What is DITA Open Toolkit? And What Should FrameMaker Authors Know About It?

Adobe DITA World 2017
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What I expect you are expecting...

• Main topic: What is DITA Open Toolkit?
  • Is it part of DITA?
  • Where does it come from?

• Also: How is it relevant to FrameMaker?
  • …it is, right?

• Usually there would be more items on this list…
  • …*but this is very high level*
  • …*the title says what you’re getting*
  • …*and hopefully you’re not expecting demos, how-to, or live tech support*
Why am I the one talking?

I’ve been working with DITA and DITA-OT since *The Beginning* (of those things)
So what *is* DITA Open Toolkit?

- Open source *software*

- It’s a program (technically, a collection of programs) intended to read DITA and produce something else

- It is not part of DITA, but it is there to make your DITA *do something*
More specifically...

• DITA-OT is the software that turns your stuff (usually-but-not-always DITA) …

... into something else (usually not DITA)
It’s an *implementation* of DITA

- DITA was an originally an developerWorks project at IBM; DITA-OT was the first implementation (also IBM)

- DITA became an open standard, DITA-OT became open source

*In the years since, this has been a source of great confusion*
History: the chicken or the egg?

Without tools, who would use DITA?

If it’s not a shared standard, who would want DITA-OT?
History: the chicken *and* the egg

DITA-OT was created to help all DITA users – authors, but also vendors trying to support DITA – get off the ground more easily.
Support for DITA’s core features

• The DITA-OT “preprocess” handles:
  • Key resolution
  • Content references
  • Link and metadata management
  • Filtering (DITAVAL)
  • Branch Filtering (<ditavalref>)
  • Subject scheme based classification
  • Chunking
Preprocessing: there’s more!

- Merging DITAVAL conditions
- Merging maps
- Retrieving link text
- Evaluating @copy-to
- Adding DITAVAL flags
- …and more…
How do I use the “preprocess”?  

• If you’re just publishing – “I want HTML” – preprocess comes first  

• Vendors can reuse any (or every) core feature
From core, to publishing

• Just want to publish something?

• DITA-OT ships several formats out of the box:
  • HTML5, PDF, XHTML, Eclipse Help, CHM, even Troff
  • RTF, ODT, Java Help still available as add-ons but no longer maintained

• Plugins available for other formats
Styles are generic, but meant for customization

Publishing DITA content

You can use either the dita command-line tool or Ant to transform DITA content.

Building output using the dita command
You can generate output using the DITA Open Toolkit dita command line or with .properties files.

Publishing DITA content from Ant
You can use Ant to invoke the DITA Open Toolkit and generate output supported by the toolkit.

Parent topic: DITA Open Toolkit User Guide

“html5”, no options

“html5”, DITA-OT doc style + navigation
Generic PDF, out of the box...

- Generic cover
- Generic chapter style
Resource to create custom PDF: Jarno’s PDF generator

http://dita-generator.elovirta.com/
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http://dita-generator.elovirta.com/
Resource to create custom PDF: Jarno’s PDF generator

http://dita-generator.elovirta.com/
Resource to create custom PDF:

• Leigh White’s DITA for Print
  http://xmlpress.net/publications/dita/dita-for-print/
Custom style: OASIS DITA Committee Note

Highly customized cover

Lightly customized chapter style
More exciting DITA-OT customization options

• Exciting, but usually unnecessary:
  • Add “preprocessing steps”
  • Add or modify generated text
  • Custom HTML5 navigation
  • Switch or extend CSS
  • Use XSLT to override styles
  • Create entirely new output formats
    • EPUB, Markdown, Plain text, Morse code, …

• Extensions usually stored in a plugin, as with PDF Plugin Generator
FrameMaker: save as PDF

• *Does not use DITA-OT*
FrameMaker: Publish as HTML

• File → Publish offers a variety of HTML-like formats

• Basic HTML is basic (generic style) DITA-OT

• Other HTML publish options build on the DITA-OT output
FrameMaker: Structure $\rightarrow$ DITA $\rightarrow$ Generate DITA-OT Output

• Provides access to shipped DITA-OT

• Can be called with options, select transform types

• Can be modified to use alternate DITA-OT
  • Out-of-the-box, or heavily customized
So ... should you care about DITA-OT updates?

