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

GB/T 35718.2-2017

**Power systems management and associated information
exchange-interoperability in the long term -- Part 2: End to end quality
codes for supervisory control and data acquisition (SCADA)**

电力系统管理及其信息交换 长期互操作性 第2部分：监控和数据采集（SCADA）
端到端品质码

(English Translation)

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Foreword

This section GB/T 35718 "power system management and long-term exchange of information interoperability," the second part.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section uses the translation method identical with the International Electrotechnical Commission IEC 62361-2:2013 "power system management and information exchange long-term Interoperability Part 2. Monitoring and Data Acquisition (SCADA) End-to-End Quality Codes. " the documents of our country that are consistent with the corresponding international documents that are normative references in this section are as follows.

--- GB/T 18700 (all parts) Telecontrol equipment and systems Part 6. Compatibility with ISO standards and ITU-T recommendations Moving Agreement [IEC 60870-6 (TASE.2) (alparts)]

--- IEC 60870-5 (all parts) IEC 60870-5-1,2,3,4,5,101,102,103,104 and other parts, have been the same mining Used as China's national standard or power industry standards.

- GB/T 18657.1-2002 Telecontrol equipment and systems Part 5. Transmission protocol Part 1. Transmission frame format (IEC 60870-5-1:1990.IDT) - GB/T 18657.2-2002 Telecontrol equipment and systems Part 5. Transmission protocol Part 2. Link transmission rules (IEC 60870-5-2:1992.IDT) - GB/T 18657.3-2002 Telecontrol equipment and systems Part 5. Transmission protocol Part 3. Application data general Structure (IEC 60870-5-3:1992.IDT) - GB/T 18657.4-2002 Telecontrol equipment and systems Part 5. Transmission protocol Part 4. Application information element set Meaning and coding (IEC 60870-5-4:1992.IDT) - GB/T 18657.5-2002 Telecontrol equipment and systems Part 5. Transmission Protocol Part 5. Basic application functions (IEC 60870-5-5:1995.IDT) - DL/T 634.5101-2002 Telecontrol equipment and systems Part 5101 Transmission protocols Basic telematics tasks (IEC 60870-5-101:2002, IDT) - DL/T 634.5104-2009 Telecontrol equipment and systems Section 5-104. Transmission protocols using the standard transmission protocol IEC 60870-5-101 Network Access for Subsets (IEC 60870-5-104:2006, IDT) - DL/T 667-1999 Telecontrol

equipment and systems Part 5. Transmission protocol Part 103. Relay protection equipment information Interface (IEC 60870-5-103:1997, IDT) - DL/T 719-2000 Telecontrol equipment and systems Part 5. Transmission protocol Chapter 102. Power System Power Accumulation Transmission (IEC 60870-5-102:1996, IDT)

--- DL/T 860 (All Parts) Power Automation Communication Networks and Systems [IEC 61850 (alparts)]

--- DL/T 860.3-2004 Substation communication networks and systems - Part 3. General requirements (IEC 61850-3:2002, IDT)

--- DL/T 860.72-2013 Power Automation Communication Networks and Systems - Part 7-2. Basic Communication Architecture - Abstract Communication Services Service Interface (ACSI) (IEC 61850-7-2:2010, IDT)

--- DL/T 860.73-2013 Power Automation Communication Networks and Systems - Part 7-3. Basic Communication Architecture - Public Data Classes (IEC 61850-7-3:2010, IDT)

--- DL/T 890 (all parts) Energy Management System Application Program Interface (EMS-API) [IEC 61970 (alparts)]

--- DL/T 890.301-2016 Energy management system application program interface (EMS-API) Part 301. Common Information Model (CIM) Foundation (IEC 61970-301:2013, IDT) Please note that some of this document may be patentable. The issuing agencies of this document do not bear the responsibility of identifying these patents.

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This part of the drafting unit. NARI Group Company (State Grid Electric Power Research Institute), State Power NARI Technology Co., Ltd., Nanjing NARI Paul Electric Co., Ltd., China Electric Power Research Institute, State Grid Jiangsu Electric Power Company Electric Power Research Institute, the State Power Dispatching Control Center, China Southern Power Grid Co., Ltd. System Operation Department (Power Dispatching Control Center), State Grid Jilin Power Co., Ltd., Xu Ji Electric shares Limited.

Introduction

The scope of this section is to establish a common SCADA quality code list for reference to other standards to avoid embedding in other standards Quality code list.

Power System Management and Information Exchange Long-term interoperability Part 2. Monitoring and Data Acquisition (SCADA) end-to-end quality code

1 Scope

GB/T 35718 of this section will be applied to the power system management and monitoring and data acquisition (SCADA) related to the existing IEC standard quality code collection written. This version of this section does not consider the quality of meter readings. It's ok and brought together the mapping between standards also documents the eventual loss of quality information that may have occurred in the mapping, defines a closely related, Public, semantic quality code list. This part of the research and processing standards are. IEC 60870-5, IEC 60870-6TASE.2, IEC 61850, IEC 61970, DAISDA, OPCDA and OPCUA.

The data covered in this section is the measurement data provided by the following links, applications, interfaces.

- RTU, IEC 61850 or OPCDA to SCADA link;

Verification of increased state estimation;

- TASE.2 (ICCP) or TASE.1 (ELCOM) link between control centers;

- A server that provides OPC or DAISDA-data, such as SCADA.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

IEC 60870-5 (all parts) Telecontrol equipment and systems Part 5. Transmission protocol (Telecontrolequipmentandsys-tems-Part 5: Transmissionprotocols) IEC 60870-6 (All parts) Telecontrol equipment and systems - Part 6. Telecontrol equipment compatible with ISO standards and ITU-T recommendations Telecontrolequipmentandsystems-Part 6: Telecontrolprotocolscompatiblewith ISO standards andITU-Trecommendations) IEC 61850 (all parts) Electric power automation communication networks and systems (Communicationnetworksandsystemsfor powerutilityautomation) IEC 61850-3 Electric power automation communication networks and systems - Part 3. General requirements (Communicationnetworksand systemsforpowerutilityautomation-Part 3: Generalrequirements) IEC 61850-7-2:2010 Electric power automation communication networks and systems - Part 7-2 - Basic communication architecture - Abstract communication services Mouth (ACSI) [Communicationnetworksandsystemsforpowerutilityautomation-Part 7-2.Basiccom-municationstructure-Abstractcommunicationserviceinterface (ACSI)] IEC 61850-7-3 Electric power automation communication networks and systems - Part 7-3 - Basic communication structure - Commu-nicationnetworksandsystemsforpowerutilityautomation-Part