

User Generated Short Video SDK

API Documentation

Product Documentation



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Last updated : 2024-11-29 12:41:05

TXVideoEditor

Constructor API

API	Description
initWithPreview	The default initialization method.

Video/Image setting APIs

API	Description
setVideoPath	Specifies the video path.
setVideoAsset	Sets AVAsset.
setPictureList	Specifies the images that are to be converted to a video (not supported in UGSV Lite).
setPictureTransition	Sets the transition effects (not supported in UGSV Lite).

Preview APIs

API	Description
previewAtTime	Renders the image at a specific time point of the video.
startPlayFromTime	Plays a video for a specific time period.
pausePlay	Pauses playback.
resumePlay	Resumes playback.
stopPlay	Stops playback (releases the resources).

Effect APIs

API	Description
setBeautyFilter	Sets the beautification and brightening strength (0-9).
setFilter	Sets the filter.
setFilter	Sets two filters.
setSpecialRatio	Sets the filter strength.
setReverse	Plays a video backwards (not supported in UGSV Lite).
setRepeatPlay	Loops video segments (not supported in UGSV Lite).
setRenderRotation	Sets the rendering rotation (not supported in UGSV Lite).
setSpeedList	Sets the playback speed (not supported in UGSV Lite).
startEffect	Starts an effect (not supported in UGSV Lite).
stopEffect	Stops an effect (not supported in UGSV Lite).
deleteLastEffect	Removes the last effect applied (not supported in UGSV Lite).
deleteAllEffect	Removes all effects (not supported in UGSV Lite).

Sticker APIs (not supported in UGSV Lite)

API	Description
setSubtitleList	Sets speech bubbles (not supported in UGSV Lite).
setPasterList	Sets static stickers (not supported in UGSV Lite).
setAnimatedPasterList	Sets animated stickers (not supported in UGSV Lite).

Background music APIs

API	Description
setBGM	Sets the background music (not supported in UGSV Lite).
setBGMAsset	Sets the background music (not supported in UGSV Lite).
setBGMStartTime	Sets the start and end time of the background music (not supported in UGSV Lite).

setBGMLoop	Sets whether to loop the background music (not supported in UGSV Lite).
setBGMAtVideoTime	Sets the time point of the video to start playing music (not supported in UGSV Lite).
setVideoVolume	Sets the audio volume of the video (not supported in UGSV Lite).
setBGMVolume	Sets the volume of the background music (not supported in UGSV Lite).
setBGMFadeInDuration	Sets fade-in and fade-out effects for the background music (not supported in UGSV Lite).

Watermark APIs

API	Description
setWaterMark	Sets a global watermark (not supported in UGSV Lite).
setTailWaterMark	Adds a watermark to the closing segment (not supported in UGSV Lite).

TXVideoPreviewListener

Preview callback APIs

API	Description
onPreviewProgress	The current preview time of the video, in seconds.
onPreviewFinished	The preview ended.

TXVideoCustomProcessListener

Custom processing callback APIs

API	Description
onPreProcessTexture	The texture callback. You can process the video by yourself in this callback.

[onTextureDestoryed](#)

The texture releasing callback. You can release the OpenGL resources in this callback.

TXVideoGenerateListener

Editing callback APIs

API	Description
onGenerateProgress	The video generation progress.
onGenerateComplete	A video was generated.

TXVideoJoinerListener

Video generation and splicing callback APIs

API	Description
onJoinProgress	The video generation progress.
onJoinComplete	A video was generated.

TXVideoEditorTypeDef

Definitions of editing key types

API	Description
TXVideoInfo	The video information.
TXPreviewParam	The preview parameters.
TXGenerateResult	The editing result.
TXJoinerResult	The video generation result.
TXSubtitle	The subtitle information.
TXPaster	The static sticker information.
TXAnimatedPaster	The animated sticker information.

TXSpeed	The speed changing information.
TXRepeat	The looped segment.

