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Data Management

Simplifying Administration and Development with IBM Data Studio

August 27, 2009

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Executive's Message

Sal Vella

Vice President, Development,
Distributed Data Servers and Data Warehousing

IBM

IDUG Update

Elizabeth Moore

President Elect,
Board of Directors

International DB2 Users Group (IDUG)

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Featured Speaker

Deb Jenson

Lead Product Manager
Data Studio

IBM

Agenda

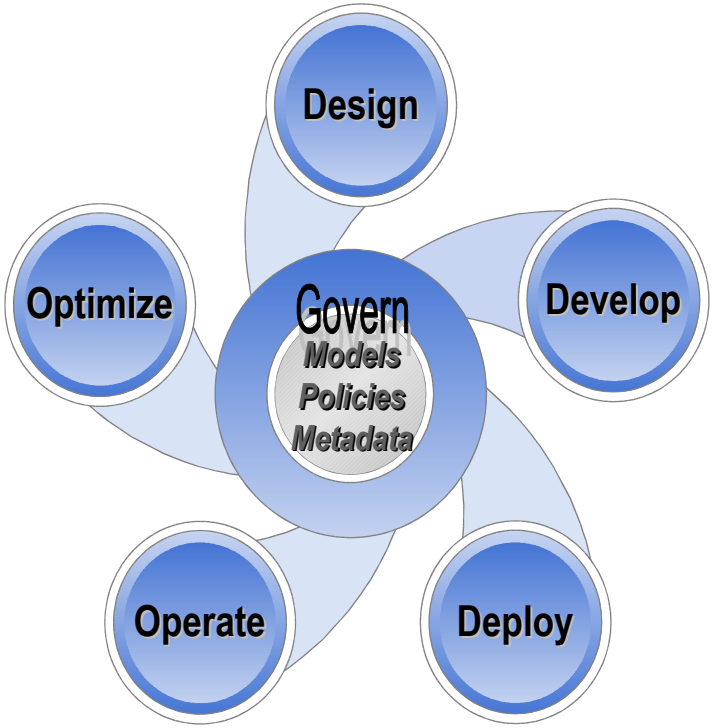
- What is Data Studio?
- The “How To” Series
- Questions

What is Data Studio?

•An integrated Data Management environment

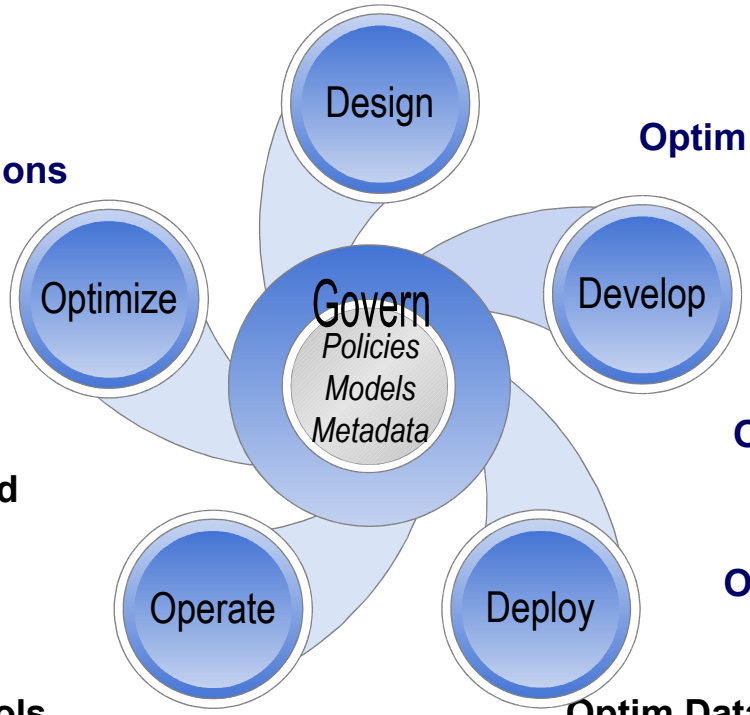
- **Providing end-to-end data lifecycle management**

- **Facilitating cross-organizational collaboration by providing an integrated set of tools for different roles**
  - Data Architect
  - Developer
  - Tester
  - DBA
  - Data Steward



The broadest range of capabilities for managing the value of your data throughout its lifetime

InfoSphere Data Architect



Optim Data Growth Solutions

Optim Development Studio

Optim Query Tuner

Optim Test Data Management

Optim Query Workload Tuner

Optim Data Privacy Solutions

DB2 Performance Expert and Extended Insight

Optim pureQuery Runtime

DB2 for z/OS Tools

Optim Database Administrator

DB2 Audit Management Expert
Database Encryption Expert

Data Studio – No Charge Offering

**** Heterogeneous support***

Where does **free** Data Studio fit in?

- **A base product containing critical functionality from most of the charged Optim offerings**

Data Studio

Design	Develop	Administer	Monitor & Tune
ER Diagramming Data Distribution Viewer	Integrated query editor SQL & Java Routine + Debugger XML, XML Schema Editors Data Web Services Visual Explain Export / Import Data Generate DDL	Database Object Management Instance Management Database Management Privilege Management Configuration Management Back / Restore Database Reorg and Other Utilities Run DB2 Commands	Alerts Problem Determination Replication Monitor Recommendations Limited Historical Information Visual Explain

Featured Speaker

Manas Dadarkar

Technical Lead
Data Studio

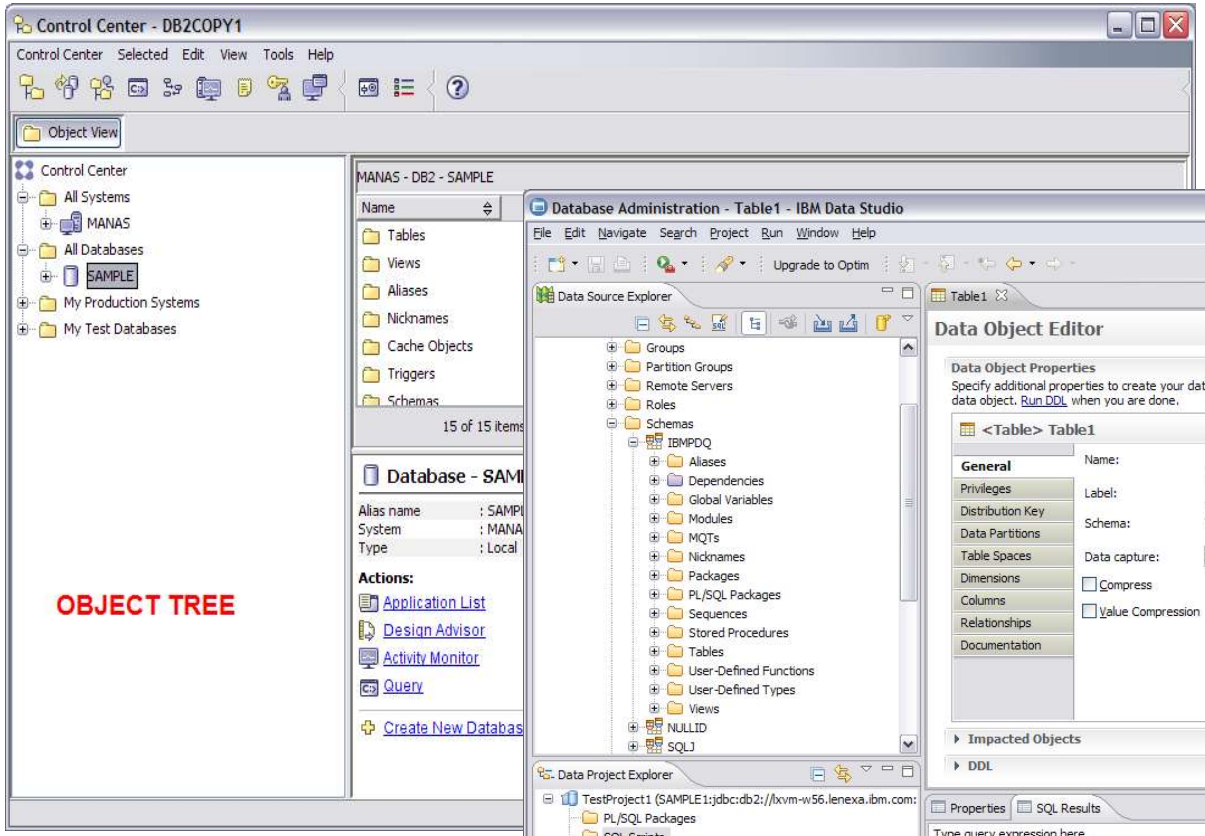
IBM

How to download and install free Data Studio …

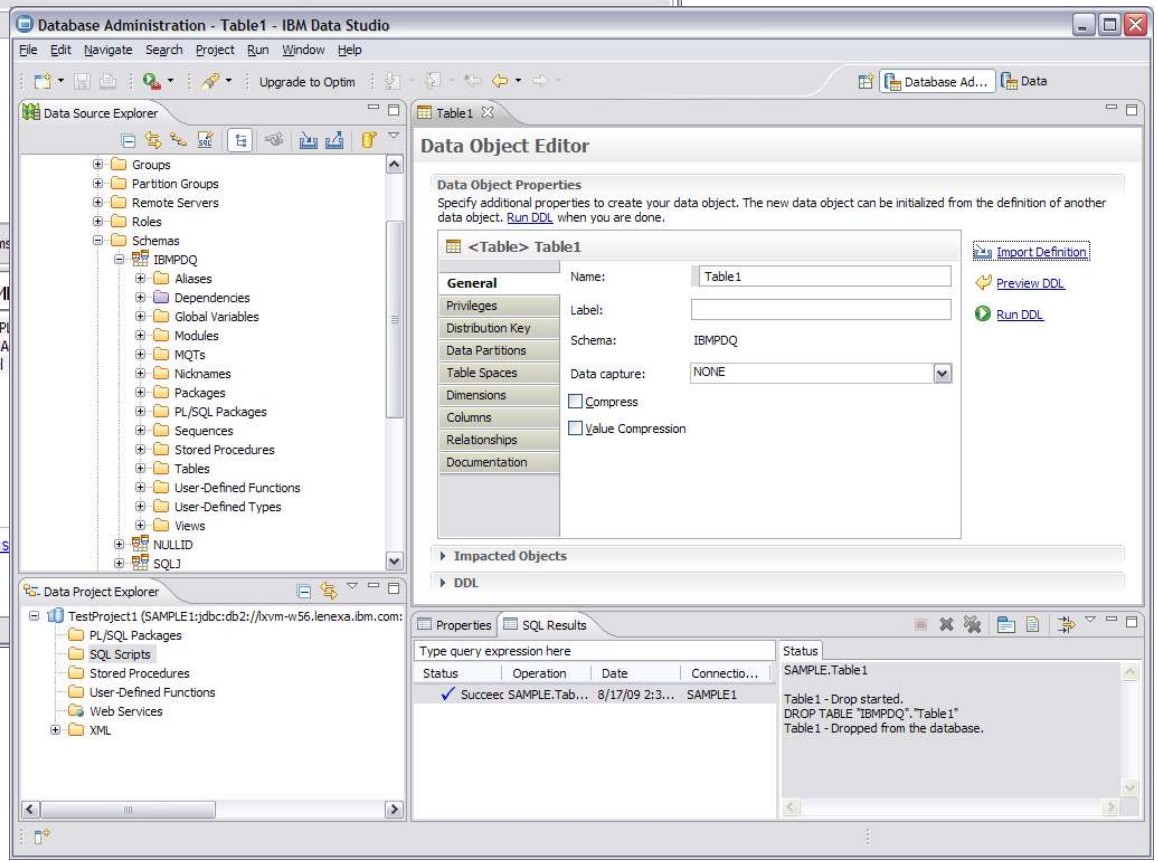
- **Download Link: http://www-01.ibm.com/software/data/optim/data-studio/**
- **Two flavors**
  - Standalone
    - Smaller footprint (~200 MB)
    - Simple installer
    - Subset of functionality compared to the IDE version
    - Work artifacts like workspaces can be shared with other Optim offerings
  - Integrated Development Environment (IDE)
    - Larger footprint (~800 MB)
    - Powerful Installation Manager allows shell sharing with other Optim offerings

How to navigate ….

