

AQS Introductory Course for New Users – Retrievals

AQS Conference, June 7, 2010
Colorado Springs, CO



AQS Overview



We Will Cover

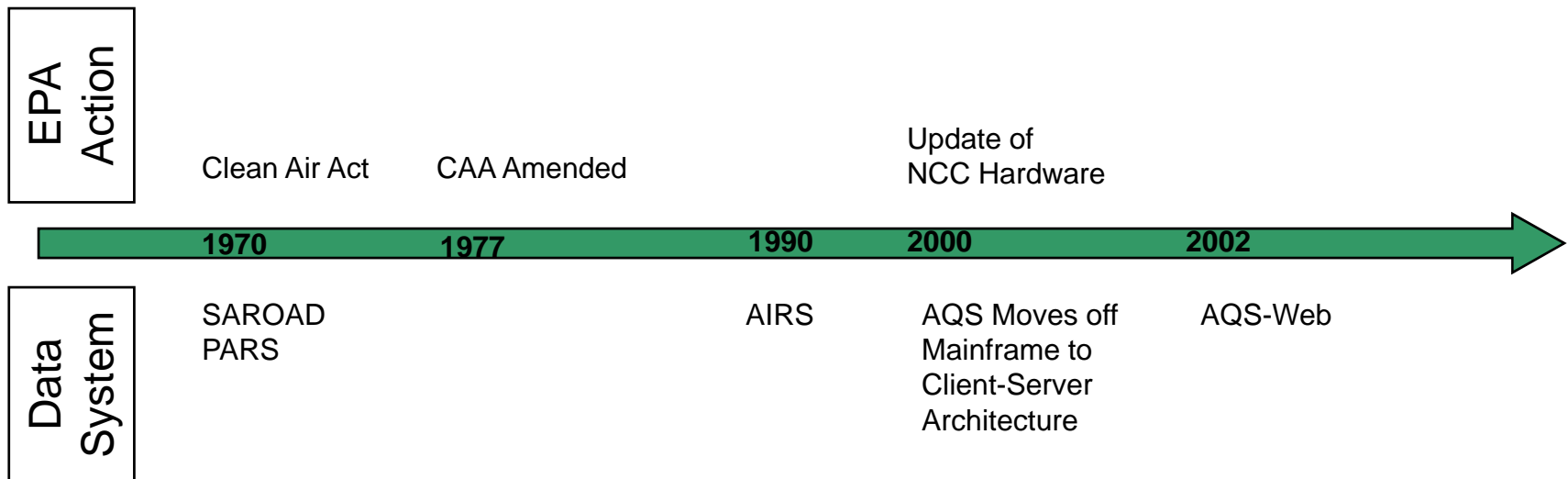
- What AQS Is
- Where it Comes From
- The Types of Information it Contains
- How it Stores this Information

What is AQS?

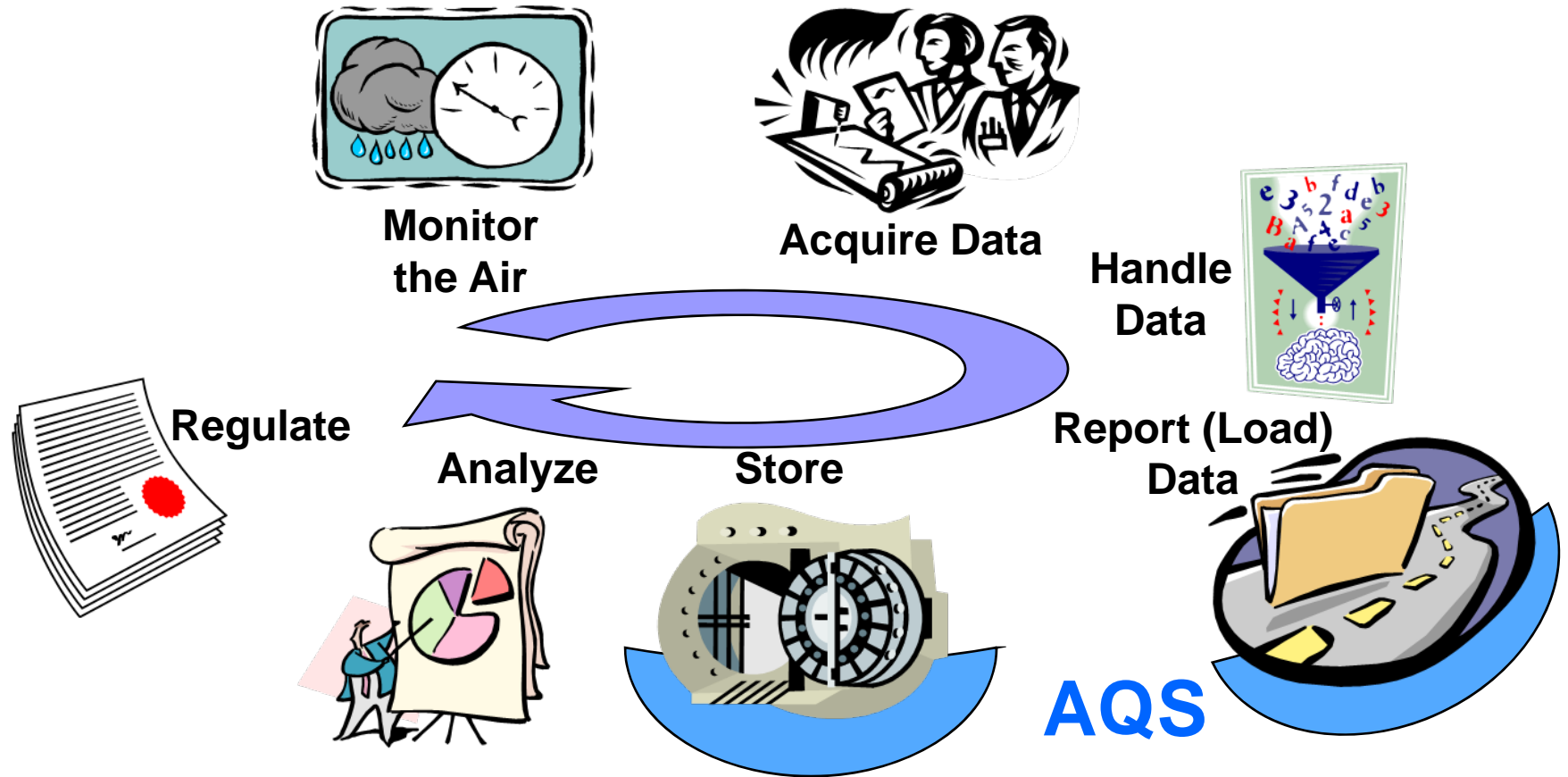
- EPA's Oracle Database Application used to store Ambient Air Quality Data
- Centralizes the Location of Data
 - Used to Determine if areas are Meeting Air Quality Standards
 - Used by Universities and Institutes to Perform Health Studies

Origins of Air Regulations & AQS

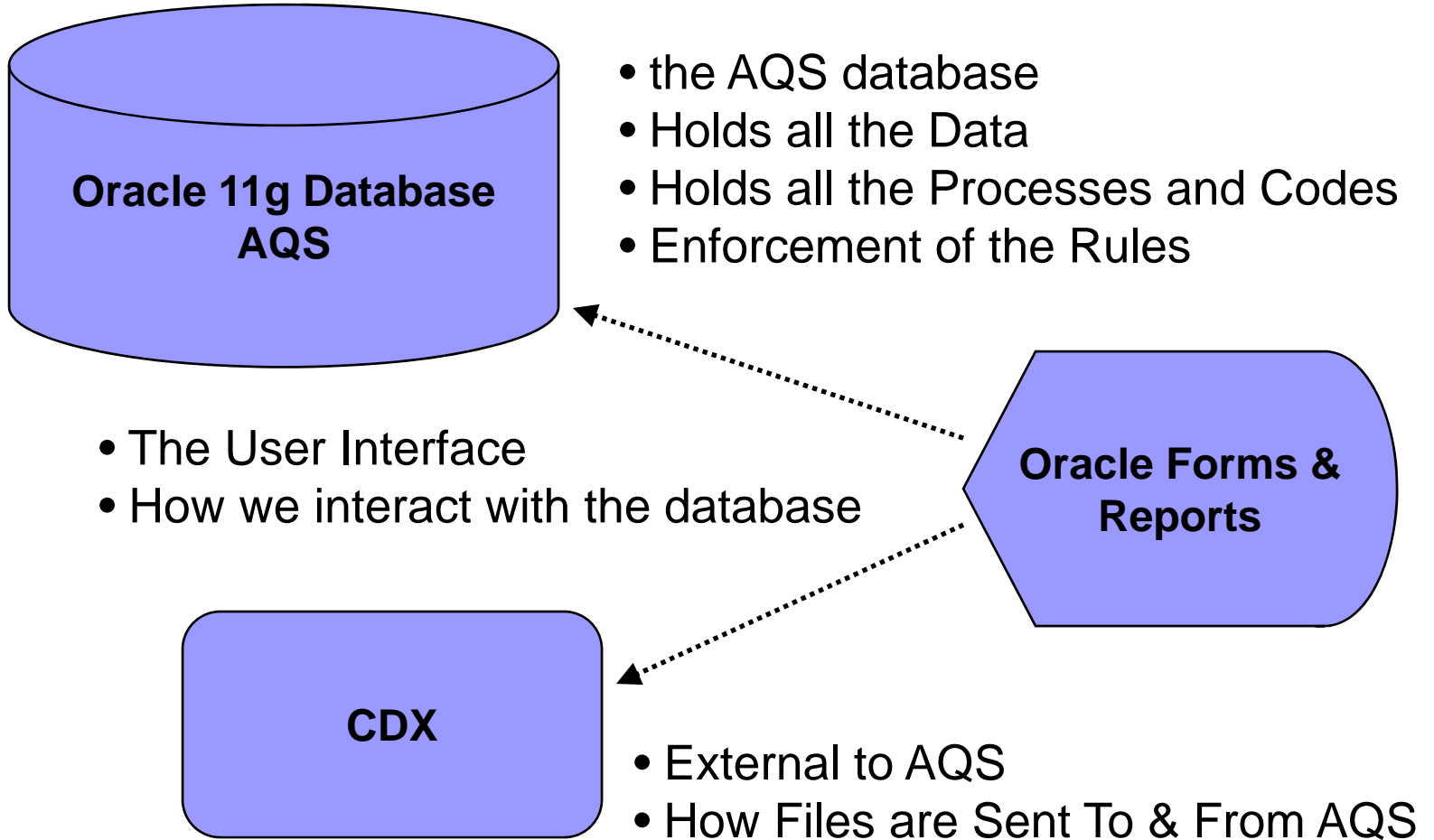
- **SAROAD** (1970 – 1985) - - *Storage And Retrieval Of Air Data* - - Created in Response to the 1970 Clean Air Act
- **AIRS – AQS** (1985 – 2000) - - *Aerometric Information Retrieval System* - - Stored Ambient Air Quality Data (*Air Quality Subsystem*) as well as Point Source Emission Data
- **AQS**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



