Semantic name spaces

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(first draft)

## *Abstract*

(to do)

Introduction

The actual name space recommendation (ref: http://www.w3.org/TR/REC-xml-names) provide the following definition for name spaces

> *[Definition:] An **XML namespace** is a collection of names, identified by a URI reference [RFC2396], which are used in XML documents as element types and attribute names. XML namespaces differ from the "namespaces" conventionally used in computing disciplines in that the XML version has internal structure and is not, mathematically speaking, a set. These issues are discussed in "A. The Internal Structure of XML Namespaces".*

Most of the actual name spaces including the name spaces used by the W3 consortium are using URLs and more particularly URL based on the HTTP protocol. Some URL are effectively pointing to a resource. For instance the XSL name space identifier, a URL, points to an HTML page as shown below
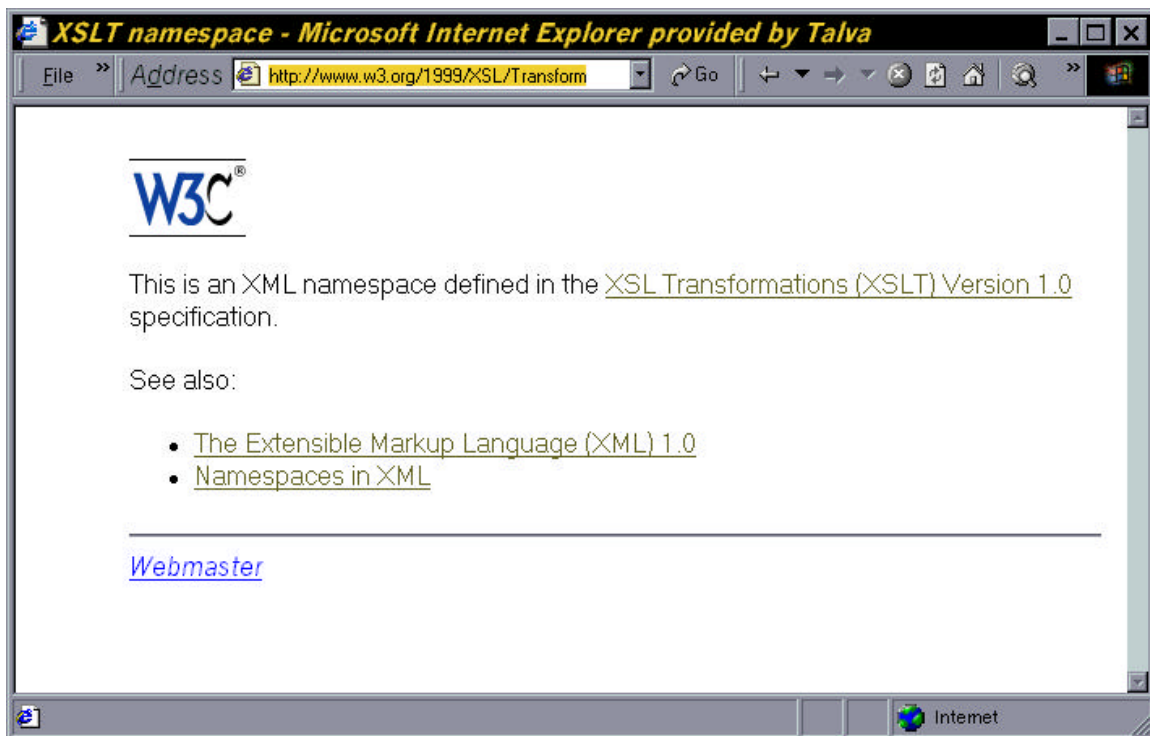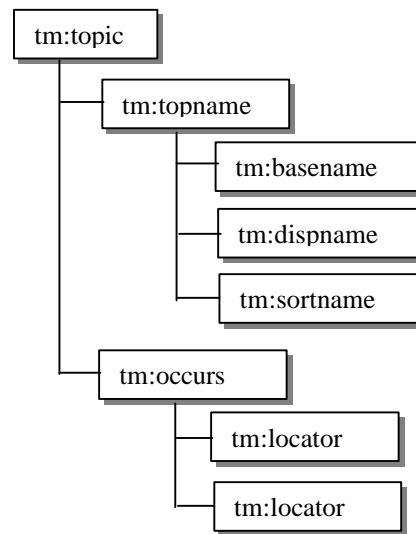

Even if this is tremendously better that an HTTP URL pointing to the limbs, it is nonetheless hard for an automated processor to decode effectively the information pointed by the URL.

Thus, the actual name space identifier are most of the time meaningless for automated agents. The present document propose to add more semantics to name spaces by having their URI to point to a topic map document.

Background on topic maps

A topic map document at its minimum consist of topic elements. A topic element includes as children, both a name and a link element. As an actual ISO standard (ISO 13250:1999) topic maps take the form of architectural forms. Architectural forms could be mapped on other document type or structure. Thus, me mapped the topic map architectural form on the XML format and related technologies.

```
tm:topic
    tm:topname
        tm:basename
        tm:dispname
        tm:sortname
    tm:occurs
        tm:locator
        tm:locator
```

A topic structure

More particularly we mapped the <tm:occurs> element to the xlink extended link. This latter is a one to many kind of link.

A name space topic map

A name space topic map contains a topic with a name identical to the name space it represents. For instance the XSL name space topic would be named XSL. The XSL topic would also point to several documents or schemas useful for both documenting and validating the name space. The resultant document would be as below.

<tm:topic>
<tm:topname>
<tm:basename>XSL<tm:basename>
<tm:dipname>XSL name space</tm:basename>
<tm:sortname>XSL</tm:sortname>
</tm:topname>

<tm:assoc>
<tm:locator
        xlink:type="extended"
        xlink:href="http://www.w3.org/TR/REC-xml"
        xlink:title="The Extensible Markup Language (XML) 1.0"/>
<tm:locator
        xlink:type="extended"

```
            xlink:href="http://www.w3.org/TR/REC-xml-names"
            xlink:title="The Extensible Markup Language (XML) 1.0"/>

   </tm:assoc>
   </tm:topic>
```