<u>BUREAU OF INDIAN STANDARDS</u>
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मसौदा भारतीय मानक

सूचना प्रौद्योगिकी - कंप्यूटर ग्राफिक्स, इमेज प्रसंस्करण और पर्यावरण डेटा निरूपण - मिश्रित एवं संवर्धित वास्तविक सामग्री के लिए सूचना मॉडल - मुख्य उद्देश्य और विशेषताएं

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Draft Indian Standard

Information Technology — Computer Graphics, Image Processing and Environmental Data Representation —Information Model For Mixed and Augmented Reality Content — Core Objects and Attributes

ICS: 35.140

LITD 23 Coding and Processing of Audio, Picture, Multimedia and Hypermedia Information Sectional Committee	Last date for comments: 09 July 2024

NATIONAL FOREWORD

(Formal clauses will be added later)

This draft Indian Standard which is identical to ISO/IEC 3721:2023 'Information technology — Computer graphics, image processing and environmental data representation —Information model for mixed and augmented reality content — Core objects and attributes' issued by International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) will be adopted by the Bureau of Indian Standards on the recommendation of the Coding and Processing of Audio, Picture, Multimedia and Hypermedia Information Sectional Committee, LITD 23 and approval of the Electronics and Information Technology Division Council.

The text of ISO/IEC Standard *may be* approved as suitable for publication as an Indian Standard without deviations. Certain conventions are however not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appears referring to this standard, they should be read as 'Indian Standard'.
b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards, for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their places, are listed below along with their degree of equivalence for editions indicated. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies:

International Standard	Corresponding Indian Standard	Degree of Equivalence
ISO/IEC 18039, Information technology — Computer graphics, image processing and environmental data representation — Mixed and augmented reality (MAR) reference model	Doc No. LITD 23(25592) Draft IS/ISO/IEC 18039:2019, Information technology — Computer graphics, image processing and environmental data representation — Mixed and augmented reality (MAR) reference model	Identical with ISO/IEC 18039:2019

ISO/IEC 18040, Information technology — Computer graphics, image processing and environmental data representation — Live actor and entity representation in mixed and augmented reality (MAR)	Doc No. LITD 23 (25593) Draft IS/ISO/IEC 18040:2019, Information technology — Computer graphics, image processing and environmental data representation — Live actor and entity representation in mixed and augmented reality (MAR)	Identical with ISO/IEC 18040:2019

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2:2022 'Rules for rounding off numerical values (Second Revision)'. The number of significant places retained in the rounded off value should be same as that of the specified value in this standard.

Scope of ISO/IEC 3721: 2023 is as follows:

This document specifies the information model for representing the mixed and augmented reality (MAR) scene/contents description, namely, information constructs for:

a) representing the virtual reality scene graph and structure such that a comprehensive range of mixed and augmented reality contents can also be represented;

b) representing physical objects in the mixed and augmented reality scene targeted for augmentation;

c) representing physical objects as augmentation to other (virtual or physical) objects in the mixed and augmented reality scene;

d) providing ways to spatially associate aforementioned physical objects with the corresponding target objects (virtual or physical) in the mixed and augmented reality scene;

e) providing other necessary functionalities and abstractions that will support the dynamic MAR scene description such as event/data mapping, and dynamic augmentation behaviours;

f) describing the association between these constructs and the MAR system which is responsible for taking and interpreting this information model and rendering/presenting it out through the MAR display device

Note: - The Technical content of this document has not been enclosed as these are identical with the corresponding ISO/IEC Standard. For details please refer to ISO/IEC 3721: 2023 or kindly contact.

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