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(ISO 841 : 2001)

(JMTBA/JSA)

**Industrial automation systems and
integration—Numerical control of
machines—Coordinate system and
motion nomenclature**

ICS 25.040.20

Reference number : JIS B 6310 : 2003 (E)

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee, as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Machine Tool Builders' Association (JMTBA)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14. Consequently **JIS B 6310 : 1998** is replaced with this Standard.

This revision has been made based on **ISO 841 : 2001** *Industrial automation systems and integration—Numerical control of machines—Coordinate system and motion nomenclature* for the purposes of making it easier to compare this Standard with International Standard; to prepare Japanese Industrial Standard conforming with International Standard; and to propose a draft of an International Standard which is based on Japanese Industrial Standard.

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

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In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Industrial automation systems and integration—Numerical control of machines—Coordinate system and motion nomenclature

Introduction This Japanese Industrial Standard has been prepared based on the second edition of **ISO 841 : 2001** *Industrial automation systems and integration—Numerical control of machines—Coordinate system and motion nomenclature* published in 2001 without modifying the technical contents.

Portions underlined with dots are the matters not stated in the original International Standard.

1 Scope This Standard describes numerically controlled machines, similar machine coordinate systems, and motion nomenclature in industrial automation system.

NOTES 1 Individual numerically controlled machines mean that all axes are mounted on one base or frame and all motions are related to one standard coordinate system.

2 For the sake of simplicity the majority of the text of this Standard is written in terms accorded to machine tools but nevertheless accorded to numerically controlled machines in general. Coordinate systems and axis motion nomenclature for industrial robots is defined in **JIS B 8437**.

3 The International Standard corresponding to this Standard is as follows.

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21**.

ISO 841 : 2001 *Industrial automation systems and integration—Numerical control of machines—Coordinate system and motion nomenclature* (IDT)

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS B 0181 *Industrial automation systems—Numerical control of machines—Vocabulary*

NOTE : **ISO 2806 : 1994** *Industrial automation systems—Numerical control of machines—Vocabulary* is equivalent to the said standard.

JIS B 6315-1 *Numerical control of machines—Program format and definition of address words—Part 1 : Data format for positioning, line motion and contouring control systems*