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# DITA Is Open for Business



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DITA specialization for a business or  
industry segment will be announced.*

Dorothy J. Hoskins

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## Executive Overview

DITA,<sup>1</sup> an XML<sup>2</sup> standard, is the new HTML. The adoption rate for DITA is accelerating quickly with new specializations being developed by working groups of the OASIS DITA committee, new authoring applications, and individual developers coming up with their own ways to adapt DITA to their business needs.

By the time you finish reading this article, some new DITA specialization for a business or industry segment will probably be announced. As with web development after HTML reached a critical adoption rate, new DITA development is popping up almost monthly. Adoption by major players is a sign of the ramp-up – a DITA capability has just been patented by IBM, while DITA is integrated by Adobe Systems in their application suites. DITA is also integrated with Microsoft SharePoint, EMC Documentum, and IBM Enterprise Content Management.

While users waited for DITA-supporting applications, industry experts focused on content models that supported the types of information they specifically needed to create and manage. Consequently, there are new options for picking a DITA-based content model and using it.

Underlying all of this activity are the core benefits of DITA: topic reuse, collection mechanisms separated from publishing mechanisms, and fallback processing that makes universal application coding possible across multiple DITA specializations.

For business, in fact, adopting XML will often mean adopting DITA in some form. This relieves businesses of much of the burden of custom XML development, but more importantly, it removes the necessity for related custom-publishing processes and content-reuse strategies. DITA is looking like a wise strategic investment for large corporations and government bodies. (It will, in fact, assist in private-public information interchange in ways similar to web page code.)

### The HTML Analogy

When HTML first came out, many people were not sure that the new content model would be widely adopted and would stand the test of time. As we all know, it did not always develop gracefully with resulting confusion about HTML tagging, which was supported to varying degrees by different browsers. Eventually, there was enough commonality across the competing applications for the Internet to take off. HTML continues to evolve, but it is arguably the most widely used standard in the world.<sup>3</sup>

Similar to HTML, the advantages that DITA brings to XML content development are offset, to a certain extent, by the questions about whether it can match the needs of each individual company. But like HTML, the advantages of DITA's model for developing and publishing content will overcome these issues.

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<sup>1</sup> Darwin Information Typing Architecture, developed by IBM in the early 2000s and provided to the world as open-source code through OASIS (an international open standards body).

<sup>2</sup> Extensible Markup Language, a neutral, non-proprietary content format. Like HTML for web pages, XML is an international standard supported by the W3C. Many applications can create and use XML content either natively or transformed into other formats.

<sup>3</sup> [http://en.wikipedia.org/wiki/HTML\\_5](http://en.wikipedia.org/wiki/HTML_5)

## DITA Is Open for Business

So, is DITA starting to “tip” – become a default format for businesses to base their applications and services upon – like HTML was a decade ago? We explore some of the compelling reasons to think this is happening with DITA adoption and supporting applications.

## A Bit O' DITA

The key differences between DITA and some previous XML standards are:

- creation of standard types of topical content (concepts, tasks, references, glossaries) which have semantic meaning
- use of maps to organize topics according to the type of publication desired
- reuse of topic content in multiple maps
- inclusion of small topics within main or major topics by use of “conrefs”
- automated publishing to multiple formats and/or multiple languages from the same map (sometimes called “cross-media publishing”)
- building larger publications of topics within topics to create chapters and sections
- management of content publishing for specific purposes by means of IDs and other standardized parameters for product information, platform, audience, security settings, etc.
- specialization of the standard topic types into new ones that can be assembled in maps and published in the same manner as standard DITA topic types

### An Example Scenario

A scenario for creating both a new user guide and a configuration quick reference guide for a software product will serve as an example. (The description is somewhat generalized.)

Initially, writers use an XML editor with built-in DITA topic types to create:

- 1) **concepts** to explain the important background theories,
- 2) a series of **tasks** to perform to use each feature of the software,
- 3) **reference** tables of common settings for each different OS, and
- 4) a **glossary** of terms.

