

APEX for PL/SQL Developers

APEXPosed - 2010



A scenic view of a modern city skyline across a body of water, featuring several tall skyscrapers and palm trees in the foreground. The water is calm, reflecting the blue sky and the buildings. In the foreground, there are several palm trees and some greenery. The city skyline includes a prominent blue and white building, a tall grey skyscraper, and several other modern buildings. The sky is clear and blue.

Kscope11 offers the best content and most sessions on these topics than any other conference

APPLICATION EXPRESS: Infrastructure/Management, Plugins & Dynamic Actions, Security, Introduction, Integration & Migration, Core Functionality

DATABASE DEVELOPMENT: Design/Data Modeling, Coding, Maintenance, Best Practices

MySQL: Architecture, Performance Tuning & Optimization, Development & Coding, Best Practices, Case Studies

- 250+ Sessions
- Hands-on Training
- All-day Symposiums
- Product Updates
- Lunch & Learn
- Vendor Showcase
- One-on-one time with Oracle Experts
- Networking events everyday



About Dimitri Gielis

- Director & Co-Founder of APEX Evangelists / Sumneva
- 12+ years of Oracle Experience
- OBUG APEX SIG Leader
- ‘Dimitri.Gielis@AE’ in the APEX forums
- Presenter at ODTUG, OOW, UKOUG, OBUG, ...
- OCP 8i/9i/10g + APEX Certified
- Oracle ACE Director
- “APEX Developer of the Year 2009”
- Blog @ <http://dgielis.blogspot.com>

ORACLE®



Dimitri Gielis 🎖️

Oracle ACE Director



Agenda

- Quick intro about what APEX is
- The APEX architecture and building blocks
- APEX Live Demos
- Use your skills to make the APEX community happy
- What makes an application successful?



About APEX



Copyright © 2010 Apex Evangelists
<http://apex-evangelists.com>

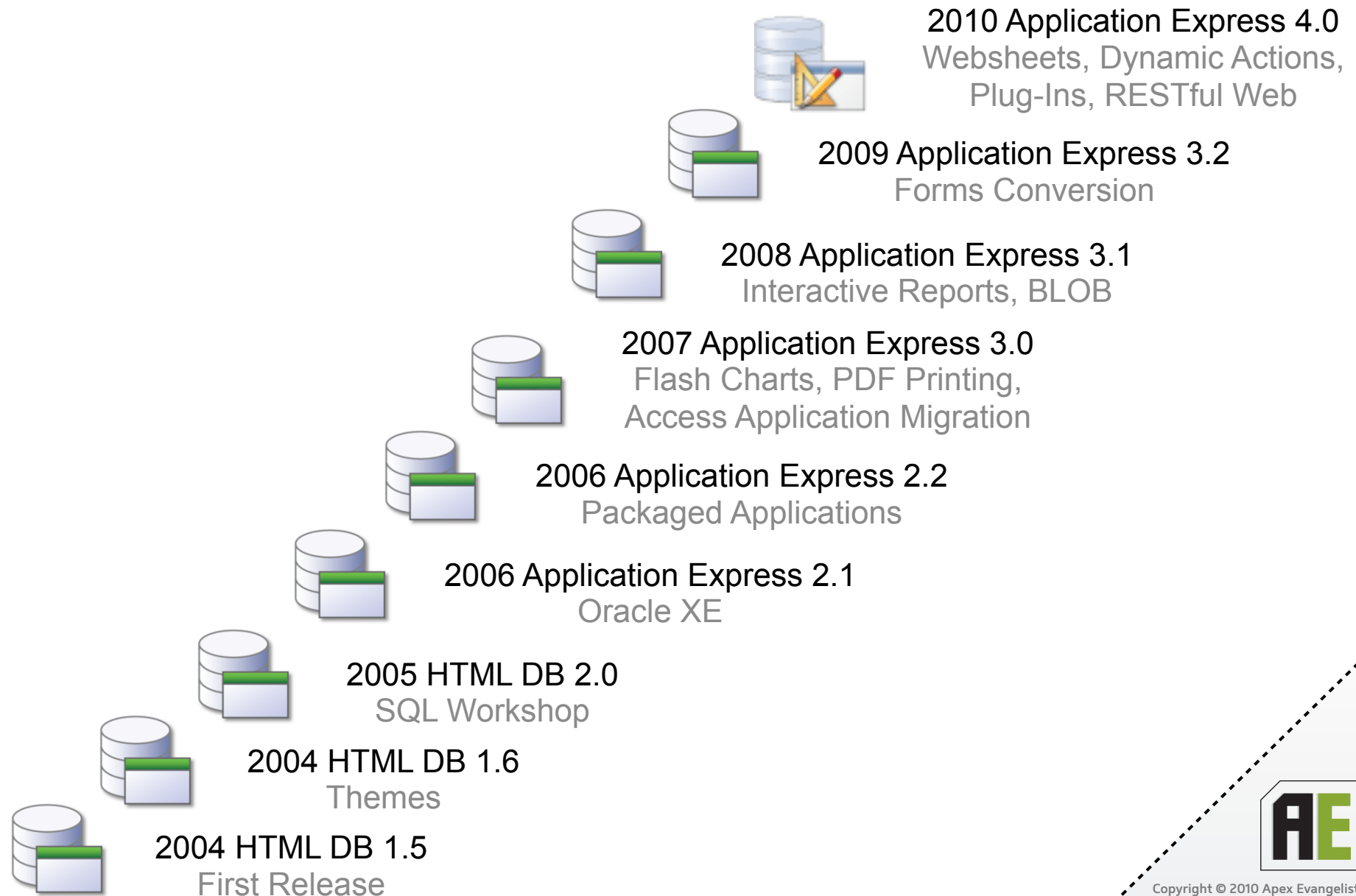
About Oracle Application Express (APEX)

