



## Goals for this class

- Introducing Discoverer Plus
- Finding the data you need
- Designing your workbooks
- Sharing your results
- Helping yourself

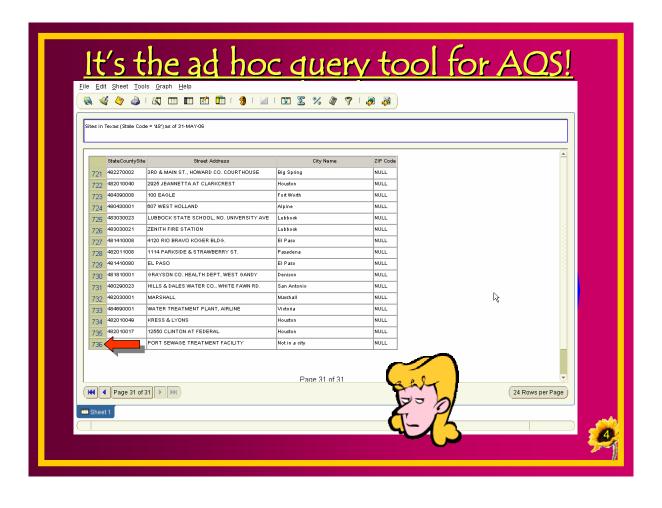




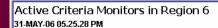
### What is Discoverer?

- A <u>business intelligence</u> tool for ad hoc queries, reporting, analysis, and Web publishing from Oracle Corporation
- A <u>retrieval only</u> tool that works on a relational database whether it's designed for online transaction processing (OLAP) or as a data warehouse



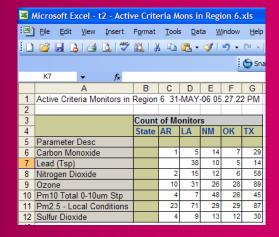






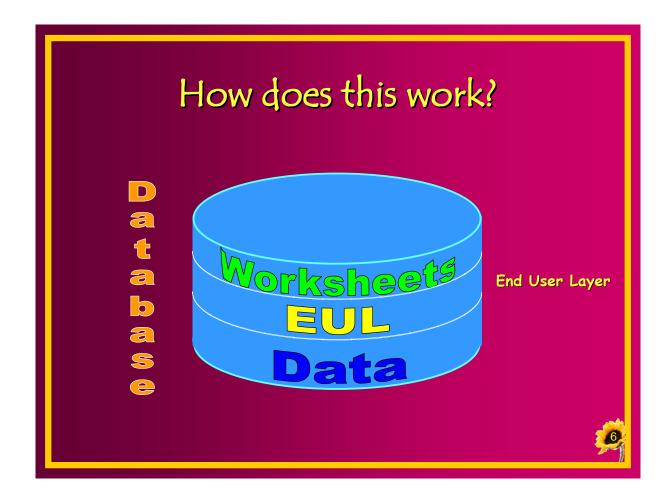
				int of nitors		
	State	AR	LA	NM	OK	ΤX
Parameter Desc						
Carbon Monoxide		1	5	14	7	29
Lead (Tsp)			38	10	5	14
Nitrogen Dioxide		2	15	12	6	58
Ozone		10	31	26	28	89
Pm10 Total 0-10um Stp		4	7	48	26	45
Pm2.5 - Local Conditions		23	71	29	29	87
Sulfur Dioxide		4	9	13	12	30

Discoverer



Exported to Excel





## Key Terminology

Interface to database = End User Layer
Grouping of Tables = Business Area
Group of worksheets = Workbook

