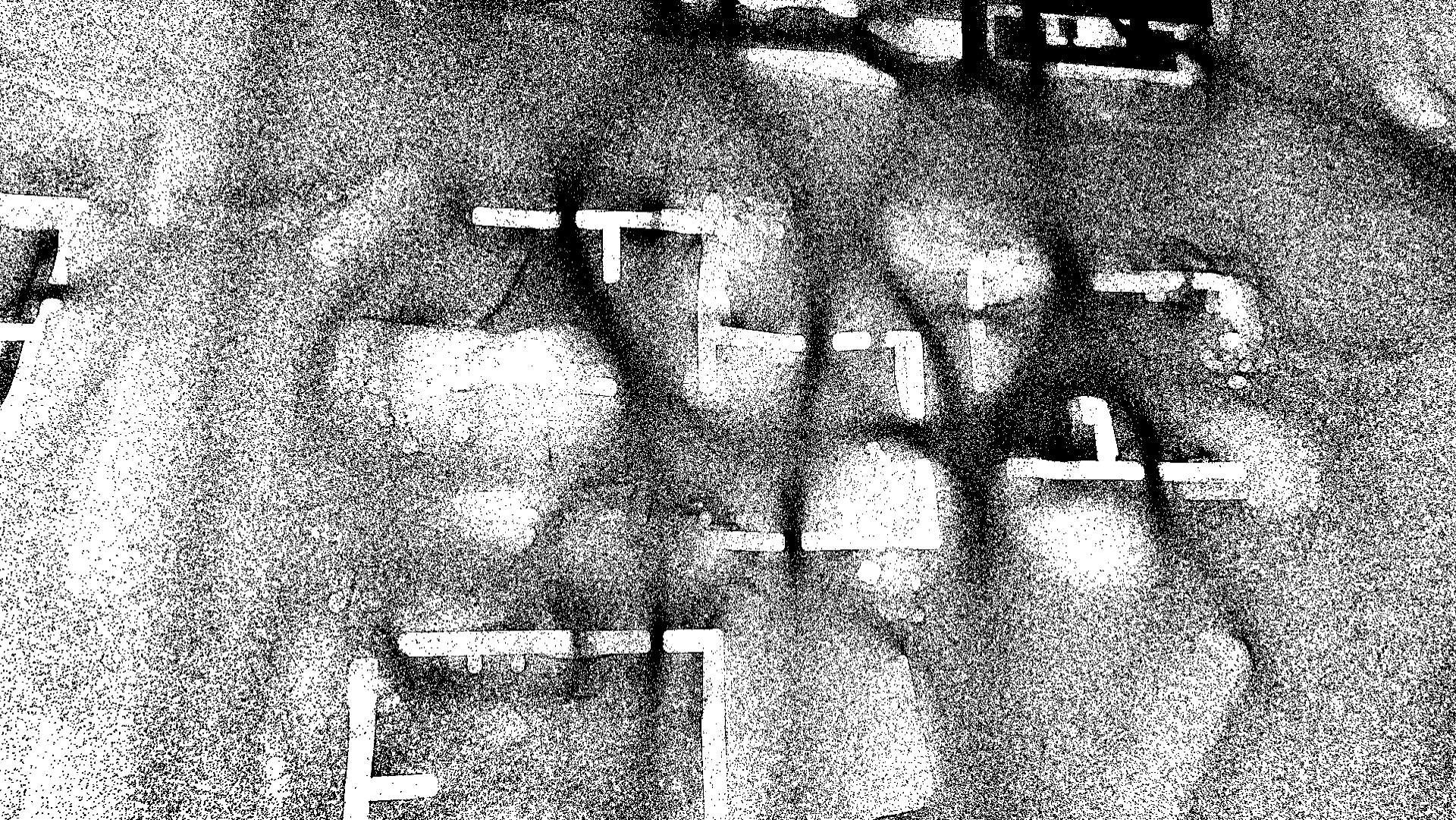
Battlefield V
Twisted Steel - Conquest

