Implementing Reuse

Table of Contents

Introduction

The plight of the technical writer

The plight of the technical writer is one of balance.

Understanding complex topics and writing in a way that a layman can understand. With such a significant task, it is crucial that writers have the best tools at their disposal.

So what is "reuse?"

It's a powerful mechanism which enables authors to do more of what they enjoy (write) and less of what they hate (non-writing busy-work).

After reading this white paper you will understand:

content reuse

how to implement it in your future writing

how to determine what existing content is a candidate for reuse

and if it's a viable option for you.

In this piece, we will uncover the ways in which a structured authoring environment differs from an unstructured one. We will explore the hidden frustration of unstructured environments. We will discuss real, pragmatic reuse strategies. Finally, we will look at the way in which easyDITA brings your reuse strategy to life.

Unstructured vs structured

Is there a difference?

When we say "unstructured," we are referring to content or systems that lack predetermined data model. An unstructured work environment is very flexible, but the trade off is that it is often inconsistent, inefficient, and inaccu- rate. A perfect example of this is the way the unstructured environments deal with content reuse, namely copy/paste.

Copy/paste, while useful, is limited in its scalability. As your content grows, you must keep track of every instance of past- ed content so that updates can be made consistently where relevant. The inefficiencies go beyond just copy/paste tracking; in fact many writers become numb to the dissatisfaction that an unstructured environment produces. It's understandable; in fact, it's human nature to adapt to our environment and make the most of the hand we're dealt.

Drivers will do the same thing during their morning commute. If there is construction for an extended period, they eventually accept it as the new normal. They adapt. It is only when the construction finally ends that they become acutely aware once again of its inconvenience. In the same way, writers grow blind to workplace frustrations.

Let's review what workflows for unstructured content look like.

During the writing process, the author will send document to an subject matter expert (SME) for review or edits. The SME will make their edits and send it back. Now there are two copies of the document, one on the SME's machine and the original. Perhaps the supervisor of the SME wants to review the document then add some insight. Now there are more mutations of the original document. Ev- ery added editor, reviewer, or recipient will exponentially increase the chance of mutation. At this point, reconciling all the available edits to a single document is almost impossible.

Such chaos is characteristic for unstructured content workflows. A recent poll asked employees what their company's top poor content practice was. An astonishing 87% answered "recreating existing content." Many employees are working longer hours, and feeling more stressed at work. To discover that so much time goes to rewriting something already written; it's a demoralizing thought.

Unstructured vs structured

Let's discuss the alternative.

If unstructured authoring results in writing content twice and using it once, then structured authoring allows you to write it once and use it twice, thrice, frice(?)... you get the idea. Structured authoring provides architectural-like consistency. It operates within a framework. This framework minimizes accidents and anomalies while strengthening the usefulness of good content. With a structured authoring environment, writers only write content once. They then utilize content reuse to create many new deliverables with their referenced content.

The concept of reuse is sometimes misunderstood. For the sake of clarity, let's provide a basic definition.

DITA content reuse: When a source topic or part of a topic is written once and referenced in multiple publications.

A simplified example is an email signature. You "reuse" your email signature as the final "section" on all emails. It works in multiple locations so there's no need to rewrite it every time a new email is composed.

With DITA reuse, when updating a topic or section, the change affects all unpublished uses of the topic or section. So, when comparing them, is structured reuse really better than unstructured copy and paste?

Yes. Yes, it is.

Now let's talk about specific types of content reuse.

Structured authoring provides architectural-like consistency. It operates within a framework.

Heretto
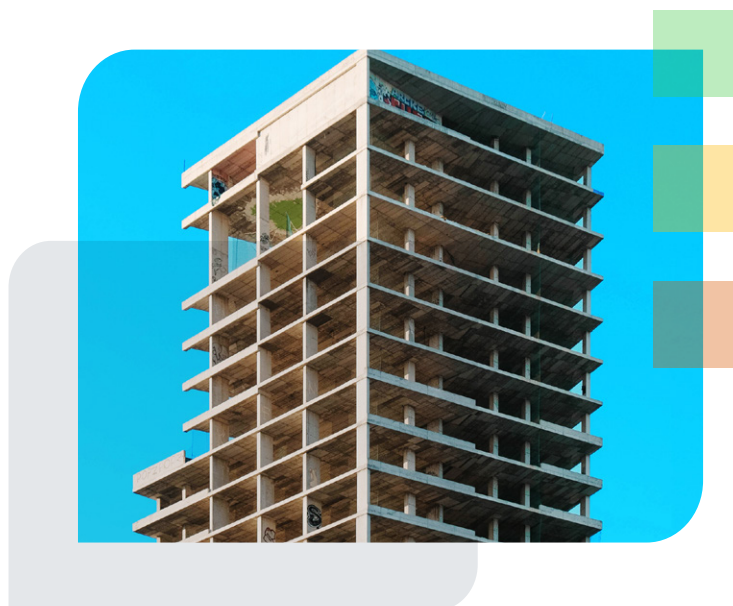
Strategies for implementing reuse

In this section we will take some time to understand what reuse looks like in theory. This will help us lay the groundwork for a reuse strategy before moving on to reviewing the tools needed for the successful implementation of said strategy. This first requires an examination into the different mechanisms of reuse.

