Application Express 4.0
Collaboration with Websheets and Team Development
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Oracle Application Express (APEX)
Browser Based Application Development
Oracle Application Express (APEX)

Benefits

Rapid Browser Based Development
Point your browser and start developing

Leverages SQL Skills
Build reports and charts using SQL

Self Service Provisioning
Out-of-the-box elastic private cloud service

Runs within Database
Simple to manage, highly scalable

Benefits
Oracle Application Express (APEX)
Fully supported no-cost feature of Oracle DB

• Distributed with
  – Oracle Enterprise Edition
  – Oracle Standard Edition
  – Oracle Standard Edition One
  – Oracle XE

• Supported Database Releases
  – 10gR2
  – 11gR1
  – 11gR2

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Oracle Application Express (APEX)
Rapid Application Development (RAD)

Data-driven Applications
Develop opportunistic and departmental productivity applications with Robust Online Reporting

Oracle Forms Modernization
Leverage SQL & PL/SQL declarative programming skills to move Forms applications to HTML / Web 2.0

Spreadsheet / Access Replacement
Convert spreadsheets and access applications to Web applications
New in Oracle Application Express 4.0

- Web Sheets
- Team Development
- Dynamic Actions
- RESTful Web Service Support
- Improved Charting
- Plug-ins
Integrating with Other Tools / Services

Leverage the full spectrum of the Oracle database’s capabilities:

- SQL
- PL/SQL
- RAC
- Spatial
- OLAP
- Flashback
- Web Services
- Text
- Multimedia
- Analytic Functions
- Globalization
- XML DB
- eBusiness Suite
Websheets

• Build basic applications faster and with more functionality
• Web-based content sharing
  • Hierarchical text pages
  • Editable data grids
• Interactive Reports
• Mark-up syntax with SQL Tags
• Designed for Business Users
• Incorporates “sharing” model (Reader, Contributor, Admin)
  • Integrated annotations (attachments, tags, notes, links)
Websheets

1. Application Controls
2. Search
3. Section Content
4. Pages
5. Navigation
6. Annotations
7. Data Visualization
Application Controls

• Ever-present application controls for quick access to:
  • Home Page
  • Page Directory
  • Page History
  • Data Grids
  • Reports
  • Annotations

• Additional Controls for Administrators
Websheets

Search

• Search for specific strings in application
• Checks page content, files, tags, notes and data grids
• Click the search result item to go directly to that content
• Send email with link to search results, or send search result page content in email body
Section Content

• Sections can be text, navigation, data or charts
• Text sections can be straight text or formatted HTML
• Toolbar allows to quickly add in lists, links, images, colored text, and more, all using the WYSIWYG editor
• Use of markup syntax allows to embed images, links, reports and data grids
• Toggle to the source view to access the HTML source
Websheets

Pages

• Websheet application can have multiple pages
• Create new pages from scratch or copy an existing page if similar content or structure is needed
• Pages organized in a page hierarchy
• Access via page directory, links to peer- and child pages and links from other pages
Navigation

• Breadcrumbs provide context and aid in navigation to parent pages
• Pages display a list of both child and peer pages
• Page directory displays each page within the application along with details on creation and last update
• Page navigation tree
• Section navigation
Annotations

• Include annotations with pages or rows in data grid
  • Files: Upload files for download or to display as an inline image within section text
  • Notes: Include obvious and usually temporary notes specific to the content
  • Tags: Include tags to aid in searching
  • Links: Include URL links for a data grid row
Websheets

Data Visualization

• Data sections expose data from a data grid or report and can contain just a subset of the data by using a saved report that applies a specific filter

• Chart sections display content of a data grid or report as a column-, horizontal bar, a pie- or line- chart

• Charting functions include sum, average, minimum, maximum and count

• Data always retrieved in real-time, so pages are always current instead of being an aging snapshot

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Data Grids

- Declaratively defined and edited collections of data
- Create Data Grid from scratch, by defining the columns you need, or by copying and pasting from a spreadsheet
- Data grids can be displayed on a page using the 'datagrid' markup syntax
Websheets

Administration

• Monitor activity
• Update the application properties
• Manage Access Control
• Configure Authentication schemes:
  • Public access (no authentication)
  • Application Express Accounts
  • Oracle Single Sign-On
  • LDAP
  • Custom authentication scheme
## Websheets vs Database Applications

<table>
<thead>
<tr>
<th>Page Content</th>
<th>Websheet Applications</th>
<th>Database Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Managed and maintained by users</td>
<td>Created and deployed by developers for end-users</td>
</tr>
<tr>
<td>Database Objects</td>
<td>Automatically managed (APEX$ tables)</td>
<td>Manually created tables</td>
</tr>
<tr>
<td>Primary Key</td>
<td>Automatically managed</td>
<td>Triggers and sequences</td>
</tr>
<tr>
<td>Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Validations</td>
<td>Defined using runtime UI</td>
<td>Created using wizards</td>
</tr>
<tr>
<td>Report Layout</td>
<td>Defined using runtime UI</td>
<td>Created using SQL</td>
</tr>
<tr>
<td>List of Values</td>
<td>Defined using runtime UI</td>
<td>SQL or Static</td>
</tr>
<tr>
<td>Form Layout</td>
<td>Column groups</td>
<td>Items and regions</td>
</tr>
<tr>
<td>Look and Feel</td>
<td>Basic control</td>
<td>Themes and templates</td>
</tr>
</tbody>
</table>
DEMONSTRATION

Websheets
Team Development

• Project Management solution for Oracle Application Express development projects
• Tracks features, to do's, milestones, and bugs
• Tight integration with Oracle Application Express allows for adding direct links between team development entries and specific applications and pages
• End user feedback can be captured and converted to features, to do's, and bugs
Team Development

1. Features
2. Milestones
3. To Do’s
4. Bugs
5. Feedback
Team Development

Features

• Track functionality from initial conception through implementation
• Track software features by release
• Assign features to developers
• Associate status with milestone
• Assign to do entries against features
Team Development

Milestones

• Define the important dates within an application development release
• Organize software development milestones by release
• Associate and track milestones with bugs, features, and to do entries
Team Development

To Do’s

• Action items that can be assigned, prioritized, tagged and tracked
• Associate with features
• Assign and track by developers
• Associate with application pages
• Manage activities required to complete a feature
Team Development

Bugs

• Track software defects
• Track software bugs by developer, release, milestone and application page
• Create bugs based on feedback provided by end users
• Manage and report on bugs
Feedback

• Solicit input from users of an application
• Streamlines the development process by structuring information from end users, making it useful to developers.
• Captures the context of the application at the time the feedback was reported making it easy for developers to see things like what page was being accessed and what browser was being used
• Synchronize feedback between environments
**Oracle Application Express Momentum**

- Developer community - 80k+ downloads / year
- apex.oracle.com – 4m page views / week
- Active Discussion Forum – 4.6 m views, #3 on OTN
- 100 Consulting companies, 60 BLOGs, 10 Hosting Partners
- User Groups: 30 @OOW-09, 40 @ODTUG, APEXposed
- User interface for Oracle Store and Oracle Audit Vault
Oracle Application Express Books
Oracle Application Express Bloggers

Joel Kallman
Marc Sewtz
Patrick Wolf
Dimitri Gielis

David Peake
John Scott
Scott Spendolini
Doug Gault

Dietmar Aust
Francis Mignault
Denes Kubicek
Carsten Czarski
Information:
http://otn.oracle.com/apex

Hosted Development:
http://apex.oracle.com
SOFTWARE. HARDWARE. COMPLETE.