

**Suncoast Oracle
User Group**

Oracle XE: An Analyst's Playground

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An Expert's Guide to Oracle

<http://blogs.ittoolbox.com/oracle/guide>

Topics

- What is XE?
- What XE is not!
- Getting Data In
- Manipulating Data
- Getting Data Out
- Where to find out more

What is XE?

- Oracle 10gR2 Express Edition
- Free, Free, FREE!!!!
- Free to develop and distribute
- For DBAs and Developers to learn
- ISVs can embed Oracle

What is XE?

- XE has some limits
 - 4 GB of Disk
 - 1 GB of RAM
 - 1 CPU (or core)
 - 1 Instance per machine
 - No JVM

What is XE?

- My supposition:

Oracle XE is a tool that allows companies of any size to make better use of it's data.

If your job is to view and/or manipulate data, Oracle XE can help you do that. (As in it's better than Access!)

What XE is not!

- XE is not open source
- XE is free but still has a license
- XE is not Oracle Enterprise Edition

Getting Data In

- Database Links
- Materialized Views
- External Tables
- Spreadsheets (via HTML DB)
- URLs
- OWB?

Getting Data In, Cont'd

- Database Links
 - Access Remote Databases in Realtime
 - Access any database you can access from your desktop

```
CREATE DATABASE LINK my_link CONNECT  
  TO myusername IDENTIFIED BY  
  my_password USING 'database_name';  
SELECT * FROM table@my_link;
```


Getting Data In, Cont'd

- Materialized Views
 - Queries across database links must be re-ran everytime the data is needed
 - A materialized view queries the data once and stores it in your XE instance
 - Performance can be tuned (via local indexes)
 - Reduces the impact to the server
 - Don't forget about the 4GB disk limit

Getting Data In, Cont'd

- Materialized Views

```
CREATE OR REPLACE MATERIALIZED VIEW  
  my_data_mv AS  
SELECT department_name,  
       count(*) over () empCnt,  
       count(*) over ( partition by  
                        e.department_id ) emps_by_dept  
FROM employees@remote_db e,  
     departments@remote_db d  
WHERE e.department_id = d.department_id
```

Getting Data In, Cont'd

- External Tables
 - Doesn't count in the 4GB disk space
 - Change data by changing text files
 - If your warehouse is already using text files from the mainframe or other source, you have a ready source of data
 - Can be queried and joined like any other table

Getting Data In, Cont'd

- External Tables

```
CREATE TABLE emp_raises(Emp_id number,raise_pct NUMBER(5,2) )
ORGANIZATION external ( TYPE oracle_loader DEFAULT DIRECTORY
    data_file_dir ACCESS PARAMETERS
        (RECORDS DELIMITED BY NEWLINE CHARACTERSET US7ASCII
            BADFILE log_file_dir:'bad.log'
            LOGFILE log_file_dir:'log.log'
            FIELDS TERMINATED BY "|" LDRTRIM
                ( Employee_id, raise_pct))
    location ('employee_rasies.dat')
)REJECT LIMIT UNLIMITED;
```

Getting Data In, Cont'd

- Spreadsheets
 - HTML DB Create Application From Spreadsheet Wizard
 - Loads CSV files
 - Creates a table if one does not already exist
 - Creates an application (can be read/write or read only)

Getting Data In, Cont'd

- URLs
 - UTL_HTTP to access data on the web
 - Web data presented as XML can be loaded
 - FTP directly into XE

Getting Data In, Cont'd

- OWB?
 - Paris is the next big version of Oracle Warehouse Builder (OWB)
 - Paris will support XE through generic connectivity
 - OWB may be best for complex extracts and transformations

Manipulating Data

- SQL*Plus
- SQL Developer
- HTML DB

Manipulating Data, Cont'd

- SQL*Plus
 - Tried and true, works on all platforms
 - Most SQL commands supported
 - SQL Analytics are supported
 - SQL Model is not supported
 - If you're using SQL now, you can continue doing so

Manipulating Data, Cont'd

- SQL Developer
 - Like XE, SQL Developer is Free!
 - Like XE, SQL Developer is NOT open source
 - SQL Developer includes a schema browser, query screen and PL/SQL editor
 - Comes with some predefined reports
 - Lets you create your own reports

Manipulating Data, Cont'd

- HTML DB
 - Comes pre-configured in XE
 - Graphical, HTML based environment
 - Recently renamed Application Express
 - No programming skills required
 - Point and click screen building

Manipulating Data, Cont'd

- HTML DB
 - Administration Module
 - Disk Usage
 - Memory
 - Users
 - Object Browser
 - SQL Builder and Edit windows
 - Application Builder

Manipulating Data, Cont'd

- HTML DB Application Builder
 - Menu driven application development
 - Page Based, think page = form or screen
 - Access and security is built-in
 - Pages can be read or write
 - Use HTML DB to create screens that allow you to edit your data

Getting Data Out

- HTML DB (again)
- Spreadsheets (again)
- URLs
- SQL*Plus
- SQL Developer
- Report Writers/BI Tools

Getting Data Out, Cont'd

- HTML DB (again)
 - A screen can be a report
 - Reports are defined as easily as a form
 - Use the graphical query builder and create a report
 - Export to CSV (spreadsheets)

Getting Data Out, Cont'd

- Spreadsheets (again)
 - Most spreadsheets support ODBC
 - Select directly from XE into your spreadsheet application

Getting Data Out, Cont'd

- URLs
 - Make data available via the web development toolkit
 - HTF and HTP PL/SQL packages
 - Make your relational data available as XML
 - Others can use a browser to view your data

Getting Data Out, Cont'd

- SQL*Plus
 - The original report writer
 - SQL*Plus has been in production for many years
 - Sophisticated SQL support and formatting
 - Easy syntax and good documentation

Getting Data Out, Cont'd

- SQL Developer
 - Did I say it's free?
 - Easy to install
 - User defined reports are SQL Based
 - Export Reports to CSV or XML
 - Supports some SQL*Plus syntax
 - Share your reports with other users

Getting Data Out, Cont'd

- Report Writers/Business Intelligence Tools
 - XE is an Oracle 10g database
 - If your tool supports Oracle at all, it will support XE
 - Allows you to offload your reporting

A Possible Scenario

- Use database links and materialized views to create local data
- Manipulate it as needed with HTML DB
- Create XML Views
- Make your data available via URLS
- Use jDeveloper to create a portlet

Where to find out more

- Oracle Tech Net (OTN) XE Homepage:

<http://www.oracle.com/technology/products/database/xe/index.html>

- Or my article on OTN:

<http://www.oracle.com/technology/pub/articles/cunningham-database-xe.html>

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Thank you!

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