# Rapid Development of Web Applications with HTML DB

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Presented By:

Jeff Bernknopf, President

Technical Advantage Associates



### Agenda

- Overview
- Components and Features
- Creating a New Application
- Adding Page Components
- Types of Systems
- Q & A



# HTML DB Overview



### What is HTML DB?

- A RAD tool for developing web apps in a browser-based, declarative manner with wizards
- An application stored as meta-data and rendered at run-time
- Dynamically generated HTML that is fast!
- PL/SQL No Java
- Allows you to perform any task that you can accomplish in SQL or PL/SQL
- Web-based team development environment;

### HTML DB's History

- Concepts based on WebDB
- Developed as underlying technology for Oracle Web Calendar (1999)
- In 2000, Larry Ellison gave his blessing to continue but he wanted a hosted service
- First launched as service in June, 2002 under the name "Project Marvel"
- Decision to productize came in Sept., 2002
- On 1/31/2004, HTML DB became a support component of Oracle 10g and 9iR2

### Installation vs. Hosted Service

- Oracle provides a hosted HTML DB service at at htmldb.oracle.com where you can Apply for a free account
- You can also download and install locally
  - Run the installation script on any 9.2.0.3 or better database. Also requires Apache listener.
  - Export / Import applications from hosted service to your local system
- Included as part of the Oracle 10g Release
- Excellent support via OTN discussion forum (http://otn.oracle.com/products/database/htmldb/index.html

# Download from htmldb.oracle.com

- Uses an Apache server with mod\_plsql.
   Requires configuration of a DAD
- Can also use:
  - 9iAS (mod\_plsql is standard)
  - OC4J (requires mod\_plsql from DBPrism)
     <a href="http://www.dbprism.com.ar/dbprism/doc/docs/">http://www.dbprism.com.ar/dbprism/doc/docs/</a>
     OC4J.html
- Requires 9.2.0.3 of the database or higher
- Excellent installation guide included



### When to Use HTML DB

- You are, or have developers who are, skilled in SQL and PL/SQL
- Your application is database-centric
- Your application can be developed using a hosted service
- You are comfortable with a declarative/4GL programming model
- You want to migrate an Access / Excel application to Oracle
- You have a web application to develop



# Components and Features



### Main Components

### SQL Workshop

- Interact with your database as with SQL\*Plus, but visual
- Data dictionary and object browsing, query by example

### Data Workshop

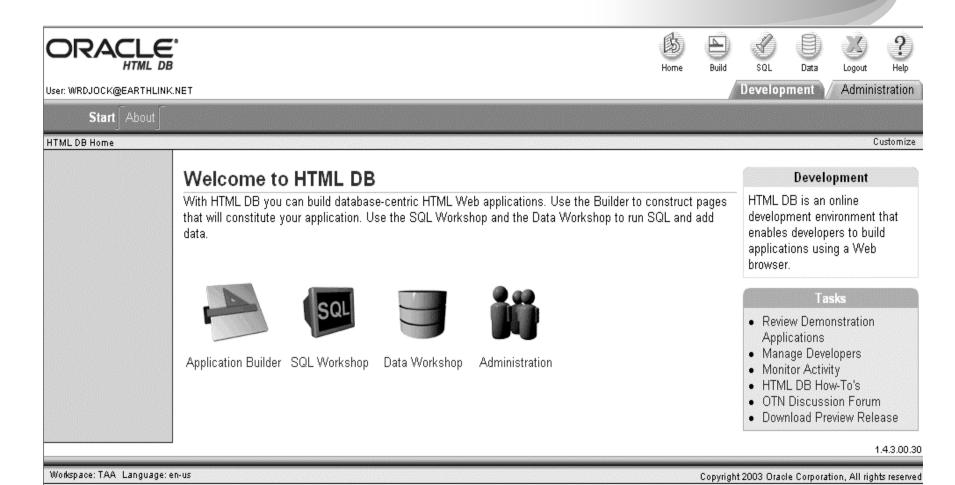
- Load and extract data from the database
- Turn a spreadsheet into a table in a few seconds

