

MODEL INTERLIS_ext

The existing function INTERLIS.areAreas() is not flexible enough to formulate an AREA condition for geometries within structural elements. For this reason, two further functions were defined. The following example model provides clarification.

```
STRUCTURE StructA =
  flaeche : SURFACE ...;
END StructA;

STRUCTURE StructB =
  attr2 : BAG OF StructA;
END StructB;

STRUCTURE StructC =
  attr3 : BAG OF StructB;
END StructC;

CLASS ClassD =
  attr4 : BAG OF StructC;
END ClassD;
```

Examples 1 relating to ClassD: All surfaces of the attribute surface should form a tessellation for each object of the ClassD class (but the surfaces of one object of the ClassD class may overlap the surfaces of another object of the ClassD class).

```
MANDATORY CONSTRAINT areAreas2 (THIS, UNDEFINED, "attr4->attr3->attr2->flaeche");
```

Examples 2 relating to ClassD: All surfaces of the attribute surface should form a tessellation for each StructB structural element (but the areas of one StructB structural element may overlap the areas of another StructB structural element (of the same ClassD object). The surfaces of an object of the ClassD class may overlap the surfaces of another object of the ClassD class).

```
MANDATORY CONSTRAINT areAreas2 (THIS, "attr4->attr3", "attr2->attr1");
```

Examples 3 relating to ClassD: All areas of the attribute surface of all objects of ClassD class should form a tessellation.

```
SET CONSTRAINT areAreas3 (ALL, UNDEFINED, "attr4->attr3->attr2->flaeche");
```

In contrast to INTERLIS.areAreas(), whole attribute paths can therefore be used for the second and third argument.

areAreas2()

Checks whether the surfaces form a tessellation.

```
FUNCTION areAreas2 (
  Object: OBJECT OF ANYCLASS;
  SurfaceBag: TEXT;
  SurfaceAttr: TEXT): BOOLEAN;
```

Argument	Description
Object	Start object, for determining the value set.
SurfaceBag	Path to the structural element (starting from the start object), in relation to which the tessellation is checked. If the tessellation is checked in relation to the start object, SurfaceBag must be UNDEFINED.
SurfaceAttr	Path to the geometry attribute (starting from the SurfaceBag structural element) for the surface values.

areAreas3()

Checks whether the surfaces form a tessellation.

```
FUNCTION areAreas3(
  Objects: OBJECTS OF ANYCLASS;
  SurfaceBag: TEXT;
  SurfaceAttr: TEXT): BOOLEAN;
```

Argument	Description
Objects	Start objects, for determining the value set.
SurfaceBag	Path to the structural element (starting from the start object), in relation to which the tessellation is checked. If the tessellation is checked in relation to the start object, SurfaceBag must be UNDEFINED.
SurfaceAttr	Path to the geometry attribute (starting from the SurfaceBag structural element) for the surface values.

Attachment A

INTERLIS 2.3;

CONTRACTED TYPE MODEL INTERLIS_ext (en) AT "http://www.interlis.ch/models"
VERSION "2016-05-30" =

```
FUNCTION areAreas2(
  Object: OBJECT OF ANYCLASS;
  SurfaceBag: TEXT;
  SurfaceAttr: TEXT): BOOLEAN;
```

```
FUNCTION areAreas3(
  Objects: OBJECTS OF ANYCLASS;
  SurfaceBag: TEXT;
  SurfaceAttr: TEXT): BOOLEAN;
```

END INTERLIS_ext.