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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 48021.2-2026

**Information technology - Computer graphics, image processing
and environmental data representation - Part 2: Humanoid
animation (HAnim) motion data animation**

信息技术 计算机图形图像处理及环境数据表示 第2部分：类人动画动作数据动画
(English Translation)

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Table of Contents

Preface	
Introduction	
1 Scope	
2 Normative References	
3 Terms, Definitions, and Abbreviations	
3.1 Terms and Definitions	
3.2 Abbreviations	
4.1 Overview	
4.2 Introduction to Animation Using Motion Data	
4.3 Humanoid Animation Data	
4.4 HAnim Joint Mapping for Motion Capture Animation	
4.5 Composition of Motion Capture Data	
4.6 Conversion of HAnim motion capture animation	
4.7 HAnim Animation Data for Keyframe Animation	
4.8 HAnim Animation Definition for Motion Capture Animation	
5 Animation of HAnim Motion Data Using Interpolators	
5.1 Overview	
5.2 Using interpolators to define motion data to drive animation	
5.3 Using an interpolator to compare motion data from different LOAs to drive animation	
5.4 Interpolator Animation Excerpt Example	
6 Creating Humanoid Motion Data Animations Using Motion Objects	
6.1 Overview	
6.2 Introduction to Motion Objects	
6.3 Data Structure of Motion Objects	
6.4 Extended definition of Humanoid object	
6.5 Joint Mapping	
7 Compliance	
7.1 Overview	
7.2 Indicates the conformity of animations in the system.	
7.3 Minimum support requirements for Virtual Reality Modeling Language (VRML) and Extensible 3D Graphics (X3D)	
7.4 Other minimum support requirements for the system	

Appendix A (Informative) Example 24 of Motion Capture Files

A.1 Overview

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

The following sections have been released.

---Part 1: Humanoid Animation Architecture;

---Part 2: Humanoid Animation Motion Data Animation.

This document is equivalent to ISO/IEC 19774-2:2019 "Information technology - Computer graphics - Image processing and environmental data representation - Part 2" Part. Humanoid Animation Motion Data Animation.

The following minimal editorial changes have been made to this document.

---Change Tables 4.1, 4.2, 4.3, 5.1, 5.2, 6.1, and 7.1 to Tables 1, 2, 3, 4, 5, and 6.

Table 7. Change Figures 4.1 and 4.2 to Figures 1 and 2.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the National Information Technology Standardization Technical Committee (SAC/TC28).

Introduction

GB/T 48021 "Information Technology - Computer Graphics and Image Processing and Environmental Data Representation" is proposed to consist of two parts.

---Part 1: Humanoid Animation Architecture. The purpose is to define the architecture for representing humanoid figures in networked 3D graphics and multimedia environments.

The systematic architecture of the model.

---Part 2: Humanoid Animation Motion Data Animation. The purpose is to define the animation generated using graphics tools, scanning devices, and motion capture.

Information technology, computer graphics and image processing Environmental Data Representation Part 2: Humanoid Animation Motion data animation

1 Scope

This document specifies the method for motion capture animation using HAnim humanoid models. The humanoid model consists of models with specific joints and movements.

The data captures the articulated character composition. According to ISO/IEC 19774-1, each character consists of joints and limbs, arranged hierarchically.

structure.

This document includes the following.

- a) Motion capture concepts related to humanoid model animation;
- b) The concept of motion capture data;
- c) Transferring or exchanging motion parameters and motion capture animation data between different humanoid character models;
- d) Map the structure of the motion capture data to the structure of the HAnim object;
- e) Using HANIM motion capture animation with an interpolator;
- f) Define HANim actions using HANimMotion objects;
- g) A method for generating and specifying HAnim motion capture animations.

This document describes a standard method for swapping human animations using motion capture technology. This document does not mandate the use of any specific...

The runtime system is used to render HANIM characters or animations.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

This document.

ISO/IEC 19774-1 Information technology - Computer graphics, image processing and environmental data representation - Part 1: Humanoid animation systems Note. GB/T 48021.1-2026 Information Technology - Computer Graphics, Image Processing and Environmental Data Representation - Part 1: Humanoid Animation Architecture (ISO/IEC 19774-1:2019, IDT)

3.1 Terms and Definitions

The following terms and definitions apply to this document.

3.1.1

channel

Motion capture (3.1.6) transformation parameters.

Note: Each channel represents a degree of freedom in the transformation. For example, in motion capture, the elbow joint has three channels.