

# FAQ - Tips - Tricks - Cookbook - HowTo

This page is intended to be the root of Cookbook, FAQ, Tips, Tricks, HowTo, etc.

You may find supplementary useful informations at [Old OFBiz wiki](#) and [Opentaps's OFBiz cookbooks part](#) but note that this information may be outdated...



## Tips

- If you are looking for a tutorial [here you go](#)
- If you are looking for something that is not in the links below, try to do a search on this page. Sometimes people add a page under this one without putting a link to it. If you are in luck, the word you search is in the title of one of these pages... A better way might be to simply use the [OFBiz wiki search](#) ...

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## Accounting

- [MISC Accounting Links](#)
- [Billing Account](#)
- [If you get accounting related issues and are not interested in posting accounting transactions, see here](#)
- [Show prices including VAT in eCommerce \(retail, B2C\)](#)

- [How are managed transactions in different currencies from the one of GL ?](#)
- [glAccountClass vs glAccountType : follow the links](#)
- [A thread about glAccountType](#)
- [Sage payment integration](#)

## Apache HTTPD (Apache Web server)

- [How to use mod\\_proxy\\_ajp](#)
- [Apache ProxyPassReverse Directive advices](#)
- [Beware of HTTP ETag](#)
- [Sticky session load balancing with Apache and mod\\_balancer on Ubuntu Linux](#)
- [Install OFBiz with MariaDB, Apache2 Proxy and SSL](#)

## Ajax - Javascript - Json

- [Take a look at DWR](#). I found this really easy to integrate with OFBiz. No complicated Javascript/JSON. Also, its Apache V2 licensed.
- Disabling right click: **document.oncontextmenu=new Function("return false")**
- Restrict your user to go back: **window.history.forward(0)**

## Asset Maintenance

- [Asset Maintenance Setup](#)

## Audit

- [Explanations](#)
- [Suggestions](#)

## Barcodes

- The Barcodes in OFBiz are done with [Barcode4j](#). See the [Barcode XML format documentation](#) for howto specify the format.

## CAS / LDAP / Active Directory

- [Setting Up CAS with OFBiz \(PDF\)](#) (This document speaks about OFBiz release 5, this release never existed but that should not be a problem)
- [Same but dynamic up to date help in trunk](#)

## Certificate

- [Some details about SSL and X.509](#)
- [How to configure authorize.net certificates](#)
- [Here is a pretty good tutorial on getting your SSL certificate setup](#)

## CMS

- [Magnolia CMS Integration Guide](#) (note though that the recommended way in OFBiz is still to use the content component...)

## CSS

- [OFBiz HTML Element Collection Styles](#)
- If you get this problem [The horizontal menu in the right column is causing the HTML elements below it to drop down to the bottom of the screen](#)

## DataBase

- **Derby**
  - [Change a field type in Derby](#)
  - [Browse a Derby database and more using Squirrel](#)
- **Miscellaneous**
  - OFBiz's Data File Tools [Some tips from Jacopo](#)
  - How to use EntityWhereString [A tip from GrimTim](#)
  - How to troubleshoot SQL errors [A tip from Chris Lombardi](#)
  - [How to measure SQL queries durations](#)
  - [How to use OFBiz on read only database](#)
  - Tips for View Entities [A tip from SkipDever](#)
  - How to connect to an External Database [A tip from Adrian Crum](#)

- How to save customised data for import as demo data [A tip from Raj Saini](#)
  - [Is it possible to delete products, categories, catalogs, etc., that are no longer needed?](#)
  - [About lastUpdatedStamp, lastUpdatedTxStamp \(transaction\), createdStamp, and createdTxStamp](#)
  - Why primary keys are VAR\_CHAR type in OFBiz ? [A tip from David E. Jones](#)
- **MySQL**
  - [MySQL Issues](#)
- **Oracle**
  - [Some tips from Jacopo](#)
- **PostgreSQL**
  - [Tune your PostgreSQL installation](#) a tip from Mike <mz4wheeler@gmail.com>
  - [Setup OFBiz version 16.11.02 with PostgreSQL on Windows](#) (from Do Nhu Vy)
- **MariaDB**
  - [Install OFBiz with MariaDB, Apache2 Proxy and SSL](#)

## Development tips

- **From Ant to Gradle**
- How to run multiple ofbiz instances on one PC: see technical production setup guide, section [URL and Port Settings](#)
- [What is the best practice to modify an existing component or create a new one?](#)
- [What is considered the best practice in creating a custom web application with OFBIZ?](#)
- [How to Extend an existing component in customized application?](#)
- [How to manage your source differences?](#)
- Variables always available in screen context
- Tips & Tricks while working with Groovy
- Deprecating entities
- Add a WAR file
- Using locale XSD files instead of OFBiz remote (at <http://ofbiz.apache.org/dtds>) for validation and content completion
- UBPL Introduction
- Ofbiz as a development framework - release 9.04
- Ofbiz as a development framework - upcoming release 10.04
- Field Description tooltip help
- How to not have a string escaped for html : `org.ofbiz.base.util.StringUtil.wrapString(uiLabelMap.yourString)`
- [Turning Firefox cache on/off](#) (mostly for javascript testing)
- Validation in forms
- [How to change the default messages](#)
- [Profiling Ofbiz with YourKit in Eclipse](#)
- [Note on creating a view-entity using entity or view-entity from other components](#)
- [When and when not restarting](#)
- [What is the difference between \[+0\] and \[\] in a widget screen file?](#)

## Eclipse IDE

- [Running and Debugging OFBiz in Eclipse](#)
- [Eclipse Tips](#)
- [Browsing Derby Database in Eclipse](#)
- [Profiling Ofbiz with YourKit in Eclipse](#)

## Geographic Information Systems (GIS)

- [Connecting OFBiz to PostGIS spatially-enabled database](#)

## Google

- [Google Base Integration](#)
- [Google Checkout Integration](#)

## Groovy

- [Tips & Tricks while working with Groovy](#)

## IntelliJ IDEA IDE

- [Setup IntelliJ IDEA IDE for OFBiz Framework](#) - Guide applicable for OFBiz 16.11.x and above, and for Linux-based or Mac working environment.
- [Running and Debugging OFBiz in IntelliJ IDEA](#) - Guide applicable for OFBiz 16.11.x and above.

## Known issues

- [Dash vs "en dash" in Gradle commands](#)

## Licences

- [Apache Software Foundation](#)

## Load Balancing

- [Sticky session load balancing with Apache and mod\\_balancer on Ubuntu Linux](#)
- [Introduction to Load Balancing an OFBiz Cluster](#)

## Migration

- [How to migrate OFBiz from Derby to MySQL database](#)

## Miscellaneous

- [Contact List How To](#)
- [As Is Communication Event Process Flow](#)
- [Steps to process a Configurable Product](#)
- [How to display all information of a single party](#)
- [Product Promotion Example](#)
- [What is the difference between Event and Service?](#)
- [SECAs and Error/Failure Management](#)

## Netbeans

- [OFBiz in NetBeans 5.\\*](#)  
This page may be a bit outdated but most informations are still relevant. You should also look at the nbproject.zip file in <https://issues.apache.org/jira/browse/OFBIZ-3>
- [OFBIZ in Netbeans 6](#)  
Bit of trial and error so if any one has a better way please inform me.