Enumerated types

API	Description
TXPreviewRenderMode	Preview fill modes.
TXSpeedLevel	Speed change options.
TXEffectType	Effect types.
TXTransitionType	Transition effects.
TXGenerateResultCode	Error codes for video generation.
TXJoinerResultCode	Error codes for video splicing.
TXVideoCompressed	Compression ratios.

Error Codes

Video generation

Message	Code	Description
GENERATE_RESULT_OK	0	The video was generated successfully.
GENERATE_RESULT_FAILED	-1	Failed to generate the video.
GENERATE_RESULT_CANCEL	-2	The video was canceled.
GENERATE_RESULT_LICENCE_VERIFICATION_FAILED	-5	Failed to generate the video due to a license verification error.

Video splicing

Message	Code	Description
JOINER_RESULT_OK	0	The splicing was successful.
JOINER_RESULT_FAILED	-1	The splicing failed.

JOINER_RESULT_LICENCE_VERIFICATION_FAILED	-5	License verification failed.
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Android

Last updated : 2024-11-29 12:40:29

TXVideoEditor

Basic editing APIs

API	Description
TXVideoEditor	The <code>TXVideoEditor</code> constructor.
setVideoPath	Specifies the video path. This API works in v18 or later on Android.
setCustomVideoProcessListener	Sets the custom image processing callback (not supported in UGSV Lite).
release	Releases the resources after a video is processed or processing is canceled.

Effect APIs

API	Description
setSpecialRatio	Sets the filter strength (not supported in UGSV Lite).
setFilter	Sets the filter (not supported in UGSV Lite).
setFilter	Sets multiple filters (not supported in UGSV Lite).
setBeautyFilter	Sets the beautification and brightening strength (not supported in UGSV Lite).
startEffect	Sets the start time for an effect (not supported in UGSV Lite).
stopEffect	Sets the end time for an effect (not supported in UGSV Lite).
deleteLastEffect	Removes the last effect applied (not supported in UGSV Lite).
deleteAllEffect	Removes all effects (not supported in UGSV Lite).

Video generation APIs

API	Description
setCutFromTime	Sets the start and end time for video clipping.

setVideoBitrate	Sets the output video bitrate.
setAudioBitrate	Sets the output audio bitrate.
setVideoGenerateListener	Registers a listener for video generation.
generateVideo	Generates a video according to the action list.
cancel	Cancels generating the video.

Image transition APIs

API	Description
setPictureList	Specifies the images that are to be converted to a video (not supported in UGSV Lite).
setPictureTransition	Sets the transition effects (not supported in UGSV Lite).

Time effect APIs

API	Description
setSpeedList	Sets the playback speed for multiple video segments (not supported in UGSV Lite).
setRepeatPlay	Loops multiple video segments (not supported in UGSV Lite).
setReverse	Plays a video backwards (not supported in UGSV Lite).

Preview APIs

API	Description
setTXVideoPreviewListener	Registers a listener for video preview.
initWithPreview	Initializes the view for video preview.
startPlayFromTime	Plays a video for a specific time period.
pausePlay	Pauses playback.
resumePlay	Resumes playback.
stopPlay	Stops playback (releases the resources).

previewAtTime	Previews a frame.
refreshOneFrame	Refreshes a frame to show the image without ghosting. This is used for the subtitle editing view.
setRenderRotation	Sets the rendering rotation (not supported in UGSV Lite).

Preprocessing APIs

API	Description
setVideoProcessListener	Sets the preprocessing callback.
processVideo	Preprocesses a video.

Background music APIs

API	Description
setBGM	Sets the background music (not supported in UGSV Lite).
setBGMLoop	Sets whether to loop the background music (not supported in UGSV Lite).
setBGMAtVideoTime	Sets the time point of the video to start playing music (not supported in UGSV Lite).
setBGMStartTime	Sets the start and end time of the background music (not supported in UGSV Lite).
setBGMVolume	Sets the volume of the background music (not supported in UGSV Lite).
setBGMFadeInOutDuration	Sets fade-in and fade-out effects for the background music (not supported in UGSV Lite).
setVideoVolume	Sets the audio volume of the video (not supported in UGSV Lite).

