Using DITA with FrameMaker

Provided by Scott Prentice of Leximation, Inc. 14 June 2006

To work with XML files in FrameMaker, you must have a “structure application.” A structure application is comprised of an EDD, a formatting template, and possibly read/write rules. An EDD is a FrameMaker-specific DTD which in addition to defining the valid elements and attributes, specifies the formatting that is applied to each element based on its name and context. The formatting template is a Frame file that contains the formatting definitions that are applied to the elements. Read/write rules define additional processing applied when the XML file is read into Frame and written back to XML. You give this structure application a name by adding it to the structure application definition file, structapps.fm.

In addition to the structure application, plugins and other tools can help to automate tagging and processing that might otherwise be tedious manual tasks. There are currently very few options for using DITA with FrameMaker., all that I’m aware of are listed below:

FrameMaker Structure Application Options:

- Build your own DITA structure application
- DITA structure application provided with FM 7.2
- framemaker-dita Yahoo group
- FrameDITA-lite by Publishing Smarter

Available Tools:

- DITA FrameMaker Adapter by the joint efforts of Mekon, Moldflow, and XMetaL
- DITA Tools plugin by Integrated Technologies
- DITA+FM plugin by Leximation

Build Your Own DITA Structure Application

The initial approach is to generate an EDD from the DITA-OT DTD. This is a simple process that is accomplished by creating a new EDD (File > Structure Tools > New EDD), then importing the DITA DTD (File > Structure Tools > Import DTD). This is the basic starting point, and once you define the “Highest Level Element” (the dita element), you can import this EDD into a Frame file (File > Import > Element Definitions) and start creating a DITA file.

You’ll quickly start to see some problems, meaning that your EDD will need a bit of work before it’s ready for production. Some things that will need to be addressed are, changing certain element definitions to match the corresponding FrameMaker object types, and adding additional EDD coding to specify phrase level (inline) elements as text ranges so they display within their parent elements rather than on a new line. You’ll also need to develop a formatting template that defines styles that are referenced by the element definitions.

If you plan to keep your DITA files in structured FrameMaker (no exporting or importing of DITA XML files), you could stop here, however if you want to make use of XML, you’ll also need to develop the read/write rules for your structure application.

As you can imagine, this takes a bit of time and knowledge. You’re probably better off starting with a DITA structure application developed by someone else and modifying it to suit your needs. However, in order to modify an existing structure application, you’ll need much of this knowledge, so it’s a good idea to experiment with building your own as a first step.

DITA Structure Application Provided with FM 7.2

FrameMaker 7.2 shipped with a DITA structure application. Unfortunately, this structure application is not very usable for most people’s needs. After you’ve attempted to make your own, make a copy of the FrameMaker DITA structure application folder (call it “My-DITA”) and try customizing it for your use. This is probably much closer to being functional than the one you created, and it does provide some useful examples of EDD coding and read/write rule development.

framemaker-dita Yahoo Group

`http://groups.yahoo.com/group/framemaker-dita/`

You can find a reasonably full-functioning DITA structure application in the Files area of the framemaker-dita Yahoo group. This is another structure application that can provide you with examples of the various pieces needed to assemble your own DITA structapp. Unfortunately, the last posting to the Files area appears to have been in December of 2004.

FrameDITA-lite by Publishing Smarter

`http://publishingsmarter.com/pages/develop/framemaker_DITA.html`

This set of files provided by Publishing Smarter is a fully functional structure application with sample files that you can use for developing your own DITA-based publishing workflow.

This structure application focuses on simplifying the use of DITA by removing, reorganizing and renaming elements and attributes (defined as "subsetting") within the FrameMaker environment, while restoring valid DITA on export. This approach is limiting in that it cannot handle all DITA elements, and may not work well in an environment where people are using multiple XML editors or need to exchange DITA files with others. However, in a restricted FrameMaker-only office that does not want or need all of the choices offered by DITA, this approach may be ideal. Regardless of your direction, this novel approach to DITA-based authoring is well worth taking a look at.

DITA FrameMaker Adapter by Mekon, Moldflow, and XMetaL

`http://www.prescod.net/dita/FrameMaker_adapter.zip` (temporary location)

This "adapter" is a combination of XML/XSLT files and a FrameMaker structure application that allows you to easily import DITA files into FrameMaker (versions 7.0 and up) for publishing. This is well suited for use by groups who want to publish through FrameMaker but don't necessarily use FrameMaker for authoring. The FrameMaker adapter is easy to install and use. It is initiated by running an ant script that aggregates the source files into a single file. It then launches FrameMaker and opens the file using the included structure application. Modifications to the formatting can be made by modifying the provided template and EDD. The files are currently available at the URL listed above, but will eventually be available from the DITA-OT site on SourceForge.

DITA Tools Plugin by Integrated Technologies

`http://www.intech.com/dita/plugins/`

This plugin provided by Integrated Technologies, provides the first DITA-specific authoring environment for FrameMaker. It requires FrameMaker 7.2 and the installation of Python and the .NET framework.

This plugin provides an authoring environment for DITA maps and DITA topics and provides structure applications for both file types as well as sample files. In particular, the following features are supported:

- Topic ID population
- Automatic navtitle population
- Exporting reusable objects
- Conref support including text inset locking

Additionally, this plugin is free! It's certainly worth downloading and giving a test drive.

DITA+FM Plugin by Leximation

`http://www.leximation.com/`

Leximation is developing a plugin that provides enhanced DITA map and DITA topic authoring features. Because this plugin is in beta testing and still in development, the feature set noted below may change before it is publicly available.

This plugin provides both DITA map and DITA topic structure applications as well as online Help and sample files. The following features are currently provided:

Import/export processing:

- Converts nested indexterm elements into properly formatted Index markers (and back)
- Reads simpletable and reltable elements (typically problematic in FrameMaker due to the lack of a "colnum" attribute)

DITA map support:

- Displays topicref elements with the navtitle and href values visible; click to open referenced files.
- Populates new topicref elements with the navtitle and href attributes
- Updates navtitle and href values in all topicrefs with one command
- Supports the development of reltable elements

General authoring features:

- Allows for the creation of conrefs and xrefs that reference elements with and without pre-defined ID values
- Resolves and displays conrefs and xrefs on file open automatically
- Auto-assigns IDs on element creation
- Supports specialized elements; processing is based on class values rather than element names

Output support:

- Provides the ability to run a specific target in an ant script to generate output