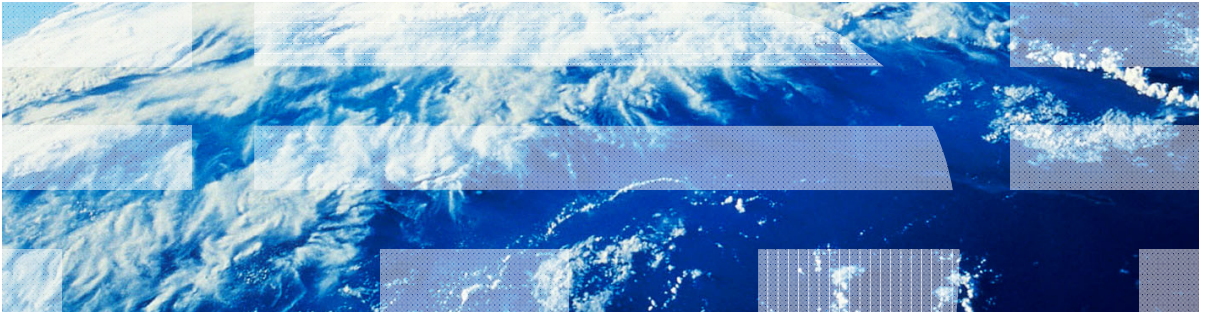


IBM Worklight V5.0.5 Getting Started

Module 50 – Developing Desktop Apps



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Agenda

- Supported Desktop Environments
- Development
- Environment-specific capabilities
- Environment-specific images
- Debugging the application
- Deployment

Supported Desktop Environments

- IBM Worklight® supports the following desktop environments:
 - Windows Store Apps - Built into the Windows 8 OS
 - Adobe Air - <http://get.adobe.com/air/>

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- Supported Desktop Environments
- **Development**
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Development

- Windows Store Apps
 - The development is done in the Worklight Studio and in Microsoft Visual Studio Express 2012 for Windows 8.
 - To open the project in Visual Studio Express 2012 for Windows 8 double-click the <APPLICATION_NAME>.jsproj file in the native folder.
 - The files in the project in Visual Studio Express 2012 for Windows 8 are the files in the Native folder in the Eclipse project.

- Adobe Air:
 - The development is done entirely in Worklight Studio.

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Environment-Specific Capabilities: Windows Store Apps

- Some useful Windows Store Apps APIs implemented in the Worklight API:
 - Initialize an option menu: `WL.OptionsMenu.init();`
 - Add an item to the option menu: `WL.OptionsMenu.addItem('ID', function() {}, ITEM_TEXT, {image: 'PATH_TO_IMAGE_IN_THE_RESOURCES_FOLDER'});`
 - Override an icon with a default Windows 8 icon:
`document.getElementById('#ID').winControl.icon = 'refresh';`
- Other Windows Store Apps APIs:
 - `Windows.Devices.Geolocation`
 - `Windows.Media.Capture`
 - `Windows.ApplicationModel.Contacts`

Environment-Specific Capabilities: Windows Store Apps

- Add Options Menu to your application

Worklight Starter

Engadget's holiday gift guide 2012: gaming	>
Mon, 19 Nov 2012 12:00:00 EDT	
CE-Oh no he didn't!: SpaceX creator Elon Musk says Ariane 5 rocket has 'no chance'	>
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Windows 8 sales have been 'slow going,' Microsoft said to be blaming OEMs	>
Mon, 19 Nov 2012 10:05:00 EDT	
Warner Archive on-demand disc service kicks off Blu-ray availability with Gypsy, Deathtrap	>
Mon, 19 Nov 2012 09:49:00 EDT	

```
function afterInitEnv() {
    WL.OptionsMenu.init();
    WL.OptionsMenu.addItem('tab1', function() {selectTab('#feedsWrapper');}, Messages.tabFeed, {image: 'images/feed.png'});
    WL.OptionsMenu.addItem('tab2', function() {selectTab('#aboutTab');}, Messages.tabAbout, {image: 'images/about.png'});
    WL.OptionsMenu.addItem('tab3', function() {loadFeeds();}, Messages.reload, {image: 'images/reload.png'});
}
```