### Application Builder

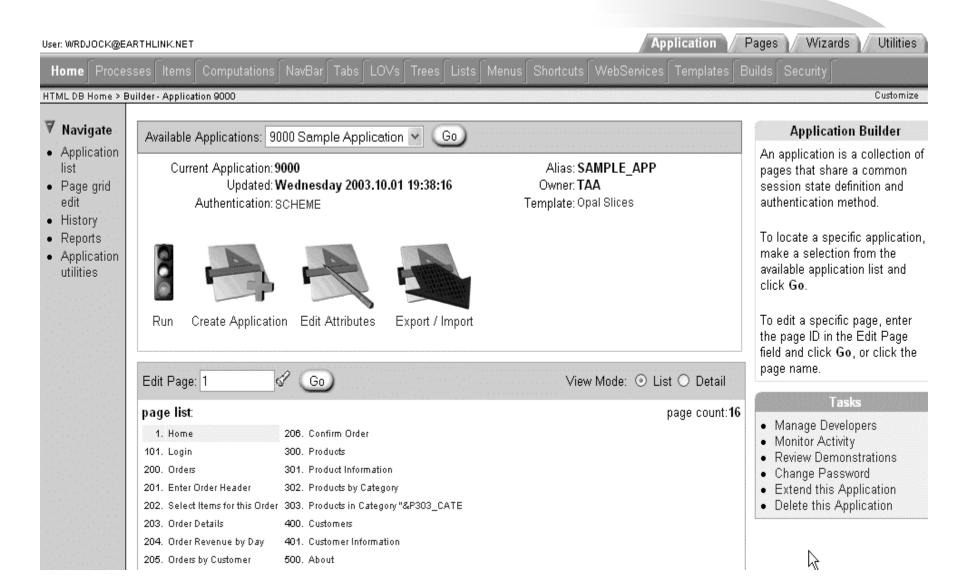
- Centerpiece of HTML DB
- Loaded with wizards
- Reports, forms and charts
- Connect pages using branches
- 75 pre-defined widgets
- Basic HTML, pop-up lists, calendars, etc.
- Full data entry validation



### HTML DB Welcome Page



### Application Builder



# More Features

- Session and State Management
  - Each user has a session
  - Valid username/password is required
- User Interface Control
  - Look-and-feel is separate from application logic
  - Extensive templates at a variety of levels

- Flexible Authentication and Authorization Schemes
  - Can use pre-built / built-in methods or custom
- Extensive Navigation Control
  - Tabs
  - Links
  - Menus
- File upload/download
- Email integration