Sticker APIs (not supported in UGSV Lite)

API	Description
setPasterList	Sets static stickers (not supported in UGSV Lite).
setAnimatedPasterList	Sets animated stickers (not supported in UGSV Lite).
setSubtitleList	Sets speech bubbles (not supported in UGSV Lite).
setWaterMark	Adds a watermark.

setTailWaterMark	Adds a watermark to the closing segment (not supported in UGSV Lite).
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Watermark APIs

API	Description
setWaterMark	Sets a global watermark (not supported in UGSV Lite).
setTailWaterMark	Adds a watermark to the closing segment (not supported in UGSV Lite).

Thumbnail APIs

API	Description
getThumbnail	Gets the thumbnail list.
getThumbnail	Gets the thumbnail list.
setThumbnail	Sets the thumbnail output by preprocessing.
setThumbnailListener	Sets the callback for thumbnail generation by preprocessing.
getThumbnailCount	Gets the number of thumbnails.

TXVideoGenerateListener

Editing callback APIs

API	Description
onGenerateProgress	The video generation progress.
onGenerateComplete	A video was generated.

TXVideoPreviewListener

Preview callback APIs

API	Description
onPreviewProgress	The current preview time, in microseconds.

[onPreviewFinished](#)

The preview ended.

TXVideoPreviewListenerEx

Preview callback APIs

API	Description
onPreviewError	An error occurred during video generation.
onPreviewProgress	The preview progress, in microseconds.
onPreviewFinished	The preview ended.

TXVideoProcessListener

Preprocessing callback APIs

API	Description
onProcessProgress	The preprocessing progress.
onProcessComplete	The preprocessing was completed.

TXVideoCustomProcessListener

Custom processing callback APIs

API	Description
onTextureCustomProcess	The texture callback. You can process the video by yourself in this callback.
onTextureDestroyed	The texture releasing callback. You can release the OpenGL resources in this callback.

TXThumbnailListener

Thumbnail callback APIs

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API	Description
onThumbnail	The thumbnail callback.

TXVideoEditConstants

Definitions of editing key types

API	Description
TXVideoInfo	The video information.
TXPreviewParam	The preview parameters.
TXGenerateResult	The editing result.
TXPreviewError	Preview errors.
TXJoinerResult	The generation result.
TXSubtitle	The subtitle information.
TXPaster	The static sticker information.
TXAnimatedPaster	The animated sticker information.
TXSpeed	The speed changing information.
TXRect	The area to which the watermark is applied.
TXThumbnail	The thumbnail information.
TXRepeat	The looped segment.
TXAbsoluteRect	The position and dimensions of each video.

Error Codes

Editing result

Message	Code	Description
GENERATE_RESULT_OK	0	The video was generated successfully.

GENERATE_RESULT_FAILED	-1	Failed to generate the video.
GENERATE_RESULT_LICENCE_VERIFICATION_FAILED	-5	Failed to generate the video due to a license verification error.

Preview

Message	Code	Description
PREVIEW_ERROR_VIDEO_DECODE_FAIL	-1	Failed to preview the video due to a decoding error.

Shooting

iOS

Last updated : 2024-11-29 12:41:49

TXUGCRecord

Instantiation API

API	Description
shareInstance	Gets an instance.

Camera and mic APIs

API	Description
startCameraSimple	Starts the camera preview.
startCameraCustom	Starts the camera preview.
setVideoResolution	Changes the shooting resolution. For this API to work, it must be called after <code>startCamera</code> .
setVideoRenderMode	Sets the rendering mode. For this API to work, it must be called after <code>startCamera</code> .
setVideoBitrate	Changes the shooting bitrate.
setZoom	Sets the camera factor. For this API to work, it must be called after <code>startCamera</code> .
switchCamera	Switches between the front and rear cameras. For this API to work, it must be called after <code>startCamera</code> .
toggleTorch	Turns on/off the flashlight. For this API to work, it must be called after <code>startCamera</code> .
stopCameraPreview	Stops the camera preview.

