



INTERNATIONAL STANDARD ISO 10303-45:1998
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 45:
Integrated generic resources: Materials

TECHNICAL CORRIGENDUM 1

*Systèmes d'automatisation industrielle et intégration — Représentation et échange de données de produits —
Partie 45: Ressources génériques intégrées: Matériaux*

RECTIFICATIF TECHNIQUE 1

Technical Corrigendum 1 to International Standard ISO 10303-45:1998 was prepared by Technical Committee ISO/TC 184, *Industrial automation systems and integration*, Subcommittee SC 4, *Industrial data*.

Introduction

This document corrects ISO 10303-45:1998, *Product data representation and exchange — Part 45: Integrated generic resources: Materials*. The corrected document supersedes ISO 10303-45:1998.

The purpose of the modifications to the text of ISO 10303-45:1998 is to correct errors in the EXPRESS definitions likely to cause compilation problems, to replace the annex for the computer-interpretable EXPRESS with a URL reference, and to replace the object identifier for the document and the applicable schema.

Modifications to the text of ISO 10303-45:1998

Clause 4.5, p. 10

The EXPRESS specification for the FUNCTION acyclic_property_definition_relationship does not find the acyclic relationships correctly. Remove the EXPRESS specification and replace with the following:

EXPRESS specification:

```

*)
FUNCTION acyclic_property_definition_relationship
  (relation          : property_definition_relationship;
   relatives         : SET [1:?] OF property_definition;
   specific_relation : STRING) : LOGICAL;

LOCAL
  x          : SET OF property_definition_relationship;
END_LOCAL;

IF relation.relating_property_definition IN
  relatives THEN
  RETURN (FALSE);
END_IF;          -- IN is based in instance equality

x := QUERY (pd <* bag_to_set (USEDIN
  (relation.relating_property_definition,
   'MATERIAL_PROPERTY_DEFINITION_SCHEMA.' +
   'PROPERTY_DEFINITION_RELATIONSHIP.' +
   'RELATED_PROPERTY_DEFINITION')) |
  specific_relation IN TYPEOF (pd));

REPEAT I := 1 TO HIINDEX(x);          -- pre-checked loop
  IF NOT acyclic_property_definition_relationship
    (x[I],
     relatives + relation.relating_property_definition,
     specific_relation) THEN
    RETURN(FALSE);
  END_IF;
END_REPEAT;

RETURN(TRUE);
END_FUNCTION;  -- acyclic_property_definition_relationship

```

(*

Remove the Argument definitions and replace with the following:

Argument definitions:

relation: (input) the candidate **property_definition_relationship** to be checked.

relatives: (input) the set of **property_definitions** which the function is searching for in the **relating_property_definition** parameter of the **relation** argument.

NOTE 3 - When calling `acyclic_property_definition_relationship`, the correct syntax to reference the **relatives** argument uses the aggregate initializer (e.g., '`[<entity_name>.relating_XXX]`').

specific_relation: (input) the fully qualified entity name of a type **property_definition_relationship** entity.

Annex B.1, p. 22

With the changes identified in this Technical Corrigendum, the object identifier for this part of ISO 10303 has changed. Remove the object identifier for the document and replace with the following:

{ iso standard 10303 part(45) version (2) }

Annex B.2.1, p. 22

With the changes identified in this Technical Corrigendum, the object identifier for the `material_property_definition_schema` has changed. Remove the object identifier for the `material_property_definition_schema` and replace with the following:

{ iso standard 10303 part(45) version (2) object(1) material-property-definition-schema(1) }

Annex C, p. 23

With the changes identified in this Technical Corrigendum, the EXPRESS contained on the diskette is incorrect. Replace the contents of the annex with the following:

This annex provides a listing of the EXPRESS entity names and corresponding short names as specified in this part of ISO 10303. It also provides a listing of the complete EXPRESS schema specified in this part of ISO 10303 without comments or other explanatory text. This annex is available in computer-interpretable form and can be found at the following URLs:

Short names: <http://www.mel.nist.gov/div826/subject/apde/snr/>
EXPRESS: <http://www.mel.nist.gov/step/parts/part045/is/tc1/>