

Federal Geographic
Data Committee

Metadata Working Group

Quarterly Telecon
October 6, 2011

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vers. 20111005

Agenda

- FGDC Metadata Summit
- ISO 19115-1 and NAP Status
- NPS CSDGM Metadata Synchronization Utility for ArcGIS
- ISO 19115-1 Energy Industry Profile
- EPA Metadata Editor
- News from the Field

FGDC Metadata Summit

October 26-27

- Introduction to ISO Training (optional Day 1)
- Metadata Summit (Day 2)

USGS Headquarters

- Reston, VA

Invitation extended to FGDC Coordination Group partners, FGDC Metadata Working Group forum, other metadata aficionados

FGDC Metadata Summit

Goals:

- Establish a common understanding about ISO metadata initiatives and implementation
- Determine mutually significant metadata issues best addressed with a common strategy
- Develop a course of action that includes alternate paths for achieving common strategic objectives.

FGDC Metadata Summit

Outcomes:

- Written report on the Summit (discussion topics, decisions, and recommendations)
- Follow-up webinar summarizing meeting outcomes for those unable to attend the Summit.

FGDC Metadata Summit

Agenda:

- Presentations:
 - Standards Overview and Status (Dave Danko, ESRI)
 - Applications and Tools (Jaci Mize, NOAA and Rob Dollison, USGS)
 - Implementation Efforts (Ted Habermann, NOAA)
 - Training and Education (Jaci Mize, NOAA)
- Breakout Groups:
 - Identification of common challenges with ISO
 - Recommendations for solutions

FGDC Metadata Summit

Planning Committee:

- Viv Hutchison
USGS
- Jennifer Carlino
USGS
- Jaci Mize
NOAA/Radiant
- Lynda Wayne
FGDC/GeoMaxim
- Gita Urban-Mathieux
FGDC

More information:

<http://www.fgdc.gov/site-events/metadata-summit>

FGDC Metadata Summit

Calendar vCalendar

Description:

The Federal Geographic Data Committee (FGDC) is hosting a one day meeting intended to bring NSDI Stakeholders up to date on International Organization for Standardization (ISO) metadata, identify challenges, and set a course for implementation. The meeting includes:

- ISO and ISO North American Profile (NAP) Metadata Standards Status Update
- Group Discussions: Issues Related to ISO Implementation
- Group Discussions: Common Solutions to Address Issues
- Group Discussion: Priorities and Recommendations

A follow-up WebEx meeting will be held to present the results of the Summit and to solicit additional input.

Participation:

Attendees should have ISO metadata hands-on knowledge sufficient to effectively contribute toward the identification of key issues, generation of options for addressing key issues, and the development of strategic solutions. This is a highly interactive working meeting and participants are expected to contribute to both the discussions and the action items.

Participation is limited to 50 attendees and pre-registration is required. Registration information will be announced via the FGDC Metadata Working Group and the FGDC Coordination Group email lists. 25 seats will be held for FGDC Member Agencies until October 3. At that point the remaining seats will be released and available for other attendees. Non-Federal participants who are part of the FGDC metadata working group are encouraged to attend.

For more information, contact: Viv Hutchison, USGS, VHutchison@usgs.gov or Jennifer Carlino, USGS, jcarlino@usgs.gov.

[REGISTER FOR FGDC METADATA SUMMIT](#)

Optional ISO Training Session

Introduction to ISO Metadata

A one day ISO metadata training class will be held Wednesday, October 26, 2011 (the day before the Metadata Summit) at the USGS Headquarters Building in Reston, Virginia from 8:30 am to 4:30 pm. This class will introduce the ISO standard, its components, and provide information on its use. This class is not a prerequisite for the Summit. However, participants in the training should plan to attend the Summit. Attendance is limited to 20 participants and pre-registration is required.

For More Information: Contact Jacqueline Mize, NOAA Jacqueline.Mize@noaa.gov.

What	<ul style="list-style-type: none"> ■ Summit ■ Metadata
When	Oct 27, 2011 from 08:30 AM to 04:30 PM
Where	USGS Headquarters Building, Reston, Virginia
Add event to calendar	vCal iCal

ISO 19115-1 Status

- ISO 19115-1 is the new number for the revised ISO 19115:2003
- What's new in ISO 19115-1
 - Concept of "recommended core" was removed
 - Incorporating services metadata from ISO 19119
 - Data Quality moving to ISO 19157
 - Feature (catalog) information (entity/attribute metadata) enabled (physically or by link to ISO 19110 compliant catalogs)
 - Responsible party restructured to enable reuse for different roles
 - Many new elements added/improved, ex:
 - metadata identifier improved, new MD_Scope and MD_KeywordClass added, online linkage in Citation, Reference system type code attribute added, . . .)

