

Screen Rendering in Apache OFBiz : Different Ways to Make it Future-Proof



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Summary

- I – Julien NICOLAS & Nicolas MALIN
- II – The purpose
- III – How it works in OFBiz
- IV – Feedback
- V – A tiny reorganization for best practices
- VI – Graphics charter
- VII – How to do it ?
- VIII - Conclusion



I - Julien & Nicolas



Nicolas MALIN & Julien NICOLAS

Standard, enhancement, and community



II - Purpose

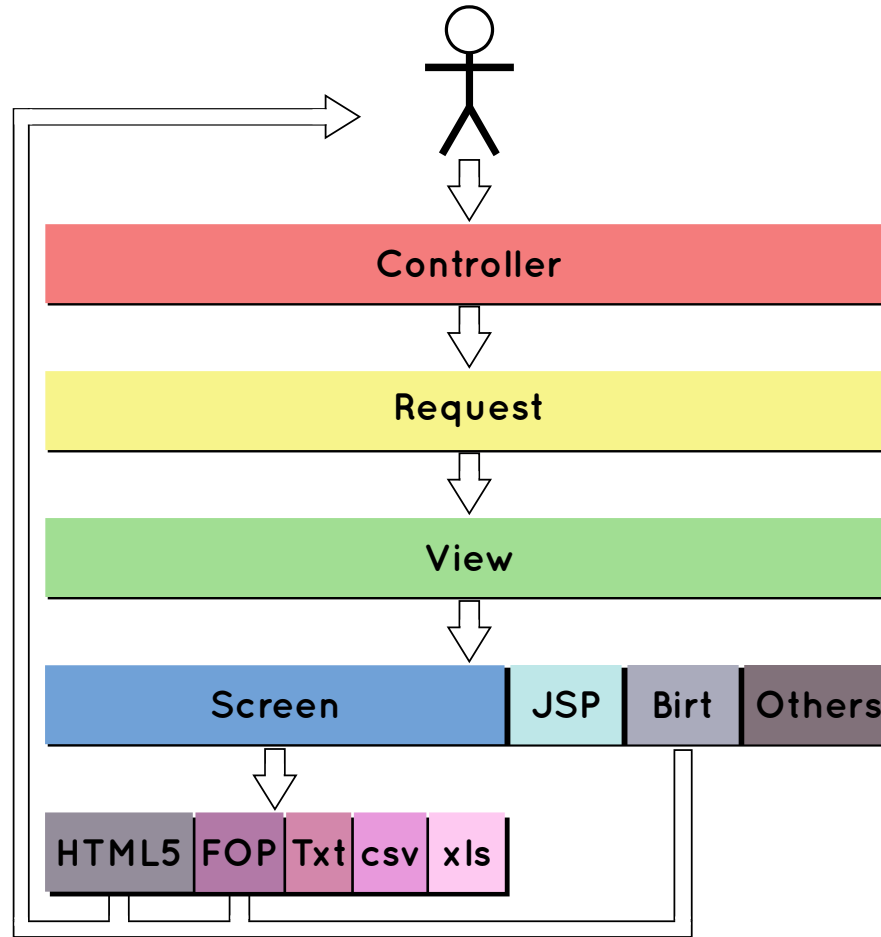


II - Purpose





II - Purpose - Why this purpose



Screen Rendering in Apache OFBiz :
Different Ways to Make it Future-Proof



III - How it works in OFBiz



III – How it works in OFBiz

- Screen is not screen
- FTL
- Model form, make your macro FTL
- Themes



III – How it works in OFBiz – screen is not screen

Marketing Manager Application

Welcome to the Marketing Manager!

```
} ... <screen name="PartyPersonTreeLine">
}   <section>
}     <widgets>
}       <label text="{partyAndPerson.firstName} {partyAndPerson.lastName}"/>
}     </widgets>
}   </section>
} </screen>
```



III – How it works in OFBiz – screen is not screen

Personal Information

[Update](#)

Personal Image Personal Image
Party Id E10000
Name Nicolas Malin
Comments
External Id
Status ID Enabled

Contact Information

[Create New](#)

Contact Type Contact Information **Soliciting OK?**

Email Address **Primary Email Address**

nicolas.malin@nereide.fr
[send email](#)

[Update](#)
[Expire](#)

(Updated: 2014-01-22 15:49:57.284)

List Related Accounts

From Party ID

Current Employment information

Company Embisphere SAS
[EMBI_FR]

Position []
Salary

User Name(s)

[Create New](#)

