Teledyne CARIS Supporting S-100

21st Meso American-Caribbean Sea Hydrographic Commission (MACHC) Meeting

**November 30 to December 2, 2020**

Presented by Juan Carballini | Regional Sales Manager

Introduction

- IHO S-100 Working Group (WG) has objective to develop and extend the S-100 Universal Hydrographic Data Model and S-100 based products
  - To support a greater variety of digital data sources, products and customers

- Examples of CARIS' involvement in S-100 WG include:
  - Development of encoding and portrayal for S-100, including S-101 ENCs
  - Validation checks for S-101 ENCs (equivalent to S-58)

- ~92% of hydrographic offices use CARIS for all or part of their workflow
  - CARIS solutions have been, and continue to evolve to provide agencies with tools to transition to S-100

S-100 Stakeholders

- Different stakeholders are involved

- Examples:
  - Developers / Solution providers
  - Data producers (Hydrographic Offices, Port Authorities, Inland Waterway Authorities, Survey Contractors)
  - Distributors (RENCs, others)
  - ECDIS Manufacturers (OEMs)
 - Users (Pilots, Mariners, Scientists, Marine Researchers, Environmentalists, Coastal planners)
  - …
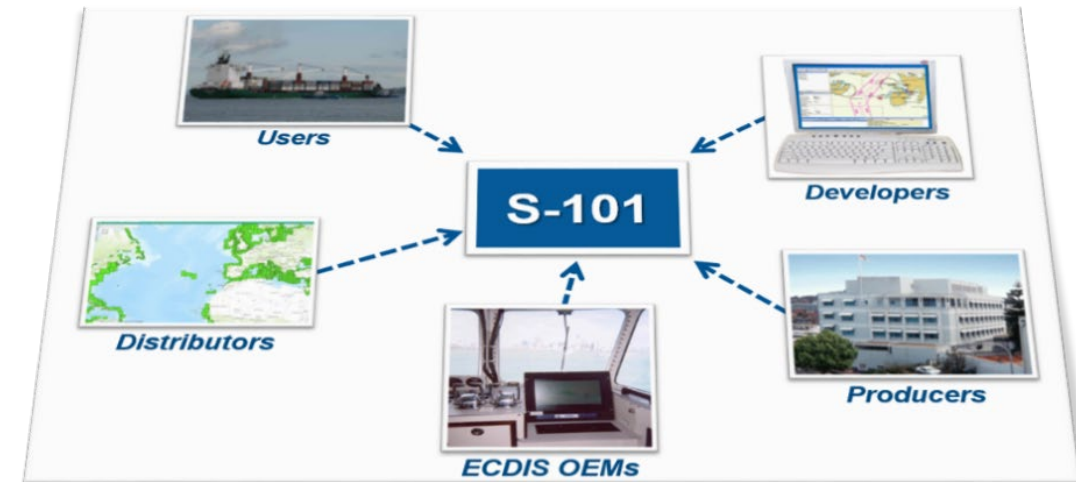
S-101 Electronic Navigational Chart (ENC)

- Edition 1 (December 2018)
  - Several new editions planned towards full navigational use