- Fully supported, “no-cost” component for all editions of the Oracle Database
- Rapid Application Development (RAD)
- Browser based Application Development
- Declaratively build Web 2.0 applications
- Leverages Oracle database, SQL and PL/SQL
- Self Service Provisioning / Private Cloud

Database-centric Web Application Development Tool



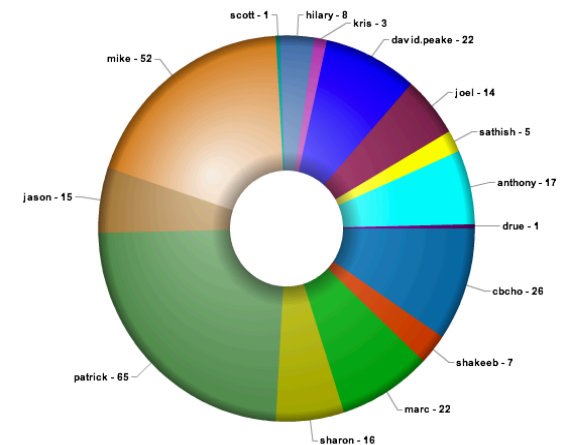
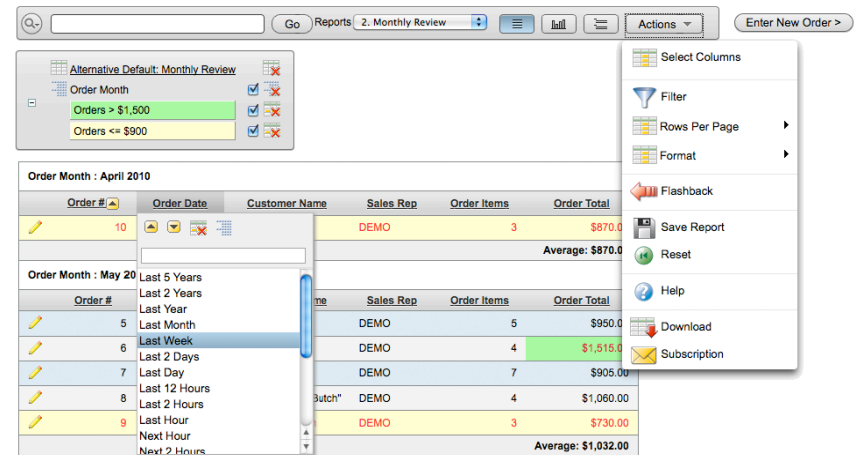
Oracle APEX Release History



Copyright © 2010 Apex Evangelists
<http://apex-evangelists.com>

Oracle Application Express (APEX)