For the configuration quick reference guide, writers will want to use:

- A **concept** that introduces configuration in the context of the product’s use.
- A brief **glossary** of key configuration terms.
- A set of illustrated steps in short **tasks** to be performed to set up the configuration for the new feature.
- A **reference** table comparing the typical configuration settings for each OS.

Rather than write the quick reference guide separately from the user guide, the writers analyze how to reuse parts of the user guide to create the quick reference guide. Using a standard DITA file type called a “map,” they create a set of links to the topics that they want to use just for the quick reference guide. Then they publish the map, generating a set of web pages with navigation, and create a PDF for printing.

Meanwhile, the complete user guide is assembled in a separate map and published to PDF. The tasks are assembled in another map and published as a set of Help files that can be integrated into the software itself.

Sometime after the quick reference guide has been published, the writers are asked to add another important step to a task and to give a warning about the impact of overwriting the configuration file. They create the new content, but instead of making the warning part of the step in the task, they make it into a small topic by itself. To use the warning in the step, they put in a pointer to the new warning file called a “conref” (content reference). Then they republish the HTML and PDF.

The task that has the new step is also updated in the complete user guide and in the software’s Help system. To get the new step and warning into those publications, the writers just republish the maps. They don’t have to copy and paste anything to anywhere to achieve this kind of reuse.

The next year, a new product is developed that uses 80% of the previous product. New topics are written for the concepts, tasks, and references that apply to the new product. A new user guide map is created that includes all of the new topics interspersed into the locations where they belong among the previous topics, and links to topics that don’t exist in the new product are excluded. Similarly, the maps for the new product quick ref guide and Help are assembled. New publications are generated and the new product documentation is ready to go live.

Later, a new set of topics for power users is added to the configuration quick reference guide. The new topics have an audience attribute of “expert,” and some of the topics have a platform attribute of “WinXP,” while some are “Linux.” New publications are created for Windows and Linux power users by instructing the publication processor to first make a publication for audience=“expert” and platform=“WinXP,” then another for audience=“expert” and platform=“Linux.” Whichever platform is specified, all of the “expert” content for that platform, plus any “expert” content that does not have a specified platform, will be produced in the publication.

For the call center, a new type of “troubleshooting” task is created by specialization. Instead of a standard step with an illustration and a result, the troubleshooting task has decision-tree elements and question-and-answer elements to guide the call center personnel.

Finally, after the product has achieved some market success in the Americas, a Spanish and Portuguese version of the content is needed. The DITA XML files (not the published files) are sent out for translation, which is a savings of 30-50% in translation costs alone<sup>4</sup>, as well as being faster than translating HTML or PDF files. When the translated DITA XML files are approved, the existing DITA maps can be used to generate HTML, PDF, and Help documentation in Spanish and Portuguese.

Note: If the software company is acquired by, or starts to partner with, another company that also uses DITA, integrating their products’ documentation content will be greatly simplified and sped up by the use of these common DITA topic types.

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<sup>4</sup> See [Leveraging the Value of Translated XML Content](http://novatek.com/publication/Leveraging_Value_of_Translated_XML_Content) (http://novatek.com/publication/Leveraging\_Value\_of\_Translated\_XML\_WP.pdf).

## Work in Progress: Standards, Suites, and Systems

The rapid expansion of DITA is going on at multiple levels: **standards** (official guidelines for using DITA specializations), **suites** (sets of software applications designed to work together by a single vendor), and **systems** (sets of application suites built around standards that incorporate interchange technologies).

### DITA Standards Subcommittee Work Related to Industry Segments

On the OASIS DITA site,<sup>5</sup> there are eight subcommittees working on specific industry-related specializations. While there are other specializations that have been created inside organizations and enterprises for their own benefit, OASIS standards are intended to provide stable technical descriptions for developing bodies of information. The OASIS standards are open-source, freely distributed documents.

