AQS Concepts

In This Section We Will Talk About

- AQS Background
- History
- AQS as part of a monitoring program
- Types of Information in AQS
- AQS and CDX
- Database basics
- AQS Data Model
- Tying AQS codes to real-world examples

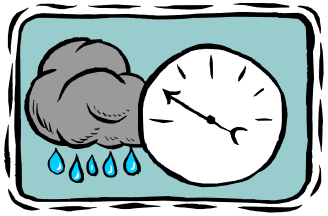
What is AQS?

- EPA's Database Application used to House and Store Ambient Air Quality Data
- Centralizes the Location of Data
  - Used to Determine if areas are meeting the National Ambient Air Quality Standards (NAAQS)
  - Used by Universities and Institutes to Perform Health Studies

Brief History of AQS

- SAROAD (1970 – 1985)
  - Storage And Retrieval Of Air Data
  - Created in Response to the 1970 Clean Air Act
- AIRS – AQS (1985 – 2000)
  - Aeroemetric Information Retrieval System
    - Stored Ambient Air Quality Data (Air Quality Subsystem) as well as Point Source Emission Data
  - Combined the Data from Ambient, Point Source, and Quality Assurance Data Systems
- AQS (2000 – Present)
  - Air Quality System
  - Contains Ambient Air Quality Data and Quality Assurance Information

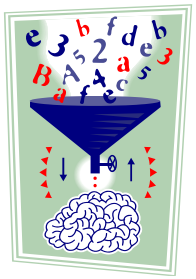
How Does AQS Fit in the Big Picture?



Monitor the Air

Acquire Data

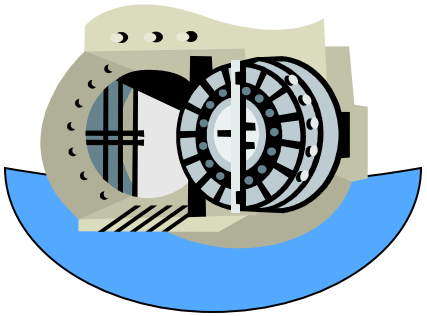
Handle Data



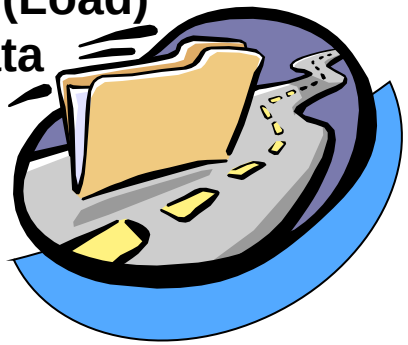
Regulate

Analyze

Store

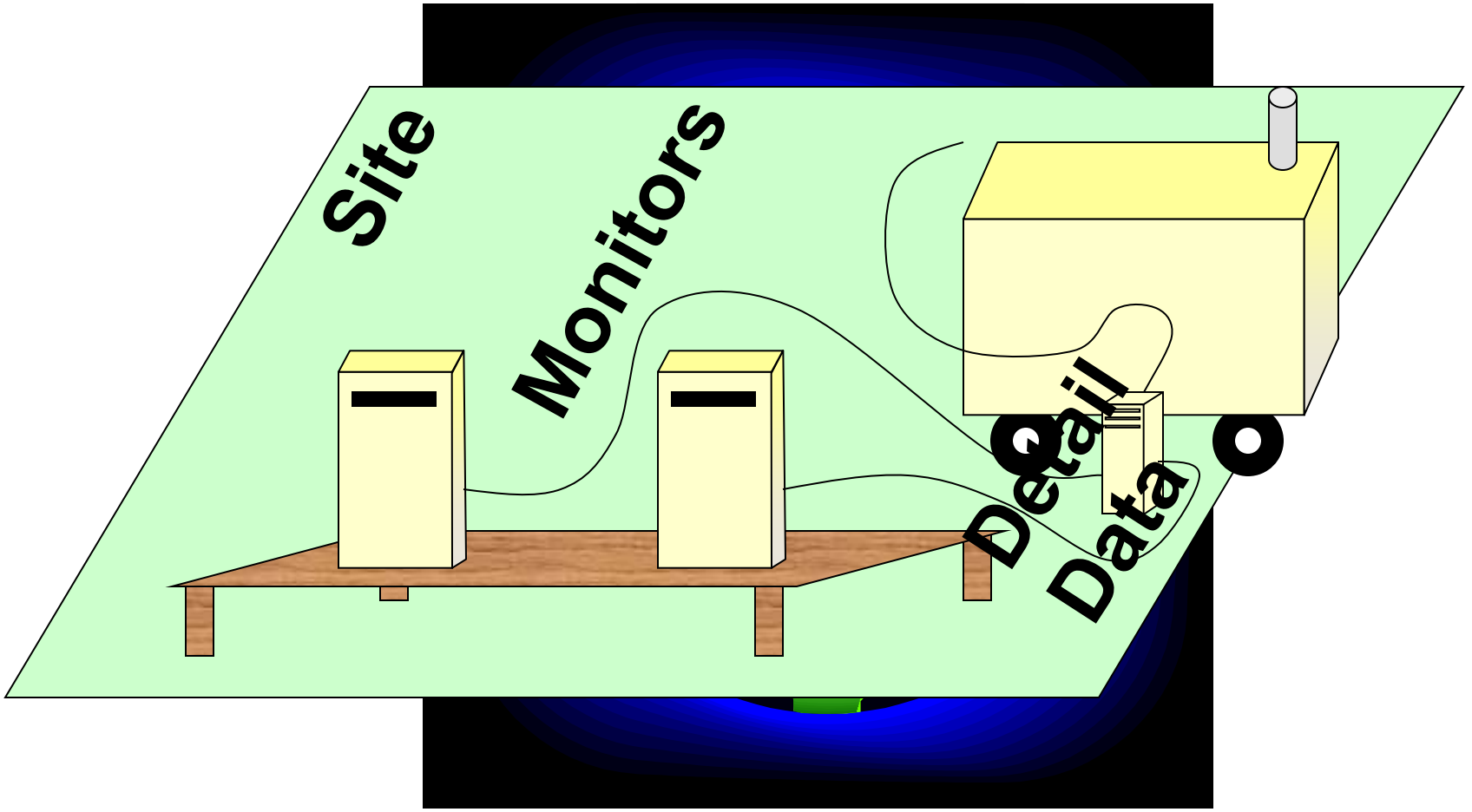


Report (Load) Data



AQS

Types of Core Data in AQS



Site Information

- Physical location – Where is the site?
  - Latitude and longitude
  - Street address
- Characteristics of the site
  - Nearby Streets
  - Open Path Set Up
  - Primary monitor ($PM_{2.5}$, Lead or $NO_{2)}$
- Identified by
  - State Code - County Code - Site ID OR
  - Tribal Code - Site ID

Monitor Information

- How is a Given Pollutant Measured?
  - When Sampling Began
  - Which Network(s) are associated with the Monitor
  - What Agencies run the Monitor
  - What Are the Monitoring Objectives
  - What Obstructions are Nearby
  - What Nearby Roads May Affect the Monitor
  - If the Monitor is Collocated, is this monitor the Primary or Collocated Monitor? If Collocated, which is the Primary?
  - How Frequently Does the Monitor Try to Get a Sample?
- Identified by
  - AQS Site ID + Pollutant Code + Parameter Occurrence Code (POC)

(Think of it a POC a Sequence Number)

Detail Data

- Sample Measurement Obtained by the Instrument
  - User Reports:
    - Individual Sample Data (Raw Data)
      - Any Notes & Flags Pertaining to the Sample Data
    - Audit Data (Precision and Bias Data)
  - AQS Computes
    - Multi-hour Averages (e.g. 8-hour running average)
    - Daily Summaries
    - Site Summaries ($PM_{2.5}$ and Lead Only)
    - Quarterly Summaries
    - Annual Summaries
    - Site Annual Summaries ($PM_{2.5}$ and Lead Only)
- Identified by
  - Individual Sample Data
    - Monitor ID + When the Sample Was Taken (Date & Time) + Status
  - Audit Data
    - Monitor ID + When the Sample Was Taken (Date & Time)
  - Summary Data
    - Monitor ID + Time Period Summarized + Sample Duration + Exceptional Data Type + Pollutant Standard

Reference Data

- "Extra" Information about the Data in AQS
  - Sets of Codes Available for these Descriptions
  - Standard Codes Used where Available
- Codes are Used to Identify
  - States, Counties, Tribal Lands,
  - Pollutants,
  - Sample Lengths,
  - etc…

Examples of Commonly Used Codes

- Parameter Codes
  - O_3 = 44201
  - NO_2 = 42602
  - SO_2 hourly = 42401
  - CO = 42101
  - $PM_{2.5}$ = 88101
  - PM_{10} STP = 81102
  - Lead (TSP) at LC FRM/FEM= 14129
  - Lead (PM_{10}) at LC FRM/FEM = 85129
- Units of Measure
  - 001 = $\mu g/m^3$
  - 007 = ppm (parts per million)
  - 008 = ppb (parts per billion
- Collection Frequency Codes
  - 1 = Every Day
  - 3 = Every 3rd Day
  - 6 = Every 6th Day
- Duration Codes
  - 7 = 24 Hours
  - 1 = 1 Hour
  - W = 8-Hour Running Avg.*
  - X = 24-Hour Block Avg.*
  - Y = 3-Hour Block Avg. *

* AQS Generated Durations
LC = local conditions
STP = standard temperature and pressure
FRM = Federal Reference Method
FEM = Federal Equivalent Method

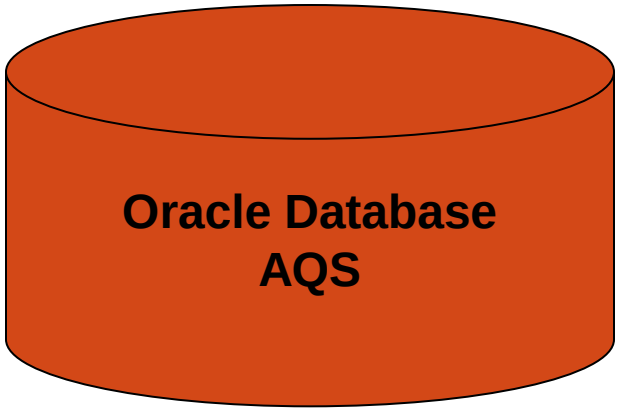
Core + Reference Information

- An Ozone (44201) Monitor in Wake County(183), North Carolina (37) is represented as

  37-183-0001-44201-1
- A PM10 (81102) Monitor for the St. Regis Band of Mohawk Indians of New York (007) is represented as

  TT-007-1234-81102-1

Components of AQS

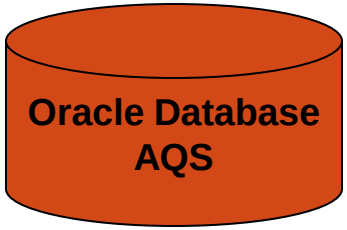


- Holds all the Data
- All the Processes and Codes
- Enforcement of the Rules

- User Interface for the database

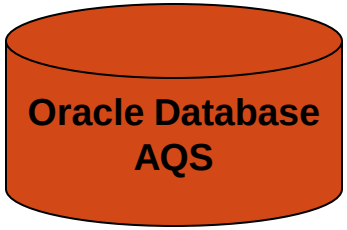
- Sends files to/from AQS
- external application

What is a Database?



- A collection of information about a particular subject stored so that the information can be accessed and organized
- The AQS Database stores information about ambient air quality measurements

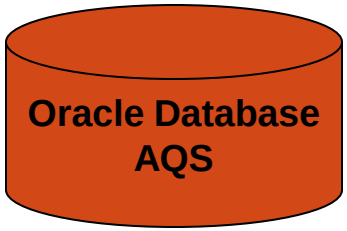
The AQS Database

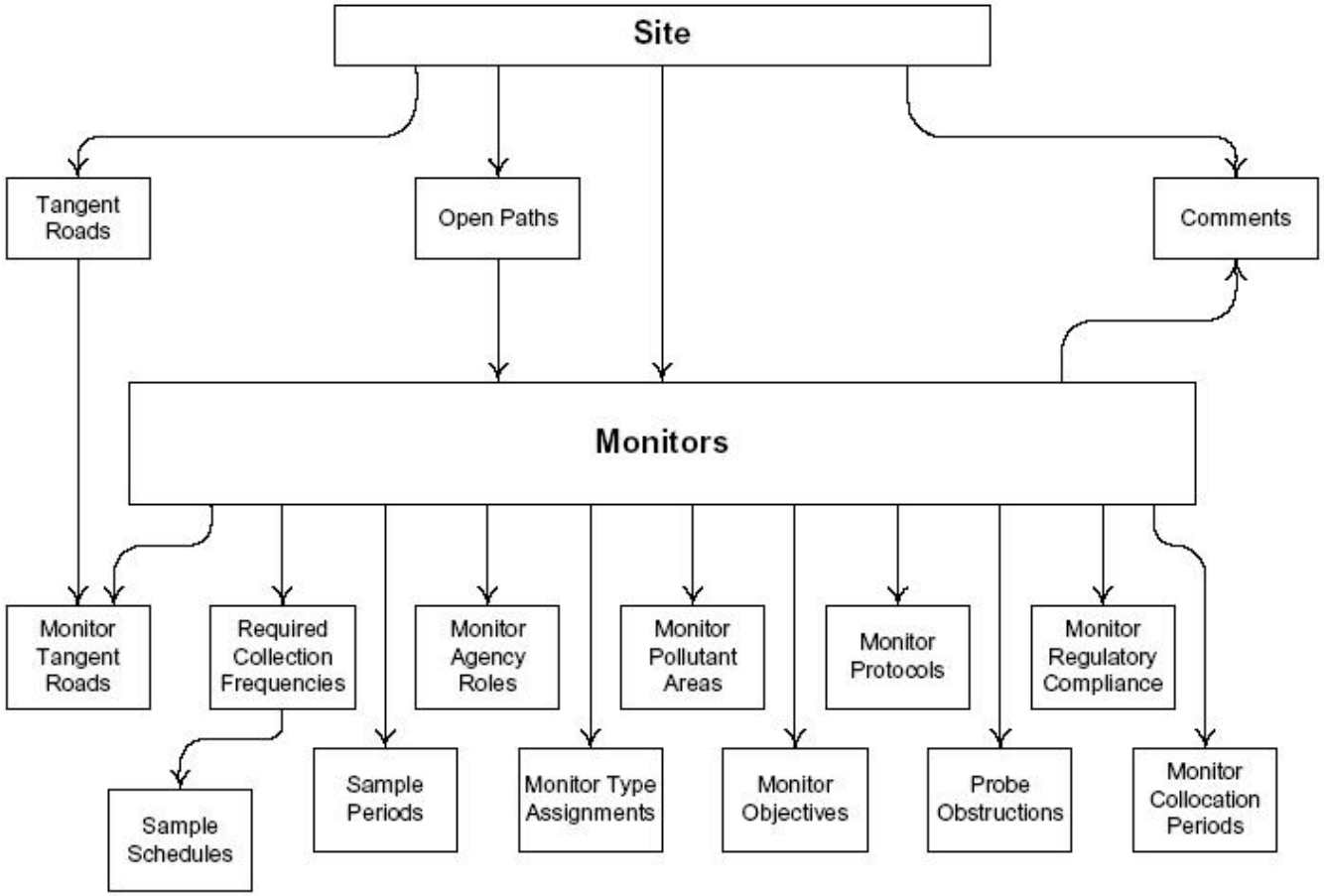


The AQS database can be considered to have four fundamental types of data:

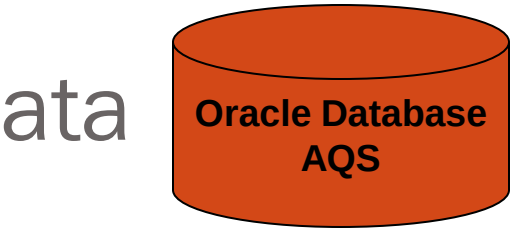
- **Sites**: Information about monitoring locations
- **Monitors**: Information about how measurements are taken
- **Detail Data**: Measurements, Summaries, and QA information
- **Reference Data**: Information about the real-world (e.g., States, Tribes, Pollutants (parameters))

