

# National Inventory Development with MOVES

Mark Janssen

Lake Michigan Air Directors -  
LADCO

# Overview

- LADCO National Runs
- What we learned
- What's next
- National Inventories

# LADCO National Runs

- Recently completed national default inventory as a background for national scale photochemical modeling.
- 2007 Weekday/Weekend for January and July. Temporalized for all months from single county runs.
- System: 7 masters, 23-33 workers, Dedicated movesworker disk machine.
- Done: Took 6 weeks. 1/2 of that time was spent on Difficult states(TX,MO,TN, KY, VA, WV, GA)

# What We Learned

- /MOVESWORKER hardware quality critical, Have on dedicated Machine.
- A single lost worker crashes a whole run. No path to recovery processing batch halts. Unstable workers are the worst possible element. Zombie workers make zombie Masters.
- Do not use /movesworker folder/system for other actives. Give it a break!

# Scripts we needed

- Moves LINUX install “recipe”.
- Scripts to create MOVES runscripts.
- Scripts to check the status of masters. How many TODO files for current \*.mrs and how many have been created.
- Scripts to copy output databases to common master computer, Link to mysql directory and export to csv and then temporalize and convert to model ready NIF3.0

# What's Next

- MOVES Inventories for Midwest State Inputs.
- CONCEPT Link Level Inventories for Important Cities (Chicago, Milwaukee, Gary, Detroit, Cleveland, Cincinnati).  
Temporal, Spatial, VDF for Speeds
- CONCEPT National Link Level inventory for Interstates.

# National MOVES data sharing.

- County Databases (each county)
  - MRS, XLS, Importer XML
- Representative County Databases and county Cross reference,
- Emission factor tables for SMOKE?
- Regional/National Modelers driving force.
- NEI historically has not been best source for mobile inputs. Would a state/local driven process be more successful?