*Author's Note: Emphasis below in italics is added to highlight key phrases.*

#### DITA Pharmaceutical Content Subcommittee

Some stated goals:

The DITA Pharmaceutical Content Subcommittee works to define DITA topics, maps, associated metadata properties and terminology to *streamline design and creation of the complete body of pharmaceutical documentation required to present a product for scientific and regulatory purposes throughout its lifecycle...defined to optimize reuse and re-purposed content.*<sup>6</sup>

Pharmaceutical documentation is highly regulated and must have an “auditable” trail of development – from draft to approved content to delivery to customers. In pharmaceutical companies, there is significant investment in content management throughout the documentation lifecycle. There is a high degree of redundancy, as a result of the required statements written to meet regulatory requirements, hence the interest in reuse.

Companies in this industry sector need reliable mechanisms for publishing content that meets regulations. By adopting DITA, they will also make it possible to partner with other companies and share content more easily with subsidiaries.

#### DITA Translation Subcommittee

Some stated goals:

1. ...work together with those interested [in] providing for the needs of the information-development community *from authoring through localization to the production of final deliverables in multiple languages.*
2. Establish guidelines that promote best practices for authoring, workflow, and tools that *allow information to move seamlessly from original authors and editors through translators and production specialists handling the intricacies of multiple languages and cultures.*<sup>7</sup>

<sup>5</sup> [http://www.oasis-open.org/committees/tc\\_home.php?wg\\_abbrev=dita#subcommittees](http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=dita#subcommittees)

<sup>6</sup> [http://www.oasis-open.org/committees/tc\\_home.php?wg\\_abbrev=dita-pharma](http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=dita-pharma)

<sup>7</sup> [http://www.oasis-open.org/committees/tc\\_home.php?wg\\_abbrev=dita-translation](http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=dita-translation)

Prior to DITA, there were other standards for XML content that had already been integrated into translators' work cycles and tools. However, the greater reliability of DITA-based content, due to its predictable fallback and defined content types, makes it easier to translate with consistent automated processes. This facilitates throughput in the translation business while reducing error, rework, and ultimately, costs. In turn, lower costs and faster turnaround enhance profitability and speed to market for the businesses receiving translations of their DITA content.

This subcommittee will provide value to all DITA specializations when there are DITA elements and processes for improving translation of DITA XML files.

### DITA Learning and Training Content Specialization Subcommittee

Some stated goals:

1. To develop a general top-level design for structured, intent-based authoring of learning content ... *build on past work on topic-based content, reusable learning objects, and the learning content types needed to support them.*
2. Establish guidelines that promote best practices for applying standard DITA approaches to learning content...
3. *Develop support for processing DITA for general delivery as learning and training, including print and presentation delivery to support instructor-led training (ILT), web delivery for distance learning, and computer-based training delivery in general.*
4. *Develop targeted support for processing DITA learning content for delivery with standards-based learning, specifically targeting SCORM and QTI. Specifically, extend DITA processing to support basic SCORM sequencing, interactions, and required SCORM LMS runtime behaviors.*
5. *Build on existing DITA infrastructure (editors, CMS, transforms) as much as possible so learning content developers do not have to start from scratch.*<sup>8</sup>

The **SCORM**<sup>9</sup> standard sets requirements for content development and how learning content is used effectively in an e-learning system. **QTI**<sup>10</sup> provides a set of testing models to assess learning. For both SCORM and QTI, a DITA model provides a way to make standalone topics of learning and assessment that can be used to structure courses of study and gather results of instructions. The goal stated of delivering the instruction and assessment materials in various media is generally met with an XML system. DITA, in particular, provides a way for writers,

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<sup>8</sup> [http://www.oasis-open.org/committees/tc\\_home.php?wg\\_abbrev=dita-learning-spec](http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=dita-learning-spec)

