Akoma Ntoso Version 1.0. Part 1: XML Vocabulary

OASIS Standard

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Additional artefacts:

This prose specification is one component of a Work Product that also includes:

- *Akoma Ntoso Version 1.0 Part 1: XML Vocabulary* (this document). http://docs.oasis-open.org/legaldocml/akn-core/v1.0/os/part1-vocabulary/akn-core-v1.0-os-part1-vocabulary.html.
- *Akoma Ntoso Version 1.0 Part 2: Specifications*. http://docs.oasis-open.org/legaldocml/akn-core/v1.0/os/part2-specs/akn-core-v1.0-os-part2-specs.html.
- XML schemas: http://docs.oasis-open.org/legaldocml/akn-core/v1.0/os/part2-specs/schemas/.

- XML examples: http://docs.oasis-open.org/legaldocml/akn-core/v1.0/os/part2-specs/examples/.

Related work:

This specification is related to:

- *Akomo Ntoso: XML for parliamentary, legislative & judiciary documents*. http://www.akomantoso.org.

Declared XML namespace:

- http://docs.oasis-open.org/legaldocml/ns/akn/3.0

Abstract:

This document provides the motivations, the scope, and the design principles of the Akoma Ntoso XML standard. We include also a narrative part concerning the main functionalities of Akoma Ntoso XML standard. We intend also to provide a discursive illustration of the benefits, features and scenarios using Akoma Ntoso XML standard.

Status:

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1 Introduction

1.0 IPR Policy

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1.1 Terminology

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC2119].

1.2 Normative References

[RFC2119]	Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997. http://www.ietf.org/rfc/rfc2119.txt.
[IRI]	International Resource Identifiers as per RFC 3987 (http://tools.ietf.org/html/rfc3987).
[ISO3166-1:2013]	Codes for the representation of names of countries and their subdivisions -- Part 1: Country codes (https://www.iso.org/obp/ui/#search/code/).
[ISO639-2:1998]	Codes for the representation of names of languages -- Part 2: Alpha-3 code http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=4767
[XML-SCHEMA-0]	XML Schema Part 0: Primer Second Edition , D. C. Fallside, P. Walmsley, Editors, W3C Recommendation, 28 October 2004, http://www.w3.org/TR/2004/REC-xmlschema-0-20041028/ . Latest version available at http://www.w3.org/TR/xmlschema-0/

1.3 Non-Normative References

[RDF]	Resource Description Framework (http://www.w3.org/RDF/).
[FRBR]	Functional requirements for bibliographic records: final report / IFLA Study Group on the Functional Requirements for Bibliographic Records. — München: K.G. Saur, 1998. — viii, 136 p. — (UBCIM publications; new series, vol. 19). — ISBN 978-3-598-11382-6. http://www.ifla.org/files/assets/cataloguing/frbr/frbr_2008.pdf.
[AkomaNtosoNaming-v1.0]	*Akoma Ntoso Naming Convention Version 1.0*. Edited by Fabio Vitali, Monica Palmirani, and Véronique Parisse. 06 June 2017. OASIS Committee Specification 01. http://docs.oasis-open.org/legaldocml/akn-nc/v1.0/cs01/akn-nc-v1.0-cs01.html. Latest version: http://docs.oasis-open.org/legaldocml/akn-nc/v1.0/akn-nc-v1.0.html.

1.4 Status

The present document provides a presentation of the main motivations, design principles, and the benefits of using Akoma Ntoso vocabulary and approach. The document is non-normative material and it is thought for presenting the main pillars of Akoma Ntoso to the stakeholders who need to take decisions about how to manage the legal sources in a digital manner in a Semantic Web society.

2 Overview (Non-Normative)

2.1 Objectives

The LegalDocumentXML Specifications provide a common legal document standard for the specification of parliamentary, legislative, and judicial documents, for their interchange between institutions anywhere in the world, and for the creation of a common data and metadata model that allows experience, expertise, and tools to be shared and extended by all participating peers, courts, Parliaments, Assemblies, Congresses, and administrative branches of governments. The standard aims to provide a format for long-term storage of and access to parliamentary, legislative and judicial documents that allows search, interpretation, and visualization of documents.

The LegalDocumentXML Specifications aims to achieve the following objectives:

- To create a common legal document standard for the interchange of parliamentary, legislative and judicial documents between institutions anywhere in the world.

- To provide a format both for long-term storage and for access to parliamentary, legislative, and judicial documents that allows search, interpretation, and visualization of documents.

- To create a common data and metadata model so that experience, expertise, and tools can be shared and extended by the participating peers - whether they be courts, Parliaments, Assemblies, Congresses or administrative branches of governments.

- To create or reuse common mechanisms for naming and linking resources (URI) so that documents produced by Parliaments and Courts can be easily cited and cross-referenced by other Parliaments, Courts or individual users.

- To be self-explanatory - that is, to be able to provide any information for its use and meaning through a simple examination of the schema and/or example documents, without the aid of specialized software.

- To be extensible - that is, to allow modifications to the models within the Akoma Ntoso framework so that local customisation can be achieved without sacrificing interoperability with other systems.

The specifications of the standard are based on the experience of the Akoma Ntoso vocabulary as formalised in XML-schema. For this reason, the specification keeps the name "Akoma Ntoso" and the root of the XML-schema will be "akomaNtoso".

LegalDocML/Akoma Ntoso (hereafter referred to simply as Akoma Ntoso) is an open standard meant to make the structure and meaning of legal documents "machine readable." The machine-readable descriptions of a document enable content managers to add meaning to the content and to describe the structure of the knowledge about that content. In this way, a computer can analyse information using processes similar to human deductive reasoning and inference, but in a massively faster way so that smart advanced services (such as point-in-time consolidation of legislation) can be achieved.

Making documents machine readable occurs via "markup." Markup is the act of adding machine-readable annotation and labels to all the parts of a document in order to allow computer-based processing to be carried out (from publication to print to storage to technical analysis, etc.). In Akoma Ntoso, these annotations and labels consist of XML tags.

The next section describes the three main features that characterise Akoma Ntoso:

- Descriptiveness;
- Rich data models;
- Separation of data and metadata.

2.2 Descriptiveness: everything has a name

The Akoma Ntoso standard distinguishes between concepts regarding the description and identification of legal documents, their content, and the context in which they are used.

Names are used to associate the document representations to concepts so that documents can be "read/understood" by a machine, thus allowing sophisticated services that are impossible to attain with documents containing only typographical information, such as documents created in word-processing applications.

To make documents machine-readable, every part with a relevant meaning and role must have a "name" (or "tag") that machines can read. The content is marked up as precisely as possible according to the legal analysis of the text. This requires precisely identifying the boundaries of the different text segments, providing an element name that best describes the text in each situation, and also providing a correct identifier to each labelled fragment.

Tag names, formally known as element names, are the basic vocabulary of the Akoma Ntoso language. The element name may be shared by many text fragments of a document and reveals their structural or semantic role. These include concepts such as preamble, section, paragraph, clause, reference, etc. In Akoma Ntoso there are almost 310 different element names to select from, covering a large majority of situations encountered in any legal document.

Besides the very specific names, Akoma Ntoso provides many generic names for those circumstances that are not precisely described by specific names. It is of fundamental importance to use generic elements only when no specific term is available in Akoma Ntoso.

2.3 Rich data models: ontologies

In computer science, an ontology is a data model that represents concepts within a single domain and relationships between those concepts. Ontologies identify a number of classes of relevant concepts and the properties and the relationships between those classes.

Akoma Ntoso uses ontologies to relate facts and statements about the document and its content to concepts, things, individuals, and organizations that are mentioned within, but not necessarily stored within, the document being marked up.

For instance, the identification of a specific individual acting as a "Deputy Minister" in a "Parliamentary Debate" requires not only uniquely specifying the "name of the individual," but also a mechanism to reliably associate the debate to that specific individual (as opposed to any other individual who might have the same name). This is done through ontologies that allow enriching documents, not just with metadata, but also with information that refers to clear, unambiguous and verifiable concepts.

The recording of information in this way also helps document the workflow and the process used to create the document.

2.4 Separation of data and metadata: editors vs. authors

Akoma Ntoso makes an explicit and complete separation between the role of authors (who take the responsibility for the content in terms of sentences, words, and punctuation - e.g. sponsor of an act) and that of editors (who physically write the text on the mandate of the author - e.g. attorney - and decide and organize the final layout and publication of the document).

In the field of legal publishing, the concept of an author may be somewhat abstract (e.g., a legislator offering an amendment), whose content is the result of a formal action (e.g., a final vote of approval), while editors may intervene at all stages of the publication process.

In this regard, distinguishing between the content and an editorial addition is in many cases subtle and may be difficult to establish. A rule of thumb is to try to determine the state of the document at the moment it left the hands of the author and was taken in by the editors. For instance, even publication in an Official Gazette does not clearly establish the "official" content of a document. Some published data (such as the number of the gazette itself) was not decided upon by the official authors and as such should be considered metadata and not content.

Editors have two main tasks in the production process of Akoma Ntoso documents:

- To identify and label (i.e., mark up) the pieces of the original content according to their role and structure;

- To provide additional information about the document itself that is not contained in the official text as created by the original author.

3 Scope of the language (Non-Normative)

3.1 Purpose

The main purpose of the Akoma Ntoso is to develop a number of connected standards, vocabulary and guidelines for deliberative bodies, parliamentary, legislative, executive, administrative and judiciary documents, and specifically to:

- Define a common document format;
- Define a common model for document interchange;
- Define a common data schema;
- Define a common metadata schema and ontology;
- Define a common model for citation and cross-referencing.

3.2 Document format

Deliberative bodies function through the medium of documents. Debate in legislative chambers and court proceedings are recorded as documents. Legislation is passed through the voting process via a combination of documents, the proposed legislation itself, proposed amendments, committee working papers, and so on.

Given that most of the processes are document-centric, the key enabler of streamlined information technology in these bodies is the use of open document formats for the principal types of documents. Such open document formats allow easy exchange and aggregation of information – in addition to reducing the time required to provide the information via different electronic published media.

The IT industry has coalesced around a standard technology for open data/document formats known as XML (eXtensible Markup Language). Akoma Ntoso makes use of XML to define the structure and syntax of its open document standards. It includes a set of XML-based parliamentary, legislative and judiciary open document formats to cover:

- Parliamentary and Committee records and reports;
- Committee briefs;
- Journals, Bulletins, Official Gazettes, etc.;
- Legislation and regulation — covering the life-cycle of a piece of legislation;
- Judgments.

3.3 Model for data interchange and open access

This specification defines a common MODEL for data interchange and open access to the deliberative bodies' documentation, such as parliamentary, legislative, and judiciary texts.

Regardless of the processes that generate and use parliamentary, legislative, and judiciary documents; regardless of the cultural and historical factors that give shape and substance to these documents; and regardless of the human languages in which these documents are written, there are undeniable similarities that are shared by documents of the same type, of different types, for different purposes, of different countries.

One of the main objectives of Akoma Ntoso is to be able to capture and describe these similarities so as to unify and streamline, wherever possible and as far as possible, the formats and software tools related to parliamentary, legislative, and judiciary documentation, and to describe processes in a similar way. This lends itself to reducing the need for local investments in tools and systems, to helping open access, and to enhancing cooperation and integration of governmental bodies both within the individual countries and between them.

Akoma Ntoso defines a model for open access focused on the following issues:

- Generation of documents: it should be possible to use the same tools for creating the documents, regardless of their type, country, language, and generation process.

- Presentation of documents: it should be possible to use the same tools to display on screen and print on paper all documents, regardless of their type, country, language, and generation process.

- Accessibility of documents: it should be possible to reference and access documents across types, languages, countries, etc., converting the network of explicit references among texts into a web of hypertext links that allow the reader to navigate easily and immediately across them.

- Description of documents: it should be possible to describe all documents, regardless of their types, languages, countries, etc., so as to make it possible to create repositories, search engines, analysis tools, comparison tools, etc.

At the same time, the Akoma Ntoso model considers the differences that exist in individual document types, that are derived from using different human languages, and that are implicit in the legislative culture of each country. Therefore, the common open access model is designed to be flexible, to support exceptions, and to allow extensions far enough to provide support for all individual characteristics that can be found in a complete document set covering different cultures and countries.

3.4 Document-centric schema

This specification defines a common parliamentary, legislative and judiciary document-centric schema.

Parliaments and courts work with a number of distinct types of documents such as legislation, debate records, parliamentary questions, judiciary proceedings, judgments, etc.

Akoma Ntoso explicitly supports each major type of document with specific provisions for individual characteristics. The definition takes the form of human and machine-readable document models, according to the specification tools made available by XML schema, the specification language used by XML.

All document types share the same basic structures, provide support for metadata, addressing and references, differentiate common structure, and may accommodate national peculiarities.

All documents can be produced by the same set of tools (although specialized tools may provide more detailed and specific help in specific situations), need the same tools to be displayed or printed (although specialized tools can provide more sophisticated and individual presentations), can reference each other in an unambiguous and machine-processable way, and can be described by a common set of metadata that assists in indexing, analysing and storing all documents in long-term perspective.

3.5 Metadata schema and ontology

This specification defines a common parliamentary, legislative and judiciary METADATA schema and ontology.

Metadata is structured information about a resource. Metadata records information about a document that is not actually part of its content, but is necessary to examine in order to deal with the document itself (for instance, information about its publication, lifecycle, etc.). Metadata also enables a document to be found by indicating what the document is about and how it can be accessed. Furthermore, metadata facilitates the discovery and use of online resources by providing information that aids and increases the ease with which information can be located by search engines that index metadata. Metadata values are labelled and collected according to a common ontology, i.e. an organized description of the metadata categories that describe the resources. A shared ontology is fundamental to providing a way for managing, organizing and comparing metadata.

The parliamentary, legislative and judiciary ontology is concerned particularly with records management and document management, and covers the core set of data elements needed for the effective management and retrieval of official parliamentary, legislative, and judiciary information. The aim of the parliamentary, legislative and judiciary ontology is to provide a universal schema for all the information about a document that is available to its owner, but does not belong to the document itself, and might be needed for managing or searching the document. The Akoma Ntoso informal ontology provides direct translation of some of its values into the corresponding properties of the Dublin Core metadata schema

(an international standard for the description of electronic documents available online), and uses values and terms drawn from the legal thesaurus by legal professionals to improve searchability.

Nonetheless, the ontology is designed to be extensible so that parliaments and courts with different, or more specific metadata needs may add extra elements and qualifiers to meet their own requirements.

3.6 Schema for citation and cross referencing of documents

This specification defines a mechanism for citation and cross referencing of data between documents.

The Akoma Ntoso naming convention and the corresponding Akoma Ntoso reference mechanism are intended to enable a persistent, location-independent, mechanism for resource identification and active referencing. The adoption of a schema based on the naming convention allows the full automation of access to documents in a fully distributed hypertext.

The Akoma Ntoso naming convention can provide for:

- the direct access to the document being referred to, regardless of type, jurisdiction, country, or emanating body.
- the specification of the existence, at a certain time, of more than one copy of the same document being referred to;
- the possibility that references to resources not yet published on the web are present.

Official documents, bills, laws, acts, and Judgment s contain numerous references to other official documents -Judgments, bills, laws, and acts. The whole parliamentary, legislative and judiciary corpus of documents can be seen as a network, in which each document is a node linking, and linked by, several other nodes through natural language expressions. The adoption of a common naming convention and a reference mechanism to connect a distributed document corpus, like the one embodied by the parliaments and courts, will greatly enhance the accessibility and richness of cross references. It will enable comprehensive cross referencing and hyper-linking, so vital to any parliamentary, legislative and judiciary corpus, from:

- debate record into legislation
- section of legislation to section of legislation in the same act
- section of legislation to section of legislation in another act of the same Parliament or of an institution like the Pan African Parliament or European Parliament;
- from judgments to other judgments and acts.

4 Design issues (Non-Normative)

4.1 Simple data model

4.1.1 Akoma Ntoso XML-Schema

Defining an XML language goes through four different specifications:

- The *namespace*, i.e., the official and unambiguous identifier and name of the language (in Akoma Ntoso, that is http://docs.oasis-open.org/legaldocml/ns/akn/3.0).

- The *vocabulary*, i.e., the set of reserved words that will be used for the language. In XML the vocabulary is used to specify the name of elements and attributes of the language. Currently, Akoma Ntoso defines 310 names for elements and 69 names for attributes and it uses the lower camel case naming convention for both elements (e.g. mainBody, amendmentList) and for attributes (e.g. showAs, refersTo).

- The *grammar*, i.e., the rules that are used to build a correct (or, in XML, valid) instance of a document in the XML language being defined. The grammar is composed of rules that dictate what content is legal to appear within any element (which is called the content model), both in terms of other elements and characteristics of the text itself.

- The *semantics*, i.e., the mapping between the vocabulary and rules being used in a valid document, and the actual meaning inferable from its markup. The semantic of an XML markup is absolutely dependent on the kind of use the markup document is subject to (often called the downstream application). For ensuring multiple different uses, both by humans and computer applications, declarative semantics is preferred, where by declarative we refer to the description of the element as declaring the content as it is in terms of structure, role or purpose, rather than as it should be handled by any specific downstream application.

This 4-part distinction is explicit in Akoma Ntoso, and is used to ensure the long life and widespread usefulness of all documents expressed in this language.

4.1.2 URI/IRI

URIs/IRIs, or Uniform Resource Identifiers/Internationalized Resource Identifier, are standard mechanisms for referring to documents, languages and concepts on the World Wide Web. A good URI/IRI has either an identification purpose (i.e., it provides a way to universally refer to that resource in a manner that does not change with time, computer systems or software versions) or a location purpose (i.e., it provides a way for a software or a human to unambiguously and rapidly access the resources wherever it is stored), or, on some situations, both.

Akoma Ntoso gives a lot of importance to URIs/IRIs, and provides systematically specific URIs/IRIs for all documents, concepts of the ontology, and even for the markup language itself. All such URIs/IRIs are described in the Akoma Ntoso naming convention.

4.1.3 FRBR

The Akoma Ntoso standard defines a number of referenceable concepts that are used in many situations in the lifecycle of legal documents. The purpose of this section is to provide a standard referencing mechanism to these concepts through the use of URI/IRI references associated to classes and instances of an ad hoc ontology. The referencing mechanism discussed in this document is meant to be generic and evolving with the evolution of the underlying ontology.

The most important concepts of the Akoma Ntoso informal ontology are related to documents that have legal status. All discourse and all description of legal sources can be characterized as referring to one of the four levels of a document as introduced by IFLA FRBR (International Federation of Library Associations (IFLA) - Functional Requirements for Bibliographic Records (FRBR) http://www.ifla.org/VII/s13/frbr/frbr.pdf):

- WORK: the abstract concept of the legal resource (e.g., act 3 of 2005).

- EXPRESSION: any version of the WORK whose content is specified and different from others for any reason: language, versions, etc. (e.g., act 3 of 2005 as in the version following the amendments entered into force on July 3rd, 2006).

- MANIFESTATION - any electronic or physical format of the EXPRESSION: MS Word, Open Office, XML, TIFF, PDF, etc (e.g., PDF representation of act 3 of 2005 as in the version following the amendments entered into force on July 3rd, 2006).

- ITEM: the physical copy of any manifestation in the form of a file stored somewhere in some computer on the net or disconnected (e.g., the file called act32005.pdf on my computer containing a PDF representation of act 3, 2005).

4.1.4 Ontology

In computer science, an ontology is an organized collection of facts and assertions about a specific domain. Ontologies identify a number of classes of relevant concepts and their properties and the relations between these classes. In a properly organized ontology, through classes and properties it is possible to derive (technically, infer) new properties relating instances of the classes even if there are not explicitly present in the description of the instances themselves.

Within the World Wide Web, the discipline of ontologies is gaining visibility and widespread adoption, thanks to the initiative called the Semantic Web by the W3C. Within this initiative, several languages have been defined, including RDF [RDF], RDF Schema and OWL. Such languages allow specific ontologies to be defined, mixed and interchanged for a wide number of purposes.

Akoma Ntoso allows multiple different ontologies to be created about the document it describes. Rather than defining an ontology of the legal matter being discussed in the legal documents (which could be overly wide and all-encompassing, since the legal matter may be by itself rather wide and all-encompassing), the Akoma Ntoso specification provides mechanisms to define arbitrary ontologies and connect them to the various parts of the document and of the text. Akoma Ntoso informal ontology. The Akoma Ntoso informal ontology is therefore centred on the concept of document, which is considered in a very precise way through the specification of the FRBR conceptualization of documents (about which see the next section). Besides the FRBR classes for document, the Akoma Ntoso informal ontology also lists a number of supporting classes (such as Person, Organization, Place or Event, that are used to provide further meaning to the main classes of the ontology.

4.1.5 Design patterns

Patterns are the abstraction and distillation of past experiences in designing and resolving design problems. They are general and widely applicable guidelines for approaching and justifying design issues that often occur in XML-based projects.

In Akoma Ntoso, patterns are used to create categories of content models (and thus correspond to only those content models that have been found to be actually useful) and, more generally, in schema design (and thus correspond to guidelines on how to make the schema more modular, flexible, and understandable to by users). Both approaches are well known and well established in the literature, although by different experts in different ways.

4.1.5.1 Categories in content model

Categories of content models is the term used within Akoma Ntoso to refer to families of elements that share the same conceptual organization of the internals. The Akoma Ntoso schema uses six categories of content models. This means that all content models and complex types used in the schema follow precisely the form of the relevant category, and all elements can be simply described and treated according to their category rather than individually.

These categories are:

The *markers*: markers are content-less elements that are placed here and there in the document and are meaningful for their position, their names and their attributes. Markers are also known as empty elements or milestones. There are two main families of markers in the Akoma Ntoso schema: placeholders in the text content (e.g., note references) that can appear in any position that also has text, and metadata

elements that only appear in some subsection of the `<meta>` section. In Akoma Ntoso, all metadata elements are markers, so that metadata values are not part of the text content of a document, but rather become attribute values.

The *inlines*: an inline element is an element placed within a mixed model element to identify a text fragment as relevant for some reason. There are both semantically relevant inlines and presentation oriented inlines. There is but one content model using inlines (and markers), which means that all mixed model elements (i.e., those that allow both text and elements) also allow a repeatable selection of all inline elements. For a discussion of why this is only a trade-off decision, and not the ideal solution, see the discussion at the end of this section.

The *blocks*: a block is a container of text or inlines and placeholders that is organized vertically on the display (i.e., has paragraph breaks). Most blocks in Akoma Ntoso are based on the HTML language. There is only one content model that uses blocks, and it allows a repeatable selection of all available blocks. This means that wherever any block is allowed, all blocks are allowed, as well: e.g., wherever a paragraph is allowed, a table or a list is also allowed.

