



## Translution Web Implementation Guidelines

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## Introduction

This document describes the standard process of implementing a multi-lingual website derived from a single language website.

This guide assumes that the person responsible for implementation is a competent, experienced web developer comfortable in working at a code level to develop websites.

If the website uses a database, then the developer should also be familiar with database design and programming including how to customize server side code.

This guide is primarily to be read by web developers, although web designers or other non technical personnel may benefit from reading it.

## Disclaimer

The instructions and recommendations in this document are based on Translution's experience of localizing numerous websites and web applications.

However there will be variations in approach dependent on exact requirements and the architecture, environment and development tools used to develop the website.

These variations should be discussed with Translution's development team at an early stage.

Support and guidance is provided throughout the implementation process by Translution's developers.

The tools Translution provided to assist with implementation, together with detailed support and advice are available separately from Translution. They are normally provided once a contract with Translution has been agreed.

## Implementation Options

Translution Web can be implemented either by your own web developer or by Translution.

## What's Available

**Translution Web** is a generic name for the processes and tools involved in implementing a multi-lingual website. It is the main subject of this document.

**Translution File Translator** tracks changes to web files. It is recommended if you wish Translution to manage the on-going translation of any web files (pages, Javascript, images, multi-media, downloads, resource files) that you may update.

**Translution Database Translator** is required if you have content in a database which is served to your web pages and requires translation.

## Access Required

### *Translution Web Implementation*

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If your international website is implemented by Translution we require a full copy of your website files to be supplied via Translution's FTP service.

***Translution File Translator Implementation:***

If you wish license Translution File Translator, Translution will require administrator access via an FTP client to your website folders and files.

***Translution DatabaseTranslator Implementation:***

If you wish to license Translution Database Translator and use MYSQL as your database, superadmin user access to the database is required to install triggers on your database.

If this is not possible (perhaps because the website is hosted on shared servers), then Translution request that the customer takes a SQL dump of the database.

Translution will then restore it onto our local system, and configure and create triggers. We then export the triggers from the test database and request the hosting provider to run those scripts to create triggers. Because of the additional work involved with this, Translution will make a small charge.

Similar guidelines apply if you use Microsoft SQL Server as your database.

## Implementation Steps Overview

Below are the steps to complete the localization of a website.

**Step 1:** Preparation

**Step 2:** Internationalization of web pages

**Step 3:** Database Configuration (applicable only when deploying Translution Database Translator)

**Step 4:** Server Side Customization (applicable only when deploying Translution Database Translator)

**Step 5:** Translation using machine translation.

**Step 6:** Functional Testing of the multi lingual website using machine translation.

**Step 7:** Human translation of content.

**Note:** You will need to freeze any changes to web page static content at this time (database content can still be updated)

**Step 8:** Final Testing

**Step 9** Implement Translution File Translator (to track changes to web files)

**Step 10** Go Live/ Deploy

**Note:** You can unfreeze any changes to web page static content once Translution Web File manager has been deployed as changes to static source language web files are now tracked

### Step 1: Preparation

Before starting the localization of the website, Translution normally request a conference call to agree the design, language navigation, who is responsible for what, timescales and a project plan. If implementation is to be undertaken by your web developer, then they should be included on the call.

Prior to this conference call, we usually require some time to study the website in depth and prepare. During this period we would request that your web developer is available and a full “dump” of the website and database is made available.

Before starting the localization of the website, the following needs agreement:

- The languages that will be supported and the pages that will be translated.
- Which (pages) parts of the website will be human translated, which will be machine translated and which will not be translated.
- If human translation is required, what quality is required for each page. Choices are professional translation, TER translation or post edited translation.
- Agree who will translate database content.
- How the site navigation will work and whether flags or another method (such as a drop down list of countries) are placed on pages.

Where a micro site is planned i.e. not all pages will be translated, agree how the navigation should work.

For instance when a new language is selected by the visitor and no translated page exists navigate to the translated home page.

