DACS Overview

http://iac.dtic.mil/dacs

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### DACS Overview

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The DACS technical area of focus is Software Technology and Software Engineering, in its broadest sense.

Central distribution hub for the latest software technology information sources.

Wide variety of Technical Services to support the R&D, development, testing, validation, and transitioning of Software Engineering technology.
DACS STINFO Addresses Current Software Challenges

Software Context in 2008
► Model Based Development Paradigm
► Net Centric Integration of Existing Systems
► COTS Integration
► Systems of Systems
► Ultra Large Systems

System Characteristics
• 10-100 MLOC
• 30-300 Ext. I/F
• Depth of Supplier Tier: 6-12
• 20-200 Coordination Groups

Future Combat Systems:
• 12,000 SoS Requirements -> 90,000
• 50 Critical Technologies
• 52 Complimentary Programs
• 40 Million Lines of Code
DACS STINFO Addresses DoD Software Needs

- Technology
  - Lifecycle Development
  - State of the Art
  - Trends
- Best Practices in Software Engineering
- Emerging Practices
- Acquisition Issues
- Software Project Management

Customers
- JIEDDO
- AFRL
- DARPA
- ODUSD(A&T)
- AAMDC
- DDR&E
- NSWC
- USACE
- ONR
- MDA

Classes of Users
- Developers
- Researchers
- Acquirers
- Managers
Rich Resources for Users from the DACS

**Hundreds of Resources**
- Reports on Topics of Interest
- Benefits of SPI
- Download DACS Tech Journal
- 4 Hours Free

**Gold Practices – Practical Guidance**
- Online Learning Center
- Over 450 Classes
- Over 12,000 Topics

**Software & Web Development Online Training**
- A Guide to Software Development (Abstract and PDF)
- A Review of Formal Methods (STLD)
- A Guide to Software Maintenance Management (Abstract and PDF)
- A Guide to Software Reliability (Abstract and PDF)
- A Guide to Software Quality Assurance (Abstract and PDF)
- A Guide to Software Testing (Abstract and PDF)

**Conclusion**
- A Business Case for Software Portability Improvement (HTML and PDF)

**System Reliability Toolkit**
- A Practical Toolkit for Improving and Implementing a Program for System Reliability

Welcome to the DACS Gold Practices (GP) website
STINFO Resources of Interest to Software Acquisition Community

• Reports
  – System of Systems Cost Estimation
  – Software Reliability
  – ROI of Process Improvement
  – Gold Practices
    • Formal Risk Management
    • Standards/Open Systems
    • Manage Requirements
    • Metrics Based Scheduling
    • Track Earned Value

• Training
  – Software Affordability
  – On-Line Training

• Newsletters
  – IP and Software
  – Service Oriented Architectures
  – Open Source
  – Performance Results from CMMI
  – Measurement
  – many more…
Focus Areas

- Software Testing
- Software Quality
- Software Reliability
- Agile Development
- Software Architecture
- Process Improvement
- Measurement
- Cost Estimation
- Information Technology
- Software/IT Training

- Net Centric Operations
- Software Economic Analysis
- Information Fusion
- Software Producibility
- Software Intensive Systems Engineering
- Software Assurance
- Advanced Computing Architectures
- System Modeling and Simulation

Established Relationships with World Class Experts Provides State of the Art and Timely Scientific and Technical Information
ADA School, FCS, and Warfighter Support

**Combat Architectures**
- Supported Multiple Major Army Studies over 25 Years
- Supported Development of Requirements / JCIDS Documentation for Major Army Combat and C2 Systems
- Supported Organizational Design
- Support Future Army BMC4I Architecture / Concepts Design
- Performed Integrated Systems Analysis
- Performed Regional Coverage Analysis

**Training Development**
- Support Development of Training and Doctrinal Products:
  - Field Manuals
  - Graduate Level Training Courses
  - OIF Lessons Learned Database / Tracking
  - Training Plans and Support Packages
  - Scenario Generation for Multi-Echelon Training
- Web page design and implementation

**Operational AMD Unit**
- Support to 32d AAMDC and ADA Brigades / Battalions in:
  - Training, Operations, Personnel, Communications (JTIDS), and Logistics
  - Executed AMD Training -30 exercises per year at Drive Up System Training Facility
  - Contingency Operations
    - OIF (Deployed)
    - ONE (Deployed)
    - OEF
  - Provide Information Technology services

**FUTURE FORCE ARCHITECTS**
**FUTURE / CURRENT FORCE TRAINING PRODUCTS**
**SUPPORTS THE WARFIGHTER**
For More Information…

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