General information when developing desktop applications

Overview

In this tutorial a general development information for supported Desktop environment will be presented. IBM MobileFirst Platform supports the following desktop environments:

- Windows Store Apps – Built into the Windows 8 OS
- Adobe Air
- Desktop Browser web page

Development environments

Development for Windows 8 apps (known as Windows Store apps) is done in MobileFirst 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.

For the Adobe Air and Desktop browser web page environments, The development is done entirely in the MobileFirst Platform Studio.

Design

It is useful to consult with the Microsoft Design and Develop websites when developing applications:

- Design: http://msdn.microsoft.com/en-US/windows/apps/hh779072 (http://msdn.microsoft.com/en-US/windows/apps/hh779072)
- Develop: http://msdn.microsoft.com/en-US/windows/apps/br229519 (http://msdn.microsoft.com/en-US/windows/apps/br229519)

Application optimizations

Windows 8
In Windows 8, it is possible to override icons in an application with default icons provided by the system. To do so:
`document.getElementById('#ID').winControl.icon = 'refresh';`

Other Windows 8 APIs:
`Windows.Devices.Geolocation`

`Windows.Media.Capture`

`Windows.ApplicationModel.Contacts`

Adobe Air
Minimize a window: `window.nativeWindow.minimize();`
Maximize a window: `window.nativeWindow.maximize();`
Restore a window: `window.nativeWindow.restore();`
Close a window: `window.nativeWindow.close();`

Network optimizations

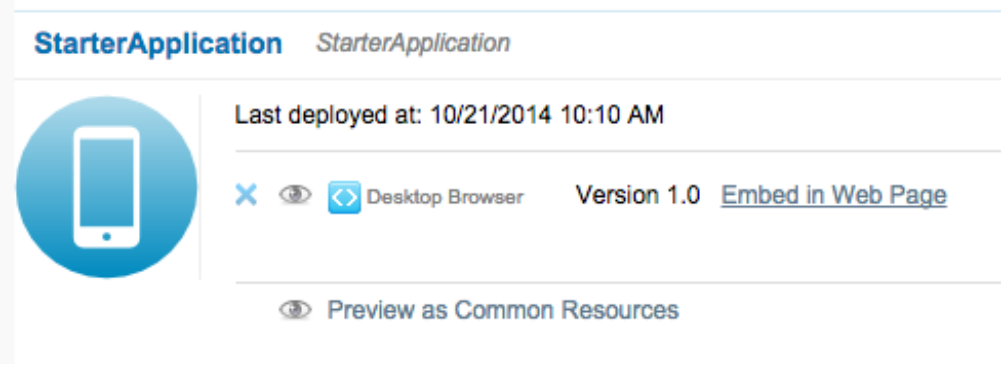
When developing a Desktop browser application, network performance is a highly important optimization to think about.
Network performance can be optimized by implementing the following two actions:

- Use Minification and Concatenation to reduce the number of files that are used within the application
- Use HTML 5 Application Cache

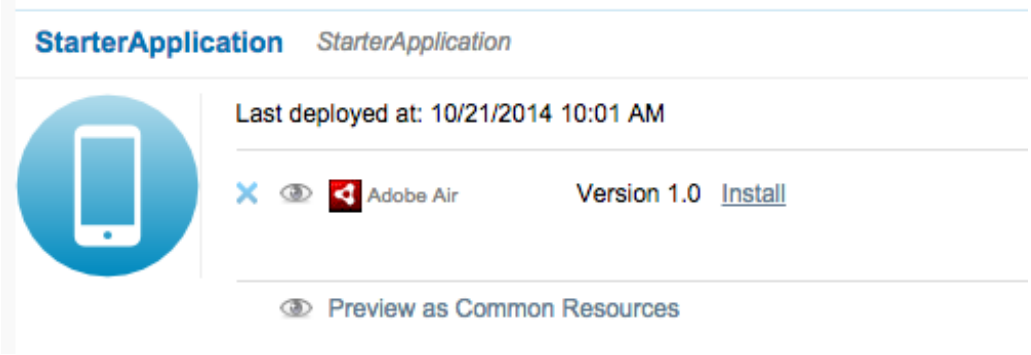
For more information about the MobileFirst Cache Manifest, the Minification and the Concatenation controls, see the user documentation topic: "Optimizing MobileFirst applications".

