EAtHC-ICCWG S-100 Workshop (2023)
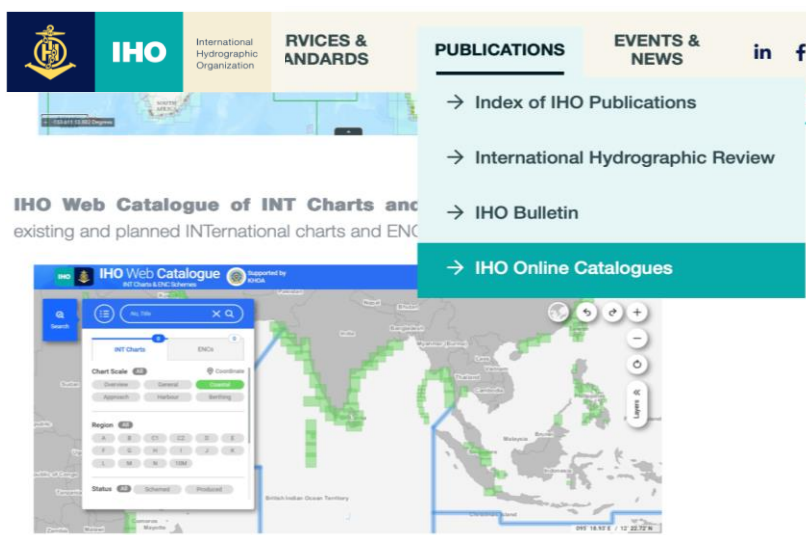
Presentation of INToGIS III for S=1xx products

Agenda Item 02.3A

- **What is INToGIS**

  - Providing a list of the latest INT charts (schema and products) supporting maintenance tasks such planning, review and approval of INT charts

    - Currently providing links to the IHO online catalogue and publication on the IHO website (Link: https://chart.iho.int/iho/main.do → INToGIS Ⅱ)

  - In the future, IHO secretarial manage and coordinate catalogue S-1XX schema and products

- **About INT Chart maintenance subject, procedure, scope**

  - IHO NCWG*is responsible for maintenance such as new, closed, and renewed INT charts

  - S-11** contains maintenance guidelines for INT chart (PartA) and the list of the latest INT charts (PartB)

  - The decision to maintain the INT charts consist of a process proposed by the HO, ICCWG *** and finally approved by the IHO

  - The S-11 standard was revised in June 2017 to include not only paper based INT charts but also ENC

* Nautical Chart Working Group

** Guidance for the preparation and maintenance of International Chart and ENC schemes
   and catalogue of International Charts

*** INT Chart Coordination WorkingGroup

- **INToGIS Ⅰ (2016~2017)**

  - **Web catalogue**

    - Build/display BaseMap and INT Charting Regions (A to N) worldwide

    - Search by INT Chart Name, Zone, Publication country, Publication Date, etc

    - Search INT chart and download search results according to the route direction

  - **Manager Mode (INT Chart Web Manager)**

    - Membership, login, and empowerment according to the role of HO/ICCWG/IHB

    - Provide approval process such as proposal, approval, etc. accordingly

    - Version management according to INT Chart management

DEVELOPMENT STAGE

General User(No need for login)

Submit Process
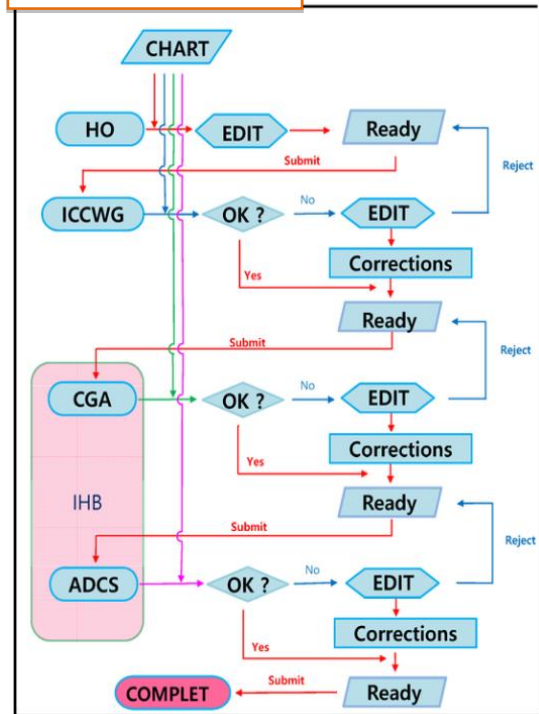
Member(Login Require)