Shooting APIs

API	Description
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setHomeOrientation	Sets the orientation for shooting.
setRenderRotation	Sets the rotation for rendering.
setAspectRatio	Sets the aspect ratio.
setRecordSpeed	Sets the shooting speed (not supported in UGSV Lite).
setMute	Sets whether to mute audio.
startRecord	Starts shooting. The SDK will automatically generate the video path.
startRecord	Starts shooting.
startRecord	Starts shooting.
pauseRecord	Pauses shooting.
pauseRecord	Pauses shooting.
resumeRecord	Resumes shooting.
stopRecord	Stops shooting.
pauseAudioSession	Pauses the audio session. If you use a different player for preview, make sure you call this API before the preview.
resumeAudioSession	Restarts the audio session of the SDK.

Shooting effect APIs

API	Description
setWaterMark	Sets a global watermark (not supported in UGSV Lite).
getBeautyManager	Gets the beauty filter management object.
setBeautyStyle	Sets the beautification and brightening strength.
setFilter	Sets the color filter.
setFilter	Sets two filters (not supported in UGSV Lite).
setSpecialRatio	Sets the filter strength.
setEyeScaleLevel	Sets the strength of the big eyes effect.
setFaceScaleLevel	Sets the strength of the slim face effect.

setFaceVLevel	Sets the V shape effect.
setChinLevel	Sets the chin length.
setFaceShortLevel	Sets the face length.
setNoseSlimLevel	Sets the nose size.
setGreenScreenFile	Sets the green screen.
selectMotionTpl	Sets the animated effect.
setMotionMute	Sets whether to mute an animated effect.

Background music APIs

API	Description
setBGM	Sets the background music (not supported in UGSV Lite).
setBGMAsset	Sets the background music (not supported in UGSV Lite).
setBGMLoop	Sets whether to loop the background music (not supported in UGSV Lite).
playBGMFromTime	Plays the background music (not supported in UGSV Lite).
stopBGM	Stops the background music (not supported in UGSV Lite).
pauseBGM	Pauses the background music (not supported in UGSV Lite).
resumeBGM	Resumes the background music (not supported in UGSV Lite).
setMicVolume	Sets the mic volume.
setBGMVolume	Sets the volume of the background music.
setReverbType	Sets the reverb effect. (not supported in UGSV Lite).
setVoiceChangerType	Sets the voice changing effect (not supported in UGSV Lite).
snapshot	Takes a screenshot/photo (not supported in UGSV Lite). For this API to work, it must be called after <code>startCamera</code> .

TXUGCRecordListener

Shooting callbacks

API	Description
onRecordProgress	The shooting progress.
onRecordComplete	The shooting ended.
onRecordEvent	A shooting event (not in use yet).

TXUGCRecordTypeDef

Definitions of key types

API	Description
TXUGCSimpleConfig	Shooting parameters.
TXUGCCustomConfig	Shooting parameter.
TXUGCRecordResult	The shooting result.

Enumerated types

API	Description
TXVideoQuality	Video quality options.
TXVideoResolution	Resolution.
TXVideoRenderMode	Rendering modes.
TXVideoAspectRatio	Aspect ratios.
TXVideoRecordSpeed	Shooting speeds.
TXVideoHomeOrientation	Orientation modes.
TXVideoEncodeMode	Codecs.
TXVideoReverbType	Reverb effects.
TXVideoVoiceChangerType	Voice changing effects.
TXVideoBeautyStyle	Beauty styles.
TXAudioSampleRate	Audio sample rates.

[TXUGCRecordResultCode](#)

Error codes for the shooting result.

Error Codes

Shooting result

Message	Code	Description
UGC_RECORD_RESULT_OK	0	The shooting was successful (ended by the user), and a video will be generated.
UGC_RECORD_RESULT_OK_INTERRUPT	1	The shooting was successful (interrupted by an alarm, a call, or switching of the app to the background), and a video will be generated.
UGC_RECORD_RESULT_OK_UNREACH_MINDURATION	2	The shooting was successful (the duration was shorter than the minimum duration allowed), and a video will be generated.
UGC_RECORD_RESULT_OK_BEYOND_MAXDURATION	3	The shooting was successful (the duration was longer than the maximum duration allowed), and a video will be generated.
UGC_RECORD_RESULT_FAILED	1001	The shooting failed. No video will be generated.