## Password Management

- Make user login secure by enabling pattern based password. - [Securing user password - Make it pattern driven](#)

## Payment

- [VeriSign PayFlow Pro set up](#)
- [Use cvv codes in OFBiz](#)
- [Using gift-card in OFBiz](#)

## POS (the POS is deprecated and has been put in [Attic](#))

- [More about POS](#)
- [How to get rid of "Terminal is closed" message](#)
- [How to synchronise POS terminal\(s\) with a central database](#)

## Production Tips

- [Monitoring and Maintaining the database](#)
- [Cleaning the database from unimportant data](#)
- [Users with disabled accounts are still able to login](#)
- [How to make redirection inside an application server without using mod\\_rewrite](#)
- [Handling of External data](#)
- [OAGIS](#)
- [How to hide products in eCommerce ?](#)
- [Performance : Server Hardware for Ofbiz hosting](#)
- [Load balance across multiple instances of OFBiz](#)
- [Custom Components in OFBiz](#)
- [Take advantages of a custom component](#)
- [How to use the Setup application](#) It's a bit long ot load has it must create dynamically the documentation. You may prefer to simply use the Help in OFBiz itself...
- [how to set the Distributed Entity Cache Clear Mechanism](#)

## Quick Start Guides

- [Getting and Running OFBiz in 5 steps](#) (look, there are more Quick Start Guides under Jacopo's Wiki space)

## RMI

- [This RMI error on client side?](#), click to see the tip

```
Caused by: java.util.MissingResourceException: Can't find bundle for base name cache, locale en_US
```

- [How to use RMI without SSL](#)
- [How to test easily if RMI is working \(using a simple client\)](#)
- [Somethings you should know about RMI](#)

## Reporting tools

- [Birt Flexible Reports](#)
- [Birt : how to integrate in OFBiz](#)
- [Jasper : how to integrate in OFBiz](#)

## Searches

- [Plugin search tools for Firefox using Nabble or Mark Mail](#)
- To search in OFBiz spaces instead of all Apache Wiki (Apache cwiki is shared among Apache projects) use the [OFBiz wiki search](#)

## Selenium

- [Some Selenium tips](#)

## Soap / XML-RPC / REST

File	Modified
ZIP Archive opentaps-soap-java.zip Rewritten from Opentaps documentation (tested with OFBiz trunk rev. 620189)	Feb 10, 2008 by Jacques Le Roux
ZIP Archive OfbizTutorial_WS_RMI.zip A tutorial from Vincenzo Di Lorenzo (not tested with current OFBiz)	Feb 10, 2008 by Jacques Le Roux
ZIP Archive zip.zip Old OFBiz files that allow to use RMI without SSL	Apr 29, 2008 by Jacques Le Roux
PDF File ArlSettingUpCasOnOfbiz5.pdf Setting Up CAS with OFBiz (release 5 will never exist but will certainly be 9.3)	Jan 22, 2009 by Jacques Le Roux
ZIP Archive testRMI.zip A simple RMI client to test your RMI services	Nov 13, 2009 by Jacques Le Roux

[Download All](#)

- How to use SOAP in OFBiz
  - ~~A tutorial from Vincenzo Di Lorenzo, see Attachements~~ [uses Axis 1.4, deprecated since r892712 which introduced Axis2 in OFBiz](#)
  - ~~A tutorial from Opentaps documentation (version 0.9v6), see Attachements~~ [uses Axis 1.4, deprecated since r892712 which introduced Axis2 in OFBiz](#)
  - ~~Export Ofbiz Services that use complex type parameters via SOAP using AXIS2~~ [deprecated since r892712 which introduced Axis2 in OFBiz](#)
  - ~~You could also be interested by these links~~ [Complex types](#) [deprecated since r892712 which introduced Axis2 in OFBiz](#)
  - [Export Ofbiz Services that use complex type parameters via SOAP using AXIS2 - since r892712](#) - start here if you want to use SOAP
  - [Using XMLRPC as an alternative to SOAP](#)
  - [Using XMLRPC with Flex client](#)
  - [Export service using REST](#)

~~Another approach~~ [deprecated since r892712](#)

~~For those who are familiar with Spring, you may be interested by~~ [Apache CXF](#) ~~instead of AXIS2. You will find~~ [a quick comparison between AXIS2 and CXF here](#) [deprecated since r89271](#)

## Themes

- [Visual Themes Gallery](#)
- [Visual Themes - How to](#)

## Translation

- [Internationalization](#)
- [Tips for UI labels translation](#)
- [How to localize Product and Categories descriptions](#) and more ...

## Unsubscribe

- [To unsubscribe](#) You certainly forgot how you subscribed, it's easy to forgot if you use a Nabble forum to subscribe.

## Windows

- [Patch on Windows](#)
- [Run OFBiz as a Windows service](#)
- [Export to Excel](#)
- [Import from Excel](#)
- [Windows 10](#)

## Workflow Engines

- [What's the recommended workflow engine in OFBiz? Is it Shark?](#)

## XSL:FO (FOP)

- [Is there any WYSIWYG editors for XSL:FO ?](#)
- [Fonts in FOP](#)

## ZK (work in progress)

A tuto (screencast) for a ZK view handler

1. [Part1](#)
2. [Part2](#)
3. [Part3](#)
4. [Part4](#)

From Milind Parikh

A Chris Howe's comment taken from user ML

*Just a quick comment on how you have the view-handler defined. Since you're wanting to have this distributed as a plugin, instead of placing the <handler name="zk" ... in the common-controller, simply put that line in your controller.xml file after the <include... statement. You'll probably also want to change the class name to however you're going to distribute it (ie com.milindparikh.widget.screen.ZkViewHandler) and move the file into the src directory of your component...and make sure the build routine is working properly.*

There is also [this tuto](#) but from comments in user ML we recommend rather the way above

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## How to use mod\_proxy\_ajp

You need to use a 2.2+ version of HTTPD. I used 2.2.6.

### In httpd.conf (or in a file in sites-available on Debian/Ubuntu using a2ensite)

**Uncomment** (or compile with at least these modules using --enable on Debian/Ubuntu use a2enmod)

```
#LoadModule proxy_module modules/mod_proxy.so
#LoadModule proxy_ajp_module modules/mod_proxy_ajp.so
#LoadModule ssl_module modules/mod_ssl.so
```

**Set** ServerAdmin, ServerName

**Add something like**

```
ProxyRequests Off

<Proxy *>
    AddDefaultCharset off
    Order deny,allow
    Allow from all
</Proxy>

# Enable/disable the handling of HTTP/1.1 "Via:" headers.
# ("Full" adds the server version; "Block" removes all outgoing Via: headers)
# Set to one of: Off \| On \| Full \| Block
ProxyVia On

NameVirtualHost *:80

<VirtualHost *:80>
    # General setup for the virtual host.
    ServerName www.example.com:443
    ServerAdmin you@example.com

    ProxyRequests Off
    ProxyPreserveHost On
    proxyPass / ajp://localhost:8009/

    RewriteEngine On
    RewriteRule ^/(images/.+);jsessionid=\w+$ /$1

</VirtualHost>

include conf/httpd-ssl.conf
(or include ../apache2/httpd-ssl.conf if using a file in sites-available on Debian/Ubuntu using a2ensite)
```

**In httpd-ssl.conf**

**replace** (according to your setup, ie. keeping the right paths)

```
<VirtualHost _default_:443>

# General setup for the virtual host
ServerName www.example.com:443
ServerAdmin you@example.com
```

