



XYLEME LCMS OVERVIEW

Xyleme Learning Content Management System (LCMS) is a fully integrated environment for authoring, managing and publishing XML-based online courseware, instructor-led materials and performance support products. It supports the full learning content development lifecycle, providing specialized tools and features for each stakeholder:

- **DESIGN:** Project leaders and instructional designers have unlimited flexibility in course design, and can easily define, manage and track critical training projects to significantly reduce production cycles.
- **DEVELOPMENT:** Writers, media developers and subject matter experts utilize a collaborative authoring environment, advanced content management features and full SCORM 2004 support to reduce content development costs.
- **REVIEW:** Editors and reviewers enjoy real-time collaboration in an environment where approved content changes are made instantaneously across all learning delivery formats.
- **PUBLISH:** Project leaders leverage Xyleme's single-source publishing to rapidly create customized blended learning products in faster time-to-market.

Organizations using Xyleme LCMS have the ability to adapt to any course design or delivery format requirement. This eliminates content redundancy and ensures delivery of up-to-date relevant information to any customer, learner or instructor. As a result, Xyleme enables a key competitive advantage: the unique ability to easily develop and maintain event-based and on-demand learning based on the context of a learner's needs – all within a single integrated process.

“One of the most significant contributions of the new system is the movement toward non-linear product development. Xyleme LCMS enables us to independently create and review course sections, mix and match modules for easy customization and publish courses on-demand worldwide, significantly decreasing our overall product development time.”

Bob Hecht, Vice President of Content Strategies, Informa

AUTHORING

The authoring functionality of Xyleme LCMS provides structured XML authoring and true single-source development to enable effortless content reuse across any output format.

FLEXIBILITY & REUSABILITY

At the heart of the Xyleme LCMS authoring module are customizable templates and granular reusable learning objects. Xyleme's extensive library of learning-specific templates can support any instructional design methodology and allow content reuse to be defined at any level of granularity.

Because Xyleme LCMS is built on a pure 100% XML architecture, publishing content to any desired delivery channel is effortless. This platform neutral approach eliminates the manual, error-prone and cumbersome task of cutting, pasting, and reformatting or importing/exporting between different outputs.

ROLE-BASED INTERFACES

Xyleme LCMS is a role-based system designed to support a collaborative editorial lifecycle.

There are four user interfaces:

- **Studio** is used by project leaders, instructional designers, writers and editors.
- **Forms** is used by subject matter experts.
- **Reviewer** is used by reviewers.
- **Media Manager** is used by media developers.

The system and its various interfaces are designed to meet the specific requirements of each participant in the learning content development cycle.

Project Leaders

Project leaders have unparalleled flexibility in developing their training programs. Key features include:

- **Customizable template library** contains both single-source as well as output-specific blended learning templates.
- **User-defined metadata** vocabularies have no pre-set limits, allowing flexible tagging.
- **Task assignment** includes email alerts, audit trails and task status reporting.
- **Component-based editing** provides an easy and efficient way to manage numerous and dispersed content developers and subject matter experts.

Instructional Designers / Writers

Instructional designers and writers have access to a full featured authoring environment where the editor is tightly integrated with publishing, content management and workflow capabilities for optimal performance and efficiency.

The comprehensive system provides advanced XML editing features including:

- **Template library** includes specialized learning components such as objectives, competencies, lessons, topics, image maps, etc.
- **Drag-and-drop** to link, move or copy learning objects.
- **Precision search** for content by any combination of object type, free text, metadata, workflow status or owner/assignee.
- **Specialized editors** for learning specific objects (e.g. hot spot activities).
- **Dynamic text** to support localization requirements.
- **Preview mode** to review content in final output format with links directly back to source content.

Media Developers

Xyleme LCMS Media Manager is a web-based application used to search, store,

“Xyleme’s strength comes in what they’ve built on the backend for automatically producing many different learning outputs (lesson plans, student guides, eLearning, job aids, etc.) from a single-source of XML content.”

Bryan Chapman, Chief Learning Strategist, Chapman Alliance

organize and tag any rich media such as images, Flash, audio, video and simulations.

