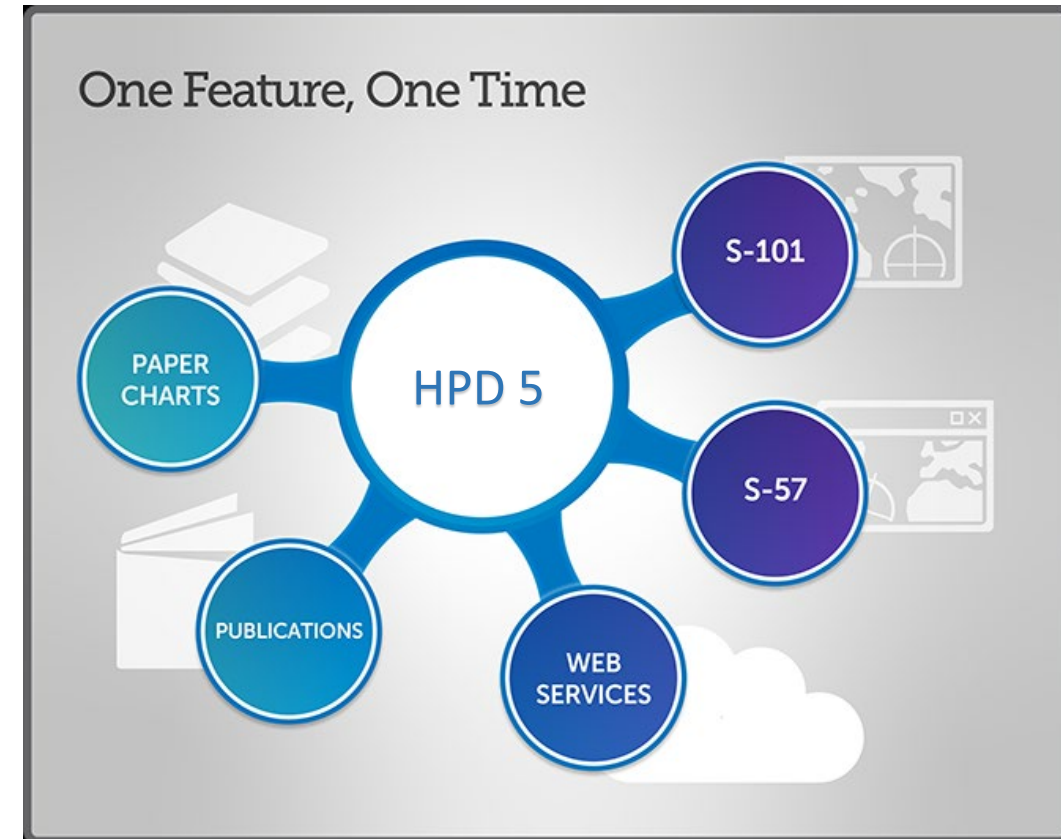


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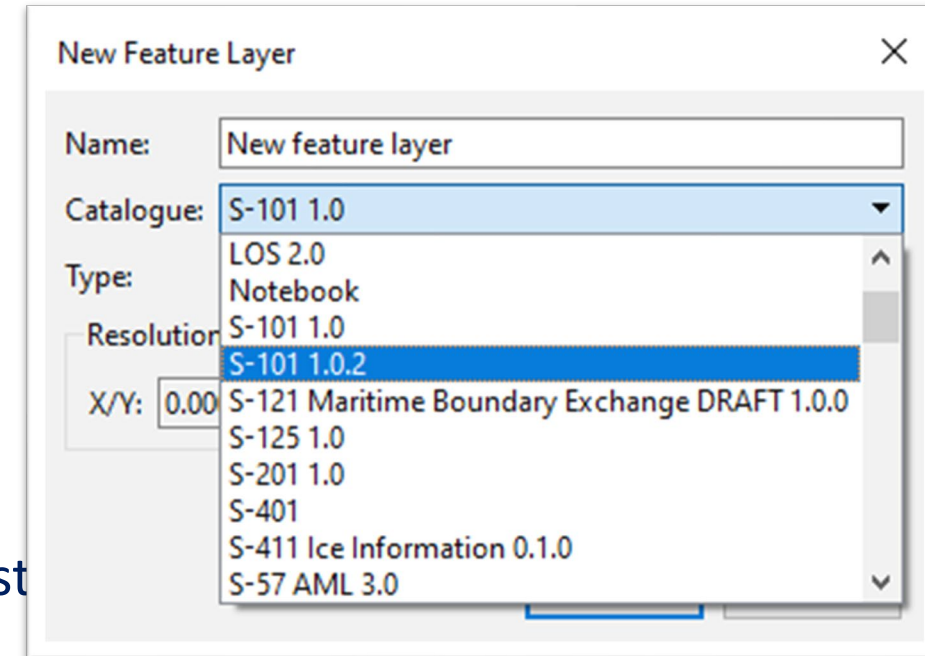
# S-100 tools

- Enabling S-100 production
  - HPD needs the S-100 module
  - S-57 Composer needs the S-100 module per application instance.
- Once acquired, S-101 configuration is ready for use, with other specifications easily added to the product folio.
- BDB powers S-102 and other raster overlay product creation