**by**

```
<VirtualHost *:443>
    ServerName www.example.com:443
    ServerAdmin you@example.com

    ProxyRequests Off
    ProxyPreserveHost On
    proxyPass / ajp://localhost:8009/

    RewriteEngine On
    RewriteRule ^/(images/.+);jsessionid=\w+$ /$1
```

for apache 3.2.2 servers you need to add

```
SSLEngine on
SSLProtocol all -SSLv2
SSLCipherSuite ALL:!ADH:!EXPORT:!SSLv2:RC4+RSA:+HIGH:+MEDIUM:+LOW
SSLCertificateFile /etc/pki/tls/certs/localhost.crt
SSLCertificateKeyFile /etc/pki/tls/private/localhost.key
ofcourse if you have a certificate for your domain you should replace
the crt and key files of your domain files.
```

**It should work.** On Windows the configuration is the same.  
**Don't forget to edit ofbiz-containers.xml and url.properties file (change 8080 to 80 and 8443 to 443).**

#### Additional notes for configuring mod\_jp\_proxy

**Sometime it is useful to let Apache Web Server to serve the static resources such as images, css, js etc for performance or other reasons.**

In that scenario, you will need to mount the individual OFBiz application. For example:

Mounting OFBiz application as show below will forward every request to OFBiz including request for static resources such as images.

```
proxyPass / ajp://localhost:8009/
```

To mound individual application, use the below mentioned method. You will need to do this for all your application except the one you want to be served by Apache Web Server e.g. /images

```
<Location /accounting/>
    ProxyPass ajp://localhost:9009/accounting/
</Location>
```

Configure the Images folder in the Apache as shown below:

```
<Directory /var/www/xxxx/images/>
    Options Indexes FollowSymLinks
    AllowOverride None
    Order allow,deny
    allow from all
</Directory>
```

/var/www/xxxx/images directory is where Apache will look for your images.

*Thanks to Raj Saini for these tips*

#### Session clearing on each click of ofbiz application

It's actually not related to the Apache web server, it depends on Catalina embedded OFBiz. Note that no changes should be needed in recent versions where the line `<property name="enable-cross-subdomain-sessions" value="false"/>` uses value="false" in ofbiz-containers.xml.

**I you need to use an svn repository on the same server the tip is to add**

```
proxyPass /svn !
```

just before

```
proxyPass / ajp://localhost:8009/
```

in the 443 VirtualHost. This will give acces to your svn repository (supposed to be declared as `<Location /svn>`) only through https. If you need also access through https, do the same in the 80 VirtualHost.

#### Change a field type in Derby

1. Export the table to xml
2. Drop the table
3. Start OFBiz - table recreated with new structure
4. Import xml data from #1

Advice from Adrian Crum.

## Browse a Derby database and more using Squirrel

[http://db.apache.org/derby/integrate/SquirrelL\\_Derby.html#N101C7](http://db.apache.org/derby/integrate/SquirrelL_Derby.html#N101C7)

For the URL use something like jdbc:derby:c:/ofbiz/runtime/data/derby/ofbiz (of course using your right path)

Link from Sundeep Ray. **There is an alternative to this solution** : [Browsing Derby Database in Eclipse](#)

## Use CVV (also called CV2 and more acronyms) codes in OFBiz

As of rev. 585172 (date 2008-10-16) the changes mentioned below have been officially included in the OFBiz trunk.

[https://issues.apache.org/jira/browse/OFBIZ-767#action\\_12476855](https://issues.apache.org/jira/browse/OFBIZ-767#action_12476855)

## Using gift-card in OFBiz

Steps to use GC with OFBiz demo data:

After you create GC for a party(e.g for DemoCustCompany) with

Card Number: 12345 and Pin Number:123, then:

- Create Financial Account:  
<http://demo-trunk-ofbiz.apache.org/accounting/control/EditFinAccount/>  
Fin Account Type Id = Gift Certificate  
Status = Active  
Fin Account Code = 12345  
Fin Account Pin = 123
- Create Fin Account Transaction:  
<http://demo-trunk-ofbiz.apache.org/accounting/control/EditFinAccountTrans?finAccountId=10000> (you might need to use you own finAccountId)  
Fin Account Trans Type Id = Deposit  
Amount = 1000 (this amount should be grated that the order total)

After that Fin Account available balance will be 1000. You can check this here:

<http://demo-trunk-ofbiz.apache.org/accounting/control/EditFinAccount?finAccountId=10000> - field "Available Balance".

Then you are ready to create order and to specify the GC as a payment method.

A tip from Rashko Rejmer

## Patch on Windows

### Creating patches

- Using Eclipse => Subclipse (Create Patch, Apply Patch context menu options, the clipboard one is the "easiest")
- Using TortoiseSVN from Files Explorer (Create Patch, Apply Patch context menu options). Tortoise does not exist on Linux/Mac but there are [so me equivalent tools](#).
- Making a diff with subversion on command line : svn di fileName > filename.patch

I let you find the tools with google :Eclipse/Subclipse, Tortoise, Subversion client, patch.exe, todos.exe, etc.

### Applying patches



Note that below no longer works (or **hardly**) since Windows 7. I suggest rather to use [Cygwin](#) if you use a version below WIndows 10. I have personally installed with [Git Bash](#). Bash comes embedded with [WIndows 10](#).

To patch on Windows you have to download patch.exe. But you may encounter EOL problems with patch.exe. That's why I prefer to use Eclipse's "Apply Patch" option wich is great to use with clipboard. If you get issue with Subclipse and work on Windows you may try Tortoise's "Apply Patch" option. If I get problems with Tortoise I then use the patch command. Something to understand is that Tortoise actually use "SVN merge" so in certains cases problems arise. To avoid EOL problems with the patch command, I use a bat file **patchdos.bat** :

```
todos %1
patch -N -p0 < %1
```

where todos is and exe to download (search with Google). Of course you will have to deal with path. But at this stage I guess it's easy...

I just learned from [https://sourceforge.net/project/shownotes.php?release\\_id=508633](https://sourceforge.net/project/shownotes.php?release_id=508633) that the "--binary" option may be used in that case, did no try yet...

I tried --binary today on a Windows XP system with patches created on the same system: it does not work :/

## Run OFBiz as a Windows service

- You need **JavaService.exe** This is freely available at <http://javaservice.objectweb.org/>. Documentation and example code are also available
- Unzip the JavaService-bin-1.2.x.zip (or JavaService-2.0.x.zip)
- Where should the expanded files be located?  
Set up and run your script with the appropriate path. Ex:

```
javaservice -install OFBiz %java_home%\jre\bin\server\jvm.dll -Xms256M -Xmx512M
-Djava.class.path=%java_home%\lib\tools.jar;%ofbiz_home%\ofbiz.jar
-start org.ofbiz.base.start.Start
-out %ofbiz_home%\logs\serviceLog.txt
-err %ofbiz_home%\logs\serviceErr.txt
-current %ofbiz_home%
-manual
```

**Note:** If your java sdk is installed under a directory with a space in it, the service will install, but not start properly, unless you change java\_home to the DOS 8.3 name. For example, if your java sdk is installed in C:\Program Files\Java\j2sdk1.4.2\_xx then you would set java\_home=C:\PROGRA~1\Java\j2sdk1.4.2\_xx\* Go to the win2k services app and you should now find a service 'OFBiz' set up to run manually (this of course can be changed to run automatically if so desired).

