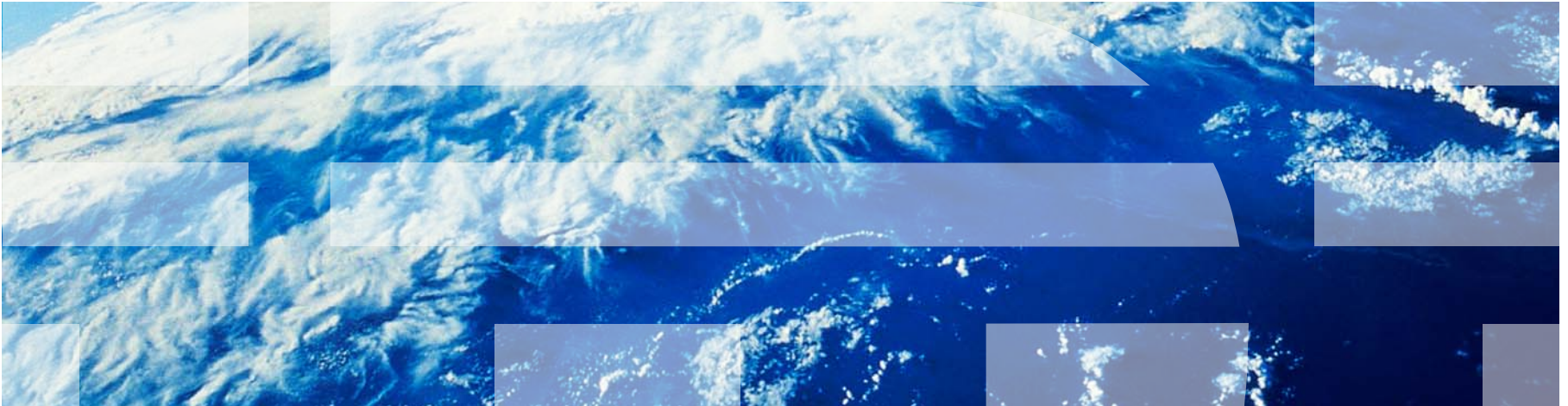# IBM Worklight V6.1.0
Getting Started

General information when developing desktop applications

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Agenda

- Supported desktop environments

- Desktop development
  - Environment-specific APIs
  - Environment-specific images
  - Apache Cordova
  - Optimizing for Desktop Browser web page

- 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/

    - **Desktop Browser web page**

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Desktop development
Windows 8

- Development for Windows 8 apps (known as Windows Store apps) is done in Worklight Studio and later continued 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 that is in the native folder.

- Adobe Air and Desktop browser web page:

  - The development is done entirely in Worklight Studio.

Desktop development – continued
Windows 8

- It is useful to always consult with the Microsoft Design and Develop websites when you develop applications.

    - Design: http://msdn.microsoft.com/en-US/windows/apps/hh779072

    - Develop: http://msdn.microsoft.com/en-US/windows/apps/br229519

Desktop development – continued
Adobe Air, Desktop Browser web page

- The development is done entirely in Worklight Studio.

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Environment-specific APIs
Windows 8

- In Windows 8, the menu bar is called "Application Bar", however it uses the same IBM Worklight API methods as the Options Menu feature in Android.

- When displayed, the menu holds up to four menu items.

- For more information about the Options Menu development, see the *Common UI Controls* training module.

Environment-specific APIs – continued
Windows 8

- 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`
  - **Note:** Cordova also covers Windows 8.

Environment-specific APIs – continued
Adobe Air

- Some useful Adobe Air APIs:

  - Minimize a window: `window.nativeWindow.minimize();`

  - Maximize a window: `window.nativeWindow.maximize();`

  - Restore a window: `window.nativeWindow.restore();`

  - Close a window: `window.nativeWindow.close();`

Environment-specific APIs – continued
Adobe Air

- Add minimize and close buttons to your app.


```
 5⊖ function afterIntiEnv() {
 6       createCloseAndMinimize();
 7  }
 8
 9⊖ function createCloseAndMinimize() {
10       var closeAir, minimizeAir;
11
12       closeAir = $('<a/>', {'id' : 'closeAir'});
13       $('#content').append(closeAir);
14       closeAir.click(function() {
15          WL.Client.close();
16       });
17
18       minimizeAir = $('<a/>', {'id' : 'minimizeAir'});
19       $('#content').append(minimizeAir);
20       minimizeAir.click(function() {
21          WL.Client.minimize();
22       });
23  }
24
```

```
89⊖ #closeAir {
90       background: transparent url("../images/closeAndMinimize.png") no-repeat right top;
91       right: 2px;
92  }
93
94⊖ #minimizeAir {
95       background: transparent url("../images/closeAndMinimize.png") no-repeat left top;
96       right: 19px;
97  }
```

