2022 DITA/Markdown Interoperability

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Boston DITA Users Group
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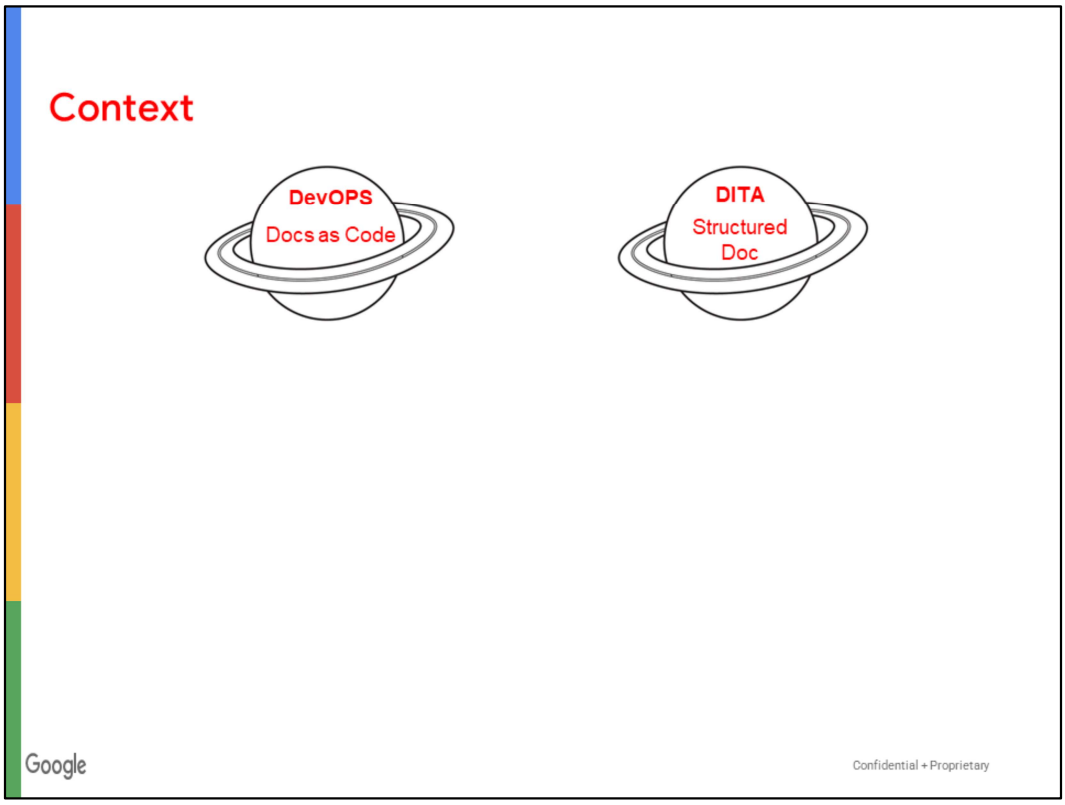
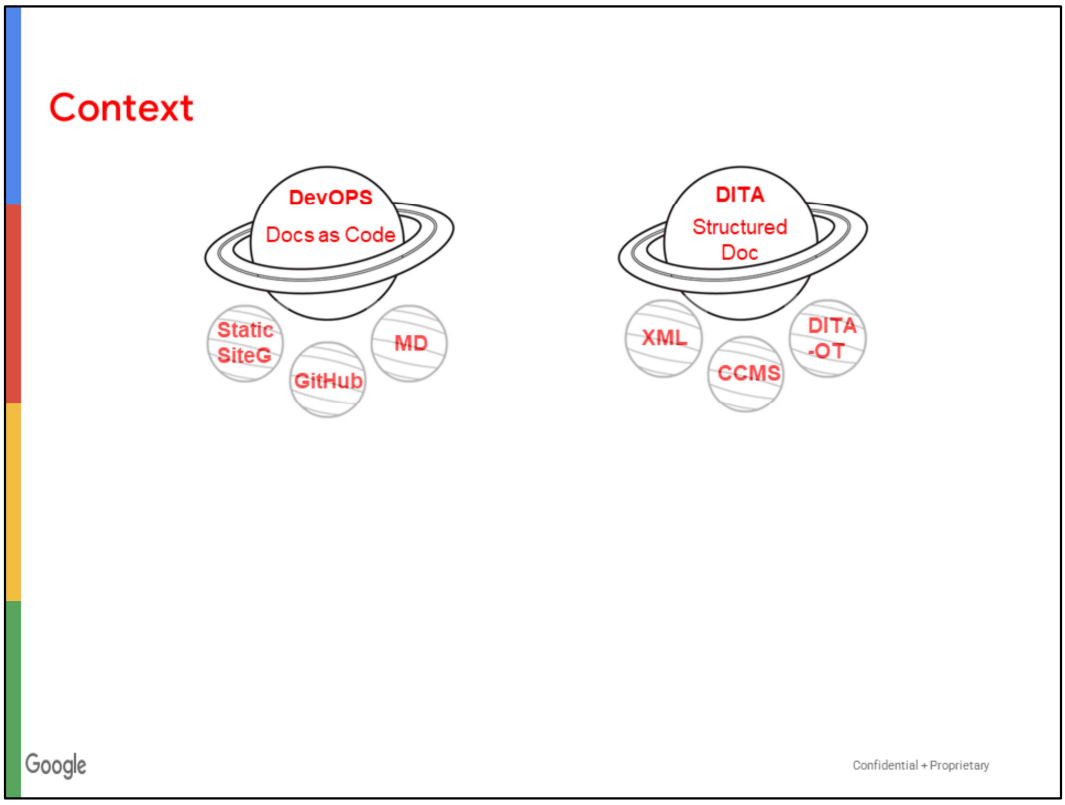
Agenda

