Learning Standards Harmonization
Task Team (LSHTT) Report

Wayne Gafford, Government Co-Chair
Paul Haslam, Industry Co-Chair
Demo by Chris Robbins and Steve Worsham, IDSI

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• ADL-SCORM – S1000D Tutorial

  – Please sign up for the ADL-SCORM, S1000D harmonization tutorial at the registration desk.
  – Tutorial is Thursday at 13.00.
  – Need minimum 10 people.
  – Tutorial will be a more in-depth Q&A.
LSHTT 30 Minute Agenda

- LSHTT Vision Statement
- Key LSHTT 4.1 CPFs (and how they improve upon 4.0)
  - Learning data module
  - SCORM content package module
  - Xpath
- S1000D-SCORM Bridge Project
- S1000D-SCORM Bike Project
Integrated data frameworks as a focused and stimulating platform that will bridge life cycle and technology gaps in the learning, education and training space by meeting requirements through harmonized standards and emerging technologies.
LSHTT CPF Update

• **CPF-LSHTT-2009-018:**
  – Learning Data Module Schema Upgrades in Support of Training Needs Analysis

• **CPF-LSHTT-2009-019:**
  – SCORM Content Package Module Split

• **CPF-LSHTT-2009-020:**
  – Revise <XPath> Placement and Structure
Learning Data Module Schema Upgrades in Support of Training Needs Analysis
### Key LDM Changes - Learn Plan Branch

**Issue 4.0**

**Learning Plan**
- Project
- Needs Analysis
- Gap Analysis
- Intervention
- Technical

**Proposed 4.1 Changes**

**Learning Plan**
- Project
- Performance Analysis
- Cause Analysis
- Intervention Definition
- Intervention Implementation
- Performance Evaluation

**Objective:** Better enable a wider variety of human performance requirements to be captured in the form of a learning and performance plan.
Learning Plan

... Intervention Definition
    Non-Training Interventions
    Training Interventions
Learning Objectives
    Objective Group
        Title
        Description
        Objective Item
            Title
            Description
        Content Identifier Name
            Title
            dmRef

Add Objective Group element
  • Child to the Learning Objective element in order to improve the storage of learning objective data
TNA Data

Includes measurable criteria for task performance that results in need for LDM with:

Learn Code = H51 = Formative Analysis
Learn Event Code = A = Learning Plan

S1000DBIKE-A-10-10-00-00A-520A-A-H51A

Minor modification to the LDM schema will result in proper storage and cataloging of this type of TNA information.

Multiple examples exist and modification recommended to fully support all “H” Learn Codes
TNA Data

Includes measurable training objectives for a training system, which results in need for LDM with:

Learn Code = T25 = Terminal Objective
Learn Event Code = A = Learning Plan

S1000DBIKE-A-10-10-00-00A-520A-A-T25A

Minor modification to the LDM schema will result in proper storage and cataloging of this type of TNA information.

Multiple examples exist and modification recommended to fully support all “T” Learn Codes

<learningPlan>
  <lcNeedsAnalysis>
    <title>
    <description>
    <lcOrganizational>
    <lcPlanAudience>
    <lcWorkEnvironment>
    <lcTask>
    <lcLearningObjectives>
      <lcTerminalObjective>
      <lcIntellectualSkills>
      <lcProcedure>
SCORM Content Package Module (SCPM) Split

(SCPM is a version of the publication module designed to controlled aggregation of content intended for a SCORM content package)
• **SCORM Content Package Module Split**

• **Objective:** Reuse SCOs in different training courses without redefining it inside each training course structure definition.

• **Objective:** Manage a SCO in S1000D as a reusable object.

• **Strategy:** Separate the *structure of the training course* and the *definition of the SCOs* into two different XML Schemas.

  – *(Pop quiz from yesterday: what are the lowest levels of content management in S1000D and in SCORM? How does this split enhance granular content management in S1000D?)*
Revise <XPath> Placement and Structure

(Xpath is a methodology for linking to and reusing small chunks of data in a file.)
**<dmSegment>** will replace **<xPath>/</xPaths>**

Take a starting point in current dm reference structure, element **<dmRef>**

The new element **<dmSegmentRef>**

Apply the **<dmRef>** way to identified the target of the reference

Reuse all **<dmRef>** attributes but one

The new attribute **targetPath**
Strategic Vision
Learning data and technical publications data are developed and maintained in a common source database and based on consistent life-cycle support information.

The Main Gap
Lack of communications between SCORM learning content development environments and common source databases.
<table>
<thead>
<tr>
<th>Goal</th>
<th>Requirement Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linking maintenance and operational requirements to training</td>
<td>(5.3 – <em>training needs analysis objects</em>)</td>
</tr>
<tr>
<td>requirements</td>
<td></td>
</tr>
<tr>
<td>Avoiding proprietary data lock-in via industry data standards</td>
<td>(5.4/5.5 - <em>S1000D XML for all data</em>)</td>
</tr>
<tr>
<td>Open architecture to support scalability and multi-use</td>
<td>(5.10 - <em>ECP Web Service</em>)</td>
</tr>
<tr>
<td>Foster and demonstrate interoperability</td>
<td>(5.2 - API between CSDB and learning content development environment)</td>
</tr>
</tbody>
</table>

**Diagram:**
- Common Source Database(s)
- Produced S1000D Content
- ECP Web Service
- Bridge API
- Training Needs Analysis Objects
- Learning Content Development Tool(s)
What: A SCORM-conformant bike maintenance and operation course is in development.

How: All learning content and aggregation in S1000D.

Who: Final product will be part of the spec and made available to all vendors for product demonstration.
Into to Bike Example: How S1000D Improves Training Development

• Testament from an instructional designer and human performance specialist –
  
  • Brings focus to Authoritative source
  • Provides a standardized structure and level of granularity
  • Life cycle maintenance: know instantly what DM needs to change
• Attention to learn plan: capturing training needs analysis:
  – Needs analysis stays with the curriculum
  – Mapping H-Codes in DMC to objects in learnPlan
• Attention to Assessments:
  – Knowledge checks, graded tests
• Rendering formats:
  – All web supported
  – Use of XSLT, Flash, CSS
Thank you

Wayne Gafford  
wayne.gafford@adl.net.gov  
703 283 3372

Paul Haslam  
phaslam@oneil.com  
682 234 0901