Guide to OFBiz-i18n, Internationalisation of OFBiz

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Looking around the WIKI there are few hints (and even less concrete guides) towards what needs to be done in order to add more locales to an OFBiz setup, namely the current release or SVN trunk.

Most generally, there are three areas of concern when starting a translation of OFBiz into a different locale, i.e. a language and possibly a specific sub-locale:

- Translation of Application labels
- Translation of OFBiz assets with built-in i18n options (Catalog, Product)
- Translation of Text Elements (DataResources) using CMS

However, i18n goes even beyond that as there is a clear (natural) preference for US standards-based demo data, e.g. in the area of PaymentGateways, ShippingInterfaces and Accounting in general (tax allocation, general ledger configuration). Hence a fourth section tries to address these areas:

- Re-configuration of General Ledger
- Tax configuration
- Extension of GeoData

Note that this document focusses on the CONFIGURATION of OFBiz Entities in order to display Text in a different Locale and possibly pay attention to different Legislation & Taxing in other Locales. This document does NOT aim to talk about technical localisation (Tech Folks, make sure you start at Adrian's Internationalization) or adding more local payment or shipping gateways, as t his is considered regular customisation.

A final section covers tools that can be used for the translations tasks and documents present in this wiki which refer to translations.

Translation of Application labels

The labels for the OFBiz GUI applications are the most evident part to change for an i18n project. They are part of the release and serve the purpose of 'resource packs' known from claqssic Java development.

Also refer to Tips for UI labels translation.

> ⓘ Some POS labels are handled by XUI not OFBIz. You can use a plugin like RBE to edit those XuiLabels.properties

Location of config files

located in the configuration subdirectories as follows:OFBIZ_HOME/applications/<appname>/config

OFBIZ_HOME/framework/<appname>/config

OFBIZ_HOME/specialpurpose/<appname>/config

The naming convention is <appname>UiLabels.xml.

Most likely there will also be <appname>HelpUiLabels.xml, <appname>EntityLabels.xml and possibly other files there. Just check through an see what merits your translation.

Activation

 The activation of changed configuration files is easy: Restart the OFBiz application. These configuration files are read in every time the OFBiz application container starts. Hence: Edit > Save > Restart > Use is the activation sequence.

References to other Wiki Documents

Interested to understand how you make references to the i18n labels in code? Then read this: Text Translation.

Translation of OFBiz assets with built-in i18n options

> This section assumes you have understood the relationship of Content, ContentAssociations and DataResources. Also, you should understand how a DataResource can be provided to the system.

Some OFBiz entities have built-in i18n options, the most prominent (and evident) are Catalog-Categories and Product. Check out how to translate Products or Categories Name and Descriptions, have a look at How to localize Product and Categories descriptions.
You can find out which entities provide this option when searching for "*Content" in the entitymodel.xml configuration files (which will then list out all occurencies of a <entityname>Content entity). Search in the current trunk (rev 811440) resulted in the following Content-Entities:

- applications / order --> OrderContent
- applications / party --> PartyContent
- applications / party --> CommunicationsEventContent
- applications / product --> ProductCategoryContent
- applications / product --> ProductConfigurationItemContent
- applications / product --> ProductContent
- applications / workeffort --> WorkEffortContent

Most typically, the entity.name, entity.description and entity.longdescription attributes can be internationalized. *A table listing the i18n options of respective entity attributes will be worked in here soon.*

> ⚠️ **Be Careful**
>
> When using i18n on these entities, the "direct" attributes must be empty, otherwise the CMS lookup will not occur.

> ✅ **Naming Conventions for ContentId and DataSourceId**
>
> Each of your Content and DataSource items will need a unique ID, so make up your mind about **naming conventions** for the ContentId and DatasourceId that are related to your entities!

ProductContent special remarks

The ProductContent entity will be the most interesting one for ecommerces since working on the product descriptions will be the most of an online editor's work. Also customizing text for different locales when you run a multi-locale shop will be a huge task. Best results are achieved when an XML template is used that defines all relevant entities for a new product (make sure you use a single XML per single product).
Aside the regular relationships of a given product (configuration elements, category placement etc.), the i18n content elements should be added with the same XML. Then at least a template CMS structure will be present with each product that is uploaded.
Unfortunately the Demo data just places rudimentary i18n. The relevant attributes to i18n on a Product are:

- Product.name
- Product.description
- Product.longDescription

The corresponding relationships are built using the ProductContent entity where the productContentTypeId should be set to 'NAME', 'DESCRIPTION' or 'LONG_DESCRIPTION' for the content that will map to name, description or longDescription respectively (attention, the Demo Data does not define the LONG_DESCRIPTION content items, so you will need to touch this, sorry!).

> ℹ️ **HTML META tags for default Product-pages**
>
> The content of HTML Meta tags on product pages are handled in
>
> ```
> applications/order/webapp/ordermgr/WEB-INF/actions/entry/catalog/Product.groovy
> ```
>
> The following content will be handled as i18n content, i.e. locale/fallback locale applies in <HTML><HEAD>...<META type="keyword" ...> tags:
>
> - product.name (content items mapped as "PRODUCT_NAME" type)
> - catalog.name (not i18n)
> - productCategory.description (content items mapped as "DESCRIPTION" to all categories that this product is a member of)
>
> The following content will be handled as i18n content, i.e. locale/fallback locale applies in <HTML><HEAD>...<META type="description" ...> tags:
>
> - product.description (content items mapped as "DESCRIPTION" type)
>
> Using this will help you with localized SEO (=Search Engine Optimisation) projects.

Translation of Text Elements using the CMS

> This section assumes you have understood the relationship of Content, ContentAssociations and DataResources. Also, you should understand how a DataResource can be provided to the system.

