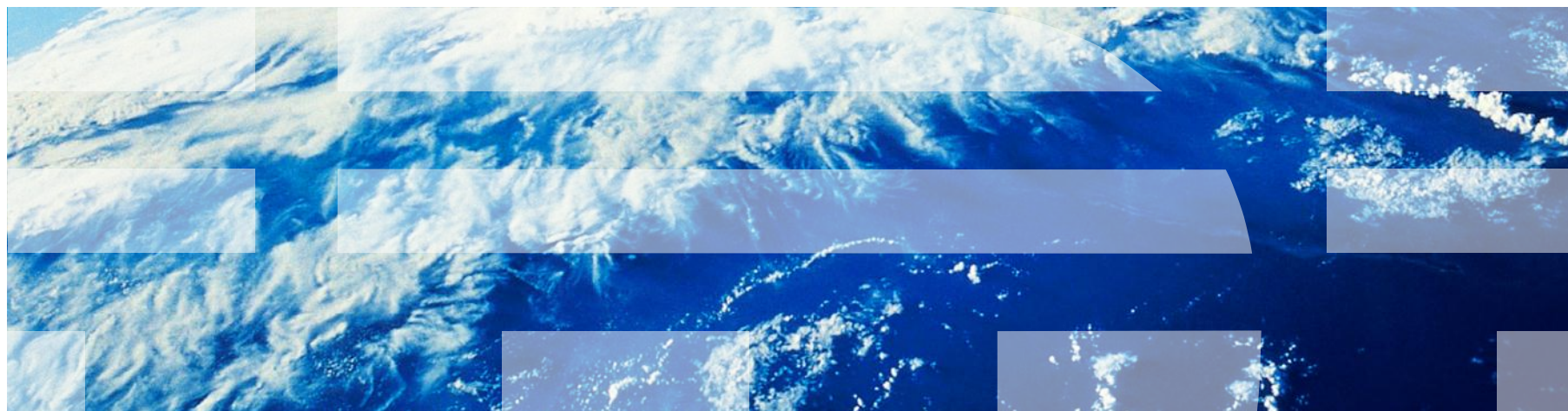


IBM Worklight Foundation V6.2.0 Getting Started

Optimizing your application for various environments



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Agenda

- What is an environment optimization?
- Currently supported environments
- How does optimization work?

What is environment optimization?

- Worklight® applications run in mobile, tablet, and web environments.
- Runtime environments differ in many aspects such as screen size, orientation, specific UI guidelines and components, physical user interface, and unique environment functionalities.
- IBM Worklight Foundation increases development efficiency and productivity by providing an environment optimization framework.
- The core logic and design guidelines of the app are written by using web technologies (HTML, CSS, and JavaScript™) and are shared by all environments.
- Environment-specific optimization can be added when required.
- If you use a source control management system (such as Rational Team Concert™, Git, or Subversion), see [Integrating with source control systems](#) in the product user documentation.

Agenda

- What is environment optimization?
- **Currently supported environments**
- How does optimization work?

Currently Supported Environments



- iOS 5.0 and later
- Android 2.3.3, 4.x and later
- BlackBerry OS 6 and later
- Windows Phone 8 and later



- Modern browsers that support HTML4, CSS2.1 and JavaScript 1.5 at a minimum
- Browsers that support HTML5 and CSS3



