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

GB/T 8129-2015

Replacing GB/T 8129-1997

**Industrial automation systems -- Numerical control of machines
-- Vocabulary**

工业自动化系统 机床数值控制 词汇

(English Translation)

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Foreword

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

This standard replaces GB/T 8129-1997 "Industrial automation systems - Numerical control of machines vocabulary", and GB/T 8129-1997 phase Ratio, the main technical changes are as follows.

- Remove the system with the term (1997 Version 2.4.5).
- Deleted the term control zone (1997 Version 2.4.6).
- Modify the tape as the storage medium (see 3.2. 3, the 1997 version 2.3.2).
- The tape reader is amended as storage medium (see 3.6. 22 1997 edition 2.6.22).
- In the input mode, an increase of other storage media (see 3.4. 1, the 1997 version 2.4.1).

This standard uses redrafted law revision using ISO 2806:1994 "Industrial automation systems - Numerical control machine vocabulary." this standard and ISO 2806:1994 main

technical differences.

- According to GB/T 1.1-2009 requirements, structural adjustment has been made to clauses (Chapter 1 will be changed to 1.1; 1.2 to Chapter 2; the 2.1 to 2.8 to 3.1 to 3.8);
- Deleted the original ISO 1.3 and 1.4 in terms of its ISO 10241:1992, because according to this standard GB/T 1.1-Rule 2009 given the drafting;
- Remove the original ISO not referenced in ISO 1087:1990 and ISO/IEC 6492:1992;
- Deleted the original ISO 2.4.5 and 2.4.6 because of obsolete technology, it has not been adopted;
- Modify the original text of ISO 2.6.22 (currently 3.6.22), due to the continuous development of technology, so choose a sustainable application Technical language;
- Added Appendix NA (informative) "numerical control systems and related definitions." In accordance with international standards of practice, as well as domestic long Summary of the application, common understanding and supplement.

The standard proposed by China Machinery Industry Federation.

The standard automation systems and integration by the National Standardization Technical Committee (SAC/TC159) centralized.

This standard was drafted. Beijing Machine Tool Research Institute, Beijing University of Aeronautics and Astronautics, GSK CNC Equipment Co., Ltd., Wuhan Huazhong Numerical Control Shares Co., Ltd., Beijing KND CNC Technology Co., Ltd., Nanjing Washing CNC Technology Co., Ltd., Shenyang high-precision CNC Technology Co., Secretary, Guangzhou Nordson Digital Control Equipment Co., Ltd., Beijing Fanuc Electrical Co., Ltd., Siemens Numerical Control (Nanjing) Co., Ltd.

1 Scope

This standard defines the concept of numerical control machine tools vocabulary used in the field, including the general terms and specific terms to understand CNC.

This standard specifies the concepts and definitions of these terms, and pointed out the relationship between the terms.

This standard applies to CNC machine tool products manufacturer and user.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 5271.1-2000 Information technology - Vocabulary - Part 1. Basic terminology (eqv ISO/IEC 2382-1:1993) GB/T 5271.4-2000 Information technology - Vocabulary - Part 4. Organization of data (eqv ISO/IEC 2382-4:1999) GB/T 5271.7-2008 Information technology - Vocabulary - Part 7. Computer programming (ISO/IEC 2382-7:2000, IDT) GB/T 8870.1-2012 automation systems and integration - Numerical control of machines program format and definition of address words - Part 1.

Positioning, line motion and contouring control system data format (ISO 6983-1:2009, IDT) GB/T 19660-2005 Industrial automation systems and integration - Numerical control of machines and motion coordinate system named (ISO 841.

2001, IDT)

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 General terms

3.1.1

Numerical control; NC numerical control; NC Numerical control device data during operation, continuously introducing numerical data, and thus a production process to achieve automatic control.

[GB/T 5271.1-2000]

3.1.2

Computer numerical control computerized numerical control; CNC Computer controlled machining function (3.6), to achieve the numerical control (3.1.1).

3.1.3

Distributed numerical control; DNC Hierarchical distribution system data between the production management computer and a plurality of numerical control (3.1.1) system.

Note: Direct numerical control (also abbreviated DNC) is an obsolete term. This term means. a set of CNC machine tools and a common part program (3.3.7) or Machining program (3.3.8) is connected to memory, when data needs to be supplied to the machine control system.