## ISO/IEC JTC 1/SC 24 N 4793 ISO/IEC JTC 1/SC 24/WG 8 N 0671

26-July-2022

# Recommendations of ISO/IEC JTC 1 / SC 24/WG 8 to

SC 24 Online Plenary Meeting, 4 August 2022

Resulting from the WG 8 Online Working Session & Plenary Meetings on 18 and 25 July 2022

## **PART 1: Progression of Work**

### 1. Programme of Work

WG 8 Recommendation 001/2022: Approval of Current Programme of Work

ISO/IEC JTC1/SC 24/WG 8 requests that SC 24 approve the programme of work and document editors as described in the table below:

Short Title	Reference	WG	Editor	CD/CDAM/P DTR	DIS (FCD)/ FCDAM	FDIS/FDAM/DTR	IS/ AMD/ TR
EDCS LB to C++	ISO/IEC 18041-5: 202x	8	Lee, Puk	06/21	2/22	-	1/23
SRM LB to C++	ISO/IEC 18042-5: 202x	8	Lee, Puk	11/22	06/23	12/23	4/24

The dates shown indicate the start of the ballot for the appropriate document and for IS/AMD/TR, the anticipated date.

## 2. Authorization of Progression to IS

WG 8 Recommendation 002/2022: Progression of Work Item(s) to IS

ISO/IEC/JTC 1/SC 24/WG 8 requests SC 24 to authorize the following documents for progression to IS upon completion of the text, without further technical changes:

### **Document Title**

ISO/IEC 18041-5: EDCS language bindings - Part 5 C++

### 3. Proposed New Work Items for ISO/IEC 18024

### WG 8 Recommendation 003/2022: New Work Items for Language Bindings and Encodings

ISO/IEC JTC 1/SC 24/WG 8 requests SC 24 members to support New Work Items currently being prepared, along with WD or CD text, for the following standards:

#### **Document Title**

ISO/IEC 18024-5: SEDRIS Part 1 language bindings - Part 5 C++

ISO/IEC 18023-4: Transmittal format XML encoding

## 4. Proposed New Work Item for ISO/IEC 18026 (SRM)

### WG 8 Recommendation 004/2022: New Work Item for Edition 3 of SRM

Following support from potential users, ISO/IEC JTC 1/SC 24/WG 8 requests SC 24 members to support a New Work Item being raised, with text to be registered at CD stage, for 18026 Ed. 3 project to include enhancements, such as:

- Comprehensive and improved treatment of geodesics.
- Similarity transformation templates additional and uniform set of methods to perform datum transformations.
- Revision of informative Annex I.6 to cover all cases of error metrics.
- Improvement of the accuracy domains in the Default profile (Clause 12).
- Comprehensive treatment of rotation and orientation concepts to include rotation of vectors and orientations of objects and coordinate reference frames, and development of the corresponding API functions.

### **Document Title**

ISO/IEC 18026 Ed. 3 Spatial Reference Model (SRM)

## 5. Support for Enhancements to Existing WG 8 Work

## WG 8 Recommendation 005/2022: Enhancement to existing items resulting from on-going work items

ISO/IEC JTC 1/SC 24/WG 8 requests that SC 24 members support the following future proposals for new work within WG8:

### Whereas:

Completed work on ISO/IEC 18025 (EDCS) and the planned revision of ISO/IEC 18026 (SRM) require modifications to other SEDRIS standards, including the respective language bindings;

### Therefore:

ISO/IEC JTC 1/SC 24/WG 8 requests that SC 24 members support New Work Items, along with CD text, to incorporate the necessary enhancements in the following existing standards:

- ISO/IEC 18023-1 Ed. 2 SEDRIS Part 1 Revision
- ISO/IEC 18023-3 Ed. 2 SEDRIS Part 3 Revision
- ISO/IEC 18024-4 Ed. 2 SEDRIS language binding—C Revision
- ISO/IEC 18042-4 Ed. 3 EDCS language binding—C Revision
- ISO/IEC 18042-4 Ed. 2 SRM language binding—C Revision

