



**Automatizované průmyslové systémy  
a integrace – Presentace dat  
o výrobku a jejich výměna –  
Část 46: Integrované generické  
zdroje: Vizuální prezentace**

**ČSN  
ISO 10303-46  
OPRAVA 1**

97 4101

idt ISO 10303-46:1994/Cor. 2:2002

Technical corrigendum

Tato oprava přejímá anglickou verzi opravy ISO 10303-46:1994/TECHNICAL CORRIGENDUM 2:2002

This corrigendum implements English version of ISO 10303-46:1994/TECHNICAL CORRIGENDUM 2:2002

**ČSN ISO 10303-46 (97 4101) Automatizované průmyslové systémy a integrace – Presentace dat o výrobku a jejich výměna – Část 46: Integrované generické zdroje: Vizuální prezentace** z července 2000 se opravuje takto:

Opravu této mezinárodní normy připravila technická komise ISO/TC 184, *Průmyslové automatizační systémy a integrace*, subkomise SC 4, *Průmyslová data*.

*Tato oprava se týká ISO 10303-46:1994, která byla opravena ISO 10303:1994/Cor. 1:1999. Aby se vyhovělo uživatelům, obsahuje tato oprava také obsah opravy 1.*

*Účelem této modifikace je upravit text ISO 10303-46, který odstraňuje v použitém jazyce EXPRESS chyby, vyjasnit definice, odstranit chyby v neformálních tvrzeních, odstranit chyby popsané při hlasování k ISO 10303-518 a nahradit identifikátor objektu pro dokument a schémata.*

## ***Modifications to the text of ISO 10303-46:1994***

### **Clause 2, p. 2**

*The Normative references require an additional normative reference for the correction identified in clause 7.3.21. Add the following to the list of Normative references:*

*ISO 3098-0:1977, Technical product documentation – Lettering – Part 0: General requirements*

### **Clause 4, p. 5**

*The EXPRESS specification of **camera\_image\_3d\_with\_scale** and **aspect\_ratio**, defined below, requires additional EXPRESS external references. Remove the following:*

REFERENCE FROM presentation\_resource\_schema

(colour,  
planar\_box,  
presentation\_scaled\_placement);

REFERENCE FROM measure\_schema

(length\_measure,  
positive\_plane\_angle\_measure);

### ***Replace with the following:***

REFERENCE FROM presentation\_resource\_schema

(colour,  
planar\_box,  
planar\_extent,  
presentation\_scaled\_placement);

REFERENCE FROM measure\_schema

(length\_measure,  
positive\_ratio\_measure,  
positive\_plane\_angle\_measure);

*The EXPRESS specification for the **presentation\_organization\_schema** did not include a reference to required data type. The first required data type is an entity data type, the **annotation\_occurrence** for the Formal propositions in **area\_dependent\_annotation\_representation** and **view\_dependent\_annotation\_representation**. The second required data type is an entity data type, the **symbol\_representation** for the Formal propositions in **symbol\_representation\_rule**. The third required data type is an entity data type, the **symbol\_representation\_relationship** the Formal propositions in **symbol\_representation\_rule**. The fourth required data type is an entity data type, the **styled\_item** for the Formal propositions in **camera\_model** and **light\_source**. The fifth required data type is an entity data type, the **founded\_item**. It is required to be referenced since it is now a supertype of **view\_volume**. Add the following to the EXPRESS specification between the 'SCHEMA presentation\_organization\_schema;' and the 'REFERENCE FROM presentation\_resource\_schema':*

REFERENCE FROM presentation\_definition\_schema

(annotation\_occurrence,  
symbol\_representation,  
symbol\_representation\_relationship);

REFERENCE FROM presentation\_appearance\_schema  
(styled\_item);

**Delete the following EXPRESS specification:**

REFERENCE FROM representation\_schema  
(item\_defined\_transformation,  
item\_in\_context,  
mapped\_item,  
representation,  
representation\_item,  
representation\_map,  
representation\_relationship,  
representation\_relationship\_with\_transformation);

**Replace with the following EXPRESS specification:**

REFERENCE FROM representation\_schema  
(founded\_item,  
item\_defined\_transformation,  
item\_in\_context,  
mapped\_item,  
representation,  
representation\_item,  
representation\_map,  
representation\_relationship,  
representation\_relationship\_with\_transformation);