There are five primary types of reuse:

1. Topic-level Reuse

2. Map-level Reuse

3. Element-level Reuse (Conrefs)

4. Variable Phrase Reuse (conkeyref)

5. Conditional Content

There are many methods of reuse. Among those, these five unique mechanisms of reuse emerge as the primary forms. We'll provide a brief explanation of each mechanism. At the conclusion of these explanations, we'll illustrate how each type of reuse works within a single example document.
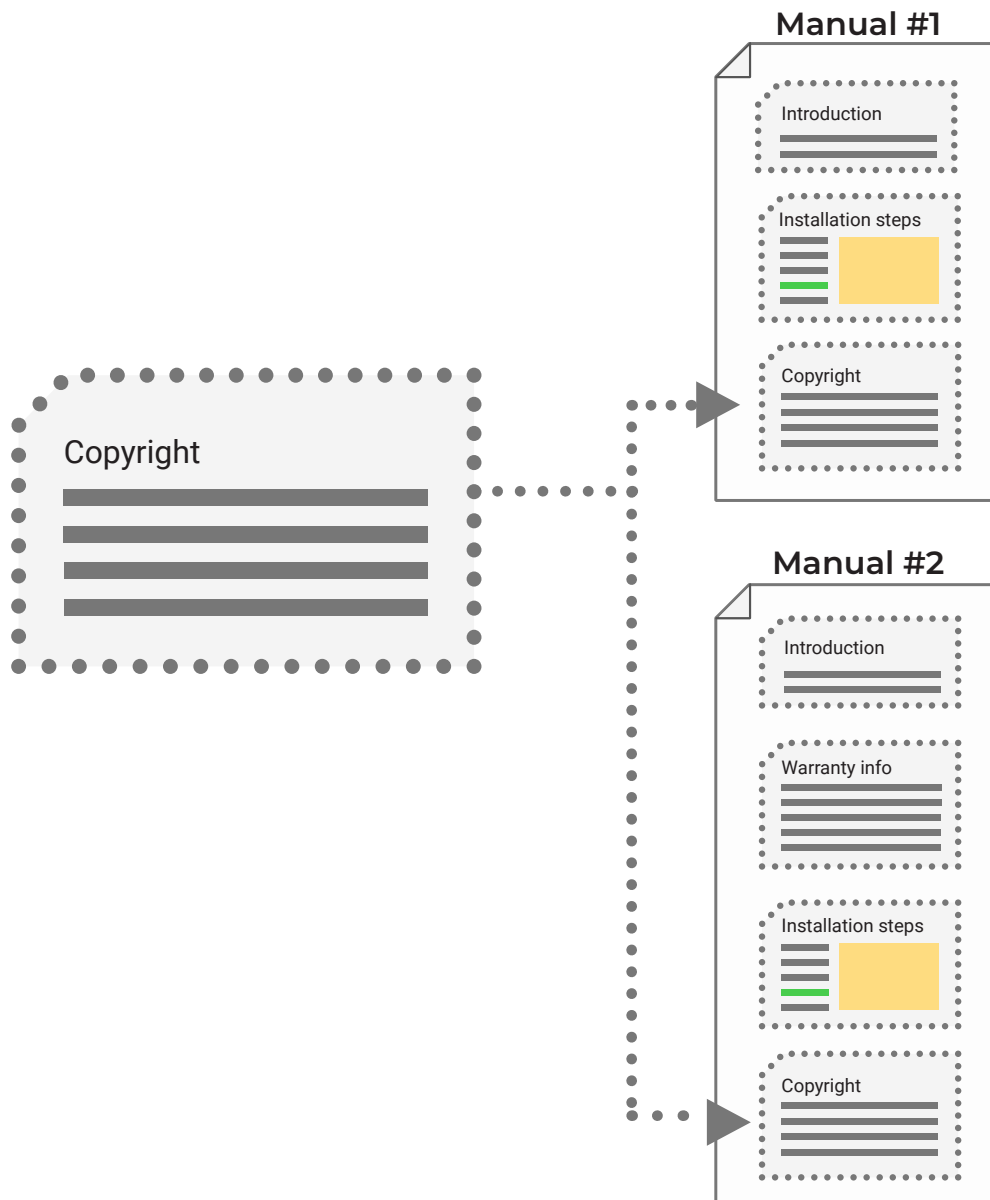
Strategies for implementing reuse

1. Topic-level Reuse

With topic-level reuse, you repurpose an entire topic since all of that topic's content is relevant. A common example is copyright information. You might publish this copyright topic on your website, in your brochures, or in technical documentation. A copyright topic doesn't generally need adjustments based on the context making it a perfect candidate for simple, topic-level reuse. Simply write the copyright information once, and reference (reuse) the topic in as many publications as you'd like.