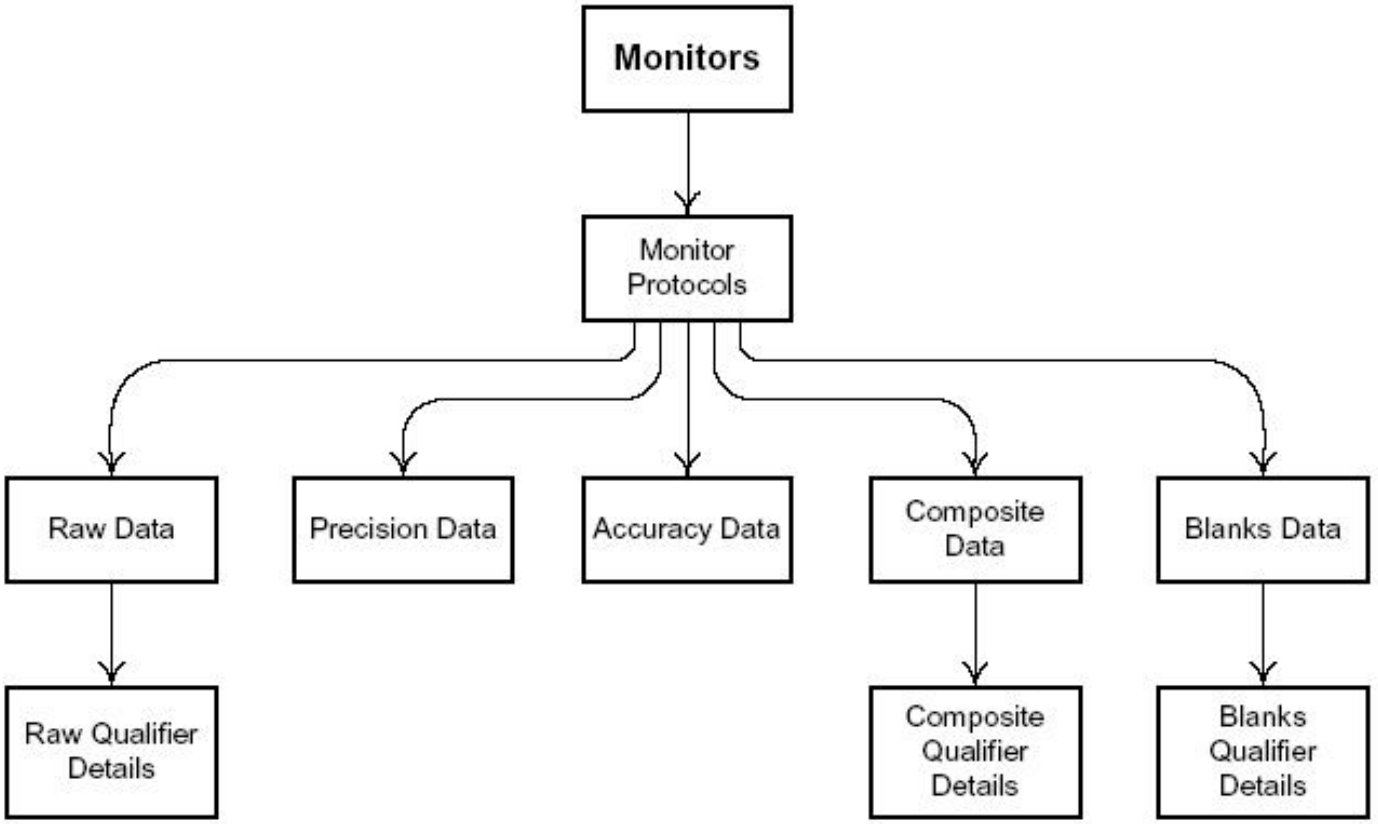
AQS Site and Monitor Data Model



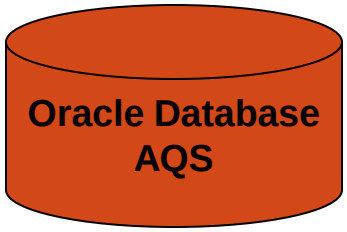


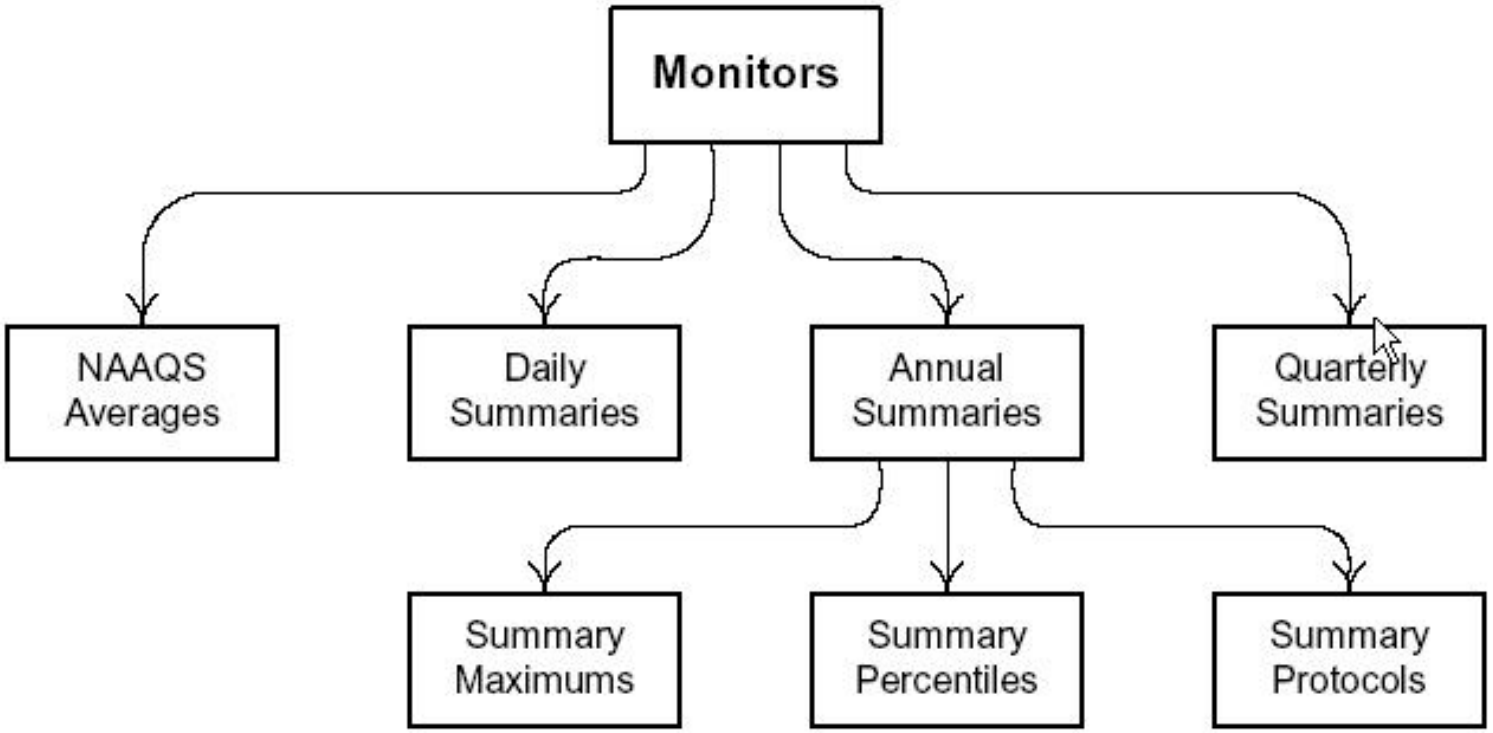
AQS Data Model – Sample Data





AQS Data Model – Summary Data





Exercise 1.1

1. Name the 4 Categories of Data in AQS.
    1. _____
    2. _____
    3. _____
    4. _____
2. What is meant by a “site”? How do you uniquely define a “site” in AQS?
3. What is meant by a “monitor”? How do you uniquely define a “monitor” in AQS?
4. What would a Summary Record with a Duration Code of “W” and a Parameter Code of “44201” represent?

The AQS User Interface

User Interface Parts

(aka “Oracle Forms and Reports”)

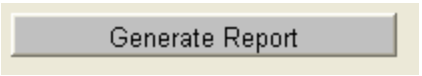
- Forms: Present information and accept input.
- Reports: Present formatted data for printing (reports) or input by other software (workfiles)
- Menus: Select a form or execute an action
- Icons: Execute an action

Forms:

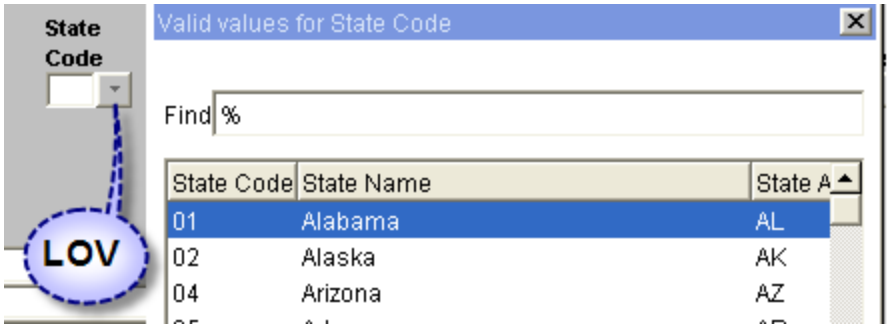
- Forms are the primary way that you interact with the AQS database.
  - They provide a way for you to enter data:

  - They display previously entered data:

  - They may have buttons to allow you to request actions:

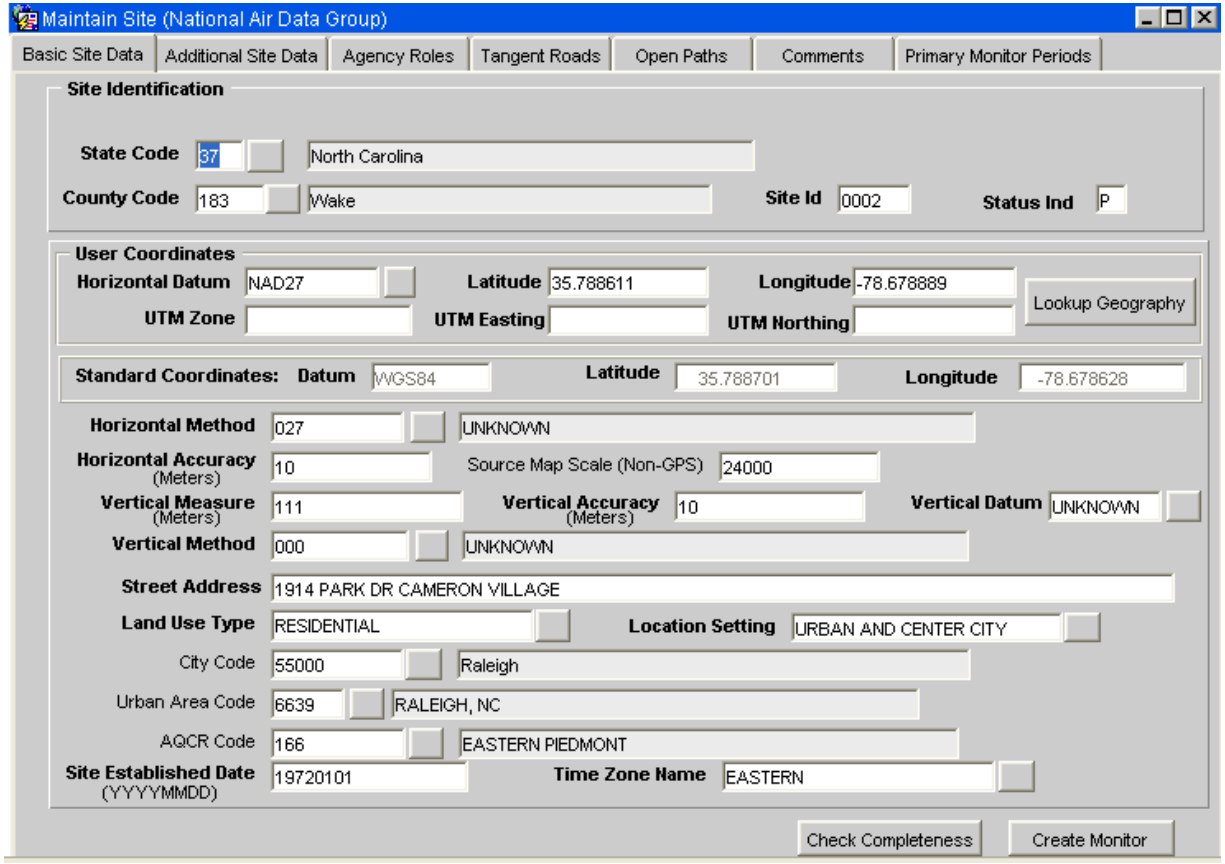


  - They often have List of Values (LOVs) to make a selection:



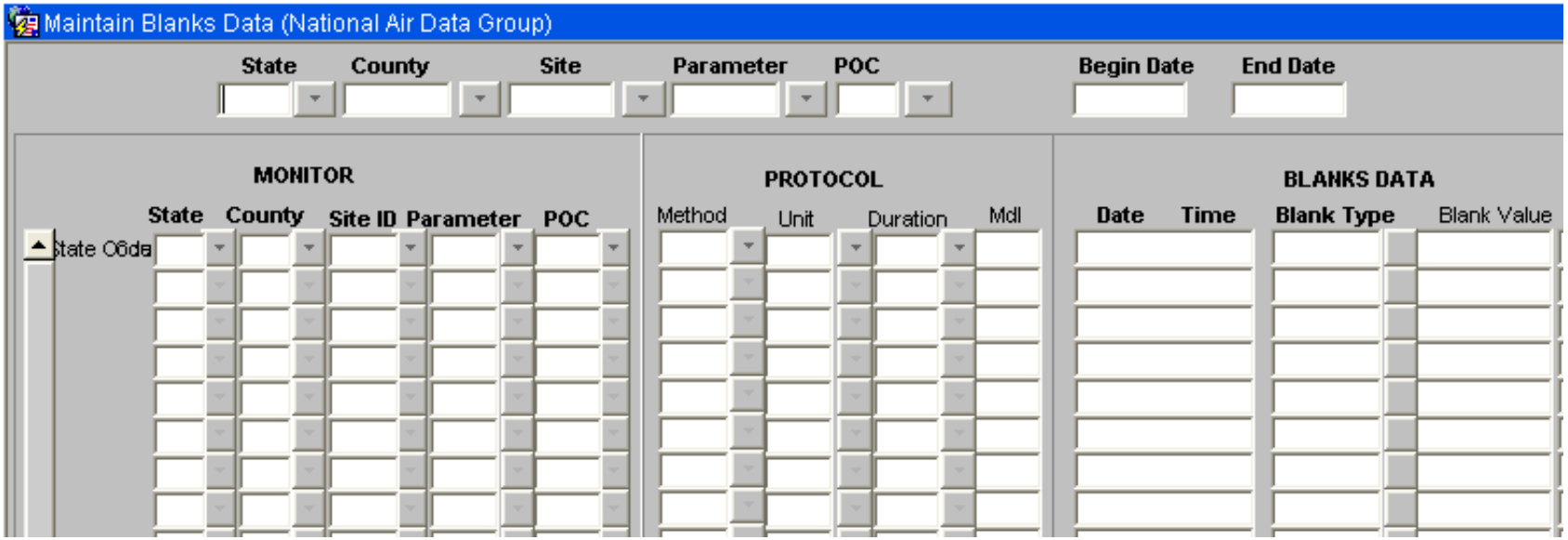
Form Types (1)

- Some forms are designed to display only one record at the time:

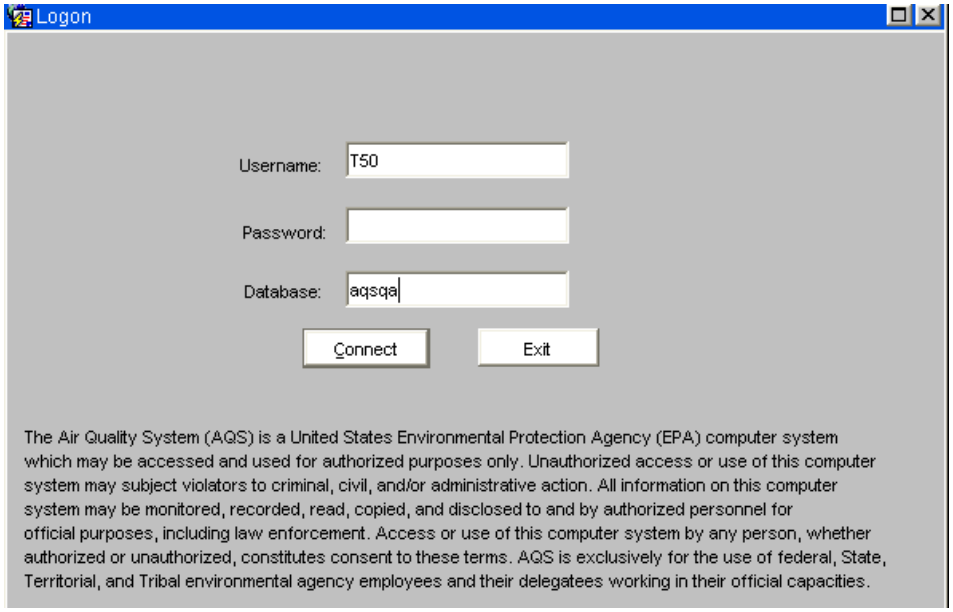


Form Types (2)

- Other forms allow you to view/edit multiple records at the same time:

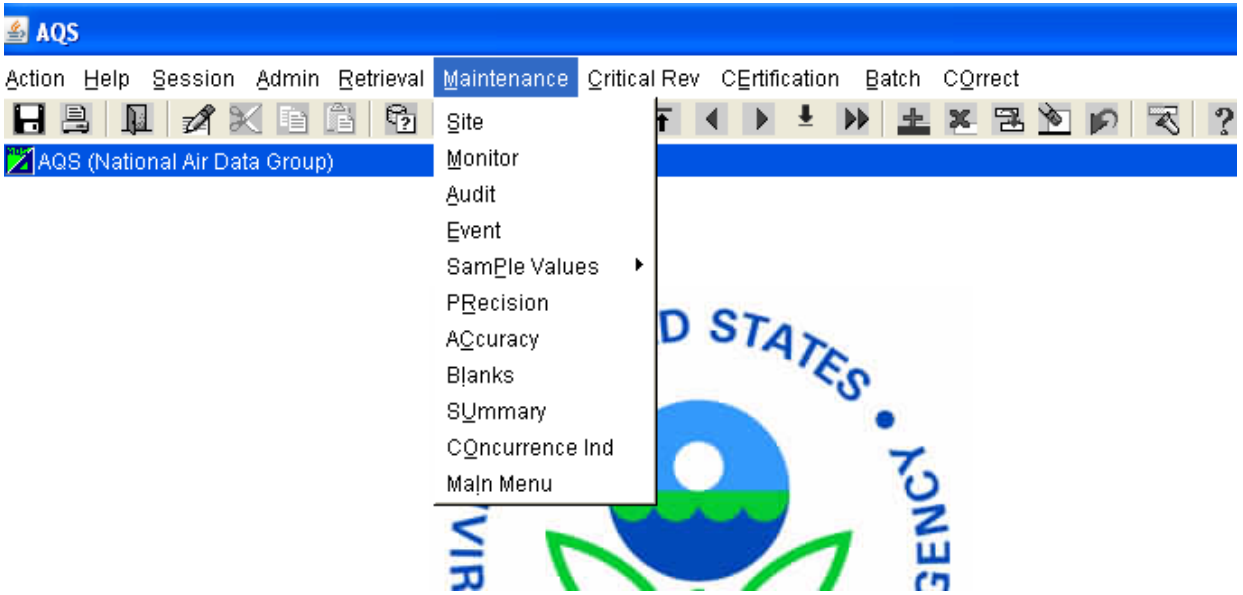


AQS Login Form



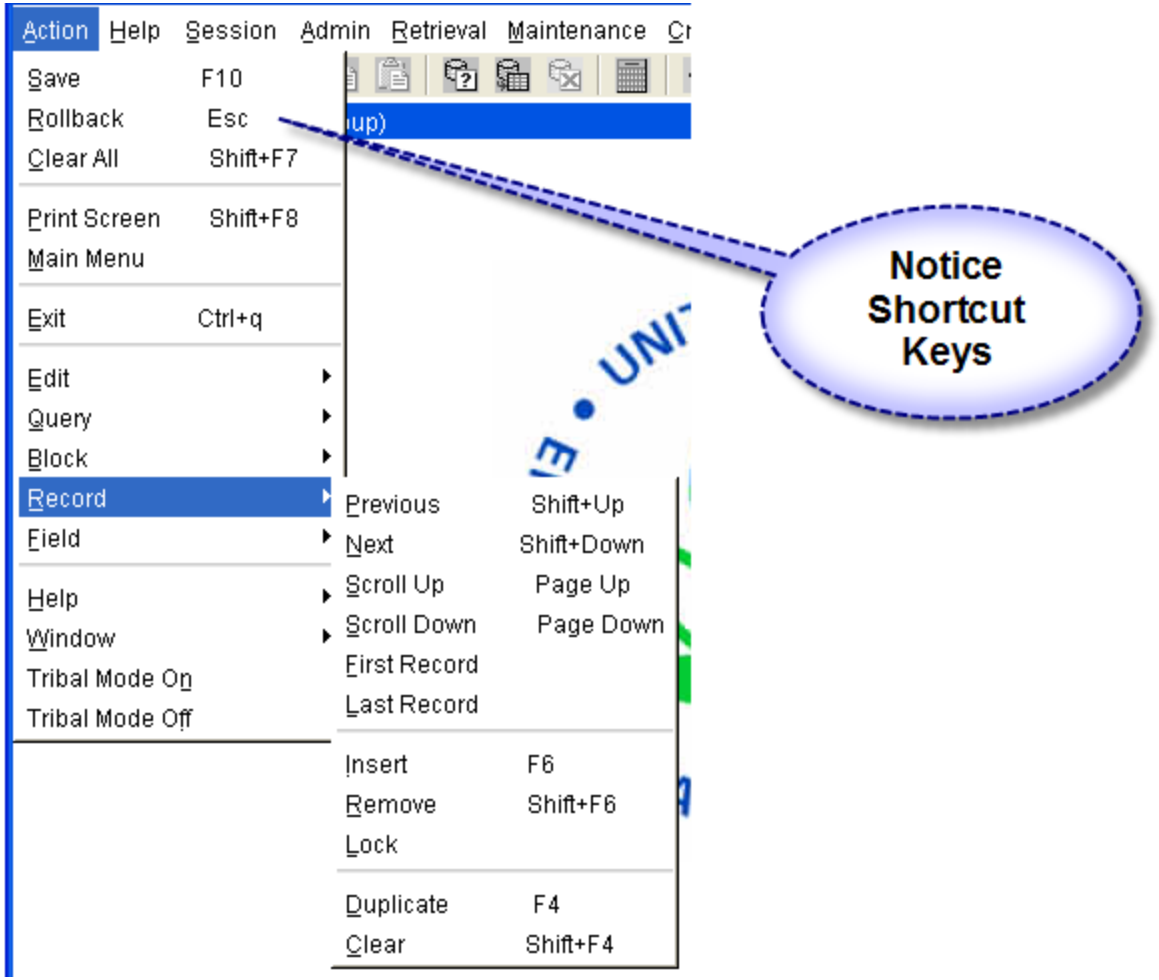
AQS Menus

- The AQS Main Menu allows access to all forms that are part of AQS:



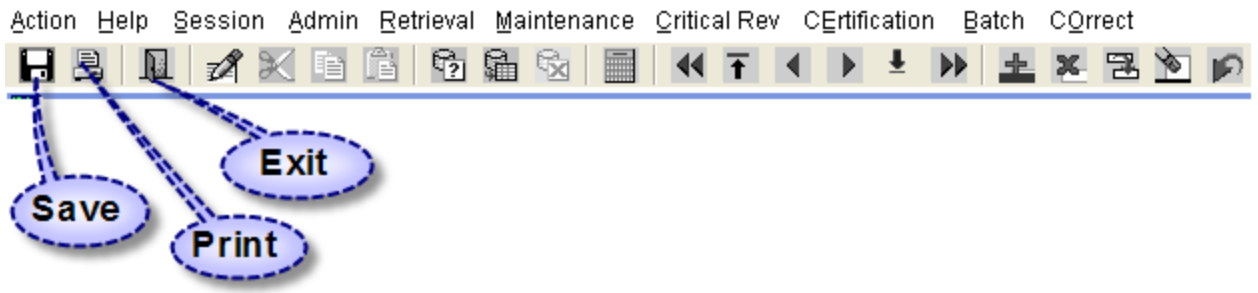
AQS Menu (Action):

- The Action Menu allows you to request specific operations:



AQS Icons

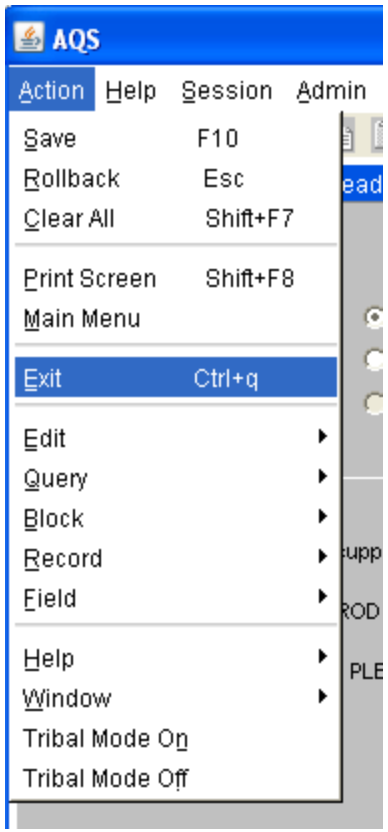
- AQS Icons allow you to request actions from the Action Menu:



- Other icons will be covered later

Three ways to log off

- Click on the Exit Icon from the Main Menu
- Click on the red at the top right corner
- Select Exit from the Action Menu



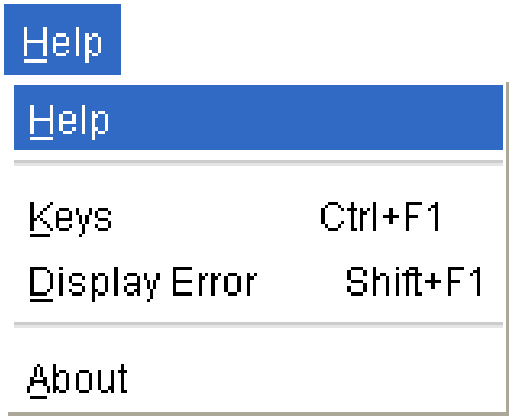
Help

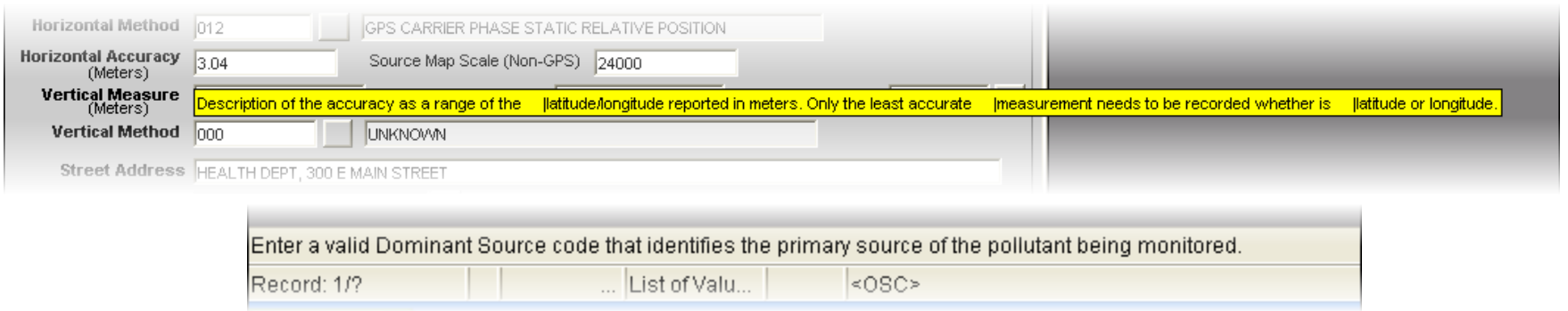
Where to Find AQS Help

- On-Line Help from the Application
- AQS Documentation
- On the Phone
- Internet Training
- AQS Regional Contacts
- Other Users

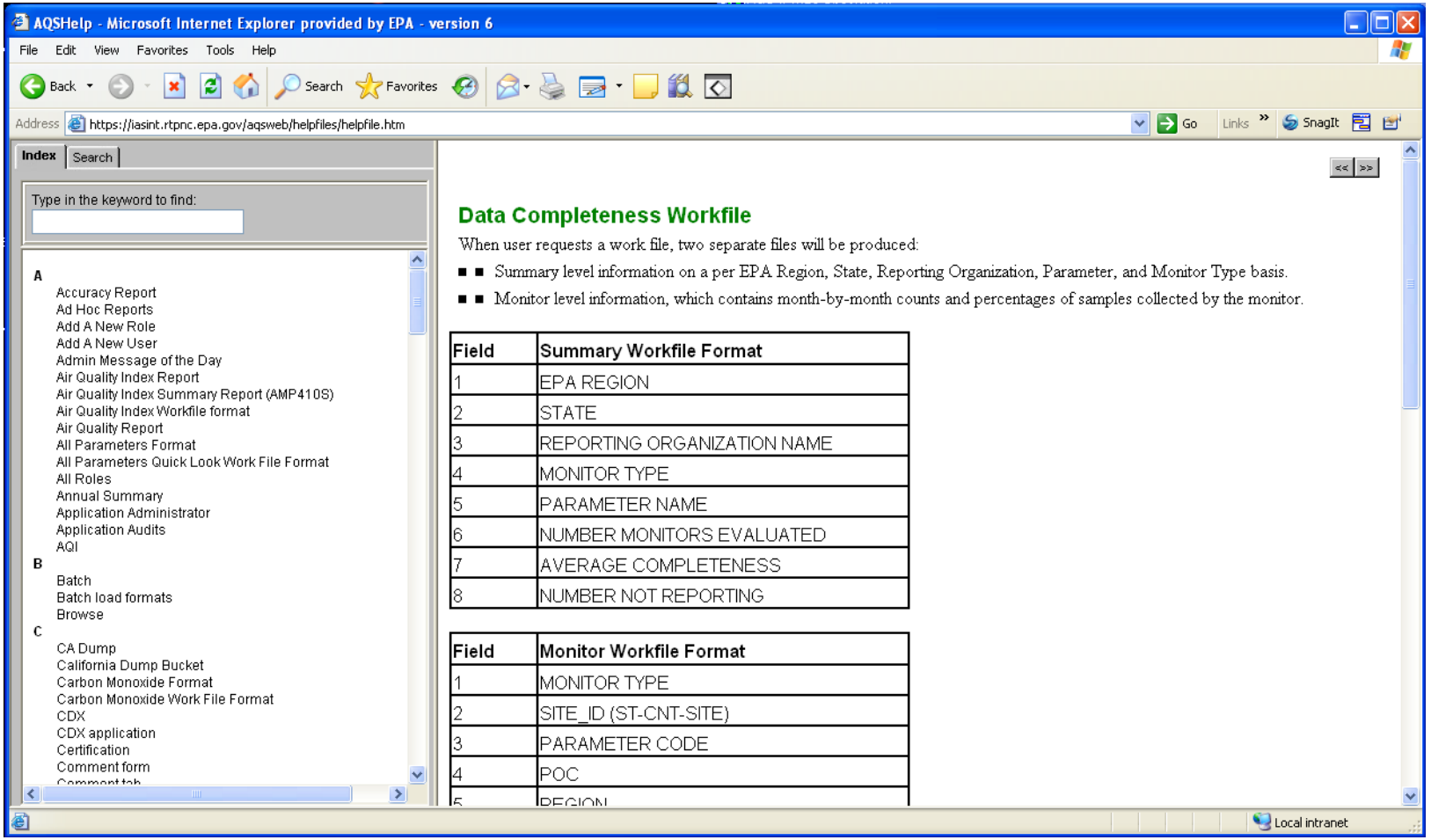
From the Application

- "Help" From the Menu
  - Topics
  - Short-Cut Keys
  - Display Error
- Field-Level Help





Help within AQS



Helpdesk User Support

EPA Helpdesk

- 866-411-4372 or epacallcenter@epa.gov
- Levels of support
  - Level 1: password resets for AQSProd; opens a problem ticket
  - Level 2: AQS-specific issues → Pamela and Donnie
  - Level 3: server issues → NCC
  - Level 4: software and data issues → AQS Team
- Exchange Network (EN) Helpdesk
  - 888-890-1995 or nodehelpdesk@epa.cdx.net
  - Supports:
    - Node (production) password resets / general Node support

When in doubt, call the EPA Helpdesk

AQS Team

AQSTeam@epa.gov

- Robert Coats, team lead
- Bill Frietsche (QA & audits)
- Way Poteat
- Chris Chapman
- Nick Mangus (Data Mart)
- Michael Hamlin (user registration)
- Angie Shatas

AQS Regional Contacts

1: Wendy McDougall
(617) 918-8323

2: Henry Feingersh
(212) 637-3382

3: Pauline DeVose
(215) 814-2186

4: Darren Palmer
(404) 562-9052

5: Jesse McGrath
(312) 886-1532

6: Trisha Curran
(214) 665-8345

7: James Regehr
(913) 551-5063

8: Joe Delwiche
(303) 312-6448

9: Fletcher Clover
(415) 972-3991

10: Jan Noel
(206) 553-1691

AQS Documentation

- Manuals and Guides

http://www.epa.gov/ttn/airs/airsaqs/manuals/

  - Design Value Report (SO_2) *
  - Submit Automation User Guide *
  - Data Dictionary *
  - Data Coding Manual
  - AQS Input Transaction Formats***
  - Exceptional Event Tutorial
  - Fundamentals & User Guide **
  - Data Retrieval Manual **

- Codes and Descriptions *
- Memos and Software Release Notes *

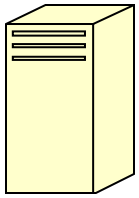
http://www.epa.gov/ttn/airs/airsaqs/memos/

* New/updated ** Near term updates/overhaul *** Longer term overhaul

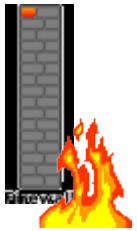
About Your User ID & User Profile

(ORIGINAL DO NOT USE)

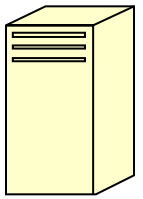
AQS User



AQS Application
"Forms & Reports"



EPA Firewall



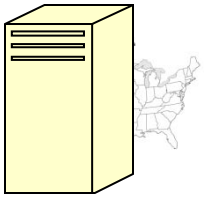
EPA CDX

Different systems…
different user accounts

AQS Database

EPA CDX Dashboard

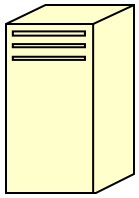
1st Q 2012
Will incorporate AQS
Autoloader project



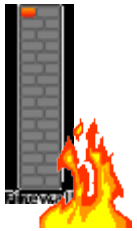
Exchange Network Node

AQS Architecture

AQS User



AQS Application
"Forms & Reports"



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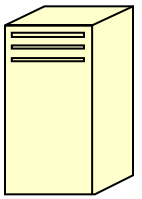

EPA CDX

Different systems…
different user accounts

AQS Database

EPA CDX Dashboard

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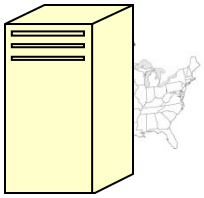


Exchange Network Node

AQS, CDX, Exchange Network

- AQS database

  oasext.epa.gov/aqs

- File transfers to AQS must be handled externally
  - Via CDX

    www.epa.gov/cdx
    - CDX account is requested for all new AQS users
    - Call CDX Help Desk to complete registration
  - Via CDX Dashboard (EN-compliant), starting Q1 2012
    - AQS users will be seamlessly routed through CDX Dashboard
    - AQS and CDX user IDs will change
    - AQS will be first name initial + last name (“JSMITH”)
    - CDX will be email address (“Smith.John@epa.gov”)
  - Via the Exchange Network using XML by end of 2013

Why move from CDX to Exchange Network?