INT Chart management

Types of permissions by user

		HO	ICCWG	CGA	ADCS
READY	ACTION	New, Modify Delete	New, Modify Delete	New, Modify Delete	New, Modify Delete
	STATUS	Edit, Reject	Edit, pending Reject	Edit, pending Reject	Edit, Ready
SUBMISSION	ACTION	New, Modify Delete	New, Modify Delete	New, Modify Delete	New, Modify Delete
	STATUS	Pending, Ready Approved Complete	Pending, Ready Approved Complete	Ready Approved Complete	Approved Complete

- ## INToGIS Ⅱ (2018~2019)

  - ### Web catalogue

    - Additional display of electronic charts in accordance with S-11 ed3.0.0 amendment and providing detailed information

    - Improving the marking of polar INT charts (transition of Antarctic/Arctic coordinate system)

  - ### Manager Mode (INT Chart Web Manager)

    - Add an INT electronic chart proposal and approval process

    - Provide information on paper and electronic charts around the world

    - Provide spatial analysis on INT and All the world charts for INT chart plan

    - Additional information, update, and management functions for INT charts plan (World Port Index, Traffic Density(EU/World), CATZOC)

    * WPI, Global Maritime Traffic Density Service(NGA) Transfer to online linkage using API(2023)the

DEVELOPMENT STAGE

Conversion Arctic Map

World Port Index(WPI)

