IHO S-100 Working Group

Progress report on S-100 DCEG builder

KHOA/KR

Presented by Yong BAEK

This software is part of ongoing Korean e-Navigation project and is the outcome of collaboration between KHOA and the Korean Register.

Background

- **Inconsistency between DCEG and FC**
  - DCEG and S-101 FC comparison (TSMAD29, 2015)

- **Related documents**
  - Report “a method of improving consistency..” (TSMAD29, 2015)
  - Concept of DCEG editor and Prototype Development (S-100WG1, 2016)
  - Progress on S-100 DCEG Builder Development (HSSC9, 2017)

Background

- **Request for a DCEG builder**
  - NIPWG request (S-100WG2, 2016) ;

" The development of the S-123 DCEG… The current way to prepare the feature dictionary part has been considered as critical. *The NIPWG noted with interest the KHOA initiative to develop a tool which automatically produces the DCEG feature catalogue based on the Feature Catalogue Builder* …"

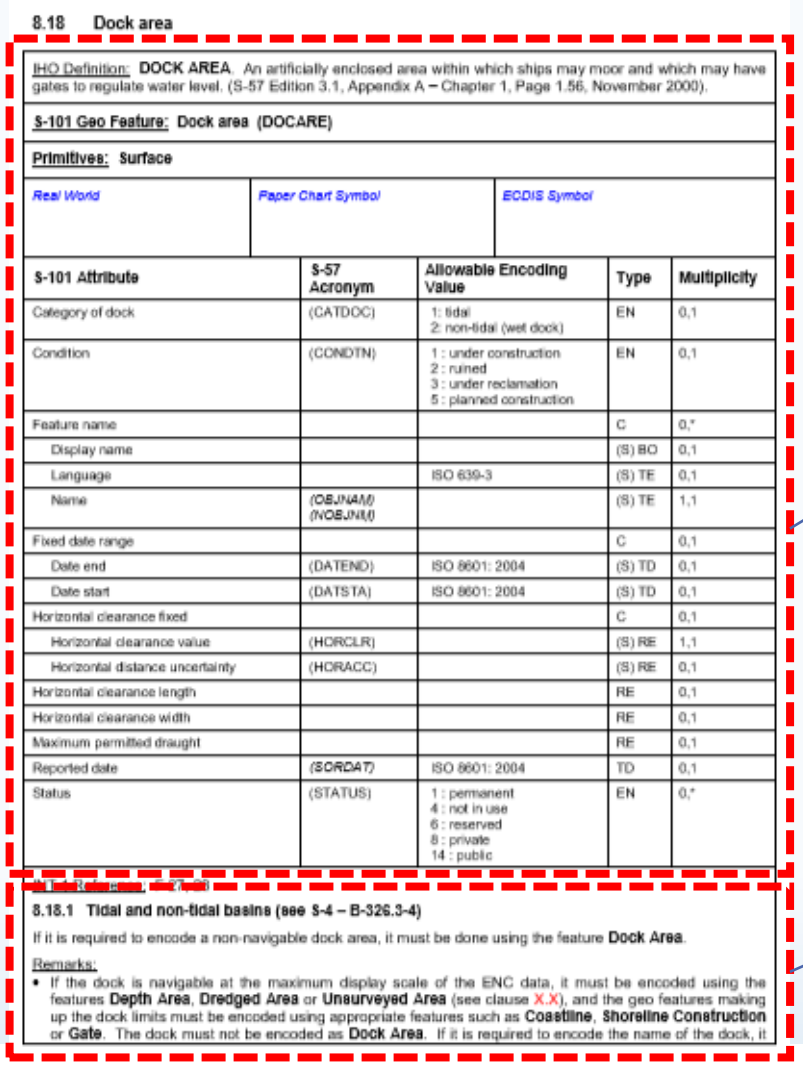
What is S-100 DCEG builder ?

- **Data Classification and Encoding Guide (DCEG)**
  - The data product specification shall provide information on how the data is to be captured. This should be as detailed and specific as necessary. The product specification shall include this information for each identified scope.
  - The product specification includes the collection criteria for mapping real world objects to the conceptual objects of the dataset… (S-100 3.0.0, 11-9)

- **Feature Catalogue**
  - A catalogue containing definitions and descriptions of the feature types, feature attributes, and feature associations occurring in one or more sets of geographic data

What is S-100 DCEG builder ?

