



National Snow and Ice Data Center
Advancing knowledge of Earth's frozen regions

ISO 19115 and Earth Science

An overview

What was the process of establishing the standard?

- Well first there was the NASA Global Change Directory and it's standard the Directory Interchange Format (DIF)
 - US node of the CEOS-International Data Network (~1990's)

DIF Fields

[Entry ID](#)

[Entry Title](#)

[Parameters \(Science Keywords\)](#)

[ISO Topic Category](#)

[Data Center](#)

[Summary](#)

[Metadata_Name](#)

[Metadata_Version](#)

[Data Set Citation](#)

[Personnel](#)

[Instrument](#)

[Platform](#)

[Temporal Coverage](#)

[Paleo-Temporal Coverage](#)

[Spatial Coverage](#)

[Location](#)

[Data Resolution](#)

[Project](#)

[Quality](#)

[Access Constraints](#)

[Use Constraints](#)

[Distribution](#)

[Data Set Language](#)

[Data Set Progress](#)

[Related URL](#)

[DIF Revision History](#)

[Keyword \(Ancillary Keyword\)](#)

[Originating Center](#)

[Multimedia Sample](#)

[References \(Publications\)](#)

[Parent DIF](#)

[IDN Node](#)

[DIF Creation Date](#)

[Last DIF Revision Date](#)

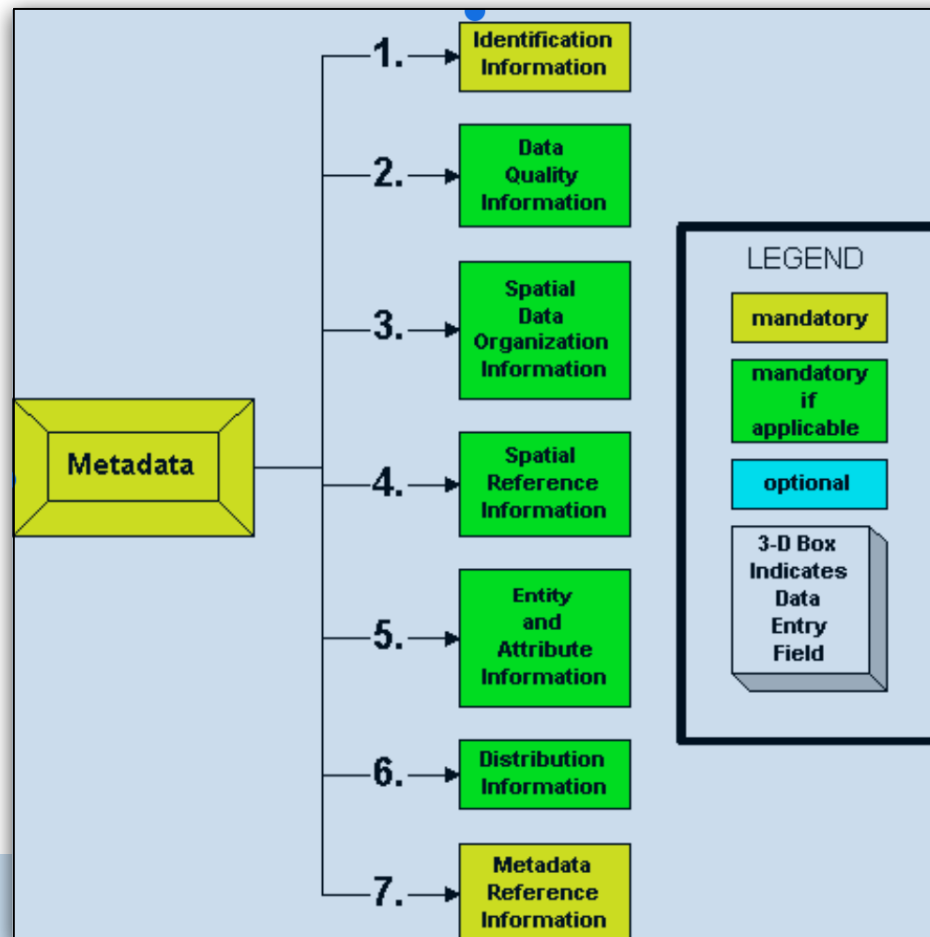
[Future DIF Review Date](#)

[Privacy Status](#)

[Extended Metadata](#)

What was the process of establishing the standard?

