

The TEI universe: an overview of the TEI Guidelines

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P5: Guidelines for Electronic Text Encoding and Interchange

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TEI Guidelines: Back Matter

- A. Model Classes
- B. Attribute Classes
- C. Elements
- D. Attributes
- E. Datatypes and Other Macros

iv. About These Guidelines

This is an initial chapter explaining the notation, background, and future development of the Guidelines

Sections include:

- Structure and Notational Conventions of this Document
- Historical Background
- Future Developments and Version Numbers

v. A Gentle Introduction to XML

This chapter is a must-read for those still confused by XML markup. It informally introduces some of its basic XML concepts and attempt to explain to the reader encountering them for the first time how and why they are used in the TEI scheme.

Sections include:

- What's Special about XML?
- Textual Structures
- XML Structures
- Complicating the Issue
- Attributes
- Other Components of an XML Document
- Putting It All Together

vi. Languages and Character Sets

The documents which users of these Guidelines may wish to encode encompass all kinds of material, potentially expressed in the full range of written and spoken human languages, including the extinct, the non-existent, and the conjectural. Because of this wide scope, special attention has been paid to two particular aspects of the representation of linguistic information often taken for granted: language identification, and character encoding.

Sections include:

- Language Identification
- Characters and Character Sets

1. The TEI Infrastructure

This chapter describes the infrastructure for the encoding scheme defined by these Guidelines. It introduces the conceptual framework within which the following chapters are to be understood, and the means by which that conceptual framework is implemented.

Sections include:

- TEI Modules
- Defining a TEI Schema
- The TEI Class System
- Macros
- The TEI Infrastructure Module

1. The TEI Infrastructure -- Elements

Elements Defined: None! But it does define a variety of classes, and the way modules and classes inter-relate.

2. The TEI Header

This chapter addresses the problems of describing an encoded work so that the text itself, its source, its encoding, and its revisions are all thoroughly documented.

Sections include:

- Organization of the TEI Header
- The File Description
- The Encoding Description
- The Profile Description
- The Revision Description
- Minimal and Recommended Headers
- Note for Library Cataloguers
- The TEI Header Module

2. The TEI Header -- Elements

Elements Defined: <abstract>, <appInfo>, <application>, <authority>, <availability>, <biblFull>, <cRefPattern>, <calendar>, <calendarDesc>, <catDesc>, <catRef>, <category>, <change>, <classCode>, <classDecl>, <correction>, <creation>, <distributor>, <edition>, <editionStmt>, <editorialDecl>, <encodingDesc>, <extent>, <fileDesc>, <funder>, <geoDecl>, <handNote>, <hyphenation>, <idno>, <interpretation>, <keywords>, <langUsage>, <language>, <licence>, <listPrefixDef>, <namespace>, <normalization>, <notesStmt>, <prefixDef>, <principal>, <profileDesc>, <projectDesc>, <publicationStmt>, <quotation>, <refState>, <refsDecl>, <rendition>, <revisionDesc>, <samplingDecl>, <segmentation>, <seriesStmt>, <sourceDesc>, <sponsor>, <stdVals>, <styleDefDecl>, <tagUsage>, <tagsDecl>, <taxonomy>, <teiHeader>, <textClass>, <titleStmt>

2. The TEI Header -- Example

```
<teiHeader>
  <fileDesc>
    <titleStmt>
      <title>
        <!-- title of the resource -->
      </title>
    </titleStmt>
    <publicationStmt>
      <p>(Information about distribution of the resource)</p>
    </publicationStmt>
    <sourceDesc>
      <p>(Information about source from which the resource
derives)</p>
    </sourceDesc>
  </fileDesc>
</teiHeader>
```

3. Elements Available in All TEI Documents

This chapter describes elements which may appear in any kind of text and the tags used to mark them in all TEI documents. Most of these elements are freely floating phrases, which can appear at any point within the textual structure, although they must generally be contained by a higher-level element of some kind (such as a paragraph).

