

Information Management



DITA 101 Guide

**Leveraging the DITA standard for
content creation, control and delivery**

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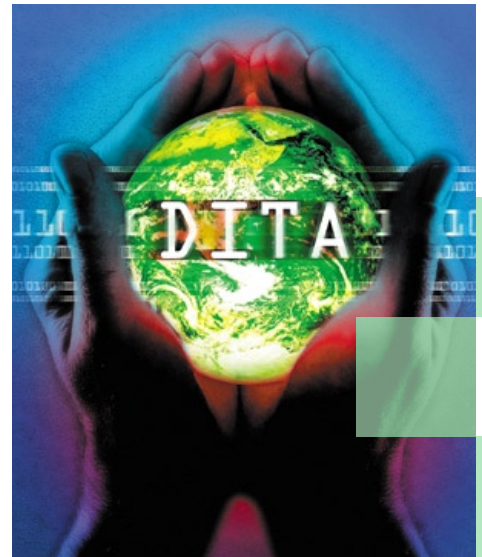
So what's the deal with DITA?

Your business, no matter how large or small, creates and distributes content—perhaps they're technical documents, product or marketing materials, legal contracts, sales proposals, HR policies, Web pages or books. And you have certain processes in place for authoring, producing and delivering your valuable information. You also have an underlying IT infrastructure that supports all of your content-related activities. But are you convinced you're using the best tools and processes to get the job done? Or do you already have a hunch that there's room in your content development and management efforts—somewhere, somehow—to cut costs, clean up your processes, improve the quality of your deliverables and lighten the load for IT?

Information overload

Every business faces tough challenges. Information overload, needing to do more with less, unwieldy processes... oh, my! And so often, creating and managing content is a troublesome area for companies. Take a look at the following and see if any of these business challenges ring a bell, then we'll start talking about DITA:

- *Content and IT department resources and budgets are limited, but the demands on them are anything but*
- *A variety of content authoring tools are spread across multiple organizations*
- *Content-related processes are fairly rigid—often due to the tools used—and can't support expanding product lines and other areas of growth*
- *Chunks of similar or identical content appear in different documents—say, company information in your marketing brochures—or you're not even sure what redundancies exist*
- *Version control keeps employees awake at night who could benefit from a surefire method for tracing all changes to content and especially for published materials*
- *Your company products are so unique (a good thing!) that you create original documentation for every product that hits the market*
- *Internal and external audiences thrive on getting the information they need, when they need it and how they need it—so dynamic, on-demand materials make sense*
- *Serving a global market requires translating information into multiple languages*
- *Some company products are fairly complex or highly configurable, and they demand detailed documentation*

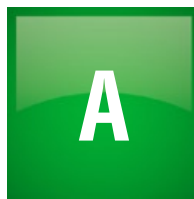
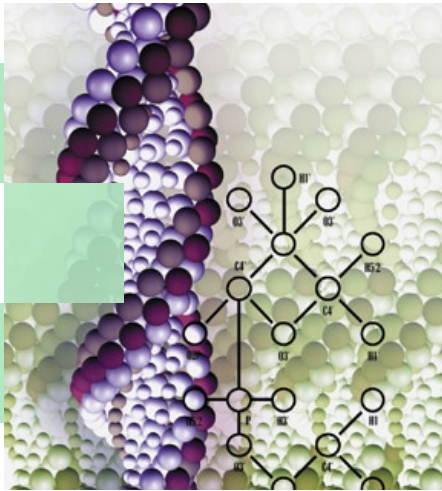


- *Authoring environments have run amok, and it's clear that everyone—from the writer and reviewers to business managers and IT to the reader—could benefit from integrated content management and enforceable standards*
- *Or, individual lines of business could gain from content standardization and streamlined content management*

And truly, many other challenges can exist for companies producing lots of content, but here's the good news. By bringing your processes and tools up to date, you can help your content teams run more efficiently, enhance the quality of information in your materials, keep your audiences happy and deliver tangible return on your content management investments. How? The answer is DITA.