- Reports
- Calendars
- Charts
- Application Logic
- Leverage SQL and PL/SQL



```

Select channel,
       sum(sales)
from sales
where quarter = :b1
group by channel
    
```

February 2010

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
01	02	03	04	05	06	07
08	09	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	01	02	03	04	05



Interactive Reports

- Out of the box declarative Web 2.0 reporting
- Dramatically enhances end-user capabilities

The screenshot displays a web-based reporting interface. At the top, there is a search bar, a 'Go' button, and a 'Reports' dropdown menu currently set to '2. Monthly Review'. To the right of the dropdown are icons for a menu, a bar chart, and a list. Further right is an 'Actions' dropdown menu and a button labeled 'Enter New Order >'. Below the top bar, on the left, is a panel for 'Alternative Default: Monthly Review' with a tree view showing 'Order Month' expanded to show filters: 'Orders > \$1,500' (checked) and 'Orders <= \$900' (checked). The main content area shows a table for 'Order Month : April 2010'. The table has columns: Order #, Order Date, Customer Name, Sales Rep, Order Items, and Order Total. The first row shows Order # 10, DEMO, 3 items, and a total of \$870.00. Below this row is a summary row for April 2010 with an average of \$870.00. To the left of the table, there is a sidebar for 'Order Month : May 20' with a list of time-based filters: Last 5 Years, Last 2 Years, Last Year, Last Month, Last Week (highlighted), Last 2 Days, Last Day, Last 12 Hours, Last 2 Hours, Last Hour, Next Hour, and Next 2 Hours. A dropdown menu is open for the 'Order Date' column, showing these options. On the right side of the table, an 'Actions' dropdown menu is open, listing: Select Columns, Filter, Rows Per Page, Format, Flashback, Save Report, Reset, Help, Download, and Subscription. The table continues with more rows for May 20, showing various orders and their totals, ending with a summary row for May 20 with an average of \$1,032.00.

Order #	Order Date	Customer Name	Sales Rep	Order Items	Order Total
10			DEMO	3	\$870.00
					Average: \$870.00
Order Month : May 20					
Order #	Order Date	Customer Name	Sales Rep	Order Items	Order Total
5			DEMO	5	\$950.00
6			DEMO	4	\$1,515.00
7			DEMO	7	\$905.00
8		Butch"	DEMO	4	\$1,060.00
9			DEMO	3	\$730.00
					Average: \$1,032.00

New In Oracle Application Express 4.0



Dynamic Actions



Team Development



Plug-ins



Enhanced
Interactive Reports



RESTful Web
Service Support



Improved
Charting



Famous Oracle APEX Application

The screenshot shows the 'Ask Tom Home' Oracle APEX application. The browser address bar displays 'http://asktom.oracle.com/pls/apex/f?p=100:1:0'. The application has a navigation menu with links for Questions, Resources, Archives, Links, Popular, Hot, and Files. A search bar is present with a 'Go' button and an 'Advanced Search' link. A table lists recent questions with columns for Subject, Last Updated, and First Asked. To the right, there are sections for 'New Books' featuring 'Expert Oracle Database Architecture' and 'Effective Oracle by Design' by Thomas Kyle, with Amazon purchase links. A 'Feeds' section is at the bottom right. A message at the bottom left states: 'All of the content that used to be located at http://asktom.oracle.com/tkyte/ is now here: http://tkyte.blogspot.com/2009/10/httpasktomoraclecomtkyte.html'. Another message mentions a new blog theme: 'It has started again - that blogging thing... Current theme is "things I did not know (about Oracle)".. Take a look at my blog and give me feedback. Things I did not know - interesting things I've learned day to day about the Oracle database.'

