NSRP | National Shipbuilding Research Program

Digital Deadweight Project

March 8, 2017

Business Technologies Panel Meeting

Overview

- Weight surveys and inclining experiments are critical to evaluate ship weights and stablility
- These processes are typically manual and paper-based relying heavily on the knowledge of the surveyor
- Inclining experiments are required by both the Navy and ABS and done for new construction and throughout the ship lifecycle
- Current processes are costly, difficult to manage, and time consuming

Digital Deadweight Panel Project

- Initiated a project to develop a mobile application to support deadweight surveys
- Led and developed by Praeses
- Goal was to pilot an application at Marinette Marine
- Leveraging the data from Shipweight™
- Successfully demonstrated the application on LCS-9
- Identified a number of opportunities for expansion/improvement of the application

Digital Deadweight RA Project

- Notified of award for the RA project
- Scope is to expand the application to support multiple use cases across multiple programs
- Team is led by Praeses and includes:
  - HII-Newport News
  - Fincantieri Marinette Marine
  - Conrad Industries
  - BAS Engineering
  - DRS Technologies

Digital Deadweight RA Project (cont'd)

- Key Enhancements
  - Implementation of an RDF triple store to support a variety of data inputs and data reuse
  - Expanding functionality to support a broader base of users and more complex use cases
  - Additional data capture such as photo, video, signature
  - Potential integration with systems of record such as Flooding Casualty Control System (FCCS)
  - Transition from a prototype to production ready solution (TRL 5 > TRL 9)

Digital Deadweight RA Project (cont'd)

- Project expected to kickoff around April 1
- Two phases (each one year)
  - Phase I – process analysis and software development, interim report
  - Phase II – pilot and refine, final report
- Project goal is production implementation in three distinct environments
- Ultimate goal is a new product to support improvements across the industry

Digital Deadweight RA Project (cont'd)

- Planned Technology Transfer Activities:
  - Regular status briefings at NSRP meetings
  - Presentation at industry events to elicit feedback and generate additional support
    - Society of Allied Weight Engineers (SAWE)
    - SNAME
    - ShipTech
    - NSRP day at NAVSEA

Questions?

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