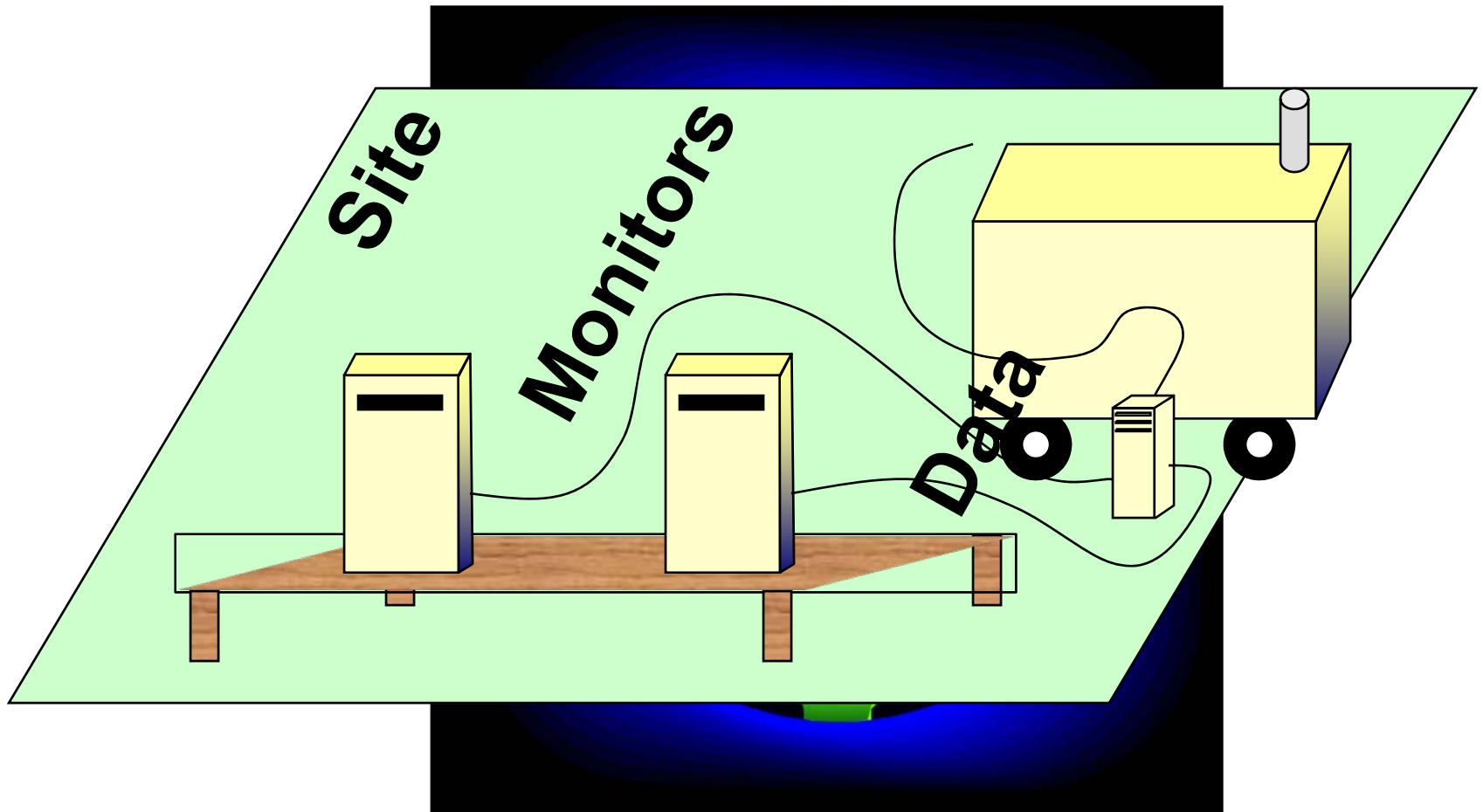
How Does AQS Fit in the Big Picture?



What makes up what we call “AQS”?



Types of “Core” Data in AQS



Information in AQS

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

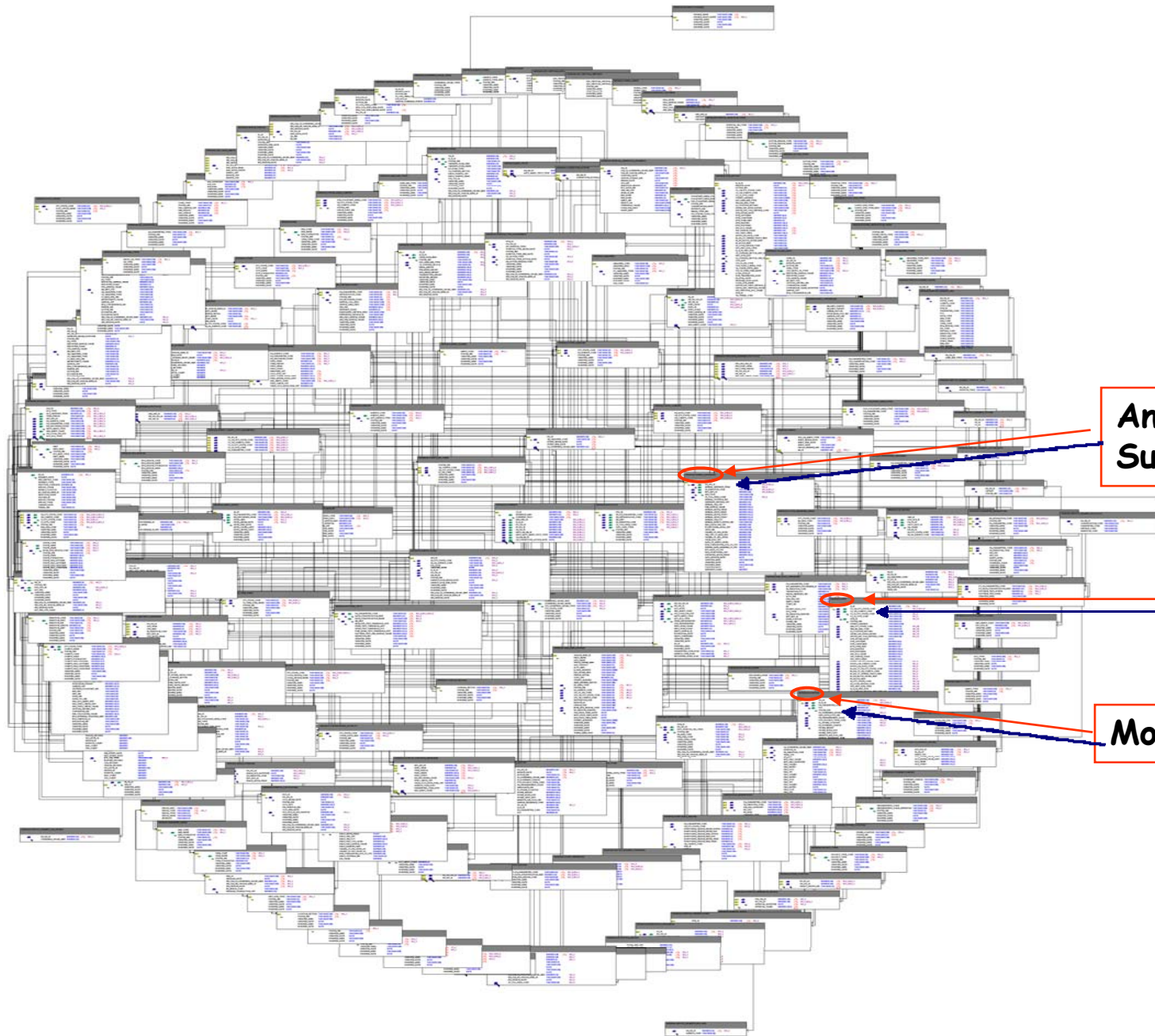
- **Reference Data**

Extra information about the data in AQS

Codes used to identify States, Counties, Tribal Lands, Pollutants, etc.

AQS Data at a Glance

Type of Data	# of records
Raw data (2005)	81,000,000
Site	18,000
Monitor	227,000
Quarterly Summary (2005)	304,000
Annual Summary (2005)	115,000
Precision (2005)	197,000
Accuracy (2005)	18,000

