

Teralytics Studio

Introduction and New Features

Prepared for the TPB Travel Forecasting Subcommittee

Friday, March 22, 2024

Global Leader in Transportation Analytics

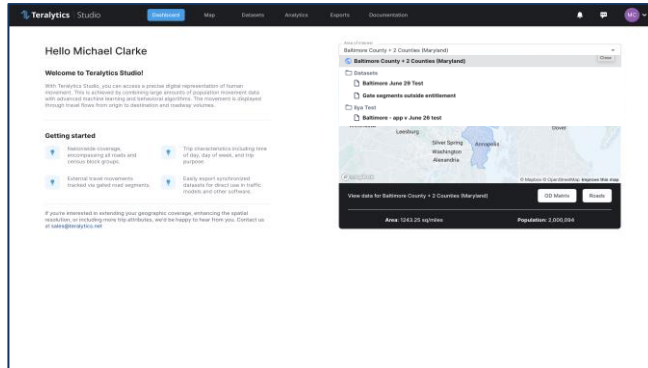
Multi-Modal Transportation Analytics Company Started in 2014

- Headquartered in Sacramento and Zurich
- Transportation data science experts

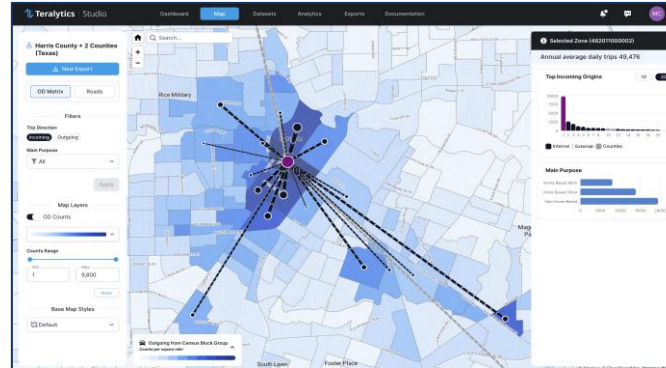
Studio Platform released in June 2023



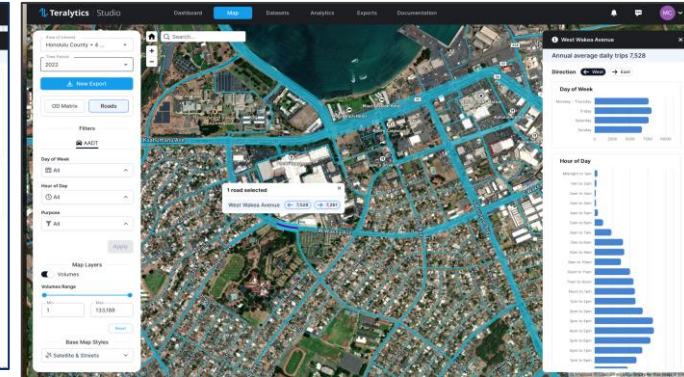
Our mission - A complete, out-of-the box twin of human movement



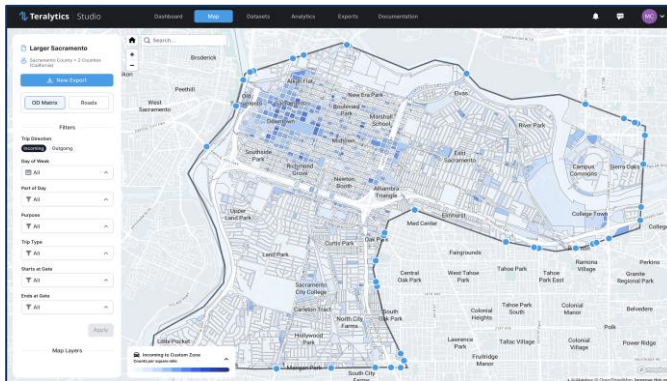
The Studio Dashboard: Access and share coverages and attributes.



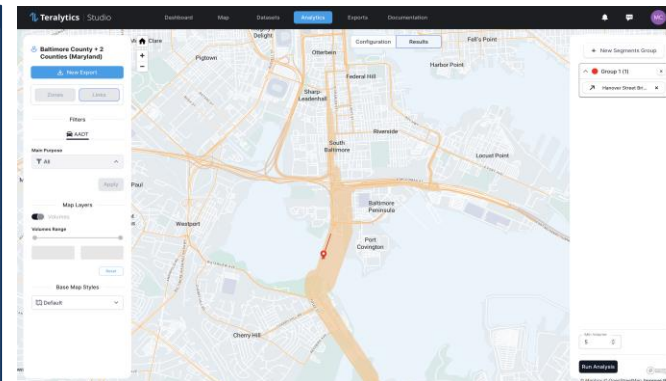
Origin-Destination View: Create custom views of travel flows by geographic area, time, purpose, and mode.



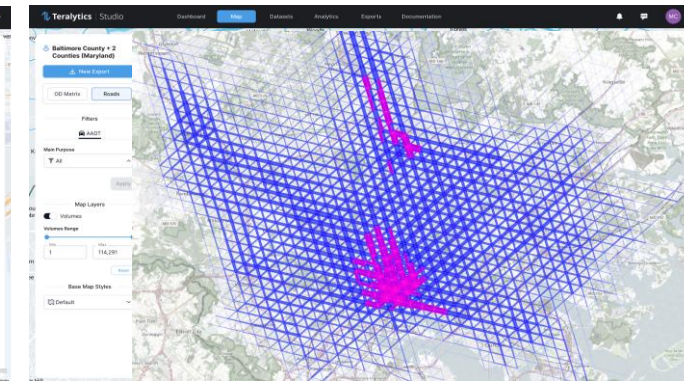
Volume View: View travel on the transportation network by geographic area, time, purpose and mode.



