

Registries for SEDRIS Standards

Environmental Data Representation Standards
Product Support Group (EDRS PSG)

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Topics

- Registries of SEDRIS standards - Overview
- Where to find the standards and registries
- Registerable items
- Who can submit new items
- New item proposal submission process
- Review process
- Roles and responsibilities
- EDCS registry operation and status
- Required content for proposed EDCS items
- Details of EDCS registration process
- Summary

Registries for SEDRIS Standards - Overview

- Of the eight standards, three require a corresponding registry: SEDRIS (DRM), EDCS, and SRM
- Each of the three standards has a separate and independent web-based registry
- The three registries are similar in form and function, but have completely different content and allow registration of different types of items corresponding to that standard
- The registries are operated on behalf of ISO/IEC JTC 1/SC 24
- The EDCS registry was fielded in June 2005 and has been active since then
- The DRM and SRM registries are in testing and will be fielded in Summer 07

Resources - Where to find the standards and registries

- All SEDRIS standards can be found online at:
[*http://standards.sedris.org*](http://standards.sedris.org)
 - ISO/IEC 18023-1:2006(E), SEDRIS -- Part 1: Functional specification
 - ISO/IEC 18025:2005(E), Environmental Data Coding Specification (EDCS)
 - ISO/IEC 18026:2006(E), Spatial Reference Model (SRM)
- All ISO/IEC JTC 1/SC 24 registries can be accessed at:
[*http://jtc.fhu.disa.mil/nitf/graph_reg/welcome.html*](http://jtc.fhu.disa.mil/nitf/graph_reg/welcome.html)
- There are many registries hosted at this site that correspond to other (non-SEDRIS) standards
- The EDCS registry is located at:
[*http://jtc.fhu.disa.mil/nitf/graph_reg/class_pages/edcs_dictionary.html*](http://jtc.fhu.disa.mil/nitf/graph_reg/class_pages/edcs_dictionary.html)

Registerable Items for SEDRIS Standards

- ISO/IEC 18023, SEDRIS - Part 1
 - The following DRM data types may be registered:
 - Selection item data type selectors, and
 - Set data type members
- ISO/IEC 18025 - EDCS
 - New concepts for any of the following EDCS dictionaries may be registered:
 - Classification (EC)
 - Attribute (EA)
 - Attribute enumerant (EE)
 - Attribute value characteristic (EV)
 - Unit (EU)
 - Unit equivalence class (EQ)
 - Organizational schema (EO)
 - Group (EG)
 - Profiles

Registerable Items for SEDRIS Standards (cont')

- ISO/IEC 18026 - SRM
 - New instances of the following SRM concepts may be registered:
 - Abstract coordinate systems
 - Temporal coordinate systems
 - Reference datums
 - Object reference model templates
 - Object reference models
 - Reference transformations
 - Object binding rule sets
 - Spatial reference frame templates
 - Spatial reference frames
 - Spatial reference frame sets and their members
 - Designated spatial surfaces
 - Profiles

