

**ISO/IEC JTC 1/SC 24  
Working Group 8  
38<sup>th</sup> WG 8 Plenary Meeting  
Minutes of WG 8 Working Session, WG 8 Plenary  
and Related SC 24 Meetings/Topics**

**On-line Meetings held via ISO Zoom  
18 and 25 July (UTC) 2022**

This document records the following meetings:

- WG 8 Working Session on Monday 18 July 2022
- WG 8 Plenary on Monday 25 July 2022
- Additional Items discussed during the Week

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# 1. References

The following documents are referred to in these minutes:

**WG8 N0666:** Minutes of WG 8 Meetings – online 2021

**WG8 N0669:** WG 8 Convenor's Report

**SC24 N4777**

**WG8 N0668:** SEDRIS Organization Liaison Report to SC 24 and WG 8

**SC24 N4776**

**WG8 N0670:** Convenor's slides for WG 8 Working and Plenary Sessions

**WG8 N0671:** WG 8 Recommendations to SC 24

**SC24 N4793**

**SC24 N4751** – Australia NB Report

**SC24 N4762** – China NB Report

**SC24 N4778** – Japan NB Report

**SC24 N4760** – Korea NB Report

**SC24 N4761** – UK NB Report

**SC24 N4758**– USA NB Report

**SC24 N4808:** 2022 SC 24 Resolutions (CIB)

## 1.1 URLs for Access to Documents

The following links allow access to the appropriate Document Registers.

The WG 8 documents are stored in the SEDRIS WG 8 Document Register, which may be accessed at:

[SEDRIS WG 8 Document Register](#)

WG 8 Documents are also stored on the ISO Document Register, which may be accessed via:

[ISO Document Register for SC 24/WG 8 documents](#)

All SC 24 documents are stored in the ISO Document Platform and may be accessed via:

[ISO Document Register for SC 24 documents](#)

## 2. Online WG 8 Working Session and Presentations

**Monday 18 July 2022**

**21:00 UTC (Coordinated Universal Time)**

Corresponding to:

07:00 – 09:00 Tuesday 19 July: Australia (East Coast)  
06:00 – 08:00 Tuesday 19 July: Japan  
06:00 – 08:00 Tuesday 19 July: Korea  
05:00 – 07:00 Tuesday 19 July: Beijing (China Standard Time)  
23:00 – 01:00 Monday/Tuesday 18/19 July: France  
22:00 – 24:00 Monday 18 July: UK  
17:00 – 19:00 Monday 18 July: USA (East Coast)  
14:00 – 16:00 Monday 18 July: USA (Pacific)

The Revised/Final Agenda is given in [Appendix A](#).

**Chair: Farid Mamaghani**

### Introduction

The attendees are shown in [Appendix D](#).

#### 2.1 Welcome and Introductions

Convenor welcomed everyone to the meeting and asked the attendees to introduce themselves.

The draft agenda that was posted prior to the meeting was reviewed and the Convenor noted addition of one item to the agenda for presentation of on-going work that would be given during the Working Session. The revised Agenda was adopted with no objections.

#### 2.2 ISO Code of conduct at Meetings

The ISO Code of conduct (<https://www.iso.org/publication/PUB100397.html>) was shown and reminded before the start of the meeting presentations and discussions.

#### 2.3 Current and Anticipated Work Plan

Prof. Myeong Won Lee provided a verbal report on the status of the following projects: 18041-5: EDCS language bindings – Part 5: C++; 18042-5: SRM language bindings – Part 5: C++; 18024-5: SEDRIS language bindings – Part 5: C++; and XML-based encoding of STF data.

The EDCS C++ language binding has completed the DIS stage, and an editing meeting was held on 7 July to resolve the comments received from ISO Editors. Myeong showed the document containing the comments and their dispositions, and discussed some of the key points. At least one of the comments (requirement to have a Terms clause) has a ripple effect throughout the rest of the specification, since all clause numbers and references to those sub-clauses will have to be updated. A few comments were related to the HTML nature of the specification. The Editing meeting's conclusion was to proceed with the resolution of the comments and note that some HTML-related comments may require further dialog with ISO Editors, if the resolutions are not agreed upon. One comment, related to not acknowledging SEDRIS Organization's contributions to its own standards! Since 1997/8, all SEDRIS-related standards (within SC 24) are developed in coordination and cooperation with the SEDRIS

Organization, it was decided that the resolution of the comment be accepting (in effect rejecting the comment), and further SC 24-level discussion would be needed if additional issues arise. The completion of the implementation of the resolutions of the comments for 18041-5 is expected in September, at which time new text will be forwarded to Committee Manager to proceed for publication.

The SRM C++ language binding new work item was registered in August 2021, and Myeong reported that development of Committee Draft (CD) is in progress.

