AS 10303.49—2000
ISO 10303-49:1998



Australian Standard™

# Industrial automation systems and integration—Product data representation and exchange

## Part 49: Integrated generic resources: Process structure and properties

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This Australian Standard was prepared by Committee IT/6, Information Technology for Industrial Automation and Integration. It was approved on behalf of the Council of Standards Australia on 28 April 2000 and published on 8 June 2000.

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# PREFACE

This Standard was prepared by the Standards Australia Committee IT/6, Information Technology for Industrial Automation and Integration. This Standard is identical with and has been reproduced from ISO 10303-49:1998, *International automation systems and integration—Product data representation and exchange*, Part 49: *Integrated generic resource: Process structure and properties*.

The objective of this Standard is to provide designers of computer-interpretable representation and exchange of product actions to affect a process. These actions include: relationship between processes, the effectivity of a process, the properties of a process, the resources and their properties required by the process, representation of the process and their resource, and relationship of the process to the product.

This Standard is Part 49 of AS 10303, *Industrial automation systems and integration—Product data representation and exchange*, which is published in parts as follows:

Part 1: Overview and fundamental principles
Part 11: Description methods: The EXPRESS language reference manual
Part 12: Description methods: The EXPRESS-I language reference manual
Part 21: Implementation methods: Clear text encoding of the exchange structure
Part 22: Implementation methods: Standard data access interface
Part 31: Conformance testing methodology and framework: General concepts
Part 41: Integrated generic resources: Fundamentals of 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 resources: Materials
Part 46: Integrated generic resources: Visual presentation
Part 47: Integrated generic resource: Shape variation tolerances
Part 49: Integrated generic resources: Process structure and properties (this Standard)
Part 101: Integrated application resources: Draughting
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 203: Application protocol — Configuration controlled design (Amendment No.1)
Part 207: Application protocol: Sheet metal die planning and design
Part 224: Application protocol: Mechanical product definition for process planning using machining features

The terms 'normative' and 'informative' have been used in this Standard to define the application of the annex to which they apply. A normative annex is an integral part of a Standard, whereas an informative annex is only for information and guidance.

As this Standard is reproduced from an International Standard, the following applies:

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AUSTRALIAN STANDARD

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## 1 Scope

This part of ISO 10303 specifies the resource constructs to specify the actions or potential actions to effect a process. The integrated resource constructs within this part of ISO 10303 define the structure for specifying: relationships between processes, the effectivity of a process, the properties of a process, the resources required for the process, the properties of the resource, the representation of the process, the representation of the resource, and the relationship of the process to the product. When these integrated resource constructs are utilized in the context of an application resource or an application protocol, the integrated resource constructs can be assembled into a structure to represent a process plan.

The following are within the scope of this part of ISO 10303:

— specification of a process;

— specification of the relationships between processes;

— specification of the effectivity of a process;

— specification of the relationship between a process and a product;

— specification of the steps for a process plan to realize a product;

NOTES

1 - This part of ISO 10303 does not make any distinction between a process plan that has been executed and one that has not been executed.

2 - This part of ISO 10303 does not address administrative information within a process plan. Administrative information may include organization, date, or person responsible for developing a process plan.

— specification of alternative process plan definitions;

— specification of the method for realizing a process plan;

— specification of a resource;

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