- Alternatively, the service can be started with the command: **net start OFBiz**
- And the service can then be stopped with the command: **net stop OFBiz**

Advice from enki\_ at users.sourceforge.net. **There is an alternative to this solution :** [How to Run OFBiz as Windows Service with Java Service Wrapper](#)

- If you want to do [the same on Linux](#)

## Some Selenium tips

Brett Palmer gave a presentation on Selenium testing for Ofbiz at ApacheCon 2008. The presentation is no longer available at the ApacheCon site, but is available at <http://www.kenfuse.com/forum/material-regarding-seleniumxml>.

## Setting up Selenium RC server in Windows

1. Download latest version of Selenium RC and extract in a folder named Selenium at (for instance) C:\Program Files\Java\jdk1.6.0\_03\bin
2. From Command prompt run the following commands:
  - cd C:\PROGRA~1\Java\jdk1.6.0\_03\bin
  - java -jar .\Selenium\selenium-server.jar -interactive

If you see the following messages at the end of the console, the Selenium server is running fine:  
Entering interactive mode... type Selenium commands here (e.g: cmd=open&1=<http://www.yahoo.com>)

Below is deprecated but may still contain useful tips. Else rather see and follow Selenium in Webtools...

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Due to some license issues with external libraries used in Selenium we cannot include this in the Apache trunk. However, a new component has been created which is free to download and use, but lives in an ofbizext repository.  
<https://svn.hotwaxmedia.com/svn/ofbizext/selenium> Drop this in hot-deploy. If you want to know more, please look at <https://issues.apache.org/jira/browse/OFBIZ-680>

1) For running "successive" test cases I used browser "Refresh" button but I think there might be some better option to handle this. Is there any option exists in Selenium IDE ?

If you want to chain execution of different tests, there is the notion of test suite. A list of tests to run one after the other (see <http://labs.libre-entreprise.org/scm/viewvc.php/ofbizNeogia/neogia/manufacturing/webapp/manufacturing/tests/ManufacturingTestSuite.html?revision=1.10&root=neogia&view=markup>)

Otherwise if you just want to replay the same test in a loop, I'm not aware of a such feature in selenium. But if the loop is finite, you can achieve a similar result by using a test suite that refers x times the same test.2) Suppose I have a condition to create the new user each time. As I can put the value of user login say "user1" for the first time but when this test case runs second time it generates error (It hangs up in between). So Is there any option to put a "counter" or Javascript code in the Test cases so I could create the "user2" when this test case runs second time ?  
The general problem behind you issue is how to run a test multiple times without risking duplicated primary keys or having to remove all data created by the test.

One solution is to always create business objects with different identifiers. Selenium provides a nice feature to do that: you can define variables during the test execution and use them anywhere in the test script after their creation.

Here an example based on one of my test (<http://labs.libre-entreprise.org/scm/viewvc.php/ofbizNeogia/neogia/manufacturing/webapp/manufacturing/tests/TestCreateNomenclature.html?revision=1.10&root=neogia&view=markup>)

```

<!-- create a variable named uid that contains an unique identifier -->
<tr>
    <td>store</td>
    <td>javascript{(new Date()).getTime() % 10000}</td>
    <td>uid</td>
</tr>

```

```

<!-- use of the variable named uid to fill a form entry -->
<tr>
    <td>type</td>
    <td>partyId</td>
    <td>user-${uid}</td>
</tr>

```

3) What is the difference between click and clickAndWait ? I would like to understand why I'm getting different behaviors from click and clickAndWait functions. Here is the scenario: I want to perform the login and then verify some text on the page (what should be pretty straight forward...) My first approach was using the clickfunction + pause function. Something like below:

```

<tr>
    <td>click</td>
    <td>submit</td>
    <td></td>
</tr>
<tr>
    <td>pause</td>
    <td>3000</td>
    <td></td>
</tr>

```

The approach above worked fine and I was able to proceed with my test. However, I was looking the clickAndWait functionality and, per my understanding, this function should have a similar behavior to my code above.. then I wrote the following:

```

<tr>
    <td>clickAndWait</td>
    <td>submit</td>
    <td></td>
</tr>

```

The code above is getting a "Permission Denied" message. I already check the URLs and I'm not launching a different domain (before I click I have <http://domain/Login/> and after the submission I have <http://domain/App/>).

I think the right solution is to use clickAndWait command instead of click+pause because it always success contrary to click+pause (we dont known the page response time). I see no reason why you don't observe the same behavior with clickAndWait. Maybe it's because your are testing the login page that can be a little tricky to test due to the session handling.

To be sure to always start a test in a clean session, my tests always do the same actions :

1. logoff
2. login
3. check error

Here, an example of my standard login procedure under selenium from (<http://labs.libre-entreprise.org/scm/viewvc.php/ofbizNeogia/neogia/manufacturing/webapp/manufacturing/tests/TestCreateNomenclature.html?root=neogia&view=markup>)

```

<!-- Begin of standard login procedure -->
<tr>
  <td>open</td>
  <td>/manufacturing/control/logout</td>
  <td></td>
</tr>
<tr>
  <td>type</td>
  <td>USERNAME</td>
  <td>admin</td>
</tr>
<tr>
  <td>type</td>
  <td>PASSWORD</td>
  <td>ofbiz</td>
</tr>
<tr>
  <td>select</td>
  <td>locale</td>
  <td>value=fr</td>
</tr>
<tr>
  <td>clickAndWait</td>
  <td>submitButton</td>
  <td></td>
</tr>
<tr>
  <td>assertElementNotPresent</td>
  <td>//div[@class='errorMessage']</td>
  <td></td>
</tr>
<!-- End of standard login procedure -->

```

Advices from Peter Goron

## How to troubleshoot SQL Errors

If you receive an SQL error in ofbiz, it doesn't show the error from the database itself. Instead, it shows a general error which isn't necessarily clear. Run the SQL directly on the database get a more helpful error message.

## How to connect to a Database on read only

If you need to connect OFBiz to a database without write access or you want just are sure that your users have a read acces, you can change on the entityengine.xml the helper to the class ReadOnlyHelperDAO on your data-source like that

```

<datasource name="localderby"
  helper-class="org.apache.ofbiz.entity.datasource.ReadOnlyHelperDAO"
  schema-name="OFBIZ"
  field-type-name="derby">...

```

## How to connect to an External Database

1. Create entity definitions for the external database like you would for an OFBiz entity (**except use the no-auto-stamp="true" attribute**).
2. Assign the entities to a different group (in entitygroup.xml), "myExternalDB" for example.
3. Create a datasource for the external database (in entityengine.xml), named "myExternalDB" for example.
4. Assign the "myExternalDB" datasource and the "myExternalDB" entity group to the the default delegator: <group-map group-name="myExternalDB" datasource-name="myExternalDB"/>
5. Use the default delegator to access the external database.

## Sending mails to contact lists

In the marketing application, click on contact list, then find your list, then click on Comm Events and then Create New Contact List. Comm Event should land you here:  
[http://demo-trunk-ofbiz.apache.org/marketing/control/EditContactListCommEvent?contactListId=9000&DONE\\_PAGE=/marketing/control/ListContactList](http://demo-trunk-ofbiz.apache.org/marketing/control/EditContactListCommEvent?contactListId=9000&DONE_PAGE=/marketing/control/ListContactList)

based on the trunk demo server.

Set your from details and party roles (maybe N/A), fill your subject and content and click save.

When you're happy with it, change the status to "In-Progress" and click save again. The comm events should then start to trigger and the email flow, although you'll want to test it on a small list to start with. If the list is clean and processes through OK the status should automatically change to "Complete" when it is done but if there are badly formatted email addresses that can stick the status and you will need to manually mark as complete and you might review the logs to find the error.

