# Hybrid applications client-side API basics

- Download MobileFirst project (https://github.com/MobileFirst-Platform-Developer-Center/ClientSideAPI/tree/release71)

## Overview

This tutorial lists basic client-side API methods used to develop hybrid applications.
The accompanying sample application demonstrates using a small subset of the methods.

**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:

- The WL namespace
- Sample application

## The WL namespace

The `WL` namespace is used to invoke MobileFirst APIs: `WL.Client`, `WL.App`, `WL.SimpleDialog` and so on.
The `WL` namespace exposes API objects, methods, and constants (usually enums).

The `WL` namespace is made available in the application by referencing `worklight.js` in `index.html`.
This is done automatically by MobileFirst Studio or CLI when the application is generated.

### WL.Client

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

> Additional API methods are available in the API reference for `WL.Client` in the user documentation

#### 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)` - for environment that do not support REST API
- `WLResourceRequest (request URL, request type)`

### 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)

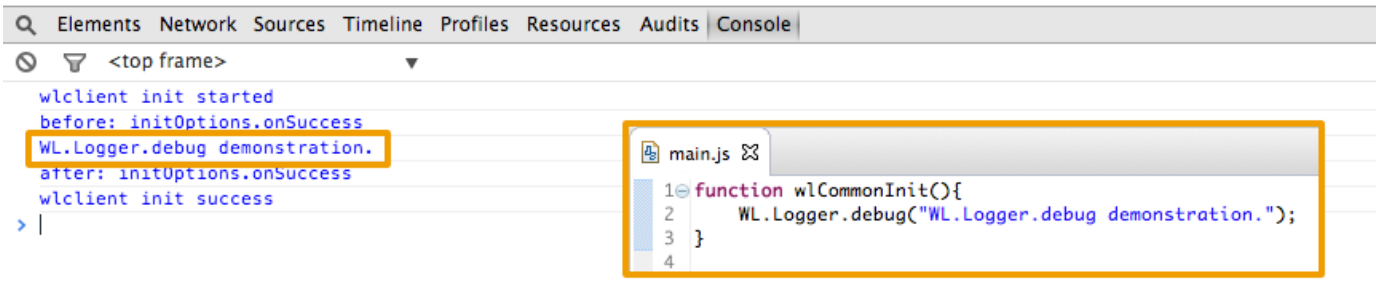
**Note:** This method is deprecated in V7.0. Use `WL.Logger` instead.

### 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 (https://github.com/MobileFirst-Platform-Developer-Center/ClientSideAPI/tree/release71) the MobileFirst project.