

IHO S-100 Working Group

Update of S-100 PCB

Presented by KHOA



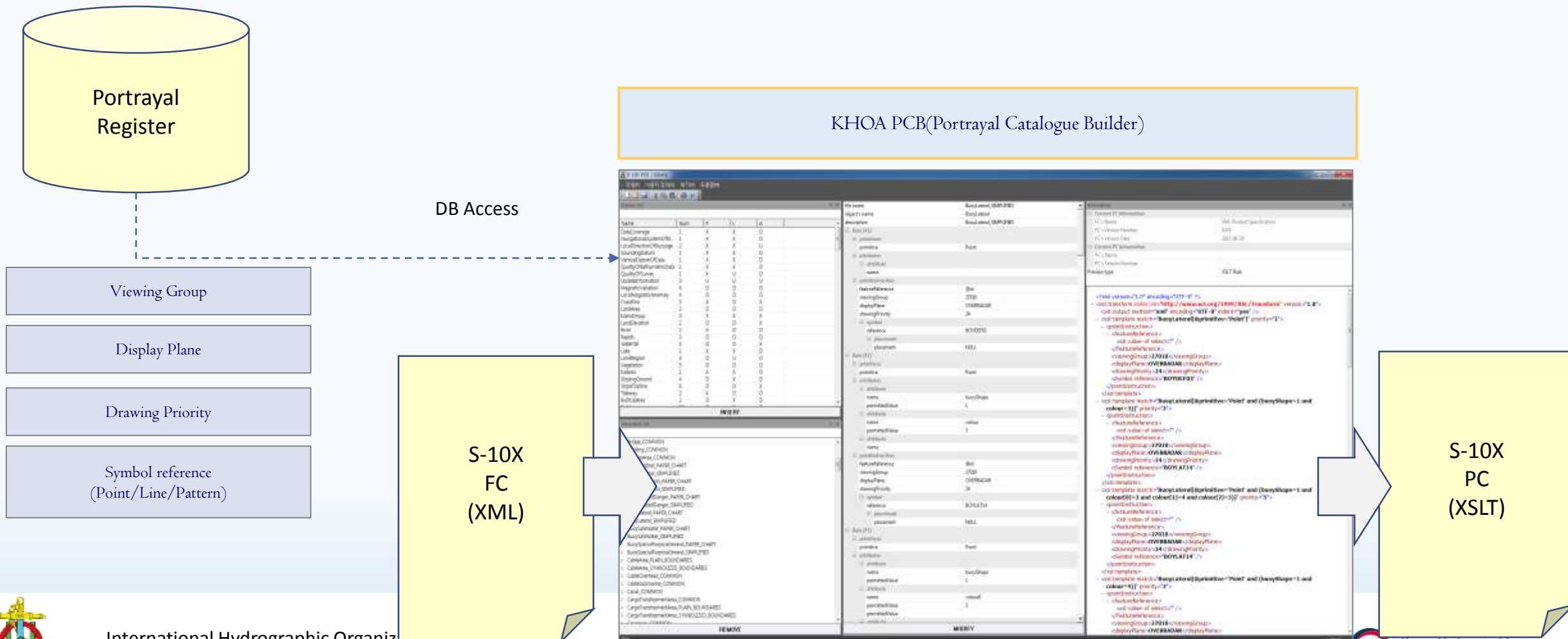
Background

- S-100 Portrayal Catalogue Builder (PCB)
 - reported the progress at the S-100WG3 meeting in Singapore 2018
 - KHOA S-100 PCB would be the IHO S-100 PCB that replaces the web PCB as a part of S-100 Infrastructure
- Major changes
 - “Development of an S-101 Portrayal Catalogue” conducted by IIC /CARIS
 - reviewed the KHOA S-100 PCB when they drafted the S-101 portrayal catalogue
- This paper
 - describes key elements of the S-100 PCB version 1.0.0
 - reports the progress on improving the PCB and its release plan



Prototype KHOA S-100 PCB

- S-100 PCB (2018)



