

## How to Bundle your Palm OS® application with StyleTap® for iPhone

*StyleTap iOS SDK v0.1.005 – 2013-10-22*

This upgrade makes no changes to the bundling process. However, Apple's iOS 7 release removed access to information that impacts the StyleTap licensing process. This change will impact your product clients in two ways:

1. Existing clients with working Registration Keys for pre-iOS 7 devices will have to obtain new Registration Keys after upgrading to iOS 7.
2. If clients with iOS 7 installations uninstall their StyleTap-based applications (either explicitly or by doing a hard-reset on the device), they may (with few exceptions) have to obtain a new (different) Registration Key when they reinstall StyleTap on the device.

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The following assumes that you are a member of **Apple's iOS® Developer Program** or **iOS Enterprise Developer Program** and that you have an Intel-based Macintosh on which you have installed **XCode** and **iOS SDK 5**.

- (1) Using your web browser, go to the iOS Provisioning Portal and create a new **Developer Certificate** (if you don't already have one), a new **App ID** and a new **Provisioning Profile** for your application.
- (2) Download the file **StyleTapAppTemplate.zip** from the link provided by StyleTap, and unzip the file, which creates a **StyleTapAppTemplate** subdirectory containing the XCode project for building your application.
- (3) Copy your Palm **prc** and **pdb** files to the **StyleTapAppTemplate/db** subdirectory. **Note:** Each application on a non-jailbroken iOS device has its own **Documents** subdirectory and this is where StyleTap will store all Palm databases. The first time StyleTap is run on a device, all the files in the **StyleTapAppTemplate/db** subdirectory will be copied to StyleTap's **Documents** subdirectory. StyleTap will also copy the files (and overwrite any existing files) if the **Bundle** version in **StyleTap-info.plist** has changed.
- (4) You will probably want your own icons to appear on your device's Springboard instead of the StyleTap icons. Please read **Asset Specifications** in [https://itunesconnect.apple.com/docs/iTunesConnect\\_DeveloperGuide.pdf](https://itunesconnect.apple.com/docs/iTunesConnect_DeveloperGuide.pdf) for the icon specifications. Most of the icons are optional and you only really need **Icon.png** (pre-iOS 4 devices), **Icon@2x.png** (iOS 4 and later) and **Icon-72.png** (iPad). You should have at least these three to replace the ones in the **StyleTapAppTemplate** subdirectory.
- (5) By default, StyleTap tries to run the StyleTap Launcher (**STLaunch.prc**) when it starts. However, you can override this in the **StyleTapInit.ini** file in the **StyleTapAppTemplate/db**

subdirectory by specifying

**DefaultLaunchAppDbName=YourAppDatabaseName;**

where **YourAppDatabaseName** is the database name of your application.

- (6) If you belong to StyleTap's OEM program and already have a StyleTap OEM certificate, you should copy it to the **StyleTapAppTemplate/db** subdirectory. If you're not a member and want more information on joining the StyleTap OEM program, please contact Justin ([sales@styletap.com](mailto:sales@styletap.com)) in our Sales department.
- (7) If you have a StyleTap corporate account and use automatic "over the Internet" self-registration, then you will have a "credentials" prc file (downloaded from your **LicenseManager** account), which should also be copied to the **StyleTapAppTemplate/db** subdirectory. For more information on StyleTap corporate accounts and automatic self-registration, please contact Justin ([sales@styletap.com](mailto:sales@styletap.com)) in our Sales department.
- (8) When StyleTap starts up and it is not yet registered and does not find a StyleTap OEM certificate, StyleTap will display an **About** box showing how much time is left in the trial period. To suppress the display of this notification screen, specify **ShowAboutStyleTapOnStartup=No;** in the **StyleTapInit.ini** file in the **StyleTapAppTemplate/db** subdirectory.
- (9) By default, the first time StyleTap is run it will display the StyleTap license agreement. If you do not want this to display (the license still applies), delete **iphonelicense.prc** from the **StyleTapAppTemplate/db** subdirectory.
- (10) **WebTools.prc** is a Palm OS program included in **StyleTapAppTemplate/db**. When run, it becomes a web server on the iOS device that you can use to transfer Palm application (prc) and database (pdb) files to and from your desktop machine, just using a standard desktop web browser such as FireFox, Chrome, Safari or Internet Explorer. If you are going to submit your application to the Apple **AppStore**, you must delete **WebTools.prc** as this functionality is not allowed by Apple.
- (11) If you want StyleTap to run only one Palm application such that you have no need to switch between Palm applications, then you may also choose to delete StyleTap Launcher (**STLaunch.prc**) from the **StyleTapAppTemplate/db** subdirectory. If you decide to omit the StyleTap Launcher and you are going to submit your application to the Apple **AppStore**, it is recommended that you disable the "Quit" button (see 16 below) to conform to the Apple guidelines.
- (12) Start **XCode** on your Mac and open **StyleTap.xcodeproj** from the **StyleTapAppTemplate** subdirectory. Change the **Bundle** identifier in the info.plist (**StyleTap-Info.plist**) from **com.StyleTap.StyleTapPlatform.01** to **com.YourCompany.YourAppID** where **YourCompany** is the company name you specified when you enrolled with Apple and **YourAppID** is the **AppID** you created in Step 1.

