

User Generated Short Video SDK Integration (UI Included) Product Documentation



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Integration (UI Included)

Quickly Building UGSV Application

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Client

Use XCode or Android Studio to compile and debug the User Generated Short Video (UGSV) client source code as described below.

Step 1. Download App source code

Go to [SDK Download](#) to find and download the UGSV source code.

Step 2. Apply for SDK license

Please see [License Application](#).

Step 3. Prepare the debugging environment

iOS platform

- XCode 9 or above
- OS X 10.10 or above

Android platform

- Android NDK: android-ndk-r12b
- Android SDK Tools: android-sdk_26.0.2
 - minSdkVersion: 15
 - targetSdkVersion: 21

Step 4. Compile and run the SDK

Click the “Build” button in XCode or Android Studio to compile and run the SDK. Tencent’s test server address

`http://demo.vod2.myqcloud.com/lite/` has been added in the source code so you can quickly run our App in the debugging environment.

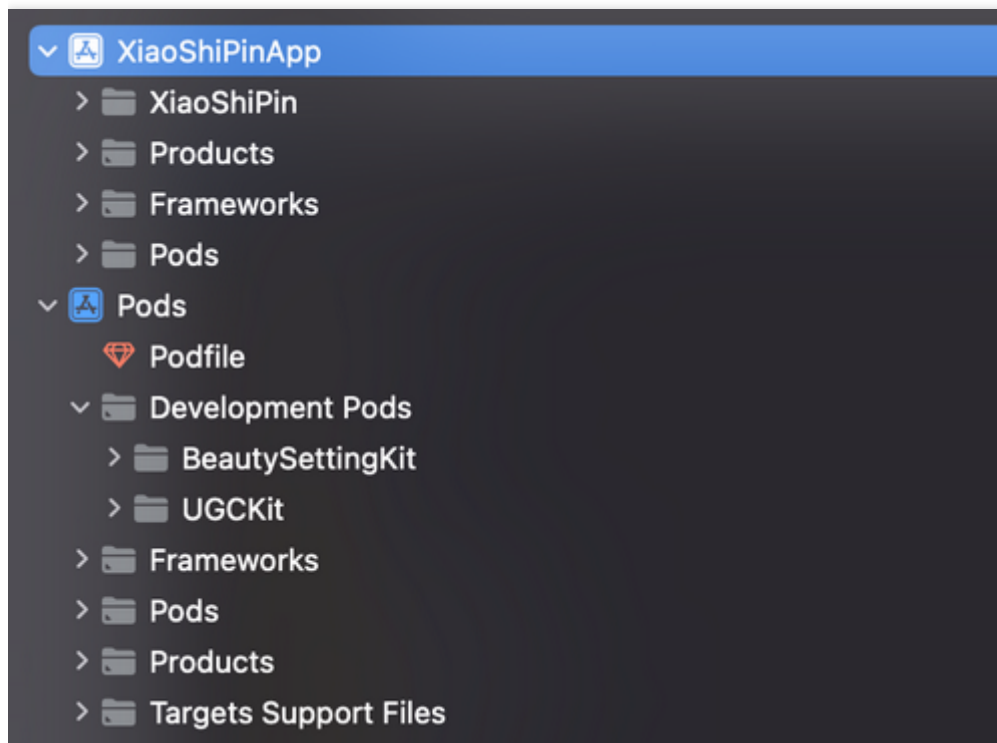
Backend

For backend information, please see [VOD UGSV server](#)

Source Code Description (iOS)

Last updated : 2022-03-07 10:23:07

1. Project Structure



UGCKit, which is used for video shooting and playback, is the main feature library of the UGSV App. For how to integrate it, see [UGCKit](#).

The beauty filters of the UGSV App are based on `BeautySettingkit`. For how to integrate it, see [TikTok-like Special Effects](#). You can find the code in the `BeautySettingKit` directory.