Customs Zones and Export: Create custom views of origin-destination flows by uploading custom zone layers. Trips are reallocated based on latitude and longitude, and external travel is automatically allocated to external gateways. Export an integrated, fully routable transportation network and OD matrix.



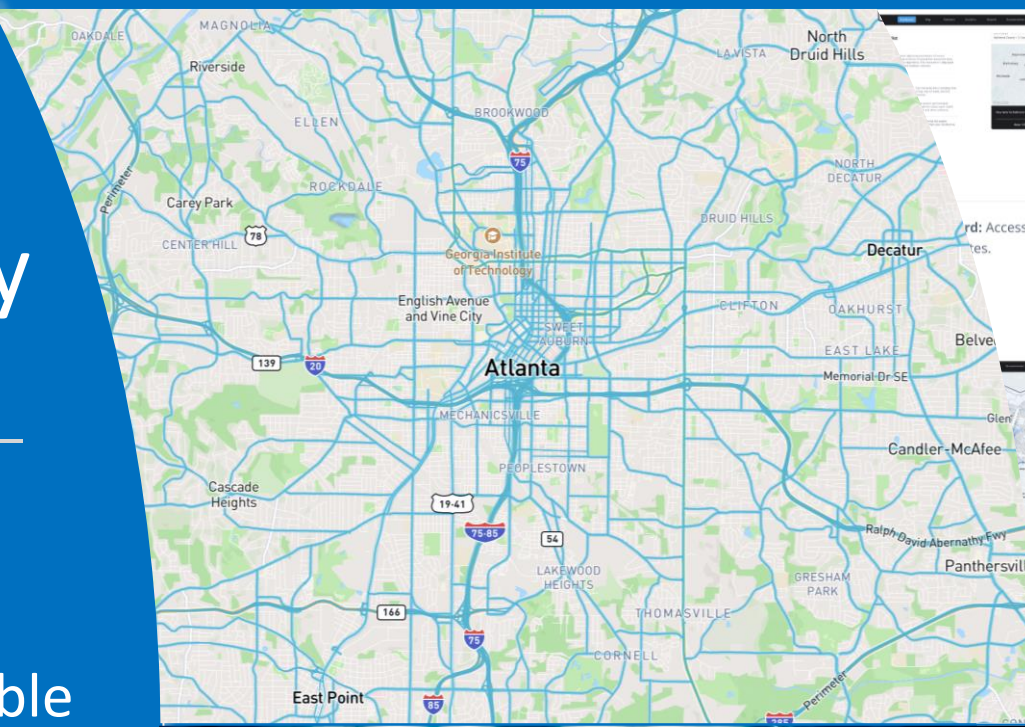
Select Link: Select links and zones using powerful AND and OR functions to isolate travel along selected infrastructure and to and from selected locations.



Corridor Discovery: Aggregate selected origin-destination flows across direct connection networks and network meshes to focus travel demand in useful ways for the planning of public transport operations, cycle lanes, and roadways.

Teralytics Way

- Purpose Built
- Collaborative Scalable
- User driven



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Volume View: View travel on the transportation network by geographic area, time, purpose and mode.

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Selected Zone (380610)

Annual average daily traffic

Top Incoming Origins

Origin	Internal	External
1	~4500	~1000
2	~1500	~500
3	~1000	~500
4	~800	~400
5	~600	~300
6	~400	~200
7	~300	~150
8	~200	~100

