



NATIONAL SHIPBUILDING RESEARCH PROGRAM ADVANCED SHIPBUILDING ENTERPRISE

Reducing Naval Ship Construction & Repair Costs

National Shipbuilding Research Program

CPC Enhancements

*Parts Standardization Management Committee
(PSMC) Meeting*

April 24-26, 2012

LMI

McLean, VA



Agenda

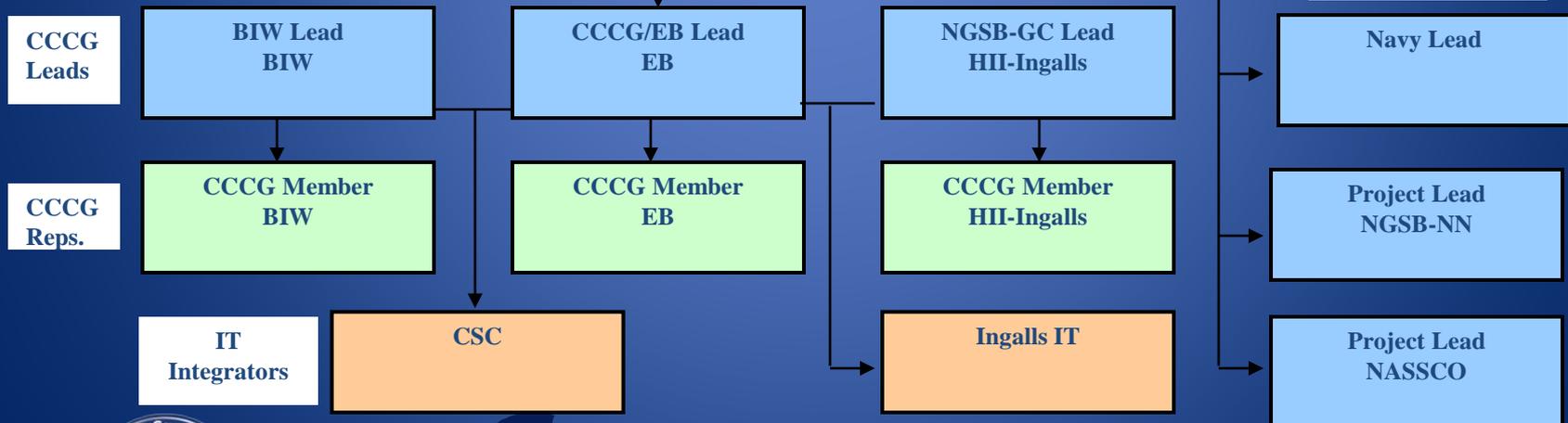
- Project Team
- Tasks 1 – 4 Overview
 - Task Baseline
 - Accomplishments
 - Issues
 - Next Steps
- Wrap Up / Questions



Project Team & Management Structure



TASK 4 Project Team Members.



Task 1 – Network, Software and Application Changes

➤ Implementation Strategy

- Project started with a Kick Off meeting held at BIW on May 18-20, 2010
- It was estimated to take 6 – 9 months to upgrade the current Software environment.
- Direction agreed to would be to upgrade the GD environment, “clone” it and send to HII-Ingalls for installation.
- HII-Ingalls would install and then regression testing of basic functionality and part sharing would take place at both sites.
- Upon successful completion of testing, both sites would turnover to production.
- Tasks 2, 3, 4 were subject to the successful completion of Task 1

➤ Task Baseline

- Participants – EB, BIW, HII-Ingalls, JDA, CSC, NGIT
- Schedule – May 2010 – March 2011



Task 1 – Network, Software and Application

Changes (cont'd)

➤ Accomplishments

- Completed the Design Phase of the upgrade
 - CPC Upgrade Solution Spec. and Data Base Migration Spec. completed and approved by all 3 shipyards
 - Decision to proceed and funding allocated
- Completed the Construct Phase
 - Development of the DB migration scripts to update the current CPC DB to the current JDA product release
- S/W Installed
- Database Installed
- Database Migrated
- Classification Schema reduced
- User Acceptance Testing of CSM
- Installed Legacy Interfaces
- User Acceptance Testing of Interfaces
- Complete the CPC Production Turnover
- EB, BIW and HII-Ingalls are in Production
 - Production Turnover completed at EB & BIW on 5/28-5/30 & 6/4-6/5
 - Production Turnover completed at HII-Ingalls on 1/9/2012
 - HII-Ingalls turnover impacted by the Northrop Grumman to HII change



