

31 July 2017

**SEDRIS Organization Report**  
**to**  
**ISO/IEC JTC 1/SC 24 and WG 8**  
**SC 24 and WG 8 Plenary Meetings**  
**Arlington, VA**  
**7 - 11 August 2017**

During the past 12 months, SEDRIS Organization has continued its contributions to both new and on-going work of SC 24 and its working groups. This report is a summary of key parts of those contributions and SEDRIS Organization's efforts.

SEDRIS Organization supported the US National Body's (NB) INCITS/H3 Technical Committee (computer graphics and image processing; the U.S. TAG to ISO/IEC JTC 1/SC 24) in researching, preparing, arranging, and organizing the 2017 SC 24 meetings in the US.

In coordination with the UK and US NBs, SEDRIS Organization provided significant contributions to the efforts of SC 24 leadership in clarifying the scope of the committee in response to objections raised at a JTC 1 meeting. This work resulted in the corrections to the text of scope of SC 24, and a more informed and documented understanding of the work of SC 24 during the last 20+ years in the areas of virtual reality and computer graphics.

SEDRIS Organization continued its support of SC 24 activities related to 3D Printing and Scanning, Big Data, Sensors/Smart Cities, and other areas where SC 24 standards will play a key role and will support JTC 1 initiatives in these new fields.

SEDRIS Organization's contributions to the development and review of WG 9 standards on Mixed and Augmented Reality (MAR) have continued. Related efforts since last year have included:

- Review of the Draft International Standard (DIS) text of ISO/IEC 18039 (MAR Reference Model) and contributing to comments through US and UK national bodies;
- Review and comments on Committee Draft (CD) text of ISO/IEC 18520 (Benchmarking of vision-based geometric registration and tracking methods for MAR);
- Contribution to the review of CD text of ISO/IEC 18040 (Live actor and entity representation in MAR) through the US NB;
- Feedback and comments on the upcoming new work items, including the Sensor Representation in MAR and the MAR Content Information Model; and
- Participation in WG 9 web meetings.

The work in mixed and augmented reality is highly relevant to the existing capabilities and standards in networked modeling and simulation applications, in which live and virtual environments are combined and integrated. Experiences gained in the modeling and simulation domain, including the concepts and capabilities found in the suite of SEDRIS standards, are valuable assets to MAR efforts, and will contribute to the underlying MAR-related data models, architectures, and corresponding capabilities. ISO/IEC 18520 also relates to the standards on real-time dead-reckoning algorithms developed by Simulation

Interoperability Standards Organization (SISO) and Institute of Electrical and Electronics Engineers (IEEE).

Through participation with SISO efforts, the SEDRIS Organization continued to make significant contributions to the development of standards in SISO's RIEDP PDG (Reuse and Interoperation of Environmental Data and Processes - Product Development Group), as well as continued support to the work of SISO's EDRS PSG (Environmental Data Representation Standards - Product Support Group) on environmental data standards. The RIEDP efforts make use of the SEDRIS standards, and are highly relevant to the work of SC 24 and WG 8.

Working with the ISO managers, the WG 8 leadership and the SEDRIS Organization, in coordination with the SC 24 Secretariat, were able to resolve a long-standing action item related to the SC 24 Registry web site. The document *Open Skies Digital Data Exchange Format Version 01.10* was posted to BIIF Profile section of the SC 24 Register of Items.

The close cooperation of the SEDRIS Organization and key geodesy experts at the US National Geospatial-Intelligence Agency (NGA) successfully continues on various projects and efforts of mutual interest, including contribution to the effort in development of a 2x2 matrix for the linear approximation of a map projection.

Since the publication of Edition 3 of ISO/IEC 18041-4 in 2016, no new work has commenced on the existing suite of SEDRIS standards or registries. New work item proposals for Edition 3 of ISO/IEC 18026 (SRM), Edition 2 of SRM language bindings (ISO/IEC 18042-4), Edition 2 of SEDRIS Part 1 (ISO/IEC 18023-1), Edition 2 of SEDRIS Part 3 (ISO/IEC 18023-3), and Edition 2 of SEDRIS language bindings (ISO/IEC 18024-4) are still anticipated.

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

Respectfully submitted,

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SEDRIS Organization  
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