

Why It Matters, What's In It for You, Best Practices in Getting Started

## Digital **Think**

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## Introduction

The importance of standards to the continued growth, expansion, and evolution of e-learning cannot be overemphasized. Standards foster efficiencies and synergies that enable markets to grow and the promise of e-learning to be realized.

SCORM is probably the most important and widely emerging e-learning standard today, whose ultimate goal is ensuring ubiquitous access to the highest quality education and training, tailored to individual needs, and delivered cost-effectively anywhere in the world at anytime.

## **Executive Summary**

- SCORM, today's e-learning standard, is a collection of specifications adapted from multiple sources to provide a comprehensive suite of e-learning capabilities that enable interoperability, accessibility, and reusability of Web-based learning content. Organizations adopt SCORM to create efficiencies, lower costs, reduce risk, and increase overall learning effectiveness and return on investment. >> Page 2
- Making the move to standards is a strategic business decision. To take advantage of the many compelling business benefits standards offers, and to devise the most effective transition strategy, it is important for organizations to understand the associated costs and benefits. >> *Page 3*
- Once the decision has been made to adopt SCORM—whether that means developing and deploying SCORM content in-house or outsourcing content development or delivery—there are many criteria organizations can use to optimize the design of SCORM courseware for maximum return on their investment. >> Page 4
- SCORM will continue to evolve over time with the addition of specifications that allow for increasingly compelling functionality. Early adopters will be in the

best position to reap the many competitive advantages that this e-learning standard affords. >> Page 8

 DigitalThink's product strategy is closely aligned with the SCORM standard. Our content development organization produces SCORM-compliant custom courseware. We also offer the only SCORM-native learning delivery system available, complemented by extensive SCORM developer tools and resources that allow DigitalThink customers to build and maintain their own courseware in-house. >> Page 9

## What is SCORM?

The Sharable Content Object Reference Model (SCORM) was first developed by the U.S. Department of Defense (DOD) to address training development and delivery inefficiencies across its service branches. E-learning content was being developed on different platforms, using different standards and specifications, and delivered on different, incompatible systems. To address these costly inefficiencies, the DOD knit together the best emerging e-learning specifications with those developed in the prior decade by the Aviation Industry CBT Committee (AICC).

The result is a field-tested common reference model published by the Advanced Distributed Learning (ADL) Initiative, a collaborative effort between government, industry, and academia sponsored by the Office of the Secretary of Defense. The SCORM standard is focused on enabling the plug-and-play interoperability, accessibility, and reusability of Web-based learning content, with the ultimate goal of ensuring ubiquitous access to the highest quality education and training, tailored to individual needs, and delivered cost-effectively anywhere and anytime.

Based on accepted technology standards including XML and JavaScript, SCORM is fast-becoming the defacto e-learning technology standard widely embraced and supported today by world-leading corporations, universities, system providers, and content vendors.

| To Learn More About SCORM                      |                |
|--|----------------|
| Advanced Distributed Learning (ADL) Initiative | www.adlnet.org |
| Aviation Industry CBT Committee (AICC)         | www.aicc.org   |

## **Business Benefits of SCORM**

From a business perspective, standards are beneficial because they are essential to the growth and expansion of any technology-based industry. Whether it's 802.11 for wireless networking, HTML for the Web, or standardized track gauges for railroad transportation, standards foster efficiencies and synergies that enable markets to grow.

These benefits certainly apply to e-learning standards, allowing organizations that adopt SCORM to create efficiencies, lower costs, reduce risk, and increase overall learning effectiveness and return on investment (ROI).

#### **GREATER EFFICIENCIES & LOWER COSTS**

SCORM provides opportunities for significant improvements in business and development efficiency and cost-effectiveness.

- <u>Reuse content for faster development</u>—Developing content once, then reusing it for multiple audiences and contexts, reduces development time.
- <u>Share content between systems</u>—Moving to SCORM makes integration easier between existing and future systems, protecting your infrastructure investments and lowering your cost of ownership. SCORM learning content can be integrated with, and delivered on, past and future SCORMcompliant systems.
- <u>Reduce cost of content maintenance</u>—By enabling your organization to maintain content in-house using any tool you choose regardless of system or content vendor, SCORM lowers your overall cost of content maintenance.
- <u>Maximize technology investments</u>—SCORM content can be launched, operated, and tracked by any SCORM-compliant content delivery system, whether content was developed in-house or by a third party, enabling you to get the most mileage from your technology investments.
- <u>Avoid proprietary authoring tools</u>—The same tools that your development team is using to create Web content can be used to develop SCORM-compliant content, eliminating the need to use or develop proprietary tools.

