

Content Standardization: Making Your Automation and Reuse Strategy a Success



Content Standardization: Making Your Automation and Reuse Strategy a Success

Across all BioPharma companies, irrespective of their sizes, have reached a content breaking point. Traditional methods of document creation and publishing no longer serve the best interests of the corporation, the content creators, or the end consumer. There is tremendous momentum behind efforts to modernize the way we create, store, manage, publish, and update content.

Everyone knows that copying and pasting (and tweaking) content from document to document is time-consuming and fraught with risk. To mitigate that risk, many companies are embracing the possibilities of structured content (irrespective of what interface they use, MS Word or Web-based). These possibilities include (but are not limited to):

- Content reuse from a single source of truth
- Automated content assembly, formatting, and publishing
- Multi-channel publishing from a single source of truth
- Detailed audit trails from authoring to archiving for every piece of content
- Automated convergence of content and data

Many Companies have made the decision to move to a structured content authoring environment. However, for structured content to deliver on its promises, the content must be standardized and also integrate well with MS Word (as it's still the primary go-to authoring tool for many).

In this document, we explain what content standards are and why they are important. We introduce the Three Elements of Content Standardization.

We explain how our content standardization framework makes content FAIR (findable, accessible, interoperable, and reusable). Finally, we suggest some next steps that you can take to prepare your content for the future.

Why Component-Based Structured Content Is Important

Component-based structured content is important because it creates opportunities for content reuse and automation. With component-based structured content, content is created in small, reusable “chunks” that are assembled to create deliverables such as knowledgebase articles and user guides.

Component-based structured content helps companies save time and money, produce multi-channel output, and scale.

Save Time and Money

In most companies, employees spend significant time (and money) searching for information. Once they find information, they spend yet more time determining whether what they have found is current.

In our experience, using standardized structured content enables companies to create content as much as five times faster than they do using unstructured content.

This time savings comes from many capabilities:

- Automate the creation, revision, and production of outputs
- Streamline the writing process so that authors focus on creating new and changed content rather than tweaking existing content
- Reduce review and revision cycles through content reuse rather than creating redundant content
- Send only new and changed information to translation, rather than sending an entire document (even if most of the document has not changed)

Output to different stake holders

In a component-based structured content ecosystem, the content is separate from its format. For example, text exists as only text. It does not have any format associated with it. It is not “on a page” or “on the screen.” At the point of publishing, the format is applied to the content.

This means that the same content can be used for multiple outputs. For example, a laptop screen, a tablet screen, and a phone screen can all use the same content. During the publishing process, the text is formatted for each type based on who the end consumer is (Internal team or Patient or Regulatory authority). Formatting can include font, font size, justification, and more.

Scale

Component-based structured content is scalable. Structured content helps companies realize their business goals: saving money and reducing time to market.

Using structured content, companies can:

- Automate content creation, revision, assembly, and delivery
- Create, update, manage, and translate content once and reuse it everywhere they need to say the same thing

Using standardized structured content, companies can deliver content in a multitude of formats. At the same time, companies can significantly reduce the time it takes to produce the output in all formats and languages.

The Three Elements of Content Standardization

The Three Dimensions of Content Standardization framework ensures that content is FAIR. It ensures that content is reusable, and that data and content can be integrated. When content is standardized in all three elements, processes from authoring to archiving can be automated, streamlined, and consistent. Content accuracy and quality increase. Time spent, costs, and risks are minimized.

The 3 Elements of Content Standardization are:

1. Output type
2. Component
3. Paragraph

Element One: Output Type

An output type is an assembly of content that is delivered as a complete unit. Some common output types include:

- Regulatory facing document
- Documents to be included in Dossiers
- Internal
- Part of another larger document
- Marketing/Commercial related
- Patient facing

A standardized output type provides a model to ensure that all requirements for a particular output are met. Output type content standards define:

- The type of content to include
- The order in which to include the content

- Which content is required and which content is optional
- Which content to reuse every time
- Which content to create new every time

The file format of your delivered content does not drive your output type standards. You can deliver an output type in many different file formats, such as a WORD, PDF, a spreadsheet, or a presentation. You may have certain design requirements for different file formats, such as whether to include an index in a PDF. Those requirements are part of formatting and design, not part of content standards. Output type standards define the requirements for content regardless of what format that content ultimately flows into.

The process of standardizing output types includes identifying opportunities to reuse content. You can then configure systems to provide the correct reused content component at the right time, automatically. For reuse that requires human intervention, you can train authors when to reuse which content.

Element Two: Component

A component is an independent unit of content that can be combined with other components to create an output. Component standards include criteria such as:

- The type of component
- The order of the content within the component
- What content is mandatory and what content is optional
- Authoring guidelines for creating consistent content
- Boilerplate text where applicable

Some common components include:

- Introductory section in an overview
- A process in a labeling guide
- A table for specifications in a CMC stability report

Headings and subheadings within a document emulate components. However, these components only become modular and reusable when used in conjunction with a component-based structured content management system. Components may also be more granular within a section to increase the potential for content reuse.

Components used in multiple outputs should be single sourced. In other words, write the component one time and use it in every output you need to deliver. Developing single-sourced components according to standards makes content creation faster, improves content quality, and reduces the risk of introducing inaccuracies and errors.

All components need to follow your component standards, whether the component is reused twice or twenty times, or not at all. By standardizing the structure of components, you ensure that components written by different authors, different geographies, and different times of creation flow together in a cohesive, comprehensible way. You also ensure that a component viewed on its own contains all relevant information, in the expected structure.

Element Three: Paragraph

The paragraph is the central building block of your content. Paragraph standards guide authors in how to provide information in accessible units. For example, scientific documentation has traditionally included many long, dense paragraphs that often combine data with narrative. These paragraphs are more difficult to read than short, crisp paragraphs that group information together both logically and visually.

Paragraph standards include criteria such as:

- Recommended maximum length
- Voice and tone guidelines
- Target reading level
- When to use lists or tables instead of paragraphs
- When to use notes, cautions, and warnings

Shorter paragraphs are easier to navigate and comprehend for people who have English as a second language or who are reading the content in translation.

Paragraph standards help ensure that components fit together seamlessly when they are reused across different outputs. This unity is important to reuse content successfully.

Don't Wait for a New Tools

You do not need to wait for new tools before you develop standards.

It takes time to develop, test, and adopt standards. It also takes time for authors to learn to write to the standards. You can begin standards development and change management right away. Authors can begin to create content according to standards and work “as if” you have a component-based structured content ecosystem. Your content quality will improve, and your teams will be poised to adopt new systems when the time comes.

Summary

Component-based structured content provides many capabilities:

- Content reuse from a single source of truth
- Automated content assembly, formatting, and publishing
- Multi-channel publishing from a single source of truth
- Detailed audit trail
- Automated convergence of content and data

To be successful using component-based structured content, you need to develop and implement standards. Content standards make content FAIR and help ensure the successful integration of people, processes, and systems.



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