# **Enabling translation**

fork and edit tutorial (https://github.com/MobileFirst-Platform-Developer-Center/DevCenter/#fork-destination-box) | report issue (https://github.com/MobileFirst-Platform-Developer-Center/DevCenter/issues/new)

#### **Overview**

You can use the IBM MobileFirst Platform Foundation framework to enable the translation of applications into other languages.

Items that can be translated are:

Application strings.

System messages.

The platform can automatically translate application strings according to a designated file.

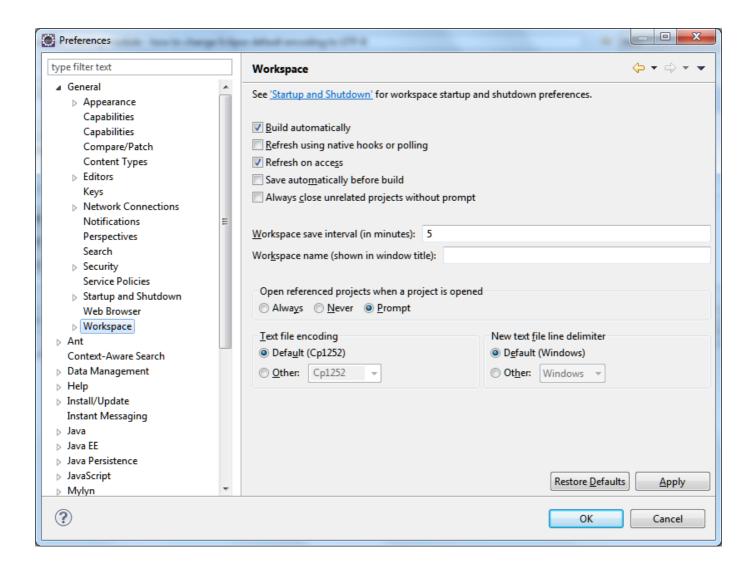
You can implement multilingual translation by using JavaScript.

## **Encoding**

The default workspace encoding in Eclipse is Cp1252.

Before you create the MobileFirst project and start the translation work, you must change the default encoding of the Eclipse workspace.

In Eclipse, navigate to Window > Preferences > General > Workspace, and change the encoding to UTF-8.



### **Enabling translation of application strings**

You can find the *messages.js* file, which is intended for application strings, in the *common\js* folder.

```
Messages = {
headerText: "Default header",
actionsLabel: "Default action label",
sampleText: "Default sample text",
};
```

Application messages that are stored in the *messages.js* file can be referenced in two ways:

As a JavaScript object property, for example: *Messages.headerText* or as an ID of an HTML element with class="translate".

```
<h1 id="headerText" class="translate"></h1>
```

#### **Enabling translation of system messages**

It is also possible to translate system messages that the application shows, for example "Internet connection is not available" or "Invalid username or password".

System messages are stored in the WL. Client Messages object.

You can find a full list of system messages in the www\default\worklight\messages\messages.json file, which is inside the generated projects (iOS, Android, Windows Phone 8, and so on,...).

To enable the translation of a system message, override it in your JavaScript application.

```
WL.ClienMessages.loading = "Application HelloWorld is loading... please wait.";
```

Override system messages at a global JavaScript level because some parts of the code are executed only after the application has successfully initialized.

#### Multilanguage translation

Using JavaScript, you can implement multilanguage translation for your applications. Set up the default application strings in the *messages.js* file.

```
Messages = {
    headerText: "Default header",
    actionsLabel: "Default action label",
    sampleText: "Default sample text",
    englishLanguage : "English",
    frenchLanguage : "French",
    russianLanguage : "Russian",
    hebrewLanguage : "Hebrew"
};
```

Override specific strings when required.

```
<br/>
function setFrench(){<br/>
function setFrench(){<br/>
Messages.headerText = "Traduction";<br/>
Messages.actionsLabel = "Sélectionnez langue:";<br/>
Messages.sampleText = "ceci est un exemple de texte en français.";<br/>
}<br/>
}<br/>
/>
```

Update GUI components with the new strings.

You can perform more tasks, such as setting text direction for right-to-left languages such as Hebrew or Arabic.

Each time that an element is updated, it is updated with different strings according to the active language.

```
function languageChanged(lang) {
if (typeof(lang)!="string")
 lang = $("#languages").val();
 switch (lang){
   case "english":
   setEnglish();
   break;
   case "french":
   setFrench();
   break;
   case "russian":
   setRussian();
   break;
   case "hebrew":
   setHebrew();
   break;
  if ($("#languages").val()=="hebrew")
   $("#wrapper").css({direction: 'rtl'});
   $("#wrapper").css({direction: 'ltr'});
  $("#sampleText").html(Messages.sampleText);
  $("#headerText").html(Messages.headerText);
  $("#actionsLabel").html(Messages.actionsLabel)
}
```

#### Detecting the device locale and language

It is possible to detect the locale and the language of the device.

Use the WL.App.getDeviceLocale() and WL.App.getDeviceLanguage() functions to detect the current locale.

```
var locale = WL.App.getDeviceLocale();
var lang = WL.App.getDeviceLanguage();
WL.Logger.debug(">> Detected locale: " + locale);
WL.Logger.debug(">> Detected language: " + lang);
```

```
05-12 12:27:19.685 D 26294 before: app init onSuccess 05-12 12:27:19.735 D 26294 >> Detected locale: en_US 05-12 12:27:19.745 D 26294 >> Detected language: en 05-12 12:27:19.775 D 26294 after: app init onSuccess
```

## Sample application

Click to download

(http://public.dhe.ibm.com/software/products/en/MobileFirstPlatform/docs/v630/EnablingTranslationProject.zip) the Studio project.