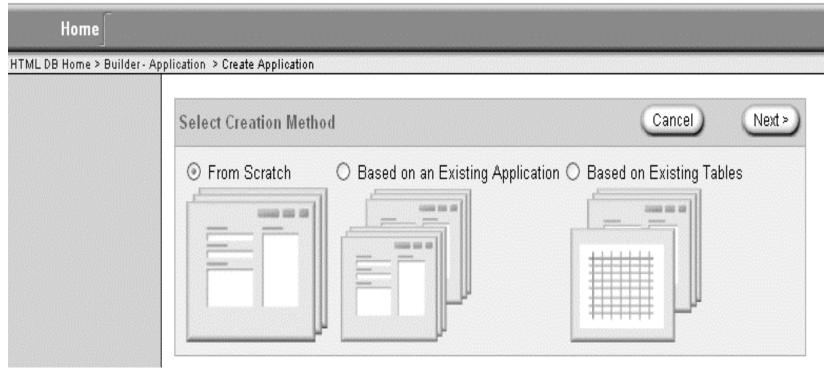


# Creating a New Application



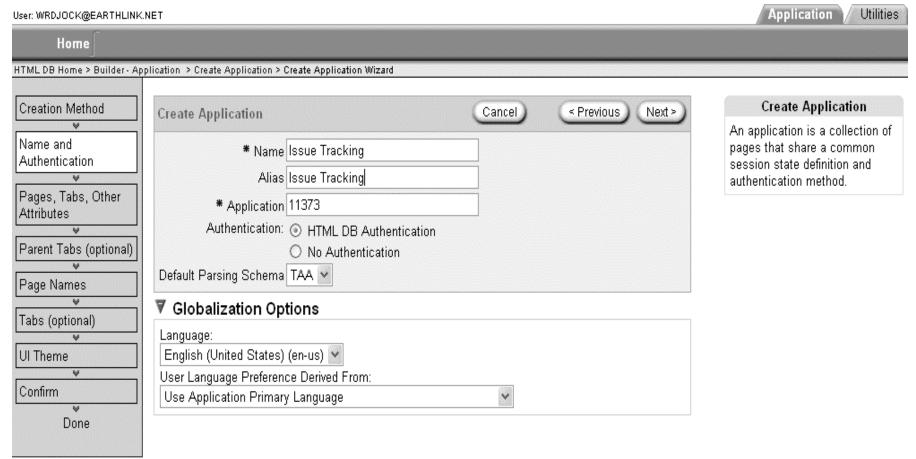
### Application Creation Options

User: WRDJOCK@EARTHLINK.NET





## Naming the Application

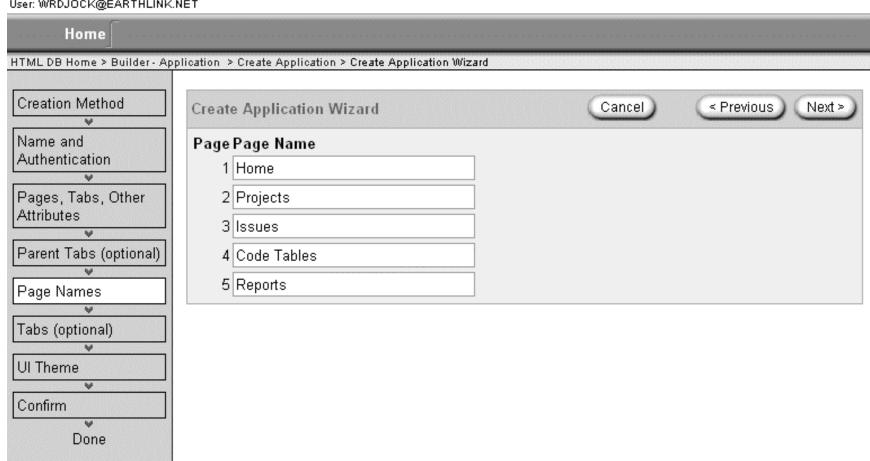


### Tab and Page Options

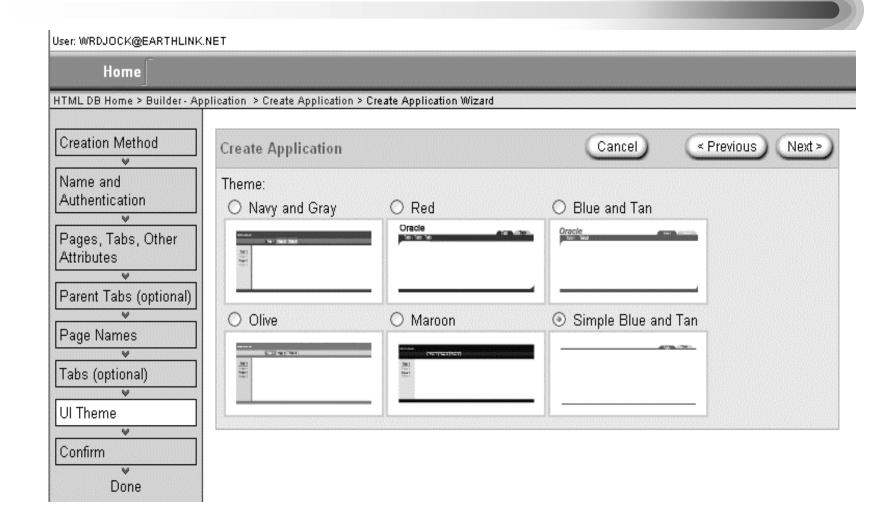


### Name the Pages

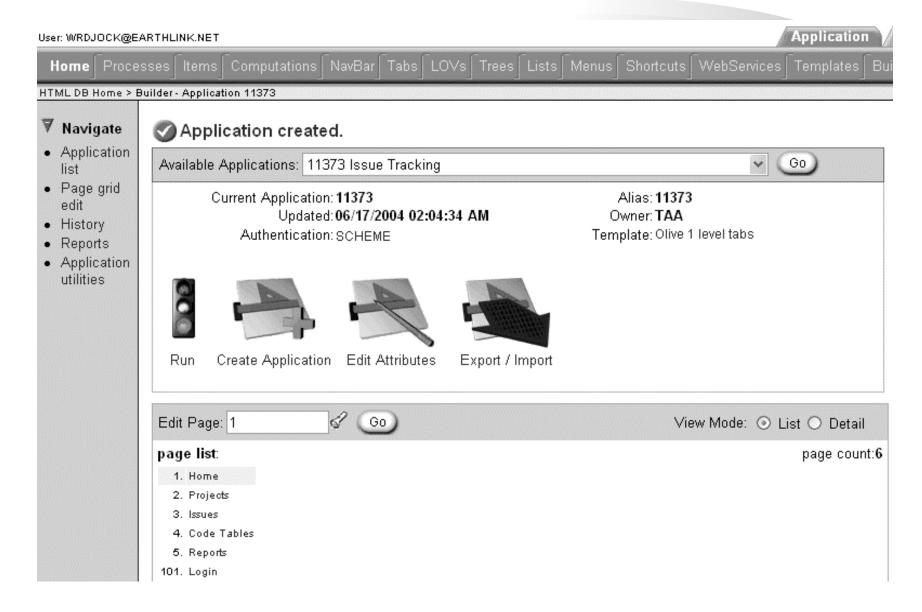
User: WRDJOCK@EARTHLINK.NET



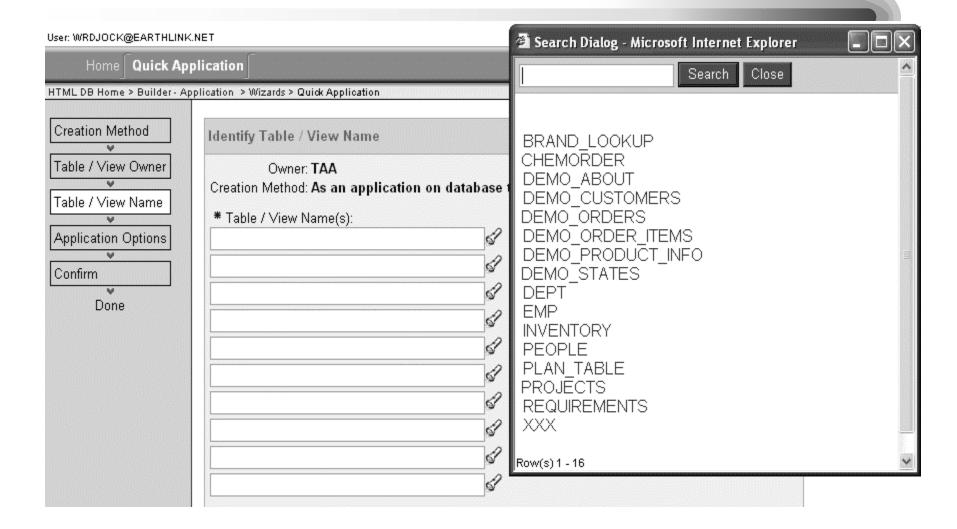