- ECOS (Environmental Council of States) resolution
- Goals of Exchange Network:
  - Standardize file transfer formats to EPA
  - Use XML
- "Autoloading" of files into AQS is a side result
  - AQS Load only
  - AQS Load & Stat CR only
  - AQS Load, Stat CR, & Post

Logging on to AQS

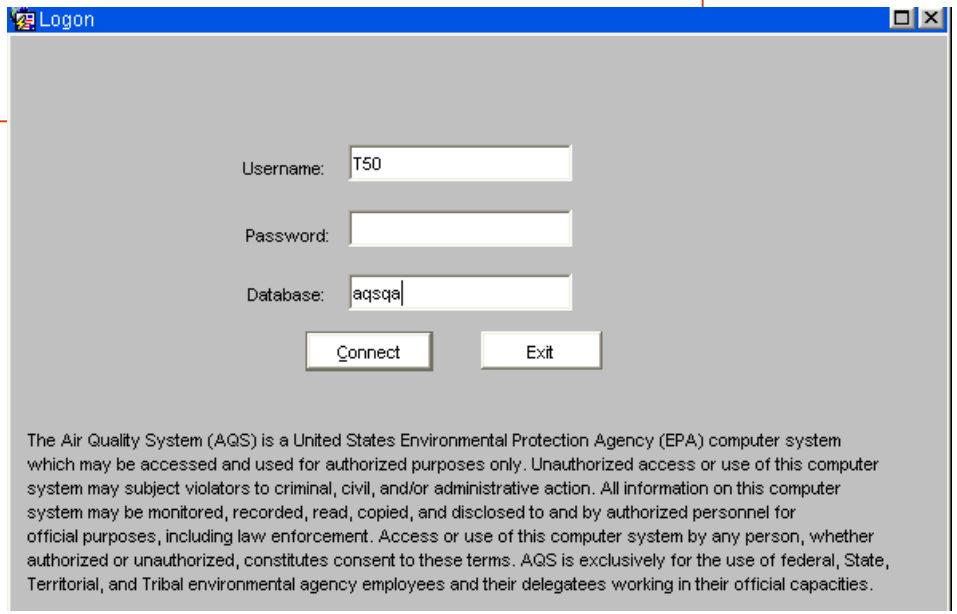
- Username = 3-character ID obtained with registration
- Password = your selected password
- Database= “AQSPROD”

For this training class, see your notebook for the login information:

Username: “TXX”

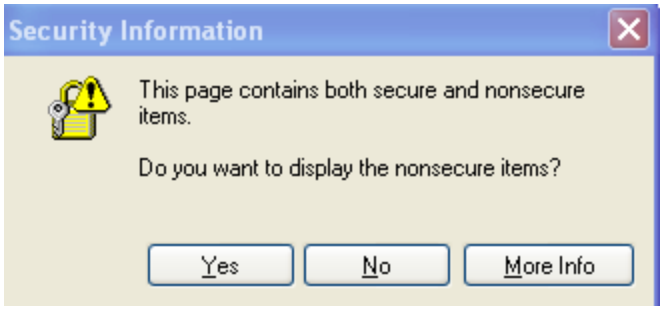
Password:

Database: “AQSQA”



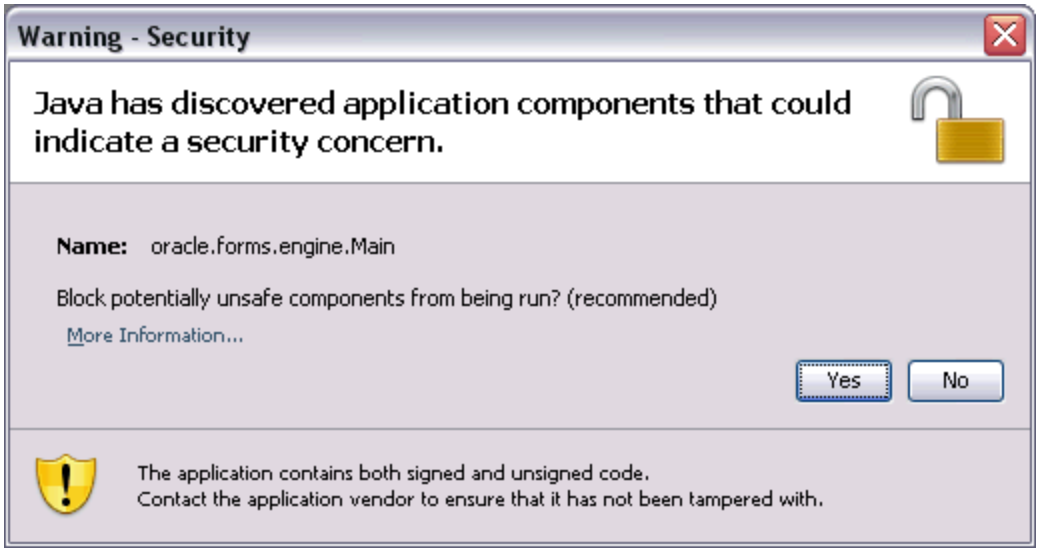
Logging on to AQS – security pop-ups

- Pop-up warning:



- Latest Java versions also display this warning:

Choose “No” or the menu bars in AQS will be blocked



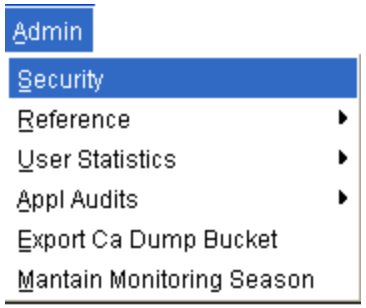
Account management

- Change password every 90 days (For AQS & CDX)
  - You receive an automated reminder
  - You can change your passwords in AQS at any time
- After 180 days of inactivity, your user account is locked
  - You receive an automated reminder
  - If your account is locked, you must call the EPA Helpdesk to have it unlocked
- After 365 days of inactivity, your user account is removed
  - You receive an automated reminder
  - You must go through the user registration process

Password Rules

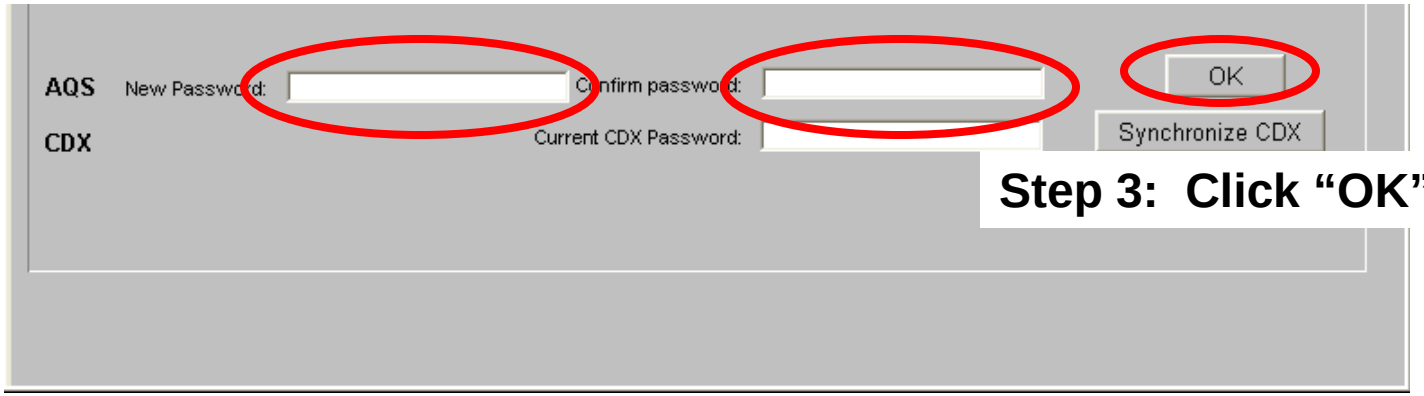
- Must be between 8 -15 characters
- Must contain at least 1 uppercase, 1 lowercase and 1 number
- Must not BEGIN or END with a number
- Must be changed every 90 days
- At least three characters or character positions of the new password must differ from the old
  - “Novemb3r” could be changed to “Decemb3r”
  - “Fido1smydog” could be changed to “mydog1sFido”
- NOT Allowed:
  - Special characters (eg, !@#$%^&*)
  - Your first or last name
  - Any common word found in a dictionary
  - Your 3-digit AQS username (in forward or reverse order)
  - The letters “AQS”
  - The word “password”
- Password or account problems? Call the EPA Call Center at 866-411-4372

Where to Change Your AQS Password



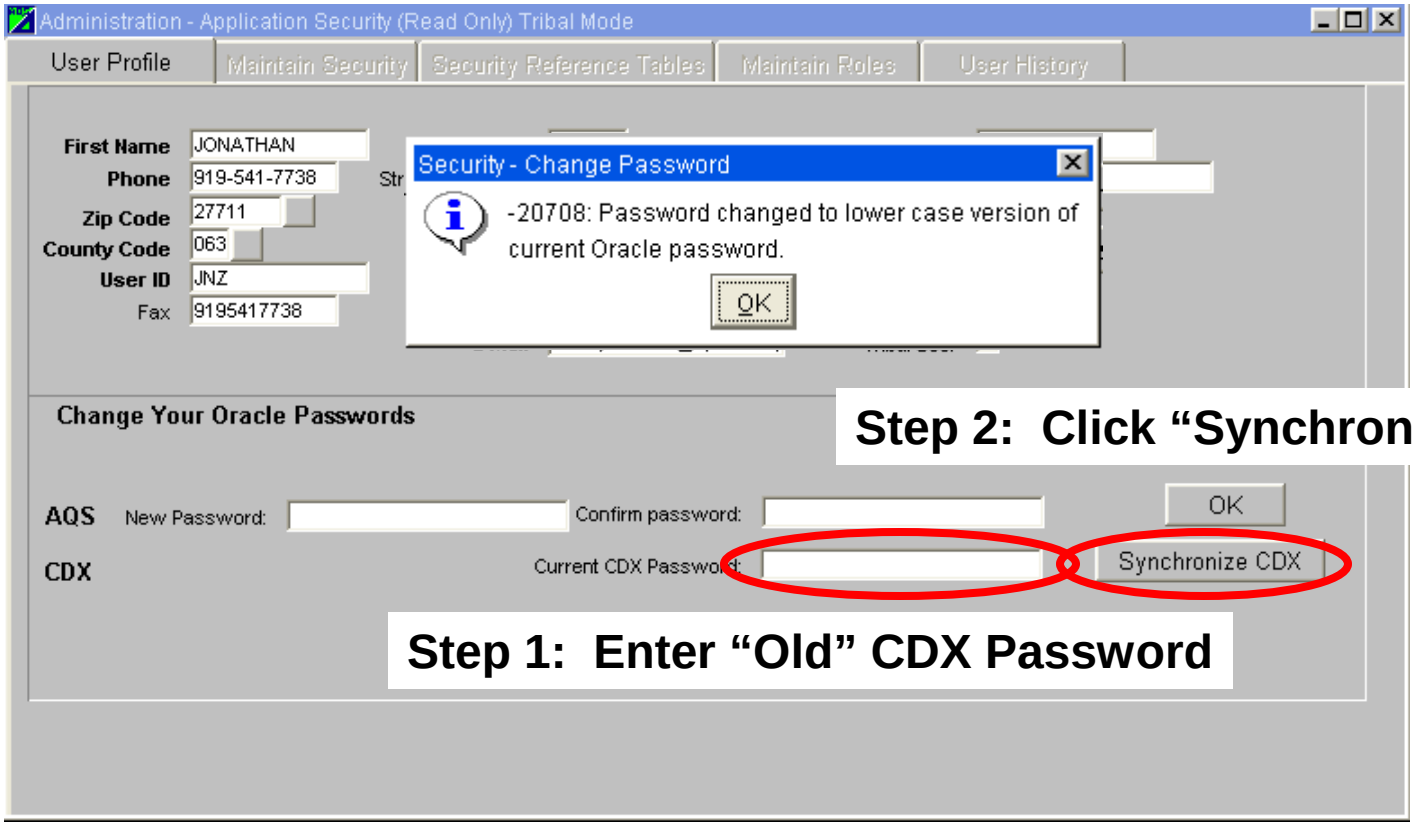
Step 1: Select "Admin" → "Security" from the Main Menu

Step 2: Fill in the "New Password" & "Confirm Password Fields



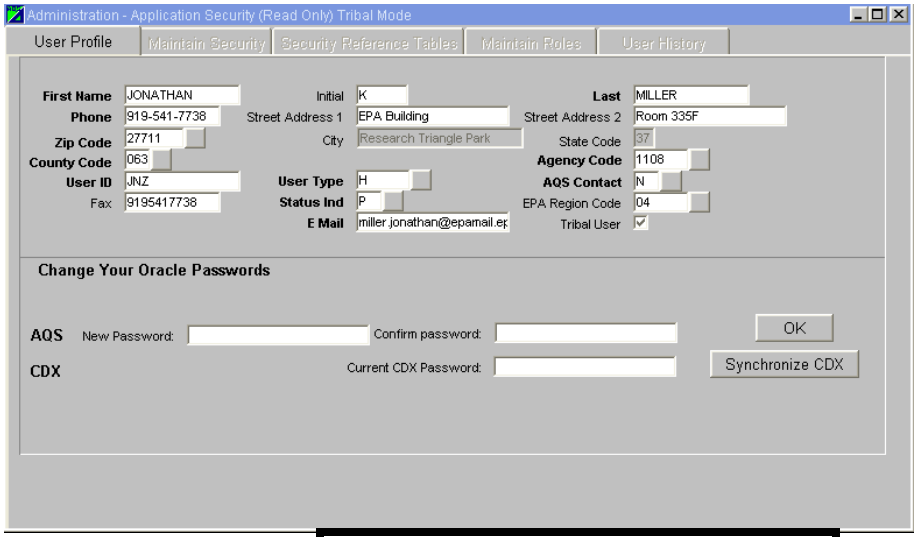
Step 3: Click "OK"

Synchronize Your CDX Password



About Your User Profile

- Cannot change
  - Agency Code
  - User ID
  - User Type
  - AQS Contact
  - Status Indicator



- Tribal user setting
  - Determines how you see AQS Site IDs

Tribal User "ON"
TT-549-0001
Tribal User "OFF"
36-001-0001

- Keep Email address current!

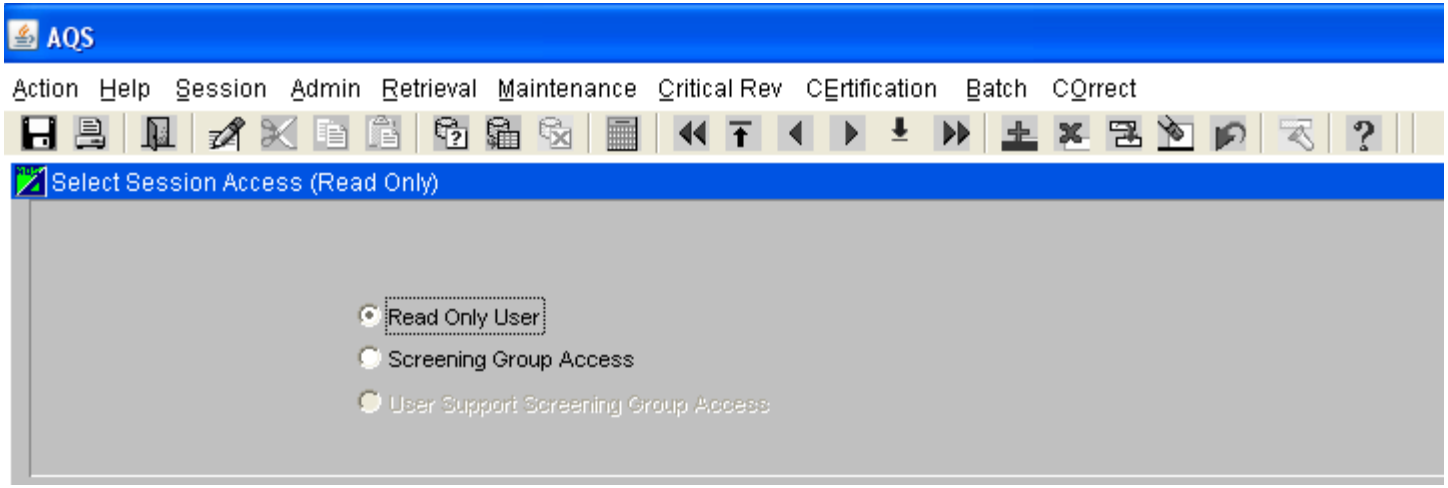
Put it into practice: Exercise 1.2

AQS Screening Groups

In This Section We Will Talk About

- Access levels in AQS
  - Read-only access
  - Screening group access

Logged into AQS;
Now choose Access Level



What is the Difference Between "Read Only" & Screening Group Access?

Menu	Access Type	
	Read-only	Screening Group
Maintenance (browse)	✓ All public data	✓ Only see data (public or not) owned by screening group
Maintenance (update)	✓ No changes can be made	✓ Can change any data in SG
Standard Reports	✓	✓ (plus extra reports)
Batch	✗	✓
Correct	✗	✓

- Signing on With a Screening Group Allows You Into New Areas of the Application
- Using Maintenance in a Screening Group → only access monitors owned by that Screening Group

Screening Group

- Main Security Mechanism in AQS
  - Defines What Group Owns a Monitor
  - Only One Group Can Own a Monitor
  - Only the Data Owner Can Change Data for This Monitor
- Users Are Assigned to One or More Screening Groups
  - Different Levels of Access Possible
  - Access granted during registration; Can be changed if needed
- A MONITOR Can Only Be "Owned" by One Screening Group
- You Must Select a Screening Group in the Session If You Want to Change Data

In this class. . .

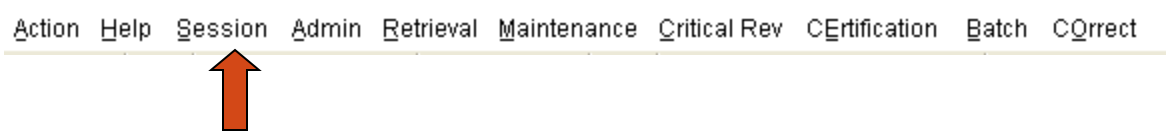
- Each person has a separate Screening Group
- Each person has a unique set of monitors that can be changed
- Screening group is "TRAININGGROUPxx", where "xx" are last two digits of your Training ID

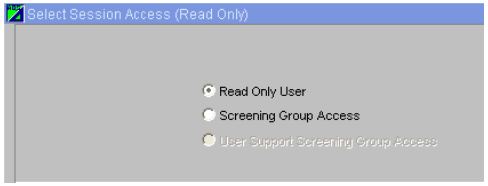
Status Of Records (as it relates to ownership)

- “P” = Production Status
  - Can be seen by Everyone
- “S” = Statistically Evaluated
  - Only for Raw Data
  - Can only be seen by the Data Owner
- “R” = Relationally Valid
  - Only for Raw Data
  - Can only be seen by the Data Owner
- “F” = Field Level Error
  - Something Needs to be Fixed Before the Record is “Production Status”
  - Can only be seen by the Data Owner
  - Can only changed by the Data Owner

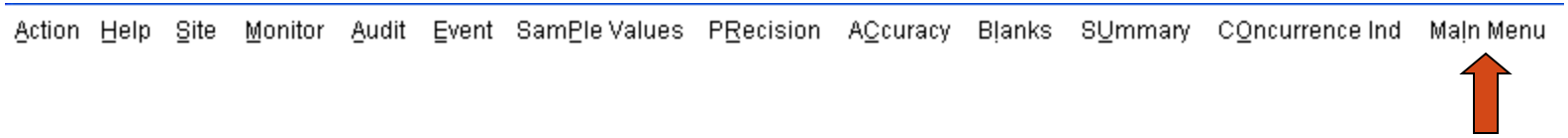
What If I Want to Change From “Read Only” to “Screening Group” Access?

