# ISO/IEC JTC 1/SC 24 Working Group 8

# Templates for the SEDRIS DRM Preliminary Working Draft

Editors' Meeting Seoul, Republic of Korea 21 – 23 March 2007

This report relates to the Editors' meeting for the Templates for the SEDRIS DRM project that took place at the Seoul Palace Hotel, Seoul, Republic of Korea on 21 - 23 March 2007.

The following persons were present throughout the meeting:

Kwon Youngsoo Editor, CODIC

Lee Hyung Min CODIC
Jin Jung-Yul CODIC

Dick Puk Editor, Intelligraphics

Jack Cogman WG 8 Convener

The following persons were welcomed for parts of the meeting;

Prof. Kimn Ha-Jine SC 24 Chairman

Yun Koo Chung WG 7 Convener

Prof. Lee WG 6
Miss Cho WG 6

Contact details of the main attendees are given in <u>Attachment 1</u>.

# 1. Introduction to the Meeting

This meeting was the first to be held for the "Templates for the SEDRIS DRM" project since it gained approval as a new work item in 2006. For reference, the following identifiers have been assigned to the project;

TR 24788

SC 24 Project number 24.20

A Working Draft (WD) was first produced in January 2007. This has since been revised to comply with the preferred ISO document format. The document has been produced entirely by CODIC personnel, in particular Kwon Youngsoo. Mr. Kwon was complimented on producing a technical document of this complexity in his non-native language.

It was decided that the best way to progress the WD would be to hold an editor's meeting to discuss the content of the document, prior to it being sent out for review by WG 8. The objec-

tive of the meeting was therefore to define a WD document that could be reviewed by WG 8 in time to hold an editing meeting at the SC 24 plenary in Tokyo in July 2007.

#### 2. Agenda

Prior to the meeting, Mr. Kwon had circulated his working copy to selected individuals for their review and comment. Informal comments were submitted and it was agreed that these should be reviewed first. It was then decided that the results of the comments would be best expressed in the form of a revised Table of Contents.

The following agenda was adopted;

- Welcome and Introductions
- Adoption of Agenda
- Review of Comments
- Revision to the Table of Contents
- Analysis of Issues
- Summary of Proposed Changes
- Actions
- Future Meetings and Means of Communication

This meeting report is structured with respect to the agenda items listed above, excluding the first two.

#### 3. Review of Comments

The following document was reviewed by the meeting;

TemplateForThe SEDRIS DRMV3.doc

Informal written comments on this document were submitted by Farid Mamaghani and Jack Cogman. Oral comments were provided by Dick Puk.

#### 3.1 Comments from Dick Puk

An ISO/IEC document may be produced using either MS Word or html. Mr. Puk recommended the use of html, as it will be easier to read on a PC and will be consistent with other SEDRIS standards. It will also be easier for Mr. Puk, as editor, to produce the document in html. It was agreed to use html.

The difference between embedded pseudo-code and template pseudo-code was not fully understood and further investigation was requested. The rules and grammar for pseudo-code need to be defined.

Further information was requested about the user interface for the use of templates

#### 3.2 Comments from Farid Mamaghani

The template used for the WD appears to be the ISO template, as opposed to the JTC 1 template. This has resulted in some statements, such as the one relating to patents, that are not considered appropriate to the templates project. It was recommended that the Templates TR uses the same format as that used for the other SEDRIS standards. This was agreed

Based on the considerable experience of Mr. Mamaghani with SEDRIS technology, alternative text was proposed for certain descriptive sections of the WD. It was agreed that these should be utilized, as appropriate.

#### 3.3 Comments from Jack Cogman

Clause 3 (Overview) and clause 4 (General description) were found difficult to follow, since a number of concepts are used without being explained first. For example, required and optional templates and embedded and template pseudo-code. It was recommended there should be a clause that explained the basic concepts used in the document.

Similarly, it would be helpful to include a clause that defined terms and abbreviations.

