The Feature Catalogue:

A component of an S-100 Product Spec.

Main Document
- Specifies what is needed to build a complete product
  - Feature Types
  - Geometry
  - Data formats and file size
  - Metadata

Feature Catalogue
- Features
- Attributes
- Enumerants
- Bindings
- Point, Curve, Surface, Coverage

Portrayal Catalogue
- Symbols, Line Styles and Area Fills
- Rule for how the feature attribute combination must be portrayed
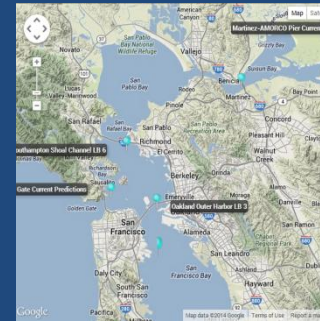
Data Classification and Encoding Guide
- Contains the guidance for how the data should be encoded by the data producer
- Useful as a template for building the feature catalogue

Exchange Format
- Data format that is used for data exchange
  - ISO 8211 – normally used for ECDIS
  - GML – good for exchanging information outside of the ECDIS arena
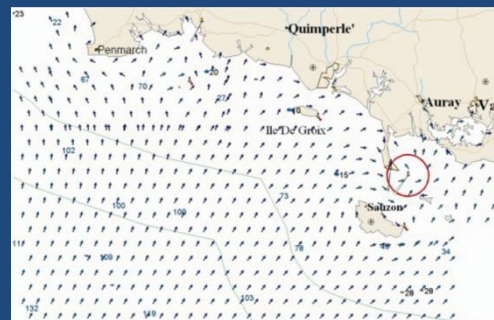 - XML – text based data exchange for both ECDIS and non - ECDIS

Feature Categories for Currents

1. Geometric Feature
a point, line, or surface

Location of a tidal current prediction or real-time observation

2. Coverage Feature
an image, point set, or grid

(a)Rectangular Grid: Georectified

Ungeorectified, ungeoreferenced

Feature Attributes

Not Attributes (covered elsewhere in spec):
  Coordinate System: horizontal: X, Y   (WGS 84)
                               vertical: Z   (datum)
  Time Reference System: UTC

Geographic (i.e., Point) Feature Attributes:
                Speed, Dir., Time, Uncertainty, Depth, A, B, ….

Coverage (i.e., Grid) Feature Attributes:
                Gridded speed values
                Gridded direction values
                Gridded uncertainty values

                ……..

List of Potential Surface Current Attributes

NO.	ATTRIBUTE
1	Speed
2	Direction
3	Uncertainty (in speed, in direction)
4	Uncertainty type (StD, RMSE, Pct.)
5	Valid time
6	Source time (or age)
7	Depth of current (relative to vertical datum)
8	Depth of layer
9	Composition (tidal, total)
10	Character (hist. observation, RT obs, tide prediction, forecast)
11	Source (country, agency)
12	Lagrangian vs. Eulerian
13	Water level/tidal elevation
14	Uncertainty in position
15	Maximum speed
16	Language (of explanatory text)
17	Instrument type (for obs)
18	Numerical model type

Types of Attributes

Attribute	Attribute Level	Data Type	Example
Speed	Att	C: Complex	
Speed Value	SubAtt	RE: Real Value	1.237
Speed Units	SubAtt	EN: Encoded Value	2 (1=m/s, 2=kts, etc)
Valid Time	SubAtt	DT: UTC Date+Time YYYMMDD+HHMMSS	20140528 +142605
Source	SubAtt	TE: Text	CA_SLGO

Other: (a) Mandatory or optional value, (b) Number of values

Next Steps:

- Discuss List of Attributes for a Point Feature

- Modify as Necessary

- Go on Record to Agree or Disagree
  (Note: list can be modified later)

- If Agree, Submit List to TSMAD

- After SCWG2, Chair to Develop Final Tables for Points and Coverages