Modeling & Simulation
Resource Repository
Board of Directors Briefing

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Develop and maintain databases of C4ISR-related studies, M&S tools, and points of contact to:

• Facilitate opportunities for consolidating C4ISR study efforts and leveraging past work effectively

• Promote reutilization of C4ISR modeling and simulation tools

• Help reduce C4ISR analytic costs
DSC Analytic Databases: The Concept

UNCLASS at www.dsc.osd.mil/ (Registration/Password Required)
SECRET via SIPRNET at 206.36.143.34/DSC/index.html
SCI via Intelink at www.c3i.ic.gov

- 24 hour on-line availability
- Content matched to security access
Features of the DSC M&S Database

- Currently on-line on the WWW, SIPRNET; and Intelink
  - follow procedures on DSC homepage to obtain user ID and password (for WWW)
- M&S DB contains complete and detailed records on over 120 M&S tools -- object-oriented approach
- Linked at the record-to-record level with a DB of C4ISR-related studies -- provides insight on how tools are used
- Taxonomy contains general model information and C4ISR-specific assessment
- Includes several different search modalities and a “Consumer Reports” ranking of C4ISR functionality
• Maintain security of the information in studies database, while maintaining ability to link between studies and M&S databases
• Tracking usage of DSC Databases
• Maintaining unique C4ISR focus in record taxonomy and search capability in accordance with DSC mission
• Cost Impacts
• **What is the minimum from user perspective?**
  
  - Understand what sources of information are available and what each provides
  
  - Know what models are characterized in what databases
  
  - Ready ability to access model records
OPTION 1

• **Maintain the Status Quo**
  - Continue to provide direct access service to nodes/sites only
  - **PROS:**
    • Each site maintains control of its own database
    • No additional cost to nodes/sites
    • Users currently familiar with structure
  - **CONS:**
    • Separate efforts limits visibility and customer usage.
    • Viewed by user as disjointed activity
    • Too many username/passwords for users to remember
    • Each site operates differently
OPTION 2

• **Create Simple Linkage Between Node Sites**
  • All sites have links to each other showing what additional data may be available at different sites
  
  - **PROS:**
    • Each site maintains control of their database
    • Allows customers to window shop for related web sites
    • Gets node visibility to a larger user community
    • Minimal cost to nodes/sites
  
  - **CONS:**
    • Requires maintaining updated links
    • Multiple usernames/passwords for users to remember
    • Each site operates differently
OPTION 3
• Federate All Nodes/Sites

A: *Loose Federation*: Sharing of username/passwords

• PROS:
  - Increases potential customer base through shared capabilities
  - Allows users to logon to multiple sites via single username/password

• CONS:
  - Username/Passwords must be shared between nodes/sites
  - Username/Password scheme must all be compatible
  - Cost of implementation and operations to each node/site
B: *Tight Federation*: Centralized management of user access

- **PROS:**
  - Increases potential customer base through shared capabilities
  - Simplifies efforts for users
  - Allows users to logon to multiple sites via single username/passwords

- **CONS:**
  - Requires central administration of username/passwords
    » or standard username/password scheme
  - Moderate cost to DSC
  - Cost of implementation and operations to each node/site
• DSC Supports specific C4ISR analytical user requirements
  – Both M&S and Studies
  – C4ISR functional Model characterizations

• More than Repository of general Model information
  – Advanced search functions
  – C4ISR functional area Model with “Consumer Reports” ranking’s

• Willing to participate, but need to maintain characterized C4ISR focus
Back-up Slides
1 C4ISR Modeling & Simulation

- What We Are Doing
  - Characterize M&S Based on Standard C4ISR Schema
    - Electronic Characterization Tool
  - Currently Exceed 124 **VERIFIED** M&S Records
    - Four New Models Added per Month on Average
    - Not a Static Database, Records are Re-Verified
      » High Value Models: Semi-Annually
      » All Others: Annually
    - Characterizations **APPROVED** by Sponsoring Agency
  - 342 Models Identified with Relevant C4ISR Information
  - 114 Models Currently In Characterization Process

- How Is The Database Used?
  - “Consumer Reports”
    - View/Ranking
  - Object Oriented
    - User Friendly, Easily Searched
2 C4ISR Studies
- Provide Additional Insight on How Tools are Used

- Link Between M&S and Studies Databases
  • Allows User to Perform Research Between Databases
    - Links M&S With Studies That Used Them
  • Provides User with Insight Into Tool Suitability Across Applications

- Provides Point of Contact Lists for Each Tool