



**INTERNATIONAL STANDARD ISO 10303-108:2005**  
**TECHNICAL CORRIGENDUM 2**

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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 108:

**Integrated generic resource:  
Parameterization and constraints for explicit geometric  
product models**

TECHNICAL CORRIGENDUM 2

*Systèmes d'automatisation industrielle et intégration – Représentation et échange de données de produits -  
Partie 108 Ressources génériques intégrées: Paramétrage et contraintes pour les modèles de produits  
géométriques explicites*

RECTIFICATIF TECHNIQUE 2

[ISO 10303-108:2005/Cor.2:2014](https://standards.iteh.ai/iso-10303-108-2005/Cor.2:2014)

<https://standards.iteh.ai/catalog/standards/iso/e403e297-2dbd-4bbb-a36c-990edd97c65/iso-10303-108-2005-cor-2-2014>

Technical Corrigendum 2 to International Standard ISO 10303-108:2005 was prepared by Technical Committee ISO/TC 184, *Automation systems and integration*, Subcommittee SC 4, *Industrial data*.

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*This Technical Corrigendum is intended to be used in conjunction with ISO 10303-108:2005/Cor.1: order of their publication. The purpose of the modifications to the text of ISO 10303-108:2005 is to, corrections and improvements to its EXPRESS code. The changes are mainly in the more s, qualification of attributes in the WHERE rules of entity specifications and in the coding of some functions*

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**Modifications to the text of ISO 10303-108:2004****Clause 4.1, Introduction, p. 15**

Replace ISO13584\_generic\_expressions\_schema with iso13584\_generic\_expressions\_schema in the fifth REFERENCE FROM statement, and make the corresponding change in Note 1.

**Clause 5.1, Introduction, p. 30**

Replace ISO13584\_generic\_expressions\_schema with iso13584\_generic\_expressions\_schema in the sixth REFERENCE FROM statement, and replace ISO13584\_expressions\_schema with iso13584\_expressions\_schema in the seventh REFERENCE FROM statement. Make the corresponding changes in Note 1.

**Clause 5.4.7, simultaneous\_constraint\_group, pp. 40 - 42**

Replace the EXPRESS code on p. 41 with the following, in which WR1 has been modified:

EXPRESS specification:

\*)

```
ENTITY simultaneous_constraint_group
  SUBTYPE OF (variational_representation_item);
  constraint_group : SET[2:?] OF constraint_group_member;
WHERE
  WR1: SIZEOF(QUERY(q <* using_representations(SELF) |
    SIZEOF(QUERY(r <* q.items |
      ('EXPLICIT_CONSTRAINT_SCHEMA.SIMULTANEOUS_CONSTRAINT_GROUP'
      IN TYPEOF(r)) AND (SIZEOF(QUERY(s <* constraint_group |
        (s IN r\simultaneous_constraint_group.constraint_group)
        AND NOT (r ::= SELF)))) > 0))) > 0)) = 0;
  WR2: SIZEOF(QUERY(q <* using_representations(constraint_group[1]) |
    (SIZEOF(QUERY(r <* constraint_group |
      item_in_context(r, q.context_of_items)))
    = SIZEOF(constraint_group))) > 0;
  WR3: SIZEOF(QUERY(q <* constraint_group |
    (('EXPLICIT_CONSTRAINT_SCHEMA.EXPLICIT_CONSTRAINT' IN TYPEOF(q))
    AND (SIZEOF(QUERY(r <* q.constrained_elements |
      SIZEOF(QUERY(s <* constraint_group |
        r IN s.reference_elements)) > 0)) > 0)))) = 0;
END_ENTITY;
(*
```

NOTE 1 Some changes were made to clause 5.4.7 by Technical Corrigendum 1 for ISO 10303-108:2004, but the original EXPRESS code of this entity was not affected by those changes.

**Clause 6.1, Introduction, p. 43**

Replace the sixth REFERENCE FROM statement on p. 43 with the following, which references two additional entities from the ISO 13584 generic\_expressions\_schema which are required by the function invalidate\_vrep\_item defined on pp. 49 - 51:

```
REFERENCE FROM iso13584_generic_expressions_schema -- ISO 13584-20
  (environment,
  generic_variable,
  variable_semantics);
```

Also, replace ISO13584\_generic\_expressions\_schema with iso13584\_generic\_expressions\_schema in Note 1.

**Clause 8.4.9, neutral\_sketch\_representation, pp. 102 - 103**

Replace the EXPRESS code on p. 102 with the following, in which WR1 has been corrected:

EXPRESS specification:

```

*)
ENTITY neutral_sketch_representation
  SUBTYPE OF (shape_representation);
  neutral_sketch_semantics : curves_or_area;
  SELF\representation.items : SET[1:?] OF sketch_element_select;
WHERE
  WR1: SIZEOF(QUERY(q <* items |
    NOT('GEOMETRY_SCHEMA.GEOMETRIC_REPRESENTATION_ITEM' IN TYPEOF(q)
    AND (q\geometric_representation_item.dim = 3)))) = 0;
END_ENTITY;
(*

```

**Clause 8.5.2, check\_curve\_planarity, pp. 109 - 110**

Replace the EXPRESS code on pp. 109 and 110 with the following, in which the local variable **result** has been retyped as **BOOLEAN** and several attributes have been correctly qualified:

EXPRESS specification:

```

*)
FUNCTION check_curve_planarity (checked_curve: curve) : BOOLEAN;

LOCAL
  crv : curve := checked_curve;
  i, j : INTEGER;
  result : BOOLEAN := FALSE;
END_LOCAL;

-- Determine whether the curve lies on a plane, according to its type

IF (SIZEOF(['GEOMETRY_SCHEMA.CONIC', 'GEOMETRY_SCHEMA.LINE'] *
  TYPEOF(crv)) > 0)
THEN result := TRUE;
ELSE
  IF (('GEOMETRY_SCHEMA.TRIMMED_CURVE' IN TYPEOF(crv))
    AND check_curve_planarity(crv\trimmed_curve.basis_curve))
  THEN result := TRUE;
  ELSE
    IF (('GEOMETRY_SCHEMA.PCURVE' IN TYPEOF(crv))
      AND ('GEOMETRY_SCHEMA.PLANE' IN TYPEOF(crv\pcurve.basis_surface)))
    THEN result := TRUE;
    ELSE
      IF ('GEOMETRY_SCHEMA.SURFACE_CURVE' IN TYPEOF(crv))
      THEN
        BEGIN
          REPEAT j := 1 TO HIINDEX(crv\surface_curve.basis_surface);

```