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***KEREVAL HEALTHLAB - Project IHE EUROPE*****User Guide*****CDA Generator – V1.x***

Version : 1.02

Date: 03/09/2014

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Function: Quality Assistant

Reference:

KER3-MAN-HEALTHLAB-CDA_GENERATOR_USER-
1.02

Status: approved



■ KEREVAL Approval

Name	Function	Date	Visa
Eric POISEAU	Lab Manager	03./09/2014	OK

■ Diffusion

Internal	Recipient	Date	Exemplary
KEREVAL	HealthLab	03/09/2014	Electronic version

External	Recipient	Date	Exemplary
CDA Generator users		03/09/2014	Electronic version

■ Document history

Version	Date	Author	Modifications
V0.01	02/09/2014	Thomas DOLOUE	Creation
V1.01	03/09/2014	Thomas DOLOUE	For review
V1.02	03/09/2014	Eric POISEAU	Approve

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1 CDA Generator – User Guide

1.1 Introduction

This application has multiple purposes.

- it can be used to generate sample CDA documents that can be used for testing purposes
 - today it allows to generate a dispensation document based on a prescription in the context of the epSOS project.
 - it will be extended to allow the generation of other kind of CDA documents.
- It hosts the models of the CDA documents and offers the documentation and the edition interface for those models.
- Documentation of the model based constraints
- Generation and Edition of basic CDA R2 documents

Please email questions to the IHE Europe Connectathon Manager (Eric Poiseau) for guidance through the process.

 CDAGenerator  Tools  CDA Documentation  CDA Generation  Administration signed in as: aboufahj Logout

[Welcome to the CDA Generator Application](#)

Edit home content

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- it can be used to generate sample CDA documents that can be used for testing purposes
 - today it allows to generate a dispensation document based on a prescription in the context of the epSOS project.
 - it will be extended to allow the generation of other kind of CDA documents.
- it hosts the models of the CDA documents and offers the documentation and the edition interface for those models.

This application is still in a development state. If you encounter any issues, please report them in our issue tracker system at <http://gazelle.ihe.net/jira/browse/CDAGEN>

Please email questions to the IHE Europe Connectathon Manager (Eric Poiseau) for guidance through the process.

[Release notes](#)

[Documentation](#)

Disclaimer

The CDA Generator Application is an experimental system. INRIA nor IHE-Europe assumes no responsibility whatsoever for its use by other parties, and makes no guarantees, expressed or implied, about its quality, reliability, or any other characteristic. We would appreciate acknowledgement if the software is used.

1.2 CDA Documentation

CDAGenerator offer a documentation of CDA templates, CDA constraints, and CDA structure.

1.3 CDA Structure

CDAGenerator offers a complete documentation of the structure of CDA standard. It is the same description that we find in the schema of CDA R2. The documentation is generated from the model UML that describes the CDA standard. To go to documentation you have to go to menu -> CDA Documentation -> CDA Content Documentation

[cda](#) [voc](#) [nblock](#) [datatypes](#) [cdaepsos](#) [cdalab](#) [medication](#) [lab](#) [infr](#)

CDA Elements Documentation

Home

Welcome to the Documentation of CDA Elements. This documentation is for the CDA basic document, and contains also the epSOS / LAB extensions.

Here you can find a powerful documentation of the content of CDA files. Each element composing the CDA documents was documented. The documentation contain a summary of each Element, a presentation of attributes related to the element. For each attribute we describe its type, its cardinality and the comments related to this attribute. Also we describe constraints, rules, related to each element. Finally we view the original schema description of the element.

The root Element on the basic CDA Document is [cda:ClinicalDocument](#)
The root Element on the epSOS CDA extended Document is [cda:ClinicalDocument](#)
The root Element on the xdlab CDA extended Document is [cda:ClinicalDocument](#)

The html page that describe the Root element (ClinicalDocument) looks like this :

[cda](#) [voc](#) [nblock](#) [datatypes](#) [cdaepsos](#) [cdalab](#) [medication](#) [lab](#) [infr](#)

Element : POCDMT000040ClinicalDocument (XML Type: POCD_MT000040.ClinicalDocument)

Summary

Constraints

Schema declaration

Package : cda

XML Type : POCD_MT000040.ClinicalDocument

Name	Type	cardinality	Comment
realmCode Element : realmCode	<u>CS</u>	0..*	
typeld Element : typeld	<u>POCDMT000040InfrastructureRootTypeld</u>	1..1	
templateId Element : templateId	<u>II</u>	0..*	
id Element : id	<u>II</u>	1..1	
code Element : code	<u>CE</u>	1..1	
title Element : title	<u>ST</u>	0..1	
effectiveTime Element : effectiveTime	<u>TS</u>	1..1	
confidentialityCode Element : confidentialityCode	<u>CE</u>	1..1	
languageCode Element : languageCode	<u>CS</u>	0..1	

1.4 CDA Templates Documentation

All the templates described and validated by CDAGenerator are documented by the tool.