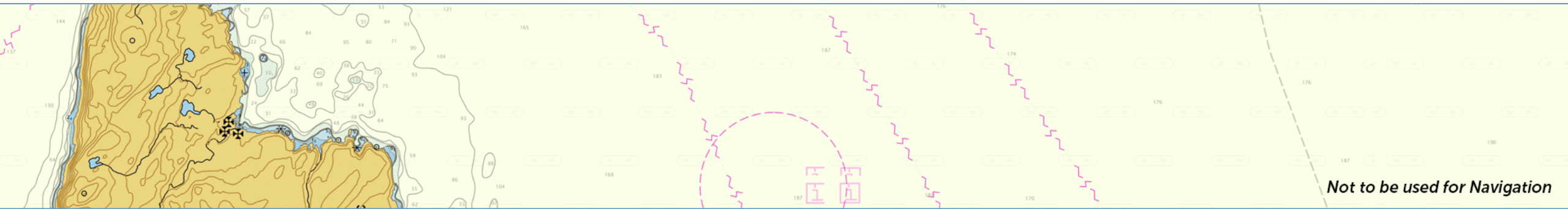


# S-100 tools

- S-100 module provides functionality to
  - Edit S-100 vector features
  - Convert S-57 ENC <-> S-101 ENC
  - S-100 vector HPD Source database
  - Export S-101 new editions and updates
  - Create and edit S-101 exchange sets
- BDB & CARIS Cloud provides
  - S-102 datasets
  - Bathymetry Data Service is the distribution pipeline to push raster RENCs and other stakeholders
- Opening S-100 datasets are supported in all CARIS desktop applications



# CARIS AutoChart



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- Automate and streamline the nautical paper chart production workflow
  - Reduce Nautical Paper Chart Production Turnaround Time
  - Free up resources
  - Maintain Your Paper Chart Look and Feel

# Use Cases

## Maintain existing chart catalogue

- Metadata read from existing products
- Maintain charts with multiple panels

## Maintain a brand-new chart portfolio

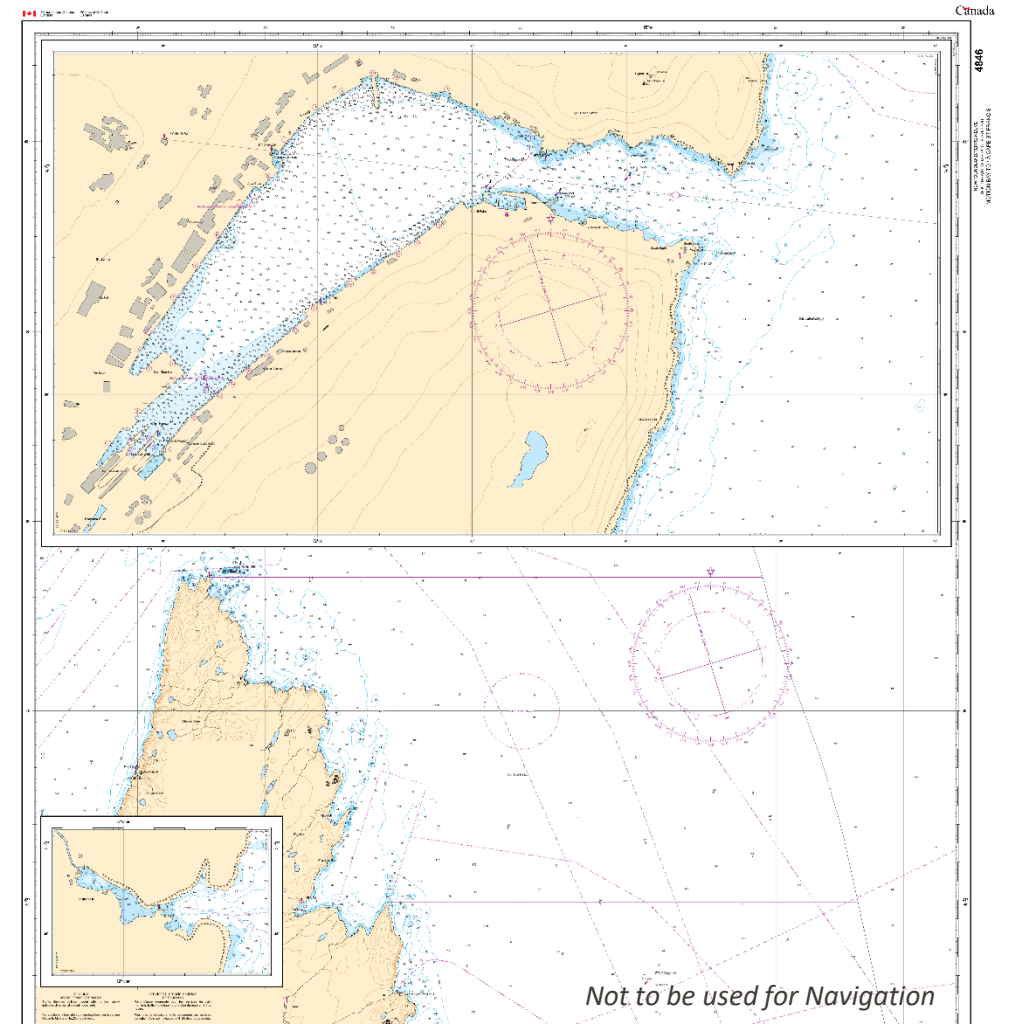
- Generate chart template programmatically