Control Center

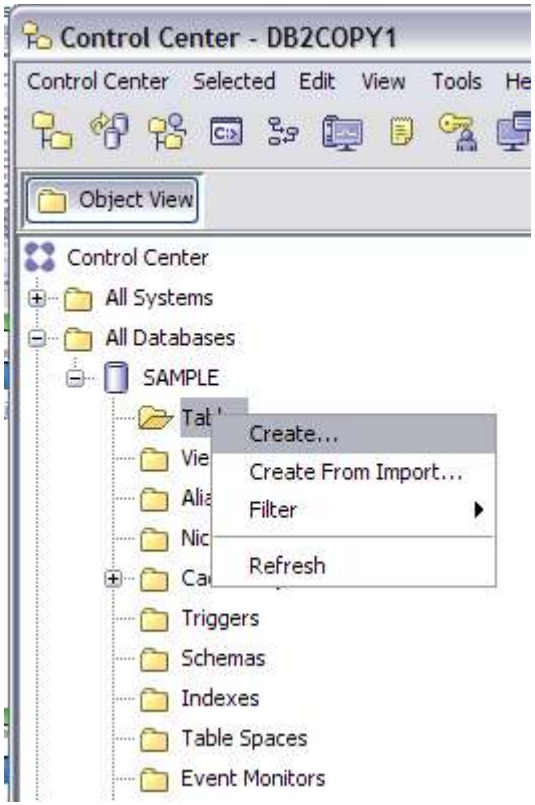


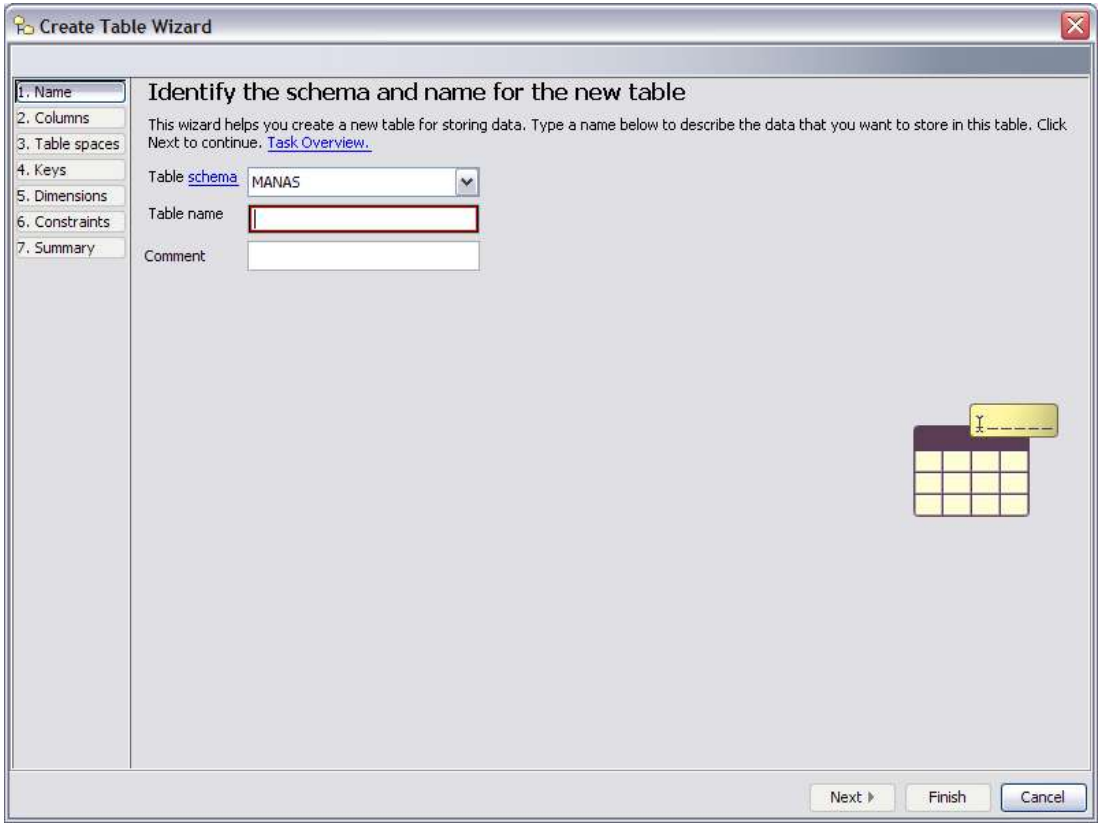
Data Studio



How to manage objects …

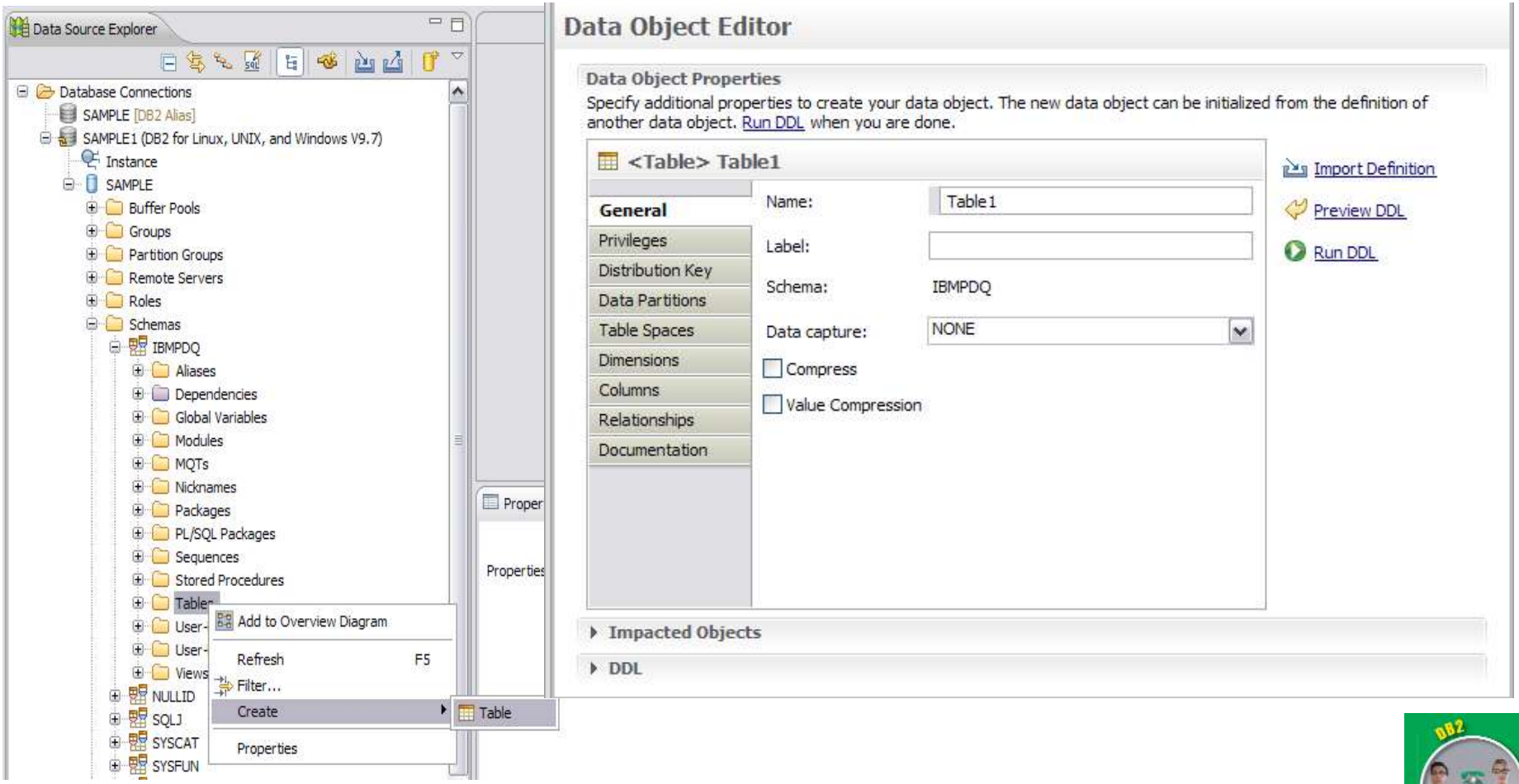
Control Center





Data Source Explorer/Data Object Editor

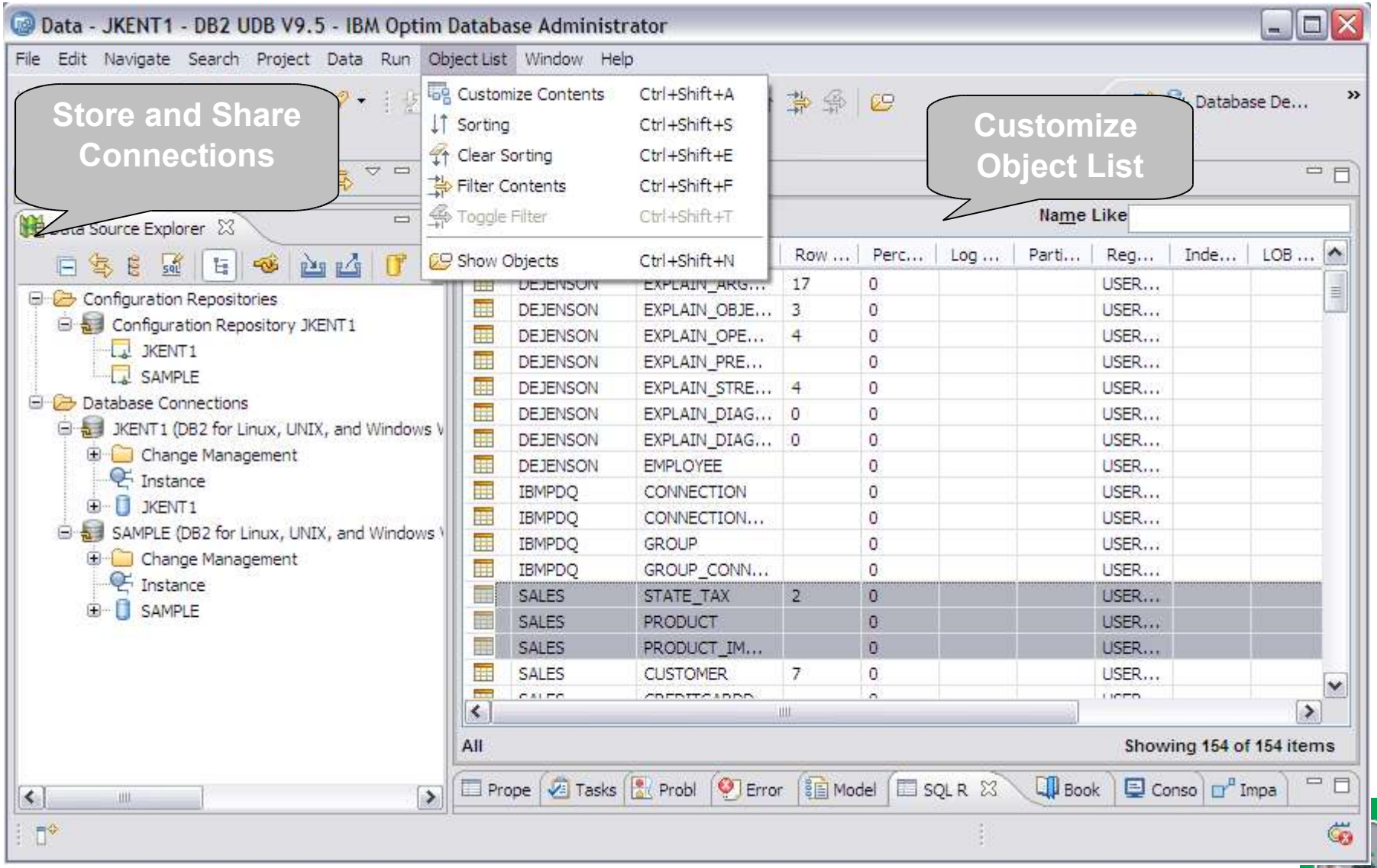
Data Studio



Tips about Navigation

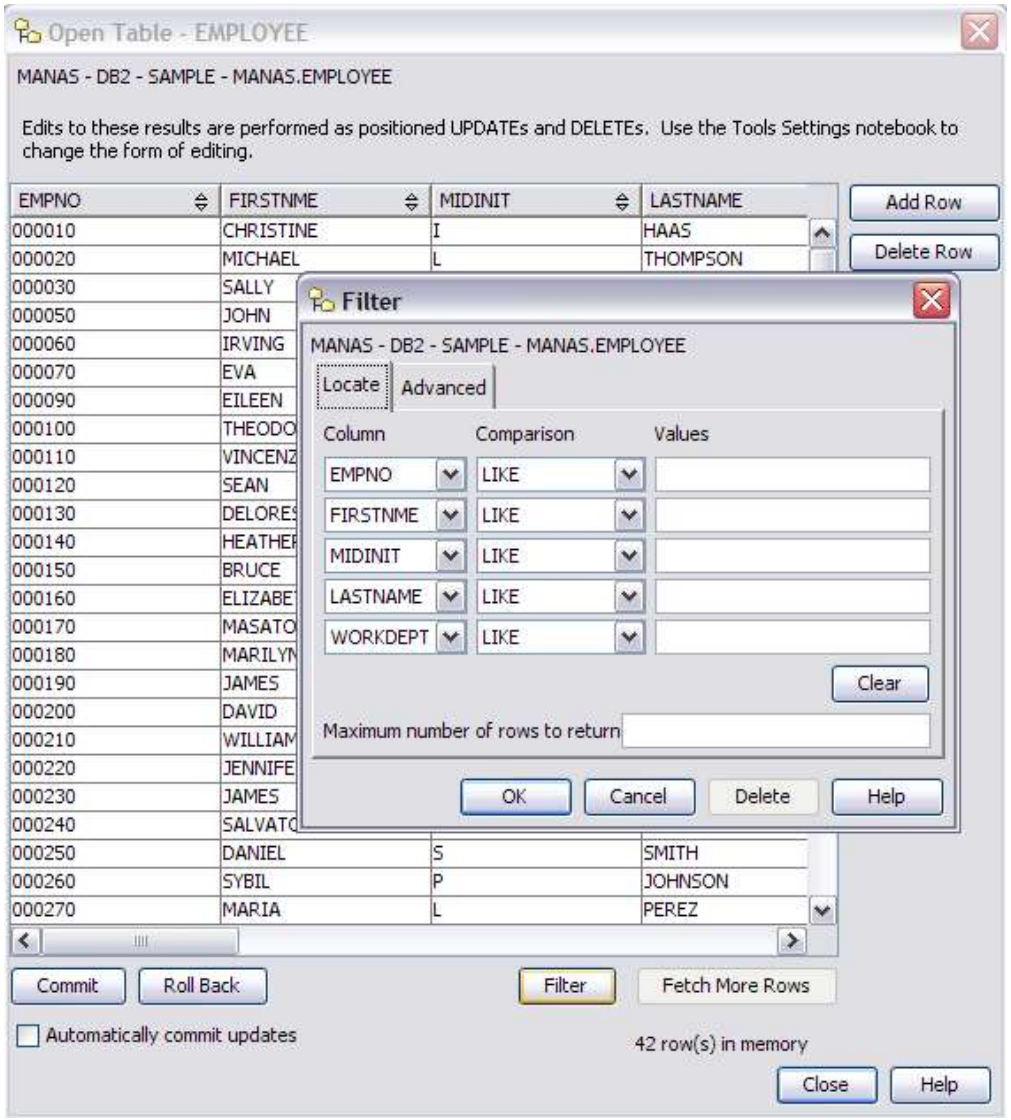
- **Need to work with large amounts of objects**
  - Use the Object List View (flat view)
  - Easily view related objects
  - Customize object list including sorting and filtering on multiple columns

