INTERNATIONAL STANDARD ISO 10303-519:2000
TECHNICAL CORRIGENDUM 1

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

Part 519:
Application interpreted construct: Geometric tolerances

TECHNICAL CORRIGENDUM 1

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

Partie 519: Construction interprétée d'application: Tolérances géométriques

RECTIFICATIF TECHNIQUE 1

Technical Corrigendum 1 to International Standard ISO 10303-519:2000 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 10303-519:2000, Product data representation and exchange — Part 519: Application interpreted construct: Geometric tolerances. The corrected document supersedes ISO 10303-519:2000.

The purpose of the modifications to the text of ISO 10303-519:2000 is to correct errors in the EXPRESS definitions likely to cause a compilation problem, to correct errors in Informal propositions and Formal propositions, to replace informative figures that are affected by changes in EXPRESS definitions, and to replace the object identifier for the document and the schemas.

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Modifications to the text of ISO 10303-519:2000

Clause 4, p. 5

The EXPRESS specification for the **aic_geometric_tolerances** *schema did not include a reference to a required data type. The required data type is an entity data type, the* **shape_aspect_relationship** *for the Formal proposition 2 in* **line_profile_tolerance**. *Add the following to the EXPRESS specification above 'USE FROM shape_aspect_definition_schema':*

```
USE FROM product_property_definition_schema --ISO 10303-41
    (shape_aspect_relationship);
```

With the addition of the **shape_aspect_relationship** *taken from the* **product_property_definition_- schema**, *NOTE 2 changed. Delete NOTE 2 and replace with the following:*

> NOTE 2   The schemas referenced above can be found in the following parts of ISO 10303:
>
> | | |
> |---|---|
> | measure_schema | ISO 10303-41 |
> | product_property_definition_schema | ISO 10303-41 |
> | shape_aspect_definition_schema | ISO 10303-47 |
> | shape_tolerance_schema | ISO 10303-47 |

Clause 4.2.11, p. 16

The EXPRESS specification of **position_tolerance** *is revised to make it a subtype of* **geometric_tolerance** *in order to provide the capability to specify such a tolerance without a datum reference. Remove the EXPRESS specification and replace with the following:*
EXPRESS specification:

```
*)
ENTITY position_tolerance
  SUBTYPE OF (geometric_tolerance);
WHERE
WR1: ( NOT ('AIC_GEOMETRIC_TOLERANCES.' +
      'GEOMETRIC_TOLERANCE_WITH_DATUM_REFERENCE' IN TYPEOF (SELF)))
      OR
      (SIZEOF (SELF\geometric_tolerance_with_datum_reference.
       datum_system) <= 3);
END_ENTITY;
(*
```

The text of the formal proposition does not change.

Annex B.1, p. 21

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(519) version (2) }

Annex B.2, p. 21
With the changes identified in this Technical Corrigendum, the object identifier for the
aic_geometric_tolerances schema has changed. Remove the object identifier for the
aic_geometric_tolerances schema and replace with the following:

{ iso standard 10303 part(519) version (2) object(1) aic-geometric-tolerances-schema(1) }

Annex C, p. 25, 26
The EXPRESS-G diagrams figure C.3 and figure C.4 should be changed to take account of the revised
definition of position_tolerance as a subtype of geometric_tolerance. Modify figure C.3 to show
position_tolerance as a subtype of geometric_tolerance and remove position_tolerance as a subtype of
geometric_tolerance_with_datum_reference on figure C.4. Replacement pages are provided for figures
C.3 and C.4 at the end of this document.