- (Eventually) replacing S-57 ENCs

- CARIS Support
  - Early support for draft specification in S-57 Composer 3
  - In **HPD 4** (with S-100 Module for HPD)
  - In **S-100 Composer 4** (S-57 Composer with S-100 Module)
 - Both with **automatic conversion** of S-57 data to S-101 data
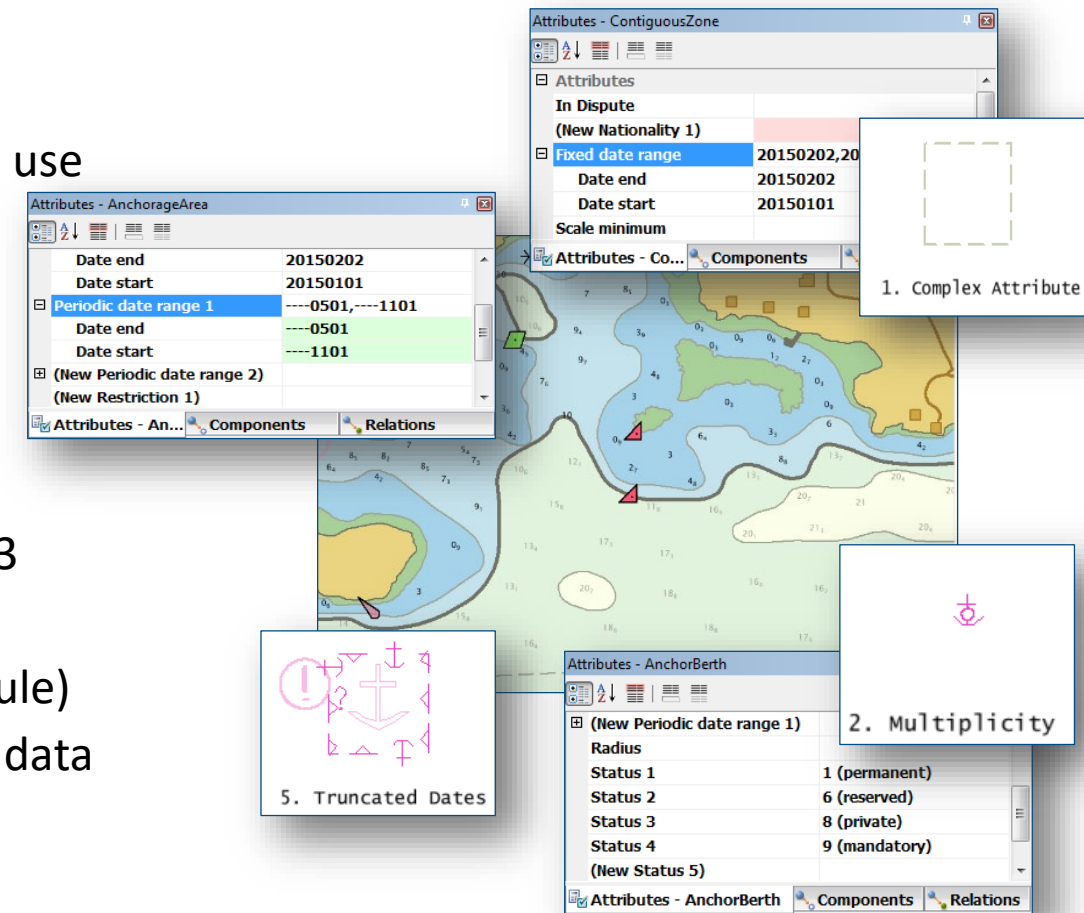
S-102 Bathymetric Surface

- Edition 2.0.0 (October 2019)