Data Studio Object Lists

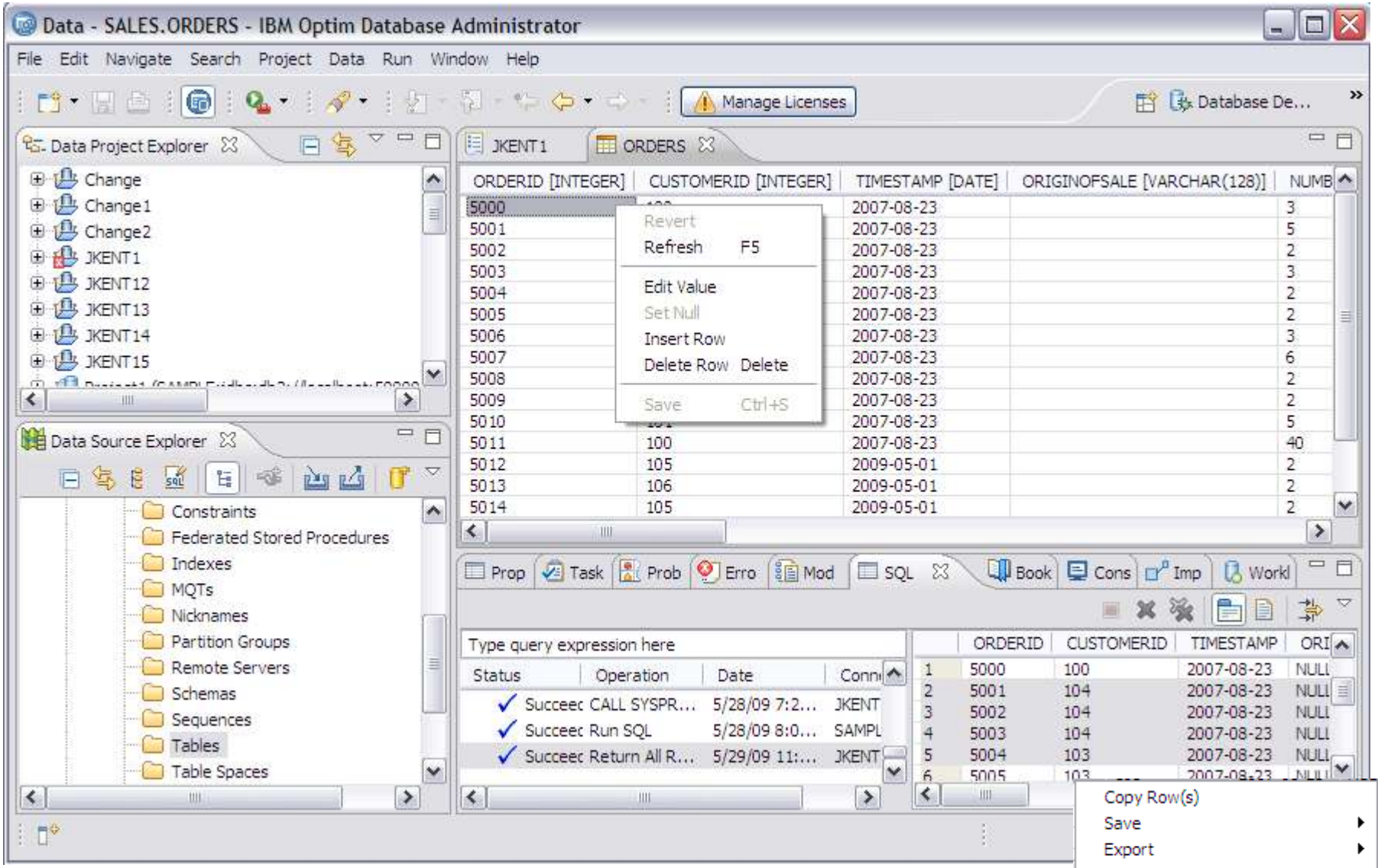


How to manage data …

Control Center

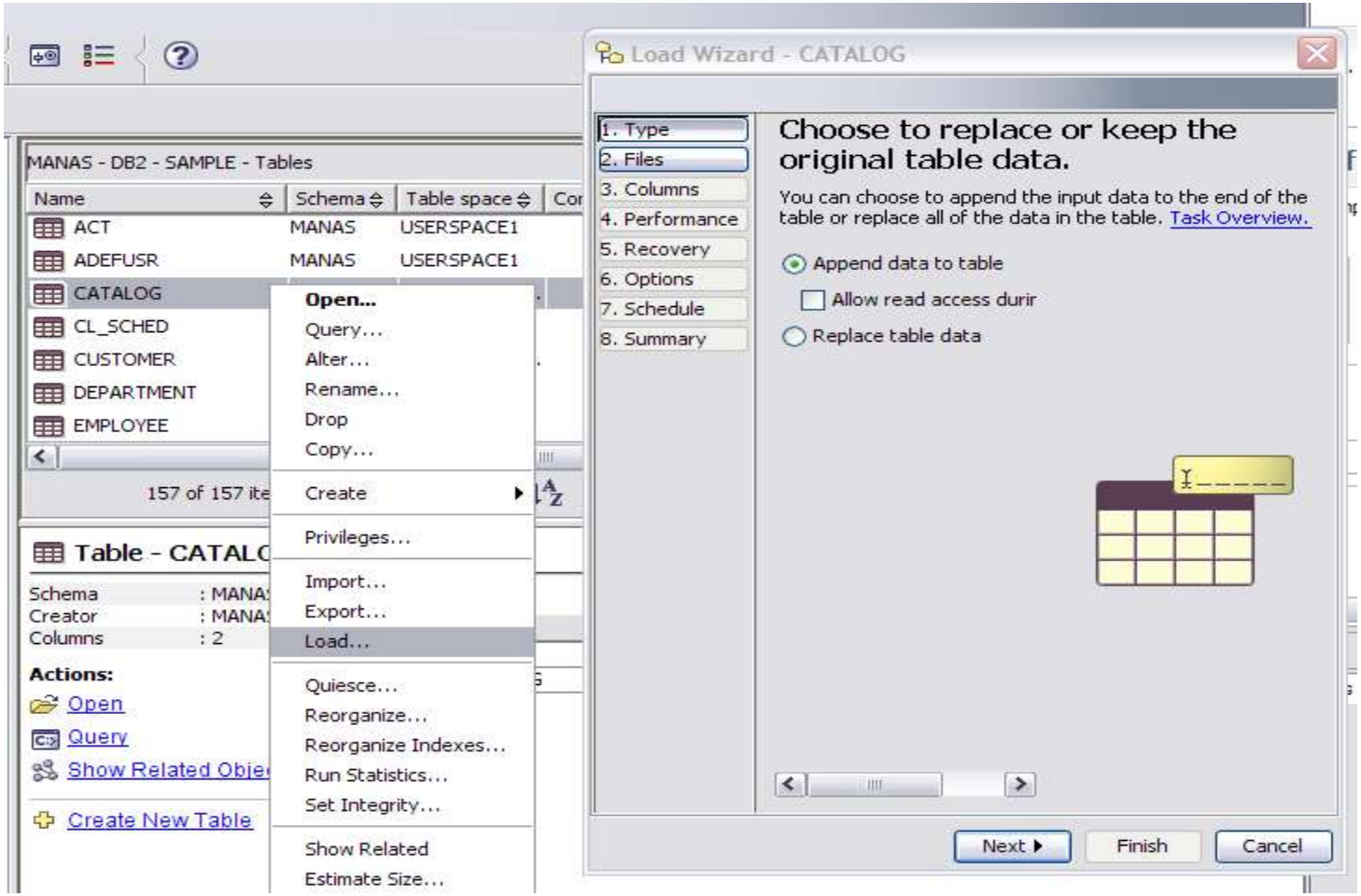


Data Studio Table Editor



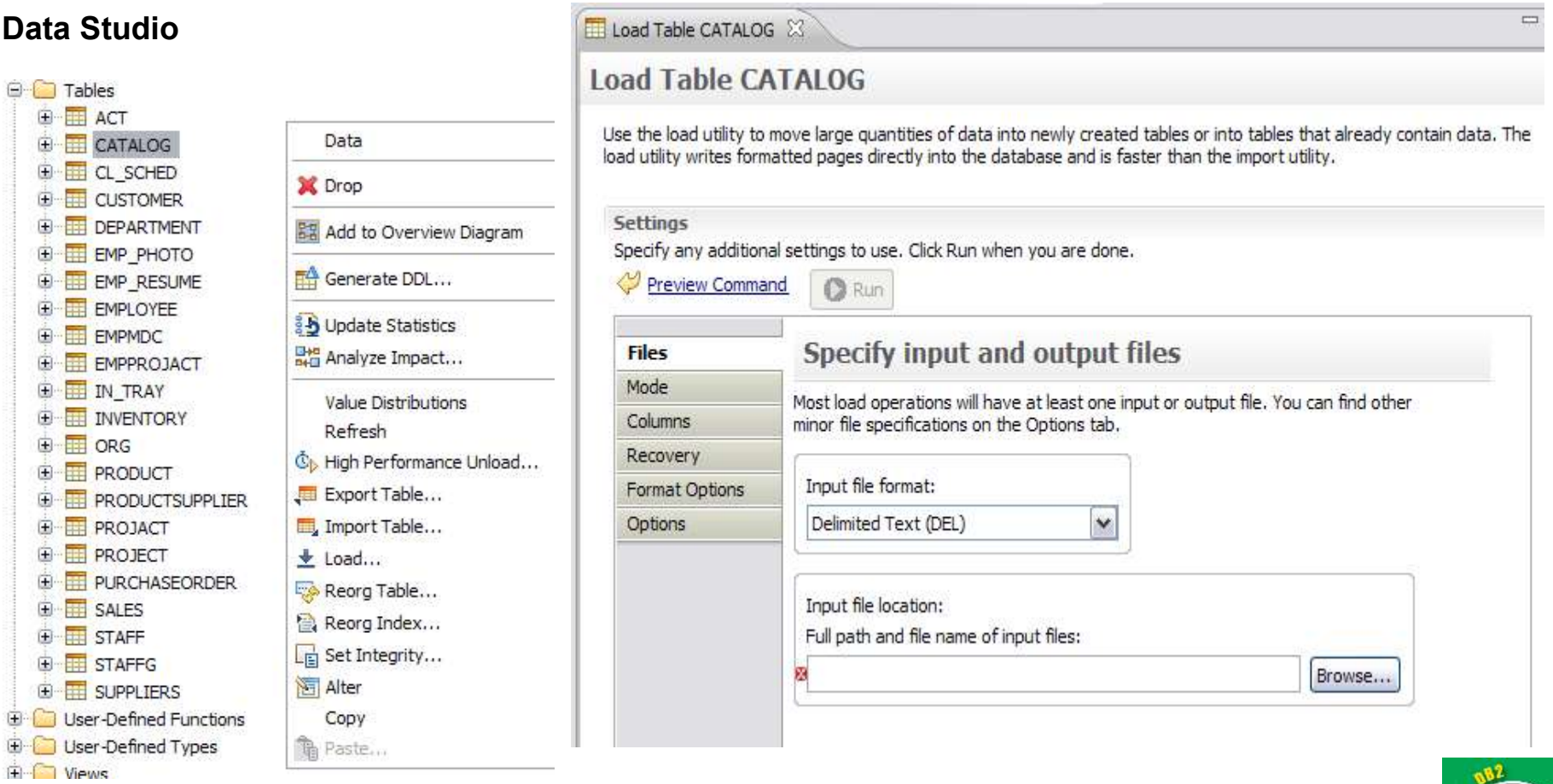
How to run Utilities ….

