



DOD Supply Chain Data Quality

MIT Information Quality Industry Symposium (IQIS)
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- Presented By -

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Defense Logistics Agency

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US Transportation Command



Questions / Outline



- 1. Why is collaboration vital to business operations and DQ?
- 2. Who are DLA & USTRANSCOM and why are they working together?
- 3. How does DLA perform & measure DQ?
- 4. How does USTRANSCOM perform & measure DQ?
- 5. How do DLA and USTRANSCOM collaborate?
- 6. What are the DQ Lessons Learned?
- 7. What are the future plans for DQ?



Why Collaborate?



- New DoD Information Sharing Strategy (May 4, 2007) signed by John Grimes, Assistant Secretary of Defense for Networks and Information Integration and DoD Chief Information Officer
 - Established a new information sharing vision for the DoD.
 - DoD must be able to quickly and seamlessly share information. This strategy will help us achieve that goal in concert with our partners both at home and abroad.
- Data Quality (DQ) **must** extend beyond the business units to the enterprise – End-To-End
- Primary DQ challenges are people, process, and money - not technical



DLA Data Quality



Rich Hansen
Defense Logistics Information Service
Chief, Data Integrity Branch

July 19, 2007



America's Logistics Combat Support Agency



Industrial Commands

Operating Forces

Services

Government Partners

Industry Partners

Global Mission

- 8 DOD Supply Chains
- 21,000 People

★

Historic Levels of Execution

- \$35B Goods & Services
- OEF/OIF
- Disaster Relief Support

★

Flexible World Wide Presence

- Deployable Distribution
- Contingency Support Teams



Defense Logistics Information Service



Mission...To provide interoperable, integrated, quality logistics data and enterprise IT solutions for joint warfighters, the Military Services, the Defense Department, other Federal agencies and international partners in order to optimize the effectiveness and efficiency of the DOD Supply Chain.

Business Profile

Federal Logistics Information System (FLIS)
Military Engineering Data Asset Locator System
Technology Mgmt- DLIS / DRMS / DLA-C
(Networks / IA / CM / Testing)
Data Integration (LINK / AV / DESX / Meta Data
/ Master Data / IDE)
Environmental Initiatives (HMIRS / ERLS /
EPRO)
Multi-media Information (CD/DVD / On-Line /
Tailored Extracts)
DOD Cataloging & Provisioning Support
Software Development & Maintenance (Web /
Legacy / Contemporary)
Data Quality
E-Solutions (CCR / CAGE / IUID / DOD EMALL)
US National Codification Bureau / NATO AC/135

Scope of Business

\$601.9M DOD EMALL Sales
445,862 products distributed i.e. FEDLOG
152,250 accounts to online systems
11,714 extracts containing over 12.9B
records
6.9M active NSNs in FLIS
41.8M technical data assets indexed in
MEDALS
52 critical applications / 97 total
applications
26 NATO and 27 "NCS sponsored" nations
344K contacts annually






