

About This Standard

Current Status *Mandated*

Standard Identifier ISO/IEC 13818-1:2007 w/ Cor 1:2008

Title of Standard

Information technology -- Generic coding of moving pictures and associated audio information: Systems, 16 October 2007, with Corrigendum 1, Correction of zero_byte syntax element and stream_id_extension mechanism, 15 December 2008

Standards History

Introduced to Registry	Date Emerging	Date Mandated	Last Status Update	Last Status Review	Inactive/Retired
2009-07-30	n/a	2009-07-30	2009-07-30	2009-07-30	n/a

Replaced

[ISO/IEC 13818-1:2000](#)

Standards Body

[ISO](#)

[Broken Link?](#)

URL to Access or Acquire

<http://www.ansi.org>

Working Group

Primary Owner Geospatial Intelligence (GWG)
Secondary Interest No Secondary Interest

Service Area

GEOINT: Motion Imagery

KIPs

KIP Family: TRANSPORT - KIP: Global Broadcast System

Standard Applicability

2009-07-30

Application areas for MPEG2 include: - Internet - DVD - Satellite video airborne video - surveillance - reconnaissance - intelligence - targeting Scientific and Industrial - Digital Cinema - Image archives and databases. There are a number of standards competing with MPEG2, but MPEG2 is by far the most widely used. See <http://www.gwg.nga.mil/misb/>

Standard Abstract

2009-07-30

ISO/IEC 13818-1 defines the systems standards for the MPEG2 video and audio coding system. It specifies decoding processes for multiple video and audio channels, a code stream syntax at the system layer, and a file format. It defines two multiplexed bit streams, the Transport Stream and the Program Stream. The transport stream is particularly important since it provides the basis for Xon2. Xon2 is the name of the DoD activity to support the seamless rollout of advanced video compression technologies without disrupting current and future operations and systems. X defines existing or future video compression technologies and Xon2 refers to the use of MPEG2 transport streams and files. The DoD has already successfully deployed 2on2 payloads, using standards compliant MPEG2 compressed video elementary streams, audio elementary streams, and SMPTE KLV encoded metadata as MPEG2 private data streams in support of unmanned aerial vehicle (UAV) operations. Building on this baseline 2on2 capability, Xon2 will provide a migration path to inject improved compressions technologies, which will yield improved image quality and / or reduced bandwidths.

Profiling Questions

- GEOINT: Motion Imagery**
- Does your system use MPEG-2 Systems for standard and high-definition compression or does your system require support for compressed video?

Products Incorporating This Standard

Companies with commercially available implementations/products include: Apple, Adobe, BAE, Cisco, Intel, HP, Leitch, Motorola, NEC, PAR Government Systems, Panasonic, Siemens, Sony, Snell & Wilcox, Telestream, Tandberg, Thales, Texas Instruments, Thomson, Yahoo, and many others.

Relevant Information

This citation authored by the GWG Motion Imagery Standards Board (MISB).

Implementation Guidance

See <http://www.gwg.nga.mil/misb>

Standard Selection Criteria

Interoperability/Supportability

MPEG2 is still the most widely used video compression today. DVDs and satellite delivered services such as DirecTV and DISH, cable delivered services, and the new over-the-air digital broadcast services use MPEG2. MPEG2 decoders are provided with computer systems, which have DVD readers. The DoD has many systems which employ MPEG2 for delivery of motion imagery. ISO/IEC 13818-1:2007 includes amendments published since 2000, which are used in DoD systems.

Technical Maturity

The international standard MPEG2, completed in 1995, is the most widely implemented video technology standard in the history of ISO/IEC. DVDs, satellite delivered services such as DirecTV and DISH, cable delivered services and the new over-the-air digital broadcast services use MPEG2. The DoD uses a concept called Xon2, which allows more advanced compression systems such as MPEG4, Part 10/ H.264 but still uses the MPEG2 systems streams along with current metadata.

Public Availability

Available for purchase from the ISO Store (online): <http://www.iso.org/iso/en/prods-services/ISOstore/store.html>.

Implementability

MPEG2 is used by almost all DOD and Intelligence organizations who have digital video requirements. DVDs, satellite delivered services such as DirecTV and DISH, cable delivered services and the new over-the-air digital broadcast services use MPEG-2. MPEG-2 decoders are provided with all computer systems that have DVD readers.

Authority

ISO/IEC JTC 1/SC 29, Coding of audio, picture, multimedia and hypermedia information, developed and maintains this standard. This standard has been adopted by the DoD/IC Motion Imagery Standards Board (MISB) since 1996 and the MISB is the DOD/IC focal point for the

open process of maintaining and future development for this standard at ISO/IEC.

Standard Type Non-Military

Standard Classification Unclassified

Keywords for Search ISO/IEC 13818-1, MISP, MPEG, MPEG2, Video, compression, full motion video, motion imagery, video system stream, video transport stream