*With the addition of the **annotation\_occurrence**, **symbol\_representation**, **symbol\_representation\_relationship** and **styled\_item** to the **presentation\_organization\_schema**, NOTE 1 changed. Delete NOTE 1 and replace with the following:*

NOTE 1 The schemas referenced above can be found in the following parts of ISO 10303:

Presentation_definition_schema	Clause 5 of this part of ISO 10303
Presentation_appearance_schema	Clause 6 of this part of ISO 10303
Presentation_resource_schema	Clause 7 of this part of ISO 10303
Geometry_schema	ISO 10303-42
Representation_schéma	ISO 10303-43
Measure_schema	ISO 10303-41
Support_resource_schema	ISO 10303-41

**Clause 4.3.45, p. 13**

*The Informal proposition of **layered\_item** contradicts to the intended use of **presentation\_layer\_assignment**. The type of **representation\_items** assigned to a layer shall not be restricted. Remove Informal proposition IP1.*

**Clause 4.5.5, p. 26**

The EXPRESS specification of **view\_volume** is revised to make it a subtype of **founded\_item** in order to provide a representation context for the **projection\_point** and **planar\_box** attributes. Remove the EXPRESS specification and replace with the following:

EXPRESS specification:

\*)

```
ENTITY view_volume
    SUBTYPE OF (founded_item);
    projection_type           : central_or_parallel;
    projection_point         : cartesian_point;
    view_plane_distance     : length_measure;
    front_plane_distance    : length_measure;
    front_plane_clipping    : BOOLEAN;
    back_plane_distance     : length_measure;
    back_plane_clipping     : BOOLEAN;
    view_volume_sides_clipping : BOOLEAN;
    view_window             : planar_box;
END_ENTITY;
```

(\*

Add the following note at the end of the entity description:

NOTE Since **view\_volume** is not a subtype of **geometric\_representation\_item** the instances of **cartesian\_point** which is the **projection\_point** attribute and **planar\_box** which is the **view\_window** attribute are not associated in the usual way with the **geometric\_representation\_context** of each **representation** using a **camera\_model\_d3** containing this **view\_volume**. The **geometric\_representation\_context** is associated via the **founded\_item** supertype.

**Clause 4.5.9, p. 31**

The EXPRESS specification of **light\_source** contained logical errors in the WHERE rule. WR1 requires a role name qualified by attribute name 'ITEM' for argument 2 of built-in function USEDIN. Delete the current WR1 and replace WR1 with the following:

```
WR1: SIZEOF(USEDIN(SELF,'PRESENTATION_APPEARANCE_SCHEMA'+
                  'STYLED_ITEM.ITEM')) = 0;
```

**Clause 4.5.14, p. 35**

The description of the Formal propositions does not give a correct explanation of WR2. Remove the description of WR2 and replace with the following:

WR2: The target of the mapping shall be a **planar\_box**.

**Clause 4.5.16, p. 35**

The EXPRESS specification for **camera\_image\_3d\_with\_scale** defined below are required for reference from other parts of ISO 10303. Add the following as clause 4.5.16 after clause 4.5.15

**4.5.16 camera\_image\_3d\_with\_scale**

A **camera\_image\_3d\_with\_scale** is a **camera\_image** that projects three-dimensional geometry and has a derived scale. The scale is the ratio between the size of the viewport and the size of the **view\_window** of the **view\_volume**.

EXPRESS specification:

\*)

ENTITY camera\_image\_3d\_with\_scale

SUBTYPE OF (camera\_image);

DERIVE

scale: positive\_ratio\_measure := ((SELF\mapped\_item.mapping\_target\  
planar\_extent.size\_in\_x) / (SELF\mapped\_item.mapping\_source.  
mapping\_origin\camera\_model\_d3.perspective\_of\_volume.view\_window.  
size\_in\_x));