- **DCEG**



8.18 Dock area

IHO Definition: **DOCK AREA**. An artificially enclosed area within which ships may moor and which may have gates to regulate water level. (S-57 Edition 3.1, Appendix A – Chapter 1, Page 1.56, November 2000).

S-101 Geo Feature: Dock area (DOCARE)

Primitives: Surface

Real World	*Paper Chart Symbol*	*ECDIS Symbol*

S-101 Attribute	S-57 Acronym	Allowable Encoding Value	Type	Multiplicity
Category of dock	(CATDOC)	1: tidal 2: non-tidal (wet dock)	EN	0,1
Condition	(CONDTN)	1 : under construction 2 : ruined 3 : under reclamation 5 : planned construction	EN	0,1
Feature name			C	0,*
Display name			(S) BO	0,1
Language		ISO 639-3	(S) TE	0,1
Name	*(OBJNAM)* *(NOBJNM)*		(S) TE	1,1
Fixed date range			C	0,1
Date end	(DATEND)	ISO 8601: 2004	(S) TD	0,1
Date start	(DATSTA)	ISO 8601: 2004	(S) TD	0,1
Horizontal clearance fixed			C	0,1
Horizontal clearance value	(HORCLR)		(S) RE	1,1
Horizontal distance uncertainty	(HORACC)		(S) RE	0,1
Horizontal clearance length			RE	0,1
Horizontal clearance width			RE	0,1
Maximum permitted draught			RE	0,1
Reported date	(SORDAT)	ISO 8601: 2004	TD	0,1
Status	(STATUS)	1 : permanent 4 : not in use 6 : reserved 8 : private 14 : public	EN	0,*

8.18.1 Tidal and non-tidal basins (see S-4 – B-326.3-4)

If it is required to encode a non-navigable dock area, it must be done using the feature **Dock Area**.

Remarks:

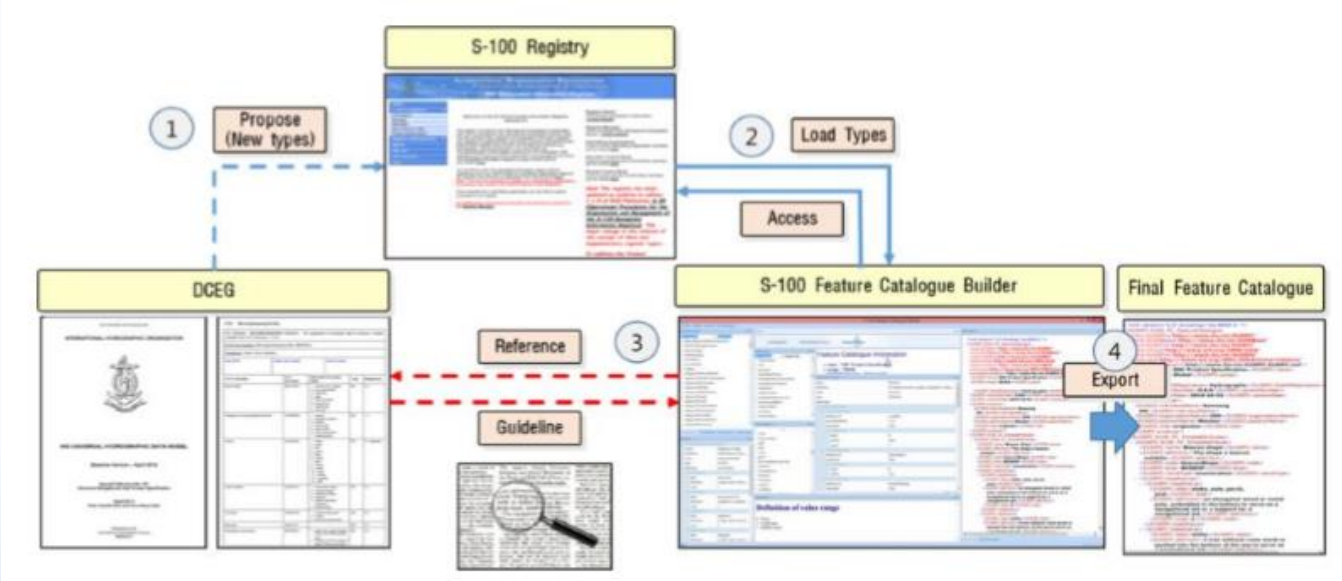
- If the dock is navigable at the maximum display scale of the ENC data, it must be encoded using the features **Depth Area**, **Dredged Area** or **Unsurveyed Area** (see clause X.X), and the geo features making up the dock limits must be encoded using appropriate features such as **Coastline**, **Shoreline Construction** or **Gate**. The dock must not be encoded as **Dock Area**. If it is required to encode the name of the dock, it