Myeong also reported that the development work for the Working Draft (WD) of C++ language binding for SEDRIS (Part 1/DRM) is progressing well, and a new work item will be submitted in the coming months.

For the XML encoding of STF data, Myeong displayed and discussed a report document that shows the recent progress with the XML encoding. The document is large (~17 MB), but was available online. Myeong highlighted a few key areas of the on-going work in the report, including the inclusion of all of the DRM classes.

Farid Mamaghani noted that recently Myeong provided a link to the report document, but since it is a large document, he only has been able to review parts of it. He briefly reported a related experience based on current and recent work on the RIEDP standard, in which the use of XML-encoded EDCS constructs are needed. He then added that for the RIEDP effort they have encountered a few XML schema-related issues to support what RIEDP needed – namely the representation of complex inter-related multi-level relationships, which are not easily possible in XML schemas. He reminded that similar schema issues were encountered originally in mid-2000s, when the SEDRIS Organization created an initial XML rendition of EDCS, which had to be left in partial state because of these XML representation issues. He cautioned that similar capability would be needed for the work to encode SEDRIS content in XML. In addition, he noted that tools to automatically convert data model constructs to XML representations exist, which may make the work Myeong is leading a little simpler/easier.

For the three C++ language bindings, Farid had prepared a slide (slide 6 in **WG8N0670**) that highlighted the current status of the three C++ work items. He showed the slide after Myeong's presentations. He further emphasized a few of the key topics associated with the implementation of the comment resolutions of EDCS C++ language binding. He also added that independent of any comments, one additional update will be needed to the EDCS C++ language binding, which is for the content of Annex A. The content of Annex A needs to be reviewed to ensure it matches the 2014 Edition of the EDCS standard. This is a detailed review between the 2009 Edition and 2014, with numerous entries in Edition 2 of 18025 having been updated to include previously registered entries. If the changes are not possible before the EDCS C++ language binding is provided for publication, then an amendment to the new EDCS C++ standard will be needed.

For the on-going SRM C++ language binding, Farid noted that since the SRM has a relatively more complex API than the simpler EDCS API, the creation of the C++ language binding for the SRM will be equally more complex. He added that several in SEDRIS Organization – including Michele Worley, Warren Macchi, Paul Berner, and Farid – have reviewed earlier drafts of the SRM C++ language binding and have provided feedback and comments to Myeong.

For the SEDRIS C++ language binding, Farid said that his recommendation is that before submitting a new work item (and associated WD) the work should continue until after the SRM C++ language binding is ready for the DIS ballot. This is because the SEDRIS C++ language binding is dependent on the EDCS and SRM C++ language bindings and the scope of work is not simply a matter of trans-iterating from C to C++ and requires full use of object-oriented and C++ concepts and constructs.

**Recommend to SC 24** to support progression of 18041-5 to IS and 18042-5 to CD. Also anticipate and support the NWIP and associated WD for 18024-5: SEDRIS Part 1 language bindings – Part 5: C++.

**Recommend to SC 24** to support a possible new project on “XML encoding of SEDRIS data”.

## **2.4 SRM (18026) Edition 3 (Paul Berner / Kevin Trott / F. Mamaghani)**

Paul Berner and Kevin Trott discussed the background, scope of work, and current status of Edition 3 of the Spatial Reference Model (SRM) that is being developed (see slides 8-10 in **WG8N0670**). They highlighted the technical work areas being done, as well as the size of the standard in terms of: number of inter-connected files (that must be produced in PDF versions to run at least on PDF Readers); number of equations (more than 2200) and figures (more than 114 unique figures); complexities in the mechanics of conversion from .doc to .docx, and from MathType to MS Equation Editor format. They reported that in updating the object reference model and datum values, they have received new information from Japan National Body, which will be incorporated into the standard. There is also interest and on-going dialog with OGC's GeoPose SWG to exchange ideas on topics related to orientation. They noted that once ready (expected in October '22 timeframe), the CD text, along with a new work item proposal, will be submitted to SC 24 for ballot.

Dick Puk noted that there has been recent feedback from ISO Editors on how figures and images were presented in X3D version 4, and there are major changes especially for standards being published in Word. He recommended that SRM Editors consult the 2022 version of ISO Directives that are specific to Word (and not having much effect on HTML publications). He added that he thinks that the equations might be less affected or not at all. Kevin agreed on equations, and everyone agreed to check the latest Directives regarding what is needed for figures. Jean Stride provided the URL latest ISO Guidelines on the submission of DIS drafts.

Peter asked what was involved in switching from MathType to MS Equation Editor. Paul and Farid provided a brief background and the issues encountered in using and upgrading to the MathType. They added that despite the capabilities of the right versions of MathType, the compatibility issues between different versions of Word (that all editors have to use) also forced the move to MS Equation Editor, which with some manual interventions seems to do the job, although perhaps not as much or as easily as the older versions of MathType did.