User Login	Syteme	ENABLED	Edit SecurityGroups
User Login	mnicolas-emb	ENABLED	Edit SecurityGroups
User Login	systeme	ENABLED	Edit SecurityGroups
User Login	mnicolas	ENABLED	Edit SecurityGroups

Party Attribute(s)

[Create New](#)

```
<section>
... <widgets>
... <container style="profile-left">
... <include-screen name="Party" location="component://party/widget/partymgr/ProfileScreens.xml"/>
... <include-screen name="Contact" location="component://party/widget/partymgr/ProfileScreens.xml"/>
... <include-screen name="contactsAndAccounts" location="component://party/widget/partymgr/ProfileScreens.xml"/>
... <include-screen name="trainingsList"/>
... </container>
... <container style="profile-right">
... <include-screen name="CurrentEmploymentData" location="component://humanres/widget/EmployeeScreens.xml"/>
... <include-screen name="UserLogin" location="component://party/widget/partymgr/ProfileScreens.xml"/>
... <include-screen name="Attributes" location="component://party/widget/partymgr/ProfileScreens.xml"/>
... <include-screen name="Content" location="component://party/widget/partymgr/ProfileScreens.xml"/>
... <include-screen name="Notes" location="component://party/widget/partymgr/ProfileScreens.xml"/>
... </container>
... </widgets>
</section>
```



III – How it works in OFBiz – screen is not screen

Accounting Accounting - AP Accounting - AR Asset Maint Catalog Content Facility **HR** Manufactur

Main Employees Employments Employee Position Performance Review Skills Qualifications Recruitment Training Employment Applications

Find Party Skills

New Party Skill

Search Options

Party Id

Skill Type Id

Years Experience

Skill

Started Using

Search Results

Skill Type Id

```
<screen name="CommonTrainingDecorator">
  <section>
    <actions>
      <property-map resource="HumanResUiLabels" map-name="uiLabelMap" global="true"/>
      <set field="headerItem" value="Training"/>
    </actions>
    <widgets>
      <decorator-screen name="main-decorator" location="{parameters.mainDecoratorLocation}">
        <decorator-section name="pre-body">
          <include-menu name="TrainingTypeMenu" location="component://humanres/widget/HumanresMenus.xml"/>
        </decorator-section>
        <decorator-section name="body">
          <decorator-section-include name="body"/>
        </decorator-section>
      </decorator-screen>
    </widgets>
  </section>
</screen>
```



III – How it works in OFBiz – screen is good enough

- Easy and fast to develop
- Easy to maintain
- Help to build flexible screen



III – Main OFBiz rendering : Forms





III - Freemarker - 1

Orders <input type="text" value="57885"/>	Order Creation Date From <input type="text"/> To <input type="text"/>
Customer <input type="text" value="Party ID, Customer Name"/>	Requested Date From <input type="text"/> To <input type="text"/>
Supplier <input type="text" value="Tag Provider"/>	PO Status <input type="checkbox"/> Created <input type="checkbox"/> Approved <input type="checkbox"/> Completed <input type="checkbox"/> On Hold <input type="checkbox"/> Canceled
Product Store Group <input type="text" value="--"/>	Agent IB <input type="text" value="Agent ID, firstname, lastname"/>
Sales Invoice <input type="checkbox"/> In Progress <input type="checkbox"/> Approved <input type="checkbox"/> Canceled <input type="checkbox"/> Posting Ready <input type="checkbox"/> Sent	

<< < 1 > >> 20 Items per page Displaying 1-4 of 4 Orders

Orders	Sales Orders	Invoice status	Payment status	Purchase Order Supplier	Purchases Orders
	Order Status				Order Status
6/16/16	Completed N/A 6/23/16 -6/22/16	334 (3) N/A 33.7 USD	N/A N/A 0	FDC357885	Completed N/A 6/23/16 -6/22/16
10/12/15	Completed N/A 10/19/15 -10/14/15	4,150 (5) N/A 417.49 USD	N/A N/A 0	FTC257885	Completed N/A 10/19/15 -10/14/15
12/15/14	Completed N/A 12/22/14 -12/18/14	20,000 (1) N/A 11906.38 CNY	1/18/15 N/A 0 CNY	CT157885	Completed N/A 12/22/14 -12/18/14
2/27/14	Completed N/A 3/6/14 -3/1/14	30 (7) N/A 3.56 USD	N/A N/A 0	FTC57885	Completed N/A 3/6/14 -3/1/14



III - Freemarker - 2

NOS BONS PLANS

1954 ARTICLES POUR NOS BONS PLANS

TRIER : Par meilleures ventes

1 / 49 >

Quel sport?

Pour qui?

