

Optimizing Content Development Using Topic Maps

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Discussion Points

- Who is this guy?
- Traditional method of developing content
- Need for a better process
- How Topic Maps standard can extend the topic-based documentation approach
- Examples
- Ideas for Implementation



Who is this guy?

- Background in Mechanical Engineering
 - CAD/CAM
 - Production process planning
- Developed DB and publishing applications for reference publications
- CTO at Live Linx
 - Built and managed doc conversion team
 - Responsible for design, development and implementation of ConteX CMS
- Left Live Linx to form independent consulting and implementation group: Suite Solutions



Traditional Method for Developing Content

- Deliverable-based
 - Determine deliverables needed for product
 - Create an outline of topics needed
 - Locate and reuse existing content; write everything else from scratch
- Using DITA:
 - Create outline using DITA map
 - Link to existing topics; create space-holder topics for new content
- Maintain Master Topic List



Need for a Better Process

- Many groups need to access and create content: need a more unified approach
- Requires search or multiple-index management system to locate content for reuse
 - If not quick, easy and comprehensive, authors will give up and re-write content
- Deliverable-based approach makes it easy to create content that is not reusable and difficult to adapt to other delivery platforms



Need for a Better Process

- Master Topic Lists do not account for other assets such as images, drawings, video, flash, presentations, other content types
- Master Topic Lists are designed for DITA; need to support other standards such as SCORM for e-Learning
- For multi-group environments, who is responsible for maintaining the topic list?



Product-based Content Development

- Create list of content elements needed
 - For all deliverables for the product
 - Across entire life-cycle
- Used by different groups in organization
- Build deliverables from the master list
 - DITA Maps
 - SCORM manifests
 - Populate enterprise systems:
PDM, CRM, DMS, ERP



Information Architecture – Knowledge Management

- Indexing is traditionally driven by existing repositories of information

What do I have?

How can I model, index, organize it?



Drive Content Development *Using* the Knowledge Model

- Alternative: let the knowledge model, ontology, drive content development
- Create a knowledge model encompassing:
 - All products, features, system components
 - All life-cycle stages
- From that model, automatically generate lists of content to be created to express the knowledge model
- Compile content to form deliverables



Drive Content Development *Using* the Knowledge Model

In other words:

- Traditionally, we write books, create indexes for each, and then merge the indexes
- Instead, create the index first, then write the books to express the index



Introducing: Topic Maps

- A semantic knowledge model:
“An attempt to provide access to information based on a model of the knowledge it contains.”
Steve Newcomb
- ISO standard
- May be expressed as an XML document



What's a Topic? What's a Map?

➤ DITA:

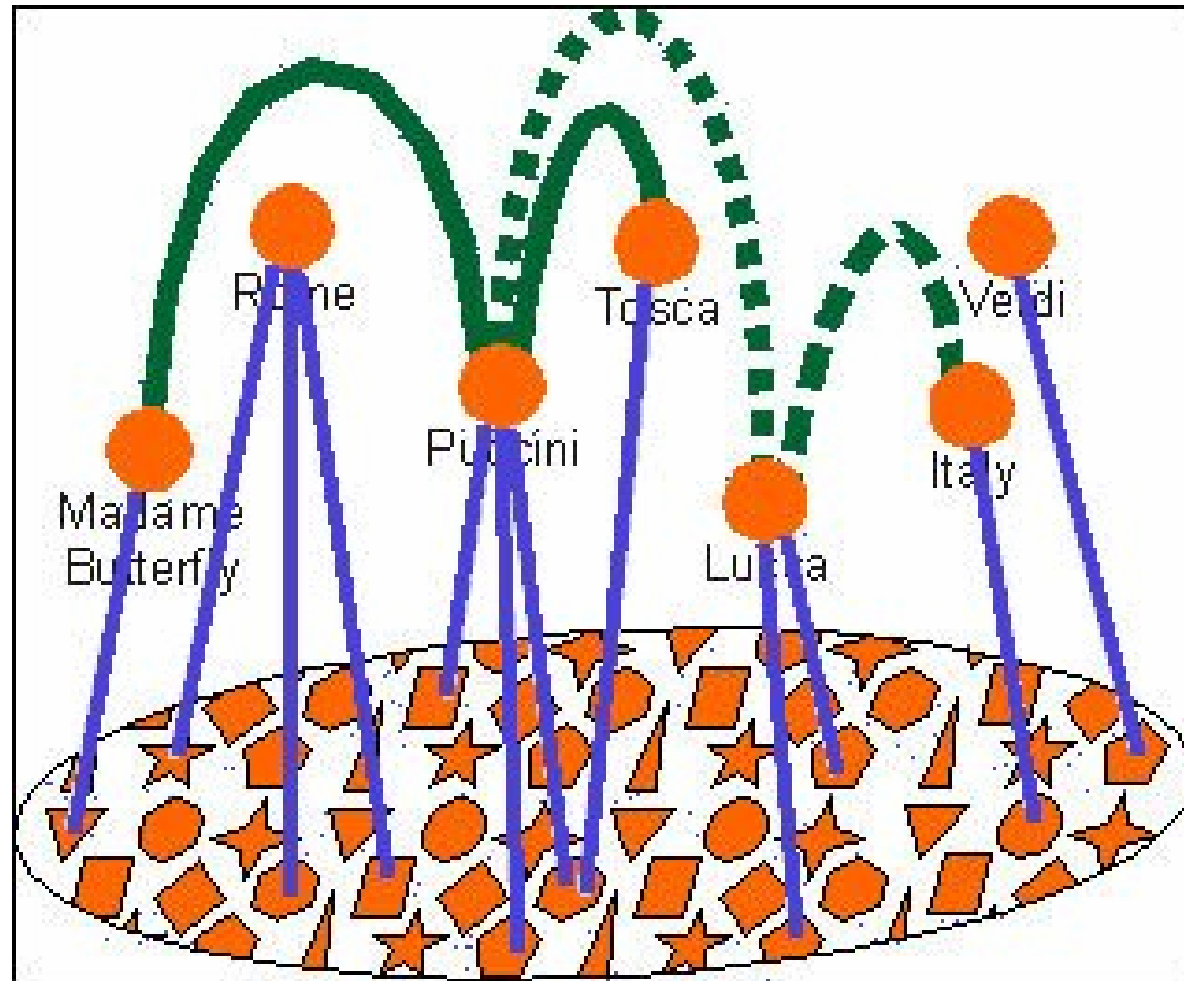
- Topic: represents a unit of information; a content instance
- Map: represents the organization of content into deliverables