Ask Tom Home

http://asktom.oracle.com/pls/apex/f?p=100:1:0

Ask Tom Home

Questions Resources Archives Links Popular Hot Files

Home

Times are in Central time zone (GMT-05:00)
In the last 4 weeks, I've taken 17 new questions, read 353 followups, and responded to 240 of the followups

Search Display 15 [Advanced Search](#)

Subject	Last Updated	First Asked
Transactions per second	95 minutes ago	10.1 years ago
What are Fixed Size and Variable Size of SGA indicative of and...	3 hours ago	9.5 years ago
Does UTL_MAIL have an attachment limit of 32k	3 hours ago	2.9 years ago
using explain plan	3 hours ago	10.4 years ago
Application contexts in a web environment	3 hours ago	8 years ago
Partitioning existing tables	3 hours ago	2.3 years ago
Effective Upgrade Strategy	8 hours ago	30 hours ago
rownum question	9 hours ago	10.4 years ago
global temp table	9 hours ago	6.6 years ago
Question on Using Ref Cursor	9 hours ago	8.2 years ago
Dropping and recreating indexes using dynamic DDL	9 hours ago	45 hours ago
Fetching last record from a table	9 hours ago	9.2 years ago
Data Extraction into files	22 hours ago	24 hours ago
Joining data in historical tables	22 hours ago	24 hours ago
Intermittent commits	22 hours ago	30 hours ago

1 - 15 [Next >](#)

Messages

- All of the content that used to be located at <http://asktom.oracle.com/tkyte/> is now here: <http://tkyte.blogspot.com/2009/10/httpasktomoraclecomtkyte.html>
- It has started again - that blogging thing... Current theme is "things I did not know (about Oracle)".. Take a look at my blog and give me feedback. Things I did not know - interesting things I've learned day to day about the Oracle database...

Sorry I have a large backlog right now, please ask a question later.

Click [here](#) to view your questions.

New Books

All of the content that used to be located at <http://asktom.oracle.com/tkyte/> is now here: <http://tkyte.blogspot.com/2009/10/httpasktomoraclecomtkyte.html>

[Expert Oracle Database Architecture](#)
Thomas Kyle
Best Price \$34.44
or Buy New \$37.79
[Buy from amazon.com](#)
[Privacy Information](#)

[Effective Oracle by Design](#)
Thomas Kyle
Best Price \$19.60
or Buy New \$38.60
[Buy from amazon.com](#)
[Privacy Information](#)