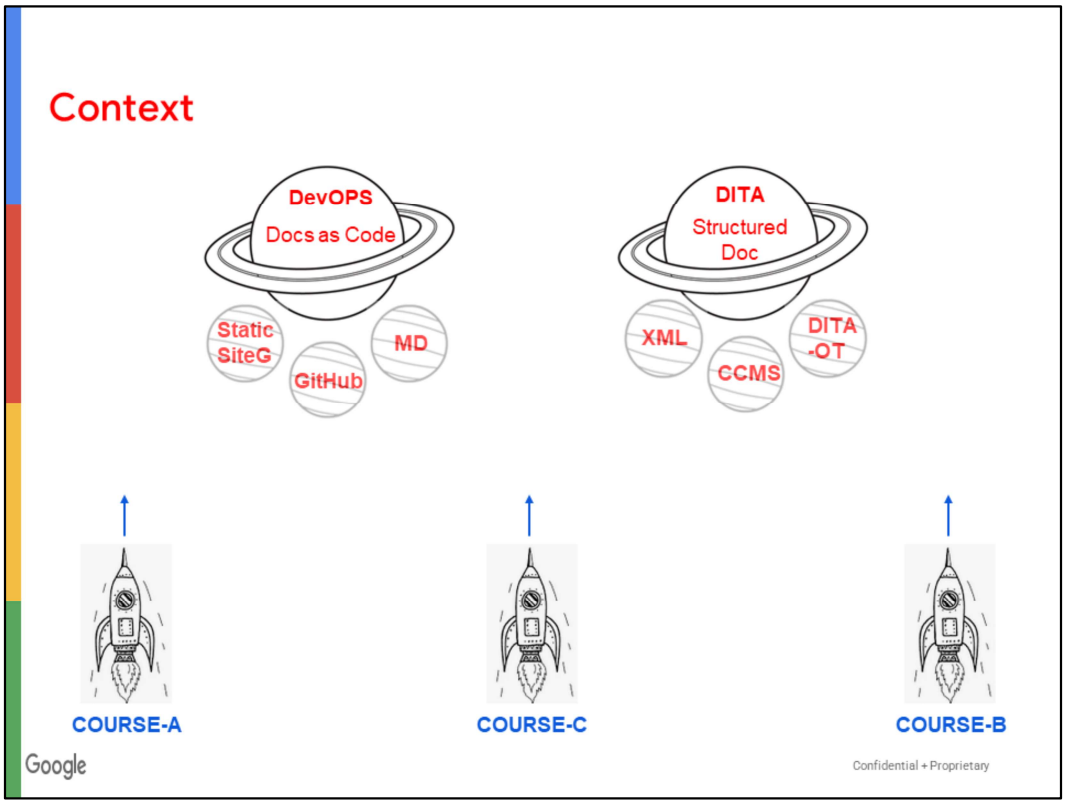
Context	Why are we talking about Markdown in a DITA user group?
Conversions	How do we convert Markdown to DITA? How do we convert DITA to Markdown?
Publishing	How can we publish HTML that references both DITA and Markdown sources?
Single sourcing	Is it possible to single-source Markdown content so that it can be published in *both* DITA and Docs-as-Code environments?



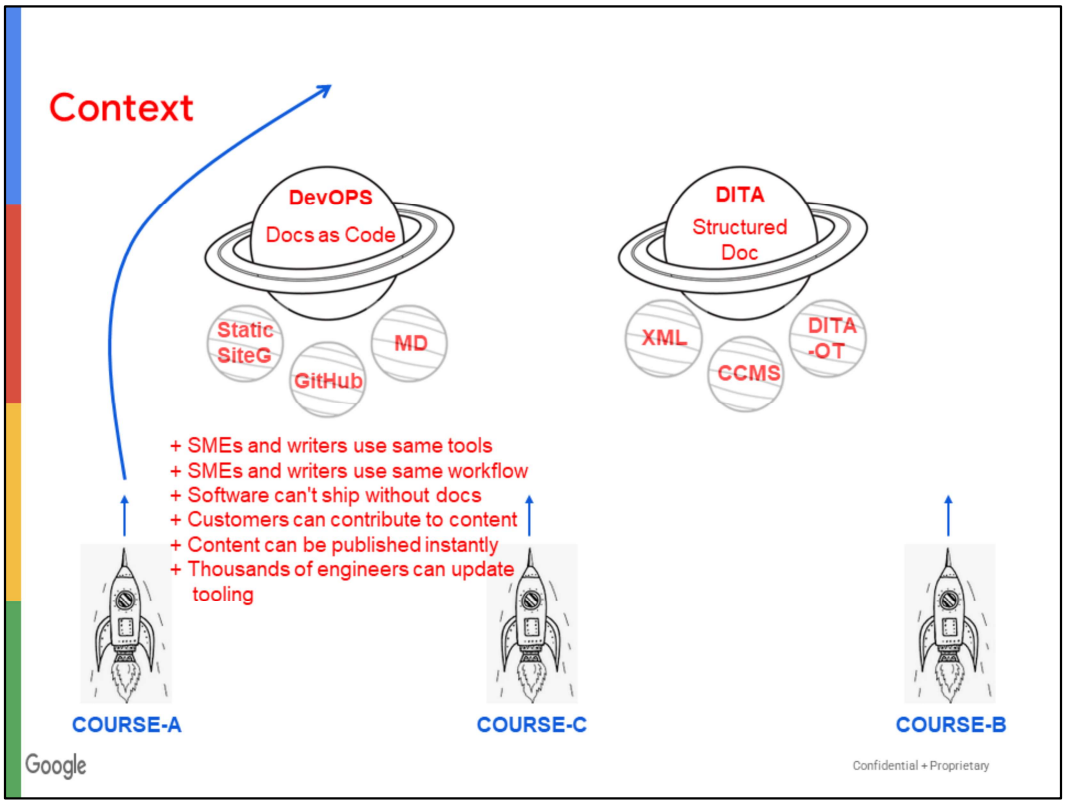
WARNING – stupid visual metaphor approaching at sub-warp speed!
Many content development teams find themselves trying to navigate between two very popular frameworks:
1. **OASIS DITA**: The industry standard for topic-based, structured (XML) documentation.
2. **Docs-as-code**: The DevOPS-driven framework for authoring and publishing content using the same tools and processes as software engineers.