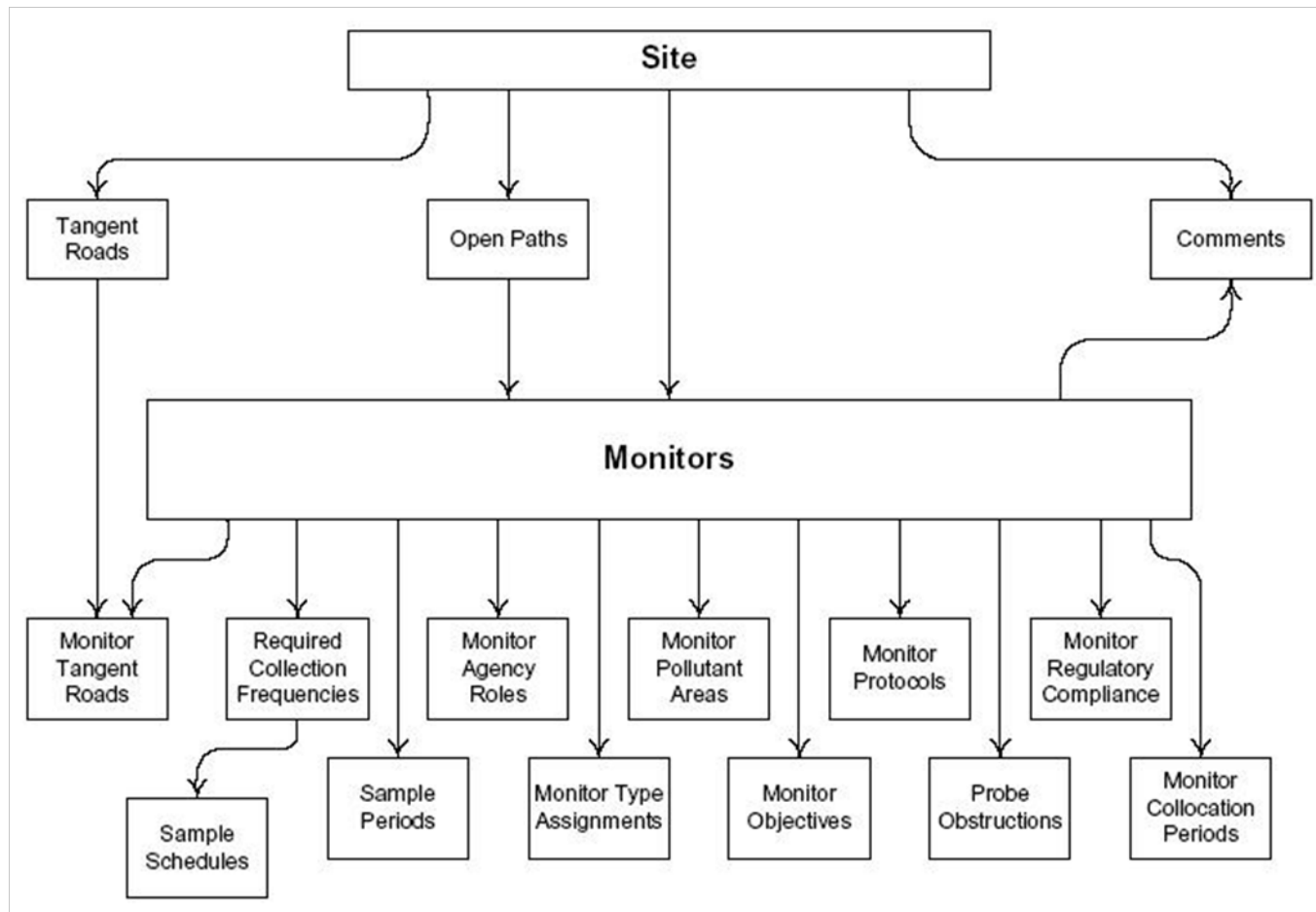


Annual
Summaries

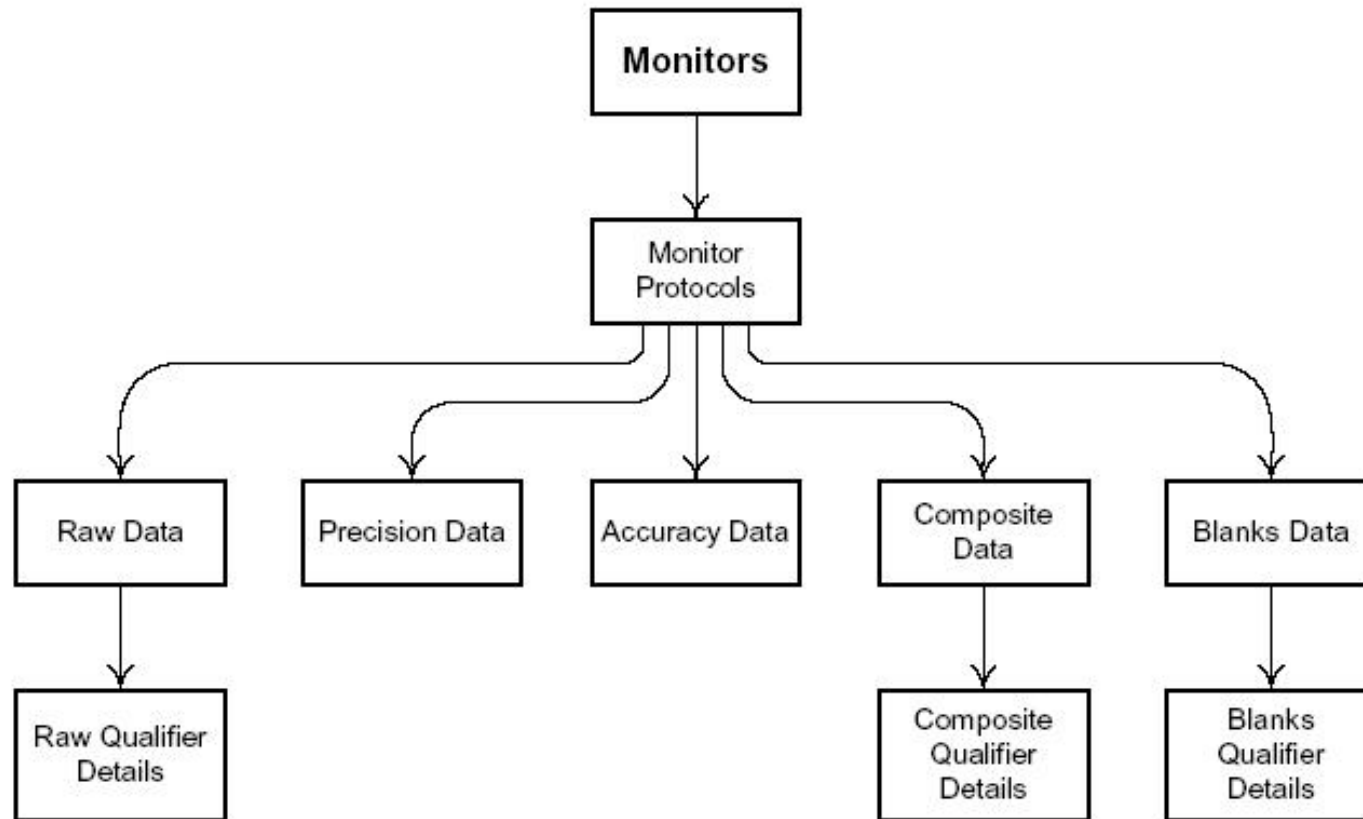
Sites

Monitors

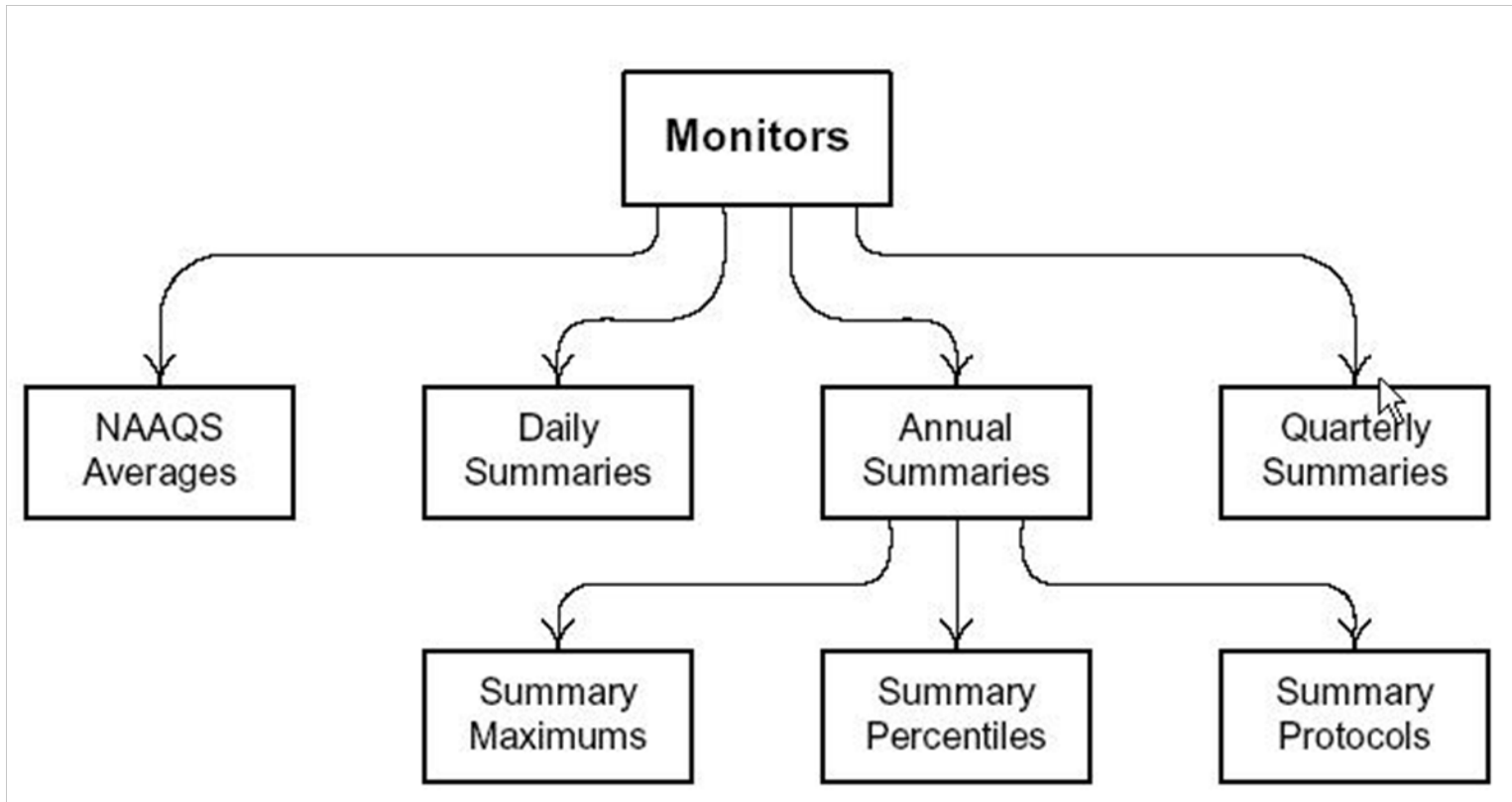
AQS Site and Monitor Data Model



AQS Data Model – Sample Data



AQS Data Model – Summary Data



AQS Reference Data

- Lots of “Extra” Information about the Data in AQS
 - Codes used for 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

- Ozone = 44201
- NO₂ = 42602
- NO₂ = 42401
- CO = 42101
- PM_{2.5} = 88101
- Lead = 14128

■ Units of Measure

- 001 = μg/m³
- 007 = Parts per Million
- 008 = 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

Putting The Core & Reference Information Together

- An Ozone (44201) Monitor in Wake County(183), North Carolina (37) May be Represented as
 - 37-183-0001-44201-1
- A PM10 (81102) Monitor for the St. Regis Band of Mohawk Indians of New York (007) May be Represented as
 - TT-007-1234-81102-1

AQS changes to meet regulatory needs

■ Exceptional Event Rule (EER)

- The Federal Regulations (40 CFR Part 50.14) allow Ambient Air Quality Measurements that are Exceedances or Violations of the National Ambient Air Quality Standards (NAAQS) that are **caused** by an “Exceptional Event” to be excluded from Attainment demonstrations.
- Was implemented in AQS in March 2010
- Refer to *AQS Exceptional Event Tutorial*

AQS Process for EER

- 1) Reporting Agency identifies data affected by an exceptional event
- 2) Reporting Agency flags the data in AQS (online or batch)
- 3) Reporting Agency enters the Exceptional Event Description in AQS (must be done online)
- 4) Reporting Agency associates the data in AQS with the Exceptional Event (must be done online)
- 5) EPA Regional Office either concurs or denies exclusion
- 6) **Affects AQS Summaries & Reports**

AQS - Exceptional Data Types

- AQS computes summaries (daily, quarterly, and annual) that either *include* or *exclude* the flagged data and labels each summary with an “Exceptional Data Type”

<u>Exceptional Data Type</u>	<u>Result</u>
0	No data has been flagged
1	The summary excludes all flagged data
2	The summary does not exclude any data
5	The summary excludes regionally concurred flagged data

- Why do we bring this up here? Be aware of these different summaries when you do your retrievals.

