



From Complexity to Clarity

A Revolutionary Tool for Travel Demand Model Summaries

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MoMo Conference
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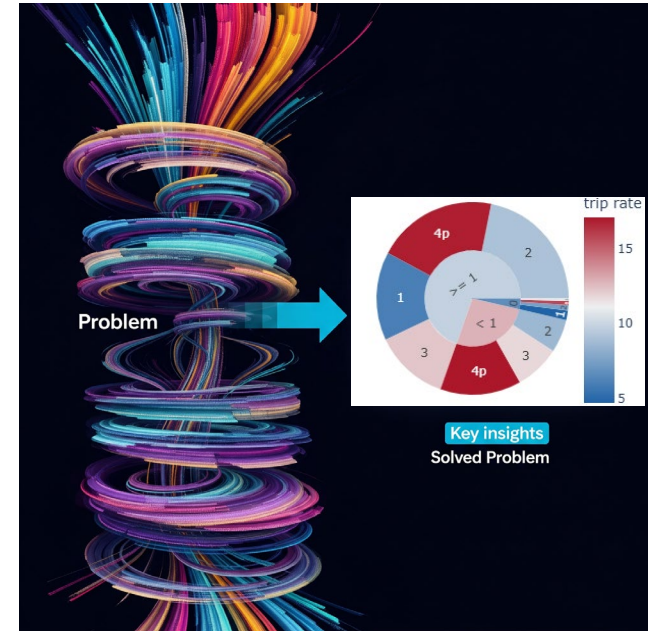
The Challenge: Drowning in Data

Large Data Volume & Comparison

- TDM 23 is **publicly available** for model users
- Travel demand models produce **massive data volumes**
- **Comparing** multiple model scenarios is a challenge

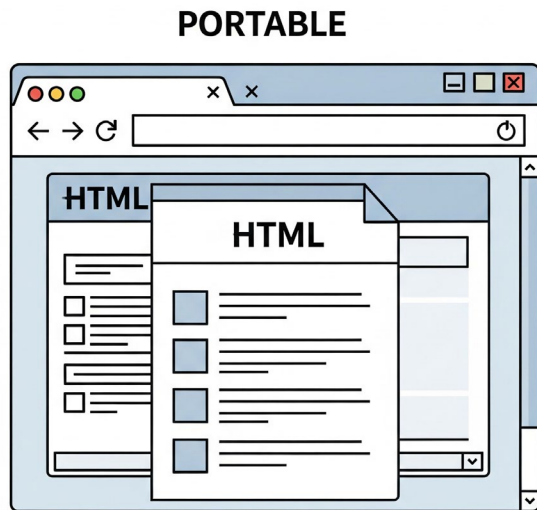
Tool Accessibility & Reproduction

- Stakeholders need **accessible** visualization tools
- Ensuring **transparent** and **reproducible** analysis is key
- **HTML-based** tools offer a promising solution



Our Solution: Portable, Interactive Reports

Portable & Sharable



Client-Side & Interactive

Household statistics table

Geography:

MPOs:



Southeastern Region Planning & Economic Development District

Story Map Structure

1. **Files**
2. **SE Data** (High-level Socioeconomic Data)
 - Total Employment by Segment
 - Household Statistics Table
 - Persons
3. **Vehicle Availability** (VA Component)
 - VA Share by Geography
 - Segmented Share (Side-by-side Polar Plots)
 - Number of Vehicles per Household
4. **Work from Home** (WFH)
 - Worker-side Effect (WFH Levels by State/MPO)
 - Job-side Effect
 - WFH Trip Impact
5. **Trip Generation**
 - Total Trips by Purpose
 - Trip Rate per Household
 - Trips by Geography
6. **Trip Distribution**
 - Trip Distribution by Purpose (Zone-to-Zone Pattern)
 - Average Trip Length (Based on Vehicle Driver Ratio)
 - Intrazonal Trip Share (Special Trip Purpose)
7. **Mode Choice**
 - Trip Purpose / Trip Length
 - Geography: Flow Comparison
 - Home-based University Trips
8. **Trip Assignment**
 - Highway Assignment
 - Transit Assignment
 - Transfer Rate
9. **Metrics** (Post-Processor Metrics)
 - Air Quality
 - Equity

