Hydrographic Services and Standards Committee

Introduction of S-100 Infrastructure

S-100WG / KHOA

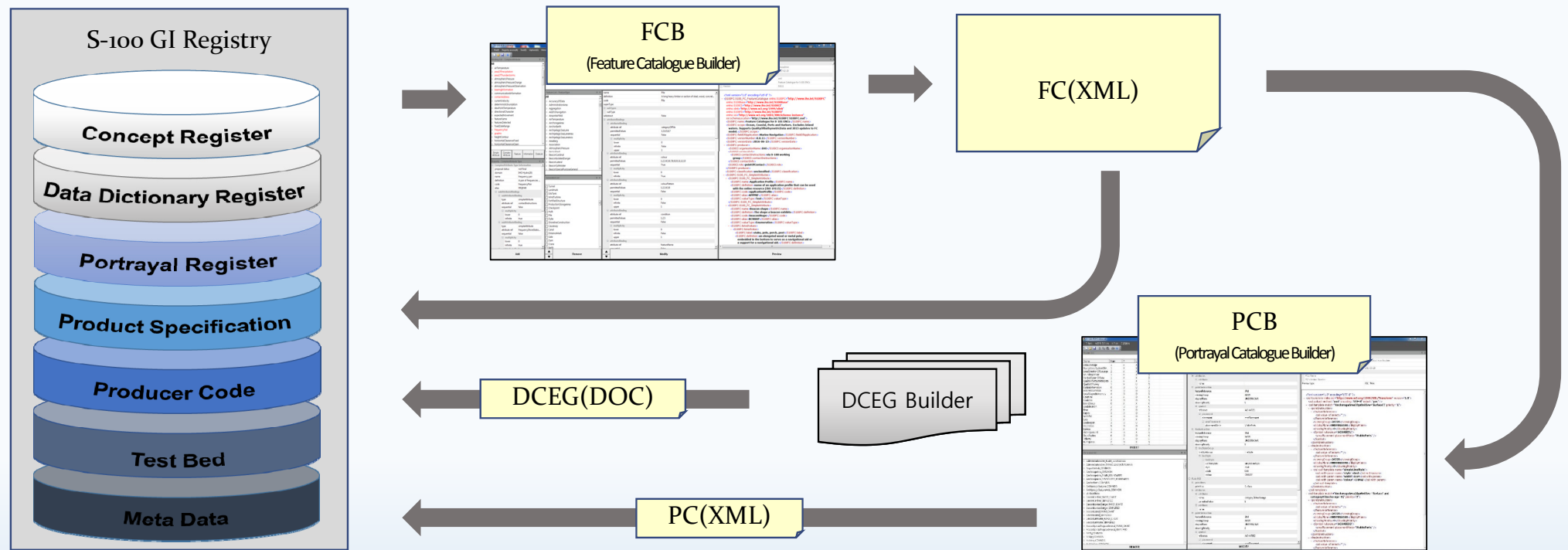## Presented by KHOA (Yong BAEK)

Introduction (1/2)

- **What is S-100 Infrastructure?**

  - **A framework** to support S-100 concept and S-10X product specifications
  - Composed of :
    - S-100 GI Registry
    - Feature Catalogue Builder with FC
    - Portrayal Catalogue Builder with PC
    - DCEG Builder (refer to DCEG builder development)

Introduction (2/2)

- **Overview of S-100 Infrastructure status**

S-100 GI Registry Improvements

- **Status of S-100 GI Registry**
  - 1st phase : Initial interface and DB for FCD (~2015)
  - 2nd phase : Update FCD, new Portrayal register (2015~2016)
  - 3rd phase : Develop a New S-100 GI Registry (2017~2018)
  - 3.1rd phase : Conduct closed-beta test (2019~Present) and ready to RELEASE

- **New Registry now supports :**
  - Concept register, Data Dictionary register and Portrayal register.
  - S-10X PS development process(Test Bed, Product Specification
  - Other registers(Producer Code, Metadata, Document)

S-100 GI Registry Improvements

- **Concept register**

  When S-10X developers find a new feature for product specification, they should propose it as concept and get review by register manager and whole domain control body to enhance data consistency/harmonization and avoid duplication

- **Data Dictionary register**

  Concepts can be transferred to features through the Data Dictionary register and uploaded to database and linked with S-100 Feature Catalogue Builder to generate S-10X feature catalogue XML files

- **Portrayal register**

  Only 4 types(Symbol, Line Style, Area Fill, Font) was supported over the past years, however NEW Portrayal register supports the whole 19 types which are defined in S-100 standard 3.0

S-100 GI Registry Improvements

- **Test Bed**

  Outcomes(e.g. PS document, FC, PC, TDS) of all NEW S-10X development should be uploaded and managed by Test Bed system and they will be reviewed by various of stakeholders before official publish like 1.0.0 and 2.0.0