Nokia Here collection vehicle hands-off (video)	>
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Start button utility rises even more 'B' from Microsoft B, has sold 'hundreds of thousands' of copies	>



Environment-Specific Capabilities: Adobe AIR

- Some useful Adobe Air APIs:
 - Minimize window: `window.nativeWindow.minimize()` ;
 - Maximize window: `window.nativeWindow.maximize()` ;
 - Restore window: `window.nativeWindow.restore()` ;
 - Close window: `window.nativeWindow.close()` ;

Environment-Specific Capabilities: Adobe AIR

- Add minimize and close buttons to your app

```

50 function afterIntiEnv() {
51     createCloseAndMinimize();
52 }
53
54 function createCloseAndMinimize() {
55     var closeAir, minimizeAir;
56
57     closeAir = $('<a/>', {'id': 'closeAir'});
58     $('#content').append(closeAir);
59     closeAir.click(function() {
60         WL.Client.close();
61     });
62
63     minimizeAir = $('<a/>', {'id': 'minimizeAir'});
64     $('#content').append(minimizeAir);
65     minimizeAir.click(function() {
66         WL.Client.minimize();
67     });
68 }
69
70 #closeAir {
71     background: transparent url("../images/closeAndMinimize.png") no-repeat right top;
72     right: 2px;
73 }
74
75 #minimizeAir {
76     background: transparent url("../images/closeAndMinimize.png") no-repeat left top;
77     right: 19px;
78 }

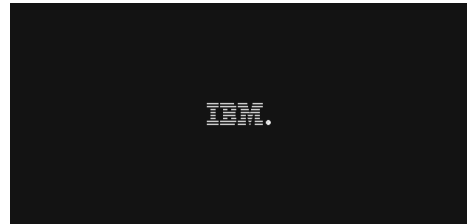
```

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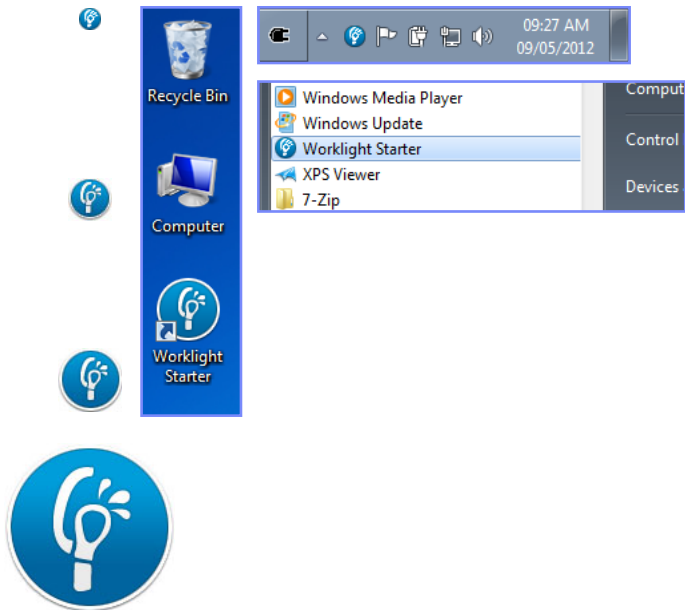
Environment-specific Images: Windows store Apps

- logo.png
The logo image represents the square tile image of the app in the Start screen
150px * 150px
- smalllogo.png
The small logo is displayed with your app display name in search results returned on the Start screen.
30px * 30px
- Splashscreen.png
The splash screen is displayed for a short time when the user opens the app.
620px * 300px
- Storelogo.png
The store logo is the image the Windows Store uses when it displays your app listing in search results and with the app description in the listing page.
50px * 50px



