

Personalising Oracle Applications using the new Framework of 11.5.10

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Abstract

The Oracle e-business suite (release 11i) introduces capability to allow customers to create tailored versions of screens to meet specific requirements. This paper discusses the personalisation features provided within the Oracle Applications Framework or OAF. OAF is the technology that the applications development teams use to generate the self-service type screens and modules.

Background

While it is not always possible to avoid the need to create a customised version of a particular function or a screen to meet a specific requirement, the number and complexity of the changes can still be reduced or even eliminated by leveraging the latest techniques available in the Oracle E-Business Suite 11i

Oracle now draws a distinction between **configuration**, which provides set up and administrative choices using the native features of the product, **personalisation**, which is about tailoring the User Interface (UI) look-and-feel, layout or visibility of page content to suit a business need or a user preference, and **extension**, which means extending the functionality of the product, normally using the development tools supplied by Oracle.

Configuration

Configuration is the set up and administrative choices using the native features of the product. Some of the configuration examples include:

- Profile Options
- User-defined fields (Flexfield)
- Functional Security Set Up
- Data Security Set Up
- Menus
- etc

Personalisation

Personalisation is about tailoring the UI look-and-feel, layout or visibility of page content to suit a business need or a user preference. Some of the personalisation examples include:

- Tailor the order in which table columns are displayed.
- Tailor a query result.
- Tailor the colour scheme of the UI.
- Folder Forms
- Forms Personalisation

Extension

Extension is about extending the functionality of an application beyond what can be done through personalisation. Some of the extensibility examples include:

- Add new functional flows
- Extend or override existing business logic

Personalisation Options within OAF

Definable User Interface

The Oracle Applications Framework supports the concept of durable personalisations which means that the changes made to screens will survive upgrades and patches. This is because the changes made to the look and feel of the user interface (the UI) are defined by the user and held in the database.

The layout and structure of screens are stored in a database repository called Metadata Services (MDS). Personalisations to the standard screens are held as offsets from the base metadata definition. At runtime the various applicable personalisation data is loaded from the repository and added to the base definition to produce the personalised result. Product upgrades and patching only affect the base metadata definition, allowing customer personalisations to continue functioning.

Personalisation Levels

Personalisations can be implemented at several levels by three types of users:

- Application developers
- Application administrators
- End users

Administrator personalisations

Application administrators and application developers have the flexibility to tailor user experience at several levels. They can author personalisations that affect all users, users of a particular organisation, users with a particular role and in the context of a particular function. The following areas can be personalised by the administrator:

- Change number of rows displayed in a table.
- Change product branding (image).
- Hide or show regions and items.
- Change layout order of regions and items
- Define up to three sorting levels for tabulated data.
- Filter (restrict querying of) tabular data.
- Change item labels and region headers.
- Change required state of non-mandatory items.
- Update allowed state for updateable items.
- Enable totals for table columns, when applicable.
- Alter the item cascading style sheet (CSS) - to personalise the look and feel of an item.
- Set a default value for an item.
- Define tips (in line instructions and usage help) for associated items.
- Add new items to an existing region. Typically, as part of an extensibility project, where new items are limited to specific styles.

End-User Personalisations

End-user personalisations can be applied to particular user interface components and are only visible in the context of the implementing user.

Unlike Administrators, Users can create and save several personalised views that can be retrieved conveniently at a later time. That said, end-user personalised views are limited in scope to Query regions with search results tables. For these regions, end-users can personalise any of the following features:

- Change the number of rows displayed in a table.
- Hide or show regions and items (results table columns are a popular example).
- Change the layout order of regions and items within the boundaries of the parent region (order of results table columns are a popular example).
- Define up to three sorting levels for tabulated data.
- Filter (restrict query) tabular data.
- Change item labels and region headers.
- Enable totals for table columns, when applicable.

Typical Personalisations

Look and Feel (Skins)

The OA Framework (with 11.5.10.2) provides a tool to change the overall look and feel of the web pages. Before 11.5.10.2 this could be achieved by creating a custom style sheet (xss file). With 11.5.10.2 this is all managed by a self service user interface - what is more you can create several different look and feel templates and assign them at the application, responsibility, site, organisation and user levels (much like profile options).

