The Original Challenge:

Agencies needed the ability to quickly and easily calculate the benefits of projects:

- Transportation impacts
- Air quality benefits

Examples

- Control measures (conformity credits, mitigation measures)
- CMAQ projects
The issue agencies faced?

Quantifying project impacts is not a simple task.

- Staff do not do this regularly.
- No single reference.
- Data is often not readily available.
- Emissions calculations are difficult to undertake.

One Solution

- Gather relevant methodologies
- Package it with local data
- Automate the process
- Make it easy for the occasional user
What is AQONE?

- AQONE = Air Quality Off-Network Estimator
- Collection of sketch-level methodologies
- Automates the calculation of transportation/emission benefits
- Easy to use

Common Applications for AQONE

- Small project conformity credits
- Support for regions lacking regional models
- CMAQ analysis
- Scenario Testing
- 14+ years experience
- 34 Project types
Project Types

Core Project Type: Emissions Only Analysis
User inputs:
- VT, VMT and/or Hours of Idling.
- Vehicle types to analyze.
- Time of Day
- Location (County)

Result: Emissions Reduced

Other Project Types
- Highway/Rail/Bicycle/Pedestrian Projects
- TDM Projects
- Transit Projects
- ITS Projects
- Signalization/Traffic Flow
What now? What is the new challenge?

The importance of these types of projects is increasing

- Air quality standards are getting stricter.
- Margins are shrinking.
- In the past some TCM benefits have not been quantified… … however may need the credits in the future.
- Going forward, every last bit of benefit matters.
- Greenhouse gas mitigation is an issue.

Quantifying benefits has taken on a renewed significance.
AQONE Analysis Software

What now? What is the new challenge?

MOVES

AQONE Analysis Software

The primary issues remain the same:

- Agencies still need to calculate project benefits.
- Same limitations as before
- New project types, new emissions
- More scrutiny
- Calculating project benefits is no easier.
- Methodologies are more complex
- MOVES
AQONE Transition to MOVES

AQONE is evolving to respond to these challenges/opportunities

- Update project analysis methodologies
- Add new project types
- Consolidation/ Simplification (TDM)
- Incorporate MOVES
- Platform (Visual Basic to … )

AQONE Transition to MOVES

AQONE will continue to combine state of the practice analysis techniques with locally available data.

- Continue to use EPA/ FHWA guidance and current research
- Populate with local employment, traffic, transit and data
- Emissions calculations will continue parallel regional analyses
  - i.e. Replicate conformity setups as closely as possible
Why is the AQONE update starting now?

- MOVES is ready
- Parallels regional conformity in MOVES
- Opportunity to suggest new project types/other enhancements
- Will take time to develop
- Timely completion

Questions?

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