Farid added that in the SRM, there is a convention for when an acronym of a term (such as object reference model) is introduced (after the first time it is fully and formally defined), and that earlier today he and Dick were discussing this convention. The idea being that if the reader knows the acronym exists and yet does not see it with (or in place of) early uses of the full term (when the term has not yet been fully and formally define), and also does not find a link from each use of the acronym (occurring in subsequent clauses) to the earlier clause that contains its formal and full definition, does there need to be any specific mention of this convention.

**Recommend to SC 24** to support a New Work Item being raised to allow the completion of prior work on 18026 (SRM) Edition 3.

## **2.5 Registry-related topics, including EDCS, SRM, and DRM Registries (Farid Mamaghani)**

For the registry-related topics, Farid showed slide 12 in **WG8N0670** and discussed the status.

For the SRM registry, Farid noted that the Edition 3 specification will likely require its registry to also be revised, to either update existing parameters that have changed in recent years (and will be reflected in the Edition 3 specification) or adding new entries and their respective

content to Edition 3 of the SRM. This will be done as the specification text for Edition 3 is near completion, and visible work on the SRM registry will not begin till at least mid-2023.

The DRM registry is not anticipated to have any changes. The EDCS registry does require changes to match the Edition of EDCS. Those changes, however, may require minor software updates to the registry site, all of which may be done during the SRM-related changes to the registry. However, changes to EDCS content are beyond the software updates to the registry, and require synchronization and transfer of content between the registry, implementation, and their underlying databases. This is a known and open action item, it is also conceptually straight forward, but the mechanics of comparisons, updates, corrections, and installation on the registry are more complex and not easily addressable. Therefore, it will be kept as an open action item, until it can be completed.

Farid also reported that based on the results of the informal meeting in April 2021 between members of TC 211/WG 1 and members of SC 24, there is still some interest in reviewing and discussing the approach to registration and the respective registry standards of the two committees. Farid briefly touched on the background of the two registration standards (ISO 19135-1:2015 and ISO/IEC 9973:2013) and elaborated on what the interest was and what was discussed more than a year ago. He noted that he recently checked and the work on new Edition of 19135-1 has already begun. He also added that during a recent contact with one of the TC 211 members, the possibility of follow up to the April '21 meeting was brought up, although it may not be as urgent for TC 211 as it may have been before. He recommended that WG 8 and SC 24 support possible future discussions/dialogs and exploration of mutual work between the two committees. He added that he will contact TC 211 members involved with 19135-1 and will report back on any further interest in possible mutual work.

**Recommend to SC 24** to support possible future joint work between ISO/TC 211 and SC 24 experts to review the similarities and differences between the respective Registration Procedures standards of the two committees: ISO 19135-1 and ISO/IEC 9973.

## **2.6 Publication of SEDRIS standards (F. Mamaghani)**

Farid reported that the nearly 25 year long-standing, since just before the inception of WG 8, cooperative agreement to publish SEDRIS Organization-originated standards as both SEDRIS and ISO/IEC SC 24 standards, as well as making them available through the Publicly Available standard portal, seems to have been forgotten by some in ISO! The request since publication of Edition 3 of 18041-4 to also make it available as a Publicly Available standard, along with the recent issue associated with the to-be-soon-published 18041-4, are being questioned. There has been considerable recent search and research of various SC 24 and personal archives of members to locate the original signed agreements. These agreements (with not just SEDRIS Organization, but also with W3C, NATO organizations, and Web3D Consortium) were paper only and never transferred to digital form, making them much harder to locate. Therefore, a new type of resolution needs to be produced that reaffirms the existence and precedence set by these agreements for more than twenty-four years, since the annually recorded SC 24 resolutions agreeing to continue the cooperative agreements do not seem to count!

Jean confirmed that considerable search for the signed agreement has been done. She added that it is important to get ISO to agree that the agreements are still in place and work has continued under them, and during the SC 24 Plenary to raise some type of resolution to JTC 1 about these historical cooperative agreements and forward that and supporting material to JTC 1.

## **2.7 Current Status of Action items**

The status of those action Items still open at the end of the 37<sup>th</sup> WG 8 plenary is as follows:

### **2.7.1. Action Items still open at end of 35<sup>th</sup> WG 8 Plenary in 2019**

#### **Action 33-01**

##### Requirement:

Update the front page of the SC 24 Registry to enable additional classes to have links to their contents.

##### Current Status:

To implement the change, access to the SC 24 Registry site content is needed. As the SC 24 Committee Manager had such access rights on a previous occasion, this item will be followed up to see whether this is still the case.

##### **Continuing**

Farid reported that he has done some work on addressing action item 33-01, but it is not ready. Therefore, he asked that its status remain as continuing, with expectation that in near future an updated front page of the SC 24 Registry will be demonstrated for feedback, and based on any feedback the new version will be submitted to replace the existing version.

