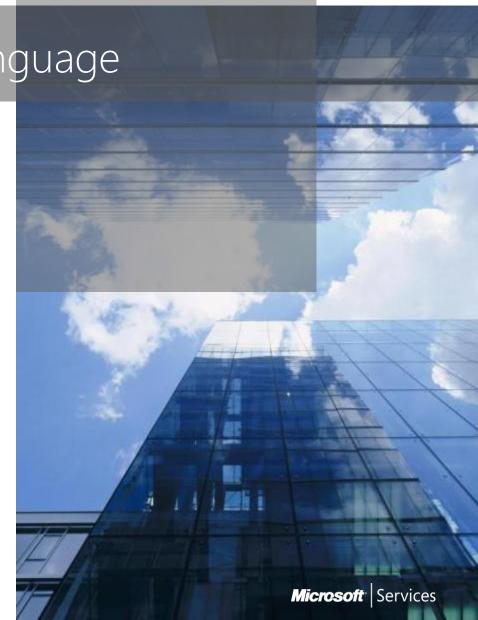
Microsoft Services



Multicurrency & Multilanguage

- Multi-Language User Interface (MUI)
 - Overview
 - Installation and Administration
 - Architecture
 - Customizations
 - Known Issues/Limitation
- Multi-Currency
 - Overview
 - Architecture
 - Deployment and Administration



Microsoft Services



Overview

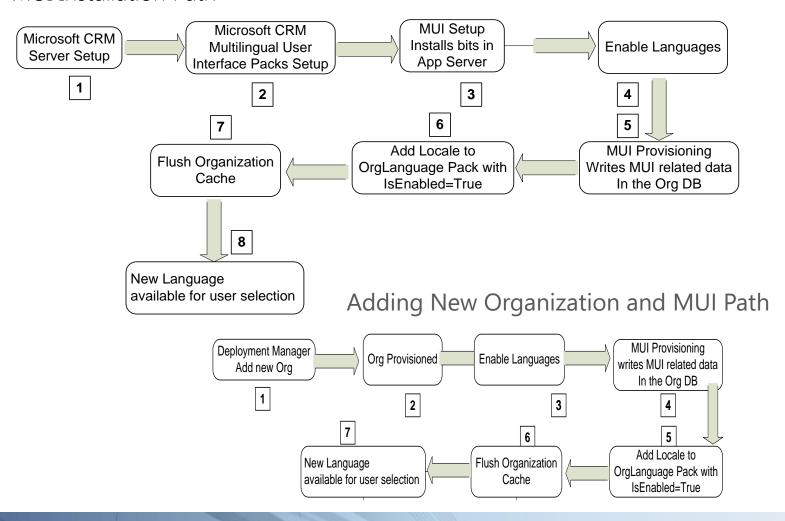
- Base Language
 - Set during install
 - Cannot be changed
 - New organizations can have their own base language
- MUI Packs
 - Available in all 41 languages
- Data is not translated
- Reports, Email & KB Templates are language specific
 - Custom report would need to be created for each language

MUI Installation

- 1 MUI Pack for each language
- MUI Installation
 - Install on App Servers, Help Servers and Outlook Clients
 - Need to be local admin to install
 - GPO/SMS Supported
 - Data provisioning & language activation for Org
- AppServer Installs MUI resource binaries and provisioning files for the selected language.
- HelpServer Installs Help files for the selected language.
- If more than one App or Help server exists the MUI pack needs to be installed on each one.

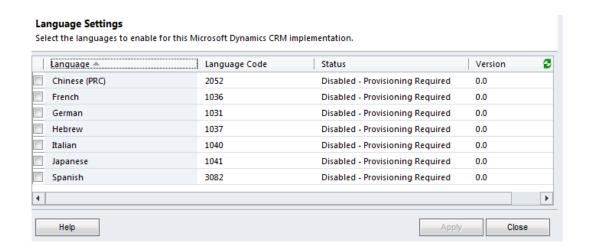
MUI Installation (cont)

MUI Installation Path



MUI Administration

- Enable\Disable MUI Packs
 - Settings-Administration-Languages
- Disabled Languages
 - Users cannot select the disabled/uninstalled languages
 - Existing users with the disabled language as their selection will fall back to the base language



MUI Provisioning

- Single Transaction
 - Will roll back if the provisioning fails
- Creates a record in the Metadataschema. Organization Language Pack table
 - Sets IsEnabled = True
- Adds labels to the LocalizedLabels table for the new language
- Adds Language specific templates and reports
- Adds Language specific Metadata

MUI Provisioning (cont)

- Customized Objects will not be translated by the MUI pack provisioning
- Renamed Out Of Box Entities, Attributes, Picklist values will have the Out of Box value
- Deleted Objects will still have the Out of Box value added but will not show up
 - Picklists are an exception they will still be added.

