AJ_Tools_xliff

User Manual

Version	Date	Comment (Change)	Author
1.0	5.06.2019	First release	Gabriel Inzirillo

1 Introduction

1.1 What is AJ_Tools_xliff

AJ_Tools_xliff is a component developed with 4D V17. Its use is intended for 4D developers and translators. It allows you to manage the XLIFF translations of your 4D application.

The component gives you a nice interface to manage the strings of your application.

1.2 How XLIFF works?

4D use xliff files to manage translations in an application. For more details, I invite you to read more on the 4D Documentation : Appendix B: XLIFF architecture.

You can also refer to the official XLIFF 1.1 Specification.

2 Table_2 Installation

2.1 Installation of the component

The component can be installed like any 4D component. Simply put the file *AJ_Tools_xliff.4dbase* inside the "Components" folder of your application.

2.2 Dependencies

The component needs 4 tables to be created in your application to be able to work.

This choice was made to allow working in client/server with simultaneous people using the XLIFF Editor.

The XLIFF editor can be used by developers who want to create new strings to insert into the application, as well as by translators who translate these strings. Several translators can be involved and the risk of collision is reduced when working directly on records and tables.

Here is the configuration of the tables that must be strictly respected:

Tables can be named according to your choice, however we recommend that you use the following names for each table to differentiate them from your own tables.

The names of fields, relationships and attributes must be respected for the component to be able to work.

2.2.1 Language Table

Name : **AJ_Tools_xliff_Language**

Fields :

Name	Type	Index	Attributes
UUID	UUID	B-tree	Primary Key
name	Alpha	B-tree	Unique
infos	Object	-	

2.2.2 File Table

Name : **AJ_Tools_xliff_File**

Fields :

Name	Type	Index	Attributes
UUID	UUID	B-tree	Primary Key
name	Alpha	B-tree	Unique

2.2.3 Group Table

Name : **AJ_Tools_xliff_Group**

Fields :

Name	Type	Index	Attributes
UUID	UUID	B-tree	Primary Key

UUID_File	UUID	Cluster	
resname	Alpha	B-tree	Unique
id	Alpha	B-tree	Unique

2.2.4 String Table

Name : **AJ_Tools_xliff_String**

Fields :

Name	Type	Index	Attributes
<u>**UUID**</u>	UUID	B-tree	Primary Key
UUID_Group	UUID	Cluster	
resname	Alpha	B-tree	Unique
id	Alpha	B-tree	Unique
infos	Object		

2.2.5 Relations

Many To One	One to Many	Many To One Name	One To Many Name	Attributes
[Group]UUID_File	[File]UUID	file	groups	Manual, Delete Related Many
[String]UUID_Group	[Group]UUID	group	strings	Manual, Delete Related Many
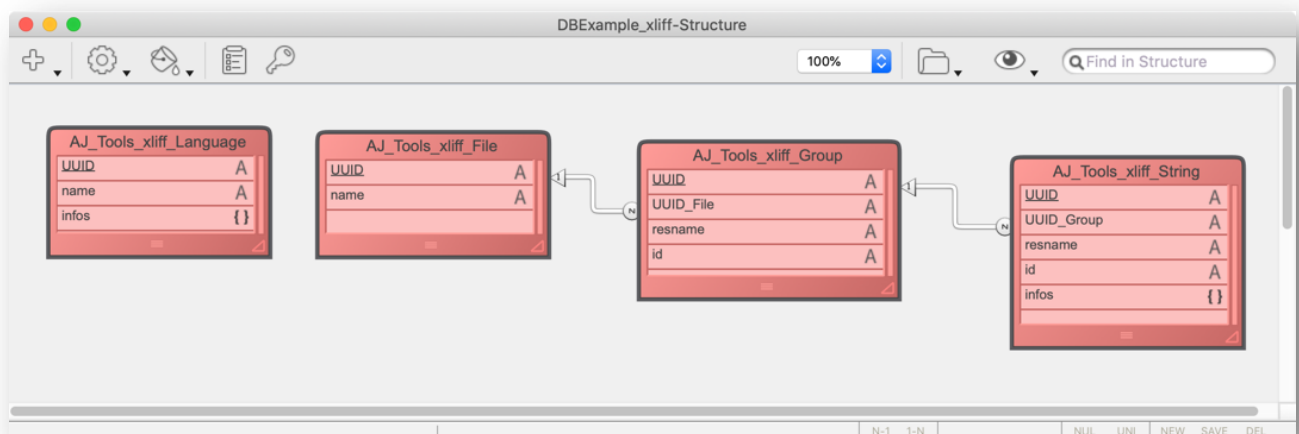
2.2.6 Using the tables (AJ_Tools_xliff_setTables)

To give the component the authorization to use the tables, you must provide the dataClasses to the component. You must use the "AJ_Tools_xliff_setTables" method before to open the editor. This method accepts 4 parameters. The 4 parameters are the 4 dataClasses in this order (Language;File;Group;String).

