

ICS 35.240.15
CCS L 71



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

GB/T 45284.17-2025

**Information technology - Extensible biometric data interchange
formats - Part 17: Gait image sequence data
(English Translation)**

Issued on: March 28, 2025

Implemented on: October 1, 2025

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

Preface
Introduction
1 Scope
2 Normative references
3 Terms and Definitions
4 Abbreviations
5 Compliance
6 Modality-specific information
7 Specific Profile Information
8 Code
9 Registered BDB format identifiers
Appendix A (Informative) Collection Conditions
Appendix B (Informative) Coding Example
Appendix C (Informative) Image sequence acquisition measurement
References

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is Part 17 of GB/T 45284 "Information technology - Extensible biometric identification data exchange format".

GB/T 45284 has published the following parts.

- Part 1: Framework;
- Part 4: Fingerprint image data;
- Part 5: Face image data;
- Part 6: Iris image data;
- Part 9: Vascular image data;
- Part 16: Full body image data;

--- Part 17: Gait image sequence data.

This document is equivalent to ISO/IEC 39794-17:2021 "Information technology - Extensible biometric data exchange format Part 1 Part 17: Gait Image Sequence Data.

The following minimal editorial changes were made to this document.

--- Added note for the abbreviation VGA;

--- Added Notes 1 to 3 to A.3.3 of Appendix A.

Introduction

GB/T 45284 "Information Technology Extensible Biometric Identification Data Exchange Format" establishes an extensible biometric identification data exchange format.

It defines the basic rules, common data elements and data structure, and basic testing methods of this data format;

Different biometric recognition modalities are also defined, including data element definitions, data formats, and test methods for extensible data exchange formats of different modalities.

methods, and application guidelines in typical application scenarios.

GB/T 45284 is intended to consist of seventeen parts.

--- Part 1: Framework. The purpose is to establish rules, guidelines, common data elements, Common data structures and compliance testing methods.

--- Part 2: Fingerprint detail point data. The purpose is to establish an extensible fingerprint detail point data record exchange format and Compliance test methods.

--- Part 3: Fingerprint data. The purpose is to establish an extensible fingerprint data record exchange format and conform to Sex testing method.

--- Part 4: Fingerprint image data. The purpose is to establish an extensible fingerprint image data record exchange format and conform to Sex testing method.

--- Part 5: Face image data. The purpose is to establish an extensible face image data record exchange format and conformity Sex testing method.

--- Part 6: Iris image data. The purpose is to establish an extensible iris image data record exchange format and conformity Sex testing method.

--- Part 7: Signature/signature time series data. The purpose is to establish an extensible signature/signature data record Interchange formats and conformance testing methods.

--- Part 8: Fingerprint skeleton data. The purpose is to establish an extensible fingerprint skeleton data record exchange format and conform to Sex testing method.

- Part 9: Vascular image data. The purpose is to establish an extensible data record exchange format for vascular image data and Compliance test methods.
- Part 10: Hand shape profile data. The purpose is to establish an extensible data record exchange format for hand shape profile data and Compliance test methods.
- Part 11: Processed signature/signature dynamic data. The purpose is to establish an extensible processed signature/signature dynamic Data record exchange format and compliance test method for dynamic data.
- Part 12: Facial feature data. The purpose is to establish an extensible facial feature data record exchange format and conformity Sex testing method.
- Part 13: Sound data. The purpose is to establish an extensible sound data record exchange format and conformity test method.
- Part 14: DNA data. The purpose is to establish an extensible DNA data record exchange format and conformance test Try method.
- Part 15: Palmprint image data. The purpose is to establish an extensible data record exchange format for human palmprint images and Compliance test methods.
- Part 16: Whole body image data. The purpose is to establish an extensible whole body image data record exchange format and conformity Test method.
- Part 17: Gait image sequence data. The purpose is to establish an extensible data record exchange format for gait image sequences.

format and compliance test methods.

Biometric systems are used in law enforcement and border control. To ensure consistency in the development and workflow of these systems, different the organization is developing relevant technical documents, guidelines and best practice recommendations. However, these documents focus mainly on travel documents and related border control systems, as well as technical and operational issues to be considered in system planning and development of these systems. Gait recognition is a A modality for feature recognition, as an auxiliary mode for full body recognition or for forensic purposes.

There is currently a lack of guidance on gait imaging for cross-border interoperability or law enforcement services, and there is a need for the use of high-quality digital cameras and video this document provides guidance for monitoring equipment to record gait image sequence data. This document is not limited to full-body gait image sequence data.

It also covers the recognition of different body parts.

To support applications on a wide variety of devices, including those with limited data storage, and to improve the accuracy of biometric recognition, this document it involves not only data formats, but also scene constraints (lighting, posture, expression, etc.),

photosensitive properties (positioning, camera focal length, etc.) and digital image properties.

properties (image resolution, image size, etc.).

Gait videos and static images require specific biometric profiles to enable cross-border interoperability.

The data were normalized to achieve the threshold quality of gait image database records required for gait verification and recognition.

In order to fully understand the requirements implicit in this document, it is recommended that users be familiar with the following documents. ISO/IEC 39794-16 describes in detail the full ISO/IEC 30137 (all parts) provides information on the use of biometrics in video surveillance systems;

EN62676 defines video surveillance systems for security applications.

At present, my country has a serious aging trend, and there are many applications related to gait for the elderly. In this document, the elderly are added to the informative appendix A.

Human gait data collection content is used to guide the collection of gait image sequence data for the elderly.

This document is intended for the exchange of gait image sequence data and upper body motion recognition applications.

Provide advice on data exchange.

The structure of the data format is compatible with the requirements in ISO/IEC 39794-5 and ISO/IEC 39794-16.

This document specifies application-specific profiles including scene constraints, imaging properties, and digital image characteristics such as image space and Temporal sampling rate, image size, etc. The details of these modalities and application profiles are shown in Figures 6 and 7 respectively. ISO/IEC 39794-16 the generation and exchange of data is described in. The body image data block used to encode the gait image sequence data is of type BodyImageDat-Information Technology Scalable Biometric Data Interchange format Part 17: Gait image sequence data

1 Scope

This document describes application-specific requirements for the acquisition of gait image sequence data, provides recommendations, and gives examples of best practices.

Its typical applications include.

a) Supports human detection of high-resolution videos and still images;