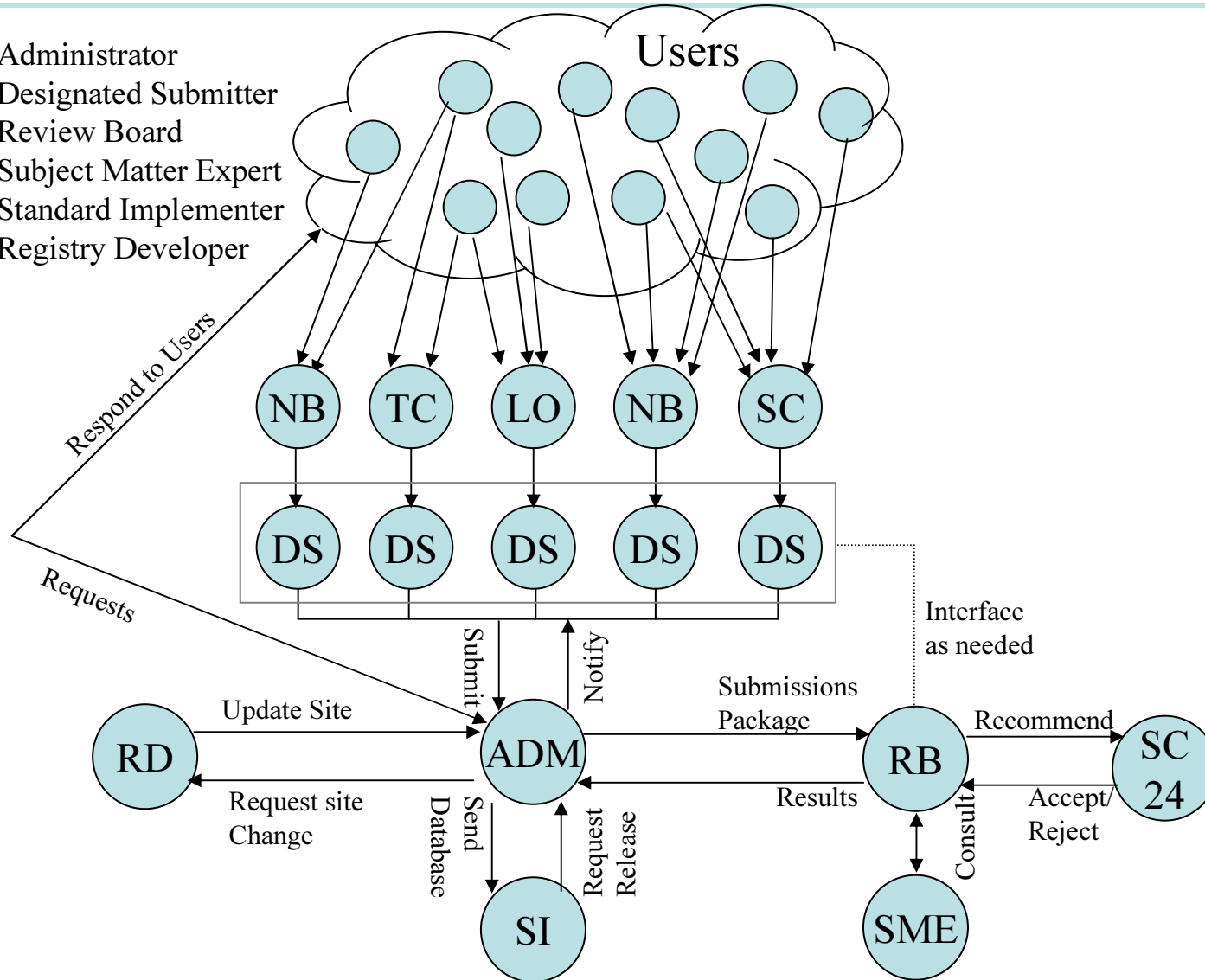
Submitting Items for Registration

- Who can officially submit items
 - Any ISO or IEC Technical Committee or Subcommittee
 - Any Participating or Observing national body member of ISO/IEC JTC 1 or ISO/IEC JTC 1/SC 24 – (e.g. DIN (Germany), BSI (UK), ANSI / INCITS (US))
 - Category C liaison organizations to ISO/IEC JTC 1/SC 24
 - SEDRIS Organization
 - SISO
- Must submit registry items through one of these organizations or your country's equivalent standard body