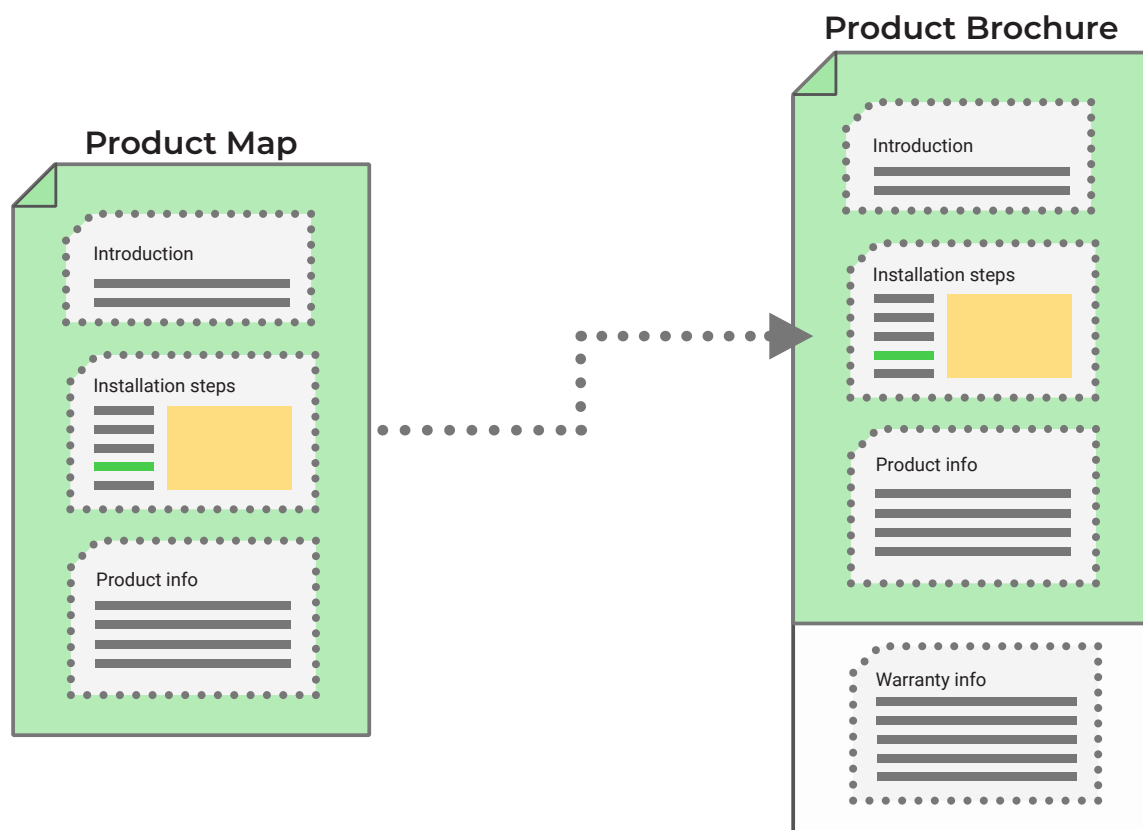**Topic:** A standalone bit of content that's focused on a single subject.

Manual #1

Introduction

Installation steps

Copyright

Copyright

Manual #2

Introduction

Warranty info

Installation steps

Copyright

Strategies for implementing reuse

2. Map-level Reuse

In topic-level reuse, you reuse single chunks of content. In map reuse, you re- use ordered collections of those chunks. Maps provide structure and relationships between your topics. An example of DITA map reuse could be a map for all a com- pany's product descriptions. Each prod- uct description is a distinct topic within the map. The company would then reuse this map in their sales materials, website, and product brochure. Then when prod- uct details change, the edit is made once and automatically updated everywhere the map is reused.

Map: A group of topics linked together. A DITA map organizes topics and other resources into a structured collection of information that typically comprises a single deliverable.

Product Map

Introduction

Installation steps

Product info

Product Brochure

Introduction

Installation steps

Product info

Warranty info

Strategies for implementing reuse

3. Element-level Reuse (conrefs)

Map Reuse and Topic Reuse make large scale reuse doable. But some of the most exciting applications of DITA reuse take place on a smaller scale.

Warehouse topic: A topic that is written specifically to contain specific elements for reuse in multiple topics and maps. Warehouse topics are not used by everyone, but they are recommended and helpful for keeping reusable content stored and organized.

Conref: Short for content reference. A conref is used to reference content stored in another topic or a warehouse topic. This might include content of various lengths from a product names, project steps, or notes.