Tables - Folders

Columns Items

Rows Records

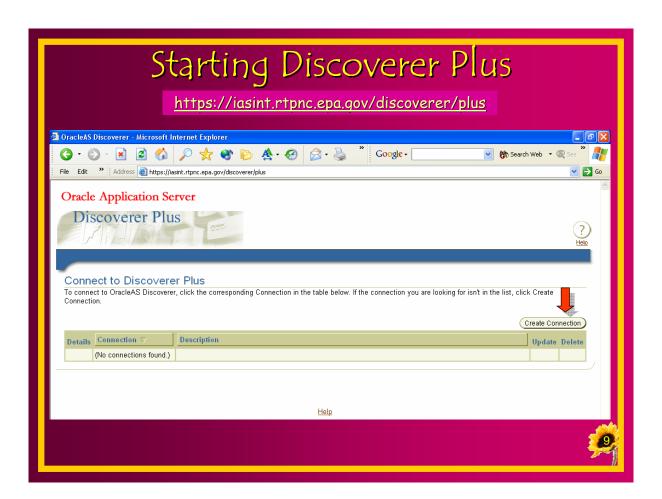
Queries Worksheets

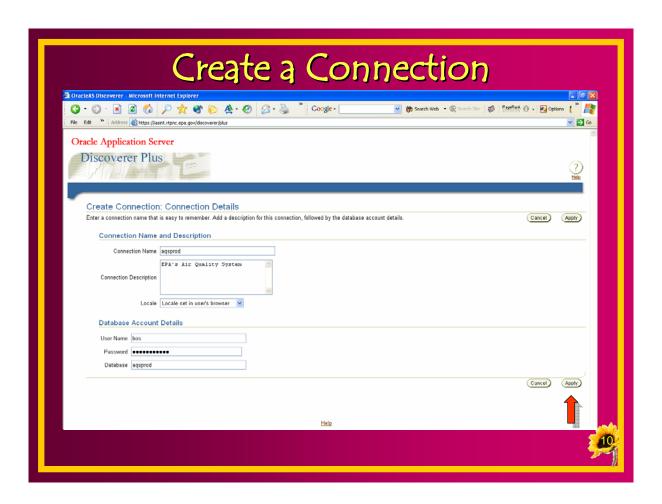


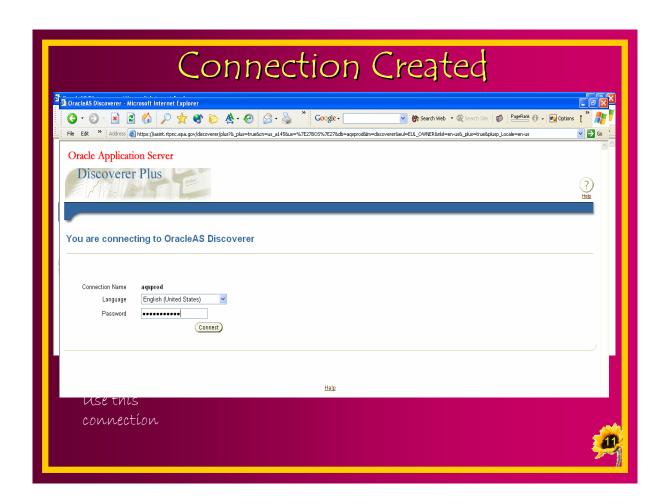
# What you need

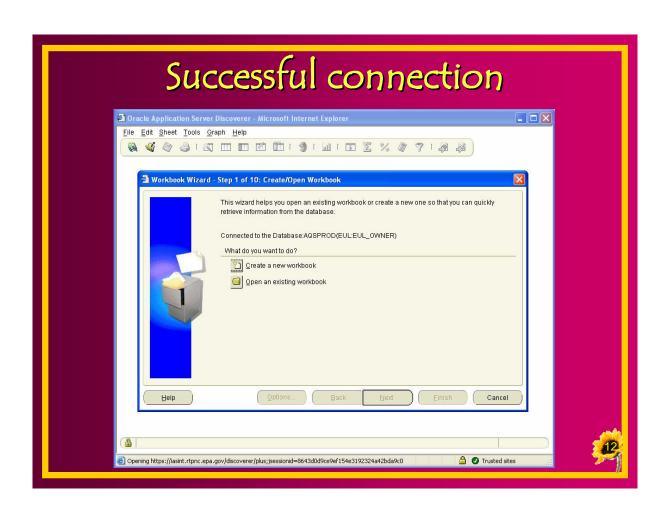
- AQS userid and password
- Java-enabled Web browser
- Java Virtual Machine (JVM) such as Oracle Unitiator
- Latest security certificate (pokeCertdb.bat)
- url: https://iasint.rtpnc.epa.gov/discoverer/plus