### Select a UI Template



### The New Application



### A Quick Application



## A Complete, Generated App



# Adding Page Components



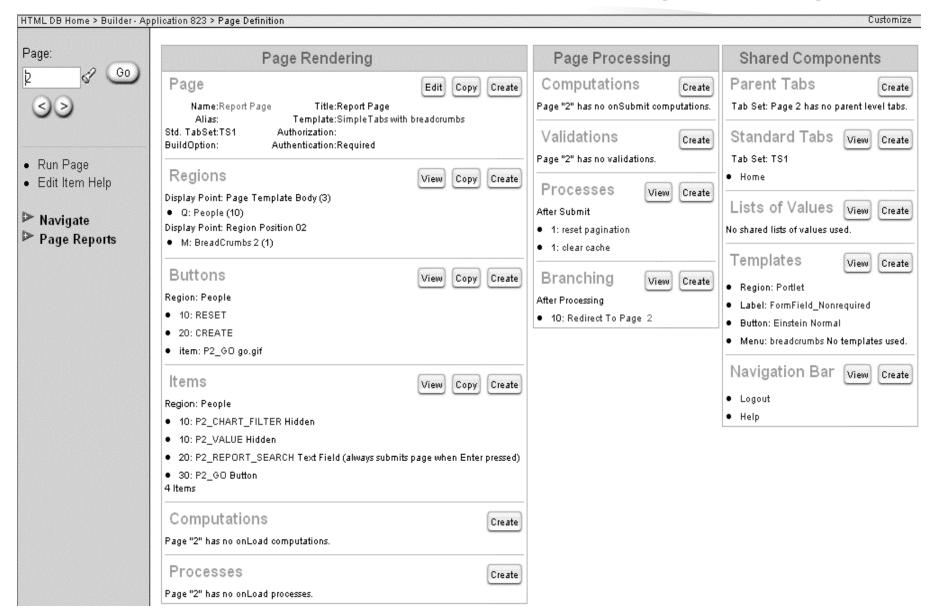
### Every Page has "3" Components

- Page Rendering
  - Page
  - Regions
  - Buttons
  - Items
  - Computations
  - Processes

- Page Processing
  - Computations
  - Validations
  - Processes
  - Branching
- Shared Components
  - Part of all Pages