- iOS 5.x and later
- Android 2.3.3, 4.x and later
- Windows 8 and later



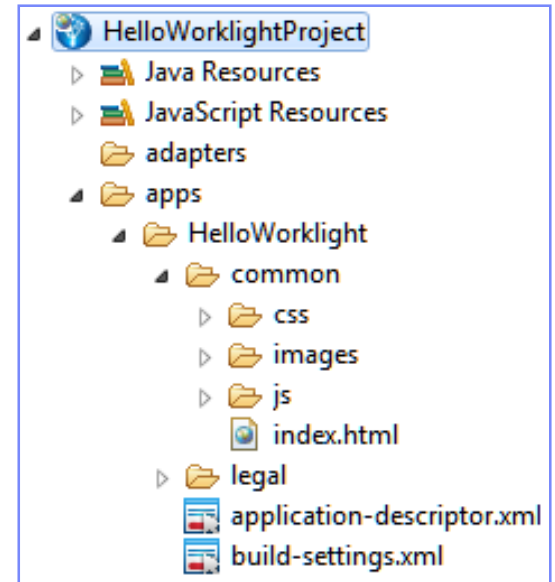
- Mobile Web
- Desktop browser

Agenda

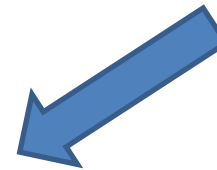
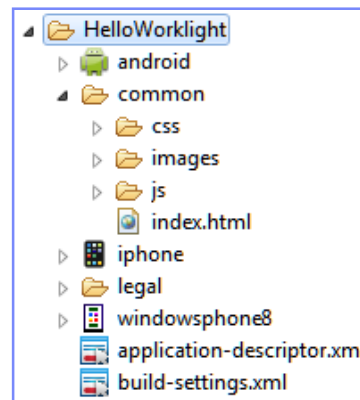
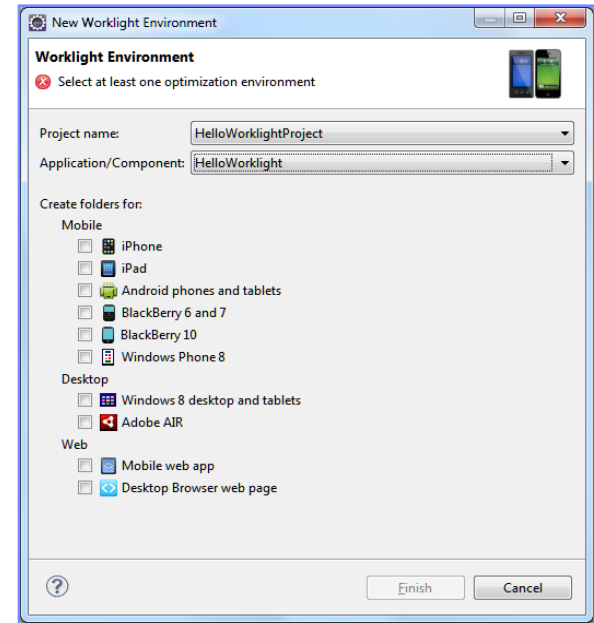
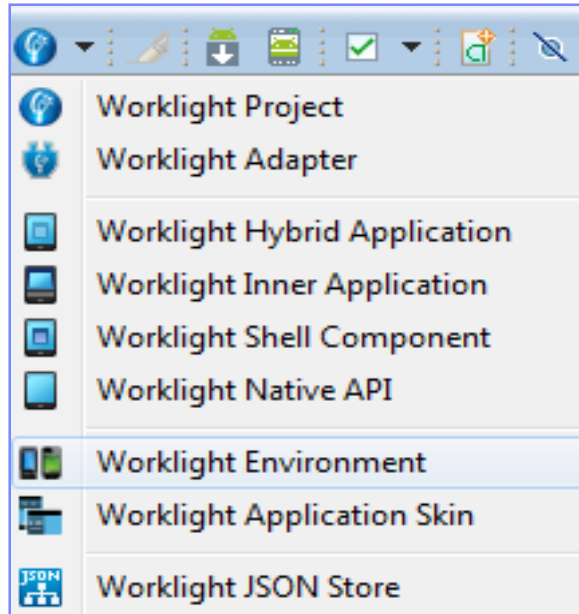
- What is environment optimization?
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How does optimization work?

- The Worklight application structure is divided into environment folders (iPhone, Android, BlackBerry, and so on).
- Each environment folder contains the web resources (CSS, JS, images, and so on) that are relevant for that specific environment.
- A newly created application contains the base environment in the common folder. The web resources that are in the common folder serve as the basis for the optimized environments that you might add later on.
- The common folder must hold **only** resources that are shared by all environments.



Adding an environment



How does optimization work?

