PEO IWS Enterprise Product Lifecycle Management Integrated Data Environment (ePLM IDE)

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Organizational Profile: Environment, Relationships, and Challenges

1. Leadership
2. Strategic Planning
3. Customer Focus
4. Measurement, Analysis, and Knowledge Management
5. Workforce Focus
6. Process Management
7. Results

Source: National Institute of Standards and Technology (NIST)

ePLM IDE IS THE ENABLING ENVIRONMENT
PEO IWS
Current State of Affairs

KNOWLEDGE MANAGEMENT = INTEGRATED DATA ENVIRONMENTS (IDEs)

PEO IWS IDE Average Capability

- PEO IWS will spend $12.1 M/year over the next six years on Integrated Data Environment (IDE) technology ($72.62 M total over six years)

- On average, a 63% capability gap exists in that any one PEO IWS IDE does not address the full capability set identified by OPNAV N4 in the Navy PLM/IDE Strategic Plan

- IDE capabilities are consistently duplicated across the 26 IDE instantiations that PEO IWS funds to support its programs

<table>
<thead>
<tr>
<th>IDE FUNDING PROFILE ($M)</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance / Software</td>
<td>$5.39</td>
<td>$6.09</td>
<td>$5.61</td>
<td>$5.68</td>
<td>$5.90</td>
<td>$5.72</td>
<td>$34.29</td>
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<tr>
<td>Infrastructure</td>
<td>$2.08</td>
<td>$2.03</td>
<td>$1.92</td>
<td>$2.02</td>
<td>$2.31</td>
<td>$2.07</td>
<td>$12.43</td>
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<tr>
<td>Development</td>
<td>$6.29</td>
<td>$3.72</td>
<td>$3.78</td>
<td>$3.85</td>
<td>$3.93</td>
<td>$4.32</td>
<td>$25.89</td>
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<tr>
<td>Total Ownership Cost</td>
<td>$13.76</td>
<td>$11.85</td>
<td>$11.21</td>
<td>$11.55</td>
<td>$12.14</td>
<td>$12.10</td>
<td>$72.82</td>
</tr>
</tbody>
</table>
DoD 5000.02 IDE Requirement

2.3.14.2. Integrated Data Environment

The PM should summarize in the Acquisition Strategy plans to establish a cost-effective data management system and digital environment.

PMs should establish a data management system within the IDE that allows every activity involved with the program to cost-effectively create, store, access, manipulate, and exchange digital data. This includes, at minimum, the data management needs of the system engineering process, modeling and simulation activities, test and evaluation strategy, support strategy, and other periodic reporting requirements.

The PM should use existing infrastructure (e.g. internet) as appropriate and the summary in the Acquisition Strategy should briefly include leveraged and/or planned new development IDE infrastructure.

PEO IWS Implementation BCA

Program Executive Office Integrated Warfare Systems (PEO IWS) enterprise Product Lifecycle Management Integrated Data Environment (ePLM IDE) Business Case Analysis (BCA)

Total Savings (6 yr) : $12,182,423

ROI: 130%

Solution
“Employ a single business process, data management strategy and decision support environment for PEO IWS and its Government and industry partners (OEMs, Design Agents, Engineers, Product Support Integrator’s, Product Support Provider’s, etc.)”
Bridge the gap between the Engineering Product Development and Lifecycle Product Support worlds with a robust “enabling” environment by leveraging a suite of COTS PLM technologies.
The ePLM IDE Vision
Affordability Trade-Offs

Provide the required/authoritative information, business processes, and analytical tools to ensure Affordable System Operational Effectiveness via continual materiel and non-materiel trade-offs throughout a Weapon System’s lifecycle.
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Executive Overview

September 2011

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Summary ePLM IDE Benefits

- Reduce man hours to find and analyze data associated with solving readiness, affordability, capability, and suitability issues
- Facilitate more effective, informed, and traceable decision making
- Reduce business process cycle times
- Fund and implement advanced capabilities as an enterprise vice funding “programs” individually
- Enable continuous material and non-material tradeoffs
- Satisfy Data Center Consolidation (DCC) mandates saving PEO IWS ~$12 million over 6 years
- Increase collaboration and data sharing amongst Government and Industry organizations
Backup
CIMdata, a leading independent PLM organization defines PLM as:

- A strategic business approach that applies a consistent set of business solutions that support the collaborative creation, management, dissemination, and use of product definition information
- Supporting the extended enterprise (customers, design and supply partners, etc.)
- Spanning from concept to end of life of a product or plant
- Integrating people, processes, business systems, and information*

Three core or fundamental concepts of PLM are:

- Universal, secure, managed access and use of product definition information
- Maintaining the integrity of that product definition and related information throughout the life of the product or plant
- Managing and maintaining business processes used to create, manage, disseminate, share and use the information