- Tiled bathymetric surfaces and accompanying metadata

- CARIS Support
  - Early support (Editor 1.0) since 2012
  - In Bathy DataBASE and BASE Editor
  - Simple automated process
  - Export with the Raster Product Export tool
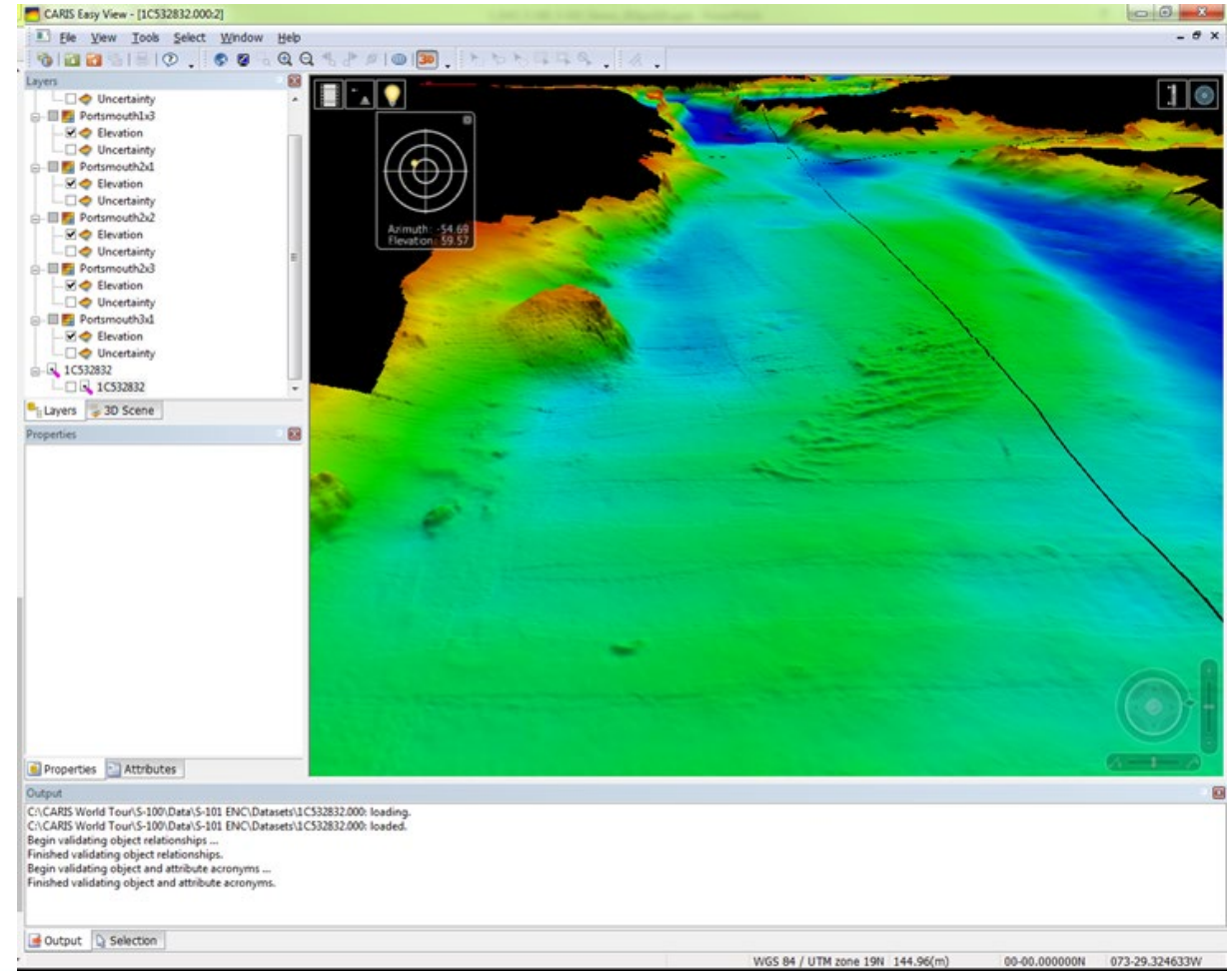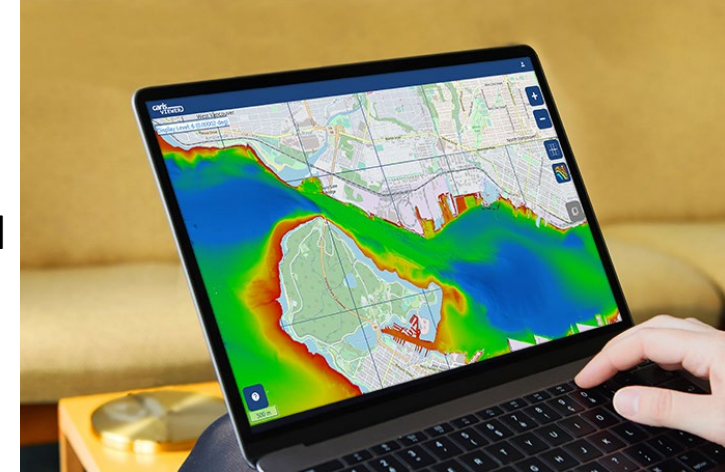
Geospatial solutions for S-100