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- Agree whether domain extensions should be used (e.g. [www.abc.com/de/products](http://www.abc.com/de/products)) , whether subdomains should be used (e.g. [www.de.abc.com](http://www.de.abc.com) ) or whether new top level domains should be used ([www.abc.de/products](http://www.abc.de/products) ) .

It may therefore be necessary to purchase additional domain names e.g. for Japan it is recommended that a domain name with a .jp extension is purchased.

Also agree where any new domain names should be hosted – in country or on your existing web servers. (Note that this option may not be feasible for dynamic pages for performance reasons)

Before starting the main localization process:

- Archive or delete web pages, image files, multi-media files, resource files, download files, scripts files and flash that are no longer in use on the current web site.
- Examine all images, multi-media, flash, resource files, download files and script files to identify those which require translation. Extract any text which requires translation into a separate spreadsheet.
- If it is intended that Translution Database Translator will be deployed, create a list of the database tables and columns and list how these will be translated. Choices are Ignore, Do Not Translate, TER Translation, Professional/ Post Edited Translation, Machine Translation.
- If you have a database, agree whether machine translation will be displayed in pages whilst waiting for human translation.

If machine translation is not to be displayed whilst waiting for human translation the choices are:

- Display the source language text (e.g. English)
- Display a message saying “Awaiting translations”
- Display nothing.:

Following the project kick off meeting the following should be completed to prepare the website for localization:

- a) Archive or delete or mark as NOINDEX web pages, image files, multi-media files, resource files, download files, scripts files and flash that are no longer in use on the current web site.

## Step 2: Internationalization of web pages

The following are the basic steps a web developer needs to take to internationalize the web files on a web server. Please consult with Translution if any additional details or clarifications are required.

- a) Create a new folder under the root called ‘translution’
- b) Then create folders for each language and name the folders using appropriate language codes (a list of these will be provided by Translution on request). For example, if you want the website to be localized to Chinese Simplified, create a folder called ‘zhs’. Set up any sub folders e.g. images in an identical structure to the source language website
- c) Open all the web pages which are planned for translation and save with UTF-8 encoding.
- d) Check each web page and ensure all href attributes have relative URL’s and not absolute URLs.
- e) Check each page and ensure that all images, flash multi-media, script files, resource files and download files whose text is not going to be translated, have absolute URL’s.

- f) Check each page and ensure that all the images, flash, multi-media, script files, resource files and download files which has text which is going to be translated have relative URL's.
- g) Please note that text embedded in images, flash and multi-media are not localized automatically. Localized images will need to be created later, using tools such as Photoshop.

Translution normally provide the translations of embedded text in a spreadsheet of source language text that you have extracted. Your designer can then create the translated images etc.

- h) Add the Translution Web Agent (a javascript function called 'createTranslutionFlagBar') to all Source language pages. This ensures that visitors are directed to landing pages in their own language. For example a French visitor will be shown a French language page when visiting your website. Translution will send you the Translution Web Agent once a contract has been agreed.
- i) Copy the source language web pages (asp, php, html and other web pages) onto the folders created above (for example the zhs folder). These files are known as pseudo translated files.
- j) In the pseudo translated files (files copied onto the translated folders), you need to change the language parameter in the JavaScript function called 'createTranslutionFlagBar'.
- k) In the pseudo translated files, you need to add the following meta tags:
  - a. `<meta http-equiv="Content-Language" content="zhs"> ****Put the language codes used by browsers***** . I will provide at a later stage.`
  - b. `<meta http-equiv="Content-Type" content="text/html; charset=utf-8">`
- l) Test the website pages along with navigation between different languages

### Step 3: Database Configuration

(This is applicable only if you are deploying Translution Database Translator)

If you use a MySQL or MS SQL database, configure Translution Database Translator using the spreadsheet of tables and types of translation created in the preparation stage..

A demonstration of Translution Database Translator is available from Translution on request.

