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# DITA 2.0: Are we there yet?

[five minutes later] Are we there yet?

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**Robert D Anderson**

**Oracle**

Boston DITA Users Group, December 8, 2022

# Agenda

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- Regrets that I cannot be there in person
- DITA 2.0: Is it really backwards incompatible?
- What's new in version two
- Process and timeline
- Questions
- Resources





# Introduction – why are you hearing from me?

- Robert D Anderson
- Not an original voting member of the DITA TC, but close
- Editor of OASIS DITA Specification, Versions 1.1, 1.2, 1.3, and now 2.0



# This is where I would normally ask about all of you...

Who here misses doing these things in person?

Anyone here...

- Already trying out DITA 2.0 in beta versions?
- Just looking to find out what is coming?
- Still not on DITA 1.3?



## DITA 2.0: Is it really backwards incompatible?

Yes.

Yes, it is.



## Will that be a problem?

Probably not.

There will be a migration step.

But you can prepare ahead of time and ease the transition.

The minimum change: document type identifiers are changing:

```
"-//OASIS//DTD DITA Topic//EN"
```



```
"-//OASIS//DTD DITA 2.0 Topic//EN"
```





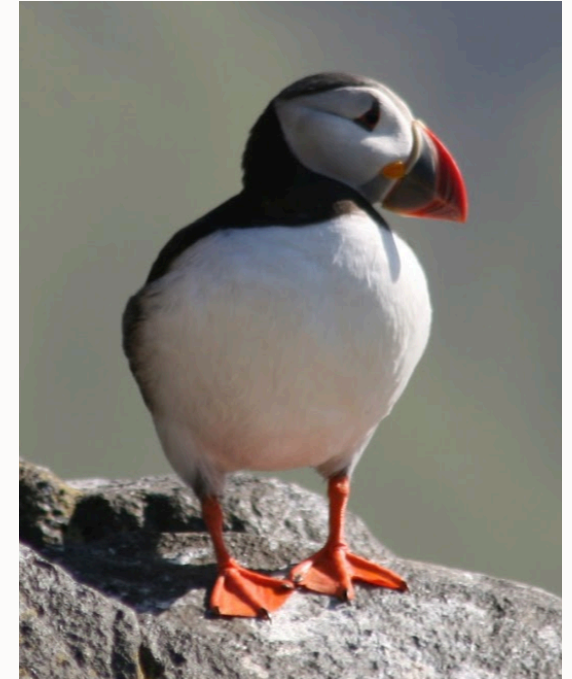
# Why backwards incompatible?

- Reduce technical debt
- Reduce overhead for the committee and in the standard
- Use new approaches and new designs
- Remove duplicate functionality



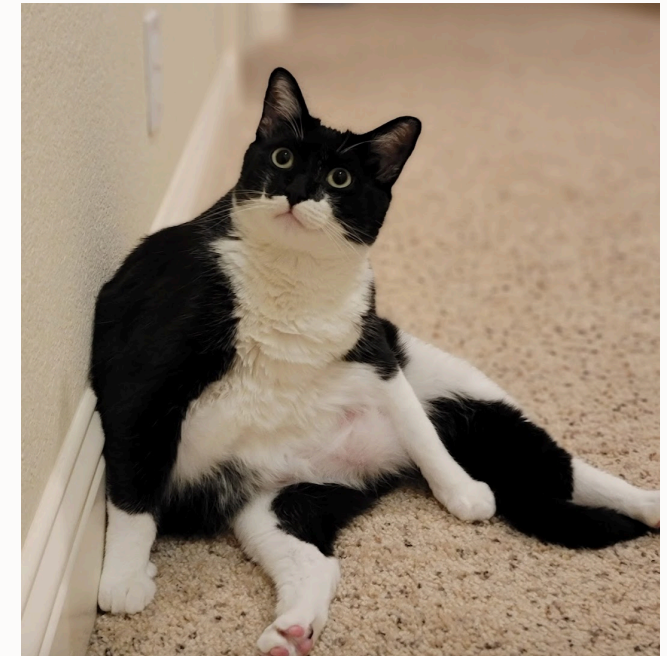
# How is the specification changing?