With conrefs, you have a versatile mechanism for re-use. Conrefs enable partial topic reuse such as steps or notes. However, conrefs are flexible and can reuse anything from multi-paragraph portions of text to a single word. This is manageable by housing the content in a warehouse topic.

This reusable content in the warehouse topic is then referenced with an ID and pulled from that warehouse. A common example of this would be product installation steps. These steps might be the same for two similar products. Rather than writing and copying, the author writes the steps in the warehouse topic and then uses a conref ID to pull the steps. If the steps change in the future, the author simply edits the warehouse topic. The edits will automati- cally apply to any documents referencing the content.

Product Brochure

Introduction

Warranty info

Installation steps

Copyright

Warehouse Topics

Key definitions

Installation steps

Heretto
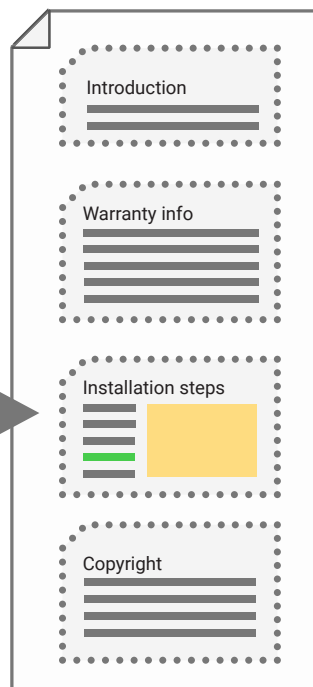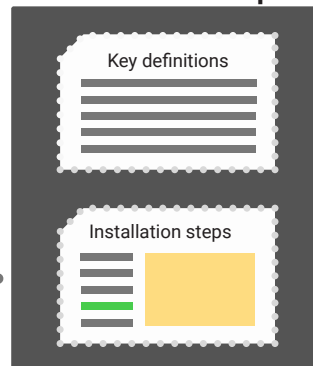
Strategies for implementing reuse
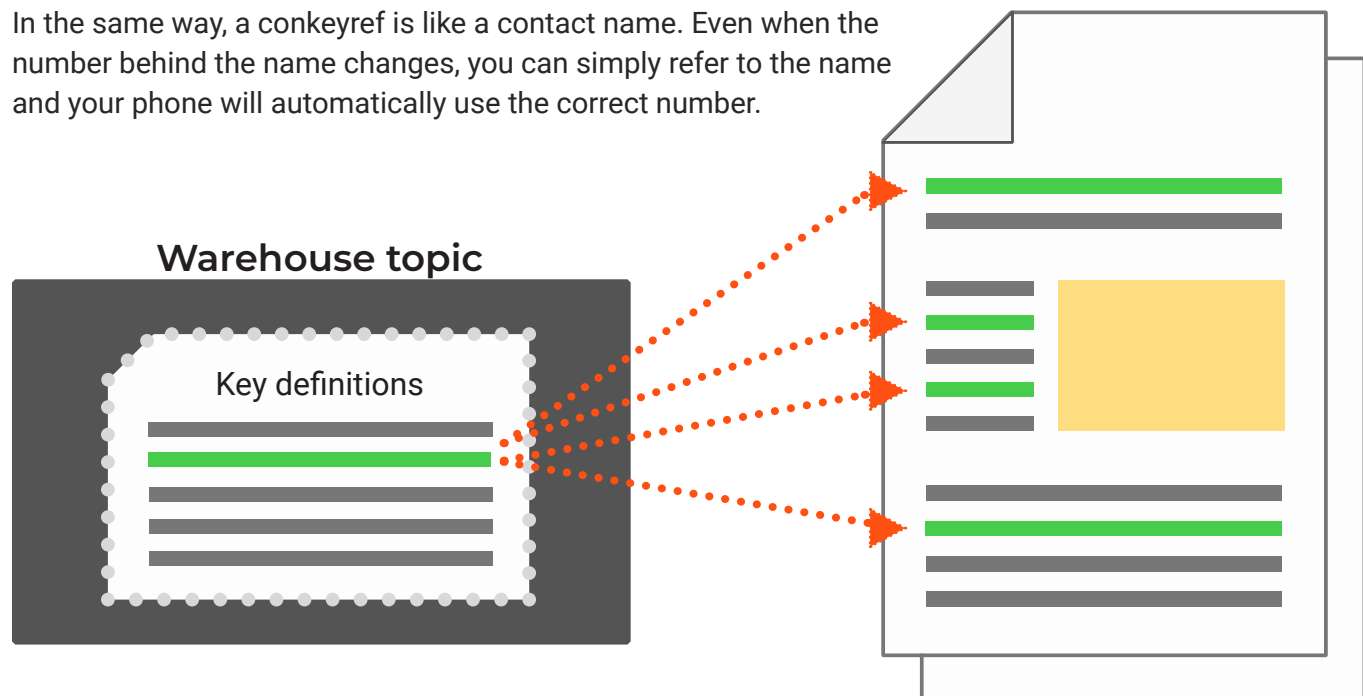
4. Variable Phrase Reuse (conkeyref)

Using conkeyrefs creates an indirect reference to the content.

