



# INTERNATIONAL STANDARD ISO 10303-105:1996 TECHNICAL CORRIGENDUM 1

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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

Part 105:

### Integrated application resource: Kinematics

TECHNICAL CORRIGENDUM 1

*Systèmes d'automatisation industrielle et intégration — Représentation et échange de données de produits —*

*Partie 105: Ressource d'application intégrée: Cinématique*

*RECTIFICATIF TECHNIQUE 1*

Technical Corrigendum 1 to International Standard ISO 10303-105:1996 was prepared by Technical Committee ISO/TC 184, *Industrial automation systems and integration*, Subcommittee SC 4, *Industrial data*

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### **Introduction**

*This document corrects ISO 10303-105:1996, Product data representation and exchange — Part 105: Application resource: Kinematics. The corrected document supersedes ISO 10303-105:1996.*

*The purpose of the modifications to the text of ISO 10303-105:1996 is to correct errors in the EXPRESS definitions likely to cause compilation problems, to include Formal propositions and Informal propositions to support the EXPRESS corrections, to clarify the text for proper usage of the EXPRESS, to replace the annex for the computer-interpretable EXPRESS with a URL reference, and to replace the object identifier for the document and the modified schema.*

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**Clause 5.4.4, p. 16**

The informal proposition *ground\_definition* in 5.4.4 incorrectly stated an informal proposition. Remove the *ground\_definition* informal proposition in 5.4.4 and replace with the following:

Informal propositions:

**ground\_definition:** The **kinematic\_ground\_representation** shall be associated to **property\property\_definition\_representation.definition\kinematic\_property\_definition.ground\_definition**.

**Clause 5.4.12, p. 21**

The EXPRESS specification contained logical errors in *kinematic\_link\_representation*. Remove the EXPRESS specification and replace with the following:

EXPRESS specification:

```

*)
ENTITY kinematic_link_representation
  SUBTYPE OF (representation);
  SELF\representation.context_of_items :
    geometric_representation_context;
DERIVE
  link_frame
    : geometric_representation_context
    := SELF\representation.context_of_items\
      geometric_representation_context;
INVERSE
  link_representation_relation :
    kinematic_link_representation_relation FOR geometric_aspects;
WHERE
  WR1: SIZEOF (QUERY (item <* SELF\representation.items |
    NOT (('KINEMATIC_STRUCTURE_SCHEMA.RIGID_PLACEMENT' IN
      TYPEOF (item))
    OR
    ('GEOMETRY_SCHEMA.CARTESIAN_TRANSFORMATION_OPERATOR_3D' IN
      TYPEOF (item)))) ) = 0;
END_ENTITY;
(*

```

**Clause 5.4.15, p.24**

The definition of the entity *kinematic\_frame\_based\_transformation* in 5.4.15 does not provide adequate definition for usage. The subtype shall be changed and additional formal and informal propositions shall be added. Remove the EXPRESS specification and replace with the following:

EXPRESS specification:

```

*)
ENTITY kinematic_frame_based_transformation
  SUBTYPE OF (geometric_representation_item,
    functionally_defined_transformation);
  transformator : rigid_placement;
WHERE
  WR1: SELF\geometric_representation_item.dim=3;
END_ENTITY;
(*

```