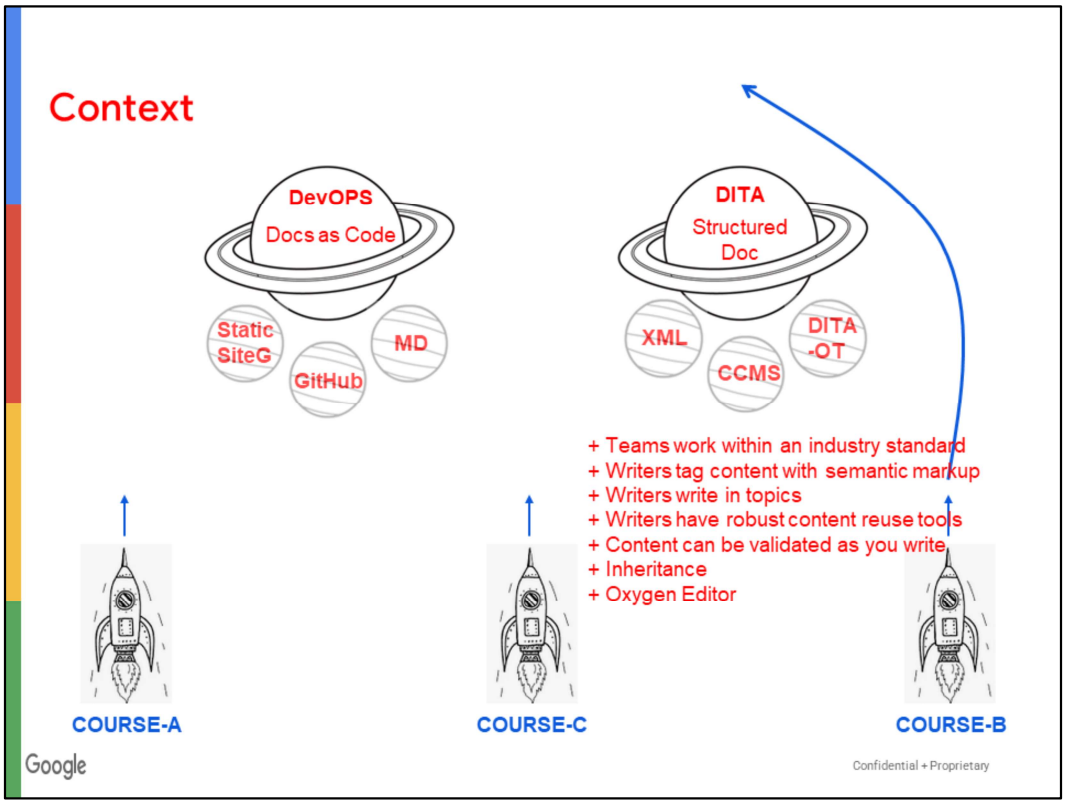
Within the gravitational sphere of influence for each of these frameworks, we see satellite technologies. Docs-as-code relies on static site generators. DITA relies on the DITA Open Toolkit. To understand how one of these frameworks operates, you'll eventually need to learn about satellite technologies. If you chase a satellite, you'll be pulled into into its parent's gravity.



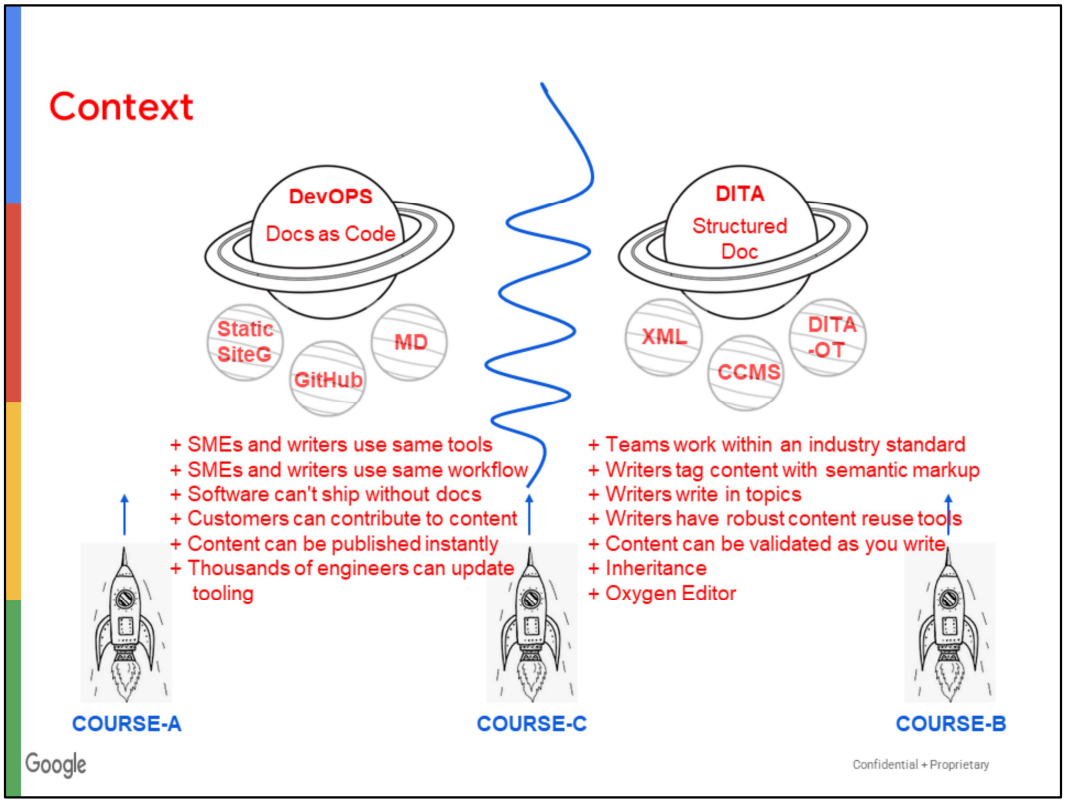
New content development teams need to set a course around or between these frameworks. Established teams in one framework may be asked to “play nicely” with another team, partner, or subsidiary committed to the other framework. If you are doing extensive work in software, needing to consider an alternative frameworks is mater of *when* and not *if*.