### Editing a Page

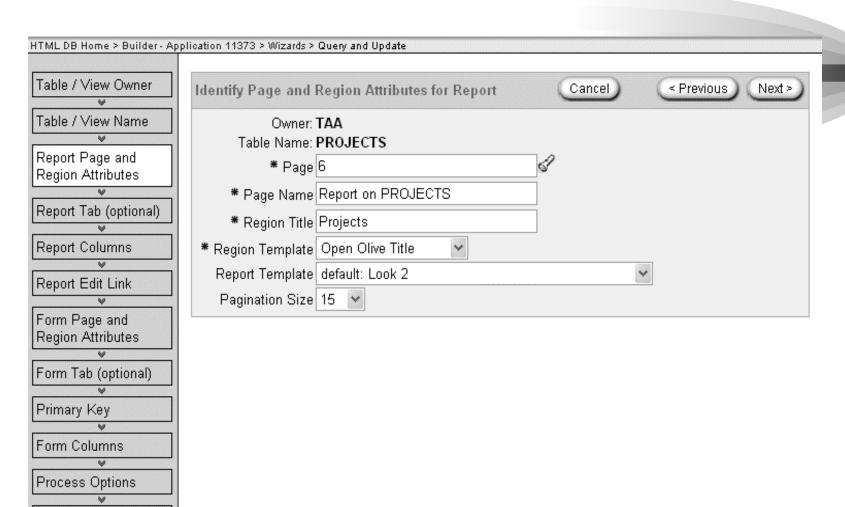


# Wizards save time (Click Report with Links...)



Tabular Form

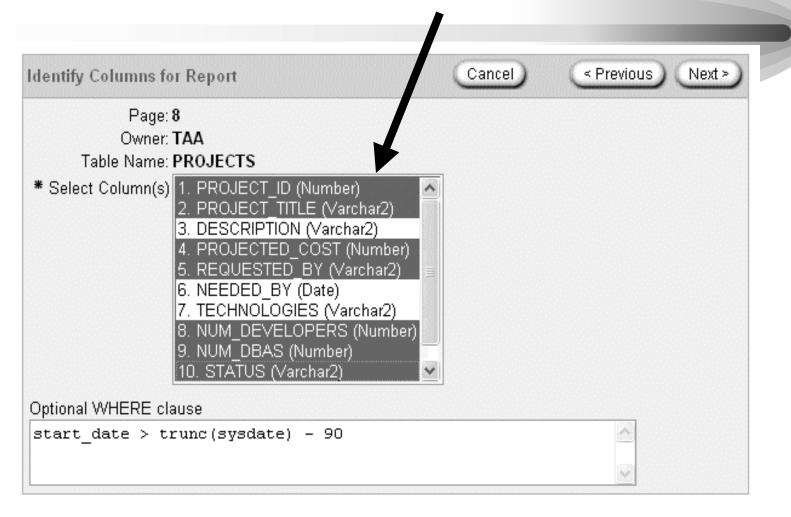
### Query and Update Wizard



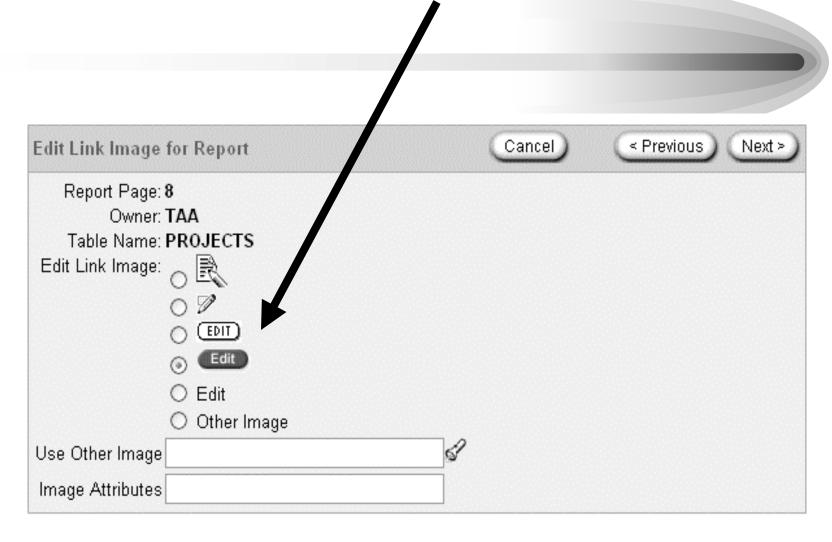
Confirm

Done

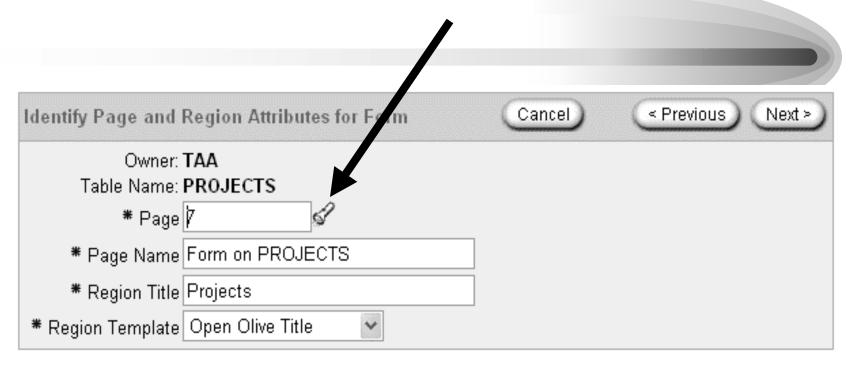
### Select the Report Columns



Choose edit button style

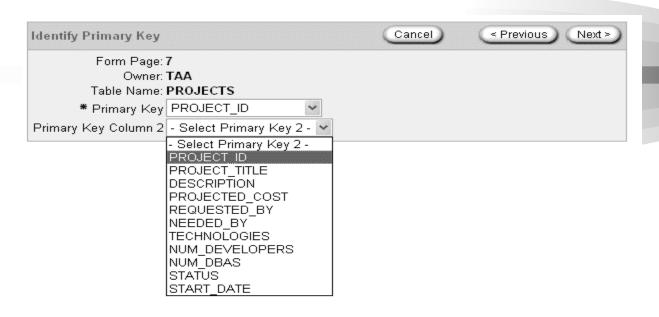