- (13) If **Application supports iTunes file sharing** is **YES** in **StyleTap-info.plist** (the default setting in the template) you can use **iTunes** on your desktop machine to copy files (including Palm application and database files) between your computer and StyleTap's **Document** directory. If you are going to submit your application to the Apple **AppStore** then set it to **NO** as this functionality is not allowed by Apple.
- (14) By default **Icon already includes gloss effects** is set to **YES** in **StyleTap-info.plist**. You may want to set this to **NO** in order to give your icons a "shiny" look.
- (15) Change the **Project Name** to the **AppID** you created in Step 1. This will cause the name of the application on the device Springboard to be changed, as well as renaming the info.plist from **StyleTap-info.plist** to **YourAppID-info.plist**. After changing the **Project Name**, you should also make sure that the **Executable file** in the info.plist is still specified as **StyleTap**. XCode sometimes causes this to revert to **\$(EXECUTABLE\_NAME)**.

You should now be able to build and run your application on an iOS device using your **Development certificate** and **Provisioning Profile** or build it for distribution using a **Distribution Certificate** and **Provisioning Profile**.

## Advanced Options

- (16) By including any of the following configuration settings in the **StyleTapInit.ini** file (in the **StyleTapAppTemplate/db** subdirectory), you can cause various buttons to **not** appear:
 

<b>DisableHomeExitButton=Yes;</b>	"Quit" button will not appear
<b>DisableMenuButton=Yes;</b>	"Menu" button will not appear
<b>DisableNavUpButton=Yes;</b>	up arrow button will not appear
<b>DisableNavDownButton=Yes;</b>	down arrow button will not appear
<b>DisableNavLeftButton=Yes;</b>	left arrow button will not appear
<b>DisableNavRightButton=Yes;</b>	right arrow button will not appear
<b>DisableNavCentreButton=Yes;</b>	centre button will not appear
<b>DisableF1Button=Yes;</b>	"F1" button will not appear
<b>DisableF2Button=Yes;</b>	"F2" button will not appear
<b>DisableF3Button=Yes;</b>	"F3" button will not appear
<b>DisableF4Button=Yes;</b>	"F4" button will not appear
- (17) On iOS devices prior to iOS 4, pressing the **Home** key causes StyleTap to quit. On iOS devices running iOS 4 (and later), pressing the **Home** key causes StyleTap to be suspended in the background. You can cause StyleTap to quit on iOS 4 (and later) devices when the **Home** key is pressed by adding the key **UIApplicationExitsOnSuspend** or setting **Application does not run in background** to **YES** in the info.plist.

When StyleTap quits (either by pressing the "Quit" button or the **Home** key on pre-iOS 4 devices), it sends the Palm application an **appStopEvent**, allowing it to terminate gracefully. If your Palm application depends on this graceful termination to maintain a consistent state and you disable the "Quit" button (see 16 above), you probably want to set **Application does not run in background** to **YES** in the info.plist to ensure your application is terminate properly.

Otherwise, when the **Home** button at the bottom is pressed on an iOS 4 (or later) device, iOS notifies StyleTap that it is about to be suspended. When this happens, StyleTap will launch the running Palm application with a **sysAppLaunchCmdSaveData** launch code. Most Palm applications call **FrmSaveAllForms** in response to this action, which results in **frmSaveEvent** being sent to each of the Palm application's open forms. This gives the Palm application the opportunity to save any buffered data to its databases. StyleTap then flushes all databases to the iOS files to preserve their state.

StyleTap is then left in a suspended state until: (a) the user restarts it (by switching back to it) or (b) it is automatically terminated by iOS if iOS runs low on memory or (c) the user explicitly terminates it. (On the Springboard screen, if you press the **Home** button twice quickly, a row of icons appears along the bottom showing the suspended applications. If you press the icon of a suspended application and hold it for a few seconds, a red circle will appear above the icon and if you then press that red circle the suspended application will be terminated.) When StyleTap is terminated in this way, it is **not** notified that it is being terminated and is not given any cycles to clean up, thus any running Palm application are never sent **appStopEvent**. This is why StyleTap tries to preserve as much information as possible when it is suspended.

- (18) Some Palm applications depend on alarms. This can be problem on iOS devices when StyleTap is not running in the foreground, since there is no way of automatically starting or resuming StyleTap when the alarm goes off. However, on iOS 4 (or later) devices, StyleTap causes an iOS local notification to appear when the alarm goes off. If the user then selects that notification, StyleTap will be started/resumed and the Palm alarm will be run. By default, the notification will be displayed only once and will display the message "StyleTap alarm has been triggered." However, the frequency of the notification and the text to be displayed can be changed by calling the function **StpSetNotificationParameter** in the StyleTap API. If you need to know more about the StyleTap API then please read the **Developer Information** page in the **KnowledgeBase** wiki (<http://www.styletap.com/support.php?page=wiki>) in the Support section of our website or contact us at [sales@styletap.com](mailto:sales@styletap.com).
- (19) If your Palm application uses **VFS** to access large Palm databases (*e.g.* medical databases, dictionaries, *etc.*) or non-Palm files (*e.g.* sound files, video files, Excel spreadsheets, *etc.*), these files are stored in StyleTap's **Documents/VirtualCard** subdirectory. StyleTap will copy files and databases to the **Documents/VirtualCard** subdirectory if you create a **VirtualCard** subdirectory in the **/db** subdirectory (within the **StyleTapAppTemplate** subdirectory) and add your files and subdirectories there. For example, if on a Palm device, your program uses VFS to read a file/database in the **/Palm/Programs** subdirectory on an SD card, you would create the

subdirectory **db/VirtualCard/Palm/Programs** (within the the **StyleTapAppTemplate** subdirectory) and copy your file(s) there. These directories should be created and files copied in step #3 above.