

## Using Multiple Audio Tracks with Kaltura Live+

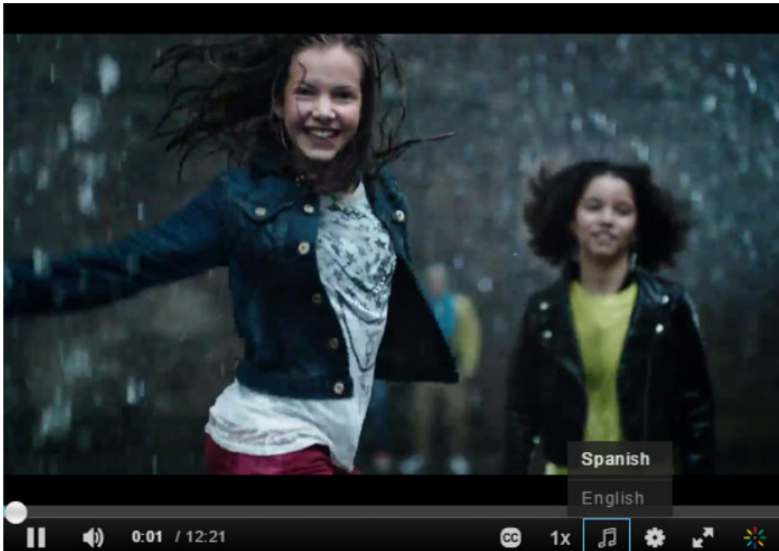
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### Using Multiple Audio Tracks with Kaltura Live +

Kaltura supports multiple audio/language tracks for Live+ streaming. Multiple audio tracks are used to provide live streaming with several audio tracks, typically in different languages, and to provide a better user-experience for multi-lingual audiences.

Instead of creating multiple live streams, each with a video and a different audio language, one video stream with multi-audio tracks can be created and used to simplify the setup and reduce the bandwidth and processing costs.

Switching between audio tracks is done in the player (both Web and Mobile) by simply choosing the preferred language from the audio menu.



### Requirements for Kaltura Multi-Audio Tracks

The following components are required to configure multiple audios for Kaltura Live+ Streaming:

- Multiple audio sources - If you are streaming a live event, you will need translators that will record different languages in realtime during your live event. If you are simulating a live event, you will need several audio tracks.
- An encoder that can send separate RTMP feeds for each track:
  - 
  - The video track and all audio tracks should use different RTMP stream names.
  - Each track should have a separate RTMP connection.  
The audio and video tracks should be broadcasted separately.  
Audios that are interleaved (included ) with videos will be discarded.

### Mapping Audio Stream Names and Languages

The following lists the audio stream names and languages for mapping multi-audio streaming:

- English - 1000
- Spanish - 1001
- French - 1002
- German - 1003
- Portuguese - 1004
- Chinese - 1005
- Arabic - 1006
- Hindi - 1007
- Russian - 1008
- Japanese - 1009

- Finnish - 1010
- Swedish - 1011
- Korean - 1012
- Turkish - 1013
- Polish - 1014
- Italian - 1015
- Ukrainian - 1016
- Kiswahili - 1017

For example, if you are broadcasting in English, Spanish and French:

All the video and audio tracks will have the same RTMP endpoint prefix:

rtmp://[entryID].[p/b].kpublish.kaltura.com:1935/kLive?t=[token]

For the video track, stream name (aka "Stream Key") will be "1"

For the English audio track, stream name (aka "Stream Key") will be "1000"

For the Spanish audio track, stream name (aka "Stream Key") will be "1001"

For the French audio track, stream name (aka "Stream Key") will be "1002"

### How to Setup Multi-audio for Kaltura Live+

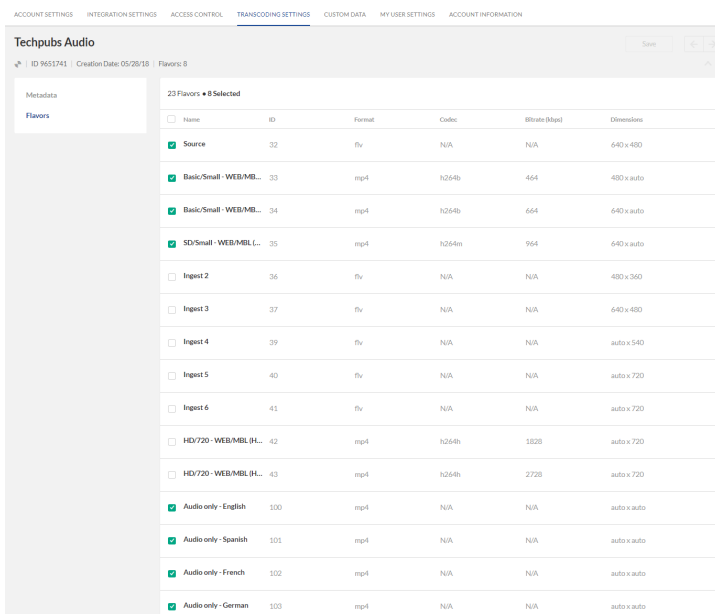
- Your Kaltura account has to be setup with Live+ (The multi-audio tracks feature is not supported for Kaltura Passthrough streaming).
- KMC - The selected Transcoding Profile for your live entry must be configured to select all the languages' flavors that are being used by your partner. See [How to Configure the Transcoding Settings](#).
- Encoder - Define each track (video/audio) to stream to its dedicated endpoint. Make sure to start broadcasting your video and all audio tracks all together, not one after the other.
- Enable the "Audio Selector" in the player to be able to switch between audios/languages. See [How to Configure the Audio Selector in the Kaltura Player](#).