2. Modules

The UGSV App has seven modules:

- The account, list management, publishing, and profile modules are under the `XiaoshiPinApp` directory.
- The video playback, shooting, and editing modules are parts of UGCKit.

Account

- The account module handles the logics of user login/registration and login data caching.

- You can replace this module with your own account system if you already have one.
- The UI of the account module is implemented by `XiaoShiPin/AppViewControllers/Account` and `XiaoShiPin/AppViewControllers/AccountInfo`. The former is responsible for login, and the latter is responsible for profile processing.
- You can view the business logic of the account module in `XiaoShiPin/Model`.

Main view and list management

Description

- The main view offers access to three primary features of the app: video list, video shooting, and user profile.
- By default, users log in to the video list page. When they tap the shooting tab, they will be directed to the login page if they are not logged in and the publishing page if they are. If they tap the profile tab, the user profile page will be displayed.
- The list management module pulls and displays the video list.

Code

- Model:
 - `TCLiveListModel(XiaoShiPin/AppViewControllers/mainList)`: data-level definition and pickling/unpickling of the video list
- UI:
 - `TCNavigationController`: controller for the navigation bar, used to customize the background color of the navigation bar
 - `TCMainViewController`: controller for the tab bar of the main view, used to switch among the video list, shooting and user profile pages
 - `TCVideoListCell`: cell class of the VOD list, which displays the thumbnail, title, and username
 - `TCLiveListViewController`: `TableViewController` for the video list, which displays videos and directs users to the playback page when they tap a video

Playback

Description

The playback module offers features including video preloading, playback, caching, sharing, etc.

Code

You can find the code in `/XiaoShiPin/AppViewControllers/VideoPlayer`, which includes the UI logic and business logic for playback.

Shooting

Description

The shooting module offers features including segment-based shooting and deletion, multi-resolution shooting, and shooting speed changing, etc.

Code

You can find the logic for shooting in `UGCKit/Source/Record` .

Video editing

Description

The video editing module offers features including video trimming, background music adding, filters, special effects, animated and static stickers, etc.

Code

You can find the logic for video editing in `UGCKit/Source/Edit` .

Publishing

Description

The publishing module offers the video publishing feature.

Code

You can find the logic for publishing in `XiaoShiPin/AppViewController/Publish` .

User profile

Description

- The user profile module is responsible for displaying, saving, and modifying user profiles and syncing the data to the server.
- User profiles include users' profile photos, aliases, gender, live streaming thumbnails, regions, etc. The user profile module is provided by the IM SDK, which allows you to use custom fields to include more information in user profiles.
- The user profile module syncs the latest user profile data from the server to your app. It allows users to view their profiles, including photos, names, and gender.
- Users can modify their profiles. The changes will be synced to the server.
- Other modules can obtain and modify user profiles from this module.