World Traffic Density

Additional information update management

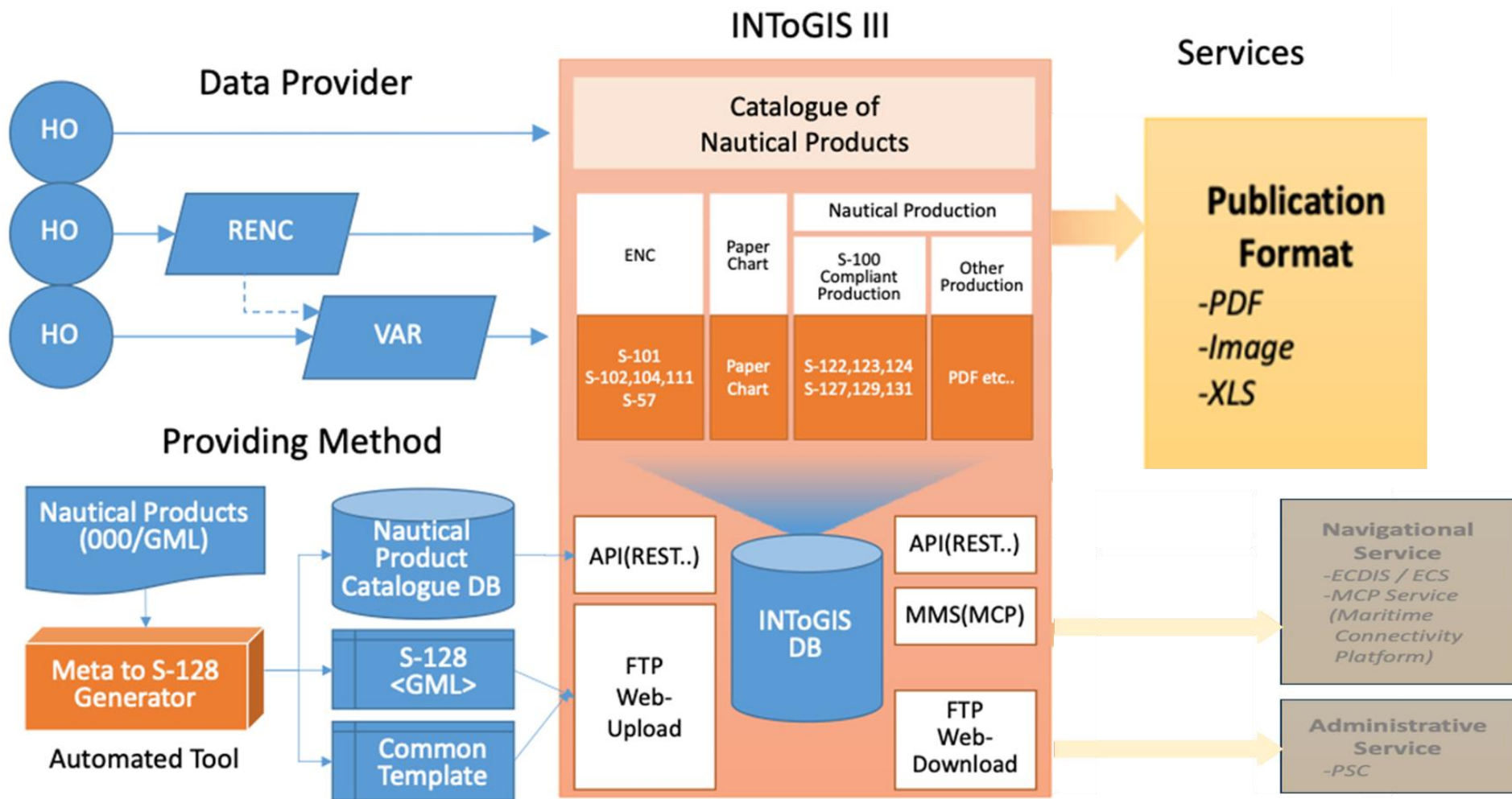- **The direction of INToGISⅢ development**

  - Provides the tools for MS/RHC/ ICCWG to