Variable phrase: A small section of content that is likely to change. Common examples include company or product names.

Conkeyref: The conkeyref attribute provides an indirect content reference to variable phrases. When DITA content is processed, the references resolve using key definitions from DITA maps.[1]

To better understand the functionality of conkeyrefs, let's use the example of a cell phone address book. If your friend Sam gets a new phone number, you would change the contact information in your address book. Next time you call Sam, you will look up their contact in your phone exactly the same. However, the number that your phone actually calls would be the new number. Not the old one.

In the same way, a conkeyref is like a contact name. Even when the number behind the name changes, you can simply refer to the name and your phone will automatically use the correct number.

Warehouse topic

Key definitions

1. https://docs.oasis-open.org/dita/v1.2/os/spec/common/theconkeyrefat- tribute.html

Strategies for implementing reuse

5. Conditional Content

Conditional content is a method of reuse that enables you to filter your content based on the audience. An author can tag different parts of the content for different audiences. These tags will impact which audience sees which published content. For instance, many documents will include topics that are only intended for internal viewing. The author should tag these topics for an internal audience. When published, they will only appear on the documents published for the internal audience.
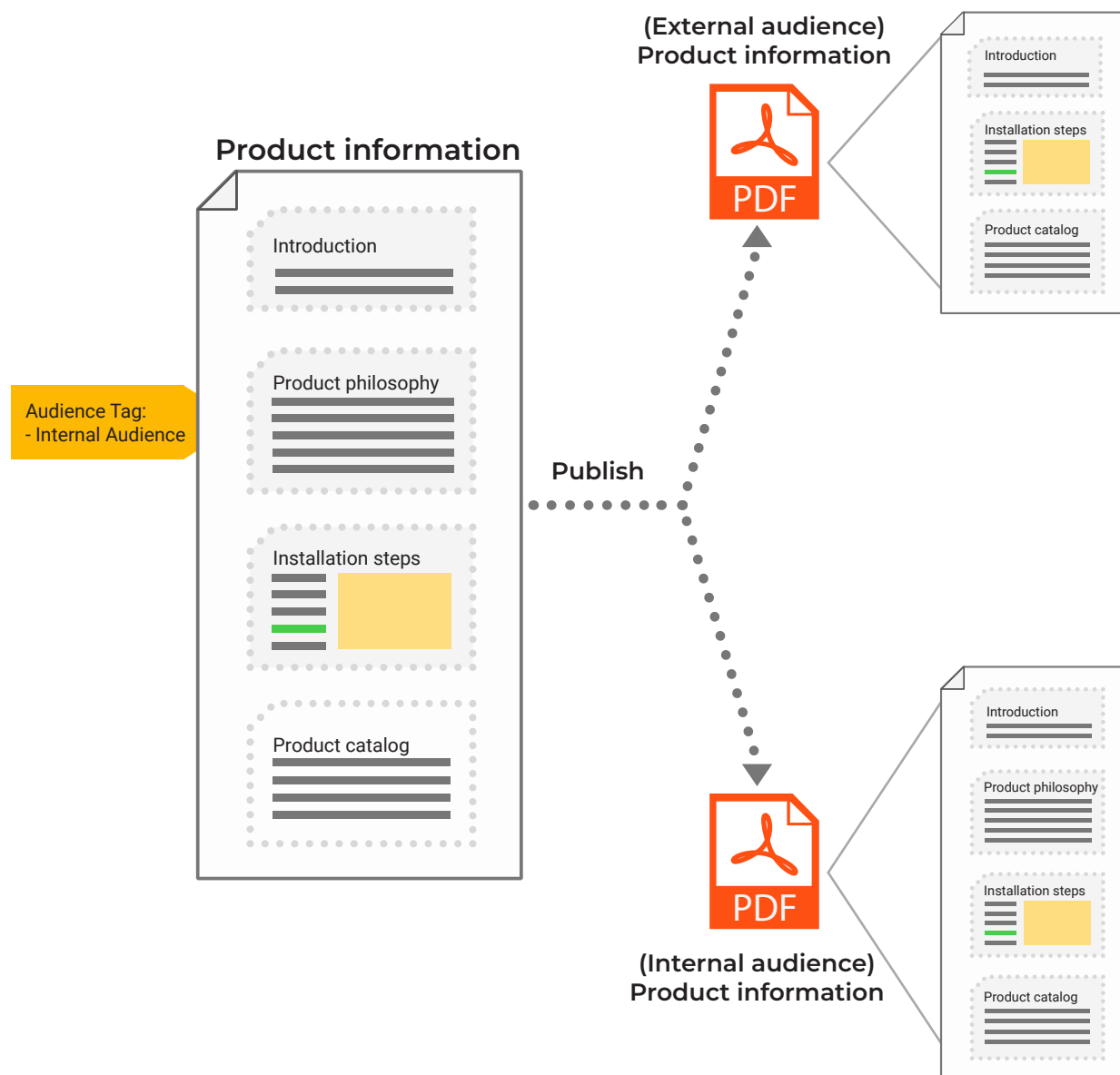
Strategies for implementing reuse

