

# Hybrid applications client-side API basics

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

## 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.

```
Elements Network Sources Timeline Profiles Resources Audits Console  
<top frame>  
wlclient init started  
before: initOptions.onSuccess  
WL.Logger.debug demonstration.  
after: initOptions.onSuccess  
wlclient init success  
> |  
main.js  
1 function wlCommonInit(){  
2   WL.Logger.debug("WL.Logger.debug demonstration.");  
3 }  
4
```

## Sample application

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