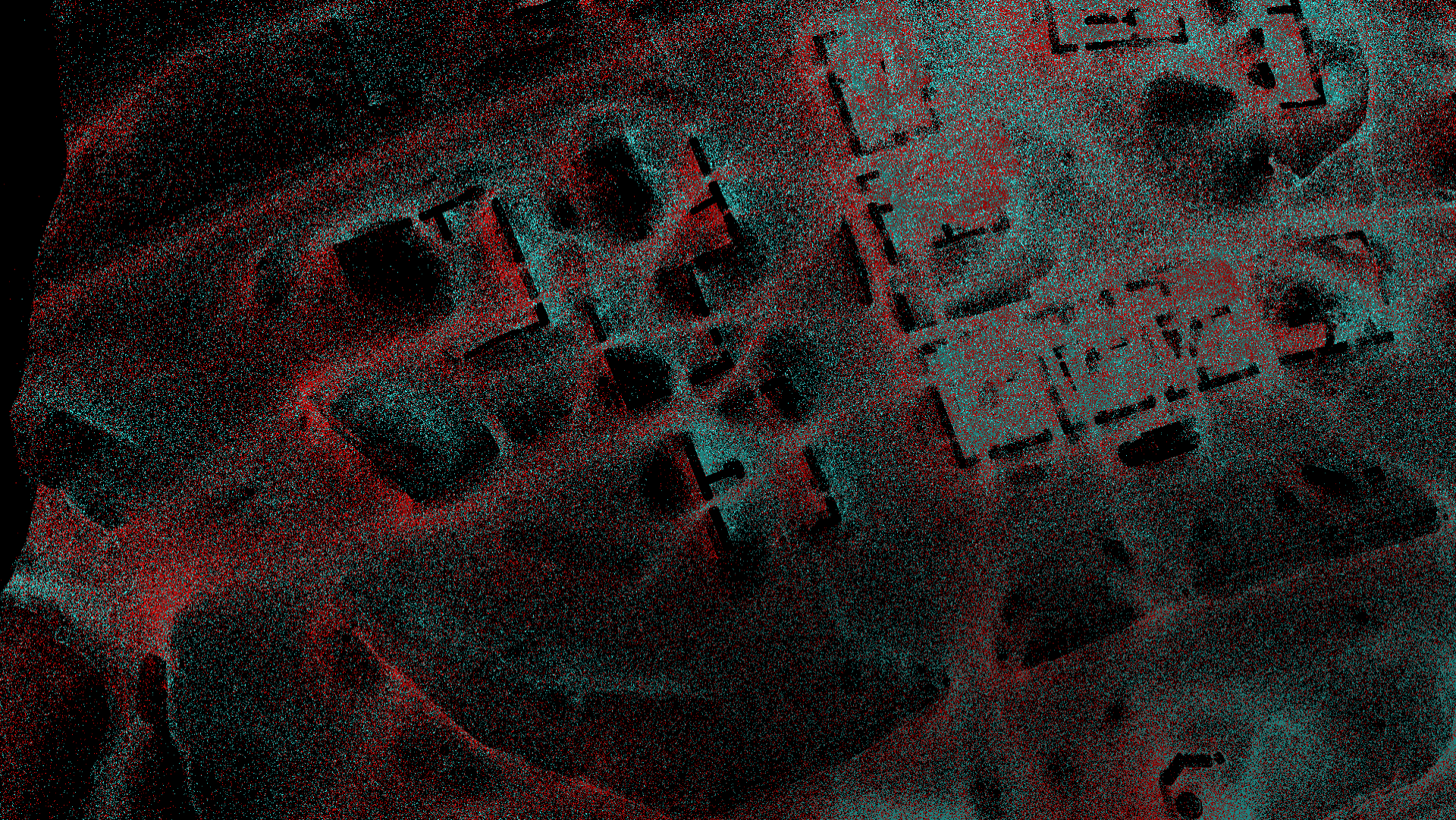




Explore new visualizations. Player
Paths by **Quantity**.

