

Mit 'Babysteps' in die XTEXT-XTEND Welt

Teil 2: Feldführungstexte bearbeitet die Fachabteilung selbst

Anbei noch einmal die Code Listings wie sie der Editor zeigt, also mit Syntax Highlights. Passend zum Artikel im Eclipse Magazin.

von Ulrich Merkel

Grammatik: umecif1c.xtext

```
//umecif1c.xtext
grammar de.ulrichmerkel.UmeCif1c with
org.eclipse.xtext.common.Terminals

generate umecif1c "http://www.ulrichmerkel.de/UmeCif1c"

Model:
    datamodel=Datamodel
    entities+=Entity*
;
Entity:
    'entity' name=ID 'description=' description=STRING?
    aComment=AComment?
    '{' fields += Field* '}'
;
Datamodel:
    'datamodel' modelName=ID 'description='description=STRING?
    aComment=AComment?
;
AComment: {AComment}
    'comment=' commentText=STRING?
;
ALabel: {ALabel}
    'label=' labelText=STRING?
;
Field:
    'field' name=ID 'description=' description=STRING?
    aLabel=ALabel? aComment=AComment?
;
```

Generator: umecif1cGenerator.xtend

```
// UmeCif1cGenerator.xtend
package de.ulrichmerkel.generator

import de.ulrichmerkel.umeCif1c.AComment
import de.ulrichmerkel.umeCif1c.ALabel
import de.ulrichmerkel.umeCif1c.Entity
import de.ulrichmerkel.umeCif1c.Field
import de.ulrichmerkel.umeCif1c.Model
import org.eclipse.emf.ecore.resource.Resource
import org.eclipse.xtext.generator.IFileSystemAccess
import org.eclipse.xtext.generator.IGenerator

class UmeCif1cGenerator implements IGenerator {

    override void doGenerate(Resource resource, IFileSystemAccess
fsa) {
        var String scriptFileName =
resource.getURI().lastSegment.toString();
        var String outFileBase =
scriptFileName.substring(0,scriptFileName.lastIndexOf("."));
```

```

        fsa.generateFile( outFileBase + '.C.CIF',
                        makeTheCif(resource.contents.head as
Model))
    }

def makeTheCif(Model sm) '''
<makeTheHeader()>
<makeTheDatamodel(sm)>
<<FOR Entity ent : sm.entities>>
    <makeTheEntity(ent)>
    <<FOR Field fld : ent.fields>>
    <makeTheField(fld, ent)>
    <<ENDFOR>>
<<ENDFOR>>
<makeTheFooter()>
'''

def makeTheHeader() '''
* CIF:2.0
; generated with UmeCif1C DSL, see www.uli-merkel.de
'''

def makeTheFooter() '''
; generation completed, this only updates existing objects
'''

def makeTheDatamodel(Model sm) '''
SU <<sm.datamodel.modelName.toUpperCase>>
<<IF sm.datamodel.description != null>>
<makeTheDescription(sm.datamodel.description.toString)>
<<ENDIF>>
<makeTheComment(sm.datamodel.AComment)>
'''

def makeTheEntity(Entity ent) '''
<<IF ent != null>>
EU <<ent.name.toString.toUpperCase>>
<<IF ent.description != null>>
<makeTheDescription(ent.description.toString)>
<makeTheComment(ent.AComment)>
<<ENDIF>>
<<ENDIF>>
'''

def makeTheDescription(String description) '''
<<IF description.length < 21>>
-#ED
<description.replace('#', '##').replace('\r\n', '').replace('\t', '
')>
<<ELSE>>
-#ED <description.replace('#', '##').replace('\r\n', '
').replace('\t', ' ').substring(0,20)>
<<ENDIF>>
'''

def makeTheComment(AComment aComment) '''
<<IF aComment != null>>
-#C
<aComment.commentText.toString.replace('#', '##').replace('\r\n', '#\r\n')>
<<ENDIF>>
'''

def makeTheLabel(ALabel aLabel) '''