#### **Action 35-01**

##### Requirement:

Complete the updates to the EDCS Registry, such that the download function for contents of the Registry may be re-enabled.

##### Current Status:

The completion of this task is partial and will require additional software changes to the EDCS database processing, for which there is limited expert time. Therefore, it may have to be delayed.

##### **Continuing**

As discussed during the registry-related topic, the changes to the content of EDCS Registry require significant work. Although the content will essential remain the same, simply moving the state of registered items to standardized items, the actual work involved in updating the underlying database that depends on significant changes to software end up being not so simple, requiring significant work that is not currently feasible. At the same time, the download function, once the content is up to date, will need to be functional, which is a different part of the same overall software infrastructure. Therefore, this action item will need to remain continuing, until the software can be fully updated and content revised.

### **2.7.2. Action Items raised during this Meeting**

No new actions were raised at the meeting.

The updated 2022 Action List is shown in [Appendix F](#).

## **2.8 Review of the planned WG 8 Work Programme**

18041-5 EDCS LB to C++ is in post-DIS stage with release for IS publication expected in January 2023.

18042-5 SRM LB to C++ is in CD development stage, with a CD expected in November 2021.

New work items for 18024-5 SEDRIS LB to C++, 18026 Edition 3, and other projects are anticipated, but have not commenced. The updated work schedule is shown in [Appendix E](#) and includes anticipated future work programmes.

## **2.9 Draft WG 8 Recommendations to be forwarded to the WG 8 Plenary**

It was agreed that in the interest of time and based on recommended topics during the meeting, the Recommendations to SC 24 will be drafted prior to next week's Plenary and will be reviewed during that WG 8 Plenary meeting. The recommendations will include the progression of existing work items to their respective next stages, retaining the TC 211-related resolution from last year regarding mutual registry work.

Jack Cogman commented that some of the recommendations that were made last year and being carried forward this year, based on Jean's comments (earlier/other meetings), were redundant, or rather not needed. For example, now it seems saying the expected to-be-published date for DIS (or a particular) stage is no longer required. Dick noted that WGs are required to provide recommendations for advancement to the next stage, but now that seems only needed at SC 24 level (not WG level). Jean added that all that is needed is a set of target date for active projects, but recommendations are not needed. Farid asked for confirmation that recommendations to support future submissions of SRM Edition 3 or SEDRIS C++ language bindings are not needed? They can be included in the notes that these projects are anticipated, but that they do not need to be listed as recommendations. Jean confirmed this.

Then, Farid concluded that with recommendations for only active projects moving forward, whether a recommendation to work with TC 211 on registry topics is needed? Jean responded that since TC 211 is a liaison member, and unless anything concrete occurs with regards to registry topics in the next few weeks, the existing liaison relationship can permit any mutual registry-related interactions to continue.

Therefore, the conclusion was no specific recommendations are needed, unless they are outside normal liaison or program of work are needed.

## **2.10 Any Other Business**

- None

The WG 8 Working Session concluded at approximately 23:06 UTC on 18 July.

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### 3. 38<sup>th</sup> WG 8 Plenary

**21:00 UTC, Monday 25 July 2022**

Corresponding to:

- 07:00 – 09:00 Tuesday 26 July: Australia (East Coast)
- 06:00 – 08:00 Tuesday 26 July: Japan
- 06:00 – 08:00 Tuesday 26 July: Korea
- 05:00 – 07:00 Tuesday 26 July: Beijing (China Standard Time)
- 23:00 – 01:00 Monday/Tuesday 25/26 July: France
- 22:00 – 24:00 Monday 25 July: UK
- 17:00 – 19:00 Monday 25 July: USA (East Coast)
- 14:00 – 16:00 Monday 25 July: USA (Pacific)

**Chair: Farid Mamaghani**

The attendees at the meeting are shown in [Appendix D](#). All attendees participated remotely via web conferencing.

The WG 8 Plenary Agenda is given in [Appendix B](#).

#### **3.1 Welcome**

The acting Convenor, Farid Mamaghani, welcomed attendees to the meeting.

#### **3.2 Roll Call and Introductions**

Each person attending the meeting introduced herself/himself.

#### **3.3 ISO Code of Conduct at Meetings**

The ISO Code of conduct (<https://www.iso.org/publication/PUB100397.html>) was shown and reminded before the start of the meeting.

#### **3.4 Adoption of WG 8 Plenary Agenda**

The published agenda for the WG 8 Plenary Session was adopted without change.

#### **3.5 Minutes of the 37<sup>th</sup> WG 8 Plenary meeting in 2021 held online**

The minutes of last year's Working Session and Plenary were reviewed. There were no comments, and the minutes were approved.