MUI Provisioning (cont)

- System Data
 - Role Names are not translated
 - Transaction Data is not localized including Advanced Find Queries
 - System Data that can be translated will only show in the users set language
 - Picklist values are defined with a localeID

Customizations

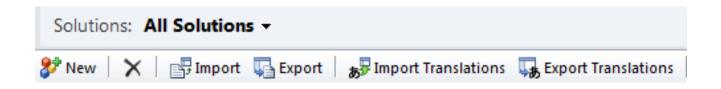
- Customizations are Organization specific
 - Customization occurs in "Base Language"
 - Customized Objects will display in the base language until manually translated
 - No language / locale specific attribute properties
 - Ex: If last name is nvarchar (30), it will be nvarchar (30) for all languages and locale.

Customizations (cont)

- Customizations Export will export all language values
- Customization Import will only import the languages that are enabled on the system your importing to

Import/Export Translations

- Used to translate customizations
 - Settings-Solutions
 - XMI editable in Excel 2003 or Later
 - Can import one or more language translations
 - Need to publish customizations before exporting translations and publish after importing translations



Templates & Reports

- Language attribute on templates & reports
 - Views filtered by users language (default)
 - Able to view other languages
- Out of box templates/reports provisioned with MUI Pack Languages
 - KB, Email, Reports are added when MUI is enabled
- Reports are language specific
 - Select language for column headings
 - Categorize for a language or all languages
 - Display of Regional data in reports are based on users' locale

MUI & Sitemap

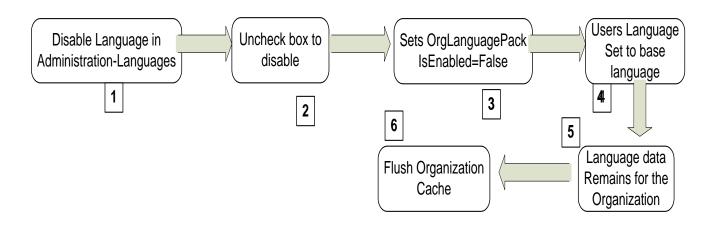
- <SiteMap><Area Id="Workplace" ... >
- <Group Id="MyWork" ... >
- <SubArea Id="dashboard" Icon="..." Url="...">
- <Titles>
- <Title LCID="1033" Title="Dashboard" />
- <Title LCID="1031" Title="Armaturenbrett" />
- </Titles>
- </Group>

MUI De-Provisioning

- De-Provisioning
 - De-activates the language in the Metadataschema.OrganizationLanguagePack table
 - Users with the De-Provisioned language will be set back to the base language
 - No language related metadata is removed

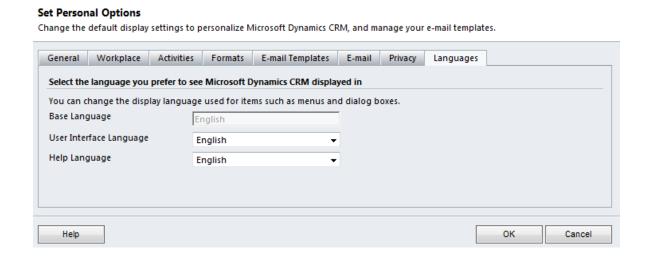
MUI Uninstall

- MUI un-install
 - Removal of MUI bits from the App Servers.
 - MUI deactivation for the Org
 - User data is not removed



Personal Options

- User can set their own language options
 - File-Options-Languages
 - User Interface and Help can be selected separately
 - Initial language will be the base or we will detect the browser language and if that MUI pack is available set that as the default



Personal Options (cont)

- Regional Display Formats
 - Selection can be per user or set by System
 - File-Options-Formats or Settings-Administration-Systems Settings

Set Personal Options Change the default display settings to personalize Microsoft Dynamics CRM, and manage your e-mail templates. Workplace E-mail Templates Privacy Languages Personal Standards and Formats Select how Microsoft Dynamics CRM displays number, currency, time, and date formats. Select a format or click Customize to specify custom formats. Current Format English (United States) Customize. Format Preview 123,456,789.00 Number \$123,456,789.00 Currency 11:26 AM Time 12/30/2010 Short Date Thursday, December 30, 2010 Long Date Help OK Cancel

Outlook Client and MUI

- Need to Install the CRM MUI pack on the Outlook clients
- Can set Language Options in the CRM Outlook Client from the CRM Options area.
- CRM MUI pack and Office MUI pack are not dependent on each other.