## Fully automated Workflow

- No manual intervention
- Straight forward cartography

## Automated Workflow with Minor Corrections

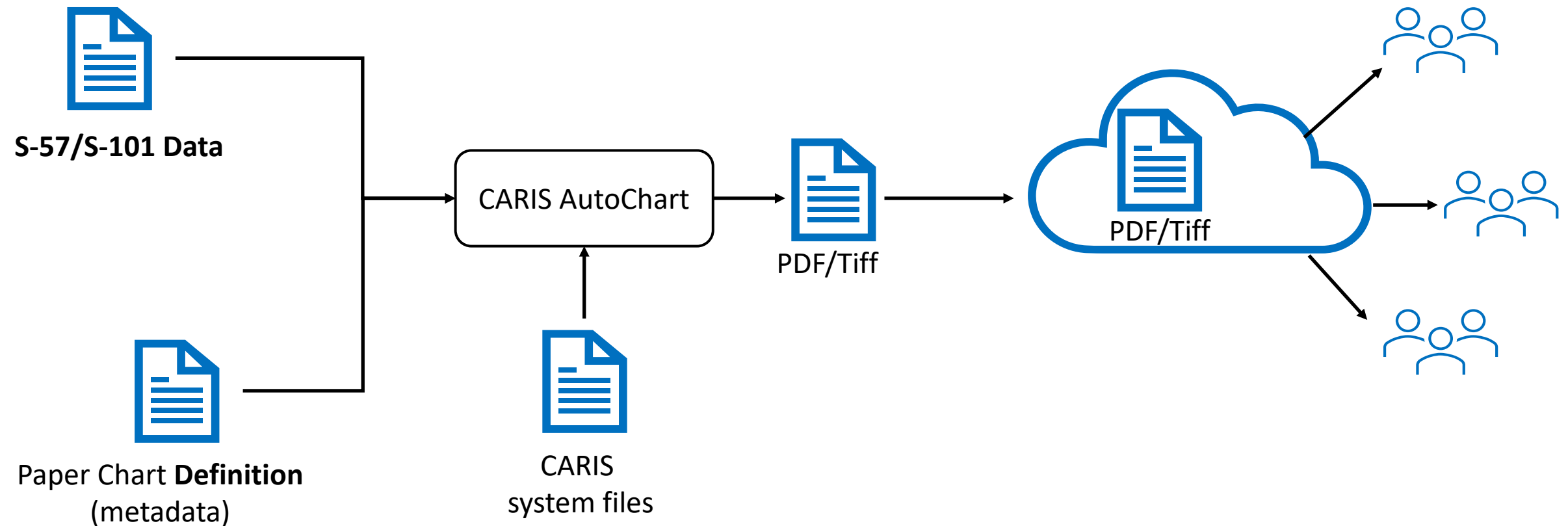
- Minimally adjust for
- More complex cartography



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# What is CARIS Automated Chart Production?

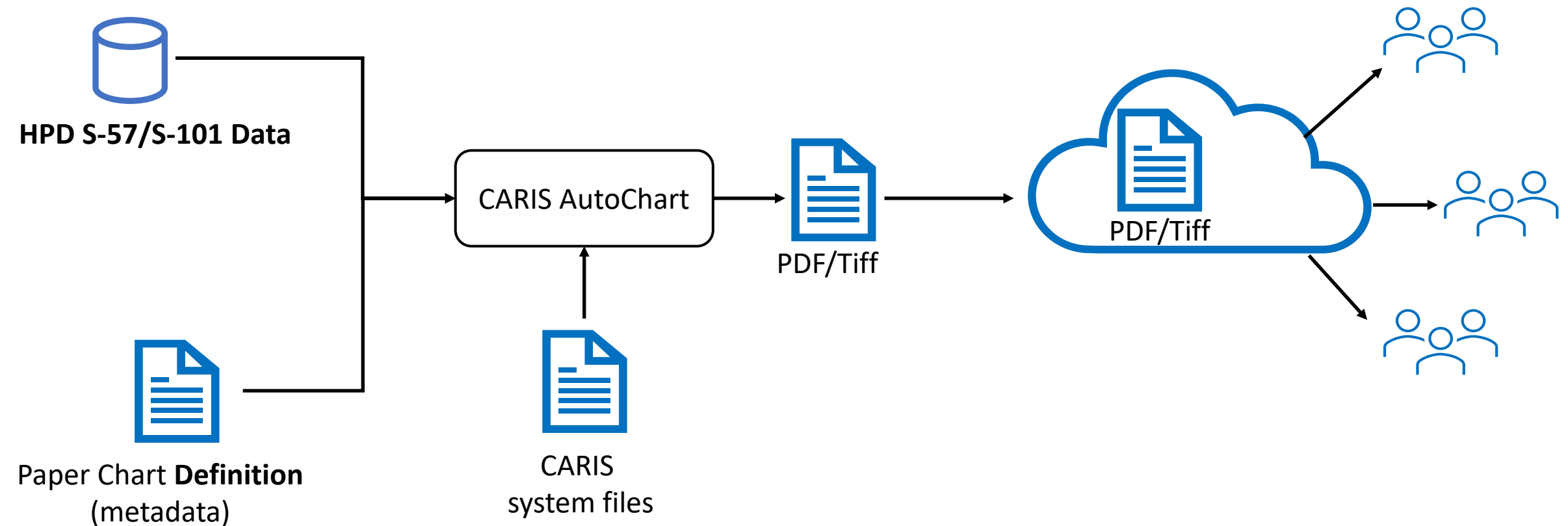
- Automated production of paper charts
  - Several possible **Inputs**: **S-57/S-101 ENC**s, HPD Source or HPD Products
  - PDF/TIFF output disseminated using CARIS Cloud Chart Data Service