#### **3.6 Convenor's Report**

Farid Mamaghani gave a brief summary of the Convenor's Report document, which is given in document **WG8 N0669**. To access this document, go to [References](#).

#### **3.7 Summary of key topics from the WG 8 Working Session**

Farid provided a summary of the following topics discussed during the Working Session on 18 July:

- **Status of Current Projects** (See 2.3 and associated Convenor's slide)
  - EDCS C++ language binding completing the DIS stage and being prepared for publication
  - SRM C++ language binding in progress and will be available as CD later in '22
  - WD text for C++ language binding for SEDRIS Part 1 (DRM/STF) 18024-5 in work - an NWIP along with WD will be submitted in coming months; but recommended to wait for SRM C++ to get to DIS stage

- SEDRIS / STF XML encoding – significant work done on XML schema for DRM classes and data type; Interim report shown and discussed; WG 8 members to review
- **SRM (18026) Edition 3** (See 2.4 and associated Convenor’s slides)
  - NWIP and CD text anticipated in October/November '22
- **Registry-related topics, including EDCS, SRM, and DRM Registries** (See 2.5 and associated Convenor’s slide)
  - No issues for DRM registry
  - SRM registry will be updated in 2023, after DIS ballot of SRM Edition 3
  - No change on EDCS Registry status
  - Possible follow on to 2021 informal Registers discussions with some TC 211 members
- **Publication of SEDRIS standards** (See 2.6 and relevant content in WG8 N0668)
  - Significant issues with dismissal of nearly 25 years of cooperative agreements, which also applies to Web 3D Consortium and others before SEDRIS Org.
- **No new Action Items, and no changes to current open items**
- **Recommendations to SC 24** to be reviewed later in the session (See 2.9)

### 3.8 National Body Reports

National body reports have been issued as the following documents:

**SC24 N4751** – Australia

**SC24 N4762** – China

**SC24 N4778** – Japan

**SC24 N4760** – Korea

Prof. Myeong Won Lee emphasized the mention of work related to 18023 in Korean report.

**SC24 N4761** – UK

**SC24 N4758**– USA

For access to these documents, go to [References](#)

### 3.9 Liaison Reports

#### 3.9.1. SEDRIS

The SEDRIS Organization Liaison Report (**WG8 N0668 and SC24 N4776**) describes activities over the last 12 months. Farid reported that the SEDRIS Organization is a major contributor to the work of WG 8, but also contributes to the works of WG 9 and WG 10, and monitors the work of WG 6, WG 7, and WG 11. In addition, SEDRIS Organization has actively supported a range of SC 24 initiatives and activities, as well as supporting SC 24 JWG 12 and JTC 1/AG 18. Farid noted the liaison report’s emphasis on the attention that is needed from the committee in the development of quality standards. SEDRIS Organization also continues active work in SISO RIEDP Products, SISO EDRS (Environmental Data Representation Standards) Product Support Group, and works in close cooperation with the US National Geospatial-Intelligence Agency (NGA).

To access the above document, go to [References](#)

### **3.9.2. SISO**

There was no liaison report from the Simulation Interoperability Standards Organization (SISO).

### **3.9.3. Other**

There were no other Liaison Reports.

## **3.10 Editors Reports**

Editors' reports on 18041-5 and 18042-5 were provided during the Working Session (see 2.3). SRM (18026) editors' report (on their current work on Edition 3 of the SRM) was provided during the Working Session (see 2.4).

## **3.11 Report from the Registry Rapporteurs**

### **3.11.1. SC 24 Register – General**

Work to update the SC 24's Register site is in-progress, with expected demonstration of revised version in near future showing an updated version and entry points for SEDRIS part 1 and SRM registries connected from the main SC 24 Registry site.

### **3.11.2. EDCS Registry**

No changes to status of EDCS Registry. Roughly three hundred new items could not be resolved during the publishing of Edition 2 of the EDCS standard, a decision needs to be made to either eliminate the items or resolve them with the submitters, based on Edition 2 of the EDCS standard.

A problem with the content Download capability of the EDCS Registry as Access or Excel files has not yet been resolved.

In 2020, Louis Hembree noted that there have been changes to the use of some units for physical measures and that the registry and the standard need to be reviewed to ensure consistency.

### **3.11.3. SRM Registry**

No items have been submitted. An update to SRM registry content is anticipated in late 2023 based on the results from successful ballot of SRM Edition 3 DIS.

### **3.11.4. SEDRIS DRM Registry**

No items have been submitted.

## **3.12 Appointment of Registry Rapporteurs**

The existing Registry Rapporteurs were re-appointed during the discussion of Recommendations to SC 24, with no objections, as shown below:

EDCS: Farid Mamaghani

SRM: Paul Berner

DRM: Farid Mamaghani

The term rapporteur is being questioned by some in ISO, and whether it should continue to be used, since it seems it is no longer an acknowledged term.

