# S-101PT – Portrayal subWG

Summary report

**S-101PT10 June 2023**

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# KEY POINTS

- **S101 PC 1.1.1 was released in April 2023.**
- The PsWG last met in mid May 2023 and is already working towards PC 1.2.0
- 140 GitHub issues – 38 Open *(12 for PC 1.2.0)*
- NIWC continues developing S100 Viewer and On-Shore ECDIS.
- There's a need to establish a workflow that supports the timely creation of S-101 Test Datasets to enable the effective review of portrayal outputs before changes are implemented in a PC version.

# ISSUES REQUIRING S-101PT ATTENTION

## 1 Independent Mariner Selectors

https://github.com/S-101-Portrayal-subWG/Working-Documents/issues/18

- *There are conflicting messages in S-52/S-98 on how IMS should be implemented.*
- *The documented way seems to restrict their ability to operate as 'Independent Selectors'. They seem to be linked to the Display Categories &VGL.*
- *After discussions with some OEMs it seems that, in order to provide a better experience to mariners, IMS have been* already implemented differently to what is strictly documented in the IHO instruments.
- *There is currently no S-64 test available to check IMS performance.*
- The PsWG is seeking S101PT endorsement on the functional requirements expected from IMS.
  An S-98 change proposal would follow to ensure there's clarity on the requirements.
  A new S-164 test is proposed to ensure requirements are met by OEMs.

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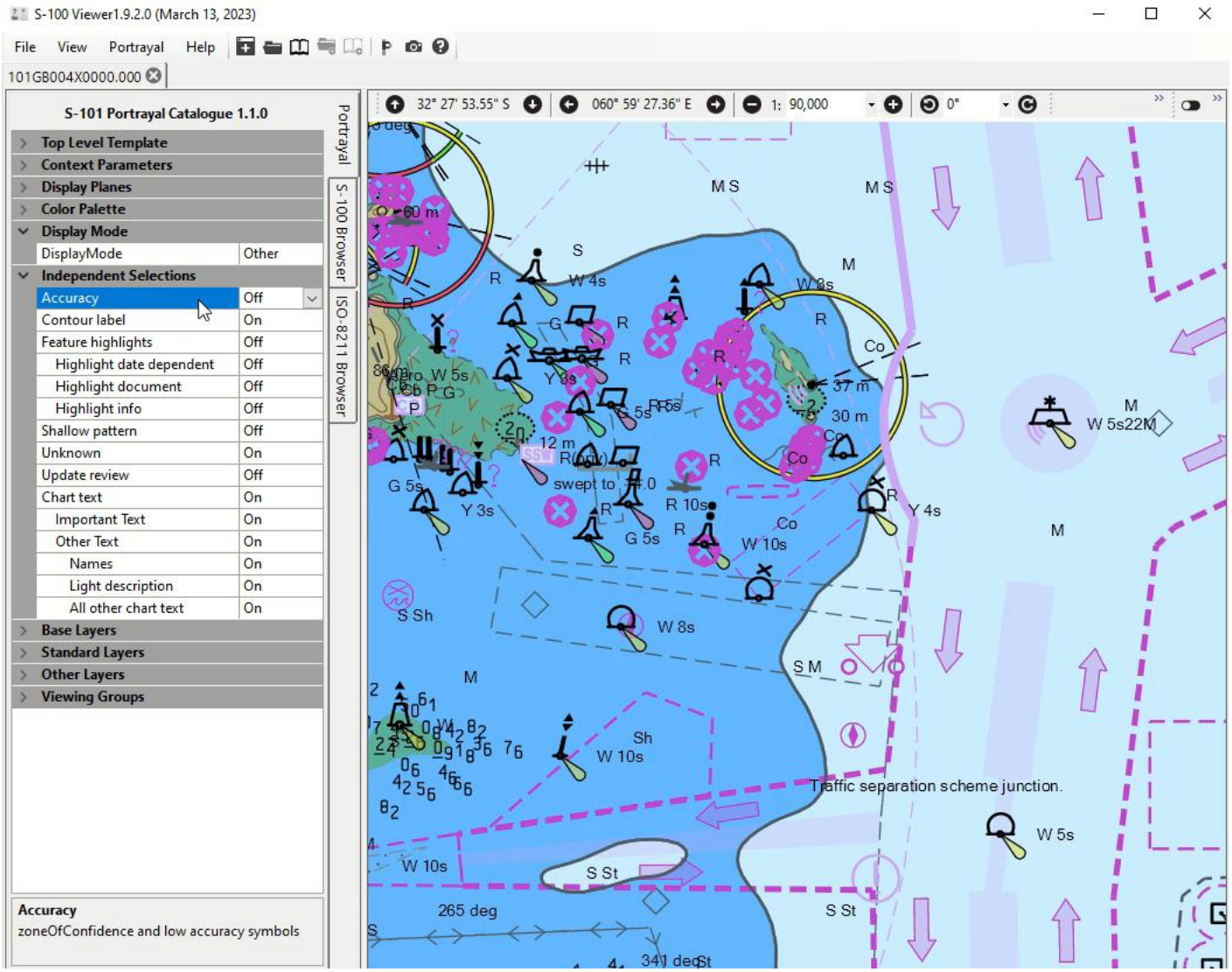