DNA of the DOD Supply Chain



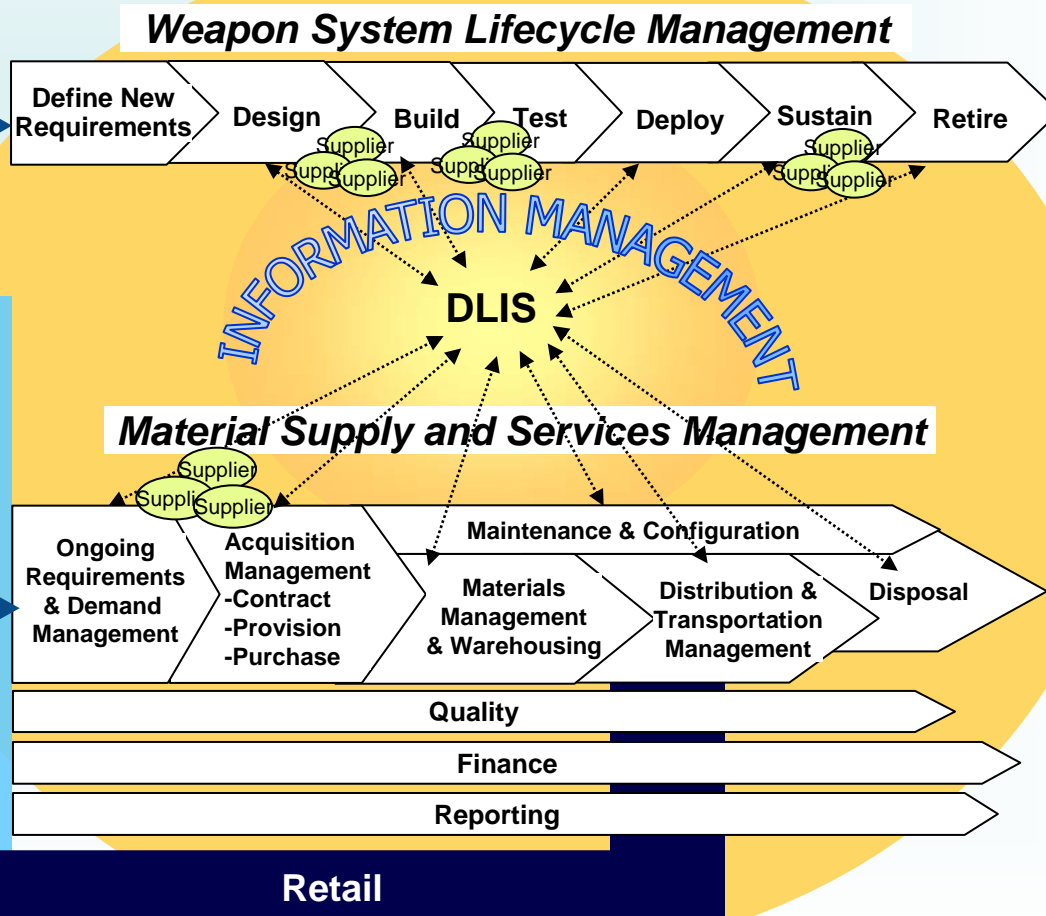
“Data is the DNA of supply chain management”

- Acquisition
- Financial management
- Hazardous material
- Freight & packaging
- Maintenance
- Sustainability
- Disposal
- Demilitarization