Part 1
Feature Catalogue

Part 2
Encoding guide

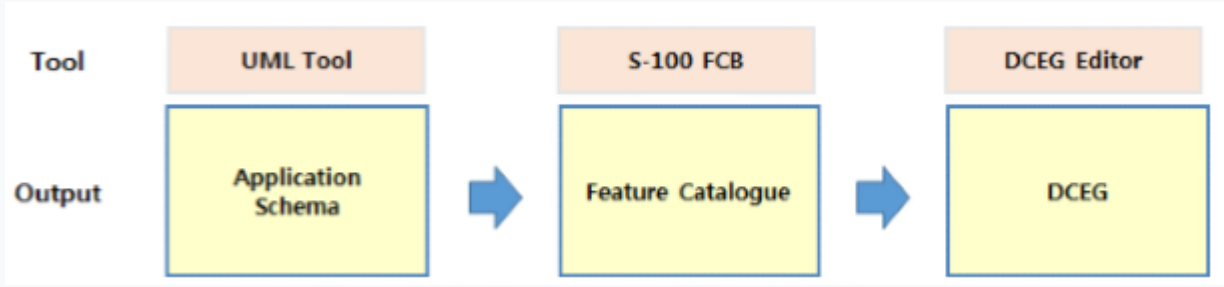
What is S-100 DCEG builder ?

- **Harmonization Issue between DCEG and FC**
  - As DCEG and Feature Catalogue were made from different sources, it is natural that there may be a few inconsistencies between the two items. As the current FC creation process is to input and bind data by hand using S-101 FCB after cognitive processes of DCEG, the output could include human errors