- If you’ve made the decision to use an open standard...
- If you, your tools, or any of your partners are using DITA-OT...
- If you want the benefit of common, shared open source...
- Then the answer should be “YES!”
Example: Oh no, I have business partners!

• What if…

  • ...your business partner has a custom HTML5 framework?

  • ...or maybe an elaborate PDF style, already supported with custom DITA-OT plugins?

  • ...or you need to publish your content as Morse Code?
    • Yes, it exists. It’s a demo.
    • No, it’s not particularly useful.

  • ...or maybe as XML input into an automated system?
What kind of updates might come from DITA-OT?

• Common preprocess fixes or enhancements
  • “My content reference to a key in another scope from a specialized map is not setting @importance properly”
  
  • “I’d like to suggest an extension to <coderef> resolution that highlights code syntax”

• Changes to how final rendered content is generated for all
  • “The default DITA-OT HTML5 output should add a ‘tweet this topic’ button to footers”
  
  • “PDF attribute sets need a redesign”
So who governs DITA-OT?

- Governed by active participants*
- Anybody can participate
- The more you participate, the more influence you have

** backgrounds are a mix of language, communication, and computer science
Who supports DITA-OT?

- Small group of dedicated committers
  - Jarno Elovirta: Wunderdog
  - Robert Anderson: IBM
  - Roger Sheen: infotexture

- Project managed at GitHub; releases twice yearly

- Monthly contributor calls

- Upcoming conference (4th annual)
Contributor call attendance (2017)

Representatives from...
- IBM (Robert Anderson, Kerry Langford)
- SyncroSoft (George Bina, Radu Coravu)
- Ixiasoft (Eric Sirois, Leigh White, Keith Schengili-Roberts)
- Astoria (Bill Gamboa)
- Vasont

Individuals and consultants
- Jarno Elovirta
- Roger Sheen
- Kristen James Eberlein
- Eliot Kimber
- Lief Erickson
- Bob Johnson
- Bill Burns
- Shane Taylor
- Sebastien Quintas
- Jason Fox
- Paul Gregory Raj
- Stefan Eike
Financial / industry support

• Wunderdog
  • Open source program pays Jarno to spend some time on project of his choice

• SyncroSoft
  • Sponsors monthly contributor meetings
  • Organizes DITA-OT Day (2014-present)

• IBM
  • Allows Robert’s time to chair contributor calls

• Eberlein Consulting, LLC
  • Sponsors web conference for monthly doc calls
With great open source, comes great responsibility

• Remember: these are either volunteers, or responsible to their own managers.

  Jarno Elovirta has spent a lot of nights and weekends working on this as a hobby.

• If anyone *can* fix a bug or add a feature…

• …then sometimes adding your own feature might be your only option.
Useful skills for hacking at the toolkit

• Ant for running the builds

• Java (generally) for more complex logic

• XSLT for many steps + HTML rendering

• XSL-FO for PDF

• … but custom extensions can do anything, with anything
How to suggest changes...

✓ Github pull request

✓ Github issue tracker

✓ Attend contributor calls

✓ Ask your DITA vendor
DITA-OT: Further study

Project landing page and documentation: http://dita-ot.org

GitHub project: https://github.com/dita-ot/dita-ot/

Slack channel: http://slack.dita-ot.org/

More DITA and DITA-OT Resources

Monthly DITA-OT Contributor calls:
   Hosted by Syncro Soft, open to all

Monthly DITA-OT Docs calls:
   Hosted by Eberlein Consulting, open to all

PDF Plugin Generator: http://dita-generator.elovirta.com/

DITA for Print: http://xmlpress.net/publications/dita/dita-for-print/

A to Z DITA Primer: http://metadita.org/toolkit/gorey.html
Questions?
Quiz: are DITA and DITA-OT the same?

No.
They are not the same.
Quiz: who manages DITA and DITA-OT?

They are not managed by the same group of people. But there is overlap. I’m a pretty good example of overlap.
Tools have lots of parts!

DITA-OT ships and enforces DITA grammar rules
Many (not all) DITA editors bundle DITA-OT, and ship / enforce DITA rules
Many (not all) DITA CMSs bundle DITA-OT, and ship / enforce DITA rules
DITA solutions can bundle some or all of these into a single piece of software
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Thank you

Digital Services Group