3. Elements Available in All TEI Documents: Sections

Sections include:

- Paragraphs
- Treatment of Punctuation
- Highlighting and Quotation
- Simple Editorial Changes
- Names, Numbers, Dates, Abbreviations, and Addresses
- Simple Links and Cross-References
- Lists
- Notes, Annotation, and Indexing
- Graphics and Other Non-textual Components
- Reference Systems
- Bibliographic Citations and References
- Passages of Verse or Drama
- Overview of the Core Module

3. Elements Available in All TEI Documents -- Elements

Elements Defined: <abbr>, <add>, <addrLine>, <address>, <analytic>, <author>, <bibl>, <biblScope>, <biblStruct>, <binaryObject>, <cb>, <choice>, <cit>, <citedRange>, <corr>, <date>, , <desc>, <distinct>, <editor>, <email>, <emph>, <expan>, <foreign>, <gap>, <gb>, <gloss>, <graphic>, <head>, <headItem>, <headLabel>, <hi>, <imprint>, <index>, <item>, <l>, <label>, <lb>, <lg>, <list>, <listBibl>, <measure>, <measureGrp>, <media>, <meeting>, <mentioned>, <milestone>, <monogr>, <name>, <note>, <num>, <orig>, <p>, <pb>, <postBox>, <postCode>, <ptr>, <pubPlace>, <publisher>, <q>, <quote>, <ref>, <reg>, <relatedItem>, <resp>, <respStmt>, <rs>, <said>, <series>, <sic>, <soCalled>, <sp>, <speaker>, <stage>, <street>, <term>, <time>, <title>, <unclear>

3. Elements Available in All TEI Documents -- Example

```
<p>I fully appreciate Gen. Pope's splendid achievements with  
their invaluable results; but you must know that Major  
Generalships in the Regular Army, are not as plenty as  
blackberries.</p>
```

3. Elements Available in All TEI Documents -- Example

John eats a `<foreign xml:lang="fr">croissant</foreign>` every morning.

`<mentioned xml:lang="fr">Croissant</mentioned>` is difficult to pronounce with your mouth full.

A `<term xml:lang="fr">croissant</term>` is a crescent-shaped piece of light, buttery, pastry that is usually eaten for breakfast, especially in France.

3. Elements Available in All TEI Documents -- Example

An `<choice>`
 `<corr cert="high">Autumn</corr>`
 `<sic>Antony</sic>`
`</choice>` it was, That grew the more by reaping

the `<choice>`
 `<expan>World Wide Web Consortium</expan>`
 `<abbr>W3C</abbr>`
`</choice>`

...how godly a `<choice>`
 `<orig>dede</orig>`
 `<reg>deed</reg>`
`</choice>` it is to overthrow...

3. Elements Available in All TEI Documents -- Example

```
<address>  
  <name type="org">Università di Bologna</name>  
  <name type="country">Italy</name>  
  <postCode>40126</postCode>  
  <name type="city">Bologna</name>  
  <street>via Marsala 24</street>  
</address>
```

3. Elements Available in All TEI Documents -- Example

```
<date when="1980-02-12">12/2/1980</date>
```

```
<date notBefore="1400-01-01" notAfter="1499-12-31"> 15th C.  
</date>
```

3. Elements Available in All TEI Documents -- Example

```
<lg>  
  <l>The self-same moment I could pray</l>  
  <l>And from my neck so free</l>  
  <l>The albatross fell off, and sank</l>  
  <l>Like lead into the sea.</l>  
  <label place="margin">The spell begins to break</label>  
</lg>
```

4. Default Text Structure

This chapter describes the default high-level structure for TEI documents. A full TEI document combines metadata describing it, represented by a `teiHeader` element, with the document itself, represented by a `text` element.

Sections include:

- Divisions of the Body
- Elements Common to All Divisions
- Grouped and Floating Texts
- Virtual Divisions
- Front Matter
- Title Pages
- Back Matter
- Module for Default Text Structure

4. Default Text Structure -- Elements

Elements Defined: <TEI>, <argument>, <back>, <body>, <byline>, <closer>, <dateline>, <div>, <div1>, <div2>, <div3>, <div4>, <div5>, <div6>, <div7>, <divGen>, <docAuthor>, <docDate>, <docEdition>, <docImprint>, <docTitle>, <epigraph>, <floatingText>, <front>, <group>, <imprimatur>, <opener>, <postscript>, <salute>, <signed>, <teiCorpus>, <text>, <titlePage>, <titlePart>, <trailer>

4. Default Text Structure -- Example

```
<TEI xmlns="http://www.tei-c.org/ns/1.0">
  <teiHeader>
    <!-- .... -->
  </teiHeader>
  <text>
    <front>
      <!-- front matter of text, if any, goes here -->
    </front>
    <body>
      <!-- body of text, divisions, etc go here -->
    </body>
    <back>
      <!-- back matter of text, if any, goes here -->
    </back>
  </text>
</TEI>
```

5. Characters, Glyphs, and Writing Modes

Text encoders sometimes find that the published repertoire of Unicode characters is inadequate to their needs with ancient languages or recording particular variant glyph forms.