Que cherchez vous?

Quel type de produit?

Quelle marque?

Quelle couleur?

Quel prix ?

Quelle remise?

LES BONS PLANS

LES OFFRES PAR LOT

LES PANOPLIES

BON PLAN



AJOUTER AU COMPAREUR

★★★★★

DOMYOS ELLIPTIQUE VE 530

À partir de
~~299,99 €~~ -17 %
249,99 €

BON PLAN



AJOUTER AU COMPAREUR

★★★★★

B'TWIN VTT ROCKRIDER 540 PACK ROUGE

À partir de
~~459,99 €~~ -13 %
399,99 €

BON PLAN



AJOUTER AU COMPAREUR

★★★★★

DOMYOS VELO D'APPARTEMENT PLIABLE VM FOLD 6

À partir de
~~299,99 €~~ -17 %
249,99 €

BON PLAN



AJOUTER AU COMPAREUR

★★★★★

ADIDAS HOME GYM ADIDAS

À partir de
~~599,99 €~~ -8 %
549,99 €

PRIX EN BAISSÉ



LOT





III - Freemarker - 3

OpenStreetMap Modifier Historique Exporter Traces GPS Journaux des utilisateurs Droits d'auteur Aide À propos Se connecter S'inscrire

sevilla Aller +

Résultats de la recherche

Résultats de OpenStreetMap Nominatim

- Ville [Séville, Andalousie, Espagne](#)
- Limite de département [Séville, Andalousie, Espagne](#)
- Limite de département [Sevilla, Valle del Cauca, Colombie](#)
- Lieu-dit [La Sevilla, Tudelilla, La Rioja, Espagne](#)
- Lieu-dit [Sevilla, Loarre, Hoya de Huesca / Plana de Uesca, Huesca, Aragon, Espagne](#)
- Lieu-dit [Sevilla, Villanueva de Gumiel, Ribera del Duero, Burgos, Castille-et-León, Espagne](#)
- Lieu-dit [Sevilla, Castrillo de Villavega, Palencia, Castille-et-León, Espagne](#)
- Lieu-dit [La Sevilla, Nogal de las Huertas, Palencia, Castille-et-León, Espagne](#)
- Lieu-dit [Sevilla, San Román de la Cuba, Palencia, Castille-et-León, Espagne](#)

Couches de carte

- Standard Sevilla
- Carte cyclable Sevilla
- Carte de transport Sevilla
- Humanitaire

Autoriser les superpositions pour réparer la carte

- Notes de carte
- Données de carte



III - Freemarker - 4

```
<#include "component://widget/templates/htmlFormMacroLibrary.ftl"/>
<form id="filterOrderFollowup" name="filter_OrderMgmt" method="post" action="@ofbizUrl?orderFollowup@ofbizUrl?LOAD=1"...>
... <div id="blukaction-message-list" class="message-list" style="..."...>
... <div class="tbl-specif nrd-alert-style">
... <div class="tbl-specif-header" id="main-table"...>
... <div class="tbl-specif-body">
... <#assign compteur=0>
<#list orderList as order>
... <#assign compteur = compteur+1>
... <div id="row${order.purchaseOrderId}" data-saleorderid="${order.saleOrderId}" data-purchaseorderid="${order.purchaseOrderId}"...>
... </#list>
... </div>
... </div>
<div class="batch-bar-container">
... <div id="batch-bar-offset"></div>
... <div id="batch-bar"...>
</div>
<div class="modal-screen" id="confirmAction"...>
<div class="modal-screen" id="workInProgress"...>
<input id="actionMessageDropShipment" value="${uiLabelMap.EmbisphereConfirmDropShipmentMessage}" type="hidden">
```



III – Finaly Freemarker

Advantages

- Make it like HTML page
- Do want you have in mind (no limit)

Failures

- Difficult to maintain
- Not easy to have re-using code



III – Model Form 1

Search Products

Keywords:

Category ID:

No Contains Any All

Find

Category ID:

Advanced Search

-Product Jump-

Browse Catalogs/Categories

- Demo Catalog [DemoCatalog]
- Test Catalog [TestCatalog]
- Google Catalog [GoogleCatalog]
- Rental Catalog [RentalCatalog]

Products from this category

No category specified.

