HDR10+ AV1 Metadata Handling Implementation Note

Various tools, services and devices support creation and use of HDR10+ dynamic metadata which can be easily utilized in AV1 systems. This note is to inform AV1 users that carriage of HDR10+ in AV1 leverages the existing ITU-T T.35 support, using metadata OBUs of metadata_type equal to METADATA_TYPE_ITUT_T35. Through ITU-T T.35, HDR10+ data can be embedded by an encoder into an AV1 stream, and provided to the rendering device by the decoder. The HDR10+ ITU-T T.35 payload syntax and semantics can be found in either CTA 861-4 (Table 8 and Table 10) or from HDR10+ Technologies, LLC at hdr10plus.org.

Below are some references for HDR10+ and how the encoder/decoder handles the data:

Whitepaper: For more information about HDR10+ please see this document at the HDR10+ LLC website: https://hdr10plus.org/wp-content/uploads/2019/08/HDR10_WhitePaper.pdf

Reference: CTA 861-4 “Updates to Dynamic HDR Metadata Signaling”, Consumer Technology Association (Formerly CEA), March, 2019.
https://members.cta.tech/ctaPublicationDetails/?id=83193112-294f-e911-867a-0003ff528858

METADATA_TYPE_ITUT_T35: For details see section 5.8 of the specification:
https://aomediacodec.github.io/av1-spec/#metadata-itut-t35-syntax

A reference implementation of HDR10+ metadata is available in the AV1 reference software.