Upgrade Impact on MUI

- Only the base language will be upgraded
 - Post upgrade, apply the needed 2011 MUI packs
- If importing subsequent 4.0 organizations after the initial upgrade has been done and 2011 MUI packs applied, the new organizations will have their MUI packs auto updated.

MUI Known Issues & Limitations

- Admin tools are not MUI enabled:
 - Deployment Manager, User Manager, Customize Entities
- Outlook CRM UI language based on CRM Language Setting
 - Not Office MUI setting
- "System Data" remains in base language
 - Examples: Role names, Offline filters

Microsoft Services



Architecture Overview

- Each organization has a base currency
- Ability to add n additional currencies
- Fixed conversion rate between the base currency and other currencies
- Records have one currency for all money fields
- Support for money fields on all entities
 - e.g.: Annual revenue on a Lead
- Advanced Find, Reports, Export to Excel multi-currency compliant

Architecture

Validation: Opportunity Currency == Price List Currency Calculation: Est Revenue from Opportunity Products Currencies Snapshot

Opportunity "Big Deal"

Currency: *Euro* (€)
Price List: *PL-Euro* (€)
Opportunity Products:

1 - Widget (€)

1 – Widget Add-on (€)

Est. Revenue: (€)

Exchange Rate (\$ → €)

Est. Revenue (Base) (\$)

Snapshot Exchange Rate for Transaction Rules for all entities: When there's a money field... there's also: exchangerate, money field_base

> Calculation: Est. Revenue

> > ÷

Exchange Rate

=

Est. Revenue (Base)

Multi-Currency

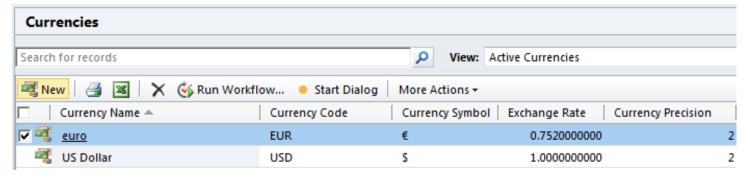
- Financial transactions in 2 currencies:
 - Base currency Used for financial reporting
 - Microsoft uses \$. Toyota uses ¥.
 - Transaction Currency Currency in which any financial transaction is carried out
 - Office XP in Malaysia sells in RM (Malaysian Ringgit)
- Transaction Currency / Exchange Rate = Base Currency
 - \$ 1 122 ¥
 - \$ 10.725 €

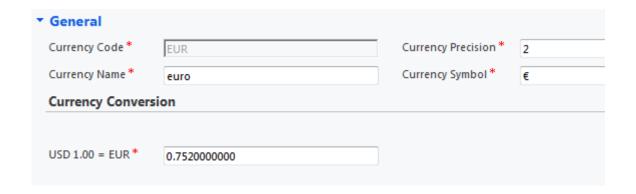
Deployment & Administration

- Base currency for org set in server setup
 - It cannot be changed once set
 - Upgrade: All existing transactions are in the base currency
- Transactional currencies and conversion rates defined per organization
 - Input in CRM manually
 - Custom code to link to 3rd party via Web Services

Transactional Currencies Setup

- Transactional Currencies
 - Settings-Business Management-Currencies



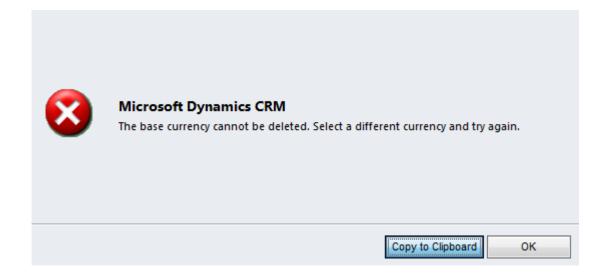


Precision Types

- Precision Types
 - Pricing Decimal Precision
 - Currency Precision
 - Can be set for both base and transaction currencies
 - Field Precision