- Delivered in two packages: Base, and technical content
  - Does not allow for "continuous delivery", but a step in that direction
  - Base is already undergoing internal reviews, and will be released first
- Changes to the content
  - Break away from "Architectural vs Language reference"
  - More logical and consistent organization



# No more XSD, and removing some specializations

- Will not ship modular XSD for DITA 2.0
  - Recommend generating monolithic XSD for tools that need it
- Removing specializations
  - Learning and training
  - Machinery task
  - Task prerequisites domain
- These will all be updated for DITA 2.0 and made available, but not part of the official DITA 2.0 standard





# What do you get for migrating?

- New markup with new features
  - Multimedia
  - More functional simple tables, book maps
  - New `<include>` element
- More intuitive markup
  - Improved key-based text and link text
  - Redesign of navigation titles
  - Simplify chunking
  - Finally fixing `<steps>`
- You won't see a lot of the things that get in the way today





# Chunking redesign

## What problem does this address?

- Chunk attribute values are confusing
- Full implementation is very difficult

## Plan for DITA 2.0:

- Replace all currently-defined chunk attribute tokens with two
- Remove description of functions that were never fully developed

***May require changes to DITA 1.x source files.***

## Implementation

- Remove tokens: `select-topic`, `select-document`, `select-branch`, `by-topic`, `by-document`, `to-content`, `to-navigation`
- Add two new tokens:
  - `split`: split multi-topic documents
  - `combine`: combine topic documents

## Champion

Robert D Anderson,  
Oracle



# Multimedia elements

## What problem does this address?

- No clear way to add audio, video to DITA
- The `<object>` element is outdated

## Plan for DITA 2.0:

Add new, simple elements for audio and video content.

## Implementation

- Add a new element: `<audio>`
- Add a new element: `<video>`
- Add three sub-elements for controls

## Champions

Kristen James Eberlein,  
Eberlein Consulting LLC

Built on work completed by  
Chris Nitchie



# Improvements to <steps>

## What problem does this address?

- Cannot reuse a sub-step as a step
- Cannot have 3 levels of steps in a task
- Cannot have unordered steps within a step

## Plan for DITA 2.0:

- Remove markup that was there to enforce best practices
- Leave those practices up to authors

***Requires changes to DITA 1.x task topics.***

## Implementation

- Allow <steps> to nest inside of a <step>
- Remove <substeps> and <substep>

## Champion

Robert D Anderson,  
Oracle



# Improvements to how variable text is defined

## What problem does this address?

- Rules are confusing
- Approach differs for variable text and links

## Plan for DITA 2.0:

- Single element for key text resolution
- Simplify rules around key resolution
- Goal: make this easy for authors, easy for implementors

***May require changes to DITA 1.x source files.***

## Implementation

- Add a new element: `<keytext>`
- Simple rule for key text resolution: always check this element first

## Champion

Kristen James Eberlein,  
Eberlein Consulting LLC





# Relax specialization rules

## What problem does this address?

Customization that should be easy is hard or impossible.

## Plan for DITA 2.0:

- Make it legal to add a specialized attribute to one element
- Make it legal to add a specialized element to one context

## Implementation

- Introduce concept of "element configuration"
- Relax rules about how to define a specialized attribute

## Champions

Chris Nitchie,  
Individual Member

Kristen James Eberlein,  
Eberlein Consulting



# Improvements to book map

## What problem does this address?

- No obvious location for keys, subject scheme
- No way to make use of change history

## Plan for DITA 2.0:

- Add a grouping element at the start of the map for processing resources
- Add a way to indicate that a processor should generate change history (using elements from the release management domain)

## Implementation

- Add a new element: `<mapresources>`
- Add a new expectations for `<amendments>`

## Champions

Kristen James Eberlein,  
Eberlein Consulting LLC

Significant contributions by  
Eric Sirois, Ixiasoft



# Flagging enhancements for DITAVAL

## What problem does this address?

- When content is already tagged with metadata, there's no obvious way to style it
- For example, `product="myThing"`

## Plan for DITA 2.0:

Update DITAVAL to associate a CSS class with any metadata marked for flagging.

## Implementation

- Add `@outputclass` to DITAVAL properties
- When used to flag content, processors are expected to treat that as a CSS class on matching content

## Champion

Robert D Anderson,  
Oracle



# Make <example> available in more places

## What problem does this address?

- I have examples in my figures, paragraphs, and lists
- DITA only allows <example> in the topic body

## Plan for DITA 2.0:

Make the element available in more places.

