PB138 — XML Namespaces

XML Namespaces (jmenné prostory)

- XML Namespaces (W3C Recommendation, currently *Namespaces in XML 1.0 (Third Edition) W3C Recommendation 8 Dec 2009*): http://www.w3.org/TR/REC-xml-names
- to new XML, there exists *Namespaces in XML 1.1 W3C Recommendation (Second Edition) 16 August 2006*. Andrew Layman, Richard Tobin, Tim Bray, Dave Hollander
- They define logical spaces for names of elements, attributes in XML document.

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- They give the elements and attributes the "third dimension".
- To each NS in XML, there is exactly one ("globally") unique identifier, given by URI (URIs is a superset of URLs).
- NS corresponding to an URI does not anyhow relate to content that would potentially be available under the URL ("nothing is downloaded when processing NSs".

Prefixes and Equivalence of NSs (1)

- Instead of URIs for denoting a namespace in document, one uses prefixes for these NS mapped to the respective URI using `xmlns:prefix="URI"`.
- Element- or attribute-name containing colon (`:`) is denoted as *Qualified Name*, *QName*.

Prefixes and Equivalence of NSs (2)

- Two NS are equal iff their URIs are *one-to-one-character* the same (in UNICODE).
- Namespaces *do not* apply to *text nodes*.
- Element/attribute *need not* be in a namespace.

Prefixes and Equivalence of NSs (3)

- NS prefix declaration or declaration or the implicit NS recursively applies to all descendants (child elements, their children etc.), unless another declaration "remaps" the given prefix.
- One NS is co-called implicit (default) NS, declared by attribute `xmlns=`
- Default NSs are NOT applied to attributes!!!, thus attributes without an explicit prefix do not belong to any NS.

Example 1. Default NS

```
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">
  <body>
     <h1>Huraaaa</h1>
  </body>
</html>
```

Example 2. Prefixed NS

```
<xhtml:html xmlns:xhtml="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">
  <xhtml:body>
     <xhtml:h1>Huraaaa</xhtml:h1>
  </xhtml:body>
</xhtml:html>
```

Issues related to NS

- NS are *not compatible* with DTD.
- DTD strictly differentiates between eg. name `xi:include` and `include` even if they belong to the same NS and should thus have the same interpretation/meaning for applications.