Business benefits across design, support and the supply chain from coherent data exchange standardisation

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- Introduction
  ASD - AeroSpace and Defence Industries Association of Europe

- ASD Strategic Standardisation Group (SSG)
  E-Business challenges and opportunities
  The Importance of Standards to Customers
  Standardization role in A & D
  ASD SSG Activities

- ASD Suite of ILS Specifications
  Presentation, issue plans
  AIA/ASD Collaboration

- Conclusion, Contacts
Representing more than 2,000 companies and around 675,000 employees

Bulgaria and Romania currently in process
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E-Business - challenges

- Digital collaboration needed to improve competitiveness
- Increasing use of digital product models from the preliminary design to customer support
- Long term archiving of model-based dossier
- Proliferation of proprietary formats, “digital breaks”
- Processes, methods and tools
- Suppliers supporting global market
- Heterogeneous practices, process and platforms
- Cost of evolution and maintenance of effective digital infrastructure
- Need to secure the investment made in collaborative infrastructure (e.g. PLM)
- New contract models: Information Exchange / IPR issues
Nicolas: I proposed a change of the first slides to simplify content (too much text) but also in order to present the issues creation of ASD SSG address. I also tried to harmonized and to simplify 3 level governance in order to explain our different activities.

EADS; 16/11/2009
The Importance of Standards to Customers - e.g.: UK MOD

Through Life Support;

“In the quest to drive down the costs of Through Life Support it is essential that we support the development and adoption of global standards”

Brigadier Martin Boswell, Head of Through Life Support, UK MOD

Log NEC Programme;

“The adoption of global information standards within Log NEC is a critical underpinning factor to all our initiatives in enabling joint working between MOD and our industry partners. It is the key to enabling us to respond more quickly to changing requirements, to drive out unnecessary costs associated with integration and to improve data quality”

Brigadier Alan Clacher, Head Log NEC Programme, UK MOD
The aerospace value chain is becoming increasingly global in nature, with suppliers in many countries supporting manufacturers in the US and Europe, across many home markets.

- This implies the use of global standards, which is already AIA and ASD policy,
- the value of exploiting such standards is now being promoted by consultancies such as Gartner.

Our customers are also recognising the value of standards-based links to the supply network for all classes of information exchange.

- In the defence sector, consideration is being given to possible DFARS clauses mandating the use of DoD architecture components, and in the UK, the MoD has already developed a joint logistics architecture with industry, based on global standards. In Europe, OCCAR is seeking to efficiently manage and support trans-national projects.
  - logistics information for collaborative in-theatre operations, and consistency between projects on information planning.
- The ATA is setting up global eBusiness standards for the airline industry.
  - Defence ministries are also working on collaboration on these trends reinforcing the opportunity for global collaboration on setting industry standards.
The business case for Electronic Integration

US view

AIA members are committed to a vision for e-Business across the industry, where:

- all participants in the aerospace value chain will be able to exchange information across an information backbone relative to:
  - product design,
  - business relationships,
  - transactions,
  - and product support
- This vision is to be achieved through industry-level adoption of:
  - policies and standards,
  - benefits to prime contractors, suppliers and customers through simplification of electronic trading,
    - fewer interfaces and simpler processes,
    - reduced support costs
    - more agile
    - responsive teaming.
- generate innovative process changes to further improve performance
Some Aerospace & Defence challenges
(vision 2020)

How to organise collaboration around these artefacts? How to reach collaboration industrial performance?

Standards!
Paradigm Shifts in Standardization

- Company Standards
  - Technically Driven
  - Domestic Stakeholders
  - Vertical (single issue)
  - Paper-based
  - Aerospace – unique

- Industry & Partner Standards
  - Business Driven
  - Global Stakeholders
  - Horizontal (e.g., ISO9000)
  - E-business based
  - Non-aerospace controlled

Source: The Future of Aerospace Standardization
January 2005
Standards Governance rationale

**Industrial collaboration needs & operations**

**Concept Development**
- "Full virtual concept"

**Design, manufacture & Assembly**
- "Full 3D configured DMU"

**Validation & Certification**
- "Full virtual rigs"

**Operations**
- "Full virtual A/C enabled services"

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**AeroSpace & Defence standardisation**

- Business Scenario & Use Cases
- Radar
- Roadmaps
- Aero Standardisation bodies & projects

**IT standardisation**

- IT vendors
- IT Standardisation bodies & projects
**Scope**

- The National Trade Associations represent the major European AeroSpace & Defence manufacturers
- Almost “mirror organization” to AIA
- ASD-STAN: European AeroSpace & Defense Standardization Organisation

**Related standards and policies**

- Draft policy for PDM interoperability
- Sponsor of the STEP AP 242 project
- ASD SSG: Radar screen

**Organisation overview**

- ASD Stan on behalf of ASD
- SSG Strategic Standardization Group
- CPSC Customer Product and Support Committee

