1st Meeting of S-1OOP Project CG

S-1OOP CG-1, VTC , 8 June 2021

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AGENDA ITEMS

- Background/Progress
- Visions/Goals
- Building blocks
- Themes/Contributors
- Work plan (Seminar, Development plans)

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INTRODUCTION

- Background
  - The primary goal for S-100 is to support a greater variety of hydrographic-related digital data sources, products and customers
  - However, technical barrier of S-100 world is still high and only few S-100 experts and industry partners have been participating in the standard development

Needs of a GATEWAY to S-100 world for potential users, developers, communities

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INTRODUCTION

- The S-100 Open Online Platform (S-1OOP) is
  - A virtual/online S-100 test bed to accelerate wider adoption of the S-100 hydrographic framework by joint development
  - To share the required building blocks to the public to overcome any technical difficulties for S-100 implementation.
- Project Vision
  - Support the introduction of the IHO S-100 Roadmap for the Implementation Decade
  - Establish S-100 based data testing and information sharing platform online for hydrography as well as other potential communities
  - Develop the GATEWAY to S-100 world for different potential users, developers

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INTRODUCTION

- Progress
  - 5th S-100WG meeting (March 2020)
    - WG requested voluntary participation
  - 12th HSSC meeting (October 2020)
    - reported as one of the S-100WG activities
    - invited ROK to call for MS to join the online test bed
  - 8th S-100 TSM meeting (March 2021)
    - A project plan was suggested
    - supported the general concept of the project
    - supported establishing a CG group under the S-100WG
    - requested KHOA to report the activities of the CG to S-100WG/TSM meetings
  - 13rd HSSC meeting (May 2021)
    - HSSC noted the correspondence group under TSM/S-100WG to discuss S-1OOP (S-100 Open Online Platform) open source strategy
    - Shared 1st CG meeting plan and draft agenda items

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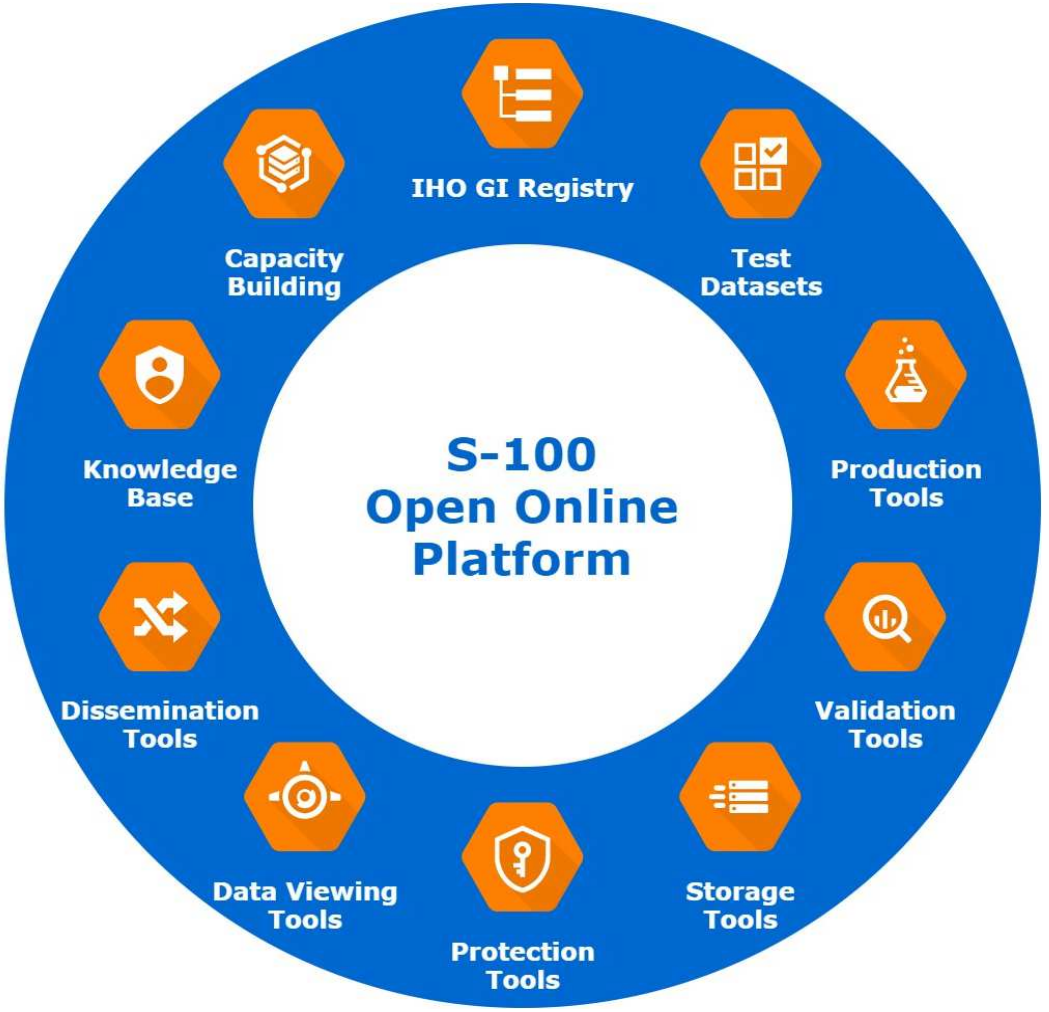
- Key Goals

