Regulatory Analysis Tool
Software Requirements Document (SRD)

Version 1.0

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Introduction

In this software requirements document, you will find a detailed description of the features that make this system a valuable tool for analysts to use in the process of carefully examining a regulatory text.

Product Overview

This tool is especially designed to assist software engineers in regulatory analysis. This task becomes particularly exhausting when analysts come across long and complicated pieces of regulation. This system will facilitate the navigation, annotation, etc. of a regulatory text by keeping an electronic version of said regulation in its repository.

Once the user logs in to the system, the first three options s/he has are as follows:

1. Add a legal text to the repository.
2. Examine an existing legal text.
3. Search for keyword(s).

Add a legal text to the repository:

The user will be able to browse to the location where the legal text is and once s/he selects it, s/he will add it to the system's repository.

Examine an existing legal text:

A complete list of all the regulations in the repository will be displayed. The user will be able to select a regulation in its entirety or a particular section of it that might be of interest. To this end, the system will maintain the hierarchical organization of the text to make it easier to navigate. Regulations are often long and it would not be efficient to load an entire text if the user wishes to analyze

only a particular section (this is similar to an index in a book, but with hyperlinks).

Rule 1
- Chapter 1
  - Subchapter 1
  - Subchapter 2
- Chapter 2
  - Subchapter 1
  - Subchapter 2

Glossary

Search for keyword(s):

We have envisioned three search scenarios:

i) the user will enter a keyword or will select from an existing list of keywords and the system will return all the documents associated with that keyword (this does not necessarily mean that the keyword appears in the text).
ii) the user will enter a keyword or will select from an existing list of keywords and the system will return all the documents that contain that keyword.
iii) the user will enter a keyword or will select from an existing list of keywords and will also specify the regulations where s/he wants the search to be done (this way the search becomes more efficient and the user gets the results from exactly the regulations s/he was interested in).

Once the user has accessed the regulation of interest, the options s/he has are as follows:

1. Annotate the legal text.
2. See all the previous annotations that were made to the text.
3. See other (previous as well as subsequent) versions of the regulation.
4. Search for keyword(s).
5. See the glossary for that particular regulation.

One Glossary per Regulation

If definitions change over time, we still want to be able to see the definition that was effective at a particular point in time. Let's suppose that Term 1 along with Definition 1 appear in the 2001 version and that we have a glossary for that version. Then, in the 2003 version they modify Term 1 to have Definition2. In our glossary, we don't want to overwrite Definition 1; instead, we want a separate glossary that reflects the change for the 2003 version. Thus, in the glossary

corresponding to the 2001 version, we would have Term 1 and Definition 1 next to it, and in the glossary corresponding to the 2003 version, we would have Term1 and Definition 2 next to it. This way we can easily track what terms change and in which version of a regulation.

Cross-references (both internal and external)

If one regulation references another regulation in the repository, we could easily establish a link to that particular section without having to load the entire text (similar to when the user logs in to the system and wants to see a particular section of a legal text).

Hypothetical example:

Rule 1
This is possible according to Rule 2 article 1, etc., etc.

Then we can easily go to Rule 2 article 1 without having to entirely load Rule 2.

Functional Requirements

Identification of Relevant Regulations

FR-1

Requirement Definition: The system shall support the addition of legal texts to its repositories.

Requirement Specification: The system will allow the user/analyst to enter a legal text. The system will preserve the particular structure of the legal text (e.g. hierarchical organization or division into chapters, subchapters, parts, subparts, sections, paragraphs, subparagraphs, etc.) The system will support font styling or other formatting tool relevant to the convenient visualization of the text (e.g. *italics*, **bold**, etc.).

Origin: Summary document (Paul Otto) / Interview w/ Paul 07.02.07

Priority: 1

FR-2

Requirement Definition: The system shall enable the user to search for keyword(s) in legal text(s).