## 6. Support for New WG 8 Work

### WG 8 Recommendation 006/2022: Potential New Work Items

ISO/IEC JTC 1/SC 24/WG 8 plans to continue its cooperative work, in conjunction with the SEDRIS Organization, OKTAL-SE, Suwon University, SISO (Simulation Interoperability Standards Organization), and others on the possibility of new work in the following areas:

- Reuse and Interoperation of Environmental Data and Processes (SISO)
- Representation of Wang tiling for texture data (OKTAL-SE)
- Representation of procedurally generated geometry and terrain (OKTAL-SE)
- Representation of Patches of procedurally generated geo-typical data (OKTAL-SE)
- Use of Artificial Intelligence techniques in generation and processing of terrain data (OKTAL-SE)
- Representation of material roughness for sensor simulation (OKTAL-SE)
- Representation of a dynamic sea model (OKTAL-SE)
- Handling of varied and detailed metadata information for generation and processing of environmental data (SEDRIS Organization, OKTAL-SE)
- Guidelines and Techniques for using X3D to portray SEDRIS data (Korean NB/Suwon University)
- Development of an XML encoding for SEDRIS transmittals (Korean NB/Suwon University)

### Part 2: Administration

## 1. Appointment of Editors

### WG 8 Recommendation 007/2022: Appointment/Reaffirmation of Editors

ISO/IEC JTC1/SC 24/WG 8 recommends the following:

Document No.	Document Title	Editor
18023-1	SEDRIS Functional Specification	<b>Puk</b> , Mamaghani, Worley
18023-2	SEDRIS Transmittal Format	Puk
18023-3	SEDRIS Transmittal Format – Binary Encoding	Puk
18024-4	SEDRIS Language Binding Part 4: C	<b>Puk</b> Worley
18025	Environmental Data Coding Specification (EDCS)	Cox, Hembree, Worley
18026	Spatial Reference Model (SRM)	<b>Berner,</b> Trott,

		Mamaghani
18041-4	EDCS Language Bindings, Part 4: C	<b>Puk</b> Worley
18041-5	EDCS Language Bindings, Part 5: C++	<b>Lee</b> Puk
18042-4	SRM Language Bindings, Part 4: C	<b>Puk</b> Worley
18042-5	SRM Language Bindings, Part 5: C++	<b>Lee</b> Puk
9973	Procedure for registration of items	<b>Puk,</b> Mamaghani

## 2. Appointment of Rapporteurs for Sections of the SC 24 Register

### WG 8 Recommendation 008/2022: Appointment/Reaffirmation of Rapporteurs (replace the term)

ISO/IEC JTC1/SC 24/WG 8 recommends that SC 24 appoint and reaffirm the following SC 24 Registry Rapporteurs:

- Dr. Paul Berner as the Rapporteur for the SRM Registry.
- Mr. Farid Mamaghani as the Rapporteur for the DRM Registry.
- Mr. Farid Mamaghani as the Rapporteur for the EDCS Registry.

## 3. Future Meetings

### WG 8 Recommendation 009/2022: Future WG 8 Meetings

ISO/IEC JTC1/SC 24/WG 8 informs SC 24 it has not planned any face-to-face meetings as a Working Group before next year's SC 24 Plenary. However, communication and/or meetings of the Working Group will continue by means of e-mail, telephone and web-meetings.

Meeting	Date	Venue
WG 8 Working Session and Plenary	2023	Sydney, Australia
WG 8 Working Session and Plenary	2024	Europe
WG 8 Working Session and Plenary	2025	North America
Editing meetings	As required	Web conference

## 4. Request ISO/IEC 18041-4:2016 to be corrected and made Publicly Available

### WG 8 Recommendation 010/2022: Corrections to and Public Availability of 18041-4:2016

ISO/IEC JTC 1/SC 24/WG 8 requests the SC 24 Committee Manager to verify with ISO the validity of the published version of ISO/IEC 18041-4:2016 that was provided, since the top line of the index page describes the document as "the draft DIS text....". Similar issues may exist on other pages, headers, or body text.

