Entourage SDK Getting Started Guide for iOS

Product Version 1.5.0.1476

Published: 06-Dec-2013 13:31

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Introduction

The Entourage SDK provides a Sample Application that demonstrates basic functionality. The SDK also provides a development project that gives an example of how to incorporate Entourage into your iOS application.

This document describes how to integrate the Sample Application project into your development environment.

Device Requirements

- iOS 4.3.5+ device with network/Internet connectivity and a microphone

Preparing Your iOS Development Environment

iOS development requires a specific environment. For details on setting up this environment, refer to the instructions on the Apple iOS Dev Center: http://developer.apple.com/devcenter/ios/ (http://developer.apple.com/devcenter/ios/index.action)
You also must register as an Apple Developer to download the software required to build and run the Gracenote Entourage sample application for iOS. To register, go to http://developer.apple.com/programs/register/

To develop your application, you will need the following from Apple:

- Apple Developer Provisioning Certificate
- Apple App ID
- Apple Provisioning File

Application Requirements (Including Sample Application)

The following are required to develop your application and build and run the sample application:

- Xcode Version 4.6+
- iOS SDK Version 5.0+ (32-bit) or 7.0+ (64-bit)

Installing the iOS SDK

The Xcode project for the Entourage Sample Application uses the iOS v4.6 SDK. You must ensure that you have a compatible iOS SDK available in your development environment. The application is compatible with iOS v4.6 and later.

Follow the steps below to install the appropriate iOS SDK:

1. Go to the iOS Dev Center: http://developer.apple.com/devcenter/ios/index.action.
2. Download the iOS SDK compatible with your development environment OS X version (see Requirements (see page)). The download will also include the required version of Xcode.
3. Ensure Xcode and iPhone simulator are closed.
4. Run the downloaded iOS package (**Xcode** and **iOS SDK.mpkg**). This launches the iOS SDK installer. Once the installer has completed, the iOS SDK will be available as an Active SDK in Xcode.

Running the Sample Application

1. Unpack the Gracenote iOS Entourage Package, e.g. **gn-acr-sdk-ios-<version number>.zip**
2. Launch Xcode.
3. Close the **Welcome to Xcode** launch screen.
4. Choose **File > Open**.
5. Navigate to the parent directory of your unzipped package, e.g., **gn-acr-sdk-ios-<version number>**.
6. Beneath the parent directory, locate the file **GN_ACR_SDK.xcodeproj**. Select this project and click **Open** at the bottom of the window. The Xcode project opens within Xcode.
7. Select the **Overview** drop down box at the top left corner of the application window.
8. In the first grouping, select **Simulator**.
9. Leave all other settings as they are and click outside of the drop down box to exit it.
10. Set the CLIENT_ID, CLIENT_ID_TAG, and LICENSE_STRING defines in **Resources/CustomerCredentials.h** to your Client ID, Client Tag, and License File contents. If you have the optional music Client ID/Tag, then enter them in the CLIENT_ID_MUSIC and CLIENT_ID_TAG_MUSIC defines.

> ⚠ For the LICENSE_STRING define, you must replace line breaks in the license text with the escape string "\r\n", e.g., "This is line one\r\nThis is line two".
> Your Gracenote Professional Services representative can supply you with a properly formatted license string.

11. In the top middle of the window, click the **Build and Run** icon. If this fails, see *Troubleshooting* (see page). Otherwise, you should see the app launched in the Simulator. Tune a TV to a supported channel, place your device's microphone within the TV speakers' audio range, and click **Start ACR**. You should see the SDK version number displayed. After a few seconds, you should see one or more matches displayed.

