



*Working with DITA: The
Darwin Information Typing
Architecture*

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Agenda and Logistics

- Tutorial runs from 9:00 to 12:00
- Break at XXXXXX
- Can load software, look on with others, follow along as I do things
- Goal is to understand the content structures and the software basics
 - So not a class on XMetal
 - If we fuss with the software too much, we will lost the bigger picture

And What is the Bigger Picture?

- Understanding the background and role of DITA
- Understand the overall approach DITA takes
- Understand the core content structures
- Understand the role of the DITA Open Toolkit
- Understand specialization at a high level
- Get enough hands-on and/or demo experience to help it sink in

Some Background

- While you are setting up the software...

DITA in 60 Seconds

- Darwin Information Typing Architecture
- Standards-based approach to developing product support content
- XML DTDs/schemas and stylesheets
- Developed at IBM, now managed by OASIS
- First version published in May 2005
- The topic is the thing
 - Supports topic-oriented development
 - Core types are task, concept, and reference

What Problem does DITA solve?

- Sophisticated products require substantial documentation and content
- Channels for communicating this content are complex
- Single-sourcing can save costs on the media problem, but real savings may require some kind of reuse
- Globalization complicates the process and seems to defy automation

The Opportunity

- Single-sourcing has taken hold
 - Realized some savings through repurposing
 - Pointed to some best practices
- Reuse may really be the killer app
 - DCL— 50-80% of product content is redundant
 - Meaningful impact on productivity and quality
- Very interesting nexus of repurposing, reuse, and globalization

The Role of XML

- Provides a format-neutral data structure to support repurposing
- Provides the hierarchical structure to support the “chunking” for reuse
- Human readable and machine processable
 - Once implemented, solves a lot of practical problems—character sets, standard formats
- Solid choice for ongoing storage, archiving

So Why Doesn't Everyone use XML?

- Not off the shelf
- A neutral format, so at arms length from any published format (print, HTML, Help)
- Has proven to be expensive
 - Document analysis for the DTD or Schema
 - Tool selection and customization, especially tools for publishing
- Suggests a new model for information development (media-neutral creation)

Where has XML been Successful?

- Vertical industries, including automotive, aviation, telecommunications
 - Existing DTD or schema
 - Opportunities for data interchange
- Larger scale or specialized operations
 - Where repurposing provides ROI
- Applications where reuse pays
 - Manufacturing (“effectivities”)
 - Global marketing

Why DITA Matters

- Provides a ready horizontal DTD/Schema with broad applicability
 - User manuals and reference
 - Extends XML's value and power beyond vertical industries
- Supports a “topic” orientation to media-neutral content development
 - In sync with current approaches
 - Logical fit with reuse
- Provides a ready means for extensibility
 - Specialization