DITA: An evolutionary tale

DITA stands for *Darwin Information Typing Architecture*, which means...



Darwin – DITA establishes a hierarchy of content types based on the principles of specialization and inheritance, which Charles Darwin spent many a day pondering. This means that different types of content can share common tools and processing.

Information Typing – DITA divides up content into reusable pieces called topics. You can have many different types of content, with different rules for each type.

Architecture – You can create your own types of content, so DITA isn't limited to what's in the box. Your new types are part of the DITA architecture, so you can still share common tools and processes, even as you create custom support for your own requirements.

So in a nutshell, DITA is an XML-based, end-to-end architecture for creating, producing and delivering topic-oriented content that you can reuse in multiple ways—for online product support, all sorts of printed materials, Web pages and more. DITA can help solve many of today's content management and publishing challenges and offers real business benefits, especially:

- *Streamlines processes*
- *Facilitates modular writing*
- *Promotes content sharing and reuse*
- *Improves information quality*
- *Pares down publishing costs*
- *Decreases total cost of deployment*
- *Reduces total cost of ownership*
- *Creates translation efficiencies*

DITA was actually invented by information experts at IBM, who envisioned how businesses around the globe could benefit from the DITA standards and methodology. So in 2004, they decided to share it with the world, and DITA was adopted by the Organization for the Advancement of Structured Information Standards (OASIS), which now defines and maintains the DITA standards.

And DITA continues to pick up steam. Many companies, such as Adobe, Boeing, IBM and Nokia, are already using DITA. Also, more and more content management vendors, content authoring tools and content-based applications support DITA. Today, there's a growing community of DITA users, along with user forums, an open-source toolkit and other supporting resources, which can offer valuable help to any businesses jumping onboard.



OASIS (Organization for the Advancement of Structured Information Standards) – A not-for-profit consortium that drives the development, convergence and adoption of open standards for the global information society.

DITA is...

- An IBM invention
- An OASIS standard
- A markup language
- An architecture
- Cool



DITA.XML.org – The official community gathering place and information resource for the DITA OASIS Standard.

What does DITA look like?

To your information audience, DITA doesn't look like anything. It's completely invisible. But behind the scenes, it can change the way you create and use your business information, with the DITA framework leading the way.

DITA comes down to topic-based content that you author, manage and publish. So instead of seeing all of your business and product information

as final deliverables containing static information, you transform it into dynamic information. You have the flexibility to organize the information, manage it and most importantly, leverage it by topic. This adds enormous value to the information because it suddenly becomes highly reusable,

which saves time and streamlines processes, and much, much more. Plus, you now have far more power to deliver consistent messaging—whether it's about a product, a marketing campaign or a corporate policy. And DITA enables you to deliver your content in a standardized publishing format.



Creating content that's made to order

In the simplest of terms, here's how DITA works:

- *The DITA architecture is made up of topics and maps*
- **Topics** are content chunks that you can reuse in different deliverables, and topics come in three main varieties (there are many more, and you can create your own):
 - **Task:** Describes how to do something via a series of steps
 - **Concept:** Generally definitions, rules and guidelines
 - **Reference:** Used for describing command syntax, programming instructions and other reference material

- *Maps are similar to tables of content and help define the structure of how topics are to be viewed in different deliverables—such as help systems, Web portals, and hardcopy and softcopy books*
- *Both topics and maps are XML files that you can edit with any DITA-compliant XML editor, such as Quark® XML Author for Microsoft® Word, Arbortext® Editor™, JustSystems XMetaL® Editor and Adobe® FrameMaker®*
- *Any images, video files or other files that need to appear in the deliverable are inserted via a reference to them*
- *Content in DITA can be output to many different formats, including HTML, online help and print*

Who uses DITA and how?



Write once.
Use often.