At the time of this tip was wrote, the start and finish dates do not work as expected, leave them blank for your first testing.

A Ray Barlow's tip

## How to save customised data for import as demo data

Add a entity-resource entry of type "data" and reader-name as "ext" in ofbiz-components.xml of your application. For example:

```
<entity-resource type="data" reader-name="ext" loader="main" location="data/GeoData_IN.xml" />
```

And run the

```
"run-install-extseed"
```

ant target instead of

```
"run-install"
```

This should load your modified data along with the seed data and without any demo data.

## Issue with createAcctgTransAndEntries service

If you see errors like

```
Error:Error trying to begin transaction, could not process method: The
current transaction is marked for rollback, not beginning a new
transaction
and aborting current operation; the rollbackOnly was caused by: Service
createAcctgTransAndEntries threw an unexpected
exception/error.org.ofbiz.service.ServiceValidationException: The following
required parameter is missing: OUT
createAcctgTransAndEntries.acctgTransId (The following required
parameter
is missing: OUT createAcctgTransAndEntries.acctgTransId) calling
service
balanceInventoryItems in receiveInventoryProduct
```

If you are not using the Accounting module much and specifically the GL section, than go to accounting ~> ofbiz-component.xml and comment the entry for secas\_ledger.xml in that file, restart the server and try again. This should solve your problem.

A Mridul Pathak's tip

## What is the best practice to modify an existing component or create a new one?

From an old thread by Chris Howe and David Jones. Note that it's now easier to use the create-component ant target (just try "ant -p" to know more) or the Gradle createComponent Gradle task for newer project.

**Chris Howe:** Lets say that I want to create an application that most closely matches the ecommerce app. I should start with copied versions the following files only.

```
ofbizhome/speciapurpose/myapp/build.xml
ofbizhome/speciapurpose/myapp/ofbiz-component.xml
ofbizhome/speciapurpose/myapp/webapp/myapp/WEB-INF/controller.xml
ofbizhome/speciapurpose/myapp/webapp/myapp/WEB-INF/web.xml
ofbizhome/speciapurpose/myapp/webapp/myapp/index.jsp
```

from this I should edit the following

+build.xml:+find "ecommerce"  
replace with "myapp"

+ofbiz-component.xml:+find "ecommerce"  
replace with "myapp"

+web.xml:+change display name and description from "ecommerce"  
to "myapp"

Then change speciapurpose/component-load.xml to load  
"myapp"

This should give you an exact duplication of functionality of the copied ecommerce application without the hundreds of thousands of lines of code. Then by simply copying/creating the files that need to be changed and changing the requests and views in controller.xml you will have your new application, but still benefit from svn updates. What is the potential downside of this?

**David Jones:** Yes, this is the best practice... Being able to do this is part of the design and intention of the screen widget. BTW, the hot-deploy directory may be easier to use than the speciapurpose directory, but of course you can mount a component from anywhere (the following paragraph explains with more details)

## What is considered the best practice in creating a custom web application with OFBIZ?

*A David Jones's tip*

One approach is to simply copy an entire component into a new directory and start hacking away at it until it fit your needs. This is a fine practice if you never have plans of bringing it up to date with a current revision or version. OFBIZ is currently making about 40 commits a week. By the time you complete your customizations, you are out of date.

Another approach is to make a different web app. This is where you copy the five essential files from a similar application that is being maintained by the project, make minor modifications to them.

Which one is right? It depends on on how much changes you are making. Modifying the following files will allow you to "customize" an application, whereas starting from scratch using an existing application as a template is better for a "custom application."

### The Five Files

- application\...\webapp\...\WEB-INF\controller.xml
  - <web-app>
    - change the <display-name>
    - change the <description>
- application\...\webapp\...\index.jsp
  - change nothing
- applicaton\build.xml
  - <project>
    - change the name
  - <target name="init">
    - change value of property "desc"
    - change value of property "name"
  - <target name="classpath">
    - ensure all fileset dir are correctly relative to the location of your app
- application\ofbiz-component.xml
  - <ofbiz-component>
    - change the name
  - <webapp>
    - change the name
    - change the title
    - change the location
    - change the mount point

Now if you were to start OFBIZ and point your browser to [mydomain.com/myapp](http://mydomain.com/myapp) you would see an exact duplicate of the application that you were modeling.

---

From there you need to understand how a page is rendered. It is more detailed than this, but this explanation will suffice for the majority of simple customizations.

1. Client makes a request
2. request (among other things) calls a view (controller.xml)
3. view calls a screen (controller.xml)
4. screen (**Screens.xml**) **calls some actions and widgets** (.bsh, \*Forms.xml, \*.ftl, etc)
5. the page is rendered to the client.

The goal with the differences app is to create all of the customizations that you need without touching original OFBIZ code. That way when you update to more current versions, you're less likely to encounter significant conflicts. It makes your application close to being "turn-key".

## The Decorator

Most likely the first thing you're going to want to customize is the decoration (the header, which screens are in the leftbar if you want to display a right bar, how the body is displayed, which UILabels you use, etc). For this you need to do two things. (As of revision 5539 you can only do this if your views are using the ecommerce application, it shouldn't be long before all of the applications support this)

- Change the location of the mainDecoratorLocation in web.xml

```
<context-param>
  <param-name>mainDecoratorLocation</param-name>
  <param-value>component://ecommerce/widget/CommonScreens.xml</param-value>
  <description>The location of the main-decorator screen to use for this webapp; referred to as a
  context variable in screen def XML files.</description>
</context-param>
```

- Create a screen with name="main-decorator" in the file you specified in the mainDecoratorLocation property (I imagine you'll want to copy an existing decorator screen and modify it rather than start from scratch)

Now your application is an exact copy of the model application with your customized decoration. The reason it's an exact copy is because you have essentially the same controller.xml files in both applications. All of the requests call the same views, which call the same screens, which in turn call the same actions and widgets. So now you want to make some more changes.

## Customize Screens

- controller.xml
  - <view-map>
    - change the name if necessary
    - change the location to a \*Screens.xml file inside custom application
- Screens.xml
  - create a new screen
  - remember they can call .bsh, .ftl, and forms from other applications
  - if you want to use a custom .ftl or .bsh be sure to use a similar directory structure as the original file so you can make easy comparisons when you update.

That's really all there is to it. If you call new services from the requests, make sure you create your file in component://myapp/servicedef/services.xml and make sure it gets loaded in the ofbiz-component.xml file. Same with ECAs. Need new classes, create them in your src directory and don't forget to build them with ant. Keep in mind two things and maintenance of your custom application will be easier and less error prone.

1. REUSE REUSE REUSE. (If you don't change it, you don't have to maintain it, so don't change things just to change them)
2. Only change copies of the OFBIZ files that are in your custom application

## How to Extend an Existing Component

Scenario: You can extend any of the existing applications via a custom component in the hot-deploy directory. In the following example **we are** extending the Marketing component via our custom component called mycomponent.