Sections include:

- Is Your Journey Really Necessary?
- Markup Constructs for Representation of Characters and Glyphs
- Annotating Characters
- Adding New Characters
- How to Use Code Points from the Private Use Area
- Writing Modes
- Examples of Different Writing Modes
- Text Rotation
- Caveat
- Formal Definition

5. Characters, Glyphs, and Writing Modes -- Elements

Elements Defined: `<char>`, `<charDecl>`, `<charName>`, `<charProp>`,
`<g>`, `<glyph>`, `<glyphName>`, `<localName>`, `<mapping>`,
`<unicodeName>`, `<value>`

5. Characters, Glyphs, and Writing Modes -- Examples

```
<charDecl>
  <glyph xml:id="z103">
    <glyphName>CAPITAL LATIN LETTER Z WITH TWO
STROKES</glyphName>
    <mapping type="standard">Z</mapping>
    <mapping type="PUA">U+E304</mapping>
  </glyph>
</charDecl>
<!-- elsewhere in transcription -->
<p>
  <g ref="#z103"/>anzibar was hot, even more than usual.
</p>
```

6. Verse

This module is intended for use when encoding texts which are entirely or predominantly in verse, and for which the elements for encoding verse structure already provided by the core module are inadequate.

Sections include:

- Structural Divisions of Verse Texts
- Components of the Verse Line
- Rhyme and Metrical Analysis
- Rhyme
- Metrical Notation Declaration
- Encoding Procedures for Other Verse Features
- Module for Verse

6. Verse -- Elements

Elements Defined: `<caesura>`, `<metDecl>`, `<metSym>`, `<rhyme>`

6. Verse -- Examples

```
<div
  type="canzone"
  met="E/E/S/E/S/E/E/S/E/S/E/S/S/E/S/E/E/S/S/E/E"
  rhyme="abbcdaccbdceeffghhhgg">
  <lg n="1" type="stanza">
    <l n="1">Doglia mi reca nello core ardire</l>
  </lg>
</div>
```

```
<metDecl type="met" pattern="((E|S)/)+">
  <metSym value="E" terminal="false">xxxxxxxxx+o</metSym>
  <metSym value="S" terminal="false">xxxxx+o</metSym>
  <metSym value="x">metrically prominent or
non-prominent</metSym>
  <metSym value="+">metrically prominent</metSym>
  <metSym value="o">optional non prominent</metSym>
  <metSym value="/">line division</metSym>
</metDecl>
```


7. Performance Texts

This module is intended for use when encoding printed dramatic texts, screen plays or radio scripts, and written transcriptions of any other form of performance.

Sections include:

- Front and Back Matter
- The Body of a Performance Text
- Other Types of Performance Text
- Module for Performance Texts

7. Performance Texts -- Elements

Elements Defined: <actor>, <camera>, <caption>, <castGroup>, <castItem>, <castList>, <epilogue>, <move>, <performance>, <prologue>, <role>, <roleDesc>, <set>, <sound>, <spGrp>, <tech>, <view>

7. Performance Texts -- Examples

```
<set>
  <p>The Scene, an un-inhabited Island.</p>
</set>
<castList>
  <head>Names of the Actors.</head>
  <castItem>Alonso, K. of Naples</castItem>
  <castItem>Sebastian, his Brother.</castItem>
  <castItem>Prospero, the right Duke of Millaine.</castItem>
</castList>
```

8. Transcriptions of Speech

The module described in this chapter is intended for use with a wide variety of transcribed spoken material.

Sections include:

- General Considerations and Overview
- Documenting the Source of Transcribed Speech
- Elements Unique to Spoken Texts
- Elements Defined Elsewhere
- Module for Transcribed Speech

8. Transcriptions of Speech -- Elements

Elements Defined: <broadcast>, <equipment>, <incident>, <kinesic>, <pause>, <recording>, <recordingStmt>, <scriptStmt>, <shift>, <u>, <vocal>, <writing>

8. Transcriptions of Speech -- Examples

```
<u who="#a">look at this</u>  
<writing who="#a" type="newspaper" gradual="false">  
Government claims economic problems <soCalled>over by  
June</soCalled>  
</writing>  
<u who="#a">what nonsense!</u>
```

9. Dictionaries

This chapter defines a module for encoding lexical resources of all kinds, in particular human-oriented monolingual and multilingual dictionaries, glossaries, and similar documents.