- **Product Specification register**

  When the S-10X PS released officially, it will be moved to Product Specification register and shared to hydrographic users and S-100 Infrastructure

- **Metadata register**

  As following the S-100 standard 3.0 and 4.0, Metadata register was developed to support metadata such as exchange catalogue and process of Metadata register refers to Portrayal register

S-100 GI Registry Improvements

S-100 Feature Catalogue Builder

- **S-100 FCB 2.1.0 Release**

  - **(Feature Association Validation)** New tool for feature to check whether feature association (role type, binding information) between feature types facing each other

Omission of Feature binding
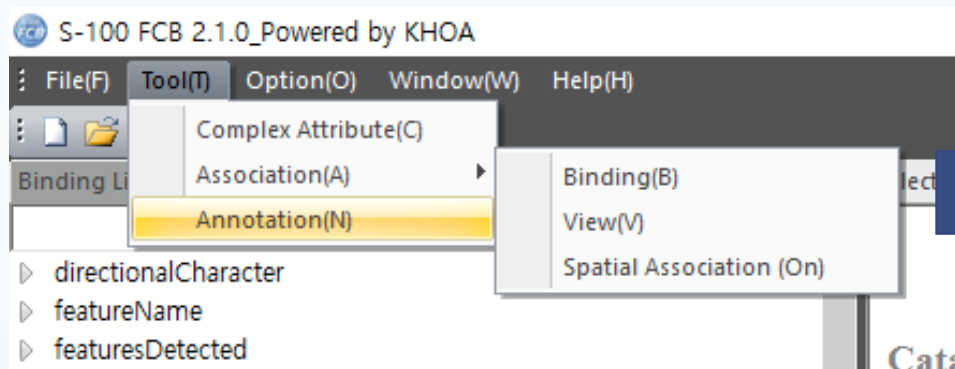
Discrepancy of role type
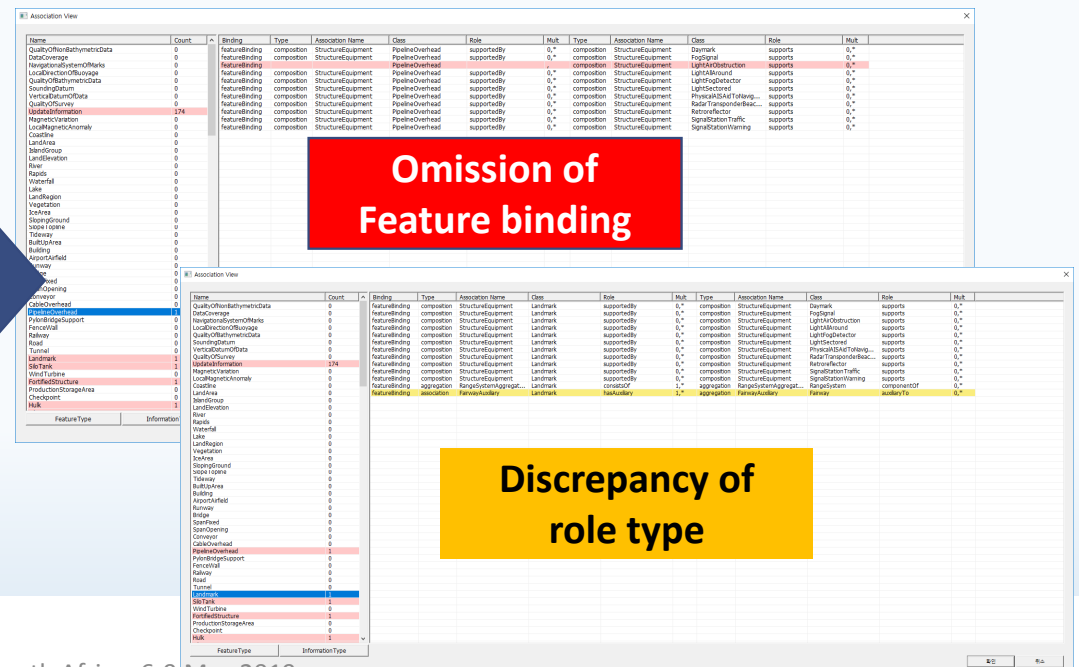
S-100 Feature Catalogue Builder