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Environment-specific images
Windows 8

- **logo.png**
  The logo image represents the square tile image
  of the app in the Start screen.
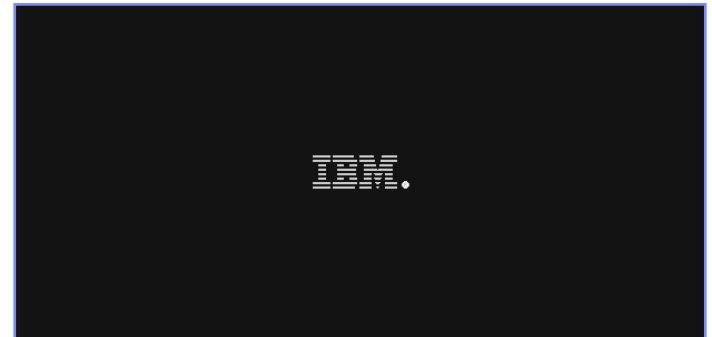 150px * 150px

- **smalllogo.png**
  The small logo is displayed with your app display name in search results that
  are 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

  - **icon32x32.png**

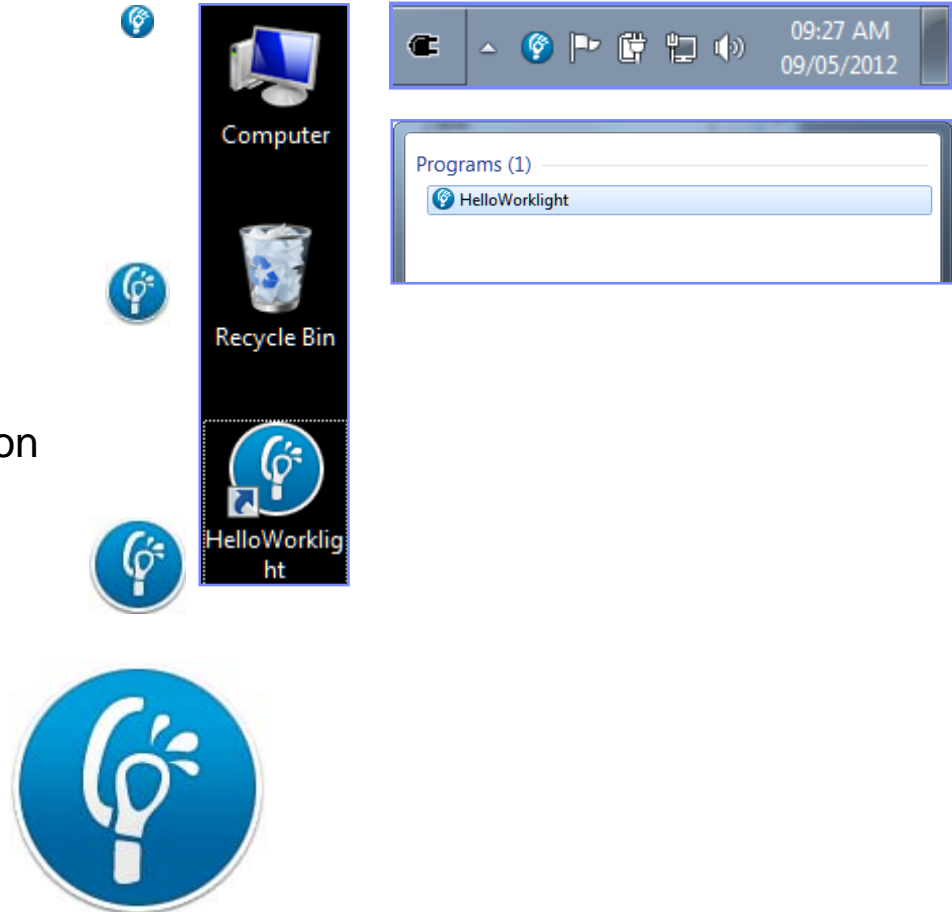   - 32px * 32px
    - Standard Windows desktop icon
    - Taskbar icon