## Implementation

- The <example> element is allowed in any location that already allows block-like content
- For example, within sections, lists, and figures

## Champion

Scott Hudson,  
ServiceNow





# Make <sup> and <sub> available in glossary elements

## What problem does this address?

Unable to add text formatting to glossary terms using existing DITA elements.

## Plan for DITA 2.0:

Make that possible.

## Implementation

- Allow <ph> in glossary terms
- DITA specialization rules mean this brings in highlighting elements

## Champion

Scott Hudson,  
ServiceNow



# Improvements to hazard statements

## What problem does this address?

- Unable to use multiple hazard symbols in a hazard statement
- Unable to properly format hazards without using `@outputclass`

## Plan for DITA 2.0:

Redesign the hazard related elements to make them simpler and better aligned with industry requirements.

***May require changes to DITA 1.x source files.***

## Implementation

Redesign the module, including:

- Align with ANSI X 535.6
- Enable use of multiple hazard symbols

## Champion

Kristen James Eberlein,  
Eberlein Consulting LLC



# Improvements to indexing

## What problem does this address?

- Indexing has too many elements, and some do nothing
- Multiple ways to specify sorting
- Inconsistent processor support

## Plan for DITA 2.0:

- Move all indexing elements into the base vocabulary
- Remove redundant features

***May require changes to DITA 1.x source files.***

## Implementation

- Make `<index-see>` and `<index-see-also>` base elements
- Remove `<index-base>`
- Remove `<index-sort-as>` in favor of `<sort-as>`
- New specification section on indexing

## Champion

Kristen James Eberlein,  
Eberlein Consulting LLC



# Improvements to `<simpletable>`

## What problem does this address?

- Simple table is too simple, but CALS tables are too complex
- Basic functionality common in HTML is missing
- Lightweight DITA is a natural fit for the middle

## Plan for DITA 2.0:

Introduce a small number of table features to `<simpletable>` to better align with HTML tables, Lightweight DITA.

## Implementation

- Add titles to `<simpletable>`
- Allow entries to span rows and columns

## Champion

Carlos Evia,  
Virginia Tech



# Diagnostic information in troubleshooting topics

## What problem does this address?

Diagnostic information is a standard part of troubleshooting, but there is no obvious location for this in the troubleshooting topic.

## Plan for DITA 2.0:

Add elements to support diagnosis.

## Implementation

Add three new elements:

- `<diagnostics>`
- `<diagnostics-general>`
- `<diagnostics-steps>`

## Champions

Dawn Stevens,  
Comtech Services, Inc.

Kristen James Eberlein,  
Eberlein Consulting, LLC





# New `<include>` element

## What problem does this address?

- DITA has several ways to include external text or markup, but they are inconsistent
- Each mechanism is highly targeted, so there is no general element to include XML or text

## Plan for DITA 2.0:

- Provide a general mechanism
- Make the existing mechanisms use consistent rules, based on that mechanism

***No changes to DITA 1.x source files, BUT will impact processors and stylesheets***

## Implementation

- New element: `<include>`
- Existing elements `<coderef>`, `<svgref>`, and `<mathmlref>` are now based on include, and use the same rules

## Champion

Chris Nitchie,  
Individual Member



# Expand alternate titles, and make `<navtitle>` make sense

## What problem does this address?

- No way to create special titles (see: book map)
- Navigation titles are confusing, particularly to new authors

## Plan for DITA 2.0:

- Provide a general "alternate title" element
- Add a default domain for common types of titles, including `<navtitle>`

***May require changes to DITA 1.x source files***

## Implementation

- New element: `<titlealt>`
- New domain with several specializations
  - `<navtitle>` → processors should use
  - `<titlehint>` → hint for the author
  - `<linktitle>`, `<subtitle>`,  
`<searchtitle>`
- Remove `@locktitle`

## Champion

Chris Nitchie,  
Individual Member



# New emphasis domain

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## What problem does this address?

The default highlighting elements are purely for highlighting, with no meaning.

## Plan for DITA 2.0:

Add elements for emphasis.

## Implementation

- Add a new element: `<em>`
- Add a new element: `<strong>`

## Champion

Keith Schengili-Roberts,  
Precision Content



# New hardware domain

## What problem does this address?

DITA is often used to support technical content for hardware, but existing domains only focus on software.

## Plan for DITA 2.0:

Add a hardware domain for basic hardware components.