The *subFlow*: a subFlow element is an element placed within a mixed model element to identify a completely separate context that, for any reason, appears within the flow of the text, but does not belong to it or does not follow its rules. subFlow elements are containers appearing in the middle of sentences but containing full structures (with no direct containment of text or inline elements).

The *containers*: containers are sequences of specific elements, some of which can be optional. Containers are all different from each other (since the actual list of contained elements vary), and so there is no single container content model, but rather a number of content models that share the same conceptual category. The shared characteristic of containers, is that no text is allowed directly inside them, but only a collection of other elements. Text therefore can only be placed within a block within the container.

The *hierarchy*: a hierarchy is a set of sections nested to an arbitrary depth, usually provided with title and numbering. Each level of the nesting can contain either more nested sections or a container. No text is allowed directly inside the hierarchy, but only within a block element that is contained within a container element (not considering, of course, titles and numbering). Akoma Ntoso uses only one hierarchy, with predefined names and no constraints on their order or systematic layering.

There are two exceptions to the systematic use of patterns:

- The <li> element allows both inlines and other nested lists (`<ul><ol><li>`). The pattern would require elements to contain only text, and nested lists to be direct child of the main list. Since this goes against universal HTML practice, we have decided against full pattern adherence and in favour of HTML tradition.

- There are some inline elements that only make sense in the preface and/or preamble of the document: for instance there, are `<docTitle>` and,`<docNumber>` , for numbered documents such as acts or bills, or , for judgments. They are, in fact, part of the one inline content model and thus are available everywhere in the document. There is no simple way to define blocks within `<preamble>` and `<preface>` to allow these elements and blocks elsewhere to reject them, so it has been decided that it is better to allow them everywhere rather than uselessly complicating the schema.

4.1.5.2 Patterns in schema design

Design patterns are a distillation of common wisdom in organizing the parts and the constraints of a schema. Some of them are listed in http://www.xmlpatterns.com/. Whenever there has been a design choice to be made that was not immediately obvious and naturally acceptable, a relevant pattern has been sought and properly used. In fact, http://www.xmlpatterns.com/ also contain immediately obvious and naturally acceptable patterns that have been used in Akoma Ntoso, but only the not-so-obvious and not-so-natural ones have been explicitly mentioned and referred to. You can find the relevant references in comments within the schema itself, and in the documentation.

4.2 Widest scope

4.2.1 Support for all the types of legal documents

Akoma Ntoso provides explicit support for many different document structures within the context of parliamentary and judiciary activities: legislative documents (e.g. bills, acts, etc.), amendment documents (e.g. amendment), parliamentary documents (e.g. debates, hansard, report, etc.), judiciary documents (e.g. judgments), collection documents (e.g. Official Gazette, etc.), general document (e.g. annexes, memorandum, etc.).

The information organized within the documents corresponds to various typologies of documents.

Akoma Ntoso Document Types	Category / Legal Document	Definition
bill/act	*Akoma Ntoso type :* hierarchicalStructure *Legal Document:* bill/act/ordinance/decree/subsidiary legislation/executive orders/ normative standard/ administrative regulation/etc.	These are deliberative documents produced by parliamentary activities or from other empowered bodies (e.g. Committee). They are usually drawn up according to a hierarchical structure in which the text is subdivided into sections or chapters. These are subdivided into clauses or articles, sub-paragraphs, etc.
debate	*Akoma Ntoso type:* debateStructure *Legal Document:* debate record/Hansards/judicial verbatim	These are texts resulting from the transcription of the any deliberative works. The structure reflects the different section of the debates and alternation of questions and answers that takes place during the parliamentary works. This structure could be used, for instance, for parliamentary/judicial verbatim, UN/FAO transcript of assembly or council, etc.
debateReport	*Akoma Ntoso type:* openStructure *Legal Document:* committee minutes/judicial minutes	These are texts that are minutes or reports usually of the committee used to describe official meeting sessions.
judgment	*Akoma Ntoso type* judgmentStructure *Legal Document:* judgments//case-law/precedents	These are documents in which a court of law makes a formal decision or specific determination following a lawsuit. The structure reflects a typical narrative of sentences.

doc	*Akoma Ntoso type:* openStructure *Legal Document:* any other type of document/Executive SummaryMemorandum/etc annexes/table/judicial documents	These are texts that are legally valid but do not have any particular structure. These include any parliamentary procedure document that has no particular textual structure and is not a collection of other documents. An example could be also the Report of the Amendments of a Bill, the Memorandum of a Bill, Order of Business, Legal Notice, judicial documents, etc.
documentCollection	*Akoma Ntoso type* collectionStructure *Legal Document:* collection of documents	Used to represent documents which are collections of other independent documents. A typical example is the electronic folder related to a bill. This folder is composed of several independent documents (committee reports, initiative, bill, memorandum, etc.) and by different expressions over time such as versions of the same bill. Another example is the U.S. Code: it is a documentCollection composed of various Titles of positive and non-positive law. In European institutions, the committee report, for example, can be considered as a document collection, as it includes documents like Resolutions, Explanatory Memorandum or Opinions from other committees.
amendmentList	*Akoma Ntoso type* collectionStructure	Used to represent a special document that includes all the amendments, collected and submitted to the official deliberative body for the discussion.
officialGazette	*Akoma Ntoso type* collectionStructure	Used to represent an issue of an official publication body such as Official Gazette, Journal, Bulletin or Federal Register.
amendment	*Akoma Ntoso type* amendmentStructure *Legal Document:* Amendment document	Used to describe specific amendment documents. It is a special document or a component of an amendment list, presented by the member(s) of parliament to the committee or to the assembly for discussion and vote.
statement	*Akoma Ntoso type* openStructure *Legal Document:* US resolution	Used to represent those legal documents that may or may not be normative, but they are fundamental for the life of an official institution. Often they have a mixed structure (blocks and hcontainers): an example is a resolution issued by the US Congress, or an UN resolution/declaration. Other examples are the resolution or decision from European Parliament.
portion	*Akoma Ntoso type* portionStructure *Legal Document:*	Used to represent a portion of any document at manifestation level.

	chapter of a document	

4.2.2 Support for all the uses of legal documents

Akoma Ntoso is designed for use in all applications that use legal documents. This includes applications both inside and outside the deliberating bodies that make the law. Akoma Ntoso includes, without being limited to, support for:

- the initial drafting of bills;
- the legislative lifecycle including amendments, publication in the official gazette, and the recording of debates;
- the comparison between different version of the bill;
- the enactment and consolidation of those bills to produce the law;
- the codification, recasting, coordination of the acts when some changes are issued;
- the publication of the law and comparison between two different versions of the same law; and
- applications that involve the research and tracking of laws and legislation.

Akoma Ntoso also gives to the applications a representation of case-law, precedents, and judgments including those produced by the Constitutional Court that can affect the law.

4.2.3 Support for all the actors dealing with legal documents

Legal documents are important to many different people and organizations. These range from the people who originally request or propose new laws, the person tasked with drafting the legislation, the legislators who sponsor and debate the legislation, the people who want to alter that legislation, the person who signs the legislation into law, and the people affected by the resulting law. Akoma Ntoso provides support for this diverse group of actors involved in the legislative process.

4.2.4 Support for all the processes affecting legal documents

There are numerous processes that involve legal documents. Some processes within governments or institutions involve the production and issuance of legal documents. Other processes, by other government agencies or external entities interested in following or conforming to the law, involve the tracking and consumption of legal documents. Akoma Ntoso is designed to support all the processes that involve legal documents, whether it be the initial drafting of legislation, the process that results in the enactment of laws, or the follow-on processes to track and comply with those laws.

4.2.5 Support for the characteristics of legal documents in all countries and jurisdictions

Every country and every jurisdiction has unique requirements. This is a simple consequence of separate development of legal traditions around the world over time. However, upon further examination, it is quickly apparent that all the varying traditions found around the world stem from a relatively small set of legal traditions originating back in history. Akoma Ntoso has been designed, through careful examination of the world's legal practices, to take advantage of the common heritage found in all our legal systems while also providing enough flexibility to adapt to all the variations.

4.2.6 Support for all legal documents of the past and of the future

It is important that a legal data model support not only the future needs of legal information systems but also the past. Akoma Ntoso is designed to anticipate the future needs made possible by a uniform standard for legal documents while also being flexible enough to adapt to past practices, allowing all the variances that have occurred in the past to be modelled in a single document structure.

4.2.7 Long term preservation

Dematerialized legal documents modelled and represented in XML preserve their legal validity over time, maintaining a clear separation between original content (as formalized in the enactment stage) and the reworking of that text during the reporting process. This allows us to include a digital signature in the XML document, thus freezing authenticated documents, even digital ones, so that it can be represented in the future without subsequent modifications.

4.2.8 Self-explanation

It should be possible to understand the markup of a legislative document without having to first study and understand the associated schema or having to possess any knowledge of any special theory behind the design. For this reason, the vocabulary should adhere as close as possible to the legal domain terminology, while also being as neutral as possible with respect to any legal-specific tradition.

4.2.9 Self-containment

A good legal XML schema must encapsulate knowledge in one self-contained document without fragmentation in the logical schema of a database or document processing application. This preserves a document's neutrality with respect to applications, platforms, and technological developments. It also keeps intact the expressive power of the legal knowledge contained in the document so that the document can move freely throughout the network.

4.3 Strong distinction between authors and editors

The first important point is the explicit and complete separation between the role of authors (who decide and write the actual content in terms of sentences, words, and punctuation) and of editors (who decide and organize the final layout and publication of the document). We often say that the author has created the content and the editors have created the metadata. Another way to put it is that the author is the creator of the FRBR Expression, and the editors are the creators of the FRBR Manifestation.

In the field of legal publishing, the author is often an abstract concept (e.g., the legislator), whose content is the result of a formal action (e.g., a final vote of approval for a highly discussed text), while editors can be involved at all stages of the publication process. In this regard, the identification of what constitutes the content and what is an editorial addition is in many cases subtle and difficult to establish. A rule of thumb is to try to determine the state of the document at the moment it left the hands of the author and was taken in by the editors. For instance, even the publication of the document on the official gazette does not determine clearly the "official" content. Some published data (such as, for instance, the number of the gazette itself) were not in the hand of the official authors and as such should be considered metadata and not content.

This basic distinction generates, on the other hand, a few secondary reflections that need to be discussed briefly.

4.3.1 The official form is the guarantee of the authorial intention

Many types of legal documents have a "more important" form of publication than others. We will call this the authoritative (or official) form. More often than not, this is a version of the document printed on paper and published within official channels (e.g., the official gazette) after a number of well-known and highly controlled editorial steps. All conversions into electronic formats, by their very nature, have an authoritative status that is of lesser authoritativeness than the official form. Any doubt arising about the correctness of its content should therefore be redeemed by comparing the content of the electronic format with that of the authoritative form, which remains the guarantee of the authorial intention.

4.3.2 Markup is an editorial process

Markup is the act of adding annotation and labels to the fragments of a document in order to allow computer-based processes to be carried out (from publication to print to storage to technical analysis, etc.).

The markup process is the process of actually adding these annotations and labels to the original text according to a specific syntax that is dictated by the computer environment (in the case of Akoma Ntoso, this means adding XML tags around the text fragments that have been identified and classified).

Of course this means adding to the original content, and in this sense, according to the definitions above, it has to be considered an editorial process and not an authorial process.

4.3.3 Naming is an editorial process

Akoma Ntoso defines a series of rules for giving a name (technically, a URI/IRI) to all the electronic versions of the legislative documents -the Akoma Ntoso naming convention. For these electronic versions to work correctly within the applications that make use of the Akoma Ntoso standards, it is necessary that the URIs/IRIs are correctly determined. These URIs/IRIs are derived in many ways from the "official" or the "most used" names of the documents, but do not necessarily look like them. Because they are defined by the creators of the XML representation, they are considered editorial in nature. Nonetheless, it is of the uttermost importance that they are created correctly and precisely according to the Akoma Ntoso Naming Convention or any other functionally equivalent naming convention.

4.3.4 Metadata items are editorial additions

Editors (i.e., the creators of the FRBR Manifestation) have two main tasks in the production process of Akoma Ntoso documents: on the one hand to identify and label (i.e., mark up) the fragments of the original content according to their role and structure, and on the other, to provide additional information about the document itself that is not contained in the official text as created by the original author.

Collectively, this additional information is called metadata. Since these are metadata elements, and since they are added at markup time, their specification is an editorial process, and not an authorial process, and come under the responsibility of the creator of the markup.

4.4 Descriptive markup and prescriptive markup

Another pillar of Akoma Ntoso is that it is both descriptive and prescriptive. By descriptive we mean a standard that accurately describes with tags the document's various organizational functions (articles, chapters, sections, headers, etc.), allowing an expert to read the document under the guidance of the vocabulary used to enclose the text into sections.

A standard is descriptive when it uses a vocabulary of tags representing the domain where it should be applied. The tags are selected by domain experts, not by computer technicians, so that the tags enable the markup to convey the true semantic meaning they contain.

A standard is prescriptive when it defines the tags' coercive behavioral rules, thus determining not only the vocabulary but also how it should be applied. In legal drafting, we usually deal with codes of rules that define behaviours and conventions for the correct formation of laws: in a prescriptive XML standard, these rules can be translated into technical delimitations included in the standard itself to facilitate compliance with the rules of legal drafting. For example, an XML document consisting of articles could be set-up in such a way that articles will always have a unique number; i.e. paragraphs are sequentially numbered and the structure is hierarchical. Otherwise, the XML document will not be standard-compliant; hence it will not be valid.

For example, a legislative official can open an XML document marked in Akoma Ntoso and, without knowing anything about XML, guess the function of each of the document's parts that are referred to with tag names which matter to the expert and not to the computer technician. On the other hand, other standards have chosen to use technical terminology and vocabulary where the item is not enclosed within tags such as `<article>`, but are enclosed within more neutral terms such as `<paragraph>` or `<block>`.

Secondly, Akoma Ntoso uses its own schema to provide a set of rules for good regulations requiring a minimum set of quality links (e.g., numbering the articles). Thanks to this feature, tools can verify the correct composition of legislative text.

4.5 Content, Structure, Semantics, Presentation

Akoma Ntoso maintains four levels - clearly and strongly separated for the representation and description of legal documents:

- Content: what exactly is written in the document (e.g. the text);
- Structure: how the content is organized (e.g. articles, chapters, etc.);
- Semantics: the conceptual framework of knowledge needed to understand the document (e.g. for understanding what is the `<def>` you need to know what is a definition in the juridical domain and to combine the term to an ontological class);
- Presentation: the typographical choices to present a document on screen or on paper (e.g. right aligned, bold, italic).

Contrary to other XML-schemas, Akoma Ntoso separates the levels for maintaining the independence of the content from the semantic and from the presentation. In this way it is possible to semantically annotate the same content fragment several times without forcing the user to mark-up the document again. The same principle applies to the presentation: using the class attribute it is possible to define the semantic approach to the presentation, but the values of those parameters are defined externally to the XML file. This permits changing the layout several times without intervening on the physical XML document. Using XSLT and CSS it is possible to assign a proper presentation to a defined class. For example, if we have `<title class="bigger right italic bold">`, it is possible to define the main characteristics of presentation of the content `<title>`, but the specific values of these parameters are defined in a CSS (e.g. bigger means size 14, right means on right aligned, and so). When a media needs to have a different presentation only the CSS is properly adapted to the new needs.

4.6 Ability to evolve

A critical characteristic of a successful XML model is its ability to evolve over time. This "evolvability" has been a key concern in the creation of the Akoma Ntoso model. Thus, although the language is built to change over time, the language can be customized at will for local needs and purposes, and still be made compatible with the overall Akoma Ntoso infrastructure and the general language.

Furthermore, the language is built to withstand changes even regarding the number of actual functions provided: features such as the number and type of metadata values, or the automatic generation of amended text, or the activation of special analysis tools on the text that may require the language to evolve in time. In these cases, it can be guaranteed that existing documents already marked up according to initial versions of Akoma Ntoso will be either immediately compatible with the new schemas, or easily convertible to it via a single XSLT stylesheet that is provided.

4.7 Custom elements

Akoma Ntoso provides a flexible legal vocabulary for reflecting all the legal tradition requirements. The `<heading>` element in each `hContainer` part could be before or after `<num>` or `<subheading>`. However in some legal tradition some elements are located in a precise order and some customization of the grammar is necessary. It is the case of Japan legislation or Scotland subsidiary regulation where the `<heading>` precede the number of the article:

> (Definitions) [1]
>
> Article 2 (1) The term "Insurance Business" as used in this Act means the business of underwriting the risks listed in the items of Article 3, paragraph (4) or the items…

---

[1] http://www.fsa.go.jp/common/law/ins01.pdf

For instance, the following example shows a Schematron[2] fragment verifying that the `<heading>` appears before `<num>` in the `<article>` element:

```
<xsd:appinfo>
 <sch:pattern eId="article" xmlns:sch="http://purl.oclc.org/dsdl/schematron">
   <sch:rule context="article">
   <sch:assert test="*[1][self::heading]">heading must be first child of article</sch:assert>
   <sch:report test="*[2][self::num]">num must be second child of article</sch:report>
  </sch:rule>
 </sch:pattern>
</xsd:appinfo>
```

Finally in Akoma Ntoso exists some elements that permits to include extra-elements:

1. in metadata block we have: proprietary (see also 5.10.13.1), presentation (see also 5.10.13.2), preservation (see also 5.9.1.1), and otherAnalysis (see also 5.10.9);
2. in the content block we have: foreign (see also 5.14).

---

[2] http://www.schematron.com/

5 Basic Akoma Ntoso building blocks (Non-normative)

5.1 An introduction to document types

As we have seen, the seven document types differ mainly in the way the "main content" of the document is structured. In the table below we describe the main characteristics of the structure of the "main content" part of the different document types.

Document type	Akoma Ntoso main element	Description
bill/act	<body>	The body is used for bills and acts and presents an explicit hierarchy of parts each part of which can be identified with a meaningful name (such as section, tome, etc.) and possibly provided with numbers and various types of headings.
		Akoma Ntoso provides a large number of names for these parts (title, book, tome, part, chapter, section, paragraph, article, clause, division, level, list, subtitle, subpart, subchapter, subsection, subparagraph, subclause, sublist, point, indent, alinea). Some legislative traditions may use names which may not match the part names specified above – for such use cases a generic container called an hcontainer' (i.e. hierarchical container) is provided which can be identified with a name and supports the same hierarchical structures provided by the named parts.
debate record	<debateBody>	The debateBody contain a hierarchy of subdivisions at the bottom of which can be specified blocks of text or individual utterances of individuals participating in the debate, as well as comments from the drafters.
		Subdivisions are explicitly listed (administrationOfOath, declarationOfVote, communication, petitions, papers, noticesOfMotion, questions, address, proceduralMotions, pointOfOrder, adjournment, rollCall, prayers, oralStatements, writtenStatements, personalStatements, ministerialStatements, resolutions, nationalInterest), plus a generic element debateSection for all unnamed subdivisions and all those subdivisions whose appropriate name is not listed here.
		Within debateSection, individual text structures can be marked up with one of eight containers, speechGroup, speech, question, answer, scene, narrative, summary, and other.
		It is worth noting that those containers that refer to actual utterances (i.e. speech, question, answer) have a peculiar structure which imposes the identification of a speaker through the from element (which is displayed on the print version of the document) plus references to

		individuals and roles expressed through the by, as, and to attributes, specifying, respectively, the id of the individual uttering the speech, the role (if any) the individual is assuming when uttering the speech, and the addressee (if any) of the speech.
		For this reason, these elements are enriched with special attributes:
		by: who is the speaker; as: the role of the speaker; to: who is the addresser of the speech.
		`<question by="#Smith" to="#deputyPresident" as="#member">`
judgment	`<judgmentBody>`	The judgmentBody contains four sections (introduction, background, motivation, and decision - the standard does not mandate an order), that need to be present one or more times as needed. These sections may contain basically any kind of substructure (containers, blocks, hierarchical elements, etc.).
document, debateReport, statement	`<mainBody>`	The mainContent element of an open structure is a generic collector of all preceding structural elements in any order and number. This kind of open structure is meant for collecting and marking up those document types whose structure is too varied, or too different from the norm, or not well standardized, or too full of exceptions to be worth describing explicitly.
collections	`<collectionBody>`	The collectionContent is used for including multiple documents that maintain their autonomy, but can be managed as a unique container. It is thus possible to compose an issue of the Official Gazette as a combination collection of several acts. The same for the Amendment List document composed of a set of separate amendment documents. This structure permits two different approaches: 1 to include directly in the collectionBody element the other documents (bill, doc, debate, act, etc.); 2 to include in the collectionBody element references to the documents using the element `<documentRef>`. The documentRef includes the attribute href that specifies the URI/IRI of the document. It is possible to describe the cited document in the same file inside of the element `<component>` or to link an external file using the URI/IRI convention. `<documentRef eId="dRef_1" href="#bill" showAs="bill"/>` It is possible to associate with each sub document a num and a heading.

		A `<documentRef>` is a work-level or expression-level reference to a document that has independent existence, namely that it has a work-level or expression-level identifier, and that it is hosted within a containing document.
amendment	<amendmentBody>	This element includes the body of the amendment that is composed of several important parts: amendmentHeading, amendmentContent, amendmentReference, and amendmentJustification.
portion	<portionBody>	This element permits including a portion of any other document. It is possible to refer to the portion inside of another Akoma Ntoso document using the `<componentRef>` element.

