

Workshop 2 – Achieving Successful Technical Outcomes Using IMS Specifications

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This workshop provides information needed to make the right technical decisions on using e-learning specifications and standards to achieve the outcomes your organization has identified as critical. We provide a technical overview of IMS specifications and discuss the impact of Application Profiles such as SCORM when making decisions about which content and tools service particular markets. Examples of technical implementations illustrate how specifications are used in specific product and content architectures. The workshop also provides a technical roadmap for future IMS specifications and focuses on technical strategies to leverage development efforts and to mitigate the risk of expected changes. Participants will leave with extensive information on available sources of support, models of best practices, and conformance testing. This workshop builds on information provided in the Functional Overview Workshop.

General Design Guidelines / Considerations:

- There is too much here to really include in a single workshop. We will be ‘cutting down’ the content as we go along to focus on the most important stuff, and the best case studies. We may need to eliminate discussion of some of the specifications (Accessibility, Learning Design, Reusable Competency Definitions are likely candidates here.)
- The idea in Workshop 2 is to provide more information on the internal workings of the various specifications and standards, providing many different examples of actual implementations, allowing people to make the necessary technical decisions.
- Each specification description will also provide pointers to resources that provide more information and examples of implementations.
- The extension and profiling mechanism will be discussed for each specification.
- We won’t go into Simple Sequencing in any depth, given the workshop that Nina is giving on Thursday.
- Gather technical questions throughout the day in a ‘parking lot’, and bring in experts at the end of the day to field the various queries.
- This workshop will contain 5 1/2 hours of content, and will leave 1 hour for questions at the end.

WORKSHOP CONTENT

Introductions and Overview of the Workshop Contents (15 minutes)

- Presenter introduces self.

- We will not have each participant introduce themselves, this would be too time-consuming.
- Review content of Workshop 2

Quick review of models from workshop 1 (15 minutes)

Content Packaging (45 minutes)

Review Content Packaging data model and structure

Content Package XML binding example

Examples of implementations

- LMS / LCMS
- Authoring environment

Object model

- SCOs vs SCAs vs Asset

Differences between:

- IMS content package
- SCORM content package

Metadata Specification (45 minutes)

Review core data structures

XML Binding example

Examples of implementations

- Reference models – Eduspecs / Cancore and possibly others
- Examples of metadata implementation in authoring, LMS, LCMS, repository tools

Review of metadata specifications / standards from:

- Dublin Core
- IEEE LOM
- SCORM
- AICC

Runtime Communication (30 minutes)

Review communication model and CMI data model

XML binding example

Examples of implementations

- LMS implementation
- Authoring tool implementation

Differences between:

- AICC
- SCORM

Two and Three node scenarios

Simple Sequencing (15 minutes)

This spec will be covered in detail in the Thursday workshop, so we will not spend too much time on it here.

Quick overview of simple sequencing and how it fits into the SCORM 1.3 model

Examples of implementations and bindings

Plug for the workshop on Thursday

Differences between IMS and SCORM Simple Sequencing

SCORM packaging and Simple Sequencing

QTI (45 minutes)

Review data model

- Assessments, sections and items
- Selection and ordering
- Outcomes processing

XML binding examples

QTI Lite

Results reporting

Harmonization and compatibility issues

Examples of implementations

Enterprise (30 minutes)

Core data structures

XML binding example

Typical transaction models

Examples of implementations

Learner Information Package (15 minutes)

Review data model

XML binding example

Examples of implementations

Digital Repository Interoperability (30 minutes)

Review functional architecture

- data model and behavior model

XML binding example

Examples of implementations

Accessibility (10 minutes)

Overview of the scope and purpose of this specification

Reusable Competency Definitions (10 minutes)

Overview of the scope and purpose of this specification

Learning Design (20 minutes)

Overview of the scope and purpose of the learning design specification

Ask the experts (1 hour)

One hour of Q&A with the IMS specification experts (based on questions collected earlier in the day)

