

SAP How-to Guide

SAP Mobility

SAP Sybase365 Mobiliser

iOS Barcode Scanning in Smartphone Mobiliser

provided by SAP Rapid Innovation Group

Applicable Releases:

Mobiliser 5.1 SP1

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Document History

Document Version	Description
1.00	First official release of this guide

Typographic Conventions

Type Style	Description
<i>Example Text</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Cross-references to other documentation
Example text	Emphasized words or phrases in body text, graphic titles, and table titles
Example text	File and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
Example text	User entry texts. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example text>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE TEXT	Keys on the keyboard, for example, F2 or ENTER.

Icons





Icon	Description
	Caution
	Note or Important
	Example
	Recommendation or Tip

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1. Business Scenario

Enabling barcode scanning in the Mobiliser smartphone application.

2. Prerequisites

- Smartphone Mobiliser application which is available on <http://service.sap.com/swdc>
- Cordova download which is available at <http://cordova.apache.org/>
- The Cordova BarcodeScanner plugin can be downloaded from the following locations
<https://github.com/phonegap/phonegap-plugins/tree/master/iOS/BarcodeScanner>

3. Step-by-Step Procedure

3.1 Download Smartphone Mobiliser

1. Navigate to <http://service.sap.com/swdc>
2. Select Installations and Upgrades
3. Select A – Z Index
4. Select M
5. Select Sybase Mobiliser Platform
6. Select Sybase Mobiliser Platform 5.1
7. Select Installation
8. Download Sybase 365 SmartPhone Mobiliser 5.1
9. Unzip package

3.2 Configuring Cordova for the iPhone Project

1. Download and install the desired version of Cordova, in this case we will use 2.3.
2. Open the MobiliserSmartphone-iPhone application in XCode
3. You will notice the CordovaLib.xcodeproj is red due to not being found. This can be resolved by running the following command in the terminal from the cordova-ios/bin directory.

```
./update_cordova_subproject "/My/Project/Location/MobiliserSmartphone-iPhone/trunk/Mobiliser-R5.xcodeproj"
```

4. The file VERSION found under the Mobiliser-R5 target and under Resources also exhibits this issue. Open the file CordovaBuildSettings.xcconfig found under Resources and set the parameter CORDOVALIB to point the your CordovaLib directory.

```
CORDOVALIB = ../../../../../../cordova-2.3.0/cordova-ios/CordovaLib
```

5. Update the cordova.js found in the www/cordova folder of the project to match the desired version. In version 2.3 this file can be found in cordova-ios/CordovaLib

3.3 Change the Code Signing Identity

1. Select the Mobiliser-R5 Project
2. Under Build Settings locate the Code Signing section
3. Change the Code Signing Identity for each entry.

3.4 Check for Errors

1. Build the Project to check for errors. Review previous steps if relevant.

- The following error may occur depending on what version is used

Error: **property 'supportedOrientations' is not found on object of type CDVViewController**

To resolve the error follow the steps below:

- Update the ChildBrowser plug by copying the latest files into the project overwriting the existing.

<https://github.com/phonegap/phonegap-plugins/tree/master/iOS/ChildBrowser>

- Update the AppDelegate.m by creating a new Cordova project via the command line tools

```
computer:cordova-ios USER$ bin/create "/Users/USER/Folder/CordovaTest"
com.example.cordovatest CordovaTest
```

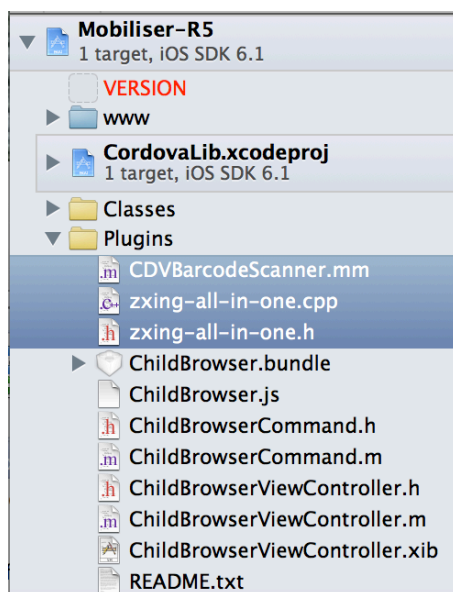
- Depending on the Cordova version it may be necessary to convert your Cordova.plist file to config.xml, by running the script bin/cordova_plist_to_config_xml on your project file.

```
computer:cordova-ios USER$ bin/cordova_plist_to_config_xml
"/Users/USER/Folder/MobiliserSmartphone-iPhone/trunk/Mobiliser-R5.xcodeproj"
```

