Channel Framework

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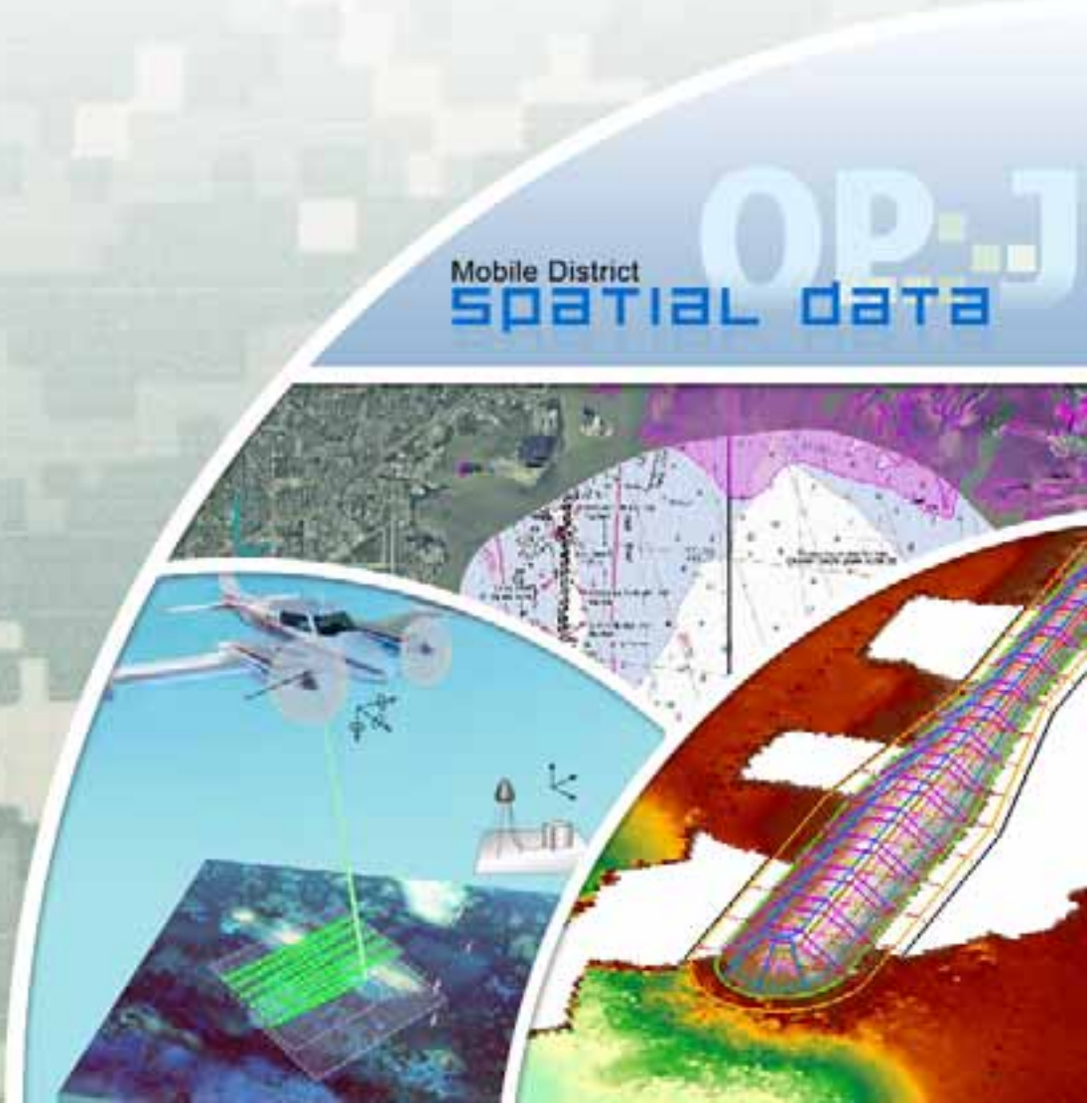

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What is the National Channel Framework (NCF)?

- Waterway road map
- Beginning point for moving USACE into an enterprise GIS program for managing the navigation business line
- Link between USACE Accounting projects and the spatial representation of those features
- Foundation for organization of navigation and dredging data across USACE

What is the NCF?

