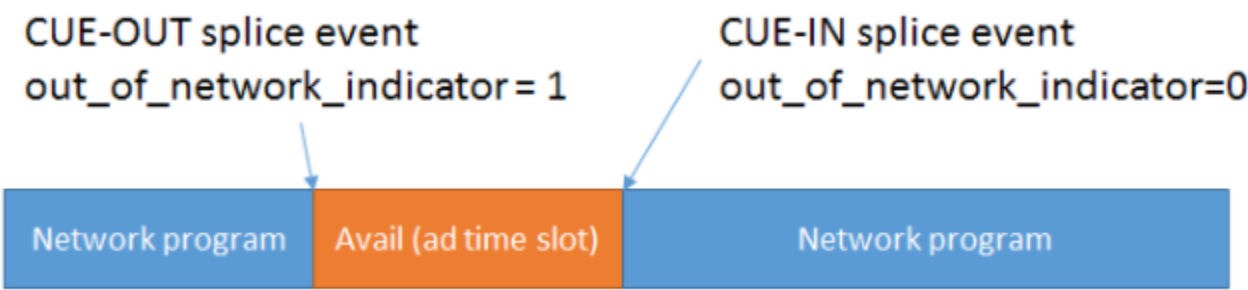


Ad Marker - CUE/CUE-OUT/CUE-IN and SCTE35

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The structure of Ad Marker in the video stream



There are two different types of Ad Markers : CUE/CUE-OUT/CUE-IN and SCTE35

The values provided within your HLS markers can be defined as follows:

Element	Type	Notes
<duration>	(float)(required)	the length of the ad break in seconds
<elapsed>	(float)(required)	the amount of time in seconds since the start of the ad break
<id>	(string)(optional)	the id for the ad break

CUE/CUE-OUT/CUE-IN

#EXT-X-CUE

```
#EXT-X-CUE:Duration=60,ID=<id>
...
...
...
#EXT-X-CUE-SPAN:TIMEFROMSIGNAL=30,ID=<id>
...
...
...
#EXT-X-CUE-IN:ID=<id>
```

#EXT-X-CUE-OUT

```
#EXT-X-CUE-OUT:Duration=60,ID=<id>
...
...
...
#EXT-X-CUE-OUT-CONT:ElapsedTime=2.000,Duration=60,ID=<id>
...
...
...
#EXT-X-CUE-IN:ID=<id>
```

Note: Decimal is optional.

#EXT-X-CUE-OUT with no ID

```
#EXT-X-CUE-OUT:Duration=60
...
...
...
#EXT-X-CUE-OUT-CONT:ElapsedTime=2.000,Duration=60
...
...
...
#EXT-X-CUE-IN
```

Note: Decimal is optional.

SCTE35

#EXT-SCTE35

```
#EXT-SCTE35:TIME=<duration>,ID=<id>,CUE=<cue>
...
...
...
#EXT-X-CUE-OUT-CONT:ElapsedTime=2.000,Duration=30,SCTE35=<cue>
...
...
...
#EXT-X-CUE-IN:ID=<id>
```

#EXT-SCTE35 with no ID

```
#EXT-SCTE35:TIME=<duration>,CUE=<cue>
...
...
...
#EXT-X-CUE-OUT-CONT:ElapsedTime=2.000,Duration=30,SCTE35=<cue>
...
...
...
#EXT-X-CUE-IN
```

#EXT-OCTCLS-SCTE35

```
#EXT-OATCLS-SCTE35:<cue>
#EXT-X-CUE-OUT:<duration>
...
...
...
#EXT-X-CUE-OUT-CONT:ElapsedTime=2.000,Duration=30,SCTE35=<cue>
...
...
...
#EXT-X-CUE-IN:ID=<cue>
```