- In the meantime the Federal Geographic Data Committee was formed
- Content Standard for Digital Geospatial Metadata (CGDSM) for the documentation of GIS vector, raster and point data.
- Executive Order from President in mid-90's mandated it for Federal data

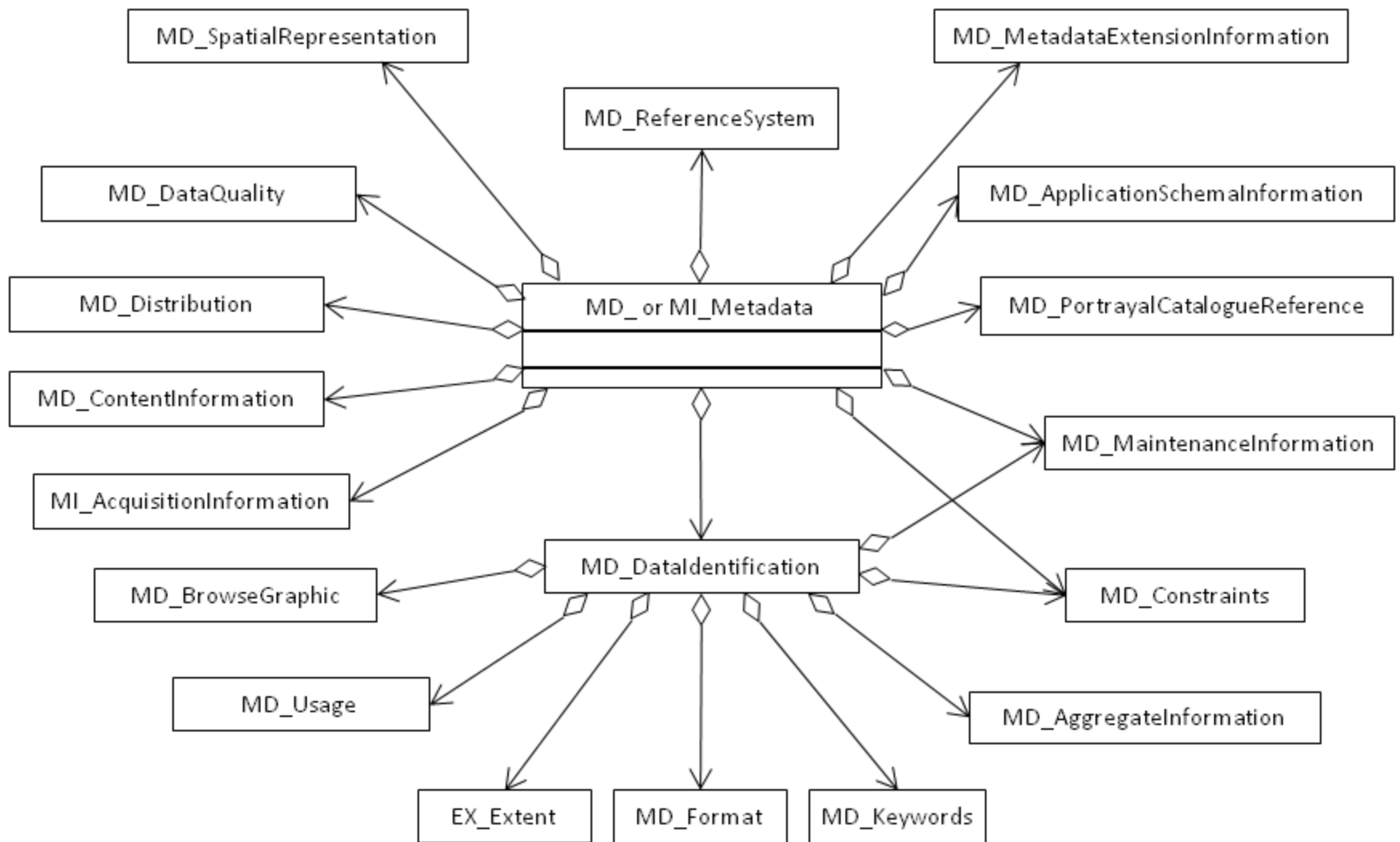


What was the process of establishing the standard?

- In the meantime the International community put together ISO 19115 (2003) led by the GIS community
 - Vector and point data and geospatial data services such as web-mapping applications, data catalogs, and data modeling applications.
- Then US imagery community works to adds elements to describe imagery and gridded data as well as data collected using instruments, e.g. monitoring stations and measurement devices.
 - ISO 19115-2 (2009) fully includes ISO 19115

Who uses the standard?

- Most agencies with geospatial data
- Many geospatial applications (e.g., ArcGIS)
- Repositories often map to it
- Nobody uses it completely yet



ISO Metadata Objects

How is ISO19115 adjusted to community needs?

- At the ISO level TC211 committee members are supposed to bring in the needs of their community
- At the repository level, subsets of the standard are used
- Individual communities may create profiles

How do we avoid overlapping and redundant standards?

- We don't

How do we make standards interoperable?

- Ok, we build
 - Cross-walks
 - Add missing components to whatever we were using
 - Use metadata repositories that keep what we need and can provide it formatted in many ways

Closing thoughts