- Basis for providing USACE data to update NOAA Electronic and paper navigation charts (ENC)
- Tracks channel history through authorized, maintained, and any changes in channel dimensions

Goals

- To identify and build a consistent inventory of projects and sub-projects across the USACE navigation business line, i.e. OMBIL, HQ, districts, and IWR / Waterborne commerce
  - ► Establishes a district level of organization for channel data
  - ► Enables a means to provide roll up reporting to channel performance, maintenance, and budgeting


Chunchula
Big Egg
Little Egg Marsh
Giant Bar Marsh
SPECIAL
Cable and Pipeline Area
CHANNEL
15 FEET FOR A WIDTH OF 200 FT MAR - APR 1998
CROSS BAY MEMORIAL
FIXED BRIDGE
HOR CL 200 FT
VERT CL 52 FT
SPIRES

Goals

- To provide each district with an organized and authoritative source for all current projects and sub-projects
  - Reduces search time for data; validates most recent data
  - Establishes better communication across districts, divisions, and HQ
  - Provides consistent reporting to all customers
  - Enables USACE to connect the CPN and congressional language with station markers along a project

Goals

- To build GIS features for all projects and sub-projects across USACE
  - Allows better analysis of survey data
  - Provides a baseline data set for establishing a USACE Enterprise GIS for the navigation business line
    - Creates the ability to link future Automated Information System (AIS) capability to live channel framework datasets
  - Provides channel locations for all regulatory and planning divisions, allowing better reporting and environmental monitoring

Where did Channel Framework begin?

- NOAA needed an accurate representation of all channel locations for the USACE to update their ENC products
- USACE was only to provide a TOE and construction centerline
  - This is a manageable goal within the timeline needed.

Where is Channel Framework headed?

- Providing NOAA live GIS layers for automatic updates for all projects and sub-projects
- Using 3-D GIS features to automate many of the daily functions for current tasks of a survey tech, i.e. channel condition reporting, chart plotting, volumetric calculations for dredge packages, SI reporting, etc.

Channel Framework features

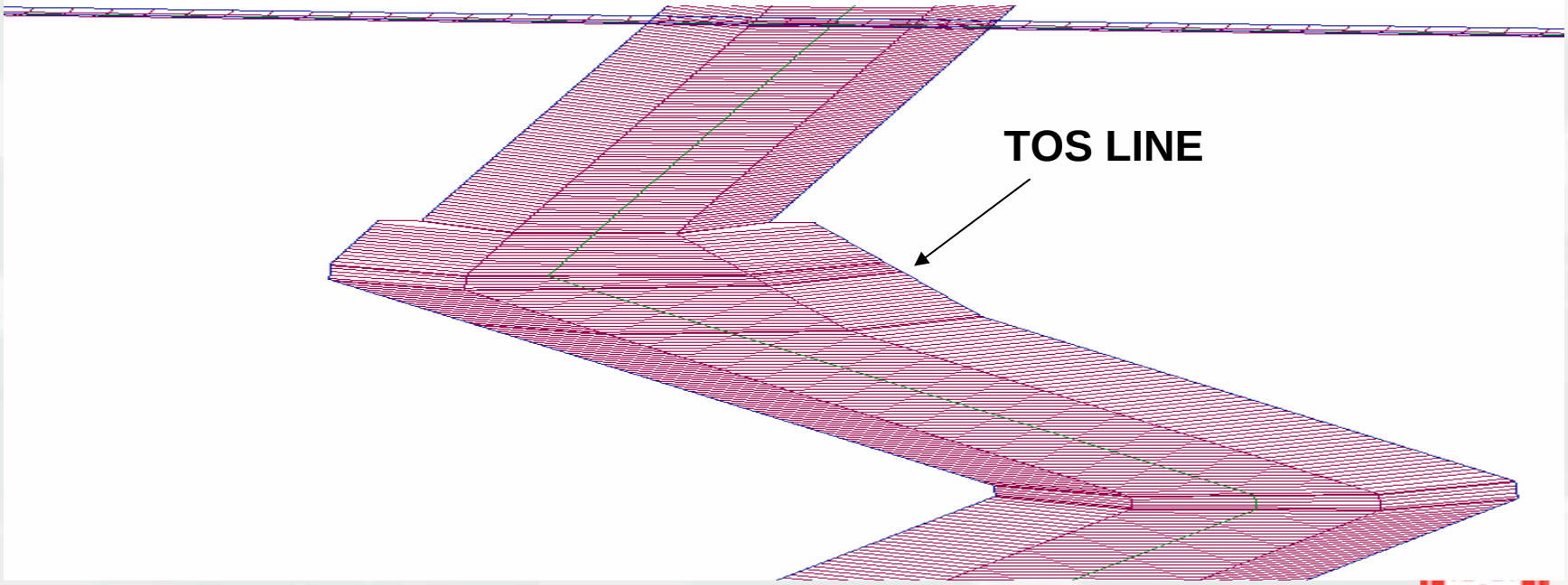
Importance of standardization:

An accurate and standardized TOE will definitively locate the outer boundary line of Corps maintained channels.

