# HW1 : MPEG Standards Summary

멀티미디어시스템 1분반, 32170578, 김산

## MPEG

MPEG standards are an international standard working group under ISO/IEC JTC1 that provides object-based processing and representation of all audio and visual data and covers multimedia compression and processing and transmission, including computer-generated images and audio .

## Standards

### MPEG-I(Immersive)

It is one of the world's most widely used formats in audio/video standards, and is used in video CDs, cable/satellite TVs, and DABs.

MPEG-I includes the acquisition of media, coding/decoding, interoperability between rendering methods and video audio, streaming-related content, and consideration of end-to-end systems, in order to eventually provide video and audio suitable for VR and AR.

### MPEG-H

Next-generation multimedia coding representation and multiplexed transmission standards being pursued by ISO/IEC JTC 1/SC 29/WG 11. Including High-Efficiency Video Coding (HEVC), a next-generation video compression standard for UHDTV under development by JCT-VC Group, a co-group of MPEG and ITU-T, and MPEG Media Transport (MMT), a next-generation multiplexed transmission standard to replace MPEG-2 TS (TS) standards.

### MPEG-G

The MPEG-G standard, jointly developed by MPEG and the ISO technical committee for biotechnology standards, is the first international standard for problem-solving and cost-saving when processing dielectric data (analysis, annotation, etc.).

Provides application programming interfaces (API) to build an ecosystem of interoperable applications and related services that can efficiently handle new compression and transmission technologies as well as standardized information and sequencing data.

### MPEG-1

A standards for audio/video particularly designed for digital storage media, used on video CDs, cable/satellite TV, DAB, etc.

### MPEG-2

Revised standardization work is under way, mainly in relation to TS extensions in the system field, and expansion standards for new video and audio bitstream transmission are the mainstream.

TS >Bit-series that multiplexed multiple broadcast programs (multiple encoded video bit-columns) that can be written even under an error-prone channel environment.

### MPEG-4

MPEG-4 is a method of defining compression of audio and visual digital data (audio/visual objects).

The development of MPEG-4 includes MPEG-4 Part 2 (e.g., XviD video codec), MPEG-4 Part 3 (e.g., AAC audio codec), MPEG-4 Part 10 (H.264 video codec), MPEG-4 Part 14 (MP4 media container).

### MPEG-7

Standards for description and search of audio, visual and multimedia content.

### MPEG-21

MPEG-21 standard is aimed at constructing a multimedia framework that can satisfy the needs of consumers changing from time to time and various business models.

### MPEG-A

MPEG-A refers to a new standardization activity followed by MPEG-1, 2, 4, 7, and 21.

Rather than defining and developing new technologies, it defines a new application format called Multimedia Application Format (MAF) that appropriately combines existing technologies that have already been developed.

### MPEG-DASH

Dynamic Adaptive Streaming over HTTP is a type of HTTP Adaptive Streaming developed as an ISO standard (ISO/IEC 23009-1). Providing a solution for the efficient and easy streaming of multimedia using existing available HTTP infrastructure.

Since 2008, the issue of HTTP-based Adaptive Streaming has been hot in MPEG group. MPEG expected this technology to have a significant impact on the existing streaming service environment in the future, and MPEG started standardizing related streaming package formats by creating a group called DASH.

### MPEG-IoMT

Standard for transferring media data or processed data between the Internet and things that deal with media.

### MPEG-V

It defines interface specifications for communication between the virtual world and the virtual world, virtual world and the real world. The subjects under standardization cover a wide range of real-world expressions, such as wind, temperature, vibration, etc., avatars and virtual objects, and control command techniques for device interaction with the virtual world.