Control Center

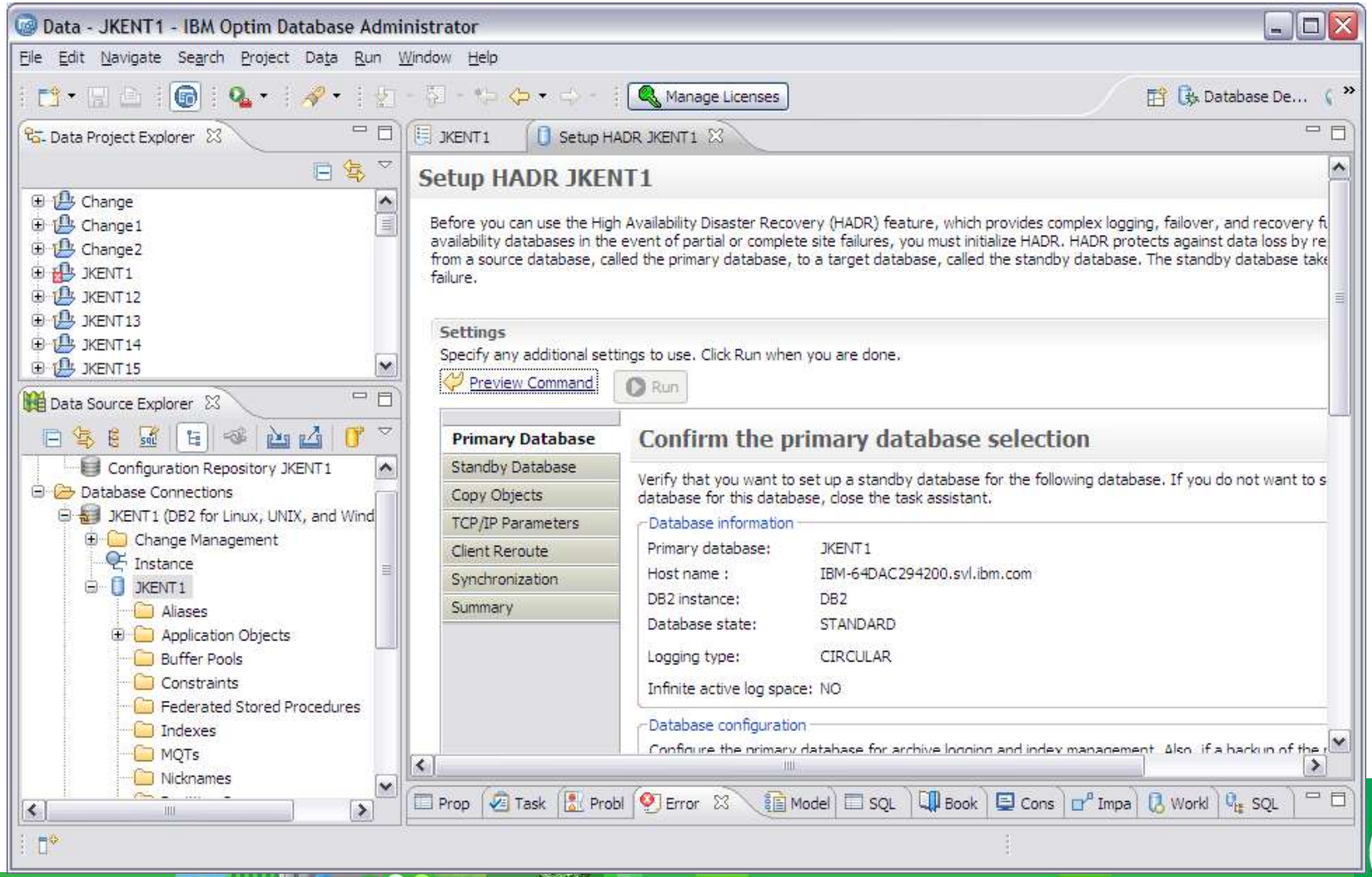


Data Source Explorer/Task Assistants

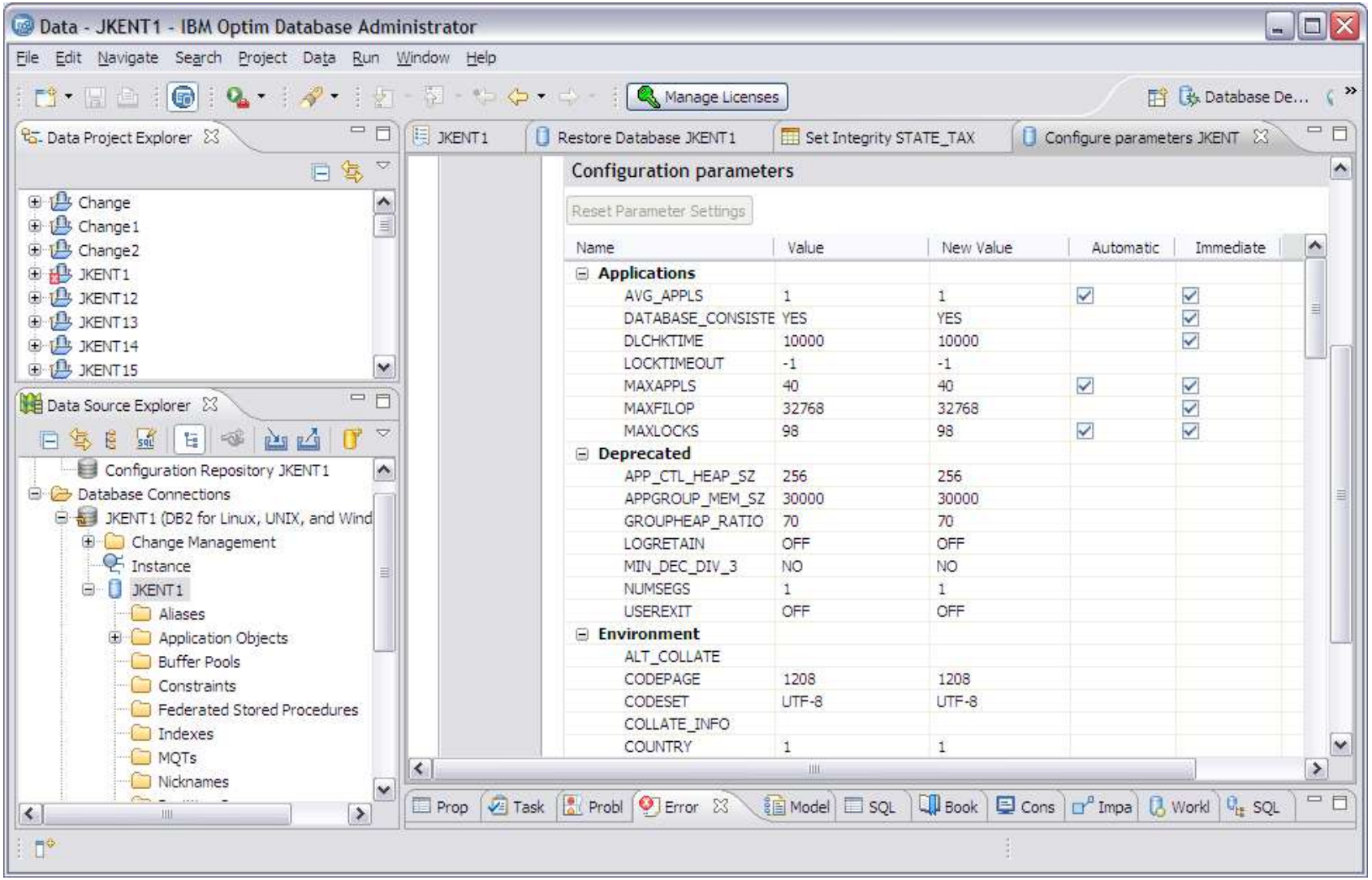
Data Studio



Data Studio – HADR Setup

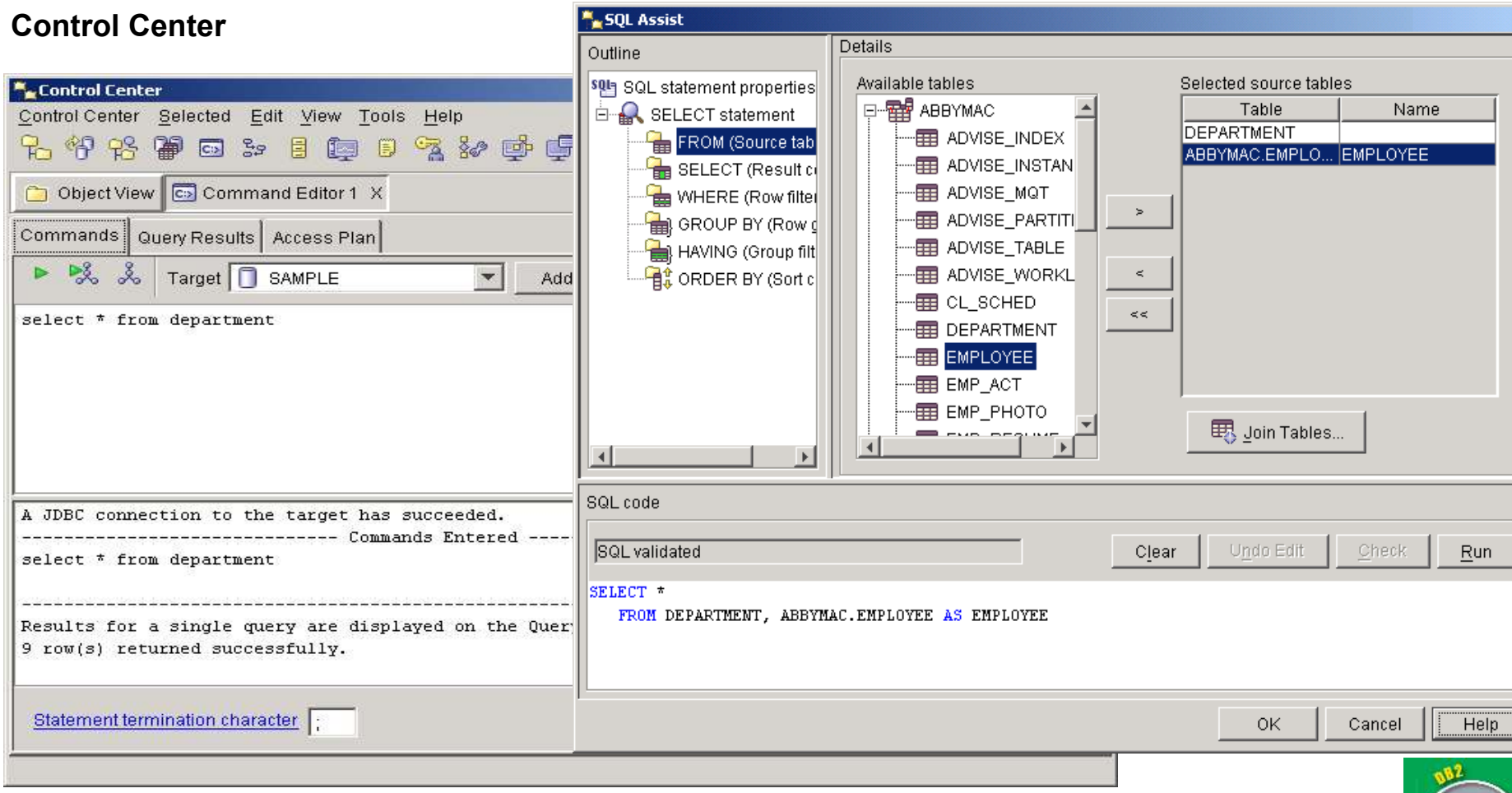


Data Studio – Database Configuration

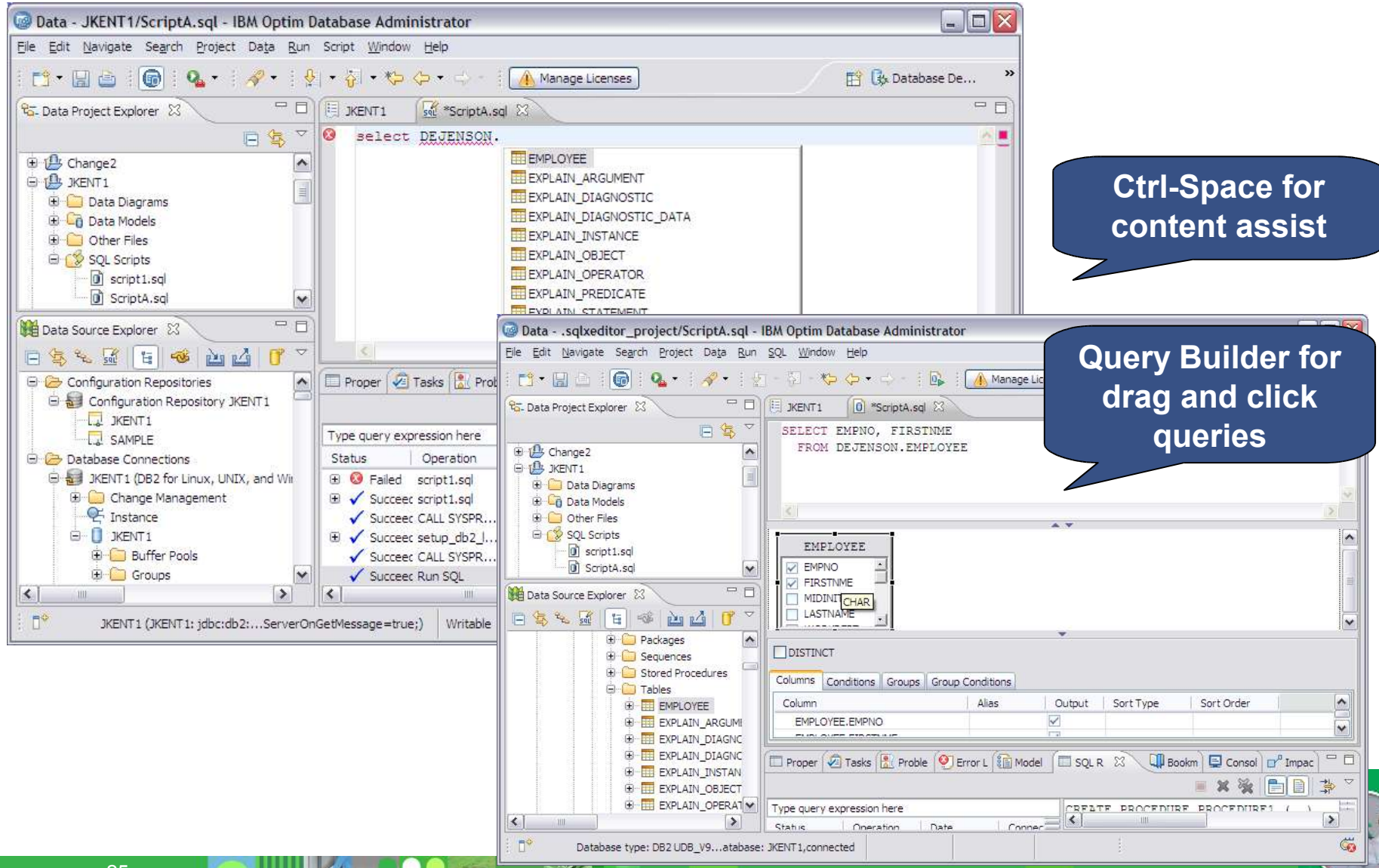


How to do SQL Development …

Control Center



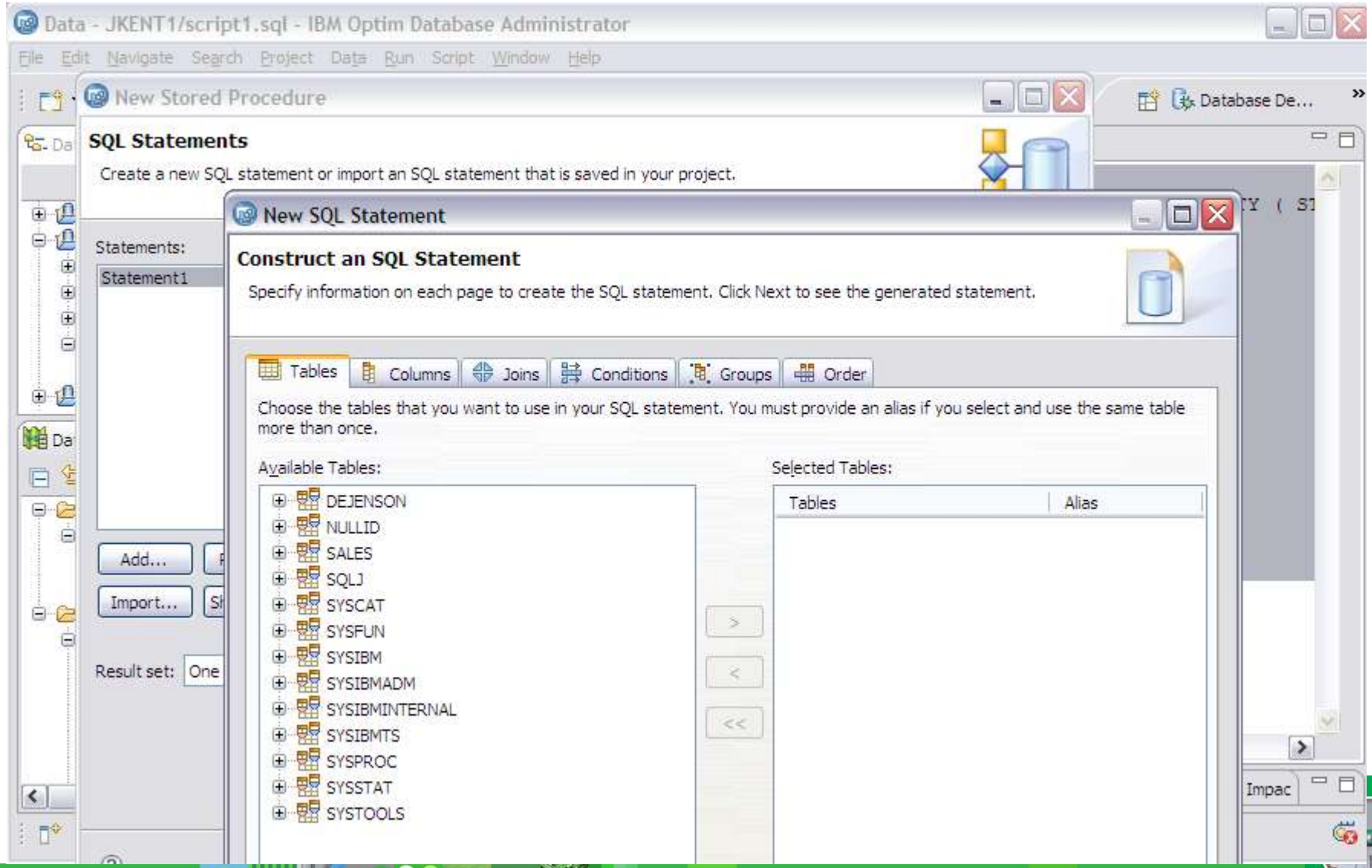
Data Studio SQL Editor



Ctrl-Space for content assist

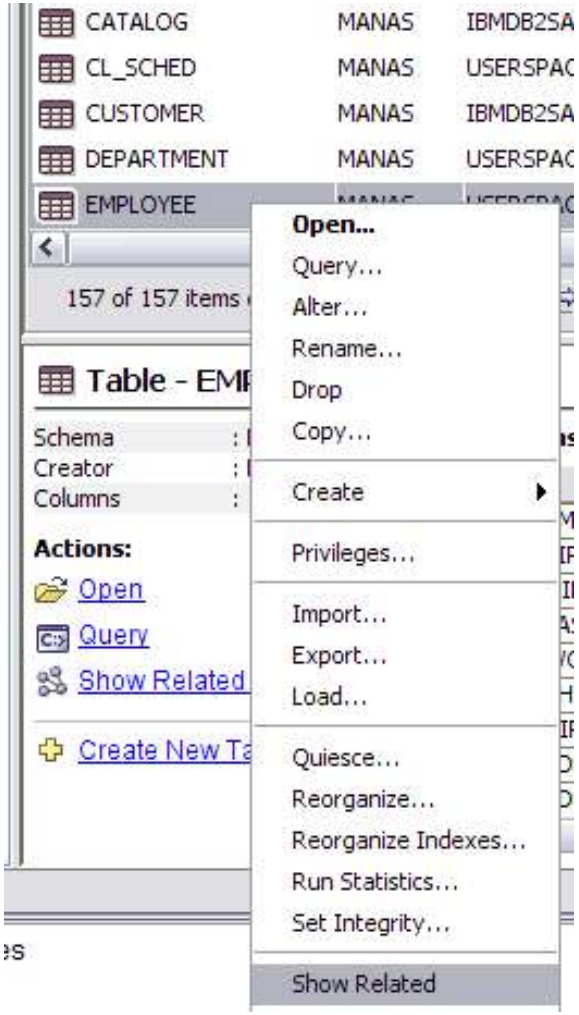
Query Builder for drag and click queries