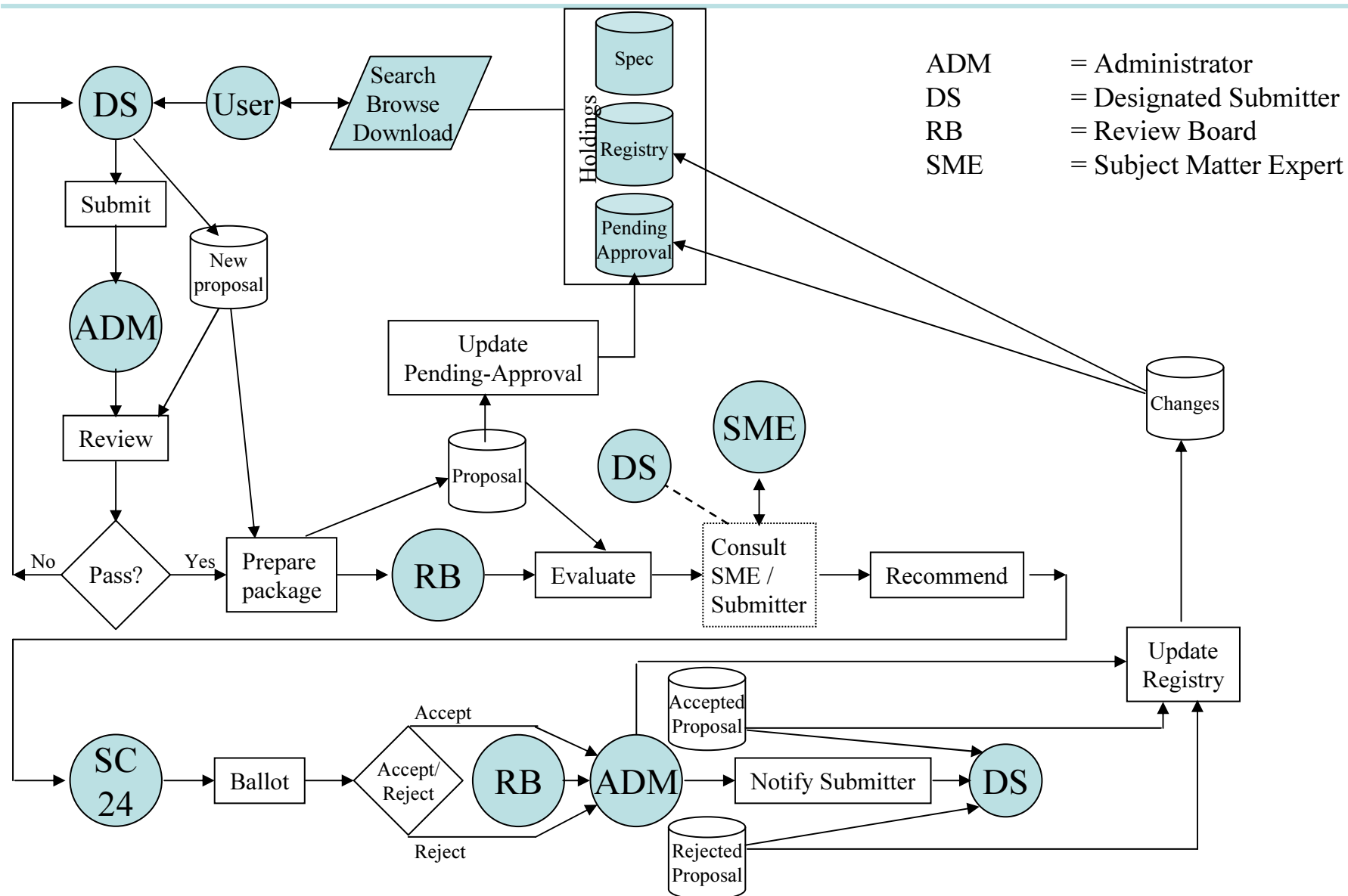
Role Interactions & Interfaces

ADM
DS
RB
SME
SI
RD

= Administrator
= Designated Submitter
= Review Board
= Subject Matter Expert
= Standard Implementer
= Registry Developer



Proposal Submission Process



Submissions process

- Steps users are expected to follow
 - Search holdings for same/similar concepts
 - Research to ensure new concepts use existing concepts
 - Submit new items that comply with the guidelines
 - Submission batch cut-off dates: March 1, June 1, Sept 1, Dec 1
 - Registry updates: June 1, Sept 1, Dec 1, March 1
- What users are expected to know
 - In case of EDCS proposals:
 - EDCS objective and EDCS approach to organizing dictionaries of environmental concepts
 - Existing (or previously proposed) concepts related to their new item being proposed
 - Guidelines for construction of definitions and labels
 - Requirements for including appropriate references
- Who can submit new items - the designated member of:
 - any ISO or IEC Technical Committee or Subcommittee
 - any P-member or O-member of ISO/IEC JTC1 or ISO/IEC JTC1/SC24
 - any organization with Cat C liaison to ISO/IEC JTC1 or ISO/IEC JTC1/SC24