# ISSUES REQUIRING S-101PT ATTENTION

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## 2 All symbols in the GI Registry must be updated

https://github.com/S-101-Portrayal-subWG/Working-Documents/issues/124

- All symbols must be reviewed and updated to remove inline CSS styling (not allowed by SVG Tiny 1.2), update the symbol metadata, and ensure conformance with updated SVG schema (once published – expected in S100 5.1.0).

- Request KHOA to log a GitLab issue to perform a back end, global updating of registered symbols to the new schema and their replacement within the GI Registry.
  This covers Review and update metadata for all PC elements iho-ohi/S-101_Portrayal-Catalogue#203 & Update symbol namespaces for S-100 6.0 SVG schema iho-ohi/S-101_Portrayal-Catalogue#204.

# ISSUES REQUIRING S-101PT ATTENTION

## 3 Mariners Objects

https://github.com/S-101-Portrayal-subWG/Working-Documents/issues/126

https://github.com/S-101-Portrayal-subWG/Working-Documents/issues/135

- They will be removed from the S101 PC (the same with all references to ‘Mariners’ display category).
- Would IEC need to develop and register these symbols in the GI Registry?
- Mariners’ objects will have to be implemented by OEMs.
- ‘Mariners’ display category is currently registered in the GI Registry

## Combined S-52 Look-up tables information

| Code of the object class | Geometry | S-52 Table | Attribute combination | Symbolization instruction | Display priority | Radar | IMO display category | Viewing group (optiona |
|---|---|---|---|---|---|---|---|---|
| dnghlt | Point | Simplified Points | | SY(DNGHILIT) | 8 | O | MARINERS | 53010 |
| dnghlt | Point | Paper Chart Points | | SY(DNGHILIT) | 8 | O | MARINERS | 53010 |
| dnghlt | Line | Lines | | LS(SOLD,3,DNGHL) | 8 | O | MARINERS | 53010 |
| dnghlt | Area | Symbolized Boundaries | | AC(DNGHL,3);LS(SOLD,3,DNGHL) | 8 | O | MARINERS | 53010 |
| dnghlt | Area | Plain Boundaries | | AC(DNGHL,3);LS(SOLD,3,DNGHL) | 8 | O | MARINERS | 53010 |
| indhlt | Point | Simplified Points | | SY(INDHLT01) | 9 | O | MARINERS | 53010 |
| indhlt | Point | Paper Chart Points | | SY(INDHLT01) | 9 | O | MARINERS | 53010 |
| indhlt | Line | Lines | | LC(INDHLT02) | 9 | O | MARINERS | 53010 |
| indhlt | Area | Symbolized Boundaries | | LC(INDHLT02) | 9 | O | MARINERS | 53010 |
| indhlt | Area | Plain Boundaries | | LC(INDHLT02) | 9 | O | MARINERS | 53010 |
| marfea | Point | Simplified Points | | SY(CHINFO09);TX(OBJNAM,3,1,3,'15110',1,-1,CHBLK,50) | 8 | O | MARINERS | 53050 |
| marfea | Point | Paper Chart Points | | SY(CHINFO09);TX(OBJNAM,3,1,3,'15110',1,-1,CHBLK,50) | 8 | O | MARINERS | 53050 |
| marfea | Line | Lines | | LS(SOLD,2,NINFO);TX(OBJNAM,3,3,2,'15110',0,1,CHBLK,50) | 8 | O | MARINERS | 53050 |
| marfea | Area | Symbolized Boundaries | | AC(ADINF,3);TX(OBJNAM,1,2,3,'15110',0,0,CHBLK,50);LS(SOLD,2,NINFO);LS(SOLD,1,CHBLK) | 8 | S | MARINERS | 53050 |
