Overview

The rfcdiff utility has been very useful for inspecting the changes in versions of Internet-Drafts and RFCs during the creation process. The rfcdiff utility will continue to be useful with the upcoming text publication format. Other tools may evolve for comparing versions of the remaining publication formats.

It would be useful to be able to directly compare the xml source of different versions of a document, particularly to rapidly identify changes in document structure or attributes within tags. These changes may or may not have a simple corresponding change amenable to representation through differences of one of the publication formats. This project will create a differencing tool for the xml source documents.

Deliverables/Tasks

- An application that operates on two xml2rfc v3 source documents, producing a visual presentation of the meaningful differences in the source.
- A test suite for the application exercising the use cases described below
- Documentation and training for the RFC Production Center staff

Detailed Description and Requirements

This application's output will concentrate on differences in the document structure and essential content and de-emphasize differences that do not change the meaning of the document source. Specifically:

- Changes in whitespace that are not significant in XML (including line breaks) will be ignored. Whitespace changes will only be highlighted when the semantics of the document make them significant (such as those appearing inside <artwork> and <sourcecode> text blocks).
- The output will be driven by elements from the source documents, not input lines.
- Tags will have their differences shown, including differences in any provided attributes, similar to how rfcdiff shows differences between input lines of text documents.
- The text content of elements will be shown with differences similar to what rfcdiff produces, again de-emphasizing insignificant whitespace.

It would be sufficient to show the differences as a static HTML output document, but desirable to allow common elements between the documents whose content has differences to be collapsible and expandable.

Proposals that encourage reuse of the existing (and in-development) tools and formats are encouraged. For example, one potential solution would extend the xml2rfc v3

grammar to include markup for inserted and deleted blocks (possibly in a separate namespace), and provide a renderer from that extended grammar into HTML, extending the official HTML presentation format, leveraging it as much as possible.

This application must be able to be run as a web service similar to rfcdiff. It must also be possible for an author to run the application locally on a personal computer. When run as a web service, the application will locate the input documents using the same name and version completing search algorithms implemented in rfcdiff. When run on a personal computer, it is expected that the paths to local copies of the input documents will be fully specified.

The application must run on unix-like operating systems (including OS/X) and Microsoft Windows. Running on other systems, or being easily portable to other systems, is preferable.

Expected Development Processes and Practices

The contractor will adhere to the requirements at
http://trac.tools.ietf.org/tools/ietfdb/wiki/ContractorInstructions?version=11