Sections include:

- Dictionary Body and Overall Structure
- The Structure of Dictionary Entries
- Top-level Constituents of Entries
- Headword and Pronunciation References
- Typographic and Lexical Information in Dictionary Data
- Unstructured Entries
- The Dictionary Module

9. Dictionaries -- Elements

Elements Defined: <case>, <colloc>, <def>, <dictScrap>, <entry>, <entryFree>, <etym>, <form>, <gen>, <gram>, <gramGrp>, <hom>, <hyph>, <iType>, <lang>, <lbl>, <mood>, <number>, <oRef>, <oVar>, <orth>, <pRef>, <pVar>, <per>, <pos>, <pron>, <re>, <sense>, <stress>, <subc>, <superEntry>, <syll>, <tns>, <usg>, <xr>

9. Dictionaries -- Examples

```
<entry>
  <form>
    <orth>competitor</orth>
    <hyph>com|peti|tor</hyph>
    <pron>k@m"petit@(r)</pron>
  </form>
  <gramGrp>
    <pos>n</pos>
  </gramGrp>
  <def>person who competes.</def>
</entry>
```

10. Manuscript Description

This module defines a special purpose element which can be used to provide detailed descriptive information about handwritten primary sources.

Sections include:

- Overview
- The Manuscript Description Element
- Phrase-level Elements
- The Manuscript Identifier
- The Manuscript Heading
- Intellectual Content
- Physical Description
- History
- Additional Information
- Manuscript Parts
- Module for Manuscript Description

10. Manuscript Description -- Elements

Elements Defined: <accMat>, <acquisition>, <additional>, <additions>, <adminInfo>, <altIdentifier>, <binding>, <bindingDesc>, <catchwords>, <collation>, <collection>, <colophon>, <condition>, <custEvent>, <custodialHist>, <decoDesc>, <decoNote>, <depth>, <dim>, <dimensions>, <explicit>, <filiation>, <finalRubric>, <foliation>, <handDesc>, <height>, <heraldry>, <history>, <incipit>, <institution>, <layout>, <layoutDesc>, <locus>, <locusGrp>, <material>, <msContents>, <msDesc>, <msIdentifier>, <msItem>, <msItemStruct>, <msName>, <msPart>, <musicNotation>, <objectDesc>, <objectType>, <origDate>, <origPlace>, <origin>, <physDesc>, <provenance>, <recordHist>, <repository>, <rubric>, <scriptDesc>, <scriptNote>, <seal>, <sealDesc>, <secFol>, <signatures>, <source>, <stamp>, <summary>, <support>, <supportDesc>, <surrogates>, <textLang>, <typeDesc>, <typeNote>, <watermark>, <width>

10. Manuscript Description -- Examples

```
<msDesc xml:id="mySpecialManuscript">
  <msIdentifier>
    <!-- You *must* give identification information -->
  </msIdentifier>
  <msContents>
    <!-- You can describe the intellectual structure of the text
    -->
  </msContents>
  <physDesc>
    <!-- You can describe the full physical description of the
    object -->
  </physDesc>
  <history>
    <!-- You can give a full history of the object, its origin,
    provenance, and acquisition -->
  </history>
  <additional>
    <!-- You can provide additional information about
    surrogates, administrative metadata, etc. -->
  </additional>
</msDesc>
```

10. Manuscript Description -- Examples

```
<msDesc>
  <msIdentifier>
    <settlement>Oxford</settlement>
    <repository>Bodleian Library</repository>
    <idno>MS. Add. A. 61</idno>
    <altIdentifier type="SC">
      <idno>28843</idno>
    </altIdentifier>
  </msIdentifier>
  <p>In Latin, on parchment: written in more than one hand of the 13th cent. in England: 7 $\frac{1}{4}$  x 5 $\frac{3}{8}$  in., i + 55 leaves, in double columns: with a few coloured capitals.</p>
  <p>'Hic incipit Brutus Anglie,' the De origine et gestis Regum Angliae of Geoffrey of Monmouth (Galfridus Monumetensis: beg. 'Cum mecum multa & de multis.'</p>
  <p>On fol. 54v very faint is 'Iste liber est fratris guillelmi de buria de ... Roberti ordinis fratrum Pred[icatorum],' 14th cent. (?): 'hanauilla' is written at the foot of the page (15th cent.). Bought from the rev. W. D. Macray on March 17, 1863, for £1 10s.</p>
</msDesc>
```

11. Representation of Primary Sources

This chapter defines a module intended for use in the representation of primary sources, such as manuscripts or other written materials.