- There are numerous S-100 products, services and stakeholders

- Data producers need access to familiar tools with the ability to create various S-100 products
    - Features, attributes, encoding and metadata

- Desktop and database solutions can be used to facilitate S-100 familiarization, and assessment to transition to S-100
    - Data assessments, conversions and mappings
    - Definition of automated workflows

Data assessment

Default conversion

Customized mapping
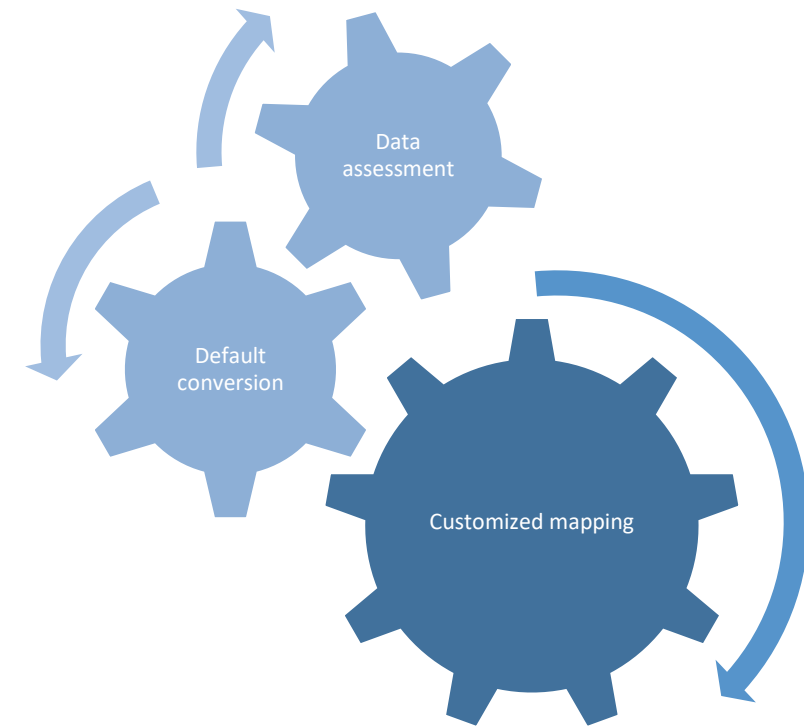
Geospatial solutions for S-100

- Data producers have requirements to:
    - Meet current mandates and produce existing products
    - Produce new products to support new data users with the same resources
    - Efficiently deliver products and services to stakeholders and end users…

- Using S-100 products and services with a service oriented and cloud-based approach we can:
    - Upload, host, manage and deliver S-100 data products to end users
    - Minimize the time for S-100 data products to be available for operational use (e.g. for e-Navigation or a part of MSDI)

Geospatial solutions for S-100

Teledyne CARIS' commitment

- Remain the leader for S-100 support

- Drive the adoption of new S-100 products and services

- Enable efficient production, management and distribution through automation, and infrastructure

- Evolve products/services and capabilities with partners and co-operation to realize possibilities

GET STARTED WITH S-100

S-100 Sandbox

- Off the shelf, no risk deployed cloud HPD instance.

- Allowing you to experiment and evaluate without the overhead of IT expendature and delay

- Short term agility

S-100 Sandbox

- Need to separate testing from production environment
- Users with limited resources (both IT Hardware and personnel) to set up test environments
- Agile offering to turn on / off as required
- Easier access (users not in office)
- Many organisations looking into how cloud fits into their IT infrastructure
- Secure
- Multiuser
- Expert Assistance for S-100 questions, built in to the solution
- Customization options
- Short or Long term options

E-learning

CARIS S-100 Workshop
- Overview of S-100 and S-101
- Theory
- Concepts
- Expert background theory.
- No practical element

