AQCSV and What It Means to You

Alan Chan and Natalie LaGuardia
Sonoma Technology, Inc.
Petaluma, California

Lewis Weinstock
U.S. Environmental Protection Agency
Research Triangle Park, North Carolina

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Outline

• AirNow Data Transfer
• Legacy OBS Format
• Data Delivery to EPA and AQCSV
• AQCSV
  – Motivation and Benefit
  – Example
  – New tool – AirNow-Tech 2.0
  – Current Status
  – Activities and Schedule
• Summary
AirNow Data Transfer

- AirNow program started in 1997
- Data transfer started with State Host Computers (SHC)
- Data transfer was (and still is) done by OBS files and contained ozone only
- PM$_{2.5}$ data delivery began in 2003
- Additional parameters were added in 2004
- AQDE Node was implemented in 2008
- Data are now available through AirNow-Tech and AirNow Gateway
Legacy OBS Format

- Legacy format for data ingest into AirNow
- Why are we phasing it out?
  - No native support for
    - Multiple parameter of occurrence (POC)
    - Mobile monitors
    - Three-dimensional data
  - Limited list of parameters
  - No sub-hourly data
  - Applied only to North America
  - Difficult to use in mobile apps
  - Difficult to decode and program
Data Delivery to EPA and AQCSV

Legacy

Monitoring sites → 54, 78, 21, 33, 99, 32, 61 → State and Local agencies

OBS → CDX, XML
Data Delivery to EPA and AQCSV

New

Monitoring sites → 54 78 21 99 33 32 238 61 → State and Local agencies

Future

DAQCSV XML (Node 2.0)

CDX XML
AQCSV – Motivation and Benefits

• Supports
  – AQS standards (parameter codes, POC)
  – Any AQS parameter
  – Speciated/lab data
  – Mobile monitor data
  – Sub-hourly data

• Allows for
  – Submitting more data into AirNow
  – Backfill of AQS data into AirNow when available
  – Editing in AirNow-Tech 2.0
  – Easy encoding and parsing of data
  – Support of international data exchange
AQCSV – Example

• ISO Standards
  – Country codes (840 = USA)
  – Date and time

• AQS-Based
  – Parameter codes
  – Unit codes
  – POC codes

• Support for
  – AQS qualifier codes
  – Location information
    • Latitude and longitude
    • Elevation and GIS data
  – Method codes
  – Measurement performance characteristics
    • Value and uncertainty
AQCSV and AirNow-Tech 2.0

New AirNow-Tech takes advantage of expanded information available through AQCSV files.
AQCSV and AirNow-Tech 2.0

New AirNow-Tech takes advantage of expanded information available through AQCSV files.
AQCSV and AirNow-Tech 2.0
AQCSV and AirNow-Tech 2.0
AQCSV – Current Status

• Agencies currently delivering data via AQCSV
  - Arizona Dept. of Environmental Quality (AZ1)
  - Connecticut Dept. of Energy and Environmental Protection (CT1)
  - Maine Dept. of Environmental Protection (ME1)
  - Mendocino County AQMD (MEN)
  - Minnesota Pollution Control Agency (MN1)
  - Northern Sierra AQMD (NOS)
  - Sacramento Metropolitan AQMD (CA1)
  - San Francisco Bay Area AQMD (CA2)

• Agencies currently testing AQCSV data files
  - California Air Resources Board (CA8)
  - New Hampshire Dept. of Environmental Services (NH1)
  - Oregon Dept. of Environmental Quality (OR1)
  - Texas Commission on Environmental Quality (TX1)
AQCSV – Activities and Schedule

- Continue to work with vendors on AQCSV outreach
- Provide technical support to agencies
- Set up testing module
- OBS format will be supported through December 2012
- Target is to phase out OBS format entirely by Q1 2013
Summary

- Legacy OBS format is obsolete
- More agencies are testing and switching to AQCSV
- We encourage agencies to convert by end of 2012
- Agencies with AQCSV submittal to AirNow can take full advantage of new visualization and data editing tools in AirNow-Tech 2.0