  - **icon48x48.png**

    - 48px * 48px
    - Large Windows desktop icon

  - **Icon128x128.png**

    - 128px * 128px

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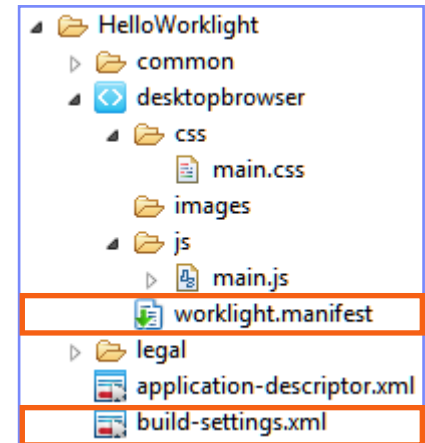
- Deployment

Apache Cordova

- You can use the Apache Cordova framework in Windows 8 applications to access the native elements of the device, such as contacts, geo-location services, media services, and accelerometer.

- For more information about Apache Cordova development, see the *Apache Cordova overview* training module.

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Optimizing for Desktop Browser web page

- When you develop a Desktop Browser web page, it is also possible to optimize the application for better network performance.

- You can optimize your application by performing the two following actions:

  - Use Minification and Concatenation to reduce the number of files that are used within the application.

  - Use HTML 5 Application Cache.

