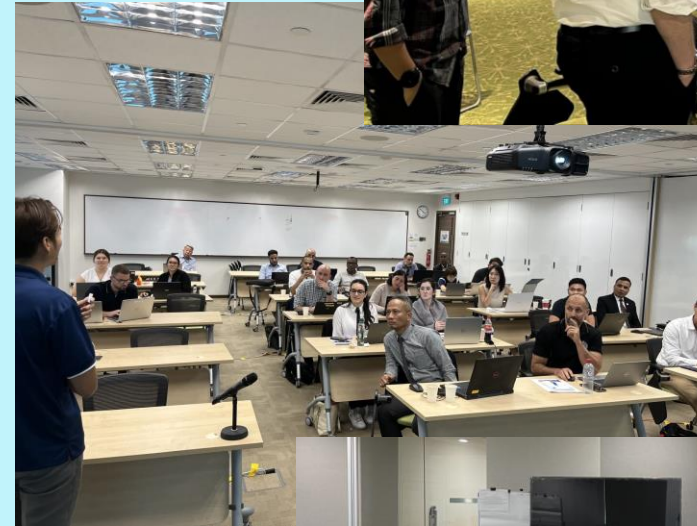


# Conversion Workshop preliminary readout

- Conversion workshop has now completed. Successful execution of the 5 day training and implementation of the planned activities
- 30 participants from 20 countries took part
- Programme structure - training for an initial day, followed by 2 days of facilitated conversion, then 2 further days of conversion exercises with support from industry partners.



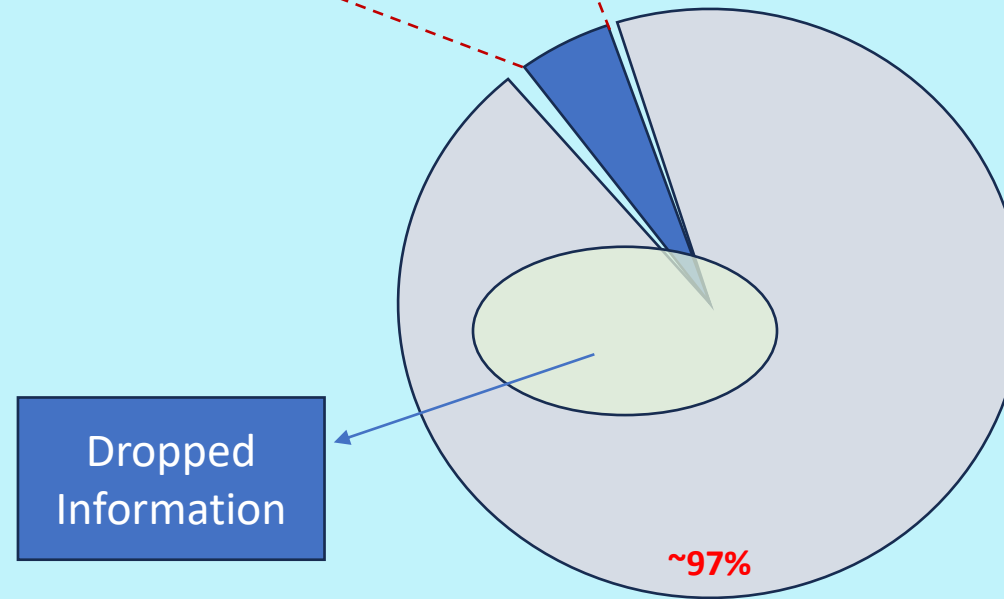
# IHO R&D Lab conversion workshop

- Member State representatives, 29 from 19 countries
- Hosted by IHO R&D Lab Singapore
- Working on “live data”
- Combination of training and practical experience
- A variety of of available tools from different manufacturers
- Focus on use of S-65, both S-57 to S-101 and S-101 to S-57
- Outputs under review, both detailed and general suggestions for improvement to IHO guidance on conversion which would help both industry and data producers for DF transition.

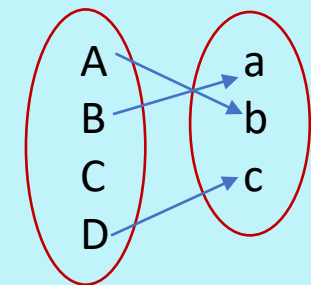
## Complex Mappings



- Missing information
- Simple Mappings
- Complex Mappings
  - Fixed non-simple mappings
  - INFORM based complex mappings
  - Truly “Complex” mappings requiring manual intervention and/or validation.