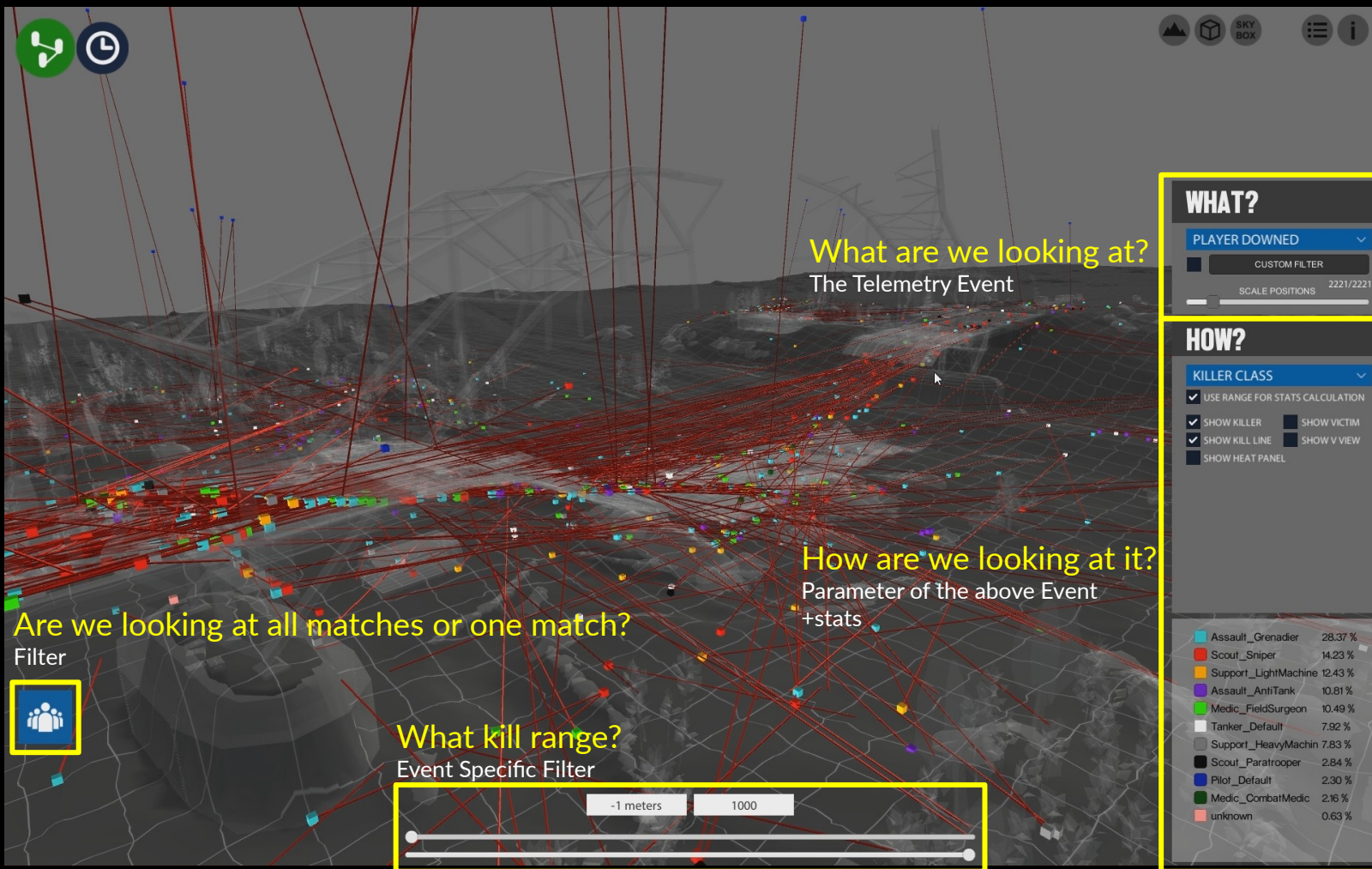


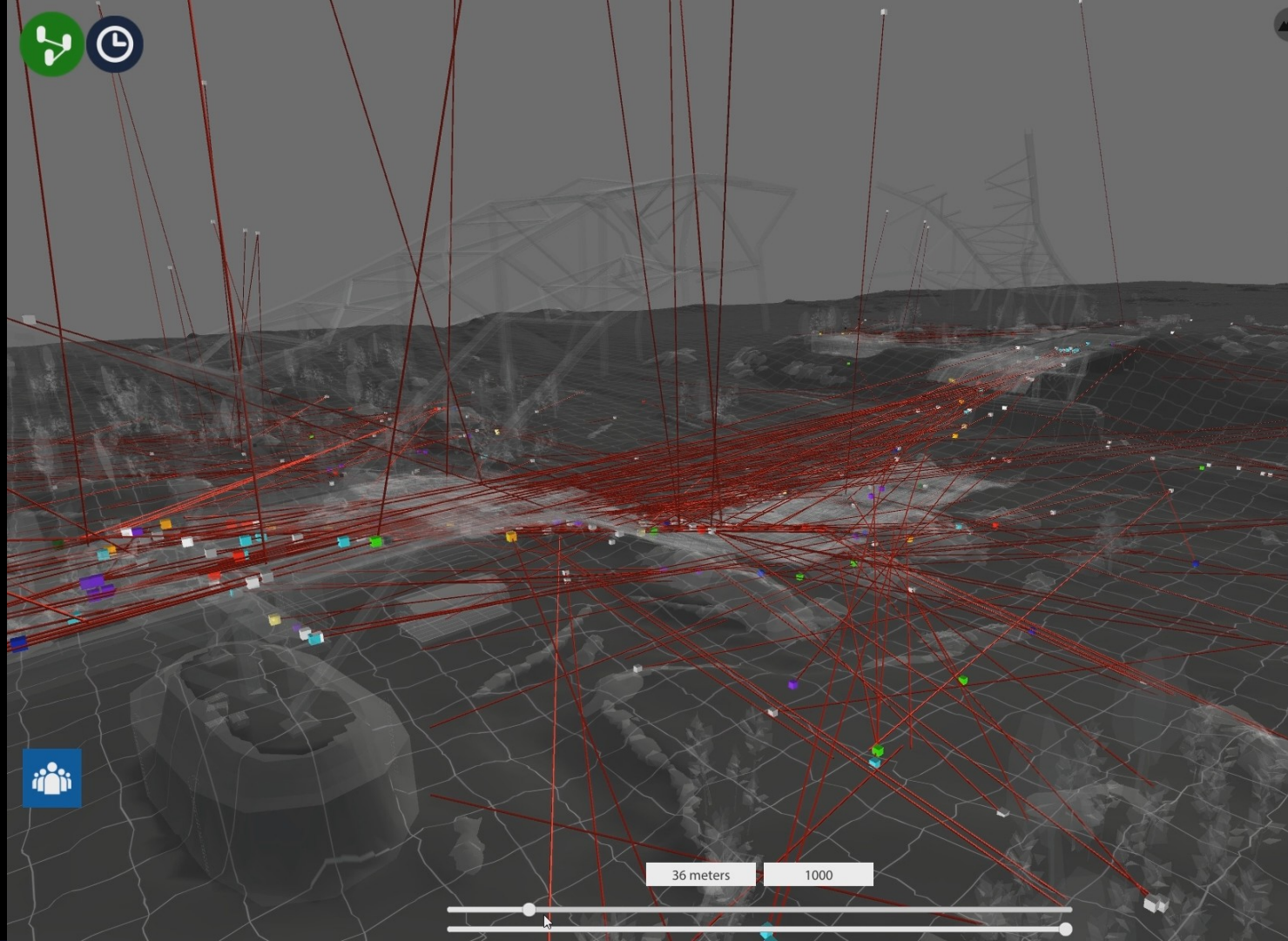






Provide options. Facilitate
Data Exploration.





WHAT?

PLAYER DOWNED

CUSTOM FILTER

SCALE POSITIONS 2221/2221

HOW?

KILLER WEAPON

- ☒ USE RANGE FOR STATS CALCULATION
- ☒ SHOW KILLER SHOW VICTIM
- ☒ SHOW KILL LINE SHOW V VIEW
- SHOW HEAT PANEL

	U_Ross	7.36 %
	U_MAS44	6.73 %
	U_Gewehr9530	5.79 %
	U_LeeEnfieldNo4	5.48 %
	U_Gustloff	5.32 %
	U_KragJorgensen	4.85 %
	U_ZH29	4.69 %