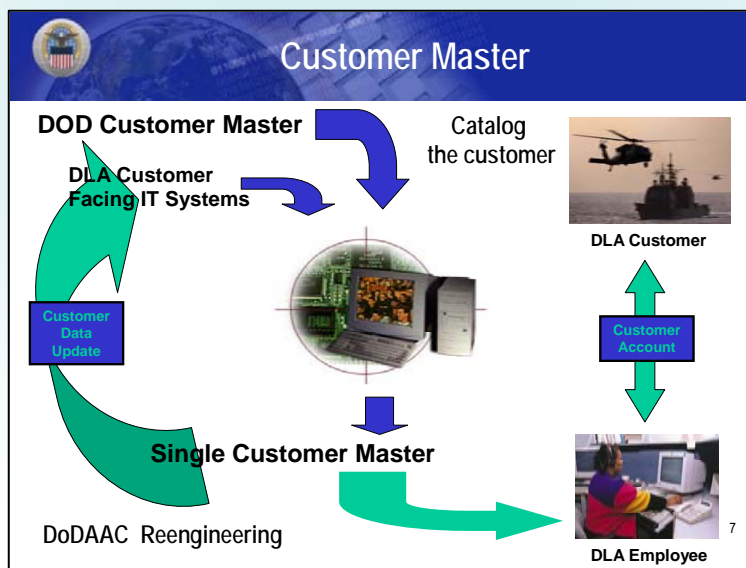
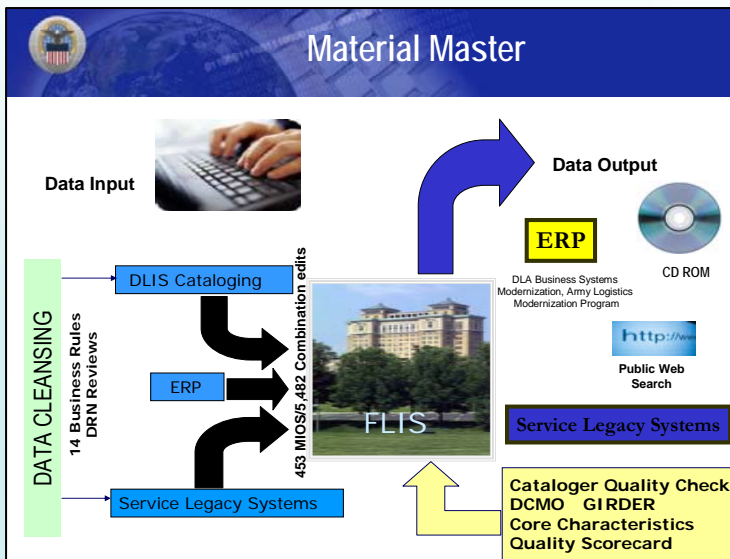
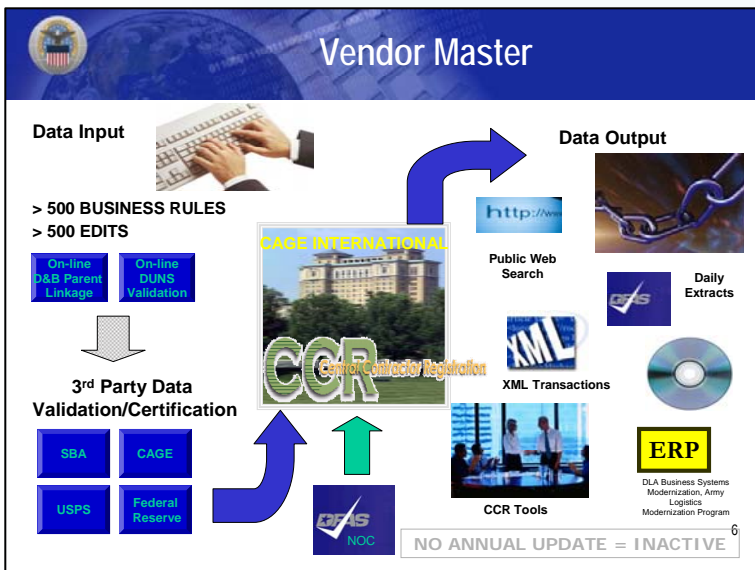
Who is the customer?
What is needed?
How many are needed?
Where is it needed?

- What meets the requirement?
- How many do we have and where? or, Where/how can we obtain?
- How must it be handled?





DLA Data Master





DLIS Data Quality Process



- Knowledge exchanges with the experts – Universities, Gartner, others
- Plan addresses: People-Process-Technology
 - Management priority / visibility
 - Program managers: overall responsibility
 - Data stewards: analyze, measure, report and support PMs
 - Elaborate, fact-based methodology / measures
 - Edits, profiling tools and system checks