Revision Status

- Committee Draft released 2011-01
- Reviewed by members
- Voting
 - 24 Yes
 - 12 with comments
 - 3 No
 - 5 Abstain
- Editing committee adjudicated comments – Delft, NL 2011-5-23-26
- Number of comments
 - 364 Editorial comments
 - 125 General comments
 - 499 Technical comments
 - 988 Total

Schedule

ISO 19115-1

EC revised document sent out for review	2011-8-31
Vote in Pretoria	2011-11-18
Draft International Standard	2011-12
Final Draft International Standard	2012-12
International Standard	2013-05

ISO 19157 Data Quality

DIS (US comments and vote due 31 Oct)	2011-06
FDIS	2012-06
IS	2013-01

ISO/TS 19139 Metadata XML schema implementation

We are anticipating starting work as soon as possible so that we have a schema when ISO 19115-1 final

NAP ISO 19115 and 19110

- NAP ISO 19115 Metadata
 - Remains stable as is;
 - Once ISO 19115-1 revision has reached DIS, work will start to create NAP ISO 19115-1
- NAP ISO 19110 Feature Catalog
 - Work is on hold until work on NAP 19115-1 is started

NPS FGDC Synchronize Tool for ArcGIS 10

Presenter:

Elena Robisch, NPS SERegion Geospatial Support
Program Manager, elena_robisch@nps.gov

Author of Tool:

Timothy Barnhart, formerly SCA GIS Intern and
computer programmer at SERegion Geospatial
Support Program, Summer 2011,
timothy_barnhart@hotmail.com

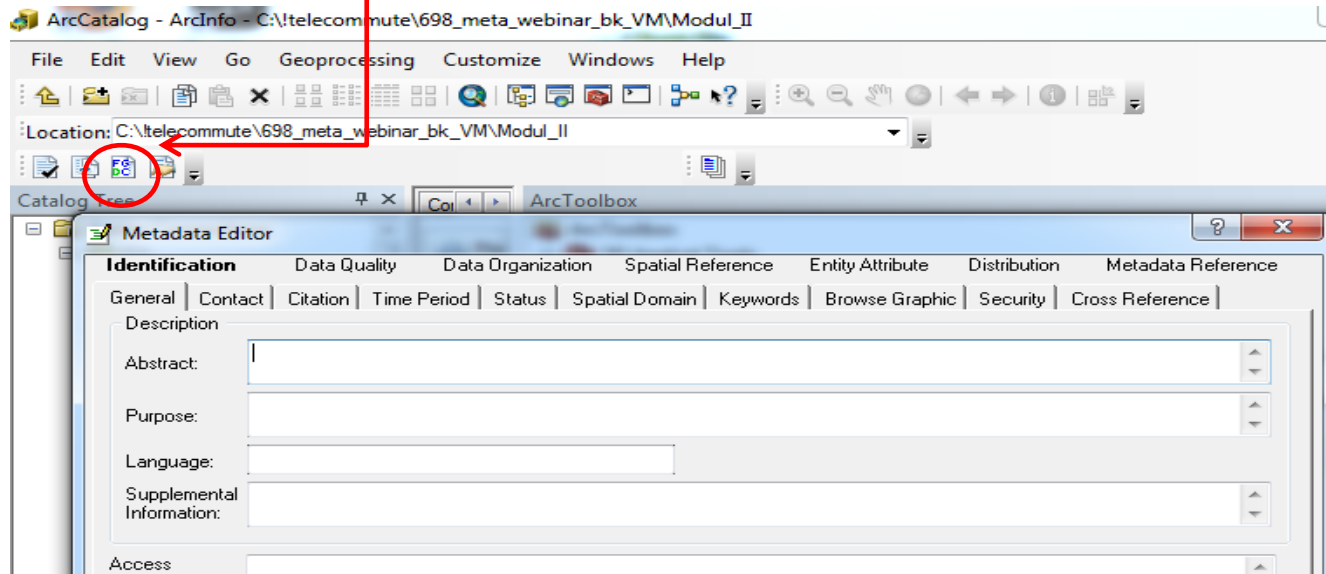
NPS FGDC Synchronize Tool for ArcGIS 10

- **Background:**

- ArcGIS 10 no longer supports the FGDC Metadata Editor and its automatically updated “properties”
- ESRI produced an FGDC Editor Add-in for ArcGIS 10 due to customer requests
 - <http://blogs.esri.com/Dev/blogs/arcgisdesktop/archive/2010/06/25/FGDC-Metadata-Editor-for-ArcGIS-10.aspx>

NPS FGDC Synchronize Tool for ArcGIS 10

- The Add-In adds the Metadata Editor & access to it via button on Tool bar
- But automated properties no longer available



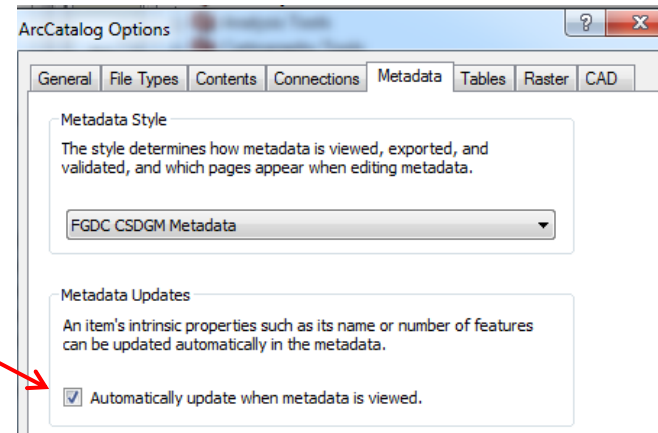
NPS FGDC Synchronize Tool for ArcGIS 10

- Adds these formerly automated properties to the metadata:
 - ❖ No. of features & Table Field Definitions
 - ❖ Name and feature type
 - ❖ Native Data Set Environment
 - ❖ Citation (name of data set) & Data Format
 - ❖ Metadata Reference
 - ❖ Spatial Extent & Reference (if projection is defined)
 - ❖ NPS Liability Statement to Distribution/Distribution Liability (will not overwrite text in that field)
 - This can be removed from the script or text deleted