Feedbacks from IIC/CARIS

- Review of S-100 PCB
 - IIC/CARIS tested the KHOA S-100 PCB as a process of updating the S-101 portrayal catalogue
 - provided some findings and comments to KHOA
 - a meeting on September 21, 2018 to find some solutions to resolve technical issues of the PCB



Feedbacks from IIC/CARIS

- Test results of KHOA S-100 PCB (by IIC)
 - Rules expand automatically while adding OBJECTS to GENERATE List.
 - After loading FC empty PC is created. , Labels are in Korean
 - PCB crashes when user clicks Save command without logging in to the application.
 - When trying to delete rule(s) from the list and save the catalogue, the PCB crashes.
 - PCB allowed edits on selected rule but when the changes are saved, they are applied to the first rule in that list.
 - The first export to PC can be done successfully but after any subsequent edits are done on PC, changes will not be amended into the current PC.
 - Need provision to add text instructions in instructions using PCB.
 - After clicking GENERATE command, symbol reference is missing from the field and also from PREVIEW window. However it is present in the output rule file.



Feedbacks from IIC/CARIS

- Proposal on user interface and function (by CARIS)
 - Interface to add new items to register (Sand box function)
 - Filter by domain when selecting symbol, Filter/query to search by keyword
 - PCB needs to provide preview images for Symbols, Linestyles and Fill patterns
 - Interface to define and reuse Styles and Templates
 - The PCB should provide parameters for simple area fill (colour, percentage) and named complex fill patterns from the register
 - Interface to define Parameters, Mariner Settings
 - Interface to write Conditional Procedures and Functions
 - Switching output from XSLT to Lua



Feedbacks from IIC/CARIS

- Summary of feedbacks
 - The PCB tested by IIC was almost all about **operational errors and minors** for Korean language in menu or messages
 - some issues were related to the S-101 FC used to create the S-101PC
 - The proposals on improving user interface and functions by CARIS were all **mandatory requirements** needed for creating S-10X portrayal catalogue by the Product Specification developer
 - Considering these feedbacks and comments
 - KHOA decided to **redevelop the interface** and put additional functions in the PCB to support efficient creation of the PC



Status and Plans of S-100 PCB version 1.0.0

- The major features of improvement
 - Add a sand box function that new items like Symbol, Display priority and Display plane (Local XML DB will be located in the S-100 PCB to support the sand box function)
 - Preview function of Symbol
 - Interface to define Styles and Templates
 - Interface to define Context Parameters, Mariner Settings, Conditional Procedures and Functions
 - Function to convert XSLT to Lua (Planned)



Status and Plans of S-100 PCB version 1.0.0

The screenshot displays the S100 PCB software interface with the following components:

- Feature List (From FC):** A table listing various features with columns for Feature Name, P, L, and A.
- Rule:** A table listing rule files and their associated feature types.
- Content:** A detailed view of rule content, including pointInstruction and lineInstruction objects with their respective properties.

Feature Name	P	L	A
TidalStreamPanelData	3	2	0
DredgedArea	0	1	1
SweptArea	2	2	0
DepthContour	0	0	X
DepthArea	0	1	2
UnsurveyedArea	0	1	2
SeabedArea	0	3	1
WeedKelp	2	1	0
Sandwave	2	3	2
Spring	1	X	X
UnderwaterAwashRock	0	X	X
Wreck	2	4	0
Obstruction	14	10	0
FoulGround	6	5	0
DiscolouredWater	0	0	0
FishingFacility	6	8	3
MarineFarmCulture	1	3	2
OffshorePlatform	1	1	1
CableSubmarine	0	2	X
CableArea	2	2	0
PipelineSubmarineOnLand	0	3	X

File Name	Feat
Obstruction_COMMON.xml	Obstruction
Obstruction_custom.xml	Obstruction
Obstruction_PLAIN_BOUNDARIES.xml	Obstruction
Obstruction_SYMBOLIZED_BOUNDARIES.xml	Obstruction

Content Details:

- Obstruction[@primitive='Surface' and (categoryOfObstruction=8 or categoryOfObstruction=9)]**
 - pointInstruction
 - DisplayPlane : UNDERRADAR
 - DrawingPriority : 12
 - ViewingGroup : 12410
 - Symbol : FLTHAZ02
 - placementMode : VisibleParts
 - lineInstruction
 - DisplayPlane : UNDERRADAR
 - DrawingPriority : 12
 - ViewingGroup : 12410
 - call-template : simpleLineStyle
 - style : dash
 - width : 0.32
 - colour : CSTLN



