



INTERNATIONAL STANDARD ISO 10303-104:2000

TECHNICAL CORRIGENDUM 2

Published 2014-07-01

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 generic resource: Finite element analysis

TECHNICAL CORRIGENDUM 2

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

- Partie 104 Ressources génériques intégrées: Analyse par éléments finis

RECTIFICATIF TECHNIQUE 2

Technical Corrigendum 2 to International Standard ISO 10303-104:2000 was prepared by Technical Committee ISO/TC 184, *Automation systems and integration*, Subcommittee SC 4, *Industrial data*.

The purpose of the modifications to the text of ISO 10303-104:2000 is to correct a scoping issue in the FUNCTION required `jd_nodes` and the FUNCTION required `_3d_nodes`. In addition, the FUNCTION variable `_value_type` is corrected to return the correct value for a `surface_tensor2_2d_variable`.

ICS 25.040.40

Ref. No. ISO 10303-104:2000/Cor.2:2014(E)

© ISO 2014 – All rights reserved

Published in Switzerland

Modifications to the text of ISO 10303-104:2000

Page 208, 5.15.3 required_2d_nodes

Fully qualify the references to “triangle” and “quadrilateral” in IF statements to avoid namespace clashes. Remove the current EXPRESS definition and replace with:

EXPRESS specification:

```
*)
FUNCTION required_2d_nodes
    (node_list: LIST [1:?] OF node_representation; element_shape:
    element_2d_shape; order: element_order) : BOOLEAN;
    LOCAL
        vertex_nodes          : INTEGER;
        edge_nodes            : INTEGER;
        edge_face_body_nodes  : INTEGER;
    END_LOCAL;

    IF (element_shape = element_2d_shape.triangle) THEN
        vertex_nodes := 3;
        IF (order = linear_order) THEN
            edge_nodes          := 0;
            edge_face_body_nodes := 0;
        END_IF;
        IF (order = quadratic_order) THEN
            edge_nodes          := 3;
            edge_face_body_nodes := 3;
        END_IF;
        IF (order = cubic_order) THEN
            edge_nodes          := 6;
            edge_face_body_nodes := 7;
        END_IF;
    END_IF;

    IF (element_shape = element_2d_shape.quadrilateral) THEN
        vertex_nodes := 4;
        IF (order = linear_order) THEN
            edge_nodes          := 0;
            edge_face_body_nodes := 0;
        END_IF;
        IF (order = quadratic_order) THEN
            edge_nodes          := 4;
            edge_face_body_nodes := 5;
        END_IF;
        IF (order = cubic_order) THEN
            edge_nodes          := 8;
            edge_face_body_nodes := 12;
        END_IF;
    END_IF;

    RETURN ((SIZEOF (node_list) = vertex_nodes + edge_nodes) OR
    (SIZEOF (node_list) = vertex_nodes + edge_face_body_nodes));
END_FUNCTION;

( *
```