	U_Ribeyrolles	3.13 %
	U_STG44	2.82 %
	U_MausersL916	2.82 %
	U_LewisMG	2.50 %
	U_BREN	2.50 %
[74 Additional]		46.01 %

36 meters 1000



Designing Thor: Like designing an emergent game

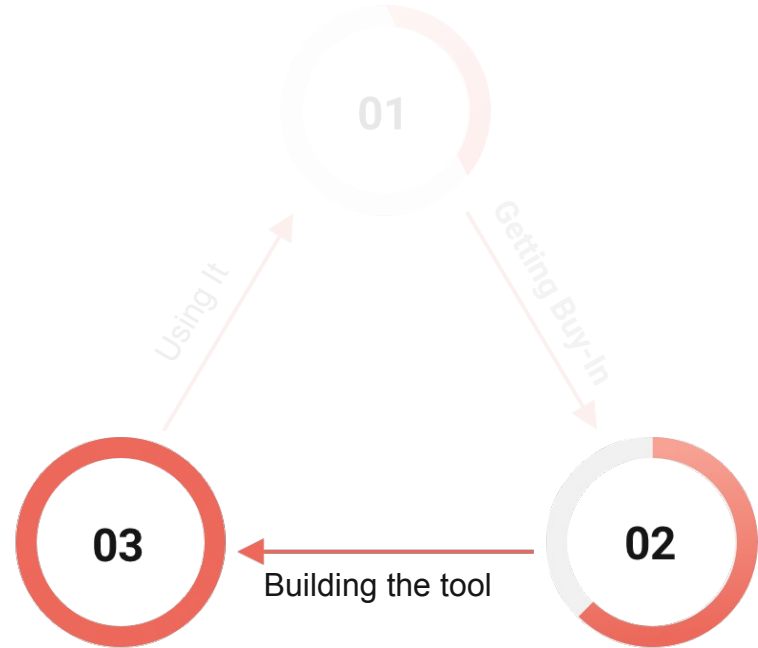
It's all about exploration

Do not assume that you (tool dev) know all specific use cases

Facilitate, don't dictate

| You succeeded when your tool is being used in ways you didn't imagine

Creating the tool: Designing for general use



The Dream meets Reality.