Code

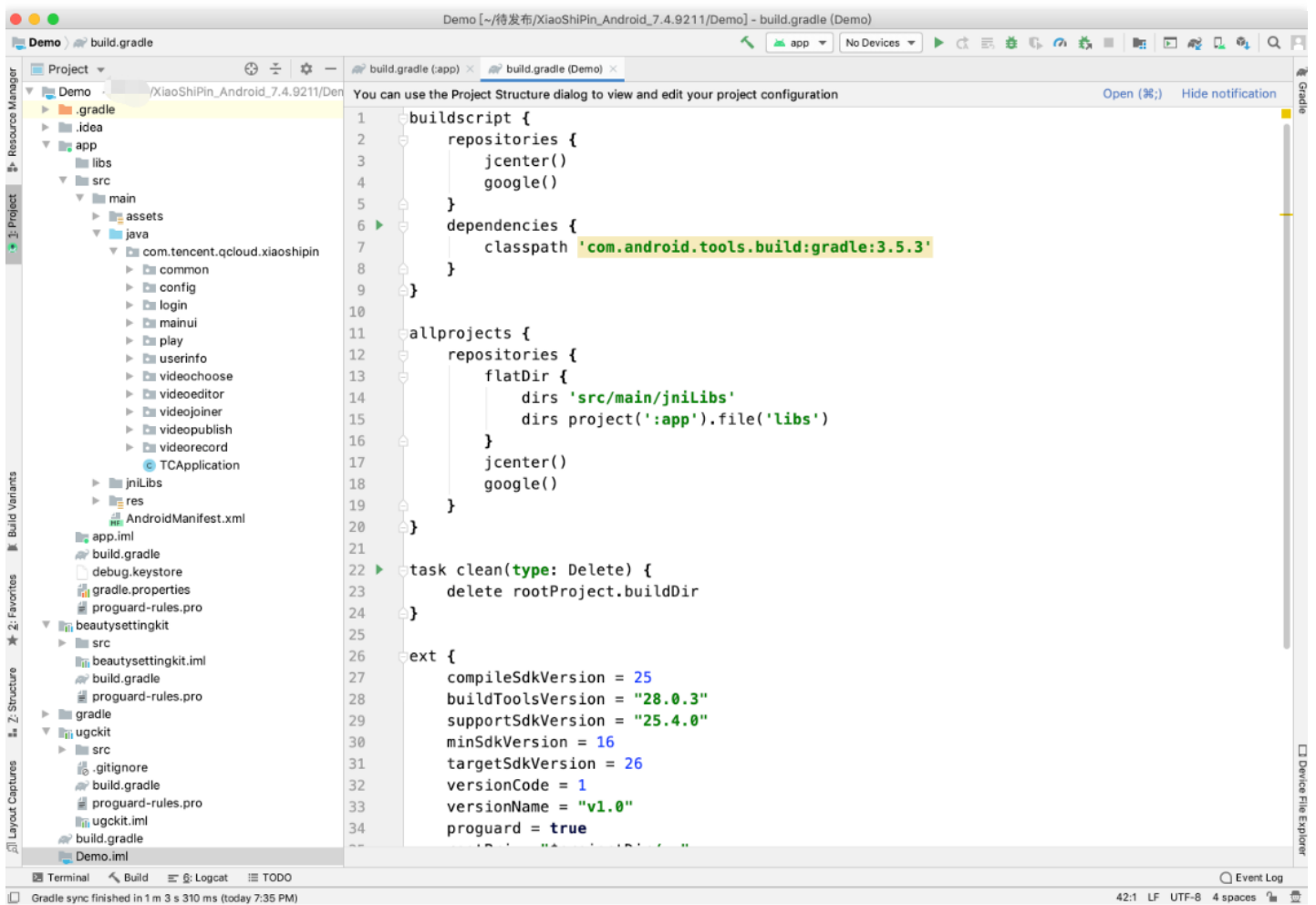
You can find the logic for user profiles in `XiaoShiPin/AppViewController/AccountInfo` .

Source Code Description (Android)

Last updated : 2021-10-19 16:21:58

Project Structure

Download the source code for the UGSV demo app and open the project with Android Studio. You will see a directory structure as shown below.



File/Directory	Description
common	Common components, including tools and custom UIs (beauty filter and player controls)
login	Account module, including login and registration
mainui	Main UI of the UGSV demo app, including main activities and the video list
play	Playback module

File/Directory	Description
userinfo	User profile module
videochoose	Video file selection module
videoeditor	Video editing module
videojoiner	Video splicing module
videopublish	Video publishing module
videorecord	Video shooting module
jniLibs	Tencent's SDKs underlying the UGSV demo app, mainly BuglySDK, plus the libraries used for file uploading and LiteAVSDK

Animated Stickers

The source code for the UGSV demo app uses LiveAV_UGC by default, which does not offer animated stickers. To use animated stickers, please download the Enterprise Edition [here](#).

Module Introduction

The UGSV demo app's functional modules include account, main UI, playback, and UGSV (editing, splicing, shooting, and publishing), which correspond to different codes. Below is a description of these modules plus their implementation methods.

