

# TEI BY EXAMPLE



## MODULE 1: COMMON STRUCTURE, ELEMENTS, AND ATTRIBUTES

Edward Vanhoutte

Ron Van den Branden

Melissa Terras

---

Centre for Scholarly Editing and Document Studies (CTB) , Royal  
Academy of Dutch Language and Literature, Belgium, Gent, 9 July 2010

Last updated September 2020

Licensed under a Creative Commons Attribution ShareAlike 3.0 License



## TABLE OF CONTENTS

5. Global Attributes.....	1
5.1 @xml:id.....	2
5.2 @n.....	4
5.3 @xml:lang.....	5
5.4 @xml:base.....	6
5.5 @xml:space.....	6
5.6 @rend.....	7
5.7 @style.....	8
5.8 @rendition.....	9
5.9 @cert.....	10
5.10 @resp.....	11
5.11 @source.....	11



## 5. Global Attributes

Just as any XML element, TEI elements can carry one or more attributes which provide additional information, and function as their qualifiers and quantifiers. The full list of all attributes defined in TEI is available as [Appendix D Attributes](#) of the TEI Guidelines. A couple of these attributes can occur on all TEI elements: those are defined as “global attributes,” in the [att.global](#) attribute class, and its subclasses. Not all of those subclasses are always present for all TEI documents (see [Module 8: Customising TEI, ODD, Roma, section 5.1](#) for more information on including TEI modules in a TEI schema), but a number of attribute classes are *always* present in any TEI schema (since they are defined in the **tei** module). Together, they define 11 global attributes, available on any TEI element:

### [att.global](#)

#### [@xml:id](#)

provides a unique identifier for an element.

#### [@n](#)

provides a number or other label for an element, which does not need to be unique within the document.

#### [@xml:lang](#)

indicates the language of an element using a “tag” generated according to [BCP 47](#).

#### [@xml:base](#)

provides a base URI reference with which applications can resolve relative URI references into absolute URI references.

#### [@xml:space](#)

signals an intention about how white space should be managed by applications.

### [att.global.rendition](#)

#### [@rend](#)

indicates how the element was rendered or presented in the source text.

#### [@style](#)

contains an expression in some formal style definition language which defines the rendering or presentation used for this element in the source text.

#### [@rendition](#)

points to a description of the rendering or presentation used for this element in the source text.

### [att.global.responsibility](#)

#### [@cert](#)

signifies the degree of certainty associated with the intervention or interpretation

#### [@resp](#)

indicates the agency responsible for the intervention or interpretation

### [att.global.source](#)

#### [@source](#)

specifies the source from which some aspect of this element is drawn.

## 5.1 [@xml:id](#)

The [@xml:id](#) attribute provides a unique identifier for the element bearing the attribute. The identifier must be unique in the whole XML document. If there is another element in the XML document bearing the same identifier as a value for this attribute, a validating XML parser will signal a syntax error. Conforming to the World Wide Web Consortium's XML Recommendations, the attribute value must be a legal name, which means

that it must start with a letter or the underscore character and contain no characters other than letters, digits, hyphens, underscores, full stops, and certain combining and extension characters. The use of the colon in a unique identifier is forbidden as it has the specific purpose of indicating namespace prefixes in XML.

## CHALLENGE

Which one of the following examples demonstrates a correct use of `@xml:id` and why?

- |    |   |
|----|---|
| 1. | <pre>&lt;p xml:id="p:1"&gt;For the first time in twenty-five years, Dr Burt Diddledygook decided not to turn up to the annual meeting of the Royal Academy of Whoopledywhaa.&lt;/p&gt; &lt;p xml:id="p:2"&gt;It was a sunny day in late September 1960 bang on noontime and Dr Burt was looking forward to a stroll in the park instead.&lt;/p&gt; &lt;p xml:id="p:2"&gt;He hoped his fellow members of the Royal Academy weren't even going to notice his absence.&lt;/p&gt;</pre> |
| 2. | <pre>&lt;p xml:id="1"&gt;For the first time in twenty-five years, Dr Burt Diddledygook decided not to turn up to the annual meeting of the Royal Academy of Whoopledywhaa.&lt;/p&gt; &lt;p xml:id="2"&gt;It was a sunny day in late September 1960 bang on noontime and Dr Burt was looking forward to a stroll in the park instead.&lt;/p&gt; &lt;p xml:id="3"&gt;He hoped his fellow members of the Royal Academy weren't even going to notice his absence.&lt;/p&gt;</pre>       |

3.

```
<p xml:id="p1">For the first time in twenty-five years, Dr Burt Diddledygook decided not to turn up to the annual meeting of the Royal Academy of Whoopledywhaa.</p>
<p xml:id="p2">It was a sunny day in late September 1960 bang on noontime and Dr Burt was looking forward to a stroll in the park instead.</p>
<p xml:id="p3">He hoped his fellow members of the Royal Academy weren't even going to notice his absence.</p>
```

## SOLUTION

Example 3 demonstrates a correct use of the `@xml:id` attribute: the attribute value is unique, it starts with a letter, and contains no illegal characters. The attribute values in example 1 are not unique and the use of a colon is forbidden. The attribute values in example 2 start with a number, which is not allowed.