Annex D, p. 28
With the changes identified in this Technical Corrigendum, the EXPRESS contained in digital
form is incorrect. Remove the following:
        EXPRESS: http://www.mel.nist.gov/step/parts/part519/is/
Replace with the following:
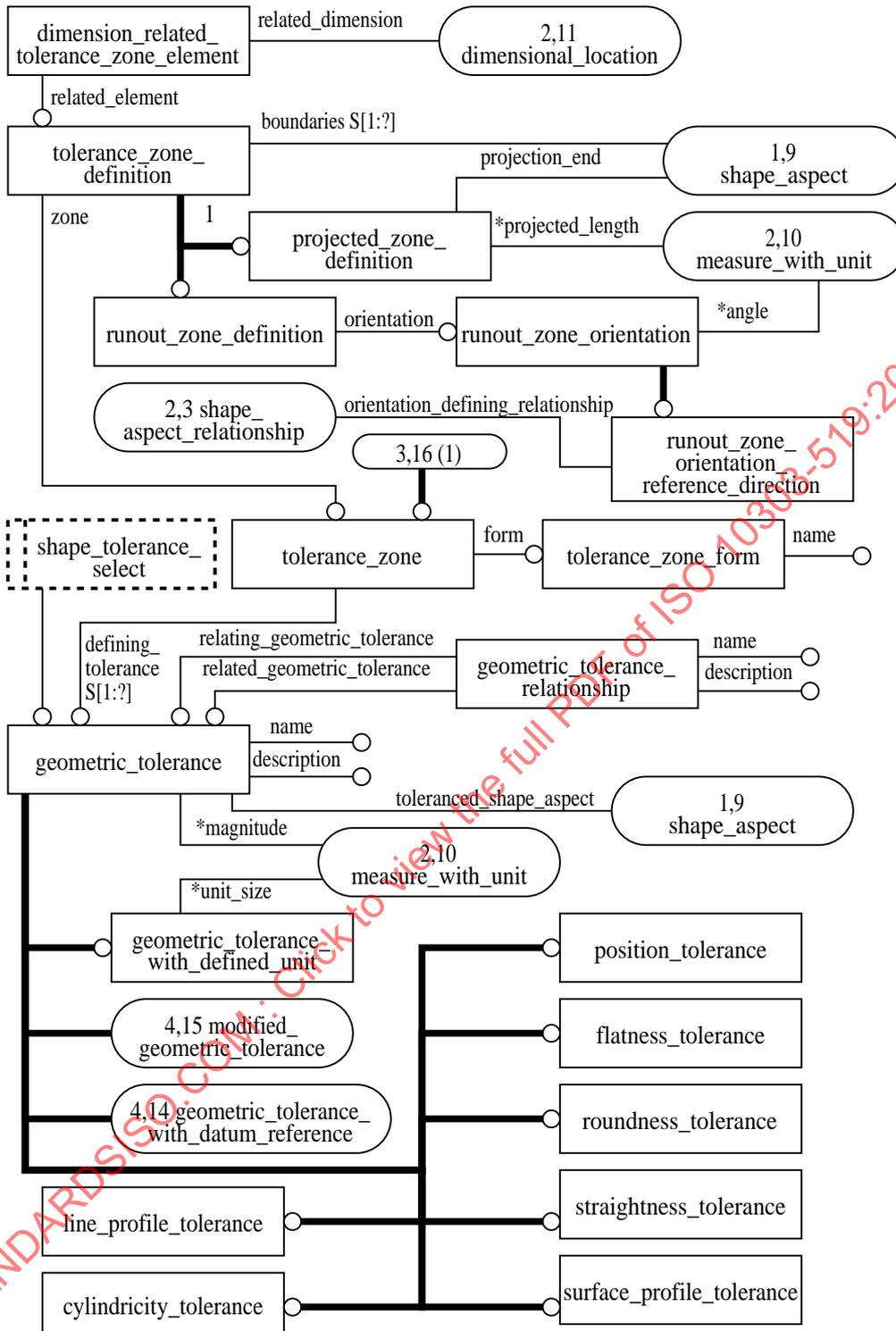   EXPRESS: http://www.mel.nist.gov/step/parts/part519/is/tc1

Figure C.3 – AIC expanded listing diagram in EXPRESS-G: 3 of 5