Technical Requirements

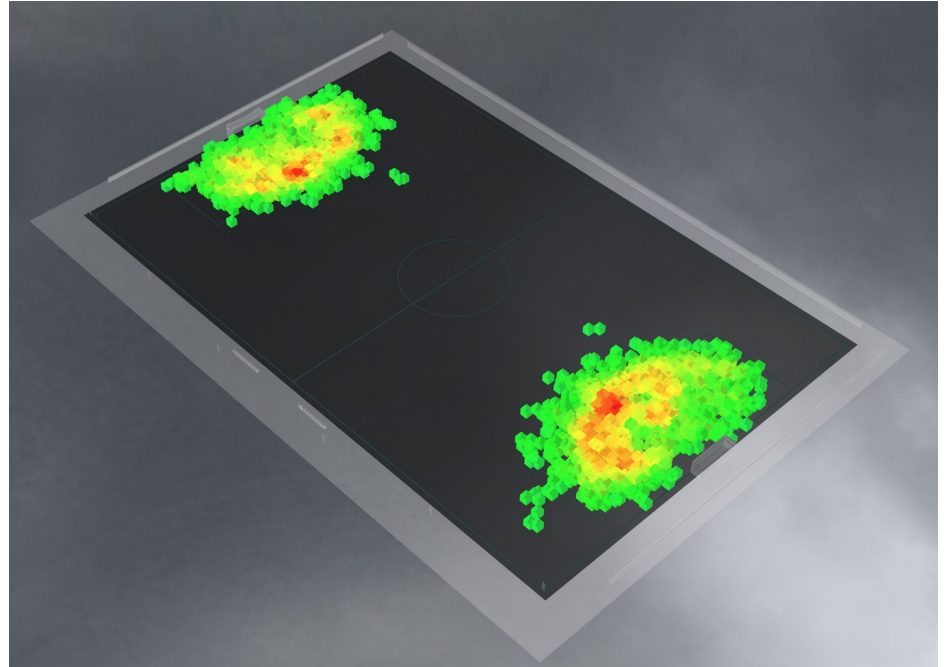
Data Agnostic
Plug and Play
New Tech Stack

=

Need to start fresh

Data Agnostic

Putting dots on a map independent
of what the dots mean





Tech framework **determines**
function.

 NFS PAYBACK
(04-02-2018)
fortune_valley / mission

▼ Quick Filters

Advanced 

▼ Core Filter

Events 

All Events 

☒ Point ☐ Heat 

 Multiple 

☒ 14743 points 

☒ player_tick 14560 

☒ veh_destruction 183 

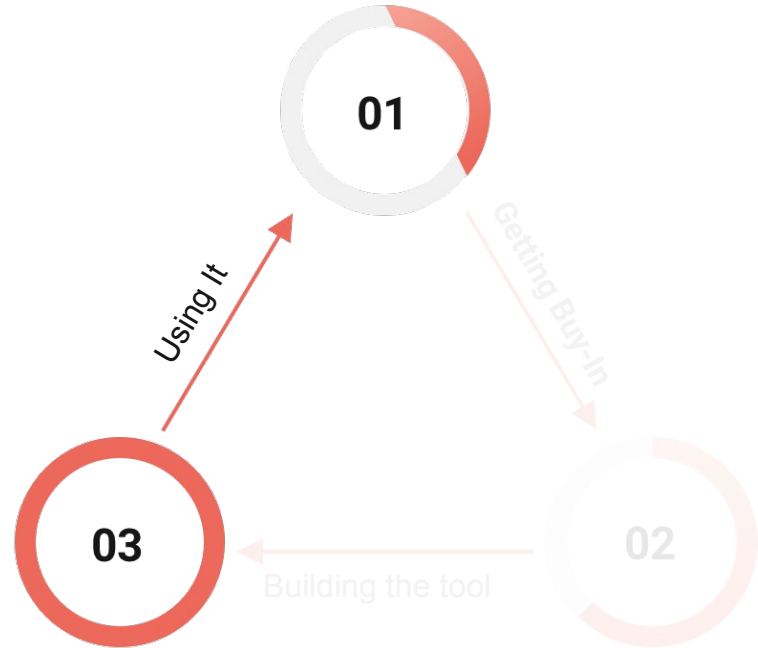


The main view is an aerial map of a city, likely San Francisco, with a dense network of red points and lines representing event data. The points are concentrated along major roads and in urban areas. The lines are red and follow the paths of the points, indicating movement or sequences of events. The map is rendered in a dark, stylized manner with grey buildings and roads.

Timeframe ▼ 00:00:00 

 06:01:52:50

Using it company-wide: Roll it out with game teams



Introducing Thor: The easy part

Relating the tool to their game

Developer Question: What do I have to do?