### 5.2 @n

The `@n` attribute also provides an identifier for an element, but its value doesn't need to be a legal XML name. This means that they don't have to be unique inside the XML document and they may start with and contain any character. Typically `@n` is used to number or label elements. All `@n` values in the following examples are legal:

```
<p n="1">For the first time in twenty-five years, Dr Burt Diddledygook decided not to turn up to the annual meeting of the Royal Academy of Whoopledywhaa.</p>
<p n="p2">It was a sunny day in late September 1960 bang on noontime and Dr Burt was looking forward to a stroll in the park instead.</p>
<p n="paragraph 3">He hoped his fellow members of the Royal Academy weren't even going to notice his absence.</p>
```

**Example 42.** Providing informal labels for elements in the `@n` attribute.

Although by no means mandatory, it often makes sense to enrich the structural units of a document (e.g., lines in a poem) with some sort of identification (in `@xml:id`) or reference mechanism (in `@n`). Of course, when dealing with complex and/or long documents, this labelling could become a rather demanding task in itself. Fortunately, this job can be done automatically by an XML processor, which can identify the sequential position of one element



within another in an XML document without any additional tagging. Instead of manually providing mechanical references for a long poem or collection of poems, you could as well instruct an XML processor to either enrich the TEI encoding and add `@xml:id` or `@n` attributes with appropriate values, or to automatically deduct such reference systems from your markup and present them while rendering the document (e.g., in an HTML version of a poem).

## REFERENCE

See section [3.10.2 Creating New Reference Systems](#) of the TEI Guidelines for guidance on creating sensible reference systems for text structures.

### 5.3 `@xml:lang`

The language of the content of a given element may be documented as the value of an `@xml:lang` attribute. If it is not specified, the value is inherited from that of the immediately enclosing element. Therefore, it is simplest to specify the base language of a text on the `<TEI>` element and override that with `@xml:lang` attributes only for those elements with a different language.

```
<p xmlns="http://www.tei-c.org/ns/1.0" xml:lang="en">'Plenty of options', he  
thought, sat on a bench and opened the book he had taken from the Whoopledywhaaian  
National Library. It was titled 'While thou art here', by Sir Edmund  
Peckwood. While reading the first sentence, his placid expression turned to a  
certain <foreign xml:lang="fr">je ne sais quoi</foreign>: 'For the first time in  
twenty-five years, Dr Burt Diddledygook decided not to turn up to the annual meeting  
of the Royal Academy of Whoopledywhaa.'</p>
```

**Example 43.** Specifying the language of the content of an element with the `@xml:lang` attribute.

## REFERENCE

The values for the `@xml:lang` attribute must be constructed in a uniform way as explained in section [vi.1. Language identification](#) of the TEI Guidelines.

## 5.4 @xml:base

Many TEI attributes take a URI reference as their value. Those can be either *absolute* (starting with the protocol, such as `http:`, `ftp:`, ...) or *relative* (either starting with a local file name, such as `names.xml`, and/or a fragment identifier, such as `#EV`). The `@xml:base` attribute can be used to set a context for all relative URLs appearing within the element on which the `@xml:base` attribute is specified. For example:

```
<p xmlns="http://www.tei-c.org/ns/1.0" xml:base="../../xml/">'Plenty of options', he
thought, sat on a bench and opened the book he had taken from the Whoopledywhaaian
National Library<note n="1" place="foot" type="authorial">The National Library
of Whoopledywhaa was founded in 1886 with the acquisition of the library of
the late King Anthony.</note>. It was titled 'While thou art here', by Sir
Edmund Peckwood<note type="editorial" resp="names.xml#EV">The manuscript reads
'Petwood'.</note>. While reading the first sentence, his placid expression turned
to a certain je ne sais quoi: 'For the first time in twenty-five years, Dr Burt
Diddledygook decided not to turn up to the annual meeting of the Royal Academy of
Whoopledywhaa.'</p>
```

**Example 44.** Providing a context for the resolution of relative URIs with the `@xml:base` attribute.

In this example, the relative URI `names.xml#EV` will be resolved to a subfolder named `xml` of the folder containing the electronic text containing that reference. Hence, the URI reference will be evaluated as `../../xml/names.xml#EV`.