NPS FGDC Synchronize Tool for ArcGIS 10

- Known Issues:
 - Must have write access to directories for install.py script to automatically install;
 - Else, must copy scripts & toolbox manually following instructions in readme.txt
 - Does not work on coverages
 - Must have metadata automatic update “on” for geodatabases for script to function properly

ArcCat → Customize
→ Options → Metadata



NPS FGDC Synchronize Tool for ArcGIS 10

- Known Issues (con't)
 - If multiple tables exist for data set, will assume first table is the attribute table and will attempt to synchronize its field values and no other tables
 - There is no formal support for these tools

To Download “NPS FGDC Synchronize” Tool:

<http://resources.arcgis.com/gallery/file/geoprocessing>

NPS FGDC Synchronize Tool for ArcGIS 10

Questions?



Remember, only YOU can prevent
bad metadata!
!Don't duck metadata!

Energy Industry Profile of ISO/DIS 19115-1 v1.0 Release Candidate

*A Metadata Initiative for the
Energy Community*

*Scott Hills (Chevron), representing:
Energistics Metadata Standards Work Group
email: metadata@energistics.org*

Federal Geographic
Data Committee

Metadata Working Group

Quarterly Telecon
October 6, 2011

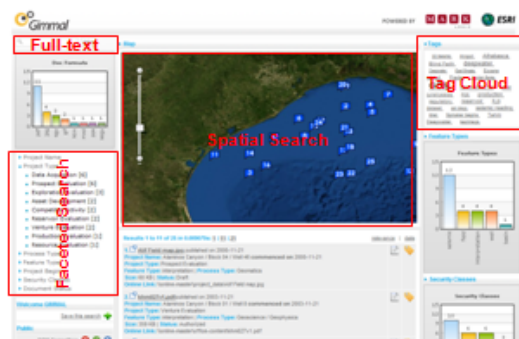
The Vision

Realize metadata standards and guidelines which enable stakeholders in the energy industry ("the community") to effectively and efficiently **discover, evaluate, and retrieve** information resources.

The standards and guidelines will **support both proprietary data management** needs, and **exchange of data between and within organizations**.

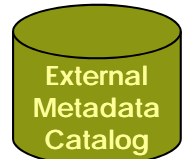
Leverage existing standards to encourage adoption within the community and integration into the business.

The Vision Implemented ...



Harvested Externally
(Commercial, Gov't,
& Academic)

Internal resources

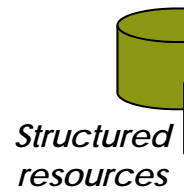
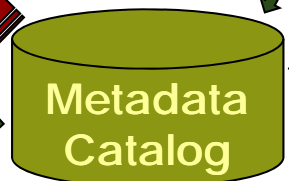


Partner & Subscription
Delivered

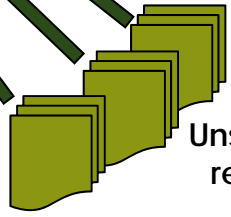
External resources



Application
Managed



Structured
resources



Unstructured
resources

Harvested Internally

Use cases for metadata
exchange standards

Scope

Application usage:

- Discovery, evaluation and retrieval of information resources distributed across the community

User community:

- Anyone cataloging, searching, evaluating or accessing information with value to members of the energy industry:
 - ✓ *Energy companies & consortia*
 - ✓ *Data & Information providers*
 - ✓ *Software vendors*
 - ✓ *Government agencies & Academia*

Resource types:

- Initial focus on structured and unstructured information resources which have associated spatial coordinates:
 - ✓ *Geospatial data sets & web services*
 - ✓ *Mapping, Interpretation & Modeling project data sets*
 - ✓ *Physical resources with associated location*

Initiative Participants

Steering Team

Dave Danko, ESRI
 Lisa Derenthal, Gimmel
 Alan Doniger, ACD Consulting Solutions²
 Scott Hills, Chevron¹
 Hari Koduru, Energistics
 Steve Richard, USGIN, AZ Geol Survey¹

Energistics

- Asset/Data Management SIG
 - Metadata Work Group

Active Participants (SMEs)

AAPG	Maersk Oil¹
Apache	New Century Software
Boise State Univ.	North West Geomatics
Carbon Lifecycle Technology	Oracle¹
ConocoPhillips	ORNL
DCP Midstream	P2 Energy Solutions
Deloitte Services LP	PEMEX
Devon Energy	PennWell
ETL Solutions	PetroWEB
Exprodat	Pioneer Natural Resources¹
ExxonMobil¹	PPDM ¹
First American Spatial Solutions	Priemere Consulting Group
Flare Solutions	SAS Global Oil & Gas
Fugro Robertson	Schlumberger¹
Geoscience Australia	Shell¹
Geosoft	Univ. of Auckland, NZ
les Brazil Consulting & Services¹	Virginia Dept of MM&E
IHS Energy	Wood Mackenzie

¹ Energistics member; ² Energistics Project Manager ; **Bold** Contributing to EIP requirements

Key Engagements

USGIN Project

- Joint project of U.S. Geological Survey and all 51 U.S. State Geological Surveys
- Formally invited Energistics' Metadata Work Group to collaborate on DOE-funded National Geothermal Data System Project
- Steve Richard (AZ State Geol. Survey) on Work Group Steering Team, contributing significant technical input

ISO TC 211, 19115 Revision Project Team

- Energistics granted Class A Liaison status to ISO TC 211
- Scott Hills representing Metadata Work Group on ISO 19115 Revision Project Team & Editing Committee
- Work Group contributed several enhancements to ISO/DIS 19115-1 important to the Energy Industry Metadata Initiative vision

Initiative Deliverables

Profile based on ISO/DIS 19115-1:2011 (125 pp.)

