Normalizing Product Portrayal Across a Large Organization

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Standardizing hard copy paper charts at NOAA

- Standardized Grid and Graticules
- Database Driven Cartography and automating annotation
- Sharing Roads and Urban networks, and Topographic Contours
- Creating Consistent Compass Roses
- Templates for Standard Surround Elements (Marginalia)
- Zone of Confidence Diagrams
- Dynamic Scale Bars and Channel Tabulations
Standardized Grid and Graticules

- Standardized grid template files (XMLs)
- Automated tool to create grids for each paper product
- Ensures consistency with grids across the organization
- Customizable for special case products
- Stored in the database with the data
- Persisted throughout the life of the product
Database Driven Cartography

- Standardized symbols stored, distributed
- Properly encoded data ensures the correct symbol—applied via queries
- Automatically generated based on rules and symbols
- Adheres to NOAA specifications
- Reduces cartographic finishing work
- Simplifies work for data maintenance—only update data that changed, no starting over

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Feature-linked Annotation

- Database-driven labels—captured from name and other fields
- Predefined placement, style and size
- Converted to feature-linked annotation
- Annotation persists throughout life of the feature:
  - Moves with feature
  - New features receive new annotation
  - Deleted upon feature deletion

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Road Networks and Urban tints

- Urban features maintained by another agency—US Census Bureau TIGER
- GIS allows use of features easily and seamlessly
- Reduced work for cartographer—removes the need to digitize features
- Standardizes feature attribution and density
Topographic Contour Lines

- NOAA generated charts don’t typically display topographic contours
- Extract contours from USGS Topographic Quadrangle data
- Reduces unnecessary digitizing
Compass Roses

- Magnetic variation points seldom captured in ENC (digital) data
- Automated tool applies rose symbol and annotation
  - Uses 2015 WMM to calculate magnetic variations
  - Model updated every 10 years
- Inner (magnetic) rose automatically rotates
- Updates with new calculated values
Standardized Marginalia (Surround Elements)

- Template map document stores standard surround elements
- Automated tool updates content, placement and orientation
- Element library to augment template manually
- Reduced cartographic finishing

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Zone of Confidence (ZOC) Diagrams

- ZOCs replacing traditional Source Diagrams
- Data derived from M_QUAL features
- Tool automates process for creating the diagram
- As M_QUAL data is updated, the diagram auto-updates

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Dynamic Scalebars and Channel Tabulations

- Scalebars automatically adjust to the correct width when placed on the chart
- Channel tabulations are linked to underlying data

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In Summation

- Pre-configured templates
- Automated processes
- Remarked improvement in reducing production time
- Facilitates maintenance
- Enforces standardization across the organization