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Beyond Translation

As mentioned earlier, certain elements of i18n go beyond text translation. These elements typically comprise regionalized rules (e.g. for tax calculation) or entity instances (e.g. for general ledger). This section will discuss some general items in this.

Re-configuration of General Ledger

Actually, reconfiguring GL is a big step and dives deep into the data configuration of the Accounting module.
First of all, an understanding is required as to which of the accounting data entities require either customizations (changes that are related to the ORGANIZATION party that is using the GL) or localizations (changes that are related to the primary market that the ORGANIZATION is working in).

> The requirements to provide a standard way of localizing General Ledger are also tracked on JIRA OFBIZ-3411 Introduce Localization Packages in General Ledger.

The following list shows all Entities that are defined in the files on OFBIZ_HOME/applications/accounting/data sorted by filename and then by occurence in the data files:

Filename	Entity	data character	relevant for
AccountingSecurityData(.xml)	SecurityPermission	seed	
	SecurityGroupPermission	seed	
AccountingTypeData(.xml)	AcctgTransType	seed	
	StatusType, StatusItems ACCTG_ENREC_STATUS	seed	
	BudgetItemType	cust	
	BudgetItem	cust	
	EnumerationType, Enumeration GC_FULFILL	seed	
	EnumerationType, Enumeration PGT_CODE	seed	
	EnumerationType, Enumeration FARP_TYPE	seed	
	EnumerationType, Enumeration FARP_METHOD	seed	
	FinAccountTransType	seed	
	FinAccountType	seed	
	StatusType, StatusItems, StatusValidChange FINACCT_STATUS	seed	
	StatusType, StatusItems, StatusValidChange FINACCT_TRNS_STATUS	seed	
	EnumerationType, Enumeration FINACCT_TRANS_REASON	seed	
	FixedAssetType	demo	
	EnumerationType, Enumeration FXAST_CLASS	demo	
	EnumerationType, Enumeration FXAST_COMPU_HARDWARE	demo	
	EnumerationType, Enumeration FXAST_COMPU_SOFTWARE	demo	
	FixedAssetIdentType	demo	
	StatusType, StatusItems FIXEDAST_MNT_STATUS	demo	
	Scheduled Job, Roles for Fixed Assets	demo	
	FixedAssetProductType	demo	
	GlAccountClass	demo	
	GlAccountType	demo	
	GlResourceType	demo	
	GlXbrlClass	demo	
	GlFiscalType	demo	localize
	GlAccountCategoryType	demo	
	InvoiceItemType	seed	
	InvoiceItemAssocType	demo	
	InvoiceType	demo	
	InvoiceItemTypeMap	demo	

	EnumerationType, Enumeration TAXABLE_INV_ITM_TY	demo	
	PaymentMethodType	seed	localize?
	PaymentType	seed	localize
	PaymentGroupType	seed	localize
	PaymentGatewayConfigType	demo	
	PaymentGatewayConfig	demo	
	PaymentGateway<PROVIDER>	demo	
	CustomMethodType, CustomMethod	seed	
	EnumerationType, Enumeration CREDIT_CARD_TYPE	seed	
	StatusType BUDGET_STATUS	seed	
	StatusType PARTY_ASSET_STATUS	seed	
	StatusType, StatusItems, StatusValidChange INVOICE_STATUS	seed	
	StatusType, StatusItems, StatusValidChange PMNT_STATUS	seed	
	SettlementTerm	demo	
	EnumerationType, Enumeration TAX_FORMS	demo	localize
	EnumerationType, Enumeration COGS_METHODS	seed	
	EnumerationType, Enumeration INVOICE_SEQ_MD	seed	
	FixedAssetStdCostType	seed	
	TaxAuthorityAssocType	demo	localize
	TaxAuthorityRateType	demo	localize
	RateType	seed	
	PeriodType	seed	
	WebSite	seed	
	EnumerationType, Enumeration PTSOFTTFR	seed	
	ProductAverageCostType	demo	
	EnumerationType, Enumeration STR_CRDT_ACT	demo	
	StatusType, StatusItems, StatusValidChange GLREC_STATUS	demo	
DemoFinAccountData.xml	FinAccount	cust	
	FinAccountStatus	cust	
	FinAccountTrans	demo	
	Payment	demo	
DemoGeneralChartOfAccounts.xml	GlAccount	demo	
DemoGlSetupData.xml	InvoiceItemType	seed	
	PaymentMethodType	seed	
	CostComponentCalc	cust	
	GlJournal	cust	
	PartyAcctgPreference	seed	
	GlAccountOrganization	seed	
	GlAccountTypeDefault	seed	
	GlAccountCategory	seed	
	PaymentGlAccountTypeMap	seed	
	PaymentMethodsTypeGlAccount	seed	
	CreditCardTypeGlAccount	seed	
	FinAccountTypeGlAccount	seed	
	VarianceReasonGlAccount	seed	
	CustomTimePeriod	demo	

	UomConversionDated	demo	
	GlReconciliation	demo	
	GlAccountCategoryMember	demo	
DemoOrganisationData.xml	/any org data for accounting/	demo	–
PaymentsInvoices.xml	/Example Invoices/	demo	–
UsTaxAccountGroups.xml	GlAccountGroupType	demo	localize
	GlAccountGroup	demo	localize

Tax configuration

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Tools and Documents in this WIKI

Some language communities have started common dictionaries in order to align translation options and agree on some special terms. Examples are:

- [Dictionary for Danish translations](#)
- [Dictionary for Dutch translations](#)
- [Dictionary for translations to German](#)
- [Dictionary for French translations](#)