Hybrid Application Toolkit - Frequently asked questions

In this section we will provide answers to frequently asked questions, and we plan to update this once we receive more questions on a certain topic.

Is there a way to disable the certificate prompt on Android (X509)?

If you do not wish the user to see this screen, handling of client certificates can be disabled by simply adding the following line in config.xml:

```xml
<preference name="SAPKapselHandleX509Challenges" value="false" />
```

Why are there only a few UI5 versions available to select from, and why are some of those already out of maintenance?

We are not able to provide you any arbitrary version of UI5. We pick a version on an ad-hoc basis. It's a snapshot. At the time we've picked those versions, they were relevant (in some cases, customers are even asking for it). If your app requires updates on UI5, you'll have to rebuild your app with another version of UI5 (once available) and redistribute your app.

Why is my packaged app so big?

We package a large amount of UI5 libraries into the application. It is a curated list of libraries, but we have to ensure MOST apps work. If your app is not an offline app, I recommend you create a Fiori Client type of app instead. This kind of app will download the UI5 libraries from a frontend server and is able to cache this at runtime. The app will be much smaller and the UI5 version is controlled at the frontend server, instead of fixed in the app.

For my iOS app, I need to add settings in the Info.plist file. How can I do this for my project in SAP Web IDE?

Obviously, the Info.plist file is not available in the SAP Web IDE Full-Stack project. Using the config.xml file, you can pass settings to our Cloud Build Service, which will apply them in the Info.plist file that gets generated. You can add entries in the config.xml file by using the <config-file> element.

Example:

```xml
<platform name="ios">
 <config-file target="*-Info.plist" parent="CFBundleURLTypes">
   <array>
     <dict>
       <key>CFBundleURLSchemes</key>
       <array>
         <string>ABCDEF</string>
         <string>APP-NAME</string>
       </array>
     </dict>
   </array>
 </config-file>
</platform>
```

Another example, for solving problems with accessing the camera on iOS:

```xml
<platform name="ios">
 <config-file parent="NSCameraUsageDescription" target="*-Info.plist">
  <string>We are using a camera to scan barcodes.</string>
 </config-file>
</platform>
```

When I build my app with SAP Mobile Services, the build succeeds but I don't see the app nor the mobile destination created in the SAP Mobile Services cockpit.

You probably have multiple SAP Mobile Services subscriptions in your account. In this case the app was actually created in another SAP Mobile Services instance. Please change your *mobileservices* destination URL to "https://mobile-<account>.<landscape>".

Example: your destination might point to "https://mobile**preview**-<account>.<landscape>". Similar issues can happen when using multiple landscapes for 'sandbox' ,'dev' or 'qa'.

Where did the Kapsel templates go?

In the first generation of SAP Web IDE (based on Eclipse Orion), we had introduced a number of application templates tailored towards mobile usage. These templates were basically copies of existing templates, with modifications for mobile. To avoid duplication of templates and the need for maintaining them, we have changed our approach and made sure a number of standard templates (e.g. CRUD, Master-Detail) available in SAP Web IDE can be used to create mobile apps. Therefore, the **"Kapsel Templates"** are no longer necessary.

I have an existing project based on the Kapsel Offline template. How do I build this project now that the HAT Local add-on is gone and I cannot enable this project for mobile ?

First of all, you can only build this kind of app using the HAT Local Add-on. The structure is not compatible with our Cloud Build Service. That's why you cannot enable it for mobile, for building the app with our cloud build service.

You have two options:

1. You can still build it using HAT local add-on; provided you have enabled the feature in the SAP Web IDE Full-Stack preferences AND you have installed the HAT local add-on tool. Take note that the latter is out of maintenance and therefore no longer supported and updated.
2. You migrate the project to SAP Mobile Services on SAP Cloud Platform. If you were using on-premise SMP 3, then this will require changes in your landscape. If cloud services are not an option for you, then you have to stay with option 1.There are no tools available to help migrate your project. What you need to do, is create a new project in SAP Web IDE Full-Stack based on either the Fiori Master-Detail application template, or the Fiori CRUD application template. Then move all relevant code from your old project to the new one. Since every app is implemented differently, I cannot provide guidelines on what to do here. Your developers know what needs to move.Take note that using the Cloud Build Service, your app will be built with Kapsel 3.1 (or higher).

Is OAuth supported for authentication ?

Yes, OAuth is supported. However, by default the mobile app created/generated in SAP Mobile Services will use SAML. But you can change this in the SAP Mobile Services admin cockpit. Open the configuration of your app and navigate to Security. Here you can switch to OAuth and create a Client ID. Now, next time you trigger a Cloud Build from SAP Web IDE Full-Stack, the security settings will be retrieved from SAP Mobile Services and the project is updated accordingly.

Is it possible to create an offline app that consumes data from multiple systems ?

Yes, this is possible by creating multiple offline stores in your app and configuring the service root to consume the destinations that provide access to these systems. Please check this post, which has been updated to cover this topic.

My app starts up with a blank screen and hangs. Now what ?

This is a **very common** issue and requires you to investigate further before calling support. There are a few possible causes for failures during startup / initialisation of the app. It might be issues loading dependent libraries; it could be that it tries to access a service URL that doesn't exist/respond; or various other causes.

Now what?: *start debugging*.

Connect to your app over USB (or wifi, for the pros) and check what errors the browser (Safari or Chrome) is reporting.

Check the logs on SAP Mobile Services Admin cockpit for connection issues.

Collect Network Traces on SAP Mobile Services Admin cockpit to identify what is going on.

Check the device logs.

Can I share the build results (url, QR code) with other users?

Before confirming this, please take note that HAT is a tool targeting the developer flow. We do not support app distribution through this method.

The answer to the question is 'Yes'. Users who have access to the same SAP Cloud Platform account can access the build results and download the app as well. Do take note that for iOS app distribution, Apple has implemented some restrictions. You can sign the app with an enterprise certificate and distribute within your organisation. However, it is not possible to distribute outside of your organisation.

For wider distribution on iOS, you have to publish the app in the Apple AppStore.

I am creating a B2C app and would like to know how to skip the logon screen.

Add the following line in the file <your project>/mobile/hybrid/sap-mobile-hybrid.js, before the sap.hybrid.kapsel.doLogonInit() function is called:

```
context.custom = { disablePasscode: true, skipRegistrationScreen: true };
```

For submitting our Android App into the Google Play store, we require the targetSdkVersion to be set to 28 (for Android 9). How can we change this?

In the config.xml file of your project, please find the following line and change the value to the required value:

```
<preference name="android-targetSdkVersion" value="26"/>
```

Take note that our Cloud Build Service needs to be able to handle the value set.

Does Hybrid Application Toolkit support developing apps targeting a Cloud Foundry environment?

My initial answer would be 'No', because this tool was built for Neo environments. However, with some manual steps (a workaround), it is possible to use SAP Mobile Services available on Cloud Foundry. This is explained here.

To be able to publish my iOS app in the App Store, I have to ensure it is not using or referencing UIWebView. How can I achieve this?

Currently, newly created apps will use WKWebView by default. I've also provided guidelines on what to do for existing apps. Details are available in this blog post. However, we will have to wait until a new release on the SAP Mobile SDK is available and used by our Cloud Build Service, before we can meet the requirements set by Apple.

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