Environment-specific Images: Adobe Air

- icon.png
 - icon16x16.png
 - 16 px * 16px
 - Program menu icon
 - Tray icon
 - Minimum OS X desktop icon
 - icon32x32.png
 - 32px * 32px
 - Standard Windows desktop icon
 - Taskbar icon
 - Medium OS X desktop icon
 - icon48x48.png
 - 48px * 48px
 - Large Windows desktop icon
 - Large OS X desktop icon
 - Icon128x128.png
 - 128px * 128px
 - Maximum OS X desktop icon



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Debugging the Application: Windows store Apps

- Debug by using Microsoft Visual Studio Express 2012 for Windows 8
- Use Worklight WL.Logger API

The screenshot shows the Visual Studio Express 2012 interface for a Windows Store App. The main editor displays the JavaScript code for 'worklightStarter.js'. A red circle highlights the 'wlCommonInit()' function, which includes a debug message: 'WL.Logger.debug('*** this is a debug message');'. The JavaScript Console at the bottom shows the execution log, with a red circle highlighting the output: 'before: app init onSuccess' and '*** this is a debug message'. The Solution Explorer on the right shows the project structure for 'worklightStarter.html'.

```

DOM Explorer
worklightStarter.js
function wlCommonInit() {
    WL.Logger.debug('*** this is a debug message');
    beforeInitEnv();
    // ... initialization code ...
    // initialize the busy indicator
    initializeBusy();
    busy.show();
}
// Show tabs only after application successfully initializes
$('.tab').removeClass('hidden');

```

JavaScript Console

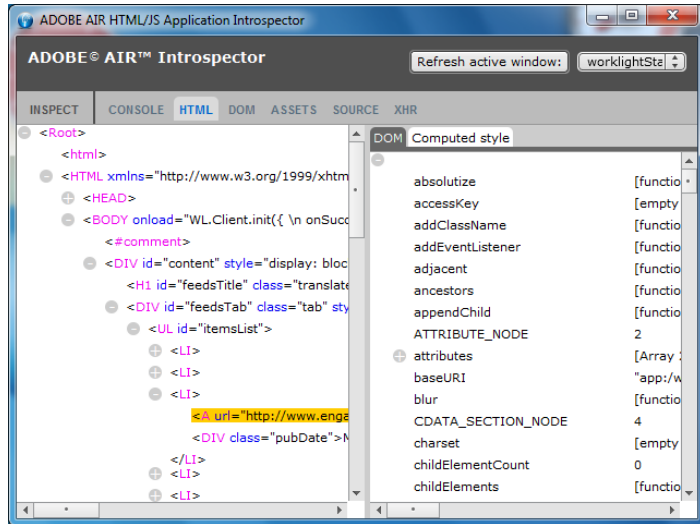
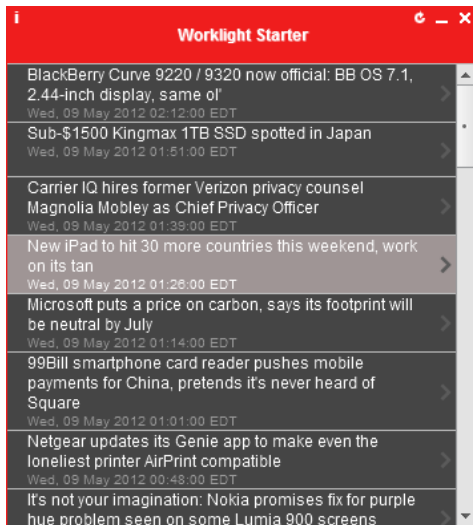
```

before: app init onSuccess
*** this is a debug message
Request: [http://localhost:8080/apps/sample/apps/worklightStarter/windows8/query]
after: app init onSuccess
wlclient init success