WHERE

WR1: ('PRESENTATION\_ORGANIZATION\_SCHEMA.CAMERA\_MODEL\_D3'  
IN TYPEOF (SELF\mapped\_item.mapping\_source.mapping\_origin));  
WR2: aspect\_ratio(SELF\mapped\_item.mapping\_target) =  
aspect\_ratio(SELF\mapped\_item.mapping\_source.mapping\_origin\  
camera\_model\_d3.perspective\_of\_volume.view\_window);  
WR3: SELF\mapped\_item.mapping\_source.mapping\_origin\camera\_model\_d3.  
perspective\_of\_volume.front\_plane\_clipping  
AND  
SELF\mapped\_item.mapping\_source.mapping\_origin\camera\_model\_d3.  
perspective\_of\_volume.view\_volume\_sides\_clipping;  
WR4: (SELF\mapped\_item.mapping\_target\planar\_extent.size\_in\_x > 0)  
AND  
(SELF\mapped\_item.mapping\_target\planar\_extent.size\_in\_y > 0);  
WR5: (SELF\mapped\_item.mapping\_source.mapping\_origin\camera\_model\_d3.  
perspective\_of\_volume.view\_window.size\_in\_x > 0)  
AND  
(SELF\mapped\_item.mapping\_source.mapping\_origin\camera\_model\_d3.  
perspective\_of\_volume.view\_window.size\_in\_y > 0);  
WR6: ('GEOMETRY\_SCHEMA.' +  
'AXIS2\_PLACEMENT\_2D' IN TYPEOF (SELF\mapped\_item.  
mapping\_target\planar\_box.placement))  
AND NOT ('GEOMETRY\_SCHEMA.' +  
'AXIS2\_PLACEMENT\_3D' IN TYPEOF (SELF\mapped\_item.  
mapping\_target\planar\_box.placement));

END\_ENTITY;

(\*

Attribute definitions:

**scale:** the **positive\_ratio\_measure** derived from the rectangular size of the viewport and the rectangular size of the **view\_volume** of the **camera\_model**.

Formal propositions:

**WR1:** The source of the projection shall be a **camera\_model\_d3**.

**WR2:** The aspect ratio of the viewport shall equal the aspect ratio of the **view\_window** of the **view\_volume**.

**WR3:** The geometry of the projected representation shall be clipped against the plane represented by the **front\_plane\_distance** and the planes which are the sides of the volume defined by the **view\_volume**.

**WR4:** The rectangular size of the viewport shall be specified by positive values.

**WR5:** The rectangular size of the **view\_window** shall be specified by positive values.

**WR6:** The drawing space of a **camera\_image\_3d\_with\_scale** shall be specified in a 2D coordinate system.

Informal propositions:

**IP1:** The horizontal and vertical components of the viewport shall be parallel to the corresponding components of the **view\_window** of the **view\_volume**.

**Clause 4.9.1, p. 39**

*The EXPRESS specification for the FUNCTION **acyclic\_presentation\_representation\_relationship** contained logical errors in the function body. The assignment to variable 'x' requires a 'SET' and not a 'BAG'. Remove the EXPRESS specification and replace with the following:*

EXPRESS specification:

\*)

```

FUNCTION acyclic_presentation_representation_relationship
  ( relation : presentation_representation_relationship;
    children : SET OF presentation_representation ) : BOOLEAN;
LOCAL
  x : SET OF presentation_representation_relationship;
  local_children : SET OF presentation_representation;
END_LOCAL;

  REPEAT i:=1 TO HIINDEX(children);
    IF relation\presentation_relationship.rep_1 :=: children[i] THEN
      RETURN(FALSE);
    END_IF;
  END_REPEAT;
  x := bag_to_set (USEDIN ( relation\presentation_relationship.rep_1,
    'REPRESENTATION_SCHEMA'+
    'REPRESENTATION_RELATIONSHIP.REP_2'));
  local_children := children + relation\presentation_relationship.rep_1;
  IF SIZEOF (x) > 0 THEN
    REPEAT i:=1 TO HIINDEX (x);
      IF NOT acyclic_presentation_representation_relationship
        (x[i] , local_children) THEN
        RETURN (FALSE);
      END_IF;
    END_REPEAT;
  END_IF;

  RETURN (TRUE);
END_FUNCTION;
(*)

```

**Clause 4.9.2, p. 39**

*The EXPRESS specification for **aspect\_ratio** defined below are required for reference from other parts of ISO 10303. This entity was incorrectly defined in ISO 10303-517. Add the following as clause 4.9.2 after clause 4.9.1 and before the END\_SCHEMA EXPRESS specification:*

## 4.9.2 aspect ratio

The **aspect\_ratio** function checks that both the attributes, `size_in_x` and `size_in_y`, have positive values and returns a **positive\_ratio\_measure** that is the ratio of length to height for a given **planar\_box**. In other cases, an indeterminate value is returned.

