

# MPAA Memorandum on LIBRAS Requirements

March 16, 2017

## **EXHIBITOR-PROVIDED PATRON DEVICE**

The exhibitor shall provide the patron device with accessibility capabilities. The patron device shall only support playback functions. The patron device shall not be capable of recording content and shall have no active camera or microphone. The patron device should be designed to minimize disruption to other theater patrons. The patron device shall support both sign language presentation and closed captioning.

## **PARAMETERS TO SUPPORT LIBRAS DELIVERABLE**

The following LIBRAS sign language video parameters have been chosen to maintain compatibility with currently deployed DCI-compliant digital cinema projection systems.

Having considered numerous options, MPAA's recommendation is to carry the LIBRAS video track as a VP9<sup>1</sup> encoded bit stream in an unused channel in Main Audio. The AES signal as emitted by the server is intrinsically synchronous.

As such, synchronization does not require unencrypted audio to be pre-processed by a third-party prior to release, and does not require generation or distribution of audio fingerprint files. Additionally, this synchronization inherently supports trick play functionality (*e.g.*, pause, jump, etc.) for failure recovery.

VP9 was chosen since it is license-free and royalty-free. The LIBRAS video frame rate should match the DCP picture frame rate.

The LIBRAS sign language deliverable shall be single inventory, *i.e.*, no vendor-specific deliverable shall be required.

Implementers of closed-caption display devices should be aware that CineCanvas as noted in the initial Technical Chamber requirements is a proprietary format used in Interop-DCPs. As studios transition to SMPTE-DCP delivery, the caption format will be as described by SMPTE ST428-7.

## **DISCLOSURES**

Questions or comments regarding these recommendations should be presented to the Motion Picture Association of America, Inc (MPAA). The MPAA contacts are:

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<sup>1</sup> <https://www.webmproject.org/vp9/>