Coming Soon

CARIS S-101 Production Course
- Learn about S-101 in general, and to lear[n] about creating S-101 ENCs in Composer, using hands-on exercises
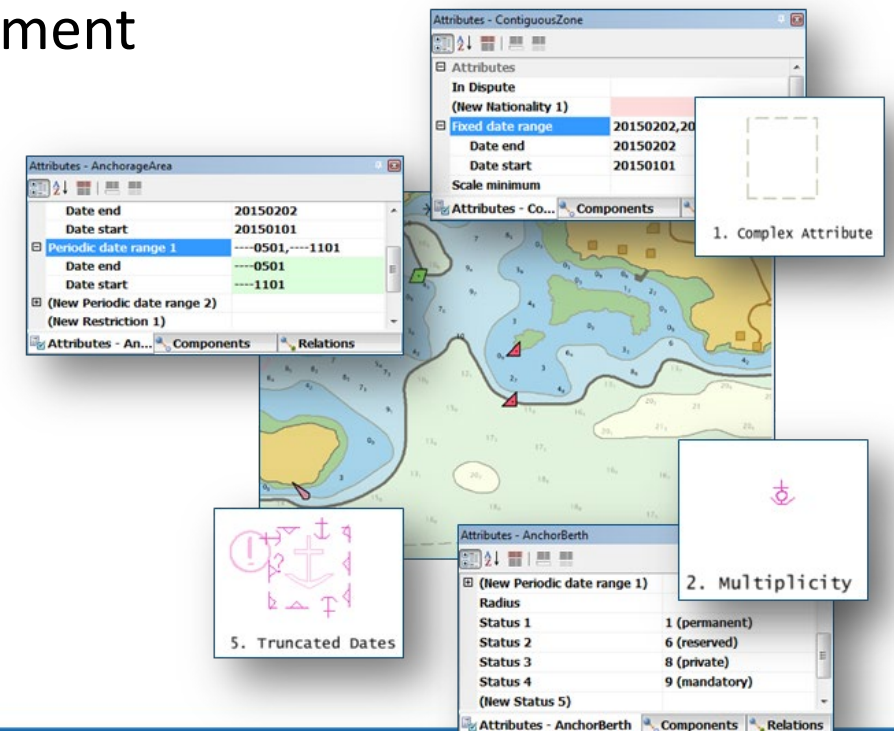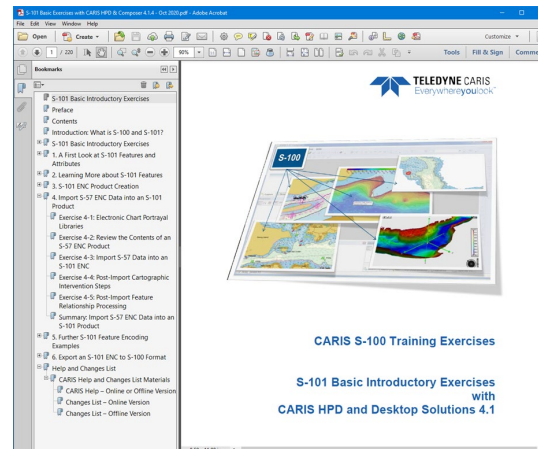
Videos