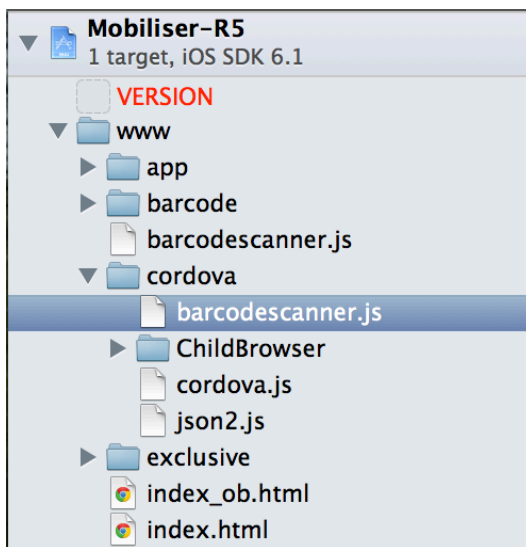
3.5 BarcodeScanner Plugin Configuration

Follow the instructions outlined in the section “Adding the plugin to your Project” of the download page. This consists of the following steps

- Copy the .h, .cpp and .mm files to the Plugins directory of the project



- Copy the barcodescanner.js to the www/cordova directory.

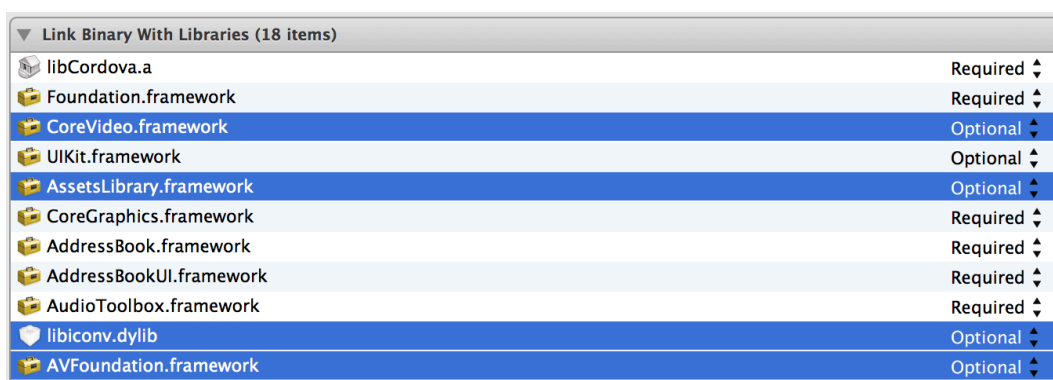


3. Add the plugin to the cordova.plist or config.xml file depending on your version of Cordova.

```
<plugin name="org.apache.cordova.barcodeScanner" value="CDVBarcodeScanner"/>
```

4. Add the following frameworks to your project if they are not already there, by selecting the Mobiliser-R5 target and then Build Phases. Under Link Binary with Libraries use the add button to add each framework marking them Optional if iOS 3.x support is desired.

- AVFoundation.framework
- AssetsLibrary.framework
- CoreVideo.framework
- libiconv.dylib



3.6 Setting up the Web Page

1. Open the index.html file found in the www directory. Add a reference to the barcodescanner.js at the bottom of the page.

```
<script src="cordova/barcodescanner.js"></script>
```

2. Open the mb_ext.js file in the exclusive directory and add another menu by adding an additional item to the constructMainMenu function and changing the conditional statement of the for loop to 1<10.

```
"<div id='menu8'><div id='btn_scan' class='menuslot'><div  
class='textoverimage'><span id='menu_icon_txt_scanitem'></div></div></div>" +  
"</div>").appendTo($("#menuarea"));  
  
$("#menugrid").addClass('ui-grid-b');  
for( i=0; i<10; i++ ) {
```

3. In ext.css add the button's style

```
#btn_scan {  
    background: url(images/btn_main_menu_request_money.png)  
    center bottom no-repeat;  
}
```

4. In the language directory add the following to language.

```
$("#menu_icon_txt_scanitem").text(Str_txt_menu_scanitem);
```

5. Within the same directory add the following to strings_en.js

```
Str_txt_menu_scanitem = 'Scan Item';
```

6. Add a listener to the btn_scan button by opening the mb_app.js found in the app directory and adding the following code. The button listener must be placed within the jquery ready function. The function will attempt to match up the read barcode to one of the testProducts; if not found a random one will be chosen.

```
var testProducts = [{ "barcode" : "123456",
                      "name" : "Product 1"
                    }, {
                      "barcode" : "654321",
                      "name" : "Product 2"
                    }, {
                      "barcode" : "121314",
                      "name" : "Product 3"
                    }
]

// When the page is ready for event binding
$(document).ready( function() {

    $("#btn_scan").bind("click", function() {
        window.plugins.barcodeScanner.scan(
            function(result) {
                if (result.cancelled){
                    _alertBox("the user cancelled the scan");
                }else{
                    var productIdx = null;
                    for( var idx in testProducts){
                        if(testProducts[idx].barcode == result.text){
                            productIdx = idx;
                            break;
                        }
                    }
                    if(!productIdx){
                        productIdx = Math.floor((Math.random() * 3)+0);
                    }
                    _alertBox("Scanned: " + testProducts[productIdx].name);
                }
            },|
            function(error) {
                _alertBox("scanning failed: " + error);
            }
        )
    });
});
```

7. Test the application



www.sap.com/contactsap

<http://scn.sap.com/community/mobile>

<http://developers.sap.com/mobile>



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