Sections include:

- Digital Facsimiles
- Combining Transcription with Facsimile
- Scope of Transcriptions
- Advanced Uses of surface and zone
- Aspects of Layout
- Headers, Footers, and Similar Matter
- Changes
- Other Primary Source Features not Covered in these Guidelines
- Module for Transcription of Primary Sources

11. Representation of Primary Sources -- Elements

Elements Defined: <addSpan>, <am>, <damage>, <damageSpan>, <delSpan>, <ex>, <facsimile>, <fw>, <handNotes>, <handShift>, <line>, <listChange>, <listTranspose>, <metamark>, <mod>, <redo>, <restore>, <retrace>, <sourceDoc>, <space>, <subst>, <substJoin>, <supplied>, <surface>, <surfaceGrp>, <surplus>, <transpose>, <undo>, <zone>

11. Representation of Primary Sources -- Examples

```
<facsimile>  
  <graphic url="page1.png"/>  
  <graphic url="page2.png"/>  
</facsimile>
```

```
<sourceDoc>  
  <surface>  
    <!-- optionally with coordinates -->  
    <zone>  
      <!-- optionally with coordinates -->  
      <line>  
        <!-- line on page -->  
        </line>  
        <line>  
          <!-- line on page -->  
          </line>  
        </zone>  
      </surface>  
    </sourceDoc>
```


12. Critical Apparatus

This chapter defines a module for use in encoding an apparatus of variants for scholarly editions, which may be used in conjunction with any of the modules defined in these Guidelines.

Sections include:

- The Apparatus Entry, Readings, and Witnesses
- Linking the Apparatus to the Text
- Using Apparatus Elements in Transcriptions
- Module for Critical Apparatus

12. Critical Apparatus -- Elements

Elements Defined: `<app>`, `<lacunaEnd>`, `<lacunaStart>`, `<lem>`,
`<listApp>`, `<listWit>`, `<rdg>`, `<rdgGrp>`, `<variantEncoding>`, `<wit>`,
`<witDetail>`, `<witEnd>`, `<witStart>`, `<witness>`

12. Critical Apparatus -- Examples

```
<p>Certain it is, this was not the case with the redoubtable Brom Bones; and
<app>
  <rdg wit="#msA">from the moment Ichabod Crane made his advances,</rdg>
  <rdg wit="#msB">coincidentally when Ichabod Crane made his advances,</rdg>
  <rdg wit="#msC">from the moment Ichabod Crane started to sing,</rdg>
</app> the interests of the former evidently declined;</p>
```

13. Names, Dates, People, and Places

This chapter describes a module which may be used for the encoding of names and other phrases descriptive of persons, places, or organizations, in a manner more detailed than that possible using the elements already provided for these purposes in the Core module.

Sections include:

- Attribute Classes Defined by This Module
- Names [e.g. personal, place and organisational names]
- Biographical and Prosopographical Data
- Module for Names and Dates

13. Names, Dates, People, and Places -- Elements

Elements Defined: <addName>, <affiliation>, <age>, <birth>, <bloc>, <climate>, <country>, <death>, <district>, <education>, <event>, <faith>, <floruit>, <forename>, <genName>, <geo>, <geogFeat>, <geogName>, <langKnowledge>, <langKnown>, <listEvent>, <listNym>, <listOrg>, <listPerson>, <listPlace>, <listRelation>, <location>, <nameLink>, <nationality>, <nym>, <occupation>, <offset>, <org>, <orgName>, <persName>, <person>, <personGrp>, <place>, <placeName>, <population>, <region>, <relation>, <residence>, <roleName>, <settlement>, <sex>, <socecStatus>, <state>, <surname>, <terrain>, <trait>

13. Names, Dates, People, and Places -- Examples

```
<!-- In the header --><person xml:id="ArnMag">
  <persName xml:lang="is">Árni Magnússon</persName>
  <persName xml:lang="da">Arne Magnusson</persName>
  <persName xml:lang="la">Arnas Magnæus</persName>
</person>
<!-- In the text -->
<p>
  <persName ref="#ArnMag">Arnas</persName> dixit "Reveniam".
</p>
```

14. Tables, Formulæ, Graphics and Notated Music

Many documents, both historical and contemporary, include not only text, but also graphics, artwork, and other images. Since they may frequently be most conveniently encoded and processed using external notations, they are dealt with together.