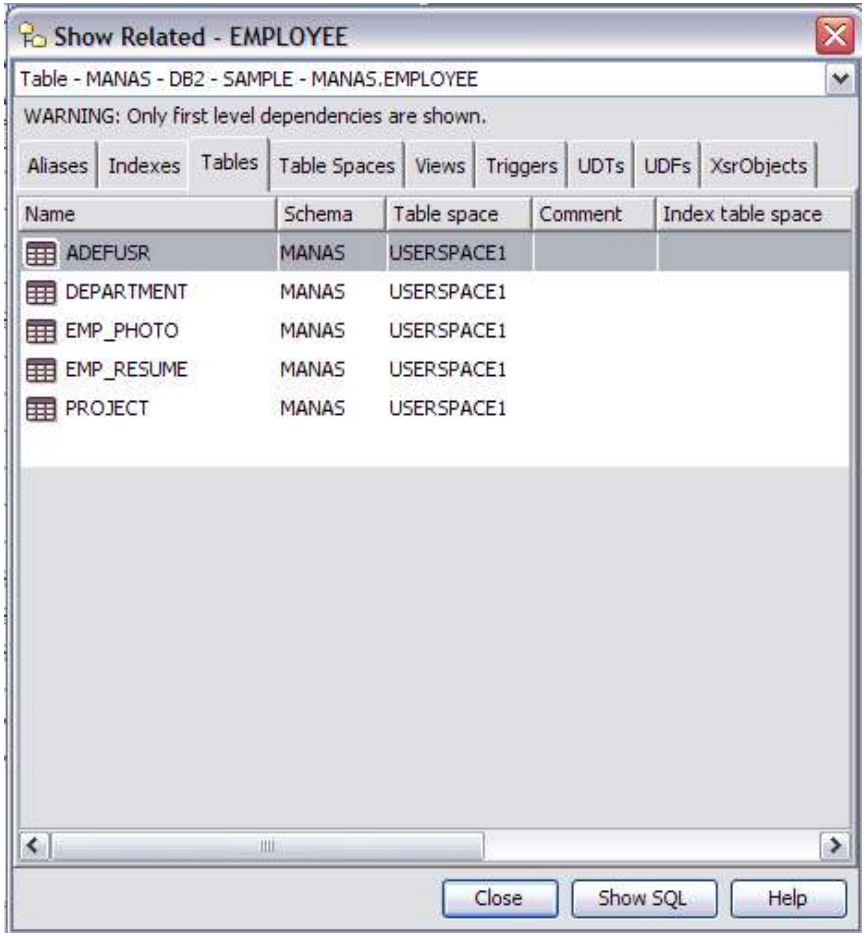
Data Studio Stored Procedure Wizard



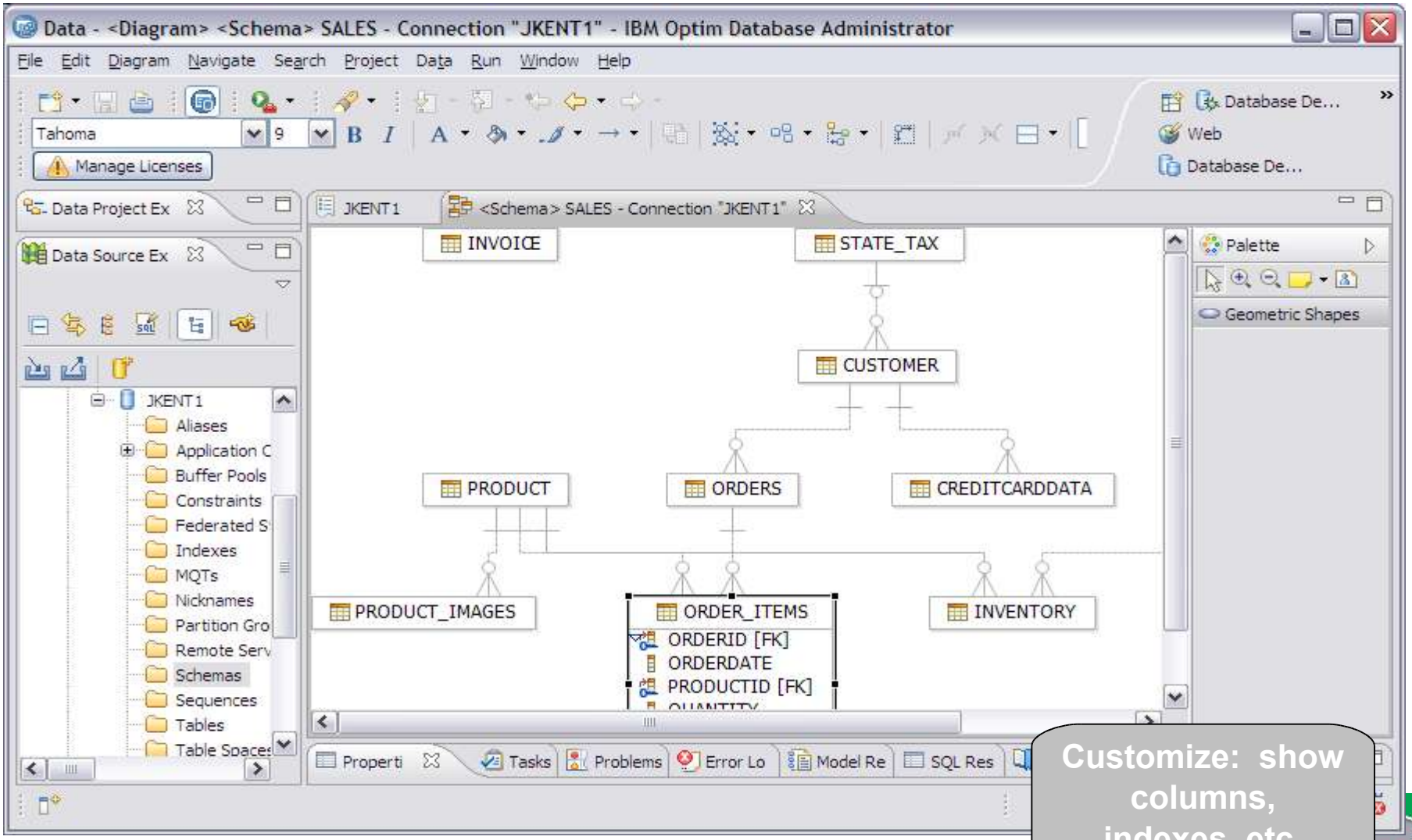
How to find relationships/value distributions …

