Solution Brief

Implementing XML in a print-focused environment

Our client creates highly designed, two-color user guides along with on-device help for its products. The document production process was time consuming and expensive, so Scriptorium developed an XML-driven workflow that preserves print quality, streamlines the localization process, and automates the creation of on-device help.

Assessing the existing workflow and deliverable requirements

Our client is in an extremely competitive industry, and appearances matter. The company prints two-color manuals in large quantities and includes them in each product's box.

Content was created in unstructured FrameMaker with extensive final production work to control pagination and line breaks. On-device help was created using an expensive third-party conversion tool.

The requirement for sophisticated, attractive formatting in the final print output was a significant consideration in evaluating toolsets. Our client considered an implementation based on the Darwin Information Typing Architecture (DITA) and completed a pilot project in DITA. However, the client's content is not topic-oriented, and there is very little reuse across the documents. Furthermore, the print output requirements were impossible to accommodate in the DITA Open Toolkit. The requirements for on-device help were also unique and would require extensive customization of the toolkit.

Based on these considerations, structured FrameMaker was chosen as the authoring and print publishing platform. This approach allowed us to use existing formatting components, such as paragraph tags and master pages, as part of the structured authoring solution.

For final printed output, the production staff could apply the same techniques they used in unstructured FrameMaker.

Automating authoring and localization efforts

Our first step was to create a FrameMaker template that automates insertion of repeated text such as recurring headings and admonishment labels. The automatic insertion of this text improves the consistency of authoring efforts.

After we completed the English template, the client's localization vendor translated the repeated text strings. We used those translations to develop 17 localized templates. Because the tag names are identical across the templates, importing the tags from one template instantly changes the language of the recurring text.

Next, we created a FrameMaker element definition document (EDD) for our client's document set and wired the templates' tag names to it. The EDD automatically assigns formatting tags to the structured text, so authors and production staff no longer manually apply tags to content.

Reducing desktop publishing costs during localization

In a typical unstructured workflow, desktop publishing costs comprise approximately 50 percent of the total cost of translation. Introducing automation through a structured workflow significantly reduces desktop publishing costs.

The localized formatting templates provide some cost savings, but the real efficiency is in using XML for translation.

Our client can now author in structured FrameMaker, save the content as XML, and send the XML content for localization. After the XML files are translated, they are imported back into FrameMaker, and the appropriate language template is applied. Production specialists use their standard techniques to copyfit the localized content.

Better, faster, and cheaper conversion to on-device help

The process for creating on-device help used a third-party conversion tool; conversions were time consuming and error prone. To make the unstructured FrameMaker files compatible with the conversion process, our client did extensive preprocessing work on graphics and other components. The conversion process often took an hour or longer to generate the help files for a single user guide.

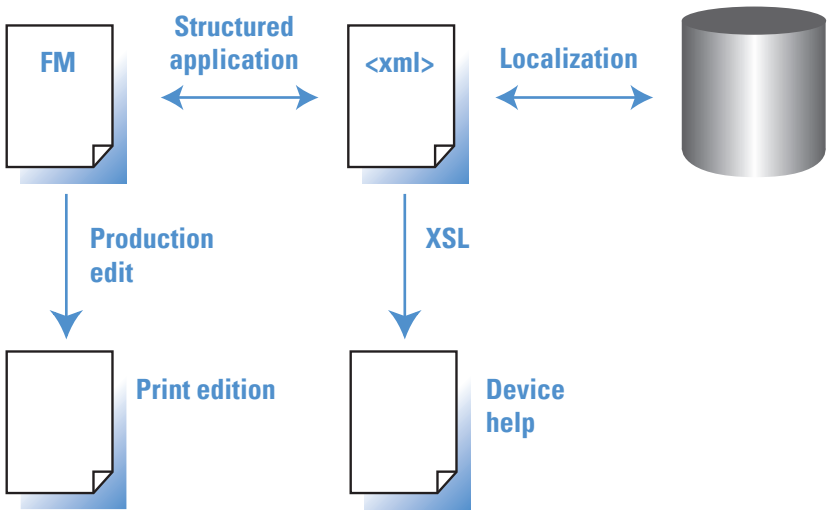
We developed a new conversion process that uses Extensible Stylesheet Language (XSL) transformation files to create the on-device help from XML files. XSL is an open standard, so no proprietary code or software is required for the transformations. An XSL processor is required to apply the XSL transformation files to the XML content; the two leading processors are free and open source.

The XSL transformation process takes perhaps a minute or two, so it is significantly faster than the original, proprietary process. Because XML-based authoring allows authors or production staff to validate content against the required structure, the files are more predictable. This results in more efficient conversions.

We designed the XSL transformation files to support localized XML content, so no further configuration is needed to create output in multiple languages.

Highlights

- Implement a structured environment that reduces authoring and localization efforts while maintaining the ability to produce and refine highly designed print output.
- Reduce desktop publishing costs associated with localization by developing automated templates and submitting XML content instead of FrameMaker source files to the translation vendor.
- Replace expensive conversion software with a quicker, more reliable XSL-based process that incurs no licensing costs.



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