Sections include:

- Tables
- Formulæ and Mathematical Expressions
- Notated Music in Written Text
- Specific Elements for Graphic Images
- Overview of Basic Graphics Concepts
- Graphic Image Formats
- Module for Tables, Formulæ, Notated Music, and Graphics

14. Tables, Formulæ, Graphics and Notated Music -- Elements

Elements Defined: `<cell>`, `<figDesc>`, `<figure>`, `<formula>`,
`<notatedMusic>`, `<row>`, `<table>`

14. Tables, Formulæ, Graphics and Notated Music -- Examples

```
<table>  
  <head>US State populations, 1990</head>  
  <row>  
    <cell role="statename">Wyoming </cell>  
    <cell role="pop">453,588 </cell>  
  </row>  
  <row>  
    <cell role="statename">Alaska </cell>  
    <cell role="pop">550,043 </cell>  
  </row>  
</table>
```

```
<notatedMusic>  
  <ptr target="bar1.xml"/>  
  <graphic url="bar1.jpg"/>  
  <desc>First bar of Chopin's Scherzo No.3 Op.39</desc>  
</notatedMusic>
```

15. Language Corpora

This chapter discusses language corpora, with the distinguishing characteristic of any individual corpus is that its components have been selected or structured according to some conscious set of design criteria.

Sections include:

- Varieties of Composite Text
- Contextual Information
- Associating Contextual Information with a Text
- Linguistic Annotation of Corpora
- Recommendations for the Encoding of Large Corpora
- Module for Language Corpora

15. Language Corpora -- Elements

Elements Defined: <activity>, <channel>, <constitution>, <derivation>, <domain>, <factuality>, <interaction>, <locale>, <particDesc>, <preparedness>, <purpose>, <setting>, <settingDesc>, <textDesc>

15. Language Corpora -- Examples

```
<settingDesc>
  <setting who="#p1 #p2">
    <name type="village">Sleep Hollow</name>
    <date>early spring, 1789</date>
    <locale>a farm house, sat by the hearth</locale>
    <activity>courting</activity>
  </setting>
  <setting who="#p3">
    <name type="village">Sleepy Hollow</name>
    <date>early spring, 1789</date>
    <locale>school house</locale>
    <activity>teaching</activity>
  </setting>
</settingDesc>
```

16. Linking, Segmentation, and Alignment

This chapter discusses a number of ways in which encoders may represent analyses of the structure of a text which are not necessarily linear or hierarchic.

Sections include:

- Links
- Pointing Mechanisms
- Blocks, Segments, and Anchors
- Correspondence and Alignment
- Synchronization
- Identical Elements and Virtual Copies
- Aggregation
- Alternation
- Stand-off Markup
- Connecting Analytic and Textual Markup
- Module for Linking, Segmentation, and Alignment

16. Linking, Segmentation, and Alignment -- Elements

Elements Defined: `<ab>`, `<alt>`, `<altGrp>`, `<anchor>`, `<join>`,
`<joinGrp>`, `<link>`, `<linkGrp>`, `<seg>`, `<timeline>`, `<when>`

16. Linking, Segmentation, and Alignment -- Examples

```
<!-- Somewhere in the file --><name ref="psn:fred">Fred</name>
<!-- In the header -->
<listPrefixDef>
  <prefixDef
    ident="psn"
    matchPattern="([a-z]+)"
    replacementPattern="../../references/people/personography.xml#$1">
    <p> In the context of this project, private URIs with the prefix "psn" point
    to <gi>person</gi> elements in the project's personography.xml file. </p>
  </prefixDef>
</listPrefixDef>
```

17. Simple Analytic Mechanisms

This chapter describes a module for associating simple analyses and interpretations with text elements. We use the term analysis here to refer to any kind of semantic or syntactic interpretation which an encoder wishes to attach to all or part of a text.

