



# Learning Standards Harmonization Task Team (LSHTT) Report

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## LSHTT Announcement



- 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



## LSHTT Vision



*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



CPF-LSHTT-2009-018



# 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.



# Key LDM Changes - Objective Element



## 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

```
<learningPlan>  
  <lcNeedsAnalysis>  
    <title>  
    <description>  
    <lcOrganizational>  
    <lcWorkEnvironment>  
    <lcTask>  
    <lcEvaluation>  
      <lcEvaluationItem>  
      <lcFormativeEvaluation>  
      <lcSummativeEvaluation>
```



Added  
Element  
Type

## 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

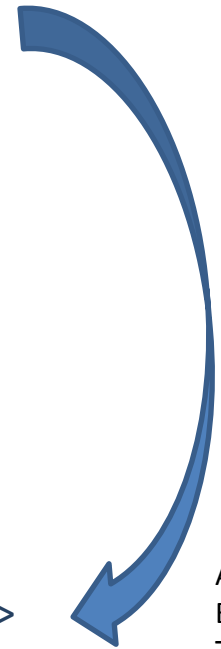


S1000DBIKE-A-10-10-00-00A-520A-A-T25A

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>
```



Added  
Element  
Type



CPF-LSHTT-2009-019



## 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?*)



CPF-LSHTT-2009-020



## 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>**



Reuse all <dmRef>  
attributes but one

The new element  
**<dmSegmentRef>**

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



The new attribute  
**targetPath**

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



# Bridge Project Update



*S1000D*

THE  
BRIDGE PROJECT

*SCORM*



*S1000D* THE BRIDGE PROJECT *SCORM*



## **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.

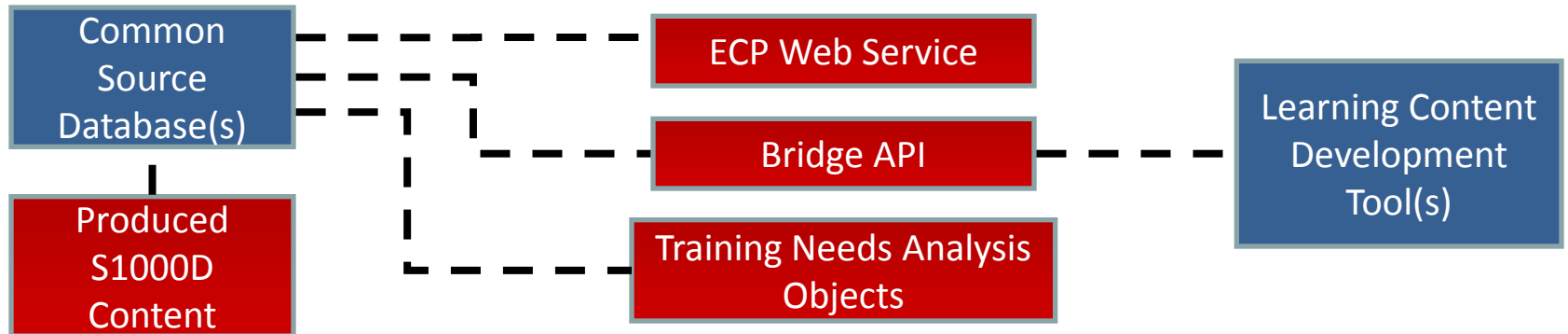
## **The Main Gap**

Lack of communications between SCORM learning content development environments and common source databases.



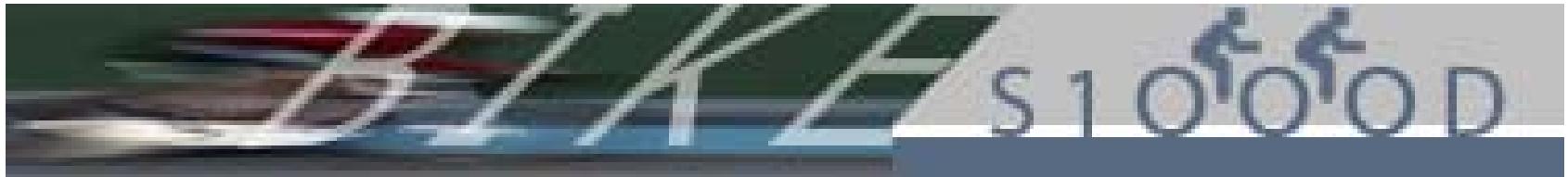


Goal	Requirement Addressed
Linking maintenance and operational requirements to training requirements	(5.3 – <i>training needs analysis objects</i> )
Avoiding proprietary data lock-in via industry data standards	(5.4/5.5 - <i>S1000D XML for all data</i> )
Open architecture to support scalability and multi-use	(5.10 - <i>ECP Web Service</i> )
Foster and demonstrate interoperability	(5.2 - <i>API between CSDB and learning content development environment</i> )





## S1000D-SCORM Bike Project



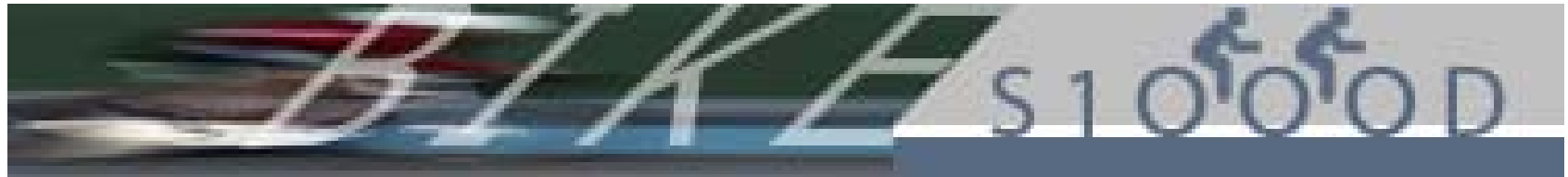
**What:** A SCORM-conformant bike maintenance and operation course is in development.

**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.



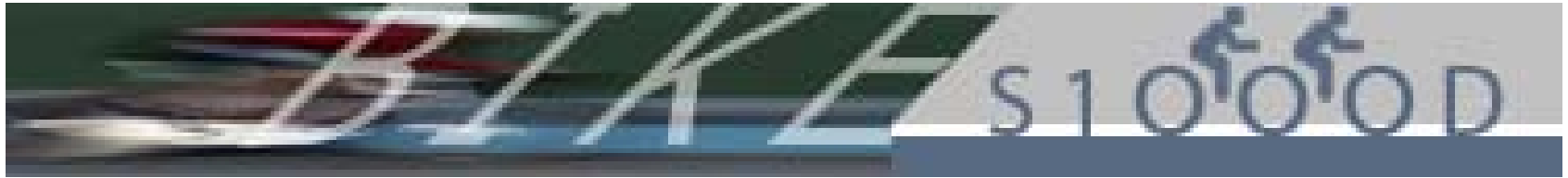
## Into to Bike Example: How S1000D Improves Training Development



- 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



## Bike Demo



- 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



Questions / Comments



## S1000D Learning Standards Harmonization Task Team

Thank you

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