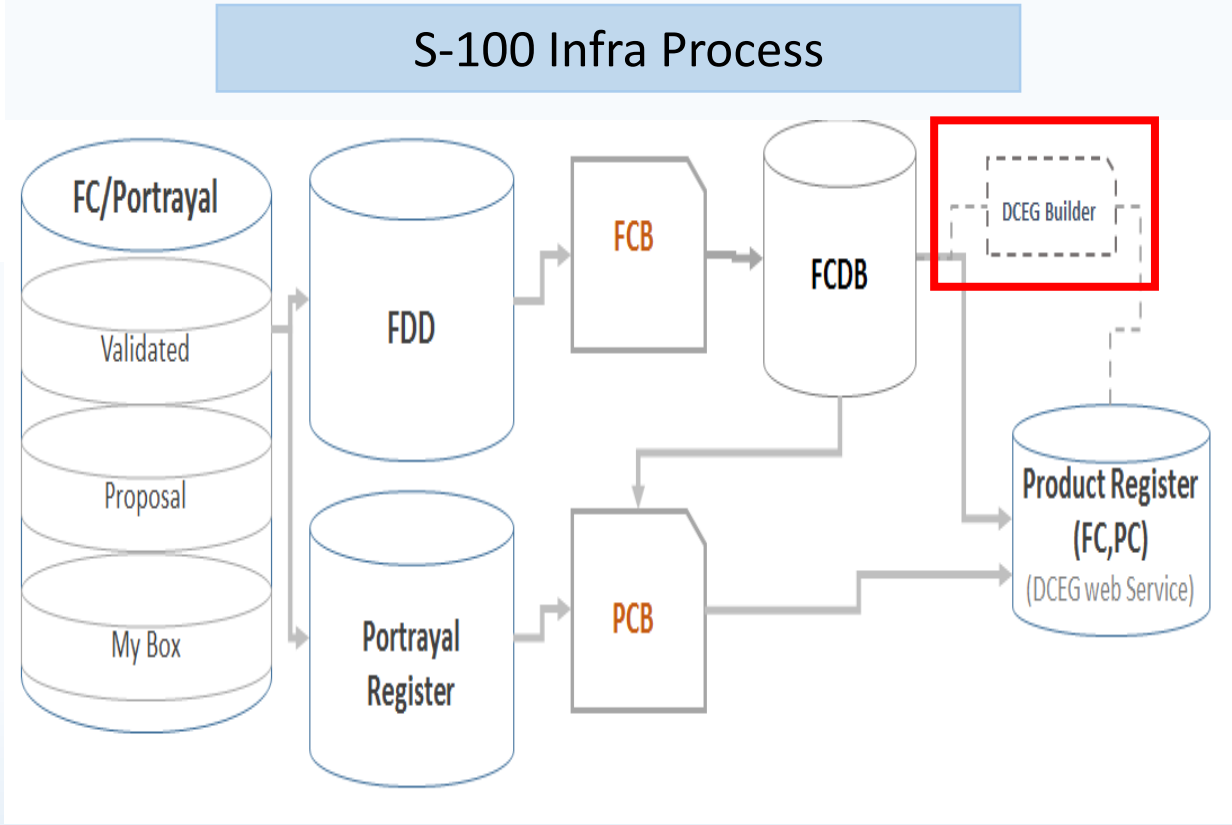


What is S-100 DCEG builder ?