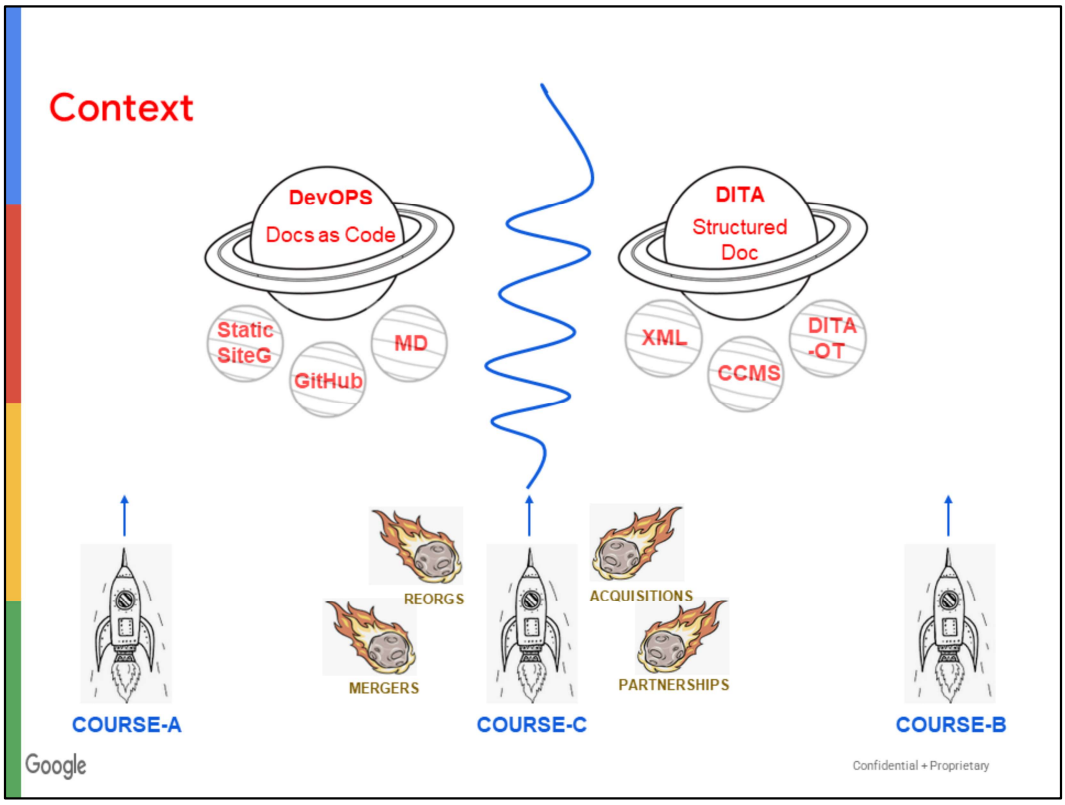
If your organization develops software or solutions for developers, the prevailing framework for content development is DevOPS docs-as-code. The center of gravity for DevOPS is tool and process integration. If engineering tools and processes are good enough to produce software deliverables, they should be adequate for technical writers to deliver content in support of that software.



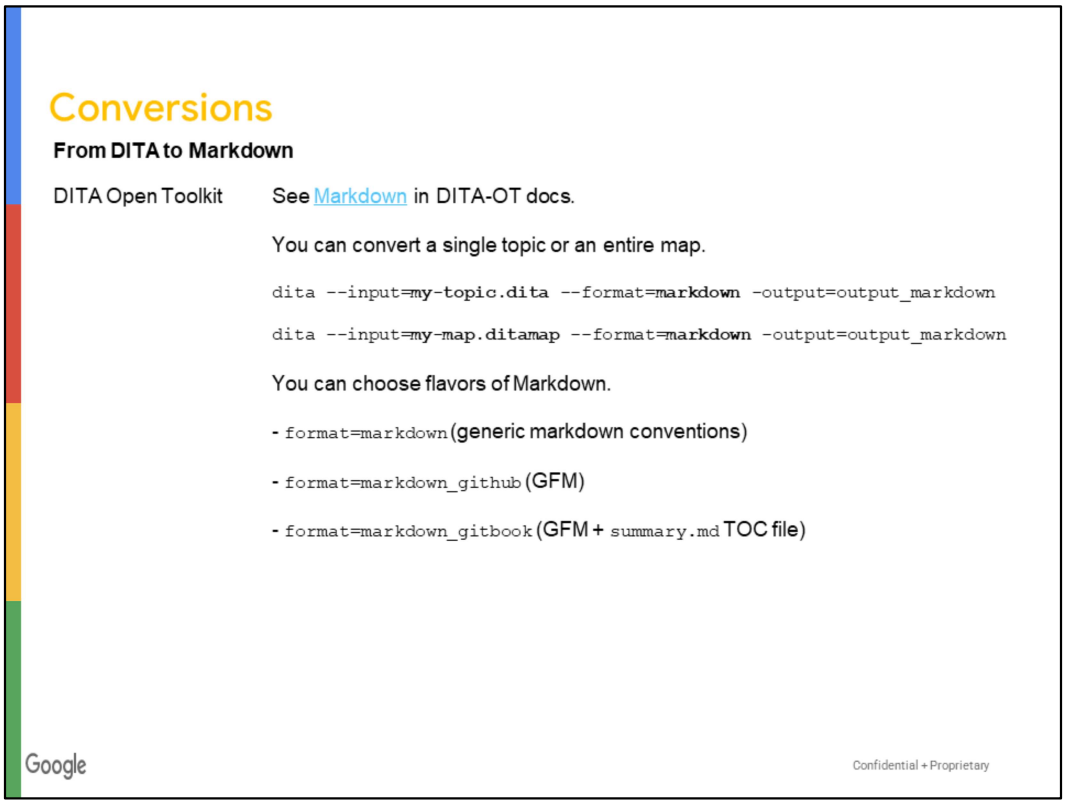
If your organization works in a regulated industry, develops consumer products, or requires an ultra-smart content architecture, DITA and structured markup should be close to your flight path. The center of gravity here is writer efficiency and intelligent content.