1. First we need to create a new WEB-INF folder inside your custom component's webapp directory (\$OFBIZ\_HOME/hot-deploy /mycomponent/webapp). To create folders for the component you want to extend, use the name of the component you want to extend: ( OFBIZ\_HOME is the location of the root directory of OFBiz)

```
$ cd $OFBIZ_HOME/hot-deploy/mycomponent/webapp
$ mkdir -p marketing/WEB-INF
```

You should have the a new WEB-INF directory: \$OFBIZ\_HOME/hot-deploy/mycomponent/webapp/marketing/WEB-INF

2. Create an empty controller.xml file in this new WEB-INF folder:

```
$ touch $OFBIZ_HOME/hot-deploy/mycomponent/webapp/marketing/WEB-INF/controller.xml
```

3. In this new controller.xml file include the controller.xml file from the marketing component:

```
<?xml version="1.0" encoding="UTF-8"?>
<site-conf xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation="
http://ofbiz.apache.org/dtds/site-conf.xsd">
    <include location="component://marketing/webapp/marketing/WEB-INF/controller.xml"/>
</site-conf>
```

4. Copy the marketing component's web.xml from the marketing component's WEB-INF directory (\$OFBIZ\_HOME/applications/marketing/webapp/marketing/WEB-INF) into the new WEB-INF folder:

```
$ cp $OFBIZ_HOME/applications/marketing/webapp/marketing/WEB-INF/web.xml $OFBIZ_HOME/hot-deploy
/mycomponent/webapp/marketing/WEB-INF/
```

5. In you custom component's ofbiz-component.xml (\$OFBIZ\_HOME/hot-deploy/mycomponent/) add following code:

#### extending marketing component here

```
<webapp name="marketing" title="Marketing-Customized" server="default-server" location="webapp
/marketing" base-permission="OFBTOOLS,MARKETING" mount-point="/marketing"/>
```

The basic setup for extending the component is completed. You can add your custom component specific request and view in controller.xml. You can add other items such as SECAs in secas.xml and have them triggered on services in the component you want to extend. You can also create screens in the extended component.

## Configuring SSL

There are two main techniques in configuring SSL, through Apache (recommended), and through the JVM directly.

### Apache

Configuring SSL through Apache is probably the preferred method, and is well documented.

### JVM

It's also possible to have the SSL certificate in your JVM environment. The certificate is usually found in the \$JAVA\_HOME/jre/lib/security directory.

The default file that ships with OFBiz is called cacerts.

You will need to use the Java keytool utility to add certificates from other SSL sites (e.g. [www.mywebsite.com](http://www.mywebsite.com)) . [Here is a pretty good tutorial on getting your SSL certificate setup](#)

[The basic steps are described here](#)

## Getting an SSL Certificate

Here are some Certificate vendors (this list is from 2005)

- Verisign
- Thawte - Thawte Certificate ~ \$350 / 2 yrs
- Comodo
- GeoTrust
- FreeSSL - Professional (Not actually Free by the way)
- CACert.org

---

### Budget Plans

- FreeSSL - StarterSSL ~ 39 per year
- Comodo - InstantSSL (Second Tier requiring multiple Certs be installed)

Free

- StartCom StartSSL certificate : <http://www.startssl.com/>
- Let's Encrypt: <https://letsencrypt.org/>

## RMI error on client side

Add the \$OFBIZ/framework/base/config dir to the jar as a <resource> in your build file (Maven's pom.xml example, to be adapted for ant)

```
<resources>
  <resource>
    <directory>../../../../framework/base/config</directory>
  </resource>
  <resource>
    <directory>../../../../framework/base/dtd</directory>
  </resource>
  <resource>
    <directory>../../../../framework/datafile/dtd</directory>
  </resource>
  <resource>
    <directory>../../../../framework/entity/dtd</directory>
  </resource>
  <resource>
    <directory>../../../../framework/entityext/dtd</directory>
  </resource>
  <resource>
    <directory>../../../../framework/minilang/dtd</directory>
  </resource>
  <resource>
    <directory>../../../../framework/security/dtd</directory>
  </resource>
  <resource>
    <directory>../../../../framework/service/dtd</directory>
  </resource>
  <resource>
    <directory>../../../../framework/widget/dtd</directory>
  </resource>
  <resource>
    <directory>../../../../framework/workflow/dtd</directory>
  </resource>
  <resource>
    <directory>../../../../framework/applications/content/dtd</directory>
  </resource>
</resources>
```

A Ryan's (from Sourcelab) tip

## How to use RMI without SSL

By default, since OFBiz is under the Apache Software Foundation Licence, OFBiz comes with RMI using SSL. Before it was possible to use RMI without SSL. But due to licence constraint some code has been removed. If you need, for testing for instance, to use RMI without SSL follow this tip:  
In framework/base/config/ofbiz-containers.xml comment out this snippet during tests

```
<property name="client-factory" value="org.ofbiz.service.rmi.socket.ssl.SSLClientSocketFactory" />
<property name="server-factory" value="org.ofbiz.service.rmi.socket.ssl.SSLServerSocketFactory" />
<property name="ssl-keystore" value="framework/base/config/ofbizrmi.jks"/>
<property name="ssl-keystore-type" value="JKS"/>
<property name="ssl-keystore-pass" value="changeit"/>
<property name="ssl-keystore-alias" value="rmissl"/>
<property name="ssl-client-auth" value="false"/>
```

OR

1. In framework/base/config/ofbiz-containers.xml replace (or better comment out during tests)

```
<property name="client-factory" value="org.ofbiz.service.rmi.socket.ssl.SSLClientSocketFactory" />
<property name="server-factory" value="org.ofbiz.service.rmi.socket.ssl.SSLServerSocketFactory" />
```

by

```
<property name="client-factory" value="org.ofbiz.service.rmi.socket.zip.CompressionClientSocketFactory"/>
<property name="server-factory" value="org.ofbiz.service.rmi.socket.zip.CompressionServerSocketFactory"/>
```

2. Unzip in framework\service\src\org\ofbiz\service\rmi\socket\zip the content of [this attachment](#)

## How to test easily if RMI is working (using a simple client)

Simply run the testRmi service from Webtools (not sure this is sufficient...)

OR

Unzip somewhere on your disk [this attachment](#). From there I guess it's pretty simple.

## Some things you should know about RMI

- On Windows, do not have any spaces between any directories on your path, or the RMIDispatcher will not start
- On Linux, the RMI server may not know its own IP address and might get "lost." This will cause java.net.SocketException?: Socket is not connected (Error connecting to 127.0.0.1). This error message is generated on the RMI server but it will be displayed on the RMI client. The answer is to force rmi server's IP address into the JVM environment.

For that simply uncomment these lines in startofbiz.sh

```
IPADDR=`/sbin/ifconfig eth0 | grep 'inet addr:' | cut -d: -f2 | awk '{ print $1}'`
RMIIF="-Djava.rmi.server.hostname=$IPADDR"
```

- Here's another little tidbit, if the -Djava.rmi.server.hostname isn't working and the exception is still being generated on the client (from the server) on linux try changing the order of the host names in the /etc/hosts file so that the 127.0.0.1 appears last. This is apparently due to a bug in the InetAddress.getLocalHost() method.
- Make sure that rmiregistry is not running on your RMIDispatcher/JOTM/jndi port before starting Open for Business
- One of the problems of using RMI is that complex objects such as GenericValues are available but entity methods on that object won't work as they require the entity engine. A workaround is to define facade services that return simple pojos. Then rmi works pretty well.