5.2 The basic structure of Akoma Ntoso XML resources

The document structures of Akoma Ntoso (bill/act, debate, debateReport, judgment, amendment, statement, and document) have the same external organization: a place for metadata elements, a cover page, a place for the introductory matters (e.g. preface/ preamble or header for Judgments), the main content part of the document (which is different in the four structures), a place for conclusive remarks, and lastly, a place for listing the attachments if any. The table below describes briefly the "text sequence" and their parts:

Text sequence	Akoma Ntoso <elements>	Description
cover page	<coverPage>	Information intrinsic to the document such as: name of the publisher, serial number, issuing authority, number of committee, number of legislature, number of the session, etc.
information on the document	<metadata>	Information on the document that qualifies and classifies the text as a whole or each fragment. An example is the keywords for assigning the topic to the document (e.g. privacy, commercial law, etc.)
introductory text	<preface> / <header>	Information related to the title of the document, the proponent authority, the identification numbers, the date of approval. In other word, the essential information for citing the document. It can also contain the long title and a table of contents.

justificatory text	<preamble> that can include <formula>	The introductory part of a document stating its purpose, aims, and justification.
	<recitals> and <citations>	Introduction, motivations, purposes, legal basis of a document, in formula, recitals and citations. Formula describes the enacting sentences that, in many legal traditions, are regular and fixed linguistic expressions.
		Recitals block includes motivations and justifications of the legal document.
		Citation blocks include references to other legal documents that are fundamental to the current text: legal basis, preparatory acts as well as the legislative procedures.
main content	<body>: for bill/act	The main part of the document, the part that is prescriptive or states a declaration (enacting terms). The text is characterized by a structural complexity that can vary depending on the document's typology and purpose.
	<debateBody>: for debate record	
	<judgmentBody>: for judgments	
	<mainBody>: for open structure and for the debate report	
	<amendmentBody>: for the amendment	
	<collectionBody>: for the collection documents	
	<portionBody>: for the portion of document	
conclusions	<conclusions>	Part in which we may find closing formulas date and signature.
authorial notes	<authorialNote>	Part dedicated to including the authorial notes added by the author of the document.
attachments	<attachments>	Documents can also include attachments with the precise functionality of completing and integrating the information of the main text.
		Attachments can be an annex (informative or technical data which, for practical reasons, does not appear in the body).
		Attachments or others types of Components can also be another act or international agreement that is approved by this act. Those documents are not annexed but attached to the act that approves them. Those documents are not annexed but attached to the act that approves them.

| components | <components> | Document can also include components that are independent works, expressions, or manifestations.

Each component can have a num and/or a heading before the document. |
|---|---|---|

5.3 An introduction to generic elements

All elements in this schema fall under one of six content models: hierarchical container, container, subFlow, block, inline and markerBesides named elements, the schema also provides for a generic element for each of them that can be used for markup and that fits the content models but can be specified by a precise name that is not used in this schema. The 'name' attribute must be used for naming the element. When required, the attribute name gives a name to the element.

hcontainer	The hcontainer element is a generic element for a hierarchical container. It can be placed in a hierarchy instead of any of the other hierarchical containers. The attribute name is required and gives a name to the element.
container	The container element is a generic element for a container. It includes elements belonging to the block pattern.
subFlow	The subFlow element is a generic element for a sub-flow. It includes elements belonging to the hcontainer, container and/or block patterns.
block	The block element is a generic element for a container. It can be placed in a container instead of any of the other blocks. The attribute name is required and gives a name to the element.
blockContainer	The element blockContainer is used as a container of many individual block elements in a block context.
tblock	The tblock element (titled block) is used to specify a container for blocks introduced by heading elements, similarly to a hierarchical structure
inline	The inline element is a generic element for an inline. It can be placed inside a block instead of any of the other inlines. The attribute name is required and gives a name to the element
marker	The marker element is a generic element for a marker. It can be placed in a block instead of any of the other markers. The attribute name is required and gives a name to the element.

5.4 An introduction to borrowed HTML elements

Akoma Ntoso uses some elements that look like HTML but they do not belong to the HTML namespace. Even though they are similar tags and have similar meaning, they are not HTML elements. For this reason, they are reused inside of Akoma Ntoso avoiding inventing new vocabulary. Sometimes the semantic are identical (e.g. span) and sometimes it is different (e.g. div).

Name of the element	Group in Akoma Ntoso	Description
div	HTMLcontainers	The element div is an HTML element, but is NOT used in Akoma Ntoso as in HTML. Instead of being used as a generic block, Akoma Ntoso uses div as a generic container (as in common practice). The div is used any time you need to define a container not included in the regular vocabulary. <div eId="div_1" class="alignedRight"><p>Address: av. Smith</p><p>Name: mr. Brown</p></div>
p	HTMLblock	The element p is an HTML element and is used in Akoma Ntoso as in HTML, for the generic paragraph of text (a block)
ul/ol	HTMLblock	The elements ul/ol are HTML element for defining unnumbered or numbered list.
li	HTMLblock	The element li is an HTML item of ul or ol.
table	HTMLblock	The element table is HTML element for defining a table.
th/tr/td/caption	HTMLblock	The elements th/tr/td/caption are HTML elements of the table.
span	HTMLinline	The element span is an HTML element and is used in Akoma Ntoso as in HTML, for the generic inline.
b	HTMLinline	The element b is an HTML element and is used in Akoma Ntoso as in HTML, for indicating bold style.
i	HTMLinline	The element i is an HTML element and is used in Akoma Ntoso as in HTML, for indicating italic style.
a	HTMLinline	The element a is an HTML element and is used in Akoma Ntoso as in HTML, for indicating a link to hypertext resources.
u	HTMLinline	The element u is an HTML element and is used in Akoma Ntoso as in HTML, for indicating underline style.
sub	HTMLinline	The element sub is an HTML element and is used in Akoma Ntoso as in HTML, for indicating text as subscripts.
sup	HTMLinline	The element sup is an HTML element and is used in Akoma Ntoso as in HTML, for indicating text as superscripts.
abbr	HTMLinline	Sometime the act is named with an abbreviation. Akoma Ntoso manages abbreviation using HTML element abbr (e.g. FOIA for the "Freedom of Information Act").
br	HTMLmarker	It is the line break used in the HTML definition.
img	HTMLmarker	It is used as pointer for declaring the position where to embed an image in the XML manifestation.

5.5 An introduction to shared elements

Other elements inline are shared by all the type of documents:

date	The date element permits marking up any date in the text and associating a particular meaning using the refersTo attribute. <date date="2013-04-04" refersTo="#signatureDate">four April 2013</date> or to specify the time and zone <date date="2013-04-04T12:00:00" refersTo="#signatureDate">four April 2013</date> The attribute date is used to give a normalized value for a date according to the XSD syntax YYYY-MM-DD or a normalized value for a dateTime according to the XSD syntax YYYY-MM-DDThh:mm:ss(zzzz)
time	The time element is an inline element to identify a time expressed in the text and to propose a normalized representation in the time attribute
person	The person element is an inline element to identify a person expressed in the text and connect he/she to the ontological class
organization	The organization element is an inline element to identify an organization expressed in the text and connect it to the ontological class
concept	The concept element is an inline element to identify a concept expressed in the text and connect it to the ontological class
object	The object element is an inline element to identify an object expressed in the text and to connect it to the ontological class
event	The event element is an inline element to identify an event (e.g. Thanksgiving Day, Royal Assent) expressed in the text and to connect it to the ontological class
location	The location element is an inline element to identify a location (e.g. Montevideo, Senate Palace) expressed in the text and connect it to the ontological class
process	The process element is an inline element to identify a process (e.g. voting of the bill) expressed in the text and to connect it to the ontological class
role	The role element is an inline element to identify a role (e.g. member of assembly, secretary, president, judge, solicitor, etc.) expressed in the text and connect it to the ontological class
term	The term element is an inline element to identify a term (e.g. privacy, IPR, etc.) expressed in the text and to connect it to the ontological class
quantity	The quantity element quantity is an inline element to identify a quantity (e.g. 20 attendees, IPR, etc.) expressed in the text and to connect it to the ontological class
Def	The def element is an inline element to identify a definition (e.g. "stalking" is defined as.....) expressed in the text and to connect it to the ontological class
entity	The entity element is an inline element to identify an entity expressed in the text and to connect it to the ontological class

5.6 Attributes for managing the presentation

Sometimes it is necessary to represent the text as it is presented in the official publication. The page and line endings are often fundamental parts of the official manifestation of the legal document.

For this reason, we have the elements `<eol>` as the end of line markers and `<eop>` as the end of page markers.

The following example shows a bill from South Africa where each line is numbered to indicate the number of lines.

The corresponding XML is shown below. Please notice the `<span>` for managing the "drop cap" B with the attribute @class="dropCap" in order to provide the appropriate instructions for the presentation processing. Secondly the line numbering is managed using the attribute @numer in the `<eol/>` element.

```
<preamble>
        <formula name="enactingFormula">
                <p><span class="firstLetterCapital">BE</span> IT ENACTED by the Parliament of the
Republic of South Africa, as follows:-</p>
        </formula>
        </preamble>
        <body>
                <section eId="sec_1">
                        <num>1.</num>
                        <heading>
                                <ref eId="ref_1" href="/akn/za/act1996-10-
10/84/!main#sec_1">Amendment of section 1 of Act 84 of 1996</ref>, as amended by <ref eId="ref_2"
href="/akn/za/act1997-05-10/100/!main">section 1 of Act 100 of
1997</ref>, <ref eId="ref_3" href="/akn/za/act1999-05-10/48/!main#sec_6">section 6 of Act 48 of
1999</ref> and <ref eId="ref_4" href="/akn/za/act2001-05-10/50/!main">section 1 of Act 50 of
2002</ref>
                        </heading>
                        <list eId="sec_1__list_1">
                                <intro>
                                        <p>
                                                <ref eId="ref_6" href="/akn/za/act1996-10-
10/84/!main#sec_1">Section 1 of the South African Schools Act, 1996</ref>, is hereby amended by-
<eol class="numbering" number="5"/>
                                        </p>
                                </intro>
                                <point eId="sec_1__list_1__point_a">
                                        <num>(a)</num>
                                        <content>
                                                <p>
                                                        <mod eId="mod_1">the insertion after the
definition of "<quotedText eId="mod_1__qstr_1">Minister</quotedText>"of the following definitions:
"<quotedStructure eId="mod_1__qstr_2">
```

```
                                                          <paragraph
eId="mod_1__qstr_2__para_1">
                                                  <content>
                                                     <p><ins>
<def>'no fee threshold'</def> means the level of funding per learner contemplated
in the norms and standards for school funding applicable to a public
school which enables the Minister to declare a school a no fee school in
terms of this Act;</ins><eol number="10"/>
                                                               </p>
```

Another example is the following fragment of Public Law US (PUBLIC LAW 112–61—NOV. 29, 2011) where the syllabication interrupts the words "America" and "management".

> (2) AMERICA'S CUP RACE MANAGEMENT.—The term "America's Cup Race Management" means the entity established to provide for independent, professional, and neutral race management of the America's Cup sailing competitions.

Currently, the <eop> and <eol> are used to identify the end of page (and respectively end of line) as markers-- by their mere presence at a given position. Therefore, they are placed nearest to the end of the page and line according to the reference copy in printed form. There is the assumption that the corresponding beginning of page and line are immediately after the previous <eop> and <eol> elements.

Additionally, the syntax of `<eop>` and `<eol>` allow for the adding of three attributes. The first attribute, `@breakAt`, specifies the number of characters within the next word that the page (or line) actually breaks at. This allows in-word breaks to happen even if the word is not actually broken in the XML. The second parameter, `@number`, allows specifying a page number or line number for the element, especially if we did not start at zero (which may happen if the document belongs to a container, e.g. a gazette). The third attribute, `@breakWith`, is for storing the character used for the syllabication interruption (e.g., hyphen or M dash — or N dash –).

```
        <point eId="sec_2__list_1__point_2">
                <num>(2) </num>
                <content eId="sec_2__list_1__point_2__content">
                        <p>
                                <def refersTo="#americaCupRaceManagement"
class="definition">America's cup race management.</def>--The term ``America<eol breakAt="4"
breakWith="-"/>'s Cup
        Race Management'' means the entity established to provide for
        independent, professional, and neutral race management of the
        America's Cup sailing competitions.
</p>
                </content>
        </point>
```

5.7 Modifications and versioning

Akoma Ntoso includes a sophisticated mechanism to keep track of the life cycle and evolution of a legal document. This is particularly useful for acts that are amended and modified in time, while maintaining their fundamental nature.

The management of the evolution of a document makes two important assumptions:

- Modifications and events in the life cycle of a document (including original approval, final repeal and any other event affecting its presence in the law system or its content) happen in precise moments in time that can be determined objectively (albeit possibly with difficulty) and are attributed to a specific date.
- Modifications and events in the life cycle are due to the enactment of a specific, individual document that can be objectively traced back and identified with an IRI. If two different documents affect the same act on the same date, then these must be counted as two different and separate events on the amended act.

Handling events in Akoma Ntoso centres around the <lifecycle> element in the <meta> section. The <meta> section contains two containers, among the others, <temporalData> and <references>, used to list the dates of all the events affecting a document, and the references to the IRIs of all the documents generating these events. Each reference is provided with a required identifier, which is used by the event list to specify which document is responsible for which events. These elements must appear in all documents that have undergone two or more events (e.g., all acts except the ones that still have no amendments).

Documents in Akoma Ntoso are organized in three main categories, as specified in the @contains attribute of the document type element:

- originalVersion: this value reflects the fact that the content on the document is exactly the content that has been formally and explicitly approved by the relevant authority, with no amendments applied.

- singleVersion: this value reflects the fact that the content of the document is an editorially modified version of the original document, according to one or more subsequent amendment documents. These amendment documents and the enactment dates of the amendments **must** be all mentioned in the <lifecycle> element. Individual additions and deletions are not marked in the content.

- multipleVersions: this value reflects the fact that the content of the document is the juxtaposition of fragments belonging to two or more different versions of the same document, each fragment marked as belonging to one or many of these versions. Thus, in a multipleVersions act there could be two or more copies of section 2, each associated to the date it started enactment and ended enactment.

The <lifecycle> element is a required element for all singleVersion and multipleVersion documents, and must be complete up to the enactment date of the latest document referenced in the <lifecycle> element (i.e., there can potentially exist subsequent amendments not included, but all amendments preceding the document's date must be correctly listed and referenced, even if they play no part in the displayed content). OriginalVersion documents need not have the <lifecycle> element, but surely can have it if the editors decide so.

In case a multipleVersions document is being generated, each element and text fragment may be associated with an enactment specification through the means of the five attributes: @start, @end (for validity), @startEfficacy, @endEfficacy (for efficacy) and @status. Each fragment (a whole element if appropriate, otherwise a newly inserted or <inline> element for text fragments for which no exact containing element exists) must use these attributes to specify its nature.

The @start and @end attributes (and similarly the @startEfficacy and @endEfficacy attributes) contain a reference to the ID of the event that has marked the beginning or the end of the enactment (or of the efficacy) of the fragment. A @start attribute with no @end attribute marks a fragment that has appeared in an amendment and still exists in the latest recorded version of the document. An @end attribute with no @start attribute mark a fragment that was part of the original document but has been repealed before or at the latest recorded version of the document. The @status attribute records the type of amendment of the fragment. The value "omissis" can only be used by non-authoritative publications that need to display only part of the whole document: when status="omissis", the structure must be complete as if all contents are present, but unrequired parts of the actual content may be removed. Similarly, the value "editorial" can be used to add fragments of text of an editorial nature (i.e.,

that are generated by editors rather than authors). Examples include annotations and translated sentences. For instance:

| `<span xml:lang="eng" status="editorial">` | <p xml:lang="afr" eId="p_123">Partye wat deel wil vorm van die proses van regering, is vol verligting. "Sien," sˆ die Nuwe NP, "die ANC is nie magshonger nie!" Ryke ironie, komende van waar die Nuwe NP sit. (Translation of Afrikaans paragraph follows.)</p> |
| | <p xml:lang="eng" status="editorial" refersTo="#p_123">[Parties who want to form part of government are quite relieved. "You see", says the New NP, "the ANC is not power-hungry!" Such irony, if one considers where the New NP is sitting.]</p> |

The part of the provision that includes the quoted text is wrapped with `<quotedText>` or `<quotedStructure>` elements depending if the modification affects a portion of paragraph (<quotedText) or a structured hierarchy (<quotedStrcture>).

Sometime the quoted text portion is not clearly understandable because the quoted character is missing or simply this character is repeated in each paragraph. It is the case of the US Amending acts. For this purpose, we use the attribute `@inlineQuote`. `@inlineQuote` is used for marking the character showing continuation of a quote e.g. at the beginning of each page or at the beginning of each line of the quote.

| (a) DEFINITION OF DISABILITY.—Section 3 of the Americans with Disabilities Act of 1990 (42 U.S.C. 12102) is amended to read as follows: "SEC. 3. DEFINITION OF DISABILITY. "As used in this Act: "(1) DISABILITY.—The term 'disability' means, with respect to an individual— "(A) a physical or mental impairment that substantially limits one or more major life activities of such individual; | ```
<point eId="point_a">
  <num>(a)</num>
  <content>
    <p>DEFINITION OF DISABILITY.—Section 3 of the Americans <eol/>
with Disabilities Act of 1990 (42 U.S.C. 12102) is amended to <eol/>
read as follows:</p>
    <p><mod eId="point_a__mod_1">"
<quotedStructure inlineQuote=""">
  <section eId="point_a__mod_1__sec_3">
   <num>SEC. 3.</num>
  <heading>DEFINITION OF DISABILITY.</heading>
  <list eId="point_a__mod_1__sec_3__list_1">
    <intro eId="point_a__mod_1__sec_3__list_1__intro">
      <p>As used in this Act:</p>
    </intro>
    <point eId="point_a__mod_1__sec_3__list_1__point_1">
      <num>(1)</num>
      <heading> DISABILITY.</heading>
      <list>
        <intro
eId="point_a__mod_1__sec_3__list_1__point_1__list_1__intro">
          <p>—The term 'disability' means, with respect<eol/>
to an individual—</p>
        </intro>
        <point
eId="point_a__mod_1__sec_3__list_1__point_1__list_1__point_A">
          <num>(A)</num>
          <content>
          <p> physical or mental impairment that
substantially<eol/>
limits one or more major life activities of such individual;</p>
          </content>
        </point>
``` |

<table>
<tr><td></td><td>

</list>
</point>
</list>
</section>
</quotedStructure></mod></p>
</content>
</point>

</td></tr>
</table>

5.8 References

Documents make references to external entities that need to be identified with clarity and no ambiguity. The current release of Akoma Ntoso includes a section where references to external concepts, people and places are specified. These include references to other Akoma Ntoso documents, to other non-Akoma Ntoso documents that are accessible through the net, or to individual instances of classes specified in a local ontology.

5.8.1 The structure of references

All references to external concepts share the same structure, in that they are empty elements in the references section provided with exactly four attributes:

- href: the IRI reference describing the entity being referred to. This can be a whole document (for instance, the act containing amendments to the current document), or a fragment of a document (for instance, the identifier of the unique record identifying precisely the person being referred to in the document).
- eId: this is the string that identifies within the document the entity being described. All internal references will thus use this eId. For instance, every event in the document lifecycle has a source attribute containing a reference to the IRI of the document affecting or being affected by the document.
- showAs: this is the string that can and must be used in displaying information about this entity. For instance, this attribute contains the name of the speaker as it must be displayed.
- shortForm: this optional attribute contains a secondary form of the display information of the entity. For instance, in some reports it is necessary to provide the full name of a person at the first utterance, and only the name in any further utterance from the same person.

5.8.2 Referring to precise concepts in the document

Akoma Ntoso provides a series of mechanisms for referring to precise concepts in the documents being marked up. Regardless of whether the textual content of the document is sufficiently explicit and unambiguous, the marker of the document may and should provide additional disambiguating information about individual pieces of fragment denoting precise concepts through the aid of the appropriate attributes.

This disambiguation happens systematically as a two-step process: first of all, a mention to the ontological concept is added to the references section and provided with an id, and then one or more attributes in the document elements are used to refer to it.

For instance, every individual in a debate is associated via the id to an element TLCPerson in the references section: the by attribute of the speech element indicates the speaker (this must be a TLCPerson), the as attribute specifies the role of the speaker (and it must be a TLCRole) and the to attribute indicates the addressee (this can either be a person or a role).

The following are the attributes used for this purpose:

- refersTo: points to any instance of a Top Level Class of the ontology. It is used to notify the reader in a generic way to what specific concept is the element referring to.

- href: contains the IRI of an instance of an FRBR document class or of a web page. Furthermore, it signals the application that the reference must be considered navigable, i.e., activatable by the user (e.g. via a link).
- upTo: for range references (e.g., `rref` and `rmod`) this specifies the IRI of the last, or highest, element of the range being referred to.
- by: points to a person, i.e., an instance of the class TLCPerson in the references section, relative to the person by which the content has been provided.
- as: points to a role, i.e., an instance of the class TLCRole in the references, relative to the role held by the person when uttering the content.
- to: points either to a role, a person or an organization, relative to the kind of addressee of the content being provided.

Thus, any fragment in the text content of the document referring to Events, Concepts, or other instances of the Top Level Classes need to use the refersTo attribute to point to the id of the corresponding element in the references section.

A few elements can be considered of some use:

- The element entity provides a standard mechanism to refer to mentions of instances of Top Level Classes in the content of the document. Any instance of any class can be referred to via an instance element.
- `ref`, `mref`, and `rref` provide a mechanism to refer to other documents in the Akoma Ntoso domain. These elements may use the refersTo attribute, but will most frequently directly use the href attribute to specify a navigable reference to the document they refer to. The element ref specifies a single reference, the element mref a group of references (a list of individual ref elements must be placed inside the mref element, one for each reference) and the rref element specifies a range of references delimited by the from and upTo attributes.
- `mod`, `mmod` and `rmod` provide a mechanism to specify modifications to other documents. The mod element contains one ref element identifying the destination of the modification, and may contain as many quotedStructure and quotedText elements as needed providing the textual modification (if any) in terms of either whole structures or individual words. The element mod specifies a single modification, the element mmod a group of modifications (a list of individual mod elements must be placed inside the mmod element, one for each modification) and the rmod element specifies a range of modifications delimited by the from and upTo attributes.

mod	(3) In subsection (4) of that section, after "that person" insert "(whether or not the person is in the United Kingdom)".
	
	<subsection eId="sec_4__subsec_3">
	   <num>3</num>
	   <content>
	    <p>
	    <mod eId="sec_4__subsec_3__mod_1">In <ref eId="ref_4" href="/akn/uk/act/2000-07-28/!chapter23~sec_11__subsec_4">subsection (4)</ref> of that section, after <quotedText eId="sec_4__subsec_3__mod_1__qtext_1" startQuote="" endQuote="">that person</quotedText> insert "<quotedText eId="sec_4__subsec_3__mod_1__qtext_2">(whether or not the person is in the United Kingdom)</quotedText>".</mod>
	    </p>
	   </content>
	  </subsection>

include the attribute `@for` in order to connect the modification portion of the text with the related reference in another part of the text.

@for	<subsection eId="sec_4__subsec_2"> <num>2</num> <content> <p>In <ref eId="ref_2" href="/akn/uk/act/2000-07-28/!chapter23~sec_11__subsec_2">section 11 (implementation of interception warrants), after subsection (2)</ref> insert—</p> <p class="BlockAmendment"> <mod eId="sec_4__subsec_2__mod_1" for="#ref_2"> <quotedStructure eId="sec_4__subsec_2__mod_1__qstr_1" class="primary main" startQuote="" endQuote=""> <subsection eId="sec_4__subsec_2__mod_1__qstr_1__subsec_2A"> <num>2A</num> <content> <p>A copy of a warrant may be served under subsection (2) on a person outside the United Kingdom (and may relate to conduct outside the United Kingdom).</p></content> </subsection> </quotedStructure> </mod> </p> </content> </subsection>

5.8.3 Referring to legal sources

Another important situation where we use a combination of metadata and semantic annotation in the content is the relationship of a normative citation to a legal source using multiple naming convention (both functionally equivalent and non-equivalent). If implementers want to use multiple citation schemes in parallel, they can use the following markup method, here exemplified with the Akoma Ntoso naming convention. :

<content>   <ref eId="ref_13" href="/akn/uk/act/2000-07-28/chapter23/!main#sec_58">Section 58 of the Regulation of Investigatory Powers Act 2000   </ref>(reports by the Interception of Communications Commissioner) is amended as follows. </content>
<analysis source="#palmirani">   <otherReferences source="#FV">   <alternativeReference for="#ref_13" refersTo="#ELI" href="http://www.legislation.gov.uk/id/ukpga/2000/23/section/58"/>   <implicitReference for="#span_10" href="/akn/it/act/2014/123"/>   </otherReferences> </analysis>

In the first XML snippet we have marked up the reference `ref_13`. In the second XML snippet we have modelled the metadata <otherReference>using <alternativeReference> and annotating the URI/IRI alternative syntax in the `@href` attribute. Additionally using <implicitReference> we can express implicit reference expressed in the @href attribute and connected with a specific location in the text linked using `@for`.

Additionally the ELI/ECLI/URN:LEX reference can be assigned to the legal source as an alias in the FRBR block as follows:

```
<FRBRWork>
  <FRBRthis value="/akn/uk/act/2016-03-16/5/!main"/>
  <FRBRuri value="/akn/uk/act/2016-03-16/5/"/>
  <FRBRalias name="ELI" value="http://www.legislation.gov.uk/id/ukpga/2016/5/"/>
  <FRBRalias name="short title" value="Childcare Act 2016"/>
```

5.9 Metadata

By definition, all metadata is editorial in nature, it is not content, but statements about the content, and as such it is, in its entirety, the responsibility of the editor who marks up the document to provide them. So metadata are **editorial** additions, they are information and values that are *not in the original content of the document* and that are added to improve comprehension and classification of the document and are essential to make a document "machine readable" since they are meant to provide, together with the markup the understanding and legal knowledge of the documents that "machine" can then use to "read/understand" the document.

Metadata are a way to provide an interpretation of a set of information embedded into the document (*objective interpretation*) - e.g. date of publication - or as an intellectual elaboration of the text (*subjective interpretation*) - e.g. incomplete references. Even if, as a user, you will never see any of the tags or the actual metadata section, it is important to understand its articulation and what scope it serves so that its role can better be appreciated.

At the **metadata level** Akoma Ntoso provides the necessary mechanisms for annotating the text with enriched data collected in;

a separate block (metadata section) or

in place in the text (inline elements).

The Akoma Ntoso metadata section provides a separate place for enriching a document with metadata, a place that is clearly identified as such and is dated and authored differently than the content of the text itself.

The metadata elements of Akoma Ntoso are organized in a block called `<meta>` and inside we find few main sections:

identification:	containing all relevant facts about document, dates and authors.
	This block also includes translation information when the document is derived by other languages and properties such as the prescriptiveness of the document and the authoritativeness.
publication:	publication metadata
classification:	keyword classification
lifecycle:	list of the events that modify the document.
workflow:	list of the procedural steps necessary for delivery of the document or that have some role in the legislative process.
analysis:	list of the qualification of the provisions and assertions on the text.
temporalData	list of temporal parameters as a set of events (e.g. time intervals of enter into force and time of efficacy).

references:	list of the external resources connected with the document as well as of all individuals, organizations, and concepts that are relevant to understanding the content and the history of the document.
notes:	annotations inserted by the editor or by the author to explain and detail the text content of the document
proprietary:	local and proprietary metadata
presentation	specifications of metadata useful for assisting with the document rendering.

5.9.1 Identification

Akoma Ntoso, unlike everyday language, describes documents according to the Functional Requirements for Bibliographic Records (FRBR) model, a standard nomenclature by IFLA (International Federation of Bibliographic Associations). FRBR is a conceptual entity-relationship model that relates user tasks of retrieval and access in online library catalogues and bibliographic databases from a user's perspective. It represents a more holistic approach to retrieval and access as the relationships between the entities provide links to navigate through the hierarchy of relationships.

Since the most important concepts in Akoma Ntoso are connected to documents, the main part of this section is devoted to detailing the URIs/IRIs of document-related concepts, and in particular Works, Expressions, and Manifestations. Items are, by definition, outside of the scope of this standard, and are only briefly described. The final part of the section provides a URI-based naming mechanism for non-document entities (as well as for document entities when they are handled in a similar way to non-document entities).

All documents at all levels can be composed of sub-elements, that when combined form the whole document. These are called components and abstractly represent the notion that several independent subdocuments form the whole document as it appears to the reader (i.e., a main body possibly followed by a number of attachments such as schedules and tables):

WorkComponents (e.g., main, schedule, table, etc) - the WorkComponents are abstract entities that can be referenced to refer to different ExpressionComponents in time.

ExpressionComponent (e.g., main, schedule, table, etc.) - the ExpressionComponents represent the visible division of the document as generated by the content author (Parliament, etc.)

ManifestationComponent (e.g., xml files, PDF files, TIFF images, etc.) - the ManifestationComponents represent the division of the document as generated by the manifestation author (e.g., the XML editor).

ItemComponent - the actual files corresponding to the ManifestationComponents.

Other concepts dealt by the Akoma Ntoso informal ontology also derive from the IFLA FRBR ontology, and include but are not limited to individuals (Person), organizations (Corporate Body), actions and occurrences (Event), locations (Place), ideas (Concept) and physical objects (Object). The full list of such concepts is provided in section 4.11.1 of the Akoma Ntoso Naming Convention Version 1.0.

The scope of the naming convention is to identify in a unique way all Akoma Ntoso concepts and resources on the network and in general all collections thereof. Some principles and characteristics should be respected in the naming convention:

- MEANINGFULNESS: the name is a meaningful and logical description of the resource and not of its physical path
- PERMANENCE: the name must be permanent and stable over time
- INVARIANCE: the name must derive from invariant properties of the resource so as to provide some degree of certainty in obtaining the same name for the same resource regardless of process, tool and person.

- FRBR concepts are used differently when taking about documents in a variety of situations. In each case it is important to use the URI/IRI for the correct FRBR level of document. We describe here a few particularly frequent situations:

    1. Legislative references will most probably refer to WORKs: acts referring to other acts do so regardless of the actual version, and references must be to something independent of all possible expressions, e.g., to the work.

    2. The list of attachments and schedules belong to a specific EXPRESSION, so references to ExpressionComponents is specific of the expression level.

    3. Yet the specific Manifestation that is the Akoma Ntoso XML format uses an XML-based syntax to refer to ExpressionComponents, and associate them to the corresponding ManifestationComponents containing the appropriate content. Therefore, within XML files the URI/IRI of the Manifestation must be used to refer to all components, including the main document, all attachments and all schedules.

    4. Multimedia fragments within an XML manifestation (e.g., a drawing, a schema, a map, etc.) do not exist as independent ExpressionComponents, as they are only a part of some ExpressionComponents (even when they are the only part). In fact, they are only ManifestationComponents, and as such are referred to in object and img elements with the appropriate ManifestationComponents URI/IRI. Even if the same multimedia content appears in different parts of the content of a Manifestation, each instance of that content must correspond to a different ManifestationComponent, and must be considered independently of the other.

    5. It is an Item-level decision, once ascertained that the content is exactly identical, to provide space-saving policies by storing only one copy of the multimedia content. This Item-level decision has no impact on references and names, which are still individually different from each other.

    6. Non-document concepts are referred to within the metadata and content of Akoma Ntoso documents. References are always performed in two steps: the first step ties the reference point in the document to an item in the Reference section using internal (and not standardized) IDs; the second step ties the item in the reference section to the actual concept through the URI/IRI of the concept as specified in this document.

The FRBR model offers an excellent framework to deal with legal texts. In legal domain, we've a lot of derivations due to the constant amendments of normative acts.

FRBR identifies four different abstractions about documents that are carefully and clearly differentiated and that relate to each other:

	Bibliographical context	**Legal Context**
work	"Work" is a distinct intellectual or artistic creation at the conceptual level. Qualifying characteristics: **identity** e.g. *Hamlet = work* Regardless of versions, variants, revisions, data formats and location. Even if a "Work" is translated in different languages that have no words in common with the original, it is still the *same document*, the same "work".	"Work" refers to the original "content" of the legal document. *For examples, the abstract concept of the legal resource;* *e.g. act 3 of 2005)*
expression	"Expression" is the specific intellectual or artistic form that a work takes each time it is 'realized. Qualifying characteristics: **content** e.g. *Hamlet original version book = expression* or *Hamlet original version video = expression* All different editions of the same version of the document, all the different data format in which the	"Expression" refers to "form" of the legal document. *For examples, any version of the "work" whose content is specified and different from others for any reason: language, versions, etc.;*

	content of a document can be expressed, all are unified by the fact that they express the same actual content.	*e.g. act 3 of 2005 as in the version following the amendments entered into force on July 3rd, 2006*
manifestation	"Manifestation" is the physical embodiment of an "expression" of a "work". It is a specific form that the document assumes once it takes a concrete representation. Qualifying characteristics: **data format** e.g. *Hamlet original version book – hardback version* or *Hamlet original version video DVD version* For physical documents, it could be a specific edition as published in a specific choice of paper, binding, typographical characteristics, etc. For electronic documents, it is the choice of a specific data format, process method, and so on.	"Manifestation" refers to the realization of the publishing work either on paper or in any electronic format. *For examples, any electronic or physical format of the "expression" MS Word, Open Office, XML, TIFF, PDF, etc.;* *e.g. PDF version of act 3 of 2005 as in the version following the amendments entered into force on July 3rd, 2006.*
item	"Item" is one physical copy of a document in a concrete form of a "manifestation" of an "expression" of a "work". Qualifying characteristics: **location** e.g. *Hamlet original version book – hardback version of the Shakespeare Library, London* It could be an individual volume in a bookshelf, or a specific file in a specific directory of a specific computer. Qualifying Characteristic: **positions** or **address**	"Item" refers to a univocally identified exemplar of a certain manifestation. *For examples, the physical copy of any manifestation in the form of a file stored somewhere in some computer on the net or disconnected;* *e.g. the file called act32005.pdf on my computer containing a PDF representation of act 3, 2005*

Akoma Ntoso makes careful use of the FRBR hierarchy of document definitions: a legal document (such as an act), which may assume different content after being revised and amended throughout its useful life, is nonetheless a single work - which gets multiple expressions whenever some specific content is generated (for instance, through an amendment). Each of these expressions has the chance of then being expressed in some electronic form (as a PDF document, or an HTML document, or, in our case, as a specific XML document using vocabulary and grammar from the Akoma Ntoso markup language) thereby generating at least one manifestation. Each physical file where the manifestation is located is therefore an item.

Besides the FRBR levels, an identifier must conform to the URI/IRI syntax and the Akoma Ntoso Naming Convention. While defining a URI/IRI it is important to define

1. the country,
2. the type of the document,
3. the date of the document and, where applicable, also the version,
4. the main language, and also
5. the different parts like annexes, exhibits, table, etc.

In fact, all documents at all levels of the FRBR classification be composed of sub-elements, that when combined form the whole document. These are called components, they abstractly represent the notion that several independent subdocuments form the whole document as it appears to the reader (i.e., a main body possibly followed by a number of attachments such as schedules and tables).

It is important, during the URI/IRI identification, to analyse the structure of the parts of a document in order to separate the logical organization coming from the author (parliament, judge) from the physical organization of the content usually decided by some technical criteria. In other words, the work URI/IRI should reflect the original logical structure as organized by the author for preserving over time the original forms and hierarchy of the annexes or of the other material composing the full document. The physical organization can follow different criteria connected to the application purposes or technical choices. We can find in the URI/IRI of the Work three components but in the Manifestation we can find a unique URI/IRI component for managing document in any easier way.

The Akoma Ntoso language allows names for documents that are free of restrictions and can be used everywhere (except in the markup of references) instead of the corresponding URIs/IRIs. If desired, these names can be specified to record "well-known" natural language names for the document, as well as shortened names or even acronyms commonly used to refer to a document, as in the example below.

identification	<identification source="#oasis">
Work Act n. 10 of 22 November 2011. It is created on the same date by the parliament (author) The Work is composed by two parts: main document and one annex. ComponentInfo details the composition of the package.	<FRBRWork> 　<FRBRthis value="/akn/un/act/2011-11-22/10/!main"/> 　<FRBRuri value="/akn/un/act/2011-11-22/10"/> 　<FRBRalias name="long name" value="Business Development Act no.10 of 22 November 2011"/> 　<FRBRdate date="2011-11-22" name="Generation"/> 　<FRBRauthor href="#parliament" as="#author"/> 　<componentInfo> 　　<componentData eId="wmain" href="#emain" name="main" 　　　showAs="Main document"/> 　　<componentData eId="wannex" href="#eannex" name="annex" 　　　showAs="Provisions as to the conduct of business of the board"/> 　</componentInfo> 　<FRBRcountry value="us"/> 　<FRBRnumber value="395-2010"/> 　<FRBRname value="bill"/> 　<FRBRprescriptive value="true"/> 　<FRBRauthoritative value="true"/> </FRBRWork>
Expression Version in force at 19 December 2013. The date is the date of the expression. The author is the parliament. This means version officially approved.	<FRBRExpression> 　　<FRBRthis value="/akn/un/act/2011-11-22/10/eng@2013-12-19/!main"/> 　　<FRBRuri value="/akn/un/act/2011-11-22/10/eng@2013-12-19"/> 　　<FRBRdate date="2013-12-19" name="Generation"/> 　　<FRBRauthor href="#palmirani" as="#editor"/> 　　<componentInfo> 　　　<componentData eId="emain" href="#mmain" name="main" 　　　　showAs="Main document"/> 　　　<componentData eId="eannex" href="#mannex" name="schedule" 　　　　showAs="Provisions as to the conduct of business of the board"/> 　　</componentInfo> 　　<FRBRauthoritative value="true"/> 　　<FRBRlanguage language="eng"/> </FRBRExpression>

Manifestation
 	
The date of creation is when the editor marks up the document: 2016-01-30.
	``
	<FRBRManifestation>
	 <FRBRthis value="/akn/un/act/2011-11-22/10/eng@2013-12-
	19/!main.xml"/>
	 <FRBRuri value="/akn/un/act/2011-11-22/10/eng@2013-12-
	19.akn"/>
	 <FRBRdate date="2016-01-30" name="Generation"/>
	 <FRBRauthor href="#palmirani" as="#editor"/>
	 <FRBRauthor href="#vitali" as="#editor"/>
	 <componentInfo>
	  <componentData eId="mmain" href="main.xml" name="main"
	   showAs="Main document"/>
	  <componentData eId="mannex" href="annex.xml"
	   name="annex" showAs="Provisions as to the conduct of
	   business of the board"/>
	 </componentInfo>
	 <FRBRformat value="xml"/>
	</FRBRManifestation>
	``

	`</identification>`

The expression also includes metadata for capturing the linguistic aspects. In particular, `FRBRlanguage` and `FRBRtranslation` permit to creating a relationship among expressions that are the outcome of a translation process. The following example shows that the current document is a translation made by the Paliament (by) from Swahili (fromLanguage), to English (FRBRlanguage), passing through French (pivot).

```
<FRBRlanguage language="eng"/>
<FRBRtranslation href="/akn/ke/act/1997-08-22/3/swa@" fromLanguage="swa"
by="#parliament" pivot="fra"/>
```

It is possible in some particular situations (e.g., internal legal drafting) to not have the version date, but rather a version number. In order to capture this number we can use the element <FRBRversionNumber>

```
<FRBRExpression>
       <FRBRthis value="/akn/un/doc/2015-11-22/10/eng@v_3/!main"/>
       <FRBRuri value="/akn/un/ doc/2015-11-22/10/eng@v_3"/>
       <FRBRdate date="2015-11-22" name="Generation"/>
       <FRBRauthor href="#palmirani" as="#editor"/>
       <FRBRversionNumber value="3"/>
       <FRBRlanguage language="eng"/>
```

5.9.1.1 Preservation

The element preservation is the FRBR metadata property containing an arbitrary list of elements detailing the preservation actions taken for the document is the respective level of the FRBR hierarchy. It is fundamental for permitting to understand at each level (work, expression, manifestation). The example below shows the Public Law 112-61[3] of US Government Printing Office package in MODS[4] representation embedded inside of the Akoma Ntoso FRBRManifestation block.

---

[3] https://www.gpo.gov/fdsys/pkg/PLAW-112publ61/content-detail.html

[4] https://www.gpo.gov/fdsys/pkg/PLAW-112publ61/mods.xml

```
<FRBRManifestation>
        <FRBRthis value="/akn/us/act/2011-11-29/112-61/eng@/!main.xml"/>
        <FRBRuri value="/akn/us/act/2011-11-29/112-61/eng@/.akn"/>
        <FRBRdate date="2012-05-09" name="Generation"/>
        <FRBRauthor href="#palmirani" as="#editor"/>
        <preservation xmlns:my="http://my">
                    <my:mods ID="P0b002ee183eb812a" version="3.3"
xsi:schemaLocation="http://www.loc.gov/mods/v3 http://www.loc.gov/standards/mods/v3/mods-3-
3.xsd" xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns="http://www.loc.gov/mods/v3">
                        <my:name type="corporate">
                            <namePart>United States Government Printing Office</namePart>
                        </my:name>
                        <my:name type="corporate">
                            <my:namePart>United States</my:namePart>
                            <my:namePart> National Archives and Records Administration</my:namePart>
                            <my:namePart> Office of the Federal Register</my:namePart>
                            <my:description>Government Organization</description>
                        </my:name>
                        <my:typeOfResource>text</my:typeOfResource>
                        <my:genre authority="marcgt">government publication</genre>
                        <my:titleInfo type="alternative">
                            <my:title>An act to facilitate the hosting in the United States of the 34th
America's Cup by authorizing certain eligible vessels to participate in activities related to the
competition, and for other purposes</title>
                        </my:titleInfo>
                        <my: titleInfo type="alternative">
                            <my:title>America's Cup Act of 2011</title>
                        </my:titleInfo>
                        <my:titleInfo>
                            <my:title>Public Law 112-61</title>
                        </my:titleInfo>
        <my:physicalDescription>
                        <my:note type="source content type">deposited</note>
                        <my:digitalOrigin>born digital</digitalOrigin>
                        <my:extent>3 p.</extent>
                    </my:physicalDescription>
                </my:mods>
        </my:preservation>
        </FRBRManifestation>
```

5.9.2 Publication

The publication is a part of the meta block and captures the metadata concerning the official publication process. The name of the source (Official Journal), the date (in normal format), the label for the presentation (showAs), the number of the source of publication (number). The publication is mandatory for the act type but not for the bill type of document.

publication	<publication name="Official Journal" date="1980-01-01" showAs="Official Journal of UN" number="234"/>

5.9.3 Classification

The classification section is dedicated to assigning keywords to the document or fragment of the document, on the base of the topic treated in the legal content. The content of the keyword is stored in the attribute value, the dictionary attribute stores the name of the vocabulary used. It is possible to use a different vocabulary and to use href for connecting the keyword to the external ontology. The kewords are connected with the text using `@refersTo` value (e.g., "#k_ familyLaw") and the element `<term>`. Keyword can be connected using `@refersTo` value with TLC `<references>` part.

classification	`<classification source="#oasis">`
	  `<keyword eId="k_humanRight" value="humanRight" showAs="Human Right" dictionary="EuroVOC" href="/EuroVoc/Law/ humanRight" refersTo="#TLCConcept_humanRight"/>`
	  `<keyword eId="k_ familyLaw"  value="familyLaw" showAs="Family Law" dictionary="EuroVOC" href="/EuroVoc/Law/familyLaw" refersTo="#TLCConcept_familyLaw"/>`
	 `</classification>`
	
	`<p>The <term refersTo="#k_ familyLaw">Family Law</term> is`
	
	`applied to the following situations</p>`

	`<term refersTo="#copyright">license</term>`
	
	`<keyword value="copyright " dictionary="http://sinatra.cirsfid.unibo.it/rdf/IPR/ copyright " refersTo="#IPR"/>`
	
	`<TLCConcept href="/ontology/concept/ipr" eId="IPR" showAs="IPR "/>`

5.9.4 Lifecycle

The lifecycle lists all the events that are involved within the chain of modifications of the document. These events modify the expression.

lifecycle	`<lifecycle source="#oasis">`
	  `<eventRef eId="eventRef_1" date="1997-08-29" source="#ro_1" type="generation"/>`
	  `<eventRef eId="eventRef_2" date="2003-12-19" source="#rp_1" type="amendment"/>`
	`</lifecycle>`

5.9.5 Workflow

The workflow blocks list the events that are involved with the legislative or judiciary or parliament process. A workflow step does not necessarily change the expression. However, when a new expression occurs, we record all the workflow steps connected to it. The following example lists three workflow steps: firstReading, secondReading, thirdReading. In this case, the firstReading did not modify the expression. The secondReading and the thirdReading are connected to their correspondent expression by href (uk/bill/1345/eng@2004-12-15– bill URI). We notice that the proprietary tags include local specifications that support the workflow management system import/export of the data.

workflow	`<workflow source="#editor">`