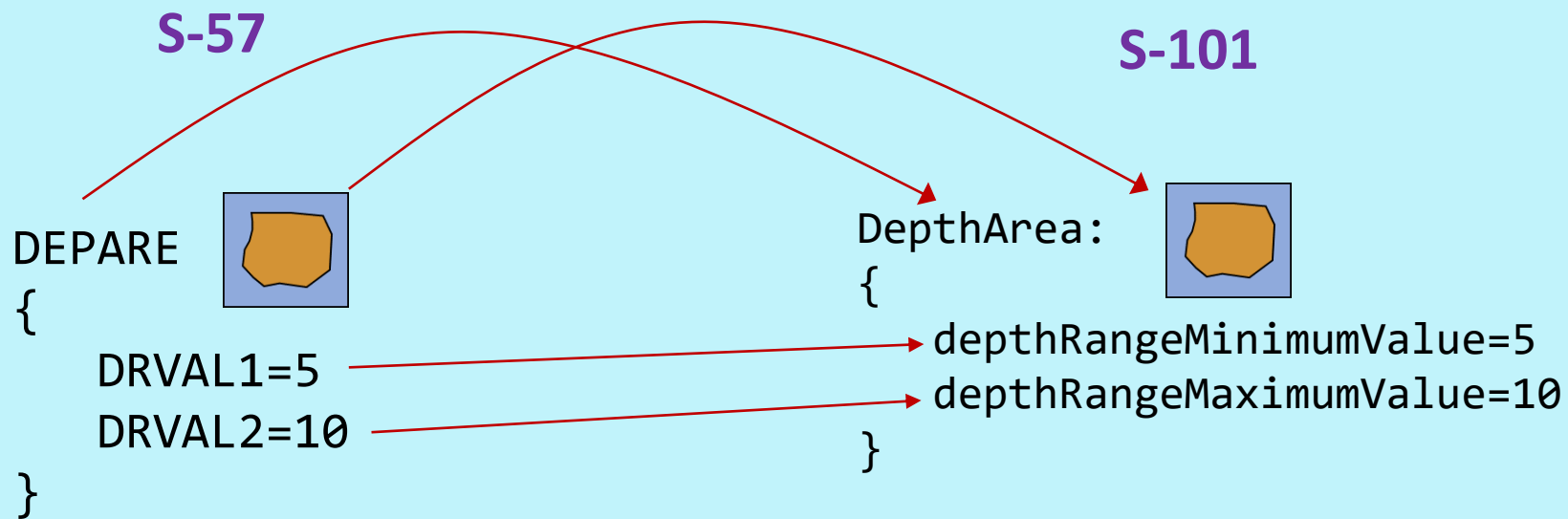
## Simple Mappings



# Conversion Structure

# Initial Takeaways

- Software tool availability is a huge advantage, access to many tools which perform the same function(s) helps participants focus on data content and the underlying IHO standards
- Awareness that S-57 to S-101 conversion is not “simple” – our focus on the more complex mappings helped reinforce the message of S-65
- “Reverse conversion” is still in the early stages – dual fuel production tooling is “young”. It is also hard to prototype/demonstrate and must take producer models into account. We should try and focus on DF production guidance more.
- How can IHO support be enhanced?
  - Supplement S-65’s message with other useful elements
  - Definitive test datasets (all non-trivial mappings, plus a “Chart 1” approach)
  - Machine readable conversion mappings (useful for industry and data producers)
  - Verification technologies are still under development
  - We’d like an HTML version
  - Supplement training and communication materials to deliver the message
  - More specific descriptions of “what to do” for the producer
- Standardised validation tests are still missing for S-101
- Confusion over versioning. Tests which respect (and identify) versions still do not exist.



S-57		S-101	
DEPARE		DepthArea	
Polygon		Surface	
Name=DRVAL1	Value=5	Name=depthRangeMinimumValue	Value=5
Name=DRVAL2	Value=10	Name=depthRangeMaximumValue	Value=10

**A simple mapping.**

# IHO ENC Conversion Workshop - Process



IHO

International  
Hydrographic  
Organization

Information

Assembly

Phase 1

- Training (*Are we ready?*)
- Objectives (*Do we know what to do?*)
- Tools (*do we have everything we need?*)
  - Production
  - Editing
  - Validation
  - Testing
- Scheming, Scales and Metadata

Analysis

Validate

Phase 2

Edit

Convert

S-101 Capability

Making “initial S-101” data

- Analysis *Running Pre-conversion checks, validation (S-57)*
- Edit *Do we need to edit the original data at all?*
- Convert *Running the actual conversion process*
- Validate *Is the created data valid, does it match the original? Does it need further work?*