CATALOG
STORES
PARTIES
CATEGORIES

NEW PROD CATALOG
CREATE SEO CATEGORY/PRODUCTS

Catalog For "Demo Catalog" [DemoCatalog]

Edit Product Catalog Categories

CATEGORY ID	PRODUCT CATALOG	CATEGORY TYPE	FROM DATE TIME	THRU DATE TIME	SEQUENCE NUM	UPDATE		
CATALOG1_BEST_SELL	CATALOG1_BEST_SELL	Best Selling (One)	2010-01-01 12:00:00.000	<input type="text"/>	<input type="text"/>	1	<input type="checkbox"/>	Update Delete MakeTop
CATALOG1	CATALOG1	Browse Root (One)	2001-05-13 12:00:00.000	<input type="text"/>	<input type="text"/>	1	<input type="checkbox"/>	Update Delete MakeTop
PROMOTIONS	PROMOTIONS	Promotions (One)	2001-05-13 12:00:00.000	<input type="text"/>	<input type="text"/>	1	<input type="checkbox"/>	Update Delete MakeTop
CATALOG1_QUICKADD1	CATALOG1_QUICKADD1	Quick Add (Many)	2001-05-13 12:00:00.000	<input type="text"/>	<input type="text"/>	1	<input type="checkbox"/>	Update Delete MakeTop
CATALOG1_QUICKADD2	CATALOG1_QUICKADD2	Quick Add (Many)	2001-05-13 12:00:00.000	<input type="text"/>	<input type="text"/>	2	<input type="checkbox"/>	Update Delete MakeTop
CATALOG1_SEARCH	CATALOG1_SEARCH	Default Search (One)	2001-05-13 12:00:00.000	<input type="text"/>	<input type="text"/>	1	<input type="checkbox"/>	Update Delete MakeTop

Add a Category to this Catalog (select Category and Type, then enter optional From Date)

Category ID

Product Catalog Category Type

From Date Time

Thru Date Time

Sequence Num

Add



III – Model Form 2

```
<form name="EditProdCatalogCategories" type="list" target="updateProductCategoryToProdCatalog" title="" list-name="prodCatalogCategories"
  odd-row-style="alternate-row" default-table-style="basic-table" paginate-target="EditProdCatalogCategories">
  <auto-fields-service service-name="updateProductCategoryToProdCatalog" />
  <field name="prodCatalogId"><hidden/></field>
  <field name="productCategoryId" title="{uiLabelMap.ProductCategoryId}">
    <display-entity entity-name="ProductCategory" description="{description}" also-hidden="true" cache="true">
      <sub-hyperlink link-style="button" target="EditCategory" description="{productCategoryId}">
        <parameter param-name="productCategoryId" />
      </sub-hyperlink>
    </display-entity>
  </field>
  <field name="prodCatalogCategoryId" title="{uiLabelMap.ProductCatalogCategoryId}"><display-entity entity-name="ProdCatalogCategoryId" also-hidden="true" cache="true" />
  <field name="fromDate" title="{uiLabelMap.CommonFromDateTime}"><display/></field>
  <field name="thruDate" title="{uiLabelMap.CommonThruDateTime}"></field>
  <field name="sequenceNum" title="{uiLabelMap.CommonSequenceNum}"></field>
  <field name="deleteLink" title="." widget-style="button">
    <hyperlink target="removeProductCategoryFromProdCatalog" description="{uiLabelMap.CommonDelete}" also-hidden="false">
      <parameter param-name="prodCatalogId" />
      <parameter param-name="productCategoryId" />
      <parameter param-name="partyId" />
      <parameter param-name="fromDate" />
      <parameter param-name="prodCatalogCategoryId" />
    </hyperlink>
  </field>
  <field name="makeTopLink" title="." widget-style="button">
    <hyperlink target="EditCategory" description="{uiLabelMap.ProductMakeTop}" also-hidden="false">
      <parameter param-name="CATALOG_TOP_CATEGORY" from-field="productCategoryId" />
      <parameter param-name="productCategoryId" />
    </hyperlink>
  </field>
  <field name="submitButton" title="{uiLabelMap.CommonUpdate}" widget-style="smallSubmit"><submit button-type="button" /></field>
</form>
```



III – Model Form 3

- Display element HTML rendering

```
<#macro renderDisplayField type imageLocation idName description title class alert inplaceEditorUrl="" inplaceEditorParams="">
  <#if type?has_content && type=="image">
    </#lt/>
  <#else>
    <#if inplaceEditorUrl?has_content || class?has_content || alert=="true" || title?has_content>
      <span <#if idName?has_content>id="cc_{idName}"</#if> <#if title?has_content>title="{title}"</#if> .@renderClass class alert ./></#t/>
    </#if>
    <#if description?has_content>
      ${description?replace("\n", "<br./>")}</#t/>
    <#else>
      &nbsp;</#t/>
    </#if>
    <#if inplaceEditorUrl?has_content || class?has_content || alert=="true">
      </span></#t/>
    </#if>
    <#if inplaceEditorUrl?has_content && idName?has_content>
      <script language="JavaScript" type="text/javascript"...></#t/>
    </#if>
  </#if>
</#macro>
```

