

Paper for Consideration by S-100WG4

Report on the status of S-100 PCB version 1.0.0

Submitted by:	Republic of Korea (KHOA)
Executive Summary:	This paper reports on the development of S-100 PCB version 1.0.0.
Related Documents:	S-100WG3-6.7.3 KHOA Portrayal Catalogue Builder
Related Projects:	KHOA S-100 Test Bed Project

Introduction / Background

KHOA reported the progress of developing prototype of S-100 Portrayal Catalogue Builder (PCB) to support IHO S-100 test bed programme at the S-100WG3 meeting in Singapore 2018. The meeting decided that the S-100 PCB developed by KHOA would be the IHO S-100 PCB that replaces the web PCB as a part of S-100 Infrastructure.

Since the last S-100WG meeting, the IHO has launched a contract project “*Development of an S-101 Portrayal Catalogue*” conducted by IIC /CARIS. As work items of the project, they reviewed the KHOA S-100 PCB when they drafted the S-101 portrayal catalogue and provided their findings and comments.

This paper describes key elements of the S-100 PCB version 1.0.0 and reports the progress on improving the PCB and its release plan.

Analysis/Discussion

Prototype KHOA S-100 PCB

KHOA developed the S-100 PCB to create S-10X portrayal catalogues required for testing S-100 Test Data Sets (TDS) in the KHOA S-100 Simple Viewer. Fig. 1 shows the process of S-100 PC creation defined by KHOA. The development progress and major functions of the PCB were introduced at the S-100WG3 meeting (refer to S-100WG3-6.7.3).

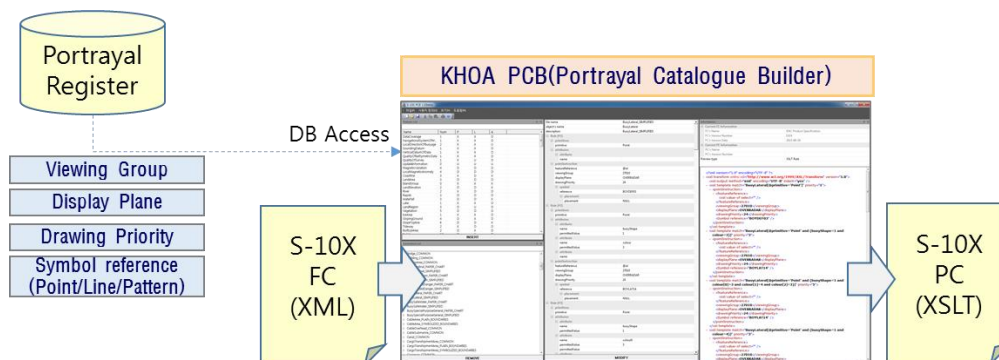


Fig. 1 Process of S-100 PC Creation

Feedbacks from IIC/CARIS

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

The feedbacks and comments provided by IIC/CARIS can be summarized as the following:

- 1) Test results of KHOA S-100 PCB
 - Changing the attribute is not possible in PCB.
 - Rules expand automatically while adding OBJECTS to GENERATE List.
 - After loading FC empty PC will be created.

- Labels are in Korean, no action is taken when user clicks on the command.
- 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 i.e. for example, when five rules are created in active session and saved to PC, this will be exported to PC correctly, 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.

2) Proposal on user interface and function

- Interface to add new items to register
- Filter by domain when selecting symbol
- Filter/query to search by keyword
- PCB needs to provide preview images for graphic elements such as Symbols, Linestyles and Fill patterns
- Interface to define and reuse Styles and Templates (Test Styles, Line styles, Formatting attributes)
- 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

The PCB tested by IIC was almost all about operational errors and minors for Korean language in menu or messages and 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 practical requirements needed for creating S-10X portrayal catalogue by the Product Specification developer.

Considering these feedbacks and comments, KHOA decided to make a big change to 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

KHOA has been improving the interface of the PCB and developing additional functions required to create S-10X portrayal catalogues with the comments and proposals by IIC/CARIS. The major features of improvement are as the following:

- 1) Add a sand box function that new items like Symbol, Display priority and Display plane, etc. could be proposed (Local XML DB will be located in the S-100 PCB to support the sand box function)
- 2) Preview function of Symbol
- 3) Interface to define Styles and Templates
- 4) Interface to define Context Parameters, Mariner Settings, Conditional Procedures and Functions
- 5) Function to convert XSLT to Lua (Planned)

Fig. 2 is screen shots of S-100 PCB version 1.0.0 including improved functions and new interfaces for creating S-10X portrayal catalogues. The S-100 PCB is under improvement currently, but KHOA would like to introduce and demonstrate the tool during the upcoming S-100 Registry workshop in Aalborg, Denmark.

After the S-100WG4 meeting, the draft S-100 PCB will be open to S-100WG and we will try to fix something if any from the operation. Meanwhile, 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).

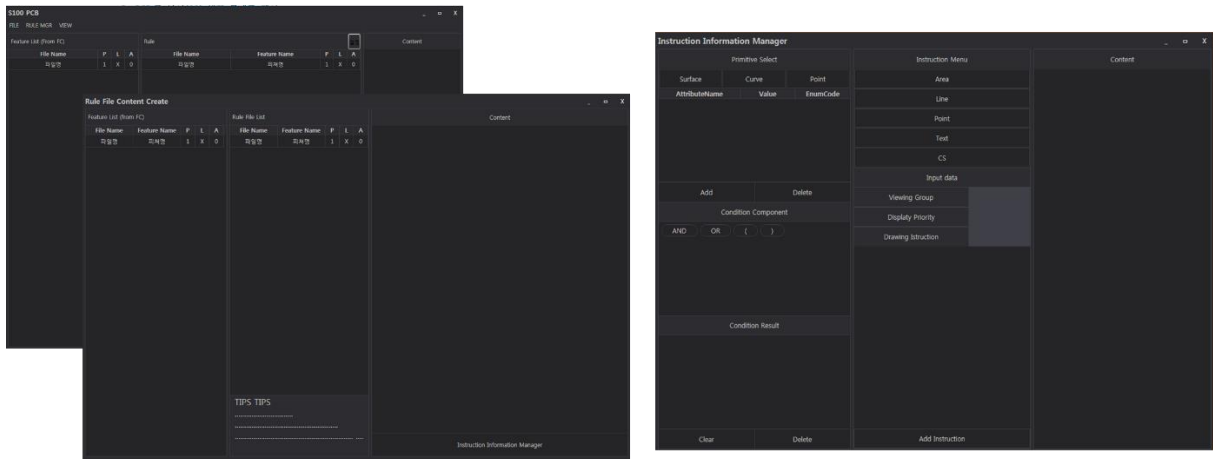


Fig. 2 User Interface of S-100 PCB (ongoing)

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 will be introduced at the S-100 Registry workshop. After the S-100WG4 meeting, followed by consultation with S-100WG, the draft PCB will be open. In the meantime, other remaining items such as converting XSLT to Lua etc. will be developed at the S-100 TSM7 meeting.

Recommendations

KHOA would like to propose to review and discuss the S-100 PCB improvement based on IIC/CARIS feedbacks and the tool utilization plan as described in this paper.

Action Required of S-100WG

The S-100WG4 is invited to:

- a. **Note** this paper.
- b. **Review and comment** on the S-100 PCB version 1.0.0.
- c. **Discuss** the S-100PCB utilization plan and a way forward.