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USACE-ERDC Coastal and Hydraulics Lab Coastal Inlets Research Program (CIRP)

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Coastal Inlets Research Program (CIRP)

Coastal and Hydraulics Laboratory (CHL)





What does CPT do?

Deep-draft commerce analysis

- See tonnage, \$-value, and commodities transiting at each foot of maintained channel depth

Portfolio prioritization

- Rank portfolio of projects for O&M funding based on current channel conditions and depth-utilization by industry

Economic justification and decision-support

- Quantify the \$-value of commerce directly supported by USACE maintenance dredging investments

Project visualization

- Google Earth display of the network of maintained channels, with relative maintenance need shown





 CPT responds to requests from OMB for objective, consistent performance-based budgeting for Navigation O&M (dredging).

- The case must be made for:

 economic benefits derived from deep-draft navigation channels
 - economic consequences
 imposed if dredging not
 conducted







- CPT accesses the dock-level, Corps-use-only tonnage database from IWR's Waterborne Commerce Statistics Center to analyze extent to which commercial traffic utilizes maintained channel depths.
- Commodity codes are cross-referenced with Dept. of Commerce import/export figures to obtain \$-value estimates for the cargo transiting at each 1-ft increment of maintained depth.
- Navigation channels are ranked in terms of tons and \$value of cargo transiting at depths that experience shoaling.























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 Key point: historical tonnage records are combined with anticipated shoaling rates to determine the relative importance of dredging work packages.









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- Commerce data:
 - WCSC dock-level tonnage database
 - WCSC docks database
 - US Customs \$-value database
- Reach definitions:
 - Google Earth paths (.kml files)
 - Port entrance coordinates
 - Current channel conditions
- Application:
 - CPT Validator and Builder
 - CPT Executable
 - System files







- Commerce data can be left alone
- Reach definitions
 - Google Earth paths will need to be revised to fit with local reach designations (name, extent, etc.)
 - Port entrance coordinates reside in an Excel spreadsheet and may require updating if the associated .kml file is changed
 - Current channel limiting depths are kept in a spreadsheet and can be changed without rebuilding the database







• CPT Validator:

- once any changes to .kml files or spreadsheets have been made, the validator checks to make sure all files are in the correct folders and that they contain the necessary information.

• CPT Builder:

-The builder assembles all of the various files into one single database to be used when running CPT

CPT Executable:

- user can select projects of interest and define custom ranking criteria





Questions?

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