<sup>9</sup> “**Sharable Content Object Reference Model (SCORM)** is a collection of standards and specifications for web-based e-learning. It defines communications between client side content and a host system called the run-time environment (commonly a function of a learning management system).”  
[http://en.wikipedia.org/wiki/Sharable\\_Content\\_Object\\_Reference\\_Model](http://en.wikipedia.org/wiki/Sharable_Content_Object_Reference_Model)

<sup>10</sup> “The **IMS Question and Test Interoperability specification (QTI)** defines a standard format for the representation of assessment content and results, supporting the exchange of this material between authoring and delivery systems, repositories and other learning management systems. It allows assessment materials to be authored and delivered on multiple systems interchangeably.”  
<http://en.wikipedia.org/wiki/QTI>

trainers, and software developers to have a more controllable, interoperable framework for creating learning materials.

### DITA Machine Industry Specialization Subcommittee

Stated goals:

1. *Develop a design for structured, intent-based authoring of content tailored to the needs in the machine industry:*
  - a) domains for specific areas of content (e.g. hazard statements...
  - b) if necessary specific topics (e.g. special task types for preventive, corrective, predictive and condition based maintenance)...<sup>11</sup>

The machine industry has special needs that are not met by the original DITA standard, which was oriented toward software documentation and Help systems. Machines, having physical properties that can be dangerous to operators and others and that require periodic handling for cleaning and adjustment, need a set of content types (safety and maintenance) that are not required in software development. The DITA standard being developed will take into account the requirements of legal and regulatory bodies, so the DITA content can be used in the global marketplace where machines and equipment are sold.

### DITA Semiconductor Information Design Subcommittee

Some stated goals:

- *Reduce in-house development costs.*
- *Reduce the work associated with integrating third party IP...*<sup>12</sup>

Notice that in this case, there is an interoperability goal to make it easier to integrate third-party intellectual property. In XML Cover pages,<sup>13</sup> this is spelled out more thoroughly:

- This committee will define how information stored in standards-based formats will interact with DITA systems. Data stored in other XML formats may be used in a number of ways...

So, this subcommittee's work is aimed at larger systems-type goals that will involve connecting to existing tools and improving the ability to pass information from one application or process to another.

The IBM patent (see page 11) might be related to this standards subcommittee's work.

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<sup>11</sup> [http://www.oasis-open.org/committees/tc\\_home.php?wg\\_abbrev=dita-machine-industry](http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=dita-machine-industry)

<sup>12</sup> [http://www.oasis-open.org/committees/tc\\_home.php?wg\\_abbrev=dita-sidsc](http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=dita-sidsc)

<sup>13</sup> <http://xml.coverpages.org/dita-sidsc.html>

## DITA for Enterprise Business Documents Subcommittee

Some stated goals:

*...Long term, to develop and recommend guidance for organizations that intend to adopt DITA for enterprise business documents.*<sup>14</sup>

Like the semiconductor subcommittee, this subcommittee is looking at larger systems to assist with “narrative business documents,” that is, documents used in business that don’t fit neatly into a database-type format but that contain valuable business information (i.e., proposals, statements of work, etc.).

In a white paper, Ann Rockley writes:

Narrative business documents are an example of one type of content that has proved more difficult to structure. Early attempts to apply XML to these documents used a variety of document definitions and approaches to XML editing. From a business perspective, lessons were learned that pointed out the need to provide more natural word processing and collaborative experiences. On the technology side, information strategists needed a DTD or schema that represented a standard, was extensible, and adhered to principles of object orientation that govern most enterprises.

In the past year, a growing number of organizations have come to believe that DITA not only provides the best basis from which to start addressing their technical requirements for narrative business documents, but that characteristics of DITA simplify the usability issues as well.<sup>15</sup>

This is a rather new vision of DITA, as supplying a basis for document creation, combining, processing, and publication across many different business functional areas and processes. Ultimately, it could help businesses break free from proprietary office application suites’ lock-in (whereby the suite chosen makes it difficult to interchange content with applications in a different suite).