EXPRESS specification:

```
*)
FUNCTION aspect_ratio (p : planar_box) : positive_ratio_measure;
(*   if the dimensions of the planar_box are greater than zero,
    compute the aspect ratio and return the resulting value. *)
    IF (p.size_in_x > 0.) AND (p.size_in_y > 0.) THEN
        RETURN (p.size_in_x / p.size_in_y);
    ELSE
        RETURN (?);
    END_IF;
END_FUNCTION;
(*
```

Argument definitions:

**p:** The input **planar\_box** to be checked.

### Clause 5, p. 40

*The EXPRESS specification for the **presentation\_definition\_schema** did not include a reference to a required data type. The required reference is a function, the **bag\_to\_set** for the EXPRESS specifications changed in **acyclic\_presentation\_representation\_relationship**, **acyclic\_symbol\_representation\_relationship** and **field\_in\_table**. Delete the following EXPRESS specification:*

```
REFERENCE FROM support_resource_schema
    (label,
     text);
```

**Replace with the following EXPRESS specification:**

```
REFERENCE FROM support_resource_schema
    (label,
     text,
     bag_to_set);
```

### Clause 5.4.13, p. 53

*The EXPRESS specification for **table\_record\_representation** was incorrect. The local rules of **table\_record\_representation** are incorrect since the variable `map_item` is of type **REPRESENTATION**,, but it is used as argument to the function `using_representations`, which accepts only variables of type **FOUNDED\_ITEM\_SELECT**. Remove the EXPRESS specification and replace with the following:*

EXPRESS specification:

```
*)
ENTITY table_record_representation
    SUBTYPE OF (symbol_representation);
WHERE
    WR1: (SIZEOF(USEDIN(SELF, 'REPRESENTATION_SCHEMA.'+
                        'REPRESENTATION_RELATIONSHIP.REP_2')) > 0)
        OR
        (SIZEOF(QUERY( map_item <* USEDIN(SELF, 'REPRESENTATION_SCHEMA.'+
                        'REPRESENTATION_MAP.'+
                        'MAPPED_REPRESENTATION'))
```

```

|SIZEOF(QUERY( mi <* USEDIN(map_item, 'REPRESENTATION_SCHEMA.'+
                                'MAPPED_ITEM.'+
                                'MAPPING_SOURCE') |
                                'PRESENTATION_DEFINITION_SCHEMA.'+
                                'TABLE_REPRESENTATION' IN
                                TYPEOF (using_representations (mi)) )) > 0))
                                > 0);

```

END\_ENTITY;

(\*

**Clause 5.4.14, p. 54**

*The EXPRESS specification for **table\_record\_field\_representation** was incorrect. The local rules of **table\_record\_field\_representation** are incorrect since the variable **map\_item** is of type **REPRESENTATION**,, but it is used as argument to the function **using\_representations**, which accepts only variables of type **FOUNDED\_ITEM\_SELECT**. Remove the EXPRESS specification and replace with the following:*

EXPRESS specification:

\*)

```

ENTITY table_record_field_representation
  SUBTYPE OF (symbol_representation);

```

WHERE

```

  WR1: (SIZEOF(USEDIN(SELF, 'REPRESENTATION_SCHEMA.'+
                      'REPRESENTATION_RELATIONSHIP.REP_2')) > 0)
        OR

```

```

  (SIZEOF(QUERY( map_item <* USEDIN(SELF, 'REPRESENTATION_SCHEMA.'+
                                    'REPRESENTATION_MAP.'+
                                    'MAPPED_REPRESENTATION') |
  SIZEOF(QUERY( mi <* USEDIN(map_item, 'REPRESENTATION_SCHEMA.'+
                              'MAPPED_ITEM.'+
                              'MAPPING_SOURCE') |
                              'PRESENTATION_DEFINITION_SCHEMA.'+
                              'TABLE_RECORD_REPRESENTATION' IN
                              TYPEOF (using_representations (mi)) )) > 0))
        > 0);