```
<step date="2005-01-01" as="#legislator" href="/uk/bill/1345/eng@2004-12-
15" eId="step_1" outcome="#firstReading" by="#parliament">
 <myTags:proprietary xmlns:myTags="http://myTags.xsd" source="#editor">
 <myWorkFlowTags />
 </myTags:proprietary>
 </step>
 <step date="2005-04-01" as="#legislator" href="/uk/bill/1345/eng@2005-04-
01/main" eId="step_2" outcome="#secondReading" by="#parliament" />
</workflow>
```

5.10 Analytical metadata

5.10.1 Analysis

The block Analysis includes all the juridical metadata coming from a specific interpretation of the legal source. The Analysis block describes information concerning modifications, restrictions of the normative effects e.g. by jurisdiction limitation, judgment result, qualification of the judgment's citations, parliamentary voting, mapping history concerning the original wId and the current eId.

activeModifications:	Block of metadata for managing the modifications made by the current document to another document.
passiveModifications:	Block of metadata for managing the modifications arrived to the current document.
restrictions:	Block of metadata for managing the limitation of the normative effect, in particular this block permits defining the jurisdiction restrictions.
judicial:	Block of metadata for managing the judiciary metadata such as the qualification of the case-law references and the result of the decision.
parliamentary:	Block of metadata for managing the parliamentary metadata such as the quorum information, the voting results, and the recall data.
mappings:	Block of metadata for managing the changes of ids when a renumbering occurs and also whenever this expression is not the master expression of the document (e.g. linguistic variants with different numbering of the partitions imposed by the translation process).
otherReferences	Used to specify a number of <otherRef> elements that are meant to specify implicit references associated with fragments of the document (identified through a source element).
otherAnalysis	Any other proprietary metadata.

5.10.2 activeModifications

In all of the document types it is possible to model the modificatory provisions. Especially in the amendment (official document for proposing modifications to a bill), bill, act, debate (e.g. oral amendment) and doc (e.g. veto of the executive) the modificatory provision is a legal normative statement

that disposes modifications to another legal document. In the legal text we model the textual elements (e.g. quotedText, quotedStructure, ref, etc.) and in the meta block activeModification we provide the semantic information like: source of modification, destination of the modification, position where to apply the modification in the destination, action of the modification, temporal parameters, conditions or limitation of the modification, other peculiar parameters for managing special modifications (e.g. renumbering).

The following table provides some examples of textual modifications: repeal, substitution, insertion, split, join, renumbering.

`<textualMod>`: it provides the type of modification to apply. The attribute @incomplete permits specifying the incompleteness of the information for applying in an automatic manner the modification action (e.g. lack of precision concerning the destination). The attribute @exclusion (values true or false) is a boolean data that indicates that exists exception avoiding an automatic consolidation.

`<source>`: it provides the reference to the fragment or portion of the legal text where the modification is expressed;

`<destination>`: it provides the IRI where the modification should be applied. @pos in the destination element permits specifying some information concerning the precise location where to apply the modification: after, before, end, start, inside, unspecified.

`<old>`: it provides the reference to the quotedText or quotedStructure where to find the old text that should be modified

`<new>`: it provides the reference to the quotedText or quotedStructure where to find the new text involved in the modifications;

`<previous>`: it provides the reference to the eId of the element affected by renumbering as located in the structure in the previous version/expression.

repeal	`<textualMod type="repeal" eId="textualMod_1" incomplete="true" exclusion="true">`
	 `<source href="#mod_1"/>`
	 `<destination href="/akn/uy/bill/camera/2008-02-25/carpeta1055-2008/esp@2009-08-18 #art_16"/>`
	
	 `<old href="#mod_1__qtext_1"/>`
	 `</textualMod>`
	
	 The previous XML fragment means: in the bill n. 1055, at 2008-02-25 article 16, it is repealed the word "male" (referenced to the text pointed out by the element \<old\>) but there are exceptions (the exception is expressed in the @exclusion="true" and so also the @incomplete="true").

substitution	`<textualMod type="substitution" eId="activeModifications__textualMod_2">`
	 `<source href="#mod_1"/>`
	 `<destination href="/akn/uy/bill/camera/2008-02-25/carpeta1055-2008/esp@2009-08-18~art_16"/>`
	 `<old href="#mod_1__qstr_1"/>`
	 `<new href="#mod_1__qstr_2"/>`
	 `</textualMod>`
	
	 The previous XML fragment means: in the bill n. 1055, at 2008-02-25, art. 16, the old text specified in mod_1_qstr_1 is substituted by the text defined in the mod_1__qstr_2.

| **insertion** | ```
<textualMod type="insertion"
eId="activeModifications__textualMod_3">
        <source href="#mod_1"/>
        <destination href="/akn/uy/bill/camera/2008-02-
25/carpeta1055-2008/esp@2009-08-18/!main~art_16" pos="before"/>
        <old href="#mod_1__qtext_1"/>
        <new href="#mod_1__qtext_2"/>
</textualMod>
```<br><br>The previous XML fragment means: Insert the new text contained in mod_1__qtext_2 in the art. 16 before the text specified by the href attribute of <old><br><br>```
<textualMod type="insertion"
eId="activeModifications__textualMod_3">
        <source href="#mod_1"/>
        <destination href="/akn/uy/bill/camera/2008-02-
25/carpeta1055-2008/esp@2009-08-18/!main~art_16" pos="before"/>
        <new href="#mod_1__qstr_1"/>
</textualMod>
```<br><br>The previous XML fragment means: insert a new structure (mod_1__qstr_1) before the art. 16. |
| **join** | ```
<textualMod type="join" eId="activeModifications__textualMod_4">
        <source href="#mod_1"/>
        <destination href="/akn/uy/bill/camera/2008-02-
25/carpeta1055-2008/esp@2009-08-18/~art_16__para_1"/>
        <destination href="/akn/uy/bill/camera/2008-02-
25/carpeta1055-2008/esp@2009-08-18/~art_16__para_2"/>
        <new href="#mod_1__qstr_2"/>
</textualMod>
```<br><br>The previous XML fragment means: take the paragraph 1 and the paragraph 2 of the art. 16 and join in the unique element as defined in "new".. For example "new" can contain the number of the new joined partition. |
| **split** | ```
<textualMod type="split" eId="activeModifications__textualMod_5">
        <source href="#mod_1"/>
        <destination href="/akn/uy/bill/camera/2008-02-
25/carpeta1055-2008/esp@2009-08-18/~art_16__para_1"/>
        <new href="#mod_1__qstr_2"/>
</textualMod>
```<br><br>The previous XML fragment means: take the paragraph 1 of the art. 16 and split it following the structure defined in "new" element. For example "new" can contain the number of the new splitted partition. |
| **renumbering** | ```
<textualMod type="renumbering"
eId="activeModifications__textualMod_6">
        <source href="#mod_1"/>
        <destination href="/akn/uy/bill/camera/2008-02-
25/carpeta1055-2008/esp@2009-08-18/~art_23"/>
``` |

<table>
<tr><td></td><td><previous href="/akn/uy/bill/camera/2008-02-25/carpeta1055-2008/esp@2009-08-18/~art_16" eId="activeModifications__textualMod_6_previous"/>
    </textualMod>

The previous XML fragment means: renumber the art. 16 in art. 23.</td></tr>
<tr><td></td><td></activeModifications></td></tr>
</table>

5.10.3 passiveModifications

The passiveModifications block records the modifications received from other legal documents or the changes applied to the current version of the document. The passiveModifications provides relevant information to permit the reverse engineering of the changes applied.

passiveModifications	

repeal	<textualMod eId="passiveModifications__textualMod_1" type="repeal" period="#tmpg_1">
	    <source href="/akn/uy/amendment/senate/2009-09-25/34/"/>
	    <destination href="#art_10__para_1__list_1__point_1"/>
	    <old>
	    <uy:text>por el incumplimiento injustificado de las contrapartidas a que refiere el artículo 8º.</uy:text>
	    </old>
	</textualMod>
	
	In this passive modification the Uruguay Parliament added a proprietary element (uy:text) for storing the old text that is repealed in the current version of the document.
	
	.

substitution	<textualMod eId="passiveModifications__textualMod_2" type="substitution" period="#cmp_1__tmpg_4">
	    <source href="/akn/uy/amendment/senate/2009-09-25/34/"/>
	    <destination href="#cmp_1__docType_1"/>
	    <old>
	    <uy:text>TEXTO APROBADO </uy:text>
	    </old>
	    <new href="#cmp_1__docType_1__ins_1"/>
	</textualMod>
	This passive modification models the substitution of the old text in the new text, with particular regard to the modification in the <preface> of the type of document.

insertion	<textualMod eId="passiveModifications__textualMod_3" type="insertion" period="#tmpg_4">
	    <source href="/akn/uy/amendment/senate/2009-09-25/34"/>
	    <destination href="#art_7__para_3"/>
	</textualMod>
	Insertion of the paragraph 3 in the new versioned document.

join	<textualMod eId="passiveModifications__textualMod_4" type="join" period="#tmpg_4">

	<source href="/akn/uy/amendment/senate/2009-09-25/34"/> <destination href="#art_6__para_1"/> <old href="/uy/bill/ejecutivo/carpeta/2005-04-04/137-2005/esp@2005-05-02T24:00:00-03:00/!main~art_6__para_2"/> <old href="/uy/bill/ejecutivo/carpeta/2005-04-04/137-2005/esp@2005-05-02T24:00:00-03:00/!main~art_6_para_3"/> <new href="#art_6__del_1"/> </textualMod> This fragment models the join effect on the current document. The destination is the current point in the text where the join was applied. The two old elements provide two original elements that are joined. The new indicates the point where was deleted the disjunction between the two elements. We use <del/> for indicating where was applied the conjunction.
split	<textualMod eId="passiveModifications__textualMod_5" type="split" period="#tmpg_3"> <source href="/akn/uy/amendment/senate/2009-09-25/34"/> <destination href="#art_6__ins_1"/> <destination href="#art_6_ins_3"/> <old href="#art_6__para_1"/> <new href="#art_6_ins_2"/> </textualMod> This fragment models the result of a split modification. Two destinations are pointed out to the results of the split, in this case two element <ins> that delimitates the result of the divisions. The old represents the partition involved by the subdivision. The new indicates where the split is done (art_6__ins_2).
renumbering	<textualMod eId="passiveModifications__textualMod_6" type="renumbering" period="#tmpg_3"> <source href="/akn/uy/amendment/senate/2009-09-25/34"/> <destination href="#art7__para_2"/> <previous href="/akn/uy/bill/ejecutivo/2005-04-04/carpeta137-2005/esp@2005-05-02/!main~art7__para_3" showAs="previous" eId="previous_1"/> </textualMod> This markup shows the effect of the renumbering on the destination document. The source says where the renumbering come from; destination says the partition affected by the renumbering in the current document; previous describes the previous partition expression ID.

5.10.4 restrictions

`<restrictions>` block contains `<restriction>` elements that describe jurisdiction specifications and other types of restrictions of normative effectively. Each restriction element associates a TLCConcept identified by a `@refersTo` attribute to a fragment of the document identified by an href attribute. In the following example we have `@href` attribute hosting multiple references: art. 12, art. 32, art. 56 for avoiding the redundancy. At the moment only one type of restriction is possible, namely jurisdiction. Other types of restrictions may be specified in future by adding values to the new type restrictionType. This can be used to specify jurisdiction restrictions (frequent, e.g., in UK legislation) to individual fragments of the legislation.

restrictions	<restrictions source="#fv"> <restriction type="jurisdiction" eId="restriction_1" refersTo="#gb-eaw" href="#art_12"/>

```
                    <restriction type="jurisdiction" eId="restriction_2" refersTo="#gb-
eaw" href="#art_32"/>
                    <restriction type="jurisdiction" eId="restriction_3" refersTo="#gb-
eaw" href="#art_56"/>
</restrictions>

<restrictions source="#palmirani">
            <restriction type="juridiction" eId="restriction_1"
refersTo#="#jurisdictionEnglandWales" href="#art_12"/>
            <restriction type="juridiction" eId="restriction_2"
refersTo#="#jurisdictionEnglandWales" href="#art_32"/>
            <restriction type="juridiction" eId="restriction_3"
refersTo#="#jurisdictionEnglandWales" href="#art_56"/>
</restrictions>

And in the <references> block we have also this specification:
    <references source="…">
        <TLCLocation eId="england.wales" href="..."  showAs="England and
Wales" />
    </references>
```

5.10.5 judicial

In a judgment document type it is possible to qualify the citation made by the judge supporting his/her thesis and final decision. In the following example, the reference ref_1 supports the judge thesis and it is accessible in the href /it/judgment/2000/123.

The result element expresses the final outcome of the case-law, using the attribute type (in our case approve). The complete list of result is:

- deny
- dismiss
- uphold
- revert
- replaceOrder
- remit
- decide
- approve.

The list of the qualifications for classifying the citations are:

- `<supports>`: The element supports is a metadata element specifying a reference to a source supported by the argument being described
- `<isAnalogTo>`: The element isAnalogTo is a metadata element specifying a reference to a source analog to the argument being described
- `<applies>`: The element applies is a metadata element specifying a reference to a source applied by the argument being described
- `<extends>`: The element extends is a metadata element specifying a reference to a source extended by the argument being described.
- `<restricts>`: The element restricts is a metadata element specifying a reference to a source restricted by the argument being described
- `<derogates>`: The element derogates is a metadata element specifying a reference to a source derogated by the argument being described
- `<contrasts>`: The element contrasts is a metadata element specifying a reference to a source contrasted by the argument being described.
- `<overrules>`: The element overrules is a metadata element specifying a reference to a source overruled by the argument being described

- `<dissentsFrom>`: The element dissentsFrom is a metadata element specifying a reference to a source dissented from the argument being described
- `<putsInQuestion>`: The element putsInQuestions is a metadata element specifying a reference to a source questioned by the argument being described.
- `<distinguishes>`: The element distinguishes is a metadata element specifying a reference to a source being distinguished by the argument being described.

| judicial | `<judicial>`
        `<result type="approve"/>`
        `<supports>`
            `<source href="#ref_1"/>`
            `<destination href="akn/it/judgment/2000/123"/>`
        `</supports>`
`</judicial>` |

5.10.6 parliamentary

In an analysis it is possible to track the metadata connected to the parliamentary events recorded in the debate such as the call of quorum, recount of quorum, voting recount, voting.

The following fragment presents a simple example where it is possible to connect the analysis annotation with the text using href attribute and the semantic meaning of the annotation with refersTo attribute.

For example, the voting is recorded in a fragment of text in the debate called `<summary>`. Inside of the summary we have marked up `<quantity>` and inside of the `<voting>` metadata we connect the quantities with the respective legal meaning inside of the voting event: 72 votes are "ayes" and 34 votes are "noes" using the `@refersTo` attribute connected with a TLCConcept. Before the voting event the `<quorum>` was checked. Because we have different graduation of quorum, refersTo expresses the type of quorum defined in the TLConcept (e.g. majority). After the voting a recount occurred and the positive votes are 76.

| parliamentary | `<parliamentary>`
  `<quorumVerification>`
    `<quorum eId="quorum_1" refersTo="#majority" value="80"/>`
    `<count eId="count_1" refersTo="#present" href="#quantity_1" value="110"/>`
  `</quorumVerification>`
  `<voting eId="voting_1" href="#summary_1" refersTo="#voting" outcome="#approved">`
    `<quorum eId="voting_1__quorum_1" refersTo="#majority" value="80"/>`
    `<count eId="voting_1__count_2" refersTo="#ayes" href="#quantity_2" value="72"/>`
    `<count eId="voting_1__count_3" refersTo="#noes" href="#quantity_3" value="34"/>`
  `</voting>`
  `<recount eId="recount_1" href="#dbsect_2" refersTo="#recount" outcome="#approved">`
    `<count eId="recount_1__count_1" refersTo="#ayes" href="#quantity_4" value="76"/>`
  `</recount>`
`</parliamentary>` |

	--- in the text --- <debateSection eId="dbsect_2" name="…"> <summary eId="summary_1">(Question carried by <quantity eId="quantity_2" normalized="72" refersTo="#ayes">72</quantity> to <quantity normalized="34" eId ="quantity_3" refersTo="#noes"> 34</quantity> votes)</summary> </debateSection>

5.10.7 mappings

The mappings block records the history of the modifications of the original wId over time. <mappings> supplies a place where to record the fact that changes in IDs do not happen only when a renumbering occurs, but also whenever this expression is not the master expression of the document, i.e., whenever eIds and wIds diverge. The attribute `@original` stores the first wId, that never evolves, `@current` stores the eId of the expression valid in a given temporal period. The attributes `@start` and `@end` link the temporal data.

mappings	<mappings source="#palmirani"> <mapping eId="mapping_1" original="#art_1" current="#art_4" start="#t_1" end="#t_3"/> <mapping eId="mapping_2" original="#art_1" current="#art_7" start="#_t4" end="#t_7"/> </mappings>

5.10.8 otherReferences

Sometime there is the need to annotate implicit references that connect one part of the text with other legal sources, including other fragments of text within the same document. For example, a semantic implicit reference is used between the recital and the body of a European Directive. In order to capture this relationship, we use the <otherReferences> element.Content model of <otherReferences> in the <analysis> section of the metadata contains <implicitReference> and <alternativeReference> elements, to stress that they can be used for expressing either a legal reference not explicitly mentioned in the text, or alternative syntaxes for the URI specified in the actual reference.

otherReferences	<otherReferences source="#FV-MP"> <alternativeReference for="#ref12" refersTo="#ELI" href=" http://www.legislation.gov.uk/id/ukpga/2014/27/enacted/"/> <implicitReference for="#ref_10" href="/akn/uk/act/2000-07-28/chapter23/main#sec_12__subsec_7"/> </otherReferences>

5.10.9 otherAnalysis

Sometimes there is the need to express another legal analysis not yet included in Akoma Ntoso. Each institution can use this container for defining this additional legal metadata. The following examples, coming from the Library of Congress of Chile, show the metadata used for classifying specific RDF classes.

otherAnalysis	<otherAnalysis source="#bcnMetadata"> <bcn:MetadataBCN>

	`<bcn:Materia eId="met1" refParteDocumento="#ds1-pap1-com1" rdfLabelMateria="Renuncia" uriMateria="/recurso/materias/renuncia"/>`
	`        <bcn:Materia refParteDocumento="#ds1-pap2-ws5" rdfLabelMateria="Cultura" uriMateria="/recurso/materias/cultura"/>`
	`        <bcn:Materia refParteDocumento="#ds1-pap2-ws5" rdfLabelMateria="Patrimonio" uriMateria="/recurso/materias/patrimonio"/>`
	`        <bcn:TerminosLibres refParteDocumento="#ds1-pap1-com1" valor="renuncia al cargo de Primer Vicepresidente"/>`
	`        <bcn:TerminosLibres refParteDocumento="#ds1-pap2-ws5" valor="petroglifos norte"/>`
	`        <bcn:TerminosLibres refParteDocumento="ds9-h1" valor="homenaje para EX DIPUTADO DON FÉLIX ERNESTO IGLESIAS "/>`
	`        <bcn:AtributosDiarioSesiones bcn:uriResultadoSesion="#Exitosa"/>`
	`    </bcn:MetadataBCN>`
	`</otherAnalysis>`

5.10.10 TemporalData

The temporalData describes all the events grouped together in order to model intervals. In the following example we find the `<temporalGroup>` that models the interval of enter into force and the interval of efficacy. The @refersTo attribute connects the temporal parameters with the TLConcept defined in the references block.

temporalData	`<temporalData source="#oasis">`
	` <temporalGroup eId="temporalGroup_1">`
	`  <timeInterval refersTo="#inforce" start="eef_1" end="eref_2"/>`
	`  <timeInterval refersTo="#efficacy" start="#ef_1" end="#ef_2"/>`
	` </temporalGroup>`
	` <temporalGroup eId="temporalGroup_2">`
	`  <timeInterval refersTo="#inforce" start="#ref_2"/>`
	`  <timeInterval refersTo="#efficacy" start="#ref_2"/>`
	` </temporalGroup>`
	`</temporalData>`

5.10.11 Notes

The note is a block where we record non-authorial notes. For the authorial notes we use `<authorialNote>` element which is an inline element. The authorial notes are provided by the author of the document and it is placed in the text. An example of authorial note is the side note (approved by the Assembly) or any note of the Parliament.

The attribute `@placement` specifies where to place the note (bottom, inline, left, right, side).

The attribute `@marker` specifies the simple for marking the note.

The attribute `@placementBase` provides a mechanism to specify exactly the placement of the note with regards to other elements of the document using a local href (i.e. a #id reference) to the element near which the note should be placed.

authorialNote	`<paragraph><content><p><authorialNote marker="2" placement="side" placementBase="#sec_1__para_1"><p>this is a authorial note approved by the Parliament</p></authorialNote>` `</paragraph>`

Any other editorial annotation is included in the tag `<note>` in the `<meta>` block.

notes	`<notes source="#palmirani">`
	 `<note eId="note_1">`
	  `<p> Some footnotes from editors. Non authorial note.</p>`
	 `</note>`
	`</notes>`

5.10.12 Ontological references

5.10.12.1 References

The reference block models all the references with other documents or with ontology classes (Top Level Classes – TLC). The active references are the normative modifications from the current document to external documents, while the passive references are the external documents that point out the current document because they modify the current document.

`<original>`: it is the original expression of the Work;

`<activeRef>`: it is any external document that is modified by the current document;

`<passiveRef>`: it is any external document that affects the current document;

`<attachmentOf>`: it is the reference to the main document where the current document is the attachment

`<hasAttachment>`: it is the reference to any attachment of the current document;

`<jurisprudence>`: it is any reference to relevant case-law;

`<TLCReference>`: it is any reference to an ontological class.

references	`<references source="#palmirani">`
	       `<original eId="original_1" href="/akn/cl/bill/2005-03-14/315-352/esp@/!main" showAs="Original "/>`
	       `<activeRef eId ="activeRef_1" href="/akn/cl/act/2010/cp/!main~art12" showAs="Código Penal"/>`
	       `<passiveRef eId ="passiveRef_1" href="/akn/cl/act/2010/cp/main#art19" showAs="Código Penal"/>`
	       `<attachmentOf eId="attachmentOf_1" href="/akn/cl/bill/2005-03-14/315-352/esp@.akn" showAs="Complete Collection of Gazette 2005 March"/>`
	       `<hasAttachment eId="hasAttachment_1" href="/akn/cl/bill/2005-03-14/315-352/esp@!annex_A" showAs="Annex A"/>`
	       `<jurisprudence eId="jurisprudence_1" href="/akn/cl/judgment/2005-01-10/2124" showAs="case-law"/>`
	       `<TLCOrganization eId ="executivo" href="/akn/ontology/organizations/akn/executivo" showAs="Executivo"/>`
	       `<TLCRole eId ="pdlr" href="/akn/ontology/roles/akn/presidenteRepublica" showAs="Presidente de la República"/>`
	       `<TLCRole eId ="author" href="/akn/ontology/roles/akn/author" showAs="Author of Document"/>`
	       `<TLCRole eId ="editor" href="/akn/ontology/roles/akn/editor" showAs="Editor of Document"/>`
	       `<TLCPerson eId="lagos" href="/akn/ontology/persons/akn/ricardoLagosEscobar" showAs="RICARDO LAGOS ESCOBAR"/>`
	       `<TLCLocation i eId="TCL" href="/akn/ontology/location/akn/santiago" showAs="Santiago"/>`

	<TLCReference eId="TLCReference_1" href="/akn/cl/doc/2004/commentOfCivilCode/" showAs="Comment of the Civil Code of Chile" name="book"/> </references>

5.10.13 Additional annotation

5.10.13.1 Proprietary

The proprietary block allows for the addition of any other local tags which are useful for managing legacy systems.

proprietary	<proprietary source="#oasis"> <my:tag> any tag useful for the local document management</my:tag> </proprietary>

Akoma Ntoso makes no restriction as to the vocabulary or containment constraints of the content within the proprietary block. The only requirement (as shown by the compliant fragment) is that all elements belong to namespaces different than that of Akoma Ntoso. This guarantees the immediate identification of the new elements.