Transactional Currency

- Cannot delete the default base currency
- Cannot be delete if they are associated with another record

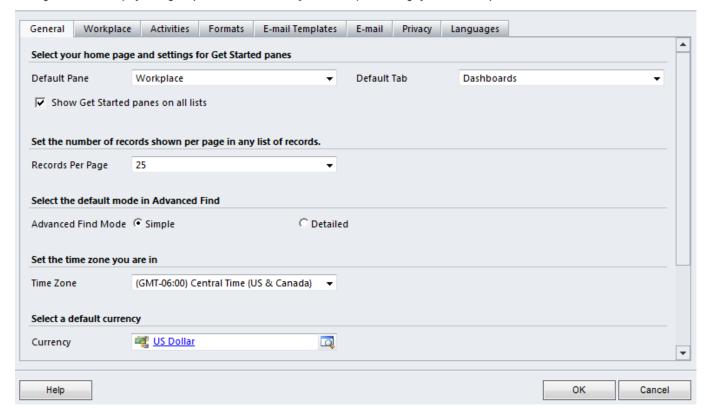


Personal Options

File-Options-General

Set Personal Options

Change the default display settings to personalize Microsoft Dynamics CRM, and manage your e-mail templates.

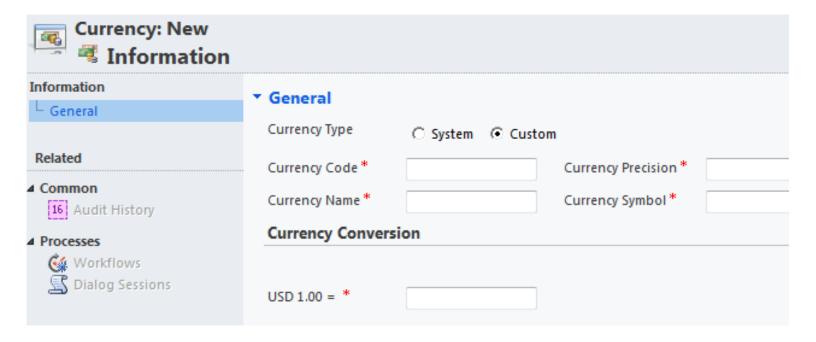


Financial Transactions

- Support financial transactions in different currencies
 - Any given transaction is in one currency (header and all line items)
- Pricelists in multiple currencies
 - Currency validated whenever pricelist is referenced in the Opportunities, Quotes,
 Order and Invoice.
 - Caveat: Percentage of Product pricing is only available on currency for the Product

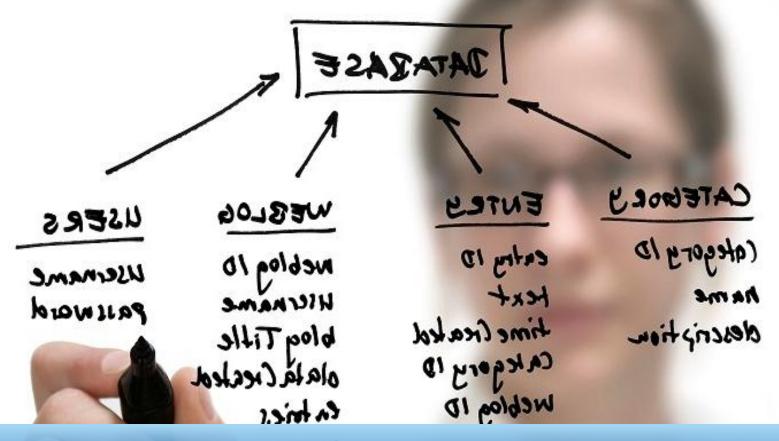
Add Currencies

- System Currency Types
 - Default options available through Currency Code (170+)
 - Custom



Tips & Tricks

- Default currency on Account, Contact, Lead acts as a seed for associated transactions
 - If no default, then pick user default
 - If no user, then org base
 - Users can override default
- Pricelist associated with the Opportunity, Quote, etc. must match currency as the Opportunity, Quote, etc. itself
- \bullet Opportunity \rightarrow Q \rightarrow O \rightarrow I path: currency does not change
- Outlook Off-Line to On-line behavior:
 - Exchange rate is updated as the tx is replayed



Questions?

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