Android

Last updated : 2024-11-29 12:42:25

TXUGCRecord

Basic shooting APIs

API	Description
getInstance	Gets a shooting instance.
setVideoRecordListener	Sets the shooting callback.
release	Releases resources.
setVideoProcessListener	Sets the custom image processing callback (not supported in UGSV Lite).

Shooting effect APIs

API	Description
setWatermark	Sets a global watermark (not supported in UGSV Lite).
getBeautyManager	Gets the beauty filter management object.

Camera and mic APIs

API	Description
startCameraSimplePreview	Starts the camera preview (simplified parameters).
startCameraCustomPreview	Starts the camera preview (custom parameters).
setVideoResolution	Sets the shooting resolution.
setVideoBitrate	Sets the video bitrate for shooting.
stopCameraPreview	Stops the camera preview.
switchCamera	Switches between the front and rear cameras.
setMicVolume	Sets the mic volume.
toggleTorch	Turns on/off the flashlight.

getMaxZoom	Gets the maximum zoom factor. You can also use this API to check whether zooming is supported.
setZoom	Sets the zoom factor.
setFocusPosition	Sets the focus position manually.
setVideoRenderMode	Sets the video rendering mode.

Shooting APIs

API	Description
startRecord	Starts shooting. The SDK will automatically generate the video path and thumbnail, which are returned by ITXVideoRecordListener .
startRecord	Starts shooting.
startRecord	Starts shooting.
stopRecord	Stops shooting.
pauseRecord	Pauses shooting.
resumeRecord	Resumes shooting.
setAspectRatio	Sets the aspect ratio.
setRecordSpeed	Sets the shooting speed (not supported in UGSV Lite).
setMute	Sets whether to mute audio.
setHomeOrientation	Sets the orientation (in relation to the Home button).
setRenderRotation	Sets the rotation for rendering.

Background music APIs

API	Description
setReverb	Sets the reverb effect (not supported in UGSV Lite).
setVoiceChangerType	Sets the voice changing effect (not supported in UGSV Lite).
setBGM	Sets the background music (not supported in UGSV Lite).
setBGMNoffy	Sets the music playback callback (not supported in UGSV Lite).

playBGMFromTime	Plays the background music (not supported in UGSV Lite).
stopBGM	Stops the background music (not supported in UGSV Lite).
pauseBGM	Pauses the background music (not supported in UGSV Lite).
resumeBGM	Resumes the background music (not supported in UGSV Lite).
seekBGM	Sets the start and end time for the background music (not supported in UGSV Lite).
setBGMVolume	Sets the volume of the background music (not supported in UGSV Lite).
getMusicDuration	Gets the duration of the music file (not supported in UGSV Lite).

Screenshot APIs

API	Description
snapshot	Sets the preprocessing callback.

Disused APIs

API	Description
setMotionTpl	Sets the animated effect (supported in UGSV Enterprise and Enterprise Pro).
setMotionMute	Sets whether to mute an animated effect (supported in UGSV Enterprise and Enterprise Pro).
setGreenScreenFile	Sets the green screen (supported in UGSV Enterprise Pro).
setFaceVLevel	Sets the V shape effect (supported in UGSV Enterprise Pro).
setFaceShortLevel	Sets the face length (supported in UGSV Enterprise Pro and Enterprise Pro EX).
setChinLevel	Sets the chin length (supported in UGSV Enterprise Pro and Enterprise Pro EX).
setNoseSlimLevel	Sets the nose size (supported in UGSV Enterprise Pro and Enterprise Pro EX).
setEyeScaleLevel	Sets the big eyes effect (supported in UGSV Enterprise Pro and Enterprise Pro EX).
setFaceScaleLevel	Sets the slim face effect (supported in UGSV Enterprise Pro).
setBeautyStyle	Sets the beauty style.
setBeautyDepth	Sets the beautification and brightening strength.

setFilter	Sets the color filter.
setFilter	Sets multiple filters.
setSpecialRatio	Sets the filter strength.