# S-101 Data Production Verification

ENC IsoMorph v0.0.7

Compare Matching Non-Matching RESARE

S-101 Cell 101US005PR51M\_\_000

S-57 Cell US5PR51M.000

Comparison Features in S-101, not found in S-57

20231023085642: converted to=LandArea FOID=550/253174182/1990  
20231023085642: converted to=LandRegion FOID=550/23797895/50  
20231023085642: converted from=COALNE FOID=550/253161622/1990  
20231023085642: converted from=LNDARE FOID=550/253174182/1990  
20231023085642: converted from=LNDGRN FOID=550/23797895/50  
20231023085642: Starting display

Match => <c364e71>: [OBSTRN ] [Obstruction ]  
Match => <8ff7ed3>: [DEPARE ] [DepthArea ]  
Match => <616b78>: [DEPARE DEPCNT ] [DepthArea DepthContour ]  
Match => <4129af>: [UWTROC ] [UnderwaterAwashRock ]  
NoMatch => <4ebdd24>: [DepthContour 550/887093716/12345 ]  
Match => <c52c24>: [DEPCNT ] [DepthContour ]  
Match => <b99742>: [DEPARE ] [DepthArea ]  
Match => <ec95d68>: [COALNE LNDARE LNDGRN ] [Coastline LandArea LandRegion ]  
Match => <8be4046>: [DEPARE ] [DepthArea ]  
Match => <46fe555>: [LNDARE ] [LandArea ]  
NoMatch => <8e2d82c>: [DepthContour 550/23504618/50 ]  
Match => <a95fd02>: [UWTROC ] [UnderwaterAwashRock ]  
Match => <f6dbf17>: [DEPARE DEPCNT ] [DepthArea DepthContour ]  
NoMatch => <0cf404c>: [DepthContour 550/253169956/1990 ]

In this position:

- S-57 Features
- S-101 Features

Compare

Copy Copy

Coastline ID=550/253161622/1990  
Coastline:  
{  
categoryOfCoastline=8  
}  
LandArea ID=550/253174182/1990  
LandRegion ID=550/23797895/50  
LandRegion:  
{  
categoryOfLandRegion=2  
scaleMinimum=21999  
}

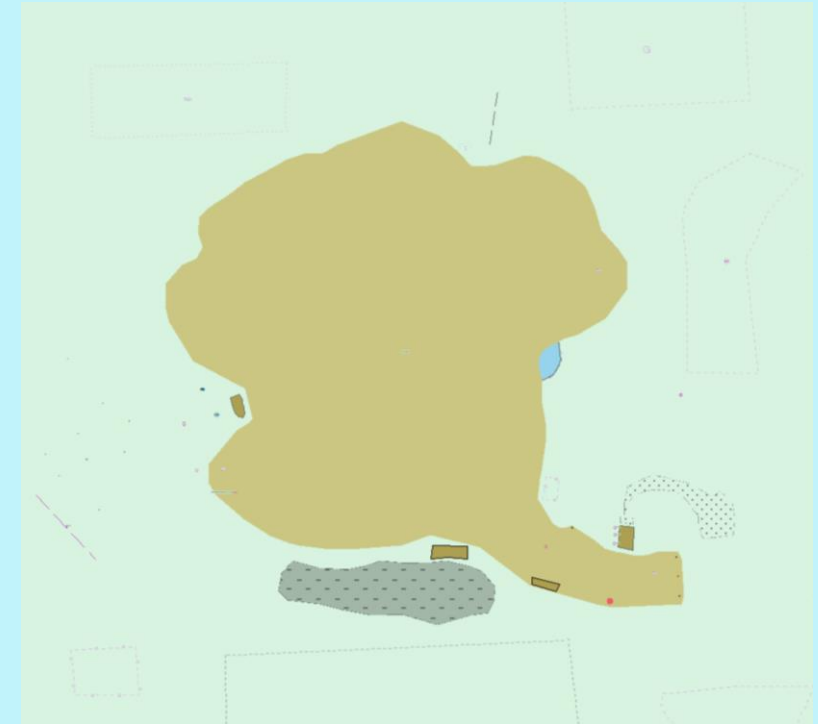
COALNE ID=550/253161622/1990  
{  
CATCOA=8  
SORDAT=19971108  
SORIND=US,US,graph,Chart 25653  
}  
LNDARE ID=550/253174182/1990  
{  
}  
LNDGRN ID=550/23797895/50  
{  
SORDAT=19971108  
SCAMIN=21999  
CATLND=2  
SORIND=US,US,graph,Chart 25653  
}

OK Cancel



# Wednesday - Convert My ENC

- Convert the Null Island Test Data Set (sent out)
  - How many non-simple conversions can you find?
  - Are there any that should be non-simple but aren't – does your software tool convert everything according to S-65?
  - Try with a different tool? Do you get the same results
  - Suggestions – what shall we add to this cell?
  - We can add some features and retry



<http://13.42.127.199/2C3NULL3.000>