  - Share S-100 components, TDS and info. required to construct S-100 ecosystem
  - Exchange experience and best practice results with S-100 production processes for data producers
  - Enhance navigation, discovery and search of S-100 standards and technical guidelines for stakeholders
  - Promote development of open-source software and application models to implement the S-100 World
  - Publicize the benefits and effects of the transition to the S-100 World

BUILDING BLOCKS

- Building blocks
  - technical resources, resource sharing infrastructure, open source software tools, technical guidelines and reference materials
  - allow any organizations to achieve S-100 operational capability quickly and efficiently



BUILDING BLOCKS

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- Building blocks

No.	Title	Description
1	**GI Registry**	S-100 Geospatial Information Registry contains several registers (online databases) that include items of information that are relevant to those communities developing of S-100 based products and services.
2	**Test Datasets**	Datasets created for testing purpose aimed at validating various aspects of dataset creating, validation, dissemination, portrayal and updating.
3	**Production Tools**	Tools, generally software, designed to produce one or more data products that comply with certain standards.
4	**Validation Tools**	Tools, generally software, designed validate the degree of compliance of a data product to one or more standard.
5	**Storage Tools**	Tools, generally software, designed to store data products for various purposes, such as archive, verification and dissemination.
6	**Protection Tools**	Tools, generally software, designed to apply certain data protection measures, like digital signature and encryption.
7	**Data viewer**	Software designed to portray data products.
8	**Dissemination Tools**	Tools, generally software, designed to aid in making data products available to users.
9	**Knowledge Base**	A store of information or data that is available to draw on for highlighting the underlying set of facts, assumptions, and rules which a computer system has available to solve a problem
10	**Capacity Building**	The process by which the S-1OOP assesses and assists in sustainable development of the Member States, other states and stakeholders to acquire the knowledge, skills and means to adopt to the S-100 World.

THEMES & CONTRIBUTORS

- Themes

No.	Title	Themes	Actions for short term	Activity Tools (Working Space)
1	**GI Registry**	**- Theme 1 -** Online Viewer and Simulation	• Members produce TDS described in the S-100 implementation roadmap • Share the TDS via GI Registry and Web Viewer	**Web Viewer** provided by KHOA
2	**Test Datasets**			
3	**Production Tools**	**- Theme 2 -** Data production and Protection scheme	• Identify what tools are required to product and service S-100 products • Investigate which tools are available • Gather available tools and links to access • Write wiki to record the status and changes of tools	**Wiki** for Theme 2
4	**Validation Tools**			
5	**Storage Tools**			
6	**Protection Tools**			
7	**Dissemination Tools**			
8	**Data viewer**	**- Theme 3 -** Open source management and Operation	• Prepare open source for S-100 Viewer • Improve the open source for the purpose of shore based ECDIS • Gather open sources and make access • Operate and manage the open source	**Gitub** for Theme 3
9	**Knowledge Base**	**- Theme 4 -** Knowledge base and Capacity building	• Hold a webinar • Develop input and requirements to submit to S-100 and PS developers • …	Online meetings by **VTC**
10	**Capacity Building**			