- **Annotation Function**

  - Users can add any annotation to S-10X FC

- **Spatial Association for S-100 Converter**

  - New function to add or delete Spatial Association to support S-100 Converter
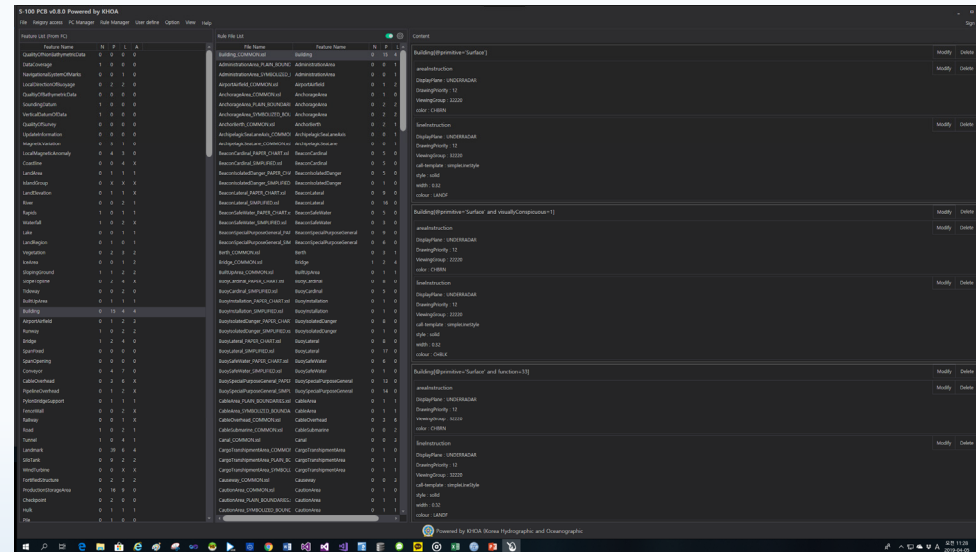
S-100 Portrayal Catalogue Builder
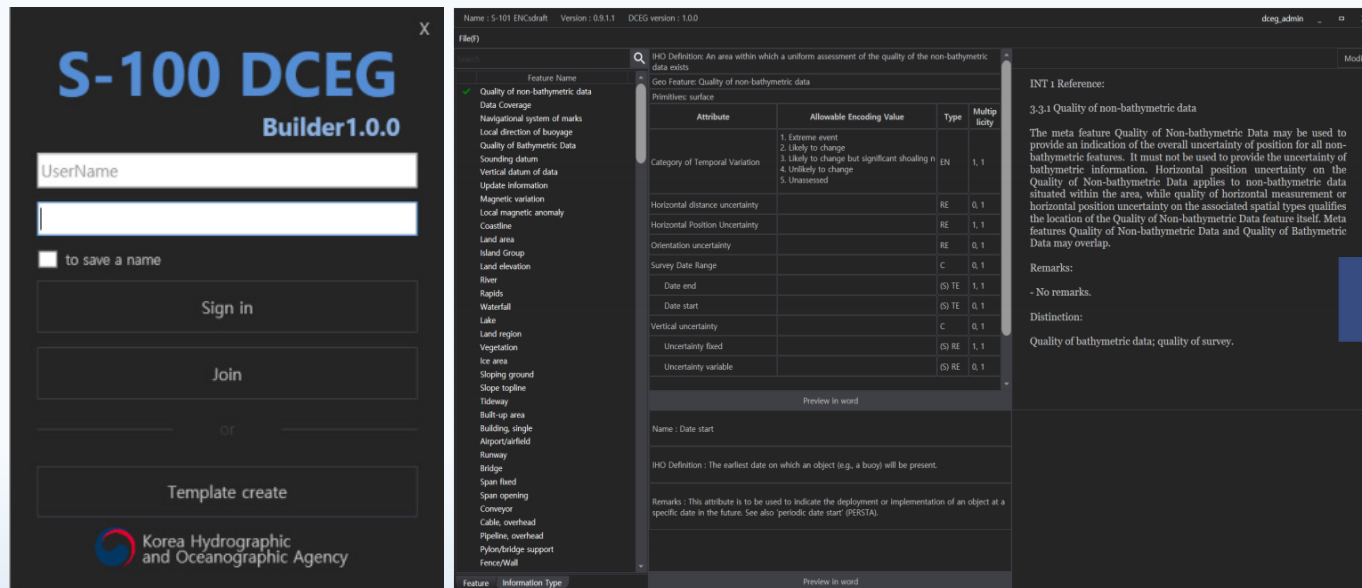
- **S-100 PCB 1.0.0 Release**
  - A new concept of UI was applied to S-100 PCB 1.0.0
  - Improved to manage rule files by main and sub
  - Provide necessary information (eg, Context Parameter) required to produce PC XML.

S-100 DCEG Builder

- **S-100 DCEG Builder 1.0.0 Release**
  - S-100 DCEG Builder supports to generate a S-10X Product Specification's annex such as DCEG(Data Classification and Encoding Guide) document in an easy way by referring S-10X FC XML to load feature information

Part 1
Feature Catalogue

Part 2
Encoding guide

Future Plans

- **S-100 GI Registry**
  - Migration from the registry 2.1(FCD) to the New registry 3.1 version

- **Other Infrastructures**
  - S-100 FCB, PCB : Connection task with the new Registry 3.1 version
  - DCEG Builder : Test and improve with PS developer co-work

Action requested of HSSC 11

- **Note** the report.

- **Request** to provide recommendations and feedbacks if any.