> ⚠ If the same TV Show or commercial is on multiple channels, more than one response could be returned. Entourage sorts the first one as the best match, which it determines based on a number of factors. However, it us up to the application to decide which one to display.
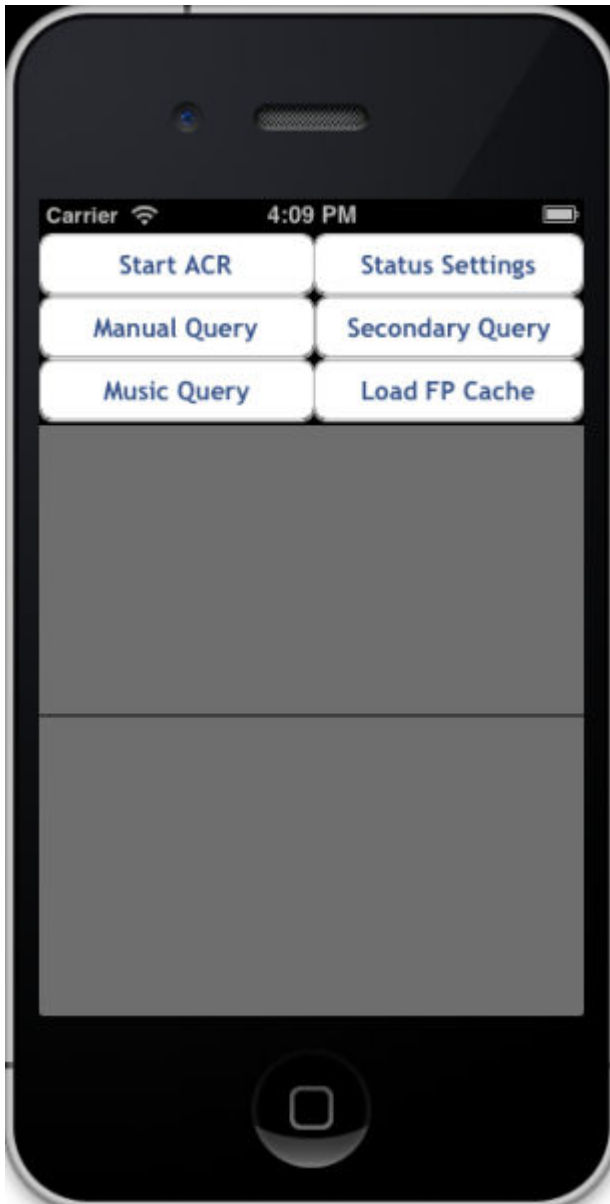
⚠️ **Secondary Query** gives you the option to do a Video Explore or EPG query using the last ACR match.

Status Settings gives you the option to choose which status messages you want the app to display. It does not affect any operations being performed. For information on status messages, see the API documentation for `GnAcrStatus`.

Music Query gives you the option to do an on-demand music identification lookup. Note that this will only work if you have modified **Resources/CustomerCredentials.h** with your optional music Client ID and Client Tag.

Load FP Cache creates a local audio cache from a pre-loaded *bundle*. See *Storing Local Audio Fingerprint Data* in the *Entourage SDK Implementation Guide for iOS* for more information.

ℹ️ If you are using an iOS version prior to iOS 6, you may see an error message in the log file similar to this when you click 'Stop ACR':

'2012-11-20 12:50:01.069 GN_ACR_SDK[2250:4307] 12:50:01.069 <0x2ff5e000> AURemoteIO::ChangeHardwareFormats: error -10875'

This error does not impact your ability to continue running and using the Sample App.

Troubleshooting

This section covers common problems with setting up or running the Sample Application.

Build Errors

Error Message: No architectures to compile for (ARCHS-i386 ppc, VALID_ARCHS=arm6 arm7)

Issue: Your development environment does not have the iOS SDK specified by the GN_ACR_SDK_IOS project.
Potential Fix: The Gracenote iOS Sample Application project was created using iOS 4.2 SDK. If you have a newer version, change the Base SDK for the GN_ACR_SDK_IOS target:

1. Click on the blue **Info** button at the top middle of the screen near **Build and Run** icon.
2. Select the **Build** tab, if it is not already selected.
3. In the Architectures section, select the Base SDK of the 4.x version that is installed on your system.

Error Message: Base SDK Missing in the Overview Dropdown.

Issue: This error normally occurs after a new SDK version and Xcode are installed. A base SDK needs to be designated.
Potential Fix: Follow the steps above to specify the Base SDK version.

Runtime Errors

SDK Manager ERROR: UNKNOWN ERROR (0x90800001)

Issue: When you click "Start ACR", you get the above error message.
Potential Fix: Set the CLIENT_ID, CLIENT_ID_TAG, and LICENSE_STRING defines in Resources/CustomerCredentials.h to your Client ID, Client ID Tag and License File contents. You need to obtain these from Gracenote Professional Services.

Error Message: Audio init ERROR: The functionality is not allowed by the license (0x90800421)

Issue: When you click "Start ACR", you get the above error message.

Potential Fix: Incorrect or missing CLIENT_ID, CLIENT_ID_TAG defines in Resources/CustomerCredentials.h.
Your license may also lack the necessary permissions. Contact Gracenote Professional Services if you continue
to see this message.

Error Message: CodeSign error: code signing is required for product type 'Application' in SDK 'Device iOS x.x'

Issue: Xcode is attempting to deploy the application to an iPhone device unsuccessfully.

Potential Fix 1: If you are trying to use the simulator, change the project's Active SDK by selecting **Simulator**
from the first grouping in the **Overview** drop down box in the top left hand corner.

Potential Fix 2: If you are trying to use a device, follow the steps listed in the **Devices** section of the iOS
Provisioning Portal to ensure your device is correctly provisioned.