THEMES & CONTRIBUTORS

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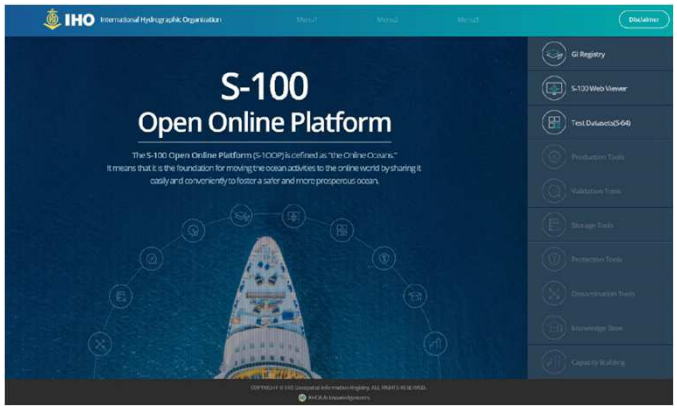
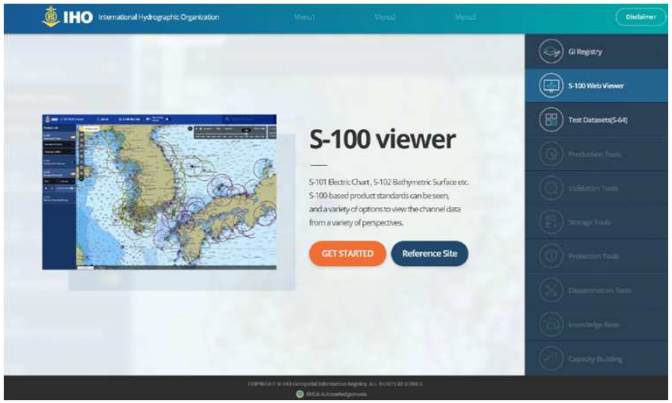
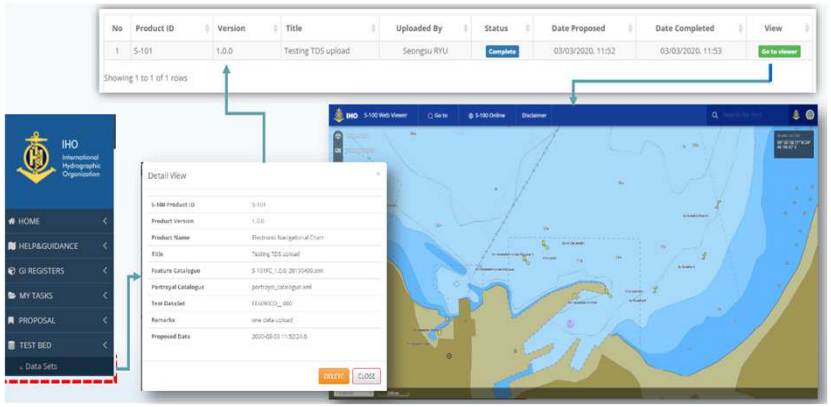
- Theme 1. Online Viewer and Simulation (S-100 Infrastructure)
  - Topics
    - Establishment of S-100 Open Online Platform (which is a gate for supporting sharing and utilization of S-100)
    - S-100 development infra structure (S-100 Registry, S-100 FCB, S-100 PCB, DCEG Builder, SVG Editor, Human readable FC converter, GML Schema converter)
    - Sharing system S-1XX TDS by Web Viewer
    - Online simulation to test S-1XX PS and TDS