When finished, use Translution Database Translator to request the initial machine translations.

Also use Translution Database Translator to request any professional or TER translation or translation using Translution Localization Manager of source language content that requires translation. This process loads the source language content that needs translating into Translution Localization Manager.

You will also require an activation code specific to your website.

#### **Step 4: Server Side Customization**

(This is applicable only if your are deploying Translution Database Manager)

Once Translution Database Translator has been configured and initial translations (both machine and human translation) have been requested you then need to make amendments to your server side code and/or SQL statements in your translated pages to ensure that the translated content is displayed on your website rather than the source language content. If you use Store Procedures these may also require to be updated.

- a) Change the SQL's to reflect the new columns created in the database configuration.
- b) Recommended: Move any hardcoded information and error messages in your web pages to be stored in your database rather than in pages. Complete database configuration for this new table using Translution Database Translator.
- c) For PHP files, Use the SetNames command at the top of the php files to display the page in UTF-8.
- d) Please take care of the server side redirection if there is any.

#### **Step 5: Translation using Machine Translation**

Send the pseudo translated pages that have been created in Step 2 to Translution.

If you are deploying Translution Database Translator, inform Translution that the server side code should not be used and give the server side tags (for example % tags for asp server side code) to them. They will use these tags in their tools to hide the server side code when machine translating the pages.

Once the machine translated files are returned by Translution, save these and over-write the pseudo translated files on the web server with the real machine translated files.

#### **Step 6: Functional Testing of the Multi-lingual website**

You should now have a fully functioning multi-lingual website with machine translation.

Note that at this stage, only machine translation of your web pages and database content has been provided. No translations of images, multi-media files, downloads, resource files or scripting files have been provided. Therefore these files will still display their content in the source language only. These will be translated in the next stage.

Test the website to ensure that everything is working as you expected. Also test all navigation. Debug and make any changes to source pages that are required. For instance there may be instances where the translations don't fit (German is typically 30% longer than English). In this instance there may be a need to amend the website CSS so that the lengthier text segments can be displayed properly.

Note: You are not testing the website at this stage for translation quality as only "gist" machine translation will have been provided.

**Step 7: Professionally translate. Freeze any changes to web page content.**

You now need to freeze any content changes to source web pages.

This includes web pages, resource files, multi-media, images, script files and downloads.

Note that changes to database content are automatically tracked by Translution Web DB manager so there is no need to freeze database content that changes whilst the project is completed.

Send the source pages and target (machine translated) pages that require translation to Translution identifying which source pages are to be professional translated and which are to be TEP translation (Translate, Edit., Proof Read).

Translution will send the professionally translated pages back to you

Overwrite the machine translated pages with the professionally translated pages

Send also the images, multi-media, flash, resource files, download files and script files which require translation to Translution identifying which are to be professionally translated and which to be TEP translation. Translution will extract any text that needs translating from these files.

Translution will professionally translate the extracted source text from your images, multi-media, flash, resource files, download files and script files and send the translations to your graphic designers. Your graphic designers are normally responsible for producing new translated files.

Overwrite the existing images, multi-media, flash, resource files, download files and script files with the professionally translated files.

**Step 8: Final Testing**

Test your website ensuring that all elements are correctly displayed and translated. Ensure you test across all language pages. Identify any translations that still remain to be completed and send these to Translution. Once received, overwrite the existing files.

**Step 9: Implement Translution File Translator**

Once everything has been fully tested, inform Translution.

Translution will then implement Translution File Manager and inform you that when it is ready.

**Step 10: Unfreeze changes to web page content. Go Live/ Deploy**

You can now unfreeze web page content updates and deploy your multi-lingual website.

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## Translution Tools

### A) Translution Web Agent:

This is a JS file which is contained in a zip file "Translution Web Agent".