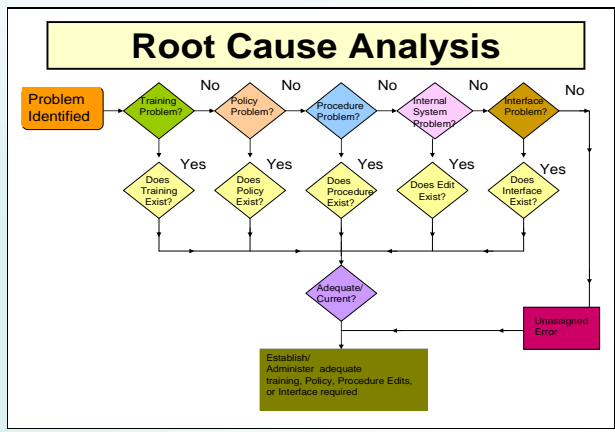
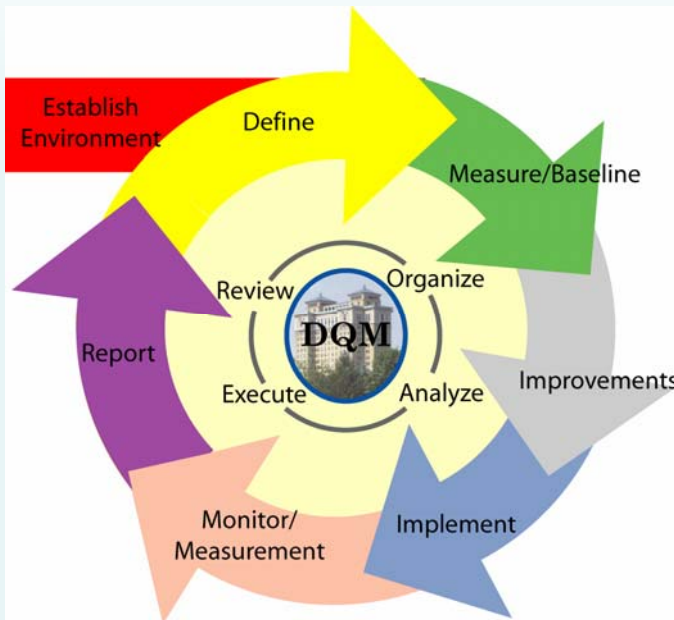
DATA QUALITY METHODOLOGY



The Process

People
Process
Technology

- Accuracy
- Consistency
- Currency
- Completeness



System/Product DQ Baseline

Process Step - Measure/Baseline
 A - Accuracy CN - Consistency CR - Currency CM - Completeness NM - Not Measured

DQ ISSUES	A	CN	CR	CM	Over all	DQ ISSUES	A	CN	CR	CM	Over all
1. Shelf Life Code	85%	100%	100%	86%	92.7%	6. Quantity Per Assembly	NM	100%	NM	100%	100%
2. Jump to Code	NM	100%	NM	100%	100%	7. Federal Stock Class	NM	100%	NM	100%	100%
3. Order of Use Code	NM	100%	NM	100%	100%	8. Reference Numbers BSM Data-Changing (BSC) P/B	100%	NM	100%	63.1%	87.7%
4. Demil Code	100%	100%	100%	100%	100%	9. Reference Number Category Code	NM	100%	NM	100%	100%
5. Precious Metal Indicator Code	NM	100%	NM	100%	100%	10. Reference Number Variation Code	NM	100%	NM	100%	100%

Grading Scale
 90-100% A Green
 80-89% B Yellow
 70-79% C Orange
 60-69% D Pink
 50% or less E Red
 Not Established - White

Issues/Concerns:

DCB Recommendations:
 Begin checking additional DRNs

PMDS: J6B/Mindy Ball/Roy Marko/Lori Rowley
 Participants: Wendy Ball/Lori Rowley 25 Jan 05



<http://www.dlis.dla.mil/qdb>

The Results



International Standards



- **ISO 22745** is a standard that covers the tools for encoding data (*expected to be published in 2007)
- **ISO 8000** is a standard for information quality in terms of encoding, completeness, origination and accuracy (*expected to be published in 2008)





DQ Program Growth



- Current
 - Established systems
 - Using six step plan
 - Partnership with the United States Transportation Command (USTRANSCOM)
- Future
 - Data quality office
 - Emerging systems chapter
 - Decommissioning systems



Emerging Systems



- Planning
 - Establish Data Cleansing Champion
 - Subject matter experts
- Business rule development
 - Review data
 - Authoritative data sources
 - Develop business rules
 - Establish frames
- Data Cleansing
- Reporting
 - Track progress
 - Auditing

Start Early!!!