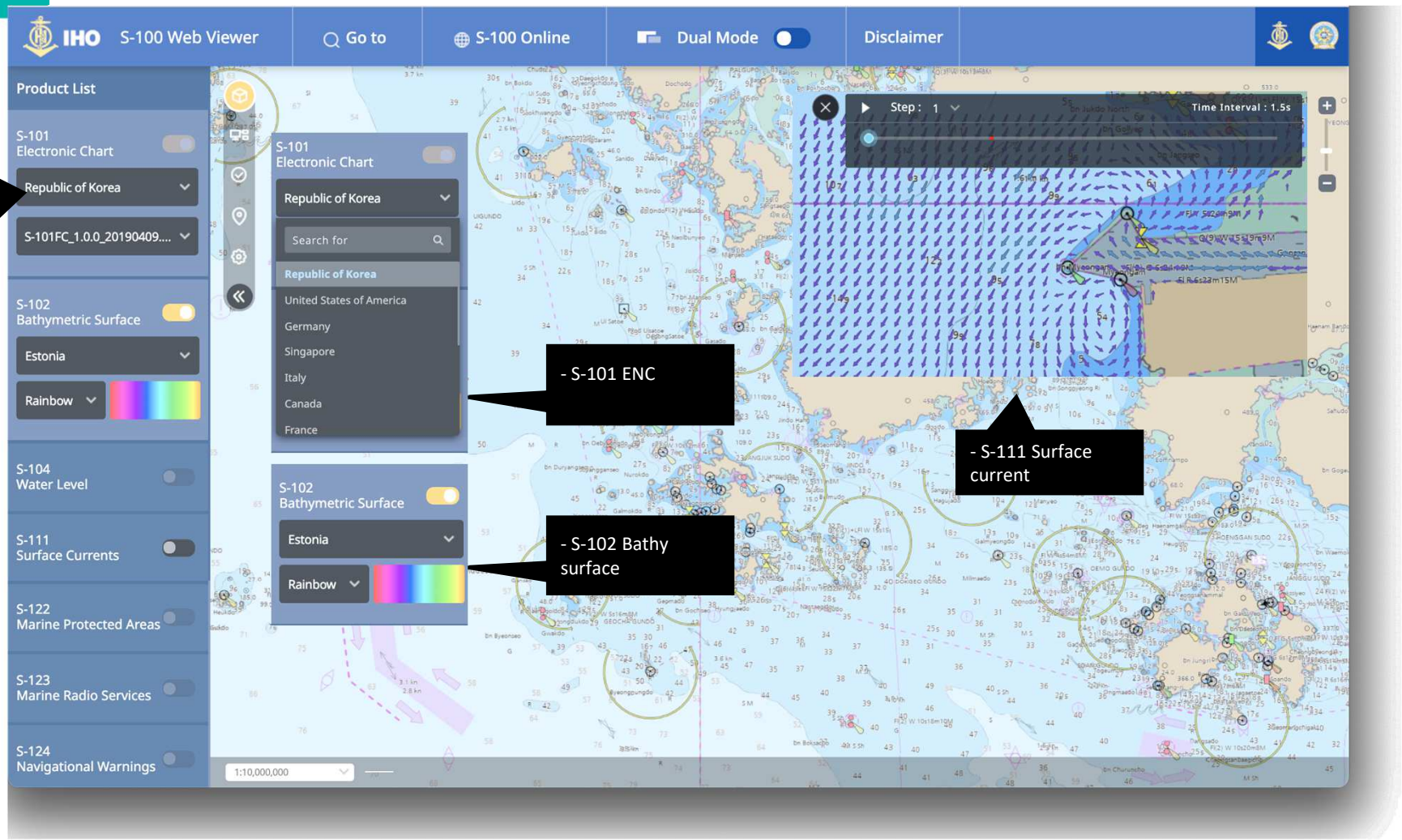






S-100 WEB VIEWER IMPROVEMENT (DISPLAY S-100 PRODUCTS)

- List of S-100 products
- On/Off function
- Available products : S-101, S-102, S-111, S-129