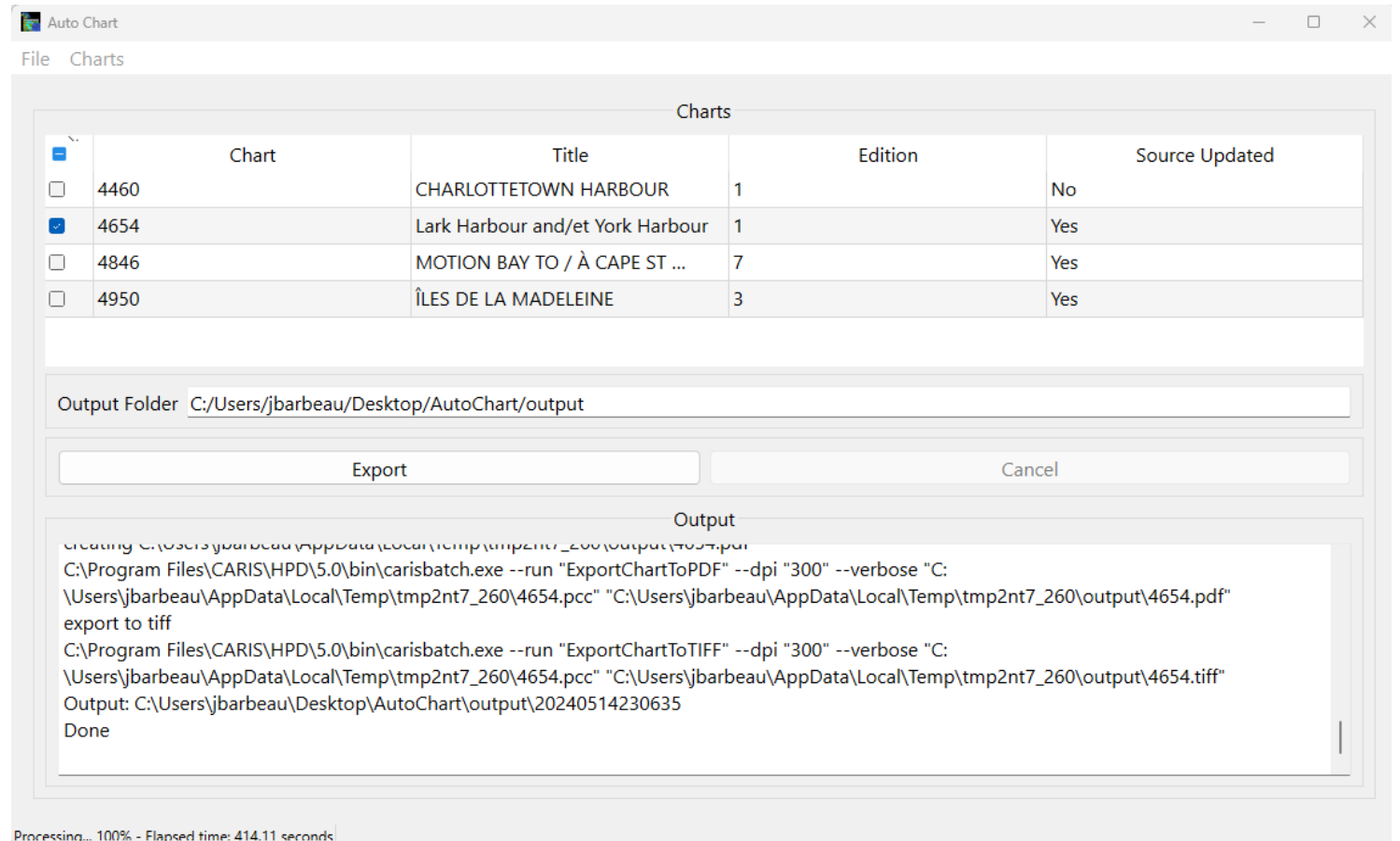
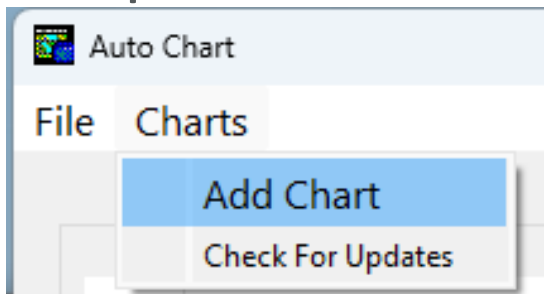
# What is CARIS Automated Chart Production?