- Short introductory videos cover theory and examples
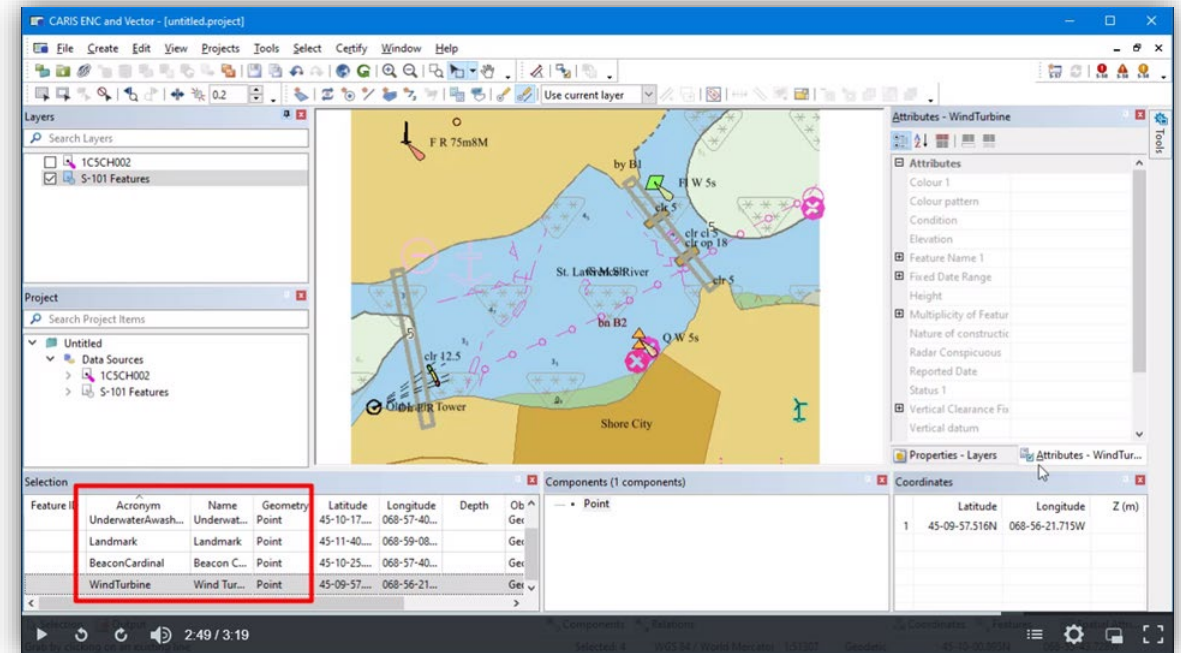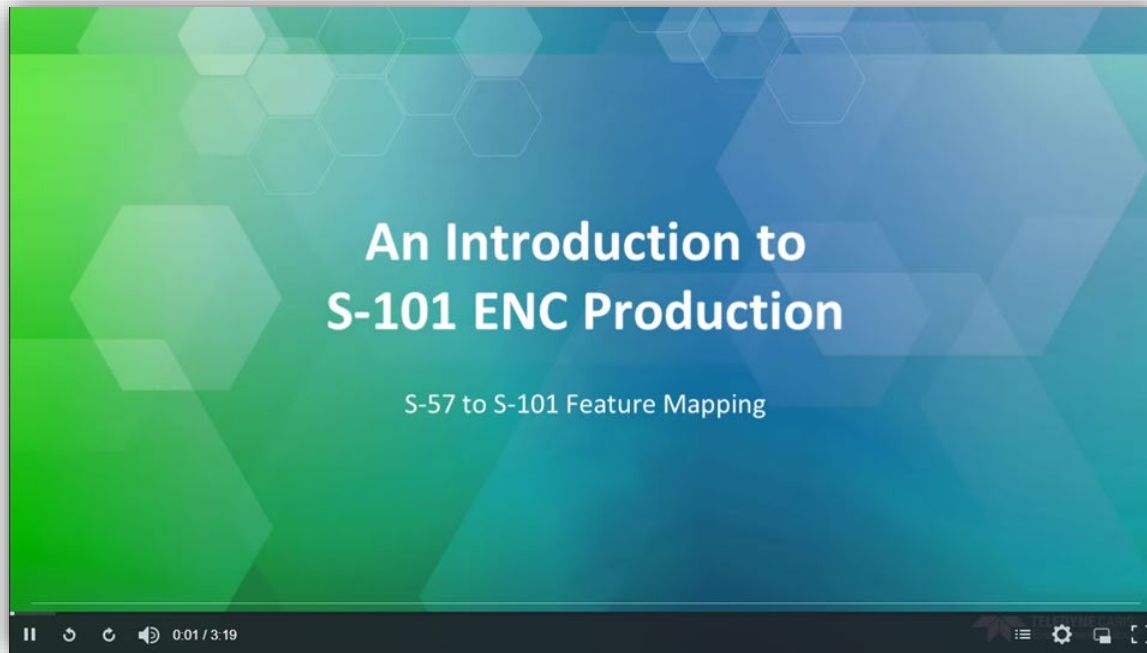