Review process

- Administration procedure, after receipt of new submission
 - Verify submission is from a designated user
 - Verify proper forms and content for the appropriate proposal are provided
 - Fields are filled in with relevant information
 - Technical content appears reasonable
 - Key aspects of guidelines are followed
 - All necessary information is provided
 - If any fail, notify user of problems, and suggest resubmission
 - Else, (automatically) enter new submissions into database (in the “Submitted - pending approval” holding), and update the site
 - Forward package to Review Board
 - Notify submitter that submission(s) have been accepted, and forwarded for review and subsequent approval/rejection
 - If submission is after quarterly deadline, inform the submitter the submission will be included in the registry update after next
 - If submission is before quarterly deadline BUT the submissions are more than what can be processed in remaining time by the review board, inform the submitter the submissions will be included in the registry update after next
 - Interface with the Review Board to ensure review is complete within 6 weeks
- Duration: hours to days

Review process (continued)

- Review Board steps, after receipt of new package
 - Review Board Chair to coordinate reviews
 - Review and verify technical content, rationale, and merit of new proposal
 - Verify definitions, label, and other fields meet guidelines
 - Review concept in contrast to other existing concepts
 - Verify new item properly uses existing concepts, if applicable
 - Assemble/consult subject matter experts for review, if needed
 - Engage the originating designated submitter, if needed (for modifications)
 - Document findings from review, produce written response and rationale for approval or rejection
 - Submit recommendations to SC 24 within 6 weeks for ballot approval / rejection by the SC 24 NBs
 - Notify Administrator of approval or rejection
 - Send all accepted registry submissions to administrator for update of the registry database
- Duration: Quarterly, assuming reasonable number of items in a package

Administrator Role and Responsibilities

- The role of the Administrator
 - Interface with submitters, users, Review Board, implementers, and maintain web site
- Administrator's qualifications
 - Solid understanding of the standard (e.g. EDCS), ability to maintain the site
- Administrator's responsibility
 - Review submissions and verify form and general content
 - Notify submitter
 - Forward submissions to Review Board
 - Ensure the Review Board gets reminders to complete within 6 weeks
 - Update the registry
 - Interface with registry developers
 - Respond to user requests
 - Provide documents via postal or electronic mail
 - Provide pointers to information on the standards
 - Maintain the registry web site
 - Interface with standard implementers
 - Maintain a history and configuration management of what has been provided to whom

Review Board Role and Responsibilities

- Role: To review all submissions and recommend accept / reject resolution for each
- Review Board membership
 - Odd-number of members with a minimum of three, including:
 - SC 24 NB or LO assignees
 - SC 24 appointed chair/secretariat
- Responsibilities of the Review Board
 - Review of submissions
 - Meet via e-mail, web, phone, or in person
 - Review all submissions within six weeks after submission deadlines
 - In case of EDCS proposals:
 - » Review for label and definition correctness
 - » Review concept (as collection of individual)
 - » Relate against existing EDCS entries
 - » Relate against existing EDCS registry entries
 - » Relate against other submitted entries
 - Resolving disagreements (else, document specific positions and rationale)
 - Provide resolution of submitted items to SC 24 with recommendation to approve/disapprove (with documented rationale)
 - Interface with registry administrator