The best way to do it is to execute this method on the "on Startup" database method.

If the component is used in client/server mode, you must also run this method in the "on Server Startup" database method.

2.2.7 Launch The Editor

To launch the XLIFF Editor, simply launch the "AJ_Tools_xliff_launchEditor" method.

2.3 License

2.3.1 Installing the license (AJ_Tools_xliff_setLicense)

To install the license, you must execute the "AJ_Tools_xliff_setLicense" method with the provided license. You must also execute the method on the "On Server Startup" database method if you are using it on client/server.

2.3.2 Demo Mode

If you don't have any valid license, you will still be able to launch the XLIFF Editor in "Demo Mode".

When using the demo mode, you can import your existing XLIFF files (or create some new strings from scratch) and play a bit with the XLIFF Editor.

You will not be able to have more than 4 files, 10 groups per file and 10 strings per groups.

You cannot export your XLIFF Files.

3   Functional Description

3.1 Description of the XLIFF Editor

The editor is split in 3 main parts, the lists, the details and the header.

3.1.1 Lists

There is 4 lists

- **Languages** : List all the language used in your application. The name of the language will be the name of the ".lproj" folder created in the "Resources" folder. It will also be the name you need to use when changing your application current language on the fly using the "SET DATABASE LOCALIZATION" 4D command. The name is expressed in the standard specified by RFC 3066, ISO639 and ISO3166

- **Files** : List all the different localization files used in your application. The files help you to keep organized your translation in separated context.

- **Groups** : List all the groups related to the selected file. The groups help you organize the strings inside a specific file.

- **Strings** : List all the strings related to the selected group. The string name is the one that will be used in your application using the "Get localized string" 4D command. You will also use this name in your forms, for labels or button for example, using the syntax : ":xliff:<string_name>".

When you open the XLIFF Editor, the groups and strings list show all the records existing. It is the same when you do some search.

Only when you select a specific file it will reduce the selection of the groups related to this file. And when you select a group, it will reduce the selection of the strings related to this group.

3.1.2 Details

The details allow you to see the translations for each existing language for the selected string. You can also write some notes to give some hint for a good translation. You can also use the notes to give information of the placeholders the translator could use in the string. See more on the placeholders section.

3.1.3 Header

The header have different functionalities :

- **Show all checkbox** : this checkbox allow you to switch the display mode of the strings between the current selected group or all the strings in the application. It is only available when you have a group selected.

- **Edit** : This button allow you to edit the current string translations and notes. This will lock the current record. When clicking on it, two other buttons appears :

  o **Cancel** : This allow you to cancel the current edition and leave the edition mode.

  o **Save** : This allow you to save the current work you have done.

- **Copy Code** : This button will copy the 4D Code into your pasteboard. This is helpful when you need to put the code inside your 4D methods, you just have to click this button and paste the code where you need the string. The 4D Code look like this "Get localized string("<string_name>")"

- **Copy :xliff:** : This button will copy the XLIFF code so you can paste it into your form objects. The result look like this ":xliff:<string_name>"

- **Import/Export button** : This button allows you to choose to import or export the xliff files.

  o **Import** : Importing will look all the XLIFF files inside the Resources folder and import them, it will update any existing data you have, create the missing one, and remove the non-existing ones. Be careful when importing, you will lose any modification that was not exported!

  o **Export** : Export the current state of the XLIFF of your tables into the Resources folder. Be careful, this will erase any existing XLIFF files in your project !

- **Import/Export date and time** : You can see the last import and export date and time.

3.2 Edition

You can edit every value in the lists by double-clicking on a value, this will prompt a request dialog where you can edit the name of the selected record. Every name must be unique !

You can add / remove records using the ⊕ ⊖ buttons. Be careful, removing files and groups will delete related records in cascade!

Editing a string using the "Edit" button, will lock the record and allow you to be sure that your work will not be erased by someone else. Be sure to go out of edition by using the "Cancel" or "Save" button to free the record if someone else is working with you on the translations.

3.3 Search

You can use the search field to search in files, groups, strings, translations and notes. The result will show you all the strings that match the search. It will show you all the files and groups that contains the matched strings.

3.4 Placeholders

Placeholders are a good way to make your strings adaptable to some dynamic content. Let's see an example.

You have a string that say "Welcome John, today is the 06, June 2019" when the user John get logged in. We can see two calculated values in this string. Those calculated values can be in a different place in the sentence depending of the language. Here we will use some placeholders in this way : "Welcome $1, today is the $2", $1 and $2 will be replaced by the developer's code during runtime.

3.5 Special functionalities

3.5.1 Set Source Language

To set the source language, you can right-click on a language and choose "Set Source Language".

The source language is mandatory to export the XLIFF files.

The current source language is in bold. If you right-click on the current source language you will see the "Current Source Language" item greyed

3.5.2 Show all missing translations

This functionality is available on the language list when right-click on a language. It will reduce the selection of records for the others lists to display only records that have a missing translation in the selected language.