| marfea | Area | Plain Boundaries | | AC(ADINF,3);TX(OBJNAM,1,2,3,'15110',0,0,CHBLK,50);LS(SOLD,2,NINFO);LS(SOLD,1,CHBLK) | 8 | S | MARINERS | 53050 |
| marnot | Point | Simplified Points | | SY(CHINFO09);TX(usrmrk,3,1,2,'15110',0,0,CHBLK,50) | 8 | O | MARINERS | 53040 |
| marnot | Point | Simplified Points | catnot1 | SY(CHINFO08);TX(usrmrk,3,1,2,'15110',0,0,CHBLK,50) | 8 | O | MARINERS | 53030 |
| marnot | Point | Simplified Points | catnot2 | SY(CHINFO09);TX(usrmrk,3,1,2,'15110',0,0,CHBLK,50) | 8 | O | MARINERS | 53040 |
| marnot | Point | Paper Chart Points | | SY(CHINFO09);TX(usrmrk,3,1,2,'15110',0,0,CHBLK,50) | 8 | O | MARINERS | 53040 |
| marnot | Point | Paper Chart Points | catnot1 | SY(CHINFO08);TX(usrmrk,3,1,2,'15110',0,0,CHBLK,50) | 8 | O | MARINERS | 53030 |
| marnot | Point | Paper Chart Points | catnot2 | SY(CHINFO09);TX(usrmrk,3,1,2,'15110',0,0,CHBLK,50) | 8 | O | MARINERS | 53040 |

# ISSUES REQUIRING S-101PT ATTENTION

## Review registration of all Viewing Groups (VG) & Viewing Group Layers (VGL)

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https://github.com/S-101-Portrayal-subWG/Working-Documents/issues/131

https://github.com/S-101-Portrayal-subWG/Working-Documents/issues/132

- It was noted that the GI Registry does not have all the VG and VGL layers registered as per S-52.
- It seems to be a shortfall from when the GI Registry was established and populated for the first time using S-52 as source.
- It was mentioned that his activity was originally coordinated by the S100WG and executed by KHOA.
- Accordingly the PsWG recommends this shortfall is communicated to the S100WG Chair for follow up and remediation.

| Name | Definition | Item Type | Status | Date Accepted |
|---|---|---|---|---|
| 26020 | Restricted Area Regulatory | viewingGroup | Valid | 2022-11-04 |
| 26010 | | viewingGroup | Valid | - |
| 26040 | | viewingGroup | Valid | - |
| 26050 | | viewingGroup | Valid | - |
| 26260 | | viewingGroup | Valid | - |
| 26010 | | viewingGroup | Valid | - |
| 26040 | | viewingGroup | Valid | - |
| 26050 | | viewingGroup | Valid | - |
| 26260 | | viewingGroup | Valid | - |

| Name | Definition | Item Type | Status | Date Accepted |
|---|---|---|---|---|
| viewingGroupLayer4 | Test Viewing Group Layer | viewingGroupLayer | Valid | - |
| viewingGroupLayer3 | Test Viewing Group Layer | viewingGroupLayer | Valid | - |
| viewingGroupLayer2 | Test Viewing Group Layer | viewingGroupLayer | Valid | - |
| viewingGroupLayer1 | Test Viewing Group Layer | viewingGroupLayer | Valid | - |
| viewingGroupLayer4 | Test Viewing Group Layer | viewingGroupLayer | Valid | - |
| viewingGroupLayer3 | Test Viewing Group Layer | viewingGroupLayer | Valid | - |
| viewingGroupLayer2 | Test Viewing Group Layer | viewingGroupLayer | Valid | - |
| viewingGroupLayer1 | Test Viewing Group Layer | viewingGroupLayer | Valid | - |