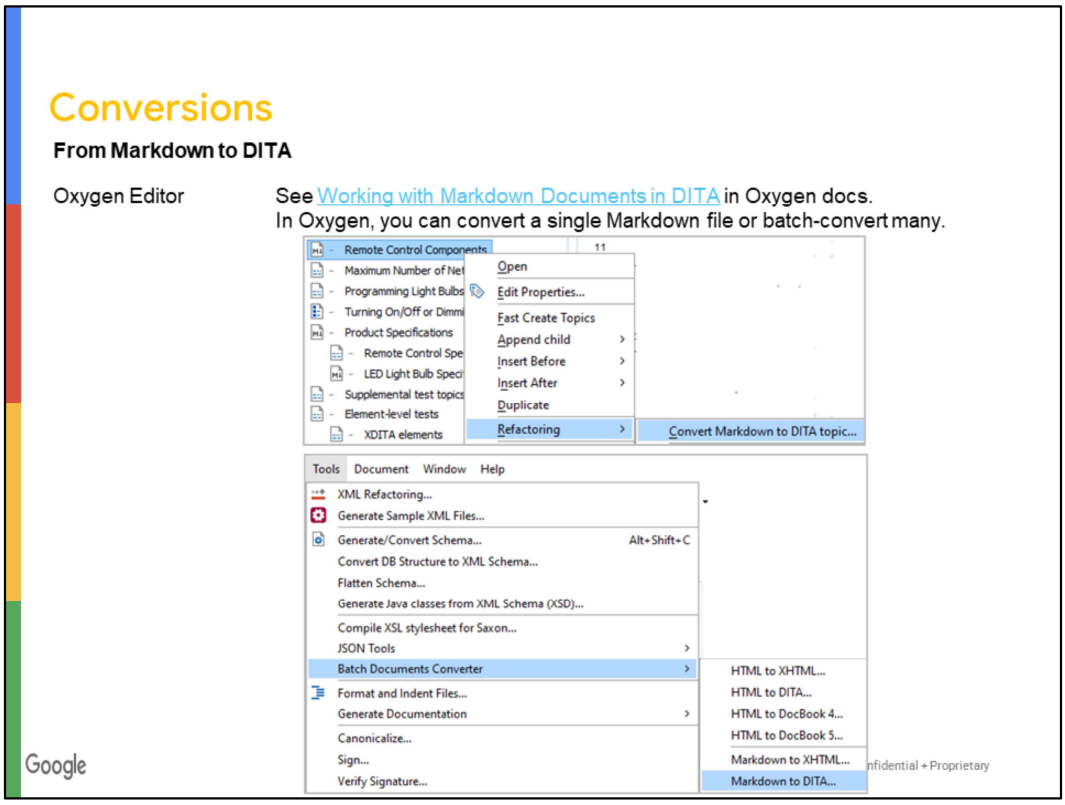
If your organization has a mix of existing DITA and existing docs-as-code implementations, you be navigating between two strong gravitational pulls. You're in for a bumpy journey – or what Mark Twain said of *Pilgrim's Progress* – "interestin' but tough". If you can style the HTML generated from DITA and docs-as-code to look the same of your doc portal, these parallel solutions can co-exist for a long time. If you need to converge your authoring and processing infrastructure, then you need to make *very* clear to your stakeholders what they are obtaining and losing by choosing on framework over the other. The onus is on *you*, the publication specialist, to lay out the costs, benefits, and use cases *for each option*. You need to do some homework, sometimes on very short notice.



And – if you are currently doing a COURSE-B in DITA and do not believe that you'll ever have to deal with DevOPS docs-as-code, consider that business initiatives outside your control such as reorgs, mergers, acquisitions, or partnerships may force the conversation. Consider asking one of your talented junior writers to become your team expert of docs-as-code. A little insurance never hurts.



If you need to move some or all of your DITA content into Markdown, the DITA-OT provides robust support. NOT EVERY feature that you can do in DITA will have a Markdown equivalent, but the basic stuff moves over eaily.



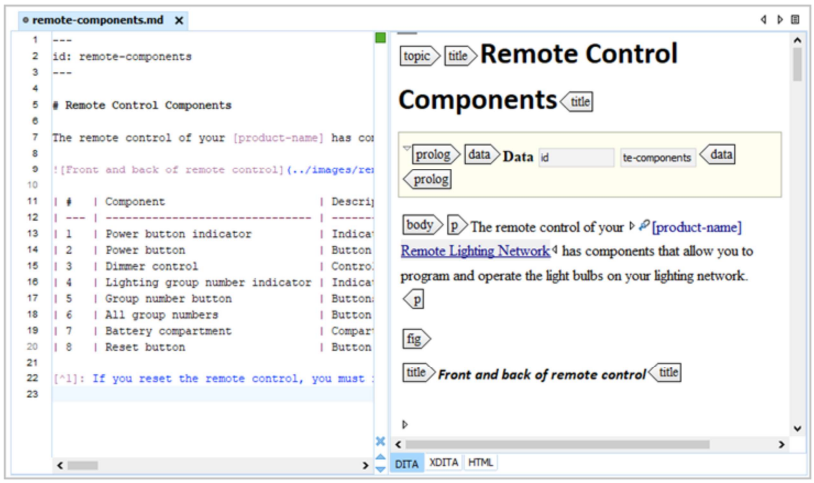
Oxygen Editor does a brilliant job converting basic Markdown documents into DITA topics.

Conversions

From Markdown to DITA

Oxygen Editor

See Working with Markdown Documents in DITA in Oxygen docs.
You can preview the conversion in the Editor.



