ISO/IEC 23001-13:2019 (E)

Information technology — MPEG systems technologies — Part 13: Media orchestration

Contents

Foreword

Introduction

1 Scope

2 Normative references

3 Terms and definitions

4 Abbreviated terms, relationships between terms and mnemonics

4.1 Abbreviated terms
4.2 Relationships between defined terms
4.3 Mnemonics

5 Architecture

5.1 General
5.2 Architecture for temporal orchestration
5.2.1 General
5.2.2 Sink-side architecture for temporal orchestration
5.2.3 Source-side architecture for temporal orchestration
5.3 Architecture for spatial orchestration
5.3.1 General
5.3.2 M-processor side architecture for spatial orchestration
5.3.3 Sink-side architecture for spatial orchestration

6 Messaging and control

6.1 Wall clock
6.2 MORE communication channel
6.2.1 General
6.2.2 Signalling of the MORE communication channel
6.3 Websocket protocol

7 Metadata

7.1 Timed metadata
7.2 Position metadata
7.2.1 General
7.2.2 Global position
7.2.3 Altitude
7.2.4 Relative position
7.3 Orientation metadata
7.4 Regions of interest
7.4.1 General
7.4.2 Example implementation using DROP features
7.5 Quality metadata
7.5.1 General
7.5.2 Quality metadata
7.6 Stream monitor
7.6.1 General
7.6.2 MPEG-Audio-Sync-based stream monitor metadata
7.7 Capture mask
7.7.1 General
7.7.2 Capture-mask metadata

7.8 Camera metadata
7.9 Depth metadata

8 Transport

8.1 Carriage of timed metadata in ISO base media file format
8.1.1 General
8.1.2 Carriage of position metadata in ISO base media file format
8.1.3 Carriage of orientation metadata in ISO base media file format
8.1.4 Carriage of quality metadata in ISO base media file format
8.1.5 Carriage of audio features in ISO base media file format
8.1.6 Carriage of capture-mask metadata in ISO base media file format
8.1.7 Carriage of dvb-css correlation timestamps in ISO base media file format
8.2 Carriage of timed metadata in MPEG-2 systems
8.2.1 General
8.2.2 Timed metadata access unit
8.2.3 Timed metadata extension descriptor
8.2.4 Carriage of position metadata in MPEG-2 systems
8.2.4.1 Position metadata access unit
8.2.4.2 Position metadata descriptor
8.2.5 Carriage of orientation metadata in MPEG-2 systems
8.2.5.1 Orientation metadata access unit
8.2.5.2 Orientation metadata descriptor
8.2.6 Carriage of capture-mask metadata in MPEG-2 systems
8.2.6.1 Capture-mask metadata access unit
8.2.6.2 Capture-mask metadata extension descriptor
8.2.7 Carriage of audio features in MPEG-2 systems
8.2.7.1 Audio feature access unit
8.2.7.2 Audio feature descriptor
8.2.8 Carriage of quality metadata in MPEG-2 systems
8.2.9 Carriage of correlation timestamps in MPEG-2 systems
8.3 Carriage of MORE information in MMT
8.3.1 General
8.3.2 Carriage of MORE information in MMT
8.4 Carriage of MORE information in DASH
8.4.1 General
8.4.2 Carriage of quality metadata in MPEG DASH MPD

9 Orchestration data

9.1 General
9.2 Timeline synchronization
9.3 dvb-css correlation timestamps

Annex A (normative) Source-side timeline synchronization

A.1 General
A.2 Set up message
A.3 dvb-css capture timestamp
A.4 Protocol for source-side timeline synchronization

Annex B (informative) Object model

B.1 General
B.2 Scenario
B.3 Object
B.4 Controller extends Object
B.5 Session extends Object
B.6 MessageDispatcher extends Object
B.7 Discovery extends Object
B.8 ControlledObject extends Object (abstract)
B.9 M-processor extends ControlledObject
B.10 Source extends ControlledObject
B.11 Sink extends ControlledObject
B.12 Message
B.13 Considerations

Annex C (informative) Control architecture

C.1 General
C.2 Discovery
C.3 Registration
C.4 Capabilities
C.5 Get parameter
C.6 Set parameter
C.7 Setup stream

Page count: 64