Sections include:

- Linguistic Segment Categories
- Global Attributes for Simple Analyses
- Spans and Interpretations
- Linguistic Annotation
- Module for Analysis and Interpretation

17. Simple Analytic Mechanisms -- Elements

Elements Defined: `<c>`, `<cl>`, `<interp>`, `<interpGrp>`, `<m>`, `<pc>`,
`<phr>`, `<s>`, ``, `<spanGrp>`, `<w>`

17. Simple Analytic Mechanisms -- Examples

```
<S>  
<w ana="#AT0">The</w>  
<w ana="#NN1">victim</w>  
<w ana="#POS">'s</w>  
<w ana="#NN2">friends</w>  
<w ana="#VVD">told</w>  
<w ana="#NN2">villagers</w>  
<w ana="#CJT">that</w>  
<w ana="#AT0">the</w>  
<w ana="NPO">Headless</w>  
<w ana="NPO">Horseman</w>  
<w ana="#VVD">rode</w>  
<w ana="#PRP">into</w>  
<w ana="#AT0">the</w>  
<w ana="#NN1">forest</w>  
<w ana="#CJC">and</w>  
<w ana="#AV0">never</w>  
<w ana="#VVD">reappeared</w>  
</S>
```

18. Feature Structures

A feature structure is a general purpose data structure which identifies and groups together individual features, each of which associates a name with one or more values. Because of the generality of feature structures, they can be used to represent many different kinds of information, but they are of particular usefulness in the representation of linguistic analyses.

18. Feature Structures: Sections

Sections include:

- Organization of this Chapter
- Elementary Feature Structures and the Binary Feature Value
- Other Atomic Feature Values
- Feature Libraries and Feature-Value Libraries
- Feature Structures as Complex Feature Values
- Re-entrant Feature Structures
- Collections as Complex Feature Values
- Feature Value Expressions
- Default Values
- Linking Text and Analysis
- Feature System Declaration
- Formal Definition and Implementation

18. Feature Structures -- Elements

Elements Defined: <bicond>, <binary>, <cond>, <default>, <f>, <fDecl>, <fDescr>, <fLib>, <fs>, <fsConstraints>, <fsDecl>, <fsDescr>, <fsdDecl>, <fsdLink>, <fvLib>, <if>, <iff>, <numeric>, <string>, <symbol>, <then>, <vAlt>, <vColl>, <vDefault>, <vLabel>, <vMerge>, <vNot>, <vRange>

18. Feature Structures -- Examples

```
<fs type="real_estate_listing">
  <f name="selling.points">
    <vColl org="set">
      <vAlt>
        <string>alarm system</string>
        <string>good view</string>
      </vAlt>
      <vAlt>
        <string>pool</string>
        <string>jacuzzi</string>
      </vAlt>
    </vColl>
  </f>
</fs>
```

19. Graphs, Networks, and Trees

Graphical representations are widely used for displaying relations among informational units because they help readers to visualize those relations and hence to understand them better. This covers both mathematical or conceptual graphs as well as visualised charts.

Sections include:

- Graphs and Digraphs
- Trees
- Another Tree Notation
- Representing Textual Transmission
- Module for Graphs, Networks, and Trees

19. Graphs, Networks, and Trees -- Elements

Elements Defined: <arc>, <eLeaf>, <eTree>, <forest>, <graph>, <iNode>, <leaf>, <listForest>, <node>, <root>, <tree>, <triangle>

19. Graphs, Networks, and Trees -- Examples

```
<graph>
  <node xml:id="LAX2" degree="2" adj="#LVG2 #PHX2">
    <label>LAX2</label>
  </node>
  <node xml:id="LVG2" degree="2" adj="#LAX2 #PHX2">
    <label>LVG2</label>
  </node>
  <!-- ... -->
</graph>
```

20. Non-hierarchical Structures

XML employs a strongly hierarchical document model. At various points, these Guidelines discuss problems that arise when using XML to encode textual features that either do not naturally lend themselves to representation in a strictly hierarchical form or conflict with other hierarchies represented in the markup.

Sections include:

- Multiple Encodings of the Same Information
- Boundary Marking with Empty Elements
- Fragmentation and Reconstitution of Virtual Elements
- Stand-off Markup
- Non-XML-based Approaches

20. Non-hierarchical Structures -- Examples

```
<l>
  <w xml:id="w01">Scorn</w>
  <w xml:id="w02">not</w>
  <w xml:id="w03">the</w>
  <w xml:id="w04">sonnet</w>; <w xml:id="w05">critic</w>,
<w xml:id="w06">you</w>
  <w xml:id="w07">have</w>
  <w xml:id="w08">frowned</w>,
</l>
<l>
  <w xml:id="w09">Mindless</w>
  <w xml:id="w10">of</w>
  <w xml:id="w11">its</w>
  <w xml:id="w12">just</w>
  <w xml:id="w13">honours</w>; <w xml:id="w14">with</w>
  <w xml:id="w15">this</w>
  <w xml:id="w16">key</w>
</l>
<!-- elsewhere in document -->
<join result="s" scope="root" target="#w01 #w02 #w03
#w04"/>
```

21. Certainty, Precision, and Responsibility

Encoders of text often find it useful to indicate that some aspects of the encoded text are problematic or uncertain, and to indicate who is responsible for various aspects of the markup of the electronic text.