### **3.13 Work Schedule**

The table in [Appendix E](#) shows the current status of WG 8 standards, plus anticipated future work.

### **3.14 Recommendations to SC 24**

WG 8 members reviewed the draft Recommendations file, which was assembled based on the results of the WG 8 Working Session decisions (see 2.9). WG 8 Convenor displayed the draft recommendations and members discussed them. During the review, attendees provided comments and suggested corrections and/or changes.

Some draft recommendations were dropped, since they are considered unnecessary. Some recommendations were debated that should be retained, with proponents included Myeong and Dick. The argument for removal was that either they were obvious and not needed or that they were leading/prompting the national bodies to support. It was noted that some national bodies expect to see their planned and presented work areas in the recommendations. This allows them to take feedback from the WGs (of SC 24) back to their national body reviewers and sponsors. Rob Cox commented that recommendations are valuable to have for multiple reasons. Jean agreed WGs can have recommendations documented within the WG, but whether they will be included in the SC 24 Resolutions will remain to be determined.

A few liaison officer assignments were changed, since individuals, such as Mr. Craig Rollins, have either retired or are no longer able to sever as liaison officers. The Liaisons list was updated accordingly. There were no new volunteers to liaise with SISO.

The recommendations file, containing 17 recommendations and 5 notes of appreciation, was updated to produce the 2022 WG 8 Recommendations to SC 24, as given by **Document WG8 N0671 (SC 24 N4793)**. This document may be accessed via the links given in [References](#).

### **3.15 Action Items**

#### **3.15.1. Existing Open Items**

The status of the existing Action Items was updated in Section 2.7 of the Working Session, as follows:

33-01: Continuing

35-01: Continuing

#### **3.15.2. New Items**

No new action items were raised at either the Working Session or Plenary meetings.

The updated action list is shown in [Appendix F](#).

### **3.16 Adjourn**

The WG 8 Plenary concluded at approximately 23:45 UTC on 25 July.

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## 4. Other Related SC 24 Meetings

In addition to the WG 8 meetings, other meetings held during the week highlighted issues considered to be of interest to WG 8. A summary of these is provided in this section.

### 4.1 Multiple SC 24 Plenary sessions

For the first time, and in place of HoD/C meetings, in 2022 three SC 24 Plenary meetings were conducted during the duration of SC 24 meetings. The first Plenary session was held at the start of the SC 24 meetings (11 July), and the last two Plenary sessions replacing the final (usually long) Plenary session with two shorter sessions.

The resolutions made at the SC 24 Plenary did not include all of the WG 8 Recommendations. In addition, despite a long resolution preparation session and two SC 24 Plenaries discussing the resolutions, the SC 24 Resolutions could not be approved during the 4 August SC 24 Plenary session, and were instead recorded as **SC 24 N4808** and circulated for ballot (CIB).

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## Appendix A

### WG 8 Environmental Data Representation On-line WG 8 Working Session 2022

#### Agenda

#### 21:00 UTC (Coordinated Universal Time) Monday 18 July 2022

Corresponding to:

- 07:00 – 09:00 Tuesday 19 July: Australia (East Coast)
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- 06:00 – 08:00 Tuesday 19 July: Korea
- 05:00 – 07:00 Tuesday 19 July: Beijing (China Standard Time)
- 23:00 – 01:00 Monday/Tuesday 18/19 July: France
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- 17:00 – 19:00 Monday 18 July: USA (East Coast)
- 14:00 – 16:00 Monday 18 July: USA (Pacific)

#### Chair: Farid Mamaghani

1. Welcome and Introductions
2. ISO Code of Conduct at Meetings
3. Adoption of Agenda
4. Current and Anticipated Work Plan:
  - 18041-5 EDCS LB to C++ (Myeong Won Lee / Richard Puk)
  - 18042-5 SRM LB to C++ (Myeong Won Lee / Richard Puk)
  - 18024-5 SEDRIS Part 1 LB to C++ (Myeong Won Lee)
  - STF XML encoding (Myeong Won Lee)
5. SRM (18026) Edition 3 (Paul Berner / K. Trott / F. Mamaghani)
6. Registry-related topics, including EDCS, SRM, and DRM Registries
7. Publication of SEDRIS standards
8. Current status of Action Items
9. Review of the WG 8 work programme
10. Status of Systematic Reviews of Standards
11. Draft recommendations to be forwarded to the WG 8 Plenary meeting

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## Appendix B

### WG 8 Environmental Data Representation On-line 38<sup>th</sup> WG 8 Plenary Meeting 2022 Agenda

#### 21:00 UTC, Monday 25 July 2022

Corresponding to:

- 07:00 – 09:00 Tuesday 26 July: Australia (East Coast)
- 06:00 – 08:00 Tuesday 26 July: Japan
- 06:00 – 08:00 Tuesday 26 July: Korea
- 05:00 – 07:00 Tuesday 26 July: Beijing (China Standard Time)
- 23:00 – 01:00 Monday/Tuesday 25/26 July: France
- 22:00 – 24:00 Monday 25 July: UK
- 17:00 – 19:00 Monday 25 July: USA (East Coast)
- 14:00 – 16:00 Monday 25 July: USA (Pacific)

#### Chair: Farid Mamaghani

1. Welcome and introductions
2. ISO Code of Conduct at Meetings
3. Approval of the minutes of the 37th meeting held online 2021
4. Convenor's report
5. Summary of key topics from the Working Session
6. National Body reports
7. Liaison reports
  - SEDRIS Organization
  - SISO
  - Any other liaison reports
8. Editors reports
9. Reports and Appointment of registry rapporteurs
  - EDCS register
  - SRM register
  - SEDRIS/DRM register
  - Recommendation for TC 211 & SC 24 effort on Registry Standards
10. Work Schedule and Status of Systematic Reviews
11. Review and approval of WG 8 Recommendations to SC 24
12. Review action items
13. Adjourn

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## Appendix C – SC 24 Meeting Plan

### Meeting Schedule for the 2022 Online SC 24 and Working Group Meetings

**11/12 July - 4 August 2022 (UTC)**

	Group	Chair	Meeting Duration (hrs)	Chair's Local Time	UTC
Week 1	SC 24 Plenary - Session 1	KR	3	Tue, 12-Jul, 06:00	Mon, 11-Jul, 21:00
	WG 10 Working Session	AUS	2	Tue, 12-Jul, 22:00	Tue, 12-Jul, 12:00
	WG 6 Working Session	US (PT)	2	Tue, 12-Jul, 15:00	Tue, 12-Jul, 22:00
	JWG 12 Working Session	KR	2	wed, 13-Jul, 22:00	wed, 13-Jul, 13:00
	WG 11 Working Session	UK	2	Thu, 14-Jul, 14:00	Thu, 14-Jul, 13:00
Week 2	WG 8 Working Session	US (PT)	2	Mon, 18-Jul, 14:00	Mon, 18-Jul, 21:00
	WG 6 - JWG 16 Joint Session	FR	2	Tue, 19-Jul, 14:00	Tue, 19-Jul, 12:00
	WG 9 Working Session	KR	2	wed, 20-Jul, 06:00	Tue, 19-Jul, 21:00
	WG 11 Plenary	UK	2	wed, 20-Jul, 14:00	wed, 20-Jul, 13:00
	WG 6 Plenary	US (PT)	2	wed, 20-Jul, 15:00	wed, 20-Jul, 22:00
	WG 10 Plenary	AUS	2	Thu, 21-Jul, 22:00	Thu, 21-Jul, 12:00
Week 3	WG 8 Plenary	US (PT)	2	Mon, 25-Jul, 14:00	Mon, 25-Jul, 21:00
	WG 7 Working meeting	US (ET)	2	Tue, 26-Jul, 08:00	Tue, 26-Jul, 12:00
	WG 9 Plenary	KR	2	wed, 27-Jul, 06:00	Tue, 26-Jul, 21:00
	WG 7 Plenary	US (ET)	2	wed, 27-Jul, 08:00	wed, 27-Jul, 12:00
	JWG 12 Plenary	KR	2	Thu, 28-Jul, 06:00	wed, 27-Jul, 21:00
Week 4	Drafting Committee	US (PT)	3.5	Mon, 01-Aug, 05:00	Mon, 01-Aug, 12:00
	SC 24 Plenary - Session 2	KR	2	wed, 03-Aug, 06:00	Tue, 02-Aug, 21:00
	SC 24 Plenary - Session 3	KR	2	Thu, 04-Aug, 21:00	Thu, 04-Aug, 12:00

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## Appendix D

### List of Attendees

#### 2022 SC 24/ WG 8 Online Meetings

	Affiliation	E-mail	Registered online	WG 8 Working Session	WG 8 Plenary
				All attendance was remotely via Zoom	
<b>SC 24 Officers</b>					
Myeong Won Lee	SC 24 Chair, Suwon University	myongwonlee@gmail.com	x	x	x
Jean Stride	SC 24 Committee Manager, BSI	jean.stride@bsigroup.com		x	x
<b>Australia</b>					
Peter Ryan	DSTO, Australia	peterryan2005@hotmail.com	x	x	x
Doug Stapleton	Highlands Information Security, AU	doug.stapleton@hinforec.com.au		x	x
<b>China</b>					
Xiaojun Gu	SAC China	guxiaojun1@huawei.com	x		
Yidan Geng	SAC China	gengyd@cesi.cn	x		
<b>Korea</b>					
<b>Japan</b>					
Takeshi Kurata	AIST, Japan	t.kurata@aist.go.jp			x
<b>UK</b>					
Jack Cogman	Datasim, UK	jack.cogman@datasim.net	x	x	x
<b>US</b>					
Bill Protzman	DCS Corp.	wprotzman@dcscorp.com	x		
Dick Puk	Intelligraphics, WG 6 Convenor	puk@igraphics.com		x	x
Rob Cox	US DoD PEO STRI	robert.m.cox14.civ@mail.mil			x
Don Brutzman	Web 3D Consortium / NPS	brutzman@nps.edu			x

