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PEOPLE'S REPUBLIC OF CHINA**

GA/T 2156.2-2024

**Quality requirements and test methods for public security
traffic management softwares - Part 2: Embedded software**

公安交通管理软件质量要求和检验方法 第2部分：嵌入式软件

(English Translation)

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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 2 of GA/T 2156 "Quality Requirements and Test Methods for Public Security Traffic Management Software".

The following parts are published.

- Part 2: Embedded software;
- Part 5: Mobile application software.

Introduction

With the continuous development of new technologies such as cloud computing, big data, mobile Internet, Internet of Things, and artificial intelligence, smart mobile terminals, smart transportation New applications such as cameras, signal control systems, and plug-in software for public security traffic management information systems are becoming more and more widespread.

The quality evaluation method of public security traffic management software affects the scientific and accurate quality evaluation. It is necessary to further standardize and refine the functions, performance, Improve the technical requirements of safety and other aspects, improve the technical methods of quality inspection, and enhance the overall application level of public security traffic management software.

The quality requirements and inspection methods for management software have been incorporated into GA/Z3-2022, which is planned to consist of seven parts according to the different software forms.

- Part 1: General principles. The purpose is to determine the classification of public security traffic management software and specify basic quality requirements.
- Part 2: Embedded software. The purpose is to specify the quality requirements and inspection methods for embedded software.
- Part 3: Desktop application software. The purpose is to specify the quality requirements and inspection methods for desktop application software.
- Part 4: Middleware software. The purpose is to specify the quality requirements and inspection methods for middleware software.
- Part 5: Mobile application software. The purpose is to specify the quality requirements and inspection methods for mobile application software.
- Part 6: Big data and cloud computing software. The purpose is to specify the quality requirements and inspection methods for big data and cloud computing software.
- Part 7: Artificial intelligence software. The purpose is to specify the quality requirements and inspection methods for artificial intelligence software.

Quality requirements and inspection methods for public security traffic management software Part 2: Embedded Software

1 Scope

This document specifies the quality model, quality requirements, inspection methods and inspection rules for public security traffic management embedded software.

This document applies to the design, development and verification of public security traffic management embedded software.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

GB/T 8567 Specification for the preparation of computer software documentation GB 35114-2017 Technical requirements for information security of public security video surveillance networks GB/T 41905 Software and systems engineering software testing tool capabilities

3 Terms and definitions

The following terms and definitions apply to this document.

Embedded software

Software that runs on embedded systems.

Note 1: Embedded software includes embedded system software and embedded application software.

Note 2: An embedded system refers to a special-purpose computer system placed inside an application object to perform information processing and control.

[Source. GB/T 30961-2014, 3.2, modified] 3.2 the product that can be produced and delivered to the user. It can be a hardware or software system, a finished product or component, and possible related Documents and data.

[Source. GB/T 25000.1-2021, 3.30, modified] 3.3 Embedded software used to implement business functions related to public security traffic management.

Note: Public security traffic management related businesses include collecting basic traffic data, executing traffic control instructions, monitoring traffic violations and publishing traffic information.

Quality model the defined feature set and the relationship set between them provide a framework for specifying quality requirements and evaluating quality.

[Source. GB/T 25000.10-2016, 3.18]