Day of Week

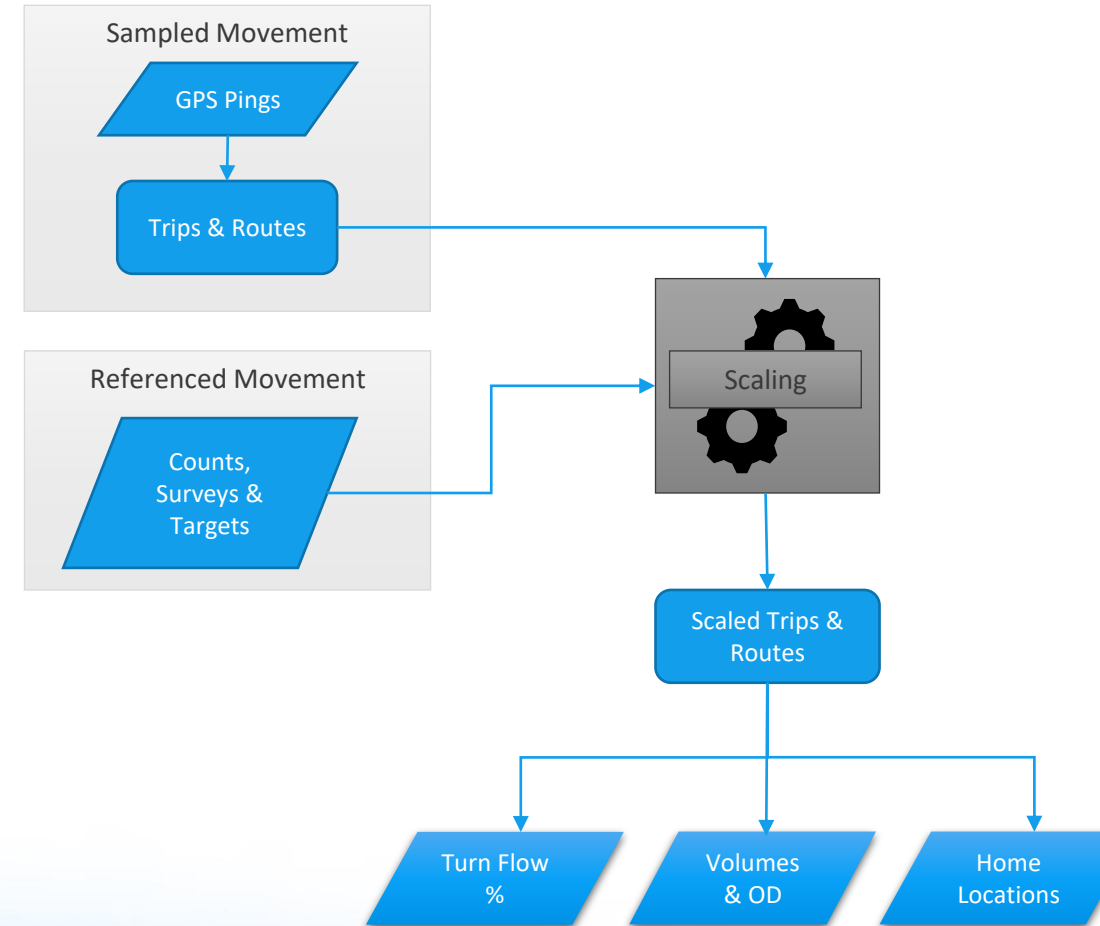
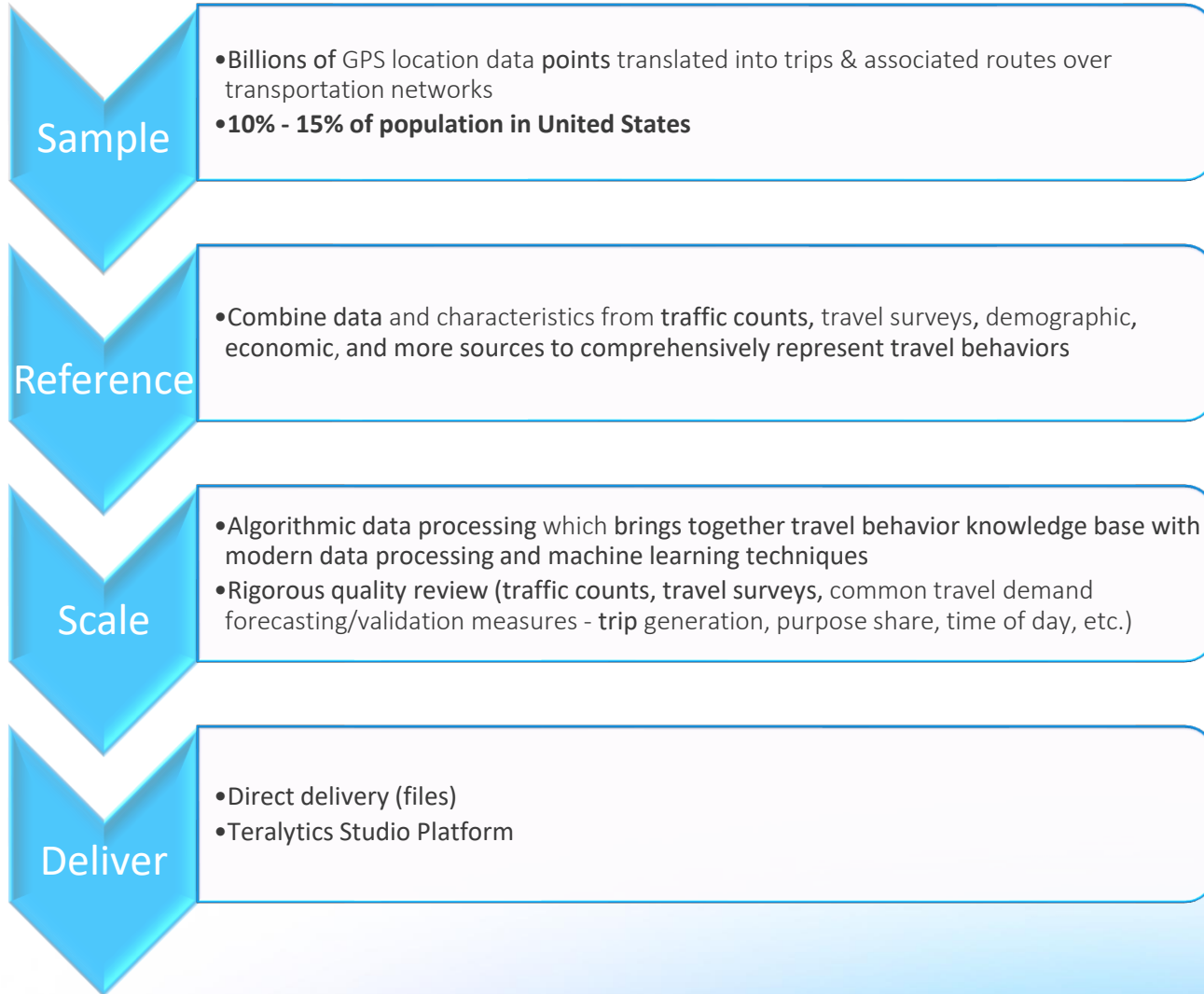
Day	Internal	External
Monday - Thursday	~4500	~1000
Friday	~3500	~800
Saturday	~2500	~600
Sunday	~1500	~400

Part of Day

Time	Internal	External
Midnight - 6am	~1000	~500
6am - 10am	~4500	~1000
10am - 5pm	~4500	~1000
5pm - 7pm	~2500	~600