Task 1 – Network, Software and Application Changes

(cont'd)

➤ Issues

- GD in production without HII-Ingalls – Part Sharing turned off
 - Shipyards have a demonstrated process to synchronize when HII-Ingalls goes into production
- Northrop Grumman to HII change required that a new T1 (communication) line be established between BIW and Ingalls for Part Sharing
 - Current date is TBD

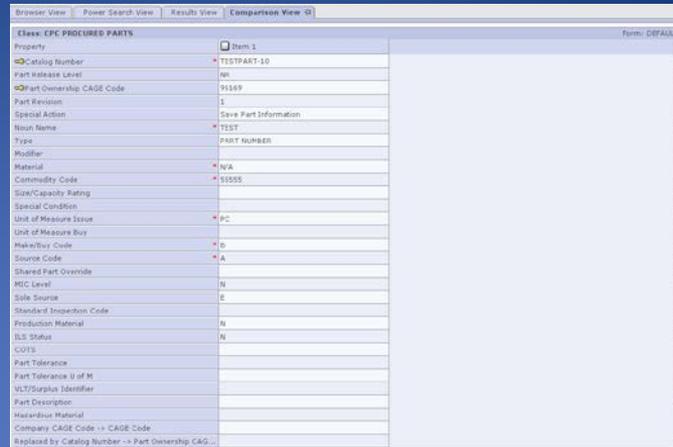
➤ Next Steps

- Confirm schedule of T1 line
- Complete the Part Sharing testing GD/HII-Ingalls
 - Configure MQ Series
 - Configure Weblogic
 - Install Part Sharing code
 - Test Part Sharing
 - Turn on Part Sharing between both environment
 - Migrate Delta Parts to GD & Ingalls

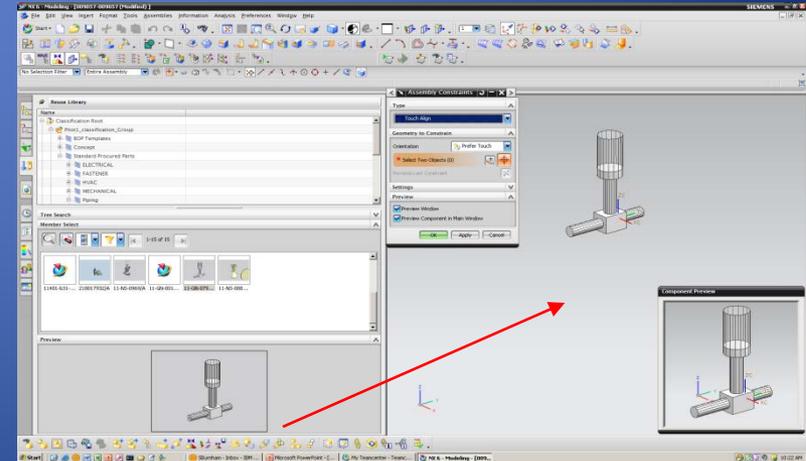
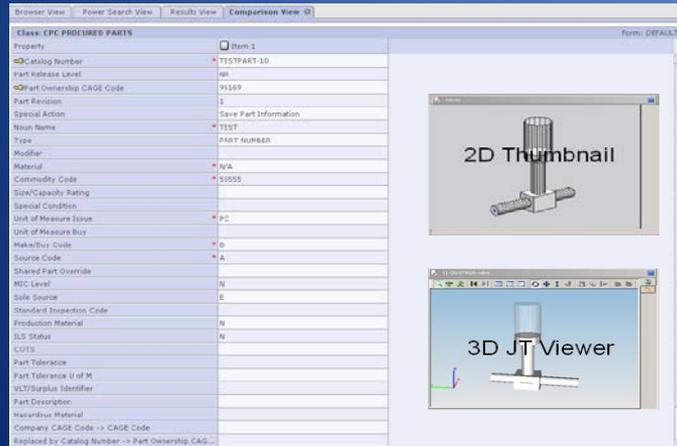