- Automated production of paper charts
  - Several possible **Inputs**: S-57/S-101 ENC's, **HPD Source or HPD Products**
  - PDF/TIFF output disseminated using CARIS Cloud Chart Data Service



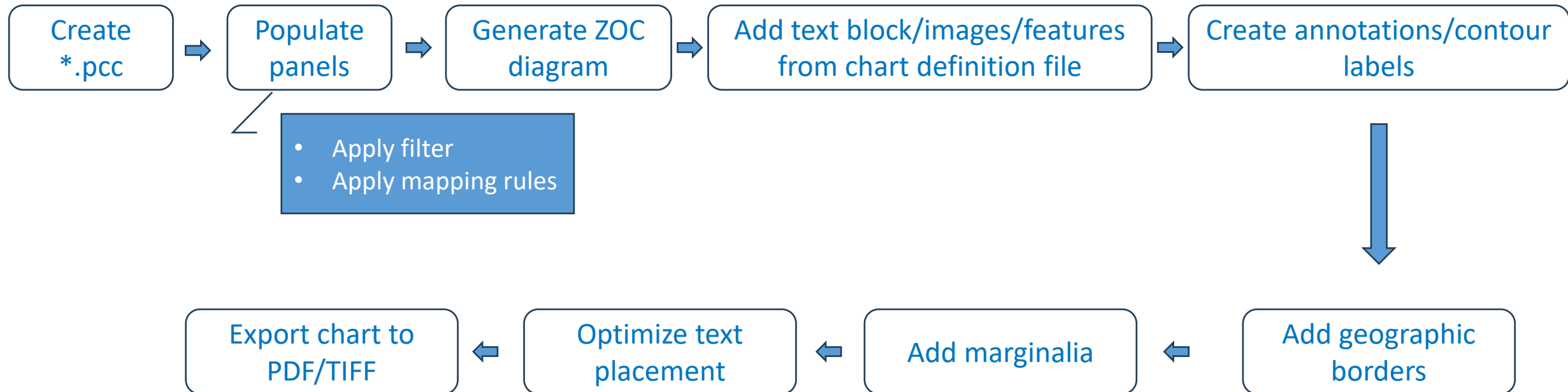
# CARIS AutoChart Graphic User Interface

- List charts maintained with CARIS AutoChart
- Add chart
- Check for Updates
- Change edition number
- Select Output folder
- Export

