

Using Java in JavaScript Adapters

Overview

When JavaScript is not sufficient to implement required functionality, or if a Java class already exists, you can use Java code as an extension for the JavaScript adapter.

Prerequisite: Make sure to read the JavaScript Adapters (../) tutorial first.

Adding custom Java classes



To use an existing Java library, add the JAR file as a dependency in your project. For more information on how to add a dependency, see the Dependencies section in the Creating Java and JavaScript Adapters (../#dependencies) tutorial.

To add custom Java code to your project, add a folder named **java** to the **src/main** folder in your adapter project and put your package in it. The sample in this tutorial uses a `com.sample.customcode` package and a Java class file named `Calculator.java`.

Important: The package name must start with either `com`, `org`, or `net`.

Add methods to your Java class.

Here are an examples of a static method (that does not require a new instance) and an instance method:

```
public class Calculator {  
  
    // Add two integers.  
    public static int addTwoIntegers(int first, int second){  
        return first + second;  
    }  
  
    // Subtract two integers.  
    public int subtractTwoIntegers(int first, int second){  
        return first - second;  
    }  
}
```

Invoking custom Java classes from the adapter

After your custom Java code is created and any required JAR files are added, you can call it from the JavaScript code:

- Invoke the static Java method as shown, and use the full class name to reference it directly:

```
function addTwoIntegers(a,b){  
    return {  
        result: com.sample.customcode.Calculator.addTwoIntegers(a,b)  
    };  
}
```

- To use the instance method, create a class instance and invoke the instance method from it:

```
function subtractTwoIntegers(a,b){  
    var calcInstance = new com.sample.customcode.Calculator();  
    return {  
        result : calcInstance.subtractTwoIntegers(a,b)  
    };  
}
```

Sample application

Click to download (<https://github.com/MobileFirst-Platform-Developer-Center/JavaScriptAdapters>) the MobileFirst project.