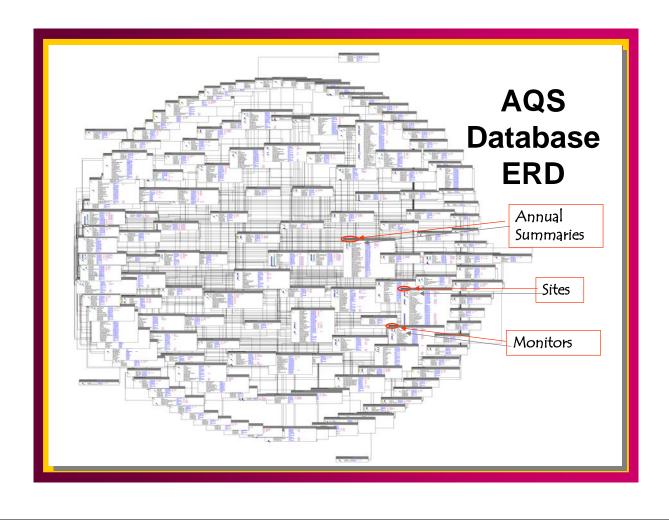




# What do you need to know about before you try to Create or Open a Workbook

Structure of the database





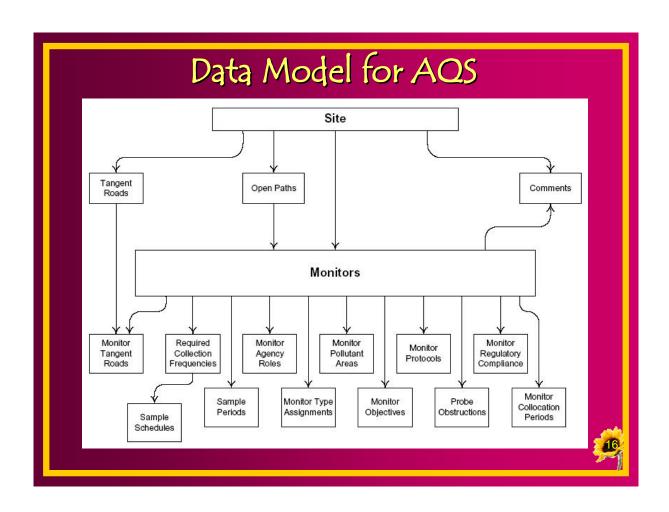
## Your Business Areas

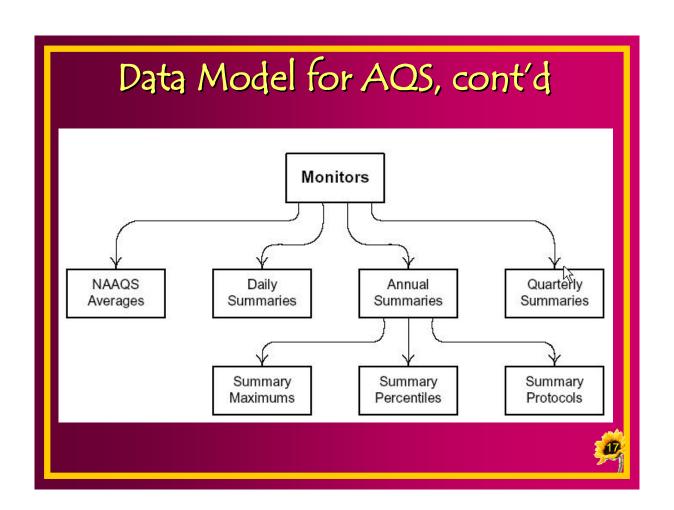
## AQS basic

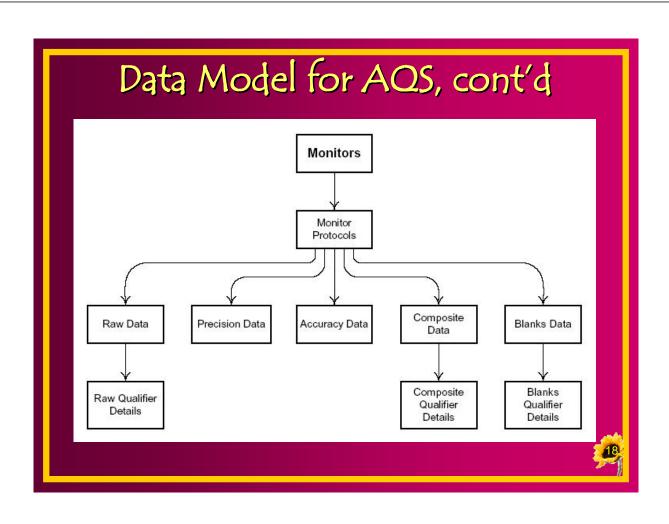
# AQSprod 9i

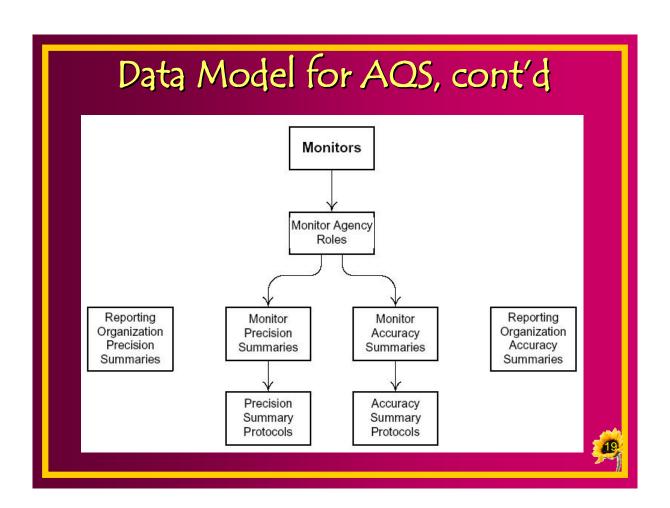
- Folders are composed primarily of views (i.e., combinations of tables) in the agsprod database as described in the Data Dictionary
- Reference tables (e.g., States, Parameters, Units)
- Raw data and other additional folders in AOSprod 9i