Task 2 – Model Inclusion and Exchange

Current CPC search results



The addition of models to CPC will support more efficient part searches and promote the re-use of already established cross platform designs
CPC search results with 2D and 3D Drag and drop into CAD session



Task 2 – Model Inclusion and Exchange (cont'd)

➤ Task Baseline

- Participants – EB, BIW, HII-Ingalls, JDA, Siemens, CSC, NGIT
- Dec. 2010 – Sept 2011
- The requirement is to define how the CPC participating Shipyards can share and reuse 2D/3D CAD models

➤ Accomplishments

- Reviewed requirements for successful model visualization or exchange
- Analyzed potential neutral file formats to be used and selected best alternatives to be tested
- Performed test exchanges at EB, BIW, and HII-Ingalls to evaluate various formats and tools
- Evaluations incorporated requirements derived from VIRGINIA Data Migration, Common Missile Compartment, DDG-51, and DDG-1000 Projects
- Considered issues related to project such as security and intellectual property
- The final report was submitted on March 2, 2012



Task 2 – Model Inclusion and Exchange (cont'd)

➤ Issues

- Multiple formats (i.e. JT and 3D PDF) meet visualization requirements and shipyards are split as to best choice
- Transfer of actual models may not provide as much benefit as hoped unless all shipyards use identical modeling standards, level of detail, and annotation techniques

➤ Next Steps

- The team submitted a SDMT Panel project proposal "Prototype Implementation of a Visualization System for 3D Models of CPC Parts" and was one of the 17 projects selected by the NSRP Executive Control Board (ECB) – Contracting phase to commence



Task 3 – Functionality Enhancements

- We have three sources of enhancement requirement requests
 - **CPC Navy Pilot**
 - *More National Stock Numbers (NSN) in CPC*
 - *Include shipyard inventory levels for the part numbers*
 - *Include Carrier part numbers*
 - **CGNx/CGx Material Standardization and Procurement Working Group**
 - *One common set of procurement notes*
 - *Cross-Contract Material Use and Part Identification (specification 'effective' dates)*
 - *Consolidated procurements*
 - **Participating Shipyards**
 - *Build part and document creation templates*
 - *Creating an electronic part request capability*
 - *Increase the level of Integrated Logistics Support Data*
 - *The ability to add large amounts of text data to an attribute*
 - *The ability to search within attachments*

These enhancements will be managed with the existing Central Configuration Control Group Change Request Process



Task 3 – Functionality Enhancements (cont'd)

➤ Accomplishments

- We worked our list of 22 enhancements
 - 2 enhancements were deployed with the upgrade
 - Reduced Classification Schema, Single Screen
 - 3 additional enhancements received IT approval and funding and were implemented
 - Inactive Part Release Level, MSDS mapping class, Shock Data
 - 2 additional enhancements that received company approval and funding are being implemented at EB and BIW
 - Part Navigator – will enable users to filter through the available parts - and their attributes - to find the relevant ones (Indexed)
 - ABPP will provide a Wizard that will guide the user through the Part and Document Creation process; Provide an integrated New Part Request and approval process
 - These are environment specific and do not impact HII-NNS & NASSCO reviews
 - Production Turnover targeted for May 31
 - HII-Ingalls has submitted a 2012 IT project for Part Navigator and ABPP

➤ Issues

- Competing priorities with Key CPC resources
- We agreed to review any new requirements with HII-NNS and NASSCO and ensure that we did not introduce any risk to their final reports

➤ Next Steps

- Continue will continue to work the list of enhancements as part of our normal CCGG process

