



DLA

DEFENSE LOGISTICS AGENCY
Established 1961



The Nation's Combat Logistics Support Agency

Research & Development

MILITARY UNIQUE SUSTAINMENT TECHNOLOGY

Program Manager: Julie Tsao



Julie.Tsao @dla.mil

OBJECTIVE

The Military Unique Sustainment Technology (MUST) program is an Industrial Preparedness Manufacturing Technology (ManTech) Program in DLA R&D that promotes manufacturing and logistics improvements in troop support clothing and textiles issues. The MUST program focuses establishing a "knowledge-based approach" to collaborate on development and acquisition of combat uniforms and individual equipment. MUST is researching and developing knowledge-based technologies to re-engineer the joint process and product, and to develop the foundation platform that enables technical data modernization.



COMBAT INDIVIDUAL EQUIPMENT



RECRUIT & WARFIGHTER DLA CUSTOMERS



THIRD PARTY LOGISTICS



MANUFACTURING



SERVICES' REQUIREMENT



TECHNICAL DATA REQUIREMENTS



INNOVATION & TECHNOLOGY

Process re-engineering to streamline joint processes

Semantic web technology for modeling text based technical requirements

Knowledge-based approach for integrated supply chain functions and capabilities

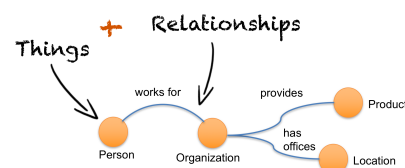
Application program interface with neutral data formats for seamless digital data model integration

RESEARCH & DEVELOPMENT THRUSTS



Collaborative Technical Requirements Management

Semantics =



Semantic Based Military Uniform Item Technical Data Representation

WARFIGHTER ALWAYS



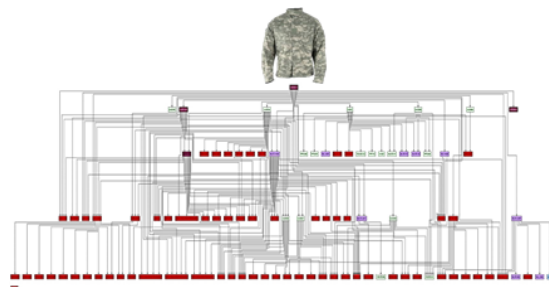
DLA RESEARCH & DEVELOPMENT MUST PROGRAM



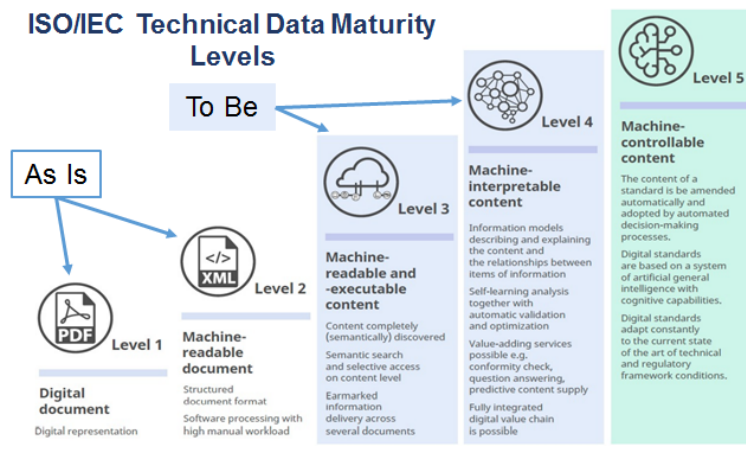
THE CHALLENGE

WIDELY DISTRIBUTED MANUAL TECHNICAL DATA REQUIREMENTS

Combat item technical requirements are documented in a complicated web of DoD, Government, and industry specifications. The top tier reference lower tier documents. Industry is responsible for compliance. The diagram to the right shows the complication of producing an acceptable Army Combat Uniform (ACU) coat. For example, the red boxes indicate the documents containing testing requirements.



ISO/IEC Technical Data Maturity Levels



Interoperability, Error Prevention, Machine Readability

WARFIGHTER READINESS THE BENEFITS

- Streamlining vendor level-of-effort associated with military uniform-related procurement
- Overall quality improvement
- Eliminate errors, omissions, and uncertainties in uniform specifications

WHOLE OF GOVERNMENT AND INDUSTRY PARTNERSHIPS

- DLA Troop Support Clothing & Textiles
- DLA Troop Support Product Test Center
- U.S. Marines
- U.S. Army
- U.S. Air Force
- U.S. Coast Guard
- U.S. Navy
- Industries and Test Labs

ACCOMPLISHMENTS & ONGOING EFFORTS

- Successful working prototype and functional requirements document
 - Stakeholders' testing and validation
 - Initiating vendor roll out for final transition
- Implementation scheduled and budgeted for FY23
- Converted 50% of relevant C&T documents to ISO Level 3/4 as the foundation of the digital model library