

IBM Worklight V6.1.0 Getting Started

Enabling translation



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Agenda

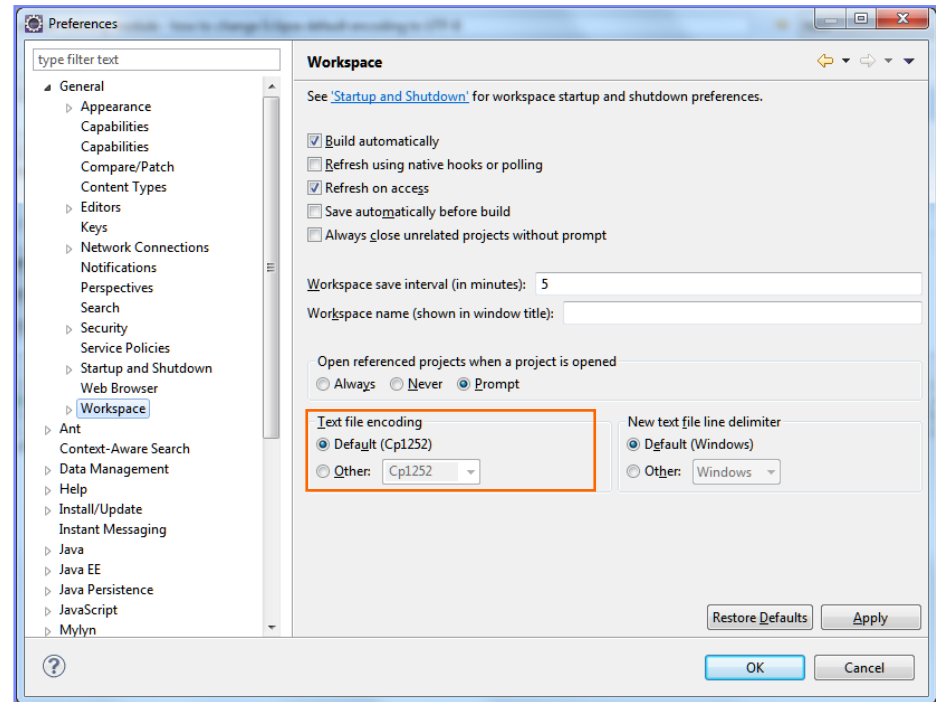
- Translation introduction
- Enabling translation of application strings
- Enabling translation of system messages
- Multi-language translation
- Detecting device locale and language
- Exercise

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™

Translation introduction

- **Note:** The default workspace encoding in Eclipse is Cp1252.
- **Before starting the translation work**, this default encoding of the Eclipse workspace must be changed before creating the Worklight project.
- In Eclipse, navigate to **Window > Preferences > General > Workspace**, and change the encoding to UTF-8.



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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 that are 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"`

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

A string defined in *Messages.headerText* will be automatically used here.

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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.ClientMessages` object
- A full list of system messages can be found in the `www\default\worklight\messages\messages.json` file, located inside the Worklight 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.ClientMessages.loading = "Application HelloWorklight is loading... please wait.";
```

- 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.";  
}
```

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

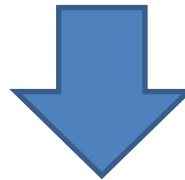
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Detecting device locales

- 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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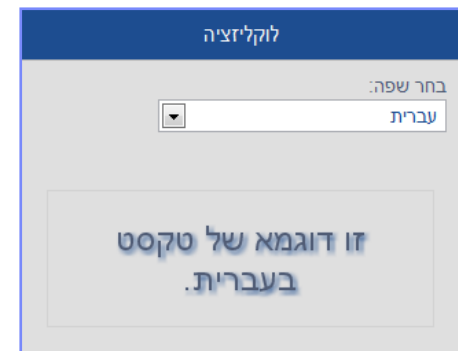
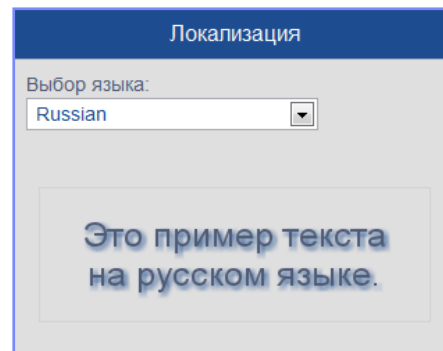
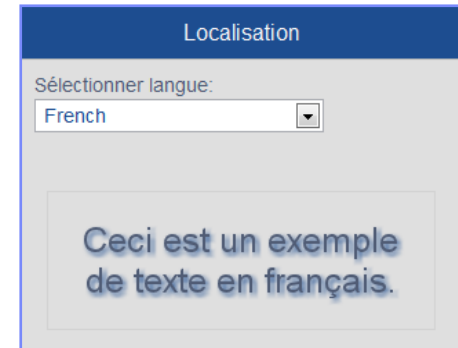
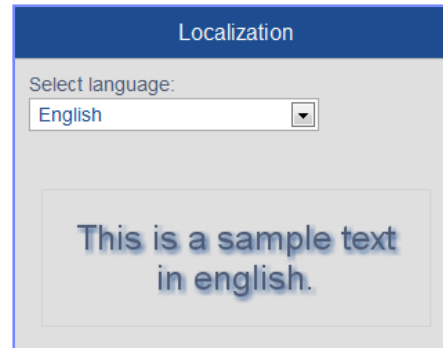
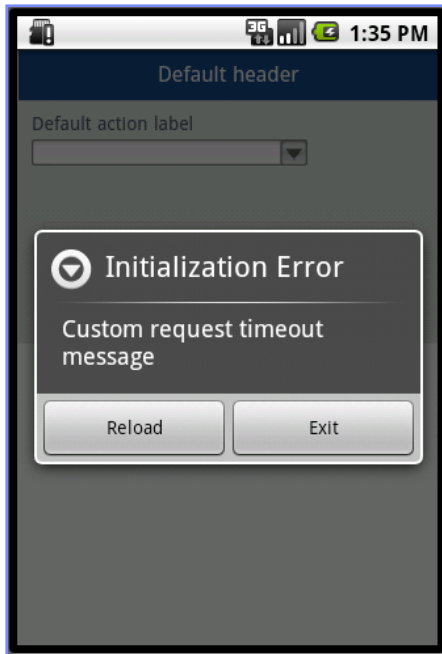
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Exercise

- Create an application that detects the handset locale at startup and provides the user with a GUI in the language detected.
- Do not hardcode 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.

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>.



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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