## How to manage your source differences

The first three links use the vendor branch principle

1. [An old how to for CVS, may be adapted to SVN](#)
2. [A more recent one for SVN](#)
3. [A specific one for Windows](#)

An alternative using SVK and not the vendor branch principle : [How to use SVK for creating local SVN repositories](#) (a Vinay Agarwal tip)

A discussion about this topic on user ML proposing a [simpler alternative way](#), extract :

1. I keep two main patch files - basic\_development.patch and basic\_production.patch. Both patch files change the OFBiz configuration to work with our network environment, each one using settings chosen for the task - development or production. Only one patch is used at a time.
2. I keep all of my custom development in a single folder under the ofbiz/hot-deploy folder. I avoid touching the trunk code at all costs - except for the configuration patches mentioned above.
3. To keep my local copy updated, I do an SVN revert (to reverse the changes made by the patch), then an SVN update, then re-apply the patch. My custom development folder is untouched by the SVN commands, because SVN doesn't "know" about the folder. This works really well and it doesn't involve any complicated merging - since the configuration files changed by the patches seldom change in the trunk.

Also certainly the [most advanced way using \\*-ofbiz-patches targets from hot-deploy/vinops/build.xml](#)

## If you get accounting related issues and are not interested in posting accounting transactions

1. If you are not interested in posting accounting transactions to the GL then you can disable (i.e. comment out) the first eca rule in accounting /servicedef/secas\_ledger.xml

```
<eca service="createAcctgTransAndEntries" event="commit">
  <condition field-name="acctgTransId" operator="is-not-empty"/>
  <action service="postAcctgTrans" mode="sync"/>
</eca>
```

1. Configure an Error Journal to post there the accounting transactions that are incomplete  
You can create the error journal in this way:

- a. Go to Accounting >>General Ledger >>Setup >>Journals and create a new journal  
<https://localhost:8443/accounting/control/SetupGJournals?organizationPartyId=Company>
- b. Go to Accounting >>General Ledger >>Setup >>Accounting Preferences and select the journal in the "Error GI Journal Id":  
<https://localhost:8443/accounting/control/PartyAcctgPreference?organizationPartyId=Company>
- c. All the "incomplete" transactions will be visible here:  
<https://localhost:8443/accounting/control/ListUnpostedAcctgTrans?organizationPartyId=Company>

## Is it possible to delete products, categories, catalogs, etc., that are no longer needed?

This question has been already asked many times. You should find more information in [Nabble](#)  
 The main idea is that in OFBiz we don't delete but use end dates to mark obsolescence.

Four main reasons :

- Data are still there in case of audit
- Disk space should not be a problem
- DB indexes are managing quite well huge data volumes.
- Easier with all entities associations

If you really need to do it, think about these 4 points before...

## Show prices with VAT included in eCommerce (B2C)

In order to show the prices including VAT in the store for consumers, you need to take following steps:

1. in the accounting component:
  - a. adjust the data for the appropriate Tax Authority so that 'Include Tax in Price' = 'Y'
  - b. associate the appropriate product categories under the 'Categories' tab of the Tax Authority
  - c. set the appropriate product rate (for Value Added Tax)
  - d. optionally set the flag for 'Tax Promotions'
  - e. optionally set the flag for 'Tax Shipping'
2. in the catalog component for the appropriate store (in the section 'TAX':
  - a. set the flag 'Show prices with VAT tax included' to 'Y'
  - b. set the appropriate Vat Tax Auth Geo ID
  - c. set the appropriate Vat Tax Auth Party ID

For now you can't set a different VAT rate for shipping, see last comment of

 Unable to render Jira issues macro, execution error.

## Certificate for RMI

You need to have the ofbizrmi.jks and ofbiztrust.jks setup at both ends. For testing, the easiest way is

- to create a certificate,
- export it to the trust store ,
- and then just copy both these files to the other instance.

For production, remember that the truststore of the "client" would hold the public key exported from the keystore of the "server". Conversely the truststore of the "server" would hold the public key exported from the keystore of the "client". Making the keystore and truststore identical on both sides makes life a bit easier for testing, but make sure you toughen things up before you go into production!!!

Thanks to Andrew Sykes

## About lastUpdatedStamp, lastUpdatedTxStamp (transaction), createdStamp, and createdTxStamp

They are the timestamps that the entity engine automatically maintains for all entities, unless you use no-auto-stamp=true in the entity definition. But by default all entities will have these four fields.

The transaction stamps are when the transaction was begun that the change is part of, and the stamps are within that transaction, although they are an absolute value. But to order the actual records that changed within the transaction. The entity engine does do things for these stamp fields when it maintains them, by the way, that ensure that within a transaction each updated or created stamp, depending on whether it's a create or updated, is unique for that transaction.

So it'll keep track of the last one and always increment it by one, even if it's been less than a millisecond since the other record went through. As long as you don't have more than a thousand records going into the database per second in a single transaction then you shouldn't have problems with overflowing it too much.

But it is important that those are unique, so we can order all the records by these stamps and basically reproduce the transaction to send it over to the other server. Even reproducing the transaction we can't always eliminate problems with foreign keys. Anyway that's the intention here, to reduce problems with foreign keys as much as possible and recreate the data changes on the remote server when the synchronization goes through

Adapted from [Advanced Framework Transcription PDF](#)

## How are managed transactions in different currencies from the one of GL ?

Accounting transactions originated by events in different currencies from the one of GL are automatically converted using the currency exchange rate of the date of the transaction.

The "company base currency" is set in the partyAcctgPreference. You have to enter a record in the CurrencyUomDated entity.

If this information is available then you'll notice that the AcctgTransEntry will have two different amounts in the fields amount/currencyUomId and origAmount/origCurrencyUomId

The modification is done by the createAcctgTransEntry service.

From a discussion between Jacopo and Hans on dev ML

## Why primary keys are VAR\_CHAR type in OFBiz

1. The performance overhead is minimal on modern database systems ([see](#) EnterpriseDB guys know what they are talking about, they are offering Postgres commercial support)
2. Character strings give significant flexibility, especially when it is common to migrate data from other systems that have characters in their IDs.
3. Being able to prefix IDs is used in a number of places in OFBiz, including prefixes for entire systems when data transfers between them are done to separate ID spaces.

## Is there any WYSIWYG editors for XSL:FO ?

- Free tools
  - [fop-miniscribus](#)
  - [html2fo \(historic\)](#)
- Commercial tools
  - [XSLfast](#)

## Using locale XSD files instead of OFBiz remote (at <http://ofbiz.apache.org/dtds>) for validation and content completion

This has (at least) 2 advantages :

- faster
- sure to be consistent with your revision since you use the same (locale) revision

For that look for \*-catalog.xml files in OFBiz and use them in your favorite XML editor. For instance in Eclipse : Menu Windows/XML/XML Catalog

[More details here](#)

## How to hide products in eCommerce ?

If a View Allow category is configured only the products in that category will be visible when this catalog is active. Other products will not show up in search results, category browsing, and if someone tries to view the product by ID it will report that no product is found for this ID. There is a performance impact associated with the use of this category, so alternatives might be desirable in certain circumstances. In general for easier maintenance it is best to have this set to the same category as the Default Search category.

But in general for [Catalog Setup](#) you should refer at this section of the [Apache OFBiz Business Setup Guide](#)

## Performance : Server Hardware for Ofbiz hosting

Because customizations can dramatically change the performance characteristics of OFBiz it is a good idea to always do performance and load testing once development is complete.

That said... a decent mid-range server (dual processor, 4GB RAM for example) can typically handle a peak of about 100,000 page hits per hour, or that's what I use as a typical rule of thumb for early estimates. Typically the peak hours are concentrated into certain times of day, and as another rule of thumb I usually use an effective 10 hour day for estimates, so that makes roughly 1,000,000 page hits per day.

In short your estimate of 100,000 page hits per day is WELL within what a single server can handle, even with the database and app server running on the same machine.