Planning for end-to-end service

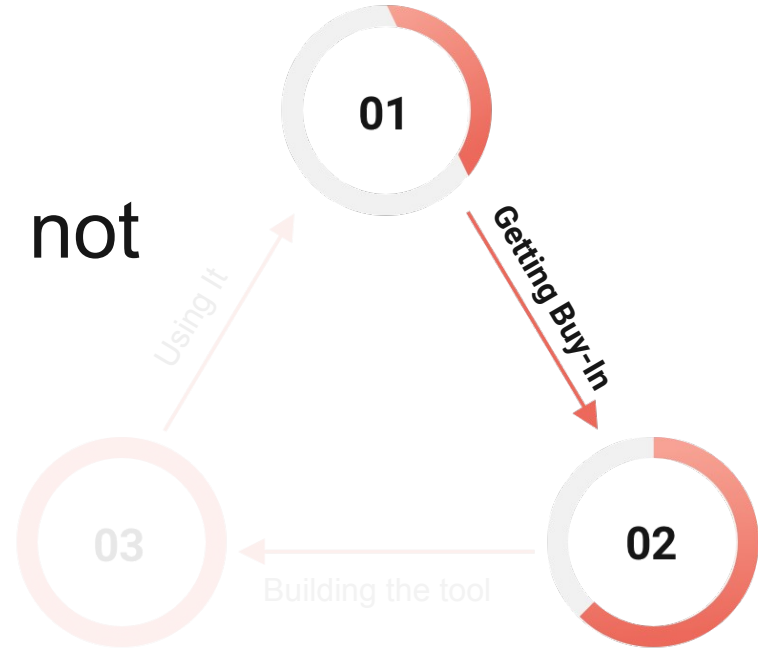
Empowering users to help themselves

Data variability more widespread than expected

No one had implemented telemetry