

SC 24/WG 8 Convenor's Report
for the
WG 8 and SC 24 Plenary Meetings
Sydney Australia
10 – 14 July 2023

The progress of SC 24/WG 8 activities during 2022-23 is highlighted in this report.

WG 8 is responsible for standards relating to the representation and interchange of environmental data. The WG 8 standards published and/or in development are listed in the following table.

Standard	Current Status
ISO/IEC 9973 Procedures for registration of items	Ed. 3 published July 2013.
ISO/IEC 18023-1: SEDRIS Functional Specification (DRM and API)	Ed. 1 Amd.1. Published June 2012.
ISO/IEC 18023-2: SEDRIS Abstract Transmittal Format	Ed. 1. Published July 2006.
ISO/IEC 18023-3: SEDRIS Transmittal Format Binary Encoding	Ed. 1 Amd.1. Published June 2012.
ISO/IEC 18024-4: SEDRIS Language Binding to C	Ed. 1 Amd.1. Published June 2012.
ISO/IEC 18024-4: SEDRIS Language Binding to C++	In development; requires review.
ISO/IEC 18025: Environmental Data Coding Specification (EDCS)	Ed. 2. Published February 2014.
ISO/IEC 18041-4: EDCS Language Binding to C	Ed. 3. Published May 2016.
ISO/IEC 18041-5: EDCS Language Binding to C++	Ed. 1. At proof review (pre-IS) stage.
ISO/IEC 18026: Spatial Reference Model (SRM)	Ed. 2. Published July 2009.
ISO/IEC 18026: Spatial Reference Model (SRM)	Ed. 3. At Committee Draft stage.
ISO/IEC 18042-4: SRM Language Binding to C	Ed. 1 Amd.1. Published June 2011.
ISO/IEC 18042-5: SRM Language Binding to C++	In development, entering DIS stage.

Korean National Body, in coordination with SEDRIS Organization, has continued and/or initiated work on the following projects:

- 18041-5: EDCS language bindings to C++
- 18042-5: SRM language bindings to C++
- 18024-5: SEDRIS language bindings to C++

ISO/IEC 18041-5 EDCS language bindings – Part 5 C++ completed the Draft International Standard (DIS) stage, with comments received (in May 2022) from ISO/CS Editors. Editors of 18041-5 reviewed and addressed the DIS comments (in July 2022), and submitted the revised package for final review. A few errors (e.g., in

titles and dates) and a few corrections (in Terms) were noted during December 2022 and March – May 2023. Both the disposition of comments document and the text of the standard were updated to include corrections for these errors. The document is now in pre-publication stage and the editors are reviewing the proof copy. The standard should be published after the final review. It is known that a revision or amendment to this standard will be needed in order to conform to all the dictionary entries in Edition 2 (2014) of the EDCS standard (instead of Edition 1).

The Committee Draft (CD) of ISO/IEC 18042-5 SRM language bindings – Part 5 C++ was circulated and received no comments. Therefore, the document is entering the DIS stage.

In March 2023, ISO/IEC 18024-5 SEDRIS language bindings – Part 5 C++ was registered as a new work item, along with a Working Draft. Despite sufficient positive votes to add this to the work program, there were not sufficient participating national bodies and therefore the full approval criteria was not met. This topic will be discussed during the WG 8 meetings.

It is noted that the development and review of the C++ language binding (18024-5) for the SEDRIS API (18023) is an important but non-trivial activity, and also depends on the C++ language bindings for the EDCS and SRM standards.

Additional possible new projects have been discussed during the last few years, and technical work by Korean National Body has progressed on these. These include:

- An XML encoding of SEDRIS transmittals
- STF to X3D Conversion

Development of these items can be complex and non-trivial tasks, and therefore further technical discussions may be needed before submitting them as new projects.

In May 2023, SEDRIS Organization submitted a new work item proposal, along with CD text, for Edition 3 of ISO/IEC 18026 Spatial Reference Model (SRM). The document has been circulated for CD Consultation, with a comment closing date of 19 July.

WG 8 also remains involved with other developments that leverage either the use of SEDRIS standards or the use of SC 24 Registration Procedures (ISO/IEC 9973). WG 8 members remain involved in the Reuse and Interoperation of Environmental Data and Processes (RIEDP), which is a SISO initiative that started in 2010 and provides two products that leverage the SEDRIS standards. The first, the RIEDP Data Model Foundations, is a SISO Guidance product formally published by SISO in 2018. The second, the RIEDP Detailed Features Description, is a SISO Standard product that is nearing its development completion. Both Products use and reference the SEDRIS standards – in particular the DRM (18023-1), the SRM (18026), and the EDCS (18025) standards. Internal to SC 24, SEDRIS standards are also being utilized in the on-going work of other SC 24 Working Groups, including being referenced in recent documents of WG 10 and JWG 12.

There has been recent contact with ISO TC 211 members regarding revision of ISO 19135-1 – Procedures for Item Registration. ISO 19135-1 specifies procedures for establishing, maintaining, and publishing registers of unique, unambiguous, and permanent identifiers and meanings that are assigned to items of geographic information. Despite some delays, the work on revising 19135 has been progressing, and the document was circulated for CD consultation, a copy of which was recently provided to WG 8 Convenor for informal feedback. SC 24's ISO/IEC 9973 references an earlier (2005) Edition of ISO 19135. In early 2021, TC 211 members had expressed interest in exploring the relations between ISO 19135 and ISO/IEC 9973 (for example, creating a mapping between the two, or possibly a single more general standard that the two committees could then implement, as long as any new version

does not break any existing implementations). However, that initial discussion is no longer a driver for the progression of ISO 19135. Other SC 24 and/or WG 8 members may be interested to review the recent revisions to ISO 19135.

Since at least sometime in April/May 2023, the entry web page for the ISO/IEC SC 24 Register of Items portal has become non-functional. This is of great concern, since users of the SC 24 registries can no longer access the content. The reason for the disconnected web page is not known, and the SC 24 Committee Manager is inquiring why the web page has stopped serving its content. It is possible that the disconnect may be related to questions about SC 24 standards that require registration, or the associated need for the Registration Authority, which since 2009/2010 and in accordance with SC 24 resolutions has been fulfilled by the SC 24 secretariat function.

The status of new and on-going C++ language binding projects, the Edition 3 of the SRM, and potential new work items will be discussed during the WG 8 sessions (11-13 July). In addition, and as related to WG 8 areas of interest, during other SC 24 sessions discussions will take place with regard to the following: the Registration Authority and the SC 24 standards that specify their content shall be extended through registration; the disconnected SC 24 Register of Items web page (and its subordinate pages); considerations related to long-standing co-operative agreements between SC 24 and its liaison organizations (e.g., SEDRIS Organization, Web3D Consortium); and renewal of assignment of individuals as liaisons from SC 24 (some related to WG 8) to other organization, as well as review of existing formal liaison relations from outside organizations to SC 24.

Since many of the WG 8 activities/topics have been coordinated via email, there has not been a need to conduct WG 8 meetings since the July-August 2022 online meetings. Work and coordination has continued, however, either via e-mail or via other SC 24 online meetings (such as CAG meetings).

Respectfully submitted,

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ISO/IEC JTC 1/SC 24/WG 8: Environmental Data Representation
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