

SCADEC Technical Topics

ISO TC184/SC4 Meeting
Bordeaux, France.
June, 2000

SCADEC
<http://www.cad.jacic.or.jp/maine.html>

Contents

SCADEC Tools Status

SCADEC AP202 SEDS reports

Interoperability with STEP-CDS

1.SCADEC Tools Status

- Final debugging is in progress:
 - Common Library
 - AP202 Browser
 - Image Comparison Tool
 - Translators Certification Tool/Data
 - DXF-STEP/AP202 Translator
- Scheduled to fix up by the end of Aug.2000

(1)SCADEC Tools - Common Library

- Now allows CAD-vendors to implement their own translators.
 - Over 20 vendors are now implementing using Common Library
 - Three of them(i.e. Autodesk, Daitec, Fukui-Computer) will make a demonstration on Wed 15:30-17:30 in Implementers Forum
 - Omits validation of most schema-defined-rules
 - A few of rules can be validated by today's Common Library
- Translators Certification Tool takes the place of it for checking a Part21 file

(2)SCADEC Tools - Certification Data

- Composed of seven STEP Physical Files
 - Each file is intended to certificate:
 - Conformance with SCADEC Level 1 schema
 - a small file and a file that contains max number instances and variations
 - Conformance with SCADEC Level 2 schema
 - a small file and a file that contains max number instances and variations
 - Conformance with SCADEC Level 2->1 down conversion
 - Conformance with Japanese character set
 - a file for SCADEC Level 1 and a file for Level 2 schema

(3)SCADEC Tools - DXF/AP202 Translator

- The development of DXF Translator has finished. But the test for checking the current common library is continuing.
- The test that uses some actual drawings has finished .
- Demonstration data have been made using this translator.
- A user guide book ; “ How to set the translator parameters for overcoming discrepancies between SCADEC and DXF specification ” will be made.

2.SCADEC AP202 SEDS reports

- Two SEDS reports have been issued since Melbourne
 - DRAUGHTING_PRE_DEFINED_CURVE_FONT
 - Request to cover the basic conventions for lines specified by ISO 128-20:1996
 - DRAUGHTING_SUBFIGURE_REPRESENTATION - WR3
 - The rule phrase has a defect according to AP202 English language description

SEDS - DRAUGHTING_PRE_DEFINED_CURVE_FONT

- Request to add:

dashed spaced

- . - . - . - . - . - . - . - . - .

long dashed dotted

— . — . — . — . — . — .

long dashed double-dotted

— .. — .. — .. — .. — .. — ..

long dashed triplicate-dotted

— ... — ... — ... — ... — ... — ...

dashed dotted

— . — . — . — . — . — .

double-dashed dotted

— — . — — . — — . — — . — — .

dashed double-dotted

— . — . — . — . — . — .

double-dashed double dotted

— — . — — . — — . — — .

dashed triplicate-dotted

— . — . — . — . — . — .

double-dashed triplicate-dotted

— — . — — . — — . — — .

SEDS - DRAUGHTING_SUBFIGURE_REPRESENTATION

```
WR3:
SIZEOF(
  QUERY(srm <*
    QUERY(rm <*
      USEDIN(SELf,'AIC_DRAUGHTING_ANNOTATION.REPRESENTATION_MAP.MAPPED_REPRESENTATION')
      |('AIC_DRAUGHTING_ANNOTATION.SYMBOL_REPRESENTATION_MAP' IN TYPEOF(rm))
    )
  )
  NOT(
    SIZEOF(
      QUERY(a_s <*
        QUERY(mi < *srm.map_usage|('AIC_DRAUGHTING_ANNOTATION.ANNOTATION_SYMBOL' IN TYPEOF(mi)))
        |NOT(
          SIZEOF(
            QUERY(aso <*
              USEDIN(a_s,'AIC_DRAUGHTING_ANNOTATION.STYLED_ITEM.ITEM')
              |NOT('AIC_DRAUGHTING_ANNOTATION.ANNOTATION_SUBFIGURE_OCCURRENCE' IN TYPEOF(aso))
            )
          )=0
        )
      )=0
    )
  ) > 0;
```

This 'NOT' operator shall be removed.

3. Interoperability with STEP-CDS

- SCADEC Tools failed to recognize STEP-CDS
 - STEP-CDS schema has some Entity names that are not included in SCADEC subset schema;
 - Translators Certification Tool: Detects unknown Entity names
 - Common Library: Ends Abnormally
- There may be a practical way to exchange data
 - STEP-CDS Initiative has developed STEP-CDS<->DWG Translator
 - Autodesk Japan has developed SCADEC<->DWG Translator
 - An interoperability experiment is planned on Wed 15:30-17:30 in Implementers Forum

Appendix

- (1) Common Library API/Feature parameter specification
 - (2) Feature based Part21 Templates
 - (3) Translator Certification Data Specification
 - (4) SCADEC Level1/2 Schemata
- (to be up to <http://www.cad.jacic.or.jp/main.html>)

