



ITS 2.0 Validation

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Purpose of Validation

- make sure that ITS output you produce is correct and can be properly processed by various ITS-aware tools
- make sure that ITS input to your application is correct before processing it
- validation tool depends on context in which you use ITS markup

Validation of HTML+ITS

- support for ITS 2.0 was recently integrated into the most popular HTML validation services
 - <http://validator.nu>
(HTML+SVG+MathML+ITS schema must be chosen)
 - <http://validator.w3.org/>
(HTML5 experimental document type must be chosen)
- demo

Validation of ITS in an XML host vocabulary

- we are interested only in correctness of ITS markup
- schemas are part of specification at <http://www.w3.org/TR/its20/#its-schemas>
- NVDL schema can validate any XML document with embedded ITS markup
- use standalone XML validator or validator.nu
- demo

Integrating ITS into an XML host vocabulary

- schemas with ITS building blocks are provided in RELAX NG and W3C XML Schema syntax
- combined schema provides validation of both host vocabulary and ITS at the same time
- integrating DocBook and ITS:

```
include "docbook.rnc"  
include "its20.rnc"  
# Add local ITS attributes to all DocBook elements  
db.common.base.attributes &= its-local.attributes  
# Allow its:rules inside info element  
db.info.extension |= its-rules | its-standoff
```
- demo

Additional checks

- some things are hard to test by classical schema languages
- additional constraints can be checked by Schematron schema
- demo

Differences between HTML and XML syntax for ITS

- HTML uses **its-** prefix
- XML uses namespaces – usually **its:** prefix
- in XHTML both methods can be used
 - XHTML accessible to browsers should use HTML approach (its-*)
 - XHTML used in backend systems should use XML approach (its:*)
- conversion tools available at <https://github.com/kosek/html5-its-tools>

Propagating ITS markup from XML into HTML

- once document its augmented with ITS markup we should not loose markup in a processing toolchain
- DocBook stylesheets are already providing this functionality for HTML output
<http://snapshots.docbook.org/>
- demo
 - <http://translate.google.com/translate?sl=en&tl=cs&js=n&prev=t&hl=cs&ie=UTF-8&u=http%3A%2F%2Fxmlguru.cz%2F2013%2F05%2Fits%2Fdemo1.html>