

Multi-Language & Accessible Audio - Cheat Sheet

One video, many soundtracks - label each track so the player picks the right one.

Signalling each track type

Track	HLS (EXT-X-MEDIA)	DASH (AdaptationSet)
Original	DEFAULT=YES, AUTOSELECT=YES	Role value="main"
Dub (other lang)	LANGUAGE=xx, AUTOSELECT=YES	Role value="dub"
Described (AD/DVS)	CHARACTERISTICS=describes-video	Role value="description" +Access.
Sign language	(separate VIDEO track)	video Role value="sign"

Described audio: two delivery models

Broadcast-mix:	one complete track (dialogue+music+FX+narration). Any player swaps to it. Heavier storage.
Receiver-mix:	ship narration only; player mixes it with the main track. Tiny storage; needs a capable player (DASH commentary role).

Storage math (90-min feature)

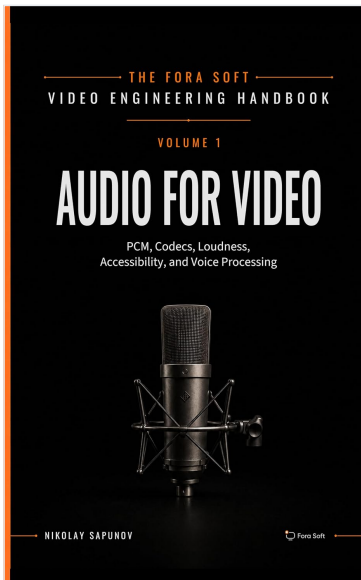
Formula: $\text{size(bytes)} = \text{bitrate(bits/s)} \times \text{duration(s)} / 8$
 Stereo dub 128 kbps: $128000 \times 5400 / 8 \approx 86 \text{ MB per language.}$
 8 dub languages: $8 \times 86 \text{ MB} \approx 0.69 \text{ GB total.}$
 One 1080p video @ 5 Mbps: $5000000 \times 5400 / 8 \approx 3.4 \text{ GB.} \rightarrow \text{audio is cheap vs video.}$
 Atmos 768 kbps: $768000 \times 5400 / 8 \approx 518 \text{ MB} \text{ (~6x a stereo language).}$

Accessibility law (2026)

US - CVAA (47 CFR 79.3)	87.5 hrs/quarter described; markets 111-120 from 2026-01-01.
US - top-5 nonbroadcast	TLC, HGTV, Hallmark, TNT, TBS (set 2024-07-01).
EU - EAA (2019/882)	Accessible audio mandatory for streaming from 2025-06-28; EN 301 549.
WCAG	Audio description = 1.2.5 (AA); sign language = 1.2.6 (AAA).

Remember

- ☐ NAME is required on every HLS rendition; AUTOSELECT MUST be YES if DEFAULT is YES.
- ☐ Mark described tracks AUTOSELECT=NO so they never auto-play over a dub.
- ☐ Tag AD: HLS public.accessibility.describes-video; DASH description role + audio-purpose=1.
- ☐ Validate that manifest lang, container metadata, and menu label agree on every track.
- ☐ FORCED is subtitles-only - never on an audio rendition (RFC 8216).



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This sheet shows how to signal dubs, described audio and sign language in HLS and DASH, and what the 2026 rules require. Volume 4 covers audio for that catalogue in depth: channels and layouts, codecs, loudness, accessibility and audio description, and captions.

WHAT YOU WILL FIND INSIDE

- Audio description and accessibility rules
- AAC and Opus bitrates per language track
- Channel layouts and track labelling
- Loudness targets across dubbed versions

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