



INTERNATIONAL STANDARD ISO 10303-104:2000
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 104:
Integrated application resource: Finite element analysis**

TECHNICAL CORRIGENDUM 1

*Systèmes d'automatisation industrielle et intégration — Représentation et échange de données de produits —
Partie 104: Ressources d'application intégrées: Analyse par éléments finis*

RECTIFICATIF TECHNIQUE 1

Technical Corrigendum 1 to ISO 10303-104:2000 was prepared by Technical Committee ISO/TC 184, *Automation systems and integration*, Subcommittee SC 4, *Industrial data*.

Introduction

This Technical Corrigendum corrects ISO 10303-104:2000.

The purpose of the modifications to the text of ISO 10303-104:2000 is to correct the use of the definition attribute in four entities that are SUBTYPEs of the representation entity, which had a description attribute added after the publication of ISO 10303-104:2000.

*Modifications to the text of ISO 10303-104:2000**Page 40, 5.4.1 fea_model*

Delete the **.definition** attribute in the **fea_model** entity, which is a SUBTYPE of the **representation** entity, which had a **.description** attribute added after the publication of ISO 10303-104:2000 causing a conflict. Remove the current EXPRESS definition and replace with:

EXPRESS specification:

```
*)
ENTITY fea_model
  SUPERTYPE OF (ONEOF(fea_model_2d,
                      fea_model_3d))
  SUBTYPE OF (representation);
  creating_software      : text;
  intended_analysis_code : SET [1:?] OF text;
  analysis_type         : text;
UNIQUE
  UR1: SELF\representation.name;
END_ENTITY;
(*
```

Page 90, 5.7.27 point_element_representation

Delete the **.definition** attribute in the **point_element_representation** entity, which is a SUBTYPE of the **representation** entity, which had a **.description** attribute added after the publication of ISO 10303-104:2000 causing a conflict. Remove the current EXPRESS definition and replace with:

EXPRESS specification:

```
*)
ENTITY point_element_representation
  SUBTYPE OF (element_representation);
  model_ref      : fea_model;
  matrix_set     : SET [1:?] OF point_element_matrix;
UNIQUE
  UR1: model_ref, SELF\representation.name;
WHERE
  WR1: SIZEOF (QUERY(item <* SELF\representation.items |
                    'STRUCTURAL_RESPONSE_REPRESENTATION_SCHEMA.' +
                    'FEA_AXIS2_PLACEMENT_3D'
                    IN TYPEOF (item))) = 1;
  FU1: required_0d_nodes (
        SELF\element_representation.node_list);
END_ENTITY;

(*
```

Page 94, 5.7.32 directionally_explicit_element_representation

Delete the **.definition** attribute in the **directionally_explicit_element_representation** entity, which is a SUBTYPE of the **representation** entity, which had a **.description** attribute added after the publication of ISO 10303-104:2000 causing a conflict. Remove the current EXPRESS definition and replace with:

EXPRESS specification:

```
*)
ENTITY directionally_explicit_element_representation
  SUBTYPE OF (element_representation);
  model_ref          : fea_model;
  systems_and_freedoms : LIST [2:2] OF system_and_freedom;
  coefficient        :
directionally_explicit_element_coefficient;
UNIQUE
  UR1: model_ref, SELF\representation.name;
WHERE
  FU1: required_ld_nodes (
      SELF\element_representation.node_list,
      linear);
END_ENTITY;
```

(*

Page 97, 5.7.35 explicit_element_representation

Delete the **.definition** attribute in the **explicit_element_representation** entity, which is a SUBTYPE of the **representation** entity, which had a **.description** attribute added after the publication of ISO 10303-104:2000 causing a conflict. Remove the current EXPRESS definition and replace with:

EXPRESS specification:

```
*)
ENTITY explicit_element_representation
  SUBTYPE OF (element_representation);
  model_ref          : fea_model;
  matrix             : explicit_element_matrix;
UNIQUE
  UR1: model_ref, SELF\representation.name;
WHERE
  WR1: SIZEOF (QUERY(item <* SELF\representation.items |
      ('STRUCTURAL_RESPONSE_REPRESENTATION_SCHEMA.' +
      'FEA_AXIS2_PLACEMENT_3D')
      IN TYPEOF (item))) = 1;
  WR2: SIZEOF (matrix.node_dof_list) =
      SIZEOF (SELF\element_representation.node_list);
END_ENTITY;
```

(*