**ISO/IEC JTC 1/SC 24/WG 8 N0630**

**SC 24/WG 8 Convener’s Report**

**for the**

**WG 8 and SC 24 Plenary Meetings,**

**OKTAL-SE Premises,**

**Vigoulet-Auzil, Toulouse, France**

**6 - 10 August 2018**

The progress of SC 24/WG 8 during 2017-18, working in co-operation with the SEDRIS Organization, is summarized in this report.

WG 8 is responsible for standards relating to the representation and interchange of environmental data. The current versions of the WG 8 Standards are unchanged from last year and are as shown in the table below;

|  |  |
| --- | --- |
| **Standard** | **Current Status** |
| ISO/IEC 9973 Procedures for registration of items | Ed. 3 published July 2013. |
| ISO/IEC 18023-1: SEDRIS DRM and API | Ed. 1 Amd.1 Published June 2012.  NWIP Planned |
| ISO/IEC 18023-2: SEDRIS Abstract Transmittal | Ed. 1. Published July 2006. |
| ISO/IEC 18023-3: SEDRIS Binary Encoding | Ed. 1 Amd.1. Published June 2012.  NWIP Planned |
| ISO/IEC 18024-4: SEDRIS Language Binding to C | Ed. 1 Amd.1. Published June 2012.  NWIP Planned |
| 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 18026: Spatial Reference Model (SRM) | Ed. 2. Published July 2009.  NWIP Planned |
| ISO/IEC 18042-4: SRM Language Binding to C | Ed. 1 Amd. 1. Published June 2011.  NWIP planned |

For future development and revision of the current standards, the first objective is to complete the update to Edition 3 of the SRM, ISO/IEC 18026. The work to be done is summarized 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

When Edition 3 of the SRM has been completed and published, other standards that depend on the SRM standard (see table above) will need to be revised for compatibility with Ed 3 of the SRM and Ed 2 of the EDCS.

All WG 8 documents published since May 2015 are on both the WG 8 Document Register and the LiveLink SC 24/WG 8 General Document folder. However, the LiveLink folder does not yet have the same facilities available as the WG 8 Document Register.

WG 8 has been involved with two other related developments; namely the MAR (Mixed and Augmented Reality) standards in WG 9 (including the MAR Reference Model (18039)) and the SISO project for the Reuse and Interoperation of Environmental Data and Processes (RIEDP).

WG 8 members have made contributions to the development of many of the WG 9 standards.

The RIEDP project is closely related to the SEDRIS standards, since both address the re-use and sharing of environmental databases. SEDRIS and RIEDP approach the data sharing topics at different levels, but are complementary. RIEDP provides two products: the RIEDP Data Model Foundations, a SISO Guidance product, and the RIEDP Detailed Features Description, a SISO Standard. Both RIEDP specifications reference and rely on the SEDRIS standards, and the development of these RIEDP specifications has been influenced by SEDRIS standards and concepts. The Data Model Foundations document has progressed from Version 1.2 to 1.3 during the year and is expected to be published as a SISO Guidance product in the next 3 months. Work has started on the Detailed Features Description specification. This specification depends on the Data Model Foundations product.

There have been no formal WG 8 meetings since the 2017 Plenary in Arlington, USA. Editors of the SRM standard, however, continue to conduct internal teleconferences on their standard.

Respectfully submitted,

Jack Cogman,

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

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