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

GB/T 16656.41-2010

Replacing GB/T 16656.41-1999

**Industrial automation systems and integration -- Product data
representation and exchange -- Part 41: Integrated generic
resources: Fundamentals of product description and support**

工业自动化系统与集成 产品数据表达与交换 第41部分：集成通用资源：产品描述与支持原理

(English Translation)

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Foreword

GB/T 16656 (ISO 10303) "Industrial automation systems and integration - Product data representation and exchange" is marked by a multi-part Associate each part published separately. GB/T 16656 and the relevant portions of the composition of a plurality of sub-series, namely.

- Part 1 to Part 19 specifies the method described;
- Part 20 to Part 29 provides for implementation;
- Part 30 to Part 39 specifies conformance testing methodology and framework;
- Part 40 to Part 59 specifies Integrated generic resources;
- Part 100 to Part 199 provides integrated application resources;
- Part 200 to Part 299 specifies the application protocol;
- Part 300 to Part 399 specifies the abstract test suite;
- Part 400 to Part 499 specifies the application module;
- Part 500 to Part 599 specifies the application interpreted construct;
- Part 1000 through part of 1999 provides for the application modules.

GB/T 16656 "Industrial automation systems and integration - Product data representation and exchange" has been released and the upcoming release include the following section.

- Part 1. Overview and fundamental principles;
- Part 11. Description methods. EXPRESS language reference manual;
- Part 21. Implementation methods. Clear text encoding of the exchange file structure;
- Part 28. Implementation. XML EXPRESS data model and expression;
- Part 31. Conformance testing methodology and framework. General concepts;
- Part 32. Conformance testing methodology and framework. Requirements on testing

laboratories and customer requirements;

- Part 34. Conformance testing methodology and framework. Abstract test methods for application protocol implementations;
- Part 41. Integrated generic resources. Product description and support;
- Part 42. Integrated generic resources. Geometric and topological representation;
- Part 43. Integrated generic resources. Representation structures;
- Part 44. Integrated generic resources. Product structure configuration;
- Part 45. Integrated generic resource. Materials;
- Part 46. Integrated generic resources. visual display;
- Part 47. Integrated generic resources. Shape variation;
- Part 49. Integrated generic resources. Process structure and properties;
- Part 51. Integrated generic resource. Mathematical expression;
- Part 54. Integrated generic resource. Classification and set theory;
- Part 55. Integrated generic resources. Process and mixed expression;
- Part 56. Integrated generic resource. State;
- Part 101. Integrated application resource. Drawing;
- Part 105. Integrated application resource. Kinematics;
- Part 201. Application protocol. Explicit draughting;
- Part 202. Application protocol. Associative draughting;
- Part 203. Application protocol. Configuration controlled design;
- Part 238. Application protocol. application interpreted model, computer numerical control device;
- Part 501. Application interpreted construct. Based on the frame side;
- Part 502. Application interpreted construct. Shell-based wireframe;
- Part 503. Application interpreted construct. Geometrically bounded 2D wireframe;
- Part 504. Application interpreted construct. Drawing annotation;
- Part 505. Application interpreted construct. Drawing structure and management;
- Part 506. Application interpreted construct. Drawing elements;
- Part 507. Application interpreted construct. Geometrically bounded surface;

- Part 508. Application interpreted construct. Non-manifold surface;
- Part 509. Application interpreted construct. Manifold surface;
- Part 513. Application interpreted construct. Basic boundary representation;
- Part 520. Application interpreted construct. Associative draughting elements;
- Part 1001. Application module. Appearance assignment;
- Part 1002. Application module. color;
- Part 1003. Application module. Curve appearance;
- Part 1004. Application module. Basic geometry;
- Part 1005. Application module. Basic topology;
- Part 1006. Application module. basal expression;
- Part 1007. Application module. General surface appearance;
- 1008. Application module. Layer assignment;
- Part 1009. Application module. Shape appearance and layers.

This section GB/T 16656 of Part 41.

This section uses the translation method identical with ISO 10303-41:2005 "Industrial automation and integration - Product data representation and exchange Part 41. Integrated generic resources. Product description and support "(in English), while incorporating its Technical Corrigendum ISO 10303-41:2005 /Cor.1.2008 content.

The upper part of the structure of ISO 10303-41:2005 is equivalent, in the preparation of the format in line with GB/T 1.1-2000 of the basic provisions. this Part of ISO 10303-41:2005 compared with only editorial changes made the following.

- Remove the foreword ISO 10303-41, prepared in accordance with our national standards for redrafting the foreword;
- Revised ISO 10303-41 Introduction;
- The ISO 10303-41:2005 Chapter 2, "Normative references" in the introductory phrase to GB/T 1.1-2000 6.2.3 Introductory phrase defined;
- In order to allow standard users to understand the overall structure of ISO 10303, the ISO will be on site to give each part of ISO 10303 objectives Revenue recorded in the Appendix to this part of the NA;
- In order to facilitate understanding of the part of the reader the meaning of the word in bold, adding appendix NB.

This section instead of "Industrial automation systems and integration - Product data