## DITA Help Subcommittee

Some stated goals:

1. *...develop a top-level design for authoring of Help systems and user assistance content for implementation using DITA;*
2. *...establish recommendations for the integration of DITA-authored Help systems and software applications using context-sensitivity...*<sup>16</sup>

Back when IBM was developing DITA, one of their major reasons for development was to create topics that could be used in online technical documentation and Help systems for IBM products. This subcommittee’s work takes that goal further, looking at ways to create and use DITA Help content within software applications in a more systematic way.

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<sup>14</sup> [http://www.oasis-open.org/committees/tc\\_home.php?wg\\_abbrev=dita-sidsc](http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=dita-sidsc)

<sup>15</sup> <http://xml.coverpages.org/DITA-EnterpriseBusinessDocumentsSC-Background.pdf>

<sup>16</sup> [http://www.oasis-open.org/committees/tc\\_home.php?wg\\_abbrev=dita-help](http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=dita-help)

## DITA for Technical Standards Subcommittee

Some stated goals:

The OASIS DITA for Technical Standards Subcommittee works to define and promote the use of DITA for the creation, maintenance, and support of technical standards specifications. The Subcommittee defines, in effect, “a standard for technical standards.”<sup>17</sup>

In a kind of “eat your own dog food” approach, DITA for technical standards will encourage standards developers themselves to use a standard for development. There is more detail online (<http://dita.xml.org/wiki/dita-for-technical-standards-dts>), but basically, this is looking at DITA as a good format for developing technical standards themselves, documenting the work of the technical committees, and making it possible to reuse content across standards where it is useful.

All in all, the work going on in the subcommittees provides clues for where to look for new applications from developers to address the needs of these communities, with DITA content as the underlying medium of exchange and DITA processes as the underpinnings of robust systems development.

### Coming Soon to a System Near You...

New software and new uses for DITA specializations are coming to the content development marketplace. Typically, more than one company is involved in creating these new applications for DITA.

### IBM, Quark, and EMC

IBM has recently obtained a patent that is of interest.<sup>18</sup> The patent abstract states, “*The DITA specialization is generated from XML schemas which define the XML documents. During the process of generating the DITA specialization, an XSL transform is also generated. The XSL transform is applied to the XML file to produce a DITA file that follows the rules of the DITA specialization.*” This means that if a company has XML content that is based on their own schema, it can be converted into a form of DITA that will retain important aspects of their custom content but be able to be processed and integrated with other systems that handle DITA content.

This seems related to the work of the DITA Semiconductor Information Design Subcommittee, which details these points:

This committee will define how *information stored in standards-based formats will interact with DITA systems*. Data stored in other XML formats may be used in a number of ways, including (but not limited to):

- Data is referenced as “foreign” content.
- *Data is transformed from native format to DITA.*
- *Determine which content types/patterns justify the creation of a DITA specialization.*
- *Create specializations.*

<sup>17</sup> [http://www.oasis-open.org/committees/tc\\_home.php?wg\\_abbrev=dita-techstds](http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=dita-techstds)

<sup>18</sup> <http://www.faqs.org/patents/app/20090125804> *Generating schema-specific DITA specializations during generic schema transformations* USPTO Application #: 20090125804

- Establish guidelines and XSLT for transforming specialized data.
- Create metadata guidelines.
- *Provide high-level perspective of how DITA systems should interface with RTL, Verilog, design flow tools, and other relevant tools, processes, and standard data formats.*<sup>19</sup>

Also, this announcement came out in 2009:

*IBM and Quark have recently announced a partnership to provide DITA through FileNet. Quark XML Author 3.0 has been integrated with IBM FileNet Content Manager P8 4.5 to provide DITA functionality in an enterprise environment.*<sup>20</sup>

In some ways, this is quite ironic. Quark, which provides a high-end publication design application (Quark Xpress), snapped up a small company named “**in.vision**” to acquire an application that makes it easy to create XML in Microsoft Word. Microsoft had already tried to create a form-fill-in XML authoring tool (InfoPath), but InfoPath wasn’t integrated with MS Word. Microsoft’s assumption seems to have been that users of MS Word were not the primary target population for an XML authoring tool. However, InfoPath did not gain significant market traction with business users. Now Quark is positioned nicely to provide the Word-based application to bridge the gap between businesses that want to keep using the Microsoft Office Suite and also want to create XML.