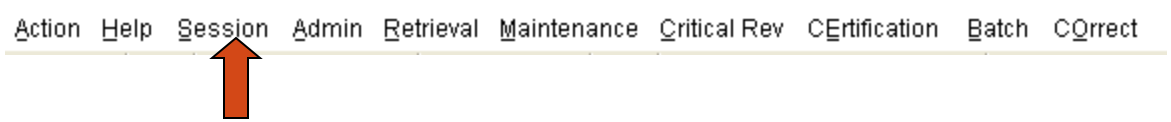
- From the “Main Menu”

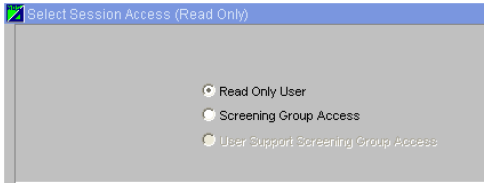


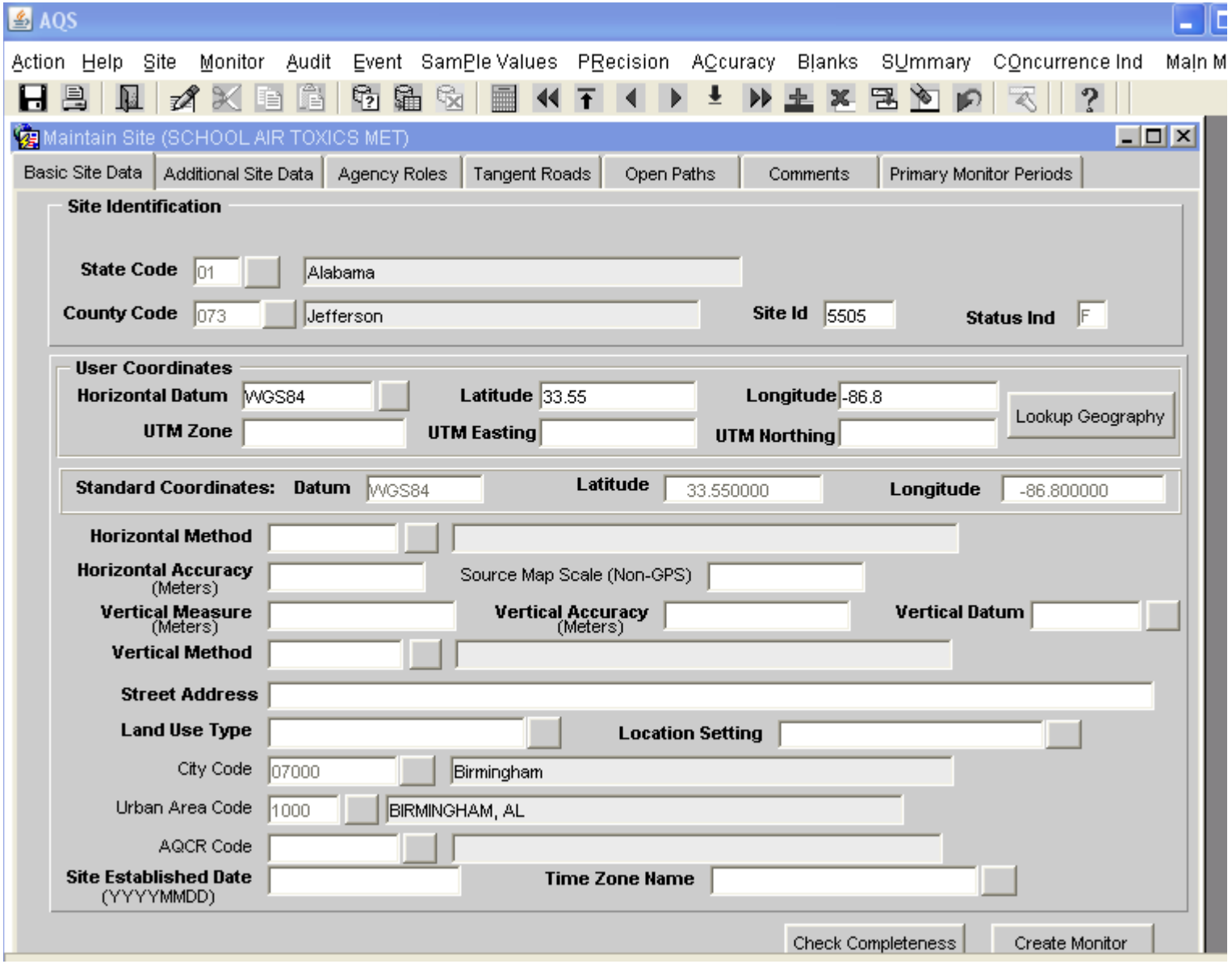


- From a “Sub Menu”








AQS
Action Help Site Monitor Audit Event SamPle Values PRecision ACcuracy Blanks SUmmary COncurrence Ind Main M
Maintain Site (SCHOOL AIR TOXICS MET)
Basic Site Data
Additional Site Data
Agency Roles
Tangent Roads
Open Paths
Comments
Primary Monitor Periods
Site Identification
State Code 01 Alabama
County Code 073 Jefferson
Site Id 5505
Status Ind F
User Coordinates
Horizontal Datum WGS84
Latitude 33.55
Longitude -86.8
Lookup Geography
UTM Zone
UTM Easting
UTM Northing
Standard Coordinates: Datum WGS84
Latitude 33.550000
Longitude -86.800000
Horizontal Method
Horizontal Accuracy (Meters)
Source Map Scale (Non-GPS)
Vertical Measure (Meters)
Vertical Accuracy (Meters)
Vertical Datum
Vertical Method
Street Address
Land Use Type
Location Setting
City Code 07000 Birmingham
Urban Area Code 1000 BIRMINGHAM, AL
AQCR Code
Site Established Date (YYYYMMDD)
Time Zone Name
Check Completeness
Create Monitor

Demo / Class Walk-Through

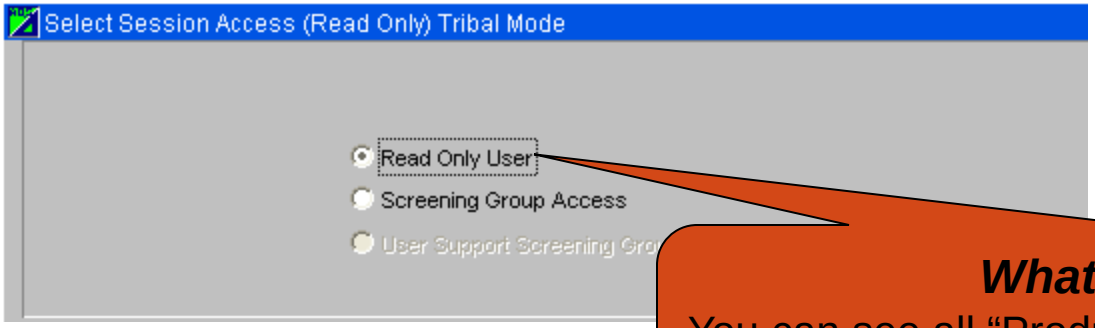
- Notice the window title – what mode are you in?
- Click the “Action” menu “Tribal Mode On” pick. Window Title?
- Click the Session menu pick, then the Screening Group Access radio button; then the OK button. Window Title?
- Click Action/TribalModeOff. Window title?
- Go to Maintain Site. Do a query (Enter/Execute Query). You will only see sites in your screening group.
- You can update information on any site in this screening group. To update information, use “Cancel Query” to go into update mode.

Browsing Data in AQS

What Can I Browse?

- Reference Information
  - Codes Used in the System
  - Seasonal Definitions
- Data Supplied to AQS in Small Groups of Information
  - Site
  - Monitor
  - Sample Data
  - Summary Data

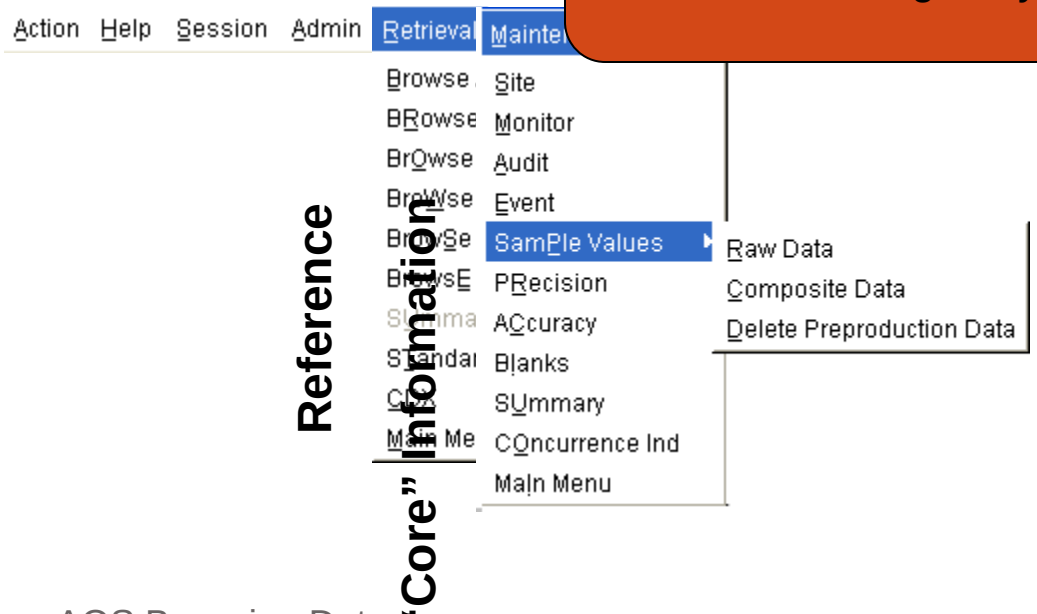
Where Do I Start?



What does this Mean?

You can see all "Production" data from Anyone

You cannot change any data



What's the Big Idea?

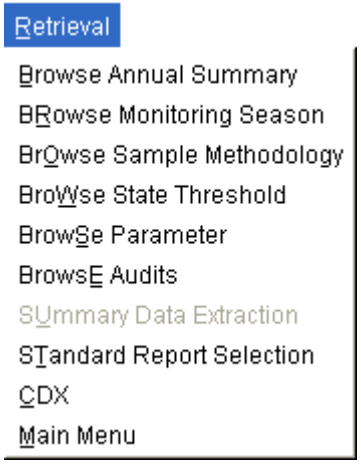
- Select the Type of Data you Want
- Get Only the Records You Need by Specifying Filters
- Execute the Query
- Scroll Through the Records

How Do I Do That?

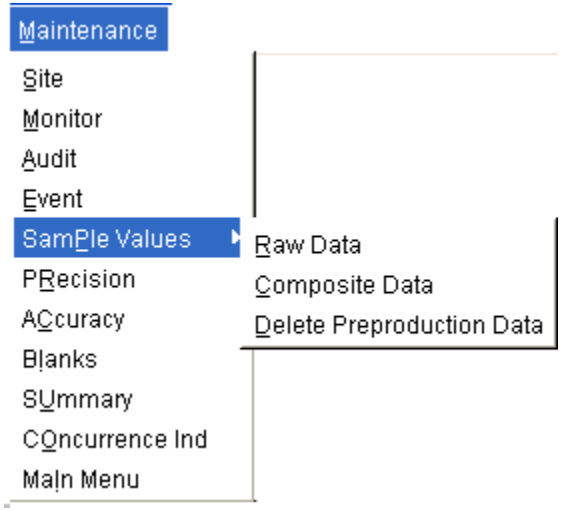
- Select the Type of Data (Reference or Core)
- Get Only the Records You Need by Specifying Filters

- Execute the Query 
- Scroll Through the Records

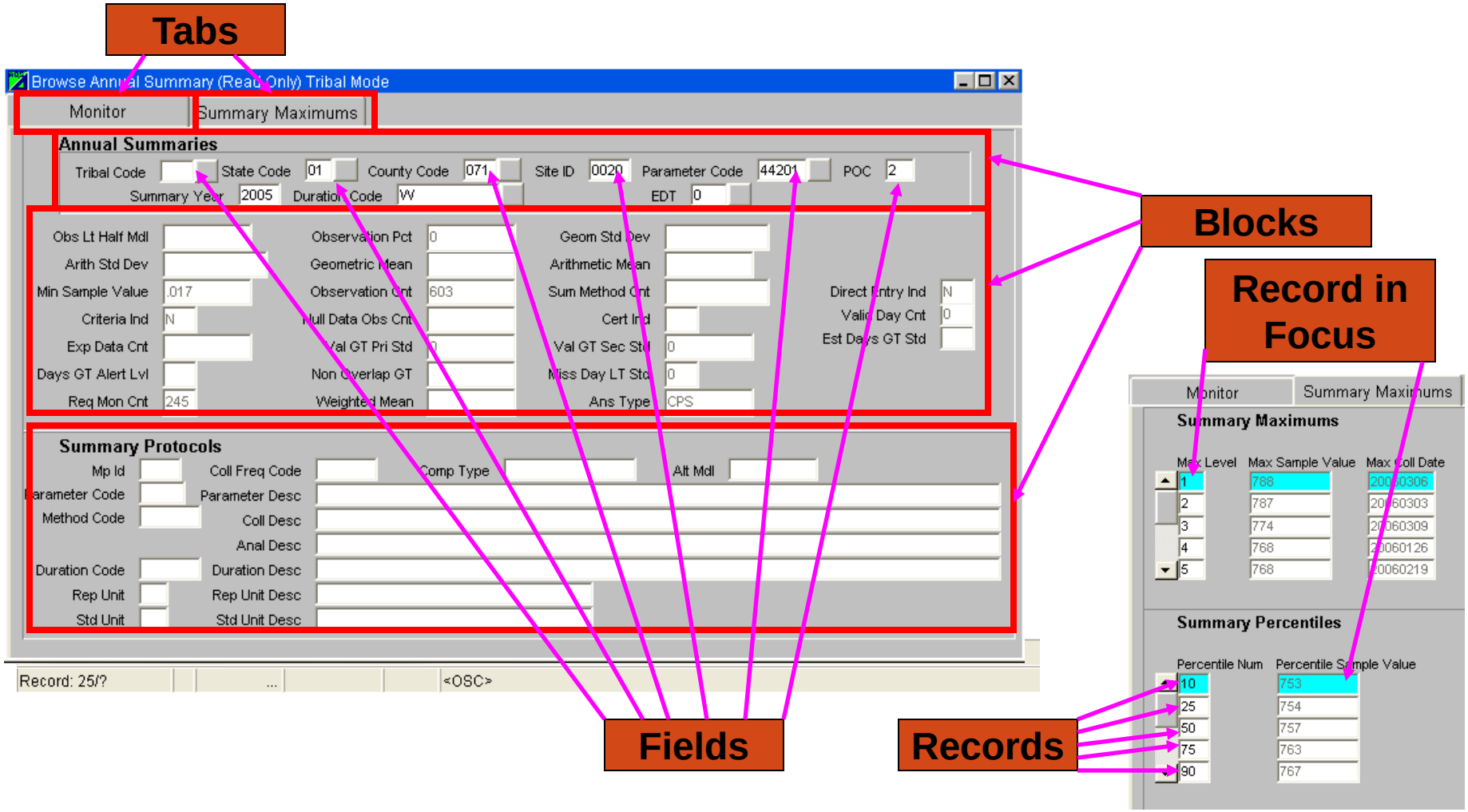
Reference



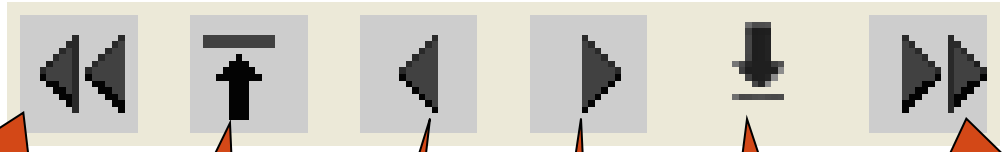
"Core" Information



Navigation


Tabs
Browse Annual Summary (Read Only) Tribal Mode
Monitor
Summary Maximums
Annual Summaries
Tribal Code
State Code 01
County Code 071
Site ID 0020
Parameter Code 44201
POC 2
Summary Year 2005
Duration Code W
EDT 0
Obs Lt Half Mdl
Arith Std Dev
Min Sample Value .017
Criteria Ind N
Exp Data Cnt
Days GT Alert Lvl
Req Mon Cnt 245
Observation Pct 0
Geometric Mean
Observation Cnt 603
Null Data Obs Cnt
Val GT Pri Std 0
Non Overlap GT
Weighted Mean
Geom Std Dev
Arithmetic Mean
Sum Method Cnt
Cert Ind
Val GT Sec Std 0
Miss Day LT Std 0
Ans Type CPS
Direct Entry Ind N
Valid Day Cnt 0
Est Days GT Std
Summary Protocols
Mp Id
Coll Freq Code
Comp Type
Alt Mdl
Parameter Code
Parameter Desc
Method Code
Coll Desc
Anal Desc
Duration Code
Duration Desc
Rep Unit
Rep Unit Desc
Std Unit
Std Unit Desc
Record: 25/?
<OSC>
Blocks
Record in Focus
Fields
Records
Monitor
Summary Maximums
Summary Maximums
Max Level
Max Sample Value
Max Coll Date
1 788 20060306
2 787 20060303
3 774 20060309
4 768 20060126
5 768 20060219
Summary Percentiles
Percentile Num
Percentile Sample Value
10 753
25 754
50 757
75 763
90 767

Form Navigation



Previous Block

First Record

Previous Record

Next Record

Last Record

Next Block

Brief Definition of the Field in Focus

Enter a State FIPS code that identifies one of the 50 states or other countries.