Example)

```

#EXTM3U
#EXT-X-VERSION:3
#EXT-X-TARGETDURATION:4
#EXT-X-MEDIA-SEQUENCE:219173
#EXTINF:2.00000,
test_1080p_219173.ts
#EXTINF:2.00000,
test_1080p_219174.ts
#EXTINF:3.23333,
test_1080p_219175.ts
#EXT-OATCLS-SCTE35:/DALAAAAAAAAAP/wFAXwAABlf+//MgKHtv4AG3dAAAEBAQAANATZmw==
#EXT-X-CUE-OUT:20.004
#EXTINF:2.76667,
test_1080p_219176.ts
#EXT-X-CUE-OUT-CONT:ElapsedTime=2.767,Duration=21,SCTE35=/DALAAAAAAAAAP/wFAXwAABlf+
//MgKHtv4AG3dAAAEBAQAANATZmw==
#EXTINF:2.00000,
test_1080p_219177.ts
#EXT-X-CUE-OUT-CONT:ElapsedTime=4.767,Duration=21,SCTE35=/DALAAAAAAAAAP/wFAXwAABlf+
//MgKHtv4AG3dAAAEBAQAANATZmw==
#EXTINF:2.00000,
test_1080p_219178.ts
#EXT-X-CUE-OUT-CONT:ElapsedTime=6.767,Duration=21,SCTE35=/DALAAAAAAAAAP/wFAXwAABlf+
//MgKHtv4AG3dAAAEBAQAANATZmw==
#EXTINF:2.00000,
test_1080p_219179.ts
#EXT-X-CUE-OUT-CONT:ElapsedTime=8.767,Duration=21,SCTE35=/DALAAAAAAAAAP/wFAXwAABlf+
//MgKHtv4AG3dAAAEBAQAANATZmw==
#EXTINF:2.00000,
test_1080p_219180.ts
#EXT-X-CUE-OUT-CONT:ElapsedTime=10.767,Duration=21,SCTE35=/DALAAAAAAAAAP/wFAXwAABlf+
//MgKHtv4AG3dAAAEBAQAANATZmw==
#EXTINF:2.00000,
test_1080p_219181.ts
#EXT-X-CUE-OUT-CONT:ElapsedTime=12.767,Duration=21,SCTE35=/DALAAAAAAAAAP/wFAXwAABlf+
//MgKHtv4AG3dAAAEBAQAANATZmw==
#EXTINF:2.00000,
test_1080p_219182.ts

```

#EXT-X-SCTE35

```

#EXT-X-SCTE35:DURATION=<duration>,ID=<id>,CUE=<cue>
...
...
...
#EXT-X-CUE-OUT-CONT:ElapsedTime=2.000,Duration=30,SCTE35=<cue>
...
...
...
#EXT-X-CUE-IN:SCTE35=<cue>

```

#EXT-X-SCTE35 with no ID

```
#EXT-X-SCTE35:DURATION=<duration>,ID=<id>,CUE=<cue>
...
...
...
#EXT-X-CUE-OUT-CONT:ElapsedTime=2.000,Duration=30,SCTE35=<cue>
...
...
...
#EXT-X-CUE-IN
```

EXAMPLES

To implement CUE-OUT and CUE-IN in m3u8 that commonly used in HLS or DASH, you can simple identify **#EXT-X-CUE-OUT: <duration>** to insert Ad, and you can close its period by adding **#EXT-X-CUE-IN** like below:

```
#EXTINF:12,
1080p_72020201006T075438_00073.ts
#EXTINF:12,
1080p_72020201006T075442_00074.ts
#EXTINF:12,
1080p_72020201006T075446_00075.ts
#EXTINF:1,
1080p_72020201006T075449_00076.ts
#EXT-X-CUE-OUT:10.00
#EXT-X-CUE-IN
#EXTINF:11,
1080p_72020201006T075450_00077.ts
#EXTINF:12,
1080p_72020201006T075453_00078.ts
#EXTINF:12,
1080p_72020201006T075457_00079.ts
#EXTINF:12,
1080p_72020201006T075501_00080.ts
```