The language name will turn red in the list and the search bar will activate the cross to remove the filter. You can also right-click on the language to remove the filter.

3.5.3 Set Current Database Language

You can quickly change the current database language on-the-fly by right-clicking on a language in the list and choose "Set Current Database Language". This will relaunch the XLIFF Editor after changing the current application language.

3.5.4 Change Group

You can change the group of a string by right-click on it on the list. You will be prompt with the list of all the existing groups. You can then easily move one string in another group.

3.5.5 Copy Text

Sometimes you want to copy the text of a translation, but if you are not in edition, you cannot select the text to do a copy/paste. You can right-click on the translation to copy the text.

3.5.6 Splitters

The Editor can be fully resized thanks to many splitters inside the editor. Here is a picture with the splitters available in yellow.
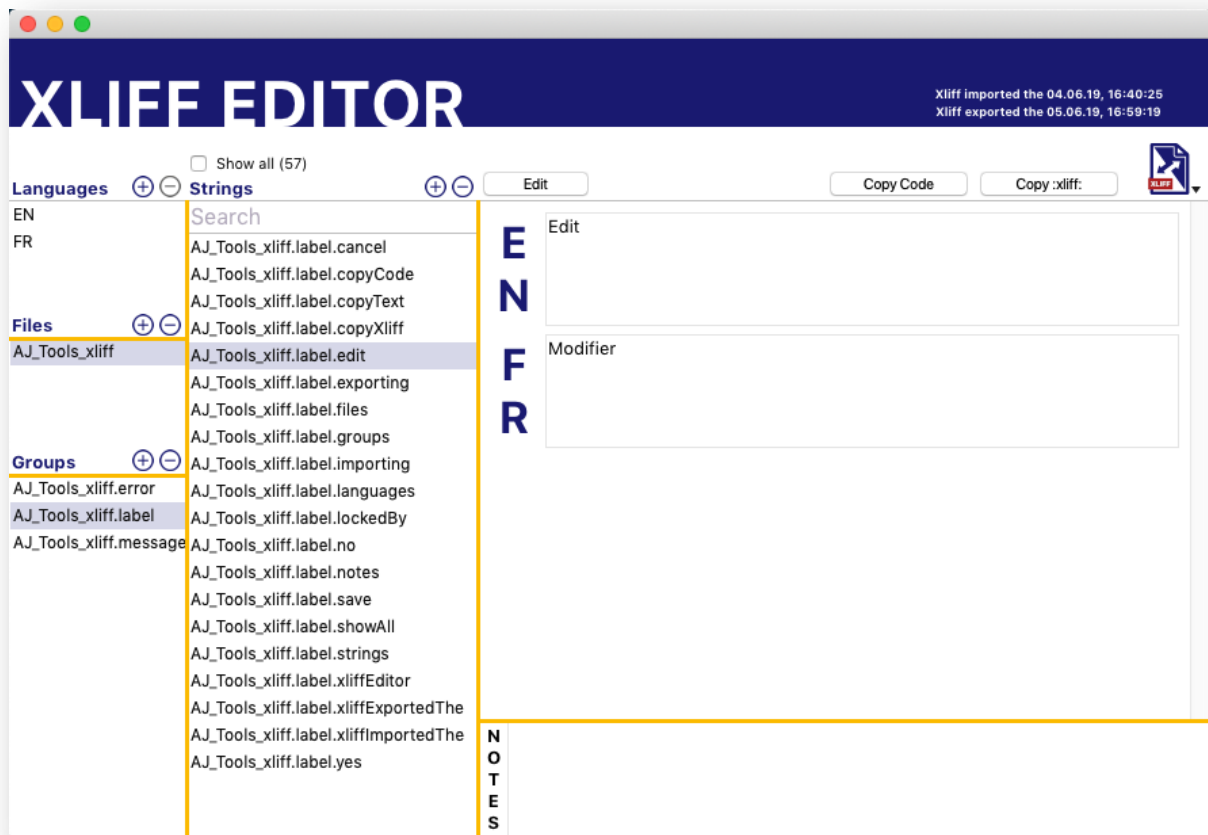
4 Divers

4.1 Variables Footprint

The component has a very small footprint which is :
Interprocess variables size : 28 bytes
Process variables size : 216 bytes

4.2 Contact

If you find any bug, have any issue, need a specific feature or simply need a license, please contact us at info@ajar.ch.

5 Conclusion

The purpose of this document was to present the theoretical principles of the component.

As for the practical elements presented, they are intended to allow you to get off to a good start and to address some specific cases that could arise in the use of the component.

You want help for the implementation of the component AJ_Tools_xliff in your application. You want to modify or extend its functionalities for a specific purpose. You want to have the source code of the AJ_Tools_xliff component in order to perennize its use in your application with future versions of 4D. Feel free to contact us to discuss it.