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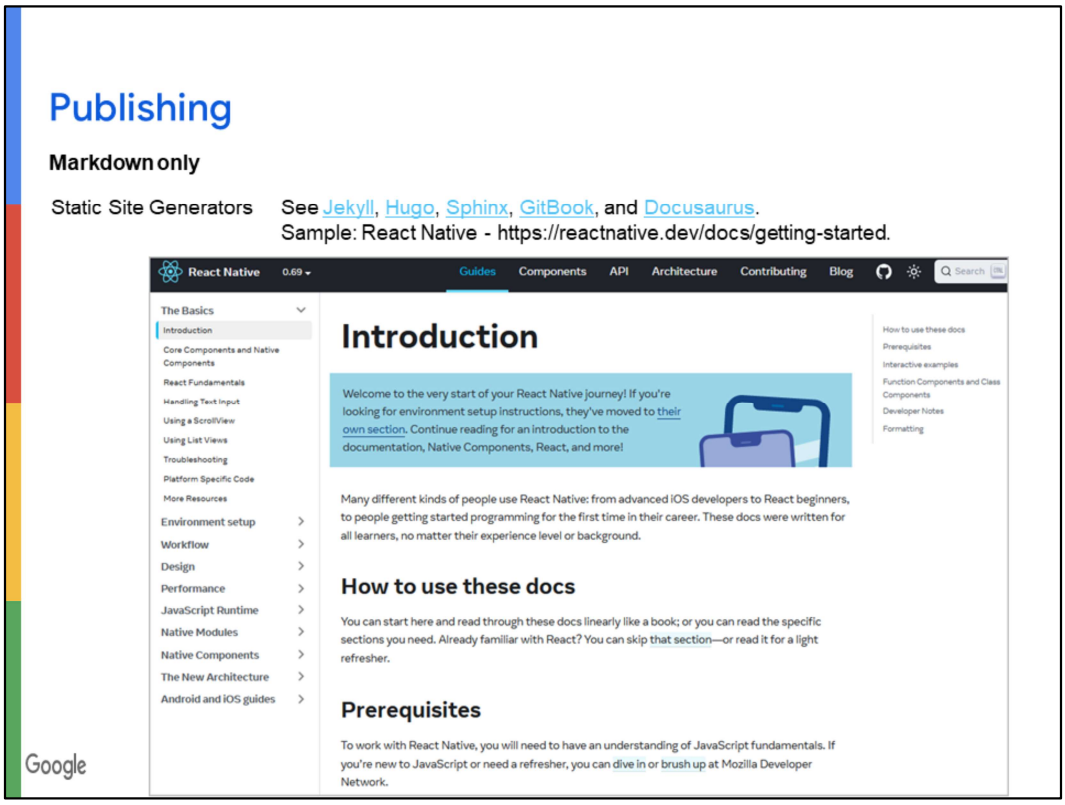
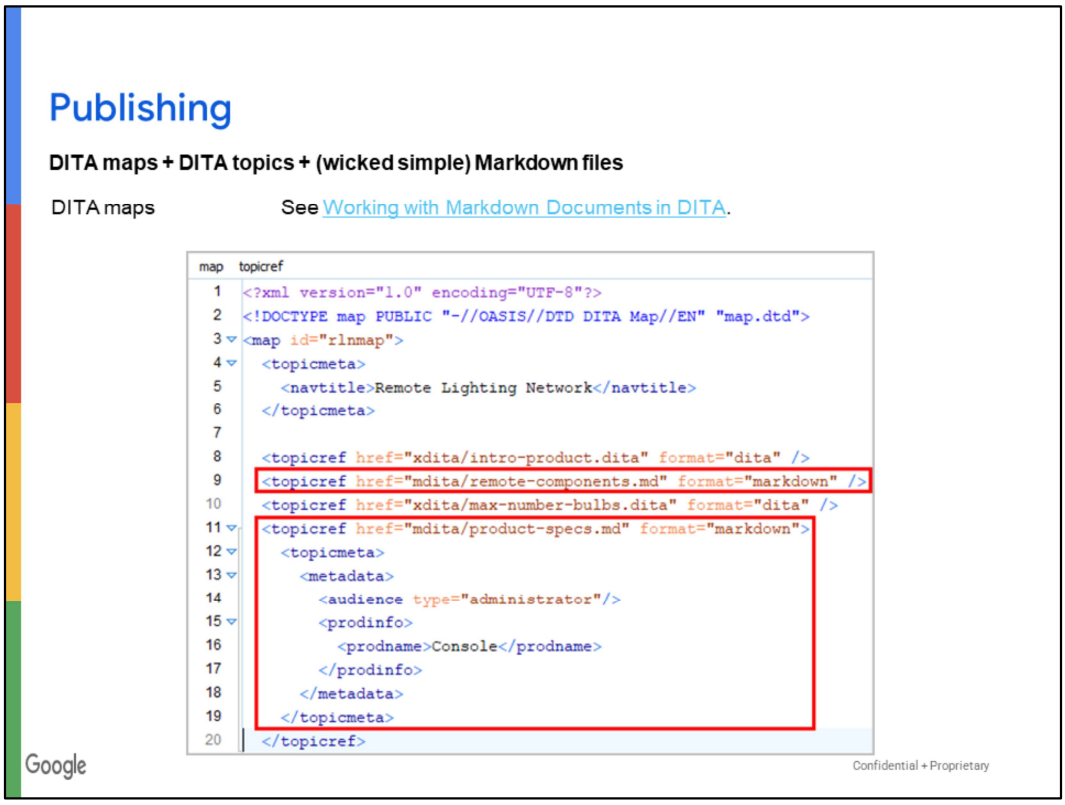
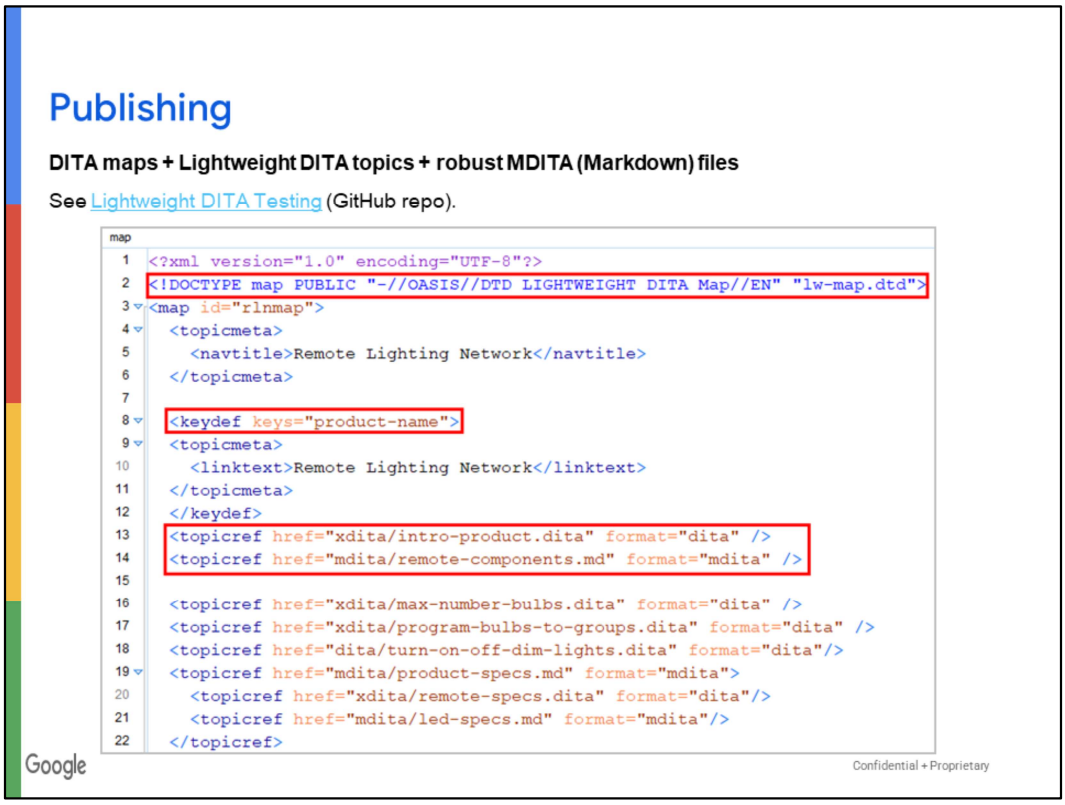
When you open a Markdown document in Oxygen, it displays both the raw Markdown markup and the equivalent DITA markup that it has silently converted. This is also a great environment to debug Markdown markup that is not behaving correctly when converted to DITA.