What followed from Quark acquisition of the in.vision product was Quark’s alliance with IBM, as well as with EMC, a major player in the content management system (CMS) market. EMC makes Documentum, a venerable enterprise-scale CMS that is especially used in regulated industries such as aerospace and pharmaceuticals. Quark is providing their XML Author for Word application with Documentum as an out-of-the-box integration.

#### **All Aboard Microsoft SharePoint**

JustSystems, the manufacturers of XMetaL, are eager to get their DITA offerings into consideration, offering a webinar (“*Strategic Content is Good for Business: How DITA and SharePoint Maximize Content Reuse*”),<sup>21</sup> related FAQs, and a datasheet. Among the points made on the datasheet are:

Today’s globally-focused, customer-driven organizations face extraordinary challenges. Under growing expectations from customers, businesses are increasingly expected to deliver product, service and support information in each customer’s native language... Businesses are also under pressure to deliver professional content quickly, to reduce publishing and localization costs, and to keep publications consistent and up-to-date.

*To meet these challenges, many companies are turning to XML, and in particular to a variety of XML named the Darwin Information Typing Architecture (DITA).*

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<sup>19</sup> <http://wiki.oasis-open.org/dita/Semiconductor/Charte> r

<sup>20</sup> [IBM Does DITA \(http://rockley.com/blog/?p=172\)](http://rockley.com/blog/?p=172)

<sup>21</sup> <http://na.justsystems.com/webinars.php>

*...Deliver consistent content faster by assembling reusable, topic-based DITA content in multiple deliverables. Write a piece of content once, and then check it into a SharePoint library to enable team members across the world to reuse it.*

*...you can start with out-of-the-box base DITA and add specializations whenever you choose.*<sup>22</sup>

Other companies are also viewing MS SharePoint (and MS Word) as a way to gain market share from companies already invested in these Microsoft products:

*DitaShare by Content Technologies GmbH is a DITA-based Single-Source CMS solution on Microsoft Office SharePoint Server 2007 that offers collaborative Single-Sourcing and re-use of DITA topics and DITA maps, as well as publishing of conditional variants.*

*The DITA Exchange solution is implementing the DITA standard on top of the new Microsoft Office SharePoint 2007 Server ... Using Word as the User Interface lowers the entry barrier for SMEs.*<sup>23</sup>

Searching on Google for “DITA” plus “SharePoint” will probably continue to reveal new names in this sector.

### **Not Only In the USA – Global DITA Adoption**

A new alliance’s announcement speaks of a partnership among the Japanese divisions of two large corporations (IBM and Xerox) with an XML-to-PDF software company (Antenna House), and an XML authoring and content management software company (JustSystems). All four are apparently convinced enough of the staying power of DITA to want to encourage others to use it, as evidenced by the wording of their announcement:

*TOKYO, February 12, 2009 – IBM Japan, Ltd., Antenna House, Inc., JustSystems Corporation, and Fuji Xerox Co., Ltd. today announced that the four firms, as founders, have established “DITA Consortium Japan” aimed at disseminating and providing education about DITA, an international standard that revolutionizes corporate document creation processes.*

*...DITA is an architecture that allows standardization and uniformity in document creation, as well as improvement of production efficiency. Increasingly, many case examples are seen in the United States and in Europe of DITA being introduced into a company’s documentation management, and this trend is expected to spread to Japan in the near future.*<sup>24</sup>