Multiple pollutant standards

- **Annual summaries** – can have more than one annual summary record for a Monitor ID and year due to multiple Pollutant Standards.
- **Applicable pollutant standards in AQS:**
 - Ozone 8-hour 2008, Ozone 1-hour Daily 2005, Ozone 8-hour 1997
 - SO2 24-hour 1971, SO2 3-hour 1971, SO2 Annual 1971
 - NO2 Annual 1971
 - CO 8-hour 1971, CO 1-hour 1971
 - Lead Quarterly 1978
 - PM10 24-hour 2006
 - PM2.5 24-hour 2006, PM2.5 Annual 2006

Be aware of multiple pollutant standards when you do your retrievals.



Put it into practice - Exercise 1.1

1. Name the 4 Categories of Data in AQS:
2. How do you Uniquely Define a Site in AQS? How About a Monitor?
3. What Would a Summary Record with a Duration Code of “W” and a Parameter Code of “44201” Represent?



Introduction to AQS Standard Reports

How to get the information - Reports

- Site / Monitor Metadata
- Detail Data Reports
 - “Raw” Data
 - Extraction Reports
- Summary Data
- Precision & Accuracy Data
- Raw Data Qualifier
- Data Certification

Site & monitor reports

- Site metadata
 - Location, nearby streets
 - Open Path Set Up
 - Which PM_{2.5} 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

Detail data reports

- “Raw” data from AQS
 - Can import information into spreadsheet for further processing
- Extraction reports
 - Provide data in AQS transaction format with insert, delete or update codes
 - Useful for duplicating and reloading data (especially site/monitor)
- 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)

Precision and accuracy data 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

- Lists all the raw data points that have been flagged with 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

These are required to be submitted to EPA for the data certification process.

1) **AMP450 - Quick Look Criteria**

for CO, NO₂, SO₂, ozone, lead, PM₁₀, PM_{2.5} – choose “Include Events”

2) **AMP450NC - Quick Look All**

for all other pollutants

3) **AMP255 - Data Quality Indicator**

Current winners of the popularity contest

- 1) AMP350 – Raw Data
- 2) AMP430 – Data Completeness
- 3) AMP450NC – Quicklook All Parameters
- 4) AMP450 – Quicklook Criteria Parameters
- 5) AMP501 – Extract Raw Data
- 6) AMP255 – Data Quality Indicator
- 7) AMP250 – P/A Raw Data
- 8) AMP430 – Data Completeness

New reports we expect will be popular

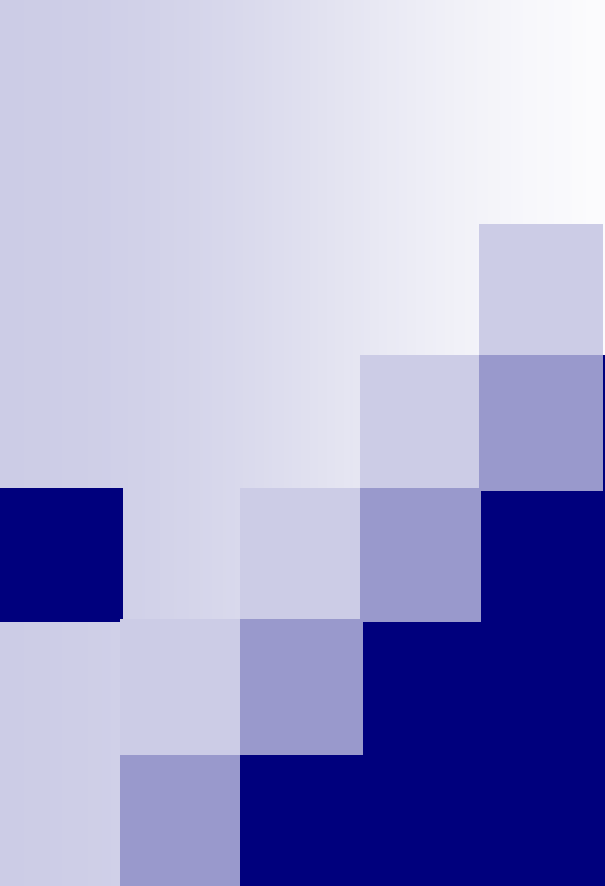
1) AMP480 - **Design Values Report**

Will generate 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.

2) AMP360 - **Raw Data Qualifier Report**

Provides list of all raw data flagged with any qualifier code, including an exceptional event qualifier, and the status of any concurrence indicators set by the Regional Office.



AQS User Interface – getting to AQS & getting around in AQS

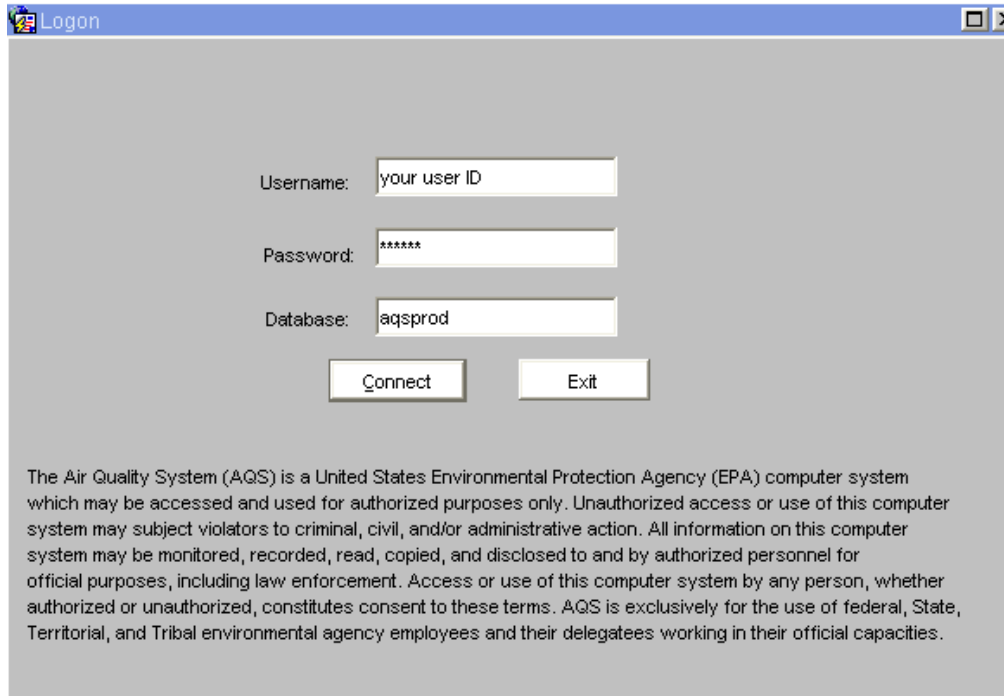
Access AQS – Registration & start-up

- Registration process
 - Need user ID and password

<http://www.epa.gov/ttn/airs/airsaqs/registration.htm>
- Read-only access is granted to all
- Update access is available only to authorized users
- AQS Web Application
 - Initial setup required

<http://www.epa.gov/ttn/airs/airsaqs/aqsweb>

Access AQS



The screenshot shows a window titled "Logon" with a grey background. It contains three text input fields: "Username:" with the placeholder text "your user ID", "Password:" with "*****", and "Database:" with "aqsprd". Below these fields are two buttons: "Connect" and "Exit". At the bottom of the window, there is a paragraph of text providing a disclaimer about the Air Quality System (AQS) and its use by EPA employees.

The Air Quality System (AQS) is a United States Environmental Protection Agency (EPA) computer system which may be accessed and used for authorized purposes only. Unauthorized access or use of this computer system may subject violators to criminal, civil, and/or administrative action. All information on this computer system may be monitored, recorded, read, copied, and disclosed to and by authorized personnel for official purposes, including law enforcement. Access or use of this computer system by any person, whether authorized or unauthorized, constitutes consent to these terms. AQS is exclusively for the use of federal, State, Territorial, and Tribal environmental agency employees and their delegates working in their official capacities.

Username = 3-character ID
obtained through the
registration process

Password = your personal
password

Database = "aqsprd"

Today only,

Username = 3-character ID provided by instructor

Password = provided by instructor

Database = "aqstrng"

User Interface Parts

- Forms: Presents information to user and accepts input.
- Reports: Presents formatted data for printing (reports) or input by other software (workfiles)
- Menus: Allow selection of AQS Form or execution of specific action
- Icons: Allow execution of a specific action

Forms:

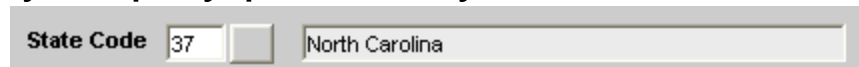
- Forms are the primary way that you interact with AQS.