## 5.5 @xml:space

This global attribute provides a mechanism for indicating to systems processing an XML file how they should treat white space. It has two possible values: `"default"` (white space will most probably be normalised during processing) and `"preserve"` (white space should be preserved as is during processing).

```
<choice xmlns="http://www.tei-c.org/ns/1.0">
  <sic xml:space="preserve">white    space</sic>
  <corr>white space</corr>
</choice>
```

**Example 45. Specifying how white space should be handled during processing with @xml:space.**

In this example, the [@xml:space](#) on the `<sic>` element specifies that the (unusual) spacing in the original form should be preserved when this document is being processed.

Notice, how the [@xml:space](#) attribute is rarely used in TEI documents because such layout features are generally expressed more confidently, and descriptively, with TEI elements such as `<lb>` or `<space>`, or using the renditional attributes described next.

**5.6 @rend**

The [@rend](#) attribute is used to document information about the physical appearance of the text in the source. In the following example, it is used to indicate that the title, the French phrase, and the name of the Royal Academy are printed in italics:

```
<p xmlns="http://www.tei-c.org/ns/1.0">'Plenty of options', he thought, sat on a
bench and opened the book he had taken from the Whoopledywhaaian National Library.
It was titled <title type="m" rend="italics">While thou art here</title>, by
Sir Edmund Peckwood. While reading the first sentence, his placid expression
turned to a certain <hi rend="italics">je ne sais quoi</hi>: 'For the first
time in twenty-five years, Dr Burt Diddledygook decided not to turn up to the
annual meeting of the <name type="organisation" rend="italics">Royal Academy of
Whoopledywhaa</name>.'</p>
```

**Example 46. Indicating specific renditional features in the source text with @rend.**

The value for [@rend](#) can take the form of a white space separated list of idiosyncratic keywords, which an XML processor can act upon when rendering the document. This means that multiple renditional features can be enumerated with [@rend](#).

## 5.7 @style

The [@style](#) attribute can also be used to document information about the physical appearance of the text in the source. Contrary to [@rend](#), [@style](#) must express this information in some formal style definition language. This will most often be [CSS](#), although others are possible as well. The name of that formal style definition language can be given in the [<encodingDesc>](#) section of the header, in a [<styleDefDecl>](#) element:

```
<TEI xmlns="http://www.tei-c.org/ns/1.0">
  <teiHeader>
    <!-- ... -->
    <encodingDesc>
      <styleDefDecl scheme="css" schemeVersion="2.1"/>
      <!-- ... -->
    </encodingDesc>
    <!-- ... -->
  </teiHeader>
  <text>
    <body>
      <!-- ... -->
      <p>'Plenty of options', he thought, sat on a bench and opened the
        book he had taken from the Whoopledywhaaian National Library. It was
        titled <title type="m" style="font-style:italic;">While thou art here</title>,
        by Sir Edmund Peckwood. While reading the first sentence, his placid expression
        turned to a certain <hi rend="italics">je ne sais quoi</hi>: 'For the first
        time in twenty-five years, Dr Burt Diddledygook decided not to turn up to the
        annual meeting of the <name type="organisation" style="font-weight:italic;">Royal
        Academy of Whoopledywhaa</name>.'</p>
      <!-- ... -->
    </body>
  </text>
</TEI>
```

Example 47. Indicating specific renditional features in the source text with [@rend](#).

## 5.8 @rendition

Whereas the [@rend](#) and [@style](#) attributes document the appearance of text locally, i.e., attached to an element, the [@rendition](#) attribute points to a description of the rendering or appearance in the header ([<teiHeader>](#)), more specifically inside a [<tagsDecl>](#) inside the [<encodingDesc>](#) section. This is done in free text or using a formal language inside a [<rendition>](#) element. This way, only one description of the rendering must be given, which can be referred to with [@rendition](#) attributes on elements in the text. The advantage of this system becomes clear when both [@rendition](#) and [@rend](#) are used for occurrences of a given element. While the former refers to an overall description of the appearance of that element in the source, the latter documents the local deviation from that generally imposed rendition.