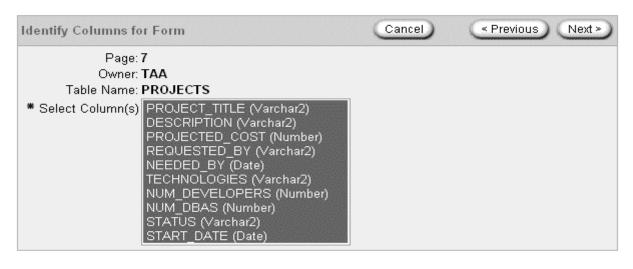
### Select the Form for creating and editing records





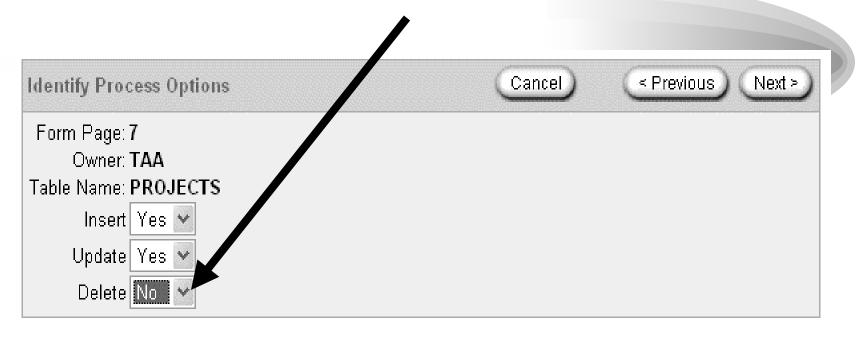
### Identify the primary key and columns







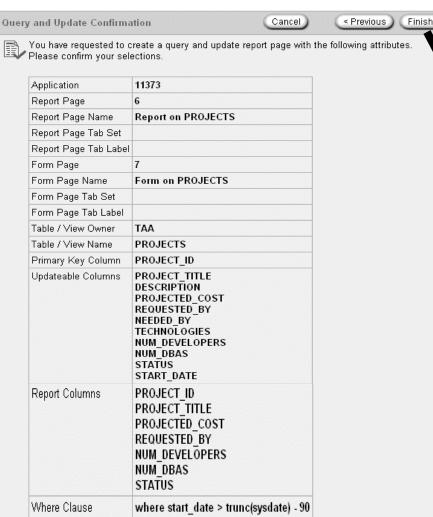
### Verify optional buttons



I chose to disable the delete button, but alternatively I could have made that button conditional (e.g. for administrators only)