HTML

- The newly added environment (for example, iPhone) extends the resources of the common environment in the following way:
- The new environment HTML code overrides the common HTML file.
- **Note:** By default, a new environment does not include a new HTML file because the common HTML file is shared by all environments.



How does optimization work?

JavaScript

- The newly added environment (for example, iPhone) extends the resources of the common environment in the following way:
 - The JavaScript file from an environment folder has a `wlEnvInit()` function that invokes the `wlCommonInit()` JavaScript function from the common folder.
 - Technically, the JavaScript from an environment folder is appended to the file from the common folder.
 - Using the same variable names as in the common folder redefines their meaning.

main.js from
common

main.js from **iPhone** appended to
main.js from **common**

main.js from
iPhone

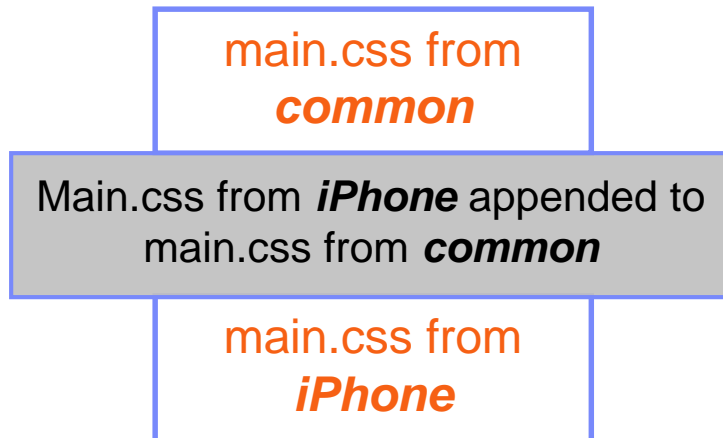
```
function wlCommonInit() {
    // Put your initialization code here
}
```

```
function wlEnvInit(){
    wlCommonInit();
}
```

How does optimization work?

CSS

- The newly added environment (for example, iPhone) extends the resources of the common environment in the following way:
 - The CSS file from an environment folder is appended to the CSS file from the common folder.
 - Using the same property names as the ones in the common folder overrides their settings.
 - **Note:** The CSS from the environment folder might contain some default CSS rules that match the environment needs.

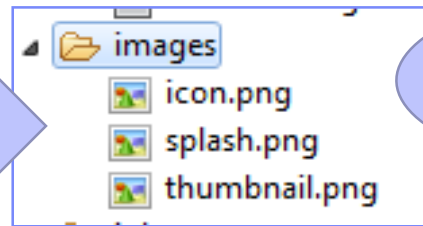
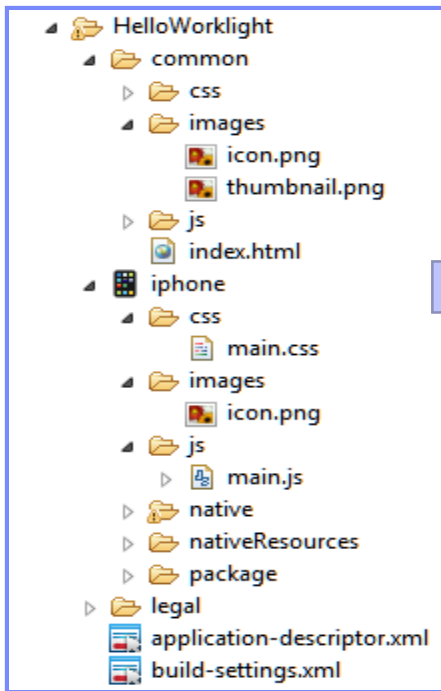


```
/* Stylesheet content from css/main.css in folder iphone */  
  
/* this CSS file extends the application CSS file found under common\css */  
  
/* body should stretch in an iPhone application */  
body {  
    height: auto;  
    width: 100%;  
    overflow: auto;  
}
```

How does optimization work?

Images

- The newly added environment (for example, iPhone) extends the resources of the common environment in the following way:
 - Image files in the images folder of the environment folder that have the same file name than the image files in the common folder override the image files in the common folder.



Common icon overridden by the iPhone one

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