# ISSUES REQUIRING S-101PT ATTENTION

## 5 Allocate and register mariners viewing group for INDHLT

https://github.com/S-101-Portrayal-subWG/Working-Documents/issues/136

- IEC 61174 Ed 4.0 clause 4.10.2.1 (route planning) and 4.10.3 (route monitoring) includes the following new(?) requirement:
  *'Graphical Indication in the chart area shall be selectable between ON and OFF states separately for Navigation Hazards and for each Prohibited Area or each Area with Special Conditions (see Annex C)'.*

- It seems that IEC 61174 requirement does not come from any other IMO or IHO instrument and **there's no S-64 check** to ensure it has been systematically implemented by OEMs.

- In practice this means allocating different VGs to each of the feature/attribute combination allocated to the Alert's group 'Areas for which special conditions exist' (see screenshot on next page).

- If we do implement more rigorously in S-101 A&I and we include an S-164 check, we run the risk that, in DF-ECDIS, mariners will get different results depending on the product at use (S-57 or S-101).

# ISSUES REQUIRING S-101PT ATTENTION

## Allocate and register mariners viewing group for INDHLT

https://github.com/S-101-Portrayal-subWG/Working-Documents/issues/136

- Switching OFF the Indication Highlights (INDHLT) may turn off all graphical indications (DNGHLT and INDHLT) in S-52 (as both are linked to VG 53010) but would only turn off DNGHLT in an S-101 dataset. All yellow graphical alerts would continue active on the ECDIS screen.
- The PsWG is seeking S101PT views on the strict implementation of this IEC requirement and direction on weather proceed or not with its implementation in PC 1.0.2 (and consequently during DF-ECDIS phase).

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| S-52 Ref | S-57 Objects | Conditions | Geometric Primitive(s) | S-98 Ref | S-101 Features | Conditions | Geometric Primitive(s) | Group |
|---|---|---|---|---|---|---|---|---|
| 10.5.10 | TSEZNE | | AREA | C-14.9.8 | SeparationZoneOrLine | | SURFACE, CURVE | Areas for which Special Conditions Exist |
| 10.5.10 | ISTZNE | | AREA | C-14.9.8 | InshoreTrafficZone | | SURFACE | |
| 10.5.10 | RESARE | RESTRN !=14 and CATREA != 28 | AREA | C-14.9.8 | RestrictedAreaNavigational | restriction != 14 and categoryOfRestrictedArea != 28 | SURFACE | |
| 10.5.10 | CTNARE | | AREA, POINT | C-14.9.8 | CautionArea | | SURFACE, POINT | |
| 10.5.10 | OSPARE | | AREA | C-14.9.8 | OffshoreProductionAre | | SURFACE | |
| 10.5.10 | RESARE | RESTRN = 14 | AREA | C-14.9.8 | RestrictedAreaNavigational | restriction = 14 | SURFACE | |
| 10.5.10 | MIPARE | | AREA, POINT | C-14.9.8 | MilitaryPracticeArea | | SURFACE, POINT | |
| 10.5.10 | SPLARE | | AREA, POINT | C-14.9.8 | SeaplaneLandingArea | | SURFACE, POINT | |
| 10.5.10 | SUBTLN | | AREA | C-14.9.8 | SubmarineTransitLane | | SURFACE | |
| 10.5.10 | ACHARE | | AREA, POINT | C-14.9.8 | AnchorageArea | | SURFACE, POINT | |
| 10.5.10 | MARCUL | | AREA, LINE, POINT | C-14.9.8 | MarineFarmCulture | | SURFACE, CURVE, POINT | |
| 10.5.10 | RESARE | CATREA = 28 | AREA | C-14.9.8 | RestrictedAreaNavigational | categoryOfRestrictedArea = 28 | SURFACE | |

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