```

```
<<IF aLabel != null>
  -#B
  <<aLabel.labelText.toString.replace('#', '##').replace('\r\n', '#\r\n'
  )>>
<<ENDIF>>
'''

def makeTheField(Field fld, Entity ent) '''
<<IF fld != null>
  FU <<fld.name.toString.toUpperCase>>
  <<IF fld.description != null>>
    <<makeTheDescription(fld.description.toString)>>
  <<ENDIF>>
  <<makeTheLabel(fld.ALabel)>>
  <<makeTheComment(fld.AComment)>>
<<ENDIF>>
'''

}
```

BILDÜBERSICHT

POC_SPRINT_TARIC	
ABG_SATZ_KOMP_ID	
DAT_START	
DAT_END	
ABG_SATZ_KOMP_ANW_COD	
MASS_EINH_ANW_CODE	
WAEHR_EINH_ANW_CODE	
AKRONYM	
KURZ_BESCHR	
BESCH_ART_CODE	
BESCH_KONTR_NR	
DAT_START	
DAT_END	
KURZ_BESCHR	

UMerkel_Babysteps2_1.JPG

POC_SPRINT_TARIC	
Abgabenart-Id	
Anfang	
Ende	
Code Anwendbarkeit	
Maßeinheit 'CODE'	
Währung 'CODE'	
Abkürzung	
Kurzbeschreibung	
Becheinigung Art	
Bescheinigung	
Anfang	
Ende	
Kurzbeschreibung	

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```

sprint_taric_returned.umecif1c
- entity TBL_ABG_ART description="TBL_Abg_Art [T23000]"
{
- field ABG_SATZ_KOMP_ANW_CODE description="Code der Anwendbarke"
  label="Code Anwendbarkeit"
- field ABG_SATZ_KOMP_ID description="Abgabenart-Id (TARIC)"
  label="Abgabenart-Id"
- field AKRONYM description="Abkürzung (TARIC2)"
  label="Abkürzung"
- field DAT_END description="Datum Gültigkeitsend"
  label="Ende Gültigkeit"
- field DAT_START description="Datum Gültigkeitsbeg"
  label="Anfang Gültigkeit"
- field KURZ_BESCHR description="Kurztext (TARIC2)"
  label="Kurzbeschreibung"
- field MASS_EINH_ANW_CODE description="Anwendbarer Code der"
  label="Maßeinheit "CODE""
- field WAEHR_EINH_ANW_CODE description="Anwendbarer Code der"
  label="Währung "CODE""
}
- entity TBL_BESCH description="TBL_Besch [T20500]"
{
- field BESCH_ART_CODE description="Bescheinigungsartcod"
  label="Bescheinigung Art"
- field BESCH_KONTR_NR description="Bescheinigungsrefere"
  label="Bescheinigung Referenz"
- field DAT_END description="Datum Gültigkeitsend"
  label="Ende Gültigkeit"
- field DAT_START description="Datum Gültigkeitsbeg"
  label="Anfang Gültigkeit"
- field KURZ_BESCHR description="Kurztext (TARIC2)"
  label="Kurzbeschreibung"
}
}

```

Problems | @ Javadoc | Declaration

1 error, 0 warnings, 0 others

Description	Resource	Path	Location	Type
Errors (1 item)				
mismatched input 'CODE' expecting '}'	sprint_taric...	/sprint_taric/src	line: 17 /sp...	UmeCif1c P...

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GEN_UMECIF1C by UME 130612 Generate UMECIF1C DSL file for a datamodel

Select Model:

- DICT
- PRINTER
- SPRINT_TARIC
- STATE
- SYSENV
- U

X_OUTFILENAME: iftoCif\dtToCif_9601_demo\work\sprint_taric_130930.umecif1c

X_ENTITYPROFILE:

X_FIELDPROFILE:

ADD_FIELDLEVEL

ADD_LABEL

ADD_COMMENT

1 Generate DSL file

g Exit

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