



# S-131 Marine Harbour Infrastructure

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## IHO STATUS



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- The S-131 model was updated according to the post-VTC virtual meeting at the end of March 2022, followed by a further VTC of the PT in July to address emergent matters.
- All new concepts have been proposed to the IHO GI registry.
  - Minor revisions were made as needed after discussions with the IHO Registry Manager, to a few terms and definitions during the submission process.
  - All proposed items have been approved, in one form or another.
- The following S-131 PS components are ready for review now:
  - Product Specification
  - DCEG
  - Feature Catalogue
  - GML schemas
- Portrayal and sample dataset are under development



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## ACTIONS ON ISSUES AND FEEDBACK



- No intentional significant changes to the model received from the original modeling team, but some improvisations to address emergent issues with S-100 limitations.
- Some adjustments were made to the model based on comments received:
  - Removed *historicalAspects* – S-131 contains information about port infrastructure and operations, underlying ENC would encode restricted areas and wrecks.
  - Merged *categoryOfPortSection/categoryOfWaterway*
  - Removed obsolete and duplicative terms - de-ratting vs. ship sanitation control, MARPOL II A/B/C/D (replaced by MARPOL II X/Y/Z/OS)
  - Waste facilities – use MARPOL categories as described in MEPC.1/Circ.834/Rev.1
  - New attributes describing *product*, *cargo*, bollard strength, more ways of identifying locations (*GLNExtension*, *manifoldNumber*, *rampNumber*).
  - Modify binding of complex attributes *textContent/information* to remove duplication.
  - Complex attribute *availablePortServices* is now an information type.
- Names and definitions were harmonized with items already defined in the GI registry, whenever a closely similar item was found – e.g., *idCode* was already defined in the registry
- Project team discussed revisions necessitated by S-100 limitation on using the same concept for different types.



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## DRAFT 1 PRODUCT SPECIFICATION PACKAGE



- Product specification package is harmonized with S-100 5.0.0.
  - Significant changes to the dataset discovery metadata compared to Ed. 4.0.
  - Minor changes to the feature catalogue model.
  - Significant changes to the GML encoding.
- Updates to the IHO GI Registry tools to harmonize with S-100 5.0.0 are still in progress.
- The draft S-131 Feature Catalogue was crafted by hand and then validated using the IHO FC Builder against the GI Registry comments.
- The draft S-131 DCEG:
  - Feature tables in the S-131 DCEG were generated from the Feature Catalogue using the IHO DCEG builder. Some enhancements (sub-types, links) were added manually.
  - Preliminary material in S-131 DCEG taken from S-127 and the latest draft of the S-101 DCEG.
  - Encoding instructions in feature tables, as well as UML diagrams, are “new, hand-crafted” material.
- GML schemas were also generated from the Feature Catalogue.



## IHO NEXT STEPS



- Project team/NIPWG are requested to review the Product Specification, DCEG, Feature Catalogue, and GML schemas at this time.
  - The documents are available on the NIPWG9 site.
  - Feedback requested using the review form.
  - Target date – 1 month after NIPWG9, meaning about October 19(?)
  - Advise on preferred format for “feature tables” in the DCEG:
    - S-127 style – attributes and associations represented by UML diagrams, or
    - S-101 style – attributes and associations represented by table rows?
    - Not “both,” which would be redundant and make the DCEG even longer....
  - DCEG: Suggested focus should be on preliminary matter and encoding instructions.
    - (The “feature tables” (including tables of enumerations, complex attributes, etc.) were generated automatically from the feature catalogue by the ISO S-100 toolkit.
    - Some issues in that generation have been noticed e.g., missing type information for attributes, roles missing for some information associations). To save effort, report such things in general terms if you prefer.