- Display element CSV rendering

```
<#macro renderField text><#if text??>"{text?replace("\", "\"\"")}"</#if></#macro>

<#macro renderDisplayField type imageLocation idName description title class alert inplaceEditorUrl="" inplaceEditorParams="">
  <@renderField description ./>, </#rt/>
</#macro>
```



III – Finaly model Form

Advantages

- Flexibility and easy implementation
- Consistency elements (linked all together)
- Macro FTL us

Failures

- Not as flexible as your mind
- Complex Macro FTL may caused complex issue



III - Theme

The screenshots illustrate the 'Catalog Manager' interface in Apache OFBiz, showing different visual themes and their components:

- Top Screenshot (Green Theme):** Shows the main navigation bar with 'Catalog' selected. Below it is a secondary menu with options like 'Main', 'Catalogs', 'Categories', etc. The main content area includes a search box and 'Edit Catalog with Catalog ID' and 'Create New Catalog' buttons.
- Middle Screenshot (Dark Grey Theme):** Shows the same interface with a dark grey background. It includes a 'Last system notes' section at the top right and a 'Catalog Manager' sub-header.
- Bottom Screenshot (Blue Theme):** Shows the interface with a blue background. It features a 'Search Products' section with a 'Find' button and a 'Browse Catalogs/Categories' section with a tree view of catalogs like 'Demo Catalog', 'Test Catalog', etc.

Screen Rendering in Apache OFBiz :
Different Ways to Make it Future-Proof



III – Finaly theme

Advantages

- Can add a new skin to Apache OFBiz
- Add new technologies without overload the framework

Failures

- It miss possibility to overloading some part



IV - Feedback



IV – Feedback - Freemarker





IV – Feedback – Theme importance 1





IV – Feedback – Theme importance 2

- It could be managed as a component
- It federate all libraries used for the UI
- DevOps settings easier



V – A tiny reorganization for
best practices



V – Tiny reorganization for best practices

- A common theme to move UI libraries from framework
- To have specific template for generics screens



VI - Graphics charter



VI - Graphics charter

Or how to force developers to follow the Graphics charter





VI - Graphics charter - Why we need it ? (1/2)

The screenshot displays two overlapping windows from the OFBiz application. The top window is titled 'Advanced Search' and is part of the 'Catalog Manager' application. It features a search form with fields for 'Keywords', 'Category ID', 'Product Name', 'Internal Name', and 'Keywords'. There are also radio buttons for 'No Contains', 'Any', and 'All', and a 'Find' button. Below the search form is a 'Browse Catalogs/Categories' section with a tree view showing 'Demo Catalog [DemoCatalog]', 'Test Catalog [TestCatalog]', 'Google Catalog [GoogleCatalog]', 'Rental Catalog [RentalCatalog]', and 'eBay Catalog [eBayCatalog]'. The bottom window is titled 'Find Orders' and is part of the 'Order Manager' application. It contains a form with various fields for order details, including 'Order Id', 'Order Name', 'External ID', 'Customer PO#', 'Internal Code', 'Product ID', 'Good Identification Type', 'Good Identification', 'Inventory Item Id', 'Serial Number', 'Soft Identifier', 'Role Type', 'Party ID', 'User Login ID', 'Order Type', 'Billing Account', 'Created By', 'Sales Channel', 'Product Store', 'Web Site', 'Status', 'Contains BackOrders', and 'Select Shipping Method'. The status field has radio buttons for 'Created', 'Sent', 'Processing', 'Approved', 'Held', 'Completed', and 'Reject'. Both windows show the OFBiz logo and version information, and the user is identified as 'THE PRIVILEGED ADMINISTRATOR'.



VII - How to do it



VII – How to do it ? - Flexibility

More flexibility to be inflexible

- Have standard screen templates
- Use it in all applications components



VII – How to do it ? - Be inflexible !

Be inflexible for more flexibility

- Each main screen must be linked to a screen template



VII – How to do it ? - New structures

- Find
- File
- Entity details
- Assoc
- Etc.

- Actor
- Order



VII – How to do it ? - Make it simple

Make it simple :

- For developers
- To have framework consistency
- Easy to maintain
 - For the community
 - For the user



VIII - Conclusion



VIII – Conclusion

Make a UI as smarter as the engine !



That's all folks!
Thanks!



Questions ?