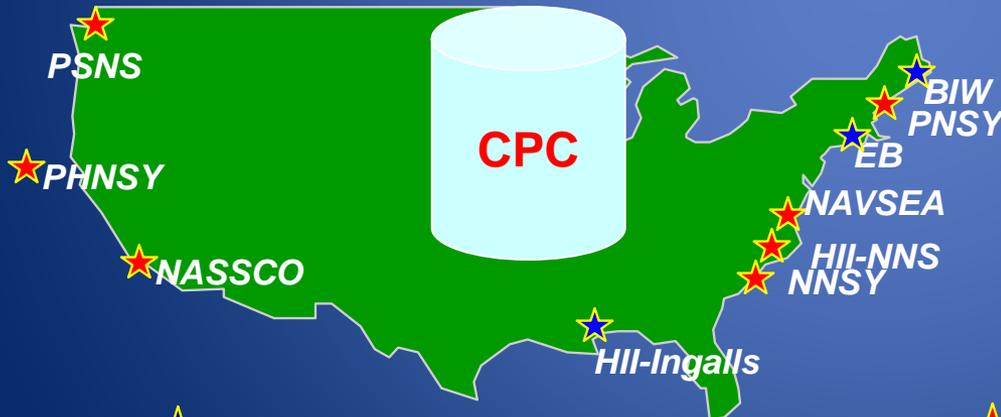


Task 4 – Additional Participation



Project Steps For A “Go / No Go” Recommendation

- ✓ Current State
 - Data
 - Systems
- ✓ Lessons Learned
- ✓ Best Practices
- ✓ Desired Future State
- ✓ Develop system design and interface requirements
- ✓ Business Case
- ✓ Three final reports:
 - ✓ HII-NNS, NASSCO, Navy



★ CPC Participating Shipyards

★ Potential Participants



Task 4 – Additional Participation (cont'd)

➤ Accomplishments - NASSCO

- Reviewed all applicable CPC documentation – no critical issues noted
- Maintained weekly communication between Project Leads throughout
- Held Team meeting on Sep 27th & 28th 2011 at NASSCO
 - Developed initial project plan and discussed documentation reviews
- Performed a Project Workshop Dec 13th & 14th 2011 at NASSCO
 - Defined the Current State
 - Designed an Implementation Model utilizing existing CPC data structures/system architecture
 - Identified Cost/Savings Elements
 - Defined Internal and External Benefits – NASSCO Repair
 - Created project scope and actions

➤ Issues

- Connectivity – NASSCO to CPC
 - An SP 9-7 was processed and approved to allow NASSCO personnel access to EB/BIW systems
 - Direct access will allow NASSCO to become familiar with the CPC functionality and also allow them to run some data conversion pilots which will validate the scope of that effort
 - Computer Access Requests were processed submitted and approved for 10 NASSCO personnel to be given access and write permission in the CPC Stage Environment
 - In final stages but has been challenging
- Compatibility with existing and potentially new MRP/ERP systems
 - Data conversion and potential interfaces

➤ Next Steps

- The final report is scheduled to go into management review on April 15



Task 4 – Additional Participation (cont'd)

➤ Accomplishments – HII-NNS

- Report completed and submitted to EB on 1/5/2012

➤ Issues

- HII-NNS proposed a data translation solution in lieu of the direct data migration solution currently employed by the CPC participating Shipyards
- Per the direction of PEO Carriers and the NSRP Executive Control Board (ECB) on March 13, we scheduled a meeting on 3/28 & 3/29 at NNS to discuss the issue.

➤ Next Steps

- Contract extensions to allow for resolution of the reported issues
- The CPC shipyards and HII-NNS will conduct a data alignment pilot to determine the level of change required to enable the direct data exchange.
- Upon completion of pilot, revise final report as necessary.



Task 4 – Additional Participation (cont'd)

➤ Accomplishments – Navy Access

- CPC evaluation meeting held with NAVSEA, DLA and PNS reps at EB on 11/30/2011
- NAVSEA requested an initial review on connectivity to determine if there are any roadblocks before proceeding
- NAVSEA provided CSC the IP addresses of the sites that they want to have access to determine feasibility on 1/13/2012

➤ Issues

- It has proved difficult for the Navy to work through different organizations and their respective IT departments given the hypersensitivity to IT issues they face. As suspected, it is not as simple as just providing IP addresses
- The lead has decided to re-baseline this effort and designated a single POC at NAVSEA07L. Additionally, they want to get a better understanding of the specific road blocks that they are facing so they can more intelligently explain the challenges to their leadership
- The local IT expert will assist in this effort to establish the parameters required for connectivity through NAVSEA headquarters.
- The Navy is in the process of approving the addition of the IP address for the CPC URL to their firewall. There is no estimate to complete

➤ Next Steps

- Determine connectivity feasibility



Wrap Up / Questions?