plane schemes of S-1xx data/service including S-101

  - by applying the S-128 model, INToGIS III will also display actual cover
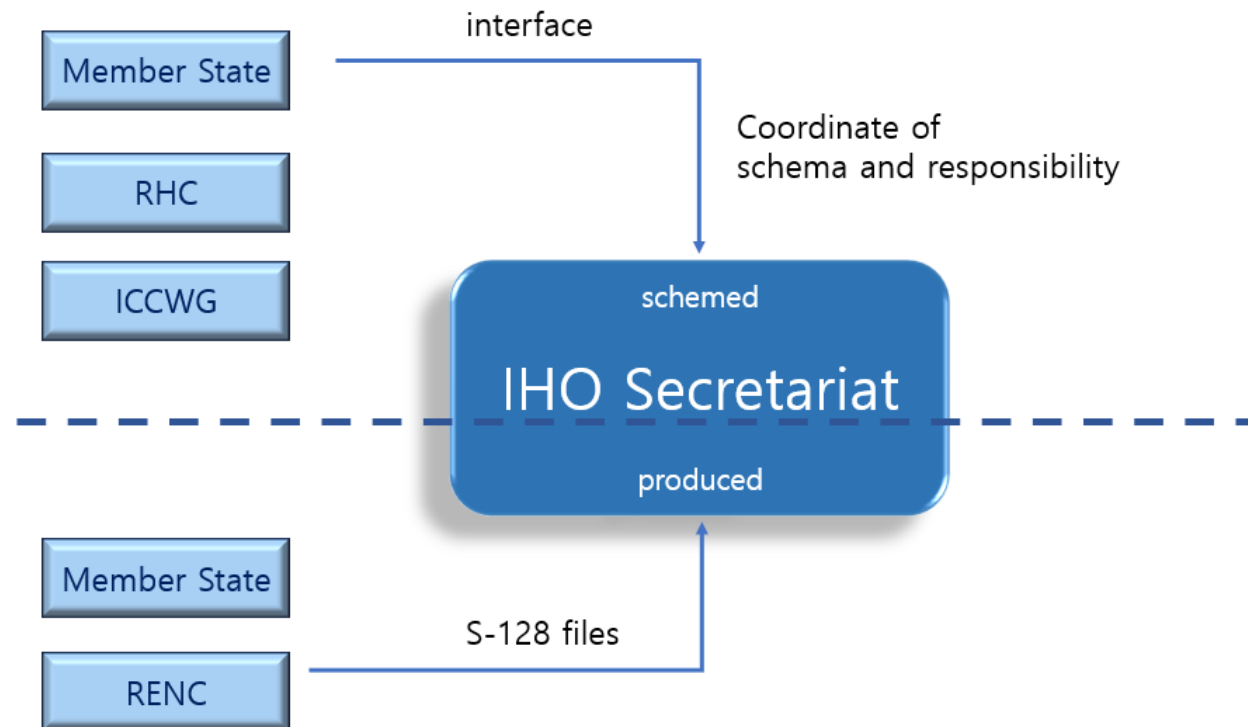
- **INToGISⅢ System Design**