Intuitive Feature Deep Dive

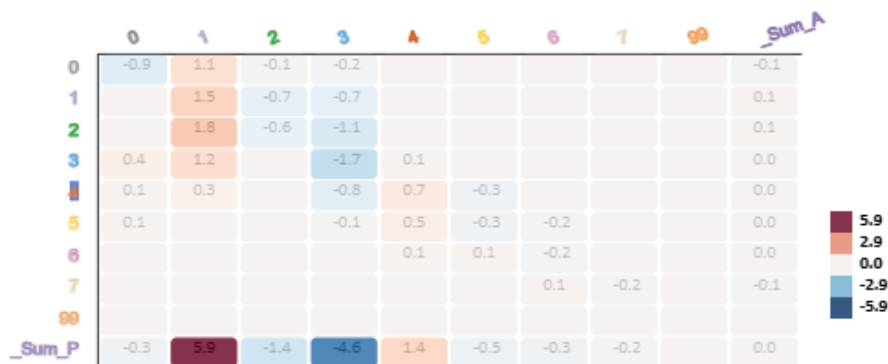
Chord Diagram

Trips distribution by Purposes

Geography:

Trip Purposes:

Relative share(Trips in each PA pair / Total production trips) change: tdm2320_2050pln - tdm2320_base



Trips : tdm2320_2050pln - tdm2320_base

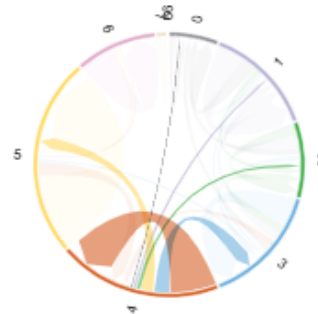
Delta:

4->0 4->1 4->4
1,656 trips 5,667 trips 16,542 trips

tdm2320_base:



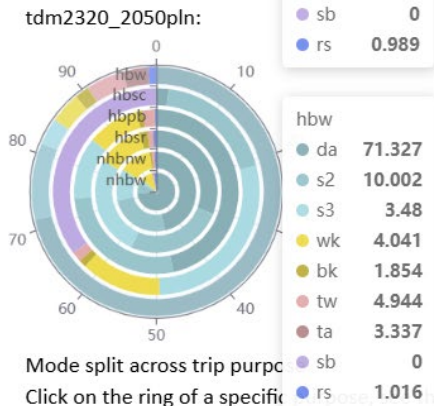
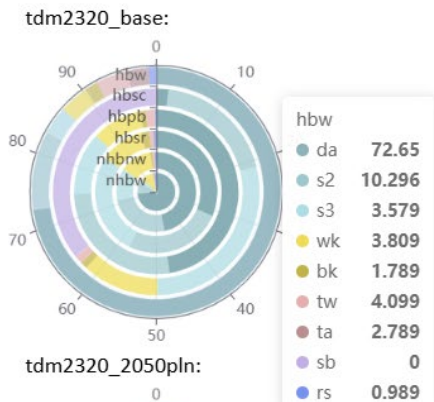
tdm2320_2050pln:



Intuitive Feature Deep Dive

Donut Chart

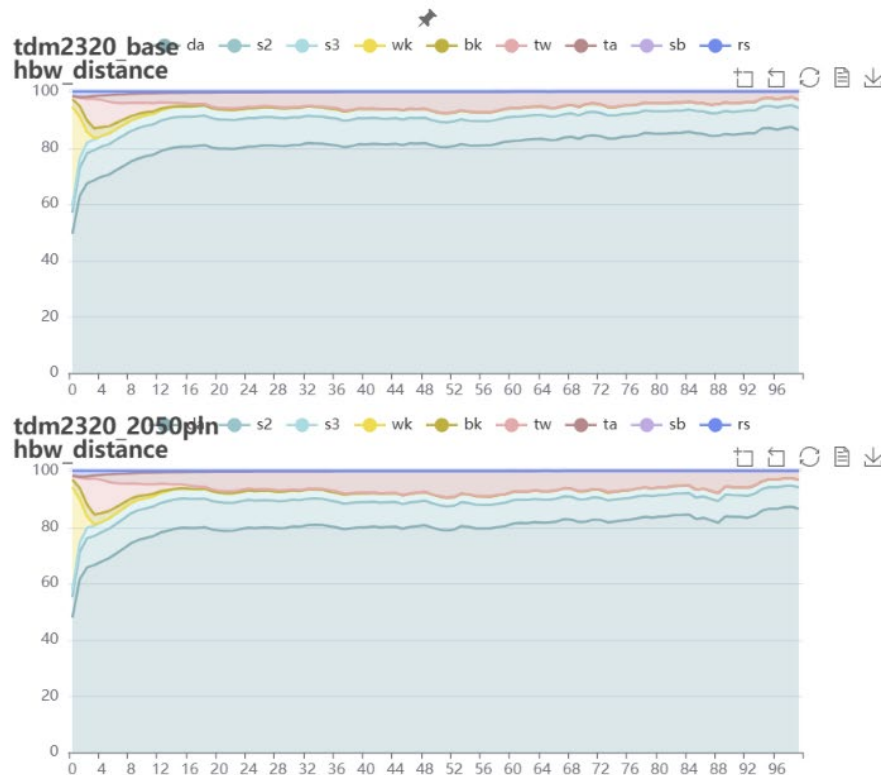
Trip purpose / trip length



Mode split across trip purpose

Click on the ring of a specific

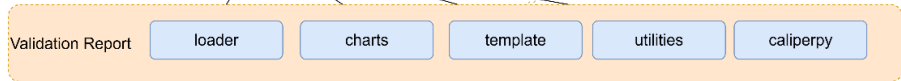
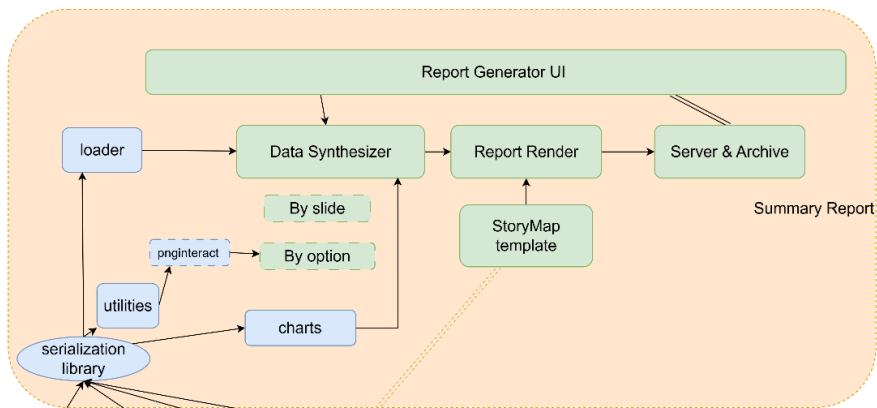
length distribution in the right side





summary Filter by category Filter by dependency

Icon	Name	Category	Description	Launch	Info
	Summary Report	TDM23	High level comparison report for model components in TDM23	Launch	Info



TDM23 Python Environment

Windows

The Revolutionary Tool

TDM23 Summary Report Generator

Input Output

Reference scenario short name Reference	Reference scenario name Base	Comparison scenario short name Comparison	Comparison scenario name 2050\Plan
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Select Reference scenario output folder

D:\dev\tdm23.2.0\outputs\Base

Select Comparison scenario output folder

D:\dev\tdm23.2.0\outputs\2050Plan

☐ Load from cache

Check Archive

Slide - 33.3% / Estimated time left for [slide_tg]: 364 s - 27.9%
steps | 290.1/648.3s