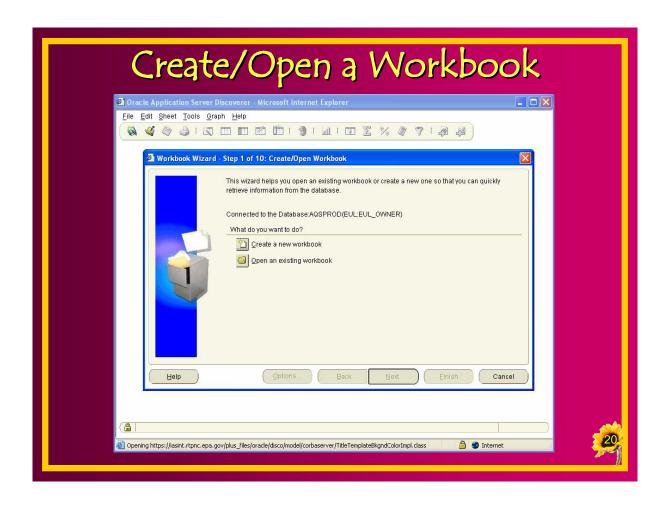


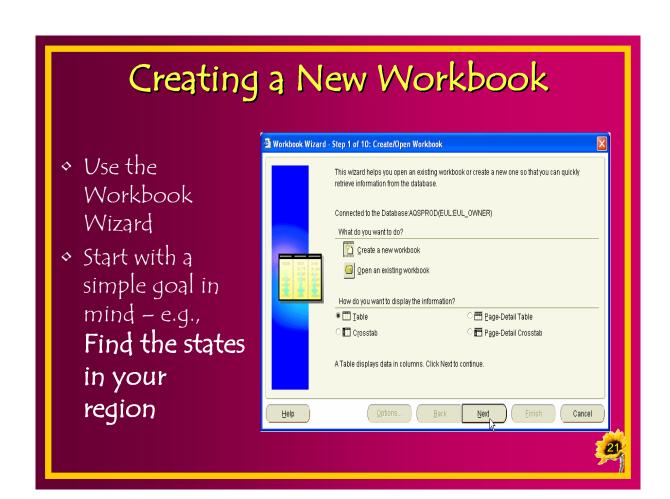


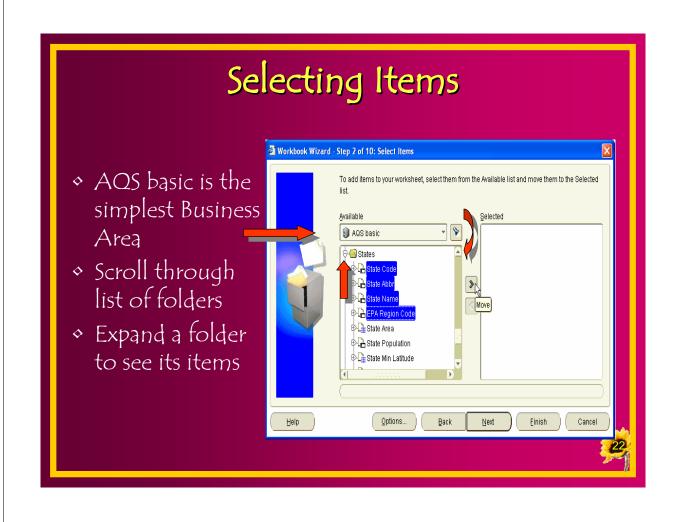


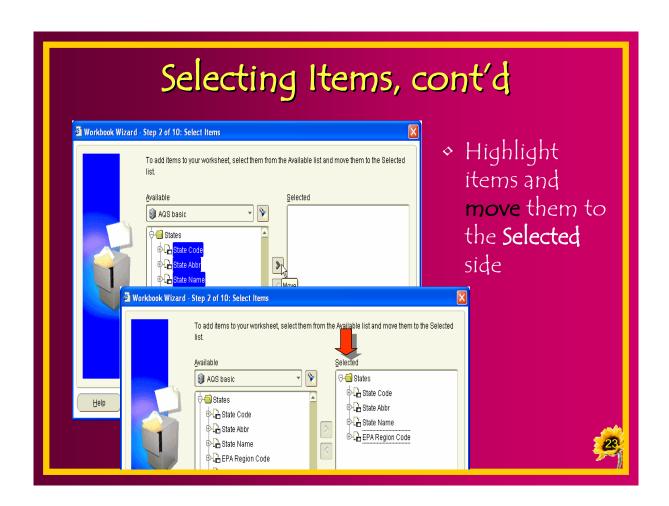




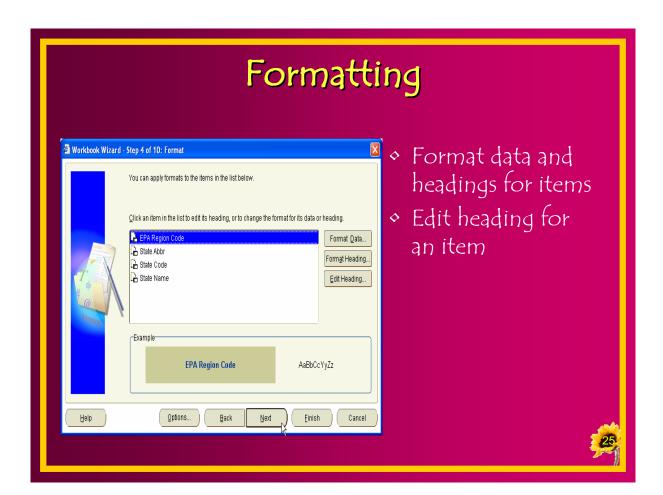


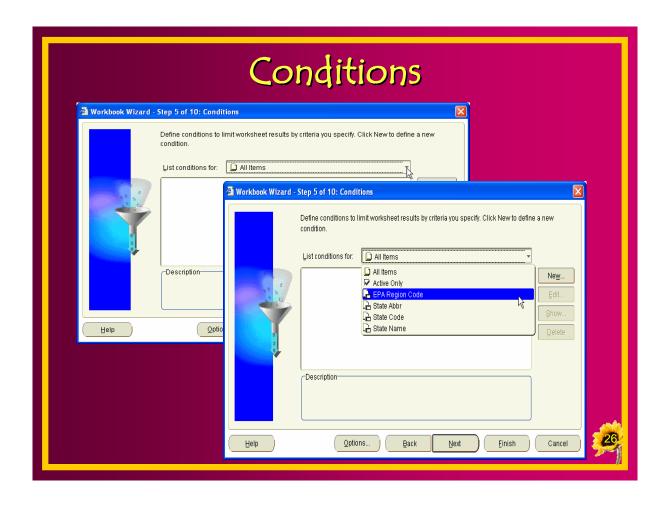


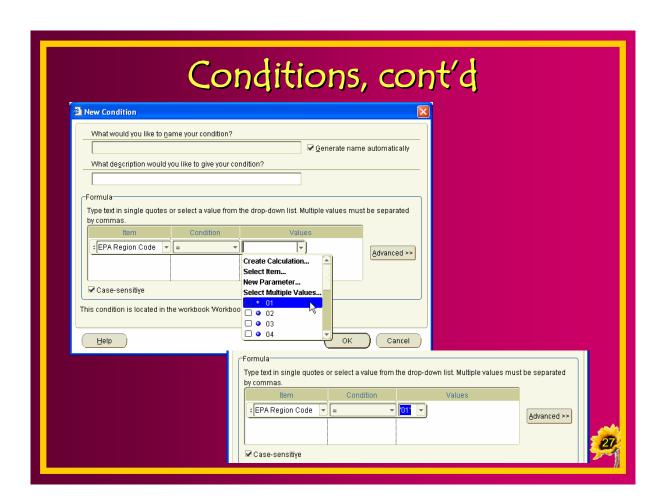


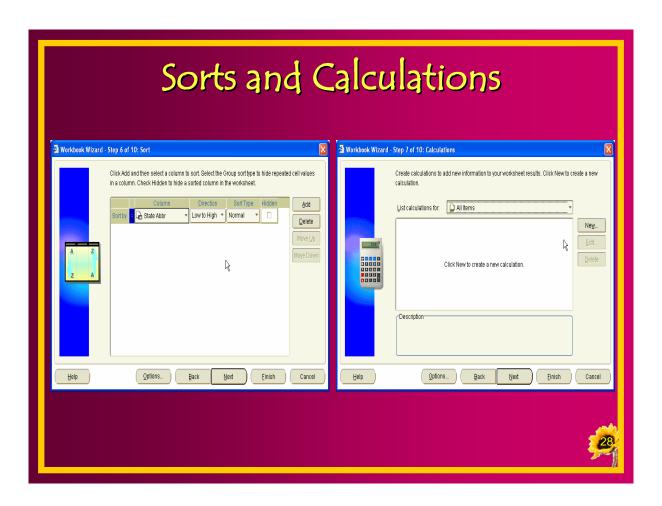


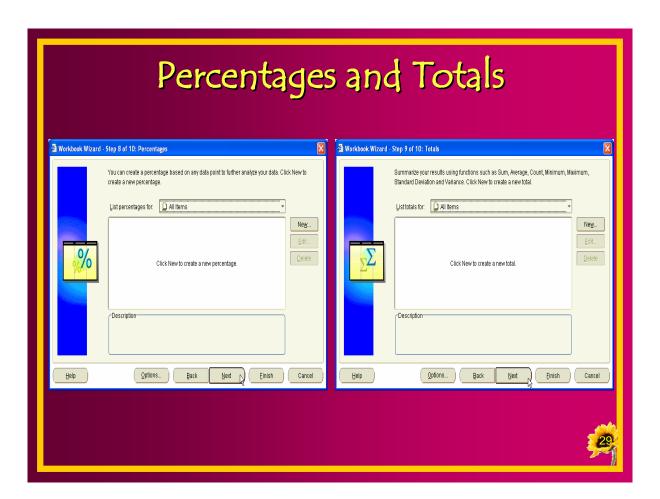


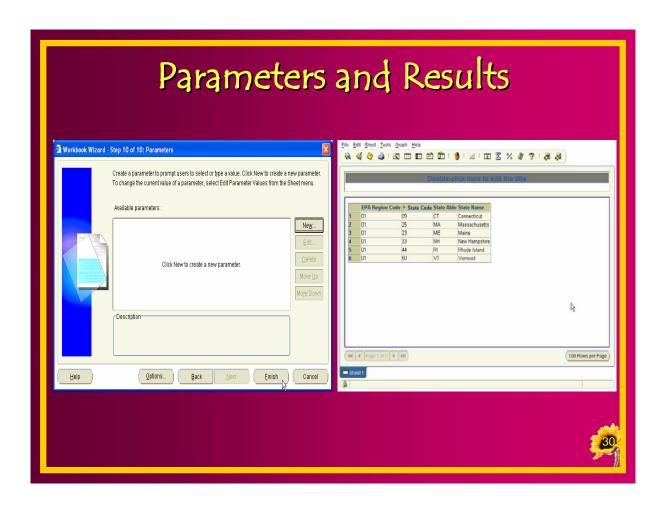








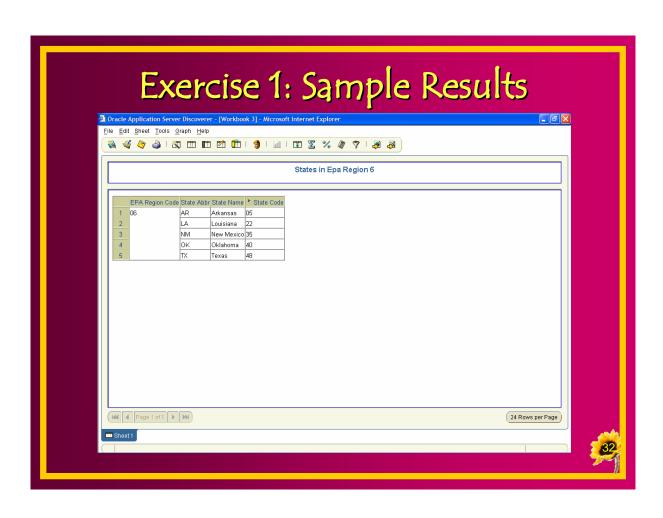


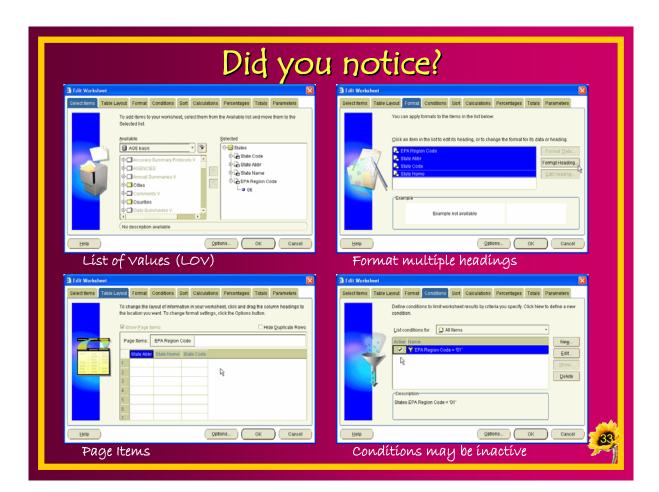


#### Exercise 1

- 1. Launch a web browser
- 2. Go to <a href="https://iasint.rtpnc.epa.gov/discoverer/plus">https://iasint.rtpnc.epa.gov/discoverer/plus</a>
- 3. Create your connection and Connect to aqsprod
- 4. Create a new workbook using the AOS basic business area to show all states within your EPA region
- 5. Adjust the table layout so that **EPA Region** is in column 1, **State Abbreviation** in column 2, **State Name** in column 3, **State Code** in column 4
- 6. Center headings for all columns (Format)