Our Process



Key Features

- **Map** – View your data
 - Origin Destination (OD)
 - Road Volumes (Vehicular and Pedestrian)
- **Datasets** – Customize your data
 - Subarea Extraction – Pull a subset of your data for project specific work
 - Custom Zoning – Re-calibrate the GPS readings to your zone system
 - Gates – Add gates to your OD table to tie roads and zones together
- **Analytics** – Unlock your data
 - Corridor Analysis – View your movement data on a systemwide scale
 - Select Link – View your movement data on the network
 - Esri Integration – Ingest user GIS content
- **Export** – Integrate your data
- **Documentation** – Understand your data
 - Video Tutorials
 - Data Dictionaries
 - Data Quality Report
 - Frequently Asked Questions



Freight
Peds
Bikes
EV
Speeds
Metrics
etc

Dashboard – Collaborate with Data

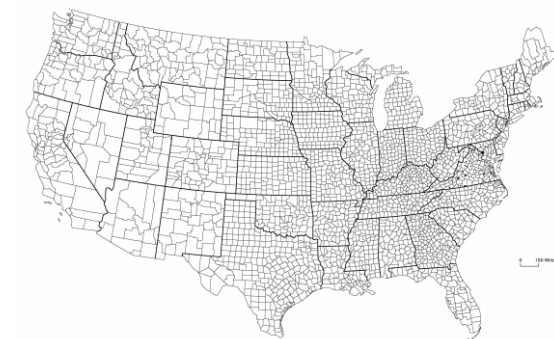
Work across jurisdictions and stakeholders

- Scalable and seamless
- Customize and share project areas

Manage Accounts

Manage Projects

Seamlessly Scale



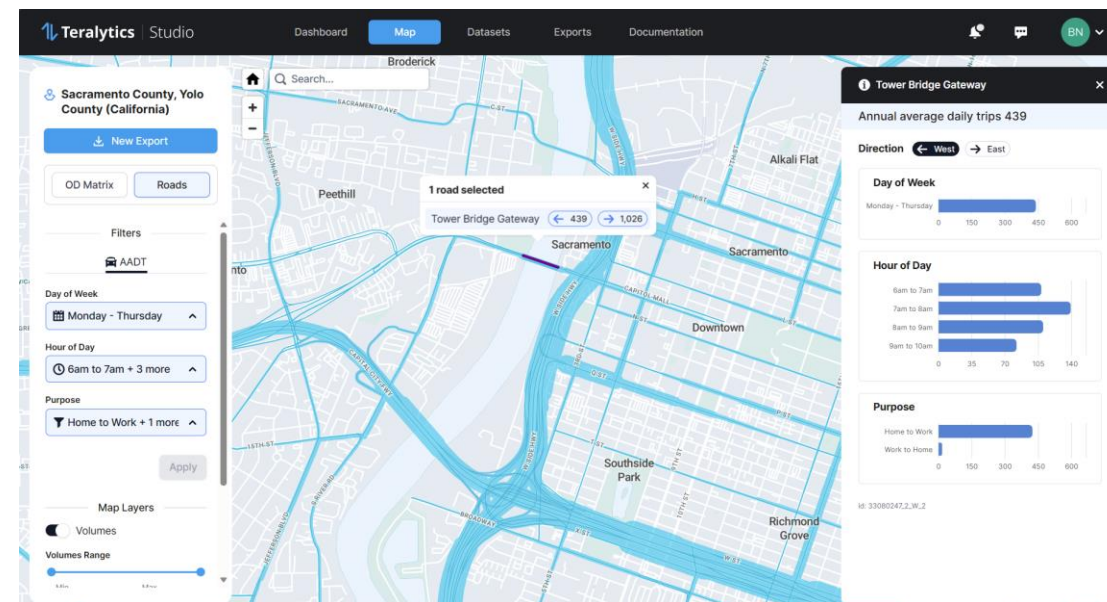
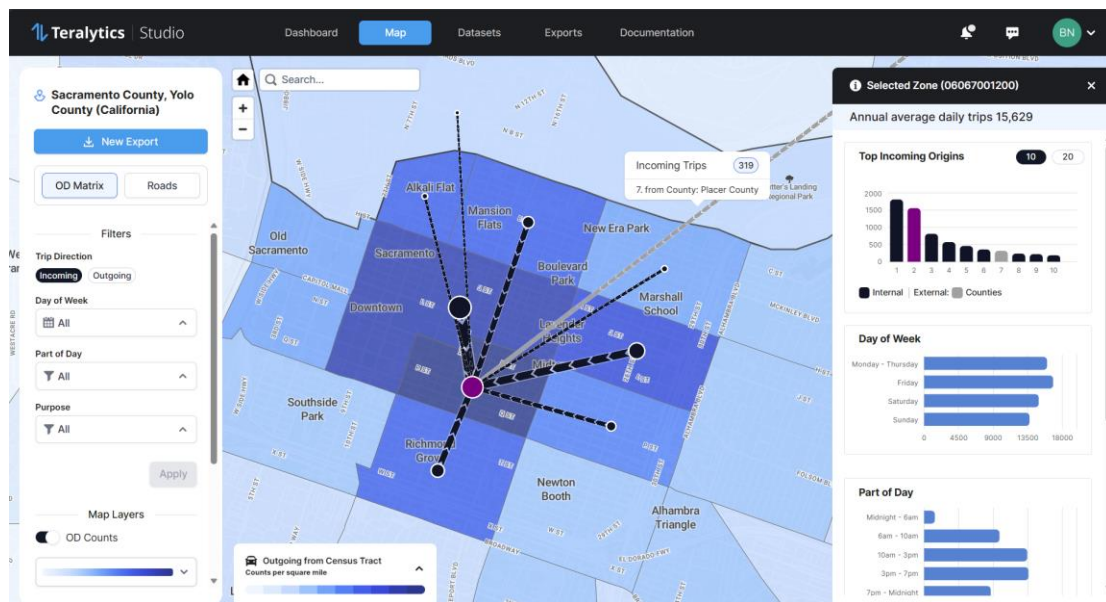
Map – Visualize Data