- Normative specification
- Implementation guidelines, Selected XML examples

Exemplar Resources & Conformant Metadata

(to be provided prior to v1.0 Release)

Data Type

Donating Organization(s)

Dataset



American Association of Petroleum Geologists

An International Geological Organization



Nefitex

Schlumberger

CoreLogic

Publication



THE ARIZONA
GEOLOGICAL
SURVEY

Web Service



Profile Documentation

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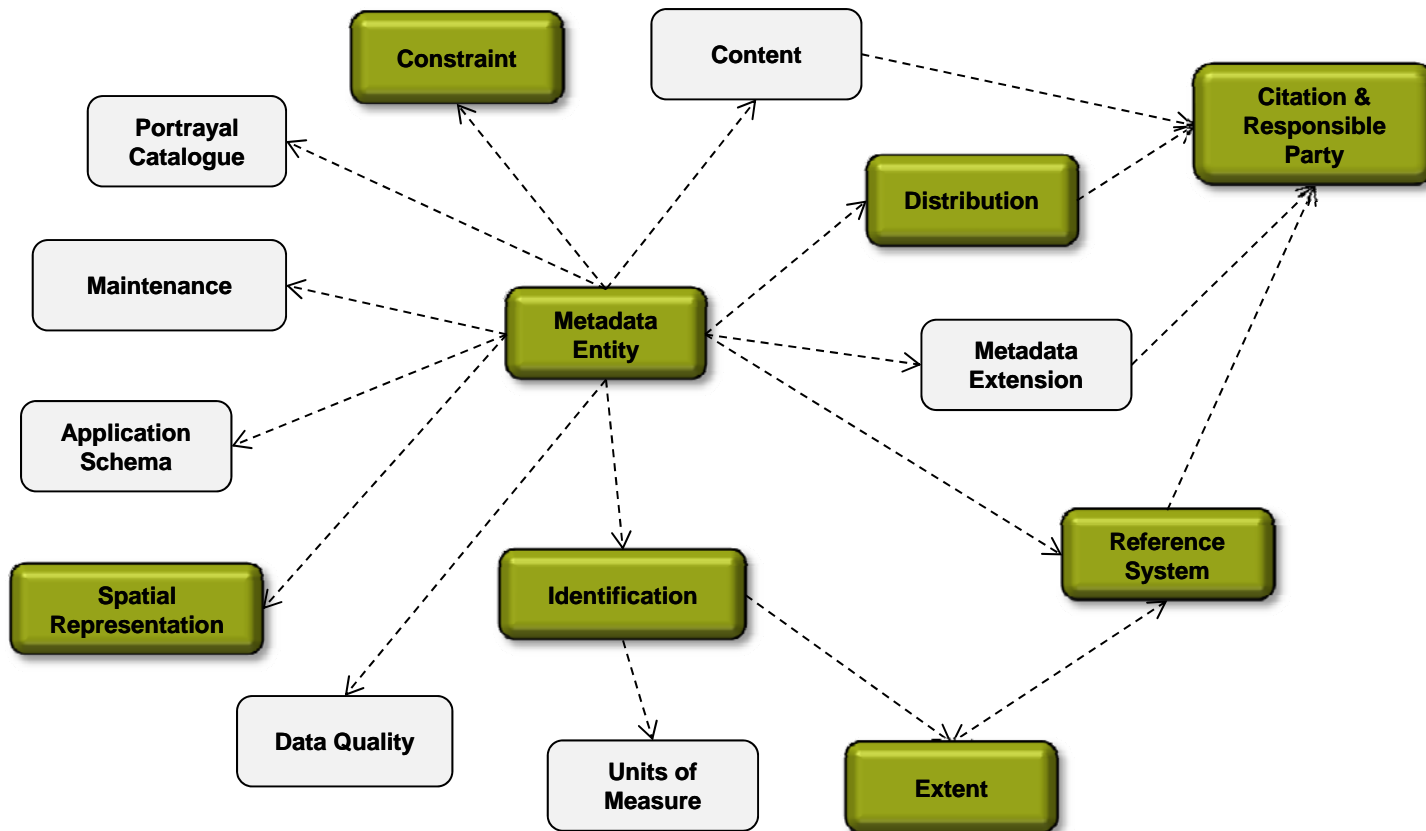
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Energy Industry Profile of ISO/DIS 19115-1 v1.0 Release Candidate	
Version 1.0	
Energy Industry Metadata Profile	Improving efficiency of information resource discovery, evaluation, and access within the Energy Community through standardized content and encoding for metadata. The scope includes physical resources, digital datasets and databases, documents, and services.
Version:	Version 1.0
Abstract	This document contains the normative specification and implementation guidelines for the Energy Industry Profile of ISO/DIS 19115-1 and ISO 19139. This is an ISO Conformance Level 1 profile designed to enable interoperability of structured metadata for the purpose of discovery and use of the information resources documented by those metadata. All rules and conformance criteria required for encoding metadata according to the profile are specified here. The adoption of this specification is intended to promote tool development and best practices that will reduce the overhead required for metadata creation, maintenance, and utilization.
Prepared by:	Energy Industry Metadata Standards Work Group and Energetics
Date of last edits:	18 August 2011
Document type:	Draft specification
Keywords:	standards, metadata, energy, data, information, process, geospatial

Scope Control

ISO/DIS 19115-1 Packages Represented in EIP v1.0



Section 6: Content Model Overview

Provides an overview of the
ISO/DIS 19115-1 content model
relevant to EIP v1.0

Discusses three key topics
considered important to
interoperability:

1. *Configurations for Individual Resources*
2. *Configurations for Collections of Resources*
3. *Resource Distribution Metadata*

Energy Industry Metadata Standards: EIP v1.0 Release Candidate

MD_Identification are presented for illustrative purposes only. The complete list of elements referenced by the EIP are summarized in 7 EIP Requirements Overview, and discussed in detail in 8 Element Specifications.

The minimum subset of the full content model required for conformance to the EIP are those elements identified as needed to enable the use cases for the purpose of discovery and use of the information resources documented by those metadata. Requirements for additional content in the ISO/DIS 19115-1 model were based on feedback collected in questionnaires distributed to the Energetics community, and requirements of USGIN Project. Items that ranked highest in relative importance were legal and security constraints on use of the resource, information to characterize the spatial representation, and information on how to obtain the described resource (distribution).

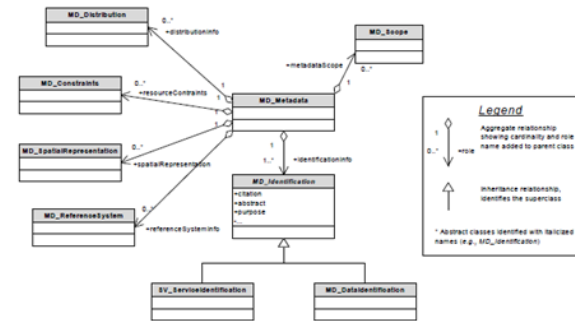


Figure 1. ISO/CD 19115-1 top-level UML classes included in the Energy Industry Profile. Cardinalities per ISO/CD 19115-1.

This version of the EIP

- makes no provisions about usage of Lineage, Maintenance, or Data Quality content specified in ISO/DIS 19115-1 and ISO 19157 (now referenced from ISO/DIS 19115-1 for data quality characterization). This information was ranked relatively low in importance and has considerable complexity; future versions of the profile will specify practices for this metadata.
- mandates use of only one instance of MD_Usage (either data identification or service identification) in an given MD_Metadate instance (see section 6.1.1).

6.1 Key Considerations

The ISO/DIS 19115-1 metadata model was developed to account for requirements from a variety of user communities, and as a result allows for multiple solutions to several common metadata issues. In such situations the workgroup has made decisions restricting the usage of some metadata entities and elements in order to

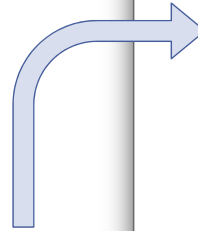
Section 7: EIP Requirements Overview

Provides an Overview of the EIP
Metadata Requirements

Identifies Three Classes of
Information Resources:

1. *Digital Products*
2. *Physical Products*
3. *Digital Services*

Defines MD_ScopeCode Values
using Three Properties, and
Maps Each Value to a Resource
Class



Energy Industry Metadata Standards: EIP v1.0 Release Candidate

Table 2 lists values of MD_ScopeCode, and assigns to each a value for each of the above three properties of resource classes, and maps each combination of properties to its associated Resource Class.

Table 2. Definition of selected values from the ISO/DIS 19115-1 MD_ScopeCode using three resource class properties, and mapping of property combinations to Resource Class. Each Resource Class would be associated with a particular collection of validation rules. Codes included here are top-level categories. For a complete list of scope codes applicable to EIP, see:

MD_ScopeCode value	Behavior	Form	Geospatial content	... maps to Resource Class
activity	activity	conceptual	present or absent	Activity
application	product	digital	absent	Digital Product
collection	product	conceptual	present or absent	Digital Product, Physical Product, may be Geolocated depending on instance.
dataRepository	product	digital	present or absent	Digital Product, may contain Geolocated datasets
dataset	product	digital	present	Geolocated Digital Product
nonGeographicDataset	product	digital	absent	Digital Product
document	product	conceptual	present or absent	Digital Product, Physical Product, may be Geolocated depending on instance.
sample	product	physical	present	Geolocated Physical Product
service	service	digital	present	Geolocated Digital Service
software	product	digital	absent	Digital Product

Noted above was that different resource classes have applicable to them different combinations of metadata elements. The different Resource Classes listed in Table 2 are considered by the EIP as composed of different combinations of five different groups of metadata elements, taken two or three at a time. We define five content element groups as follows:

1. "Common" content element group includes elements applicable to any information resource.
2. "Digital Product" content element group includes elements applicable to information resources in digital form representing static units of content that can be transported to different locations electronically. Digital products are intended for use by computers, and are typically file-based
3. "Physical Product" content element group includes elements applicable to information resources in physical form representing static units of content that can (at least conceptually) be transported to different locations. Examples include rock samples, core, facilities, and instruments.
4. "Digital Service" content element group includes elements applicable to resources that may be invoked through messaging using the Internet to execute one or more operations and return appropriate response messages. Examples include Open Geospatial Consortium (OGC) Web Map Services (WMS) and OPeNDAP (<http://www.opendap.org/>) services.
5. "Geolocated Resource" content element group includes elements applicable to any information resource that is related to a specific, physical location. The group may be used to describe any of the other resource categories except nonGeographicDataset and nonGeographicService.