To go to the documentation you have to go to : menu -> Documentation -> [CDA Templates Documentation](#), which looks like this :

List Templates

List Templates		
package/horm	SHOW ALL	
Templates Number : 380		
TemplateID	name	package / norm
2.16.840.1.113883.3.3731.1.105.3	LabOrderDataProcessingSpec	klabccom
2.16.840.1.113883.10.20.6.2.9	PurposeofReferenceObservation	CCDA
2.16.840.1.113883.10.20.6.2.8	SOPInstanceObservation	CCDA
2.16.840.1.113883.10.20.6.2.6	StudyAct	CCDA
2.16.840.1.113883.10.20.6.2.3	FetusSubjectContext	CCDA
2.16.840.1.113883.10.20.6.2.13	CodeObservations	CCDA
2.16.840.1.113883.10.20.6.2.11	BoundaryObservation	CCDA
2.16.840.1.113883.10.20.6.2.10	ReferencedFramesObservation	CCDA
2.16.840.1.113883.10.20.6.1.2	FindingsSection	CCDA
2.16.840.1.113883.10.20.6.1.1	DICOMObjectCatalogSection	CCDA
2.16.840.1.113883.10.20.30	ConformanceLevel3	luth
2.16.840.1.113883.10.20.2.5	GeneralStatusSection	CCDA
2.16.840.1.113883.10.20.22.4.9	ReactionObservation	CCDA
2.16.840.1.113883.10.20.22.4.86	AssessmentScaleSupportingObservation	CCDA
2.16.840.1.113883.10.20.22.4.80	EncounterDiagnosis	CCDA
2.16.840.1.113883.10.20.22.4.8	SeverityObservation	CCDA
2.16.840.1.113883.10.20.22.4.79	DeceasedObservation	CCDA
2.16.840.1.113883.10.20.22.4.75	CognitiveStatusResultOrganizer	CCDA
2.16.840.1.113883.10.20.22.4.74	CognitiveStatusResultObservation	CCDA
2.16.840.1.113883.10.20.22.4.73	CognitiveStatusProblemObservation	CCDA

The documentation of the templates is generated automatically from the model UML, which describes the template and its constraints.

1.5 CDA constraints documentation

The CDA constraint documentation is a page that contains all the constraint validated by CDAGenerator. This page allows to do search of a constraint by its name, its dependency to a class or a package, or by keyword from the description, etc.

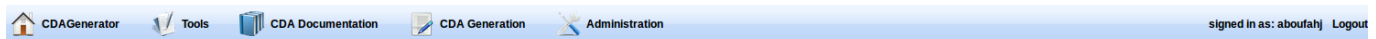
To go to the page of constraint documentation ou have to go to the menu -> Documentation -> [Constraints Search](#)