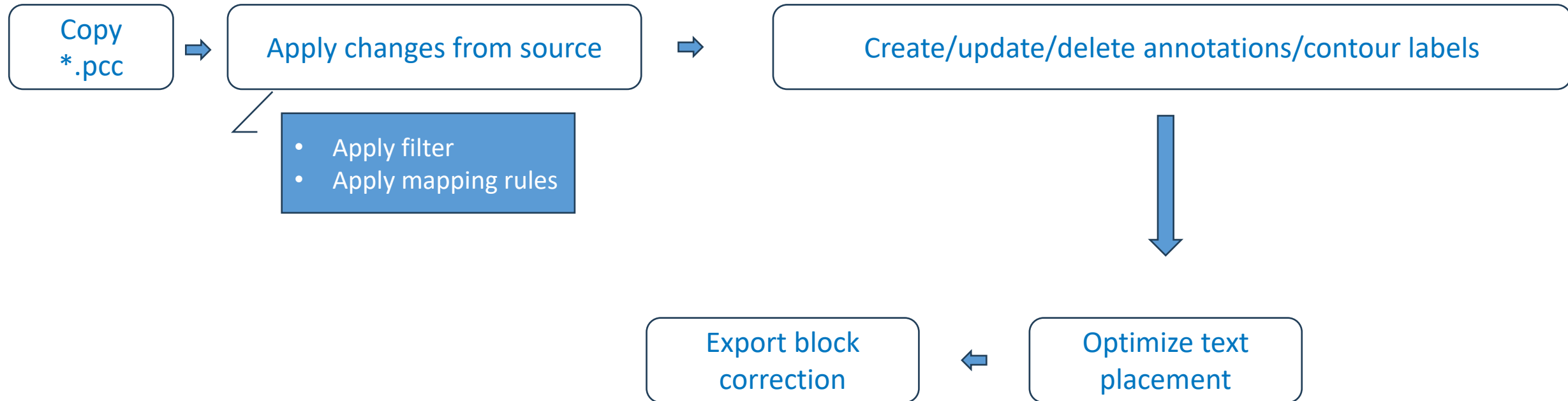




# CARIS AutoChart steps – new chart



# CARIS AutoChart steps – new update version

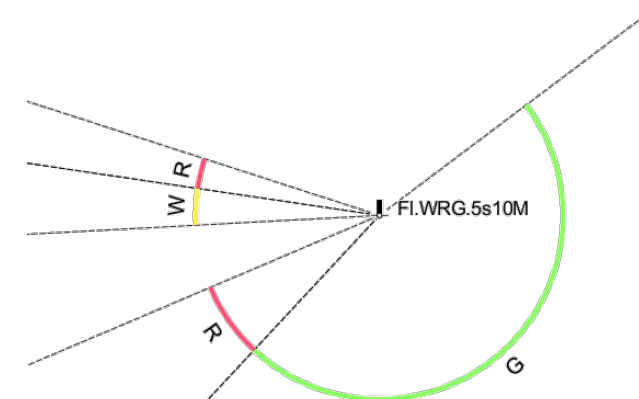
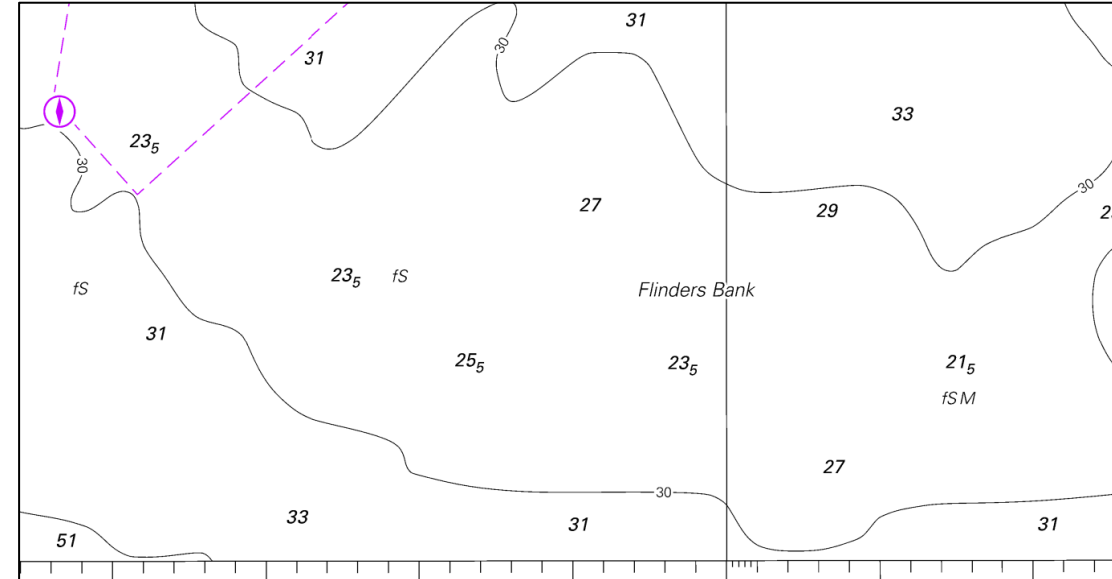


# Utilizing CARIS' automated portrayal rules

Use your existing CARIS portrayal setup

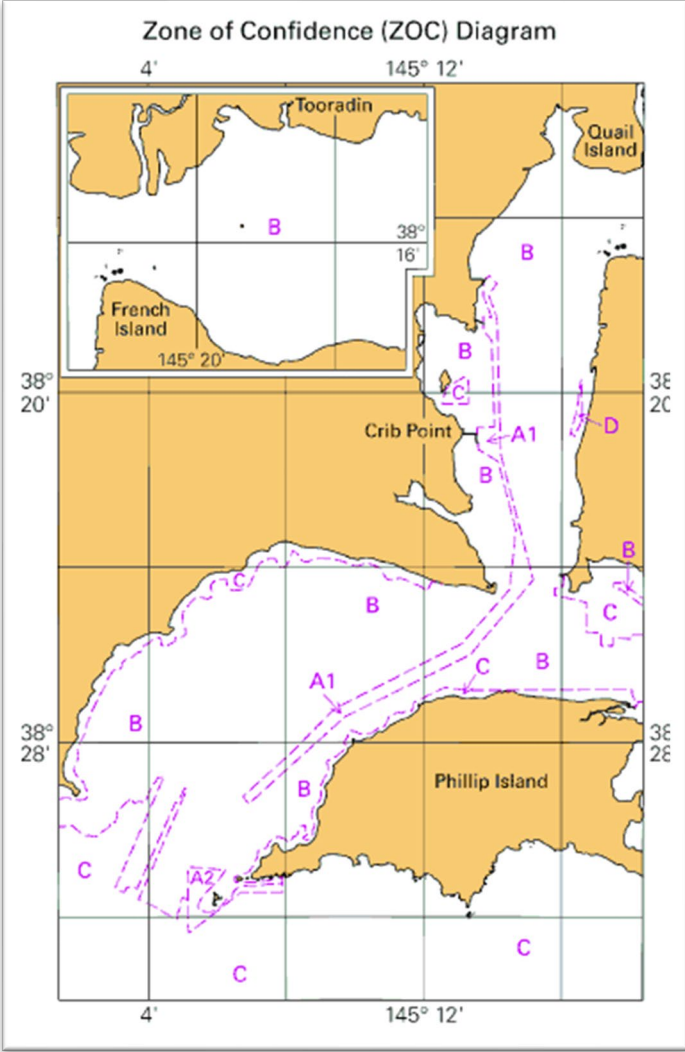
## Advanced (customizable) Portrayal capabilities

- Automatic INT1 portrayal of S-57/S-101 data
  - + New advanced dynamic portrayal capabilities
- Automatic feature labeling/text/symbols
  - Automated depth contours labelling
  - Automated annotation creation
- Automatic detect conflict text/symbols conflict
- Automatic deconfliction based on customizable rules
- Automatic borders and marginalia
  - Picture frame around all panels
- Automatic masking
- ...