- They provide a way for you to enter data:



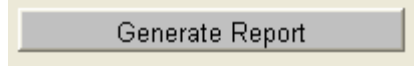
State Code

- They display previously entered data:



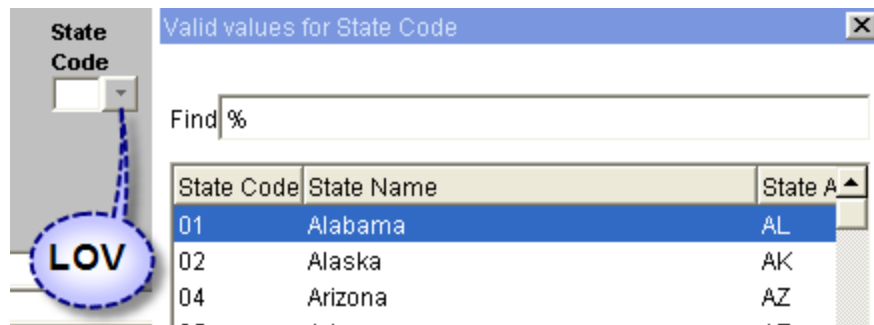
State Code

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



Generate Report

- They often have Lists of Values (LOVs):



State Code

Valid values for State Code

Find %

State Code	State Name	State A
01	Alabama	AL
02	Alaska	AK
04	Arizona	AZ
...

LOV

Form Types (1)

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

Maintain Site (National Air Data Group)

Basic Site Data | Additional Site Data | Agency Roles | Tangent Roads | Open Paths | Comments | Primary Monitor Periods

Site Identification

State Code: 37 North Carolina
County Code: 183 Wake Site Id: 0002 Status Ind: P

User Coordinates

Horizontal Datum: NAD27 Latitude: 35.788611 Longitude: -78.678889
UTM Zone: UTM Easting: UTM Northing: Lookup Geography

Standard Coordinates: Datum: WGS84 Latitude: 35.788701 Longitude: -78.678628

Horizontal Method: 027 UNKNOWN
Horizontal Accuracy (Meters): 10 Source Map Scale (Non-GPS): 24000
Vertical Measure (Meters): 111 Vertical Accuracy (Meters): 10 Vertical Datum: UNKNOWN
Vertical Method: 000 UNKNOWN

Street Address: 1914 PARK DR CAMERON VILLAGE
Land Use Type: RESIDENTIAL Location Setting: URBAN AND CENTER CITY
City Code: 55000 Raleigh
Urban Area Code: 6639 RALEIGH, NC
AQCR Code: 166 EASTERN PIEDMONT
Site Established Date (YYYYMMDD): 19720101 Time Zone Name: EASTERN

Check Completeness Create Monitor

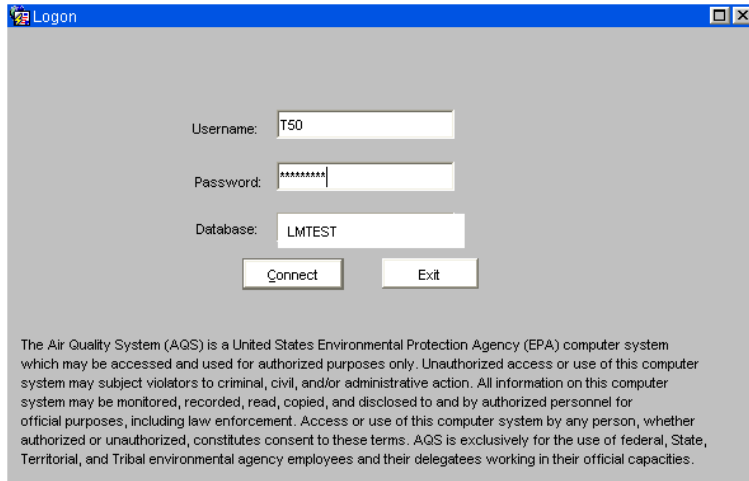
Form Types (2)

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

The screenshot shows a software window titled "Maintain Blanks Data (National Air Data Group)". At the top, there are search filters for "State", "County", "Site", "Parameter", "POC", "Begin Date", and "End Date", each with a dropdown arrow. Below these filters, the main data area is divided into three vertical sections: "MONITOR", "PROTOCOL", and "BLANKS DATA".

MONITOR							PROTOCOL				BLANKS DATA			
State	County	Site ID	Parameter	POC	Method	Unit	Duration	Mdl	Date	Time	Blank Type	Blank Value		
State Code														

AQS Login Form



The screenshot shows a Windows-style window titled "Logon" with a blue title bar. The window contains a login form with the following fields and buttons:

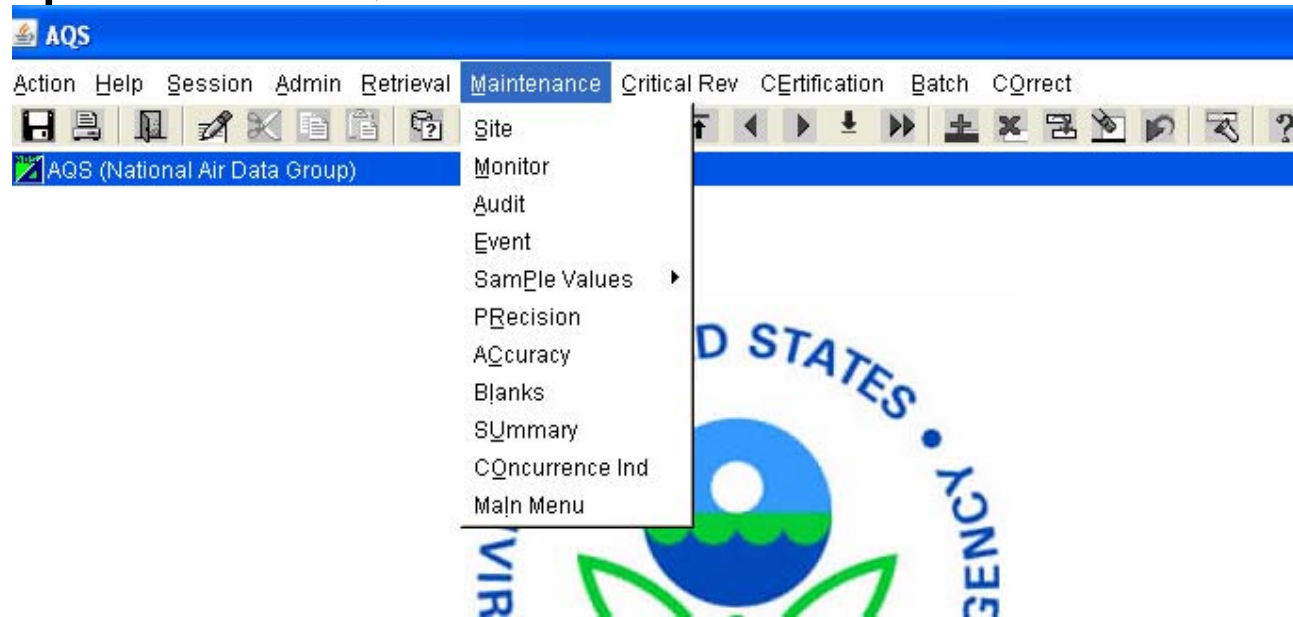
- Username: T50
- Password: [REDACTED]
- Database: LMTEST
- Buttons: Connect, Exit

Below the form, there is a disclaimer text:

The Air Quality System (AQS) is a United States Environmental Protection Agency (EPA) computer system which may be accessed and used for authorized purposes only. Unauthorized access or use of this computer system may subject violators to criminal, civil, and/or administrative action. All information on this computer system may be monitored, recorded, read, copied, and disclosed to and by authorized personnel for official purposes, including law enforcement. Access or use of this computer system by any person, whether authorized or unauthorized, constitutes consent to these terms. AQS is exclusively for the use of federal, State, Territorial, and Tribal environmental agency employees and their delegates working in their official capacities.

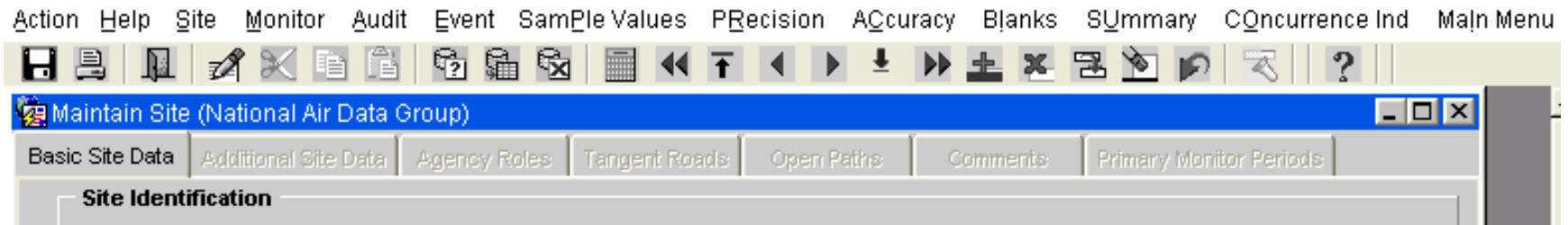
AQS Menus (1)

- Allow you to access specific AQS Forms
- The AQS Main Menu allows access to all forms that are part of AQS:



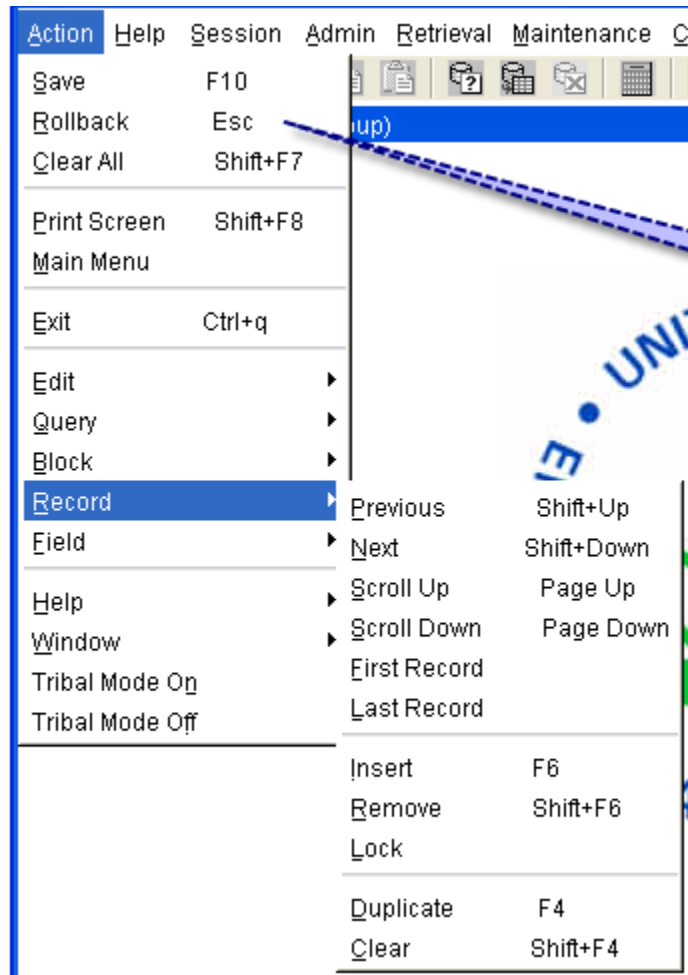
AQS Menus (2):

