Manage complex marine spatial information, eliminate data redundancy, improve productivity and extend the use of your data holdings with Teledyne CARIS’ flagship enterprise GIS solution. Hydrographic Production Database™ (HPD) addresses the data management and cartographic production requirements of the world’s largest and most advanced hydrographic agencies.

Efficiency is maximized in HPD™ with features being stored only once; this coupled with the ability to associate multiple cartographic representations for different product types has positioned HPD as the number one solution.

System Architecture
HPD is comprised of client and server software. The HPD Server™ stores source information and derived products in a seamless database. This allows for multiple product types to be easily created from the common source. Changes between the source data and products are efficiently tracked and updates can be easily applied. The HPD clients facilitate the loading, compilation and verification of the source information. They also support the creation and maintenance of the Electronic Navigational Chart (ENC), Additional Military Layer (AML), Inland ENC (IENC) and paper chart products from the common verified source data.

Relational Database Support
HPD works with the latest Oracle versions for data storage and maintenance. This allows you to leverage the industry-leading security, performance and scalability offered by Oracle in the management of your spatial information.

Powerful Compilation Tools
Source data compilation is aided by HPD’s support for a multitude of raster and vector GIS formats. Data can be captured directly from these GIS sources, or used as a basis for manual or automatic digitizing. Existing paper charts in digital format and S-57 products can also be easily loaded into the database.

Sophisticated tools also allow you to create sounding groups, collection objects and master and slave relationships. For paper chart compilation, you can create symbol annotations in an automated fashion and add straight line, curved or blocks of text using the desired font and justification. All of which can dramatically reduce compilation time.
Efficient Product Creation and Maintenance

HPD has been designed and built to allow creation and updating of multiple kinds of products from a single source. Updates to a source object (e.g. buoy) need to be completed only once and all products using the source object are then flagged for updating. This provides a user-friendly process that minimizes duplication of effort. For historical purposes, HPD also tracks changes to the objects and stores each version of an issued product.

Quality Control

HPD has a complete set of embedded validation tools, including the IHO S-58 standard, to ensure that your chart products can be used with confidence. In addition, user-defined tests can be created to meet your specific validation criteria. If any errors are found, advanced identification and repair tools exist to quickly correct the errors.

Objects stored in HPD also have a certification status, which is used in quality assurance workflows. Thanks to the user access controls offered by HPD, only users with the appropriate privileges can make changes to the certification, which ensures product quality.

Evolution to S-100

Introduction of the S-100 data standard will lead to the replacement of the existing S-57 based specifications. Teledyne CARIS is intimately involved in the development of the new S-100 standards and related product specifications and is a key industry contributor. As such, Teledyne CARIS is incorporating the relevant S-100 specifications into HPD as they become available. Your investment in HPD today will provide you with access to the S-100 capabilities you will need for tomorrow.

System Extensibility

A series of customizable programming interfaces are provided to facilitate the interaction and integration of HPD with other external systems and applications. You can also extend your application of HPD with available modules to facilitate raster chart production, creation of nautical publications (e.g. Notices to Mariners and Lists of Lights) and the calculation and maintenance of maritime limits and boundaries; all within the same database solution.

Ping-to-Chart™

HPD is a comprehensive system for the storage and management of marine spatial data, and efficient production of multiple product types. When used in conjunction with other Ping-to-Chart products, HPD becomes your enterprise solution to incorporate new hydrographic features into chart production, and the source for spatial data sharing and discovery with other stakeholders. Teledyne CARIS offers the functionality to streamline your operation, from Ping-to-Chart.