Example

Now even though we are keeping these reuse concepts relatively simple, they are still significant ideas to wrap your head around. To aid in cementing your new understanding on these forms of reuse, we will use a single example and tie all of the types of reuse together.

Tracy is in charge of documentation for their company, Balance LLC. Balance LLC is a fast-rising unicycle company in the United States. Balance LLC specializes in offroad unicycles designed to help you climb mountainsides with circus-like flair. The company's flagship model, the Ascend, is about to get an upgrade and Balance LLC is excited about it's release. In advance of the release of the Ascend2, Tracy is putting together the documentation that will accompany the product release.

Fortunately for Tracy, Balance LLC uses a DITA content management system. Tracy will be able to reuse content for publish- ing the new product document. First things first, rather than starting from scratch, much of the content will be very similar to the documentation for the first Ascend Unicycle. Map-level reuse allows Tracy to use the original Ascend documentation as a starting point for the new, Ascend2 documents.

One unique feature about the Ascend2 is that it incorporates their patented, ultra supportive seat structure previously only used on their city-model unicycle, the Commute (for the Wall Street executive who cares about the earth, but still wants to be noticed). With the utility of topic-level reuse, Tracy is able to reuse the topic already written about the seat structure from the Commute and add that to the DITA map for the Ascend2.

If Tracy had to create this document using old copy and paste techniques, Tracy would have to find all instances of product names such as the Ascend or the Commute and replace them with the Ascend2.

Strategies for implementing reuse

Fortunately, with reuse capabilities, Tracy already applied reuse for these product names. This means that instead of "search and replace," Tracy updates the product name in the source file. That update is automatically applied to all instances of the name in her content.

Since the Ascend2 has a slightly different seat, one portion of the assembly instructions has to change. Tracy references the seat instructions from the Commute documentation where she needs instructions for the Ascend2's seat.

Once the document is complete, it's time for publishing. The Ascend2 is expected to be a big hit in both the United States and Canada, but Canada has more stringent unicycle codes in place. For this reason, Tracy has included a specific section in the legal notice of the document that specifically references the restriction on unicycling on Moose Reservations. This section is specific to the Canadian audience so Tracy tags the Canadian section for the Canadian audience. Then when printed or posted on the company's documentation portal, the relevant information is shown based on the reader's locale.

These reuse strategies work together in harmony so that Tracy spends very little time recreating existing material. When a well-defined reuse strategy is implemented, companies can take full advantage of the powerful reuse opportunities available through DITA.

These reuse strategies work together in harmony

Heretto

Reusing your existing content

Now that you have seen the power of reuse in action, you might be wondering "What about my existing content? Do I have to rewrite everything?"

No, far from it. Much of what you have already created you can retrofit to work well in a reuse strategy. In most cases, you will find that your content falls within one of three categories:

1. **No match** - This is the content that is only used for one specific instance and is very context-dependent. You won't be able to reuse this content nor should you.

2. **Exact match** - Much of your content might already exist in multiple locations. If this content is an exact match, then it is an ideal candidate for reuse.

3. **Fuzzy (inexact or partial) match** - Much if not most of your existing content will fall into this category. With a fuzzy match, your content is similar in multiple locations. With some adjustment, this content could be excellent for re-use.

Here are examples of content considered a fuzzy match:

Naming - Content that is the same except for instances of product name, company address, model numbers etc.

Different processes, definitions, or details - This is common with product instructions. Many products might have similar instructions except for an added step or an extra safety consideration.

Locale - In this instance your content is the same except for minor variances based on the readers locale. A frequent example would be units of measurement. The different units would be referenced and their publishing conditionalized based on locale. (This is not an example of translation difference.)

Different order - The same content might appear in a different sequence.

Subset of content - Reusing for a subset is also a fuzzy match. In this instance, your content has fewer details than the full version but you can still reuse portions for the summary.

Writing new content for reuse

A different mindset

Now that you are familiar with DITA content reuse capabilities, you might see how content created in this structured environment differs from what you would typically write. Before implementing your strategy, there are a few subtle differences in how you should write content for reuse. Many authors actually find this change liberating.