```

END\_ENTITY;

(\*

**Clause 5.6.2, p. 72**

*The EXPRESS specification for the FUNCTION **acyclic\_symbol\_representation\_relationship** contained logical errors in the function body. The assignment to variable 'x' requires a 'SET' and not a 'BAG'. Remove the EXPRESS specification and replace with the following:*

EXPRESS specification:

\*)

```

FUNCTION acyclic_symbol_representation_relationship
  (relation : symbol_representation_relationship;
   children : SET OF symbol_representation ) : BOOLEAN;
LOCAL
  x : SET OF symbol_representation_relationship;
  local_children : SET OF symbol_representation;
END_LOCAL;

```



```

REPEAT i:=1 TO HIINDEX(children);
  IF relation\representation_relationship.rep_1 :=: children[i] THEN
    RETURN(FALSE);
  END_IF;
END_REPEAT;
x := bag_to_set (USEDIN ( relation\representation_relationship.rep_1,
  'REPRESENTATION_SCHEMA.'+
  'REPRESENTATION_RELATIONSHIP.'+ 'REP_2'));
local_children := children + relation\representation_relationship.rep_1;
IF SIZEOF (x) > 0 THEN
  REPEAT i:=1 TO HIINDEX (x);
    IF NOT acyclic_symbol_representation_relationship(x[i] ,
      local_children) THEN
      RETURN (FALSE);
    END_IF;
  END_REPEAT;
END_IF;
RETURN (TRUE);
END_FUNCTION;
(*)

```

**Clause 5.6.3, p. 73**

*The EXPRESS specification for the FUNCTION **field\_in\_table** contained spelling and logical errors. The expression in the first QUERY requires a string 'PRESENTATION\_DEFINITION\_SCHEMA.TABLE\_RECORD\_REPRESENTATION' and not a string 'PRESENTATION\_DEFINITIONS\_SCHEMA.TABLE\_RECORD\_REPRESENTATION'. The declaration of variable 'symbol\_rep\_rel\_set' requires a 'SET' and not a 'SET[1:?]'. The declaration of variable mapped\_item\_set' requires a 'SET' and not a 'SET[1:?]'. The declaration of variable 'table\_record\_rep\_set' requires a 'SET' and not a 'SET[1:?]'. The assignment to variable 'symbol\_rep\_rel\_set' requires a 'SET' and not a 'BAG'. The built-in function USEDIN in the second QUERY requires a role name qualified by an attribute name as argument 2. Remove the EXPRESS specification and replace with the following:*

EXPRESS specification:

```

*)
FUNCTION field_in_table (field : table_record_field_representation;
  table : annotation_table_occurrence): BOOLEAN;
  LOCAL
    table_rep : table_representation;
    symbol_rep_rel_set : SET OF symbol_representation_relationship;
    mapped_item_set : SET OF mapped_item;
    table_record_rep_set : SET OF table_record_representation := [ ];
  END_LOCAL;
  table_rep := table\styled_item.item\mapped_item.mapping_source.
mapped_representation;
  mapped_item_set := QUERY(item <* table_rep.items |
    ('REPRESENTATION_SCHEMA.MAPPED_ITEM' IN
    TYPEOF(item))
    AND
    ('PRESENTATION_DEFINITION_SCHEMA.'+
    'TABLE_RECORD_REPRESENTATION' IN
    TYPEOF(item\mapped_item.mapping_source.
    mapped_representation ))
  );