In the following example, we see a description of the overall rendering of [<hi>](#) elements in a document, in the [<tagsDecl>](#) element inside the [<encodingDesc>](#) section of [<teiHeader>](#). The [@gi](#) attribute of [<tagUsage>](#) names the elements for which the rendition described in [<rendition>](#) is documented. The formal namespace in which the tags described in [<tagUsage>](#) are defined, must be specified in the [@name](#) attribute of a surrounding [<namespace>](#) element. The value of the [@rendition](#) attribute of [<tagUsage>](#) refers to [<rendition>](#) by way of the latter's [@xml:id](#) attribute. This way, all [<hi>](#) elements inside [<text>](#) have the style, defined as "italic", as their default rendition. In the following example, the third occurrence of the [<hi>](#) element in the text documents a deviant rendition, by means of the [@rend](#) attribute.

```
<TEI xmlns="http://www.tei-c.org/ns/1.0">
  <teiHeader>
    <!-- ... -->
    <encodingDesc>
      <!-- ... -->
      <tagsDecl>
        <rendition xml:id="italic">font-style:italic;</rendition>
        <namespace name="http://www.tei-c.org/ns/1.0">
          <tagUsage gi="hi" rendition="#italic"/>
        </namespace>
      </tagsDecl>
      <!-- ... -->
    </encodingDesc>
    <!-- ... -->
  </teiHeader>
```

```
</teiHeader>
<text>
  <body>
    <!-- ... -->
    <p>'Plenty of options', he thought, sat on a bench and opened the book he had
      taken from the Whoopledywhaaian National Library. It was titled <hi>While thou
      art here</hi>, by Sir Edmund Peckwood. While reading the first sentence, his
      placid expression turned to a certain <hi>je ne sais quoi</hi>: 'For the first
      time in twenty-five years, Dr Burt Diddledygook decided not to turn up to the
      annual meeting of the <hi rend="roman">Royal Academy of Whoopledywhaa</hi>.'</p>
    <!-- ... -->
  </body>
</text>
</TEI>
```

**Example 48.** Referring to central definitions of rendition styles with @rendition.

## 5.9 @cert

The @cert attribute provides a method of indicating the encoder's certainty concerning an intervention or interpretation represented by the markup. This can be done with an informal classification, such as "high", "medium", or "low", or more formal systems, such as a probability scale between "1" and "0".

```
<choice xmlns="http://www.tei-c.org/ns/1.0">
  <sic cert="low">Pekwood</sic>
  <sic cert="high">Petwood</sic>
  <corr>Peckwood</corr>
</choice>
```

**Example 49.** Expressing certainty for an editorial interpretation with @resp.

In this example, two alternatives are presented for the transcription of the original form, with an indication of the certainty in their respective @cert attributes.

### 5.10 @resp

The [@resp](#) attribute is used to indicate the person or agency considered responsible for some aspects of the information encoded by an element. This responsible party should be identified formally in an element with an [@xml:id](#) attribute, either in the same document, or elsewhere.

```
<choice xmlns="http://www.tei-c.org/ns/1.0">
  <sic cert="low">Pekwood</sic>
  <sic cert="high">Petwood</sic>
  <corr resp="#EV">Peckwood</corr>
</choice>
```

**Example 50.** Identifying the person responsible for a correction with [@resp](#).

### 5.11 @source

The [@source](#) attribute is used to indicate the source of an element and its content, for example by pointing to a bibliographic citation.

```
<text xmlns="http://www.tei-c.org/ns/1.0">
  <body>
    <!-- ... -->
    <p><q>Plenty of options</q>, he thought, sat on a bench and opened the book
    he had taken from the Whoopledywhaaian National Library. It was titled 'While
    thou art here', by Sir Edmund Peckwood. While reading the first sentence,
    his placid expression turned to a certain <foreign>je ne sais quoi</foreign>:
    <quote source="#peckwood1935">For the first time in twenty-five years, Dr Burt
    Diddledygook decided not to turn up to the annual meeting of the Royal Academy of
    Whoopledywhaa.</quote></p>
    <!-- ... -->
  </body>
  <back>
    <div type="bibliography">
      <listBibl>
        <!-- ... -->
      </listBibl>
    </div>
  </back>
</text>
```

```
<bibl xml:id="peckwood1935"><author>Peckwood,  
  Edmund</author>. <date when="1935">1935</date>. <title level="m">While thou art  
  here</title>. <pubPlace>Whoopledywhaa</pubPlace>: <publisher>Whoopledywhaaian  
  Press</publisher>.</bibl>  
  
<!-- ... -->  
</listBibl>  
</div>  
</back>  
</text>
```

**Example 51.** Formally indicating the source for a quotation with @source.