Below example is another example of SCTE-35 Ad Marker that containing ad slates for 30 seconds.

```
#EXTM3U
#EXT-X-VERSION:3
#EXT-X-TARGETDURATION:12
#EXT-X-MEDIA-SEQUENCE:1
#EXT-X-PLAYLIST-TYPE:VOD
#EXTINF:10.000,
file_60p_1_00001.ts
#EXT-OATCLS-SCTE35:/DAnAAAAAAAAAP/wBQb+AA27oAARAg9DVUVJAAAAAX+HCQA0AAE0xUZn
#EXT-X-CUE-OUT:30.000
#EXTINF:2.000,
file_60p_1_00002.ts
#EXT-X-CUE-OUT-CONT:ElapsedTime=2.000,Duration=30,SCTE35=/DAnAAAAAAAAAP
/wBQb+AA27oAARAg9DVUVJAAAAAX+HCQA0AAE0xUZn
#EXTINF:12.000,
file_60p_1_00003.ts
#EXT-X-CUE-OUT-CONT:ElapsedTime=14.000,Duration=30,SCTE35=/DAnAAAAAAAAAP
/wBQb+AA27oAARAg9DVUVJAAAAAX+HCQA0AAE0xUZn
#EXTINF:12.000,
file_60p_1_00004.ts
#EXT-X-CUE-OUT-CONT:ElapsedTime=26.000,Duration=30,SCTE35=/DAnAAAAAAAAAP
/wBQb+AA27oAARAg9DVUVJAAAAAX+HCQA0AAE0xUZn
#EXTINF:4.000,
file_60p_1_00005.ts
#EXT-OATCLS-SCTE35:/DAnAAAAAAAAAP/wBQb+ADbugAARAg9DVUVJAAAAAX+HCQA1AAA3v5+Q
#EXT-X-CUE-IN
#EXTINF:8.000,
file_60p_1_00006.ts
```

```
#EXTINF:12.000,  
file_60p_1_00007.ts  
#EXTINF:12.000,  
file_60p_1_00008.ts  
#EXTINF:3.000,  
file_60p_1_00009.ts  
#EXT-OATCLS-SCTE35:/DAnAAAAAAAAAAP/wBQb+AGb/MAARAg9DVUVJAAAAAn+HCQA0AALMua1L  
#EXT-X-CUE-OUT:30.000  
#EXTINF:9.000,  
file_60p_1_00010.ts  
#EXT-X-CUE-OUT-CONT:ElapsedTime=9.000,Duration=30,SCTE35=/DAnAAAAAAAAAAP/wBQb+AGb  
/MAARAg9DVUVJAAAAAn+HCQA0AALMua1L  
#EXTINF:12.000,  
file_60p_1_00011.ts  
#EXT-X-CUE-OUT-CONT:ElapsedTime=21.000,Duration=30,SCTE35=/DAnAAAAAAAAAAP/wBQb+AGb  
/MAARAg9DVUVJAAAAAn+HCQA0AALMua1L  
#EXTINF:9.000,  
file_60p_1_00012.ts  
#EXT-OATCLS-SCTE35:/DAnAAAAAAAAAAP/wBQb+AJAyEAARAg9DVUVJAAAAAn+HCQA1AABStd4A  
#EXT-X-CUE-IN  
#EXTINF:3.000,  
file_60p_1_00013.ts  
#EXTINF:12.000,  
file_60p_1_00014.ts  
#EXTINF:12.000,  
file_60p_1_00015.ts  
#EXTINF:3.000,  
file_60p_1_00016.ts  
#EXTINF:9.000,  
file_60p_1_00017.ts  
#EXTINF:12.000,  
file_60p_1_00018.ts  
#EXTINF:12.000,  
file_60p_1_00019.ts  
#EXTINF:12.000,  
file_60p_1_00020.ts  
#EXTINF:12.000,  
file_60p_1_00021.ts  
#EXTINF:12.000,  
file_60p_1_00022.ts  
#EXTINF:12.000,  
file_60p_1_00023.ts  
#EXTINF:10.067,  
file_60p_1_00024.ts  
#EXT-X-ENDLIST
```

#EXT-OATCLS-SCTE35

```
#EXT-OATCLS-SCTE35:/DAgAAAAAAAAAADwVAAADgf0+2E2yFgAAAAAAAJgnEsxH  
#EXT-X-ASSET:CAID=0x0000000020FA6877  
#EXT-X-CUE-OUT:101.115  
...  
...  
... #EXT-X-CUE-OUT-CONT:ElapsedTime=10.1,Duration=101.115,SCTE35=/DAgAAAAAA  
AAAAADwVAAADgf0+2E2yFgAAAAAAAJgnEsxH  
...  
...  
...  
#EXT-X-CUE-IN
```