Janus Phase 1

New Zealand Hydrographic Authority

Agenda

- Project Overview

- Key outcomes

- S-101 conversion
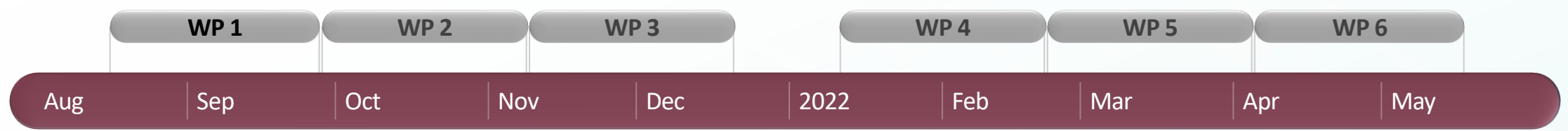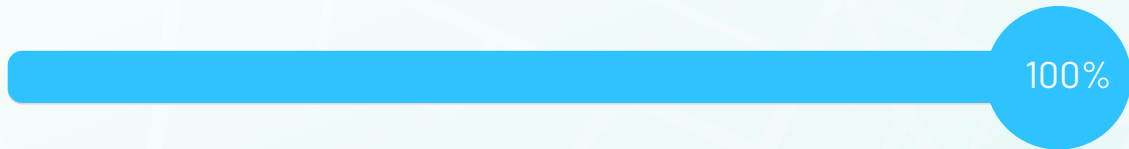
Key outcomes

- New S-100 db set up with a two step approach

- Rationalise scale based data (e.g. 1.5M, 1.25M, 90K)

- Utilize scale less usages

- Recommendation for ENC Grid schema

- S-57 to S-101 conversion => 99%

Current DB	Stage 1	Stage 2 (+10y)
18 db scale usages	5 db scale usages	4 db scale usages
50 scales	10 scales	5 scales

Overview ☐ Aids to Navigation	30° x 30°
☐ Soundings & Rocks Transit ☐ Other Scaleless	1° x 1°
Port Entry small	~1° x 1°
Port Entry medium	-
Port Entry large	-

Usage	Features	Time	Converted	Created	Collections	DoNotMap	Notes about manual ops/ checks	Manual effort required	% Converted	% Created	Notes
Overview	3350	0:00:10	3348	3348	11	2	2	• DataCoverage maximumDisplayScale	99.9%	99.9%	• DataCoverage creation from M_CSCL & M_COVR coming in next mapping version
Transit	11375	0:00:47	11369	11616	65	6	5	• DataCoverage maximumDisplayScale • CATSLC wharf/quay • BRIDGE spans • Check Category Of Temporal Variation • Check Multiplicity Of Features	99.9%	102.1%	• DataCoverage creation from M_CSCL & M_COVR coming in next mapping version
Port Entry Small	18974	0:01:13	18959	19215	74	15		• DataCoverage maximumDisplayScale • CATSLC wharf/quay • BRIDGE spans • Check Category Of Temporal Variation • Check Multiplicity Of Features • RIVERS/LAKES Status • SoE Changes - DockArea (cut)	99.9%	101.3%	• DataCoverage creation from M_CSCL & M_COVR coming in next mapping version
Port Entry Medium	5375	0:00:19	5364	5433	49	11		• DataCoverage maximumDisplayScale • CATSLC wharf/quay • BRIDGE spans • Check Category Of Temporal Variation • SoE Changes - DockArea (cut) • SoE Changes - Hulks & Pontoons (fill) • Measured Distance from INFORM	99.8%	101.1%	• DataCoverage creation from M_CSCL & M_COVR coming in next mapping version
Port Entry Large	114	0:00:02	113	122	8	1		• DataCoverage maximumDisplayScale • BRIDGE spans • Check Category Of Temporal Variation • SoE Changes - Pontoons (fill)	99.1%	107.0%	• DataCoverage creation from M_CSCL & M_COVR coming in next mapping version
SoundingsPlus	24800	0:06:23	24800	24800					100.0%	100.0%	

AtoNs	881	0:00:06	891	697	45	4		• Check majorLight from VALNMR
								• Measured Distance from INFORM
								• Check BCNSHP = 4 (lattice) to NATCON
									101.1%	79.1%	• Some features merged eg
											  • Sector Lights
											  • Topmarks
											• Obscured Lights dropped (4)
											• 191 P/C relationships created afterwards (~300 before)

Other Scaleless	1390	0:00:07	1390	1390	19*			• NATSUR/NATQUA • Check Tidal Stream Panel data referenceTideType • 4 Panel Values did not convert (missing or incorrect values)	100.0%	100.0%	Note: 49 NIs from TS_TSP being copied to NI as a check. Can be removed once issues resolved.

Potential issues

- RESARE – "RestrictedAreaRegulatory" and "RestrictedAreaNavigational".

- SLCONS – "CategoryOfShorelineConstruction = 6 (wharf) AND 22 (quay)"

- Custom attributes

- TS_FEB

- Features in the water

- INFORM/CTNARE/REASRE

More testing needed for the planned conversion back to S-57 when data is maintained in native S-101format and model.

Challenges:

- Evolving S-101 encoding guidance,
- To meet the needs of mariners while transition the source data into the new scale structure
- Conversion of S-57 attributes to S-101. e.g LINZ has previously encoded specific text information in the S-57 INFORM attributes, which can not be converted easily.

- Resourcing

Next Steps:

- Investigation of how best we can utilise SCAMIN attribute on scale less usages
- Investigation of possible encoding improvements to improve the transformation automation with a larger success rate.
- Developing customised S-101 mapping files for LINZ specific encoding and for custom source features and attributes.
- Review of dropped attributes and their impact on S-101 products.
- Investigation into other S-10X products

Thank you!