Account

Description

- The account module handles the logics of user login/registration and login data caching.
- You can replace this module with your own account system if you already have one.
- The account module registers usernames and passwords with the backend of the UGSV demo app by calling `register` of `TCUserMgr`, handles logins by calling `login` of `TCUserMgr`, caches login data locally in `SharePreference`, and clears the cached data after logout.

Code

Class	Description
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Class	Description
TCAApplication.java	SDK initialization class
TCLoginActivity.java	User login view
TCRegisterActivity.java	User registration view
TCUserMgr	User login/registration management class
ProgressFragmentUtil	Control for displaying the progress bar
TCUserInfoFragment.java	User profile view
TCAboutActivity	"About" view of the UGSV demo app

Main UI and list management

Description

- The main UI offers access to three primary features of the app: video list, video shooting/editing, and user profile.
- By default, users log in to the video list page. When they click +, a dialog box pops up asking them to select whether to shoot new videos or edit local videos. They can also click the user profile button to go to the user information page.
- The list management module pulls and displays the video list.

Code

Class	Description
TCSplashActivity.java	Splash screen
TCMainActivity.java	Main view, which includes the video list, video recording/editing and user profile pages
TCLiveListMgr.java	List management class, which provides APIs to get local videos and update the video list from the server
TCLiveListFragment.java	List view, which displays video information
TCLiveListAdapter.java	Video list adapter
TCUGCVideoListAdapter.java	Video list adapter
TCVideoInfo	Video data

Video shooting

Description

With the UGSV demo app, users can shoot [UGSV](#) not longer than 1 minute, but the SDK does not show video length.

Code

Class	Description
TCVideoRecordActivity.java	Video shooting view
RecordProgressView	View for pressing and holding to shoot videos
ComposeRecordBtn	Progress bar for multi-segment shooting

File selection

Description

This module lists all the MP4 files stored locally on phones for users to choose from.

Code

Class	Description
TCVideoChooseActivity.java	Local MP4 file selecting view
TCVideoEditorListAdapter.java	Local MP4 file list adapter
TCVideoEditorMgr.java	MP4 file management class, which provides an API to get the MP4 files stored on phones
TCVideoFileInfo.java	Local video data

Video editing

Description

The [video editing](#) module offers features including video clipping, slow motion, filters, music mixing, stickers and subtitling.

Code

- **videoeditor/ directory:**

Class	Description
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Class	Description
TCVideoPreprocessActivity.java	Video pre-processing view, which is displayed when users start editing a video after shooting
TCVideoCutterActivity.java	Video clipping view
TCVideoEditorActivity.java	The editing view displayed after video clipping, with options including music, filters, speed adjustment, tone, stickers and subtitles at the bottom
TCVideoEffectActivity.java	The special effect adding view, which shows when users click the button at the bottom
BaseEditFragment.java	Parent class of the special effect fragment, which controls the playback of special effects on multiple views
TCVideoJoinerActivity.java	If users select multiple files to edit, the SDK will splice the videos.

- **videoeditor/cutter/directory**: video clipping
- **videoeditor/time/ directory**: speed adjustment, including slow motion, loop and rewind.
- **videoeditor/bgm/ directory**: background music
- **videoeditor/paster/ directory**: stickers, including animated and static stickers
- **videoeditor/motion/ directory**: four animated filters. You cannot add your own filters. To use more filters, please contact us by submitting a ticket.
- **videoditor/bubble/ directory**: bubble subtitles
- **videoeditor/utils/ directory**: video editing tools
- **videoeditor/common/directory**: common video editing components
- **videojoiner/directory**: video splicing

Video publishing

Description

This module allows users to publish videos to Tencent Cloud's video distribution platform (VOD system).

Code

Class	Description
TCVideoPublisherActivity.java	Video publishing view

Playback

Description

This module allows users to swipe up and down to play videos that have been published to the VOD system.

Code

Class	Description
TCVodPlayerActivity.java	UGSV playback view