To configure the Transcoding Settings in the KMC for Multi-audio tracks

1. Select the Settings tab and then select Transcoding Settings.

The Transcoding Profiles window is displayed showing the Live Transcoding Profiles if they have been created. See [How to Set Transcoding Profiles for Live Streaming for additional information](#).

2. Create a new transcoding profile for multiple audio or edit an existing profile.
3. Choose video flavors (typically on flavor #32 "Source" + cloud transcode flavors if applicable).



Name	ID	Format	Codec	Bitrate (Kbps)	Dimensions
<input checked="" type="checkbox"/> Source	32	flv	N/A	N/A	640 x 480
<input checked="" type="checkbox"/> SD/Small-Web/MBL	33	mp4	H264b	464	480 x auto
<input checked="" type="checkbox"/> SD/Small-Web/MBL	34	mp4	H264b	664	640 x auto
<input checked="" type="checkbox"/> SD/Small-Web/MBL	35	mp4	H264m	964	640 x auto
<input type="checkbox"/> Ingest 2	36	flv	N/A	N/A	480 x 360
<input type="checkbox"/> Ingest 3	37	flv	N/A	N/A	640 x 480
<input type="checkbox"/> Ingest 4	39	flv	N/A	N/A	auto x 540
<input type="checkbox"/> Ingest 5	40	flv	N/A	N/A	auto x 720
<input type="checkbox"/> Ingest 6	41	flv	N/A	N/A	auto x 720
<input type="checkbox"/> HD/720-Web/MBL (H.264)	42	mp4	H264b	1828	auto x 720
<input type="checkbox"/> HD/720-Web/MBL (H.264)	43	mp4	H264b	2728	auto x 720
<input checked="" type="checkbox"/> Audio only - English	100	mp4	N/A	N/A	auto x auto
<input checked="" type="checkbox"/> Audio only - Spanish	101	mp4	N/A	N/A	auto x auto
<input checked="" type="checkbox"/> Audio only - French	102	mp4	N/A	N/A	auto x auto
<input checked="" type="checkbox"/> Audio only - German	103	mp4	N/A	N/A	auto x auto

4. Choose the relevant audio languages (flavors 100 and onward)  
The new transcoding profile for multi-audio is created.
5. You can add additional flavors by editing the Transcoding Profile.

After the transcoding profile is created for multiple audio tracks, create a new live entry and assign the transcoding profile you created to it.

### How to Test Multi-audio for Live+

1. Start broadcasting your video and multiple audio streams.
2. Preview the broadcast in your player.
3. If the player is not showing multiple audio, download the master manifest (.m3u8) and check if the audio group is defined there.

An example of how multi- audio looks on the manifest:

```
#EXTM3U
```

```
#EXT-X-MEDIA:TYPE=AUDIO,GROUP-ID="audio",LANGUAGE="eng",NAME="English",AUTOSELECT=YES,DEFAULT=NO,URI="http://qa-nginx-vod.dev.kaltura.com/hls/p/1091/sp/109100/serveFlavor/entryId/0_xxxxxxxx/v/2/flavorId/0_q6o5z8f3/name/a.mp4/index.m3u8"
```

```
#EXT-X-MEDIA:TYPE=AUDIO,GROUP-ID="audio",LANGUAGE="spa",NAME="Spanish",AUTOSELECT=NO,DEFAULT=YES,URI="http://qa-nginx-vod.dev.kaltura.com/hls/p/1091/sp/109100/serveFlavor/entryId/0_xxxxxxxx/v/2/flavorId/0_5na0i0y6/name/a.mp4/index.m3u8"
```

### Known Limitations

- Multi-audio does not work with seamless fail-over. Regular primary/backup failover works.
- Downloading a recording with multi-audio tracks will result in downloading the video with the first audio track. This is a general known multi-audio VOD limitation and is not related to Kaltura Live+.