

Learning MobileFirst hybrid client-side API

Overview

Prerequisite: To complete this tutorial, you must have previous experience with web development technologies such as HTML, CSS, JavaScript, and DOM events and manipulations. To learn these technologies, visit <http://www.w3schools.com/> (<http://www.w3schools.com/>).

Although not required, a basic knowledge of jQuery and object-oriented JavaScript libraries is an advantage.

This tutorial covers the following topics.

- MobileFirst application components
- The WL namespace
- Sample application

MobileFirst application components

The following files are **essential application resources** in a MobileFirst application:

- **index.html:** The main HTML file
- **main.js:** The main JavaScript file
- **messages.js:** Messages file for storing application strings, primarily used for translation
- **initOptions.js:** Used for defining the initialization options of the application. See the documentation of the `WL.Client.init` method in the API reference part of the user documentation.
- **wljq.js:** An encapsulated version of jQuery
- **worklight.js:** The MobileFirst client API uses the WL namespace. This namespace provides bridging to native mobile platform APIs and other elements.

The WL namespace

The WL namespace is used to invoke MobileFirst APIs: `WL.Client`, `WL.App`, `WL.SimpleDialog` ...

The WL namespace exposes the API objects, methods, and constants (usually enums).

You make the WL namespace available in the application by having `worklight.js` automatically referenced in `index.html` when the application is generated in MobileFirst Studio.

WL.Client

With `WL.Client`, you can perform the following types of tasks.

Additional API methods are available in the IBM MobileFirst Platform Foundation user documentation topic for `WL.Client` (http://ibm.biz/knowctr#SSHS8R_7.0.0/com.ibm.worklight.apiref.doc/html/refjavascript-client/html/WL.Client.html).

Initialize and reload the application

- `WL.Client.init(onSuccess, onFailure, timeout, ...)`
- `WL.Client.reloadApp()`

Trigger login and logout

- `WL.Client.login(realm, options)`
- `WL.Client.logout(realm, options)`

Obtain general app information

- `WL.Client.getEnvironment()`
- `WL.Environment.ADOBE_AIR`
- ...

Retrieve and update data from corporate information systems

- WL.Client.invokeProcedure (invocationData, options)

Store and retrieve user preferences across sessions

- WL.Client.setUserPref(key, value, options)
- WL.Client.setUserPrefs({key1:value1, ...}, options)
- WL.Client.getUserPref(key)
- WL.Client.deleteUserPref(key, options)
- WL.Client.hasUserPref(key)

Specify environment-specific user interface behavior

- WL.App.openURL
- WL.App.getDeviceLanguage
- WL.App.getDeviceLocale
- WL.BusyIndicator
- WL.TabBar
- WL.SimpleDialog
- WL.OptionsMenu
- ...

Store custom log lines for auditing and reporting purposes in special database tables

- WL.Client.logActivity(activityType)

Note: This method is deprecated in V7.0. Use WL.Logger instead.

Write debug lines to a logger window (for example: Chrome's Dev Tools console)

- WL.Logger.debug

WL.Logger

WL.Logger helps you troubleshoot errors in environments that have no debugging tools.

WL.Logger outputs to an environment console, such as Xcode console, Adobe AIR, Android LogCat, Chrome Dev Tools, and similar tools.



Sample application

Click to download

(<http://public.dhe.ibm.com/software/products/en/MobileFirstPlatform/docs/v700/LearningMobileFirstHybridClientSideAPIProject.zip>)
the MobileFirst project.