ISO/IEC JTC 1/SC 24 Plenary & WG Meetings
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Step 2: Develop Mapping Document: Use DRM, EDCS and SRM

Step 3: Develop Validation Criteria -- TCRS

Step 4: Develop Production software: Add in API and STF

Step 5: Validate Transmittal: Add in tools and applications

- STF development steps are easier to follow than early development steps.
  - Engineer want to find integrated examples with fragmentary examples
  - Commercial approach usually use partial functions instead of SEDRIS full functions
    - Engineer want to specialize particular function for their technical area
Step 1: Native Requirements & Data Analysis: Define use or application plus data exchange requirements

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Step 6: SEDRIS XML data

- **STF development steps are easier to follow than early development steps.**
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Tasks done by Data Provider

- Verify Transmittal
- Develop Transmittal Production Software
- TCRS
- Mapping Document
- Map Native Data Model To SEDRIS
- Native Data Set “X”
- Market Need, Use Cases, & Env Data Exchange Needs

SEDRIS Components and STF

- SEDRIS Concept
- Tech. Components
- SRM
- EDCS
- DRM
- SEDRIS SDK
- SEDRIS Tools
- XML
- API
- STF
SEDRIS Language Binding

Tasks done by Data Provider

- Native Data Set “X”
- Market Need, Use Cases, & Env Data Exchange Needs
- Mapping Document
- TCRS
- Develop Transmittal Production Software
- Verify Transmittal
- XML

Tech. Components
- SRM
- EDCS
- DRM

SEDRIS Concept

SEDRIS Language Binding
- Map Native Data Model To SEDRIS
- SEDRIS Tools
- SEDRIS SDK
- XML
- API

Market Need, Use Cases, & Env Data Exchange Needs

SEDRIS Concept

Tech. Components
Current Working Process

1. Market Need
2. Mapping Document
   - List native data elements
   - Categorize (primitive data, organizing elements, description, modifier)
   - Learn SEDRIS DRM Diagram
   - Learn SEDRIS components (DRM, SRM, EDCS)
4. Extract and Relate DRM Classes
5. Learn SEDRIS API
6. Develop Transmittal Production Software
7. Create Transmittal
8. Verify Transmittal

Tasks done by Data Provider

- Native Data Set “X”
- Market Need, Use Cases, & Env Data Exchange Needs
- Map Native Data Model To SEDRIS
- Mapping Document
- TCRS
- Develop Transmittal Production Software
- STF
- XML
- Verify Transmittal
The Working Step with Mapping Method

**Tasks done by Data Provider**
- Native Data Set “X”
- Market Need, Use Cases, & Env Data Exchange Needs

**Transmittal Implementation Procedure**
- Set Native Data
- 3D Common wrapped classes
- SEDRIS DRM Instance Creation

**Adaptation General Pattern**
- Call General Pattern
- Combine General Patterns
- High Level Function
- Built-in Library

**Search General Pattern**
- Native Data Set “X”

**Market Need, Use Cases, & Env Data Exchange Needs**

- Native Data Set “X”
- Map Native Data Model To SEDRIS

**Develop Transmittal Production Software**
- TCRS

**Verify Transmittal**
The SEDRIS Production and Consumption Process (X3D)

**Tasks done by Data Provider**
- Native Data Set “X”
- Market Need, Use Cases, & Env Data Exchange Needs
- Map Native Data Model To SEDRIS
- Mapping Document
- Develop Transmittal Production Software
- Verify Transmittal

**Tasks done by Data Consumer (Conversion X3D)**
- Market Need, Use Cases, & Env Data Exchange Needs
- Map Native Data Model To SEDRIS
- Mapping Document
- Develop Transmittal Consumption Software (X3D)
- STF
- XML

**Data Model Exchange Needs**
- X3D Data
SEDRIS Components

Diagram showing the integration of different components like DRM, EDCS, SRM, and STF, with mentions of C++, C, Java, and Tools.
Using the SEDRIS Componets

• The SEDRIS API is an encapsulation of functionality which provides applications the ability to access DRM objects.
• The SEDRIS API is Transmittal Access API, DRM API, SRM API, EDCS API
• The Transmittal Access API implementation relies on the DRM, SRM, and EDCS APIs
• The Transmittal Access API deals with transmittals and objects within those transmittal
• Every object has a unique string within a transmittal, referred to as the “object id”
Using the SEDRIS Components

- the DRM, EDCS, and the SRM to model environmental data
- the EDCS as a stand-alone component
- an interchange mechanism
- to examine environmental data
- basis for developing new tools

DRM API

EDCS

SRM

STF

Transmittal Access API

Tools

C

C++

Tools

expressing data requirements to validate data sets that claim compliance to those requirements

the SRM as a stand-alone component

the DRM, EDCS, and the SRM to specify environmental data content
Conclusions

- SEDRIS XML Encoding
  - SEDRIS UML and XML schema
  - XML definition and expansion using SEDRIS examples
    - test.stf
    - chair.stf

- SEDRIS viewer development for SEDRIS XML encoding