Origin Destination

- View movement to/from zones by filters
- Easy breakdown of information

Volumes

- AADT volumes on any road
- Vehicular and Pedestrian



Datasets – Customize your data

Subarea Extraction

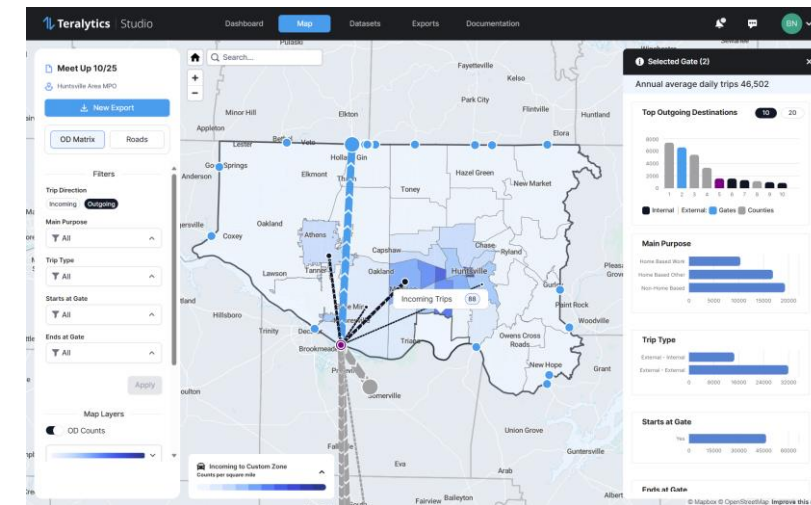
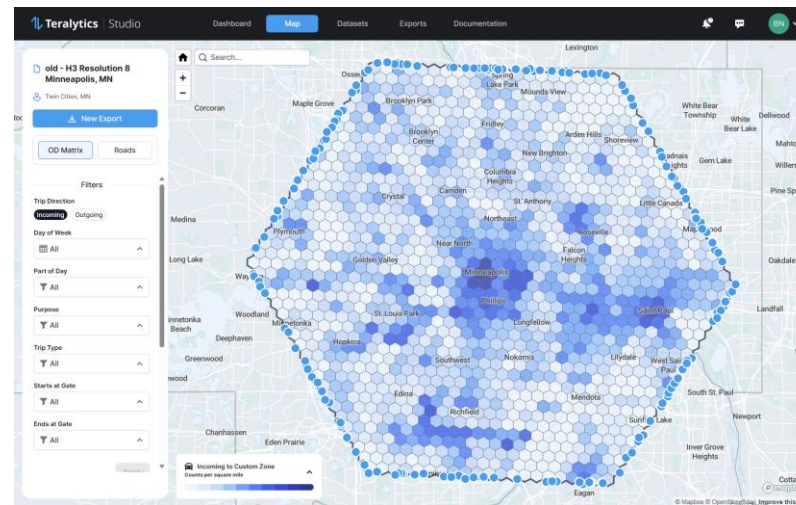
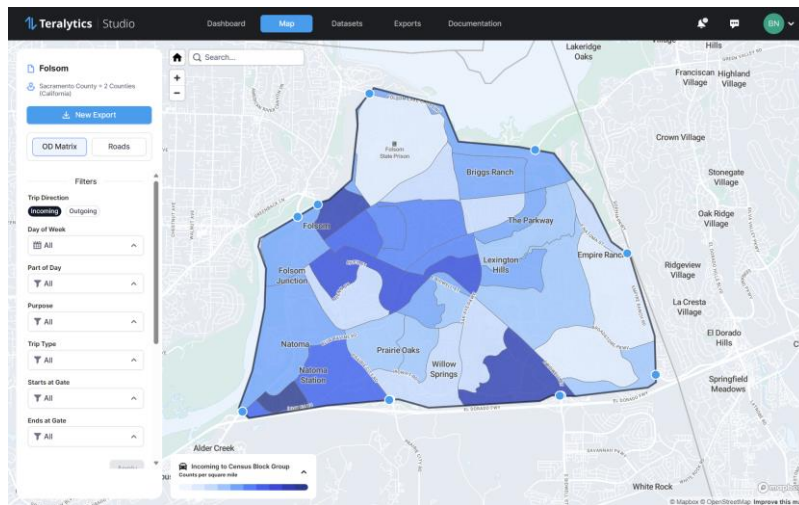
- Pull a subset of your data for project specific work

Custom Zoning

- Re-calibrate the GPS readings to your zone system
- Calculated based on precise path start and end