- <u>Train developers faster</u>—As SCORM adoption continues to grow, the talent pool of content developers experienced in SCORM techniques and technologies grows too. A wide selection of SCORM training materials is available to get less experienced developers up-to-speed fast.
- <u>Leverage best practices</u>—Take advantage of the collective knowledge and expertise of the growing SCORM community that is continually evolving and enhancing SCORM functionality, tools, methodologies, and best practices with proven results.

#### **REDUCED RISK**

By design, SCORM reduces business and development risks because it enables content portability, durability, and interoperability.

- <u>Future-proof courseware investments</u>—A key advantage of SCORM-conformant courseware is that no matter who developed it, when they developed it, or for what learning platform, it can be "played" seamlessly on any existing or future SCORM-based delivery system. SCORM content is portable and durable, so you reduce the risk of not being able to play "old" content on "new" systems.
- Decrease reliance on proprietary tools and technology— Given that the future is inherently uncertain, the more your e-learning tools and technologies are based on standards, the more likely they will fit into tomorrow's e-learning environments.
- <u>Reduce switching cost risk</u>—Investing in standards today helps ensure that any costs associated with switching your e-learning initiatives from one platform to another in the future will be minimized.
- Lower obsolescence risk—Embracing standards also reduces the risk that the tools you are using, the content you are creating and deploying, and the knowledge and skills your people are acquiring will become obsolete. Standards help protect these investments, keeping reengineering, retooling, and retraining costs to a minimum.

#### IMPROVED LEARNER EXPERIENCES

SCORM content and delivery systems enable organizations to create more compelling and effective learning experiences through dynamic sequencing, rich metadata, object-oriented design, and more.

<u>Dynamically configure personalized courses</u>—Dynamically sequenced courses—those that are essentially built "on the fly" based on learner needs, roles, and knowledge

levels—enable more targeted and personalized learning paths and experiences, which translates to more effective learning. A learner, for example, can "test out" of material they already know. The possibilities that dynamic sequencing opens up may prompt your instructional designers to create more effective solutions.

- Empower learners with more control—SCORM supports the building of content as discrete learning objects. When combined with the rich metadata standards in SCORM, object-based content allows you to provide learners with greater control over their individual learning experiences, thereby decreasing time-to-competency.
- Use performance data to motivate learners— SCORM enables the building of granular courses that provide rich and detailed tracking and reporting information about learner performance. Providing learners with detailed progress and performance information keeps them informed, motivated, and engaged throughout the entire learning process, for a better overall experience and ROI.

### **Getting Started with SCORM**

You may be concerned that authoring to a standard may restrict your design flexibility. While this concern is understandable, you may be surprised to learn that SCORM ultimately yields *more* flexibility.

Thanks to SCORM's use of discrete learning objects, the separation of content and structure, dynamic sequencing, and other features, instructional designers begin to appreciate and contemplate the wide range of possibilities that SCORM development affords. Most designers find that SCORM suggests a broad range of new instructional strategies, while still supporting the strategies they currently use.

## Making the Most of Object-Based Content

If your organization develops or plans to develop SCORM courseware in-house—or if you simply want to be more informed as you go about purchasing SCORM content from third parties—there are some important criteria to help ensure the maximum return on your investment. Attending to these criteria will help you optimize the design of SCORM courseware. WHEN TO BUILD (OR BUY) GRANULAR SCORM CONTENT Use SCORM when...

- You need more accurate and detailed reporting on learner performance and learning effectiveness to justify training programs against business metrics.
- You need to reduce courseware maintenance, upgrade, and rebuilding costs.
- You anticipate courseware will have a long shelf life and/or require frequent changes and updates.
- Learners need a way to quickly pinpoint discrete pieces of content within a larger course for immediate reference.
- Content has the potential to be reused across multiple courses to increase efficiencies.
- Different target audiences need access to different subsets of the content.
- You want to give learners a way to test out of portions of courses they have already mastered so they don't waste time learning what they already know.

#### SCO SIZE CONSIDERATIONS

While the SCORM specification does not mandate a particular size or scope for the Sharable Content Objects (SCOs)—the SCORM definition of a learning object—that comprise a SCORM course, SCORM is designed to support granular content. Theoretically, SCO sizes could range from several words to an entire course, a situation that gives designers significant latitude to tailor courses to your unique organizational and learner goals for maximum training ROI.

