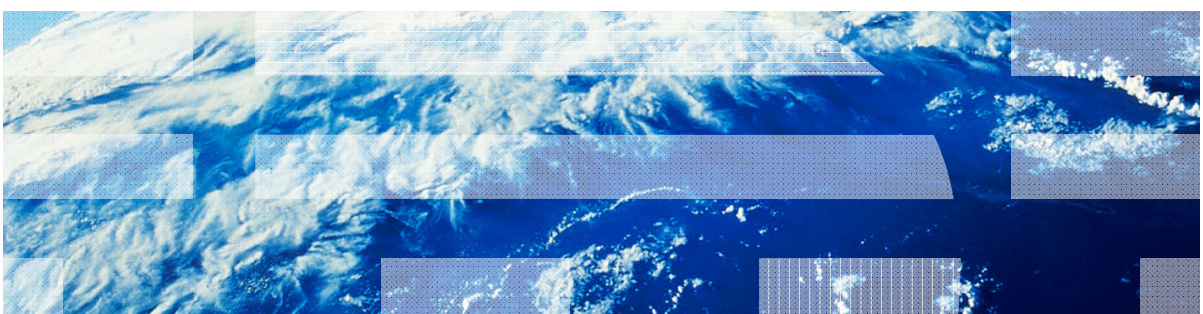
IBM Worklight V5.0.5
Getting Started

Module 15 – Enabling Translation



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Agenda

- Translation introduction
- Enabling translation of application strings
- Enabling translation of system messages
- Multi-language translation
- Detecting device locale and language
- Exercise

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Translation introduction

- You can use the Worklight® framework to enable the translation of applications into other languages
- Items that can be translated are
  - Application strings
  - System messages
- The Worklight Platform can automatically translate the application strings according to a designated file
- Multi-language translation can be implemented using JavaScript

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Enabling translation of application strings

- The `messages.js` file, which is intended for application strings, can be found in the `common/js` folder

```
Messages = {
    headerText: "Default header",
    actionsLabel: "Default action label",
    sampleText: "Default sample text",
    englishLanguage : "English",
    frenchLanguage : "French",
```

- Application messages stored in `messages.js` can be referenced in two ways:
  - As a JavaScript object property, for example: Messages.header or Messages.sampleText
  - As an ID of an HTML element with class="translate"

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Enabling the 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 user name or password”
- System messages are stored in WL.ClientMessages object
- A full list of system messages can be found in the wlclient/js/messages.js file inside the Worklight generated projects (iOS, Android, etc.)
- To enable the translation of a system message, override it in your JavaScript application.

```
window.$ = WLJQ;

WL.ClientMessages.requestTimeout = "Custom request timeout message";
WL.ClientMessages.invalidUsernamePassword = "Custom Username and password are not valid";

function wlCommonInit(){
    $('#languages').bind('change', languageChanged);
```

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

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Multi-language translation

- Using JavaScript, it is possible to implement multi-language 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.

```
function setFrench(){
    Messages.headerText = "Traduction";
    Messages.actionsLabel = "Sélectionnez langue:";
    Messages.sampleText = "ceci est un exemple de texte en français.";
}
function setRussian(){
    Messages.headerText = "Перевод";
    Messages.actionsLabel = "Выбор языка:";
    Messages.sampleText = "Это пример текста на русском языке.";
}
```


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Multi-language translation

- Update GUI components with the new strings.

```
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") $("#AppBody").css({direction: 'rtl'});
    else $("#AppBody").css({direction: 'ltr'});

    $("#sampleText").html(Messages.sampleText);
    $("#headerText").html(Messages.headerText);
    $("#actionsLabel").html(Messages.actionsLabel);
}
```

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

Each time an element is updated with different strings according to active language

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Detecting device locales

- It is possible to detect the locale and the language of the handset.
- Use WL.App.getDeviceLocale() and WL.App.getDeviceLanguage() 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
```


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Exercise

- Create an application that detects the handset locale at startup and provides the user with a GUI in the language detected.
- Do not hard-code any of the application strings. Instead, store them in the messages.js file.
- Override default system error messages.
- Add the option to select languages manually.
- Change GUI elements according to the language selected.

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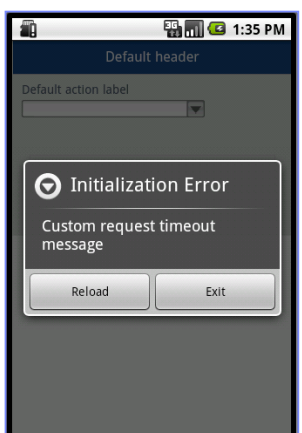
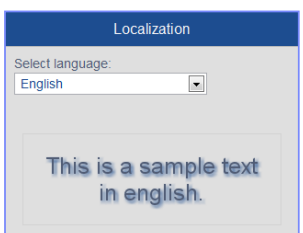
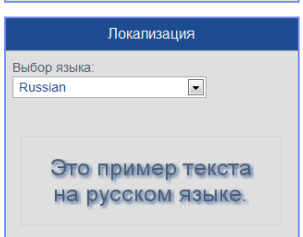
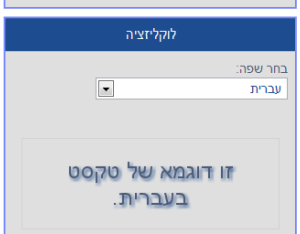
Exercise

- The sample for this training module can be found in the Getting Started page of the IBM® Worklight documentation website at http://www.ibm.com/mobile-docs









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Check yourself questions

- Is it possible to detect the current device language and locale?
  - Yes, using WL.App.getDeviceLocale and WL.App.getDeviceLanguage APIs
  - Yes, using WL.App.getDeviceLanguageSettings API
  - It is only possible to detect the device language by using WL.App.getDeviceLanguage
  - No, it is not possible
- Which class should be added to an element in order for it to use a property from the messages.js file?
  - resource
  - translate
  - localizable
  - externalText
- In order to override system messages, which object properties should be overwritten?
  - WL.SystemMessages
  - WL.Messages
  - WL.Resources.Messages
  - WL.ClientMessages

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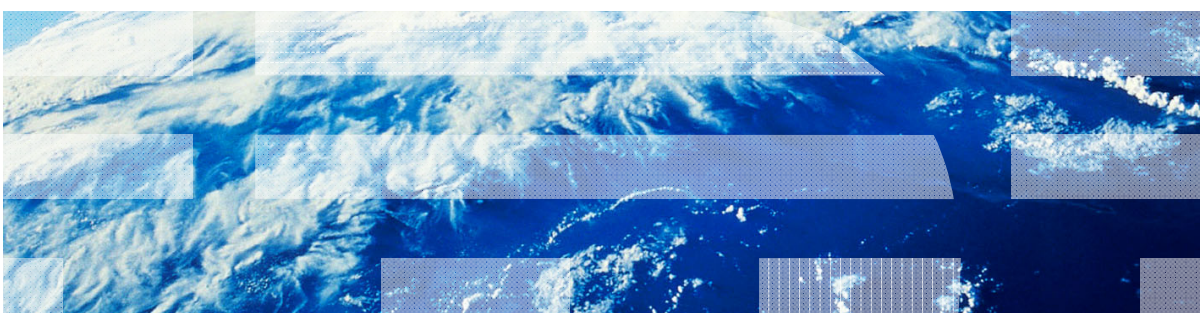

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