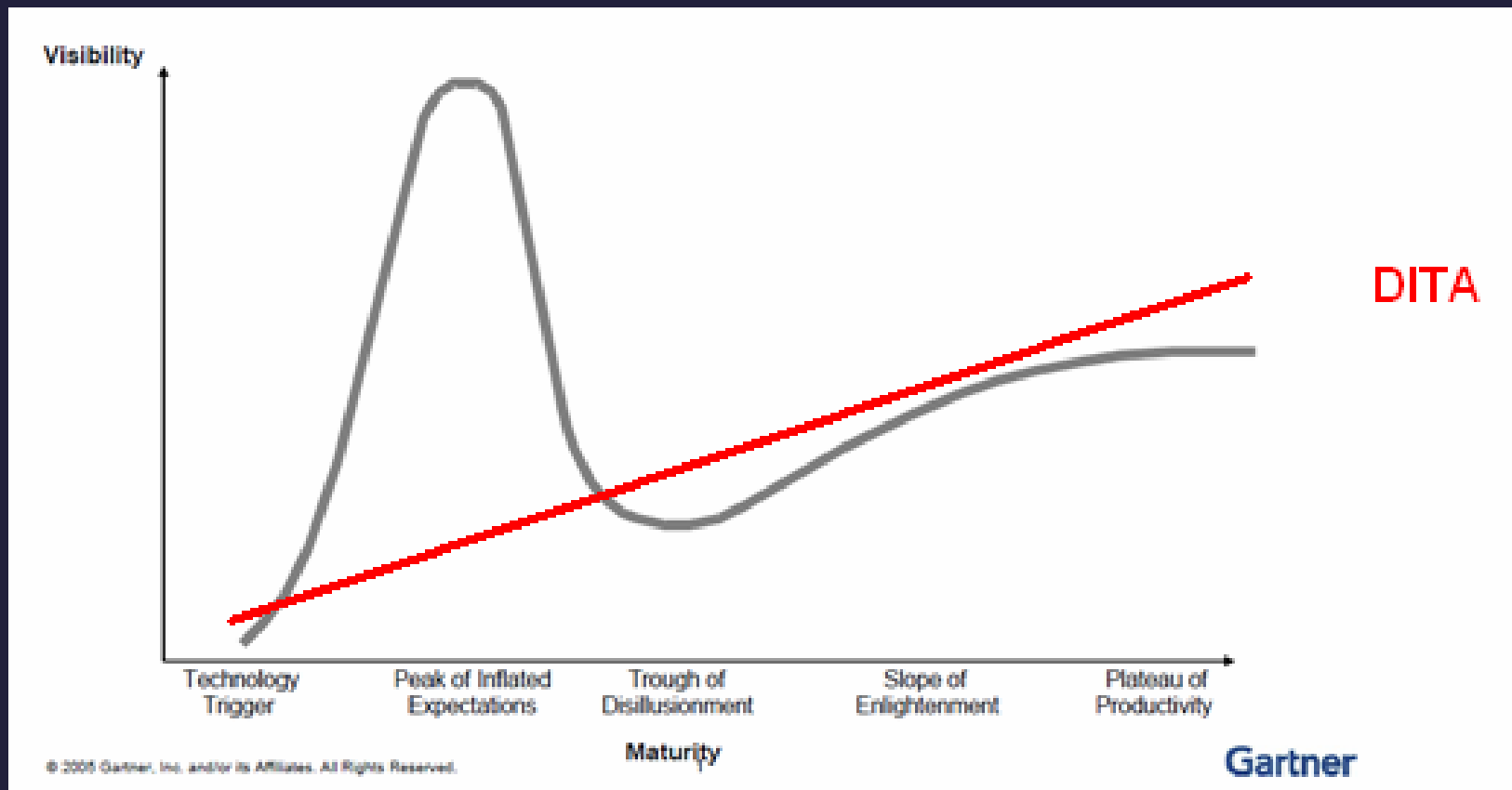
What makes a standard succeed?

Fundamental value to a business need	✓
Soundness of approach	✓
User interest	✓
Vendor support	✓
Management under a recognized standards body	✓
Quick adoption by significant organizations	✓

Here's the amazing thing... people are actually using it

- IBM of course
- Nokia
- Information Builders, Autodesk, Adobe
 - Case studies written and published by Gilbane
- Almost a dozen other companies we interviewed and queried
- Many other announced deals and commitments

DITA: Defying the Hype Cycle?



Enough Background!

- Topic Orientation

- “Discrete topics of information covering a specific subject with a specific intent”

- From ["An Introduction to Darwin Information Typing Architecture: DITA."](#) February 2004. IBM Corporate User Technologies. Copyright (c) 2004 IBM Corporation.

- Core Topic Types

- Concept, Task, Reference

Concept

- Provides background information that users need to know
- Helps readers understand essential information about tasks they will be performing
- Answers “what is” questions
 - DITA Architectural Spec
- Start – All Programs – XMetal 4.6 – Author – XMetal Author
 - File – New - Concept

Sample Concept

■ From the architectural spec

```
<concept id="concept">
<title>Bird Calling</title>
<conbody>
<p>Bird calling attracts birds.</p>
<example>
<p>Bird calling requires learning:</p>
<ul>
<li>Popular and classical bird songs</li>
<li>How to whistle like a bird</li>
</ul>
</example>
</conbody>
</concept>
```

A Few Things to Try

- Add some text, tags
 - Right click, context sensitive insertion
 - Insert menu
 - Use Insert > Inline Element to add bolding, etc
 - Use also to highlight keywords for HTML keyword inclusion
- Preview in browser (save first)
- Save as PDF

About PDF and HTML Output

- Handled by the DITA Open Toolkit
- “Reference Implementation” of DITA
 - Available at <http://sourceforge.net/projects/dita-ot/>
 - Open source
- Stylesheets for PDF, Help, HTML
- XMetal DITA Edition includes the stylesheets for PDF and HTML
 - Both XSLT and XSL-FO

Also Try...