Note that Physical Services (e.g., pizza delivery) are logically possible, but they are out of scope for this version of the EIP and thus not included in this scheme.

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Section 7 (2/3)

Decomposes Resource Classes into Various Combinations of Five Different Groups of Metadata Elements:

1. *Metadata Elements Common to all Resources*
2. *Elements Specific to Digital Products*

Energy Industry Metadata Standards: EIP v1.0 Release Candidate

Table 3. Required content elements in EIP metadata common to all resource classes. The content and implementation details column contains the name of the subsection in the following Section 8 in which the content element and its implementation is described. The Minimum M/C element values column indicates the minimum number of element values that must be provided [first number], and the number of values that may be required depending on some property of the resource or metadata record [conditional values, second number].

Content Name	Content and Implementation Details	Minimum M/C element values ¹	Changes to ISO 19115 ²
Metadata language	8.1.1 Metadata Language	1/0	
Metadata character set	8.1.2 Metadata Character Set	1/0	
Metadata contact	8.1.3 Metadata Point of Contact	3/0	O,Do
Metadata create date	8.1.4 Metadata Create Date	1/0	O
Metadata identifier	8.1.5 Metadata Identifier	1/0	
Metadata standard	8.1.6 Metadata Standard	1/3	
Metadata parent identifier	8.1.7 Parent Metadata Identifier	0/1	O
Metadata update date	8.1.8 Metadata Update Date	2/0	
Metadata scope	8.1.9 Metadata Scope	1/0	O,Do
Resource citation title	8.2.1 Resource Citation Title	1/0	
Resource citation date	8.2.2 Resource Citation Date	2/0	
Resource identifier	8.2.3 Resource Identifier	1/0	O
Resource cited responsible party	8.2.4 Cited Responsible Party	3/0	O
Abstract	8.2.5 Abstract	1/0	
Resource status	8.2.6 Resource Status	1/0	O
Resource owner or custodian	8.2.7 Resource Point of Contact	3/0	O
Resource content topic	8.2.8 Resource Topic Category	0/1	
Descriptive keywords	8.2.9 Descriptive Keywords	1/1	O
Constraints on resource access and usage	8.2.10 Constraints on Resource Access and Usage	3/0	O
Resource distributor	8.2.11 Resource Distributor Contact	3/0	O
Related resources	8.2.12 Resource Relationships and Aggregation	3/0	O
Total:		34/4	

¹ Minimum number of elements having Mandatory/Conditional obligation.

² Codes identifying changes to ISO 19115 characteristic(s) required for conformance to the EIP: "O" = Obligation; "C" = Cardinality; "Do" = Domain.

Table 4. Requirements applicable to resources identified as Digital Products. See explanation of columns with Table 3.

Content Name	Content and Implementation Details	Minimum M/C element values ¹	Changes to ISO 19115
Resource language	8.7.2 Resource Language	1/0	O
Resource character set	8.7.3 Resource Character Set	1/0	O
Digital product format	8.3.1 Digital Product Format	1/0	O
Digital product access	8.4.2 Product Ordering Process	0/1	O
Total (including "Base Elements"):		+3/1	

Section 7 (3/3)

Element Groups (cont'd)

3. *Elements Specific to Physical Products*
4. *Elements Specific to Digital Services*
5. *Optional Group Applicable to All Geolocated Resources*

Energy Industry Metadata Standards: EIP v1.0 Release Candidate

Table 5. Requirements applicable to resources identified as Physical Products. See explanation of columns with Table 3.

Content Name	Content and Implementation Details	Minimum M/C element values ¹	Changes to ISO 19115
Resource language	8.7.2 Resource Language	1/0	O
Resource character set	8.7.3 Resource Character Set	1/0	O
Physical product format	8.4.1 Physical Product Format	1/0	O
Product ordering process	8.4.2 Product Ordering Process	1/0	O
Total (including "Base Elements"):		+4/0	

Table 6. Requirements applicable to resources identified as Digital Services. See explanation of columns with Table 3.

Content Name	Content and Implementation Details	Minimum M/C element values ¹	Changes to ISO 19115
Basic service characteristics	8.5.1 Basic Service Characteristics	2/3	C
Coupled datasets	8.5.2 Coupled Datasets	1/2	C
Service distribution	8.5.3 Service Distribution	1/0	O
Service operations metadata	8.5.4 Service Operations Metadata	3/0	
Coupled operations and datasets	8.5.5 Coupled Operations and Datasets	0/4	
Total (including "Base Elements"):		+7/9	

Table 7. Required content elements for metadata describing geolocated resources. For EIP purposes, geolocated denotes that geographic coordinates (e.g., a bounding box) are applicable and available to specify the geographic location described by or identified in the content of the resource. See explanation of columns with Table 3.