```

```

REPEAT i := 1 TO HIINDEX(mapped_item_set);
  table_record_rep_set := table_record_rep_set +
    mapped_item_set[i].mapping_source.mapped_representation;
END_REPEAT;

symbol_rep_rel_set := bag_to_set (USEDIN(table_rep,
                                         'REPRESENTATION_SCHEMA.'+
                                         'REPRESENTATION_RELATIONSHIP.REP_1'));
REPEAT i := 1 TO HIINDEX(symbol_rep_rel_set);
  table_record_rep_set := table_record_rep_set +
    symbol_rep_rel_set[i]\representation_relationship.rep_2;
END_REPEAT;
IF SIZEOF(QUERY( table_record_rep <* table_record_rep_set |
                (SIZEOF(QUERY( rep_rel <* USEDIN(table_record_rep,
                                                  'REPRESENTATION_SCHEMA.'+
                                                  'REPRESENTATION_RELATIONSHIP.REP_1') |
                ('PRESENTATION_DEFINITION_SCHEMA.' +
                'SYMBOL_REPRESENTATION_RELATIONSHIP' IN
                TYPEOF(rep_rel))
                AND
                (rep_rel.rep_2 :=: field)
                )) > 0)
                OR
                (SIZEOF(QUERY(item <* table_record_rep.items |
                ('REPRESENTATION_SCHEMA.MAPPED_ITEM' IN
                TYPEOF(item))
                AND
                (field :=: item\mapped_item.mapping_source.
                mapped_representation )
                )) > 0)
                )) = 0 THEN
  RETURN(FALSE);
END_IF;
RETURN(TRUE);
END_FUNCTION;
(*

```

**Clause 6, p. 74**

*The EXPRESS specification for the **presentation\_appearance\_schema** did not include a reference to required data type. The first required data type is an entity data type, the group for the amended SELECT type **style\_context\_select**. The second required reference is a function, the **bag\_to\_set** for the EXPRESS specifications changed in **acyclic\_occlusion\_precedence**. Add the following EXPRESS specification before the 'REFERENCE FROM MEASURE\_SCHEMA':*

```

REFERENCE FROM group_schema
  (group);

```

**Delete the following EXPRESS specification:**

```
REFERENCE FROM support_resource_schéma
    (label);
```

**Replace with the following EXPRESS specification:**

```
REFERENCE FROM support_resource_schéma
    (label,
     bag_to_set);
```

**Clause 6.3.1, p. 80**

*The possibility to control the presentation style by a layer is a fundamental concept of ISO 10303-46. However the EXPRESS specification for the type **style\_context\_select** did not include the necessary entities. Remove the EXPRESS specification and replace with the following:*

EXPRESS specification:

```
*)
TYPE style_context_select = SELECT
    (group,
     presentation_layer_assignment,
     representation,
     representation_item,
     presentation_set);
END_TYPE;
(*
```

**Clause 6.3.43, p. 96**

*The restriction of invisibility to **presentation\_representation** does not satisfy the requirement to devone a complete model as invisible. Include the entity representation instead of **presentation\_representation** in the SELECT type **invisible\_item**. Remove the EXPRESS specification and replace with the following:*

EXPRESS specification:

```
*)
TYPE invisible_item = SELECT
    (styled_item,
     presentation_layer_assignment,
     representation);
END_TYPE;
(*
```

**Clause 6.6.12, p. 106**

*The EXPRESS specification for **draughting\_pre\_defined\_curve\_font** defined below are required for reference from other parts of ISO 10303. Add the following as clause 6.6.12 after clause 6.6.11.*

**6.6.12 draughting\_pre\_defined\_curve\_font**

A **draughting\_pre\_defined\_curve\_font** is a **pre\_defined\_curve\_font** that is identified by name.



Informal propositions:

**IP1:** Text\_style\_with\_mirror.mirror\_placement shall have the axis2\_placement founded in the same context as the text that is being mirrored.

**Clause 6.13.1, p. 130**

*The EXPRESS specification for the FUNCTION acyclic\_occlusion\_precedence contained logical errors in the function body. The assignment to variable 'x' requires a 'SET' and not a 'BAG'. Remove the EXPRESS specification and replace with the following:*