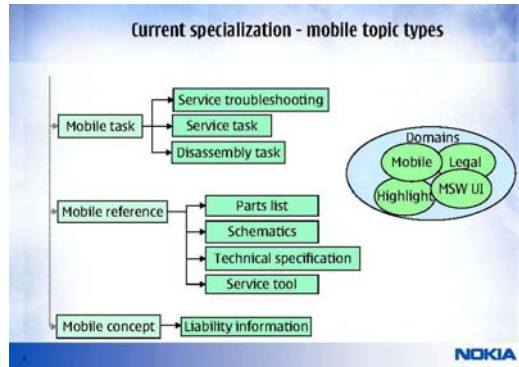
In Finland, Nokia has developed a mobile service troubleshooting DTD specialization<sup>25</sup> to meet their service needs, for example, by specializing the DITA task to provide a specific type of trouble-shooting process for their service people. They also developed mobile task, mobile topic, and mobile reference specializations.

<sup>22</sup> [http://na.justsystems.com/files/XML\\_ProdOV\\_Author\\_Enterprise\\_MS\\_SharePoint.pdf](http://na.justsystems.com/files/XML_ProdOV_Author_Enterprise_MS_SharePoint.pdf)

<sup>23</sup> From dita.xml.org Products section. “SME” stands for Subject Matter Expert.

<sup>24</sup> [http://www.fujixerox.co.jp/eng/headline/2009/0212\\_dita.html](http://www.fujixerox.co.jp/eng/headline/2009/0212_dita.html)

<sup>25</sup> <http://xml.coverpages.org/DITA-Openhouse2004-Nokia.pdf>



The popular DITA Europe conference provides a showcase for companies to demonstrate their DITA prowess. Last year's conference had presentations of DITA for aeronautic, automotive, marketing, credit card, and other industries' specialized content needs.<sup>26</sup> The common theme was that DITA is useful, flexible, and efficient as a basis for content-model development.

On the whole, it appears that specializing DITA is a much faster path to production of scalable content systems than other XML content models have been in the past.

There are issues with specializing DITA that make it worthwhile to hire DITA experts to work on a specialization project.<sup>27</sup> Among these are making sure that the "fallback" processing is properly implemented and that the content can be interchanged with other DITA systems with a minimum of difficulty. There are many elements in the DITA model itself, so one also has to be careful not to "reinvent the wheel" by duplicating content model concepts that are already implemented somewhere in the DITA specification. XML developers have to keep abreast of the ongoing formation and adoption of various DITA specializations to choose the one that will be the best fit for an organization.

<sup>26</sup> <http://www.infomanagementcenter.com/DITAEurope/abstracts.htm>

<sup>27</sup> [http://blog.ditaworks.com/problems\\_and\\_solutions/errors-in-dita-specializations-modeling/](http://blog.ditaworks.com/problems_and_solutions/errors-in-dita-specializations-modeling/)

## Cost Reduction from Component Processing Consistency

In the past, businesses often had good reasons not to adopt XML as a content format, which was well-described by Glenn Emerson in his article, “XML is Golden, XML is the Only Solution, and Other Debatable XML Assumptions.”<sup>28</sup> At the end of that article, however, Glenn pointed to the direction that XML was trending, including the adoption of DITA, to mitigate issues with XML content:

*XML is becoming more feasible and easier to adopt because of gateway technologies like DITA and S1000D. However, just as important, and not mentioned in the initial article, is the content management platform. The real breakthrough for content management in technical communications is coming from the development of component content management systems for technical communications environments like those that first appeared in the Web publishing arena ten years ago. Witness how many of the large document management vendors are recently acquiring technologies that enable them to support XML component content management, in conjunction with their Digital Asset Management, workflow automation, and other platform components.*