Publishing. I recommend experimenting with Markdown-only static site generators such as Jekyll or Hugo. The screen shot here from Docusaurus 2.0 illustrates that the out-of-the-box HTML5 generated from static site generators is quite serviceable. Expect to have an "is this is good enough?" conversation with people in your organization who want to move away from XML and its "separate content fro formatting" axioms. If you have experience using a static site generator to build demo web sites, you will be in a better position to manage the conversations.



The DITA-OT and XML IDEs such as Oxygen Editor can publish content that is authored in XML, Markdown, or a mix of the two. Your standard DITA 1.3 map has been capable of referencing Markdown documents for many years now. In addition, DITA maps can augment the information in a basic Markdown document with <topicref> metadata. You can keep these Markdown documents pretty dumb if you can compensate with wicked smart maps.

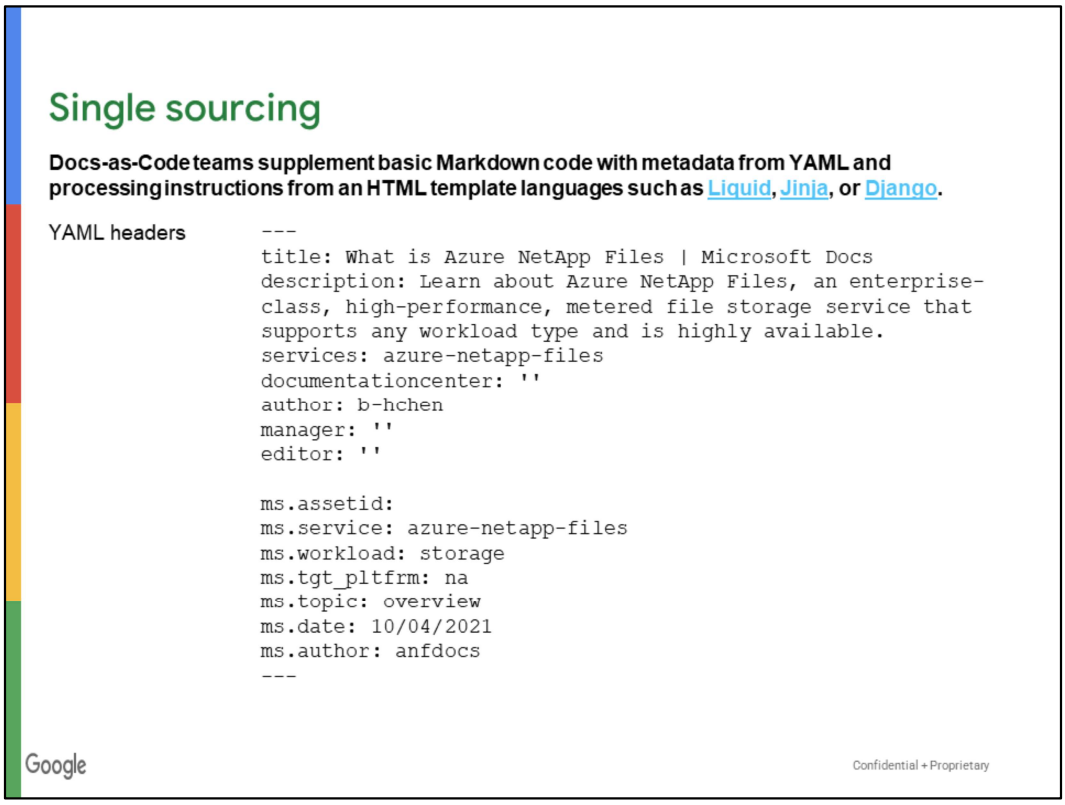


The yet-to-be-released Lightweight DITA standard introduces specialized DTDs that allow your Makdown documents (MDITA) to inherit key values and to transclude content living in XML libraries. Worth checking out.

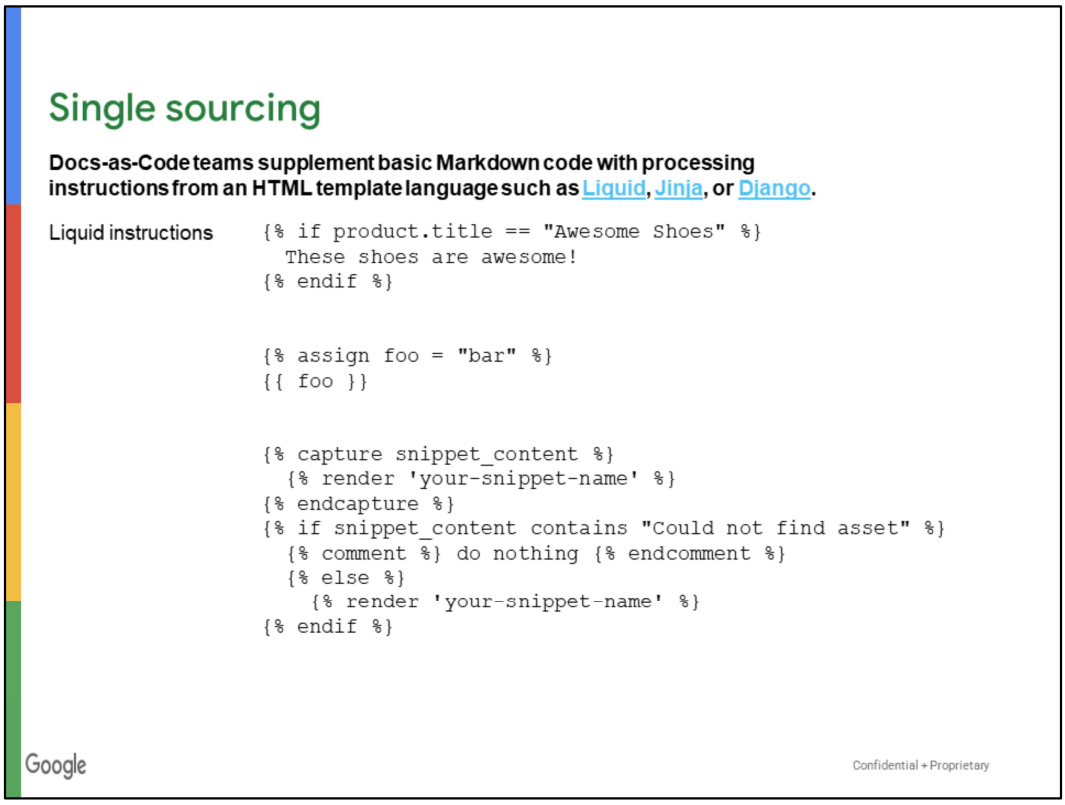
In plotting your course between the DITA framework and the docs-as-code framework, will you be able to develop content in XML and have it processed without modification in a static site generator? No. Static site generators currently do not have an integrated XML parser, so they cannot make much sense of DITA topics.