EXPRESS specification:

```

*)
FUNCTION acyclic_occlusion_precedence
  ( relation : occlusion_precedence;
    set_of_lower : SET OF hiding_or_blanking_select ) : BOOLEAN;
LOCAL
  x : SET OF occlusion_precedence;
  local_set_of_lower : SET OF hiding_or_blanking_select;
END_LOCAL;
REPEAT i:=1 TO HIINDEX(set_of_lower);
  IF relation.higher_precedence :=: set_of_lower[i] THEN
    RETURN(FALSE);
  END_IF;
END_REPEAT;
x := bag_to_set (USEDIN ( relation.higher_precedence,
                        'PRESENTATION_APPEARANCE_SCHEMA.'+
                        'OCCLUSION_PRECEDENCE.LOWER_PRECEDENCE'));
local_set_of_lower := set_of_lower + relation.higher_precedence;
IF SIZEOF (x) > 0 THEN
  REPEAT i:=1 TO HIINDEX (x);
    IF NOT acyclic_occlusion_precedence(x[i] ,
                                       local_set_of_lower) THEN
      RETURN (FALSE);
    END_IF;
  END_REPEAT;
END_IF;
RETURN (TRUE);
END_FUNCTION;
(*

```

**Clause 7.3.13, p. 139**

*The EXPRESS specification of colour\_associated contained logical errors in the attribute declaration. Attribute 'name' requires a type 'label' and not 'colour'. Remove the EXPRESS specification and replace with the following:*

EXPRESS specification:

```

*)
ENTITY colour_associated
  SUBTYPE OF (colour);
  name : label;
  variable_to_be_shown : SET [1:?] OF REAL;
  mapping : colour_association_table;
END_ENTITY;
(*

```

**Clause 7.3.20, p. 142**

The EXPRESS specification for **draughting\_pre\_defined\_colour** defined below are required for reference from other parts of ISO 10303. Add the following as clause 7.3.20 after clause 7.3.19 and before the END\_SCHEMA EXPRESS declaration.

**7.3.20 draughting\_pre\_defined\_colour**

A **draughting\_pre\_defined\_colour** is a **pre\_defined\_colour** that is identified by name.

EXPRESS specification:

\*)

```
ENTITY draughting_pre_defined_colour
  SUBTYPE OF (pre_defined_colour);
WHERE
  WR1:      SELF.name IN
            ['red',
            'green',
            'blue',
            'yellow',
            'magenta',
            'cyan',
            'black',
            'white'];
```

END\_ENTITY;

(\*

Formal propositions:

**WR1:** The name of the **draughting\_pre\_defined\_colour** shall be 'red', 'green', 'blue', 'yellow', 'magenta', 'cyan', 'black', or 'white'.

Attribute value definitions:

Table 1 states the RGB values corresponding to each of the predefined colours that are specified by this part of ISO 10303.

**Table 1 – RGB colours for predefined colours**

Colour name	Red	Green	Blue
black	0.0	0.0	0.0
red	1.0	0.0	0.0
green	0.0	1.0	0.0
blue	0.0	0.0	1.0
yellow	1.0	1.0	0.0
magenta	1.0	0.0	1.0
cyan	0.0	1.0	1.0
white	1.0	1.0	1.0

**Clause 7.3.21, p. 142**

The EXPRESS specification for **draughting\_pre\_text\_font** defined below is required for reference from other parts of ISO 10303. Add the following as clause 7.3.21 after clause 7.3.20 and before the END\_SCHEMA EXPRESS declaration.

**7.3.21 draughting\_pre\_defined\_text\_font**

A **draughting\_pre\_defined\_text\_font** is a **pre\_defined\_text\_font** that is identified by name. The definition of the appearance of each **draughting\_pre\_defined\_text\_font** is given in ISO 3098.

EXPRESS specification:

```

*)
ENTITY draughting_pre_defined_text_font
    SUBTYPE of (pre_defined_text_font);
WHERE
    WR1: SELF.name[1:8] = 'ISO 3098';
END_ENTITY;
(*

```

Formal propositions:

**WR1:** The **name** of the **draughting\_pre\_defined\_text\_font** shall be defined by 'ISO 3098'.

Attribute value definitions:

The **draughting\_pre\_defined\_text\_fonts** are defined by ISO 3098-0.

NOTE Prior usage of ISO 10303-46 utilized the following:

- **ISO 3098-1 font A:** the text font denoted as Lettering A in clause 3 of ISO 3098-1.
- **ISO 3098-1 font B:** the text font denoted as Lettering B in clause 3 of ISO 3098-1.

