To: MHS’s NDIIPP Project Team  
Subject: Current experience with XML schemas  
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Observations by Minnesota Revisor’s Office IS staff on XML schemas for bills

1. Use XHTML tags when possible.
   XHTML tags applicable to bills are:
   <p>  
   <del> <ins>  
   <sub> <sup>

2. Try to use generic tag names. Then use 1 schema in many document types.
   This: <section>
   Not: <bill_section> <amendment_section> <statute_section>

3. Create a document level tag that includes the 1, generic schema.
   Example:
   <document type="bill">  
   <section>
   <p> This is paragraph number 1. </p>
   <p> This is paragraph number 2. </p>
   <p> This is paragraph number 2. </p>
   </section>
   </document>
   <document type="law">  
   <section>
   <p> This is paragraph number 1. </p>
   <p> This is paragraph number 2. </p>
   <p> This is paragraph number 2. </p>
   </section>
   </document>

   The benefits of this approach are:
   a. The 1 generic schema can be used for multiple document types. The number and complexity of schemas is reduced.
   b. The document type=”” allows style sheets to display paragraphs in “bill” differently than in “law”.
   c. Software (e.g., XPath code) becomes more consistent and manageable because the tag names are constant across multiple document types.

4. Opinion – Using attributes within a tag is preferable to many unique tags.
   This: <ref type="statute"> <ref type="law"> <ref type="adminrule">
   Not: <statute_ref> <law_ref> <adminrule_ref>

5. In addition to capturing content, tags and attributes are used for these purposes
   a. publishing to web (i.e XSLT programming to generate .html)
   b. publishing to paper (i.e., FOSI, XSL-FO programming to generate paper)
   c. software functions (i.e., MN XTEND function to auto generate the bill title)
   d. generate reports & QC (e.g., List all bills amending Statute chapter 287.)
6. Use features of XSD language to:
   a. include one schema into another schema
   b. extend or override the definition of a tag