

Populating a Language

Once a language has been defined, there are two main ways to populate the language. First, you can manually enter all language data through the UI. Second, you can import a language using the Aras Innovator Language Pack Management Utility.

Important
Adding a new language should not be done in a live production system. The new language should be added off hours when no users are logged into the system.

Manually Managing Language Packs in the Database

All multi-lingual deployments of Aras Innovator eventually need to manually configure languages in Aras Innovator, to account for its specific customization.

Once you have defined a language, see the Aras Innovator 40 – Configuring Internationalization document, you can add values to this language for each of the UI elements.

ItemTypes

ItemType	Property	Use	Where to edit in the UI
Action	Label	Displays in the Action menu of the toolbars	Administration\Actions
Activity Template	Label	Text to display the Activity message of a workflow	Administration\Workflow Maps pr Activity
Activity Template	message	Text to display the Activity label of a workflow	Administration\Workflow Maps pr Activity
Activity Template Task	description	Text to display the	Administration\Workflow Maps un label Relationship of an Activity



		Task description of a Workflow Activity	
Activity Template Variable	Label	Text to display the label of an Activity Variable of a workflow	Administration\Workflow Maps unl label Relationship of an Activity
CommandBarButton	Label	Text to display the label of a command bar button	Administration\Client Presentation\Global\Presentation Configuration\Command Bar Sec Bar Item
CommandBarButton	Label	Text to display the label of a command bar button	Administration\ItemTypes\Client S Command Bar Section relationsh
CommandBarButton	tooltip_template	Text to display the tooltip of a command bar button	Administration\Client Presentation\Global\Presentation Configuration\Command Bar Sec Bar Item
CommandBarButton	tooltip_template	Text to display the tooltip of a command bar button	Administration\ItemTypes\Client S Command Bar Section relationsh
CommandBarDropdown	Label	Text to display the label of the command bar dropdown	Administration\Client Presentation\Global\Presentation Configuration\Command Bar Sec Bar Item
CommandBarDropdown	Label	Text to display the label of the command bar dropdown	Administration\ItemTypes\Client S Command Bar Section relationsh



CommandBarDropdown	tooltip_template	Text to display the tooltip of the command bar dropdown	Administration\Client Presentation\Global\Presentation Configuration\Command Bar Section Bar Item
CommandBarDropdown	tooltip_template	Text to display the tooltip of the command bar dropdown	Administration\ItemTypes\Client Section Command Bar Section relationships
CommandBarEdit	tooltip_template	Text to display the edit tooltip of the command bar	Administration\Client Presentation\Global\Presentation Configuration\Command Bar Section Bar Item
CommandBarEdit	tooltip_template	Text to display the edit tooltip of the command bar	Administration\ItemTypes\Client Section Command Bar Section relationships
CommandBarMenu	Label	Text to display the label of the command bar menu	Administration\Client Presentation\Global\Presentation Configuration\Command Bar Section Bar Item
CommandBarMenu	Label	Text to display the label of the command bar menu	Administration\ItemTypes\Client Section Command Bar Section relationships
CommandBarMenuButton	Label	Text to display the label of command bar buttons	Administration\Client Presentation\Global\Presentation Configuration\Command Bar Section Bar Item
CommandBarMenuButton	Label	Text to display the label of	Administration\ItemTypes\Client Section Command Bar Section relationships



		command bar buttons	
CommandBarMenuCheckbox	Label	Text to display the label of command bar checkboxes	Administration\Client Presentation\Global\Presentation Configuration\Command Bar Section Bar Item
CommandBarMenuCheckbox	Label	Text to display the label of command bar checkboxes	Administration\ItemTypes\Client Section Command Bar Section relationship
CommandBarSection	Label	Text to display the label of command bar section	Administration\Client Presentation\Global\Presentation Configuration\Command Bar Section
CommandBarSection	Label	Text to display the label of command bar section	Administration\ItemTypes\Client Section Command Bar Section relationship
Business Calendar Exception	description	Text displayed to describe a Business Day exception.	Administration\Calendars on the Field relationship
Field	Label	Text displayed to label a field in a form	Administration\Forms on the Field relationship
Field	legend	Text displayed to label a field border in a form	Administration\Forms on the Field relationship
Filter Value	Label	Text displayed in pick lists of	Administration\Lists on the Filter Value



		a filtered list in the UI	
Grid Column	Label	Text displayed in Configurable Grid column headers	Administration\Grids on the Grid C relationship
History Action	Label	Text to display the label of history action	ItemType not exposed through UI
History Action	Comment_text	Text to display the label of history action comment text	ItemType not exposed through UI
ItemType	label_plural	Text used in TOC	Administration\ItemTypes
ItemType	Label	Text used in item properties, and Item window title	Administration\ItemTypes
Life Cycle State	Label	Text displayed to label a state of a lifecycle	Administration->LifeCycles on the properties
Message	Text	Text displayed for a notification message	Administration->Notification Mess
Message	Title	Title of the notification message	Administration->Notification Mess
PM_ProjectGridLayout	Label	Text displayed in the column header of	Administration\Preferences on the Layout relationship of the World F



