

Paper for Consideration by TSMAD27

Progress of Marine Environment MIO Project of EAHC

Submitted by:	Republic of Korea (ROK)
Executive Summary:	Marine environment MIO Working Group under EAHC CHC (Charting and Hydrography Committee) was organized to establish regional marine environment MIO specifications and datasets. This paper informs on the progress of this project.
Related Documents:	IHO S-57, S-52, S-100, S-101, and S-99 standards
Related Projects:	EAHC Charting and Hydrography Committee, Marine Environment MIO WG Project

Introduction / Background

1. Environmental MIO(e-MIO) WG was organized under the EAHC CHC (Charting and Hydrography Committee) not only to meet requirement for marine environment ENC of East Asia, but also to obtain S-100 standard based technology. e-MIO WG is performing the project for the development and verification of Environmental MIO.
2. The background and major plan of the project were introduced as at the 26th TSMAD WG. This paper informs the progress of this project so far.

Major Plan and Progress of Environmental MIO Project of EAHC.

3. The aim of this project is to establish environmental MIO standards and datasets with a focus on the oil spill response at East Asia. Through this project, it is expected to obtain S-100 standard-based technology by converting datasets into Marine Environment S-10X. The project includes three phases:
 - Phase 1 - Trial Project Stage (Jun 2013 ~ Jan 2014)
 - Phase 2 - Actual Project Stage (Feb 2014 ~ Jan 2016)
 - Phase 3 - S-100 Standard Application Stage (Feb 2016 ~)

The Trial Project Stage is ongoing and the results will be reported to EAHC Steering Committee in Feb 2014.

4. To define environmental MIO standard and produce test dataset in levels of S-57, it was decided to utilize KHOA Registry and catalogue builder technology developed by KHOA. In addition, the eMIO WG has developed a specific process for the establishment and verification of environmental MIO.

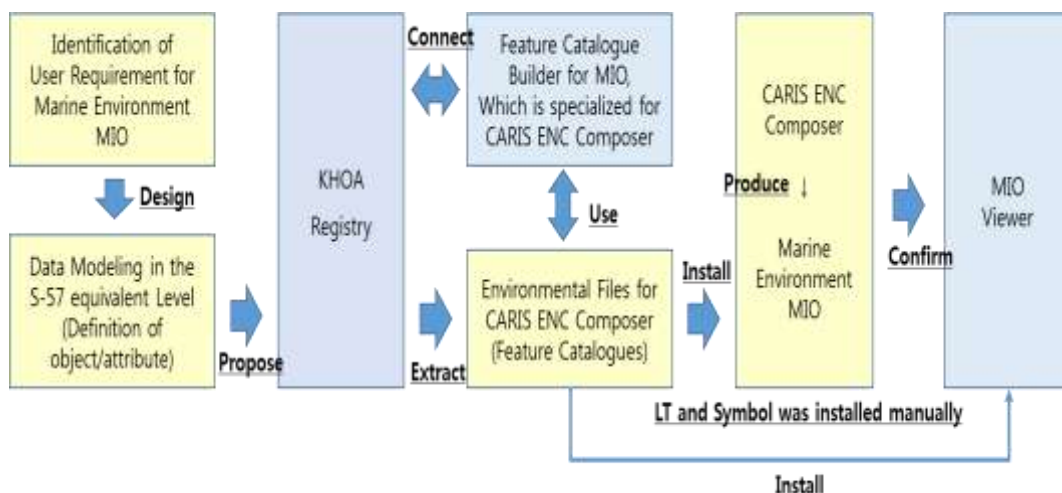


Figure 1 – The proposed process of Environmental MIO Project

5. As the trial stage of this year, the west coast of the Republic of Korea (ROK) and the Straits of Singapore were selected as test areas for environmental MIO. The progress of the project to date includes
 - Research data on environmental MIO and define specifications (Completed)
 - Register Feature and Attribute into the KHOA Registry (Completed)
 - Environmental Files for CARIS ENC Composer by using Feature Catalogue Builder (Completed)
 - Environment setting for the MIO production based on CARIS ENC Composer (Completed)
 - Produce trial data in the west coast of ROK (Completed)
 - Produce trial data in Singapore Water (Being Planned)
 - Develop MIO Viewer and verify marine environment MIO (In Progress)
6. Figure 2 is a screen captures that shows the establishment of environmental MIO in the west coast of ROK, which was checked using a MIO Viewer. MIO WG has a plan to establish and verify the trial data for the Straits of Singapore. It is planned to report the result of research for environmental MIO to EAHC Steering Committee held in Malaysia KL in February 2014.

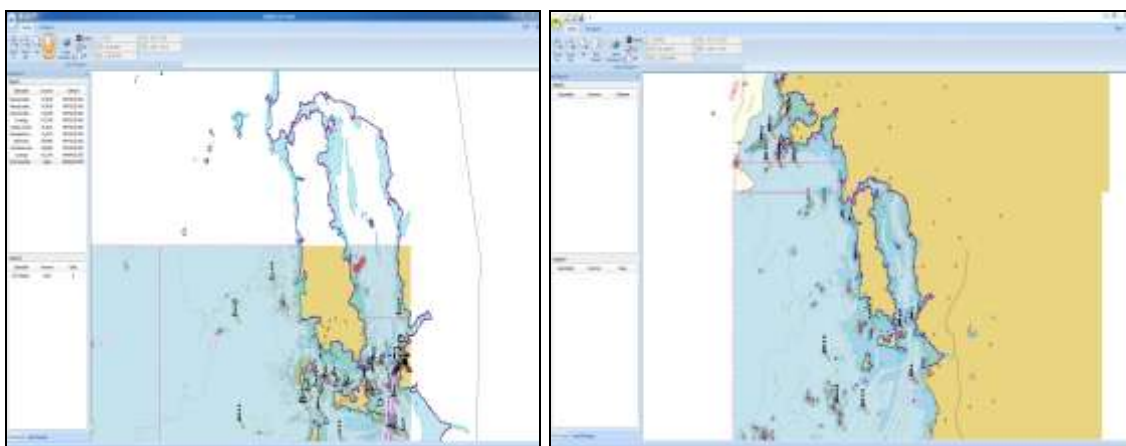


Figure 2 – Environmental MIO Example of Chensoo Man, West Coast of Korea

Recommendations

7. TSMAD is requested to:
 - a. Assess major performance plans and progress of the environmental MIO WG under EAHC CHC.
 - b. Advise on any additional technical issues that should be considered in this project.

Justification and Impacts

8. The proposed process of Environmental MIO that was developed by Marine Environment WG of EAHC, will be helpful in converting S-57 MIOs into Marine Environment S-10X of EAHC.

Action Required of TSMAD

9. TSMAD is invited to:
 - a. Take note of this initiative.
 - b. Provide recommendations that may be helpful in developing a S-10X standard for marine environmental protection in the future.
-