List Constraints

List Constraints			
packageName	Show ALL	className	Show ALL
Constraints Number : 3968			
name	validation class	package / norm	description
VitalSignsSection/VitalSignsOrganizer	VitalSignsSection	CCDA	Consol Vital Signs Section SHALL contain at least one [1..*] entry (CONF:7276, CONF:7277) Contains e...
VitalSignsSection/Title	VitalSignsSection	CCDA	Consol Vital Signs Section SHALL contain exactly one [1..1] title (CONF:9967)
VitalSignsSection/Text	VitalSignsSection	CCDA	Consol Vital Signs Section SHALL contain exactly one [1..1] text (CONF:7275)
VitalSignsSectionEntriesOptional/VitalSignsOrganizer	VitalSignsSectionEntriesOptional	CCDA	Consol Vital Signs Section Entries Optional SHOULD contain zero or more [0..*] entry (CONF:7271, CON...
VitalSignsSectionEntriesOptional/Title	VitalSignsSectionEntriesOptional	CCDA	Consol Vital Signs Section Entries Optional SHALL contain exactly one [1..1] title (CONF:9966)
VitalSignsSectionEntriesOptional/Text	VitalSignsSectionEntriesOptional	CCDA	Consol Vital Signs Section Entries Optional SHALL contain exactly one [1..1] text (CONF:7270)
VitalSignsSectionEntriesOptional/TemplateId	VitalSignsSection	CCDA	SHALL contain exactly one [1..1] templateId (CONF:7268, CONF:10451) such that it SHALL contain exa...
VitalSignsSectionEntriesOptional/CodeP	VitalSignsSectionEntriesOptional	CCDA	Consol Vital Signs Section Entries Optional SHALL contain exactly one [1..1] code (CONF:15242)@code...
VitalSignsSectionEntriesOptional/Code	VitalSignsSectionEntriesOptional	CCDA	Consol Vital Signs Section Entries Optional SHALL contain exactly one [1..1] code (CONF:15242)@code...
VitalSignsSection/CodeP	VitalSignsSection	CCDA	Consol Vital Signs Section SHALL contain exactly one [1..1] code (CONF:15962)@code="8716-3" Vital S...
VitalSignsSection/Code	VitalSignsSection	CCDA	Consol Vital Signs Section SHALL contain exactly one [1..1] code (CONF:15962)@code="8716-3" Vital S...
VitalSignsOrganizer/VitalSignObservation	VitalSignsOrganizer	CCDA	Consol Vital Signs Organizer SHALL contain at least one [1..*] component (CONF:7285, CONF:15946) Con...
VitalSignsOrganizer/StatusCode	VitalSignsOrganizer	CCDA	Consol Vital Signs Organizer SHALL contain exactly one [1..1] statusCode@code="completed" (CodeSys...
VitalSignsOrganizer/MoodCode	VitalSignsOrganizer	CCDA	Consol Vital Signs Organizer SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: 2.1...
VitalSignsOrganizer/Id	VitalSignsOrganizer	CCDA	Consol Vital Signs Organizer SHALL contain at least one [1..*] id (CONF:7282)
VitalSignsOrganizer/EffectiveTime	VitalSignsOrganizer	CCDA	Consol Vital Signs Organizer SHALL contain exactly one [1..1] effectiveTime (CONF:7288)
VitalSignsOrganizer/Code	VitalSignsOrganizer	CCDA	Consol Vital Signs Organizer SHALL contain exactly one [1..1] code@code="46680005" Vital signs (Cod...
VitalSignsOrganizer/ClassCode	VitalSignsOrganizer	CCDA	Consol Vital Signs Organizer SHALL contain exactly one [1..1] @classCode="CLUSTER" (CodeSystem: 2.1...
VitalSignObservation/Value	VitalSignObservation	CCDA	Consol Vital Sign Observation SHALL contain exactly one [1..1] value with data type PQ (CONF:7305)
VitalSignObservation/TextReference	VitalSignObservation	CCDA	Consol Vital Sign Observation text, if present, SHOULD contain zero or one [0..1] reference (CONF:15...

1.6 CDA Edition

CDAGenerator offers the possibility to edit and to create basic CDA documents. To do so, you have to go to menu -> CDA Generation -> CDA-Edition



CDA ClinicalDocument Edition

CDA ClinicalDocument Edition	
Generate Empty File	OR Upload

You can Generate an empty file, or you can uplaod a CDA file :

CDA ClinicalDocument Edition

CDA ClinicalDocument Edition

Generate Empty File

 OR

Upload

CDA ClinicalDocument Content

Edit

Download

Validate

Save

```
<ClinicalDocument xmlns="urn:hl7-org:v3" moodCode="EVN" classCode="DOCCLIN">
  <realmCode code="LU"/>
  <typeId root="2.16.840.1.113883.1.3" extension="POCD_HD000040"/>
  <templateId root="1.3.182.1.1.1"/>
  <id root="1.3.182.4.1.2" extension="40781067"/>
  <code displayName="Laboratory Report.Total" codeSystemName="LOINC" codeSystem="2.16.840.1.113883.6.1" code="11502-2"/>
  <title>Compte rendu laboratoire</title>
  <effectiveTime value="20100101091005+0100"/>
  <confidentialityCode displayName="Normal" codeSystemName="HL7:Confidentiality" codeSystem="2.16.840.1.113883.5.25" code="N"/>
  <languageCode code="fr-LU"/>
  <setId root="1.3.182.4.1.2.87654321" extension="40781067"/>
  <versionNumber value="1"/>
  <recordTarget>
    <patientRole>
      <id root="1.3.182.3.1.1.1231231" extension="1234"/>
      <id root="1.3.182.4.3" extension="196902204507"/>
      <addr>
        <streetAddressLine>1 rue Montsorel</streetAddressLine>
        <postalCode>L-1481</postalCode>
        <city>Luxembourg</city>
        <country>LUX</country>
      </addr>
    </patientRole>
  </recordTarget>
</ClinicalDocument>
```

To use the module of edition, you have to click on the button edit.