```


Debugging the Application: Adobe Air

- Debug by using the Adobe Air Introspector
- Click **F12** to start a session

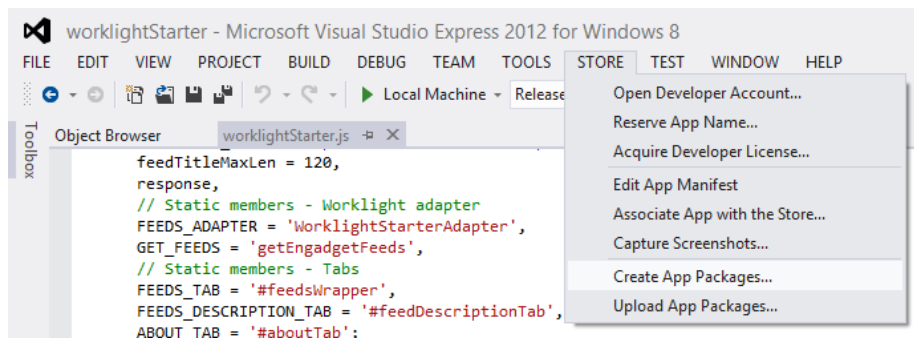


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Deployment – Windows Store Apps

- Use Microsoft Visual Studio Express 2012 for Windows 8 to create App Packages



Deployment – Adobe Air

- Use the Worklight Console to get the Adobe Air package.

The screenshot displays the Worklight Console interface. At the top, there are tabs for 'Catalog', 'Push Notifications', and 'Active Users'. Below these is a header bar with the text 'Deploy application or adapter: Choose File No file chosen Submit'. The main content area is titled 'Worklight Starter' and includes a 'Delete' link. A lightbulb icon is present on the left. The main content area lists various application configurations. The 'Adobe Air' configuration is highlighted with a red box. The configuration details for Adobe Air are as follows:

Platform	Version	Status	App Authentication	Device Authentication	User Authentication
iPad	Version 1.0	Active	Disabled	Enabled	None
Android	Version 1.0	Active	Disabled	Enabled	None
Windows Phone	Version 1.0	Active			
Vista	Version 1.0	Install			
Adobe Air	Version 1.0	Install			
Dashboard	Version 1.0	Install			
Facebook	Version 1.0	Get App URL			
iGoogle	Version 1.0	Get Descriptor			
Embedded	Version 1.0	Embed in Web Page			
Mobile Web	Version 1.0	Get App URL			

At the bottom of the interface, there is a link for 'Preview as Common Resources'.

Exercise: Optimize Worklight Starter

- This exercise is based on the **WorklightStarter** application
- Optimize **Worklight Starter** for Windows store Apps:
 - Optimize design
 - Option Menu
- Optimize the **Worklight Starter** for Air:
 - Optimize color scheme
 - Minimize & Close buttons

Exercise: Optimize the RSS Reader

- Optimize for Windows store Apps
 - Add an Option menu With Feeds About and Reload buttons

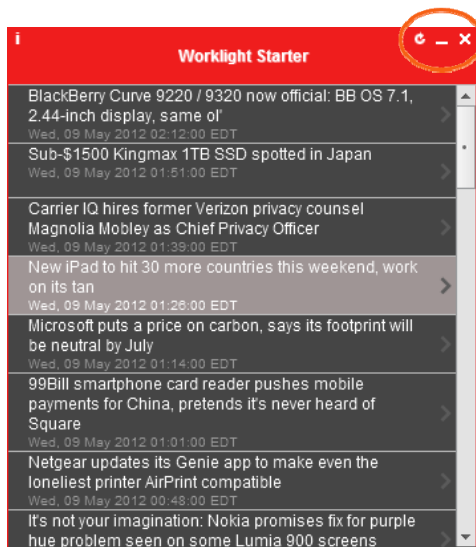
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Opera Mobile launches Unlimited Music service in Russia Mon, 19 Nov 2012 08:29:00 EDT	>
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Nintendo's Wii U gets gutted in the name of specs Mon, 19 Nov 2012 07:26:00 EDT	>

Start button utility strip even more 'B' from Windows 8. Has sold 'tens of thousands' of copies



Exercise: Optimize the RSS Reader

- Optimize for Air
 - Add Minimize & Close buttons to the Air environment



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