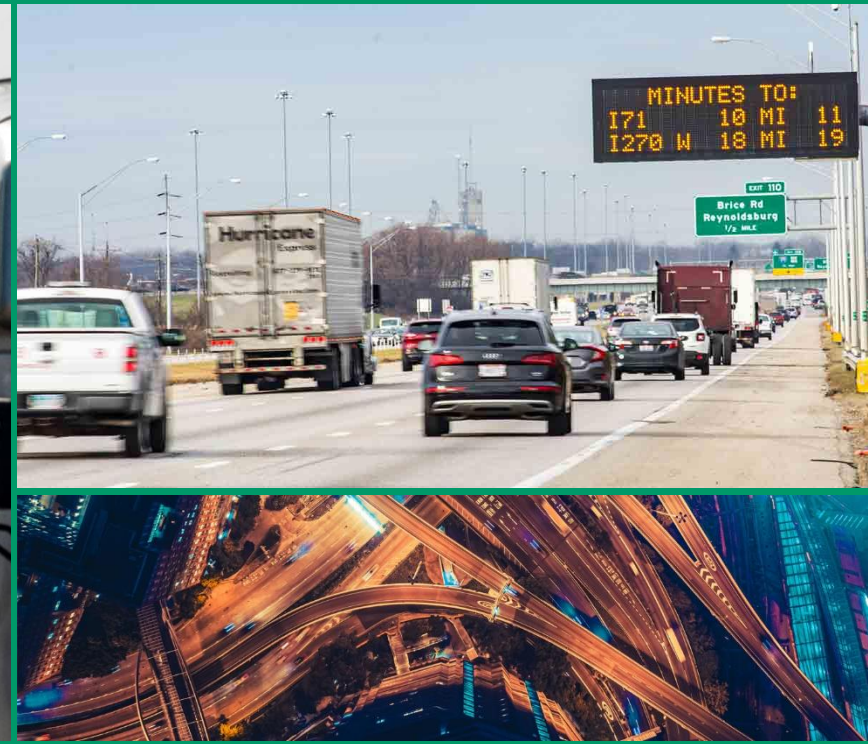


3C MODEL UPDATES



3C MODEL

- WSP's Coordinated Travel - Regional Activity Modeling Platform (CT-RAMP) 2 version of Activity-Based Models (ABMs)
- 3 Big MPOs in Ohio
 - Cleveland (NOACA and AMATS-Akron)
 - Columbus (MORPC and LCATS-Newark)
 - Cincinnati (OKI and MVRPC-Dayton)
- Model Version Control
- Recently Added Features
- Forthcoming Improvements

MODEL VERSION CONTROL

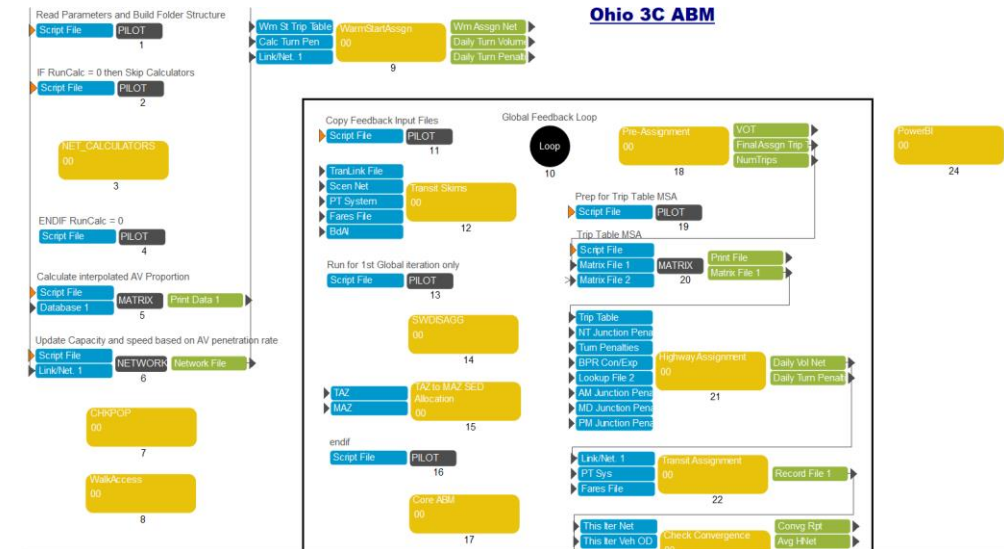
- **Git**
 - Version Control Software (VCS)/Source Code Management Tools (SCM)
 - Tracking changes in any set of files
- **GitHub**
 - Web-based interface for Git (cloud version)
 - Real-time collaboration with others
 - Cloud backup/storage
- **GitHub Desktop**
 - GUI-based interaction with GitHub
 - Linkage between GitHub and your local machine



RECENTLY ADDED FEATURES

ALL IN ONE PLATFORM

- Sharing same source codes
- Organized by MPOs
 - Parameters (UEC, GC factors, BPR...)
 - Scenarios (default settings/keys...)
 - Inputs
 - Outputs



models > 3CCube > client_odot_ohio3c_implementation > PARAMS > CT-RAMP				
Name	Date modified	Type	Size	
C_D	11/14/2022 12:37 PM	File folder		
CLE	11/14/2022 12:37 PM	File folder		
LIM	11/14/2022 12:37 PM	File folder		
MOR	11/14/2022 12:37 PM	File folder		
OKI	11/14/2022 12:37 PM	File folder		

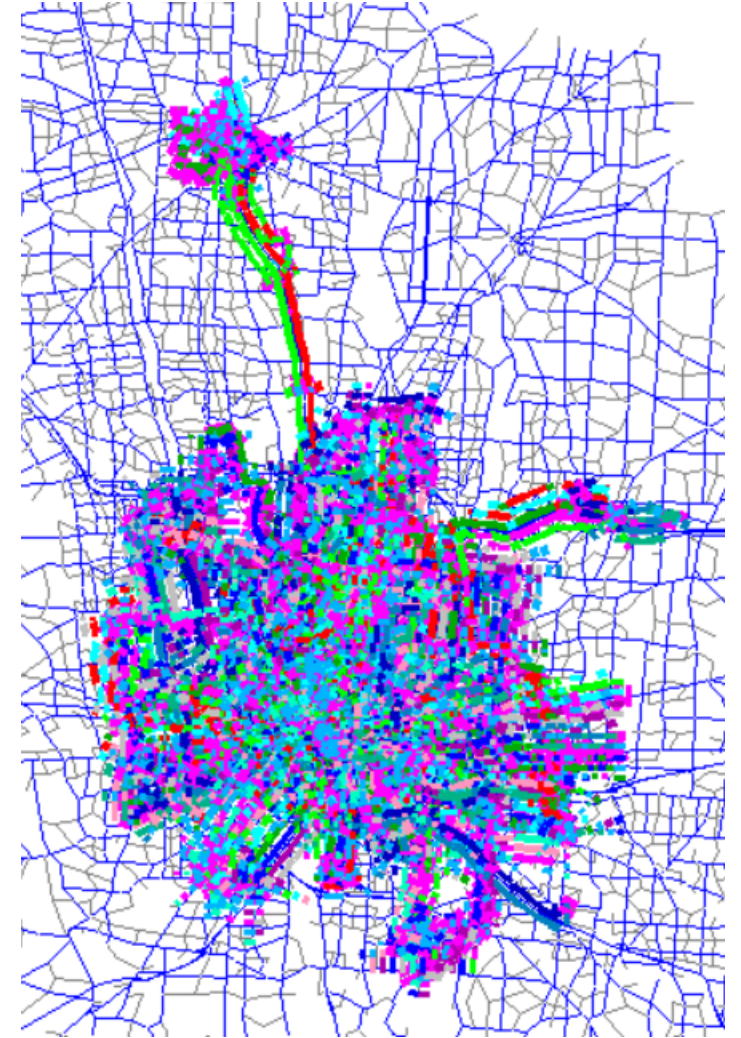
Main Model Run Options

MPO Code (MMM)

- ☒ MOR
- ☐ C_D
- ☐ CLE
- ☐ LIM
- ☐ OKI
- ☐ MVR

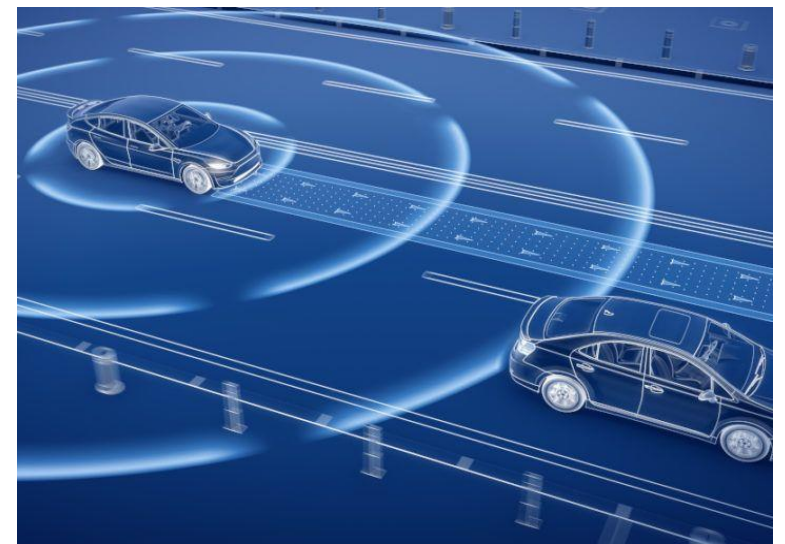
SIMPLE TRANSIT

- 3 user classes → 1 user class
- All transit modes skimmed and assigned together (not separate by local/premium services)
- Only Assign Transit on first iteration
- Skip Assign Transit all together
- Huge runtime savings
 - Mode-choice
 - Transit skimming/assignment



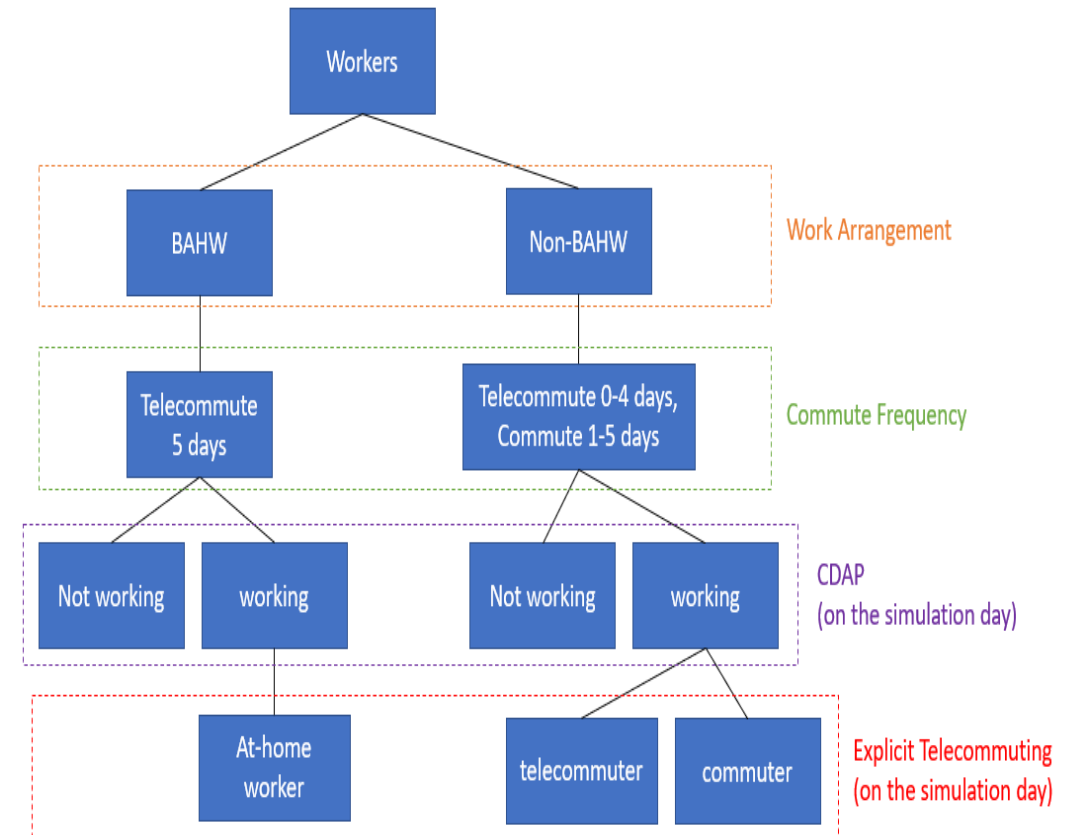
CARTRACKER

- “Track” each car’s movement (when and where) and understand the usage of Household cars
- Person Trip List → Car Trip List
 - Allocated a car (vehicle ID) to personal trips with car modes (SOV, HOV2/driver, HOV3/driver, HOV/passenger):
`tripListCarAllocation_carTracker.csv`
 - Extract car movements from the personal trips if the person is a driver:
`disaggregateCarUse_carTracker.csv`
- Facilitate CAV modeling and traffic microsimulation



