



**International  
Standard**

**ISO/IEC 23090-22**

**Information technology — Coded representation of immersive media —**

**Part 22:  
Conformance for G-PCC**

*Technologies de l'information — Représentation codée de média immersifs —*

*Partie 22: Conformité pour G-PCC*

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## Contents

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Abbreviated terms</b> .....	<b>2</b>
<b>5 Conventions</b> .....	<b>2</b>
<b>6 Conformance testing for ISO/IEC 23090-9</b> .....	<b>2</b>
6.1 General.....	2
6.2 Bitstream conformance.....	2
6.3 Decoder conformance .....	2
6.4 Procedure to test bitstreams.....	2
6.5 Procedure to test decoder conformance.....	3
6.5.1 Conformance bitstreams .....	3
6.5.2 Contents of the bitstream file .....	3
6.5.3 Requirements on output of the decoding process.....	3
6.5.4 Recommendations.....	3
6.6 Specification of the test bitstreams.....	4
6.6.1 General .....	4
6.6.2 Test bitstreams .....	5
<b>Annex A (informative) Conformance bitstream generation guidelines</b> .....	<b>76</b>

## **Foreword**

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives) or [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs)).

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This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology* Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

A list of all parts in the ISO/IEC 23090 series series can be found on the ISO and IEC websites.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html) and [www.iec.ch/national-committees](http://www.iec.ch/national-committees).

## **Introduction**

Advance in 3D capturing and rendering technologies is enabling new applications and services in the field of assisted and autonomous driving, maps, cultural heritage, industrial processes, immersive real-time communication, and Virtual/Augmented/Mixed reality (VR/AR/MR) content creation, transmission and communication. Point clouds have arisen as one of the main representations for such applications. A point cloud frame consists of a set of 3D points. Each point, in addition to having a 3D position may also be associated with numerous other attributes such as colour, transparency, reflectance, timestamp, surface normal, and classification. Such representations require a large amount of data, which can be costly in terms of storage and transmission. Therefore, ISO/IEC 23090-9 specifies Geometry-based Point Cloud Compression (G-PCC), which aims at efficiently compressing point cloud representations.

This document is the conformance testing specification for ISO/IEC 23090-9.

# **Information technology — Coded representation of immersive media —**

## **Part 22: Conformance for G-PCC**

### **1 Scope**

This document specifies a set of tests and procedures designed to indicate whether encoders or decoders meet the normative requirements specified in ISO/IEC 23090-9.

### **2 Normative references**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 23090-9, *Information technology — Coded representation of immersive media — Part 9: Geometry-based point cloud compression*

ISO/IEC 23090-21, *Information technology — Coded representation of immersive media — Part 21: Reference software for Geometry-based Point Cloud Compression (G-PCC)*