Control Center

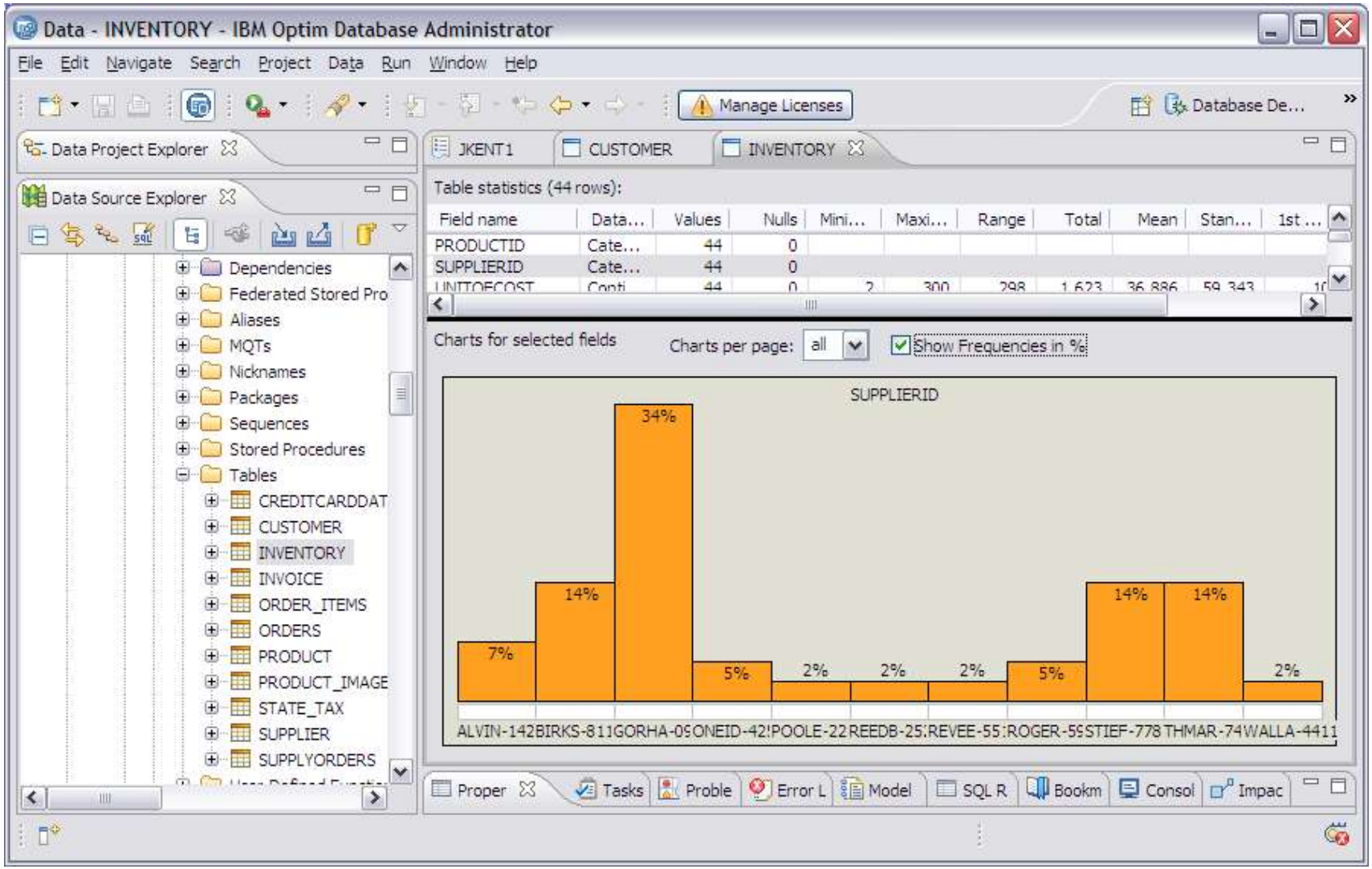




Data Studio Overview Diagram

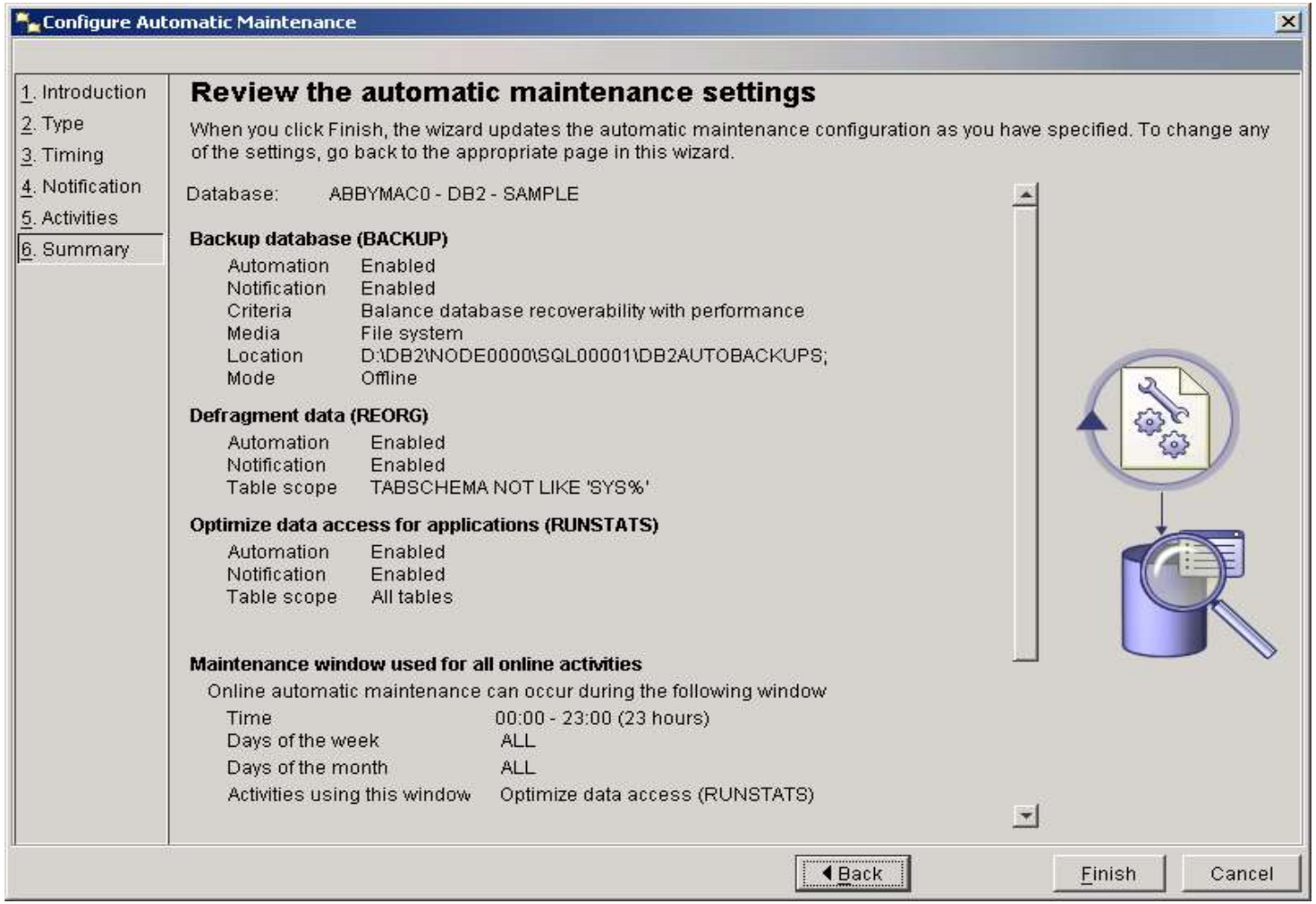


Data Studio Column Values



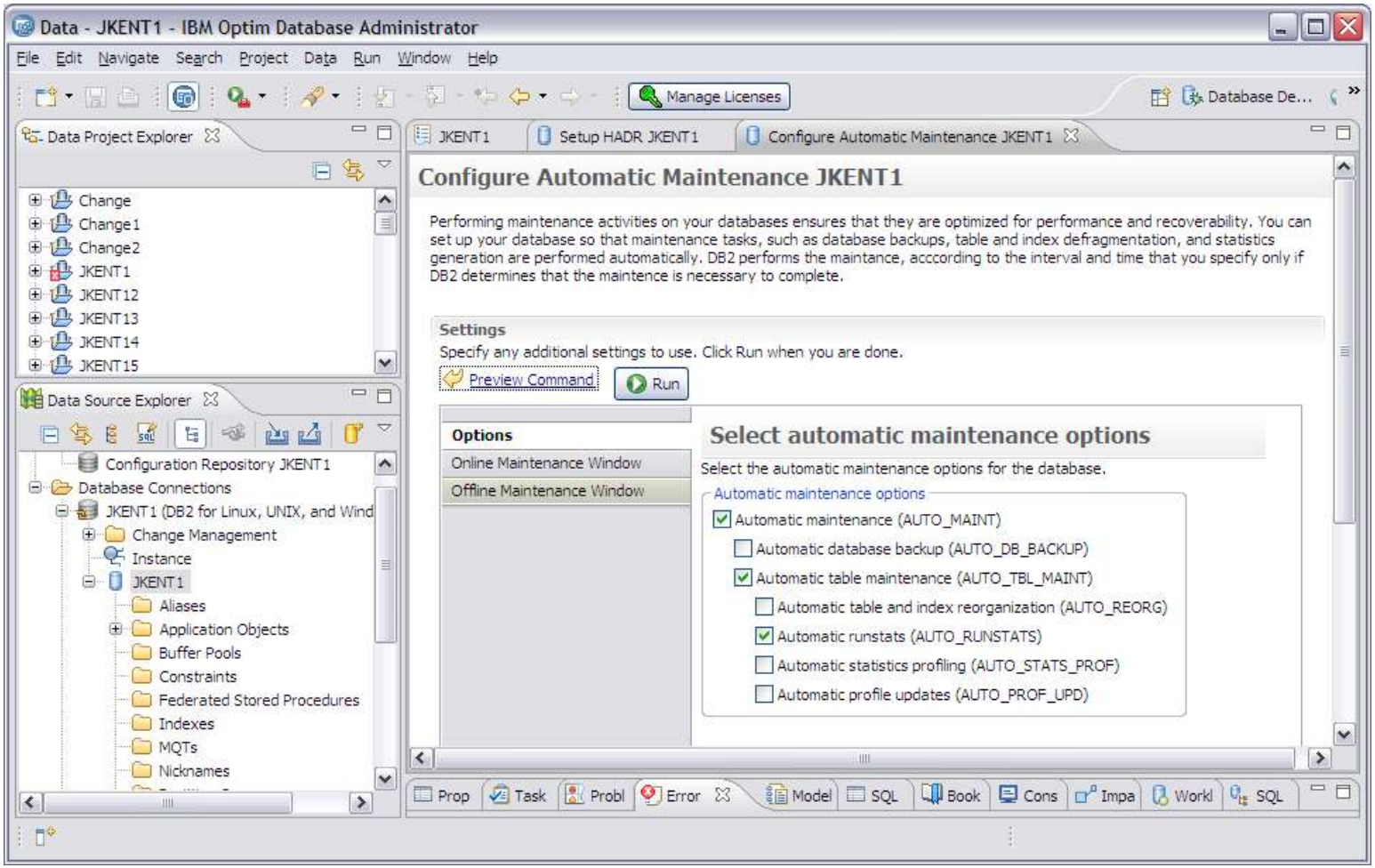
How to configure Automatic Maintenance …

Control Center



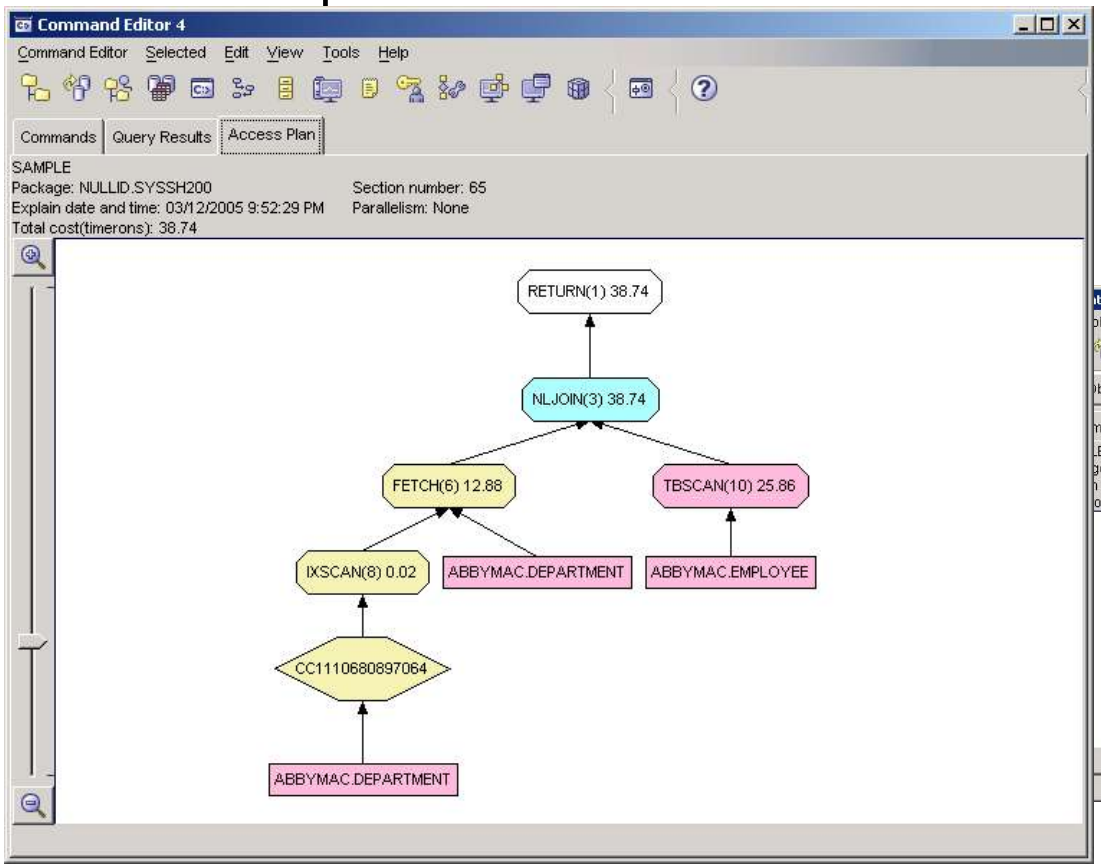
Data Studio – Setup Automatic Maintenance

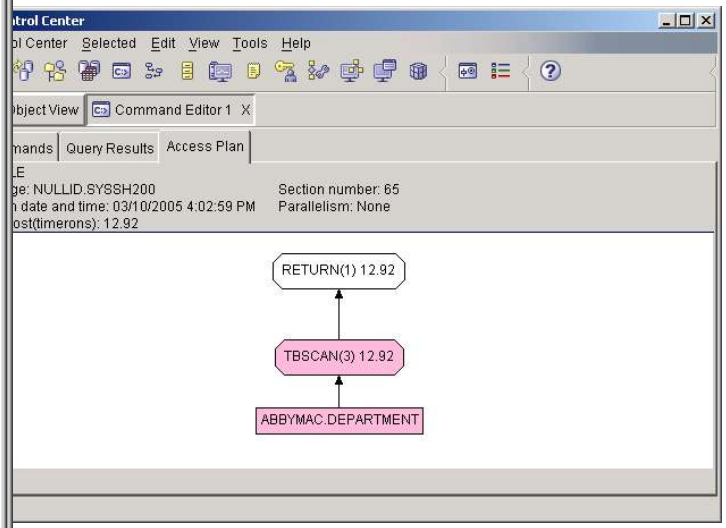
Data Studio



How to do Query Tuning …

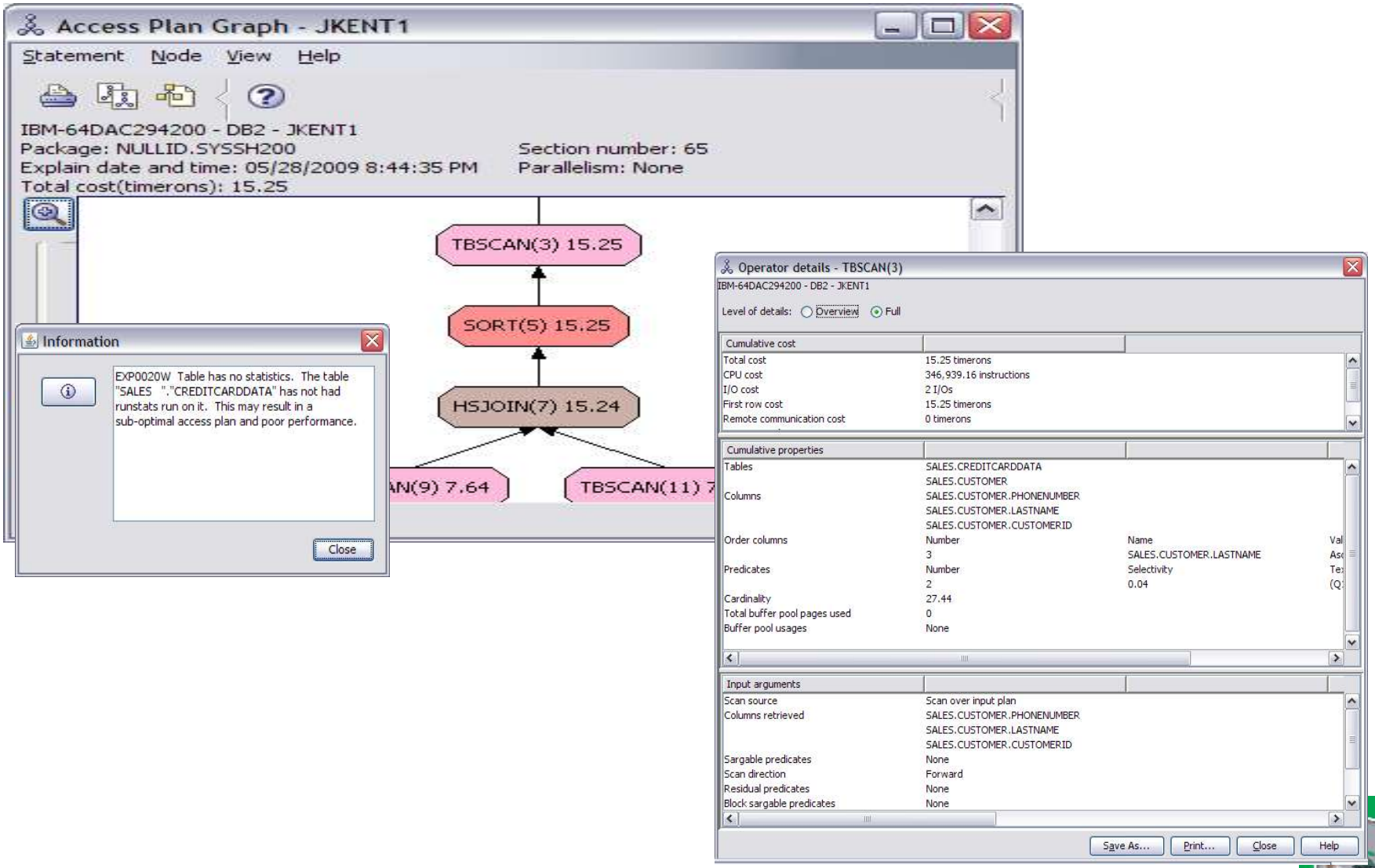
- In Control Center , you used Visual Explain analyze queries and look at access plans





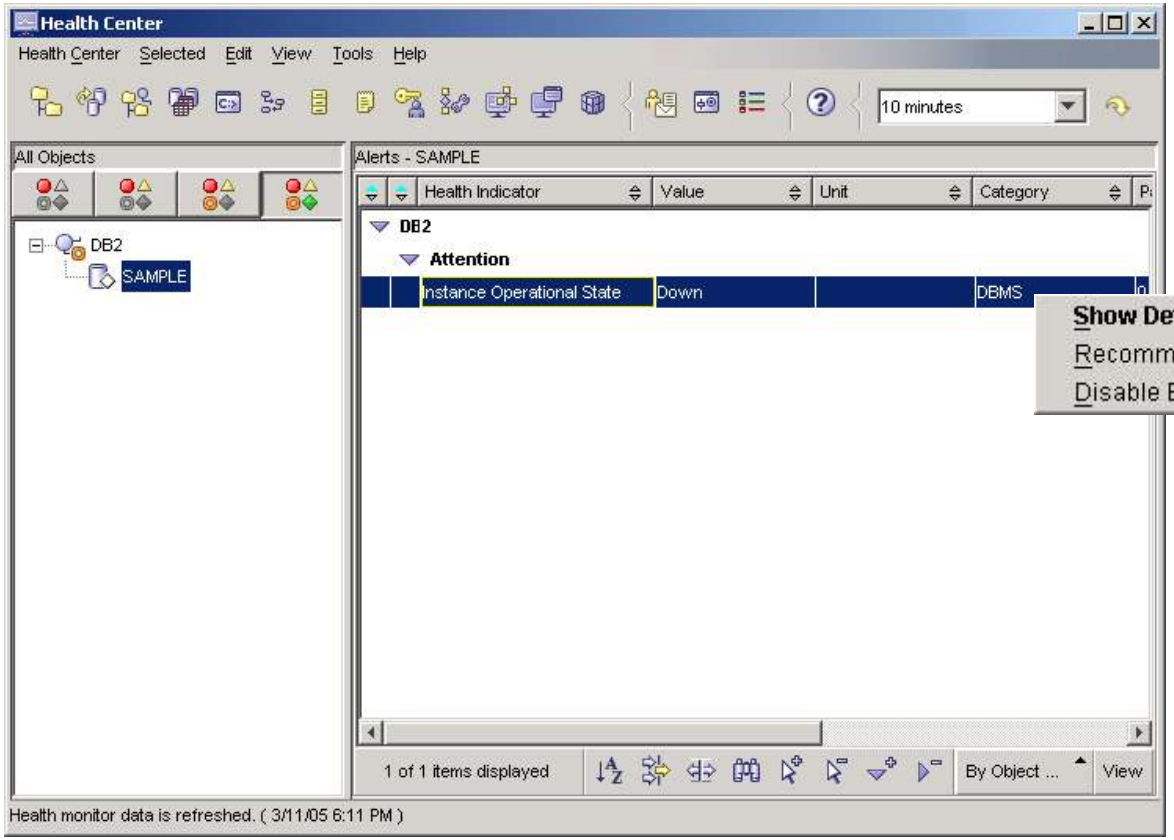
- **SELECT EMPLOYEE.LASTNAME, DEPARTMENT.DEPTNAME, DEPARTMENT.DEPTNO**
- **FROM ABBYMAC.DEPARTMENT AS DEPARTMENT, ABBYMAC.EMPLOYEE AS EMPLOYEE**
- **WHERE DEPARTMENT.DEPTNO = EMPLOYEE.WORKDEPT AND DEPARTMENT.DEPTNO = 'D11'**

Data Studio Visual Explain

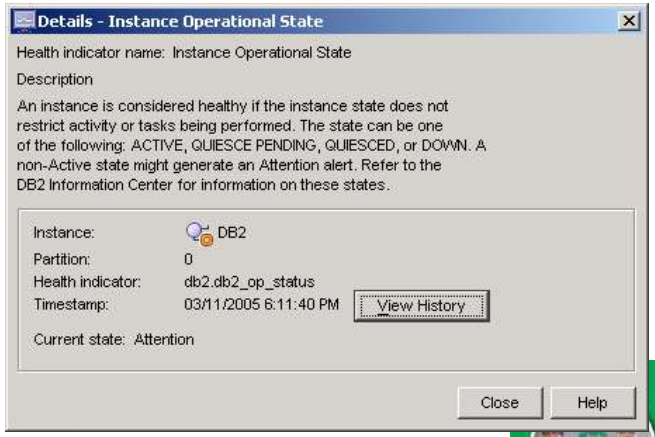


How to monitor the health of the server …

- After a health alert has occurred on one or more DB2 objects, you can display the details of the alert and bring up the Recommendation Advisor.