Context-free

In typical writing, we create in a linear fashion. It's how we talk, it's how we think, it's how we write. We write with context, with intent, with thoughts crossing over one another. It's natural, but it's not easy. Maintaining order and balance in a linear writing style takes significant mental or- ganization. Conversely, writing for reuse requires that you remove context from your writing and focus on a single item of knowledge. Rather than trying to weave your topic into the fabric of the document, you isolate the focus of your topic alone. Words like "previous," "earlier," "next," "before," indicate documentation that is too reliant on context.

Here's a simple question to test for the contextual dependency of your writing. If someone was looking for a single piece of information and they found themselves in your document, would they be able to understand your topic without reading anything else?

Another aspect of writing context-free is to never assume the medium through which the reader will view the content. Avoid phrases like "in this chapter," "in this booklet," "in this web portal." You want this content to be reusable in any medium with minimal editing.

Consistent tone

This is not limited to writing for DITA re- use. Consistent tone is a characteristic of good technical documentation. Yet, there are some nuances when applied in a DITA setting.

Keep writing short and to the point. By limiting the subjects covered in a topic, you increase its value for reuse.

When writing for reuse, limit pronouns, avoid idioms, and abstain from colloquialisms. In addition to aiding usual reuse, these rules will help with translation and localization, thus minimizing the costs associated with localization.To help maintain a consistency with your writing for reuse, it is helpful to update your style guide and outline the principles outlined in this section.

Managing and storing reusable content

Content warehouse

A key aspect of your implementation will be where to store the reused content. We recommend creating "warehouse" or storage folder(s) for your content. Well-maintained, centralized warehouses of reusable content prevent accidental edits to content you've reused across your documentation. These editing mistakes would negatively affect multiple documents.
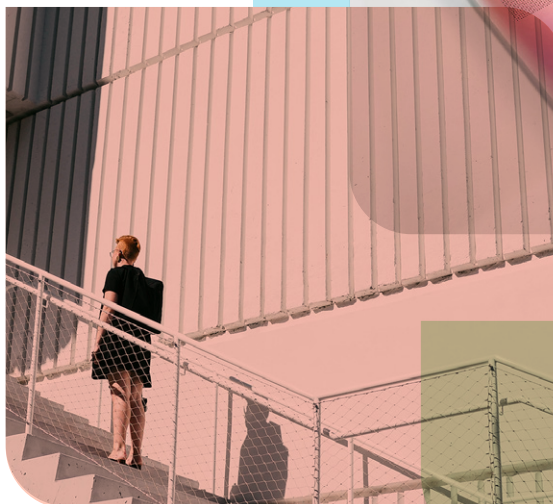
This method of creating content warehouses also allows tracking of instances of reuse. When the author makes edits, they can verify which documents will change. This ensures that the applied changes won't undermine any existing document.

Using warehouse topics for your reuse storage results in a proven increase in productivity and time saving. The more that the topics are reused, the more pronounced this value becomes. In cases of basic warehouse topic reuse with slight variations, users see massive time savings within a handful of reuses[1].

Control access

Before enacting your reuse strategy, define who will have access. Warehouse topics in particular should be guarded and understood by all who access them. Determine early in the process what the management of your reusable content will look like.

Incorrect or accidental edits to these warehouse topics cause significant frus- tration and might even result in publishing incorrect information. Understand who has access and ensure proper training as needed.

1: http://thecontentwrangler.com/2009/11/22/di-
ta-metrics-savings-trend-with-reusable-master-topics/#

Building your reuse strategy

Where to start

When you take time to create a reuse strategy, keep the following in mind:

Understand reuse capabilities

- Topics
- Maps
- Conrefs
- Conkeyrefs
- Conditional content

Establish content management strategy

- Organize warehouse topics
- Determine who has access

Select existing content for reuse

- Exact matching content
- Fuzzy matching content

Write new content

- Establish a style guide
- Write context-free
- Write with a consistent tone

Using the right tool

Strategy to reality

We've spent some time analyzing what constitutes a good strategy for implementing reuse. Hopefully through this process you've already started to identify how your strategy will be realized. At this point, it is appropriate to start analyzing the right tool for the task.

The right tool will enhance your authoring capabilities, simplify your content management, and it will be a tool that you enjoy using. When we developed Heretto Enterprise, we focused on the importance of user experience. DITA, in its raw form, can be intimidating. Because of this, many technical writers miss out for fear of having to "learn how to code" to use it.

We designed our solution to make DITA accessible, reuse straightforward, and documentation easy. We built an intuitive interface that is familiar to everyone without sacrificing DITA's robust utility. Now in our newest version, we've made this functionality even more accessible while dramatically increasing speed and performance, all with fully collaborative functionality.

Implementing reuse with Heretto

As we already mentioned, the power of reuse is not simply limited to existing content, but it enables a host of benefits for authoring new content. Authoring in Heretto simplifies writing and streamlines content reuse.