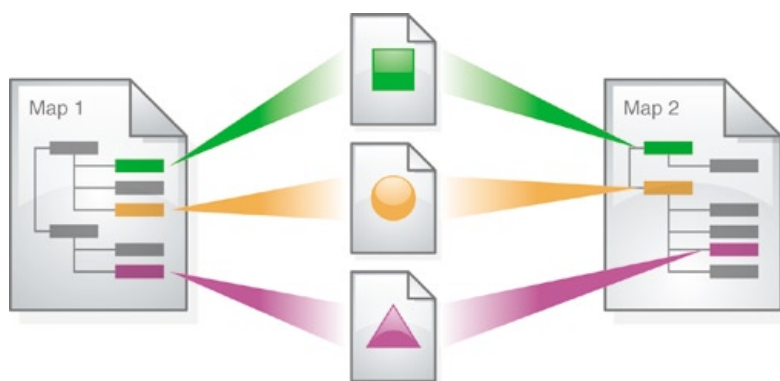
Any department or company that creates, manages and publishes content can use DITA to simplify and greatly improve their authoring environment. It's especially useful for creating modular content or if you manage large volumes of content. DITA is popping up in just about every industry these days, like financial services, government, education, healthcare, high technology, professional services and others, and in many different lines of business. Need some proof? Here are a few examples of how companies can create—and especially reuse—content with the help of DITA.

Technical publications

A technical publications team for a flat screen TV manufacturer develops product materials in both book and online forms:

- *Using DITA topics and maps to drive the content development, they organize the same content differently for each of the two deliverables.*
- *One DITA map includes book-specific items, such as a cover page, acknowledgment page and index, while another map for the HTML output doesn't include these items.*
- *They can also generate embedded online help from the same content.*

Topics



DITA topics and maps enable the broad use of content for a variety of applications.

Human resources

A multi-site marketing agency is largely staffed by full-time employees, but outsources some of its writing and graphics tasks when things get crazy. So the HR department needs to produce different versions of its corporate policy document, based on whether it goes to a permanent or contract employee:

- *In their DITA environment, the author creates all of the relevant policy content in a single file, and applies conditional processing values to produce different versions of the document.*
- *And if any of the policies change, the writer makes the change to a single document.*

Multi-department use

The server division of a global technology vendor stores their DITA-based content in a content management system. In this way, all teams that support the server product lines can leverage the content for their unique needs:

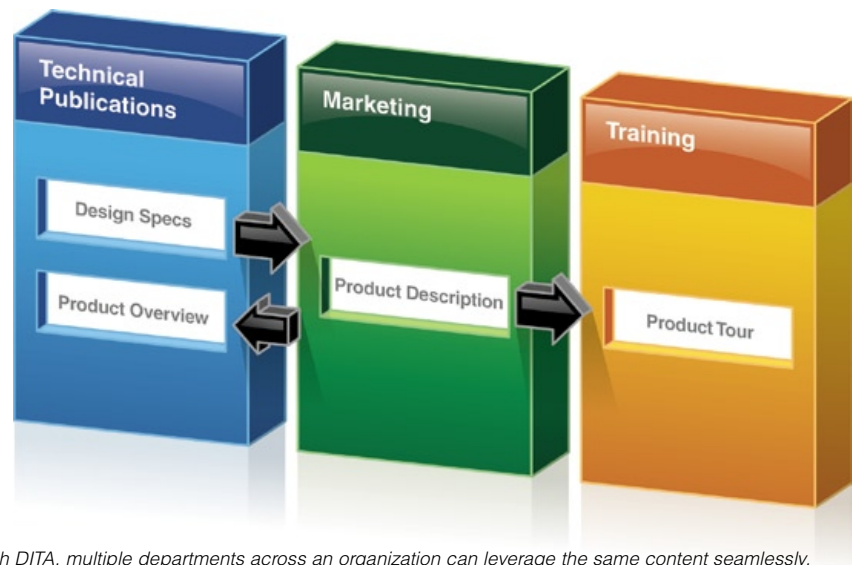
- *The technical publications group uses high-level product descriptions created by the marketing team to create product overviews.*
- *The training team uses the same pieces of information to create product tours.*
- *More detailed information, such as product specifications, that the technical publications team develops is used for more in-depth training, by technical support groups for reference materials and by the marketing team for data sheets.*

