Creating Shows Programmatically Using Delta Express Mode

User Guide

Trademark Information

Copyright Information

Document Revision

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Contents

Introduction

Delta shows can be constructed, managed and run using external control commands. There is an application, StackExpress, that writes these Express Mode shows for you via a simple web browser interface.

However, the JSON files created in this way can also be programmed manually as scripts. These can be loaded into Delta, again using external controls, and with Delta running in Express Mode, the programmed show will run.

Configuring Delta for Express Mode

Express Mode in Delta can be enabled in one of three ways.

External Control

The quickest method to enable/disable Express Mode is to call the external command: **SETEXPRESSMODE ENABLED=[Y/N].**

Registry Edit

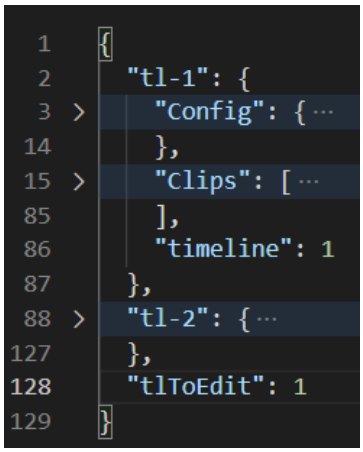
Alternatively it can be done through the Registry Editor by navigating to: **HKEY_LOCAL_MACHINE\SOFTWARE\7thSense\Delta**. From there locate the **ExpressMode** and change the value to 1.

On Load

If neither of these methods is used, Express Mode will be enabled automatically when a media json config file is loaded using the **LOADMEDIAJSON** external control command.

The JSON Structure

Top Level Structure



At this level, there should only be timeline objects and the "tlToEdit" field.

Add a timeline object in the format of "tl-x": {} for every timeline you want to create.

The "tlToEdit" field specifies which timeline object from the JSON to load into the show.

Config Structure

ClipCount
: Should match the number of clips in the "Clips" array.

StartFrame
: The frame on which to start placing clips.

Timeline
: Should match the number of the outer object, e.g. for tl-1 this must be 1.

KeepDisplayConfig

Set to 1 to keep the current display config, set to 0 to overwrite the current display config.

Layer

The layer on the timeline on which to place the clips.

Channel

(Not used.)

Merge

Set to 1 if you have a base file you want to merge the express layer into, rather than completely overwriting the existing file.

ClearExpressLayer

(If “Merge” is set to 1)

0: Load in clips from this file without clearing the current Express layer.

1: Clear the current express layer before loading in the new clips.

Dirty

Set to 1 if “Merge” is 1 ***and*** the clips in this file have changed since Delta last processed this file, otherwise set to 0.

JSONFileVersion

Should always be 1.

Clips Structure


```
"Clips": [
  {
    "ID": 1000,
    "Type": "Movie",
    "MediaType": "tga",
    "Length": 100,
    "Name": "7thFlyAnimationHD",
    "InPoint": 0,
    "OutPoint": "end",
    "CrossFade": 0,
    "PlayMode": "playOnce",
    "PlayModeDetails": 1,
    "Size": "FullScreen",
    "FadeMode": "None",
    "FadeModeDetails": "both",
    "FadeModeLength": 30,
    "PlaySpeed": 1,
    "DisableCodecAudio": 0,
    "MatchAudio": 1,
    "EndTransition": "Play",
    "StopType": "First",
    "Actions": [],
    "LengthMode": "length"
  },
```


ID

Used to name the clip on the timeline. Will be formatted as “Clip_{ID}” : {Name}. Should be sequential. Avoid clashes with other clips.

Type

The type of resource. Can be “Movie”, “Image”, or “Capture”.

MediaType

Needs to match the file extension of the media; e.g. “tga”, “mp4”, “jpg”. If “Type” is “Capture” then leave this blank (“”).

Length

The length in frames of the resource. For movie resources, if this does not match the number of frames in the movie, it will be trimmed or looped to meet this value.

Name

The name of the resource on disk (excluding the extension). If on a movie resource, looks in “C:\Movies”, if on an image resource, looks in “C:\Images”, if on a capture resource this should be the name of the capture device, e.g. “Integrated Webcam :ID 10000”.

InPoint

Trim a movie resource to start from a specified frame. Must be between 0 and the total number of frames in the movie and always less than Outpoint.

OutPoint

Trim a movie resource to end on a specified frame. Must be between 0 and the total number of frames in the movie and always greater than InPoint. Set to “end” to not trim the movie.

(Ensure “LengthMode” is set to the correct value when using “Length” vs “InPoint”/”OutPoint”.

CrossFade

Leave as 0.

PlayMode

“PlayOnce”: This clip will play once then move on to the next clip.

“PlayCount”: This clip will play the amount of times specified in “PlayModeDetails” before moving on to the next clip.

PlayModeDetails

The amount of times to loop this clip (only if “PlayMode” is “PlayCount”).

Size

Leave as “FullScreen”.

FadeMode

“None”: No transition between clips.

“Transparent”: A fade in/out is applied to the clip with a length specified in “FadeModeLength” (seconds).

FadeModeDetails

Always “both”.

FadeModeLength

Time in seconds to fade in/out of resource (if “FadeMode” is “Transparent”.

PlaySpeed

Sets the play speed of a movie resource. Doesn’t affect the length of the resource on the timeline.

DisableCodecAudio

Only used for Codec Movie resources. If set to 1 then the movie’s audio will be disabled.

MatchAudio

Search for any audio files which contain the same resource name as the movie and add them to the timeline at the same frame as the movie and 4 layers lower.

EndTransition

“Play” – continue playing after this clip.

“Stop” – stop playback after this clip.

StopType

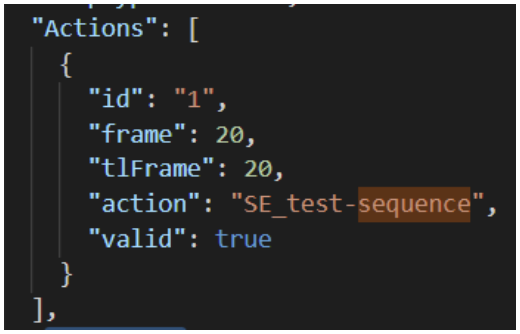
“EndTransition” must be “Stop” for this to have any effect.

"Last": Stop at the end of this clip

"First": Stop at the beginning of the next clip

Actions

Place Delta sequences on the timeline



id Sequential action ID.

frame The RESOURCE frame number to place the sequence on.

tlFrame The TIMELINE frame number to place the sequence on.

action The name of the sequence to add to the timeline.

valid Set to "true".

LengthMode

"length" – Use the "Length" field to determine the length of the resource.

"in/out" – Use the "InPoint" and "OutPoint" fields to determine the length of the resource.

Ingesting into Delta

Once the JSON file has been created, copy it into **C:\7thsense\JSON** name it **media.json**.

To trigger Delta to generate the timeline, use the **LOADMEDIAJSON** external control.

This takes one argument, "tl=x" where x is the number of the timeline you want to populate. This does not have to match the "tlToEdit" field in the top level of the JSON file. "tlToEdit" specifies which of the timeline objects to process from the JSON file, whereas the tl argument to the **LOADMEDIAJSON** command specifies which timeline within Delta onto which to load content.

If you wish to populate multiple timelines, then it is recommended to store all the timelines in **media.json** (as tl-1, tl-2, etc.) and load them one at a time by updating "tlToEdit" to point to the desired timeline, and calling **LOADMEDIAJSON TL=X** to upload it to the correct timeline in Delta.

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