Record: 25/? ... <OSC>

The 25th Record of the current block / Unknown Total Number of Records.
Click “Last Record” to get the Total Number

Put it into practice – Exercise 1.3

Introduction to Standard Reports

How to get information out of AQS

- Standard Reports
  - Site / Monitor Metadata
  - Detail Data Reports
    - "Raw" Data
    - Extraction Reports
  - Summary Data
  - Audit / Precision & Accuracy Data
  - Raw Data Qualifier
  - Data Certification
  - Design Value
- Custom queries via Discoverer

Site & Monitor Reports

- Site metadata
  - Location, nearby streets
  - Open Path Set Up
  - Which $PM_{2.5}$, lead or NO_2 Monitor is the Primary Monitor
- Monitor metadata
  - How a given pollutant is measured
  - Sampling length
  - Monitoring frequency
  - Agencies responsible for the monitor and analysis
  - Monitoring objectives
  - Collocation information

AMP390 – Site Description

AMP390 – Monitor Description

Detail Data Reports

- "Raw" data from AQS
  - Can import information into spreadsheet for further processing
  - Open Path Set Up
- Extraction Reports
  - Provide data in AQS transaction format with Insert, Delete or Update codes
  - Useful for duplicating and reloading data

AMP500 - Extract Site/Monitor Data

AMP501 - Extract Raw Data

AMP502 - Extract Precision and Accuracy Data

AMP503 - Extract Blanks Data

Summary Data Reports

- Contains the calculated summary values from AQS
  - Multi-hour Averages (e.g. 8-hour running average)
  - Daily Summaries
  - Site Summaries ($PM_{2.5}$ and Lead Only)
  - Quarterly Summaries
  - Annual Summaries
  - Site Annual Summaries ($PM_{2.5}$ and Lead Only)

AMP450 – QuickLook

AMP435 – Daily Summary

AMP355 – Combined Site Sample Values (only for NO_2, $PM_{2.5}$ and lead)

Audit Reports

- Audit Data (Precision and Bias data)
  - 1-Point Quality Control
  - Annual Performance Evaluations
  - Flow Rate Verifications
  - Semi-Annual Flow Rate Audits
  - Collocation information
  - Performance Evaluation Program (PEP)
  - Single and collocated monitor precision checks

AMP255 - Data Quality Indicator

AMP250 - P/A Raw Data Report

AMP246 - Precision Report

Raw Data Qualifier report

- Raw data points that have qualifiers
  - Null data code qualifiers
  - Quality assurance qualifiers
  - Exceptional event qualifiers
  - Includes any Regional Office concurrence information

AMP360 - Raw Data Qualifier Report

Data Certification Reports

- AMP450 - **Quick Look Criteria**

for CO, NO2, SO2, ozone, PM10, PM2.5, and lead (12128)

choose “Include Events”

- AMP450NC - **Quick Look All**

for all other pollutants & lead (14129)

- AMP255 - **Data Quality Indicator**

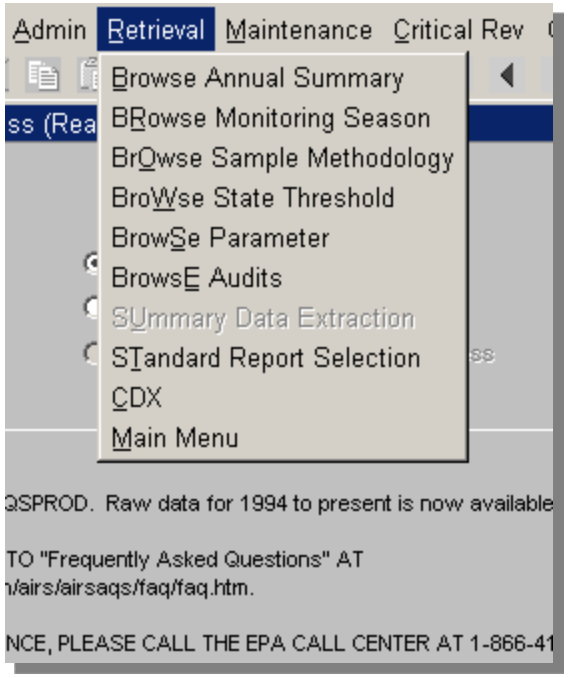
Design Values Report

- Generates the statistics used for NAAQS determinations.
- Also allows the 1) assessment of the effect of exceptional event flagging on Design Values, and 2) the assessment of attainment issues based on partial data.

AMP480 - **Design Values Report**

Standard Reports

- Retrieval
  - Standard report selection



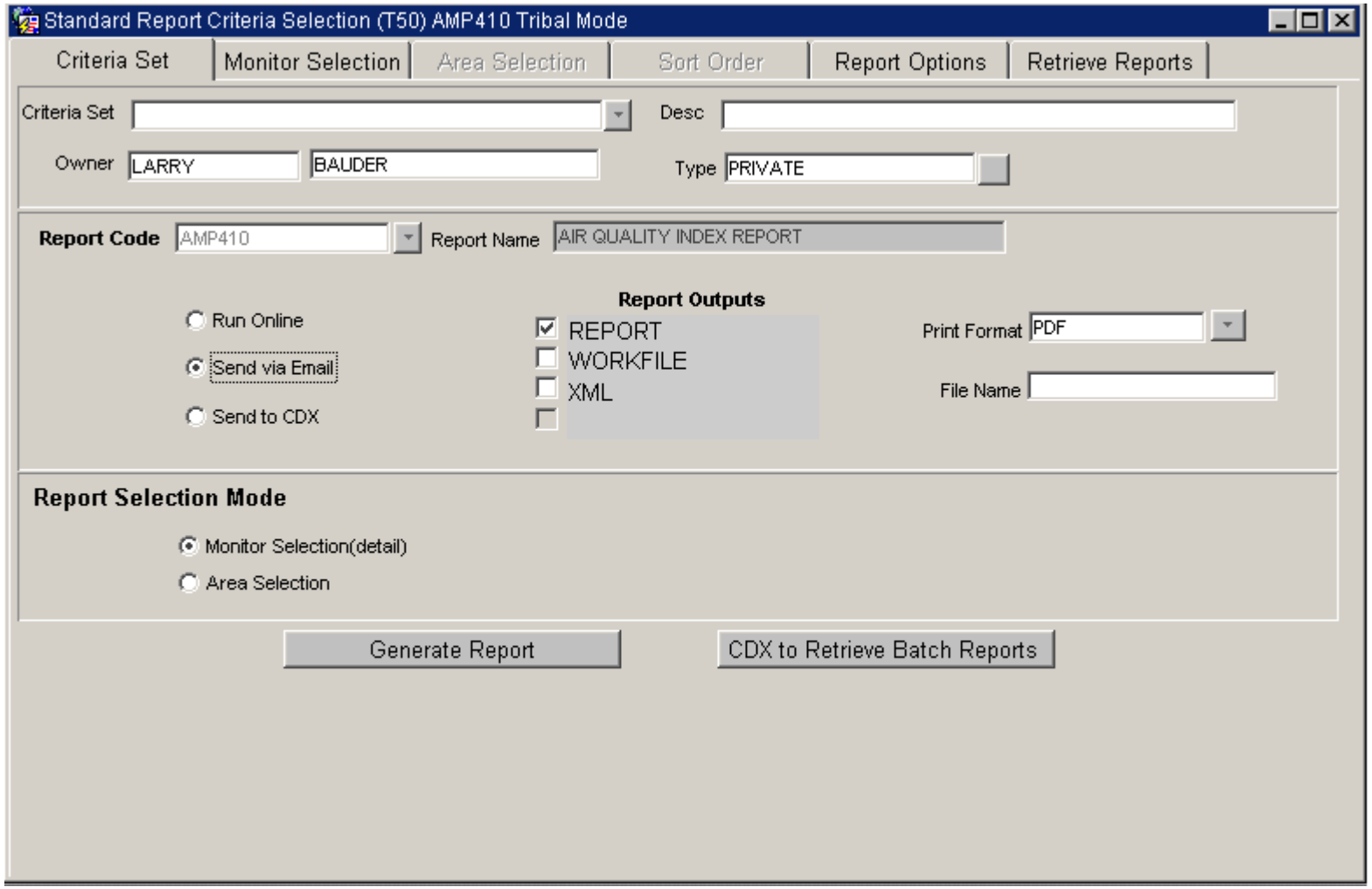
The Process of Creating a Report – Choosing the "Criteria Set"

1. Select report (Report Code field)
2. Specify Output type (Report, Workfile, XML)
3. Establish report-selection criteria
    1. Geography
    2. Pollutants
    3. Date
    4. Screening group
4. Modify report Sort Order criteria (where available)
5. Modify output Report Options (where available)
6. Generate Report
7. As you leave Reports form, prompted to save the Criteria Set.

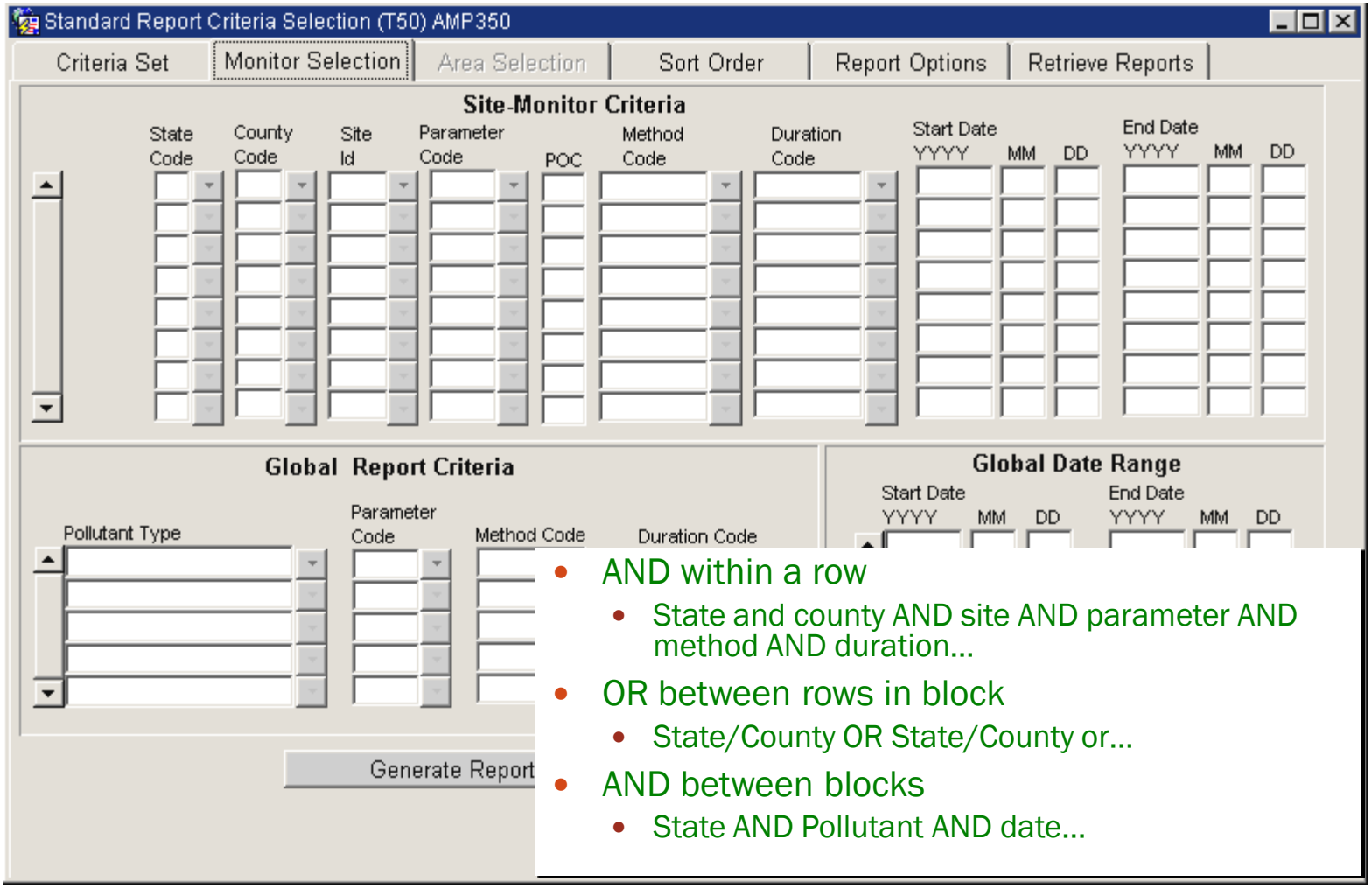
General Issues

- Do NOT run reports without specifying some limiting selection criteria
- Almost all reports require date-selection criteria
- Sort Order and Report Options available on reports where data structure allows
- Oracle provides output in several formats. PDF generally most reliable.
- Do not use the initial browser window (that started AQS) for any other purpose. If not blank gray, reports will not run properly.
- Batch vs online delivery
  - Online: Pop-up window in web browser window, save from browser window
  - Batch/CDX: Separate CDX transfer of report to local disk
  - Batch/email: Email delivery of report as Link