Proprietary elements can still use existing core Akoma Ntoso attributes and, whenever possible, should.

In particular, the following attributes should be used whenever possible:

- `@eId`: an identification word unique within the whole document
- `@refersTo`: the id of an ontological concept, person, organization, location etc. defined in the reference section of the metadata.
- `@href`: the address of another document, or the id of a section of the document referenced by the individual metadata element.
- `@source`: the id of a person or organization (placed in the reference section) providing the metadata element.

```
<meta>
    <identification source="#au1"> ... </identification>
    <publication … />
    <lifecycle source="#au1"> ... </lifecycle>
    <analysis source="#au1"> ... </analysis>
    <references source="#au1"> ... </references>
    <proprietary source="#au1" xmlns:cirsfid="http://www.cirsfid.unibo.it/proprietary">
        <cirsfid:MissingInfo>
            <cirsfid:mActDate>1992-12-28</cirsfid:mActDate>
        </cirsfid:MissingInfo>
    </proprietary>
</meta>
```

5.10.13.2 Presentation

The presentation block allows for tags and specifications that facilitate the visual rendering of the document (e.g. specifications on the paper format, or the numbering of the lines, etc.). For advanced specifications see also 5.6 and 5.7.

presentation	Example from UK
	<presentation source="#palmirani">
	    <my:oddPageHeading>
	      <my:left class="normal"> Legislation Publication Ordinance</my:left>

<table>
<tr>
<td></td>
<td>

```
     <my:right class="normal"> CAP. 614 </my:right>
   </my:oddPageHeading>
   <my:oddPageFooter>
     <my:left class="normal"> Authorized Loose-left and Printed and
Published </my:left>
     <my:right class="normal"> Issue 47</my:right>
   </my:oddPageFooter>
</presentation>

Example from Federal Chancellor of Switzerland:
<proprietary source="#palmirani">
   <ch:evenPageHeading>
       <ch:left class="two-third">Iniziativa popolare «Basta con la
costruzione sfrenata di abitazioni secondarie!» DF</ch:left>
       <ch:right class="one-third">RU 2012</ch:right>
   </ch:evenPageHeading>
</proprietary>
```

</td>
</tr>
</table>

One of the main problems in the rendering of an XML file is preserving the format over time by providing enough information to process the document in the future in a similar manner. In the following example we specify the URL where to get the CSS as well as the hash code of the CSS in order to be sure that the CSS is not modified over time.

<table>
<tr>
<td>presentation</td>
<td>

```
<presentation source="#palmirani">
       <uy:myCssForRendering>http://europe.eu/akomantoso30.css</uy:m
yCssForPreservation>
       <uy:myCssHash>d7402662a7a744c0b3689dc863e91761</uy:myCs
sHash>
</presentation>
```

</td>
</tr>
</table>

The following Indian example shows an example where it is necessary specific presentation instructions[5]:

<table>
<tr>
<td>

5[12. Cognizance and trial of offences. -- (1) No court inferior to that of a Metropolitan Magistrate or a Judicial Magistrate of the first class shall try any offence punishable under this Act.

(2) No court shall take cognizance of an offence punishable under this Act except upon—

(a) its own knowledge or upon a complaint made by the appropriate Government or an officer authorized by it in this behalf; or

(b) a complaint made by the person aggrieved by the offence or by any recognized welfare institution or organization.

Explanation. –For the purposes of this sub-section "recognized welfare institution or organization" means a social welfare organization or institution recognized in this behalf

by the Central or State Government.]

5. Substituted by Act 49 of 1987, S.4.

</td>
</tr>
</table>

The fragment of the following XML snippet shows how to manage the situation using CSS instructions: :

<table>
<tr>
<td>

```
<akomaNtoso xmlns="http://docs.oasis-open.org/legaldocml/ns/akn/3.0/WD16"
xmlns:x="http://www.fabioVitali.com">
```

</td>
</tr>
</table>

---

[5] http://pblabour.gov.in/pdf/acts_rules/equal_remuneration_act_1976.pdf

```
      <presentation source="#FV">
       <x:css>
        .removed::before {
         content: "[";
        }
        .removed::after {
         content: "]" ;
        }
        noteRef {
         vertical-align: super;
         font-size: 80%;
        }
       </x:css>
      </presentation>
```

This XML fragment shows the <presentation> block where a x namespace is defined and an element <x:css> is defined for including CSS presentation instructions. In particular, this fragment of CSS wraps the text between two square brackets.

5.11 Table

A table can be included in any type of document. A table element uses the same element children of the HTML table model. It includes also the attribute: border, width, cellpadding, cellspacing, title. Caption element is possible and the content model of the `<td>` element permits including blocks elements such as block, blockContainer, blockList, tblock. This permits modelling particular tables, like the following example, where the amendments are included directly in the table.

The corresponding XML code is following:

```
<table eId="table_1" cellpadding="10" border="1" cellspacing="0" width="100" title="LAWS AMENDED
OR REPEALED"  >
  <caption>LAWS AMENDED OR REPEALED</caption>
  <tr>
    <th>
      <p>No. and year of law</p>
    </th>
    <th>
      <p>Short title</p>
    </th>
    <th>
      <p>Extent of amendment or repeal</p>
    </th>
  </tr>
  <tr>
    <td>
      <p>Act No. 153 of 1993</p>
    </td>
    <td>
      <p>Independent Broadcasting Act, 1993</p>
    </td>
    <td>
    <td>
        <blockList eId="table_1__list_1">
          <item eId="table_1__list_1__item_1">
            <num>1.</num>
              <blockList eId="table_1__list_1__item_1__list_1">
```

```
                    <listIntroduction eId="table_1__list_1__item_1__list_1__intro">The amendment
of section 1 by the substitution for the definitions of "Authority", "chairperson", "Council" and
"councillor" of the following definitions, respectively:</listIntroduction>
                        <item eId="table_1__list_1__item_1__list_1__item_a">
                            <num>(a)</num>
                            <p>"<mod
eId="table_1__list_1__item_1__list_1__item_a__mod_1">
                                <quotedStructure
eId="table_1__list_1__item_1__list_1__item_a__mod_1__qstr_1">
                    <point
eId="table_1__list_1__item_1__list_1__item_a__mod_1__qstr_1__point_a">
                        <content>
                            <p>'Authority' means the Independent Communications Authority of South
Africa established by section 3 of the Independent Communications Authority of
South Africa Act, 2000;</p>
                        </content>
                    </point>
                </quotedStructure>";</mod></p></item>
            <blockList>
        </item>
    </blockList>
    </td>
  </tr>
</table>
```

Another use for the table is the application form, where some parts are dedicated to filling parts of the form. Sometime these application forms are schedules of law, regulations, or bills, like the following example.

It is possible with Akoma Ntoso to capture the blank part that permits an easy transformation of the template in an online web application form.

```
<table eId="table_1">
  <tr>
    <td><p>At</p></td>
    <td><p><fillin>..........................</fillin></p></td>
    <td><p>on this</p></td>
    <td><p><fillin>..........................</fillin></p></td>
    <td><p>day of</p></td>
    <td><p><fillin>..........................</fillin></p></td>
    <td><p>19</p></td>
    <td><p><fillin>..........................</fillin></p></td>
  </tr>
  <tr>
    <td><p>G.H.,Magistrate.</p></td>
  </tr>
</table>
```

It is also possible to model very complex tables that includes images or irregular cells. We use colspan attribute with the same meaning of HTML.

```
<paragraph eId="sec_2-5-7__para_4">
        <content  eId="sec_2-5-7__para_4__content">
                <table eId="table_1" border="1">
                        <caption eId="table_1__caption">Thermoplastic rooflights and light fittings
with diffusers</caption>
                        <tr>
                                <th>
```

```
                                <p>

                                </p>
                        </th>
                        <th>
                                <p>
                                Protected zone or fire-fighting shaft
                                </p>
                        </th>
                        <th colspan="2">
                                <p>Unprotected zone or protected enclosure</p>
                        </th>
                        <th colspan="2">
                                <p>Room</p>
                        </th>
                </tr>
                <tr>
                        <th>
                                <p>
Classification of lower surface
                                </p>
                        </th>
                        <th>
                                <p>
                                Any  thermoplastic
                                </p>
                        </th>
                        <th>
                                <p>TP(a) rigid</p>
                        </th>
                        <th>
                                <p>TP(a) flexible and TP(b)</p>
                        </th>
                        <th>
                                <p>TP(a) rigid</p>
                        </th>
                        <th>
                                <p>TP(a) flexible and TP(b)</p>
                        </th>
                </tr>
            </table>
        </content>
</paragraph>
```

Or including forms and images:

```
<preface>
  <p class="heading">
    <docTitle>Form XV Public Service Vehicle Licence original REPUBLIC OF KENYA THE TRAFFIC
        ACT</docTitle>
  </p>
</preface>
<mainBody>
  <container eId="container_1" class="table" name="table">
     <p>(Section 97 (1))</p>
```

```
    <table eId="container_1 table_1">
      <tr>
        <td>
          <p>
            <img src="signalxv.jpg"/>
          </p>
        </td>
        <td>
          <p>
            <fillIn>Cheque No...........................</fillIn>
             <fillIn>Cash ..............................</fillIn>
          </p>
        </td>
      </tr>
      <tr>
        <td>
          <p>STATION ........................................................</p>
          <p>ISSUING OFFICER ..................................................</p>
        </td>
      </tr>
```

Finally if you need to use structured caption the following XML fragment provides a correct solution for including it in table element:

```
<table>
  <caption>
   <span class="autoNum">Table 1</span> -
   <subFlow name="structuredCaption">
    <p>First line</p>
    <p>Second line</p>
   </subFlow>
  </caption>
  <tr>
   <th><p>Head 1</p></th>
   <th><p>Head 2</p></th>
  </tr>
  <tr>
   <td><p>Data 1</p></td>
   <td><p>Data 2</p></td>
  </tr>
</table>
```

5.12 Akoma Ntoso alternative to represent a list

Three models can be used to represent a list

1.   a list as a hierarchical container
   •   the list is marked using the `<list>` element;
   •   the list introduction is marked using `<intro>` and the list conclusion is marked using the `<wrapUp>` element.

Each item of the list is a hierarchical container (for example, point or indent)

Example :

```
<list eId="...__list_1" >
   <intro eId="...__list_1__intro" wId="2013-619260-2">
      <p>The Decisions referred to in Article 13(1) shall not impede the
         free movement in the Union and the production, manufacture,
         making available on the market including importation to the
         Union, transport, and exportation from the Union of new
         psychoactive substances:</p>
   </intro>
   <point eId="...__list_1__point_a" wId="2013-619261">
      <num>(a)</num>
      <content eId="...__list_1__point_a__content" wId="2013-619261-1">
        <p>for scientific research and development purposes;</p>
      </content>
   </point>
   <point eId="...__list_1__point_b" wId="2013-619262">
      <num>(b)</num>
      <content eId="...__list_1__point_b__content" wId="2013-619262-1">
        <p>for uses authorised under Union legislation;</p>
      </content>
   </point>
</list>
```

2.   a list as a block

   •   the list is marked using the `<blockList>`

   •   the list introduction is marked using the `<listIntroduction>` element and the list
   conclusion is marked using the `<listWrapUp>` element.

Each item of the list is marked using the `<item>` element.

Example:

```
<blockList eId="...__list_1">
   <listIntroduction eId="...__list_1__intro">The
      Commission conducted an impact assessment of policy
      alternatives, taking into account the consultation of interested
      parties and the results of external studies. The impact
      assessment concluded that the following solution would be
      preferred:</listIntroduction>
   <item eId="...__list_1__item_1">
      <num>–</num>
      <p>a more graduated and better targeted set of restriction
         measures on new psychoactive substances, which should not
         hinder the industrial use of substances.</p>
   </item>
   <item eId="...__list_1__item_2">
      <num>–</num>
      <p>restriction measures should be introduced earlier and
         substances suspected to pose immediate public health risks
         should be subjected to temporary restrictions.</p>
   </item>
   <listWrapUp eId="...__list_1__wrapup">finally we have …</listWrapUp>

</blockList>
```

3.   a list as an HTML element

•   the list is marked using the `<ol>` element for ordered list or `<ul>` for unordered list

•   Each item of the list is marked using the `<li>` element.

Example:

```
<ul eId="...__ul_1">
   <li eId="...__ul_1__li_1">
      <p>a more graduated and better targeted set of restriction
         measures on new psychoactive substances, which should not
         hinder the industrial use of substances.</p>
   </li>
   <li eId="...__ul_1__li_2">
      <p>restriction measures should be introduced earlier and
         substances suspected to pose immediate public health risks
         should be subjected to temporary restrictions.</p>
   </li>
</ul>
```

5.13 Akoma Ntoso alternative to represent a set of provisions

Two models can be used to represent a set of provisions

1.   as a hierarchical container

This is the model for the set of sections in the body of an act or a bill.

Example:

```
<chapter eId=",,,__chp_I">
   <num>CHAPTER I</num>
   <heading eId=",,,__chp_I__heading">Subject matter - Scope -
      Definitions</heading>
   <article eId="art_1">
      <num>Article 1</num>
      <heading eId="art_1__heading">Subject matter and
         scope</heading>
      <paragraph eId="art_1__para_1">
         <num>1.</num>
         <content eId="art_1__para_1__content">
            <p>This Regulation establishes rules for restrictions to the
               free movement of new psychoactive substances in the internal
               market. For that purpose it sets up a mechanism for
               information exchange on, risk assessment and submission to
               market restriction measures of new psychoactive substances
               at Union level.</p>
         </content>
      </paragraph>
      ...
   </article>
   ...
</chapter>
```

2.   as a block

This is used for documents without a well-defined structure.

Example:

```
<tblock eId="...__tblock_3">
   <num>3.</num>
   <heading eId="...__tblock_3__heading">LEGAL ELEMENTS OF THE
      PROPOSAL</heading>
   <tblock eId="...__tblock_3.1">
      <num>3.1.</num>
      <heading eId="...__tblock_3.1__heading">The legal base</heading>
      <p>The proposal aims at ensuring that trade in new psychoactive
```

```
            substances having industrial and commercial uses is not hindered and
            that the functioning of this market is improved, while the health
            and safety of individuals are protected from harmful substances,
            which cause concern at the EU level.</p>
    </tblock>
</tblock>
```

5.14 The element foreign

Akoma Ntoso does not provide markup for situations that are very specific and for which better suited vocabularies already exist. For instance, mathematical formulas and drawings have well-known standard XML vocabularies that should be used rather than inventing new ones. For these situations, the <foreign> element can be used to specify fragments of content that correspond to structures and data that are not currently managed by Akoma Ntoso.

For instance, the following is a valid Akoma Ntoso fragment to show the equation $ax2+bx+c$:

```
<foreign>
        <math xmlns="http://www.w3.org/1998/Math/MathML">
                mrow>
                        <mi>a</mi>
                        <mo>&#x2062;</mo>
                        <msup>
                                <mi>x</mi>
                                <mn>2</mn>
                        </msup>
                        <mo>+</mo>
                        <mi>b</mi>
                        <mo>&#x2062;</mo>
                        <mi>x</mi>
                        <mo>+</mo>
                        <mi>c</mi>
                </mrow>
        </math>
</foreign>
```

The <foreign> element is a block-level element. This means that it is presumed that its content appears in a vertically isolated block. Furthermore, only fully qualified XML fragments can appear within the <foreign> element, and they must belong to different namespaces than Akoma Ntoso's. Finally, it should be noted that <foreign> should only be used when Akoma Ntoso does not provide support for the notation rather than to simply include XML fragments from other vocabularies. Thus, it is not appropriate to place HTML fragments within a <foreign> element as there is no feature of HTML that cannot be expressed in Akoma Ntoso. In general, you cannot use elements from a foreign namespace for elements for which a correspondence in Akoma Ntoso exists.

6 Akoma Ntoso document types (Non-Normative)

6.1 Document types

Akoma Ntoso manages seven main document types, grouped for function, organization, or role in the legal domain:

- Collection Structure
- Hierarchical Structure
- Debate Structure
- Amendment Structure
- Judgment Structure
- Open Structure
- Portion Structure

A particular attention is devoted to the table, attachments, components that could be included in any type of document.

6.2 Collection Structure

Composite documents are containers of other documents that have their own identity, lifecycle, workflow, and other metadata. An example is the Official Journal or Official Gazette volume where many bills, acts, minutes, reports are collected. Each document is autonomous with its FRBR identification package, metadata, modifications, and temporal information. Nevertheless, the volume of the Journal is an independent work that is composed of other works.

A collection structure is any folder (such as one that contains a bill) that is usually composed of several documents (cover, motivations, commission report, amendments, first draft of a bill, amended bill, etc.).

In this way, it is possible to represent a document composed of different autonomous parts (work or expressions). The following example shows a documentCollection, with the bill (proyecto de ley) and the explanatory part (motivos).

```xml
<?xml version="1.0" encoding="UTF-8"?>
<akomaNtoso xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://docs.oasis-open.org/legaldocml/ns/akn/3.0/WD17
../schemas/akomantoso30.xsd " xmlns="http://docs.oasis-open.org/legaldocml/ns/akn/3.0/WD17" xmlns:uy="http://uruguay/propetary.xsd">
    <documentCollection name="collection">
        <!-- Example of Uruguay Bill - Document coming from the Committee. Asunto: 105027,  Carpeta:395-2010; Repartido:379-2010. The folder is numb
379-2010
The document is a "documentCollection" type and it includes two documents: proyecto de ley and motivos.

Legal Analysis and Marked up by Monica Palmirani - University of Bologna
Refined by Alejandro Silvera - University of Republica de Uruguay
        -->
        <meta>
        <preface>
        <preamble>
        <collectionBody>
            <!-- The bill is numberd with Carpeta: 395-2010 -->
            <component eId="cmp_1">
                <documentRef eId="dref_1" href="#cmpnts__cmp_1" showAs="Proyecto de Ley"/>
            </component>
            <!-- An informative part of the document-->
            <component eId="cmp_2">
                <documentRef eId="dref_2" href="#cmpnts__cmp_2" showAs="Motivos"/>
            </component>
        </collectionBody>
    </documentCollection>
    <components eId="cmpnts">
        <component eId="cmpnts__cmp_1">
        <component eId="cmpnts__cmp_2">
    </components>
</akomaNtoso>
```

We have several documents that belongs to the collection structure. Certain types of documents, such as amendmentLists and officialGazettes, are usually made of several distinct and autonomous documents.

Name	Definition	Structure
DOCUMENT COLLECTION	The type documentCollection is a generic document type for representing any kind of collection container.	Complex structure composed by different works or by different expressions (e.g. different versions of the same bill: one presented in the Chamber of Deputies and another presented in the Senate) A document collection can also be used, for example, to represent an EP committee's report on a bill, containing a Resolution (possibly with an amendments list annexed), a Explanatory Memorandum Opinions of other committees.
AMENDMENT LIST	An amendment list is a document listing a series of amendments.	Complex structure including amendments and parts of the text by which an amendment is introduced.
OFFICIAL GAZETTE	An Official Gazette or Official Bulletin	Official publishing source of law composed of an assortment of legal documents (laws, decrees, orders, legal notices, etc.).

6.2.1 Composition of a collection structure

The different documents included in the documentCollection can be represented in three different ways:
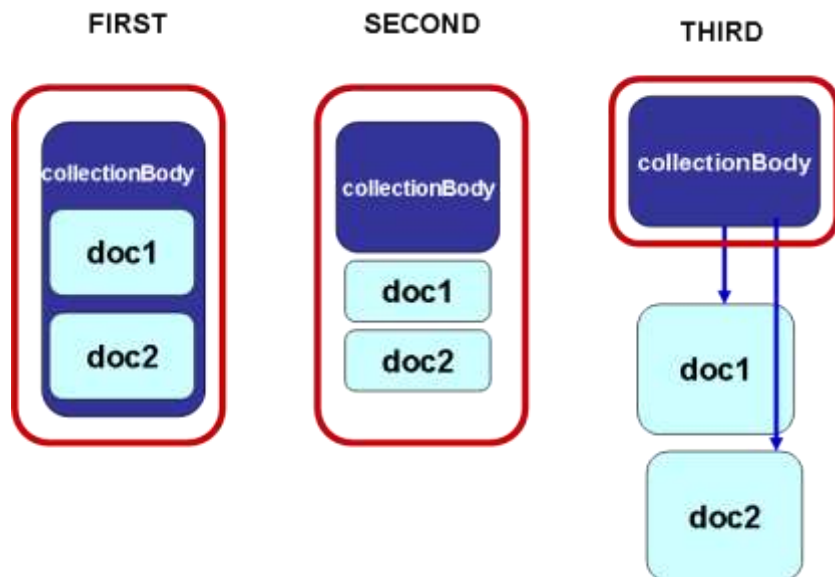
1. The documents are embedded in the collectionBody of the documentCollection:

```
<?xml version="1.0" encoding="UTF-8"?>
<akomaNtoso xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
```

```
  xsi:schemaLocation="http://docs.oasis-open.org/legaldocml/ns/akn/3.0
../schemas/akomantoso30.xsd"
  xmlns="http://docs.oasis-open.org/legaldocml/ns/akn/3.0">
  <documentCollection name="billPackage">
   <meta>
    ...
   </meta>
   <coverPage>
    ...
   </coverPage>
   <collectionBody>
     <component eId="cmp_1">
      <bill name="bill">
       <meta>,,, </meta>
       <preface>
            <p><docTitle>THE KENYA INFORMATION AND COMMUNICATIONS BILL
2006</docTitle></p>
            <p><docNumber>No.8 of 2006</docNumber></p>
            <longTitle>
               <p>AN ACT of Parliament to promote and develop in an orderly manner the
carriage and content of communications (including broadcasting, multimedia, telecommunications and
postal), for the establishment of a commission to regulate all forms of communications, for the
establishment of an appeals tribunal and for connected purposes.
               </p>
            </longTitle>
       </preface>
       <body>
            <section eId="sec_1">
                    <num>1.</num>
                    <heading>Short title and commencement</heading>
                        <content>
                               <p>This Act may be cited as the <shortTitle>Kenya
Information and Communications Act, 2006</shortTitle> and shall come into operation on such date as
the Minister may, by notice in the Gazette, appoint and different dates may be appointed for different
provisions.</p>
                        </content>
            </section>       </body>
      </bill>
     </component>
     <component eId="cmp_2">
      <interstitial eId="cmp_2__interstitial">
       <p>Any text is in the collection but belongs to no individual document</p>
      </interstitial>
     </component>
     <component eId="cmp_3">
      <doc name="memorandum">
       <meta> ...the metadata of the second document... </meta>
       <preface> ...the preface of the second document... </preface>
       <mainBody> ...the body of the second document... </mainBody>
      </doc>
     </component>
   </collectionBody>
  </documentCollection>
</akomaNtoso>
```

2. The documents are modelled in the components part of the documentCollection:

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<akomaNtoso xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://docs.oasis-open.org/legaldocml/ns/akn/3.0 ./akomantoso30.xsd"
xmlns="http://docs.oasis-open.org/legaldocml/ns/akn/3.0">
        <documentCollection name="billPackage">
                <meta>
                        ....
                </meta>
                <coverPage>

                </coverPage>
                <collectionBody>
    <component eId="cmp_1">
                                <documentRef eId="cmp_1__dref_1" href="#bill" showAs="BILL"/>
    </component>
    <component eId="cmp_2">
      <interstitial eId="cmp_2__interstitial">
        <p>Any text is in the collection but belongs to no indi-vidual document</p>
      </interstitial>
    </component>
    <component eId="cmp_3">
                                <documentRef eId="cmp_3__dref_1" href="#memorandum"
showAs="MEMORANDUM"/>
    </component>

                </collectionBody>
        </documentCollection>
        <components>
                <component eId="cmpnts__cmp_1">
    <bill name="bill">
      <meta>,,, </meta>
      <preface>
        <longTitle eId="cmpnts__cmp_1__longTitle">
          The title of the bill
        </longTitle>
      </preface>
      <body>
        ,,,
      </body>
    </bill>
                </component>
                <component eId="cmpnts__cmp_2">
    <doc name="memorandum">
      <meta> ...the metadata of the second document... </meta>
      <preface> ...the preface of the second document... </preface>
      <mainBody> ...the body of the second document... </mainBody>
    </doc>
                </component>
        </components>
</akomaNtoso>
```

3. The documentCollection includes only the `<documentRef>` specification to external documents that are modelled and represented in separated XML files.