As described in the scenario at the start of this paper, DITA content is organized as “content components” (various topic types) that are assembled by external processing files called maps to create a “deliverable” such as a user guide, Help system, or reference document. When large CMS companies start to tout DITA support as a selling point to their customers, market their “component content management systems,” and industry analysts start to write reports on CCMS,<sup>29</sup> then DITA is verging on a default content format for these types of systems. This means that businesses can start to assess the way that they want to develop and use component content with the assurance that application support for this component content (whether DITA or other formats) is available and will continue to improve. That is a huge advantage to managers who are striving to find a rationale for moving in the direction of XML and its advantages. Previously, such managers would have to justify the cost of developing custom-content models, integrating these content models into their authoring and database applications and developing custom output processes as well. When adopting DITA and a component content management system, managers eliminate a number of these cost disadvantages when moving to the use of XML.

Consider:

- DITA output formatting is modular and customizable without affecting the underlying content model. (For example, the same content can be “branded” for different outputs, enabling a company to take content developed by third parties and make it look like their own.)
- DITA authoring applications are readily available to integrate with existing CMS applications. Rather than assessing multiple different authoring possibilities, managers can just check for DITA support as a required feature of the authoring application.

<sup>28</sup> [http://www.dclab.com/xml\\_assumptions.asp](http://www.dclab.com/xml_assumptions.asp)

<sup>29</sup> <http://www.cmswatch.com/CCM/Report/>

- Instead of breaking the content model when a specific new type of content is needed, DITA specialization “fallback” processing makes customization of the content model an integrated part of the whole DITA environment,
- Industries can start from DITA, develop specializations, and distribute their specialization knowing that these can be adopted rapidly. As industry-wide adoption proceeds, wider integration of systems across an industry, and among related industries, becomes feasible. (Does this sound like the progress of the World Wide Web?)

Eventually, cross-industry specializations and integrations will become possible because the underlying content format is known and therefore can become a programmable object in a wider environment of applications (think of web “mashups” but with DITA XML instead of HTML content).

Now that DITA adoption is becoming an established part of applications, suites, and systems, the adoption of DITA has broken a major barrier for XML to be used widely – that of content isolation and incompatibility due to differing content models. There is no good reason to avoid XML on principle alone.

Extensible Stylesheet Language Transformation (XSLT) will enable conversion between different DITA specializations. While XSLT is currently developed by experts to deal with customer’s unique content models, as DITA becomes more widespread, XSLT converters will be built into DITA applications and suites to enable automatic interchange between systems.

For companies embarking on XML as a content format (for technical documentation, pharmaceutical product life cycle documentation, extensive use of translation technologies, instructional content development, call center support, and many other types of business or industry documents), adopting DITA lays the foundation for future integration of content across lines of business and among business partners.

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Please visit the Novatek Communications website, [www.novatekcom.com](http://www.novatekcom.com), to download our white paper “[Leveraging the Value of Translated XML](#).” It describes how to extend XML reuse to achieve efficiencies in content creation and deployment for global audiences.

## Summary

The time is right for businesses to seriously consider DITA as their first move into XML content development. Companies no longer have to worry if DITA has staying power because of its broad penetration into industries via specializations and the development of suites and systems that support DITA content development and publishing.

One challenge for managers will be in determining whether there is a need for a specialization or whether standard DITA will provide a usable content model “out of the box.” DITA is deliberately formulated to make adding specialization far easier than the previous process of customizing types of XML content. Thanks to the DITA specialization methods, it is a reasonable strategy to start by creating standard DITA and see if a need arises to specialize it later, for example, to adopt an industry-based specialization. With the right transformations, standard DITA can be made to match whatever specialization is adopted.

Like the HTML standard in the 1990s, the DITA standard is poised today to make changes in the ways companies develop and interchange information. With its maps and ability to use attributes for product, platform, and other important differentiations, DITA makes publishing XML for web, print, and Help documentation faster and more flexible than HTML. Industries are appreciating this power and making DITA an important part of strategies for global content development and deployment.