- 7. Sort by EPA Region, then State Abbreviation. Change to a group sort on EPA Region.
- 8. Add a title







#### Exercise 2

No Cheating!

- 1. List all the parameters (pollutants) measured at site 06-001-0007
- 2. Modify #1 to include only parameters being sampled since 2004
- 3. Modify #1 to show sampling end dates



#### Exercise 2: Results

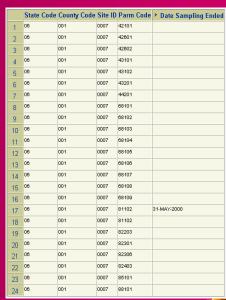
All parameters at site

All parms since 2004

All parms w/end date

	State Code	County Code	Site ID	Parm Code
1	06	001	0007	42101
2	06	001	0007	42601
3	06	001	0007	42602
4	06	001	0007	43101
5	06	001	0007	43102
6	06	001	0007	43201
7	06	001	0007	44201
8	06	001	0007	68101
9	06	001	0007	68102
10	06	001	0007	68103
11	06	001	0007	68104
12	06	001	0007	68105
13	06	001	0007	68106
14	06	001	0007	68107
15	06	001	0007	68108
16	06	001	0007	68109
17	06	001	0007	81102
18	06	001	0007	81102
19	06	001	0007	82203
20	06	001	0007	82301
21	06	001	0007	82306
22	06	001	0007	82403
23	06	001	0007	85101
24	06	001	0007	88101