**Annex A, p. 143**

*With the changes identified in this Technical Corrigendum, the list of short names of entities is incomplete. Add the following rows in the existing table in the correct alphabetical order:*

Entity names	Short names
CAMERA_IMAGE_3D_WITH_SCALE	CI3WS
DRAUGHTING_PRE_DEFINED_COLOUR	DPDC
DRAUGHTING_PRE_DEFINED_CURVE_FONT	DPDCF
DRAUGHTING_PRE_DEFINED_TEXT_FONT	DPDTF

**Annex B.1, p. 150**

*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(46) version (3) }

**Annex B.2.1, p. 150**

*With the changes identified in this Technical Corrigendum, the object identifier for the presentation\_organisation\_schema has changed. Remove the object identifier for the presentation\_organisation\_schema and replace with the following:*

{ iso standard 10303 part(46) version (3) schema(1) presentation-organisation-schema(1) }

**Annex B.2.2, p. 150**

*With the changes identified in this Technical Corrigendum, the object identifier for the presentation\_definition\_schema has changed. Remove the object identifier for the presentation\_definition\_schema and replace with the following:*

{ iso standard 10303 part(46) version (3) schema(1) presentation-definition-schema(2) }

**Annex B.2.3, p. 150**

*With the changes identified in this Technical Corrigendum, the object identifier for the presentation\_appearance\_schema has changed. Remove the object identifier for the presentation\_appearance\_schema and replace with the following:*

{ iso standard 10303 part(46) version (3) schema(1) presentation-appearance-schema(3) }

### **Annex B.2.4, p. 151**

*With the changes identified in this Technical Corrigendum, the object identifier for the presentation\_resource\_schema has changed. Remove the object identifier for the presentation\_resource\_schema and replace with the following:*

{ iso standard 10303 part(46) version (3) schema(1) presentation-resource-schema(4) }

### **Annex C, p. 152**

*With the changes identified in this Technical Corrigendum, the EXPRESS contained in digital form 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 schéma 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/part046/is/tc2/>

If there is difficulty accessing these sites contact ISO Central Secretariat or contact the ISO TC 184/SC4 Secretariat directly at: [sc4sec@cme.nist.gov](mailto:sc4sec@cme.nist.gov).

NOTE The information provided in computer-interpretable form at the above URLs is informative. The information that is contained in the body of this part of ISO 10303 is normative.

### **Annex E, p. 159, 160, 173,177, 197**

*The EXPRESS-G diagrams in annex E should be changed to take account of the additions identified above. Modify EXPRESS-G diagram figure E.3 to include the additional subtype of **camera\_image\_3d\_with\_scale** to the entity **camera\_image**. The EXPRESS-G diagram figure E.4 should be changed to take account of the revised definition of **view\_volume**. Modify figure E.4 to show **view\_volume** as a subtype of **founded\_item** imported from representation schema. The EXPRESS-G diagram figure E.17 should be changed to take account of the revised definition of **style\_context\_select**. Modify figure E.17 to include group and **presentation\_layer\_assignment** in the SELECT. Modify EXPRESS-G diagram figure E.21 to include the additional subtype of **draughting\_pre\_defined\_curve\_font** to **pre\_defined\_curve\_font**. The EXPRESS-G diagram figure E.37 should be changed to take account of the revised definition of **invisible\_item**. Modify figure E.37 to include representation instead of **presentation\_representation** in the SELECT. Modify EXPRESS-G figure E.40 to include the subtype of **draughting\_pre\_defined\_text\_font** to **pre\_defined\_text\_font**. Modify EXPRESS-G figure E.41 to include the additional subtype of **draughting\_pre\_defined\_colour** to **pre\_defined\_colour**.*

## **Národní předmluva**

### **Vypracování normy**

Zpracovatel: INFO 7, IČ 442661154, ing. Jaroslav Ošlejšek

Technická normalizační komise: TNK 42, Výměna dat

Pracovník Českého normalizačního institutu: Ing. Petr Wallenfels

U p o z o r n ě n í : Změny a doplňky, jakož i zprávy o nově vydaných normách jsou uveřejňovány ve Věstníku Úřadu pro technickou normalizaci, metrologii a státní zkušebnictví.

### **ČSN ISO 10303-46 OPRAVA 1**

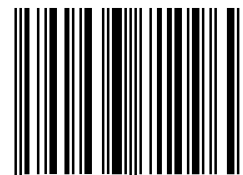
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