Gates

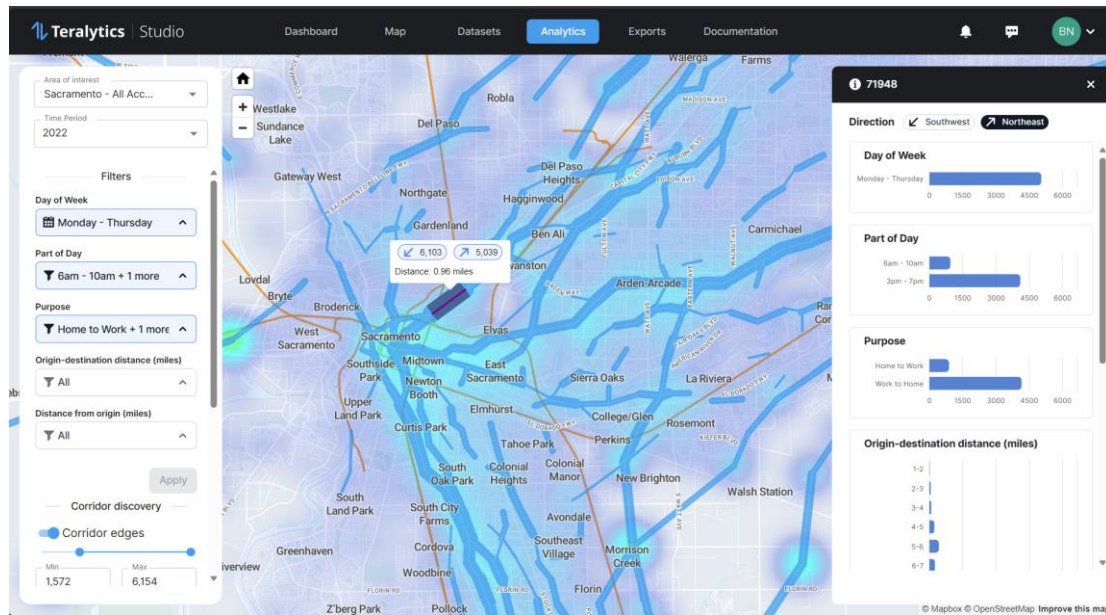
- Add gates to your OD table to tie roads and zones together
- See pass-through trips



Analytics – Unlock your data

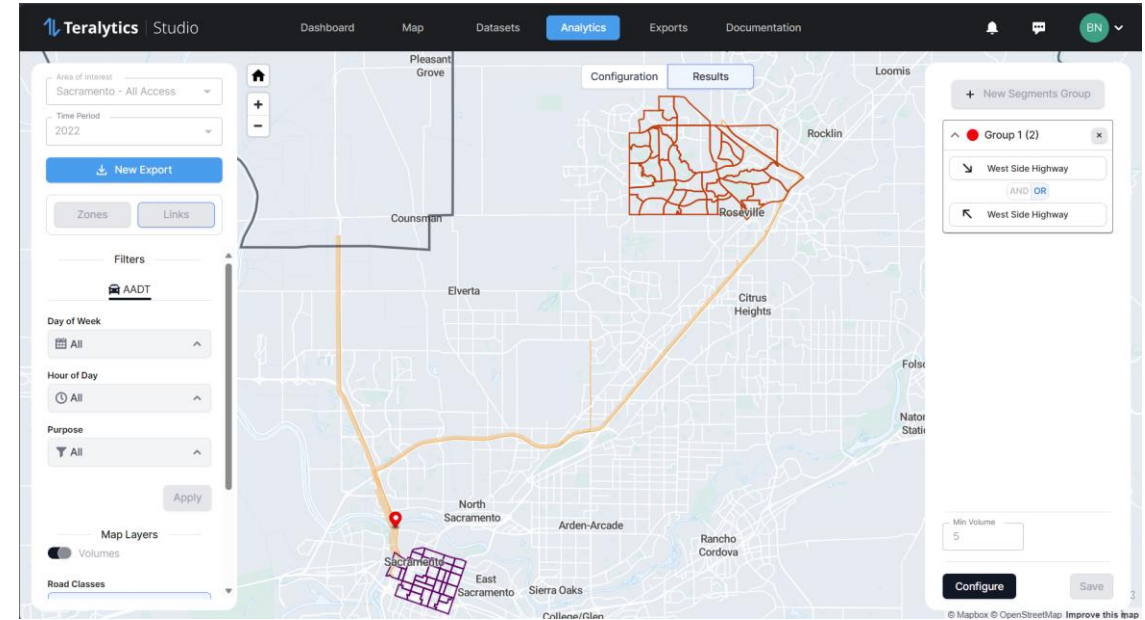
Corridor Analysis

- View your movement data on a systemwide scale



Select Link (Coming Soon!)