	State Code	County Code	Site ID	Parm Code
1	06	001	0007	42101
2	06	001	0007	42601
3	06	001	0007	42602
4	06	001	0007	43101
5	06	001	0007	43102
6	06	001	0007	43201
7	06	001	0007	44201
8	06	001	0007	68101
9	06	001	0007	68102
10	06	001	0007	68103
11	06	001	0007	68104
12	06	001	0007	68105
13	06	001	0007	68106
14	06	001	0007	68107
15	06	001	0007	68108
16	06	001	0007	68109
17	06	001	0007	81102
18	06	001	0007	82203
19	06	001	0007	82301
20	06	001	0007	82306
21	06	001	0007	82403
22	06	001	0007	85101
23	06	001	0007	88101

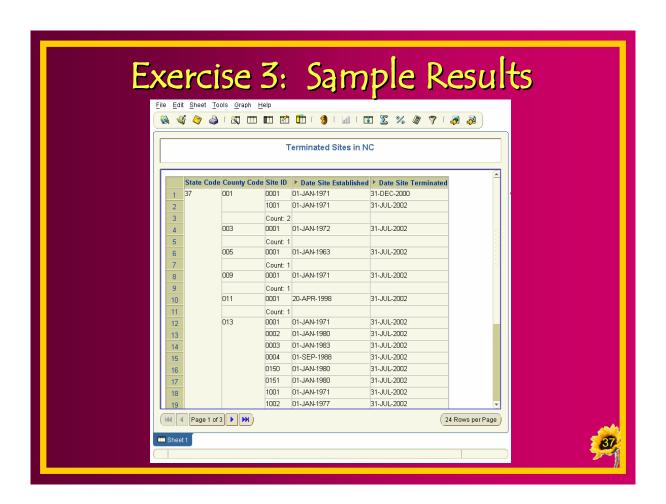




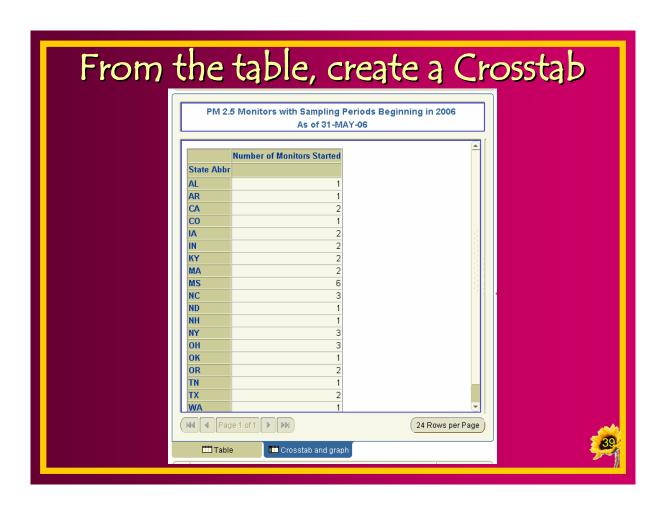
#### Exercise 3

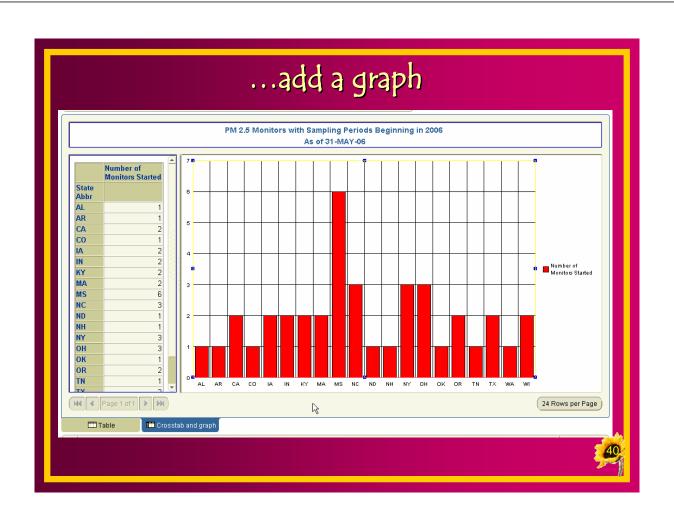
- 1. List all sites in your state that have been terminated. For each row, show the state code, county code, site ID, date site created and date site terminated.
- 2. Add a title.
- 3. Include a count of the number of sites that have been terminated for each county and a grand total at the bottom. (Hint: Use "Totals" under Tools menu or  $\Sigma$ .)