with a viewer in mind - until now



Getting Buy-in: Ongoing, not binary process

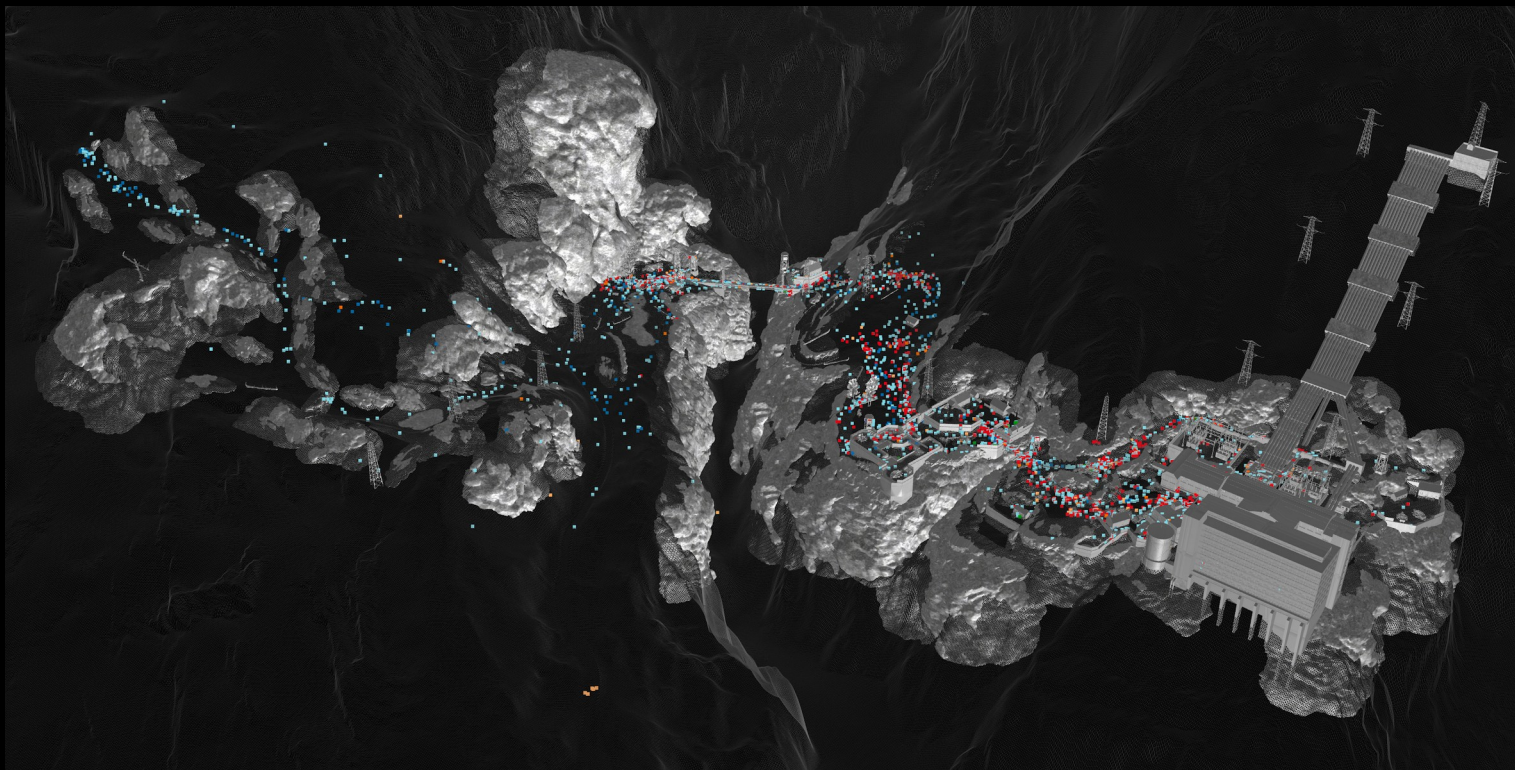


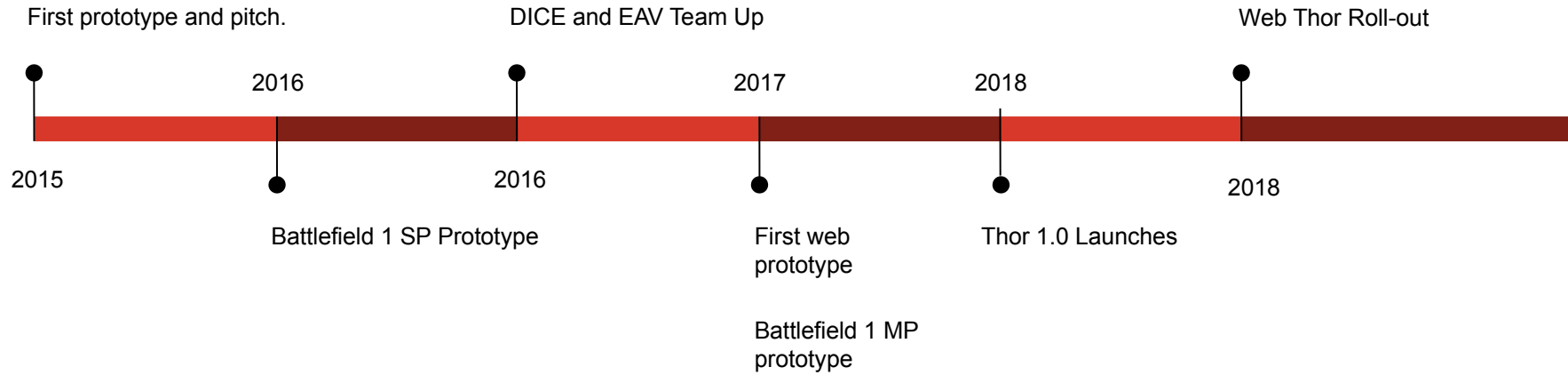


Tools **shape** processes.