- For more information about the IBM Worklight Cache Manifest, the Minification, and the Concatenation controls, see the topic *Optimizing IBM Worklight applications* in the IBM Worklight user documentation, at http://pic.dhe.ibm.com/infocenter/wrklight/v6r1m0/topic/com.ibm.worklight.dev.doc/devref/c_optimizing_apps.html.
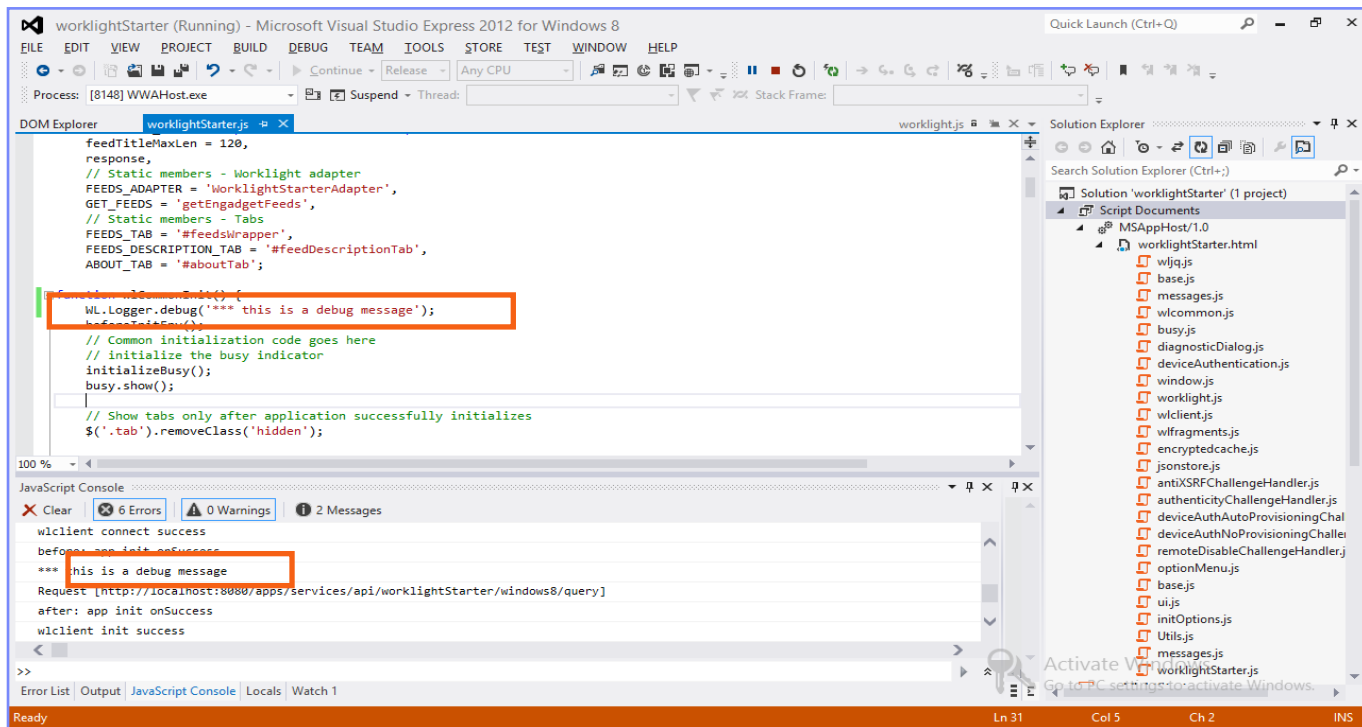
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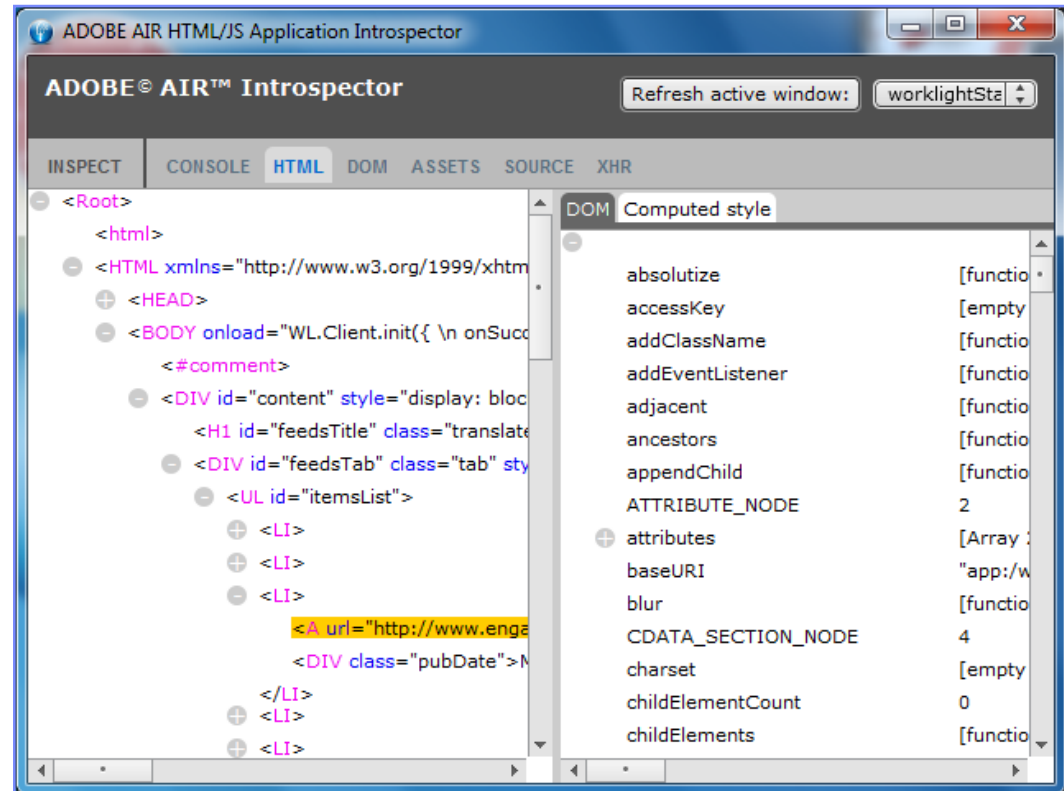- Deployment