- **INToGIS Ⅲ** status

  - In 2022 status

    - Search and map the latest navigational publications

    - Provides a collective registration function for S-128 format of navigation publication information

    - Test e-Navigation MCP with the latest navigation publication information

      (MCP Maritime Connectivity Platform)

  - In 2023 status

    - Improvement of DB model according to S-128 ed1.1.0 amendment (draft)

    - Display and search by separating plans and publications of navigational publications

Search for Nautical Publication

Latest publication information of Nautical Publication

International
Hydrographic
Organization

Generate S-128 GML from ExchangeSet

HOs, RENCs, Other Providers

INToGIS III

S-101 < Exchangset >	S-111 < Exchangset >
S-102 < Exchangset >	S-124 < Exchangset >
S-104 < Exchangset >	S-129 < Exchangset >

Catalogue of Nautical Products

Web Upload

INToGIS DB

Meta to S-128 Generator

Web Download

S-128 <GML>

- **Test Site**

  - URL : http://119.195.114.103/s128Beta
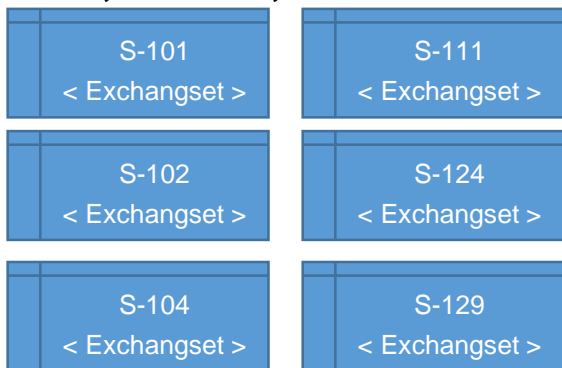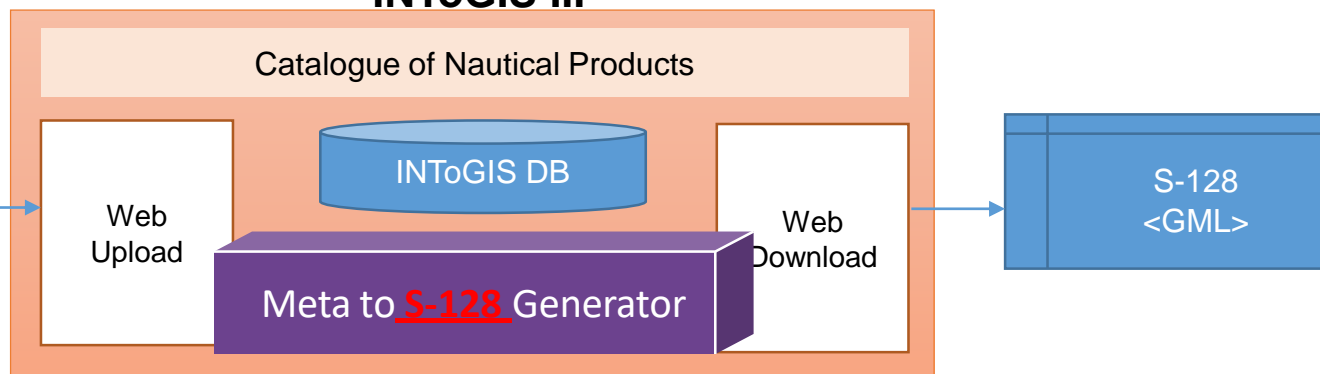
  - Account(User Id / Password) : T-S128 / test128