Content Name	Content and Implementation Details	Minimum M/C element values ¹	Changes to ISO 19115
Spatial representation	8.6.1 Spatial Representation	5/0	C
Spatial reference system	8.6.2 Spatial Reference System	2/1	C
Spatial extent	8.6.3 Spatial Extent	4/0	C
Spatial resolution	8.6.4 Spatial Resolution	1/0	C
Table total (must be added to Totals in Table 4-6):		+13/1	

Section 8: Element Specifications

Seven subsections:

1. *Metadata Information*
2. *Resource Category-independent Information*
3. *Digital Product-specific Information*
4. *Physical Product-specific Information*
5. *Service-specific Information*
6. *Spatial Information*
7. *Normalized elements*

Individual Elements Presented with Uniform Format:

- *Normative Material: Content specifications and Notes*
- *XML implementation guidelines, notes, and an XML example*

Energy Industry Metadata Standards: EIP v1.0 Release Candidate

8.1.2 Metadata Character Set
Definition: A simple element identifying the character coding standard used for the metadata set.

8.1.2.1 Content specifications
 UML root path: MD_Metadata

Line	Name	Obligation	Cardinality	Datatype	Domain
20	characterSet	Mandatory	1	CodeList	MD_CharacterSetCode

8.1.2.1.1 Normative notes
 There is no difference between the above content specifications and those of the base standard.

8.1.2.2 XML Implementation

XPath	MD_Metadata/characterSet/MD_CharacterSetCode
2006 specification implementation	Same.
Automation considerations	Default to 'utf8' for most cases.

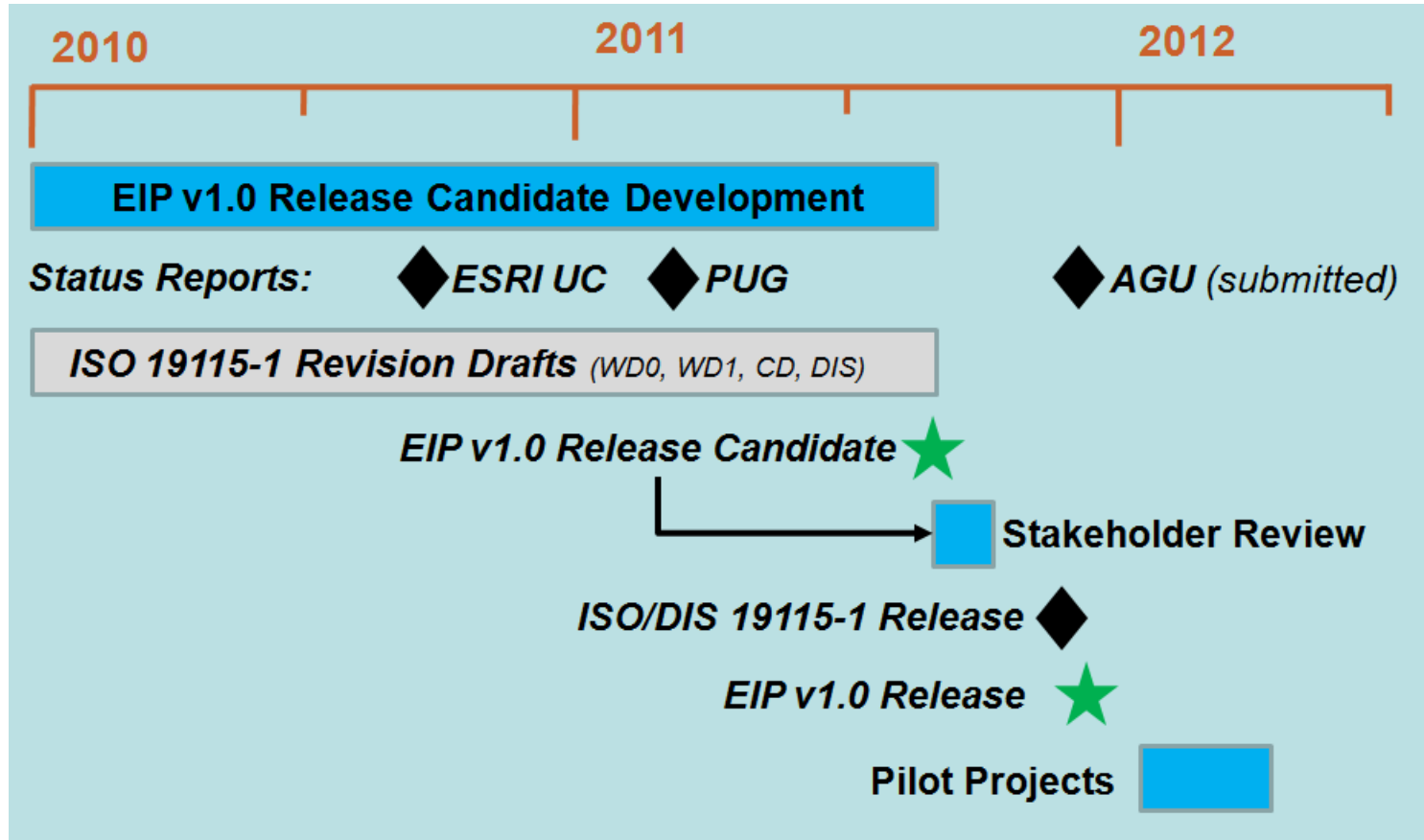
8.1.2.2.1 Implementation notes
 Use ISO codelist found online at http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO_19139_Schemas/resources/Codelist/gmxCodetlists.xml#MD_CharacterSetCode.