And while it is possible to build SCORM-compliant courseware that bypasses SCORM content handling rules by building courses as a single SCO, your organization will miss out on the many aforementioned business advantages—especially flexibility and personalization—that an investment in SCORM provides. The same is true of using an adapter or converter to wrap existing content in a SCORMcompliant shell.

Using an adapter strategy to convert non-SCORM formats especially those utilizing proprietary players or plug-ins—to SCORM, creates an additional layer of complexity that brings with it more room for errors that can be difficult to diagnose. E-learning content designed to play directly in a Web browser can usually be converted to "native" SCORM with good results and with a reasonably low amount of effort.

| Best Practices for Determining<br>Appropriate SCO Size   | Key Considerations   |  |
|--|--|--|
| Determine how the targeted content<br>delivery system handles a SCORM<br>implementation  | <ul> <li>SCORM relies on the Learning Delivery System (LDS) to handle SCO-to-SCO sequencing and navigation.</li> <li>If the delivery system does not provide content sequencing support, designers may need to make SCOs larger in size so they can control the navigation between "chunks."</li> </ul>  |  |
| ldentify at what level of granularity<br>learner performance needs to<br>be viewed   | <ul> <li>In general, the smallest tracking unit for viewing learner performance is the SCO.</li> <li>As such, smaller SCOs can provide more granular information about learner performance than larger SCOs.</li> <li>Note that some Learning Management Systems (LMSs) can only report course level performance and completion information, regardless of SCO size.</li> <li>Check the reporting capabilities of your LMS to determine the level of reporting granularity it supports.</li> </ul>   |  |
| Determine if course content will need<br>to be personalized for learners, reused<br>for different target audiences, or used<br>for performance support | <ul> <li>If it is likely that some learners will be retaking parts of a course, consider a pre-assessment to allow them to test out of portions in which they have already achieved proficiency.</li> <li>Similarly, if certain content "chunks" are only appropriate for a subset of your target audience, consider creating personalized course paths based on job roles or other criteria.</li> <li>In such cases, SCO sizes should be small enough to permit the LMS/LDS to manage the personalized course paths. Usually that size is the performance objective level (one SCO per performance objective).</li> <li>SCOs that teach a performance objective and can stand on their own make excellent performance support objects.</li> </ul>                   |  |
| Consider differences in content volatili-<br>ty, durability, and development<br>timelines in the course  | <ul> <li>Overall course maintenance costs can be dramatically reduced by separating content that is more volatile from that which is less volatile.</li> <li>Maintenance can be performed regularly on the more volatile objects, or the objects can be replaced without impacting the whole course.</li> <li>Less volatile content enjoys more durability as it is reused from context to context.</li> <li>Where volatility and durability differences exist, the granularity of SCOs might be set by content type.</li> <li>Similarly, if content requires a staggered rollout, or if you anticipate adding more content modules over time, the size of SCOs should be set to ensure that the learner experience remains consistent as changes unfold.</li> </ul> |  |

Sample SCO sizes for various content types might include:

| Content Type                       | SCO Size                                  | Example   |
|------------------------------------|---|---|
| Application Training               | Application task                          | Schedule a meeting in Microsoft Outlook   |
| Process Training                   | Process phase                             | Count out the cash in a cash register   |
| Conceptual Training                | Discrete concept                          | Separate lighter objects from heavier objects with centrifugal force                  |
| Complex Product Training           | Feature                                   | The Antilock Break System   |
| Basic (Retail)<br>Product Training | Knowledge area                            | Example 1: Features of a digital camera<br>Example 2: Distinguishing high-end cameras |
| Skills Training                    | Discrete skill subset or progression step | Handling customer objections  |

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#### **DEVELOPING FOR REUSE**

Most organizations instantly appreciate the SCORM vision of technological interoperability. Courseware that "plays" on any content delivery system yields numerous business benefits including lower costs and risks through the future-proofing of courseware investments. The SCORM vision of content interoperability— embodied in the idea of content reuse—is equally valuable.

#### **Content Reuse Defined**

Reuse means that a content piece developed as a Sharable Content Object for one course can be used in a different context to meet the needs of another audience. While being a good theory, in practice, developing content that plays well in another context is a difficult goal to attain, requires discipline from an organization's content developers, and in some cases, is not the right approach for the learning situation.