		the Project grid	
Property	Label	Text used in the search grid column headers	Administration\ItemTypes on the relationship
Property	default_value	Text used in the default value of a multi-lingual string property	Administration\ItemTypes on the relationship
RelationshipType	Label	Text used the relationship tabs in Item windows	Administration\RelationshipTypes
Report	Label	Displays in the Report menu of the toolbars	Administration\Reports
SearchMode	Label	Text used to display the different search modes	ItemType not exposed through UI
SecureMessageViewTemplate	Thumbnail_tooltip_template	Text to display thumbnail tooltip	Administration\Forms\SecureMessage on the Field Label relationship
SecureMessageViewTemplate	Sketch_tooltip_template	Text to display sketch tooltip	Administration\Forms\SecureMessage on the Field Label relationship
SelfServiceReportHelp	Rich_help_text	Text to display help text	ItemType not exposed through UI
SSVCPresentationConfiguration	Form_tooltip_template	Text to display form tooltip	ItemType not exposed through UI
UserMessage	Text	Displays in custom error	ItemType not exposed through UI



		messages in the UI	
Value	Label	Text displayed in pick lists in the UI	Administration\Lists on the Value
Workflow Map	description	Text displayed for description of a workflow	Administration\Workflow Maps
Workflow Map	Label	Text displayed in UI for name of a workflow	Administration\Workflow Maps
Workflow Map Path	Label	Text to display the vote path between two Workflow Activities	Administration\Workflow Maps on two activities
Workflow Map Variable	Label	Text to display the label of a Workflow variable	Administration\Workflow Maps on Variable relationship
xPropertyDefinition	Label	Text used in the default value of a multi-lingual string property.	Administration\ItemTypes on the XPropertyDefinition relationship.

Each row in the table above represents a property in the user interface that has been defined as a multi-lingual string. The translator needs to edit each Item of that type that needs to display a non-English value.

Using the Language Pack Management Utility



To aid in the ability to move language packs from one database to the next, Aras has created a Language Pack Management Utility to export and import language values from a database. The Language Pack Management Utility is a command line utility that imports and exports language packs from the Aras Innovator database on a SQL level. The following explains how to use the utility available from the Language Pack Management Utility folder of the Aras Innovator CD Image or from the Aras Community Projects site at <http://www.aras.com/communityProjects/default.aspx> .

The Command Line

There are several elements to the Language Pack Management Utility command line tool. First, is the executable file for the Language Pack Management Utility itself, LanguageTool.exe. The details of the various options for running the executable at the command line are as follows:

Usage:

```
LanguageTool.exe [-export/-import] [-config_file:<file path>]  
[-folder:<folder path>] [-log_file:<file path>] [-log_level:<log level>  
] [-server:<SQL server name>] [-db:<database name>] [-login:<login name>] [-pwd:<login password>]
```

Where:

- **export/import** : this is the required parameter to indicate if the operation is to export or import a language.
- **config_file** : (optional) the path to the configuration file for the current operation, ImportConfig.xml or ExportConfig.xml.
- **folder** : (optional) the path to the data folder. This is the output folder for the export operation, or the input folder for the import operation.
- **log_file** : (optional) the path to the log file.
- **log_level** : (optional) the logging level (high, medium, low).
- **server** : (optional) the name of the Microsoft SQL Server instance where the Aras Innovator database is installed.
- **db** : (optional) the name of the Aras Innovator database.
- **login** : (optional) the innovator login assigned to the Aras Innovator database.
- **password** : (optional) the password for the innovator login assigned to the Aras Innovator database.



Important

The optional parameters can be generally included in the LanguageTool.exe.config configuration file, but the command line parameters take precedence.