Publishing

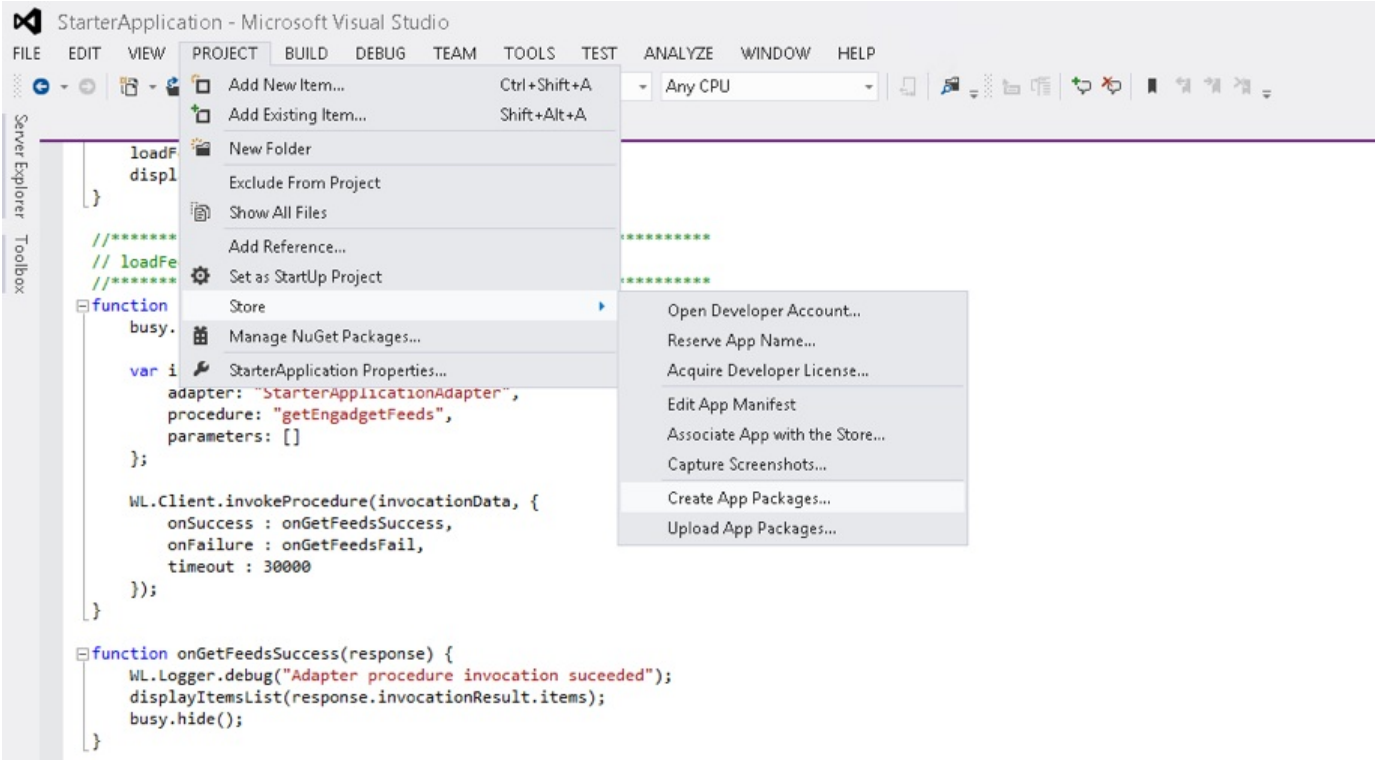
Windows 8
Microsoft Visual Studio Express 2012 for Windows 8 is needed in order to create App Packages.



Adobe Air
The Adobe Air package can be downloaded from the m the IBM MobileFirst Platform Console.
When clicking the Install link, an .exe file is downloaded. This file is the Adobe Air Installer that installs the application on the PC.



Desktop browser
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.


StarterApplication - Microsoft Visual Studio
FILE
EDIT
VIEW
PROJECT
BUILD
DEBUG
TEAM
TOOLS
TEST
ANALYZE
WINDOW
HELP
Any CPU
Server Explorer
Toolbox
Add New Item... Ctrl+Shift+A
Add Existing Item... Shift+Alt+A
New Folder
Exclude From Project
Show All Files
Add Reference...
Set as StartUp Project
Store
Manage NuGet Packages...
StarterApplication Properties...
Open Developer Account...
Reserve App Name...
Acquire Developer License...
Edit App Manifest
Associate App with the Store...
Capture Screenshots...
Create App Packages...
Upload App Packages...
function
var i
adapter: "StarterApplicationAdapter",
procedure: "getEngadgetFeeds",
parameters: []
};
WL.Client.invokeProcedure(invocationData, {
onSuccess : onGetFeedsSuccess,
onFailure : onGetFeedsFail,
timeout : 30000
});
function onGetFeedsSuccess(response) {
WL.Logger.debug("Adapter procedure invocation suceeded");
displayItemsList(response.invocationResult.items);
busy.hide();