Channel Framework features

Importance of standardization:

Creating a TOS will allow the creation of channels in a 3D format for volumetric calculations

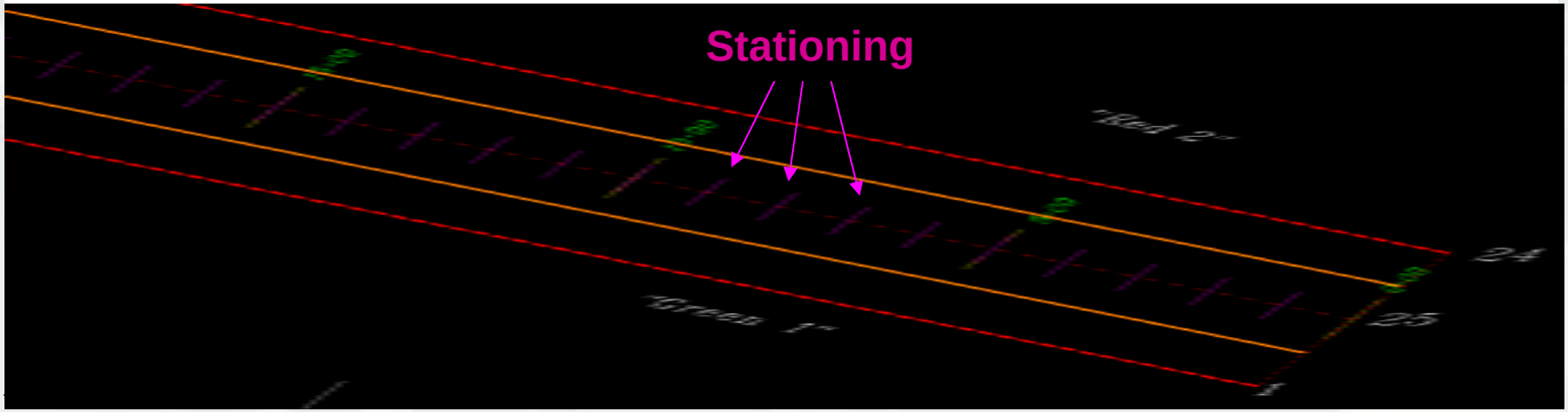


Channel Framework features

Importance of standardization:

Consistent stationing will allow all USACE personnel and NOAA to know their exact location nationwide, based on a single, unique station number.

Ex. ML_SAM_1696+00 represents the Lower Mobile Channel, located in the Mobile District, at 169,600 feet heading downstream.