- Once a form has been selected, a menu specific to that form is displayed:



AQS Menus (3):

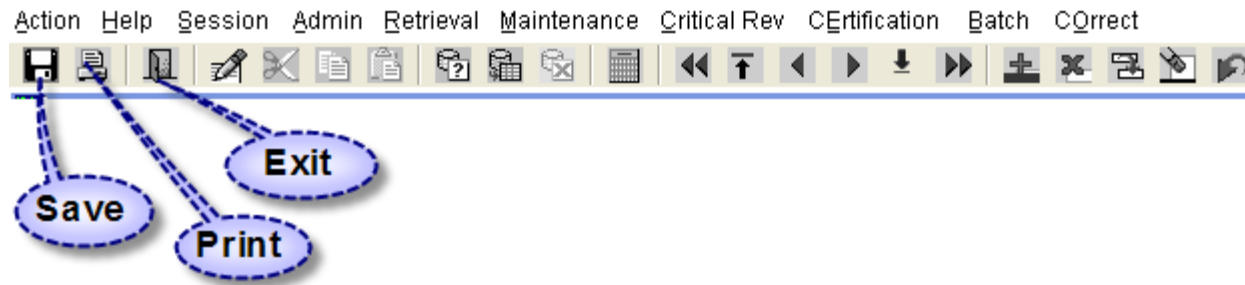
- The Action Menu lets you request specific operations:



Notice
Shortcut
Keys



AQS Icons:

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



- (Other icons will be covered later)

Logging off AQS

- Select Exit from the Action Menu or
- Click on the Exit Icon  or
- Click on the red  at the top right corner of the window.

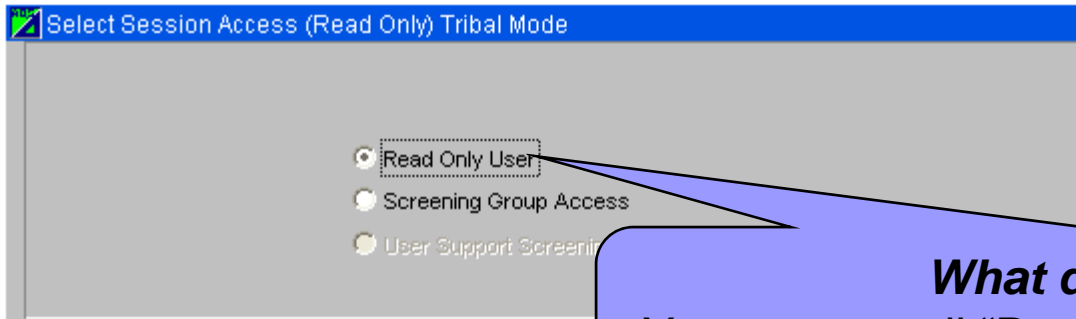


Browsing Data in AQS

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

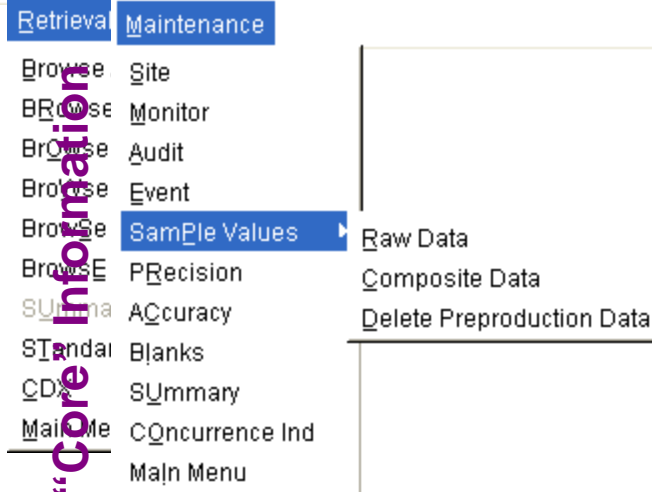
Where Do I Start?



What does this Mean?

- You can see all “Production” data from Anyone
- You cannot change any data

Action Help Session Admin Retrieval Maintenance Critical Rev Certification Batch Correct




What's the big picture?

- 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 you Want
- Specify Filters to limit the Records you get

Tribal Code State Code County Code Site ID Parameter Code POC

- Execute the Query 
- Scroll Through the Records

Reference

- Retrieval
 - Browse Annual Summary
 - Browse Monitoring Season
 - Browse Sample Methodology
 - Browse State Threshold
 - Browse Parameter
 - Browse Audits
 - Summary Data Extraction
 - Standard Report Selection
 - CDX
 - Main Menu

“Core” Information

- Maintenance
 - Site
 - Monitor
 - Audit
 - Event
 - Sample Values
 - Raw Data
 - Composite Data
 - Delete Preproduction Data
 - Precision
 - Accuracy
 - Blanks
 - Summary
 - Concurrence Ind
 - Main Menu

Forms Terminology

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 WY EDT 0

Obs Lt Half Mdl Observation Pct 0 Geom Std Dev

Arith Std Dev Geometric Mean Arithmetic Mean

Min Sample Value .017 Observation Cnt 603 Sum Method Cnt Direct Entry Ind N

Criteria Ind N Null Data Obs Cnt Cer Ind Valid Day Cnt 0

Exp Data Cnt Val GT Pri Std Val GT Sec Std Est Days GT Std

Days GT Alert Lvl Non Overlap GT Miss Day LT Std

Req Mon Cnt 245 Weighted Mean Ans Type CPS

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

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

Record: 25/?

Blocks

**Record w/
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

Next Block

First Record

Last Record

Brief Definition of the Field with Focus

Previous Record

Next Record

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

Record: 25/?	...	<OSC>
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The 25th Record of the current block and we Don't know the Total Number of Records Meeting the Query. Click "Last Record" to get the Total Number



Put it into practice

- Do Exercise 1.3

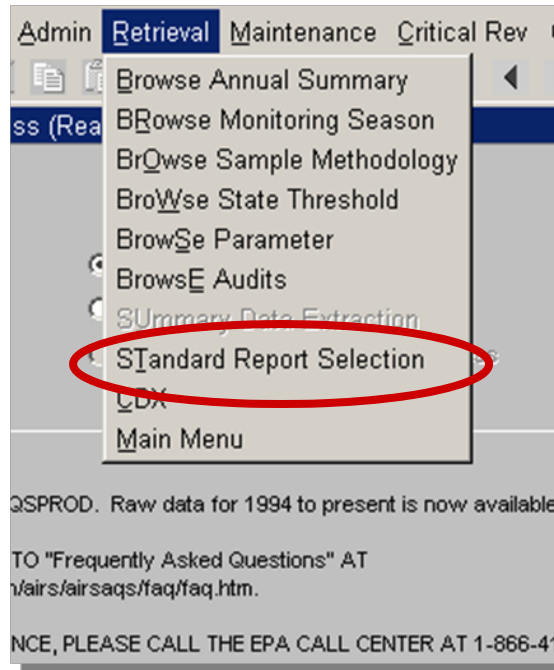


AQS Reports

General Issues

- **Specify selection criteria!**
 - Do NOT run reports without providing *selection criteria* to limit your results
 - The *selection criteria* are the major portion of the *criteria set*
 - Too broad selection criteria and your report can time-out before finishing
- **Almost all reports require a date range**
- Do not use IE window that started AQS for any other purpose. If not blank gray, reports will not run properly
- Sort Order and Report Options
 - available on reports where data structure allows
 - Report Options may allow the selection of “Applicable Standard” or “Events Processing”
- Oracle provides output in several formats
 - PDF generally most reliable
 - workfiles can be used to import into a spreadsheet

Where are the Reports?



Choose a report

- From the Retrieval → Criteria Set tab
- In Report Code field, use the drop down menu to see the Report options
- All the available AQS reports are listed in alphabetical order
- The “AMP” terminology is a hold-over from past AQS versions

The screenshot shows the AQS Standard Report Criteria Selection (Read Only) AMP450 interface. The 'Report Code' dropdown menu is highlighted with a red circle, showing 'AMP450' selected. The interface includes tabs for Criteria Set, Monitor Selection, Area Selection, Sort Order, Report Options, and Retrieve Reports. The 'Report Outputs' section has checkboxes for REPORT and WORKFILE, and a 'Print Format' dropdown set to PDF. The 'Report Selection Mode' section has radio buttons for Monitor Selection (detail) and Area Selection. At the bottom, there are buttons for 'Generate Report' and 'CDX to Retrieve Batch Reports'.

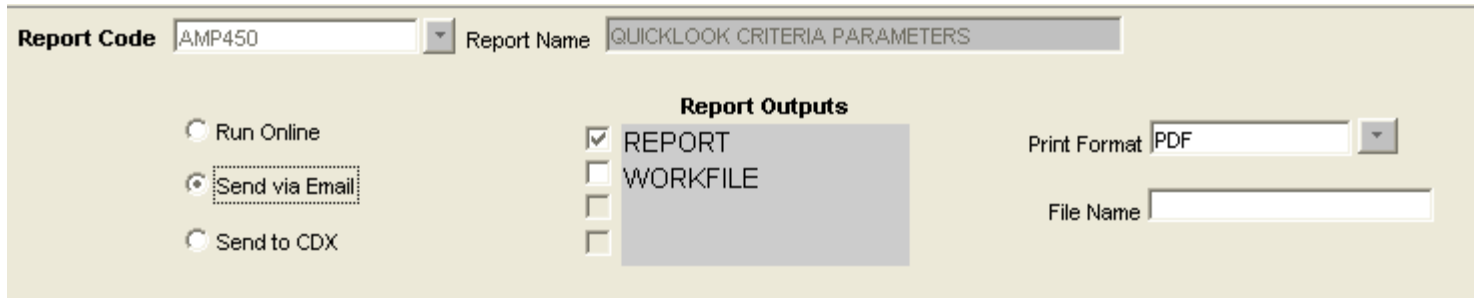
Report options

■ Select:

- Run Online
- Send via Email
- Send to CDX

The screenshot shows the AQS software interface with the 'Standard Report Criteria Selection (Read Only) AMP450' window. The 'Report Options' tab is active. The 'Criteria Set' is 'AMP450' and the 'Report Name' is 'QUICKLOOK CRITERIA PARAMETERS'. The 'Report Outputs' section has three radio buttons: 'Run Online' (selected and circled in red), 'Send via Email', and 'Send to CDX'. The 'Report Selection Mode' section has two radio buttons: 'Monitor Selection(detail)' (selected) and 'Area Selection'. The 'Print Format' is set to 'PDF'. There are 'Generate Report' and 'CDX to Retrieve Batch Reports' buttons at the bottom. The status bar at the bottom indicates 'Record: 1/1' and '<OSC>'.

