

ICS 25.040.40

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

GB/T 16656.28-2010

**Industrial automation systems and integration -- Product data
representation and exchange -- Part 28: Implementation methods: XML
representations of EXPRESS schemas and data, using XML schemas**

工业自动化系统与集成 产品数据表达与交换 第28部分：实现方法：EXPRESS模
式和数据的XML表达（使用XML模式）

(English Translation)

Issued on: January 14, 2011

Implemented on: June 1, 2011

Issued by: Standardization Administration of China

Table of Contents

Introduction	
Introduction	
1 Scope	
2 Normative references	
3 Terms, definitions, abbreviations and conventions	
3.1 ISO 10303-1 terms defined in	
Terminology 3.2 GB/T 16656.11 defined	
3.3 XML standard terminology defined	
3.4 Other terms and definitions	
3.5 Inconsistent terminology	
3.6 Abbreviations	
3.7 Conventions	
Consistency 4	
Consistency 4.1 XML document	
Consistency 4.2 exported XML schema documents	
4.3 Conformance profile	
4.4 Preprocessor consistency	
4.5 Postprocessor consistency	
4.6 XML schema generator conformance	
Document-level element 5	
5.1 Iso-10303-28 Document	
5.2 Documents and uos header information	
5.3 Schema_population element	
5.4 Express element	
5.5 Configuration element	
5.6 Unitofserialization element	
5.7 Uos Document	
5.8 Configuration Issue	
Enterprise Data Objects 5.9	
6 Export XML schema	
6.1 Prerequisites	
EXPRESS 6.2 is no concept mapping	

6.3 Abstract entity data types	
7 Default XML schema build	
7.1 Naming Conventions	
EXPRESS 7.2 data types and corresponding XML Schema datatypes	
EXPRESS 7.3 for custom data types of XML schema definitions and declarations	
EXPRESS 7.4 data corresponding to the type of instance elements	
7.5 EXPRESS entity data types XML schema definitions and declarations	
XML Schema 7.6 EXPRESS attribute declaration	
7.7 EXPRESS model XML schemas and namespaces	
Context Mode 7.8 Related particular sequence of units	
8 Configured XML schema build	
8.1 Naming (naming-convention)	
EXPRESS 8.2 data types and corresponding XML Schema datatypes	
8.3 EXPRESS custom data types XML schema definitions and declarations	
EXPRESS 8.4 data types and the corresponding instance elements	
8.5 EXPRESS entity data types XML schema definitions and declarations	
8.6 EXPRESS XML Schema attribute declarations	
XML schemas and namespaces 8.7 EXPRESS Model	
8.8 Context mode specific serialization unit	
9 XML document creation	
9.1 Prerequisites	
9.2 General structure of XML documents	
9.3 EXPRESS entity instance expression	
Expression attribute 9.4 EXPRESS	
9.5 Simple expression values	
9.6 Enumeration of expression	
9.7 SELECT type expression values	
9.8 Polymerization expression values	
9.9 Custom data type expression values	
9.10 Examples of elements expressed in value	
180 10 Configuration Language	
10.1 Configuration element	
183 10.2 Configuration Options	
10.3 Range element	
10.4 Configuration Properties	

10.5 The use of 209 configuration directives

Foreword

Is a multi-part standard of GB/T 16656 "Industrial automation systems and integration - Product data representation and exchange", the various parts of a single Alone published. 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. EXPRESS schema and XML expression data (using XML mode);
- 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. computer numerical controller application interpreted model used;
- 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. pattern 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;