- **S-128 Dataset Registration Function**

  - If you don't have the S-128 Dataset

    - Use the S-128 Generator feature to convert the CATALOG.xml file for the S-100 product into an S-128 Dataset (GML) file

  - If you have the S-128 Dataset

    - Share datasets using the S-128 upload function

- Provides the latest navigation publication information

  - S-128 Data Inquiry by Object

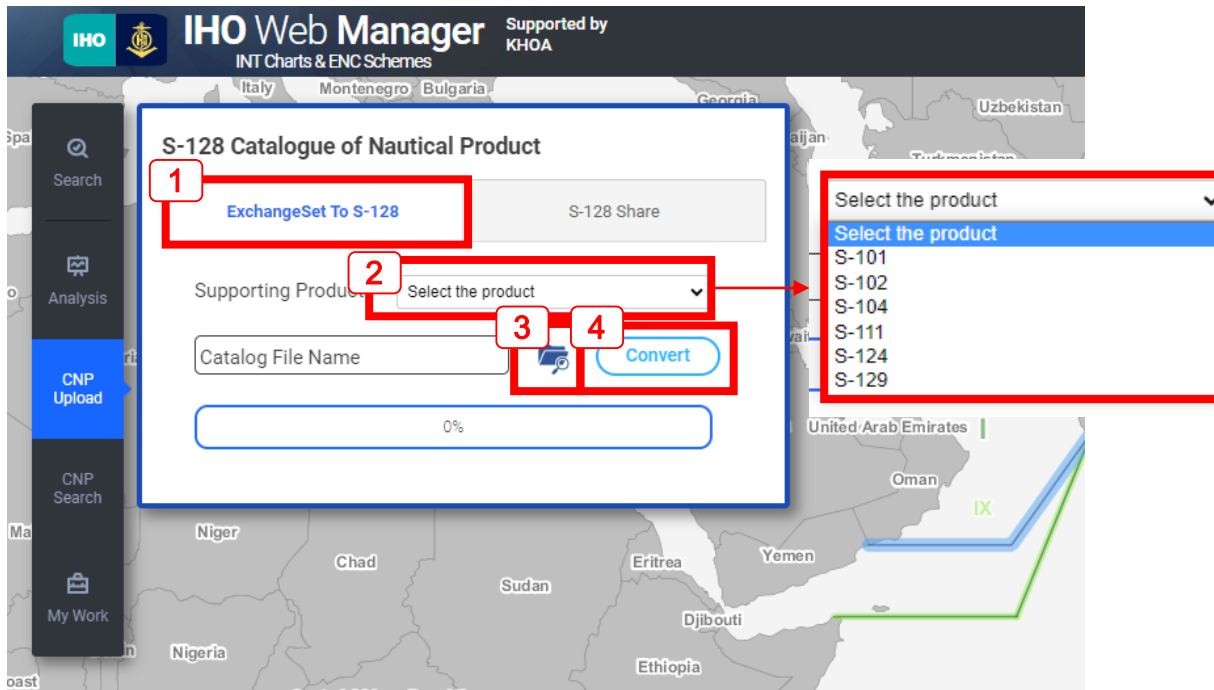 - Integrated inquiry of S-128 data and INT data