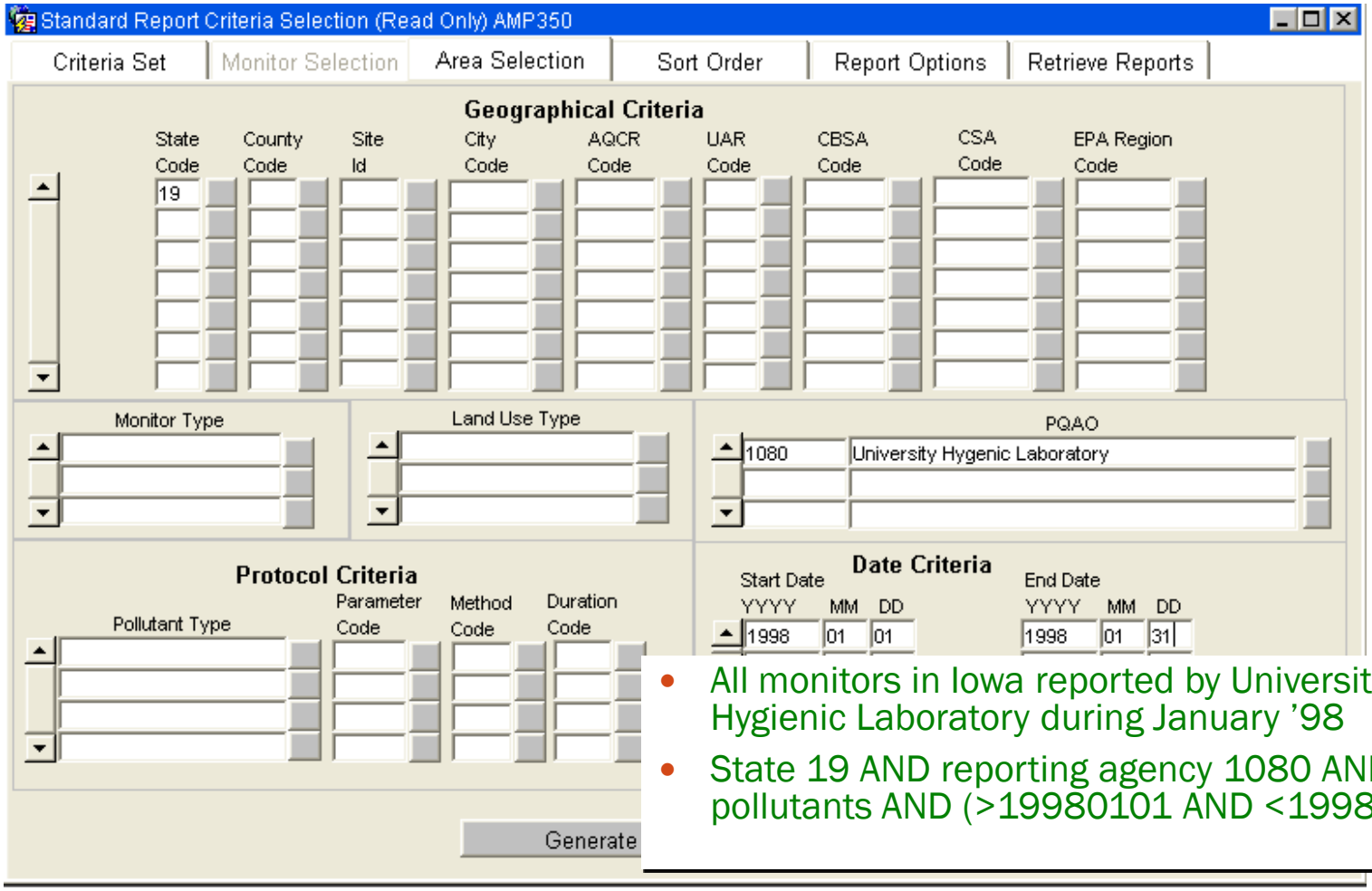
Standard Reports: Criteria Set



Overview of “and/or” in selections

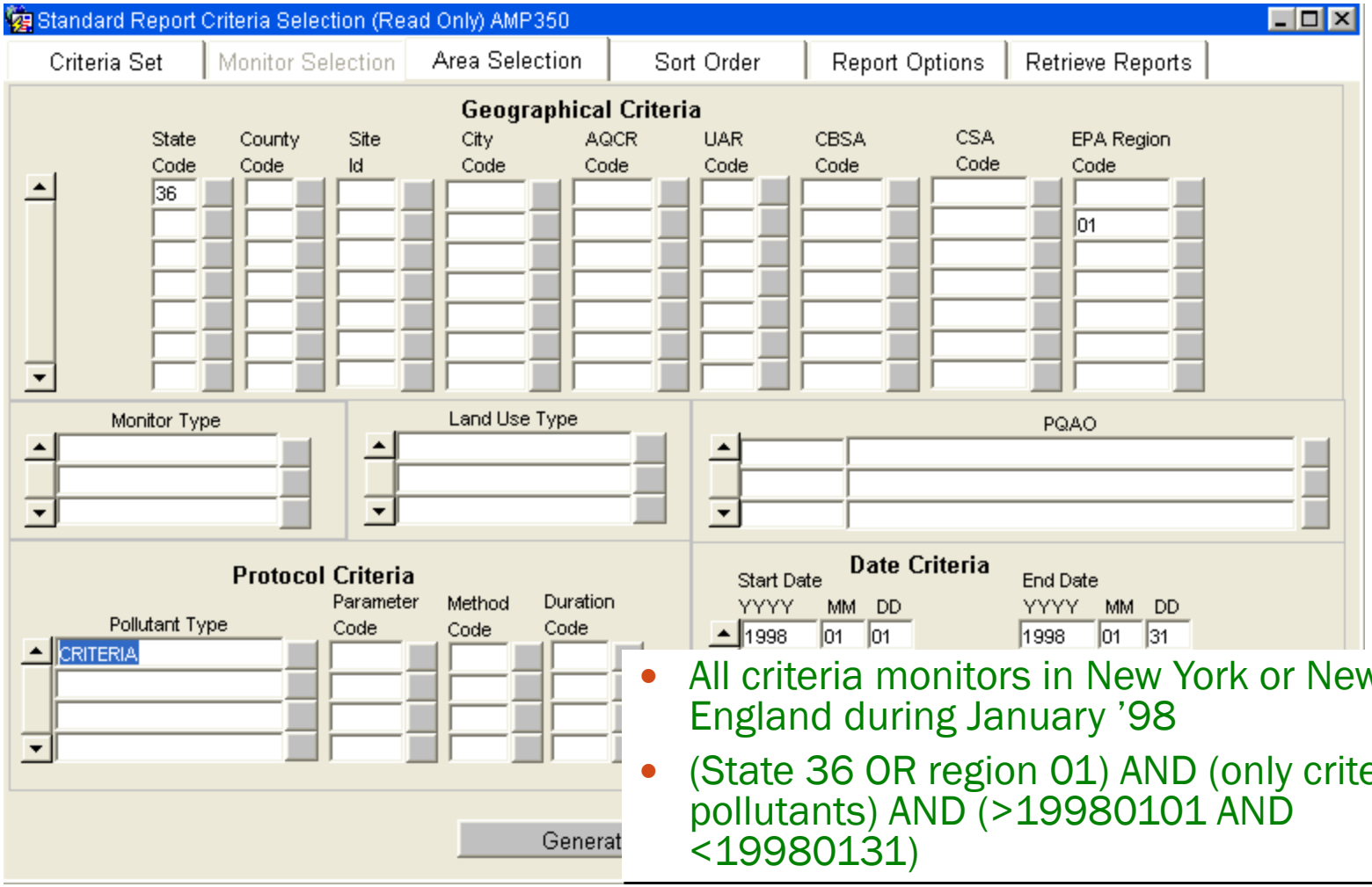


Example 1: and/or in Selections



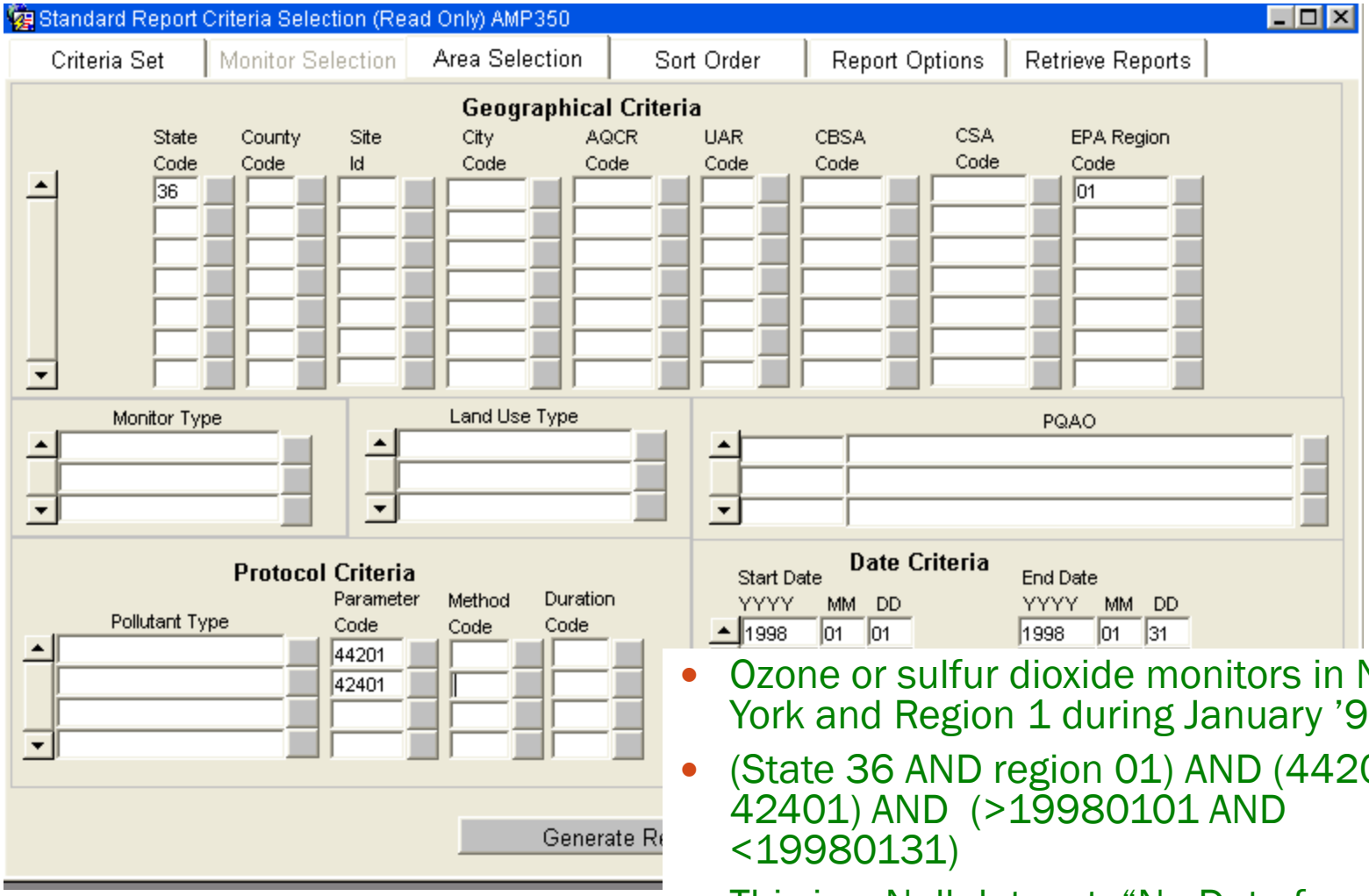
- All monitors in Iowa reported by University Hygienic Laboratory during January '98
- State 19 AND reporting agency 1080 AND all pollutants AND (>19980101 AND <19980131)

Example 2: and/or in Selections (cont.)



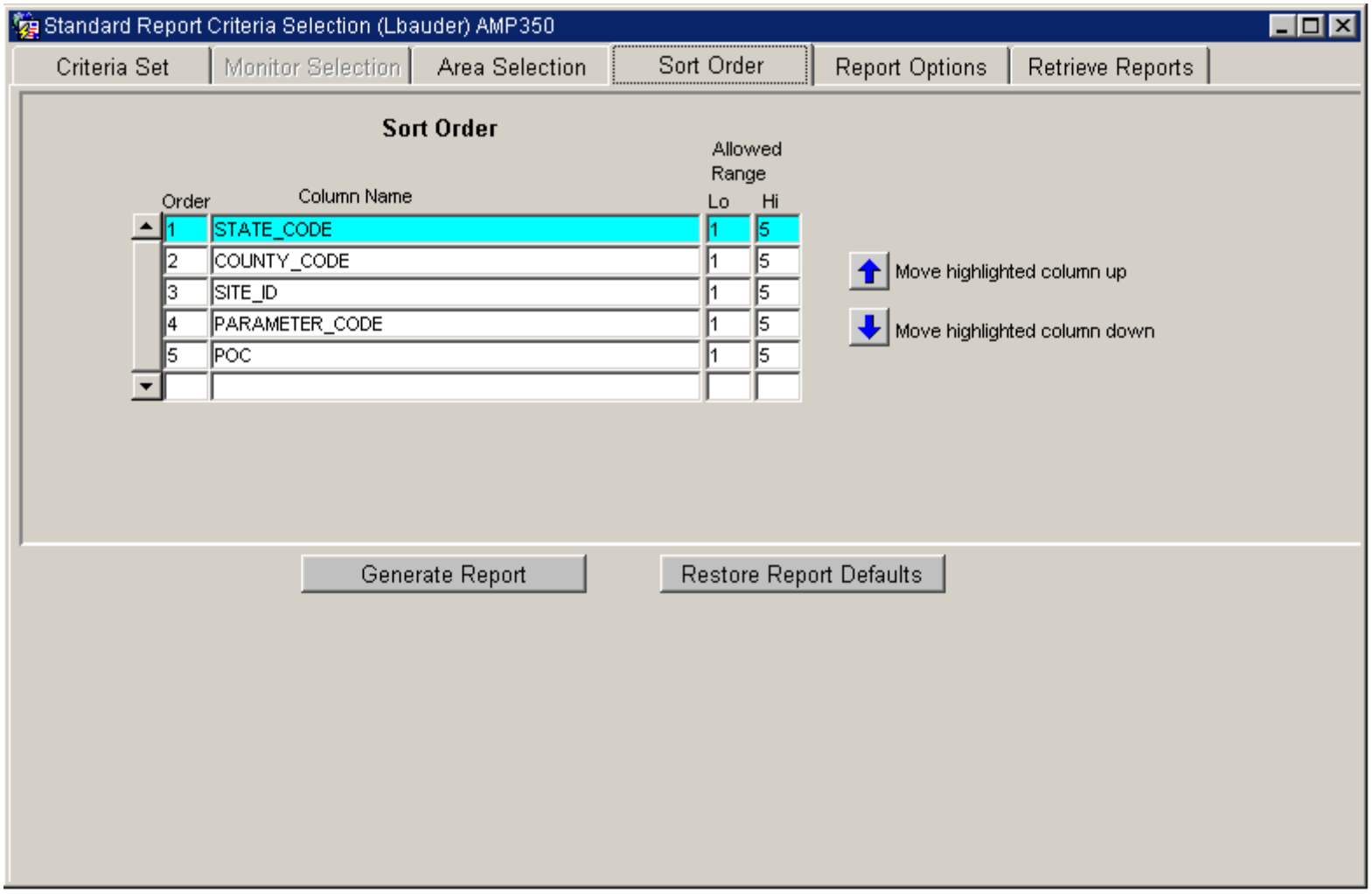
- All criteria monitors in New York or New England during January '98
- (State 36 OR region 01) AND (only criteria pollutants) AND (>19980101 AND <19980131)

Example 3: and/or in Selections (cont.)



- Ozone or sulfur dioxide monitors in New York and Region 1 during January '98
- (State 36 AND region 01) AND (44201 OR 42401) AND (>19980101 AND <19980131)
- This is a Null dataset, "No Data found"

Standard Reports: Sort Order

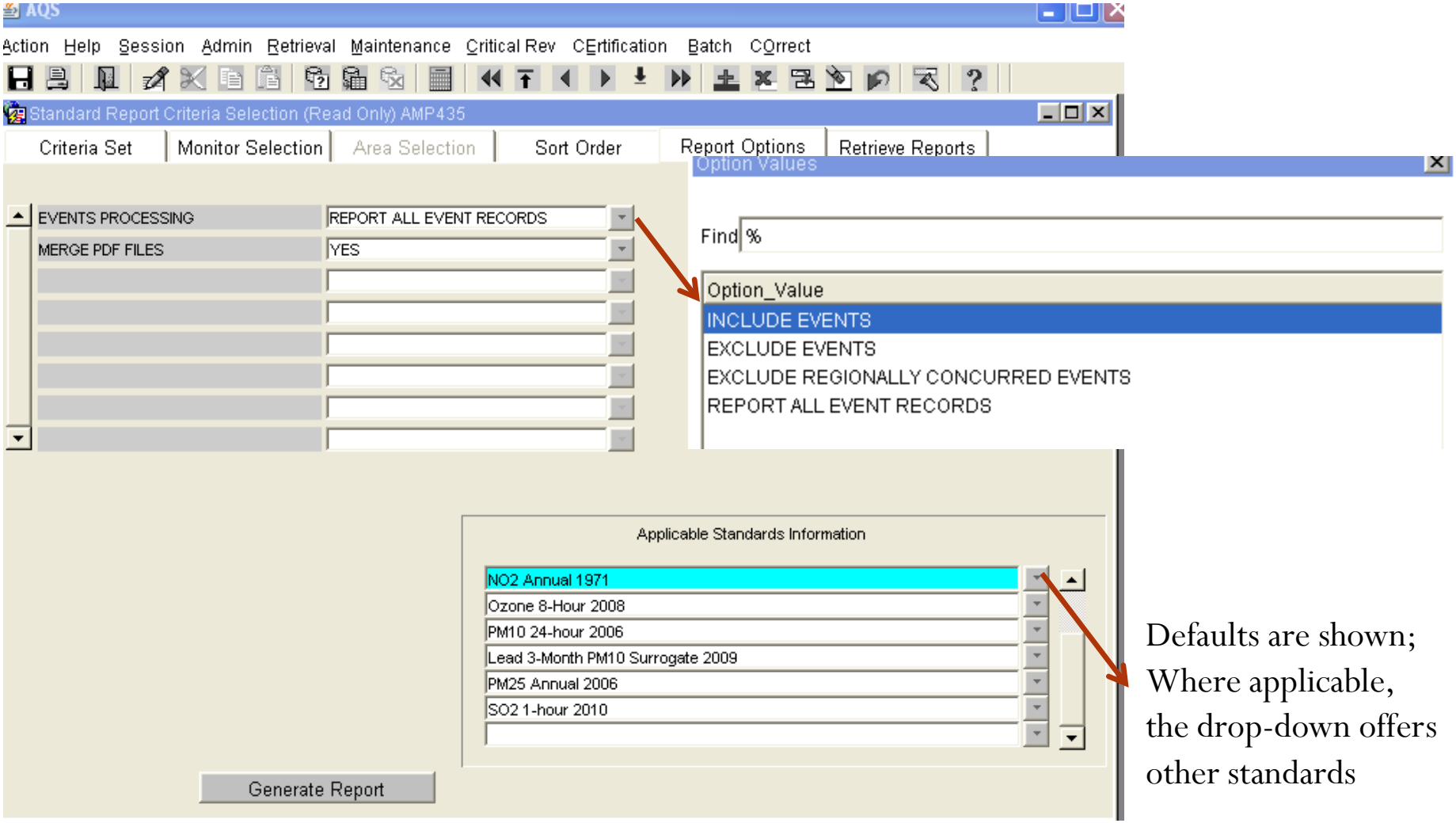


Report options to consider

- Applicable standard
  - Depends on the pollutant(s) you choose
- Exceptional events – on summary reports, show summary data with EDT ID
  - 0
    - 0 – No data has been flagged

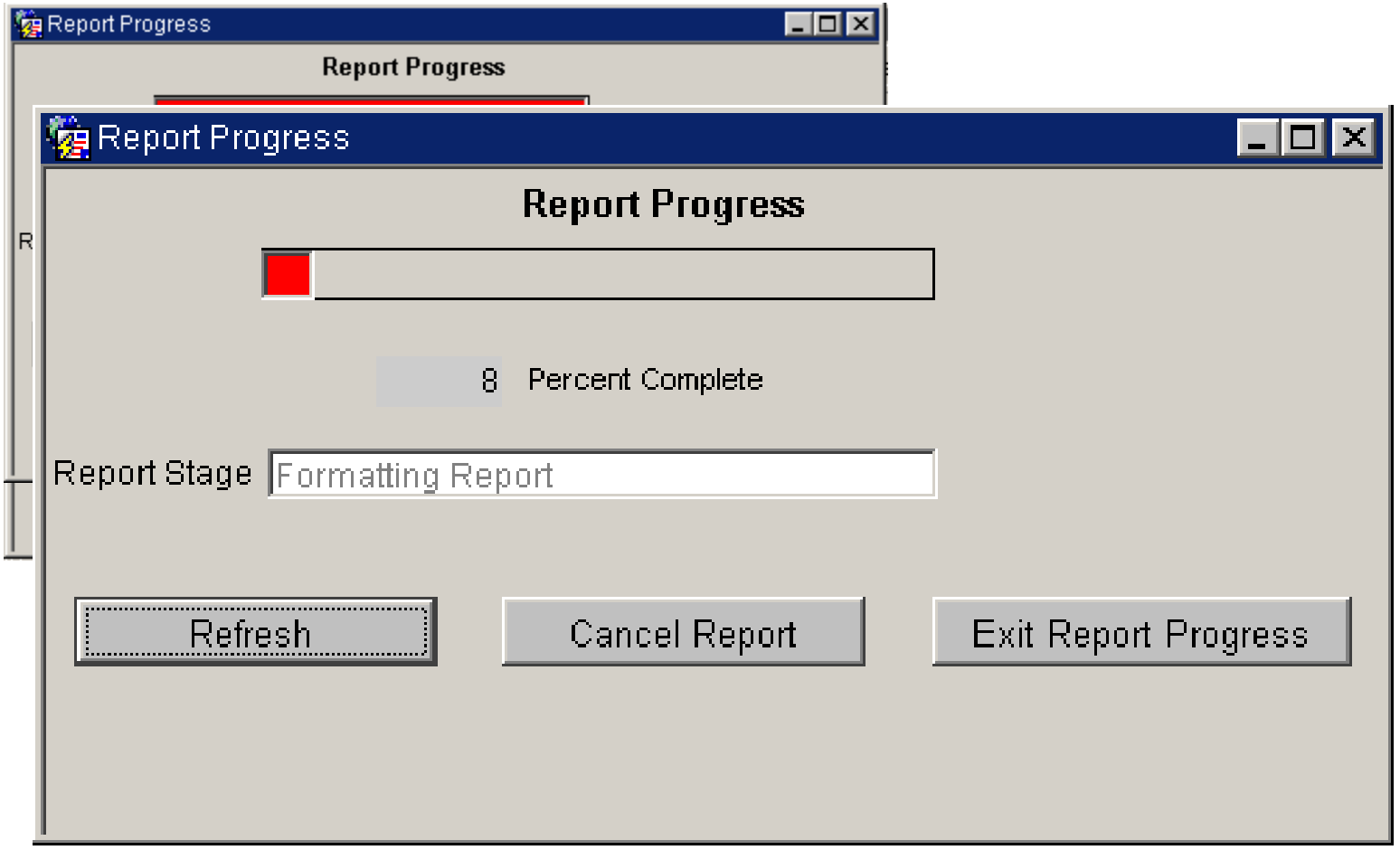
    OR
  - 1, 2, and 5
    - 1 – The summary excludes all flagged data
    - 2 – The summary does not exclude any data
    - 5 – The summary excludes regionally concurred flagged data