Sections include:

- Levels of Certainty
- Indications of Precision
- Attribution of Responsibility
- The Certainty Module

21. Certainty, Precision, and Responsibility -- Elements

Elements Defined: <certainty>, <precision>, <respons>

21. Certainty, Precision, and Responsibility -- Examples

Elizabeth went to
<placeName xml:id="CE-pl1">Essex</placeName>.

```
<!-- ... elsewhere in the document ... -->  
<certainty target="#CE-pl1" locus="name" degree="0.6">  
  <desc>probably a placename, but possibly not</desc>  
</certainty>  
<certainty target="#CE-  
pl1" locus="name" degree="0.4" assertedValue="persName">  
  <desc>may refer to the Earl of Essex</desc>  
</certainty>
```

22. Documentation Elements

This chapter describes a module which may be used for the documentation of the XML elements and element classes which make up any markup scheme, in particular that described by the TEI Guidelines, and also for the automatic generation of schemas conforming to that documentation.

Sections include:

- Phrase Level Documentary Elements
- Modules and Schemas
- Specification Elements
- Common Elements
- Building a Schema
- Combining TEI and Non-TEI Modules
- Linking Schemas to XML Documents
- Module for Documentation Elements

22. Documentation Elements -- Elements

Elements Defined: `<altIdent>`, `<alternate>`, `<att>`, `<attDef>`,
`<attList>`, `<attRef>`, `<classRef>`, `<classSpec>`, `<classes>`, `<code>`,
`<constraint>`, `<constraintSpec>`, `<content>`, `<datatype>`,
`<defaultVal>`, `<eg>`, `<egXML>`, `<elementRef>`, `<elementSpec>`,
`<equiv>`, `<exemplum>`, `<gi>`, `<ident>`, `<listRef>`, `<macroRef>`,
`<macroSpec>`, `<memberOf>`, `<moduleRef>`, `<moduleSpec>`,
`<remarks>`, `<schemaSpec>`, `<sequence>`, `<specDesc>`, `<specGrp>`,
`<specGrpRef>`, `<specList>`, `<tag>`, `<val>`, `<valDesc>`, `<valItem>`,
`<valList>`

22. Documentation Elements -- Examples

```
<schemaSpec id="example">
  <moduleRef key="tei"/>
  <moduleRef key="teiheader"/>
  <moduleRef key="textstructure"/>
  <moduleRef key="transcr"/>
  <moduleRef key="core"/>
  <elementSpec id="name" mode="change">
    <attList>
      <attDef id="type" mode="change">
        <valList mode="replace" type="closed">
          <valItem id="per">
            <desc>Personal name</desc>
          </valItem>
          <valItem id="pla">
            <desc>Place name</desc>
          </valItem>
          <valItem id="oth">
            <desc>Other name</desc>
          </valItem>
        </valList>
      </attDef>
    </attList>
  </elementSpec>
</schemaSpec>
```

23. Using the TEI

This section discusses some technical topics concerning the deployment of the TEI markup scheme documented elsewhere in these Guidelines.

Sections include:

- Serving TEI files with the TEI Media Type
- Obtaining the TEI Schemas
- Personalization and Customization
- Conformance
- Implementation of an ODD System

Appendix A. Model Classes

Provides reference documentation on the model classes of elements which are used to create content models for what is allowed inside an element.

Appendix B. Attribute Classes

Provides reference documentation on attribute classes. Elements can be a member of various attribute classes and in exchange get to use the attributes from those classes.

Appendix C. Elements

One of the most popular sections, the element reference documentation gives you a list of

- A definition / description of the element; and a link to where that might be available
- What attributes that element has
- What elements contain this one
- What elements this one can contain
- Its formal declaration
- Examples of use

Appendix D. Attributes

A list of all of the attributes, and what elements or classes use them.

Appendix E. Datatypes and Other Macros

A record of all of the datatypes used by the TEI.

And that's it!

You don't need to memorise all these elements I've thrown at you today. The point is to expose you to every kind of (non)textual phenomena that the TEI currently covers.