LanguageTool.exe.config

The `LanguageTool.exe.config` configuration file that is referenced by the Language Pack Management Utility is a straightforward xml file that defines the parameters for the batch load activity.



```

<?xml version="1.0" encoding="utf-8" ?>
<configuration>
<configSections>
<sectionGroup name="userSettings"
type="System.Configuration.UserSettingsGroup, System,
Version=2.0.0.0, Culture=neutral, PublicKeyToken=b77a5c561934e089" >
<section name="Aras.Tools.I18N.ExpImpMLData.Properties.Settings"
type="System.Configuration.ClientSettingsSection, System,
Version=2.0.0.0, Culture=neutral, PublicKeyToken=b77a5c561934e089"
allowExeDefinition="MachineToLocalUser" requirePermission="false"/>
</sectionGroup>
</configSections>
<userSettings>
<Aras.Tools.I18N.ExpImpMLData.Properties.Settings>
<setting name="config_file" serializeAs="String">
<value>C:\German\ImportConfig.xml</value>
</setting>
<setting name="folder" serializeAs="String">
<value>C:\German\data</value>
</setting>
<setting name="log_file" serializeAs="String">
<value>C:\German\log.txt</value>
</setting>
<setting name="log_level" serializeAs="String">
<value>high</value>
</setting>
<setting name="server" serializeAs="String">
<value>localhost</value>
</setting>
<setting name="db" serializeAs="String">
<value>InnovatorSolutions</value>
</setting>
<setting name="login" serializeAs="String">
<value>innovator</value>
</setting>
<setting name="pwd" serializeAs="String">
<value>innovator</value>
</setting>
</Aras.Tools.I18N.ExpImpMLData.Properties.Settings>
</userSettings>
<startup>
<supportedRuntime version="v4.0" sku=".NETFramework,Version=v4.5.2"/>
</startup>
</configuration>

```

To help understand how to configure this file, the example above can be broken down line by line:

```

<setting name="config_file" serializeAs="String">
<value>C:\German\ImportConfig.xml</value>
</setting>

```

This is the path to a configuration file for the current operation, ImportConfig.xml or ExportConfig.xml.



```
<setting name="folder" serializeAs="String">  
<value>C:\German\data</value>  
</setting>
```

The path to the data folder. This is the output folder for the export operation, or the input folder for the import operation.

```
<setting name="log_file" serializeAs="String">  
<value>C:\German\log.txt</value>  
</setting>
```

This is the path to the log file.

```
<setting name="log_level" serializeAs="String">  
<value>high</value>  
</setting>
```

This is the logging level, 'high' is recommended.

```
<setting name="server" serializeAs="String">  
<value>localhost</value>  
</setting>
```

The name of the Microsoft SQL Server instance where the Aras Innovator database is installed. This value can be found in the Aras Innovator InnovatorServerConfig.xml in DB-Connection tag (server="localhost").

```
<setting name="db" serializeAs="String">  
<value>InnovatorSolutions</value>  
</setting>
```

This is the name of the Aras Innovator database in SQL Server. This value can be found in the Aras Innovator InnovatorServerConfig.xml in DB-Connection tag (database='InnovatorSolutions').

```
<setting name="login" serializeAs="String">  
<value>innovator</value>  
</setting>
```

This is the login assigned to innovator user of the Aras Innovator database in SQL Server. This value can be found in the Aras Innovator InnovatorServerConfig.xml in DB-Connection tag (uid='innovator').

```
<setting name="pwd" serializeAs="String">  
<value>innovator</value>  
</setting>
```

This is the name login assigned to innovator user of the Aras Innovator database in SQL Server. This value can be found in the Aras Innovator InnovatorServerConfig.xml in DB-Connection tag (pwd='innovator').

Any of the parameters may be left out as long as the command line equivalent parameter is defined.

Export Configuration

In order to export a language pack from the Aras Innovator database, you need to define what languages and ItemTypes to export. The definitions of these settings are found in the `ExportConfig.xml` .



```

<export>
<languages list="en, de" />
<itemtype name="Action" />
<itemtype name="Activity Template" />
<itemtype name="Activity Template Task" />
<itemtype name="CommandBarButton" />
<itemtype name="CommandBarDropDown" />
<itemtype name="CommandBarEdit" />
<itemtype name="CommandBarMenu" />
<itemtype name="CommandBarMenuButton" />
<itemtype name="CommandBarMenuCheckbox" />
<itemtype name="CommandBarMenuSeparator" />
<itemtype name="CommandBarSection" />
<itemtype name="CommandBarSeparator" />
<itemtype name="Field" />
<itemtype name="FileSelectorTemplate" />
<itemtype name="Filter Value" />
<itemtype name="Grid Column" />
<itemtype name="History Action" />
<itemtype name="ItemType" >
<properties list="label,label_plural" />
</itemtype>
<itemtype name="Life Cycle State" />
<itemtype name="PM_ProjectGridLayout" />
<itemtype name="Property" >
<properties list="label,default_value" />
</itemtype>
<itemtype name="RelationshipType" />
<itemtype name="Report" />
<itemtype name="SearchMode" />
<itemtype name="SecureMessageViewTemplate" />
<itemtype name="SelfServiceReportHelp" />
<itemtype name="SSVC_Preferences" />
<itemtype name="SSVCPresentationConfiguration" />
<itemtype name="UserMessage" />
<itemtype name="Value" />
<itemtype name="Workflow Map" />
<itemtype name="Workflow Map Path" />
</export>

```

To help understand how to configure this file, the example above can be broken down line by line:

```

<languages list="en, de" />

```

These are the languages by Language Item code property defined in Aras Innovator. The above example shows en (English) and fr (French).

```

<itemtype name="Field" />

```



Each ItemType defined in this file contains all of its multi-lingual string properties exported from the database.

```
<properties list="label,label_plural" />
```

If you want to select some, but not all multi-lingual string properties, add this tag with the properties to export.