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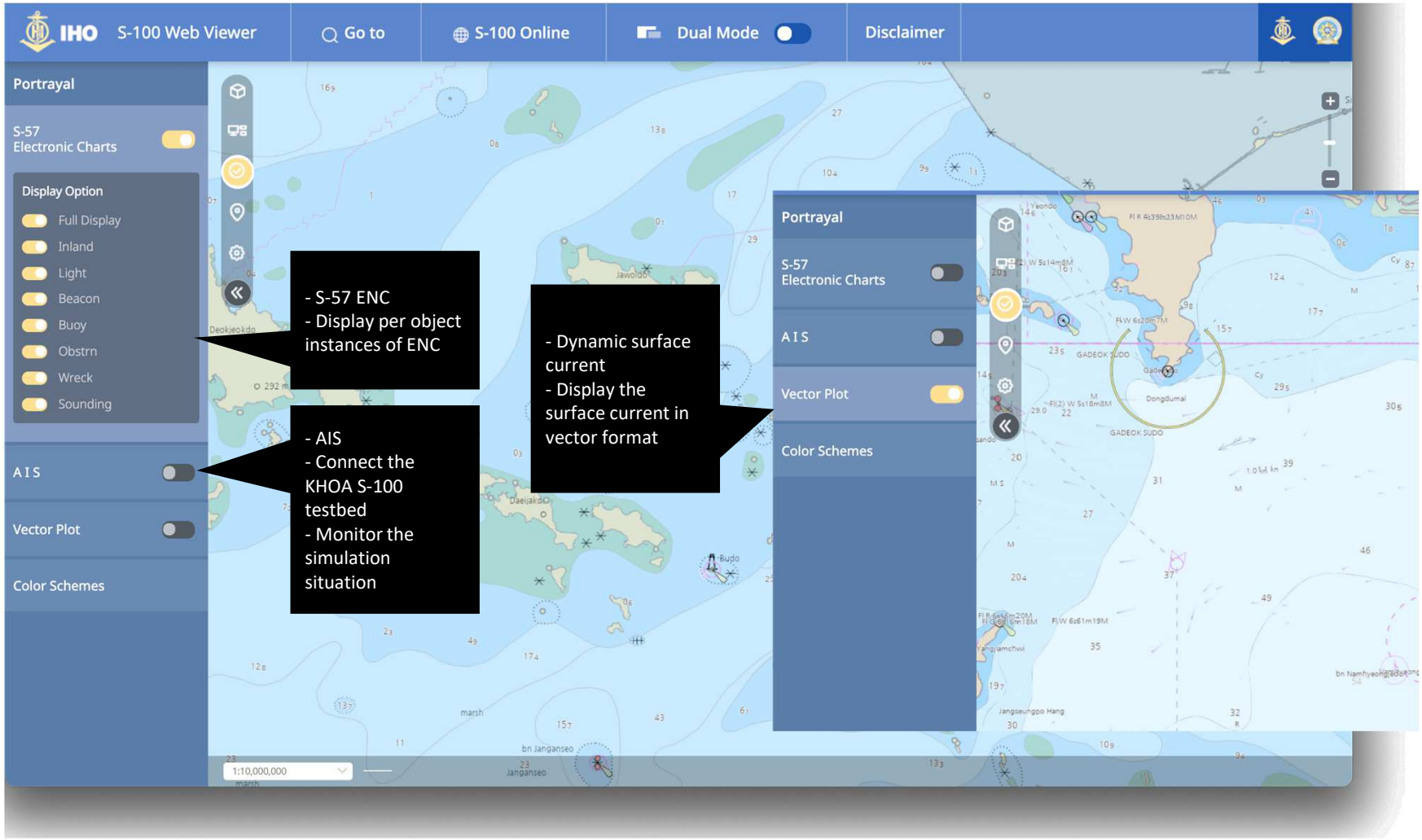
S-100 WEB VIEWER IMPROVEMENT
S-57 AND OVERLAYS



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- Theme 2. Data production and Protection scheme
  - Topics
    - Production tools for S-1XX data (CARIS, ESRI, etc)
    - Validation tools (SevenCS Validtion Check Tool)
    - Data management and distribution tools (Cloud service by CARIS and Primar)
    - Data Protection scheme (Open source developed by ROK)
    - …