#### When developing for reuse makes sense

Designing content for reuse should be approached pragmatically. It makes sense when...

- You are building multiple courses that share some identical, or overlapping, content.
- Multiple audiences will be accessing the same training material for different purposes.
- You are maintaining multiple iterations of the same course.
- You are developing courses that contain content that you know has been built before.
- You want to re-use portions of the course for performance support or just-in-time learning

In situations such as these, reuse is a compelling reason to consider SCORM. At the same time, it is important to weigh the associated challenges and opportunities.

Take, for example, a company that needs to develop a course on a new customer service model that is being rolled out to three distinct user audiences: customer-facing employees, non-customer facing employees, and managers. Eighty percent of the content is the same across all three audiences, yet each audience has specific considerations and use contexts that also need to be addressed. To meet the learning needs of these three audiences, the company has several options (see Figure 1):

- Build 100% of the content "from scratch" for each audience
- Re-purpose 80% of the content for each audience
- Reuse 80% of the content for each audience

#### Re-purposing vs. reusing

Continuing with the same example, re-purposing would involve identifying those pieces of courseware that are similar for all three prospective courses, then editing and optimizing the contexts and specific instructional content within those pieces for each of the three target audiences.

While it is frequently confused with reuse, re-purposing content is not pain-free from a development perspective, because development time and costs are incurred any time content has to be "touched." The end result of repurposing content is often a set of course iterations whereby a change in one course mandates a change in all—negating many of the expected efficiencies offered by reuse and the SCORM standard.



Figure 1

The cost to maintain a single course with three separate iterations is roughly the same as maintaining three completely separate courses developed from scratch.

#### How SCORM leverages reuse

Reusable learning objects are developed once, and then assembled into different configurations to meet the needs of different target audiences or different objectives. With reuse, 80 percent of the content in the above example would be scripted as SCOs applicable to any of the three audiences. If any SCO that was a component of the three different configurations required changes, maintenance costs would be incurred only for modifying that single reusable object.

For effective reuse, SCOs must be developed in such a way that they can stand alone in any situation that they may be used, and sequence well with other SCOs to create a compelling learning experience that makes sense.

| Best Practices for Designing<br>Reusable SCORM Content    | Key Considerations  |
|---|---|
| Identify how content will be used and<br>in what contexts | <ul> <li>As part of the design process, brainstorm potential audiences and use contexts for<br/>the content.</li> </ul>   |
| Determine the right size for reuse                        | <ul> <li>Reusable objects generally teach to a defined performance objective.</li> <li>The right scope for your content may be determined by terminal objectives or enabling objectives.</li> </ul>   |
| Develop content that makes sense for<br>all audiences     | <ul> <li>For maximum reusability, avoid audience-specific references and contexts in your content.</li> <li>If this is impractical, target your primary audience for context but script content so it can be easily adapted and generalized to address other audiences and contexts.</li> </ul> |
| Develop independent SCOs                                  | <ul> <li>Keep in mind that a SCO might be used in multiple contexts and sequences—or all by itself.</li> <li>SCORM rules prohibit the linking of one SCO to another.</li> <li>By the same token, it is best to avoid referencing content that resides in other SCOs.</li> </ul>                 |

#### **Ensuring adequate SCOs**

When designing SCORM courses composed of reusable learning objects, creating an effective and unified learning experience that is meaningful for all intended audiences and contexts is another critical success factor.

| Best Practices for Creating Sufficient<br>Context in SCORM Courses | Key Considerations   |
|--|--|
| Create learning objects with stand-<br>alone context               | • Examples and non-examples, illustrative case studies, expert panel discussions, and "war stories" are all good ways to add stand-alone context to SCOs.  |
| Create scenario vignettes  | <ul> <li>For courses that are scenario-based, break the scenario into SCO vignettes that can each stand on its own, but which also make sense when sequenced together.</li> <li>Make sure to include the setting for the scenario in each vignette.</li> </ul>                                 |
| Utilize platform functions that provide context                    | <ul> <li>Many LMSs provide course navigation as a simple, clickable lists of SCOs in the course.</li> <li>By using a graphical main menu for course navigation, you can create a much richer context, add meaning to the content, and provide for the visual recall of information.</li> </ul> |

#### CREATING DYNAMIC COURSEWARE

The same design attributes of SCORM courseware that enable the powerful benefits of content reuse yield another key capability in the area of content delivery: dynamic course builds. SCORM 1.3 courses can be assembled dynamically or changed "on the fly" based on user choices or other criteria.