## Implementation

- Add a new element: `<hwcontrol>`
- Add a new element: `<partno>`

## Champion

Zoe Lawson,  
Individual member



## Small (but important) changes and cleanup

- Make `@outputclass` universal
- Resolve inconsistent `@class` attribute values for three elements
- Make `<imagemap>` available inside of figures
- Remove `@xtrf` and `@xtrc` from base vocabulary
- Split syntax elements into a new domain (previously programming)
- Replace `@domains` attribute with simpler `@specializations`

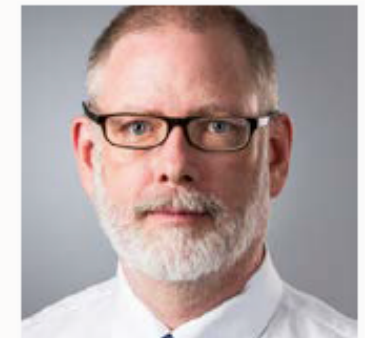
### Champions

Robert Anderson,  
Oracle

Kristen James Eberlein,  
Eberlein Consulting, LLC

Zoe Lawson,  
Individual member

Eliot Kimber,  
Individual member



# Remove deprecated items

## What problem does this address?

- DITA has obsolete markup that has been marked deprecated
- It gets in the way – for authors, implementors, and even for the technical committee

## Plan for DITA 2.0:

- Remove anything previously deprecated
- Remove additional items made obsolete by DITA 2.0

***May require changes to DITA 1.x source files***

## Implementation

- Removing deprecated elements and attributes
- Removing related information in the specification
- Migration guide will have details

## Champion

Kristen James Eberlein,  
Eberlein Consulting LLC



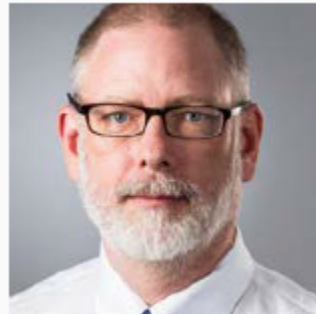


## Additional language simplification and cleanup

- Remove @copy-to and @lockmeta
- Remove "delayed conref" domain
- Remove <topicset> and <topicsetref>
- Remove @type attribute value "fastpath" from <note>



