

SEDRIS Organization Report
to
ISO/IEC JTC 1/SC 24 and WG 8
SC 24 and WG 8 Plenary (online) Meetings
27 July - 17 August 2020

SEDRIS Organization has continued its contributions to new and on-going work of SC 24 and its working groups, including new and existing items in WG 8, WG 9, Systems Integration Visualization (SIV) Advisory Group (AG), and support to SC 24-level activities.

New WG 8 work items associated with language bindings for the application program interface (API) of three SEDRIS standards are being initiated. All three items are C++ language binding standards, emanating from the Korean National Body in support of visualizing content using X3D. SEDRIS Organization is supporting the development of these new work items, and has provided information and documentation on the existing C++ software implementations of the three APIs. Other WG 8 related efforts are the continued SEDRIS Organization's contributions to Simulation Interoperability Standards Organization's (SISO) standards being developed within SISO's Reuse and Interoperation of Environmental Data and Processes (RIEDP) Product Development Group (PDG) and the critical work of SISO's Environmental Data Representation Standards Product Support Group, which closely cooperates with WG 8 and provides a focal point for relevant community activities on environmental data standards and topics. The RIEDP standards use the SEDRIS standards, and are highly relevant to on-going work within WG 8 and SC 24. The first RIEDP PDG product, the RIEDP Data Model Foundations, was published as the SISO Guidance Product SISO-GUIDE-007-2018. Work on the second product (the RIEDP Detailed Features Descriptions) continues, with contributions from key experts in the simulation community on areas related to material, light, and sensor-related characteristics.

SEDRIS Organization continues its contributions to the development and review of on-going and new WG 9 documents and standards on Mixed and Augmented Reality (MAR). Although the work of WG 9 remains of great interest, as noted in prior reports, it is important that WG 9 seek more of the direct involvement of practitioners in industry, ensuring the standards focus on providing capabilities and tested solutions that will address practical and existing problems. This will enhance and strengthen the work of WG 9. In general for all standards bodies, it is important that all standards, including the work items within WG 9, be able to clearly articulate what problem is being solved, why the problem is relevant and important, and what value the solutions offer to standardizing practice in the community. SEDRIS Organization first raised this issue in 2017 and 2018, which tangentially resulted in further work on the SC 24 Roadmap. While the Roadmap is important, the core issues in clearly articulating *what problems are being solved and why* should also remain in focus.

The SIV Study Group (soon to become a new SC 24 Working Group) has steadily progressed the emerging Technical Specification (*Guidelines for Representation and Visualization of Smart Cities*) that focuses on the use of SC 24 standards in support of representing and visualizing data and information in Smart City applications. SEDRIS Organization continues to contribute to the development of this Technical Specification, while strongly supporting the

important goals of the SIV AG. We continue to note that SC 24 standards will play a key role in supporting JTC 1 Systems Integration initiatives, such as Big Data, Sensors, and Smart Cities. In line with these goals, it is critical that X3D visualization standards provide a richer support for bi-directional interaction between the user and the underlying data.

The work on updating and restoring the EDCS Registry download capability (inadvertently disabled as a result of migration of registry's internal software to a new platform) needs to continue. Also, Dr. Hembree (EDCS co-editor) has noted that there are changes to the use of various units for physical measures, and that accordingly the EDCS standard and registry need to be reviewed to ensure consistency with any changes applicable to the standard.

The emerging work in Smart Cities, the on-going work in MAR, and the use of (VR, AR, or traditional) visualization in training, education, and other applications are closely associated with the capabilities and standards developed for networked modeling and simulation (M&S) applications, in which live and virtual environments are combined and integrated. The experiences gained in the networked M&S domain, including the concepts and capabilities in SEDRIS technologies, are valuable assets in supporting SC 24 and JTC 1 efforts, contributing to the underlying data models, architectures, and representation techniques that are required.

During the past year, SEDRIS Organization also supported various SC 24 initiatives and activities. This included review of scope statements of various committees and working groups, and planning for the 2020 annual SC 24 meetings. SEDRIS Organization supported the US National Body in the planning and preparation of the 2020 SC 24 meetings in Melbourne, FL. When holding face-to-face meetings had to be reconsidered (as a result of the pandemic), SEDRIS Organization supported the US National Body in evaluating alternative plans and options, and contributed to the scheduling and arrangement of the on-line meetings.

The close cooperation with key geodesy experts at the US National Geospatial-Intelligence Agency (NGA) successfully continues on various projects and efforts of mutual interest.

On a personal note, SEDRIS Organization expresses deepest heartfelt condolences to our dear friend and colleague Mr. Kevin Trott, who has been a long time contributor to SC 24 and is a co-editor of the SRM standard, on the recent passing of Ms. Naomi Dyer, his wife and partner of thirty-seven years. Our thoughts and prayers are with Kevin and their families.

SEDRIS Organization also expresses gratitude and appreciation to Dr. Jack Cogman, WG 8 Convenor, who announced in 2019 that after more than 20 years of leading WG 8 he plans to step down from the role of Convenor at the end of his term in 2020. The standardization of the SEDRIS suite of standards would not have been possible without Jack's active leadership and participation. In addition to his role as Convenor of WG 8, Jack has also been instrumental in supporting and leading several SC 24 initiatives, including managing the SC 24 Business Plan and engaging in WG 9 and SIV AG activities. SEDRIS Organization expresses heartfelt appreciation to Jack for his dedication and contributions to the advancement of WG 8 work, and is delighted that he will continue his participation in SC 24 and WG 8 work.

SEDRIS Organization looks forward to continued productive work with SC 24 and all its working groups in developing, progressing, and promoting the SC 24 standards.

Respectfully submitted,

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SEDRIS Organization
14 August 2020