**Dedicate
resources**



Data Quality



- Data Quality is not magic: It's the “new normal” and must be done DOD wide
- Functional “owners” have a key role: Data experts lead the quality effort
- Transformation programs: Need for quality permeates all DOD logistics data
- Built into each new system
- Participation
- ***COURAGE***





Data Quality



YOUR POINTING AT IT WON'T HELP - THE COMPUTER RECORDS SHOWS NONE IN STOCK.



USTRANSCOM

United States Transportation Command



MAJ Jocelyn Anderson
USTRANSCOM, J6-AD



USTRANSCOM



AMC



MSC



SDDC

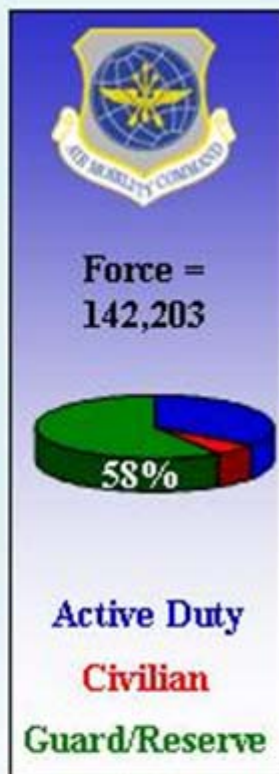
“USTRANSCOM is responsible for creating and implementing world-class global deployment and distribution solutions in support of the President, Secretary of Defense, and Combatant Commander assigned missions.”



The TRANSCOM Team

Single Manager for Common-User Transportation

24 / 7 / 365



Total Force:
155,794

Commercial
Industry
Contribution

1,364 Aircraft
332 Vessels



“Provide air, land, and sea transportation for the DOD, in both time of peace and in time of war.”



DoD Logistics Is Big Business

Annual Budget:

\$42 billion in supply
\$68 billion in maintenance
\$10 billion in transportation
\$120 billion total logistics costs
(FY05 President's Budget)



Operational Resources:

51,000 vendors
2000+ legacy logistics systems
45,000+ requisitions per day
\$77 billion inventory