**ASD MoU’s with AIA – ATA - PDES Inc - ProSTEP**

- LOTAR LOng Term ARchiving
- STEP AP 242 Model Based 3D Design
Aerospace Industries Association of America

Scope

- the premier trade association representing the US major aerospace and defence manufacturers

Organization overview

- E business Steering Group
- Strategic Standardization Forum for Aerospace
- EMC Engineering and Manufacturing Committee
- EEIC Electronic Enterprise Integration Committee
- Supplier Management Council

Related standards

- AIA EEIC: Radar screen

AIA – ASD coordination:

- Cooperation between AIA EEIC and ASD SSG (2009): common methods and templates
- Common MoU for the S1000D standard
- MoU for ILS specification alignment (2010)
- Proposed MoU on E-Business
ASD SSG Organization & Activities

E-Business SSG

Standardisation Projects

Other projects...

National & International Trade Associations

Standardisation Associations

Standardisation Organisations
ASD SSG Activities
Strategic Standardization Group

Coordinating with AIA

SSG Radar Screen & Interoperability Framework

Communication & Reporting

Industry Requirements & SSG Business Roadmap

Working Groups (WG)

ILS

CAD Interoperability and visualisation

SCM Standards Policy

PDM Standards Policy

Hub Collaboration

E-Business SSG
ASD SSG Interoperability framework
organizing the tools to master business requirements and consistency

Business Scenario & Use Cases

Life Cycle Gap Analysis

Identify & describe the need

Address the need

Radar Screen

Develop standards & polici

E-Business SSG
ASD SSG Radar Screen

Adopt existing standard

Monitor external development

Candidate

Adopted

ASD development

Current ASD SSG actions

Blip available

Blip in preparation

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Aquisition Logistics – main business processes
according to NATO Acquisition Logistics workshop 1993

Operational and maintenance data feedback

Design of systems and support equipment

Operational data
Equipment identification design data
Design data

Logistic Support Analysis activities

Operational data
LSA data

Provisioning
Provisioning data
IP Data Subsets

Order administration
Logs mat and data

In service use

Technical Publications
IETM, other media

Source: EADS - Saab
ILS Specifications Issue Plans

ASD – STE100

S1000D

S2000M

S3000L

S4000M

S5000F

SX000I

Source: EADS - Saab
AIA/ASD Collaboration

- MoU in place for S1000D since 2004 (with ATA since 2008)
- New MoU for other ILS standards signed July 2010
- Discussions held between SSG and corresponding AIA Electronic Enterprise Integration Committee to extend the cooperation
- Using common planning process – originating in AIA
- Areas of collaboration identified
  - LOTAR
  - REACH
  - Engineering information exchange standards
  - 3D visualisation
- Benefits statement for collaboration prepared
- Proposed MoU to cover the entire scope of interoperability
  - in AIA Strategic Plan
- Regular teleconferences held.
Following a meeting at the Farnborough Airshow between Patrick de Prevaux and Howard Mason for ASD, the AIA National Security Director Fred Downey, and AIA PSC chair Patresha Williams, we are pleased to be able to report that the AIA/ASD MoU on the S-series specifications was duly signed by Marion Blakey and Francois Gayet on 21 July 2010.

This will form a good basis for the further MoU that we have discussed for the other SSG areas. Both Fred and Patrick emphasised the high level of importance that is now being attached to interoperability at senior levels, and the exposure of this topic at the AIA Executive Committee and the ASD Convention was highlighted.
MoU between ASD and AIA on S-series specifications cooperation

Vision

to be the international integrated specification suite for logistics support of Aerospace and Defence products

Mission

• to minimize project dependency by defining clear guidance and by avoiding inclusion of project and national specific rules and constructs
• to ensure commonality between the ILS related specifications to support the re-use across projects
• to give rules and guideline for the realization of an integrated logistic support to emphasise the main principle of ILS, the integration of the different logistic disciplines (the "I" in ILS must be the main driver)
• to ensure the application of the basic ISO standards
• to establish well defined data transfer mechanism between the different logistic disciplines based on PLCS.
• to cover all aspects of supportability over the entire life cycle of a product.
• to be the contractual baseline for industry and customers
• to be up to date with the technical development and changes in support philosophy
ASD/AIA ILS Spec’s Organisation

- ASD - CPSC
  - Customer & Product Support Committee
- AIA
  - Product Support Committee

- CPSC Specifications Group

- ILS Spec Council

- S2000M Steering Committee
- S3000L Steering Committee
- S4000M Steering Committee
- S5000F Steering Committee

Data Model and Exchange Working Group
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Conclusion, Contacts
A consistent set of e-business standards is being identified, assessed, developed and implemented in answer to European Aerospace, Space & Defence Industry needs.

ASD SSG provides the needed capability:
- Consensus at European AeroSpace & Defence industry level
- Supported by national trade associations
- Co-ordinated with US activities

Numerous methods are being developed, for which a first version should be made available in the next months.

Several projects have been launched:
- TDP Message Standardization

Coordination and networking were initiated.

SSG seeks the widest participation and contributions!
Contacts

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