➤ Topic Maps:

- Topic: represents a subject, idea, anything about which anything may be asserted or expressed; categorized by Type
- Map: representation of topics, relationships (associations) between topics and “occurrences” of topics within content such as documents, images, video, whatever



Graphical Representation of a Topic Map





Examples of Topics

Type	Topics
Products	<ul style="list-style-type: none">➤ Servers: S1, S2, S3Endpoints: E1, E2, E3Peripherals: P1, P2, P3
Platforms Supported	<ul style="list-style-type: none">➤ Windows, Unix, Linux, Macintosh
Assemblies	<ul style="list-style-type: none">➤ Assy1, Assy2, Assy3
Parts	<ul style="list-style-type: none">➤ P101, P102, P103
Life Cycle	<ul style="list-style-type: none">➤ DesignSell: Demos, Positioning, Related Products, Related Services, Strategy, Target MarketImplement: Initialize, Install, Configuration, TrainingUse: End Use, AdministerMaintain: Troubleshoot, Optimize, Service, Maintenance

Other Topic Types: Features, Tasks, Interfaces, Screens, Use Cases, User Roles, Legal Info



Topic Associations

- Associations between topics are categorized into *types*; each member may have a *role*
 - Solution ↔ System Component
 - Product ↔ Platform Supported
 - Product ↔ Feature
 - Feature ↔ Task
 - Task ↔ Interface
 - Task ↔ Life Cycle
 - Task ↔ User Role
 - Product ↔ Assembly
 - Assembly ↔ Part



Setting Up Your Topic Map

- List Solutions your company offers
- For each Solution: list System Components
- For each Product:
 - Associate with System Components
 - Associate with Platforms Supported
 - List Features
- For each Feature:
 - Associate with Platforms Supported
 - Associate with User Roles
 - List Tasks
- For each Task:
 - List Screens
 - Associate with Life Cycle Stage
 - Associate with User Roles



Topic Occurrences

- Occurrences of topics have *roles*
 - DITA Task
 - DITA Reference
 - DITA Concept
 - Illustration
 - Drawing
 - Flash
 - Video
 - Presentation



Generate List of Content to be Created

- Set rules: Occurrences needed to express each topic

For Each:	Create Content Occurrence:
Product	➤ Overview (DITA Concept), Legal license / liability / warrantee
Feature	➤ Description, Use Case
Task	➤ Procedure (DITA Task), safety instruction
Interface	➤ Screen capture
Screen	➤ List of buttons and fields (DITA Reference)
Assembly	➤ Drawing, List of Parts (DITA Reference)
Part	➤ Description, Supplier, Replacement Part



Author Content

- For each content instance, author knows the topic to be described and the characteristics

Example:

Procedure: Configuring Server Ports (DITA Task)

Characteristics:

- Product: Server S1
- Task: Configure Server Ports
- User Roles: Administrator, Implementer
- Interface: Admin
- Screen: Port Configuration
- Life Cycle Stage: Installation, Configuration
- Platform: Windows, Unix, Linux

Related Content:

- Screen element reference, Screen capture



Generate Deliverables

- Set rules for each type of deliverable

Deliverable	Contents
Installation Guide	<ul style="list-style-type: none">➤ Product Overview, Legal References, Installation and Configuration Procedures associated with User Role=Implementer
Admin Guide	<ul style="list-style-type: none">➤ Product Overview, Legal References➤ For each interface associated with Admin, Implementer, Technician<ul style="list-style-type: none">▪ For each screen, include screen reference➤ For each Task associated with life cycle stage: Installation, Configuration, Administer, Troubleshoot<ul style="list-style-type: none">▪ Include Procedures (DITA Task)



Generate Deliverables

- Set rules for each type of deliverable

Deliverable	Contents
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- | | |
|-------------------|---|
| User Guide | <ul style="list-style-type: none">➤ Product Overview, Legal References➤ Getting Started<ul style="list-style-type: none">▪ For each Task associated with User Role: End User, Life Cycle: Installation, Configuration, include all procedures➤ Features<ul style="list-style-type: none">For each Feature<ul style="list-style-type: none">▪ Include Feature Description▪ For each Task associated with Life Cycle: Use, User Role: End User include Procedure |
|-------------------|---|
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What do you think?

- Which planet is he on?
- Interesting, but not feasible
- Interesting; we should consider this approach when evaluating our information architecture
- Cool! I see where this can really help and want to learn more about it



Be in touch

- ❑ Your feedback and ideas are appreciated!
- ❑ Our team can help your organization evaluate and implement a solution suitable to your own information architecture requirements

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