- a) Create a folder called translution under the website root.
- b) In the folder 'translution' copy the file 'translution.js'.
- c) Open the file 'translution.js', please go to the section \*\*\*\*\*TODO\*\*\*\*\*. Please follow the instructions and make necessary changes.
- d) You need to reference the file 'translution.js' in the php file as below:

```
<script SRC="/translution/translution.js" Language="JavaScript"></script>
```

- e) Then, in the place where you want the language flag/ drop down to appear you should put in the code:

```
<script language="javascript">createTranslutionFlagBar("");</script>
```

- f) The JS file has got a function called createTranslutionFlagBar(). It requires a parameter which needs to be passed in. This parameter is the language parameter. The above code needs to be put in the source pages. In the localized pages, you need to pass a language code parameter like below ( For example german pages):

```
<script language="javascript">createTranslutionFlagBar("deu");</script>
```

### 2) Server Side Code to detect the browser language code and redirecting the user to the correct language page

- a) In the zip file called "Translution Web Agent", there is a text file called "**Server Side Code for Language Detection and Redirection.txt**".
- b) This contains server side code to detect the browser language and redirect the user to the correct language page.
- c) This code should be present at the top of the index page of the source language.

## Appendix A – Additional Guidelines

Translution Web can be installed with only a few changes to your existing website.

However it will help with implementation if the website has been correctly designed and coded.

The following list details the aspects of the website which should be carefully addressed for an easy and successful implementation of Translution Web

### HTML Element Sizes

Where possible HTML elements should allow for possible text length increase after translation. This is especially important for text field widths, dropdown menu widths, and button text widths.

For example, when English text is translated into Italian or German, its translation typically requires approximately 25 - 35% more space.

We suggest that developers assume that English source text will increase by approximately 35%. So allow for this when determining widths of HTML elements.

### HTML Element Positioning

If possible avoid using absolute positioning for HTML elements as this may force translated pages to display text incorrectly, or overlap with other automatically expanded elements.

If absolute positioning is used, then allow for the 35% text expansion detailed in Item 1 above.

### Splitting Text

Please avoid splitting up displayed text with additional spaces, tabs, new line markers. These are sometime added for formatting issues or due to the editor being used to generate the source code.

However adding additional spaces, tabs etc is likely to cause problems for any machine translation engine used. It also means that the machine translation engines will not automatically identifying compound term source entries with additional spaces in the text. It may also cause problems with segmenting text when it is used by Translution Localization Manager.

For example – spaces have been entered in the middle of anchor tag text below:

```
<a class="item2"  
href="<%=WebsitePath2%>communicate.aspx">Communicate Anytime,
```

```
Anywhere with Anyone</a>
```

Tabs may be used for alignment purposes, if absolutely necessary, but it is **very important** that spaces are not used.

### Avoid blank space formatting

Please avoid formatting HTML by adding spaces or tabs into text elements, whether before or after text. For the same reason as in Item 3 above, this may cause erroneous text replacements using the Translution Web dictionaries.

### Text in Images

A lot of images and graphics can contain text. This is not a problem as these graphics can be pre-translated and set up in Translution Web system for use. Translution Web has been designed to allow for translated images and downloadable files/documents.

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However please try to avoid using graphics purely for the purpose of displaying text, as this will add to the implementation time and cost.

### **Properly Formatted HTML**

Ensure that HTML code is correctly formatted, taking special care that all appropriate ending tags are present. Web browsers can often display badly formatted HTML correctly, However Translution's HTML parsing code assumes correctly formatted HTML to perform accurately.

### **Right To Left Page Alignment**

Where Arabic is used (or other right to left alphabets such as Hebrew and Farsi), the HTML components should display correctly with right to left alignment. This should not be a problem with text components, but may affect pictures comprising of separate smaller images.

### **Absolute Paths for External Links**

Where external links are referenced please use absolute paths rather than relative paths, unless there is a valid reason to use these.

For example, use "<http://www.translution.com>", rather than "[../..//www.translution.com](http://www.translution.com)".