As you've seen in the previous section, you can single-source basic Markdown topics so they can be published without modification through a static site generator or the DITA-OT. In some sense, that's makes DITA the more attractive framework for collaboration in the short run.

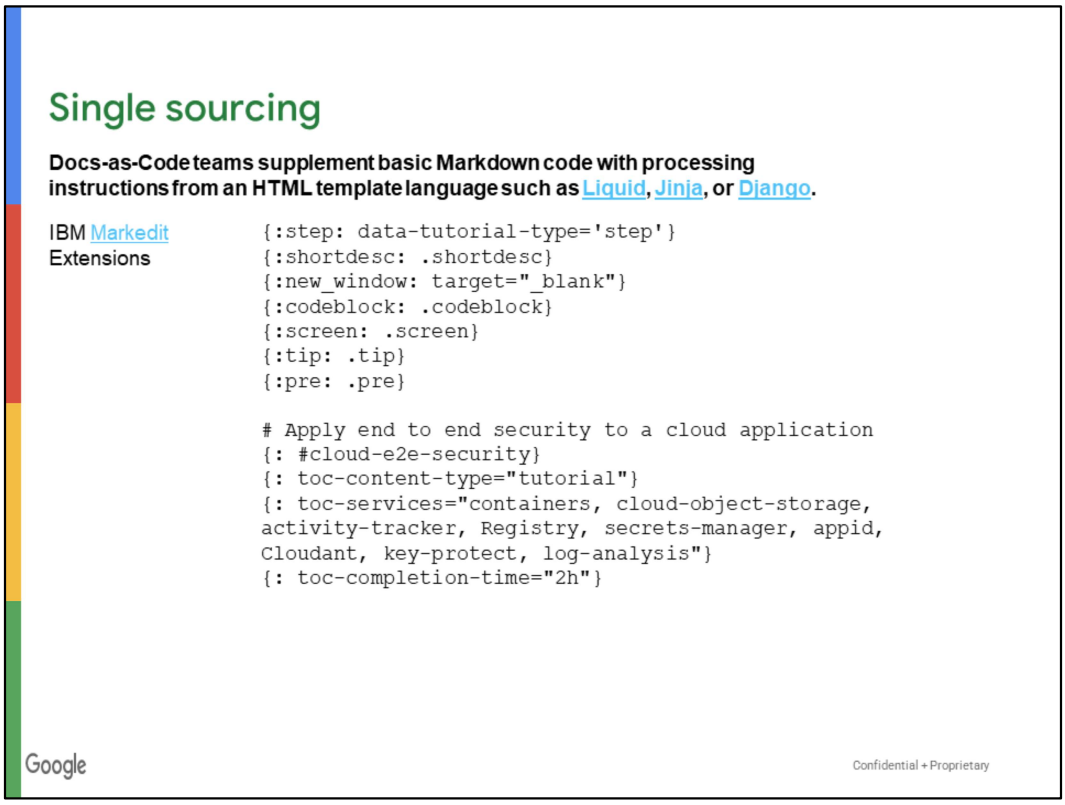
Generic Markdown was never designed to support the sorts of sophisticated things that we do as technical writers – global reuse, keyword reuse, filtering, conditions, topic-based authoring, metadata inheritance, and so on. So – if I am working in docs-as-code framework and I need or want to do these sophisticated things, I need to reach outside generic Markdown to add instructions from what is called a templating language such as Liquid or Django. Once I introduce these instructions, compatibility with th DITA-OT pipeline erodes quickly. These optimizations make what you can do in Markdown significantly make powerful – at the cost of interoperability. You cannot even single-source a Markdown file optimized with Liquid with one optimized by Django. It gets to be a bumpy road quickly.



Many of the things we would put in our DITA <prolog>s, appear in YAML headers in optimized Markdown. This public sample from Microsoft is certainly readable, but not portable.



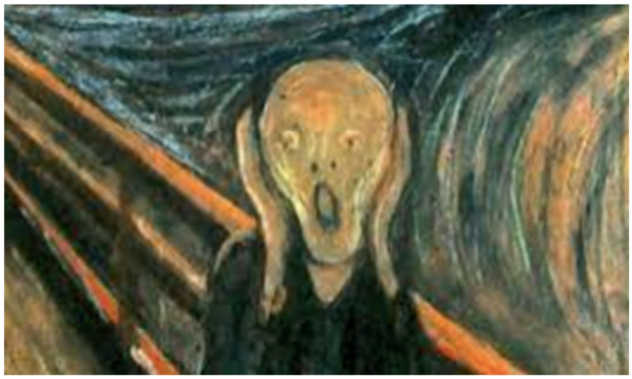
The Liquid templating language is a sophisticated collection of document modeling and document processing resources. When a static stite generator reads a Markdown document with any of these Liquid instructions, it *first* processes the Liquid command and then performs formatting. Note that Liquid instructions are derived from software programming standards.



Occasionally you'll see Markdown and templating markup that reflect an XML DITA ancestry. I recommend looking at MarkedIt.

Single sourcing

Theoretically – you *could* write optimized Markdown for static site generators and then dumb it all down for DITA-OT.



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Would it possible to have a repo full of optimized Markdown documents that you filtered for Jekyll on Mondays and then filtered for DITA-OT on Tuesdays? Theoretically – yes, Practically – no.

Questions?

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