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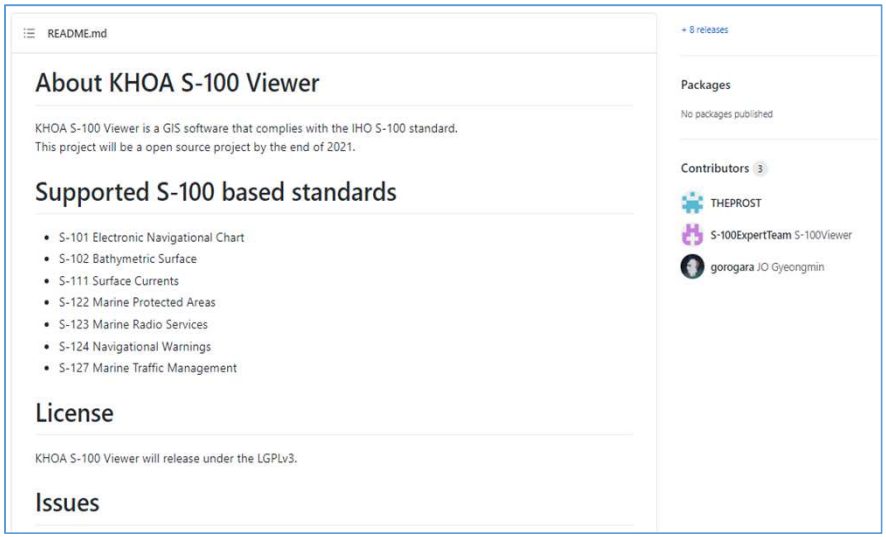
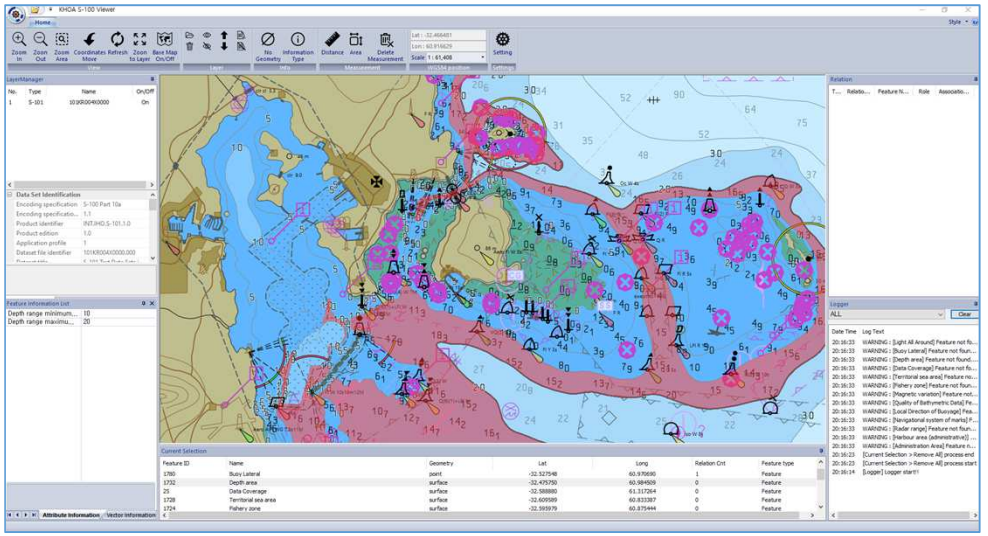
- Theme 3. Open source management and Operation
  - Topics
    - Release of KHOA S-100 Viewer (support the S-101 2.0, S-100 5.0, S-98)
    - Shore based ECDIS
    - Joint development of Open source S-100 Viewer and related S/W





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- Theme 3. Open source management and Operation
  - Activate the open source community
  - Use GitHub, GitLab, Bitbucket
  - An environment where standards experts and SW experts can collaborate to develop SW-friendly standards
  - Introduce S-100-related project to develop as open sources