Report output – decide on format



The screenshot shows a web-based report generation interface. At the top, there are two input fields: 'Report Code' with the value 'AMP450' and 'Report Name' with the value 'QUICKLOOK CRITERIA PARAMETERS'. Below these, there are three radio button options for delivery: 'Run Online', 'Send via Email' (which is selected and has a dashed border), and 'Send to CDX'. To the right of these is a section titled 'Report Outputs' with two checkboxes: 'REPORT' (checked) and 'WORKFILE' (unchecked). Further right, there is a 'Print Format' dropdown menu set to 'PDF' and a 'File Name' text input field.

- Run Online
 - displays in browser window; save from browser window
 - pdf version opens automatically in Adobe Acrobat
- Send via Email
 - Email delivery of report as a [link](#)
 - specify File Name
- Send to CDX
 - Separate CDX transfer of report
 - specify File Name
- With web delivery, there is no appreciable difference in the cost of delivery between online and batch reports

Report output – caveat on TEXT output

Criteria Set: [Dropdown] Desc: [Text Box]
Owner: [Text Box] SHATAS Type: PRIVATE [Dropdown]

Report Code: AMP450 Report Name: QUICKLOOK CRITERIA PARAMETERS

Report Outputs:
 REPORT
 WORKFILE

Print Format: PDF

Report Selection Mode:
 Monitor Selection(detail)
 Area Selection

Buttons: Generate Report, CDX to Retrieve Batch Reports

Report Formats Dialog:
Find %
Format | Description
PS | Postscript
HPL | HP Printer Language
PDF | Adobe Portable Document Format
~~TEXT | Text File~~
HTML | Hyper Text Markup Language
RTF | Rich Text Format

Buttons: Find, OK, Cancel

TEXT - Not recommended



Recap – How to Create a Criteria Set for a report

1. Select the report
2. Specify Output type (Report, Workfile, XML)
3. Choose the selection criteria
4. Modify report Sort Order criteria where available
5. Modify output Report Options where available
6. Generate Report
7. If you will run the report again, you can save the report's Criteria Set.

Standard Reports: Criteria Set

Standard Report Criteria Selection (T50) AMP410 Tribal Mode

Criteria Set | Monitor Selection | Area Selection | Sort Order | Report Options | Retrieve Reports

Criteria Set Desc

Owner Type

Report Code Report Name

Run Online
 Send via Email
 Send to CDX

Report Outputs
 REPORT
 WORKFILE
 XML

Print Format
File Name

Report Selection Mode
 Monitor Selection(detail)
 Area Selection

Reports- Monitor Selection vs Area Selection

The screenshot displays two windows of the 'Standard Report Criteria Selection' application. The left window is titled 'Standard Report Criteria Selection (T50) AMP350 Tribal Mode' and has the 'Monitor Selection' tab selected. It features a 'Site Monitor Criteria' table with columns for Tribal Code, State Code, County Code, Site Id, Parameter Code, POC, Method Code, Duration Code, Start Date, and End Date. Below this are sections for 'Global Report Criteria', 'Global Date Range', and 'Global Screening Group'. The right window is titled 'Standard Report Criteria Selection (Read Only) AMP350 Tribal Mode' and has the 'Area Selection' tab selected. It features a 'Geographical Criteria' table with columns for Tribal Code, State Code, County Code, Site Id, City Code, AQCR Code, LIAR Code, MSA Code, CMSA Code, and EPA Region Code. Below this are sections for 'Monitor Type', 'Land Use Type', 'Reporting Organization', 'Protocol Criteria', 'Date Criteria', and 'Screening Group'. A red arrow originates from the 'Area Selection' tab in the right window and points to the 'Report Selection Mode' section in the bottom window. This section contains two radio buttons: 'Monitor Selection(detail)' (which is selected) and 'Area Selection'. Below these are buttons for 'Generate Report' and 'CDX to Retrieve Batch Reports'. A 'Forms' dialog box is open in the foreground, displaying a warning icon and the text: 'Changing tabs may delete some of the criteria you have selected. Do you want to continue?' with 'Yes' and 'No' buttons.

AND/OR in Selections Tab Rows/Blocks

Standard Report Criteria Selection (T50) AMP350

Criteria Set | Monitor Selection | Area Selection | Sort Order | Report Options | Retrieve Reports

Site-Monitor Criteria

State Code	County Code	Site Id	Parameter Code	POC	Method Code	Duration Code	Start Date			End Date					
YYYY	MM	DD	YYYY	MM	DD	YYYY	MM	DD	YYYY	MM	DD				

Global Report Criteria

Pollutant Type	Parameter Code	Method Code	Duration Code

Global Date Range

Start Date			End Date		
YYYY	MM	DD	YYYY	MM	DD

Generate Report

- AND within a row
 - State and county AND site AND parameter...
 - Parameter AND method AND duration...
- OR between rows in block
 - State/County OR State/County or...
- AND between blocks
 - State AND Pollutant AND date...

AND/OR in Selections Tab Rows/Blocks

Standard Report Criteria Selection (Read Only) AMP350

Criteria Set | Monitor Selection | Area Selection | Sort Order | Report Options | Retrieve Reports

Geographical Criteria

State Code	County Code	Site Id	City Code	AQCR Code	UAR Code	CBSA Code	CSA Code	EPA Region Code
19								

Monitor Type: [] Land Use Type: [] PQAO: 1080 University Hygienic Laboratory

Protocol Criteria

Pollutant Type	Parameter Code	Method Code	Duration Code

Date Criteria

Start Date: 1998 01 01 End Date: 1998 01 31

Generate

- 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)

AND/OR in Selections Tab Rows/Blocks

Standard Report Criteria Selection (Read Only) AMP350

Criteria Set | Monitor Selection | Area Selection | Sort Order | Report Options | Retrieve Reports

Geographical Criteria

State Code	County Code	Site Id	City Code	AQCR Code	UAR Code	CBSA Code	CSA Code	EPA Region Code
36								01

Monitor Type | Land Use Type | PQAQ

Protocol Criteria

Pollutant Type	Parameter Code	Method Code	Duration Code
CRITERIA			

Date Criteria

Start Date: YYYY MM DD (1998 01 01) | End Date: YYYY MM DD (1998 01 31)

Generat

- 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)

AND/OR in Selections Tab Rows/Blocks

Standard Report Criteria Selection (Read Only) AMP350

Criteria Set | Monitor Selection | Area Selection | Sort Order | Report Options | Retrieve Reports

Geographical Criteria

State Code	County Code	Site Id	City Code	AQCR Code	UAR Code	CBSA Code	CSA Code	EPA Region Code
36								01

Monitor Type:
 Land Use Type:
 PQAQ:

Protocol Criteria

Pollutant Type	Parameter Code	Method Code	Duration Code
	44201		
	42401		

Date Criteria

Start Date			End Date		
YYYY	MM	DD	YYYY	MM	DD
1998	01	01	1998	01	31

Generate Report

- 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

Standard Report Criteria Selection (Lbauder) AMP350

Criteria Set | Monitor Selection | Area Selection | **Sort Order** | Report Options | Retrieve Reports

Sort Order

Order	Column Name	Allowed Range	
		Lo	Hi
1	STATE_CODE	1	5
2	COUNTY_CODE	1	5
3	SITE_ID	1	5
4	PARAMETER_CODE	1	5
5	POC	1	5

↑ Move highlighted column up

↓ Move highlighted column down

Generate Report | Restore Report Defaults

Standard Reports: Report Options

The screenshot shows the AQS software interface. The window title is "Standard Report Criteria Selection (Read Only) AMP350". The "Report Options" tab is highlighted with a red circle. The interface includes a menu bar with options like "Action", "Help", "Session", "Admin", "Retrieval", "Maintenance", "Critical Rev", "Certification", "Batch", and "Correct". Below the menu bar is a toolbar with various icons. The main area contains a list of report options, each with a dropdown menu:

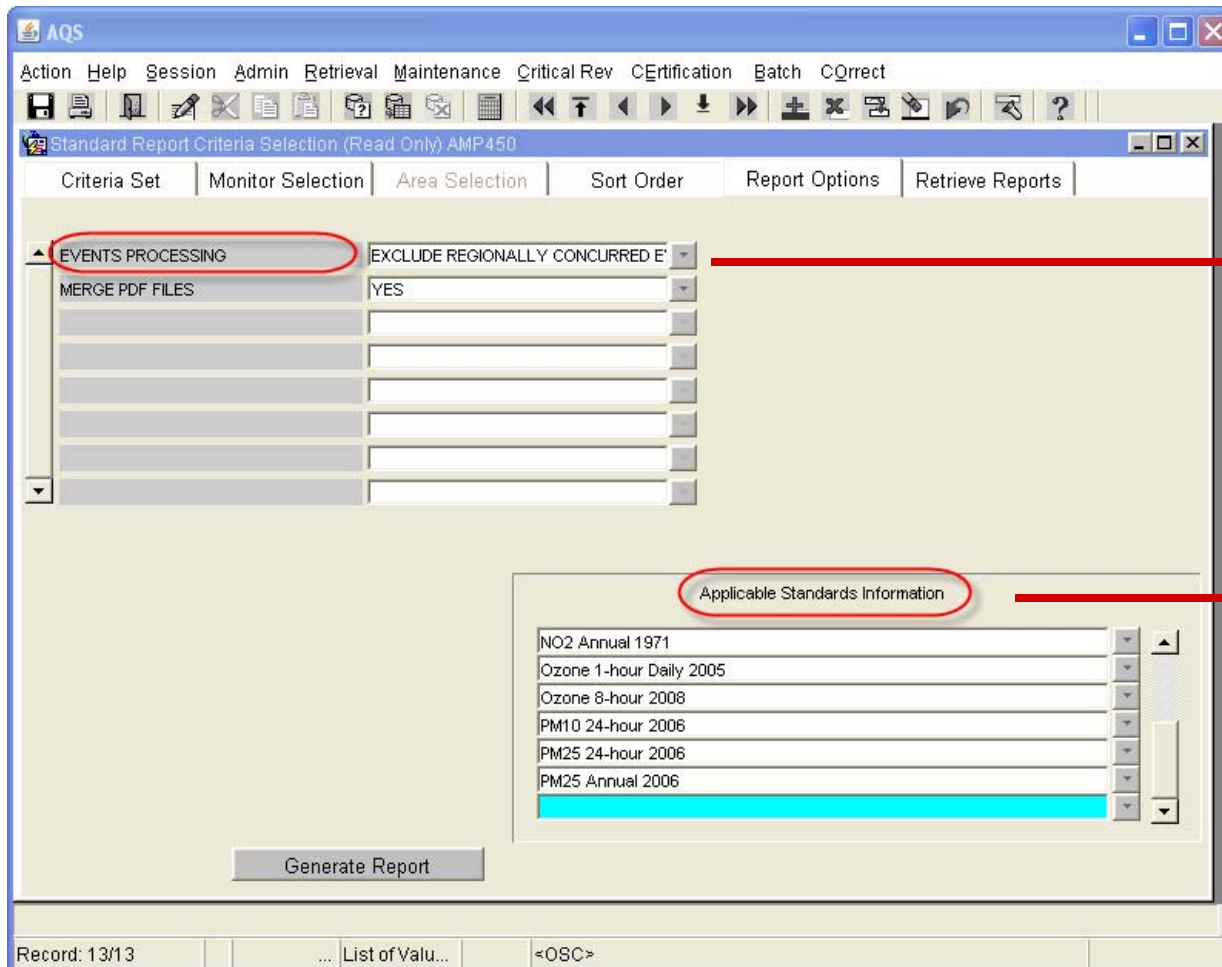
- RAW DATA EVENTS: INCLUDE EVENTS
- INCLUDE NULLS: YES
- DAILY STATISTICS: MAXIMUM
- MERGE PDF FILES: YES
- UNITS: STANDARD

Below these options is an "ALTERNATE STANDARDS" section with a table:

Parameter	Duration	Primary Std	Secondary Std

At the bottom of the window is a "Generate Report" button.

Standard Reports: Report Options



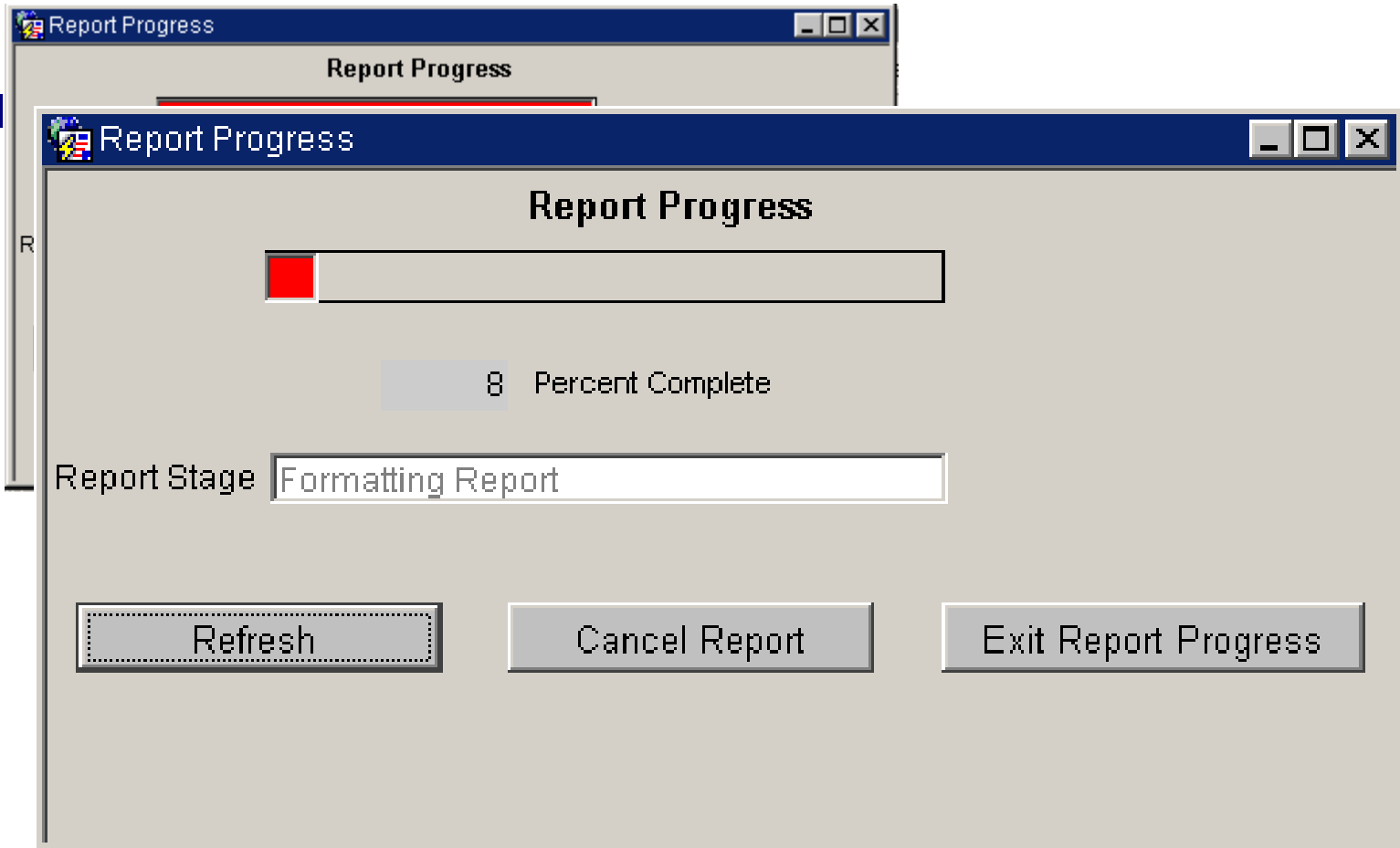
Several reports allow choice of exceptional events (Include Events, Exclude Events, Exclude Regionally Concurred Events. . .)

Several reports allow choice of applicable NAAQS standard

Reports & the options available:

For this AQS Report :	You can choose the Applicable Standard* to be applied to the report:	And you can choose one of the following options for Events Processing :
AMP450 (Quick Look Criteria Parameters)	Yes	Include Events OR Exclude Events OR Exclude Regionally Concurred Events OR Report All Event Records
AMP450NC (Quick Look All Parameters)	Yes	
AMP435 (Daily Summary)	Yes	
AMP230 (Frequency Distribution)	Yes	
AMP440 (Maximum Values)	Yes	
AMP260 (Reduced Frequency Distribution)	Yes	
AMP470 (Raw Values by Year)	No	
AMP355 (Combined Site Sample Values)	Yes	Include Regionally Concurred Events OR Exclude Regionally Concurred Events
AMP350 (Raw Data Report)	No	Include Events OR Exclude Events
AMP460 (Raw Data WF Parameters by Time)	No	
AMP350MX (Raw Data Max Values)	Yes	Include Events OR Exclude Events OR Exclude Regionally Concurred
AMP350NW (Raw Data NAAQS Averages)	Yes	
AMP300 (Violation Day Count)	Yes	
AMP360 (Raw Data Qualifier)	No	Concurred Data Only (Concurrence = Y) OR Non-concurred Data Only (Concurrence = N) OR Un-reviewed Data Only (No Concurrence Value) OR All Data (Concurred and Non-Concurred)

Standard Reports: Progress Popup



Standard Reports: Retrieve Reports

The screenshot shows a software window titled "Standard Report Criteria Selection (Lbauder) AMP350". The window has a tabbed interface with the following tabs: "Criteria Set", "Monitor Selection", "Area Selection", "Sort Order", "Report Options", and "Retrieve Reports". The "Retrieve Reports" tab is active.

The main content area displays a table with the following columns: "User Id", "Report Code", "Request Type", "Request Date", "Report Stage", and "% Complete". The first row is highlighted in cyan.

User Id	Report Code	Request Type	Request Date	Report Stage	% Complete
BIB	AMP350	ONLINE	03/30/2004 08:25 PM	Cancelled	100
BIB	AMP501	ONLINE	03/30/2004 07:25 PM	Completed	100
BIB	AMP500	ONLINE	03/30/2004 07:19 PM	Completed	100
BIB	AMP440	BATCH	03/30/2004 11:17 AM	Completed	100
BIB	AMP440	BATCH	03/30/2004 11:17 AM	Completed	100
BIB	AMP440	BATCH	03/30/2004 11:17 AM	Completed	100
BIB	AMP440	BATCH	03/30/2004 11:17 AM	Completed	100
BIB	AMP440	BATCH	03/30/2004 11:17 AM	Completed	100
BIB	AMP440	BATCH	03/30/2004 11:17 AM	Completed	100
BIB	AMP440	BATCH	03/30/2004 11:17 AM	Completed	100
BIB	AMP440	BATCH	03/30/2004 11:17 AM	Completed	100
BIB	AMP440	BATCH	03/30/2004 11:17 AM	Completed	100
BIB	AMP260	BATCH	03/30/2004 11:16 AM	Completed	100
BIB	AMP260	BATCH	03/30/2004 11:16 AM	Completed	100
BIB	AMP260	BATCH	03/30/2004 11:16 AM	Completed	100
BIB	AMP260	BATCH	03/30/2004 11:16 AM	Completed	100

At the bottom of the window, there are four buttons: "Retrieve Report", "Refresh Query", "Cancel Report", and "Delete Report".

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

Standard Report Criteria Selection (Read Only) AMP410 Tribal Mode

Criteria Set | Monitor Selection | Area Selection | Sort Order | Report Options | Retrieve Reports

Criteria Set: Training Test Description: This is a Demonstration Test

Owner: JONATHAN MILLER Type: PRIVATE

Report Code: AMP410 Report Name: AIR QUALITY INDEX REPORT



Put it into practice

- Do Exercise 1.4