Control Center

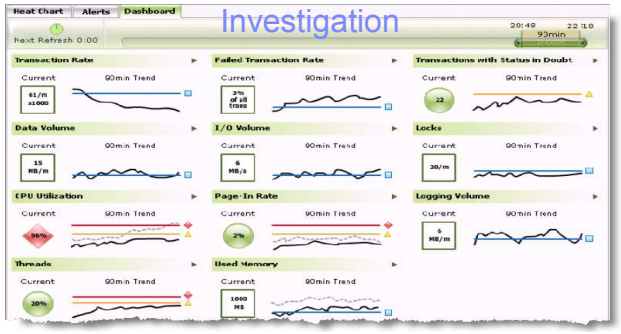


Data Studio - Administration Console

Heatchart – Overall Health Status

Where are the most important hotspots that need my attention?

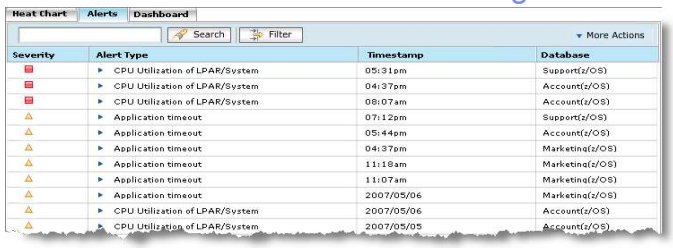
Dashboard – Adhoc Investigation



Something doesn't seem quite right. I wonder what's happening?

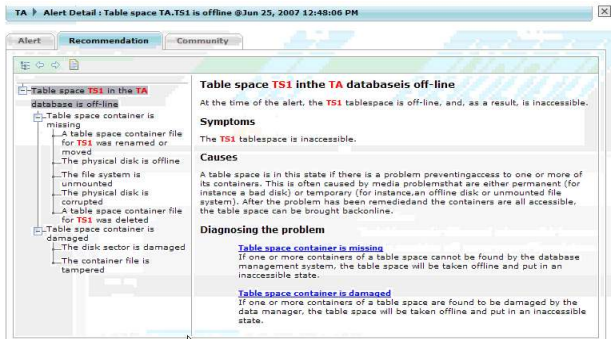
Administrator

Alert List – Historical Investigation



What happened when I was out for lunch? ... Away for weekend?

Recommendations – Root Cause Analysis



Guide me to the root cause and help me fix it properly; I need to know all the revelant info to make the best decision

functionality from the priced offerings

ODS → Optim Development Studio

ODA → Optim Database Administrator

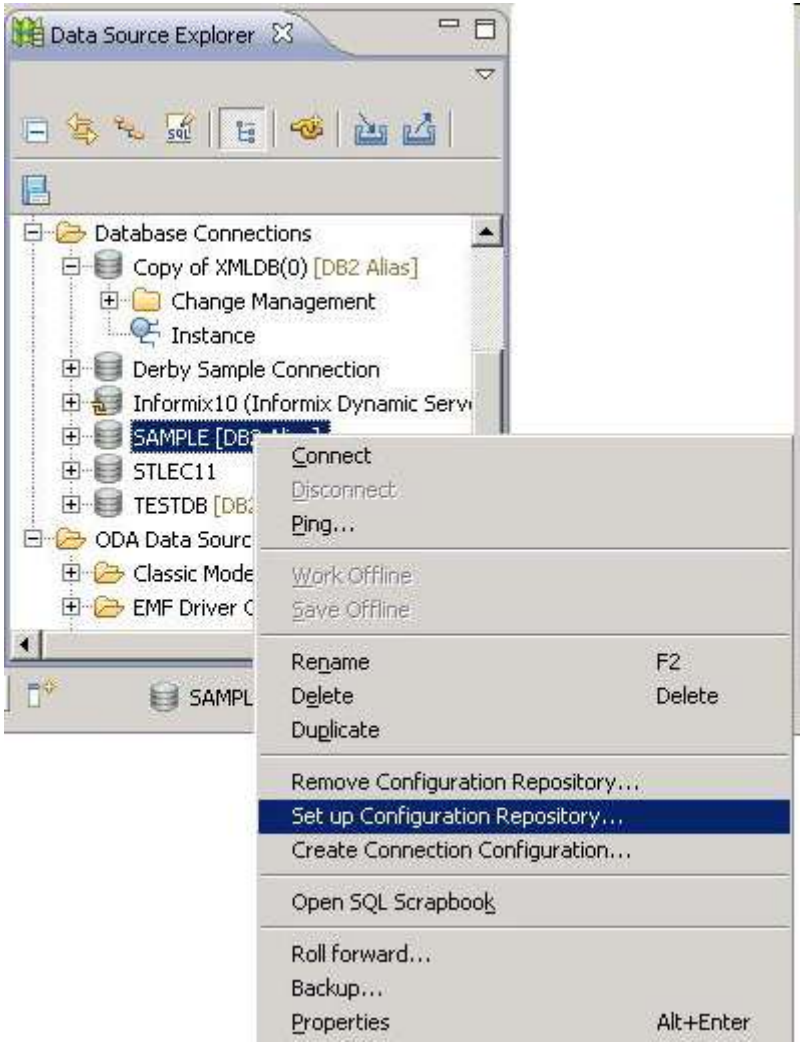
OQT → Optim Query Tuner

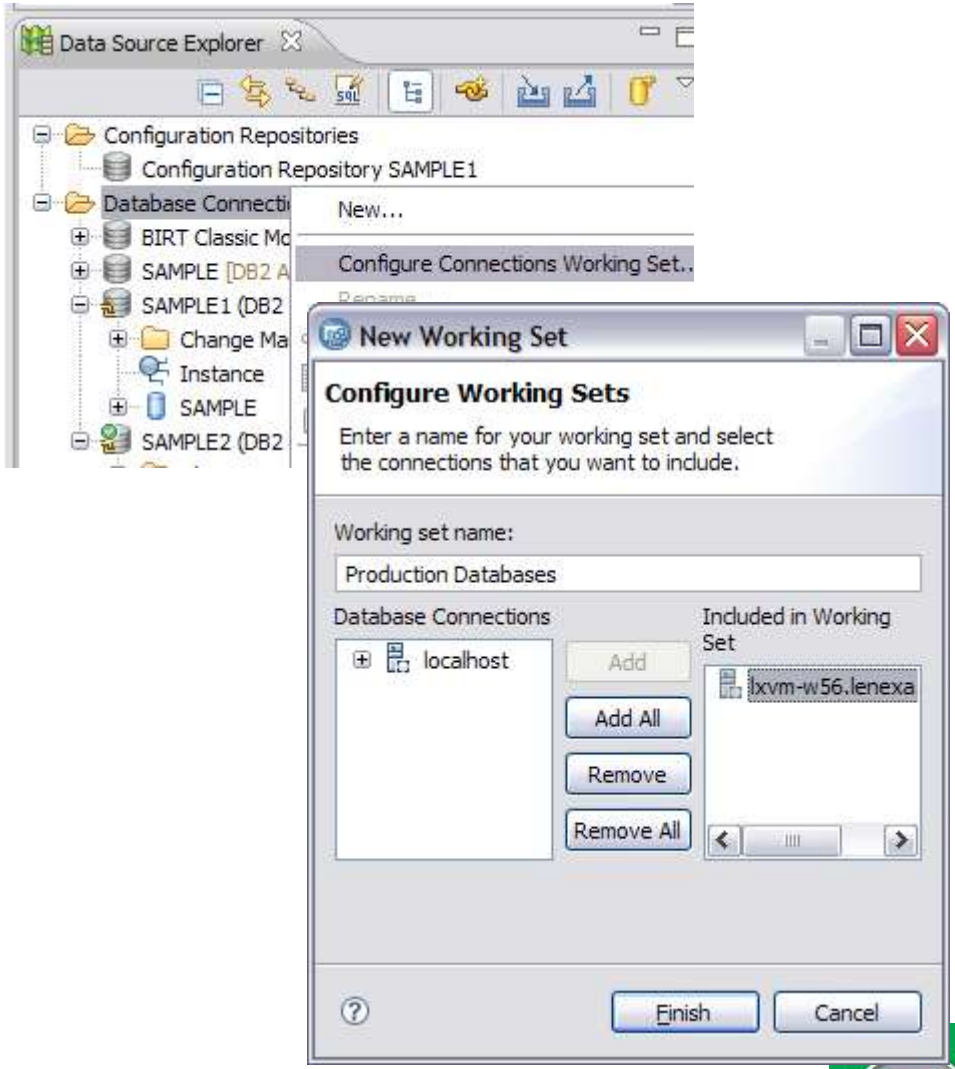
IDA → InfoSphere Data Architect

Navigation (In ODA, ODS and OQT)

- Need to share connectivity information with various workstations
  - Create Configuration Repository to store connection information
  - Export to file and share with team members
- Need to group my database server connections for easier access
  - Create a Working Set containing the connections you are working with.