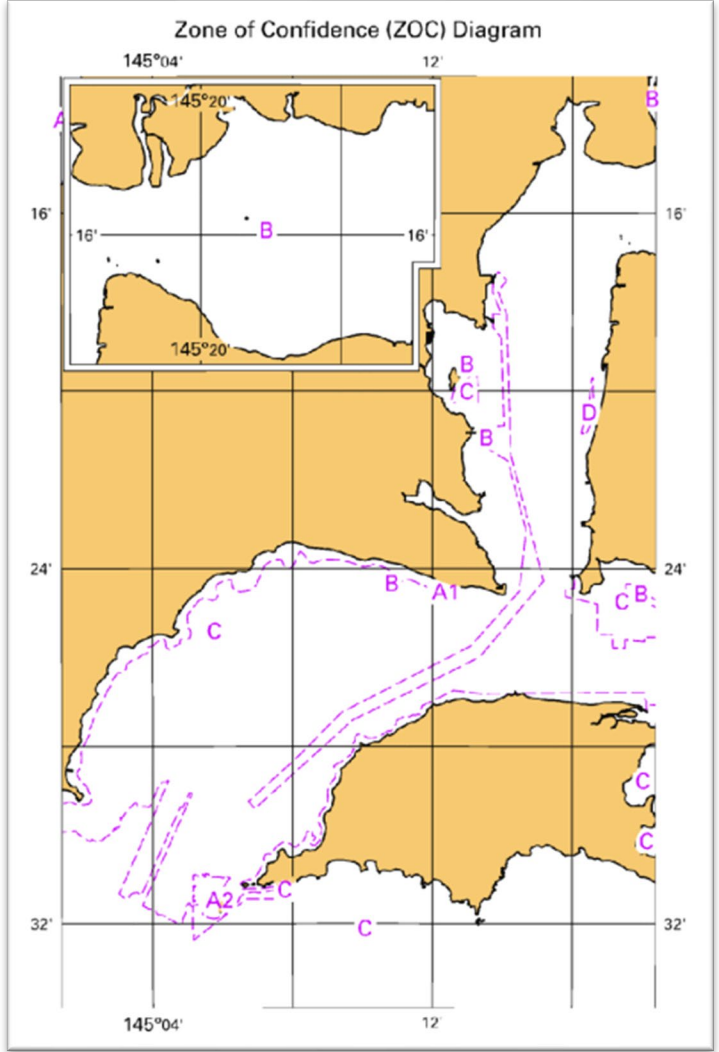


# ZOC diagrams

Original

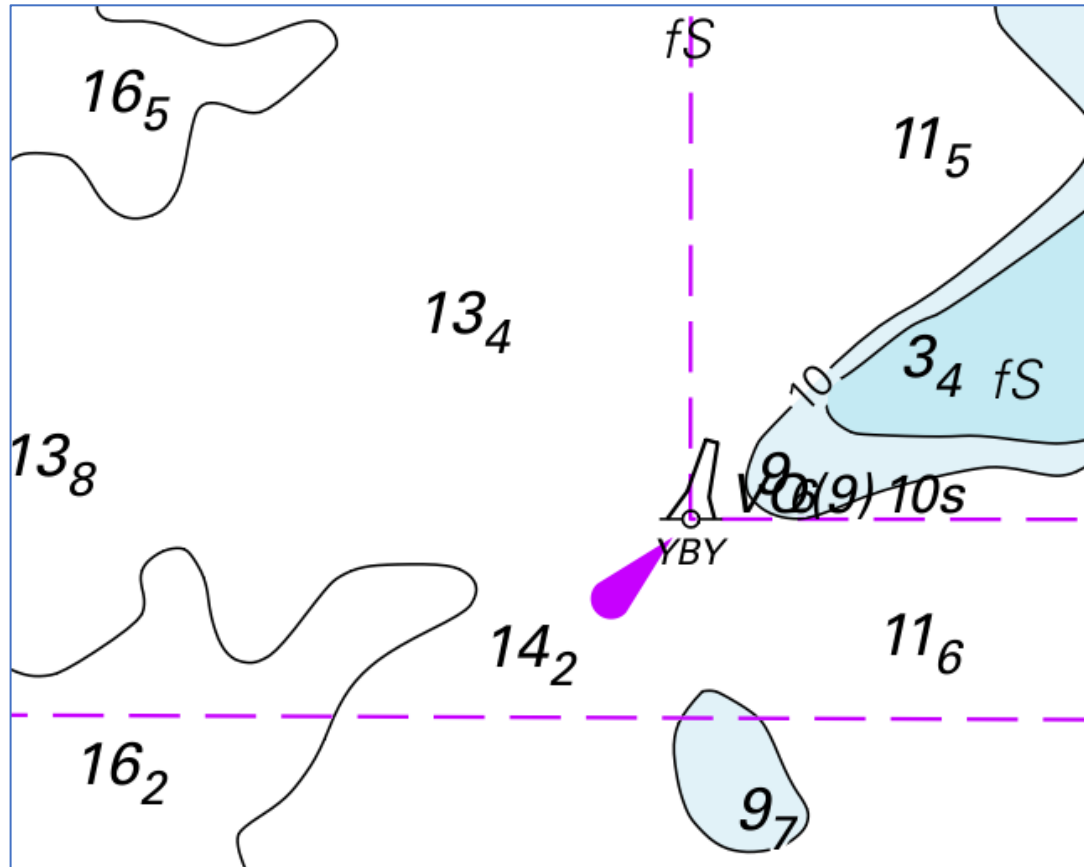


Automated

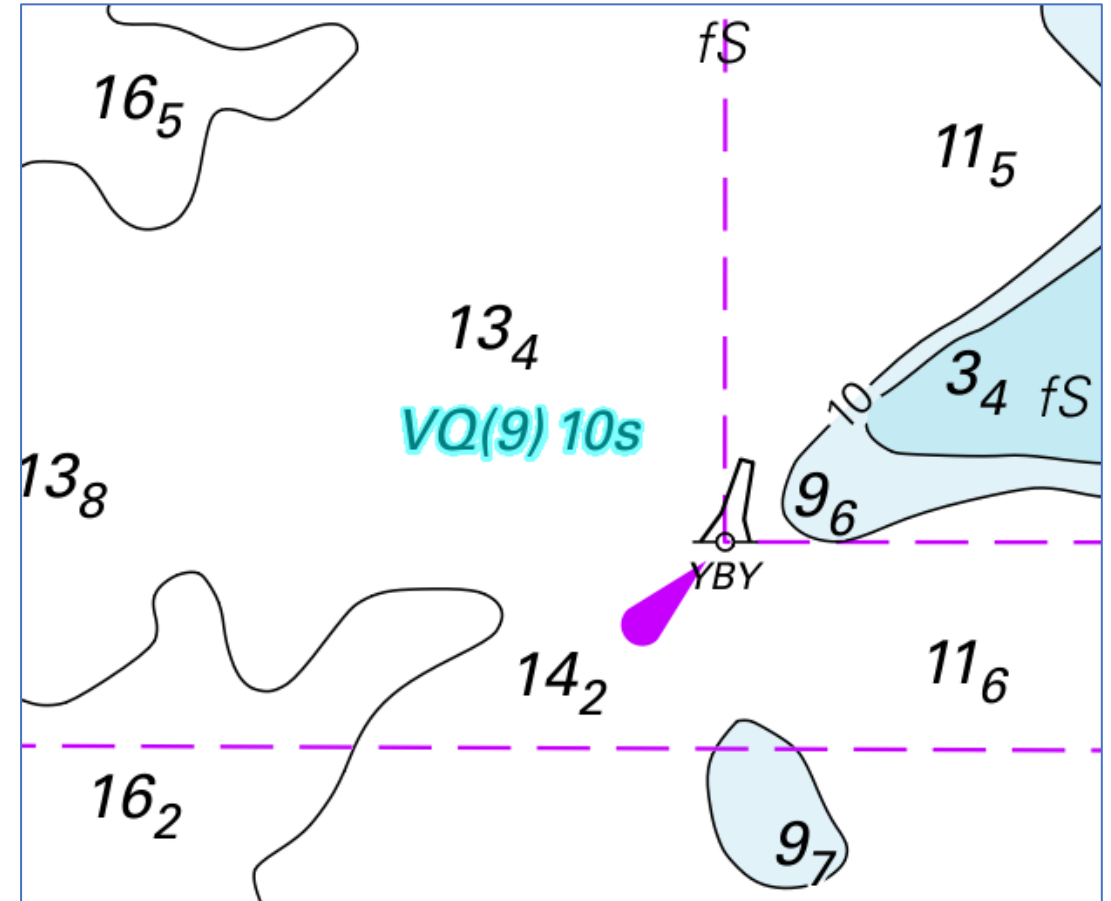


# label placement - example

Before



After



# Update chart – block corrections

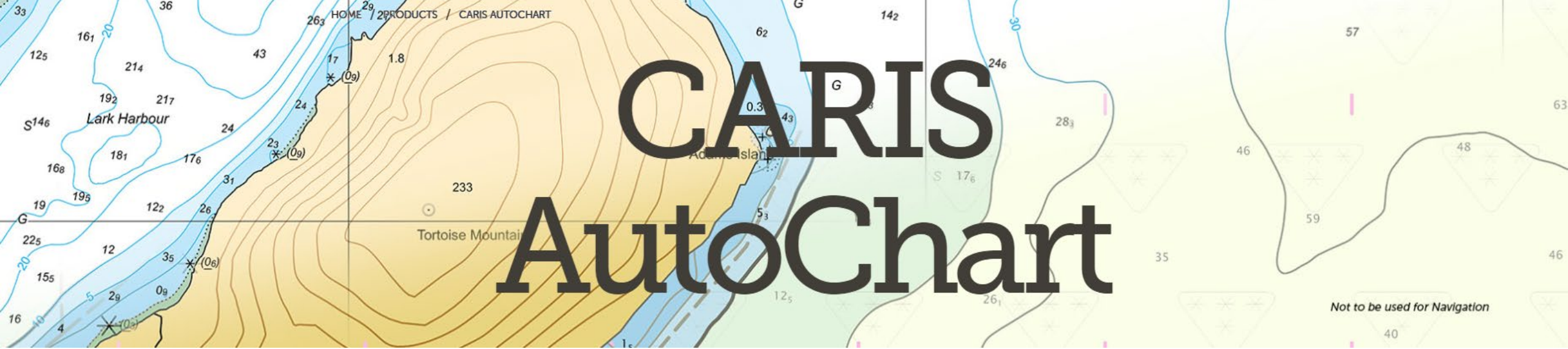
- Created from ENC updates
- Export block correction to timestamped folder

# CARIS User Group Meeting

- 2-3 October 2024
  - Eindhoven, Netherlands
- Free to attend for CARIS Users
  
- Optional two days workshop on remote/autonomous hydrography
  - September 30 – October 1
- Optional on day workshop on S-100 Production and Services
  - October 1







# CARIS AutoChart

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