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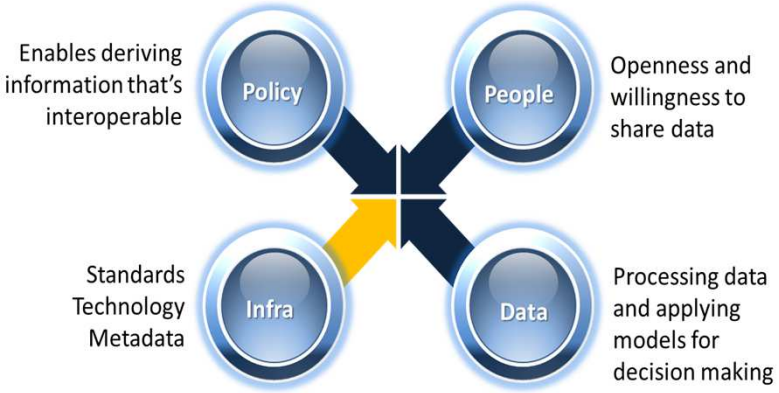
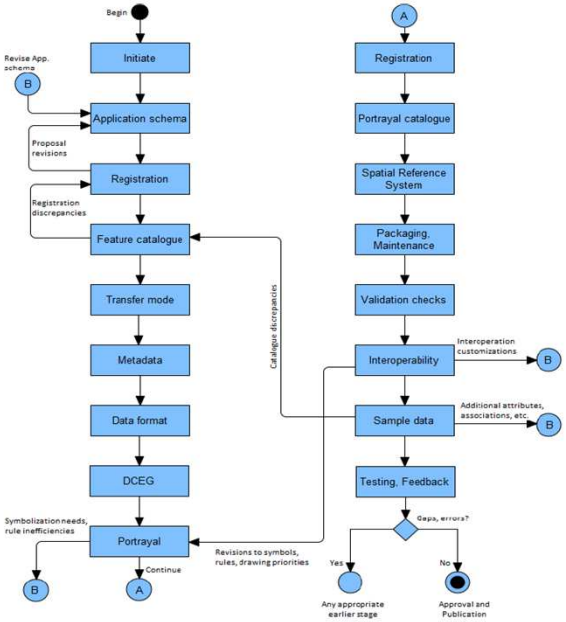
- Theme 4. Knowledge base and Capacity building
  - Topics
    - S-100 Use case in other domains (IALA, IEC, Single window, etc)
    - Seminar, Webinar, Training for sharing and utilizing the S-100
    - S-100 application in new specialized domains
      - MSDI / MASS / E-Navigation
    - Digital twin, Geo-AI and S-100

MSDI Fundamentals



Required Product Specification component	Level 1 v1.0.0	Level 2 v1-2.0.0	Level 3 >v2.0.0	Level 4 >v2.0.0	Level 5 >v2.0.0
Main Document (Defines the relevant parts of S-100 that are required for the Product Specification)	x	x	x	x	x
A Default Encoding	x	x	x	x	x
S-100 Compliant Feature Catalogue	x (draft)	x (updated)	x (final, from IHO GI Registry)	x	x
Data Classification and Encoding Guide	x (draft)	x	x (final)	x	x
S-100 Compliant Portrayal Catalogue NOTE: Not every Specification will need a Portrayal Catalogue – this should be determined as part of the development process and stakeholder feedback.		x	x	x	x
Data Quality Checks		x	x	x	x
Test Data Sets		x	x	x	x
Data Validation (and test datasets)		x	x	x	x
Exchange Catalogue		x	x	x	x
Encryption / Digital Signatures			x	x	x
Interoperability			x* (draft)	x* (tested)	x*
Alerts and Indications				x*	x*
Operational data					x

(X* = ECDIS only)



WORK PLAN (SEMINAR, DEVELOPMENT PLANS)

- 3 Years Work plan **(draft)**

	2021– 2022	2022 – 2023	2023 – 2024	Building blocks
Reporting	1st Report to TSM/S-100WG	2nd Report to TSM/S-100WG	3rd Report to TSM/S-100WG	
Theme 1. Online Viewer and Simulation	• Produce/collect TDS • Improve Web viewer	• Register TDS via Registry? • Share TDS on Web viewer • Online Simulation?	• Online Simulation?	GI Registry, Test datasets Web viewer
Theme 2. Data production and Protection scheme	• Identify what tools are required • Open wiki space	• Gather tools available • Assess usability for each tools • Develop wiki	• Release wiki • …	Production tools Validation tools Storage tools Protection tools Dissemination tools
Theme 3. Open source management and Operation	• Release the basic open source of S-100 Viewer • …	• Release the source code for Shore based ECDIS • …	• Ensure the S-101 2.0, S-10X operational versions • …	Data Viewer in open source
Theme 4. Knowledge base and Capacity Building	• Share knowledge/ experiences • 1st OOP Webinar	• Share knowledge/ experiences • 2nd OOP Webinar	• Share knowledge/ experiences • 3rd OOP Webinar	Knowledge, CB