-David Sep 02, 2009

## Using TTF fonts in FOP

You can use TTF fonts in fo.fo files. You need to use file "framework/webapp/config/fop.xconf". This file contains following code that is responsible for font family, change font family according to the requirement, example

```
<font metrics-url="arial.xml" kerning="yes" embed-url="arial.ttf">
  <font-triplet name="Arial" style="normal" weight="normal"/>
  <font-triplet name="ArialMT" style="normal" weight="normal"/>
</font>
```

I found that I could put this:

```
<fonts>
  <auto-detect/>
</fonts>
```

And FOP now sees all the TTF's that the system knows.

A tip from Brajesh Patel & James McGill

## Validation in forms

1. include a js code like below:

```
Event.observe(window, 'load', function() {if ($('#formId')) validateNewUser = new Validation('formId',
{immediate: true}});}
```

2. And in the respective form use the suitable class for form fields

```
<field ... widget-style="required"> ... </field>
<field ... widget-style="validate-email"> ... </field>
<field ... widget-style="validate-url"> ... </field>
```

More at [Really easy field validation](#)

A tip from Atul Vani

## What is the difference between Event and Service?

- Events are used for validation and conversion using map processor, while services are used for business logic like CRUD operation
- Service returns Map
- Event returns String.
- Services are loaded with the server, any changes in definition (not implementation if in MiniLang) needs a reload
- We can call service inside event. But we cannot call event inside service.
- An event is specific local piece functionality normally used in one place for one purpose and called from its location.
- A service is a piece of functionality which can be located anywhere on the network, is most of time used in several different places and is called by its 'name'
- In case of events you have access to HttpServletRequest and HttpServletResponse objects and you can read/write whatever you want. In case of services, you have access only to service parameters.
- Services perform transaction rollback if any error occurs, not events. Note though that if an event is implemented by a simple-method, since by default simple-methods are executed inside a transaction unless the simple-method is flagged to not use a transaction, an error will also rollback the event.

## How to change the default messages

The messages that come in different pages in OFBiz are configured using several configuration files. The best parts of message display framework under OFBiz are as follows:

1. It is totally internationalized.

2. Actual text messages are stored in configuration files only. This configuration files are written in XML using property key value approach. The actual files like FTL files, service definition files which use these text messages refers to the property key and locale (optional) only to display the message in the output page.
3. You can hide the message by just clicking on it. No reloading is required.

The main components of the message display framework in OFBiz are

1. messages.ftl: under ofbiz/framework/common/webcommon/includes folder. It is responsible for displaying error and event message in a specific div on the top of the content area.
2. CommonUiLabels.xml: under ofbiz/framework/common/config folder. This is a property key value configuration file for storing common UI label elements including error / event headers and messages.
3. CommonErrorUiLabels.xml: under ofbiz/framework/common/config folder. This is a property key value configuration file for storing common error message elements.

Beside these two configuration files there are at least one property key value configuration file under the config directory of the respective element for almost all elements like accounting, manufacturing, service, minilang etc. under the applications and framework directories. e.g. AccountingErrorUiLabels.xml, MiniLangErrorUiLabels.xml, ServiceErrorUiLabels.xml

One important thing to notice here is that all UI labels in OFBiz are displayed in the same manner using the property key value XML configuration files available under the config directory. In some cases there are no separate error configuration files but the error messages are included in the UI label configuration file itself. e.g. in case of marketing component related error messages are included in the MarketingUiLabels.xml under ofbiz/applications /marketing/config folder.

How to change a specific error message

1. First identify the module in which the message is coming.
2. If it is a common message then it would be in CommonUiLabels.xml or in CommonErrorUiLabels.xml
3. If it is a module specific message then look into the configuration files under the config folder of that component.
4. Identify the key and change the value in English language. If you presently want to change the English message only, then there is no need to do to anything else. However, if you want to update the internationalization part also then you need to do the following step for each language.
  - Now using a specific translation program like Google Language Tools, translate the English sentence into a specific language and copy paste that in the value for that specific language.
  - After the change is over you need to restart the server for the changes to take effect. You can also clear in the cache named UtilPropertiesBundleCache the resource associated to the message you've just modified. Go to Webtools -> Cache maintenance and search for UtilPropertiesBundleCache.

The same procedure can be followed for changing the UI label elements.

A tip from Amitava Neogi

## Note on creating a view-entity using entity or view-entity from other components

If you need to use an entity or view-entity from other components to construct a view-entity, be cautious on how the sequence of the components are loaded. This is because the view-entity will be loaded when you start OFBiz, and if the component entity xml is loaded **AFTER** your component, your view-entity would not be able to pick up the relevant information from the other component.

Therefore it is important to make sure that if you're using entities from other component, make sure they are loaded **BEFORE** your component.

[A tip from FooShyn](#)

## When and when not restarting

This is a big, and often not enough known OFBiz great feature.

Most of the time you don't need to restart when you change things in dev mode (dev mode depends on the content of [cache.properties file](#), see [here how to set it](#)).

It's easier to name the main cases (I'll not get into details) where you need to restart:

- Containers and alike configurations changes (this one seems obvious, changes related to the embedded application server - Tomcat - needs a restart)
- Java changes (compilation)
- DB definitions changes (entity, field, etc.)

If the caches are on (ie not on dev mode), it's the same (you don't need to recompile) but you need to clear the caches. See at ...webtools/control /FindUtilCache You might even clear only the cache where things changed (production performance).

## Beware of HTTP ETag

The ETag header is causing an issue with browser cache not being updated when the server has been updated. Actually a weak ETag, see [http://en.wikipedia.org/wiki/HTTP\\_ETag](http://en.wikipedia.org/wiki/HTTP_ETag)

Seems like tomcat's DefaultServlet will only serve weak ETag's even though tomcat7+ does have code for strong ETag but is never used and there is no documentation on how to set it

A possible solution is to remove If-None-Match request header and ETag response header in apache http server

RequestHeader unset If-None-Match

Header unset ETag

## How to measure SQL queries durations

If a query takes more than 150 ms its duration is shown in log. To change that look for:

```
Debug.logTiming("Ran query in "
```

in GenericDAO.java

## What is the difference between `[+0]` and `[]` in a widget screen file?

`[]` If the list does not exist, create a new list and append item to it. If the list exist, append item to the end of the list

`[+0]` If list does not exist, create a new list and append item to it. If the list exist, insert item at the beginning of the list

## What's the recommended workflow engine in OFBiz? Is it Shark?

OFBiz gave up on Workflow Engines. Shark was implemented last but never really used in OFBiz. Instead of using a Workflow Engine, OFBiz uses an [Event Driven Architecture \(EDA\)](#), so ECAs (SECA, EECA, MECA) are used in OFBiz to drive the Workflow. ECA is the acronym of Event Condition Action. SECAs are for Services (triggered on services conditions), EECAs are for Entity (triggered on entities conditions), MECAs are for Mail.

## Dash vs "en dash" in Gradle commands

When you use a command like

```
gradlew "ofbiz --load-data readers=seed,seed-initial,ext,ext-demo"
```

Beware that copying this command in Microsoft Word will automatically transform the double dash in "en dashes" (Unicode 0x2013: ["—" from Unicode Map](#)) Other cases not related to Word were also reported. So when this command does not work check that you are really using dashes!

## If you have problems to build OFBiz on Windows 10 try this:

from Turn windows feature on or off -> Windows subsystem for Linux -> Restart and retry

[An Anamaria Petrica's tip](#)