- **DCEG**

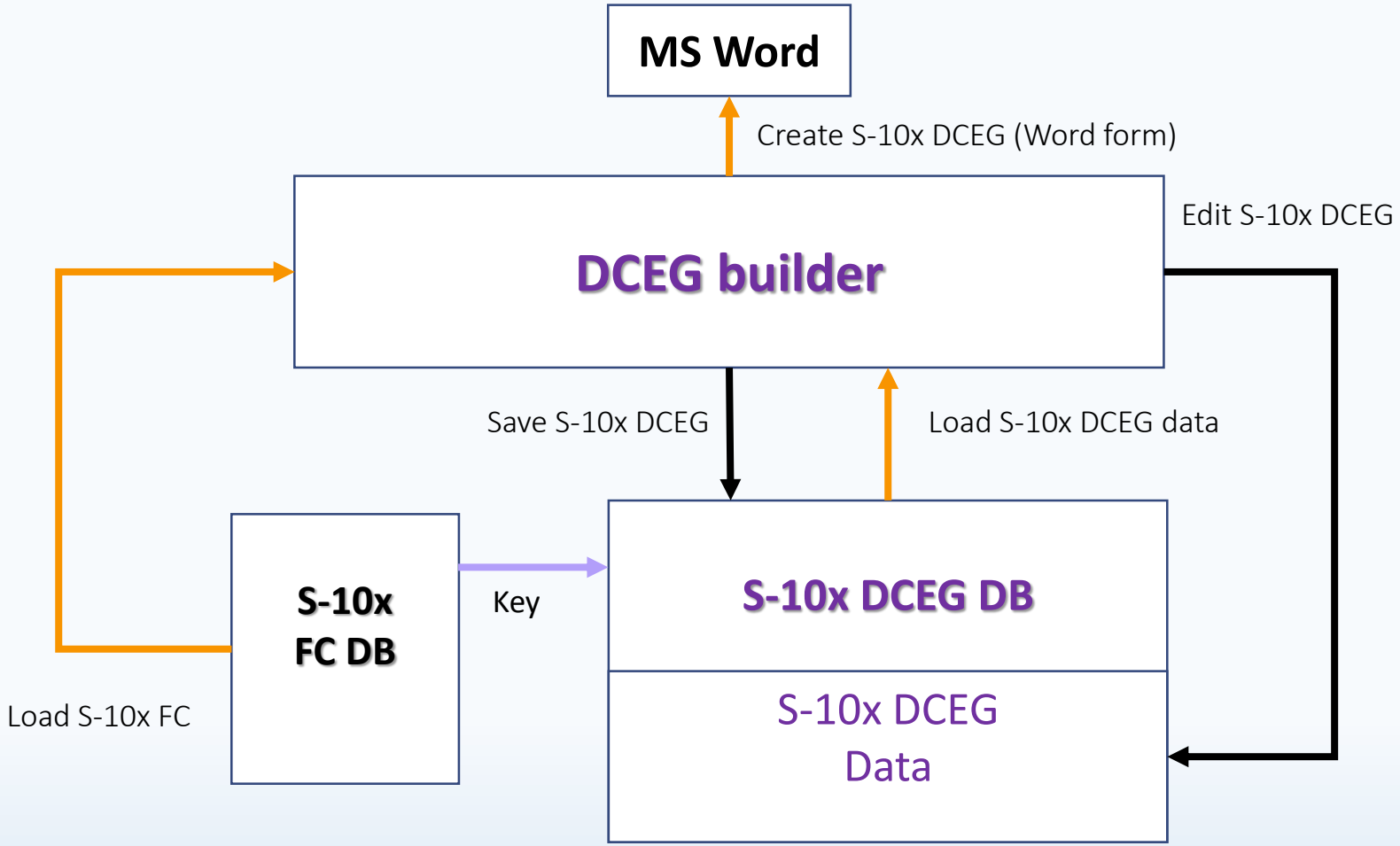


Process of the DCEG builder



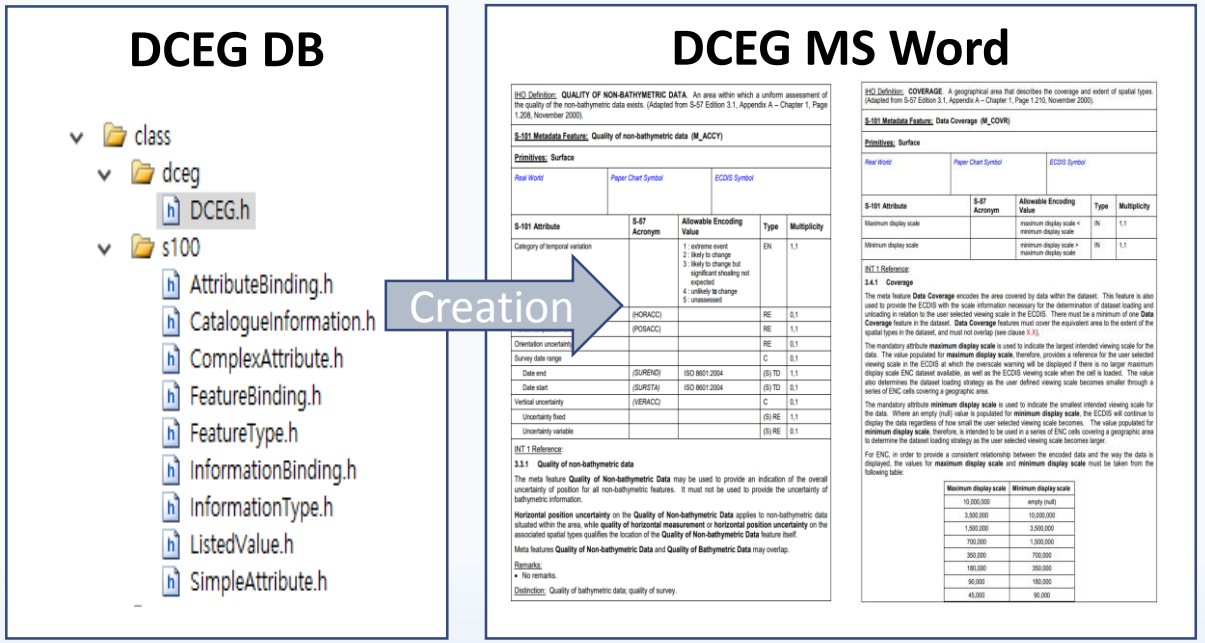
What is S-100 DCEG builder ?