<b>SEDRIS LO</b>					
Paul Berner	SEDRIS Organization	sedris_pdb@verizon.net		x	x
Kevin Trott	Northrop Grumman, SEDRIS Org.	kevin.trott@ngc.com		x	
Michele Worley	Leidos, SEDRIS Organization	michele_l_worley@yahoo.com		x	
Farid Mamaghani	SEDRIS Organization	farid@sedris.org	x	x	x

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## Appendix E

### WG 8 Work Schedule – Showing only the events that have occurred since 2014

Standard	WD	CD PDAM PDTR	DIS FPDAM	FDIS FDAM DTR	IS/TR
EDCS Amendment 1 initially, then changed to Edition 2 18025	Approved Oct 08	PDAM Aug 11	DIS Sep 12	FDIS Oct 13	Ed 2: 2014 2014-02
EDCS LB to C Ed 3 18041-4	NWIP 14 Jun 13	CD 14 Jun 13	DIS 15 Nov 15		Ed 3: 2016 2016-05-27
SRM Edition 3 18026	Approved Feb 09	CD Aug 11	DIS Oct 12	FDIS Cancelled Q2 2014	(Ed 3) NWIP to be raised
EDCS LB to C++ 18041-5	WD Jun 20	CD May 20	DIS Feb 22	N/A	IS Jan 23
SRM LB to C++ 18042-5	WD Aug 21	CD Nov 22	DIS June 23	FDIS Dec 23	IS April 24
SEDRIS LB to C++ 18024-5	In Preparation				
SRM Edition 3 18026		CD Oct 22			

<b>SRM LB to C Ed. 1 Amendment 2 18042-4</b>	NWIP when SRM Ed 3 published				
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 = Completed

### **Abbreviations**

**NWIP:** New Work Item Proposal

**CD:** Committee Draft

**PDAM:** Preliminary Draft Amendment

**PDTR:** Preliminary Draft Technical Report

**DIS:** Draft International Standard

**FPDAM:** Final Preliminary Draft Amendment

**FDIS:** Final Draft International Standard

**FCD:** Final Committee Draft (No longer used)

**FDAM:** Final Draft Amendment

**DTR:** Draft Technical Report

**IS:** International Standard

**TR:** Technical Report

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**Appendix F**  
**Action Items**  
**ISO/IEC JTC 1/SC 24/WG 8**  
**38<sup>th</sup> WG 8 Plenary**  
**Held online, 18 and 25 July 2022**

**This table shows only those Action Items that were still open at the end of the 38<sup>th</sup> WG 8 Plenary on 2022-07-25. Shaded areas indicate action items that have been closed since then.**

No.	Action Item	Assigned to	Due	Done	Comment
33-01	Update the front page of the SC 24 Registry to enable additional classes to have links to their contents. In particular, the capability is required to: <ul style="list-style-type: none"> <li>• Add registered items for SEDRIS – Part 1</li> <li>• Add registered items for SRM</li> </ul>	F. Mamaghani, J. Stride	April 2021		<p>2018-08-09: Continuing</p> <p>2019-08-29: Continuing</p> <p>2020-08-10: Continuing</p> <p>2020-12-04: On reviewing Action 34-03, it was realized that adding registered items for SEDRIS-Part 1 and SRM are specific examples of this requirement. They have therefore been included as part of this action.</p> <p>2021-07-26: To implement the change, access is required to the SC 24 Registry site content. As the SC 24 Committee Manager had such access rights on a previous occasion, we will follow up.</p> <p>2022-07-25: SC 24 CM has update access to the site. A revision is underway, and a demonstration of a newer version will be made first and feedback sought, upon which the new pages will be updated.</p> <p><b>Continuing</b></p>

No.	Action Item	Assigned to	Due	Done	Comment
35-01	Complete the updates to the EDCS Registry, such that the download function for contents of the Registry may be re-enabled.	F. Mamaghani, J. Cogman	August 2020		<p>2019-08-28: Raised at the 2019 WG 8 Working Session Continuing 2020-08-10: Continuing 2021-07-26: Continuing</p> <p>2022-07-25: The completion of this task is partial and requires additional software changes to the EDCS database processing, for which there is limited expert time. Therefore, it may have to be delayed. <b>Continuing</b></p>

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