“DITA’s promise of topic-based, structured authoring is not merely better documentation. It is the creation of mission-critical information for your organization, written with a deep understanding of your most important audiences, which can be repurposed to multiple delivery channels and localized for multilingual global markets.”

Intercom

The Magazine of the Society for Technical Communication
April 2008

Multi-department use



With DITA, multiple departments across an organization can leverage the same content seamlessly.



What can DITA do for you?

Document and Web publishing can be complex and costly. In fact, they usually are. But DITA can help ease the pain. Every step of the way, throughout the information lifecycle, DITA offers benefits—for the writers, reviewers, content managers, internal and external audiences, IT teams and the business on the whole in terms of saving valuable time and money. Here's a quick rundown on some of the more important advantages offered by a DITA authoring and content management environment.

Highly dynamic use

An analyst firm that delivers technology-related insight integrates market data from a trusted source with quarterly report text and product reviews written in DITA:

- *Using the different chunks of information, they create different combinations of year-in-review content for telecommunications versus software companies.*
- *They can also use DITA to create feeds for subscribers on breaking news and updates about specific products and implementation tips, or news items that match an individual subscriber's profile.*

Authors and reviewers—from documentation to marketing:

- *Content reuse, made possible by developing content using DITA topics and maps...so you can quit repeating yourself!*
- *Reduced authoring time from structured writing via predefined templates*
- *Flexibility through multiple output formats, including web (HTML), print (PDF) and online help*
- *Single-source content, so you can keep marketing messages, product specifications and all important information consistent*

- *Less errors since you're able to write it once and use it often*
- *Streamlined processing, so you can quickly create content in various forms for special needs*
- *Modularity, so you can assemble documents from manageable chunks*
- *Easier document maintenance through automatically generated navigation and relationship links*
- *The ability to manage all changes to published information*
- *On-demand, dynamic document generation that frees up writers for other tasks*

IT teams:

- *Considerable cost savings, because it's way cheaper to build and maintain a DITA-based solution than a custom solution*
- *Scalability, that is, with the right content management tools—so you can start small with DITA and deploy more widely when you're ready*
- *Streamlined development, since DITA maps are embedded into the content management system so are easily accessible by any DITA-based authoring tools*

Internal and external audiences:

- Higher quality of information with up-to-date, topic-oriented content based on a single version of the truth
- Customized information to better meet audience needs, via a flexible DITA architecture, which defines the content types required to meet different author and audience needs
- When available, on-demand and even custom materials like product documentation tailored to the user
- Tight, focused writing that addresses audience needs, by standardizing core information types based on industry standard best practices such as minimalism

Businesses at large:

- Reduced acquisition, training and maintenance costs by standardizing on a DITA-supported content management platform
- Translation savings, the top DITA ROI factor for global firms
- Greatly reduced development costs through simplified XML
- Productivity gains when DITA is adopted as a cross-application, cross-silo solution that shares a common language for content authoring and management needs
- Simplified processes and greater operational efficiencies through application integration
- Shorter time to market with speedier product materials development
- Companywide and cross-industry collaboration with a standardized base for information sharing



“Several years ago, the IBM Semiconductor Research and Design Center team came to us with some huge content challenges. This team of about 200 writers creates these 500-page semiconductor design manuals, and they had complex content management and editing control problems. They needed a better system to manage and control the whole documentation process, plus they wanted the capability for multiple authors to work on content simultaneously. They also wanted to be able to compartmentalize their documents into small chunks of data for greater authoring flexibility. So IT and the documentation team agreed to move from a FrameMaker format to a DITA format. Then, after much investigation, a cross-

functional team decided on the IBM® FileNet® P8 Platform to enable DITA. Today, they have a far superior content management system to what they had before... with much better version control, multi-user authoring of the same document at the same time and more. The IBM ECM repository helps manage all of their data along with related business processes. Besides helping them do things faster and better, the system also aligns with corporate policies and compliance requirements. Honestly, they have everything they need now to hit the ground running.”