EDCS Registry Operation Status

- Received 29 proposed entries during the first cycle (June 05)
 - 12 EDCS Classification entries
 - 15 EDCS Attribute entries (one enumerated type)
 - 2 EDCS Attribute Enumeration entries
 - Along with 4 new references
 - *All 29 entries were approved, registry updated Sept 05*
- Received 7 proposed entries during the 2nd cycle (Sept 05)
 - 7 EDCS Attribute entries
 - Along with 1 new reference
 - *All 7 entries were approved, registry updated Dec 05*
- Received 0 proposed entries during the 3rd cycle (Dec 05)
- Received 0 proposed entries during the 4th cycle (Mar 06)
- Received 76 proposed entries during the 5th cycle (June 06)
 - 4 EDCS Classification entries
 - 16 EDCS Attribute entries (six enumerated type)
 - 56 EDCS Attribute Enumeration entries
 - Along with 5 new references
 - Subset (14) of these 76 items were modified before being recommended; 27 were withdrawn
 - Eight of the recommended items received comments from national bodies
 - *49 of the 76 entries were approved, registry updated Oct 06*
- Received 0 proposed entries during the 6th cycle (Sept 06)
- Received 0 proposed entries during the 7th cycle (Dec 06)
- Received 0 proposed entries during the 8th cycle (Mar 07)

Required Content for EDCS Concepts

Required Information	EDCS CONCEPT							
	Classification	Attribute	Enumeration	Characteristic Value	Unit	Unit Equivalence	Organization	Group
Label	X	X	X	X	X	X	X	X
Definition	X	X	X	X	X	X	X	X
Attribute Value Type		X						
Symbol					X			
EA Label			X					X
EC Labels								X
EQ Label					X			
EO Label	X	X						X
EG Labels	X	X					X	
EU Labels						X		
Reference Type	X	X	X	X	X		X	X
Reference	X	X	X	X	X		X	X
Supplemental Reference(s)	X	X	X	X	X		X	X
Applicability				X				
Justification	X	X	X	X	X	X	X	X
Comments	X	X	X	X	X	X	X	X

Required Content of ECs, EAs, and EEs

Required Information	EDCS Concept		
	Classification	Attribute	Enumeration
Label	Y	Y	Y
Definition	Y	Y	Y
Attribute Value Type	NA	Y	NA
EQ Label	NA	I	NA
EA Label	NA	NA	Y
EO Label	Y	Y	NA
EG Labels	Y	Y	NA
Reference Type	Y	Y	Y
Reference	Y	Y	Y
Supplemental Reference	I	I	I
Justification	Y	Y	Y
Comments	I	I	I

Y = YES I = IF NEEDED R = RECOMMENDED NA = NOT APPLICABLE

Details - Labels

- Labels
 - See ISO/IEC 18025, Clause 10.3 for complete requirements
 - Not more than 59 characters long
 - Unique within first 27 characters long except for EEs and EGs which are within the first 19 characters
 - EE labels must be unique within the scoping EA
 - Use abbreviations in Annex G if possible
 - No jargon

Details - Definitions

- See ISO/IEC 18025, Clause 10.2 for complete requirements
- Cannot duplicate an existing concept
- Clear and concise using a single sentence if possible.
- Words in label must appear in definition.
- Use other EDCS concept labels in definition if applicable
- If another EDCS concept label is used in the definition identify as follows, <EC>, <<EA>>, and <<<EE>>>
 - Example: EA TERRAIN_HEIGHT might be: "The <<HEIGHT>> of the <TERRAIN>."
- The concept definition of an EE for a given EA shall not reference an EE that is an EE of a different EA.

EDCS Registration Process - *Research*

- Understand the EDCS objective and the EDCS approach to organizing dictionaries of environmental concepts
- Review existing (or previously proposed) concepts related to the new item(s) being proposed to ensure new concepts use existing concepts where applicable and do not duplicate existing concepts
- Review guidelines for construction of definitions and labels
- Review requirements for including appropriate references
- Search registry holdings for same/similar concepts

EDCS Registration Process - *Complete Submission Forms*

- Review EDCS Standard (ISO/IEC 18025), clause 10, that specifies dictionary-specific rules and guidelines that shall be followed in preparing proposed entries. Guidelines also available within links in the online submission pages.
- Ensure the proposed entries meet the rules and guidelines specified in the EDCS standard. Proposals that do not meet the rules and guidelines will be rejected.
- Review EDCS content to ensure the proposed entry is not already in the EDCS standard, the register, or is a submission awaiting approval.