A new page will be opened containing the possibility to edit element by element each sub element of the root ClinicalDocument.

POCDMT000040ClinicalDocument Editor

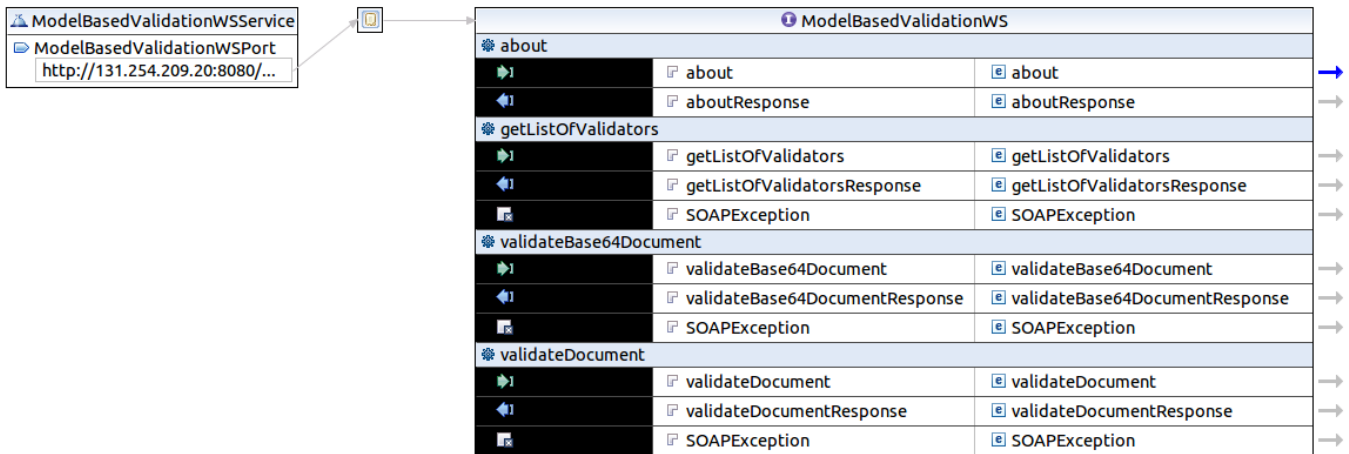
Edit POCDMT000040ClinicalDocument Content					
Name	Type	Card.	Content	Action	
realmCode Element : realmCode	CS	0..*			
typeId Element : typeId	POCDMT000040InfrastructureRootTypeid	1.1	<POCD_MT000040.InfrastructureRoot.typeid xmlns="urn:hl7-org:v3">		
templateId Element : templateId	II	0..*			
id Element : id	II	1.1	<II xmlns="urn:hl7-org:v3">		
code Element : code	CE	1.1	<CE xmlns="urn:hl7-org:v3">		
title Element : title	ST	0..1			
effectiveTime Element : effectiveTime	TS	1.1	<TS xmlns="urn:hl7-org:v3">		
confidentialityCode Element : confidentialityCode	CE	1.1	<CE xmlns="urn:hl7-org:v3">		
languageCode Element : languageCode	CS	0..1			
setId Element : setId	II	0..1			
versionNumber Element : versionNumber	INT	0..1			
copyTime Element : copyTime	TS	0..1			
recordTarget Element : recordTarget	POCDMT000040RecordTarget	1..*	<POCD_MT000040.RecordTarget xmlns="urn:hl7-org:v3"> <patientRole> <id> <patientRole> <POCD_MT000040.RecordTarget>		
author Element : author	POCDMT000040Author	1..*	<POCD_MT000040.Author xmlns="urn:hl7-org:v3"> <name> <assignedAuthor> <id> <assignedAuthor> <POCD_MT000040.Author>		

The same page allows to download the modified CDA document, or to validate it, or to save it.

The editor of CDA document is generated also from the model of description of the structure of CDA document.

1.7 CDA Web service

CDAGenerator include a web service of validation, that could be used as a standalone without using EVSClient, to validate a CDA document



1.8 Disclaimer

The CDA Generator Application is an experimental system.

IHE-Europe assumes no responsibility whatsoever for its use by other parties, and makes no guarantees, expressed or implied, about its quality, reliability, or any other characteristic.

We would appreciate acknowledgement if the software is used.