



# Air Quality "Field Guide" Documentation

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# Can you define...?

- Baroclinicity
- Graupel
- Rossby
- CAPE
- Barb
- Rawinsonde
- Navier-Stokes
- Occlusion
- Advection
- Adiabatic
- LCL
- Cyclogenesis

*Which are measurements?*

*Which are predictors?*

*Which are subsets of others?*

Can you name the field?<sup>2</sup>

# Welcome to the AQ Data World

- Air Quality data is very complex
- Every type of data has
  - Multiple names
    - Physical name in the database
    - Business name we refer to it by
    - Report name (in the header, Discoverer, etc.)
    - Others?
  - An explanation
    - What is it, how it's collected or calculated, etc.
    - Including warnings about misuse
  - Details about individual values
    - Monitor Type versus NAMS
  - Other pieces of data that it's related to
    - Protocol: Collection method, Analysis Method, Duration...

# How is this Documented?

- Paper documents
  - Monitoring and reporting guidance
  - AQS Data Dictionary
  - AQS Data Coding Manual
  - Database descriptions / ERDs
  - AQS Users Guide
  - AQS Report Manual
- Electronic Documents
  - On-line help
  - The software itself
- In peoples' heads
  - I don't remember it all
  - I don't even remember where to look it up

# A New Approach

- Try a new approach (for new users)
  - More documents can lead to more confusion, not less
    - So, put all like information together
  - A way to better show connections
    - Via browsing...
      - **Directed (versus random)**
      - **Non-linear (versus linear)**
  - XML Topic Maps (XTM)
    - Index based method: Topics
    - “Atoms” of documentation
    - Ability to associate topics w/each other
      - **As often as necessary**

# Implementation

- Store atomic data in a database
  - MS Access
- Create an application for entering data and outputting documents
  - .Net app
  - HTML Output
  - XTM Output (standard – other tools - Omnigator)
- Technical audience is target for first version of document
  - Data users guide (“Field Guide”)
  - Not a system users guide
- Still an “in progress” work (always will be)
- All is sharable, if you’re interested

# Demonstrations

- General Index (everything we know about)
- Main Index (more important topics)
- AQS report (\_\_\_\_)
  - Report description
  - Column header associations – Monitor Type
    - What fields are in this report?
  - Business name associations
    - What are the common names of these fields?
    - What other reports is this field in?
- Data Mart field (duration)
  - Business name
  - Physical Name
  - Use caveat
- Associations
  - Field in system
- Data Mart instructions (?)



# Follow Up

- Will continue to add information
- Will publish
- Will take suggestions from you
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