The information given in Annex A was found to be very helpful in explaining the concepts. It was suggested that this information should be moved forward to the proposed concepts clause.

#### 4. Revision to the Table of Contents

It was decided that the best way to present results of the comment review would be to define a revised table of contents. It was agreed that the document should be generated in html and to use a similar format to other SEDRIS standards. The initial clauses of the document were therefore agreed to be:

- 1. Scope
- 2. References
- 3. Definitions and abbreviations
- 4. Concepts

For the remainder of the document, it was agreed that further information was required on the user interface, pseudo-code, pseudo-code grammar and template definition. These issues were therefore investigated in greater detail.

#### 5. Analysis of Issues

#### 5.1 User interface

CODIC provided a written procedure for use of the templates. This made use of Figure A.4 of the WD, showing the relationship between all available templates. It also makes use of pseudo-code.

#### 5.2 Pseudo-code

It was reported that pseudo-code had been used in the WD because it is not possible to include actual code in an ISO standard. While this is true, it is still possible to define a formal interface specification using an abstract script language. It was recommended that the pseudo-code should be replaced with an abstract script language.

In analysing the differences between embedded pseudo-code and template pseudo-code, it was realised that the template pseudo-code was serving a similar purpose to function calls for an API.

#### 5.3 Template definition

It was confirmed that a user will only use those templates that are defined by the TR, i.e., there will be no provision for a user to generate customised templates, except by registration.

By comparing the definitions to related work on X3D (a WG6 standard), it was realised that there will be a need for abstract templates, as well as concrete templates.

# 6. Summary of Proposed Changes

The proposed changes are summarised by the Table of Contents given in <u>Attachment 2</u>. The sections highlighted in yellow are assigned to Mr. Kwon. The remainder are assigned to Mr. Puk.

The proposed table of contents includes the following changes;

- Pseudo code will be replaced by abstract scripting language
- There will be abstract templates as well as concrete templates
- Abstract scripts will be used only for what was previously called 'embedded pseudo code'
- 'Template pseudo code' will be replaced by function calls for an API
- The TR will be an abstract specification that includes an API

#### 7. Actions

- 7.1 The document reviewed at this meeting (TemplateForThe-SEDRIS DRMV3.doc) will be referred to as the Preliminary Working Draft.
- 7.2 The revision of this document will be called Working Draft 1 (WD1)
- 7.3 The task of generating WD1 is to be shared between Mr. Puk and Mr. Kwon, with Mr. Kwon assigned the sections highlighted in yellow in Attachment 2.
- 7.4 Mr. Puk to send an empty html document to Mr. Kwon as soon as possible, to enable CODIC to start generating their sections.
- 7.5 WD1 to be published for review no later than 2007 June 1. Comments to be submitted by 2007 June 29.
- 7.6 An editing meeting to assess the comments submitted to be held on July 9 and 10, as part of the 2007 SC 24 Tokyo meetings.
- 7.7 The editors will endeavour to produce a Preliminary Draft Technical Report (PDTR) by the end of 2007.

## 8. Future Meetings and Means of Communication

It was agreed that all parties should remain in close contact during the generation of the working draft. The following means of communication will be used;

- E-mail
- CODIC bulletin board
- Skype teleconference, as required.

The next formal meeting will be the Templates Editing meeting to be held during the Tokyo SC 24 meetings, as follows;

9 July 2007 (0900 – 1700)

10 July 2007 (0900 – 1230)

### 9. Thanks to Local Organiser and Sponsor

Those attending the meeting wish to thank the Korean Agency for Technology and Standards (KATS) for organizing the very pleasant meeting facilities at the Seoul Palace Hotel. They would also like to thank Mr. Seong Gon Kim, CEO of CODIC, for hosting a most enjoyable Chinese meal on Wednesday evening.