Within the editor, we wanted reuse practice to be accessible, and to make sense. Ease of use is a core element of a quality DITA experience. However, ease of use doesn't mean sacrificing functionality. Though the interface is clean and minimal, the power at your fingertips is immense.

With just a few clicks, writers can start inserting references and creating documentation quickly and efficiently. In addition to enabling easy reuse, Heretto also simplifies management. The folder view indicates instances of reuse and gives you fast insight into how often your team uses content reuse mechanisms. This view also quickly indicates if reference links are broken and not pulling referenced content. This saves time and headaches as you can identify these problems before publishing your documentation.

Heretto simplifies writing and streamlines content reuse.
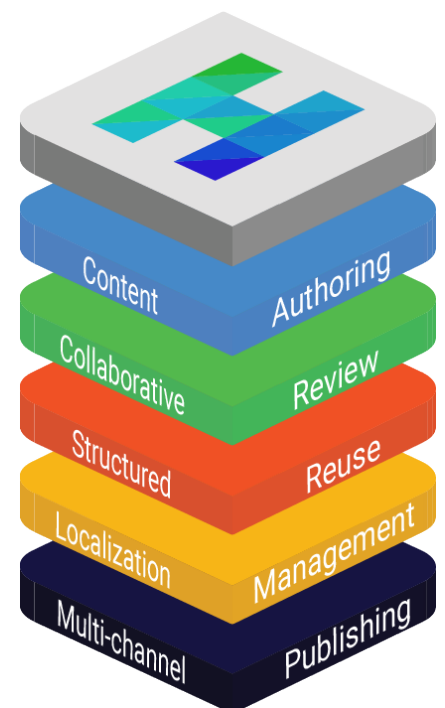
Conclusion

The plight of the technical writer: Understanding complex topics and writing in a way that a layman can understand.

With such a significant task, it is crucial that writers have the best tools at their disposal. An authoring environment should make a technical writer's efforts more effective and remove the difficulties and frustrations that get in the way.

Heretto is a system that puts the writer and their writing first and foremost. Reuse opens the door to huge increases of productivity if properly harnessed and executed; Heretto is the tool that maximizes your reuse efforts.

Content reuse is just a part of the significant ROI available when a company transitions from unstructured to structured authoring.

We've worked with numerous companies to transition to structured content. We've accumulated a lot of knowledge and a lot of experience through this process and we want to make this insight available to everyone.

Further resources

With DITA you can more efficiently:

- Update your documentation
- Manage your single source of truth
- Review your work
- Localize your content
- Publish to multiple channels with ease

If you want to learn more about how DITA enables all of this and more, contact us directly or check out our resources written by our structured authoring enthusiasts. Visit our **Resources page.**

For more about DITA strategies, best practices, guides, or answers to common questions, visit our **Documentation Site.** We are excited to help you along your journey to a faster, more efficient document creation process.

Heretto, Building Better Knowledge Experiences

We're here to help companies transform their knowledge, product, and reference content into customer and employee experiences worth talking about.

Our solution is a leading Content Operations platform designed to optimize creating, controlling, and deploying knowledge, product, and reference content for companies with complex products and services, global audiences, and intricate regulatory requirements.
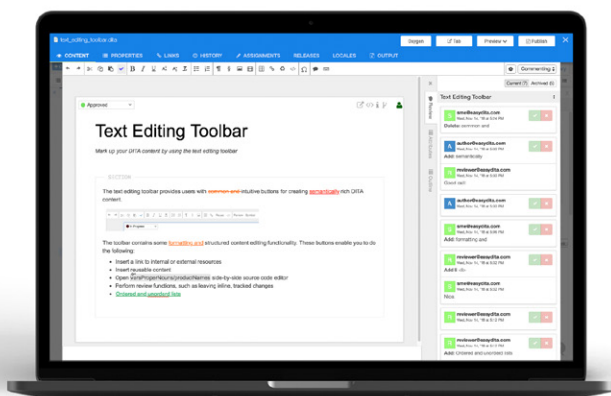
Join us for a **demo** to get started today!

About Heretto

Heretto, a content operations platform for knowledge management, is a SaaS-based solution used by many of the world's top brands. Heretto increases customer satisfaction, efficiency and time-to-market by providing organizations with a powerful platform to create, control, and deploy knowledge, product, and reference content to any audience at any time. Content can be authored, updated, recycled, translated and published to web, PDF, chatbots, and applications in an intuitive workflow. Teams can collaborate on a single document simultaneously to minimize cost of content and increase quality and consistency from anywhere in the world. Clients include many of the world's top companies across industries such as high-technology, manufacturing, insurance, and medical devices. Heretto is a global company headquartered in Rochester, New York.

1-877-492-2960

Heretto
320 Goodman St N, Suite 104
Rochester, NY 14607

web: **Heretto.com**
e-mail: **contact@Heretto.com**