

1. Host Schema Evaluation

This evaluates: *DocBook*

1.1. Object Representation

Q: Does the host schema use a generic structural markup model?

A: Docbook documents start with an `article`, `book`, `chapter`, or even a `section`. `Section`'s may contain other `section`'s arbitrarily. `Section`'s may contain paragraphs or lists. There are three types of lists, `itemizedlists`, `orderedlists`, or `variablelists`. The latter are good for definition lists, or words with text relevant to each word. Lists may contain paragraph or other lists. Each `listitem` may contain paragraphs.

Q: Does the host schema define a "clause" object?

A: No, although a `section` could be used for this.

Q: Does the host schema define a paragraph level object that represents a structural or grammatical paragraph?

A: Yes, `Para`.

Q: Using the host schema, can the clause equivalent object be inserted at arbitrary levels in the document hierarchy without transformation?

A: Not clear, as I don't know which element would serve as a clause. If we use `Section`, it can be arbitrarily nested, but cannot appear inside of `Para` or `List`.

Q: In the host schema, are element names and the structure sufficiently flexible that the clause and paragraph level objects can be used for other legal and business documents?

A: `Section` and `Para` and lists can and are used for many types of documents.

1.2. Metadata

Q: Does the host schema provide a mechanism to add semantic information about:

- whole documents
- distinct objects, such as clauses, within documents?

A: `Section` and the higher level tags such as `Article` support an "info" element. These contain author, Address, groups of authors, copyright, editions, date, LegalNotice, RevHistory,

Para has a few metadata tags including `RevHistory` and `Author` and `OtherCredit`.

Q: If so, is the metadata model for the host schema sufficient for contracts or will it be necessary to extend it?

A: Many elements needed are already present, but I suspect the TC would want to add a few more.

Q: Does the host schema allow embedded values to be represented and semantic information to be added to these values?

A: There is a `Replaceable` markup tag, but this would provide limited support for replacing items. No mention of embedding tags from other namespaces is in the documentation. However, Norman Walsh and others published an article on using the new RelaxNG-based schema to embed other markup (TEI) within Docbook (or vice versa).

1.3. Processing Technologies

Q: Does the host schema require use of a particular processing technology?

A: No.

Q: Does the design of the host schema preclude use of particular currently available processing technologies?

A: No.

1.4. Number of Content Objects

Q: Does the host schema permit the numbering of clauses, paragraphs, lists and other objects to be represented in the markup?

A: Lists can be numbered or each item given specific names using a `variablelist`. However, the idea of having the user enter a specific number for each `listitem` is not supported.

Q: Does the host schema provide a mechanism to define the numbering schema applied to the document so that two applications could apply the same numbering, if desired?

A: There is some flexibility of specifying a type for a `itemizedlist`. There is a `Override` attribute for the `listitem` which could be used to give a specific number to it.

1.5. Complete Document Representation

Q: Using the host schema, will it be possible for the contract author to explicitly represent all parts of the narrative contract terms or will it be necessary to imply some parts?

A: Docbook has a complete set of tags. However, it has no specific tags for contracts.

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Q: Does the host schema represent the relationship between all significant components in a way that allow high quality print and web rendition of of contact documents?

A: Yes. There is an extensive set of style sheets that are used to prepare printed documents using XSL-FO. I use them regularly to prepare hundreds of page of class notes for my classes.

1.6. Variables Definition

Q: Does the host schema include a mechanism for defining variables for embedded data values?

A: Other than a very limited Replaceable, no.

Q: If the host schema does not include such a mechanism, is there any obstacle to adding it?

A: No.

1.7. Ease of use for authors

Q: Based on the following factors is the host schema easy for contract authors to use:

- Does it require authors to know only a small number of elements (positive factor)?
- Does it require authors make unnecessary or subtle distinctions that will be applied inconsistently (negative factor?)
- Does it have a clear logical structure that can be quickly explained to new users (positive factor)?
- Does it allow authors to re-locate content objects within a document hierarchy with minimal or no need for transformation of markup (positive factor)?

A: I found the tags for the basic narrative part of the document such as `listitem`, `itemizedlist`, `para`, `Section`, etc. quite straightforward to apply.

There are many other tags for things appearing in computer documents such as variables, names of classes, and the like. In my own uses, I found several would be close to the use I had in mind, but none that quite fit. (However, these tags are not relevant to contract documents.)

1.8. Schema Syntax

Q: Is the host schema a DTD only or can it also be expressed as an XML Schema or other schema type?

A: Definitions exist for DTD, SGML, XML Schema, and Relax NG.

1.9. Adaptability to contracts

Q: Does the host schema provide for the complete representation for the distinct structures commonly found in contracts?

A: There is no markup for things specific to contracts such as signature blocks.

Q: If not, does the host schema explicitly allow additional distinct structures to be added?

A: There is no explicit mechanism for adding extensions provided. However, I see no problem in creating them. The XML Style sheets provided for Docbook are modular and should be extensible.

Mr. Norm Walsh and others published a document showing that the Relax NG schema allow one to interleave TEI and Docbook. (See "A Unified Model for Text Markup: TEI, Docbook and Beyond" XML Europe 2004, 18-21 April 2004 by Sebastian Rahtz, Norman Walsh, and Lou Burnard).

Q: Does the host schema allow elements not considered necessary for contracts markup to be removed without contract documents being incompatible in a disadvantageous way with other documents using the host schema?

A: I see no reason why a simplified version could not be created that would work well. The Docbook Technical Committee has produced a "Simplified Doc Book."

Q: If distinct contract structures are added to the host schema, will this result in contracts documents being incompatible in a disadvantageous way with other documents using the host schema?

A: Not that I can see. Of course such document would have to be validated against a schema appropriately augmented to support such documents.

1.10. Vendor and Developer Support

Q: Is the host schema already in widespread or general use for markup of narrative documents?

A: There are several sets of style sheets or "tool chains" to convert Docbook XML into print or HTML format.

It is used heavily by the publisher O'Reilly, considered the best publisher for computer books. It is used extensively in LINUX and other UNIX documentation such as PHP. There is also a version of Docbook called WebSite which is used for setting up web sites. The Relax NG specification is written in Docbook.

Q: Are the already developed applications that Will make it easy of for organizations to implement the TC's specification based around the host schema?

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A: As discussed above, there are several tool chains and style sheets available for producing documents from docbook. Some of this material is available from the DocBook Sourceforge site.

Some use XSL-FO, in which case a renderer is needed. Others are based on Passive Tex, available for free.

One can use the Apache FOP renderer. It is useful but has problems, according to a recent post on the docbook applications mailing list. Antenna House and XEP sell XSL-FO renderers.

As I mentioned elsewhere, I developed hundreds of pages of classnotes in Docbook. Thus, I use a style sheet processor and a renderer.

Unfortunately, several times, the renderer would hang when converting XSL-FO to PDF. This is even after validating the Docbook XML against the document. It is not clear whether this is a problem with only docbook toolchains or one can have a problem with any of other candidate host schemas such as TEI.

Q: Is there any reason to expect that the host schema will prove any particular advantages in gaining market support?

A: Docbook is used primarily by people in the computer field, and the users seem to come from that technical culture, even if they are using it to do things not related to computers such as publishing a school catalog.

O'Reilly sells a book based on the XML tags and Bob Stayton published a book on using and adapting the style sheets. Both are available as HTML on the web.

1.11. Other Factors

Q: Does the host schema provide any other advantages for use in the TC's specification?

A:

Q: Does the host schema have any other disadvantages that make it undesirable for use in the TC's specification?

A: