

# SCAG ABM Development Status Update

## SCAG Modeling Task Force

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Modeling & Forecasting  
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## SCAG Activity-Based Model Development



- SCAG ABM Development
  - April 2017 ~ March 2019
- Phase 1 (04/17 ~ 12/17)
  - Sub-models Development
    - Nearly 40 sub-models
    - Software development
    - Validation target
    - Initial validation
  - 10% sample run

## SCAG Activity-Based Model Development



- Phase 2 (01/18 ~ 06/18)
  - Integrated Model
    - Software enhancement
    - Hardware testing
    - Validation target
    - Continue Validation and test
  - 70% sample run
- Phase 3 (07/18 ~ 03/19)
  - System-wide validation
  - Full model run

## Model Validation



- Sub-Model Validation
  - Completed
  - 70+ validation targets
  - Enhancement
- System-wide Validation
  - Initial validation – completed
  - Major indicator: VMT
  - Screenline count

## Software



- SCAG ABM Software Development
  - Completed – integrated
    - CTRAMP-2 (Demand)
    - TransCAD v8 (Assignment)
  - Operated by SCAG staff
    - Feedback bugs/errors to consultant
  - 30 software releases
  - Continue QC and Enhancement
    - Staff and consultant

## Hardware



- ABM Hardware Requirements:
  - Speed, memory, storage
- AWS (Amazon Web Services)
  - Satisfy all requirements

## Schedule



- 04/01/17~03/31/19 – ABM Development
- 01/01/19~05/15/19 – Testing/Enhancement
- 05/15/19~06/30/19 – RTP Scenario Model Run
- 07/01/19~08/31/19 – Draft RTP Model Runs

## Testing



- Sensitivity Tests (Continuous)
  - Tested with travel costs, household income, speed
  - Requirements from ARB's SCS Guideline
    - Land Use, Transit/Active Transportation, Pricing, Technology, and Exogenous variables
- Tested with 2016 RTP input
- RTP Scenario Tests

## Enhancement



- Model running time
- New planning assumptions
- Sub-model enhancement
- Peer review comments
- Streamline model run and model output reporting
- TBM validation

## Modeling Tasks for 2020 RTP/SCS



- Model run and output data process for
  - Draft/final RTP/SCS,
  - PEIR, and
  - Environmental justice, economic impact analysis
- Coordinate with planning staff on
  - model input data
  - model output data needed for analysis
- Conduct EMFAC run for conformity analysis
- Support off-model analysis

# Thank you

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