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Digital Video Broadcasting (DVB); Subtitling systems

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ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
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Foreword

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NOTE: The EBU/ETSI JTC Broadcast was established in 1990 to co-ordinate the drafting of standards in the specific field of broadcasting and related fields. Since 1995 the JTC Broadcast became a tripartite body by including in the Memorandum of Understanding also CENELEC, which is responsible for the standardization of radio and television receivers. The EBU is a professional association of broadcasting organizations whose work includes the co-ordination of its members' activities in the technical, legal, programme-making and programme-exchange domains. The EBU has active members in about 60 countries in the European broadcasting area; its headquarters is in Geneva.

European Broadcasting Union
CH-1218 GRAND SACONNEX (Geneva)
Switzerland
Tel: +41 22 717 21 11
Fax: +41 22 717 24 81

The Digital Video Broadcasting Project (DVB) is an industry-led consortium of broadcasters, manufacturers, network operators, software developers, regulatory bodies, content owners and others committed to designing global standards for the delivery of digital television and data services. DVB fosters market driven solutions that meet the needs and economic circumstances of broadcast industry stakeholders and consumers. DVB standards cover all aspects of digital television from transmission through interfacing, conditional access and interactivity for digital video, audio and data. The consortium came together in 1993 to provide global standardization, interoperability and future proof specifications.

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Modal verbs terminology

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1 Scope

The present document specifies the method by which subtitles, logos and other graphical elements may be coded and carried in DVB bitstreams. The system applies Colour Look-Up Tables (CLUTs) to define the colours of the graphical elements. The transport of the coded graphical elements is based on the MPEG-2 Transport Stream described in ISO/IEC 13818-1 [1].

2 References

2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

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The following referenced documents are necessary for the application of the present document.

- [1] ISO/IEC 13818-1: "Information technology - Generic coding of moving pictures and associated audio information. Part 1: Systems".
- [2] ETSI EN 300 468: "Digital Video Broadcasting (DVB); Specification for Service Information (SI) in DVB systems".
- [3] Recommendation ITU-R BT.601: "Studio encoding parameters of digital television for standard 4:3 and wide-screen 16:9 aspect ratios".
- [4] Recommendation ITU-R BT.656-4: "Interface for digital component video signals in 525-line and 625-line television systems operating at the 4:2:2 level of Recommendation ITU-R BT.601 (Part A)".
- [5] ETSI EN 300 743 (V1.2.1): "Digital Video Broadcasting (DVB); Subtitling systems".
- [6] ETSI EN 300 743 (V1.3.1): "Digital Video Broadcasting (DVB); Subtitling systems".
- [7] ETSI EN 300 743 (V1.4.1): "Digital Video Broadcasting (DVB); Subtitling systems".
- [8] ETSI EN 300 743 (V1.5.1): "Digital Video Broadcasting (DVB); Subtitling systems".
- [9] ETSI TS 101 154: "Digital Video Broadcasting (DVB); Specification for the use of Video and Audio Coding in Broadcasting Applications based on the MPEG-2 Transport Stream".
- [10] Recommendation ITU-R BT.709: "Parameter values for the HDTV standards for production and international programme exchange".
- [11] Recommendation ITU-R BT.2020-2: "Parameter values for ultra-high definition television systems for production and international programme exchange".
- [12] Recommendation ITU-R BT.2100-1: "Image parameter values for high dynamic range television for use in production and international programme exchange".
- [13] Recommendation ITU-R BT.1886: "Reference electro-optical transfer function for flat panel displays used in HDTV studio production".
- [14] IETF RFC 1950: "ZLIB Compressed Data Format Specification", (Version 3.3).
- [15] IETF RFC 1951: "DEFLATE Compressed Data Format Specification", (Version 1.3).

- [16] ISO/IEC 15948: "Information technology, Computer graphics and image processing, Portable Network Graphics (PNG): Functional specification".
- [17] ETSI ETS 300 743: "Digital Video Broadcasting (DVB); Subtitling systems".

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