## Confirm and Finish



Process Options

Insert,Update

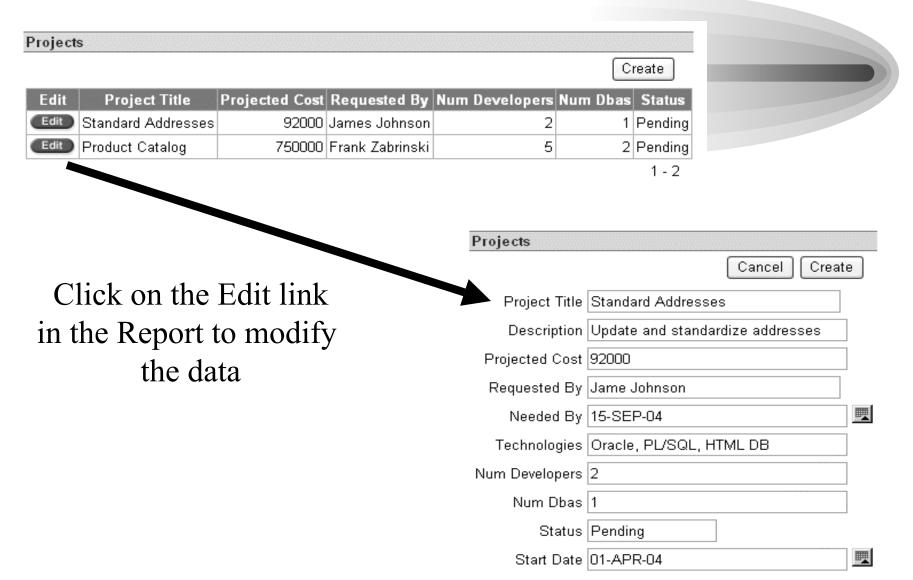
Report page 2 exists, report region added.



Do not show success page in the future



### Report and Edit Pages



# Types of Systems



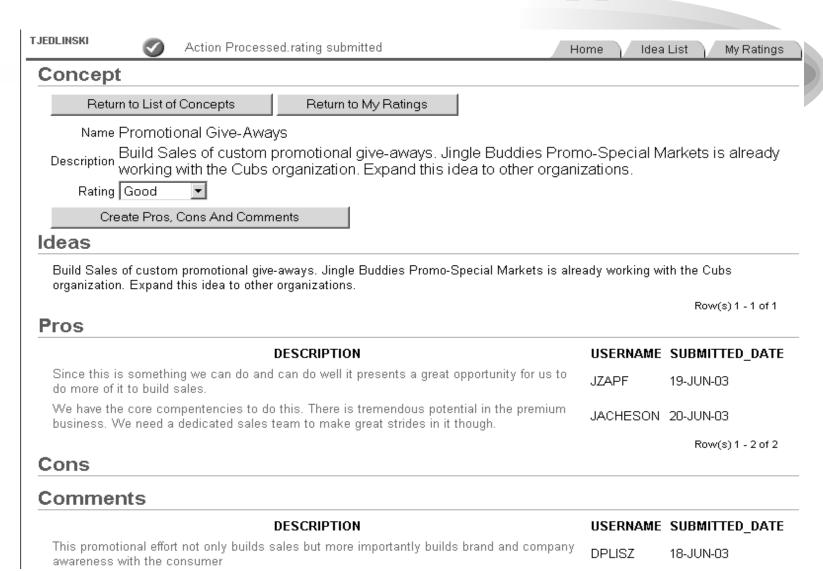
### Types of Systems

- Select Journal Article review system (developed in 2 weeks) used by SELECT editors and reviewers
- Web Collaboration application (developed in 2 days)
- Oracle internal and external applications:
  - AskTom (http://asktom.oracle.com)
  - Developer Trends (http://devtrends.oracle.com)
  - HTML DB hosted site (http://htmldb.oracle.com)
- Chicago Police Dept Property Tracking system
- Systems for International Society of Infectious Disease