```
<?xml version="1.0" encoding="UTF-8"?>
<akomaNtoso xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://docs.oasis-open.org/legaldocml/ns/akn/3.0 ./akomantoso30.xsd"
xmlns="http://docs.oasis-open.org/legaldocml/ns/akn/3.0">
        <documentCollection name="billPackage">
```

```
                        <meta>
                              ....
                        </meta>
                        <coverPage>

                        </coverPage>
                        <collectionBody>
        <component eId="cmp_1">
                                    <documentRef eId="cmp_1__dref_1" href="/akn/uy/bill/2013-02-10/450!bill"
showAs="BILL"/>
        </component>
        <component eId="cmp_2">
          <interstitial eId="cmp_2__interstitial">
            <p>Any text is in the collection but belongs to no individual document</p>
          </interstitial>
        </component>
        <component eId="cmp_3">
                                <documentRef eId="cmp_3__dref_1" href="/akn/doc/2013-02-
10/450!memorandum" showAs="MEMORANDUM"/>
        </component>
                        </collectionBody>
            </documentCollection>
</akomaNtoso>
```

6.2.2 Recursive Components in DocumentCollection

It is also possible to have a component in the same position as the attachment, at the end of the main document. This permits recursive definition inside of the documentCollection.

The following case shows the usage of this construct.

```
<?xml version="1.0" encoding="UTF-8"?>
<akomaNtoso xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://docs.oasis-open.org/legaldocml/ns/akn/3.0 ./akomantoso30.xsd "
xmlns="http://docs.oasis-open.org/legaldocml/ns/akn/3.0" xmlns:uy="http://uruguay/propetary.xsd">
    <documentCollection name="billPackage">
      <meta>
      FRBR block information
      </meta>
      <preface>
        Preface of the documentCollection
      </preface>
      <preamble>
      Preamble of the documentCollection
      </preamble>
      <collectionBody>
        <component eId="cmp_1">
          <documentRef eId="dref_1" href="#cmpnts_cmp_1" showAs="INFORME EN MAYORÍA Y
PROYECTO DE LEY - FRENTE AMPLIO"/>
        </component>
        <component eId="cmp_2">
          <documentRef eId="dref_2" href="#cmpnts__cmp_2" showAs="INFORME EN MINORÍA Y
PROYECTO DE RESOLUCIÓN - PARTIDO NACIONAL"/>
        </component>
      </collectionBody>
    </documentCollection>
    <components>
      <component eId="cmpnts__cmp_1">
```

```xml
<documentCollection name="informeDeMayoria" contains="originalVersion">
  <meta>
     ....
  </meta>
  <collectionBody>
    <component eId="cmpnts__cmp_1__cmp_1">
      <documentRef eId="cmpnts_cmp1_dref_1" href="#cmpnts_cmp_1__cmpnts__cmp_1"
showAs="Informe"/>
    </component>
    <component eId=" cmpnts__cmp_1__cmp_2">
      <documentRef eId=" cmpnts_cmp1_dref_2" href="#cmpnts_cmp_1__cmpnts__cmp_2"
showAs="Bill"/>
    </component>
  </collectionBody>
  <components>
    <component eId="cmpnts__cmp_1__cmpnts__cmp_1">
      <doc name="reporteInformeEnMayoria">
                 ...
      </doc>
    </component>
    <component eId="cmpnts__cmp_1__cmpnts__cmp_2">
      <bill name="bill">
           ...
      </bill>
    </component>
  </components>
</documentCollection>
</component>
<component eId="cmpnts__cmp_2">
  <documentCollection name="informeMinoriaNacional" contains="originalVersion">
         <meta>
            ...
         </meta>
  <collectionBody>
    <component eId=" cmpnts__cmp_2__cmp_1">
      <documentRef eId=" cmpnts_cmp2_dref_1" href="#cmpnts_cmp_2__cmpnts__cmp_1"
showAs="Informe"/>
    </component>
    <component eId=" cmpnts__cmp_2__cmp_2">
      <documentRef eId="cmpnts_cmp2_dref_2" href="#cmpnts_cmp_2__cmpnts__cmp_2"
showAs="Resolucion"/>
    </component>
  </collectionBody>
  <components>
    <component eId="cmpnts__cmp_2__cmpnts__cmp_1">
      <doc name="reportInformeMinoriaNational">
        ...
      </doc>
    </component>
    <component eId=" cmpnts__cmp_2__cmpnts__cmp_2">
      <statement name="PROYECTO DE RESOLUCIÓN">
        ...
      </statement>
    </component>
  </components>
</documentCollection>
</component>
```

```
    </components>
  </akomaNtoso>
```

6.2.3 Components and <componentRef>

There are use-cases where an autonomous work, emitted by an authority with its FRBR block, incudes another document that is not autonomous (e.g., draft bill included in a verbatim, resolution included in a report). In these cases we can model the embedded document using `<component>` part for favouring the markup and we use `<componentRef>` for referring to this component.

A `<componentRef>` is a manifestation-level reference to an XML sub-structure that for practical purpose has been extracted from the main structure. The XML substructure does not have independent identity outside of the hosting document, and may be extracted because of length or size considerations, or to better organize the delivery of the requested structures. Being manifestation-level, such structures do not have autonomous legal identity or existence, and should be considered for all purposes as parts directly contained inside the host document. Of course, manifestations of whole documents may be referred to using `<componentRef>`, as long as this approach is fully equivalent in all purposes to simply inserting the whole document manifestation in place of the reference.

`<componentRef>` is admissible in the following position:

Inside of the container like <preface><preamble><recital><citation><conclusions><header> etc.	`<blockContainer>`
	  `<componentRef showAs="" src=""/>`
	`</blockContainer>`

Inside of any hcontainer	`<hcontainer eId="hcontainer_1" name="hcontainerName">`
	    `<componentRef showAs="" src=""/>`
	`</hcontainer>`
	`<article eId="art_1">`
	    `<componentRef showAs="" src=""/>`
	`</article>`

Inside of any subflow like <embeddedStructure><quotedStructure><authorialNote> etc.	`<embeddedStructure>`
	    `<componentRef showAs="" src=""/>`
	`</embeddedStructure>`
	`<quotedStructure>`
	    `<componentRef showAs="" src=""/>`
	`</quotedStructure>`

6.3 Hierarchical Structure

Any document with a hierarchical structure belongs to this family of documents.

For hierarchical structure we mean a structure organized with higher levels that group basic units, basic units (article, section, etc.) and lower levels inside of the basic unit.

The Akoma Ntoso standard is neutral with respect to the legal drafting techniques of the different legal traditions, providing most of the hierarchical elements for modelling the body structure: book, tome, part, subpart, title, subtitle, chapter, subchapter, section, subsection, clause, subclause, paragraph, subparagraph, division, point, indent, alinea, list, sublist.

For these reasons, the main requirements of structuring legal text are covered.

The following table shows an example how to use of hierarchical elements:

	Anglophone tradition	*French tradition*	*Portuguese tradition*	*Italian tradition*	*Spanish tradition*	*EU tradition (here, only English, French, Spanish)*	*AKOMA NOTOSO*
Higher Division		Tome			Tome		tome
	Part	Partie (codes)	Parte (codes)	Parte	Parte	Part/ Partie parte	part
		Livre (codes)	Livro (codes)	Libro	Libro		book
	Title	Titre	Título	Titolo	Título	Title/ Titre/ Titulo	title
	Chapter	Chapitre	Capítulo	Capitolo	Capítulo	Chapter/ Chapitre Capitulo	chapter
	Subchapter Article (US)	Section (codes)	Secção	Sezione	Sección o Párrafo	Section/ section/ Sección	section
		Subsection (code)	SubSecção	Subsezione		Subsection/ Sous-Section/ Subsección	subsection
	level						level
Basic Unit	Section Rule	Article	Artigo	Articolo	Artículo	Article (rule)/ article/ articulo/	article/ section/ rule
Subdivision	Subsection Clause (in US Constitution)	Alinéa	Alineas	Comma	Inciso	unnumbered paragraph/ alinéa / Párrafo[6]	subsection aliena clause
	Paragraph	Paragraphe	Paragrafo	Paragrafo		paragraph paragraphe Apartado	paragraph
	Proviso						proviso
	Subparagraph					Subparagraph/ sous paragraphe/ Párrafo[7]	subparagraph

	Anglophone tradition	French tradition	Portuguese tradition	Italian tradition	Spanish tradition	EU tradition (here, only English, French, Spanish)	AKOMA NOTOSO
							division
				Lettera	letra	Point/ point/ Letra	point/item
				Numero	número	Point/ point/ punto	point/item
	Latin number					Point/ point Inciso	point/item
						Indent/ tiret guion	point/item

The list of the hierarchical partitions included in Akoma Ntoso are the following, listed in alphabetic order:

- alinea
- article
- book
- chapter
- clause
- division
- indent
- level
- list
- paragraph
- part
- point
- proviso
- rule
- subrule
- section
- subchapter
- subclause
- subdivision
- sublist
- subparagraph
- subpart
- subrule
- subsection
- subtitle
- title
- tome
- transitional.

Each hierarchical element has some relevant optional children that characterize the hierarchy pattern:

- `<num>`: the element `<num>` marks up the number of the partition, including letters in case of points (e.g., the point (a) is `<num>(a)</num>`);
- `<heading>`: the element `<heading>` marks up the title of the partition;
- `<subheading>`: the element `<subheading>` marks up the subtitle of the partition;
- `<crossheading>`: the element `<crossheading>` marks up an intermediate block.

6.4 Debate Structure

The debate structure is dedicated to parliamentary documents such as report of committees, transcript record of the parliament or assembly, Hansard, debates, voting report, roll calling, etc. In particular, to these documents is the unstructured format and the fact that they describe a narrative, similar to a script or a screenplay. For these reasons the debateStructure includes particular structures that permits this modelling.

Debate record is similar to a screenplay and so it is mostly composed by sections according with the main topics or actions admitted in the rules of procedure in the assembly:

- administrationOfOath
- rollCall
- prayers
- oralStatements
- writtenStatements
- personalStatements
- ministerialStatements
- resolutions
- nationalInterest
- declarationOfVote
- communication
- petitions
- papers
- noticesOfMotion
- questions
- address
- proceduralMotions
- pointOfOrder
- adjournment
- debateSection.

Each of these containers can include the following elements:

- speechGroup: group of speeches in the dialogue;
- speech: speech dialogue;
- question: question dialogue;
- answer: answer dialogue;
- other: other dialogue;
- scene: description of some action performed inside of the assembly like applause, shouting, crying, etc.;
- narrative: narrative part of what happened in the assembly;
- summary: summary of an event like the result of a voting.

In case it is necessary we have also inline element <remark> for making up the type of annotation: "sceneDescription" (e.g. the minority party leaves the room shouting out), "phenomenon" (e.g. raining), "caption", "translation" (e.g. [Bab' uNkwinti, are you going to say it in Afrikaans?]).

An example of fragment of debate is blow presented.

```
<debate name="record">
   <meta>...</meta>
```

```
      <coverPage>...</coverPage>
      <preface>...</preface>
      <debateBody>
        <debateSection eId="dbsect_1" name="Preliminary">
           <rollCall eId="dbsect_1__rollCall_1">...</rollCall>
           <prayers eId="dbsect_1__prayers_1">...</prayers>
        </debateSection>
        <debateSection eId="dbsect_2" name="Actas">
           <speech eId="dbsect_2__speech_1" by="#Ascencio">
              <from>El señor ASCENCIO (Presidente).- </from>
                 <p>      El señor Secretario dará lectura a los pareos.
                 <remark type="sceneDescription">(Aplausos)</remark>.</p>
                                              .....
           </speech>
           <narrative eId="dbsect_2__narrative_1" >-Con posterioridad, la Sala se pronunció sobre el
proyecto en los siguientes términos:</narrative>
           <summary eId="dbsect_2__summary_1" >
              <outcome refersTo="#seAbstiene">   -Se abstuvieron los diputados señores:
              <vote by="#persona">
                    <person eId="p3517" refersTo="#GalileaVidaurreJoseAntonio">Galilea Vidaurre José
Antonio;</person>
              </vote>
              </outcome>
           </summary>
           <scene eId="dbsect_2__scene_1" >-Aplausos.</scene>
        </debateSection>
      <debateBody>
</debate>
```

6.5 Amendment Structure

The amendment structure is dedicated to modelling particular official documents that provide instructions or proposals for modifications to a bill.

Example: amendment of the European Parliament on a proposal from the Commission can be marked as following.

```
<amendment name="amendment">
  <meta>
    <identification source=""> ... </identification>

    <analysis source="http://www.europarl.europa.eu/">
     <activeModifications>
      <textualMod eId="textualMod_1" type="substitution">
       <source href="#mod_1__qstr_2__rec_3"/>
       <destination href="uri:COM proposal/bill(Expression)]#rec_3"/>
      </textualMod>
     </activeModifications>
    </analysis>

    <references source="http://www.europarl.europa.eu/">
      <TLCConcept eId="concept-content-current" href="/concept/content/current"
        showAs="original version of amended fragment"/>
      <TLCConcept eId="concept-content-proposed" href="/concept/content/proposed"
        showAs="proposed version of amended fragment"/>
      <TLCPerson eId="codict_person-id-96835" href="eu.europa.europarl.codict:person/id=96835"
        showAs="Traian Ungureanu"/>
      <TLCPerson eId="codict_person-id-96832" href="eu.europa.europarl.codict:person/id=96832"
```

```
          showAs="Pascale Gruny"/>
      </references>
   </meta>
   <preface>
     <container eId="preface__container_1" name="mainDoc">
        <p xml:space="preserve"><docIntroducer><person eId="preface__container_1__person_1"
refersTo="#codict_person-id-96835">Traian Ungureanu</person> and <person
eId="preface__container_1__person_2" refersTo="#codict_person-id-96832">Pascale
Gruny</person></docIntroducer></p>
     </container>
   </preface>

   <amendmentBody>
    <amendmentHeading>
     <block name="amendedAct" xml:space="preserve"><docType>Proposal for a
decision</docType> - amending act</block>
        <block name="amendedAct" xml:space="preserve"><inline name="AMposition">Recital
3</inline></block>
   </amendmentHeading>
   <amendmentContent>
     <block name="versionTitle" refersTo="#concept-content-current">Text proposed by the
        Commission</block>
     <block name="versionTitle" refersTo="#concept-content-proposed">Amendment</block>
     <block name="changeBlock">
        <mod eId="mod_1" refersTo="#textualMod_1">
          <quotedStructure eId="mod_1__qstr_1" refersTo="#concept-content-current">
            <recital eId="mod_1__qstr_1__rec_3">
              <num>(3)</num>
              <p xml:space="preserve">In line with the Inter-institutional agreement of <date
date="2006-05-17">17 May 2006</date> between the European Parliament, the Council and the
Commission on budgetary discipline and sound financial management, <change>EUR 100 million
needs to be reallocated from the existing budget to finance</change> the new European microfinance
facility <change>for employment and social inclusion – Progress</change></p>
            </recital>
          </quotedStructure>
          <quotedStructure eId="mod_1__qstr_2" refersTo="#concept-content-proposed">
            <recital eId="mod_1__qstr_2__rec_3">
              <num>(3)</num>
              <p xml:space="preserve">In line with the Inter-institutional agreement of <date
date="2006-05-17">17 May 2006</date> between the European Parliament, the Council and the
Commission on budgetary discipline and sound financial management, <change>in the event that no
additional appropriations are allocated, then</change> the new European microfinance facility
<change>should be financed by reallocating resources from other budgetary sources.</change></p>
            </recital>
          </quotedStructure>
        </mod>
     </block>
   </amendmentContent>

   <amendmentJustification>
    <block name="justificationHeading">Justification</block>
    <p xml:space="preserve">Due to the present financial situation there is a clear need to find the
best financial solution for the new instrument. From this poin of view, there should be
furtherconsultations to find the optimal solution in order for the facility to deliver to its aims.</p>
   </amendmentJustification>
   </amendmentBody>
```

```
</amendment>
```

6.6 Judgment Structure

The Judgment structure is dedicated to case-law, precedents, and judiciary decisions.

The structure of those documents varies greatly without a common template, especially the metadata are complex and with a great diversity in each legal tradition and judicial system.

The main legal part of the judgment <judgmentBody> and it is divided in <background>, <introduction>, <motivation>, <decision> containers.

We have also particular inline elements used in the judiciary system:

- `<docJurisdiction></docJurisdiction>` for marking up the jurisdiction of the case-law;
- `<docketNumber></docketNumber>` for marking up number of the trial;
- `<neutralCitation>` for marking up the number assigned by the number used for hamonized the citations in a given judiciaty system (e.g. [2008] ZASCA 134);
- `<party refersTo=""></party>` for marking up the party;
- `<lawyer refersTo=""></lawyer>` for marking up the lawyer;
- `<judge refersTo=""></judge>` for marking up the judge;
- `<opinion>` for marking up the opinion of each judge;
- `<argument></argument>` for marking up the argument sentences for supporting the judge's legal argumentation and reasoning.

Some relevant metadata are included in the <judicial> metadata block for modelling citations to other legal sources and result of the judgment.

An example of fragment of judgment is blow presented.

```
<judgment name="decision">
            <meta>
                    <identification source="#somebody"></identification>
                    <publication date="2008-11-30" name="Law Report" showAs="Law Report
Office Journal" number="555"/>
                    <classification source="#somebody"></classification>
                    <lifecycle source="#somebody">
                            <eventRef date="2008-11-26" eId="eref_1" source="#ro_1"
type="generation"/>
                    </lifecycle>
                    <workflow source="#somebody">
                            <step date="2007-08-23" eId="step_1" outcome="#outcome_1"
by="#chamber "/>
                            <step date="2008-11-05" eId=" step_2" outcome="#outcome_1"
by="# senate"/>
                    </workflow>
                    <analysis source="#somebody">
                            <judicial>
                                    <result type="deny"/>
                                    <applies eId="applies_1">
                                            <source href="#ref_11"/>
                                            <destination
href="/za/judgment/SA491/eng@!main.xml"/>
                                    </applies>
                                    <supports eId="supports_1">
                                            <source href="#ref_12"/>
                                            <destination
href="/za/judgment/SA490/eng@/!main.xml~par12"/>
                                    </supports>
```

```
                </judicial>
            </analysis>
            <references source="#somebody"></references>
        </meta>
        <header>
            <p>
                <party refersTo=""></party>
                <lawyer refersTo=""></lawyer>
                <judge refersTo=""></judge>
            </p>
        </header>
        <judgmentBody>
            <background></background>
            <introduction></introduction>
            <motivation></motivation>
            <decision></decision>
        </judgmentBody>
        <conclusions></conclusions>
    </judgment>
</akomaNtoso>
```

6.7 Open Structure

A document is text devoid of any specific structure. Examples include annexes, tables, schedules, informative material, letters, and memorandums.

Name	Definition	Structure
DOCUMENT	A document is any valid text for which there is no specific structure or document type.	Texts having an open structure. The main body of the text is the main content.

An example of usage of the general document is presented below. It is an annex that has no particular structure.

| **Appendix 1** **OFFICIALS FROM THE DEPARTMENT OF DEFENCE** Mr. January (Secretary of Defence and Director General of the Department) Mr. February (Deputy Director General and Chief Director of Policy and Planning) Lieutenant General March (SANDF Chief: Corporate Staff) | `<preface>`
`  <p class="heading">`
`    <docType>APPENDIX 1</docType>`
`    <docTitle>OFFICIALS FROM THE DEPARTMENT OF DEFENCE`
`    </docTitle>`
`  </p>`
`</preface>`
`<mainBody>`
`  <container eId="container_1" name="members" class="memberslist">`
`    <ol eId="container_1__ol_1">`
`      <li eId="container_1__ol_1__li_1"> Mr January (Secretary for Defence and Director General of the Department)</li>`
`        <li eId="container_1__ol_1__li_2>Mr Feruray (Deputy Director General and Chief Director Policy and Planning)</li>` |

	`<li eId="container_1__ol_1__li_3">Lieutenant General March </span>(SANDF Chief: Corporate Staff)</li>`
	`    </ol>`
	`  </container>`

1. Introduction The Portfolio Committee on Defence considered the 2007/2008 Budget of the Department of Defence on 22–23 March 2007 as part of its oversight function over the Department of Defence. The report is based on both the budget hearings held on 22 March 2007 as well as the committee deliberations held on 23 March 2007.	`<hcontainer eId="hcontainer_1" name="issue">` `  <num>1. </num>` `  <heading>Introduction</heading>` `  <paragraph eId="hcontainer_1__para_1">` `    <content>` ` The Portfolio Committee on Defence considered the 2007/2008 Budget of the Department of Defence on 22 -23 March 2007, as part of its oversight function over the Department of Defence. The report is based on both the budget hearings held on 22 March 2007 as well as the committee deliberations on 23 March 2007.` ` ` ` </content>` ` </paragraph>` `</hcontainer>` `</mainBody>`

6.8 Portion Structure

The Portion Structure is a particular template which permits modelling a portion of the normative part of a document, at the level of the manifestation. It is a pure technical split. Once modelled, it is possible to refer to the portion inside of another Akoma Ntoso document using the `<componentRef>` element. This is useful for fragmenting a very long document and for facilitating legal drafting and document management.

A typical example could be the US Code composed by different titles that are autonomous works. For the code, we could define this:

```
<collectionBody>
        <component><documentRef href="uri/title1.xml" /></component>
        <component><documentRef href="uri/title2.xml" /></component>
        <component><documentRef href="uri/title3.xml" /></component>
</collectionBody>
```

Each title is composed by several long chapters. We can use `<componentRef>` combined with `<portion>` for better managing the length of the whole document.

