

FY02 DON Pilot Project Summary

Project Name: Ship Product Data Exchange – (#184)

Command: NAVSEA – Naval Surface Warfare Center, Carderock MD

Functional Area Manager (FAM): Modeling & Simulation

Pilot Summary:

The Ship Product Data Exchange (SPDE) pilot project deploys a set of XML-based CAD translator tools and builds a library of common data elements that incorporates the AP216 ISO 10303 international standard for the exchange of CAD ship model data. This set of tools allows interactive collaboration between the Navy and commercial shipbuilders in order to improve ship designs. Ship hull form data is passed electronically from various industry CAD systems, via XML translators, into the NAVSEA design and inspection systems. Primary benefits realized by the pilot solution are a 50% reduction in processing time to reformat CAD data for entry into Naval ship design analysis tools and the ability to import additional ship design aspects that were not possible before (i.e. Bow thrusters, rudders, ship screws, etc...)

Business Value Added:

- Reduction of ship design life cycle
- Improved integrity of designed components
- Collaborative ship design with commercial shipbuilders via standardized electronic formats

Other Considerations:

- NAVSEA participates directly with commercial shipbuilders and global companies to assist in defining ISO standards for shipbuilding application protocols
- Benefits from this solution will provide the improved collaboration between the Navy and commercial shipbuilding that will allow for better planning and improvements in pricing and contracting for Naval shipbuilding

Pilot Participants:

- NAVSEA NSWC Carderock, MD

Targeted Users:

- Life cycle design and support personnel and commercial industry associated with Naval Ship design and construction