Oracle supplies the application with a look and feel known as BLAF (Browser Look and Feel) as the default template. This customise look and feel tool allows you to create a look and feel that reflects the colour scheme, font and font sizes of your corporate internet and intranet. This is especially important if you are using any of the customer/supplier facing applications such as Sourcing, iReceivables, iSupplier Portal, iStore etc.

Personalising Pages (Administrator)

The OA Framework includes a tool set known as the OA Framework Personalisation Framework that allows you to personalise an application page without having to create custom code. Personalisations are held as meta data in the database and, like look and feel templates, can be applied at the application, responsibility, site, organisation and user levels. Page personalisations are added on top of the base page meta data. Personalisation data never overwrites the seeded base data and therefore is preserved during the upgrade/patch process. The typical types of changes that you are likely to want to implement include:

- Hide Fields
- Change labels
- Change Field/Region Order
- Add instruction text items
- Add URL type links
- Make field mandatory
- Default field value

- Create personalised view (same as folder form concept in forms-based applications)

Depending on the type of page to be personalised you will have one of two ways to create or edit the page.

Page Layout Personalisation

As the name suggests this presents the page to the administrator as it would be on the screen to the user (WYSIWYG). This option is only available if the page you are personalising is a configurable page. This page is a visual launch pad from which you can personalise a page or region. It provides a boxed preview of the flexible layout structure within your page and displays controls that take you to different pages or flows where you specify and apply your actual personalisations.

Page Hierarchy Personalisation

If the page you are personalising is not a configurable page (most pages are of this type), you will be taken to a different page to edit/create your personalisations. Like the Page Layout Personalisation page, the Page Hierarchy Personalisation is also a launch pad for personalisation options, but it displays the entire structure of the page in a Hierarchy table, rather than as a visual boxed layout.

Personalise Pages (User)

Users also have the ability to personalise certain pages. The ability to define user personalisations is controlled at the application level. In other words it is designed in by the relevant development team.

User personalisations are restricted to tables. Tables and table level personalisations are the equivalent of folder forms in the forms based applications. Users can create multiple definitions and define a default view to open when the page is first opened. The elements that can be personalised with this feature include:

- Table column names
- Sorting options
- Totalling Options
- Date Filter Options

For example, an end user may save an employee search result sorted by manager and choose to hide the employee's date of birth column. The result is called a view and is given a name by the user. The user can retrieve that view again in the future by name.

NOTE: It is possible through the administration personalisation screens to define and manage site-wide personalisations and defaults for all users or groups of users just as you can with the folder form administration function.

Configuration Management

The personalisation data is held in the database as meta data. Best practice is to build and test your personalisations in a test system before migrating them to production. It is important to do this because the personalisation feature is comprehensive and it is possible to define personalisations that do not function as expected. So always test first. But copying these personalisations from one system to another can be problematic.

The good news is that both Admin-level and User-Level personalisations may be extracted from one database and loaded into another. This allows you the freedom to create and test personalisations in a test database before deploying the personalisations to a production instance. Starting in OA Framework 11.5.10.2, you can use the new Import/Export feature in the Functional Administrator responsibility to deploy your personalisations. Prior to 11.5.10.2 it is still possible to copy personalisations from one system to another but you need to run some scripts to manage this process.

Conclusions

The Oracle Applications Framework provides an extremely flexible platform for personalising the look and feel of the standard applications shipped by the Oracle development team. Power users can implement these personalisations with little or no understanding of programming techniques.

Form level personalisations combined with look-and-feel personalisations allow your team to develop an overall solution for your organisation whether the application be used internally or externally.

There are limits to the extent of personalisations. Moving beyond these boundaries does involve development tools and expertise. Extensions to forms functionality is supported through Jdeveloper (with the OAF extension). These extensions are also supported through upgrades and allow your team to create new or extended versions of screens with additional fields, formulae, sophisticated defaulting and validation etc.

Further Reading

NOTE: 268969.1 Oracle Framework Personalization Guide (OA Framework 11.5.10)

NOTE: 269138.1 Oracle Application Framework Developer's Guide Release 11i (11.5.10)