- View your movement data on the network



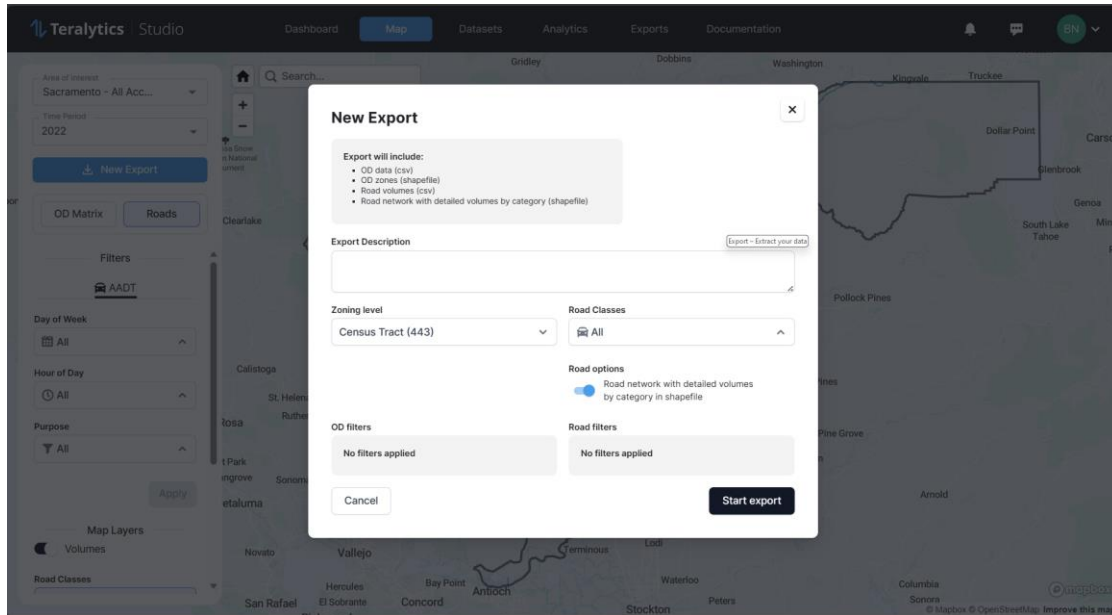
Export – Integrate Data

Export Menu

- Select what you want
- Know what you're getting

Simple File Formats

- Easily use your data

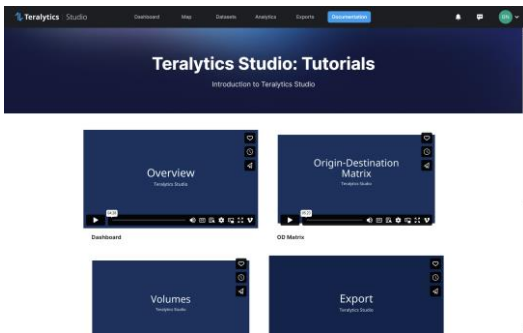


start_id	start_idseq	end_id	end_idseq	time_period	day_type	day_type_code	day_part	day_part_code	purpose	purpose_code	count
6073008702	201	6073005900	108	2019	Sun		4	15-Oct	3 O-H	4	1.9425
6073005600	105	6073020211	580	2019	Mon-Thu		1	00-06	1 H-O	3	0.0272
6073013206	300	6073021304	620	2019	Sun		4	15-Oct	3 H-O	3	0.6723
6073020306	585	6073020021	559	2019	Fri		2	10-Jun	2 H-W	1	1.5533
6073018100	481	6073017304	460	2019	Sun		4	15-19	4 W-O	5	0.7388
6073021600	623	6073004000	89	2019	Mon-Thu		1	15-19	4 NHB	7	1.2622
6073017050	445	6073014803	355	2019	Mon-Thu		1	10-Jun	2 O-W	6	0.0533
6073007100	119	6073017305	461	2019	Fri		2	10-Jun	2 H-O	3	0.0792
6073004400	93	6073008341	162	2019	Sat		3	19-24	5 NHB	7	0.5025
6073005700	106	6073008353	173	2019	Mon-Thu		1	15-19	4 NHB	7	0.1261
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6073013905	339	6073004300	92	2019	Sun		4	15-19	4 NHB	7	0.1588
6073009304	215	6073008003	136	2019	Fri		2	19-24	5 O-H	4	1.1234
6073019902	547	6073009101	206	2019	Sat		3	19-24	5 NHB	7	0.7366
6073018803	510	6073018514	492	2019	Sun		4	15-Oct	3 O-H	4	10.3906
6073015701	374	6073015301	364	2019	Sun		4	10-Jun	2 O-H	4	0.287
6073003112	60	6073003207	67	2019	Mon-Thu		1	15-19	4 NHB	7	0.5117
6073017303	459	6073017401	463	2019	Sun		4	15-Oct	3 O-W	6	0.8808
6073013303	303	6073013203	297	2019	Sat		3	15-Oct	3 H-O	3	73.7664
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6073003401	78	6073017022	424	2019	Mon-Thu		1	00-06	1 O-W	6	0.1714
6073017032	428	6073017106	453	2019	Fri		2	15-Oct	3 W-O	5	5.4878
6073008358	178	6073008366	186	2019	Sat		3	15-Oct	3 O-H	4	24.8218
6073019103	518	6073019208	526	2019	Sun		4	00-06	1 H-O	3	0.0098
6073020708	599	6073020307	586	2019	Fri		2	15-Oct	3 O-W	6	114.9661

Documentation – Understand your data

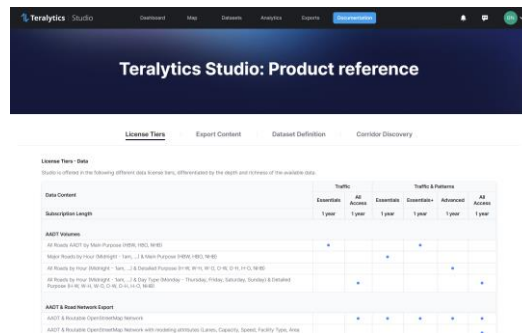
Video Tutorials

- Key tools explained



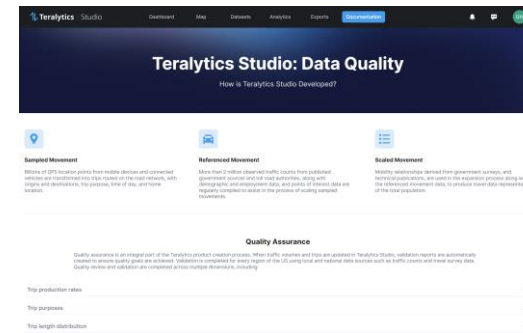
Reference

- Understand exported data



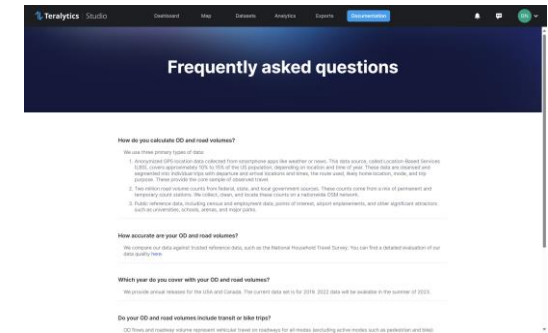
Data Quality

- See how the data quality is ensured



FAQ's

- Your most asked questions



Contact Us

- Keith Hangland, Head of Commercial – keith.hangland@teralytics.net
- Chris Simons, Head of Data Science – chris.simons@teralytics.net
- Katie Brinson, Sales Director – katie.brinson@teralytics.net
- Ben Nault, Customer Experience Director – ben.nault@teralytics.net