TXUGCPartsManager

Segment-based shooting APIs

API	Description
TXUGCPartsManager	The video segment manager.
setPartsManagerObserver	Sets the callback for processing video segments.
removePartsManagerObserver	Sets the callback for deleting video segments.
addClipInfo	Adds a video segment to the end of the list.
insertPart	Inserts a video segment.
getDuration	Gets the total duration of all the video segments.
getPartsPathList	Gets the paths of all the video segments shot.
deleteLastPart	Deletes the last video segment.
deletePart	Deletes a specific video segment.
deleteAllParts	Deletes all the video segments.

VideoCustomProcessListener

Custom video processing callback APIs

API	Description
onTextureCustomProcess	The texture processing callback.
onDetectFacePoints	The facial keypoints.
onTextureDestroyed	The texture releasing callback.

ITXVideoRecordListener

Preview callback APIs

API	Description
onRecordEvent	A shooting event.
onRecordProgress	The shooting progress callback.
onRecordComplete	The shooting ended.

ITXSnapshotListener

Screenshot callback APIs

API	Description
onSnapshot	The screenshot callback.

ITXBGMNotify

Background music callback APIs

API	Description
onBGMStart	The background music started.
onBGMProgress	The music playback progress.
onBGMComplete	The background music ended.

TXRecordCommon

Definitions of key types

API	Description
TXRecordResult	The shooting result.
TXUGCSimpleConfig	Preset shooting parameters.

TXUGCCustomConfig

Custom shooting parameters.

Error Codes

Shooting result

Message	Code	Description
RECORD_RESULT_OK	0	The shooting was successful or was paused (stopped) .
RECORD_RESULT_OK_LESS_THAN_MINDURATION	1	The shooting was successful. The duration is less than the minimum duration allowed.
RECORD_RESULT_OK_REACHED_MAXDURATION	2	The shooting was successful. The duration is longer than the maximum duration allowed.
RECORD_RESULT_FAILED	-1	The shooting failed.
RECORD_RESULT_SUSPEND_FOR_NO_TASK	-2	An API was called to pause (stop) shooting but there wasn't a shooting task.
RECORD_RESULT_FILE_ERR	-3	The file does not exist or its duration is 0. This is usually because the interval between when the video started, and when it is paused (stopped) is too long. This error does not need to be handled.
RECORD_RESULT_COMPOSE_SET_SRC_PATH_ERR	-4	The source video path is invalid. Call <code>mTXUGCPartsManager.getPartsPath</code> to check whether the file is empty or its duration is 0.
RECORD_RESULT_COMPOSE_SET_DST_PATH_ERR	-5	The target video path is invalid. Check whether the path is empty.
RECORD_RESULT_COMPOSE_START_ERR	-6	Failed to generate the video because there is an ongoing task.
RECORD_RESULT_COMPOSE_CANCEL	-7	The video was canceled.
RECORD_RESULT_COMPOSE_VERIFY_FAIL	-8	Verification for video generation failed because file does not exist, the file duration is 0 or video parameters are inconsistent .
RECORD_RESULT_COMPOSE_INTERNAL_ERR	-9	The video failed to be generated due to an internal error.

Starting shooting

Message	Code	Description
START_RECORD_OK	0	Shooting started.
START_RECORD_ERR_IS_IN_RECORDING	-1	There was an ongoing task when a request was made to start shooting.
START_RECORD_ERR_VIDEO_PATH_IS_EMPTY	-2	The file path is empty when a request was made to start shooting.
START_RECORD_ERR_API_IS_LOWER_THAN_18	-3	The version is earlier than v18.
START_RECORD_ERR_NOT_INIT	-4	Initialization was not finished yet when a request was made to start shooting.
START_RECORD_ERR_LICENCE_VERIFICATION_FAILED	-5	License verification failed.