Feeds

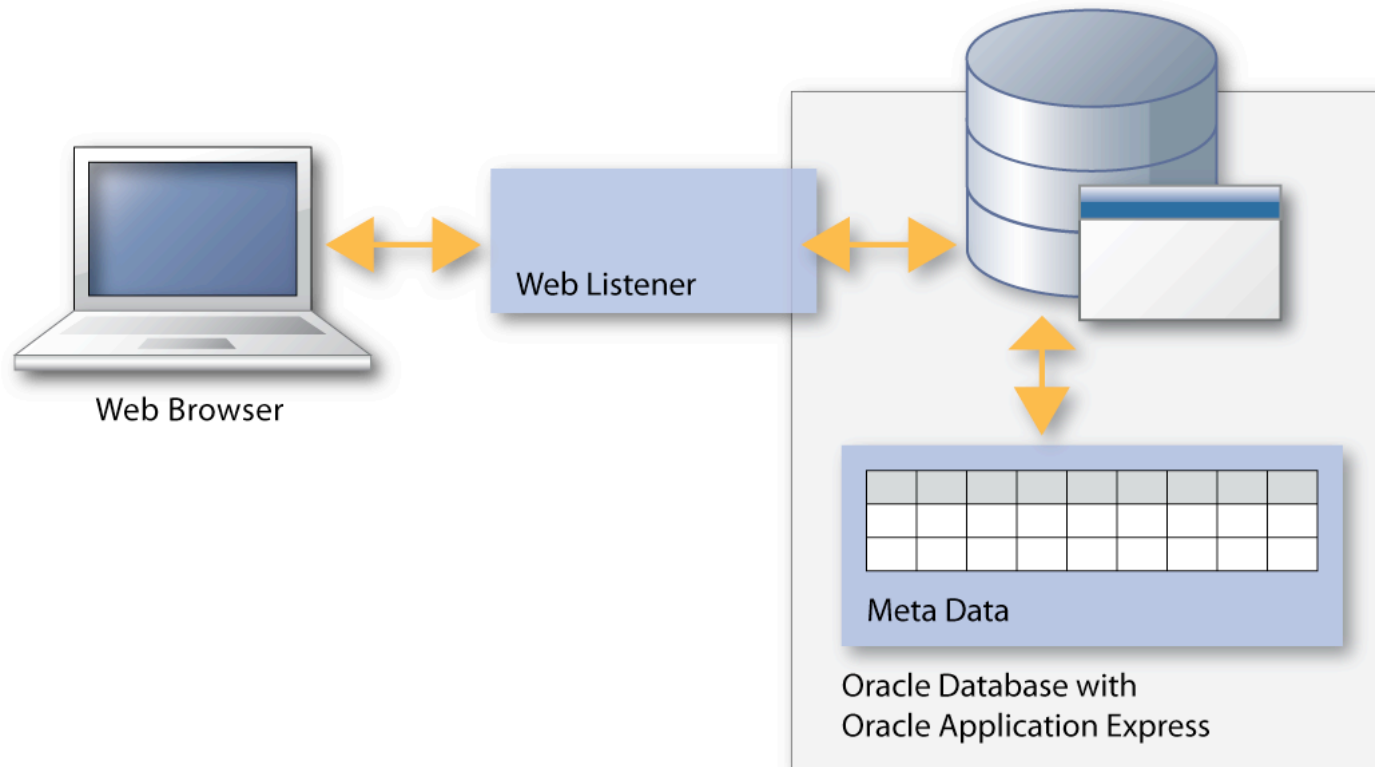


APEX Architecture



Copyright © 2010 Apex Evangelists
<http://apex-evangelists.com>

Architectural Overview



- Simple Architecture
- Pages dynamically rendered using database Metadata
- No code generation or file based compilation
- Runs Everywhere Oracle Database Runs



Benefits Of Oracle APEX

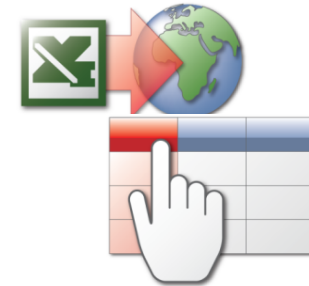
No Cost



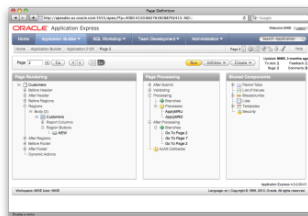
In Browser Development



RAD



Declarative Web 2.0 Leverage SQL



Self Service



Building Blocks Of APEX

- SQL and PL/SQL - SQL Developer, PL/SQL Developer, TOAD
- HTML, Javascript, CSS - Browser, Firebug, Css editor, ...
- 3rd Party integration e.g. Anychart
- Oracle Database Features



APEX

DEMONSTRATION



How can you use your skills



Your Skills And APEX

- PL/SQL is the foundation of everything in APEX...
- If you want to extend an APEX application, you do that with Plugins
- Plugins are just PL/SQL!!



What makes an application successful?



Visually Pleasing

- Oracle APEX user interface
 - Themes
 - Comprised of templates
 - Oracle supplies many, you can develop your own
 - Technologies
 - Image sprites, CSS 3, XHTML Strict
 - Cross browser compatibility
 - jQuery
 - Modernize applications by switching themes
- Separation of look and feel and application logic



Fast

- Runs within the database
 - Application logic and data on same tier = less network traffic
 - Leverages database functionality; SQL, bind variables, result set caching, RAC, analytics, DB buffer cache, ...
- Stateless
 - Session state maintained within database
 - Sessions not processing or generating pages have zero load on the server
- Scalable
 - Scales up to large systems with 100,000's of online users



Run Everywhere

- Browsers
 - Firefox, IE, Safari, Chrome
- Mobile
 - iPhone, iPad, Android
- Operating Systems
 - Everywhere Oracle runs, Solaris, Windows, Linux, HP-UX, AIX ...
- Hardware
 - From laptops to clusters of large SMP's to Exadata



Intuitive

- Clear navigation and page flow
- Obvious indication of application context
- Intuitive controls
- Easy for the novice
- Full featured for power users

Dynamic

- Real time data access
- Ability to customize
- Edit data online
- Localization
- Secure role aware applications



Oracle Application Express (APEX)



Dynamic

Intuitive

Summary

- If you know PL/SQL you can do a lot in APEX and the learning curve is nothing - get your code alive!



Q&A



<http://apex-evangelists.com>