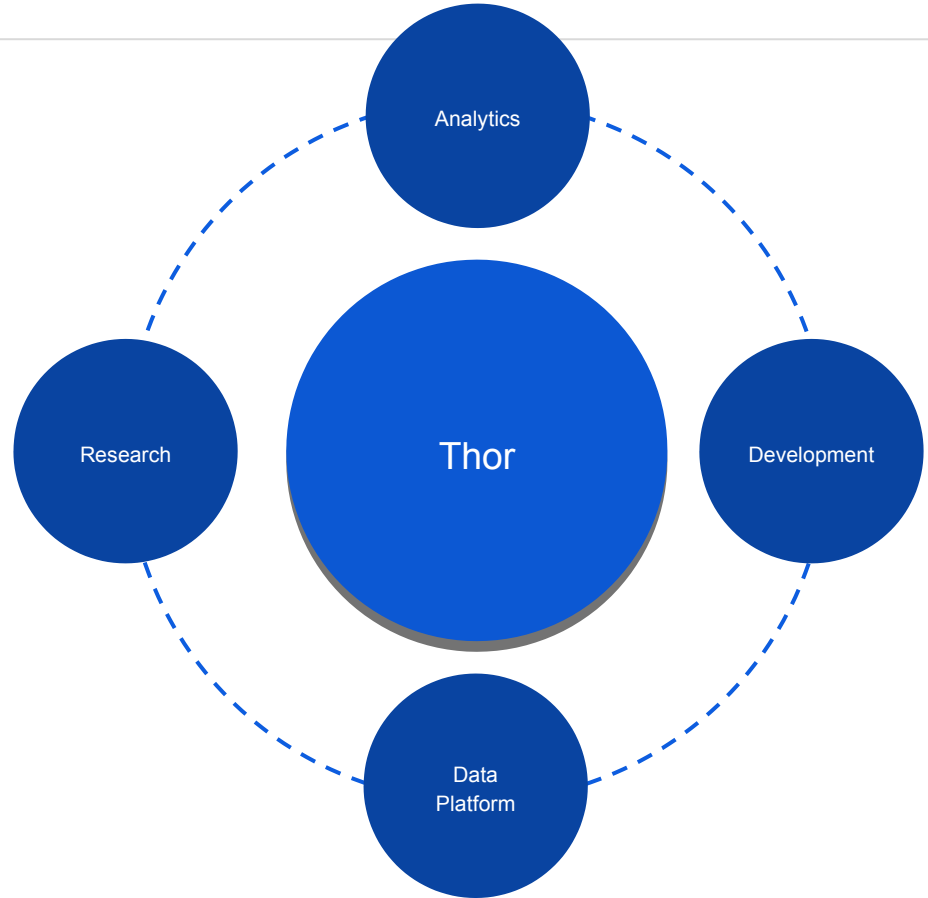
And here we are





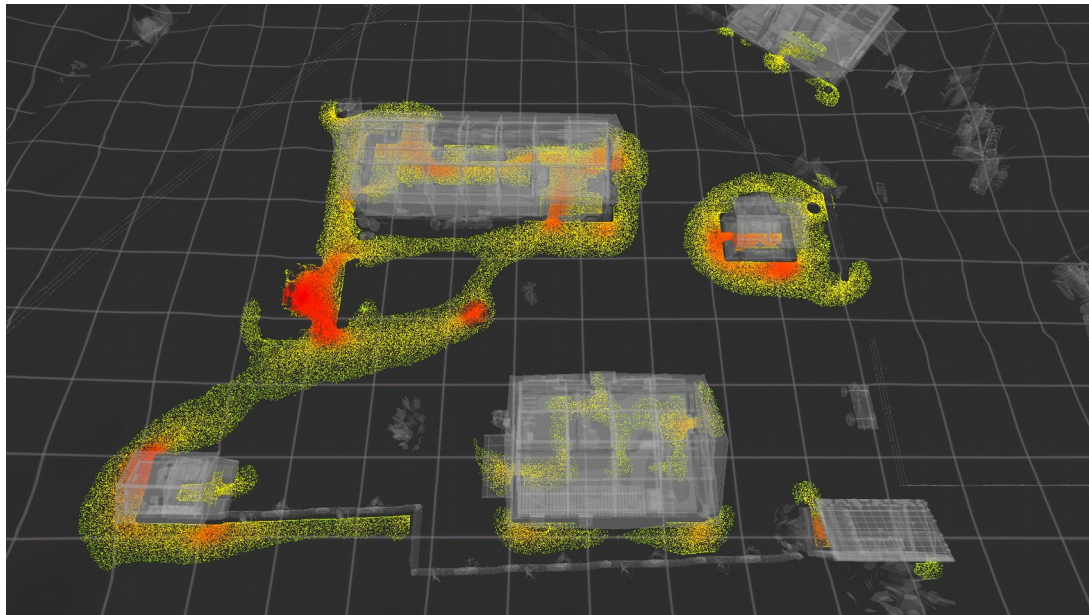


Tools bring teams together



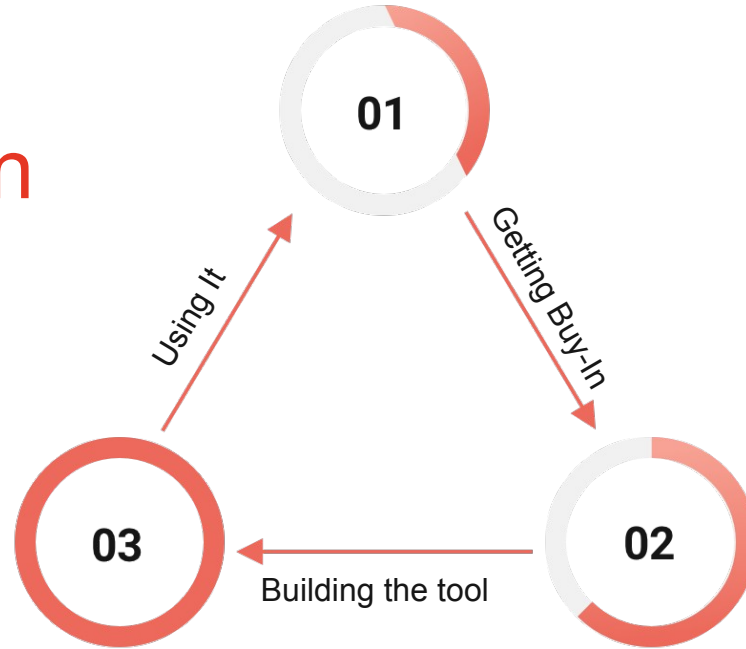
There is value in seeing **how** players play

Data in development lets
us improve gameplay a
little bit at a time



Building and Buy-in go together

Repeat the process to keep growing



Getting Buy-in

Know your use case - and prove it

Put everyone on the same team

Buy-in is cyclical

Special Thanks

Ian Livingston, Anthony Charles, Pratham Parikh, Namra Tayyab, Tahrima Tasmin, Ishneet Kaur, Farah Ali, Johan Dorell, Cameron Westlake, Rikard Nyquist, Reinhold Radick

Peter Vesti Frendrup
@petervesti

Krista Parham
@kpearham