Practical SQL Access to Image

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Tutorial Objectives

- To understand the importance and place for SQL
- To understand the value of SQL within existing Image applications and for new Image applications
- To experience easy SQL access to Image
- To understand the simplicity and power of SQL for data base access
- To understand how to access and use a free SQL Access program for Image (OdxSQL)

Why Do We Need SQL

- SQL **is** the universal data base standard
- Language franca of middleware and front ends
- Database independence
- Easier to develop applications
  - and can develop on PC and deploy on HP3000
- Easier to port applications
- Broader base of new developers
- Lots of resources and support

SQL in Action

- Microsoft ODBC interface
- Java JDBC interface
- SQL Access Groups standard api
- Oracle, DB2, SqlServer
- Informix, Sybase (and even Allbase)
- MySQL, PostgreSQL

ODBC Tools

- Cognos Impromptu
- Microsoft Access, Word and Excel
- MicroStrategy
- Business Objects
- BrioQuery
- Crystal Reports

JDBC Tools

- Borland Jbuilder
- IBM Visual Age
- Visual Café (whomever owns it today)
- JDBC Reporting tools
- Oracle
- Growing list of JDBC support

Porting Pluses

- SQL is relatively standard
- Cross Platform Development
- JDBC and ODBC are standard
- Works well with Client/Server (1995-2001)
- Works well with Browser Interface (2001-?)

Porting Minuses

- SQL has different dialects
- Each DBMS has extensions
- Each one has application specific issues
  - Triggers
  - Security
- Even SQL2 and SQL3 standard not completely implemented or followed.
- Still an issue if not using ODBC api

SQL For TurboImage

- Allbase Connect
  - Difficult to set up
  - No built in ODBC/JDBC api
- Third Party tools
  - MB Foster ODBC driver
  - Minisoft ODBC and JDBC drivers

New SQL Option

- OdxSQL – Free from DISC
  - Doesn’t include Omnidex
  - Some reduced functionality
- ODBC API Interface (maybe)
  - This one is really needed!
- JDBC interface (maybe)
  - OdxQueryWeb

OdxSQL – what's it give you?

- Generic SQL interface program
- Runs in terminal window
- Allows interactive SQL commands
- Can be used for light report writing
  - Better for debugging reports
  - Query replacement but not in all cases
- Great for extraction and data movement
- Great way to learn SQL using known data

OdxSQL – Types of Statements

- Select
- Insert
- Update
- Delete
- No DDL – Data Definition Language
- No DCL – Data Control Language (Security)

OdxSQL - SELECT

- Functions (Sum, min, max)
- Calculations (amount * quantity)
- Subqueries
- Outerjoins
- String functions (concat, substring)

Non-SQL Commands

- Facilitates operation
- Edit command
- Use
- Save
- Connect/Disconnect
- History
- Command line access (getting to MPE)

Exporting Data

- Export Command
- Lots of options
- Can be used to extract to Excel
  - Comma separated format
- Convert command to do data conversions

Other OdxSQL Items

- Interrupting Queries
- Odxsql command line options
- Extract (Generate SQL Commands)

Database Information

- Show Command
- Environment
- Databases
- Tables

TurboImage Specific Issues

- No Create/Drop Table
- No money fields
- Array considerations

Omnidex Stand-alone Tables (OSTs)

- Similar to Cognos subfiles
- Attach/Detach
- Using Select/Export to create the OST table
- Handy for doing subsets of data
- Handy for moving data to another data base