For example, a learner can take a pre-assessment to test out of sections they have already mastered. Or a learner might progress through a course in a different order based on their job role. Based on the pre-assessment or job role, the content delivery system can then sequence and assemble a customized course that meets the specific performance needs of the individual learner.

Taking advantage of SCORM's robust sequencing rules, as well as the object-based nature of its content architecture, allows your organization to create rich learning experiences for virtually any training situation. Examples of how content might be developed to meet various dynamic course scenarios are highlighted below.

| Why Course is Dynamic   | Best SCO Size  | Context Rules   |
|---|--|---|
| Pre-assessment to test out of content                           | Learning objective   | <ul><li>Same as for reuse.</li><li>The course may have context specific to its audience.</li></ul>  |
| Role-based paths<br>through course                              | Learning objective   | <ul> <li>Same as for reuse.</li> <li>Audience-specific context may be incorporated in audience-specific SCOs.</li> </ul>  |
| Performance support with search capability                      | Learning objective   | Same as for reuse.  |
| Remediation or advance-<br>ment based on learner<br>performance | Learning objective   | Same as for reuse.  |
| Deep immersion into<br>simulated scenario<br>with branching     | Decision points where courses branch,<br>and "stretchers" that bridge<br>decision points | <ul> <li>Completely map out simulation paths and build each piece with<br/>the context of the simulation, including the progression of<br/>the simulation.</li> </ul> |
|   |  | <ul> <li>Some pieces may be reused in different places in the simulation<br/>and should be scripted so that they can occur in<br/>any sequence.</li> </ul>            |

## The Future of SCORM

SCORM continues to evolve and develop functionality to meet the needs of e-learning developers, learners, and administrators. For example, the newly released SCORM version 1.3 includes sequencing functionality that greatly enhances support for varied course architectures and instructional designs.

Future areas of SCORM functionality being explored include:

- Enhanced capabilities for delivering assessments, including support for randomization, question pools, item-level storing of response data, and robust assessment reusability
- · Better system-to-system integration

- Support for simulations, dynamic presentation control, and searchable SCO repositories
- A common format for describing skills and competencies that can be shared across learning management and delivery systems
- Support for the authoring of learning experiences that include content (IMS or SCORM packages) plus collaboration with peers, tutors, and administrators
- Standard methods for accessing remote learning content repositories across a network

By making the move to SCORM now, your organization will be aligned to take advantage of these and many other measurable benefits as ADL integrates significant functionality into the overall standards road map. It is

also important to note that, in its work, ADL is highly sensitive to backward compatibility, with great effort being expended to ensure that future and existing SCORM functionality harmonize well as an integrated whole that can be validated with real-world interoperability results.

To keep abreast of the latest SCORM developments, visit **www.adlnet.org**.

## **DigitalThink & SCORM**

SCORM is central to DigitalThink's product strategy. Our own experience in making the move to SCORM has been that after start-up costs, SCORM is not only much less expensive from a development and maintenance perspective, but it provides much more flexibility in creating and delivering effective learning solutions aligned with the needs of our customers.

Because DigitalThink supports hundreds of SCORM content developers internally, we have extensive practical experience developing, delivering, and supporting SCORM content and learning delivery systems.

We leverage that experience to provide our customers with products and services that take full advantage of the benefits of the SCORM standard:

- · SCORM-Compliant Custom Courseware
- · SCORM-Native Learning Delivery System
- · SCORM Developer Support Program

#### SCORM-COMPLIANT CUSTOM COURSEWARE

If you are exploring outsourcing some or all of your content development, DigitalThink is a proven partner. With thousands of hours of courseware developed, DigitalThink is the most experienced custom e-learning company in the industry.

Our seasoned e-learning strategists have decades of combined experience creating highly effective e-learning, and they understand that learning approaches that work well in the classroom must be adapted to work well online.

A reflection of our SCORM-focused product strategy, all DigitalThink custom courseware is SCORM compliant, and optimized to take full advantage of the benefits of the standard. To ensure the best results for our customers, we offer a full range of custom courseware capabilities and services—from planning, design, and development to delivery, maintenance, and support.

#### SCORM-NATIVE LEARNING DELIVERY SYSTEM

DigitalThink's L5 Learning Delivery System is the industry's only SCORM-native learning delivery system. "SCORM-native" means that L5 was designed from the ground up with SCORM as its native content format.