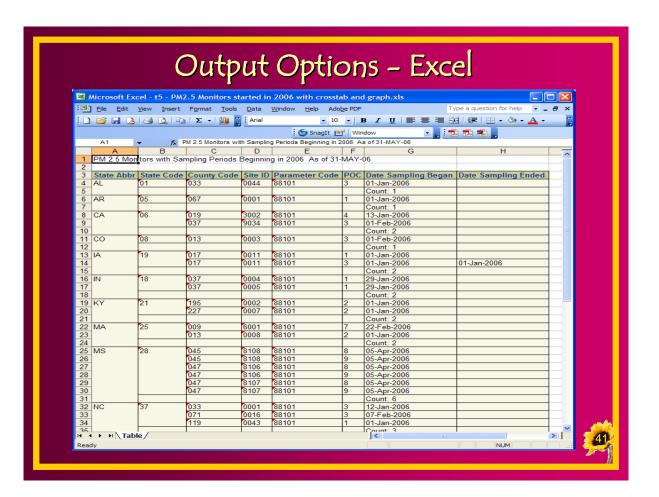


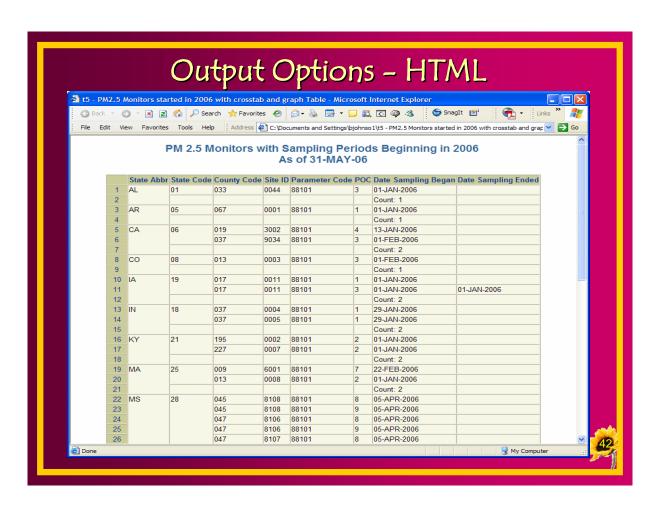


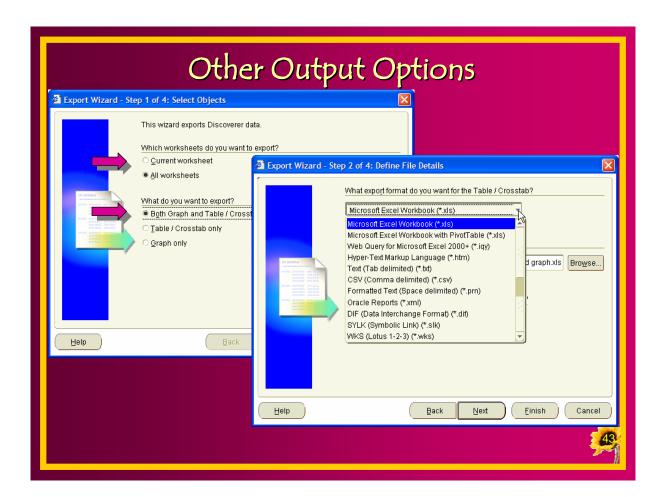












#### Using More Features

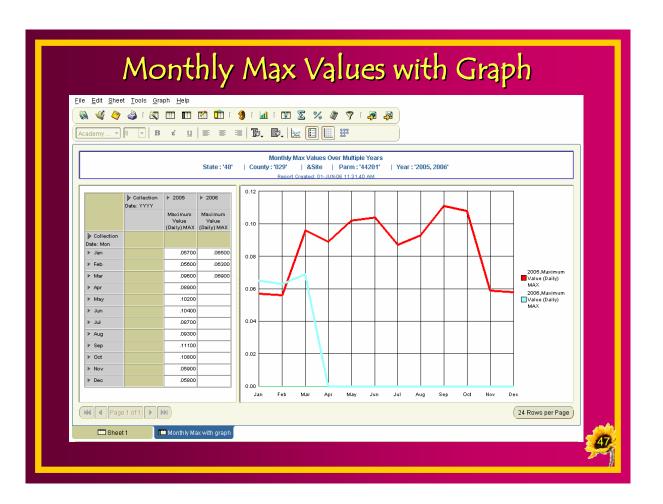
#### Goal:

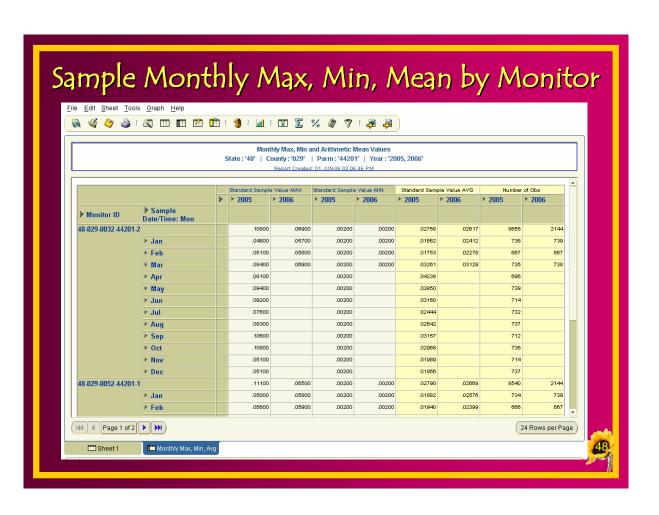
- 1. Find all PM<sub>2.5</sub> monitors with sampling periods beginning in 2005
- 2. Sort the results by state abbreviation, county, site, and POC
- 3. Display start date and end date (if any) for sampling periods
- 4. Display count of monitors in each state.
- 5. Add an appropriate title
- 6. Save the workbook on the database
- 7. Share your workbook with your neighbor