Traffic Count Validations

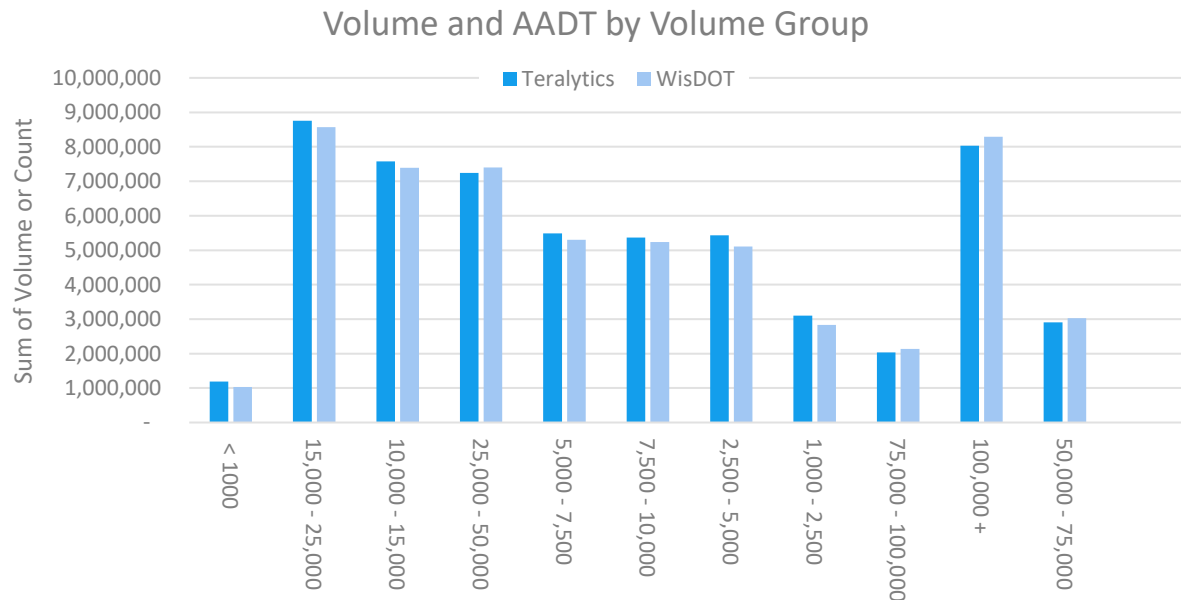
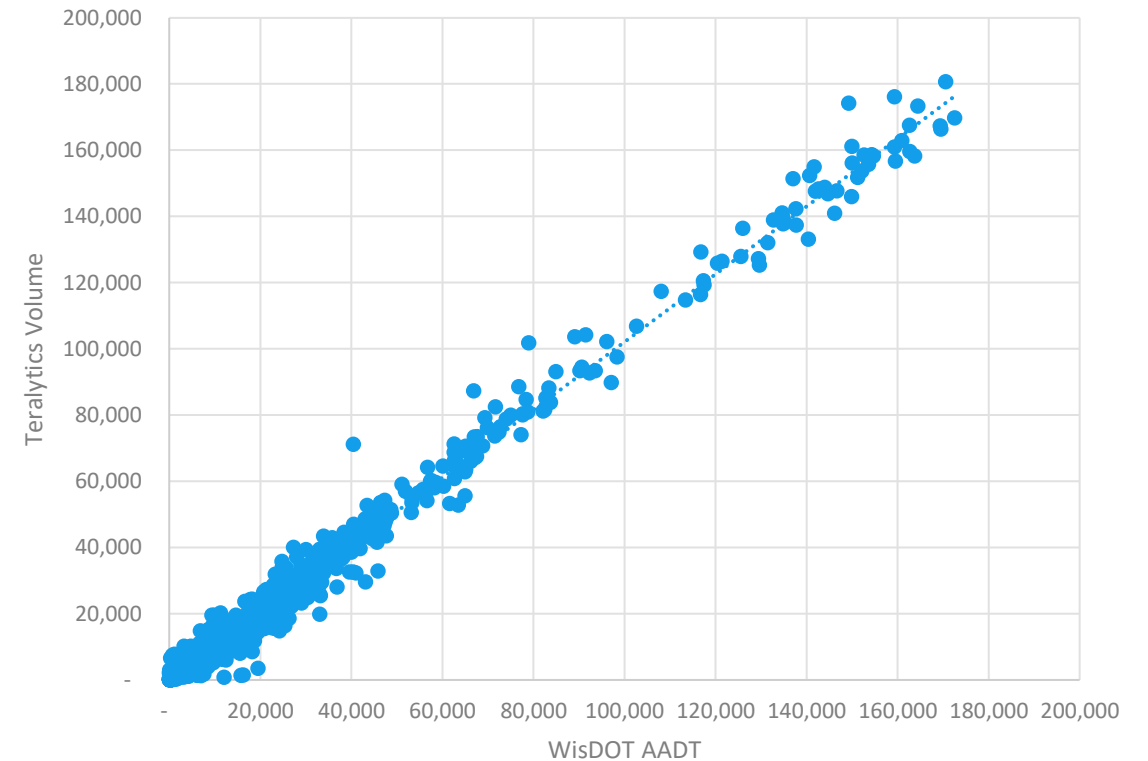
- Wisconsin Department of Transportation (WisDOT)
- WisDOT provided 8,019 count locations
 - 254 continuous count stations
 - 7,765 AADT locations

Segment	R-Squared	Number of Counts
All locations	0.99	8,019
Continuous Counters	0.99	254
< 2,000 AADT	0.83	3,293

Teralytics Volume and WisDOT AADT (2019)

All Count Locations

$R^2 = 0.9909$



Results – Volume Group