L5 separates the learning interface layer—called the L5 Learning Environment—from learning content. Navigational tools, learning tools and services, and "look and feel" interface branding are all part of the L5 Learning Environment, and all are managed by the L5 Learning Delivery System rather than being hard-coded into the learning content itself.

This approach takes maximum advantage of the SCORM standard, yielding benefits such as lower content development and maintenance costs, made possible by more effective content reuse. L5 offers configurable learning environments, online/offline delivery, developer tools, e-learning administration, and enterprise integration capabilities.

To date, DigitalThink has invested over \$50 million in L5 to make it not only the most reliable delivery system available, but one that ensures a superior experience to every single learner, every single time. L5 has already delivered over 8,000,000 course hours—all while maintaining the industry's highest availability rates with uptime exceeding 99.7%.

#### SCORM DEVELOPER SUPPORT PROGRAM

The DigitalThink L5 Developer Program provides tools and resources to help your organization's internal development team create and maintain courses in-house. These tools and resources enable your team to transition to SCORM as quickly as possible, by giving your developers a standard level of SCORM proficiency.

The DigitalThink program includes:

- SCORM Content Development Tools and Reference Libraries
- · SCORM Developer Training and Resources
- SCORM Developer Support

#### SCORM Content Development Tools and Reference Libraries

• <u>L5 E-Briefings Producer</u>

This tool is designed to enable subject matter experts to rapidly develop simple content without any programming knowledge. Through this tool, any PowerPoint

author may add audio, animation, and learning checks, generate a SCORM package, and deploy that package to the delivery system.

- L5 SCORM Producer for Dreamweaver DigitalThink requires a flexible tool set that enables content developers to explore the boundaries of technology in pursuit of the best learning experience. L5 SCORM Producer for Dreamweaver is designed to enable advanced, standards-based content development. The application extends the functionality of Macromedia Dreamweaver—the de facto standard Web development tool—making it easy to create, preview, assemble, and package SCORM content.
- <u>L5 Deploy</u>

Focused on self-publishing capabilities, this tool allows developers to deploy content from the desktop to the L5 development servers in order to test content-platform interactions.

 <u>Reference Implementation Samples</u> This library of sample code is designed to support functionality that is not yet addressed by the current version of the SCORM standard. Your development team may choose to modify and/or not introduce these examples into the development process. DigitalThink supports only the original, unmodified reference implementation examples.

**SCORM Developer Training and Resources** DigitalThink provides Web-based courses to teach your content developers the ins and outs of SCORM development to leverage the L5 Learning Delivery System. Training is intended to reduce your organization's ramp time to productivity. Certification exams are provided to ensure that appropriate pre-requisite skills are present; exams are complemented by links to additional training and documentation. Available via the Internet, the L5 Developer Portal provides single-point-access to a comprehensive set of resources to enhance your developers' knowledge of the industry standards.

#### SCORM Developer Advocacy

Having developed hundreds of hours of SCORM content, DigitalThink often discovers areas for improvement in the SCORM standard. In such instances, we follow a defined process designed not only to meet our internal team's need for learning functionality, but one aimed at moving the developing standard in a direction that provides all SCORM developers with the tools they need to build effective e-learning. Our process includes...

- Evaluating the need that is not addressed and documenting use cases.
- Reviewing e-learning specifications currently under development to determine if a solution is already in process.
- Creating an extension to the existing standard using methods prescribed by the standard, when no solution is determined to already be underway.
- Submitting our use cases and reference implementations to the appropriate standards working groups for consideration in the development of future specifications.

#### **Contact DigitalThink**

For more information on DigitalThink custom courseware development, SCORM-native learning delivery system, and consulting service capabilities, contact DigitalThink toll-free at **888-686-8817**, or visit **www.digitalthink.com.** 

#### **About DigitalThink**

DigitalThink, Inc. (NASDAQ: DTHK) is the leader in custom e-learning for Fortune 1000 companies. DigitalThink provides the right combination of courseware development, do-it-yourself capabilities, learning delivery, and industry-specific expertise. DigitalThink's customers include BearingPoint (formerly KPMG Consulting), Charles Schwab & Co., Circuit City, EDS, Kinko's, Mazda, and Red Hat.

Headquartered in San Francisco, California, DigitalThink is the most experienced custom e-learning company in the industry, with thousands of course hours developed and millions of course hours delivered.

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