Standard Reports: Report Options

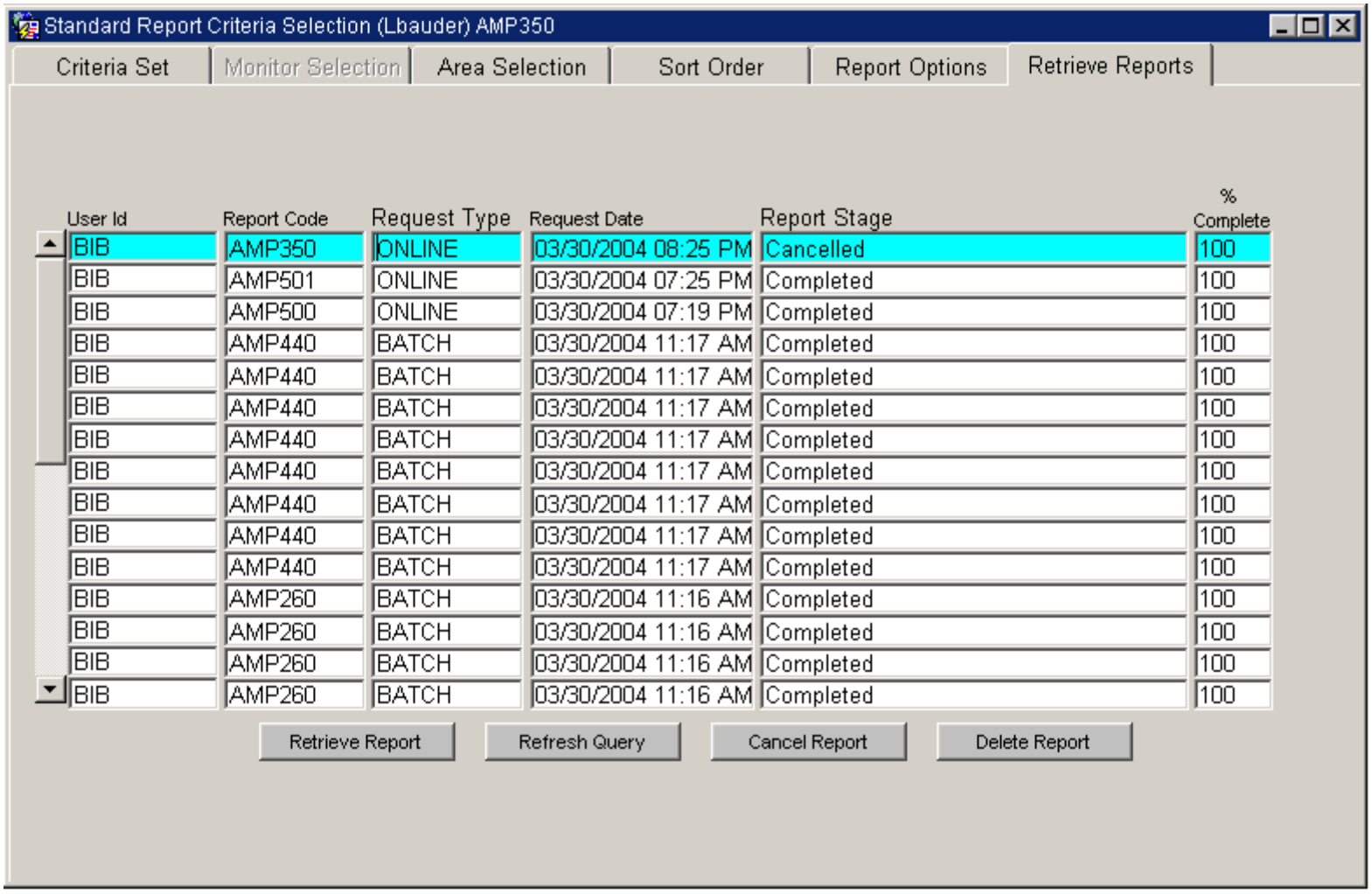


Defaults are shown; Where applicable, the drop-down offers other standards

Standard Reports: Progress Popup

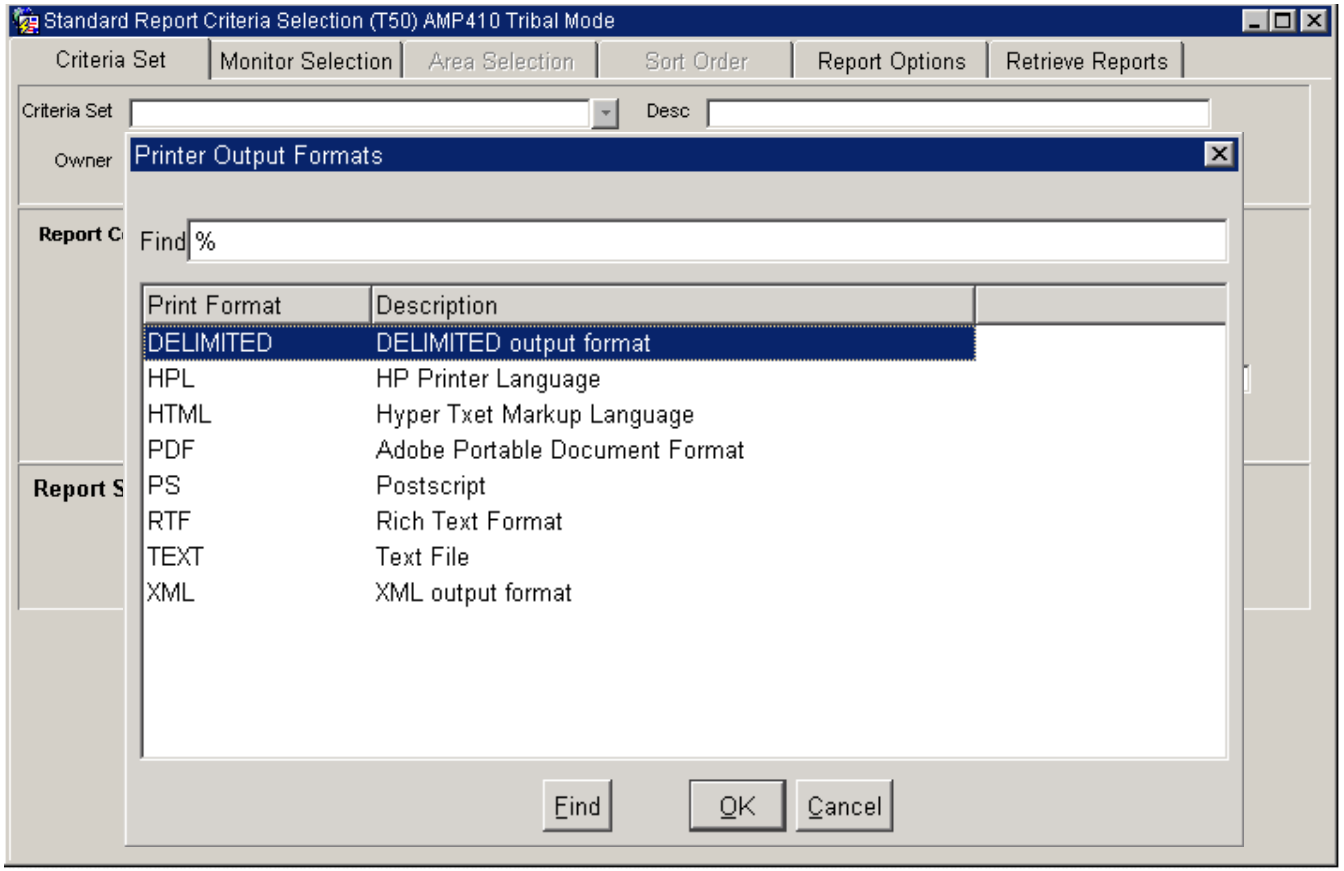


Standard Reports: Retrieve Reports



Standard Reports: Report Output Formats

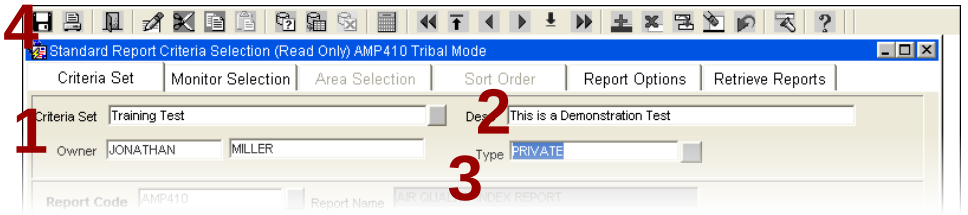
- pdf is default



Saving a Criteria Set

- Saves the Query… Not the Results of the Query
- Go to the “Criteria Set” Tab

1) Enter a Name
2) Enter a Description
3) Mark as
   - Private” (Just for You)
   - “Public” (For Anyone)
4) Save / Commit



Put it into practice - Exercise 1.4

Quicklook

QUICK LOOK REPORT (AMP450)

Aug. 29, 2011

PM2.5 - Local Conditions (88101) | Wisconsin | Micrograms/cubic meter (LC) (105)

24-HOUR

SITE ID	POC	PQAO	CITY	COUNTY	ADDRESS	YEAR	METH	#OBS	1ST MAX	2ND MAX	3RD MAX	4TH MAX	98TH PERCENTILE VALUE	WTD ARITH MEAN	CERT	EDT
55-003-0010	1	1175	Not in a city	Ashland	BAD RIVER TRIBAL SCHOOL - ODANAH	2010	117	60	17.9	17.3	15.6	14.0	17.3	5.28		0
55-003-0010	2	1175	Not in a city	Ashland	BAD RIVER TRIBAL SCHOOL - ODANAH	2010	117	60	18.1	17.5	15.6	13.7	17.5	5.34		0
55-009-0005	1	1175	Green Bay	Brown	EAST HIGH, 1415 E. WALNUT	2010	118	336	45.5	42.3	40.5	38.9	35.1	9.97		0

Note: The * indicates that the mean does not satisfy summary criteria.

98th percentile completeness for PM2.5 24-hour (2006) standard. Summary criteria met when all 4 site-level quarterly summaries are present, and one of the following is true: quarters are 75% complete, or Annual 98th percentile value greater than the 24-hour standard (35 ug/m3).
"Wtd Arith Mean" for PM2.5 24-annual (2006) standard is based on quarterly means. Summary criteria are met when the percent of observations (quarterly) are >= 75%. (See AQS Data Dictionary section 4.281 and 40 CFR Part 50.13.).

National Ambient Air Quality Standards

	Primary Standards		Secondary Standards	
Pollutant	**Level**	**Averaging Time**	**Level**	**Averaging Time**
Particulate Matter ($PM_{2.5}$)	15.0 µg/m^3	Annual [6] (Arithmetic Average)	Same as Primary	
	35 µg/m^3	24-hour [7]	Same as Primary	

[6] To attain this standard, the 3-year average of the weighted annual mean PM2.5 concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m^3.

[7] To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m^3 (effective December 17, 2006).

Quicklook

QUICK LOOK REPORT (AMP450)

Aug. 29, 2011

Nitrogen dioxide (NO2) (42602) — Wisconsin — Parts per billion (008)

SITE ID	POC	PQAO	CITY	COUNTY	ADDRESS	YEAR	METH	COMP QTRS	1ST MAX 1-HR	2ND MAX 1-HR	98TH PCTL	OBS	PCT COMP	ARITH MEAN	CERT	EDT
55-041-0007	1	1175	Crandon	Forest	FIRE TOWER RD, POTAWATOMI SITE	2010	082	2	15.0	9.0	9.0	4364	50	1.20*		0
55-071-0007	1	1175	Two Rivers	Manitowoc	MANITOWOC/WOODLAND DUNES, 2315 GOODWIN RD	2010	075	0	11.0	10.0	10.0	2016	23	2.56*		0
55-079-0026	1	1175	Milwaukee	Milwaukee	DNR SER HDQRTS, 2300 N M. L. KING JR DR	2010	074	4	112.0	92.0	53.0	8608	98	12.90		0

Note: The * indicates that the mean does not satisfy summary criteria.

"Comp qtrs" are complete quarters. The number of quarterly summaries, with corresponding pollutant standard and exceptional data type, where the summary criterion is met. For NO2, to have a complete quarter, the number of valid days in a quarter compared to number of total days in a quarter must be >= 75%.

"Arith Mean" is arithmetic mean. For NO2, this is the average of the hourly values for the year. This is defined on pages 4-20 and 4-21 of the AQS Data Dictionary.

The "Summary Criteria" column indicates whether or not the annual summary is complete as required by 40 CFR Part 50. i.e. If the mean is valid by these rules, it is set to 'Y', and if it is not, it is set to 'N'. For the NO2 annual standard, 75% of the hours for the year must have values. (See AQS Data Dictionary section 4.278 and 40 CFR Part 50.11.)

National Ambient Air Quality Standards

	Primary Standards		Secondary Standards	
Pollutant	**Level**	**Averaging Time**	**Level**	**Averaging Time**
Nitrogen Dioxide	53 ppb (3)	Annual (Arithmetic Average)	Same as Primary	
	100 ppb	1-hour (4)	None	

(4) To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb (effective January 22, 2010).

Quicklook

Ozone (44201) Wisconsin Parts per million (007)

1-HOUR

SITE ID	POC	PQAO	CITY	COUNTY	ADDRESS	YEAR	METH	VALID DAYS MEAS	NUM DAYS REQ	1ST MAX 1-HR	2ND MAX 1-HR	3RD MAX 1-HR	4TH MAX 1-HR	DAY MAX> STD	EST DAYS> STD	MISS DAYS< STD	CERT	EDT
55-117-0006	1	1175	Not in a city	Sheboygan	E12886 TOWER RD KOHLER ANDRE PARK, 1520 OLD PARK ROAD	2010	087	182	184	.100	.099	.096	.093	0	0.0	0		0
55-123-0008	1	1175	Not in a city	Vernon	WILDCAT MTN, HWY 33, ONTARIO	2010	087	182	184	.079	.072	.068	.067	0	0.0	0		0
55-125-0001	1	1175	Boulder Junction	Vilas	TROUT LAKE NURSERY, COUNTY HWY M	2010	087	183	184	.074	.068	.068	.066	0	0.0	1		0
55-127-0005	1	1175	Lake Geneva	Walworth	LAKE GENEVA NADP SITE, RR4 ELGIN CLUB RD	2010	087	183	184	.087	.074	.074	.072	0	0.0	1		0
55-131-0009	1	1175	Slinger	Washington	SLINGER, HWY 60 & SCENIC, POLK TWNSHP	2010	087	184	184	.083	.075	.070	.068	0	0.0	0		0
55-133-0027	1	1175	Waukesha	Waukesha	1310 CLEVELAND AVE	2010	087	184	184	.082	.079	.073	.071	0	0.0	0		0

National Ambient Air Quality Standards

	Primary Standards		Secondary Standards	
Pollutant	**Level**	**Averaging Time**	**Level**	**Averaging Time**
Ozone	0.075 ppm (2008 std)	8-hour [8]	Same as Primary	
	0.08 ppm (1997 std)	8-hour [9]	Same as Primary	
	0.12 ppm	1-hour [10]	Same as Primary	

[8] To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm. (effective May 27, 2008)

[9] (a) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.

(b) The 1997 standard—and the implementation rules for that standard—will remain in place for implementation purposes as EPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.

(c) EPA is in the process of reconsidering these standards (set in March 2008).

[10] (a) EPA revoked the 1-hour ozone standard in all areas, although some areas have continuing obligations under that standard ("anti-backsliding").

(b) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is ≤ 1.

Maximum Values

MAXIMUM VALUES REPORT

PM10 Total 0-10um STP (81102)

State: Kansas
Duration: 24-HR BLK AVG
Year: 2009

Primary: 150
Secondary: 150
Unit: Micrograms/cubic meter (25 C)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
20-173-0009	1	Sedgwick	079		55	44	42	40	40	363	0	1
		Wichita			03/06:00	10/01:00	07/11:00	02/06:00	04/09:00			
					40	39	39	39	38			
					04/22:00	06/06:00	06/26:00	06/27:00	01/12:00			

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
20-173-0009	1	Sedgwick	079		66	55	44	42	40	365	0	2
		Wichita			04/08:00	03/06:00	10/01:00	07/11:00	02/06:00			
					40	40	39	39	39			
					04/09:00	04/22:00	06/06:00	06/26:00	06/27:00			

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
20-173-0009	1	Sedgwick	079		66	55	44	42	40	365	0	5
		Wichita			04/08:00	03/06:00	10/01:00	07/11:00	02/06:00			
					40	40	39	39	39			
					04/09:00	04/22:00	06/06:00	06/26:00	06/27:00			

Multiple lines are due to multiple event types. Check your report criteria.

Design Values
– available for PM10, PM2.5, SO2, NO2, ozone, lead

PRELIMINARY DESIGN VALUE REPORT

Pollutant: Ozone(44201)
Standard Units: Parts per million(007)
NAAQS Standard: Ozone 8-Hour 2008
Statistic: Annual 4th Maximum **Level:** .075

Design Value Year: 2010
REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.
State: North Carolina

Site ID	Poc	STREET ADDRESS	2010 Valid Days	2010 Percent Complete	2010 4th Max	Cert	2009 Valid Days	2009 Percent Complete	2009 4th Max	Cert	2008 Valid Days	2008 Percent Complete	2008 4th Max	Cert	3 - Year Percent Complete	3 - Year Design Value	D. V. Validity
37-183-0014	1	3801 SPRING FOREST RD.	212	99	.071		201	94	.068		211	99	.078	Y	97	.072	Y
37-183-0016	1	201 NORTH BROAD STREET	209	98	.073		201	94	.069		208	97	.078	Y	96	.073	Y

Pollutant: Ozone(44201)
Standard Units: Parts per million(007)
NAAQS Standard: Ozone 8-Hour 2008
Statistic: Annual 4th Maximum **Level:** .075

Design Value Year: 2009
REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.
State: North Carolina

Site ID	Poc	STREET ADDRESS	2009 Valid Days	2009 Percent Complete	2009 4th Max	Cert	2008 Valid Days	2008 Percent Complete	2008 4th Max	Cert	2007 Valid Days	2007 Percent Complete	2007 4th Max	Cert	3 - Year Percent Complete	3 - Year Design Value	D. V. Validity
37-183-0014	1	3801 SPRING FOREST RD.	201	94	.068		211	99	.078	Y	204	95	.084	Y	96	.076	Y
37-183-0016	1	201 NORTH BROAD STREET	201	94	.069		208	97	.078	Y	214	100	.080	Y	97	.075	Y

Each design value is for a 3-year period.