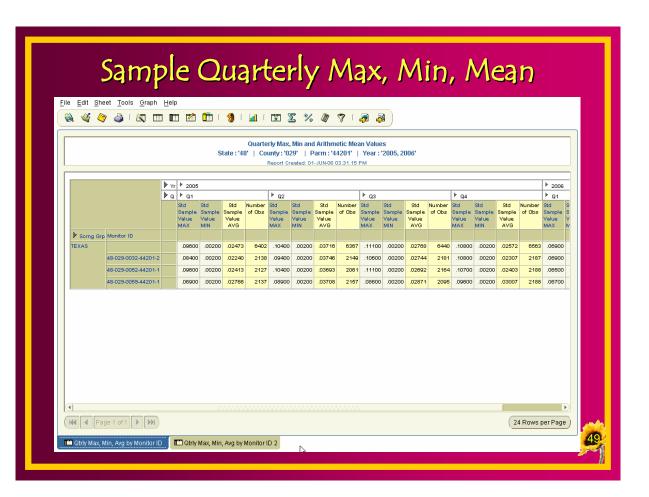


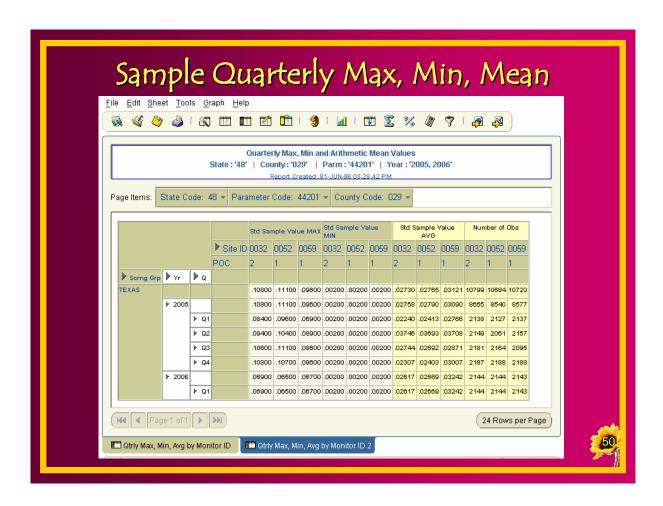
				es)	ired	K	esults		
			PM 2.5 Mg	nitors	with Sampling I	erio	ds Beginning in 2006		
					As of 31-M				
	Ca-a- Abb-	C4-4- C-4-	C	Cit- ID	D	DOC	N D-4- C		A
		O1	033		88101	3	▶ Date Sampling Began 01-JAN-2006	✓ Date Sampling Ended	
1	AL	UI	033	0044	00101	3			
2	AR	05	067	0001	88101	1	Count: 1 01-JAN-2006		
3	OR.	05	007	0001	00101	<u> </u>			
5	CA	06	019	3002	88101	4	Count: 1 13-JAN-2006		
_		00	037		88101	3	01-FEB-2006		
6 7			051	3034	00101	-	Count: 2		
8	СО	08	013	0003	88101	3	01-FEB-2006		
9		-	0.0	0000	55.51	Ĭ-	Count: 1		
10	IA	19	017	0011	88101	1	01-JAN-2006		
11			017	0011	88101	3	01-JAN-2006	01-JAN-2006	
12							Count: 2		
13	IN	18	037	0004	88101	1	29-JAN-2006		
14			037	0005	88101	1	29-JAN-2006		
15							Count: 2		
16	KY	21	195	0002	88101	2	01-JAN-2006		
17			227	0007	88101	2	01-JAN-2006		
18							Count: 2		
19	MA	25	009	6001	88101	7	22-FEB-2006		Ŧ

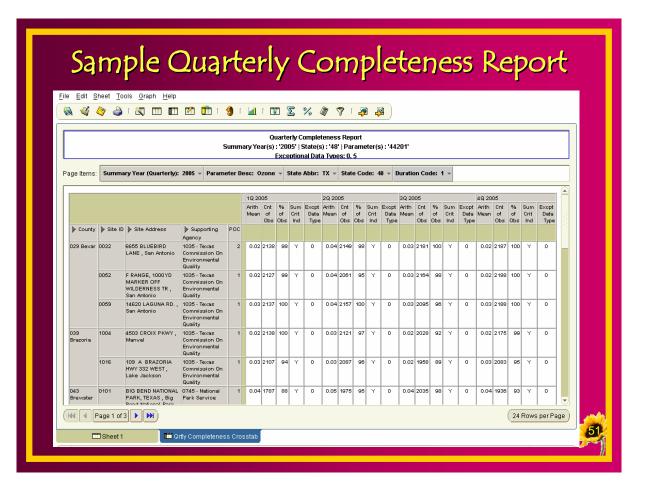












#### Hints and Tips and Other Good Stuff

- AQSprod is the database instance name
- Discoverer is accessing the live production database (AQSprod same as the AQS application)
- Your Discoverer userid and password are the same as your AQS application userid and password
- Only registered AQS users can access AQSprod via Discoverer
- If you delete your cookies, you'll have to recreate your connection
- Your Connection must be created on each different PC you use
- There is one EUL for AQS, with multiple Business Areas
- AQS basic has the most commonly used tables
- AQSprod 9i includes all the tables in AQS basic plus raw data current and a few other related tables
- Online Help is pretty good!
- Any workbook you share with others will have your userid appended to the beginning of the workbook name
- You can get to Discoverer from the AQS Web Application link on the sidebar of the EPA TTN AQS page - <a href="http://www.epa.gov/ttn/airs/airsaqs/">http://www.epa.gov/ttn/airs/airsaqs/</a>
- You can find answers to some of the Frequently Asked Questions from a link on that same page
- Many of the reference tables are viewable from <a href="http://www.epa.gov/ttn/airs/airsaqs/manuals/codedescs.htm">http://www.epa.gov/ttn/airs/airsaqs/manuals/codedescs.htm</a>



#### Hints and Tips and Other Good Stuff, cont'd

- Max time for Discoverer queries = 60 mins
- ♦ Max number of rows= 200,000
- Many of the date fields are defined as YYYYMonDD HH:MM e.g., 2005Jun11 01:22
- Many date fields are also defined for just the YYYY, or Q, Mon, or DD, or HH, or MM
- If you can't get a total to work within Discoverer, you may want to export to a spreadsheet to create your totals (and other calculations)
- Java is secure with the Verisian Security Certificate updated annually
- Your browser must allow downloads of signed Active X controls to install the IInitiator (Java Initiator) from Oracle – either by identifying Oracle as a trusted site or prompting. As of 6/11/05, we're using version 1.3.1.18 of the IInitiator (Use Windows Control Panel to see IInitiator Control Panel)
- You can change the default directory for exported worksheets (FAQ)
- Set your defaults to show your conditions and date/time in the title
- Oracle Technology Network is a good source for information free registration – look for Discoverer with Data Warehousing and Business Intelligence (http://www.oracle.com/technology/products/discoverer/index.html)
- The next version will always be better . . . Or not.