- Inserting tables and images
- Views
 - Plain Text
 - Tags On
 - Normal
 - Page Preview (browser preview)
- View - Element List
- View - Attribute Inspector
- *Save your work for later use*

DITA Tasks

- Provides procedural details, often step-by-step instructions
- Helps readers perform specific tasks
- Answers “how do I” questions
 - DITA Architectural Spec
- Can have prerequisites <prereq> and postrequisites <postreq>
- Can also have a result <result> and an example <example>
- File – New - Task

Sample Task

■ From the architectural spec

```
<task id="ertx">
<title>Creating an ERTX file</title>
<taskbody>
<context>Each morning before breakfast you need to create a fresh ERTX
file.</context>
<steps>
<step><cmd>Start ERTX.</cmd></step>
<step><cmd>Click New ERTX File.</cmd></step>
</steps>
<result>You now have your ERTX file for today!</result>
</taskbody>
</task>
```

See Also

- C:\Program Files\Blast Radius\XMetaL 4.6\Author\Samples\DITA\DITA_Extension_Samples\removecartridge.xml
- Note <cmd> v <stepresult> elements
- Save as PDF
- Note unresolved xref
 - *prepare the printer to change a cartridge*
 - Why unresolved?
- *Save your work for later use*

DITA References

- Provides reference material about “regular features of a subject or product”
- Classic example is the programming reference
- Information needed for deeper understanding
- Common elements
 - <refsyn> (example syntax)
 - <properties> (properties and values)
- File – New – Reference
- *Save your work for later use*

Sample Reference

■ From the architectural spec

```
<reference id = "boldproperty">
<title>Bold property</title>
<shortdesc>(Read-write) Whether to use a bold font for the specified text string.</shortdesc>
<refbody>
<properties>
<property>
<proptype>Data type</proptype>
<propvalue>Boolean</propvalue>
</property>
<property>
<proptype>Legal values</proptype>
<propvalue>True (1) or False (0)</propvalue>
</property>
</properties>
</refbody>
</reference>
```

DITA Maps

- Maps are a document themselves that organize topics
 - Often for a specific deliverable
 - Manages the topics and the relationships among the topics
- Close XMetal and reopen it using
 - Start – All Programs – XMetal 4.6 – Author – XMetal DITA Edition Samples
 - Note the File and Edit menus within the Resource Manager
 - Choose File > Save Topics as PDF

DITA Map Structure

- `<?xml version="1.0"?>`
- `<map title="Welcome and Sample Documents">`
- `<topicref href="Welcome_to_XMetaL_DITA_Edition.xml" navtitle=""/>`
- `<topichead navtitle="Sample DITA Project">`
- `<topichead navtitle="Changing a Print Cartridge">`
- `<topicref href="cartridgeoverview.xml" navtitle=""/>`
- `<topicref href="prepareprinter.xml" navtitle=""/>`
- `<topicref href="removecartridge.xml" navtitle=""/>`
- `<topicref href="newcartridge.xml" navtitle=""/></topichead>`
- `<topichead navtitle="Color Printers">`
- `<topicref href="colorprinters.xml" navtitle=""/>`
- `<topicref href="liquidinkjetprinters.xml" navtitle=""/>`
- `<topicref href="solidinkjetprinters.xml" navtitle=""/>`
- `<topicref href="dyesublimationprinters.xml" navtitle=""/>`
- `<topicref href="colorlaserprinters.xml" navtitle=""/></topichead></topichead>`
- `<topichead navtitle="Sample DITA Topics">`
- `<topicref href="ditaintro.xml" navtitle="Sample Generic Topic"/>`
- `<topicref href="Using_XFT_Forms_Layout.xml"`
- `navtitle="Sample Task Topic"/></topichead>`
- `</map>`

