



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?²

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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