EDCS Registration Process -

Complete Submission Forms

- Review guidelines regarding entry of the new EDCS definition, label, reference with supporting rationale and justification.
 - Ensure that the definition of the proposed entry follows the guidelines for constructing EDCS definitions. This includes, where necessary, the appropriate use of other concepts and entries currently in the various EDCS dictionaries.
 - Ensure that the label of the new entry is in accordance with the guidelines for constructing EDCS labels.
 - Provide the appropriate reference and reference type for each proposed entry.
 - Provide sufficient rationale and justification for the proposed entry to ensure its acceptance in the review process.

EDCS Registration Process -

Complete Submission Forms

- Individual entries may be submitted online by filling out the appropriate form:
 - EDCS Classification (EC)
 - EDCS Attribute (EA)
 - EDCS Attribute Enumerant (EE)
 - EDCS Attribute Value Characteristic (EV)
 - EDCS Unit (EU)
 - EDCS Unit Equivalence Class (EQ)
 - EDCS Organizational Schema (EO)
 - EDCS Group (EG)
 - EDCS reference
- Batch entries can be submitted by downloading a Microsoft® Excel template file, filling it out offline, and submitting the completed template
- Download and submit batch submission template (instructions included in file)

EDCS Registration Process - *Submit Forms*

- Determine best path for submission:
 - Through a National Standards Body (e.g. ANSI, etc.)
 - Through an ISO/IEC Liaison Organization (e.g. SEDRIS, SISO)
- Determine best submission schedule
 - Submission batch deadlines: March 1, June 1, Sept 1, Dec 1
- Note corresponding registry update schedule:
 - Registry update milestones: June 1, Sept 1, Dec 1, March 1
 - Approved entries will be added to the register prior to the deadline for the next quarterly review.
 - Therefore, as an example, any proposed entry submitted between 2 June and 31 August, if approved, will be added to the registry on (or shortly after) 1 December.

EDCS Registration Process - *Follow up*

- After submission you will be notified via e-mail by registry administrator if your proposal has been accepted for review.
- Proposals that do not meet the required criteria will not be forwarded for review and will be returned to the submitter.
- During the review process, the submitter may be contacted for additional information or clarifications about a given submission.
- If a proposed entry is rejected at any stage of review and approval, an explanation of the reasons for rejection will accompany the rejection notice.
- Note that notification of acceptance for review does not mean the proposal has been approved.

Example: Navy MS3G Inputs to EDCS Registry

Two Examples of Numerous MS3G Inputs

Navy MS3G oceanographic concepts for water properties

Status	Label	Concept definition	Code	Ref type	Reference	Supplemental references
REG 2005/09/14	ACOUSTIC EIGENRAY	An <ACOUSTIC RAY PATH> from a specific source <LOCATION> to a specific observation point <LOCATION> ; an acoustic eigenray.	1430	IR	[PUWS] , [SP35] , [COA]	
REG 2005/09/14	ACOUSTIC RAY PATH	An acoustic energy flux <RAY PATH> .	1429	IR	[COA] , [PUWS] , [SP35]	

- Extracted from online EDCS Registry System
- Note columns for status, label, concept definition, code, type of reference and link to references
- Note EDCS methodology in definition for use of structured linked concepts, (e.g. [<LOCATION>](#)) applying use of other existing EDCS concepts
- Note use of linked and potentially multiple references
- Linked Structured concept provides unique strength of EDCS system, but also requires research into existing EDCS content – new entries are not mutually exclusive of existing EDCS content.

Summary

- Online registries for SEDRIS standards are the appropriate tool for extending the standards without resorting to an amendment process
- The EDCS registry was fielded in 2005 and has been successfully used by several customers to register new concepts
- The DRM and SRM registries will be operational Summer 07
- Register content is updated quarterly
- The procedures for using the registries are documented and streamlined
- The registries can be accessed online at:
http://jitc.fhu.disa.mil/nitf/graph_reg/welcome.html