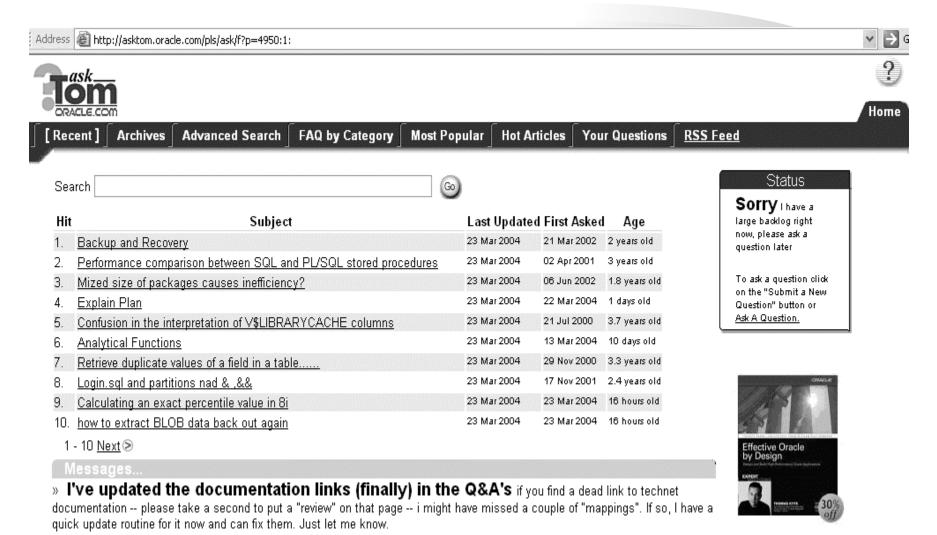
### Select Journal Article Review

SELECTOnline  The Journal of the International Oracle Users Group			
Messages			
Welcome TDHITAL			
Please update your personal information by clicking the button below.			
	have downloaded cluding articles with posted reviews) N ▼		
Manage you	r profile		
Select Ir	nterest Areas	Update Your Personal In	formation
Articles in vo	our interest area(s)		
DOWNLOAD		SUMMARY	SUBMISSIC
•	INTERNALS OF REAL APPLICATION CLUSTER	If you have a system that needs to be up and running a few m	04-FEB-03
•	Jumpstarting on 9iRac	Oracle's Real Application Clustering feature has created qui	24-MAR-03
1	CATS. DOGS. AND ORA-01555	There are numerous reasons DBAs and application	07-APR-03

### Web Collaboration Application



### AskTom





### Infectious Disease Institute

about ISID | membership | programs | publications | resources | 11th ICID | site map



Address Addres





The global electronic reporting system for outbreaks of emerging infectious diseases & toxins, open to all sources. ProMED-mail, the Program for Monitoring Emerging Diseases, is a program of the International Society for Infectious Diseases.

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### Today on ProMED-mail

### March 24, 2004

No Reports yet today.

March 23, 2004

PRO/AH> Avian influenza, poultry vaccines (07)

PRO/AH/EDR > Avian influenza, H7, poultry - Canada (BC)(08)

PRO/EDR > Legionellosis, hotel - USA (TX ex OK)

PRO> Salmonella strains - RFI

PRO/AH/EDR > Rabies, raccoon - USA (NC)(02)

PRO/AH > BSE, bovine - USA (WA)(18)

PRO/AH> Chronic wasting disease, cervids - USA (IL)(03)

PRO/EDR > Burkholderia cepacia, nasal spray - USA: recall

PRO/AH/EDR > Dolphin die-off - USA (FL)(03): Domoic acid

PRO/AH/EDR > Avian influenza, human - East Asia (34)

PRO/AH > Avian influenza - Netherlands (06)

Postings from last 30 days...

### Latest Information on Avian influenza

23-MAR-2004 / Avian influenza, poultry vaccines (07)

23-MAR-2004 / Avian influenza, H7, poultry - Canada (BC)(08)

23-MAR-2004 / Avian influenza, human - East Asia (34)

23-MAR-2004 / Avian influenza - Netherlands (06)

22-MAR-2004 / Avian influenza - Eastern Asia (55)

More...

### Latest Information on Severe Acute Respiratory Syndrome (SARS)

25-FEB-2004 / Calendar 2004 (02): Intl. Conf. on SARS

12-FEB-2004 / SARS - worldwide (14): travel advice



ProMED-Port, Portuauês



ProMED-ESP. español



Chinese Page



Japanese Page

### Summary

- Powerful new technology
- Relatively easy to use
- Fast
  - Development time (RAD tool)
  - Speed of deployed applications
- Secure
- Really works
- Hosted Service or Locally Installed



# Where to Go for More Information

- htmldb.oracle.com
- metalink.oracle.com
- technet.oracle.com
- ODTUG Technical Journal
- The TUSC Website (www.tusc.com)
- My blog (radio.weblogs.com/013334)

"The Oracle HTML DB Handbook" by Jeff Bernknopf and Brad Brown (Oracle Press) - Available later this year





## Special Thanks To...

- My co-author Brad Brown and his team at TUSC, especially Larry Linnemeyer
- Tony Jedlinski (Roman Inc. and Editor of SELECT) for his contributions to the presentation and getting me excited about HTML DB in the first place
- Michael Hichwa and his HTML DB Team
- Lisa McClain and the people at Oracle Press

If you have any questions or comments about HTML DB, you can contact me at:

jeff\_taa@earthlink.net



# Questions and Answers