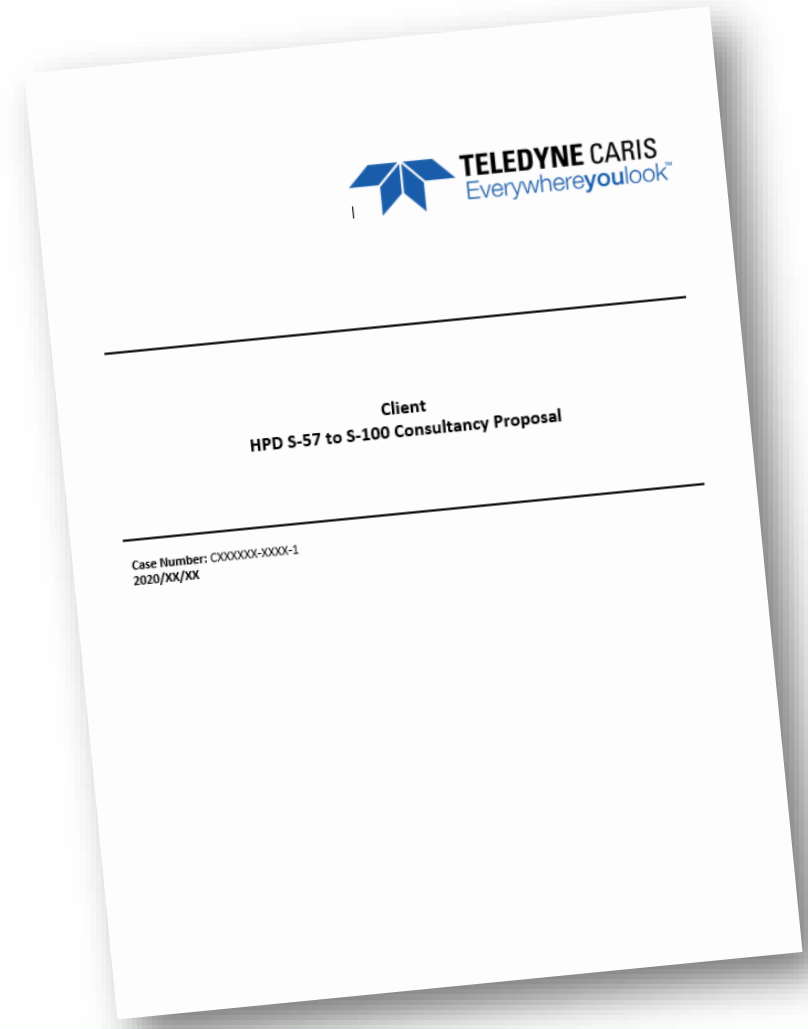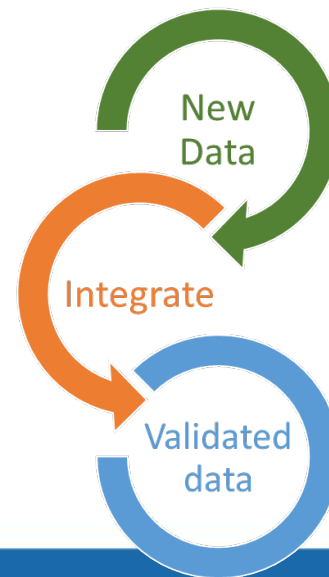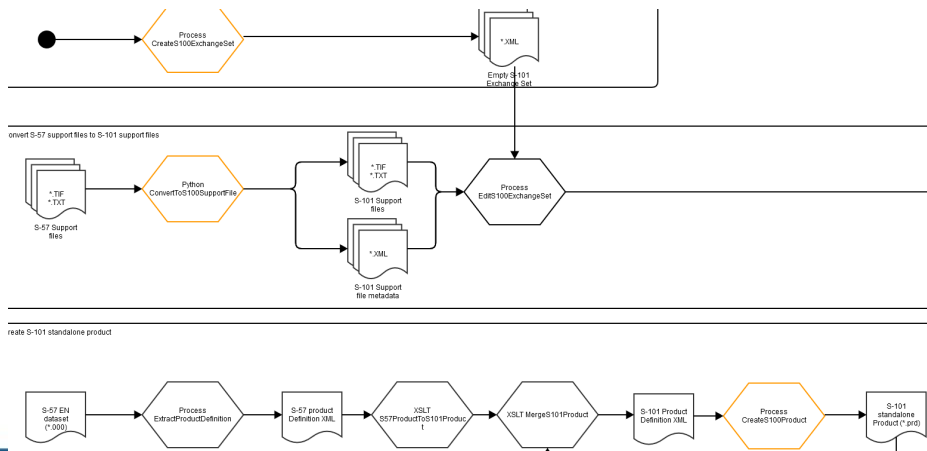
Instructor Led Training