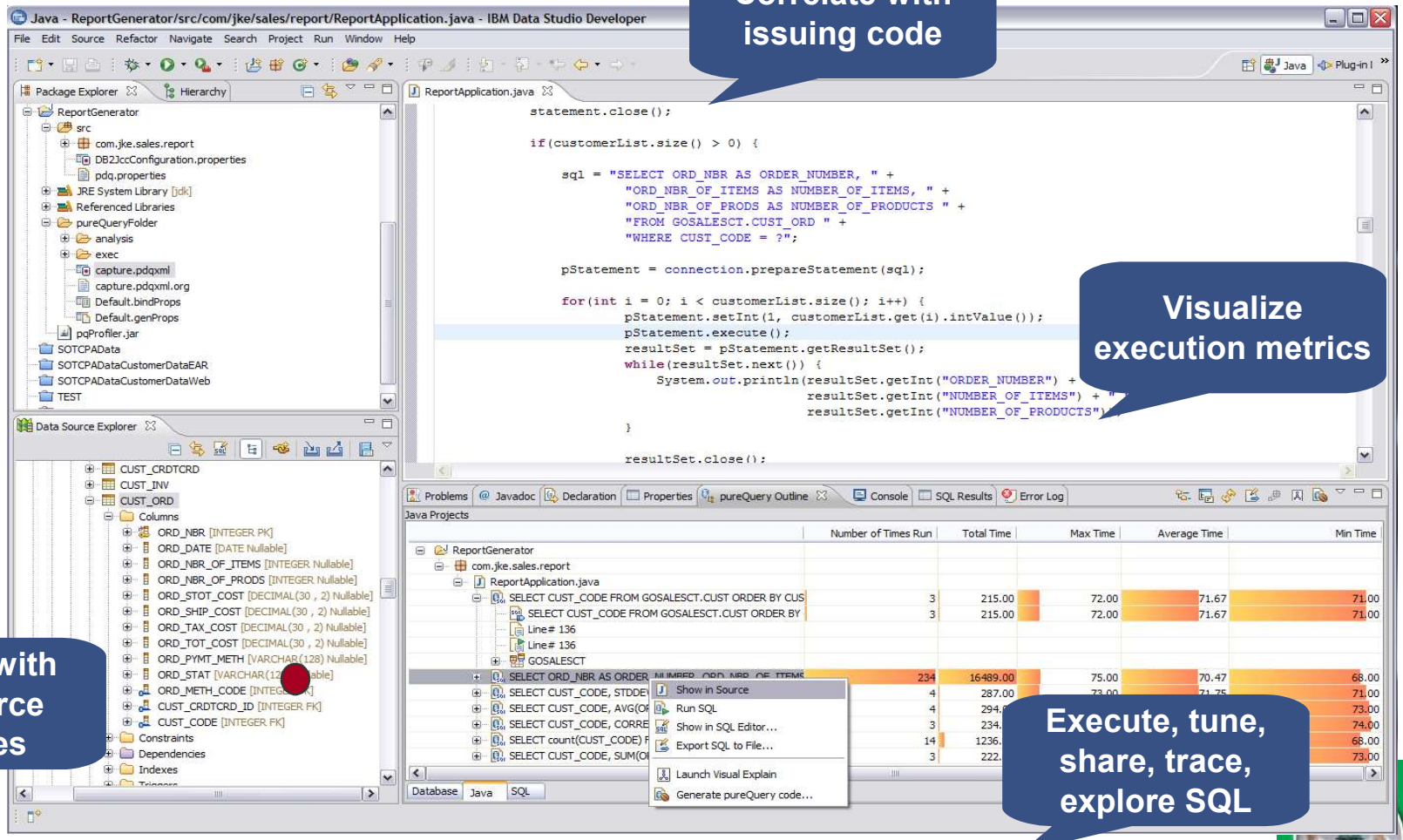
Configuration Repositories/Working Sets



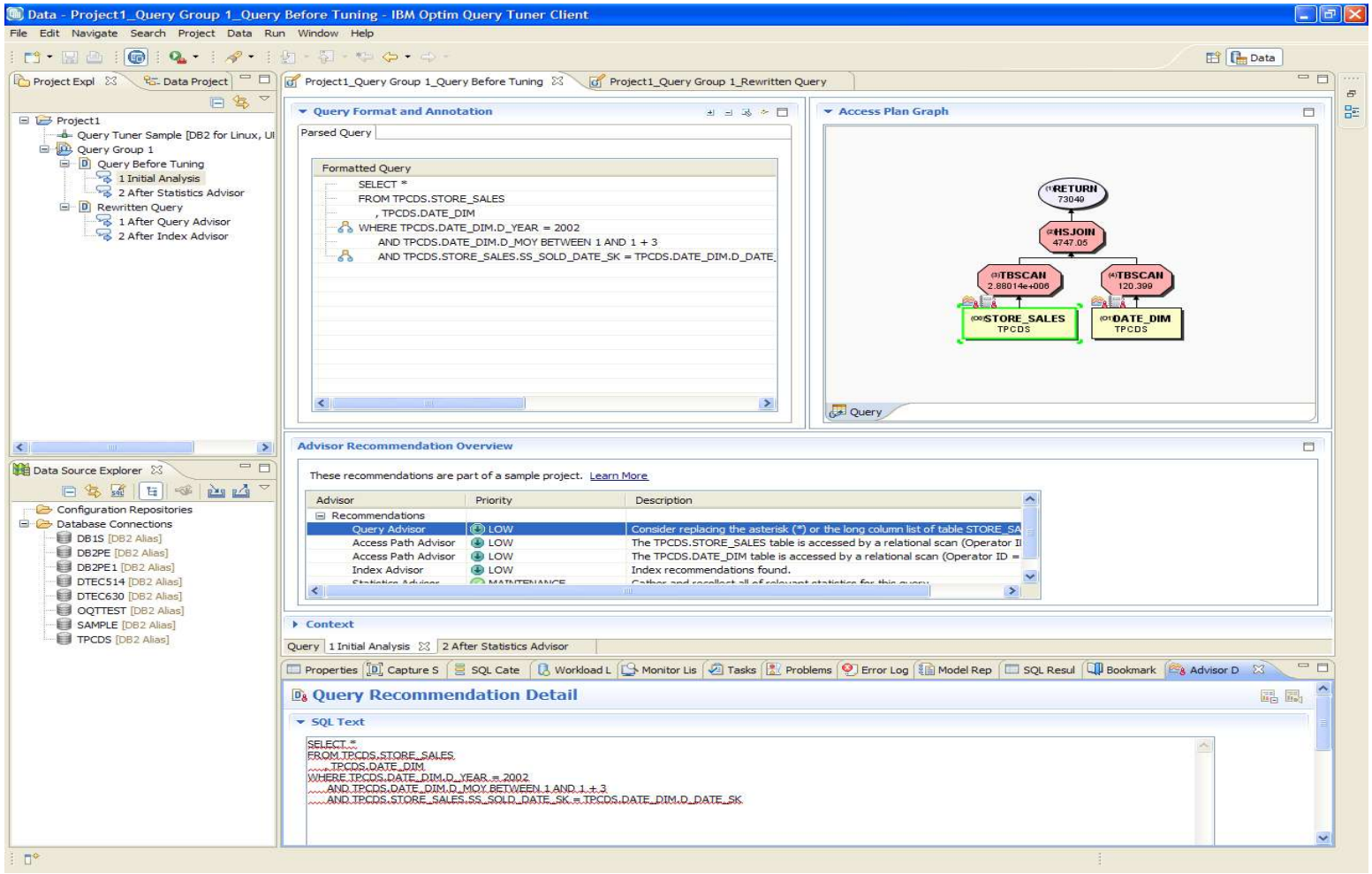


SQL Development (In ODS)

- **SQL Outline View**

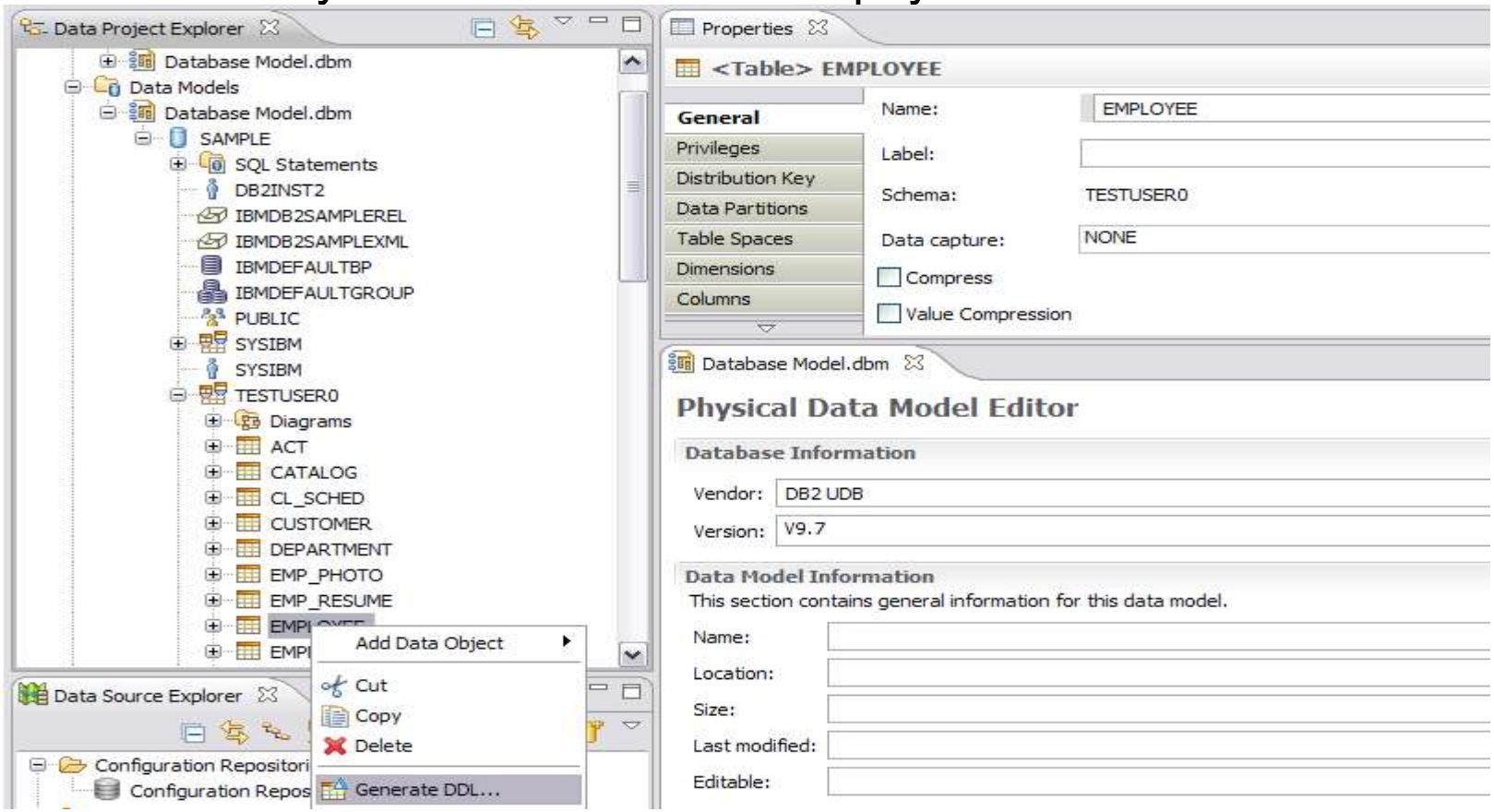


Query Tuning (In OQT)

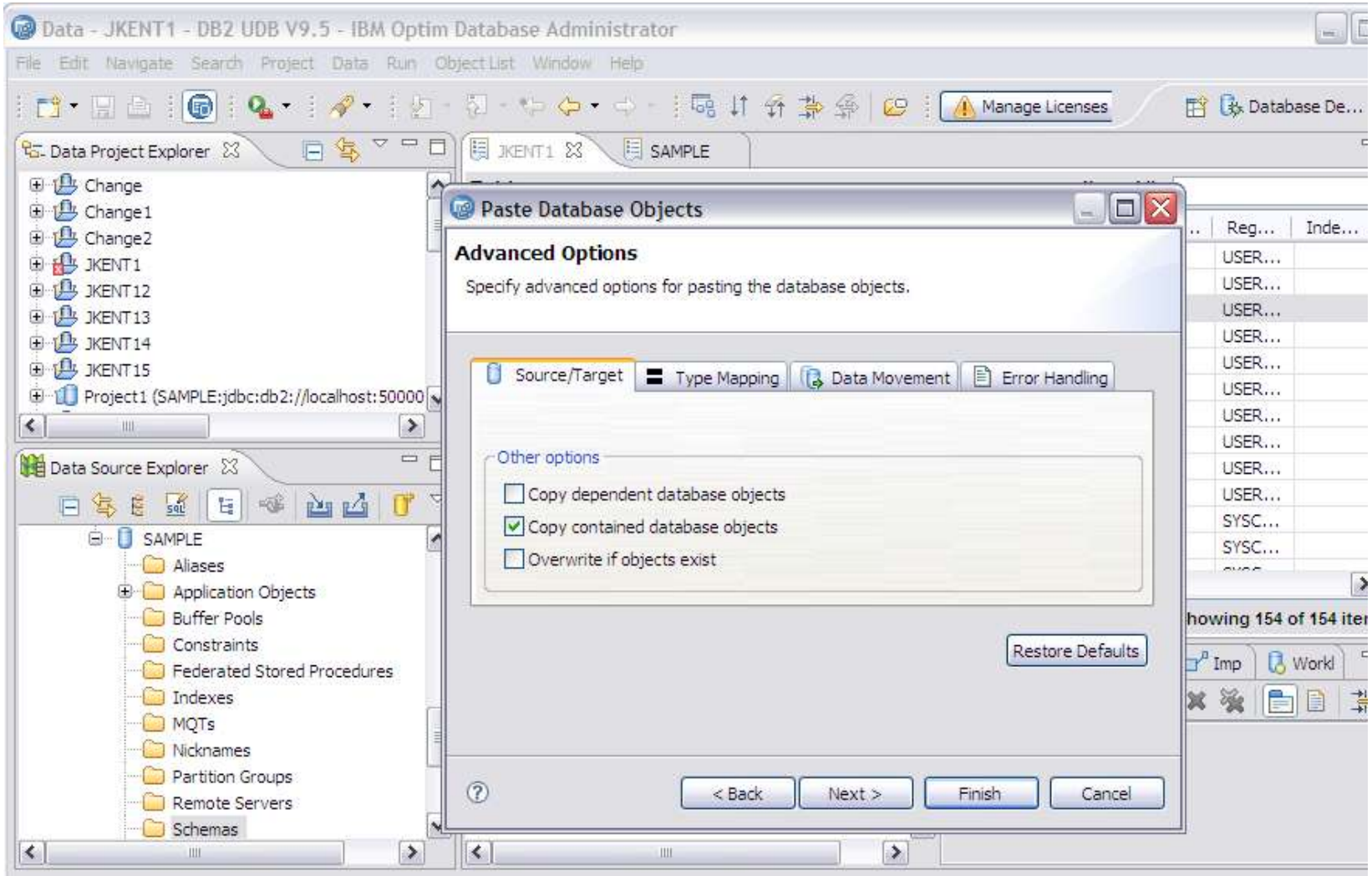


Design (In IDA)

- Use InfoSphere Data Architect to create or work with existing logical or physical data models. Deploy the model by having IDA automatically create the DDL for the physical data model.

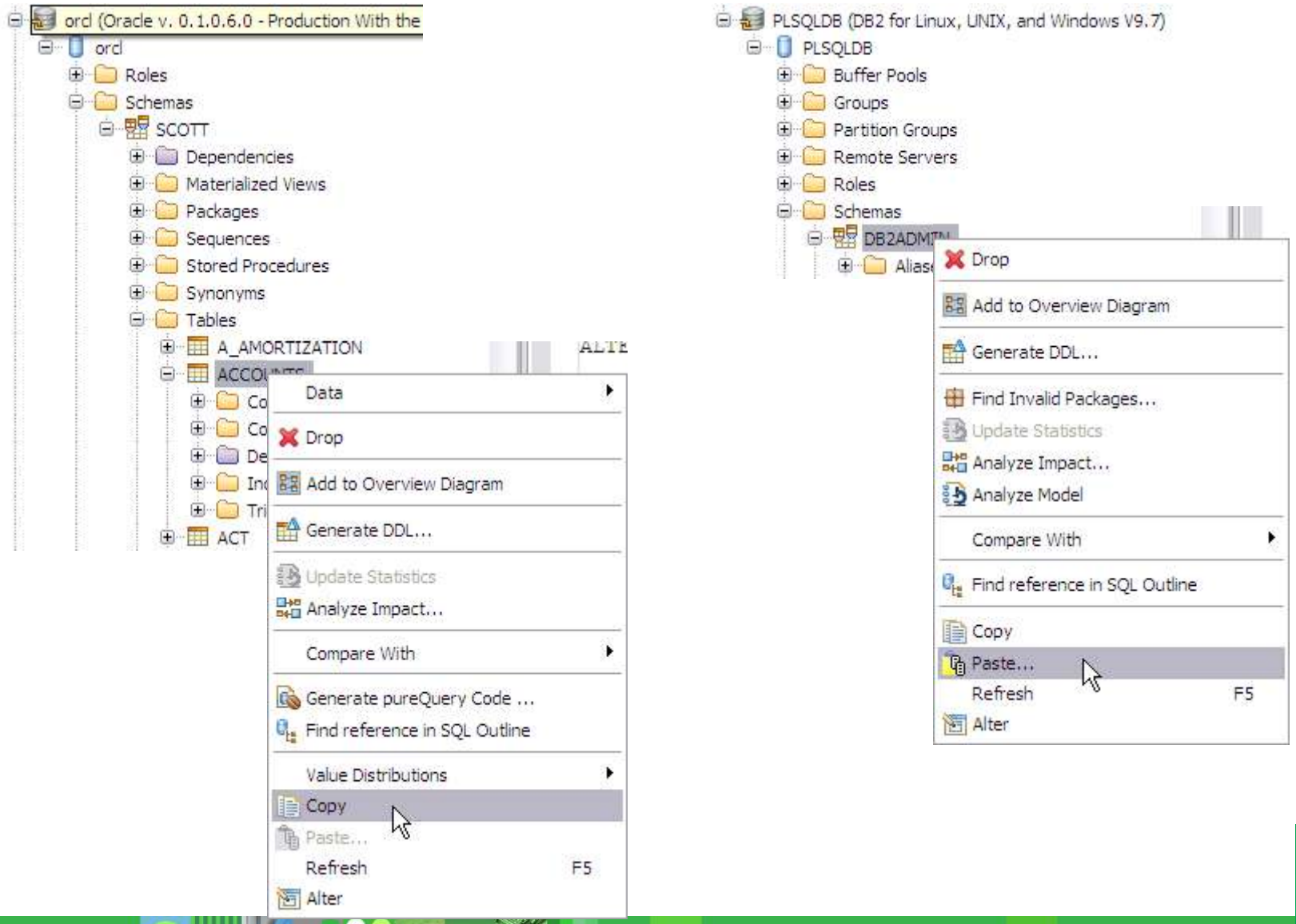


Data Management – Copy/Paste (In ODS)



What's new for DB2 9.7?

ODS Data Object Copy from Oracle to DB2



Support for DB2 Version 9.7 for Linux, UNIX, and Windows PL/SQL

- You can create PL/SQL modules and new data types for PL/SQL modules:
- Row data type
  - A structure composed of multiple fields each with their own name and data type that you can use to store the column values of a row in a result set or table.
- Array data type
  - A structure that contains an ordered collection of data elements, in which each element can be referenced by its ordinal position in the collection.

Questions

Thank You!

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Thank you for attending!