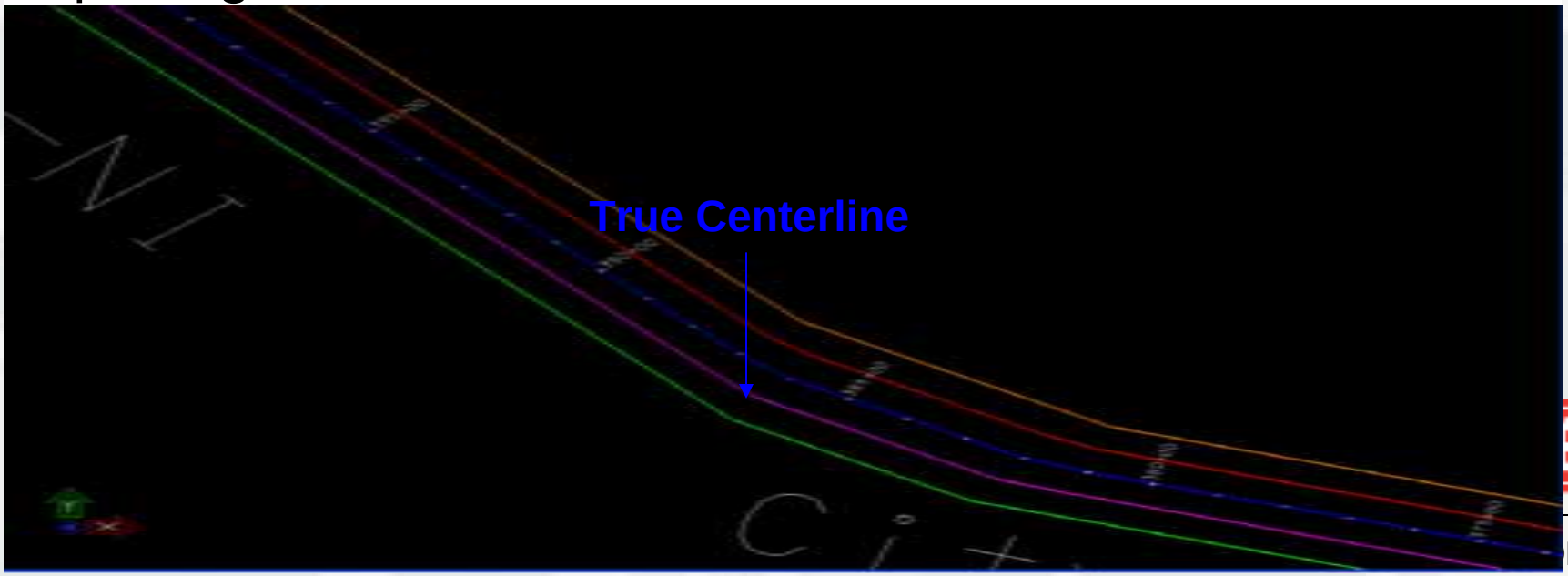


Channel Framework features

Importance of standardization:

Creating a true centerline will provide mariners a location to the deepest water within a channel, making navigation easier.

Consistency in creating quarters for channel condition reporting.



Channel Framework features

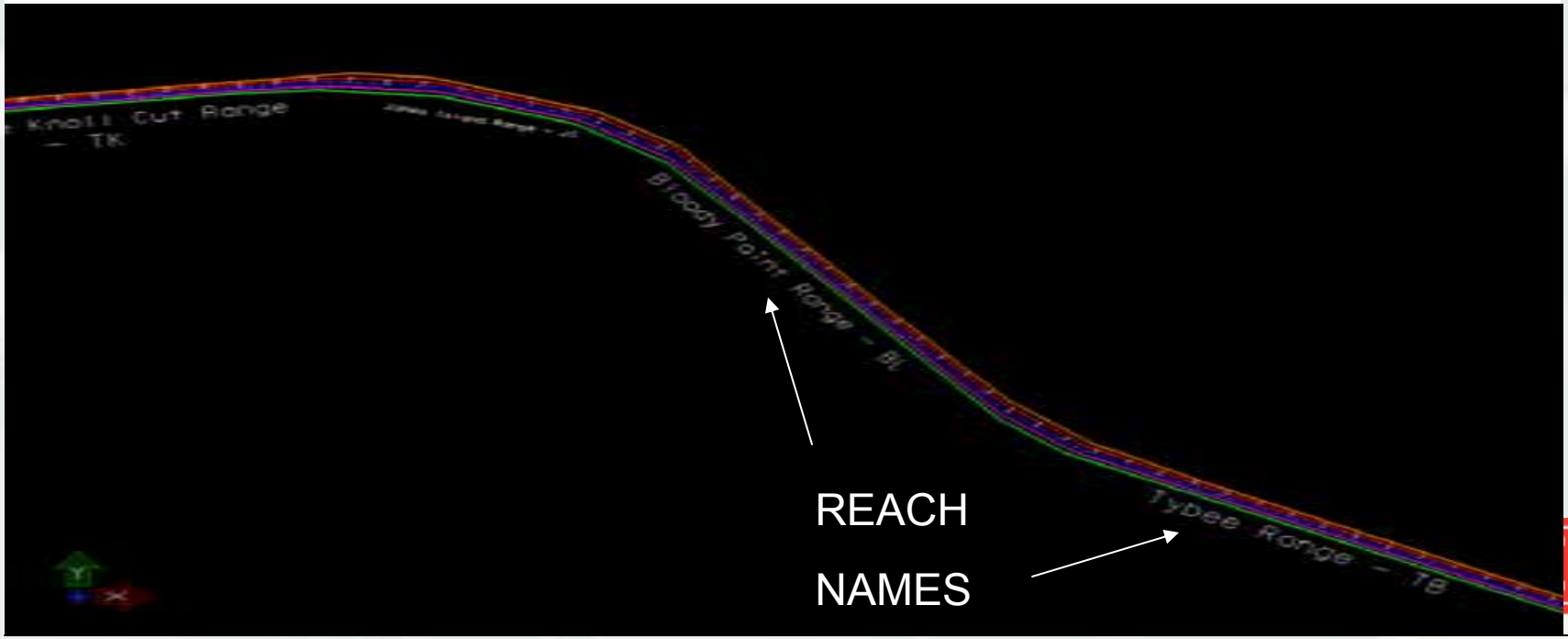
Importance of standardization:

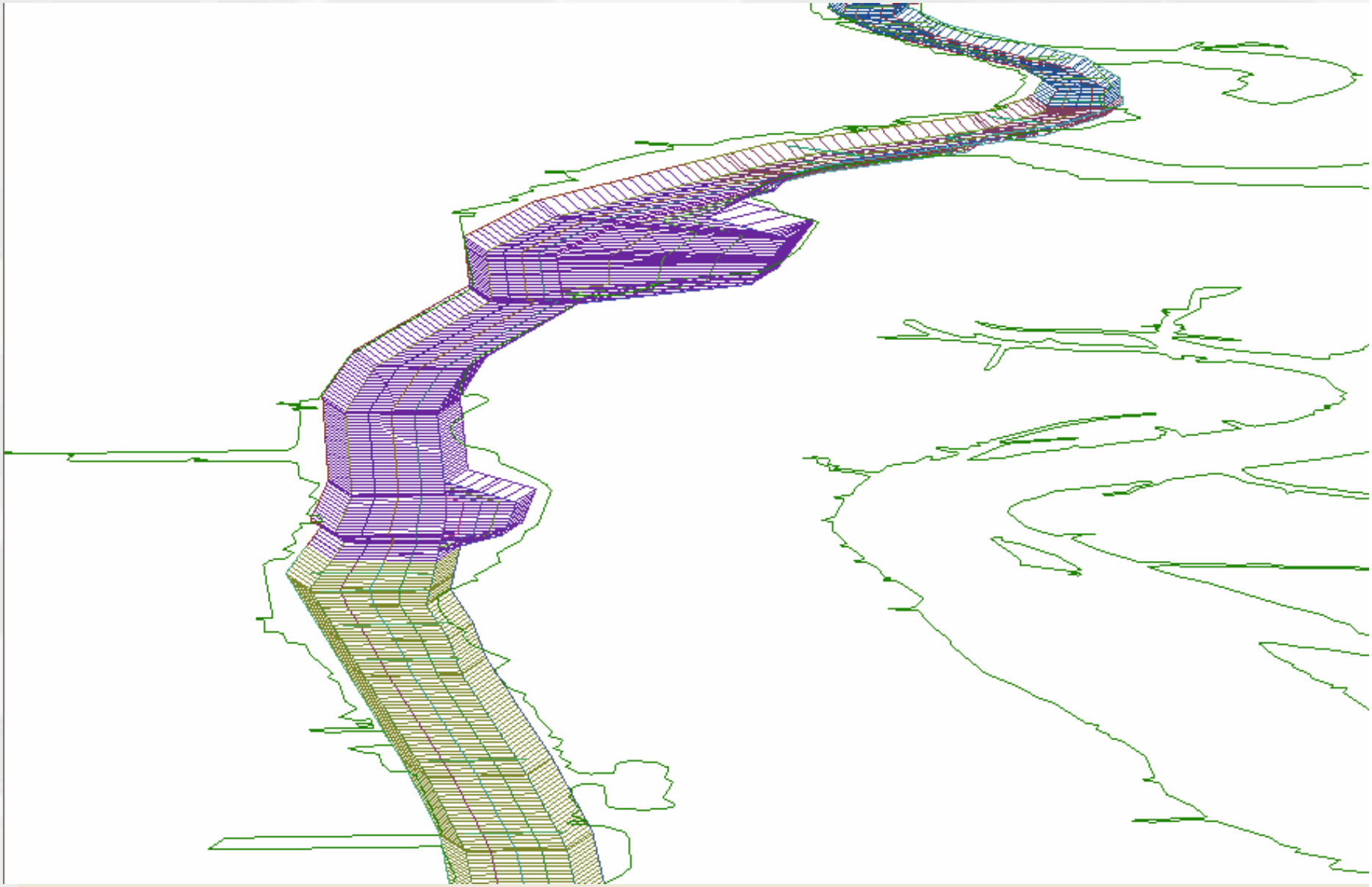
Standard quartering provides a visual representation of reported depths and will provide a basis for accurately building an automated 4020R channel condition report based on collected surveys.

Channel Framework features

Importance of standardization:

Creating an inventory of reach names connects quartering with a specific location, to be reflected in automated 4020R channel condition reporting.





Issues preventing us from reaching our goal

- Lack of consistency
  - Channel condition reports
  - Stationing
  - Quartering and centerline creation
- Standardizing all channel components across USACE
- Ensure districts use CFI final products in day-to-day business operations
- Maintaining and updating the final product

Keys to Success

- Final dataset produced will take place over existing data in each district, including standardized stationing and quartering
- Cooperation from navigation experts in collecting channel dimensions and survey drawings
- Any changes in channel dimensions or spatial location should be reported to the Army Geospatial Center for updating in the Channel Framework database.

Questions

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