8.1.2.2.2 Example

```
<gmd:characterSet>
  <gmd:MD_CharacterSetCode codeList="http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO_19139_Schemas/resources/Codelist/gmxCodetlists.xml#MD_CharacterSetCode"
    codeListValue="utf8">UTF-8
  </gmd:MD_CharacterSetCode>
</gmd:characterSet>
```

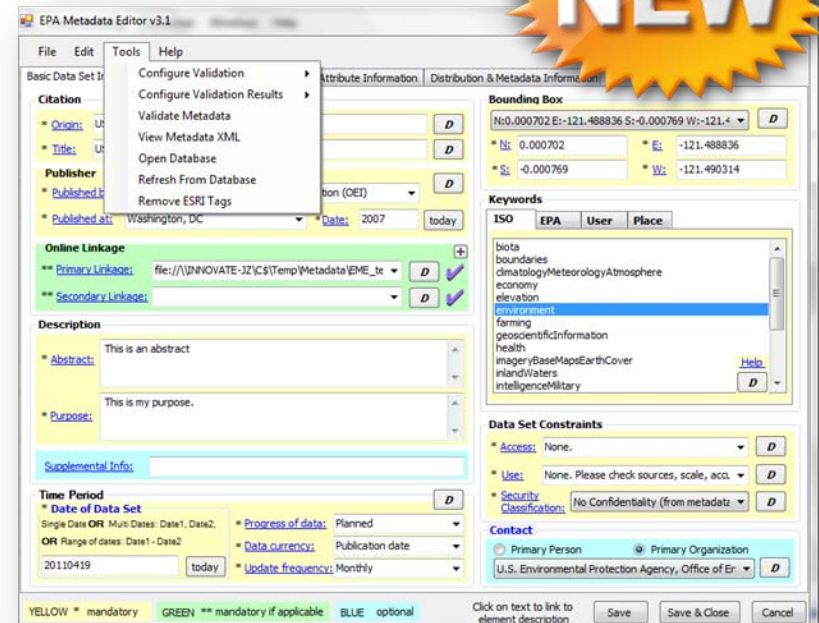
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Initiative Timeline



The EME: What's New?

- Compatible with ArcGIS 10
- Runs as a standalone application or an ArcGIS extension
- Many functions moved to menu bar
- Allows users to include more than two online linkages in metadata
- Metadata Export tool
- Keyboard shortcuts for copy/cut/paste in the EME user interface
- Access to EME help files directly from EME Toolbar
- Bug fixes



The Environmental Dataset Gateway (EDG)

EPA Environmental Dataset Gateway (EDG)
Connecting EPA's Environmental Resources

HOME SEARCH BROWSE

Home

Welcome to EPA's Environmental Dataset Gateway (EDG). Use the EDG to search for, discover, view, and access EPA's environmental resources. If you are an EPA employee or contractor, please login at the top of the page to see all EDG metadata records. [Get help logging in.](#)

Access EPA's Geospatial Resources

Search EPA's Data

Search

Other Ways to Find EPA's Data

[Advanced Search](#) [Browse EPA Records](#)

Do More with the EDG

Download Data
Use EPA's Data Access Project

Reuse Components
REST, GeoRSS, Gadgets, more...

EPA DATA FINDER
DATA FINDER IS A TOOL TO FIND EPA'S DATA SOURCES TO HELP PEOPLE ACCESS AND UNDERSTAND ENVIRONMENTAL INFORMATION. ALL OF THE DATA SOURCES ARE AVAILABLE ON THE

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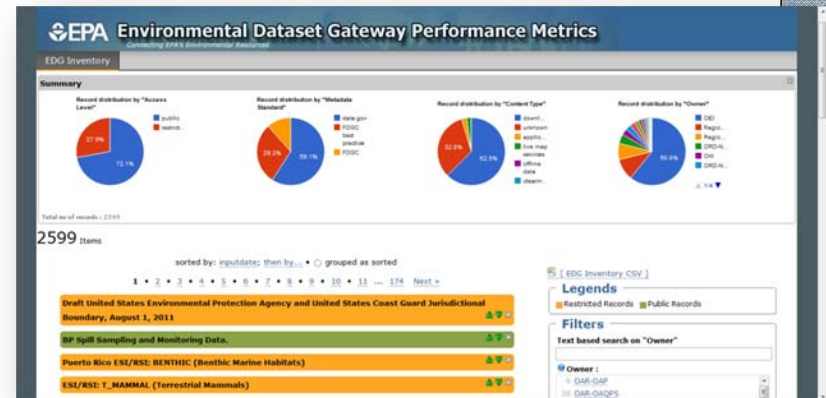
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The EDG is EPA's central geospatial metadata portal. Please read EPA's [Privacy and Security Notice](#).

- EPA's central metadata repository for geospatial and non-geospatial data
- Discover, view and access over 2500 environmental datasets
- Visit the EDG:
<https://edg.epa.gov/>

The EDG: What's New?

- EDG has expanded to include non-geospatial data
 - Non-geo data follows Data.gov standard
 - Upload non-geospatial data manually (CSV), or via EDG's dedicated metadata editor
- New performance metrics
 - Visualize EDG data distribution
 - Improved search capabilities
- Coming soon: enhanced Clip N Ship!



News from the field

Share your metadata related activities and interests

I am so glad I read the metadata before using this data to launch my next fiasco. However... it does make me very sleepy....