Status and Plans of S-100 PCB version 1.0.0

The screenshot displays the 'Rule File Content Create' application interface, which is organized into several functional panels:

- Feature List (from FC):** A table listing various features and their priority values (P).
- Rule List:** A list of rules, each starting with 'Obstruction[@primitive=' followed by a primitive type.
- Primitive Select:** A table for selecting primitive types and their associated values and codes.
- Content:** A configuration area for defining instructions like 'pointInstruction' and 'lineInstruction' with specific parameters.
- Instruction Menu:** A set of buttons for selecting instruction types (Null, Point, Line) and defining their domain and display properties.

Feature Name	P
UnsurveyedArea	0
SeabedArea	0
WeedKelp	2
Sandwave	2
Spring	1
UnderwaterAwashRock	0
Wreck	2
Obstruction	14
FoulGround	6
DiscolouredWater	0

Match N
Obstruction[@primitive='Sur
Obstruction[@primitive='Sur
Obstruction[@primitive='Cur
Obstruction[@primitive='Cur
Obstruction[@primitive='Cur
Obstruction[@primitive='Poi
Obstruction[@primitive='Poi
Obstruction[@primitive='Poi
Obstruction[@primitive='Poi
Obstruction[@primitive='Poi
Obstruction[@primitive='Poi
Obstruction[@primitive='Poi
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Point	Curve	Surface
AttributeName	Value	EnumCode
categoryOfObstru	snag/stump	1
categoryOfObstru	wellhead	2
categoryOfObstru	diffuser	3
categoryOfObstru	crib	4
categoryOfObstru	fish haven	5
categoryOfObstru	foul area	6
categoryOfObstru	ice boom	8

Instruction	Modify	Delete
pointInstruction		
DisplayPlane : UNDERRADAR		
DrawingPriority : 12		
ViewingGroup : 12410		
Symbol : FLTHAZ02		
placementMode : VisibleParts		
lineInstruction		
DisplayPlane : UNDERRADAR		
DrawingPriority : 12		
ViewingGroup : 12410		
call-template : simpleLineStyle		
style : dash		
width : 0.32		
colour : CSTLN		

Domain
Viewing Group
Display Plane
Drawing Priority

File Name	featureName	P
ObstructionCOM	Obstruction	10
Obstructioncustc	Obstruction	0
ObstructionPLAI	Obstruction	2
ObstructionSYMI	Obstruction	2
AdministrationAr		0
AdministrationAr		0
AirportAirfieldCC		0
AnchorageAreaC		0
AnchorageAreaP		0

Condition Result:

```
Obstruction [ @primitive='Surface' and ( categ  
or yOfObstruction=8 or categ or  
yOfObstruction=10 ) ] ]
```



Status and Plans of S-100 PCB version 1.0.0

- Future plan
 - After the S-100WG4 meeting, the draft S-100 PCB will be open to S-100WG
 - fix something if any from the operation
 - remaining items such as the interface for Style/Template/CS (Conditional Symbology) and a function converting XSLT to Lua will be carried out before the next S-100 TSM meeting
 - The progress report will be submitted to the S-100 TSM7 meeting (Sept 2019)



Conclusions

- **IIC/CARIS** reviewed the prototype KHOA S-100 PCB and provided the **feedbacks and proposal** document
- KHOA decided to make a major change to the interface and add some functions in the PCB
- The **drafting version** of improving S-100 PCB 1.0.0 was introduced at the S-100 Registry workshop
- After the S-100WG4 meeting, followed by consultation with S-100WG, the draft PCB will be open
- Other remaining items such as **converting XSLT to Lua** etc. will be developed at the S-100 TSM7 meeting.



Action Required of S-100WG

- The S-100WG4 is invited to:
 - Note this paper.
 - Review and comment on the S-100 PCB version 1.0.0.
 - Discuss the S-100 PCB utilization plan and a way forward.