Run

Recent Runs

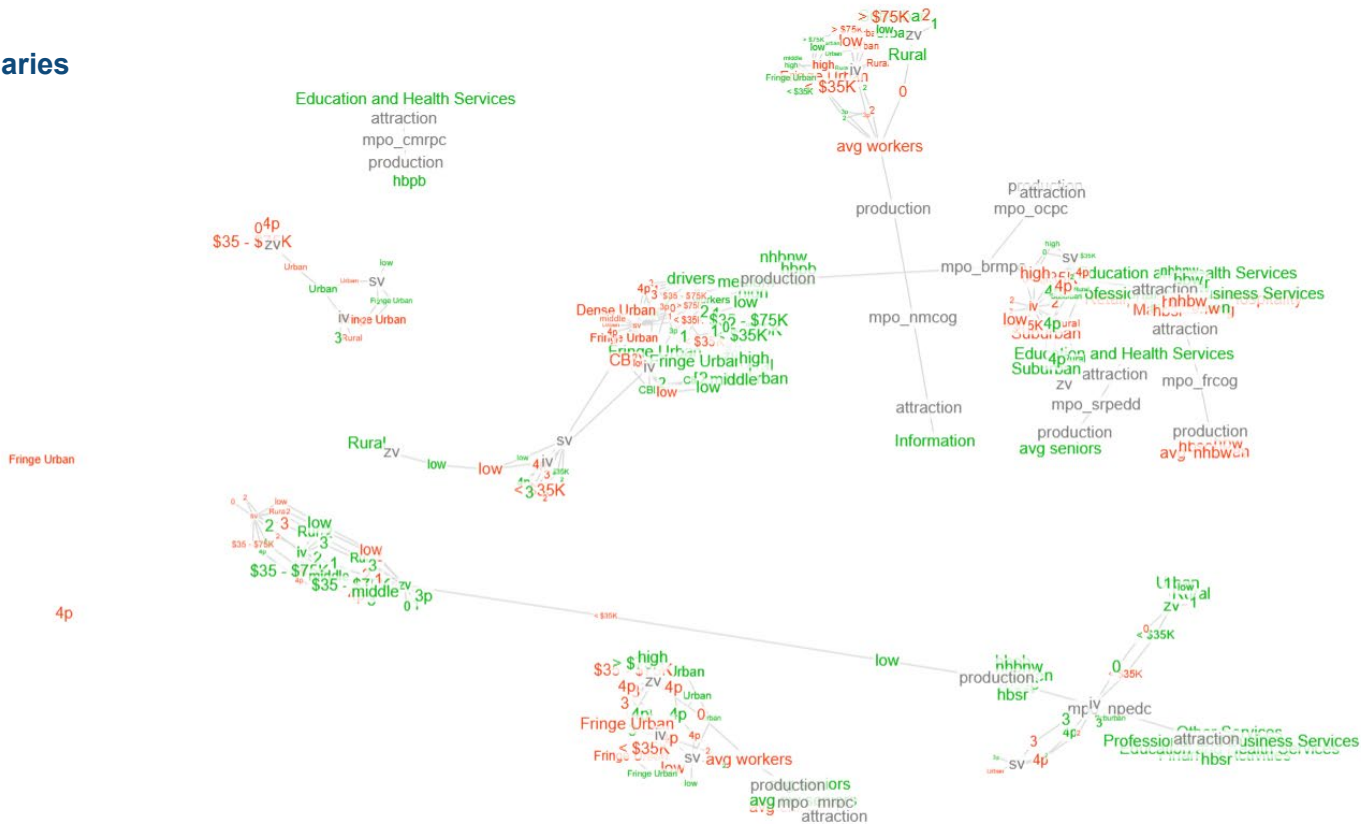
Examples

Future Work

“The information is not naturally organized into trees”

Normalized Font ON

AI-Curated Summaries





Q&A

*Please contact
model.support@ctps.org with your
questions or comments*