Xyleme templates allow you to include multiple renditions of a media file. For example, there can be separate renditions for high resolution print images, low resolution for computer displays, alternate text for disability (508C) compliance, and the original source file. The publishing templates select the appropriate rendition of a media object for the target output. For example, if the target output is print, the system will look for a high resolution image, defaulting to a low resolution image if the high resolution image is unavailable.

Subject Matter Experts

For subject matter experts (SME), Xyleme LCMS provides a lightweight, easy-to-use forms-based editor to contribute knowledge. When SME’s are assigned tasks, they are automatically notified via email. The assigned content is easily accessed by clicking on an embedded link in the message. A SME simply inputs the requested information, submits it, and a notification is sent back to the assignee and the content object(s) are checked-into Xyleme LCMS.

This efficient management of distributed SMEs enables users to effortlessly divide content development across a global team and create content in parallel, significantly reducing production cycles.

CONTENT MANAGEMENT & WORKFLOW

Content is maintained and stored within Xyleme LCMS in an industry standard, native XML format. This provides users ultimate flexibility for course design, content development, change management and multi-channel delivery.

Xyleme LCMS includes a high performance XML content manager designed to handle large volumes of learning objects at any level of granularity. This significantly improves the authoring and publishing experience when compared to managing XML in traditional content management systems, and dramatically reduces development and maintenance cycles.

VIRTUAL DOCUMENTS

Virtual documents within Xyleme LCMS are composed of multiple reusable learning objects. This allows the same content to be linked into multiple different learning products and/or reused anywhere within the same course. For example:

- Lessons can be reused in different courses regardless of the output format.
- Topics can be linked and displayed within a remediation loop as part of an assessment.
- Paragraphs within a topic can be linked into Hot Spot activities within a web course page.

Virtual documents are created with absolute ease using an intuitive drag-and-drop feature that allows users to link, move, copy and arrange learning objects as they see fit. Parent-child relationships are automatically maintained, allowing a single learning object to be checked-in/out no matter where it resides in the structure.

Xyleme LCMS virtual documents are highly efficient and guarantee the integrity of information across multiple learning products, finally making the promise of content reuse across any learning channel a reality.



Single-source publishing enables multiple outputs

WORKFLOW

Within Xyleme LCMS, reusable learning objects can be managed at any level of granularity allowing multiple learning objects to be independently checked-out, edited and reviewed. This enables parallel development and optimizes collaboration, improving efficiencies and ensuring the timely delivery of critical projects. Key workflow features include:

- Collaborative development: allows content editing tasks to be assigned in parallel for multiple roles.
- Email-based routing: contains embedded links to the content for editing, text review or review of specific output formats.
- Review sessions: automatically lock content until review is completed to ensure all participants are viewing the same content version.
- Translation: supports both internal and external cycles, in addition to reporting “changes only” to minimize translation time and costs.

CONTENT MANAGEMENT

Xyleme LCMS is unique in its ability to create an environment where content changes are made instantaneously across all learning delivery formats. This guarantees training materials that are always consistent and up-to-date. Key content change management features include:

- Advanced version control: maintains a complete history of all changes, providing the ability to roll back content changes to all prior versions and compare differences at any point in time for any learning object.
- “Where used”: shows all contexts in which a selected learning object has been reused. This is utilized primarily when making a change to an individual object in order to understand its impact on multiple learning products.
- Localization support: includes a number of techniques to dynamically select brand or geography specific content, including text substitution (e.g. organization vs. organisation), metadata filtering, and

dynamic publishing. Content can also be organized into unique collections to manage location specific versions.

CONTENT IMPORT

XML content can be directly imported into Xyleme LCMS and automatically mapped to any authoring template including DITA-based topics. For source content that is in a non-XML format, Xyleme provides a number of tools to allow organizations to leverage previously proprietary training content for complete reuse within Xyleme LCMS.

Xyleme LCMS includes powerful tools that convert Word, Excel, PowerPoint, FrameMaker, InDesign, and QTI files into reusable XML learning objects. Text, bulleted lists, images, and tables are automatically transformed to individual assets that can be mixed, matched and reused in any blended learning product.