ISO/IEC JTC 1/SC 24/WG 8 also requests SC 24 to approve the corrected version of ISO/IEC 18041-4:2016 and to inform ISO/IEC that the corrected 18041-4:2016 will need to continue to be made publicly available, since the older version is already freely available and the current version is freely available elsewhere.

### 5. Promoting Joint Work with ISO/TC 211

### WG 8 Recommendation 011/2022: Continued Joint Work with ISO/TC 211

### Whereas:

Continued opportunity for joint work with ISO/TC 211 (Geographic information/Geomatics) exists.

### Therefore:

ISO/IEC JTC 1/SC 24/WG 8 requests SC 24 to continue the authorization of the following individuals to act as subject matter experts:

Dr. Paul Berner Mr. Kevin Trott

plus additional subject matter experts as may be deemed appropriate for a given task, to actively participate with ISO/TC 211 experts in order to promote and facilitate joint work.

## 6. Review of Commonality of the Registration Procedures and Standards with ISO/TC 211

### WG 8 Recommendation 012/2022: Work with ISO/TC 211 on Registry-related standards

ISO/IEC JTC 1/SC 24/WG 8 requests SC 24 members to support possible future joint work that began as informal April 2021 discussions 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. Based on initial (2021) discussions with TC 211 experts, a joint ad hoc group may be established to review whether to create a mapping or harmonization between ISO 19135 and ISO/IEC 9973 or to work on a single standard that the two groups could then implement (so long as it does not break any existing implementations).

WG 8 recommends that SC 24 members support the possibility of forming such an ad hoc group, or conduct further technical exchange meetings on the subject of Registration Procedures, between the two committees through a resolution during the SC 24 Plenary.

## 7. Continuation of Cooperation with the Open Geospatial Consortium (OGC)

### WG 8 Recommendation 013/2022: Continued Cooperation with OGC

### Whereas:

ISO/IEC JTC 1/SC 24 and OGC have mutual interest in several areas, where each might apply base technologies developed by or in development within the other.

### Therefore:

ISO/IEC JTC 1/SC 24/WG 8 requests that SC 24 endorse the continued cooperation with OGC.

## 8. Continuation of the Cooperation with the SEDRIS Organization

### WG 8 Recommendation 014/2022: Continued Cooperation with SEDRIS Organization

#### Whereas:

- a) ISO/IEC JTC 1/SC 24 and the SEDRIS Organization continue with cooperative and productive work to the mutual benefit of both organizations;
- b) there are additional SEDRIS-related standards projects in process that emanate from the SEDRIS Organization and/or National Bodies, and therefore additional future work is anticipated.

### Therefore:

ISO/IEC JTC 1/SC 24/WG 8 requests that SC 24 endorse the continued successful cooperation with the SEDRIS Organization in the development of additional ISO/IEC work items based on SEDRIS-based standards.

## 9. Continuation of Cooperation with the Simulation Interoperability Standards Organization (SISO)

### WG 8 Recommendation 015/2022: Continued Cooperation with SISO

### Whereas:

ISO/IEC JTC 1/SC 24 and SISO have mutual interest in several specific projects, where each might apply base technologies developed by or in development within the other.

### Therefore:

ISO/IEC JTC 1/SC 24/WG 8 requests that SC 24 endorse the continued cooperation with SISO.

## 10. Cooperation with ISO TC 184/SC 4/JWG 16

### WG 8 Recommendation 016/2022: Continued Cooperation with JWG 16

### Whereas:

- 1. ISO/TC 184/SC 4/JWG 16 and ISO/IEC JTC1/SC24/WG 8 have mutual areas of interest; and
- 2. there is an open invitation to ISO/IEC JTC1/SC 24 for joint participation in the work of ISO/TC 184/SC 4/JWG 16.