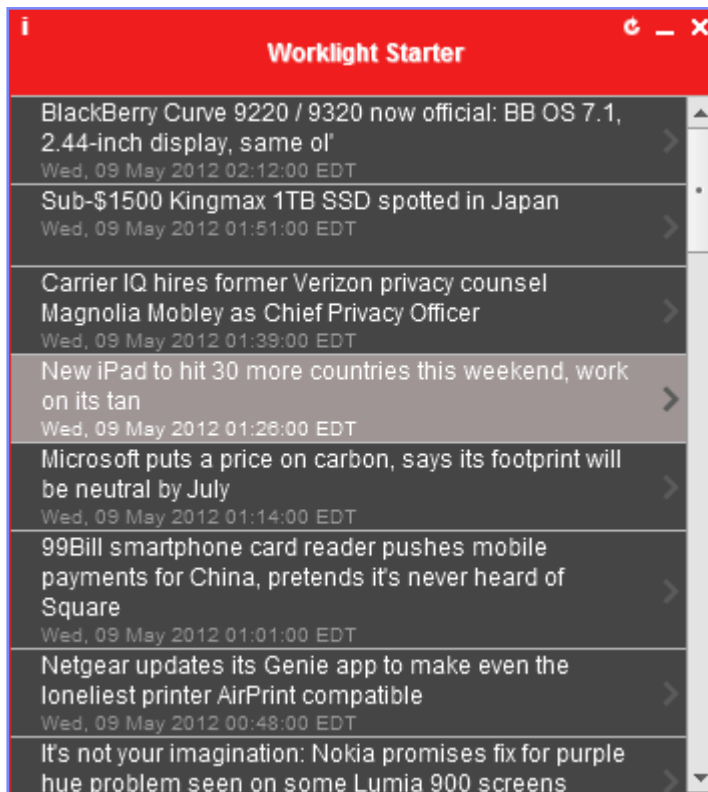# *Debugging the application*
Windows 8

- Debug by using Microsoft Visual Studio Express 2012 for Windows 8.

- Use the IBM Worklight `WL.Logger` API.

Debugging the application
Adobe Air

- Debug by using the Adobe Air Introspector.

- Click **F12** to start a session.

Debugging the application
Desktop Browser web page

- There are many web tools for debugging on various desktop browsers.

- For example:

  - **FireBug** extension for Firefox

  - **Developer tools** for Chrome
    (press CTRL+SHIFT+I to start)

  - **Developer tools** for Internet
    Explorer (press F12 to start)

  - **Dragonfly** for Opera

- For more information about debugging applications, see the *Debugging your applications* training module.
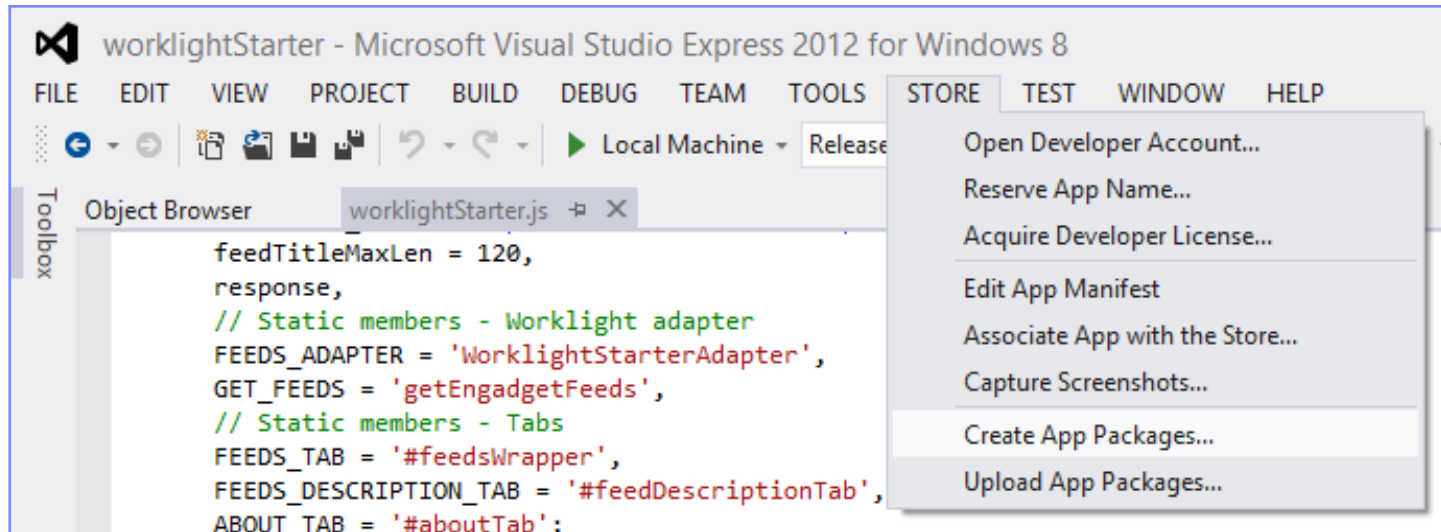
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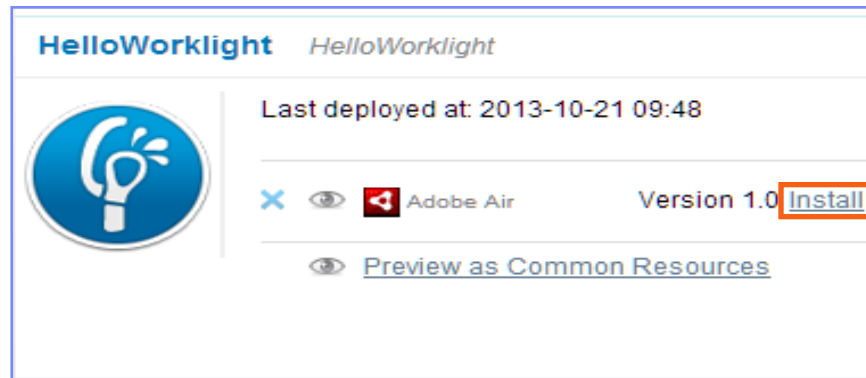
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Deployment
Windows 8