INTOGISⅢ FUNCTION

- S-128 Dataset Registration Function: If you do not have an S-128 Dataset

   - S-128 Generator functionality: CATALOG.xml for S-100 products

   -→ S-128 Dataset Supported Product Lists: S-101, S-102, S-104, S-111, S-124, S-129

1. Click the "ExchangeSet To S-128" tab to convert S-100-based products to S-128 Dataset.

2. Select the product to upload from the Supporting Product list.

3. Click the folder icon to select the CATALOG.xml file you want to convert.

4. Click the Convert button to convert to the S-128 dataset.

- S-128 Dataset Registration Function: If you do not have an S-128 Dataset

1. The data area of the uploaded file is displayed on the map.

2. When converting is completed, a 'GML Download' button is created.

3. When converting is completed, a 'GML Download' button is created.

INTOGISⅢ FUNCTION

- S-128 Dataset Registration Function: If you have an S-128 Dataset

1. Click the 'S-128 Share' tab to upload S-128 data.

2. Click the Upload button to display a window where you can select a file.

3. Click the 'Choose File' button to select the S-128 Dataset file (GML) file to upload.

4. After selecting the file, click the 'ok' button to complete the upload.

International Hydrographic Organization

- S-128 Dataset Registration Function: If you have an S-128 Dataset

1. Feature and MetaData information of the uploaded dataset are displayed.

2. The area of the object in the dataset can be seen on the map.

3. You can check detailed information by clicking on the object name (Paper Chart, Electronic Chart, Nautical Products).

IHO INTOGISⅢ FUNCTION

- S-128 Dataset Registration Function: If you have an S-128 Dataset

1. Detailed information for each object can be checked.

2. Upload is completed through the Save button, and the number of uploaded objects appears in a pop-up window.
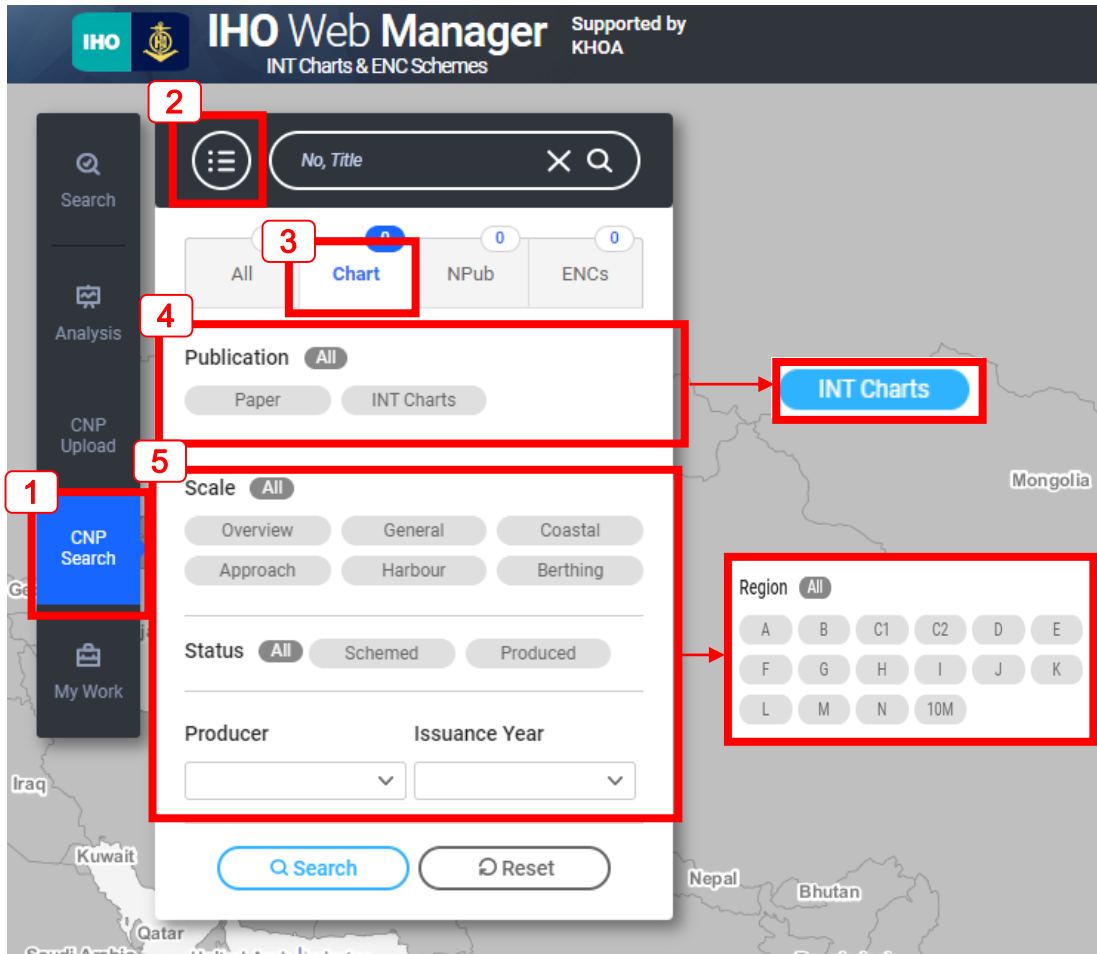
- Provides the latest navigation publication information – Search for paper chart information

1. Click CNP Search Tab for hydro product search.

2. Click the menu-shaped icon to display a search window.

3. Select 'Chart' Tab for paper chart search.

4. You can search by selecting Paper (S-128 paper comprehension) and INT charts (international paper charts). * For INT charts, a region search condition is added.

5. You can select Scale, Status, Producer, and Issue Year as search conditions.

INTOGISⅢ FUNCTION

- Provides the latest navigation publication information – searching navigation publication information

1. Select 'Npub' Tab for navigation publication search.

2. Navigation products may be classified into S-102, S-104, S-111, S-124, S-129, and Other and searched.

3. You can select Status, Producer, and Issue Year as search conditions..

INTOGIS Ⅲ FUNCTION

- Provides the latest navigation publication information – ENC information retrieval

1. Select 'ENCs' Tab for electronic chart search.

2. S-57, S-101 data collected by S-128, and Scheme (international electronic charts) and Catalog (provided by RENC) can be selected and searched.
* For Scheme and Catalog, a region search condition is added.