Requirement Specification: The system will allow the user to enter a keyword or select from an existing list of keywords and display all documents associated with that keyword (e.g. if the user enters/selects the keyword "privacy," the system will return all the regulations or sections of a regulation that have been tagged as such; if s/he wishes to see all the regulations that apply to the healthcare or any particular domain, the system will display this information; etc.) Similarly, the user will be able to see all the occurrences of a particular word or phrase within a document, a specified set of documents or all existing documents.

Origin: Interview with Paul Otto 07.02.07

Priority: 1

Classification of Regulations with Metadata (e.g. Annotations)

FR-3

Requirement Definition: The user shall be able to tag a legal text with keyword(s).

Requirement Specification: The analyst will have the ability to add, edit or delete keywords. In addition, s/he will be able to associate keyword(s) with legal text(s).

Origin: Interview with Paul Otto 07/17/07

Priority : 1

FR-4

Requirement Definition: The system shall enable users to annotate legal texts at all levels of granularity.

Requirement Specification: The system will allow users to highlight/select any part of the text (any number of lines and/or words) and make annotations at all levels of the hierarchy of the text (e.g. organization or division into chapters, subchapters, parts, subparts, sections, paragraphs, subparagraphs, etc.) The system will support multiple analysts working on the same text; however, it will not support different users making simultaneous changes to the same document. A user will be able to add, delete or change any annotation previously made by him/herself, but not by another user.

Origin: Summary document (Paul Otto)

Priority: 1

FR-5

Requirement Definition: The system shall maintain traceability between an original, unaltered legal text and all the annotations made to idem.

Requirement Specification: The system will properly document each annotation made to the regulation. It will keep track of the following:

a. Date and time of each annotation made to the text.
b. The user who made the annotation.

Origin: Summary document (Paul Otto)

Priority: 1

Management of Evolving Regulations and Law

FR-6

Requirement Definition: The system shall be able to entirely display any version of a legal text that has been added to its repositories.

Requirement Specification: The system shall maintain a human-readable format of the original, unaltered legal text.

Origin: Summary document (Paul Otto)

Priority: 1

FR-7

Requirement Definition: The system shall maintain traceability between the original legal text and its subsequent versions.

Requirement Specification: The system will keep track of the following:

a. Date when the regulation came into legal force.
b. Date of each addition, deletion and amendment made to the regulation.

Origin: Summary document (Paul Otto)

Priority: 1

FR-8

Requirement Definition: The system shall support users comparing how legal texts have changed over time.

Requirement Specification: The user will be able to navigate back and forth among different versions of a specified legal text.

Question: Will the system highlight the differences between two versions?

Proposed Alternative: While comparing two versions of a regulation, the user will be able to make annotations (as if s/he were annotating the text as previously described in FR-4) to highlight the differences.

Origin: Summary document (Paul Otto)

Priority: 1

Traceability Between References and Requirements

FR-9

Requirement Definition: The system shall support management of cross-references in legal texts.

Requirement Specification: Cross-references should function as links between different passages, such that the user can navigate from a reference's appearance to the part of an external/internal legal text being referenced. This also includes terms being linked to the part of the legal text that contains their definition.

Origin: Summary document (Paul Otto)

Priority:

Data Dictionary and Glossary

FR-10

Requirement Definition: The system shall list all defined terms in a dictionary/glossary.

Requirement Specification: Terms will be linked to their definition in a separate list/dictionary/glossary. Such dictionary will also contain acronyms, abbreviations, context and domain-specific definitions, and other lexical units relevant to the full understanding of the regulation.

There will be a glossary for every regulation so that the user sees only what pertains to the text being analyzed.

Origin: Summary document (Paul Otto)

Priority: 1

FR-11

Requirement Definition: The system shall support traceability between the original legal term definition as it appears in the body of the regulation and its corresponding entry in the system dictionary/glossary.

Requirement Specification : The system will support traceability between the original legal term as it appears in the regulation and its corresponding entry in the system dictionary/glossary.

Origin: Summary document (Paul Otto)

Priority: 1