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.

- When you click the **Install** link, an `.exe` file is downloaded.

- This file is the Adobe Air Installer that installs the application on the PC.

Deployment
Desktop Browser web page

- The Desktop Browser web page must be embedded in the website code to be used.

- To get the URL of the application, click the **Embed in Web Page** link that is next to the **Desktop Browser** icon.

- Copy the URL from the pop-up window and embed it in your HTML.
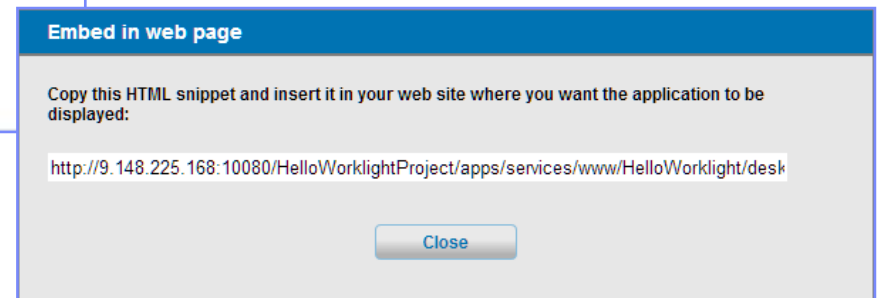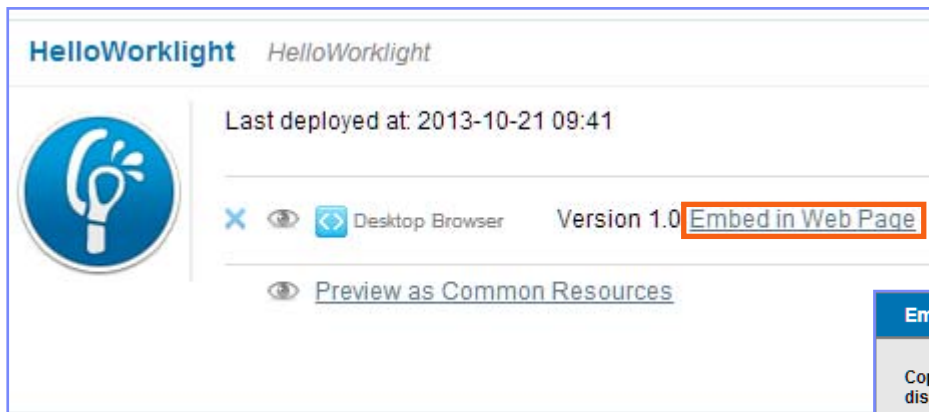
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