Requirements vs. Capability

Requirements

Capability





DQWG Charter



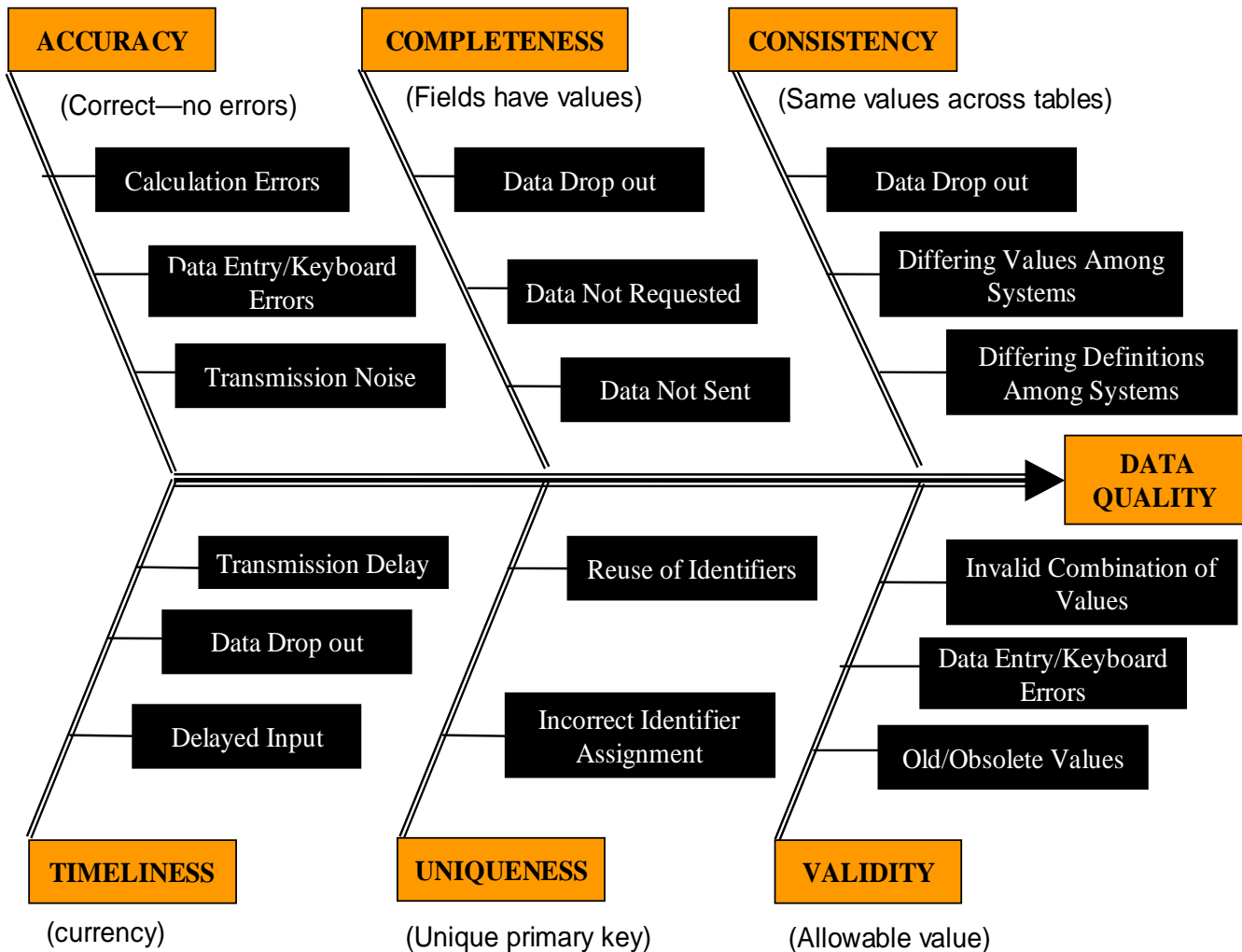
- Principals:
 - ❑ Co-Chairs: J3-I, J5/4-S, J6-A (Operations, Plans/Policy, & CIO)
 - ❑ Other USTC: GTN and TRDM (In-Transit Visibility & Ref Data)
 - ❑ Non-USTC: AMC, MSC, SDDC, DLA, JFCOM, Open

- Authority: Distribution Steering Group (DSG)

- Purpose:
 - ❑ Identify and maintain **executive sponsorship** of Data Quality (DQ) within USTRANSCOM
 - ❑ Establish and implement the **DQWG Business Rules**
 - ❑ Promote **DQ Best Practices** in USTRANSCOM policies, systems, and processes
 - ❑ Ensure **transparency and reliability of DQ reporting**
 - ❑ Establish **DQ Issue Teams** to analyze individual DQ issues and recommend solutions to the DQWG



Data Quality Characteristics





DQ Future Plans



● Future Plans

■ DLA

- Continued partnership with USTRANSCOM
- Development of a Joint Standardization Board for Data

■ USTRANSCOM

- Distribution Data Community of Interest (COI) pilot project to characterize and track DQ along the same paths used for operational performance reporting (CIO supports Operations)
- Automated DQ Software Research & Development to explore business rule migration and automated sampling
- NetCentric Strategy – Focus on the Information Exchanges and Enterprise Architecture products to implement Web Services

■ JOINT – DLA & USTRANSCOM

- Convergence of DLA's Integrated Data Environment (IDE) and USTRANSCOM's Global Transportation Network (GTN) - IGC



Top 10 DQ Lessons Learned



- **Establish DATA CLEANSING CHAMPION**
- **Establish cleansing leads and teams**
- **Build in edits and verifications**
- **Maintain independent auditing role**
- **Dedicate resources**
- **Maintain EXECUTIVE SPONSORSHIP**
- **Maintain visibility, accountability, & escalation**
- **Use authoritative data sources & repositories**
- **Communicate, collaborate, & think ENTERPRISE**
- **Start Now – it hurts less!**