Import Configuration

In order to import a language pack into the Aras Innovator database, you first need to define the Language Item in the database. See the *Aras Innovator – Configuring Internationalization* document. Next, you need to set up the ImportConfig.xml.



```

<import>
<itemtype name="Action" />
<itemtype name="Activity Template" />
<itemtype name="Activity Template Task" />
<itemtype name="CommandBarButton" />
<itemtype name="CommandBarDropDown" />
<itemtype name="CommandBarEdit" />
<itemtype name="CommandBarMenu" />
<itemtype name="CommandBarMenuButton" />
<itemtype name="CommandBarMenuCheckbox" />
<itemtype name="CommandBarMenuSeparator" />
<itemtype name="CommandBarSection" />
<itemtype name="CommandBarSeparator" />
<itemtype name="Field" />
<itemtype name="FileSelectorTemplate" />
<itemtype name="Filter Value" />
<itemtype name="Grid Column" />
<itemtype name="History Action" />
<itemtype name="ItemType" >
<properties list="label,label_plural" />
</itemtype>
<itemtype name="Life Cycle State" />
<itemtype name="PM_ProjectGridLayout" />
<itemtype name="Property" >
<properties list="label,default_value" />
</itemtype>
<itemtype name="RelationshipType" />
<itemtype name="Report" />
<itemtype name="SearchMode" />
<itemtype name="SecureMessageViewTemplate" />
<itemtype name="SelfServiceReportHelp" />
<itemtype name="SSVC_Preferences" />
<itemtype name="SSVCPresentationConfiguration" />
<itemtype name="UserMessage" />
<itemtype name="Value" />
<itemtype name="Workflow Map" />
<itemtype name="Workflow Map Path" />
</import>

```

Each ItemType defined in this file should have a corresponding XML file containing the language values in the data folder.

XML Resources

The XML resources represent the static content of the Aras Innovator user interface, such as menu options and toolbar buttons. There is no automated tool for updating these resources. They must be done manually in a text editor.

For instance in the \Innovator\Client\xml\item_menu.xml file:



```
<?xml version="1.0" encoding="UTF-8"?>
<menuapplet on_load="onItemMenuLoad" on_select="onClickItem" on_check="onCheckMenu" show="item_menubar">
<menubar id="item_menubar">
<menu id="file_menu" name="File">
```

Would become:

```
<?xml version="1.0" encoding="UTF-8"?>
<menuapplet on_load="onItemMenuLoad" on_select="onClickItem" on_check="onCheckMenu" show="item_menubar">
<menubar id="item_menubar">
<menu id="file_menu" name="Datei">
```

In the \Innovator\Client\xml.de\item_menu.xml file.

Aras Innovator houses all the generic user interface XML resources in the \Innovator\Client\xml folder. However, each solution could have its own xml resources as well. See the Aras Innovator 40 – Configuring Internationalization document.

Updating the Resource.Config.xml

The **Resource.Config.xml** located in \Innovator\Client\XML folder defines the language(s) that can be loaded on the Client. When you define the language pack, you need to update Resource.Config.xml file and add a reference to your language.

The following is an example of adding the German Language to the Resource.Config.xml:

```
<satelliteresources>
...
<resource culture="neutral"/>
<resource culture="ja"/>
<resource culture="de"/>
...
```

Once you have updated the Resource.Config.xml and saved it, you need to Restart IIS on the Server.

<Where> attribute for Export

The 'where' attribute condition can be used to limit the amount of exported data that is returned while using the Language Tool. So, in this scenario the ExportConfig.xml would contain XML that looks as



follows:

```
<export>
...
<itemtype name="Field">
<properties list="label,legend" />
<where>
SOURCE_ID in (
select b.ID
from Body as b
where b.SOURCE_ID in
(
SELECT f.id
FROM FORM AS f
INNER JOIN [VIEW] AS v ON f.ID = v.RELATED_ID
WHERE (v.SOURCE_ID IN
(SELECT it.ID
FROM ITEMTYPE AS it
INNER JOIN TOC_ACCESS AS ta ON ta.SOURCE_ID = it.ID
INNER JOIN [IDENTITY] AS idn ON ta.RELATED_ID = idn.ID
WHERE (idn.NAME != 'Innovator Admin') AND (idn.NAME != 'Administrators') AND (idn.NAME != 'Super User'))))
</where>
</itemtype>
...
</export>
```

Important

The full sample XML can be found in [Appendix A](#).