- World Class Training staff
  - Actively participating in IHOs development of the S100 standard
  - Assisting organizations on S 100 product development
- Onsite
- Remote
- Via AWS

Expert Led Consultancy

- Data model Assessment

- Migration planning/Assistance

- Workflow and Automation Services

- Best Practice analysis

Support

- Webinar Series "Transition to S-100"

- Social Media postings

- support.teledynecaris.com

- User Group Meetings

Webinar Series
Transition to S-100
Strategies for transitioning your organization to S-100 using CARIS HPD

https://images.app.goo.gl/ZARZLDtJo2qAvzRd6

### Welcome to CARIS Online Customer Services (OCS)

Explore these pages to:

- view information about new and past CARIS releases
- download software updates
- request assistance from Teledyne CARIS Technical Support Consultants via the **Teledyne CARIS HelpDesk**
- review all **Service Requests** entered by your organization
- view your organization's current **licence information** and subscription status
- **update your licence key** by downloading the most current licence file

Summary: S-101

S-101

Next Generation ENCs
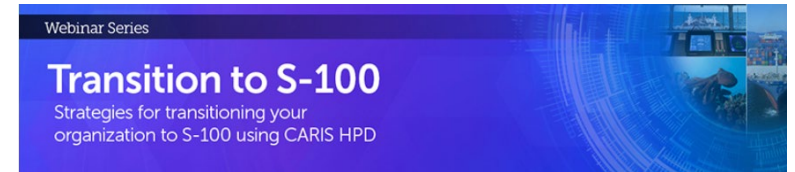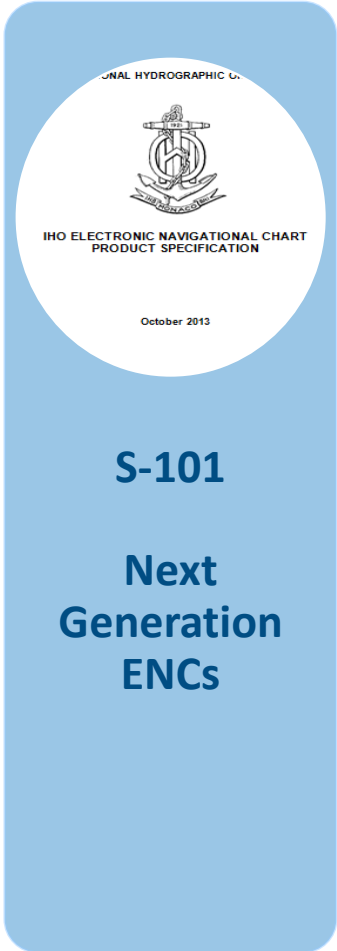
- S-101 Edition 1.0.0 (Dec 2018) – for implementation, testing
- S-101 will impact different stakeholders
- Numerous other S-100 based products are proposed
- CARIS users can produce S-101 ENCs
  - From a database application HPD 4.0
    - S-57 ENCs, paper charts and other products could be produced from the same S-100 data
  - From a standalone application Composer 4.0
  - From existing ENCs or from scratch
- S-101 production testing environment available
- Different training options available

Questions?

Thank You!