Brian Merzbach


IT Architect,
IBM Global Business Services

How does one adopt DITA?

So you're thinking of adopting DITA, that is. But you're not sure where to get it. Or exactly what to do with it when you get it. But you've decided it is critical to get your content under control. Well, you don't actually buy DITA—it's simply an open standard and an authoring framework available to everyone. So it's more a process of adoption than a shopping trip. Yet you will need some important tools to enable your DITA environment. And though the implementation will be a little different from company to company, there are some basics involved in the DITA adoption process.

The basics of adopting DITA

1. Define your end-user and technology requirements around DITA adoption, and maybe identify a pilot program for initial adoption.
2. Know that adopting DITA will have much to do with change management and education. So get everyone on board and in the know about what is going to happen and why. Remember, you can start small and deploy more widely when you're ready.
3. Decide on a DITA-enabled toolset for authoring and publishing, and implement it. You can take advantage of the DITA Open Toolkit for publishing, which is free for the asking and provides processing for DITA maps and topic content. You can download the toolkit <<http://dita.xml.org/wiki/the-dita-open-toolkit>> and install it for free on your computer, to get started with topic-based writing and publishing.
4. Weigh the benefits of applying DITA within an enterprise content management (ECM) framework, which can help you get the most from DITA. In fact, you can choose a DITA-based ECM solution for your important content management needs and then adopt DITA standards when you're ready. The nice thing about an ECM solution is that it can support your content needs across both DITA and non-DITA content, so you can manage all of your content in one system even before it all gets migrated to DITA.



DITA and ECM: A powerful combination

- **Simplifies content development and management processes**
- **Reduces development costs**
- **Allows you to integrate applications, for expanded use of DITA**
- **Delivers predefined content templates**
- **Gives you the capabilities to globalize your content**
- **Makes your ECM investment that much more valuable**



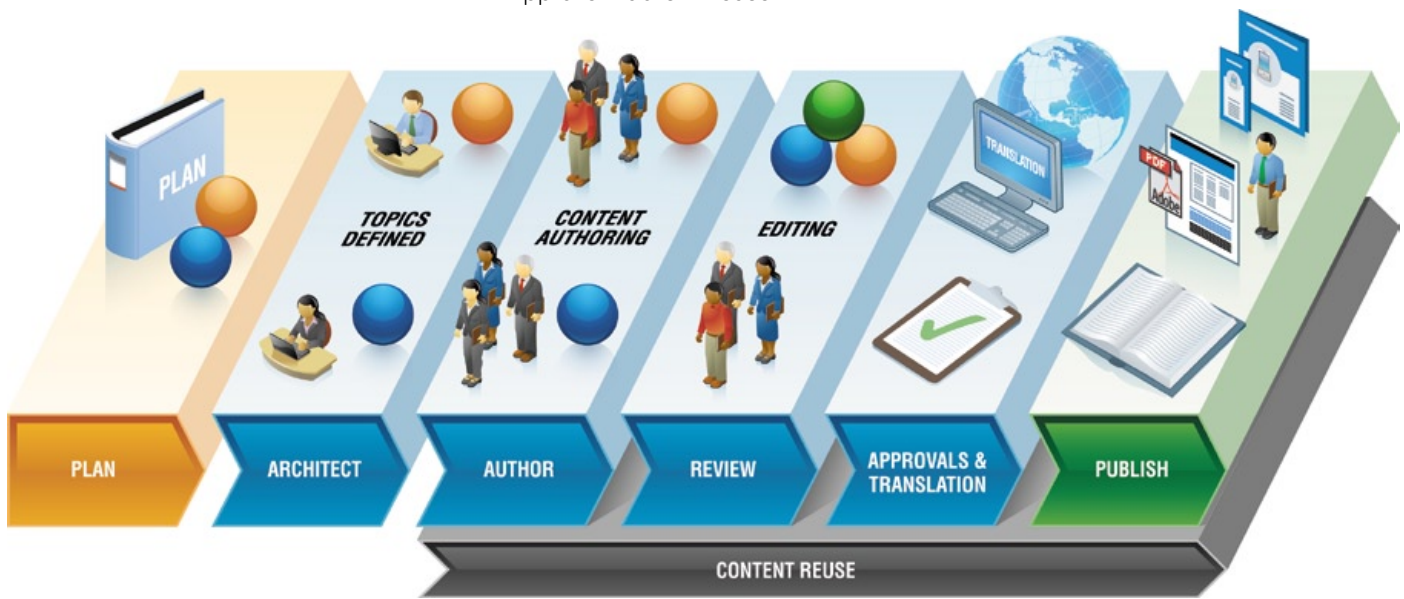
5. Define relevant roles and responsibilities, establish and enforce authoring standards, and proceed with training your resources on how to DITA with the best of them. But remember that for some users DITA will be completely invisible, depending on their role.

