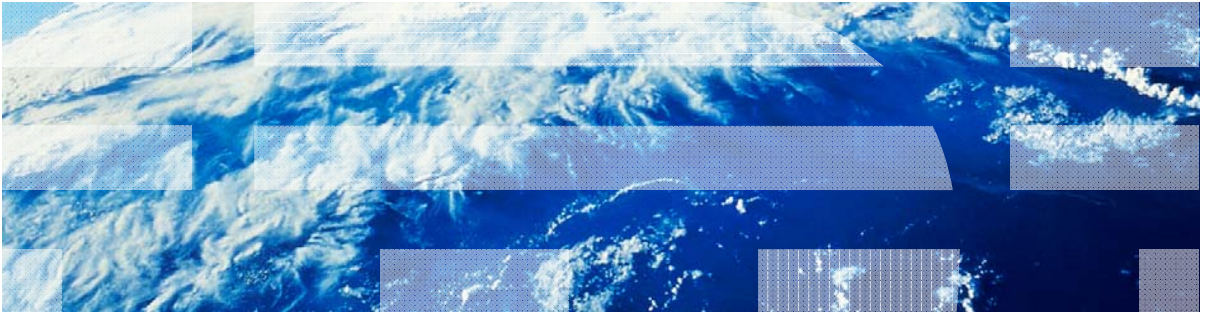


IBM Worklight V5.0.6 Getting Started

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 an environment optimization?

- IBM Worklight® applications run in multiple mobile, tablet, and web environments.
- Runtime environments differ from each other in many aspects such as screen size, orientation, specific UI guidelines and components, physical user interface, and unique environment functionality.
- IBM Worklight 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™ (RTC), GIT or Subversion), see *Integrating with source control systems* in the IBM Worklight user documentation for instructions on how to commit your source code to such systems.

Agenda

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Currently Supported Environments



- iOS 4.3 and later
- Android 2.2 and later
- BlackBerry OS 5 and later
- Windows Phone 7 and later



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



- iOS 4.x and later
- Android 2.1 and later



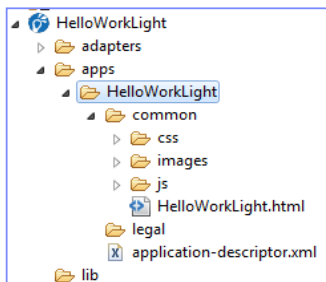
- Mobile Web
- Embedded browser page

Agenda

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

How does optimization work?

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



Adding a new environment

The image shows a sequence of three screenshots from the IBM Worklight IDE wizard, illustrating the process of adding a new environment. A large blue arrow points from the first screenshot to the second, and a smaller blue arrow points from the second to the third.

First Screenshot: Select a wizard
Title: Select a wizard
Description: A mobile operating system, desktop gadget engine, or web framework, in which an application can run
Wizards: type filter text
List of wizards:

- Tasks
- User Assistance
- Web
- Web Services
- Worklight
 - Worklight Adapter
 - Worklight Application
 - Worklight Application Skin
 - Worklight Environment
 - Worklight Project
- XML
- Examples

Second Screenshot: New Worklight Environment
Title: New Worklight Environment
Section: Worklight Environment
Description: Create application folders for new environments.
Project name: TestApp
Application/Component: TestApp
Create folders for:

- Mobile
 - iPhone
 - iPad
 - Android phones and tablets
 - BlackBerry
 - Windows Phone
- Desktop
 - Windows 8 (Desktop & Tablet)
 - Adobe AIR
 - Windows 7 and Vista (Deprecated*)
 - Mac OS X Dashboard (Deprecated*)
- Web
 - Mobile web app
 - Desktop Browser web page
 - Facebook (Deprecated* - Use Desktop Browser instead)
 - Google (Deprecated*)

Third Screenshot: File Explorer
Path: apps > CommonControls
Contents:

- android
- blackberry
- common
- iphone
- legal
- windowsphone
- application-descriptor.xml

How does optimization work?

HTML

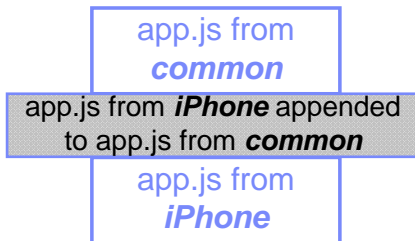
- The newly added environment (for example, iPhone) extends the resources of the common environment in the following way:
 - HTML: The common HTML file is overridden by the new environment HTML code
 - Note: by default a new environment does not include a new HTML file because the common HTML is shared 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:
 - JavaScript: 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 common
 - Using the same variable names as in common redefines their meaning



```
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:
 - CSS: The CSS file from an environment folder is appended to the CSS file from the common folder
 - Using the same property names as in common overrides their settings
 - Note: the environment CSS might contain some default CSS rules that match the environment needs

app.css from
common

app.css from *iPhone* appended
to app.css from *common*

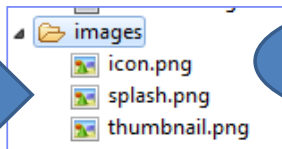
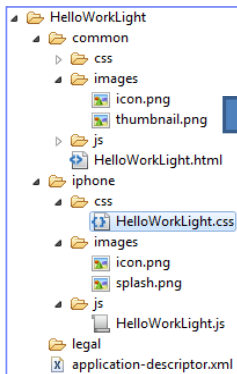
app.css from
iPhone

```
/*  
NOTE: THIS CSS FILE EXTENDS THE BASE APP CSS FILE (UNDER COMMON)  
*/  
  
/*BODY SHOULD STRETCH IN AN IPHONE APPLICATION*/  
body {  
    height: auto;  
    overflow: auto;  
}  
  
/*WORKLIGHT CONTAINER DIV*/  
#content {  
    height: auto;  
    width: 100%;  
    border: none;  
}
```

How does optimization work?

Images

- The newly added environment (for example, iPhone) extends the resources of the common environment in the following way:
 - Images: A new environment images folder contains the required default images for the specific environment
 - Note: the new environment images override the common images if name collision occurs



Common icon
overridden by the
iPhone one

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