

AQS Data Mart Training

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AQS Data Mart - Overview

- ★ In Production March 24, 2006
- ★ Methods of Access
 - ★ Web Services (July, 2006)
 - ★ Air Explorer (June, 2006)
 - ★ Business Objects (WebI) – Available Now
 - ★ Inside EPA Firewall – Minimal Issues
 - ★ Outside EPA Firewall – Requires AAA Token
 - ★ Need this Training Before a User Id Will be Granted
 - ★ Current Limits: 50,000 Records / Query

AQS Data Mart – Data Profile

- ★ Data Updated Every Night
- ★ Combines AQS Data and AirNow Data
 - ★ AQS Data Takes Precedence
 - ★ AirNow Data Removed After 1 Year if Not Updated by AQS
 - ★ AirNow Participants Authorizes “Sharing” of Data
- ★ Site / Monitor Descriptions (From AQS)
- ★ All Raw Data (1980 +)
- ★ Daily Summary Data
- ★ Annual Summary Data
- ★ Blanks Data

AQS Data Mart - Metadata

Data About Data

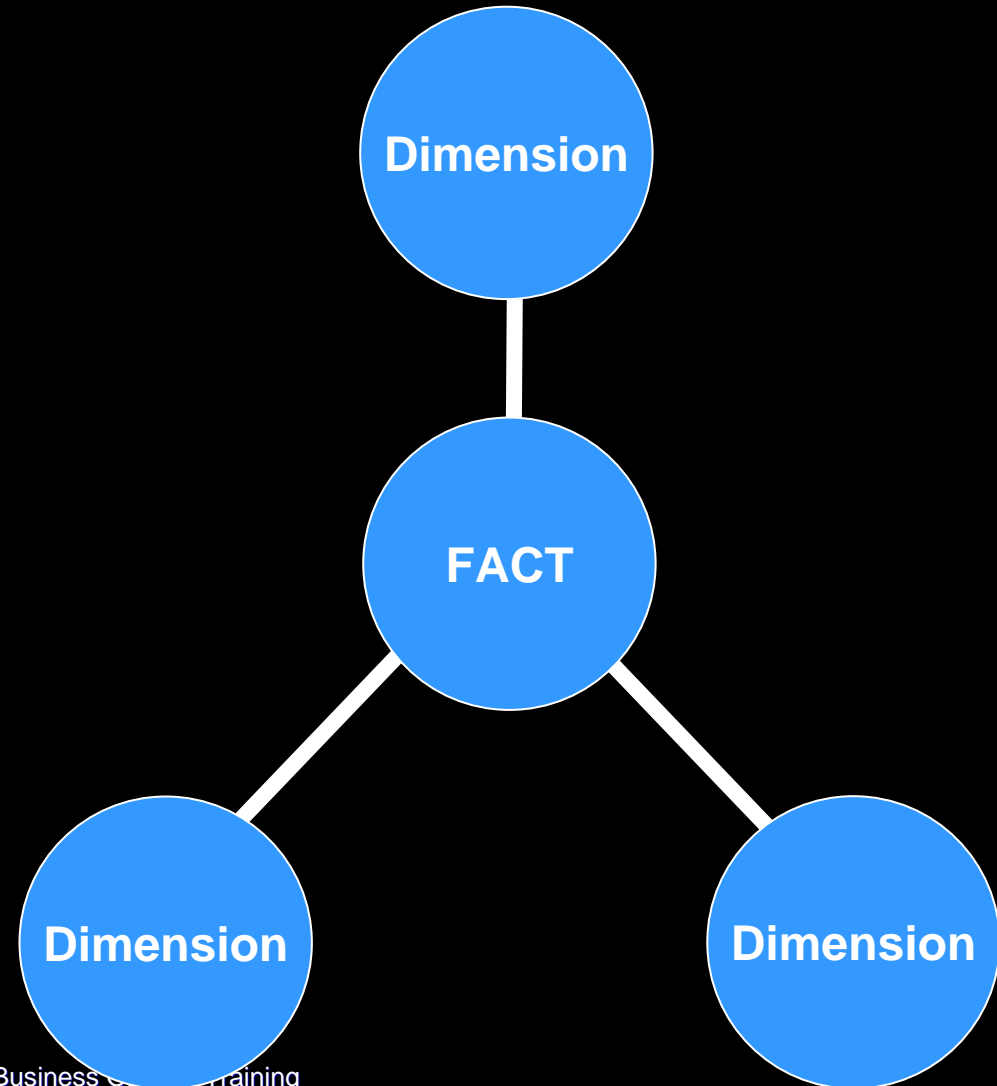
- ★ Technical Metadata
 - ★ Used primarily for the various system components to automatically do their job and for monitoring of performance
- ★ Business Metadata – Available via Business Objects
 - ★ Human understandable names for fields
 - ★ Descriptions of fields add information for use
 - ★ ANNUAL_ARITH_STDDV vs. Annual Arithmetic Standard Deviation
- ★ “Field Guide” to Ambient Data – Separate Application
 - ★ A user’s manual
 - ★ Explanation not only of each data field, but how they relate to each other
 - ★ More detailed explanations and caveats about data (AirNow, non-FRM PM, etc.)

