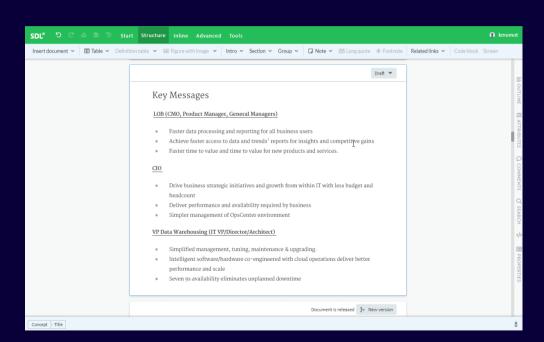


# Editing large publications like flowing books in your browser

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#### **About Fonto**

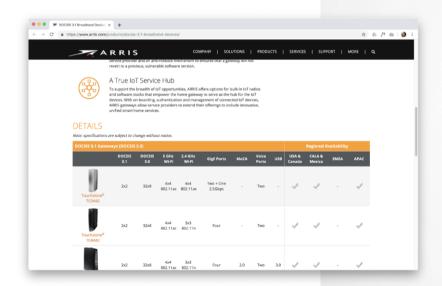
- Authoring & Review software
- Tridion Docs;
   Draft Space & Review Space



### Structured content authoring made easy

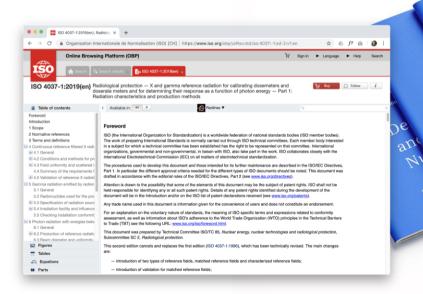
We let subject matter experts create, edit and review mission-critical documents. Flawless, fast and efficient.

### Technical documentation





Standards and regulatory



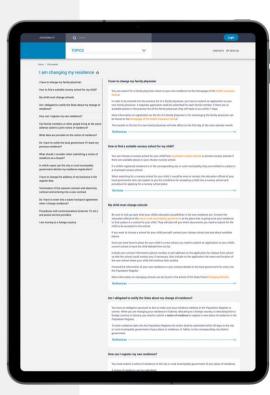
TAEA

TO SURFINE POWER Plants

Nuclear Power Plants

### Government





## **Publishing**





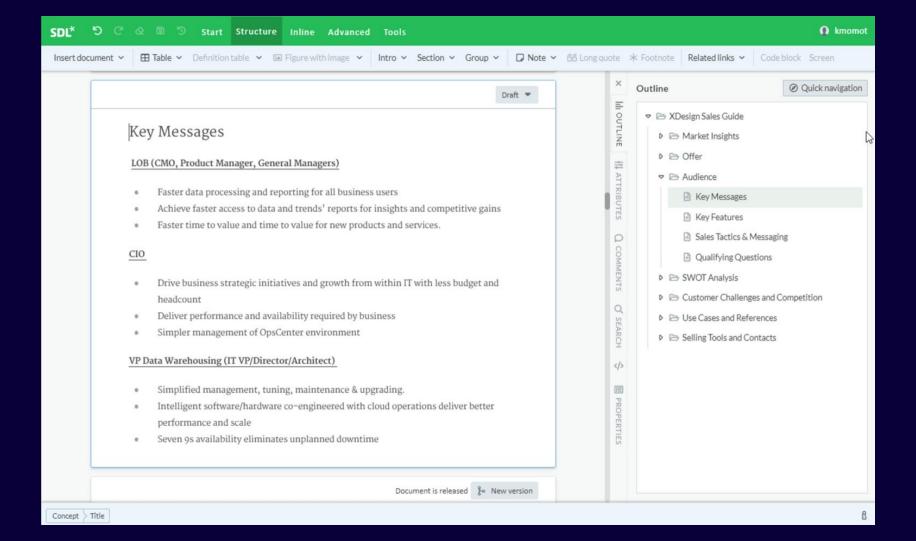


#### Context

### **Subject Matter Experts**

- Not computer experts
- Documents not components
- Ms Word paradigm

- In browser
- Flaky network connections
- Low-end hardware



### Technique 1

## Viewport culling: don't render that which is not visible on the screen anyway

- Only render elements if in viewport
- Replace invisible elements with simpler elements
- Reduce # of elements in DOM
- Improves rendering performance

- Common in game engines
- Level of Detail

### Technique 2 - Overview

# JIT loading: Only load content that is about to become visible and unload again once out of sight

- Just In Time
- Load when about to be in view
- Unload when out of view

- DITA: Maps & Topics
- Works well with viewport culling

### Technique 2 - Challenge 1

# But what about the scrollbar height? If you don't have the content, you don't know its height?

- We guess
- Apply a heuristic
- Placeholder in case of fast scrolling

- Average height of all topics
- Considered: cache heights, compute heights server-side, background height calculations

### Technique 2 - Challenge 2

# So how do you display the outline? You don't know the titles because they're in the content? You surely can't guess them?

- Do load all structural documents
- Index titles in structural documents
- Title are editable
- Drag & Drop

- Load all the DITA maps
- Tridion Docs indexes titles in the <navtitle /> in DITA maps

### Technique 2 - Challenge 3

## What about Find & Replace? You can't possibly index all content?

• Streaming content one-by-one

#### Foreach:

- Load
- Scan & Record hits
- Unload

- Content is editable
- Pre-filter in the CMS amy include false positives

#### Conclusions

- Opening large publications with seamless scrolling is possible
- Use view culling to improve rendering performance
- Use JIT-loading to reduce load times & memory usage
- Use indexing to download partial data
- Use streaming for "global" operations



# Fonto

Thank you

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