### Therefore:

ISO/IEC JTC 1/SC 24/WG 8 endorses the cooperation and participation in the work of ISO/TC 184/SC 4/JWG 16 and requests SC 24 to invite ISO/TC 184/SC 4/JWG 16 to hold future joint meetings with ISO/IEC JTC 1/SC 24. Furthermore, ISO/IEC JTC 1/SC 24/WG 8 requests the active and on-going exchange of relevant documents and asks that ISO/TC 184/SC 4/JWG 16 develop procedures for the active participation of SC 24 technical experts in their work.

## **PART 3: Liaison**

## 1. External Liaison Officers

## WG 8 Recommendation 017/2022: Appointment/Reaffirmation of Liaison Officers

ISO/IEC JTC1/SC 24/WG 8 recommends the appointment of the following external liaison officers:

Representative	Liaison to	Topic
Richard Puk	SEDRIS Organization	SEDRIS technology
Chris Body	ISO/TC 211/WG 6	SEDRIS technology
Kevin Trott	OGC	SEDRIS technology
	Digital Geographic Information Working Group (DGIWG)	SEDRIS technology
	International Hydrographic Organization (IHO)	SEDRIS technology
Paul Berner Kevin Trott	International Astronomical Union/International Association of Geodesy (IAU/IAG) Working Group on Cartographic Coordinates and Rotational Elements of the Planets and Satellites	Spatial referencing
Paul Berner Kevin Trott	TC 211	Spatial referencing
Paul Foley	Simulation Interoperability Standards Organization (SISO)	SEDRIS technology
Jack Cogman	NATO Modelling and Simulation Group (NMSG)	SEDRIS technology
Paul Berner Farid Mamaghani	ISO Geodetic Registry Network	Spatial referencing
Farid Mamaghani Richard Puk Jack Cogman	TC 211	Registration Procedures
Jean Latger Kwan-Hee Yoo	ISO/IEC SC 42	Relationships between Al topics and environmental data

## Part 4: Appreciation and Acknowledgments

### 1. Thanks to Craig Rollins

ISO/IEC JTC1/SC 24/WG 8 expresses great appreciation to Mr Craig Rollins, who recently retired from NGA, for his many years of diligent and hard work in supporting WG 8, and in particular the SRM standard (18026), and wishes Craig all the best in post-retirement adventures. Craig has indicated he will remain involved in the SRM for foreseeable future. WG 8 further welcomes Mr Ryan Neilson (of NGA), who is taking on Craig's responsibilities and continues with his contribution to the SRM standard and related topics.

## 2. Thanks to Mr Tim Gifford and Mr Gary Wentz

ISO/IEC JTC1/SC 24/WG 8 expresses its deep appreciation to Mr Tim Gifford, WG 8 Secretary, and Mr Gary Wentz, WG 8 document and site Administrator, for their many years of service since the inception of WG 8 and for their continued support of WG 8, despite their retirement a few years ago. Managing and progressing the WG8 workload throughout the years would not have been possible without their dedication and diligent work.

### 3. Thanks to Jean Stride, SC 24 Committee Manager

ISO/IEC JTC1/SC 24/WG 8 expresses its appreciation to SC 24 Committee Manager, Ms Jean Stride, for all her efforts and hard work in streamlining the SC 24 processes.

### 4. Thanks to SC 24 Chair

ISO/IEC JTC1/SC 24/WG 8 expresses its appreciation to Prof Myeong Won Lee, not only as the Chair of SC 24, but also as the editor of several new WG 8 initiatives for her continued efforts and contributions to WG 8.

## 5. Thanks to Organizers

ISO/IEC JTC1/SC 24/WG 8 wishes to thank the following for their efforts in organising and supporting the 2022 online meetings:

- Dr Bill Protzman and Mr Farid Mamaghani for their work in preparing and coordinating the timetable for the multi-week online meetings due to Covid-19 pandemic.
- Dr Myeong Won Lee and Ms Jean Stride for supporting the smooth operation of the meetings.

Farid Mamaghani Convenor ISO/IEC JTC 1/SC 24/WG 8