

EXPLORER
SOLVE DEVELOP SUPPORT

Choosing the right report and features to give your users when presenting data in an APEX application

Paul Jones

ORACLE Platinum Partner



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We Solve Problems with Oracle Technology

We Develop Bespoke Applications

We Support our Customers



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Who am I?

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Paul Jones

- APEX Development Consultant
- Many years experience in Oracle Database technologies.
- Trainer, Speaker, Blogger, Consultant & Developer.
- Promote Oracle APEX
- Care a lot about user experience



apëks
Heracles



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Reason for presentation?

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A long time ago at a UKOUG conference far far away...



“Be sensible with enabled options on Reports”



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Reason for presentation cont..

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How sensible? What would you recommend?



“Give them what they need and don't create issues for yourself” **Paul Jones**

Is that fair?



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Who is this presentation for?

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- People already using APEX
 - Analysts
 - Designers
 - Developers
 - Managers
 - Decision makers
 - Testers
 - End Users
- People considering APEX



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Agenda

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- Definition
- Creating a report in APEX
- Report types in APEX applications
- Settings, Options and Attributes
- Common Problems
- Solutions and Suggestions
- Summary



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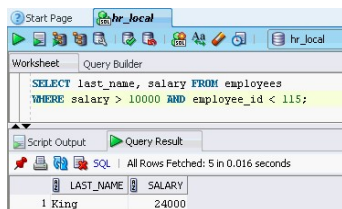
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Definition

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“In Oracle Application Express, a report is the **formatted** result of a SQL query”

[Application Express App Builder User's Guide](#)



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Creating a report in APEX

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1. Define your **Application**

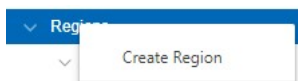


Create

2. Create a **Page**



3. Add a **Region**



The region is the Report

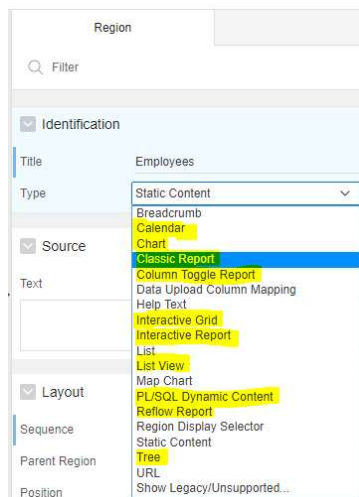
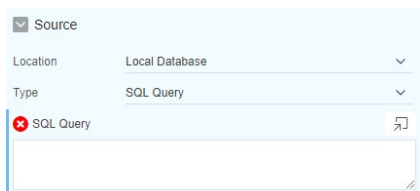


Creating a report in APEX cont.

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4. Region **Type** determines how the report will (initially) look in the application.

5. Enter the **source**



Built in Report Types in APEX

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- **List View** – Display results as a list
- **Classic Report** – Default report type for displaying table data
- **Column Toggle Report** – Similar to CR but allows the user to easily select which columns to show (mobile!)
- **Reflow Report** – Also similar to CR but adjusts presentation depending on screen size (mobile!)
- **Interactive Report** – A step up from a CR with more built in features
- **Interactive Grid** – A step up from an IR which also allows updating
- **Chart** – Oracle JavaScript Extension Toolkit (JET) Data Visualizations
- **Tree** – An organisation chart with a tree structure
- **Calendar** – Displays results in a configurable full calendar
- **PL/SQL Dynamic Content** – Use PL/SQL to write HTML Output



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Demonstration



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Report Types - Summary



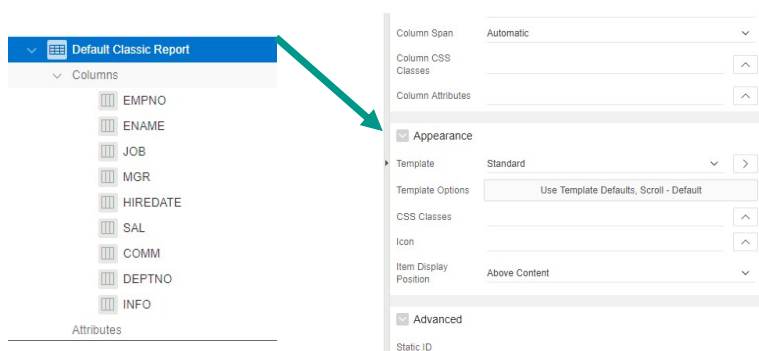
- Very quick and easy to present **data**
- Lots of different **types** covering most scenarios
- Powerful built in **features**
- Easy to **maintain**
- Fully **supported**



Settings, Templates, Options and Attributes



All those report types have a huge amount of settings, templates, options and attributes available which change the users experience.



- Source
- Layout
- Appearance



Settings, Templates, Options and Attributes cont.



Column Parameters.

- Type
- Heading
- Alignment
- Layout
- Appearance
- Formatting
- Features
- Conditions
- Security



Settings, Templates, Options and Attributes cont.



Attributes

- Link Column
- Appearance
- Template
- Pagination Options
- Messages
- Options for report type
- Download
- Printing



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Demonstration

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Settings, Templates, Options and Attributes - Summary

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- They **control** how the report looks and behaves
- Very quick and easy to **change** how data is displayed
- Almost infinite ways to **configure** a report
- Experiment, **learn**, spot patterns
- Be **consistent**



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Plug-ins

Most Common Problems with Reports

- Performance
- Data Security
- Usability

- Display Issues
- Errors

Some Solutions

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- Write efficient SQL for the Report Source
 - Indexes, (Materialised) Views
 - Load and volume test
- Use Region Caching
- Make the user filter before displaying data with page items
- Disable filters for large text columns
- Assess which report type and template to use (Look at Sample Apps)
- Be Security Conscious, Hide unique identifiers, use bind variables, escape



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Status: Target x v



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Some Solutions cont.

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- Risk Assess the data
 - Disable Downloads?
 - Disable Copying?
 - Authorization scheme
- Assess the user group who will be using the application
- Only enable a feature if it's required or will add value
- Don't double up features (e.g. a custom report and download enabled), item and column filter
- Assess how the application will be used (mobile, desktop, touchscreen). Condition it!



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Questions you should be asking

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- What information is the user seeking from the data?
- How many rows are currently returned from the source?
- What will this be like when the app is 'Live'?
- How quickly is it likely to grow?
- How technical are the users?
- What devices will this application be viewed on, now and in the future?
- Is the Data confidential?



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Summary

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- The built in reporting capabilities of APEX are **VAST**

“Give them what they need and don't create issues for yourself”

Was that fair?

Probably, but there is more to it...

- We should give the users what they need and the built in features *can* speed that process up.
- Built in features can *potentially* cause a variety of issues though
- Step back and assess the requirements
- Test



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www.explorer.uk.com
Paul.Jones@explorer.uk.com