```
<act>
….<meta>…</meta>
….<body>
…….…..<componentRef showAs="" src="/akn/us/usc/title_9/eng@2013-07-26/!main ~chp_1.xml"/>
…….…..<componentRef showAs="" src="/akn/us/usc/ title_9/eng@2013-07-26/!main ~chp_2.xml"/>
…….…..<componentRef showAs="" src="/akn/us/usc/title_9/eng@2013-07-26/!main ~chp_3.xml"/>
 omissis
….</body>
```

```
</act>
```

In this case, the chapter 3 content is outside the document containing the title 9. The chapter has its own meta data block (FRBRManifestation only inside of the FRBR block because the rest FRBRWork and FRBRExpression are the same of the title_9 document) but it is not necessary to have a preface, preamble, or annexes, only `<portionBody>`. Note that the name of the Manifestation is `<FRBRuri value="/akn/us/usc/title_9/eng@2013-07-26/!main~chp_3.xml"/>` and in the FRBRManifestation block it is possible to specify also the portion with `<FRBRportion from="chp_3" />`. In case of interval, (e.g. from chapter 3 to chapter 5) we also use the attribute upTo="chp_5" to specify the end of the interval.

```
    <portion includedIn="/akn/us/act/title_9">
      <meta>
        <identification source="#vergottini">
          <FRBRWork>
            <FRBRthis value="/akn/us/usc/title_9/!main"/>
            <FRBRuri value="/akn/us/usc/title_9/"/>
            <FRBRdate date="1947-07-30" name="Title 9"/>
            <FRBRauthor href="#olrc" as="#author"/>
            <FRBRcountry value="us"/>
            <FRBRsubtype value="title"/>
            <FRBRnumber value="title_9"/>
            <FRBRname value="title"/>
            <FRBRprescriptive value="false"/>
            <FRBRauthoritative value="true"/>
          </FRBRWork>
          <FRBRExpression>
            <FRBRthis value="/akn/us/usc/eng@2013-07-26/title_9/!main"/>
            <FRBRuri value="/akn/us/usc/eng@2013-07-26/title_9/"/>
            <FRBRdate date="2013-07-26" name="Chapter 3 of Title 9 (July 26, 2013)"/>
            <FRBRauthor href="#olrc" as="#editor"/>
            <FRBRlanguage language="eng"/>
          </FRBRExpression>
          <FRBRManifestation>
            <FRBRthis value="/akn/us/usc/ title_9/eng@2013-07-26/!main ~chp_3.xml"/>
            <FRBRuri value="/ akn/us/usc/ title_9/eng@2013-07-26/!main~chp_3.akn"/>
            <FRBRdate date="2014-10-07" name="Chapter 3 of Title 9 (July 26, 2013) -- XML
Markup"/>
            <FRBRauthor href="#vergottini" as="generator"/>
            <FRBRportion from="#chp_3" />
          </FRBRManifestation>
        </identification>
        <references source="#vergottini">
          <original eId="title_9" href="/akn/us/usc/title_9" showAs="Title 9"/>
          <TLCRole eId="secretaryOfState" href="/akn/us/ontology/role/secretaryOfState"
showAs="Secretary of State"/>
          <TLCRole eId="drafter" href="/akn/us/ontology/role/drafter" showAs="Drafter"/>
          <TLCRole eId="editor" href="/akn/us/ontology/role/editor" showAs="Editor"/>
          <TLCRole eId="generator" href="/akn/us/ontology/role/generator" showAs="Generator"/>
          <TLCOrganization
href="/akn/us/ontology/organization/interAmericanCommercialArbitrationCommission" showAs="Inter-
American Commercial Arbitration Commission"/>
          <TLCOrganization eId="house" href="/akn/us/ontology/organization/house" showAs="U.S.
House of Representatives"/>
          <TLCOrganization eId="olrc" href="/akn/us/ontology/organization/olrc" showAs="Office of the
Law Revision Counsel"/>
```

```xml
                <TLCPerson eId="vergottini" href="/akn/us/ontology/person/somebody" showAs="Grant
Vergottini"/>
          </references>
      </meta>
      <portionBody>
          <chapter GUID="idd1d2ae15-f639-11e2-8470-abc29ba29c4d" eId="chp_3">
              <num>CHAPTER 3—</num>
              <heading>INTER-AMERICAN CONVENTION ON INTERNATIONAL COMMERCIAL
ARBITRATION</heading>
                  <intro>
                     <toc>
                         <tocItem href="" level="1">
                             <span>Sec.</span>
                         </tocItem>
                         <tocItem href="#sec_301" level="1">
                             <span>301.</span>
                             <span>Enforcement of Convention.</span>
                         </tocItem>
                         <tocItem href="#sec_302" level="1">
                             <span>302.</span>
                             <span>Incorporation by reference.</span>
                         </tocItem>
                         <tocItem href="#sec_303" level="1">
                             <span>303.</span>
                             <span>Order to compel arbitration; appointment of arbitrators; locale.</span>
                         </tocItem>
                         <tocItem href="#sec_304" level="1">
                             <span>304.</span>
                             <span>Recognition and enforcement of foreign arbitral decisions and awards;
reciprocity.</span>
                         </tocItem>
                         <tocItem href="#sec_305" level="1">
                             <span>305.</span>
                             <span> Relationship between the <ref href="/akn/us/act/1975__b_35/eng@1975-01-
30">Inter-American Convention</ref> and the  <ref href="/akn/un/act/1958NYConvention/eng@1958-
06-10">Convention on the Recognition and Enforcement of Foreign Arbitral Awards of June 10,
1958</ref>. </span>
                         </tocItem>
                         <tocItem href="#sec_306" level="1">
                             <span>306.</span>
                             <span>Applicable rules of <organization
refersTo="#interAmericanCommercialArbitationCommission">Inter-American Commercial Arbitration
Commission</organization>.</span>
                         </tocItem>
                         <tocItem href="#sec_307" level="1">
                             <span>307.</span>
                             <span>Chapter 1; residual application.</span>
                         </tocItem>
                     </toc>
                  </intro>
              <section GUID="idd1d2d527-f639-11e2-8470-abc29ba29c4d" eId="sec_301">
                  <num>§ 301.</num>
                  <heading> Enforcement of Convention</heading>
                  <content>
                      <p> The <ref href="/akn/us/act/1975__b_35/eng@1975-01-30">Inter-American
Convention on International Commercial Arbitration of January 30, 1975</ref>, shall be enforced in
United States courts in accordance with this
```

```
            <ref href="#chp_3">chapter</ref>. </p>
            <block name="sourceCredit">(Added <ref href="/akn/us/act/pl_101/369/eng@1990-08-
15/~sec_1">Pub. L. 101–369, § 1 , Aug.
            15, 1990</ref> , <ref href="/akn/us/act/stat_104/448">104 Stat. 448</ref> .) </block>
        </content>
    </section>
    <section GUID="idd1d2d52a-f639-11e2-8470-abc29ba29c4d" eId="sec_302">
        <num>§ 302.</num>
        <heading> Incorporation by reference</heading>
        <content>
            <p><mref>Sections <ref href="/akn/us/act/title_9/!main ~sec_202">202</ref>, <ref
href="/akn/us/act/title_9/!main ~sec_203">203</ref>, <ref href="/akn/us/act/title_9/!main
~sec_204">204</ref>, <ref href="/akn/us/act/title_9/~sec_205">205</ref>, and <ref
href="/akn/us/act/title_9/!main ~sec_207">207</ref> of this title</mref> shall apply to this chapter as if
specifically set forth herein, except that for the purposes of this chapter "the Convention" shall mean
the Inter-American
            Convention.</p>
            <block name="sourceCredit"> (Added <ref href="/akn/us/act/pl_101/369/eng@1990-08-
15/!main ~sec_1">Pub. L. 101–369, § 1 , Aug.
            15, 1990</ref> , <ref href="/akn/us/act/stat_104/448">104 Stat. 448</ref> .) </block>
        </content>
    </section>
    <section GUID="idd1d2fc3c-f639-11e2-8470-abc29ba29c4d" eId="sec_303">
        <num>§ 303.</num>
        <heading> Order to compel arbitration; appointment of arbitrators; locale</heading>
        <subsection GUID="idd1d2fc3d-f639-11e2-8470-abc29ba29c4d"
eId="sec_303__subsec_a">
            <num >(a)</num>
            <content>
                <p> A court having jurisdiction under this chapter may direct that arbitration be held in
accordance with the agreement at any place therein provided for, whether that place is within or
without the United States. The court may also appoint
                arbitrators in accordance with the provisions of the agreement.</p>
            </content>
        </subsection>
        <subsection GUID="idd1d2fc3e-f639-11e2-8470-abc29ba29c4d"
eId="sec_303__subsec_b">
            <num >(b)</num>
            <content>

                <p> In the event the agreement does not make provision for the place of arbitration or
the appointment of arbitrators, the court shall direct that the arbitration shall be held and the arbitrators
be appointed in accordance with <ref href="/akn/us/act/1975__b_35/eng@1975-01-30/!main
~art_3">Article 3 of the
                Inter-American Convention</ref>.</p>
            </content>
        </subsection>
    </section>
    <section GUID="idd1d2fc40-f639-11e2-8470-abc29ba29c4d" eId="sec_304">
        <num>§ 304.</num>
        <heading> Recognition and enforcement of foreign arbitral decisions and awards;
reciprocity</heading>
        <content>
            <p>Arbitral decisions or awards made in the territory of a foreign State shall, on the
basis of reciprocity, be recognized and enforced under this chapter only if that State has ratified or
acceded to the
```

```
                    <ref href="/akn/us/act/1975__b_35/eng@1975-01-30">Inter-American
Convention</ref>.</p>
                <block name="sourceCredit"> (Added <ref  href="/akn/us/act/pl_101/369/eng@1990-
08-15/!main ~sec_1">Pub. L. 101–369, § 1 , Aug.
                15, 1990</ref> , <ref href="/akn/us/act/stat_104/449">104 Stat. 449</ref> .) </block>
            </content>
        </section>
        <section GUID="idd1d32352-f639-11e2-8470-abc29ba29c4d" eId="sec_305">
            <num>§ 305.</num>
            <heading>Relationship between the <ref href="/akn/us/act/1975__b_35/eng@1975-01-
30">Inter-American Convention</ref> and the  <ref href="/akn/un/act/1958NYConvention/eng@1958-
06-10">Convention on the Recognition and Enforcement of Foreign Arbitral Awards of June 10,
1958</ref>
            </heading>
            <intro>
                <p> When the requirements for application of both the <ref
href="/akn/us/act/1975__b_35/eng@1975-01-30">Inter-American Convention</ref> and the  <ref
href="/akn/un/act/1958NYConvention/eng@1958-06-10">Convention on the Recognition and
Enforcement of Foreign Arbitral Awards of June 10, 1958</ref>, are met,
                determination as to which Convention applies shall, unless otherwise expressly
agreed, be made as follows: </p>
            </intro>
            <paragraph GUID="idd1d32353-f639-11e2-8470-abc29ba29c4d"
eId="sec_305__para_1">
                <num>(1)</num>
                <content>
                    <p> If a majority of the parties to the arbitration agreement are citizens of a State or
States that have ratified or acceded to the Inter-American Convention and are member States of the
Organization of American States, the Inter-American
                    Convention shall apply.</p>
                </content>
            </paragraph>
            <paragraph GUID="idd1d32354-f639-11e2-8470-abc29ba29c4d"
eId="sec_305__para_2">
                <num>(2)</num>
                <content>
                    <p> In all other cases the <ref href="/akn/un/act/1958NYConvention/eng@1958-06-
10">Convention on the Recognition and Enforcement of Foreign Arbitral Awards of June 10,
1958</ref>, shall apply. </p>
                </content>
            </paragraph>
        </section>
        <section GUID="idd1d32356-f639-11e2-8470-abc29ba29c4d" eId="sec_306">
            <num>§ 306.</num>
            <heading> Applicable rules of <organization
refersTo="#interAmericanCommercialArbitationCommission">Inter-American Commercial Arbitration
Commission</organization></heading>
            <subsection GUID="idd1d34a67-f639-11e2-8470-abc29ba29c4d"
eId="sec_306__subsec_a">
                <num >(a)</num>
                <content>
                    <p> For the purposes of this <ref href="#chp_3">chapter</ref> the rules of procedure
of the  <organization refersTo="#interAmericanCommercialArbitationCommission">Inter-American
Commercial Arbitration Commission</organization> referred to in <ref
href="/akn/us/act/1975__b_35/!main~art_3">Article 3 of the Inter-American Convention</ref> shall,
subject to <ref href="#sec_306__subsec_b">subsection (b) of this section</ref>, be those rules as
```

```
                promulgated by the <organization
refersTo="#interAmericanCommercialArbitationCommission">Commission</organization> on <date
date="1988-07-01">July 1, 1988</date> . </p>
                </content>
            </subsection>
            <subsection GUID="idd1d34a68-f639-11e2-8470-abc29ba29c4d"
eId="sec_306__subsec_b">
                <num >(b)</num>
                <content>
                    <p> In the event the rules of procedure of the  <organization
refersTo="#interAmericanCommercialArbitationCommission">Inter-American Commercial Arbitration
Commission</organization> are modified or amended in accordance with the procedures for
amendment of the rules of that Commission, the <role refersTo="#secretaryOfState">Secretary of
State</role>, by regulation in
                        accordance with <ref href="/akn/us/act/title_5/!main ~sec_553">section 553 of title
5</ref>, consistent with the aims and purposes of this Convention, may prescribe that such
modifications or amendments shall be effective for purposes of this <ref href="#chp_3">chapter</ref>.
</p>
                </content>
            </subsection>
        </section>
        <section GUID="idd1d34a6a-f639-11e2-8470-abc29ba29c4d" eId="sec_307">
            <num>§ 307.</num>
            <heading> <ref href="/akn/us/act/title_9/!main ~chp_1">Chapter 1</ref>; residual
application</heading>
            <content>
                <p><ref href="/akn/us/act/title_9/!main ~chp_1">Chapter 1</ref> applies to actions and
proceedings brought under this <ref href="/akn/us/act/title_9/~chp_3">chapter</ref> to the extent <ref
href="/akn/us/act/title_9/!main ~chp_1">chapter 1</ref> is not in conflict with this <ref
href="/akn/us/act/title_9/!main ~chp_3">chapter</ref> or the <ref
href="/akn/us/act/1975__b_35/eng@1975-01-30">Inter-American Convention</ref> as ratified by the
United States.</p>
                <block name="sourceCredit"> (Added <ref href="/akn/us/act/pl_101/369/eng@1990-08-
15/~sec_1">Pub. L. 101–369, § 1 , Aug.
                    15, 1990</ref>, <ref href="/akn/us/act/stat_104/449">104 Stat. 449</ref> .) </block>
            </content>
        </section>
    </chapter>
  </portionBody>
</portion>
```

7 Levels of Compliance (Non-Normative)

Akoma Ntoso is a rich standard so it is possible to apply it at different levels of compliance.

Structure and URIs/IRIs	sublevel A	Sublevel B	Sublevel C	Sublevel D
Level 1 uses the document structure defined in the Akoma Ntoso specifications (e.g., preface, preamble, body, conclusion, annexes) for the source as defined in the chapter 8 of this document (conformance).	basic metadata are added	normative references are used	advanced metadata are added	semantic elements are added
Level 2 uses the document structure and naming convention of URI/IRI (FRBR metadata) and the IDs according to the AKN naming convention as defined in Akoma Ntoso Naming Convention Version 1.0, chapter 4 and 5, or any functionally-equivalent Naming Convention as defined in Akoma Ntoso Naming Convention Version 1.0, section 4.12.	basic metadata are added	normative references are used	advanced metadata are added	semantic elements are added

To help bodies find the most suitable subset of the Akoma Ntoso XML schema for their needs and requirements, a web service has been created to generate custom sub-schema, that can be accessed from http://akn.web.cs.unibo.it/aknssg/aknssg.html. Basic metadata correspond to sections:

1. `<identification>` part with the FRBR;
2. `<publication>` part where it makes sense;
3. Normative references correspond to all elements using attributes href.

Advanced metadata correspond to elements:

1. `<lifecycle>` part;
2. `<analysis>` part;

3. `<workflow>` part;

4. `<references>` part.

Semantic elements are to elements:

```
<date><time> <person> <organization> <concept> <object> <event> <location>
<process> <role> <term>< quantity> <def><remark> <recordedTime> <vote>
<outcome> <ins>  <del>  <omissis> <placeholder> <fillIn <decoration>
<docType> <docTitle> <docNumber <docProponent> <docDate> <legislature>
<session> <shortTitle> <docAuthority> <docPurpose> <docCommittee>
<docIntroducer> <docStage> <docStatus> <docJurisdiction> <docketNumber>
<courtType> <neutralCitation> <party> <judge> <lawyer> <signature> <opinion>
<argument>
```

8 Conformance

Conformance clauses for Akoma Ntoso Version 1.0 can be found in *Akoma Ntoso Version 1.0. Part 2: Specifications*, Section 3 Conformance.

(THIS IS INTENDED IN PART 2)

This chapter defines Akoma Ntoso conformance clauses.

1. an XML source is compliant with the Akoma Ntoso specifications in level 1 if

    1. The XML source IS valid against the XML schema: http://docs.oasis-open.org/legaldocml/ns/akn/3.0/xxx;

2. an XML source is compliant with the Akoma Ntoso specifications in level 2 if it is compliant at level 1 and if

    1. The values of the eId and wId attributes follows the Akoma Ntoso naming convention as formulated in chapters 4 and 5 of this document;

    2. The values of the FRBRuri and FBRRthis elements follows the specification detailed in chapter 4 of the Akoma Ntoso Naming Convention Version 1.0 or any functionally equivalent naming convention as detailed in chapter 4.12 of the Akoma Ntoso Naming Convention Version 1.0;

    3. The values of the href and src attributes in ALL elements (except <a>) follows the specifications detailed in chapter 4 and 5 of the Akoma Ntoso Naming Convention Version 1.0 or any functionally equivalent naming convention as detailed in chapter 4.12 of the Akoma Ntoso Naming Convention Version 1.0.

Appendix A. Acknowledgments

The following individuals have participated in the creation of this specification and are gratefully acknowledged:

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Appendix B. Revision History

Revision	Date	Editor	Changes Made
[01]	[06 February 2013]	[Monica Palmirani]	[Editing of the first version]
[02]	[22 March 2013]	[Roger Sperberg]	[English revision]
[03]	[30 October 2013]	[Grant Vergottini]	[Inclusion of the sessions 2]
[04]	[20 May 2014]	[Veronique Parisse]	[Inclusion of the sessions 7]
[05]	[27 August 2014]	[Monica Palmirani]	[Formatting and inclusion of sessions 5.7]
[06]	[4 September 2014]	[Grant Vergottini]	[English revision]
[07]	[5 September 2014]	[Veronique Parisse]	[Revision of the content and some additional editing]
[08]	[5 September 2014]	[Monica Palmirani]	[Inclusion of examples 6.4 and 6.6, some other information concerning the structure of the partitions.]
[09]	[9 September 2014]	[Monica Palmirani]	[Inclusion of some comments from the Summer School LEX2014 brain storming.]
[10]	[17 September 2014]	[Veronique Parisse]	[Minor errors in the syntax examples]
[11]	[22 December 2014]	[Monica Palmirani]	[Updating of the number of the CSD11 into CSD12 and the date]
[12]	[08 January 2015]	[Monica Palmirani]	[Updating the content according with the CSD13]
[13]	[12 January 2015]	[Grant Vergottini]	[English revision paragraph 6.7]
[14]	[13 January 2015]	[Veronique Parisse	[some typos in the eld and some inclusion of tilde syntax in the internal and external uri]
[15]	[14 January 2015]	[Jeason Wemer]	[editorial revision]
[16]	[14 January 2015]	[Monica Palmirani]	[consolidation of all the revisions]
[17]	[02 July 2015]	[Monica Palmirani]	[consolidation of some comments]

[18]	[17 December 2015]	[Monica Palmirani]	
[19]	[23 December 2015]	[Grant Vergottini]	[English revision of latest edits]
[20]	[31 March 2016]	[Monica Palmirani]	[New part related presentation, proprietary, preservation, foreign, ELI/ECLI/URN:LEX]
[21]	[22 September 2016]	[Monica Palmirani]	Conformance Rules
[22]	[9 October 2016]	[Ashok Hariharan]	Linguistic revision
[23]	[11 January 2017]	[Monica Palmirani]	Final revision
[24]	[18 January 2017]	[Monica Palmirani]	Inclusion of comments coming from Flavio Zeni (UN), Maria Kardami (European OP), Veronique Parisse, Pascalina Psyrra (European Dynamics SA)
[25]	[1 February 2017]	[Monica Palmirani]	Inclusion of comments coming from Veronique Parisse, Thomas Uttenthaler (European Dynamics SA), Anders R. Thorbeck (Knowit)
[26]	[24 March 2017]	[Monica Palmirani, Fabio Vitali]	Inclusion of better definitions of <documentRef> and <componentRef>, correction of typos in <lifecycle> definition. Comments coming from Ashok Heriharan, Monica Palmirani, Fabio Vitali, Flavio Zeni (UN).
[27]	[4 April 2017]	[Veronique Parisse, Monica Palmirani]	Modification of this sentence "Attachments can also be another act or international agreement that is approved by this act." into the following "Attachments or others types of Components can also be another act or international agreement that is approved by this act."
[28]	[17 May 2017]	[Monica Palmirani]	Modification of 4.3.3 for a typos. Modification of 5.6 for a typos. Modified the namespace http://docs.oasis-open.org/legaldocml/ns/akn/3.0