6. Remember that you can adopt DITA quickly and easily using a subset of its capabilities. Then, you can increase

your investment over time as your content strategy evolves and expands. Start with a pilot project using a subset of content and out-of-the-box DITA. Find out where the chafing points are so you can extend via specialization where necessary. Also, get your publishing processes creating output just the way you want it.

7. Plan. Architect. Author. Review. Approve. Publish. Reuse.

8. From there, the sky is the limit—like a universal content ecosystem where the sun shines all the time and DITA becomes the semantic interchange standard for cross-organization, cross-standard, universal content use. Go ahead. Shoot the moon.



DITA can help define the right standards and processes for planning, creating and publishing content across a number of applications.



IBM FileNet P8 Platform:

A DITA-based solution

IBM FileNet P8 Platform is a next-generation, unified enterprise foundation for the integrated FileNet P8 products. The platform supports DITA content types through its core content management solution—IBM FileNet Content Manager. Combining the ECM reference architecture with comprehensive business process management capabilities, IBM FileNet P8 enables agile, streamlined content-related processes. IBM FileNet P8 features DITA as an enhancement within the content management server. With IBM FileNet P8, you can connect DITA content with other content

across the enterprise, allowing for a mix of DITA and non-DITA content that evolves over time as valuable content across the company migrates to the DITA standard. The platform also includes a publishing framework that provides out-of-box support for DITA Open Toolkit, plus it enables smooth integration to market-leading DITA authoring tools. What's more, you'll see faster time to value for your crucial content development, management and publishing needs—with quick and easy migration from existing data projects and superior out-of-the box support.

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DITA resources

- **IBM and DITA:** ibm.com/developerworks/xml/library/x-dita1/
- **OASIS and DITA:** oasis-open.org/committees/tc_home.php?wg_abbrev=dita
- **DITA.XML.org:** dita.xml.org
- **CoverPages:** xml.coverpages.org/dita.html
- **DITA Infocenter:** ditainfocenter.com/
- **DITA users groups:** groups.yahoo.com/group/dita-users/, ditausers.org
- **DITA Maturity Model white paper:** na.justsystems.com/files/Whitepaper-DITA_MM.pdf
- **Quark XML Author for Microsoft Word:** dynamicpublishing.quark.com/xml_author/

For more information

To learn more about IBM FileNet P8 software, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/software/data/content-management/filenet-p8-platform/

Learn more about IBM and DITA at:

ibm.com/software/data/content-management/filenet-content-manager/dita.html