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

GB/T 11292-2008

Replacing GB/T 11292-1989

**Industrial automation systems -- Numerical control of machines
-- NC processor output -- Post processor commands**

工业自动化系统 机床数值控制 NC处理器输出 后置处理命令

(English Translation)

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Foreword

This standard is identical with ISO 4343:2000 "Industrial automation systems - Numerical control of machines NC post-processing command processor output make".

This standard is equivalent translation ISO 4343:2000.

For ease of use, this standard made the following editorial changes.

--- Use the "standard" instead of "this International Standard."

--- Remove the ISO 4343:2000 Foreword.

--- Delete references to normative documents guiding language, with GB/T 1.1-2000 6.2.3 specified in the introductory phrase instead.

--- For the ISO 4343:2000 and other international standards referenced in our country is equivalent to using the standard, with reference to our present standard in place of national standards corresponding to international standards, and the rest is not tantamount to the adoption of standard international standard, in this standard are straight Then reference.

The revised standard and replaces GB/T 11292-1989 "digital control of machines - NC processor output - Minor elements of 2000 record (Post-processing command)" (eqv ISO 4343. 1978), compared with the previous version, the main technical changes are as follows.

--- Conduct a comprehensive adjustment system more standardized, more logical.

--- Begin to describe the post-processor command of the general structure and common language, all kinds of processing and measuring, mapping and other languages
greatly enriched the numerical control system in the machine tool industry. And can be extended to related fields.

--- Increasing the machine type.

--- Increasing the measurement and mapping, and other related types.

The Standard Appendix A, Appendix B normative appendix.

The standard proposed by China Machinery Industry Federation.

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

This standard was drafted. Beijing Machine Tool Research Institute, Beijing KND CNC Technology Co., Ltd.

Introduction

Output general-purpose numerical control processor is used as a post-processing of the input information, this information is referred to CLDATA, most First data from the cutting tool library.

CLDATA provides a common language, process information can be passed from the processor to the numerical control post-processor, and the General Language is converted into a specific format-specific numerical control equipment required. GB/T 12177 is given a logic CLDATA record Series and physical structure.

This standard is based on the command word and the parameters associated with the command word to define a standard post-processor vocabulary. The vocabulary Coding using the 2000 type (integer type post-processing commands) and 20,000 type (text-based post-processing command) by the GB/T 12177 given the CLDATA record.

Between the post-processing and post-processing term element command element, CLDATA recorded one to one relationship. Appendix to this standard B integer code number given is used to express the keyword record 2000 CLDATA code number. Key words given in Appendix B the name is used to express the type CLDATA record 20,000 keyword name.

Numerical control has been applied to many types of machinery, but the language was originally defined in this standard for numerical control machine tools, thus Vocabulary use this language to describe the "tool" and "part", respectively, refers to the processing elements and process elements, many of the vocabulary words also from gold Metalworking term.

GB/T 11292-2008/ISO 4343:2000 Industrial Automation Systems Numerical control of machines NC processor output Post-processing command

1 Scope

The standard numerical control software defines a set of post-processing of the statement elements. These post-processing statements with the 2000 and Type CLDATA 20,000 records or other equivalent forms of coding.

Where an international standard numerical control programming language processor capable of generating post-processing command line with the standard tool position data

(CLDATA) records.

CLDATA each post-processor can use this standard to define post-processing commands record as input.

This standard does not describe the following.

- a) mechanisms for these statements to be processed;
- b) to record these input language media statements;
- c) medium and the format of the output machine control data;
- d) order a part program statement.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 8870 digital control machine tool positioning, line motion and contouring control system data format (GB/T 8870-1988, eqv ISO 6983-1. 1982) GB/T 12177 Industrial automation tool numerical control system NC processor output file structure and language format (GB/T 12177-2008, ISO 3592:2000, IDT) GB/T 12646 Numerical control of machines - NC processor input Basic part program reference language (GB/T 12646-1990, eqv ISO 4342. 1985) GB/T 19660-2005 Industrial automation systems and integration - Numerical control of machines and motion coordinate system named (ISO 841.

2001, IDT)

3.1 Part program reference

GB/T 19660-2005 CLDATA is the basis for defining the coordinate system.

In CLDATA, the coordinate system reference axis is x, y and z axes. Coordinate system refers to the reference point of the tool relative to the part coordinate system on (Usually the nose center). CLDATA able to define the position and orientation of the following.

- x dimension parallel to the X axis;
- y dimension parallel to the Y axis;
- z dimension parallel to the Z axis;
- i tool axis vector component in the X-axis direction;
- j tool axis vector component in the Y-axis direction;