3. You can select Status, Producer, and Issue Year as search conditions.

DEVELOPMENT STAGE

- Provides the latest navigation publication information – unified navigation publication information search
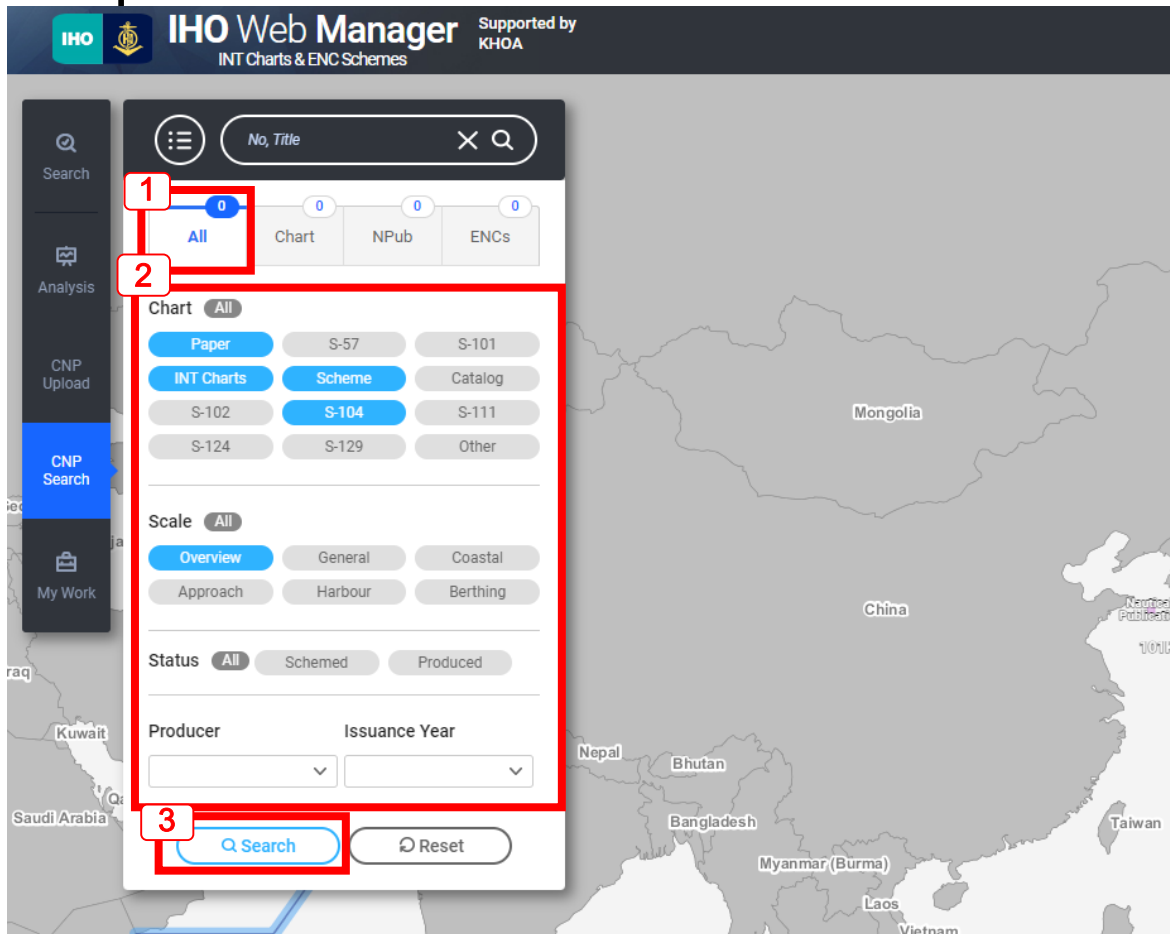
1. Select 'All' Tab

2. You can search for products at once with all the numbers that correspond to Chart, Npub, and ENCs Tab.

3. Press the Search button to start the search.

- Provides the latest navigational publication information

1. The number of data that meet the condition is displayed.

2. A list of search data is displayed.

3. A list of search data is displayed on the map.

- Provides the latest navigational publication information

1. In the search list, click the data you want to query for details.

2. The area of the selected data is highlighted and detailed information is displayed together.

3. After selecting the data to download as a file, you can download it as a file in GML, PDF, and XLS formats by clicking the Download button.
   (Part of function modification in progress)

FUTURE PLANS

				Display setup	Output setup	Input setup						TESTING	COMMISSIONING
Products in Database					Display test	Output test	Input Test	Overall Test	WEND-13 Feedback	Finalize			
APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR ~ DEC	JAN~JUN	JUL~DEC
2022								2023				2024	

- ● updating INToGIS II -> INToGIS III at IHO : November 2023
- ● Testing INToGIS III : January – June 2024
- ● Commissioning : 2nd half 2024