Jack Cogman Convener ISO/IEC JTC 1/SC 24/WG 8 Environmental Representation

# Attachment 1 List of Attendees Editors Meeting, Templates for the SEDRIS DRM Seoul, Republic of Korea 21 -23 March 2007

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#### Attachment 2

#### **Table of Contents for ISO/IEC TR 24788**

#### 2007-03-23

#### **Foreword**

#### Introduction

# 1 Scope

The scope is limited to 3D geometry representations.

#### 2 References

SEDRIS Part 1 UML ISO C

#### 3 Definitions and abbreviations

# 4 Concepts

#### 4.1 Introduction

#### 4.1.1 Overview

#### 4.1.2 Relationship to SEDRIS DRM

Each template represents a subset of the SEDRIS DRM that solves a specific single problem.

#### 4.1.3 Goals

Simply use of SEDRIS DRM

#### 4.1.4 Conventions used

examples include how italics are used, how template names are formatted, etc.

# 4.2 Functional description

#### 4.2.1 Overview

#### **4.2.1.1 Purpose**

(simplify and expedite the specification of portions of a SEDRIS transmittal.)

#### 4.2.1.2 User interface

(API to access and utilize the templates all of which are defined within this document).

- 4.2.1.3 Specification (how templates are specified)
- 4.2.2 Architecture (relationship of templates to DRM and other stuff) (use current Annex A as input)
  - 4.2.2.1 Template relationships
  - 4.2.2.2 Template instances
  - 4.2.2.3 Transmittal creation
- 4.3 Template definition (material will come from current Clause 4)
  - 4.3.1 Overview (lists five types of content) (put table exemplar here)
  - 4.3.2 Identification section
  - 4.3.3 DRM class usage section
  - 4.3.4 Template relationships section
  - 4.3.5 Abstract script section
  - 4.3.6 Explanation section
- 4.4 Template usage (material will come from current Clause 4 and current Annex A)
  - 4.4.1 Overview (lists types of usage)
  - 4.4.2 Abstract templates
  - 4.4.3 Concrete templates
  - 4.4.4 Generation of template instances
  - 4.4.5 Incorporation in parent templates

# 5 Template definition tables

- 5.1 Overview
- 5.2 List of all abstract templates with hyperlinks to each template definition table
- 5.3 List of all concrete templates with hyperlinks to each template definition table
- 6 Abstract scripting language
  - 6.1 Overview
  - 6.2 Constructs
    - **6.2.1 Overview (lists the common constructs)**
    - 6.2.2 Available data types
      - **6.2.2.1 String**
      - 6.2.2.2 Void
      - **6.2.2.3 Boolean**
      - 6.2.2.4 Enumerated
      - 6.2.2.5 Identifier
      - **6.2.2.6** Number
      - **6.2.2.7 Integer**
      - 6.2.2.8 Float
    - 6.2.3 Available operators
      - 6.2.3.1 Arithmetic
      - 6.2.3.2 Logical (and/or/not/etc.)
      - 6.2.3.3 Relational (>, <, =, etc.)
      - 6.2.3.4 Property of (e.g, "IS")

6.2.3.5 Assignment

6.2.4 Functions

#### 6.2.5 Expressions

(e.g., "template A is composed of template B")

#### 6.2.6 Statements

- **6.2.6.1** Overview
- 6.2.6.2 Block statements
- 6.2.6.3 Function statements (function\_name[param1, param2, ...])
- 6.2.6.4 Control statements
- 6.2.6.5 IF THEN ELSE ENDIF
- **6.2.6.6 WHILE DO**
- **6.2.6.7** Arithmetic statements
- 6.2.7 Exceptions
- 6.3 Embedded script functions (description of each function unique to embedded scripts)
  - 6.3.1 Overview (includes exemplar function table)
  - 6.3.2 Functions
- 7 Template API (description of each function unique to template API)
  - 7.1 Overview
  - 7.2 Template functions
- A Abstract scripting language grammar
- B Template relationship diagram
- C Guidelines for use