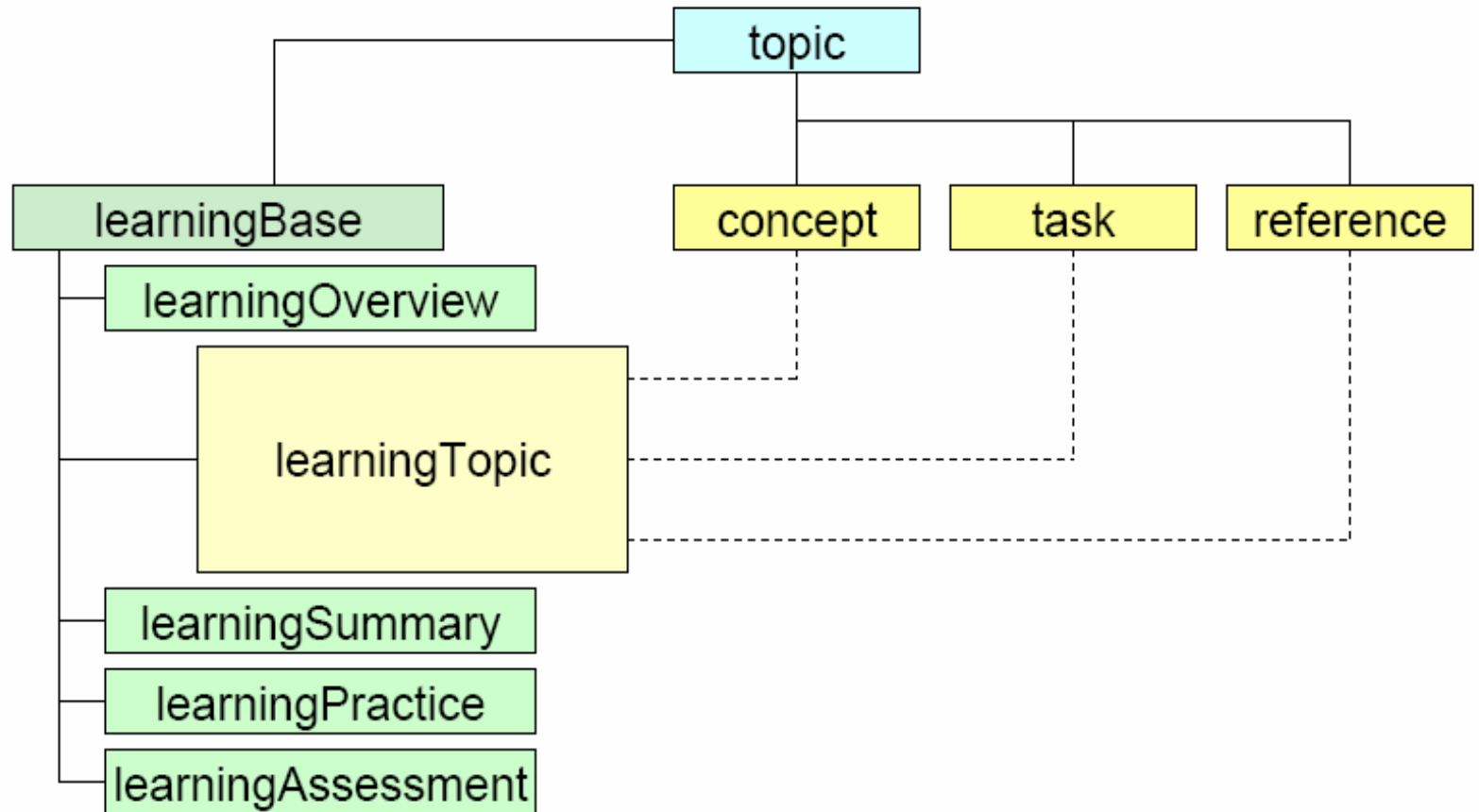
Also Try

- Reorganizing topics
- Adding one of your topics
 - Edit > Insert Topic Reference
- Adding Heads
 - Edit > Insert Topic Heading
- Edit Metadata
 - Edit > Set Metadata Defaults
- Create a New Map

Specialization

- Specialization is a way to extend the DTDs/Schemas and the associated style sheets and tools
 - So make a change to the DTD, and still be able to leverage the toolkit
- Also a means of data sharing
- Consider carefully, but often necessary
- Many approaches
- See the following from John Hunt and Robert Bernard, IBM
 - *An XML-based information architecture for learning content, Part 1: A DITA specialization design*
 - <http://www-128.ibm.com/developerworks/xml/library/x-dita9a/>

Example Specialization Approach



Conclusions

- High-level view obviously
- But basic topic types
- A lot of the core markup
- Basic idea of maps
- *Very* basic idea of specialization
- One tool's approach

Questions?

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