Xyleme exposes all the content management functions through a web services API for access by external applications such as publishing wizards and on-demand assembly.

PUBLISHING

Xyleme LCMS publishing platform drastically simplifies online, print and mobile delivery. It enables content to be developed once, customized to end-user requirements, and deployed on-demand through the most effective delivery format for learners, be it instructor-led training, self-paced online courses or performance support applications. This provides the dual benefit of reducing time-to-market while improving the overall training experience.

“Learning organizations are challenged to implement a blended learning model because their content isn’t easily reusable. Xyleme offers the ability to store learning objects or elements in an XML repository, easily select appropriate objects for assembly, personalize to specific customer requirements and immediately publish in any blended learning format.”

Dr. Conrad Gottfredson, Head of the Performance Support Lab & Seminar, the Masie Center

AUTOMATIC MULTI-OUTPUT PUBLISHING

An extensive library of publishing templates ensures consistency in presentation, branding and look-and-feel across all output types. Users can assemble and publish custom documents on-demand (pull), or the publishing system can match user profiles with content to create customized courses and performance support products (push).

Xyleme LCMS can generate very different outputs from the same source content. For many types of objects, the same content can be presented as both interactive web content and high quality print output. For example:

- Procedures can be transformed into a click and reveal style activity for online delivery and presented as a traditional step-action lists in a printed guide.
- Matching questions can be rendered as interactive activities in a web course and as a two column list with answers in the printed instructor guide.

In addition to standard Learning Object Metadata (LOM), Xyleme LCMS also allows you to apply any amount of custom metadata to your learning objects. This metadata is used by the publishing system to dynamically select and filter content customized to the individual – on the fly. Based on their profile, the system will provide the user with precisely what they need – no more, no less.

The bottom line is that Xyleme LCMS provides training organizations the flexibility to allow business drivers, not technical limitations, to determine the best mode of learning delivery.

AVAILABLE OUTPUTS

Online Courseware

Types: SCORM 2004 and 1.2 certified courseware and assessments.

Features:

- Rich sequencing support for adaptive content delivery and prescriptive learning models.
- Integrate Flash, simulations and other rich media for highly interactive content.
- Courses can be deployed on any SCORM or Common Cartridge certified LMS.

Instructor-Led Materials

Types: Student guides, instructor guides, study guides, presentation slides and exams.

Features:

- Topic and Procedure based templates for textbook and workshop style formats.
- Style Sheets control formatting of all authoring templates with automatic layout of table of contents, glossaries, logos and indices.
- Learning specific elements including instructor notes, activities, labs and classroom setup requirements.

Performance Support

Types: Online knowledge bases, exportable help files, learning aids and reference manuals.

Features:

- On-line format provides direct access to specific course content, including audio and video.
- Media rich job aids can be perfectly formatted without any desktop publishing software.
- Custom outputs can be added by utilizing industry standard XML publishing scripts.

Mobile Learning

Types: Outputs formatted for Smartphones and eBook readers.

Features:

- Content is available in connected or disconnected mode.
- Smartphone delivery adapts to the level of rich-media support afforded by each device type.
- Support for the latest eBook standards.

ABOUT XYLEME, INC.

Xyleme, Inc. is the industry's leading provider of open and standards-based learning content management solutions that enable single-source publishing of training content. Xyleme is 100% XML-based to create massive efficiencies through modularity and reuse. With Xyleme, training organizations improve collaboration in content development, reduce time-to-market for customized training products, and minimize the cost of supporting a blended learning strategy for print, online and mobile delivery.

With Xyleme LCMS, the entire content lifecycle, from authoring to storage to publishing, is pure open XML. Therefore, content is effortlessly repurposed across print, eBook, online courses and mobile applications and automatically synchronized across these learning products. Xyleme LCMS takes full advantage of user-generated content to support enterprise content development processes and can publish training content to both formal and social learning environments. The industry's leader in standards support, Xyleme complies with key industry standards including SCORM 2004 and 1.2, Common Cartridge, QTI and ePub.

For more information about Xyleme, Inc., visit www.xyleme.com.