TELECOMMUTING

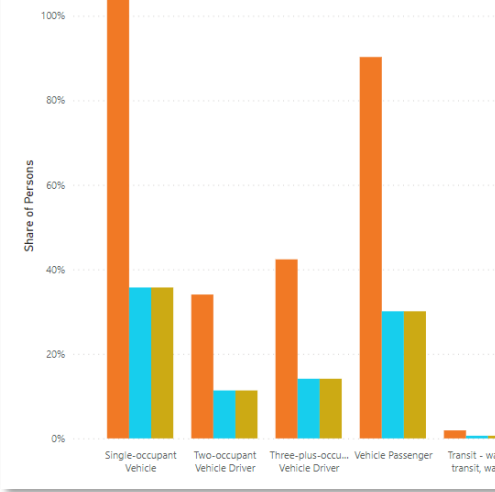
- “Nearly half of the American workforce is now working remotely at least one day a week.” from NPR, 9/21/2022
- Adding Telecommute-Specific Modeling
 - Enhance **Work Arrangement**: BAHW
 - Modify **Commute Frequency**: by industry
 - Modify **Coordinated Daily Activity Pattern**: mandatory pattern for work-at-home
 - Add **Explicit Telecommuting** on the simulation day
 - work MAZ = home MAZ for telecommuters
 - “telecommute” mode in **Mode Choice**



ADDITIONAL STAND-ALONE APPS IN THE 3C MODEL

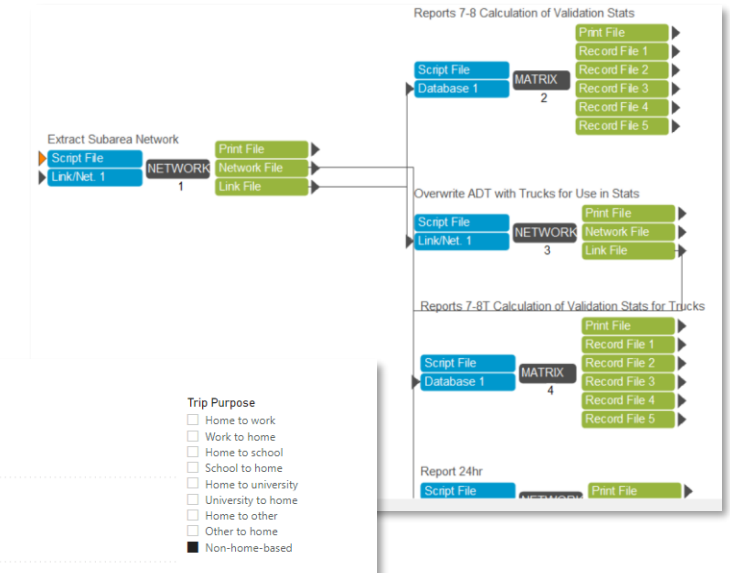
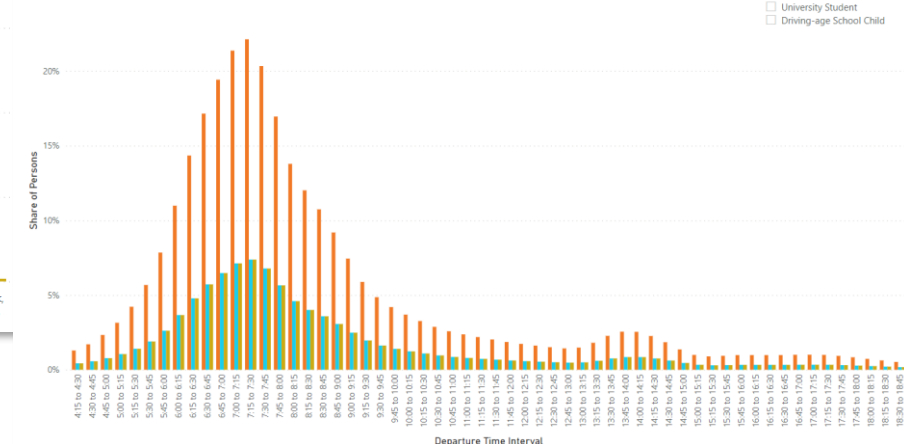
- Inputs Verification
 - Consistency in TAZ/MAZ ZSED files
 - Consistency in transit line and highway network
 - Existence of extracted SW trip tables and base-year external volumes
- Highway Assignment Only
- Subarea Validation Reports
- Power BI (dashboard/report)

Share of Persons by Trip Mode and Purpose
Source: MOR2018 MORbase MORnew



Share of Persons on Work Tour by Departures

Source: MOR2018 MORbase MORnew



FORTHCOMING IMPROVEMENTS

FORTHCOMING IMPROVEMENTS

- Software platform (current: Cube/Java/R → future: ?)
- UECs estimation/calibration based on newly collected HHS data
- Telecommuting module upgrade
- SHRP2 C10 - integrated ABMs with Micro-simulation (TransModeler)
- Tool(s) to automatically convert GTFS to transit line files in the model

QUESTIONS



Last updated 11/18/2022