AQS Data Mart – Conformed Data

- ★ Conforms to EPA standard names and formats
- ★ Useful when integrating with other datasets
- ★ Substance Registry System
 - ★ Chemical names (AQS = parameters)
 - ★ Common names and linkages across systems
- ★ Facility Registry System
 - ★ An AQS site is a “facility”
 - ★ Usually not, but sometimes shared
- ★ Time
 - ★ Is, like the others, the same for everybody
 - ★ Day in year, day in week + week in year, weekend, holiday, nominal hours of daylight...

Terminology – Star Schema

- ★ Facts at the center
 - ★ Fact = something you're interested in querying
 - ★ Raw Data
 - ★ Summary Data
- ★ Dimensions each linked to the facts
 - ★ Dimension = something you will use as a filter or criteria to get at the facts of interest



Terminology – Additional Types

★ Snowflake

- ★ Additional Information About a Dimension that You May Want to Filter by
- ★ “Child” of a Dimension
- ★ Example: Monitor Type

★ Factoid

- ★ A Dimension Containing Information You are Not Likely to Filter By
- ★ Example: Monitoring Season

★ Bridge

- ★ Resolves “Many to Many” Types of Relationships Between Tables
- ★ Example: Agency Roles

Terminology - Changes From AQS

★ Why?

- ★ Help in Merging with Other Data Systems
- ★ Consistent with EPA Data Standards

★ Parameter = “Substance”

★ Site = “Facility”

★ Raw Data = “Measurement”

Business Objects

★ Access Address:

- ★ <http://www.epa.gov/ttn/airs/aqsdatamart/access.htm>
- ★ Must Have User ID / Password
 - ★ Only 200 Available
 - ★ Must Attend the 2-Hour Training Course (Congratulations!)
 - ★ Expires after 90 Days
 - ★ If You Don't Use it, You Lose it!
- ★ If you are Outside the EPA Firewall....
 - ★ AAA Token Required
- ★ Retrieval Limit Set at 50,000 Rows / Query

Components of Business Objects

Business Objects

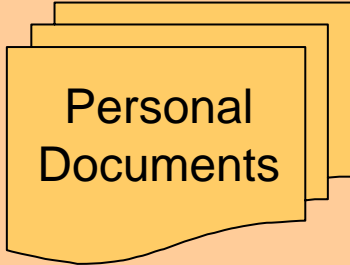


InfoView

- Navigate BO
- Execute Existing Docs
- Manage Documents



Corporate Documents



Personal Documents



Web Intelligence (WebI)

- Separate Application
 - Opens a new window*
- Modify Existing Docs
- Create New Docs

Business Object Terminology

★ Universe

- ★ Set of Tables, Views, and Functions to Address a Given Business Area
 - ★ AQS Datamart Universe (Fact_Measurement)
 - ★ AQS Datamart Daily Universe (Fact_Daily_Summary)
 - ★ AQS Datamart Annual Universe (Fact_Annual_Summary)

Business Object Terminology

★ Corporate Documents

- ★ Pre-formatted reports

- ★ 3 Corporate Documents Defined

 - ★ Raw Data Listing

 - ★ Annual Summary Listing

 - ★ Data Availability

★ Personal Documents

- ★ Ad-Hoc Query capability

Navigating in Business Objects

Welcome jmliller

BUSINESS OBJECTS

Home My InfoView Options Help Logout

Corporate Documents

Access documents available to you and other users.

Search
[Advanced...](#)

AQSMART Reports

[All Documents](#) [Uncategorized Documents](#)

Personal Documents

Access the documents you saved for your personal use, as well as the documents other users have sent to you.

[Inbox](#)

New Document

Create a new document from a [Universe](#) or from [OLAP](#).

You can also [Add a document](#) to InfoView from your computer.

Setting Your Default Universe

- ★ From Business Objects Home, Select “Options”
- ★ Select the “Create/Edit” Tab
 - ★ Select “WebIntelligence (Select Default Universe)”
 - ★ Click “(Select Default Universe)”
- ★ Select Your Default Universe and Click “OK”
- ★ Click “OK” When You are Returned to the “Create/Edit” Tab
- ★ If you Don’t Set your Default Universe, You will Get an Error When Creating a “New Document”

Running in InfoView

- ★ Edit – Opens WebI to Make Changes to the Document
- ★ Save
 - ★ Personal Documents
 - ★ Export the Data
 - ★ Excel
 - ★ PDF
 - ★ CSV
- ★ Send – Puts the Query in Another User’s “Inbox”
- ★ Change the View
 - ★ HTML (Default)
 - ★ PDF

Running Documents In InfoView

(Applies to Personal and Corporate Documents)

- ★ Open the Document
- ★ Fill out the Prompts as Appropriate
- ★ Execute the Query
- ★ You May Edit the Document
 - ★ Opens Web Intelligence
 - ★ If you want to Save the Changes, You Must Save it as a Personal Document