Alan Houser,  
Individual member



Eliot Kimber,  
Individual member



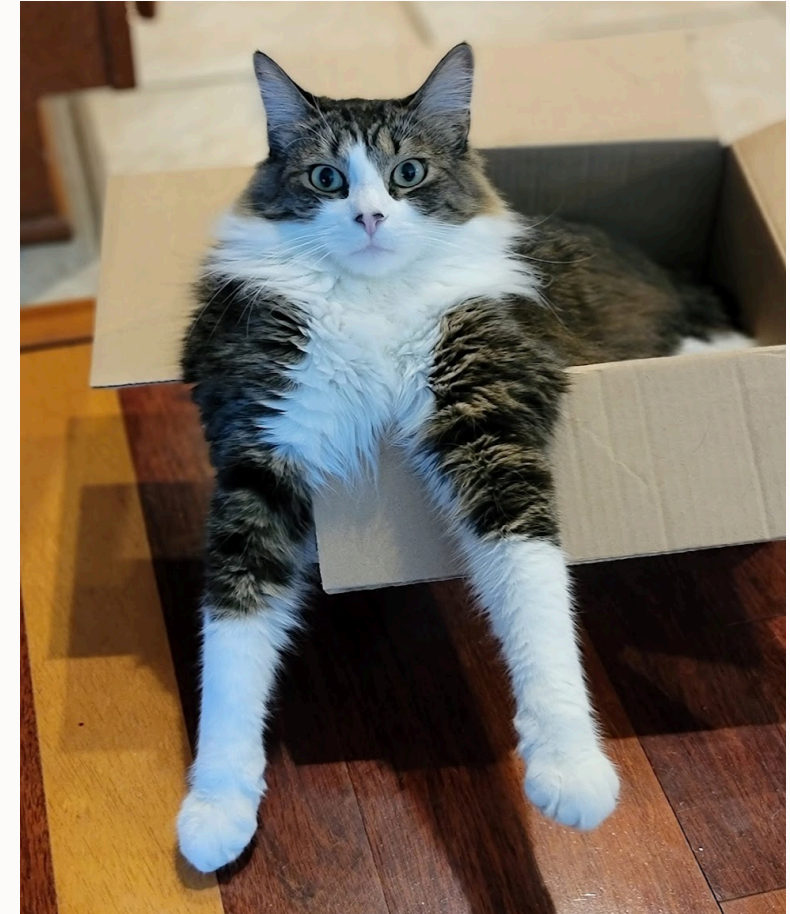
Bill Burns,  
Healthwise



Keith Schengili-Roberts,  
Precision Content

## Process and timeline

- Currently conducting focused internal reviews
  - Short reviews for TC members
  - Based on past experience with larger reviews
- Expect to complete next year and begin formal standards process
- Once that starts, begin focused work on technical content
  - Already up to date with all changes
  - Internal reviews will follow reviews of base content



# Questions

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# Who participates in the technical committee?

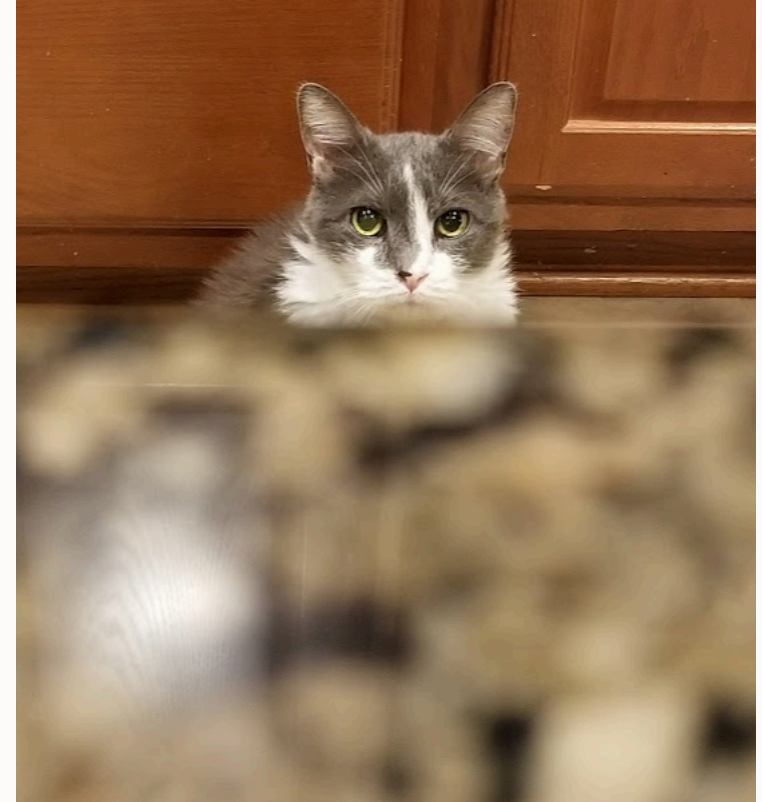
- 16 voting members
  - Information developers
  - Information architects
  - Managers
  - Professors
  - Consultants
  - Software developers / vendors
- Presently dialing in weekly from
  - US
  - Canada
  - Germany
  - Israel





## Is the audience from DITA 2.0 different than 1.3?

- In general, no. Primary audience continues to be implementors
- Definite effort to make it more readable, more accessible, better organized



## Is it done (can I start implementing yet)?

- Development is complete, but issues will be discovered during review
- For example: recent discussion around `<hasRelated>` + `<hasKind>` + ...



## Can I use DITA 1.3 and DITA 2.0 together?

- Depends on your environment and tools
- You can upgrade when needed
- Upgrading brings new features
- Most tools will continue to support 1.x





# Any more changes coming to DITA 1.3?

- DITA 1.3 Errata 02 is the last update
- There is a minor hotfix branch at GitHub
- Tools that support 1.x will likely continue
  - Different ID means tools can recognize 1.x versus 2.x





## Were the pictures of your cats?

Apart from the laser cats, yes



# Resources

- Latest beta grammar files:  
<https://github.com/oasis-tcs/dita/releases/>
- Latest technical-content beta grammar files:  
<https://github.com/oasis-tcs/dita-techcomm/releases/>
- Submitting a comment to the DITA TC Comment list:  
[https://www.oasis-open.org/committees/comments/index.php?wg\\_abbrev=dita](https://www.oasis-open.org/committees/comments/index.php?wg_abbrev=dita)