- **DCEG**



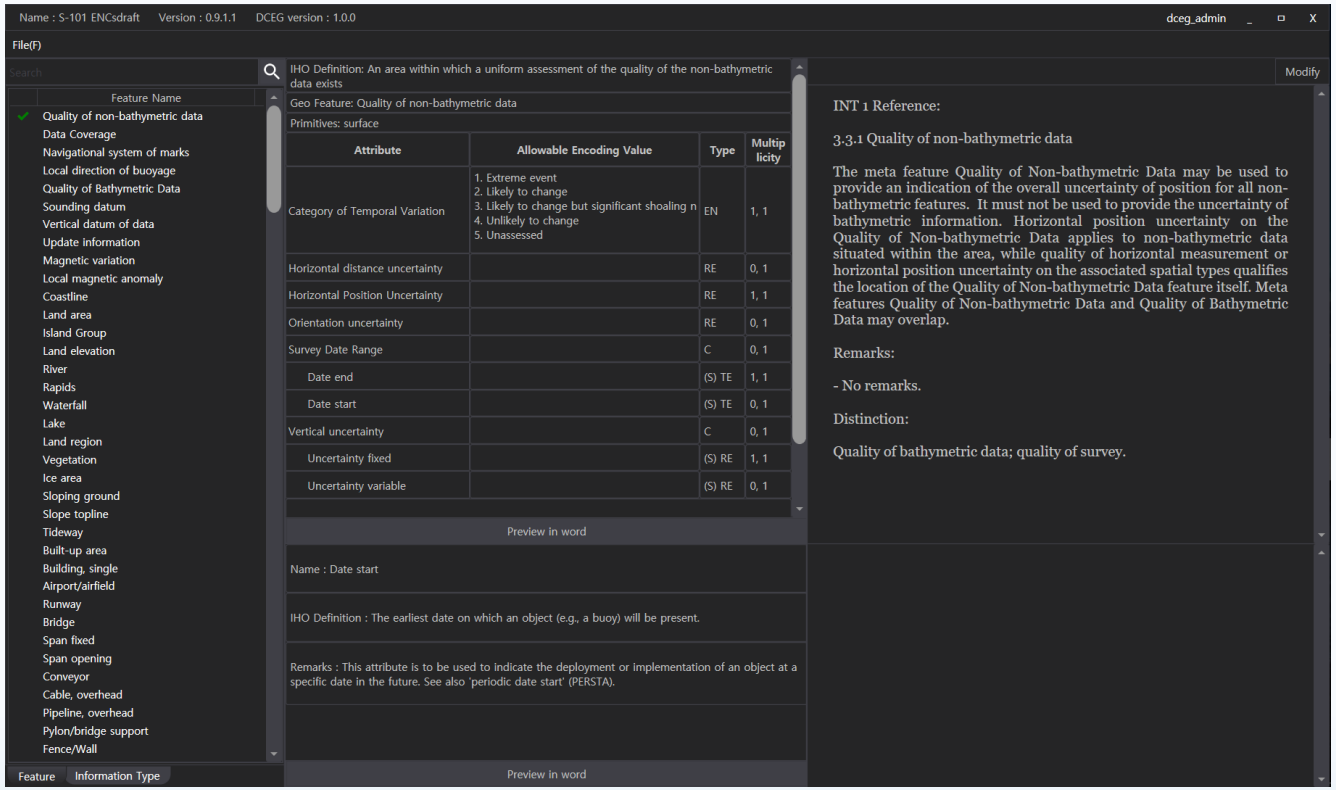
What is S-100 DCEG builder ?

- **DCEG functions**
  - Load Feature Catalogue (FC) from FC DB
  - Save/Open DCEG DB
  - Edit / Delete DCEG in DCEG DB
  - Comparison between FC and DCEG
  - Comments
  - Export as MS word format
  - etc …



Demo

- **S-100 DCEG Builder**



Action requested of S-100WG

- **Note** the report.
- **Request** to provide recommendations and feedbacks if any.