

Attributes	Description
	<p>If multiple bookmarks in a document share the same name, then the first bookmark (defined by the location of the <code>bookmarkStart</code> element in document order) shall be maintained, and all subsequent bookmarks should be ignored.</p> <p>[<i>Example:</i> Consider the following XML for a bookmark around a single word:</p> <pre data-bbox="505 457 1300 663"> <w:p> <w:bookmarkStart w:id="0" w:name="p1ace" /> <w:r> <w:t>Seattle</w:t> </w:r> <w:bookmarkEnd w:id="0" /> </w:p> </pre> <p>The name attribute specifies that the name for this bookmark is <code>p1ace</code>. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the <code>ST_String</code> simple type (§2.17.88).</p>

The following XML Schema fragment defines the contents of this element:

```

<complexType name="CT_Bookmark">
  <complexContent>
    <extension base="CT_BookmarkRange">
      <attribute name="name" type="ST_String" use="required"/>
    </extension>
  </complexContent>
</complexType>

```

2.12.7 Range Permissions

Range permissions in a WordprocessingML document refer to a special type of bookmark used to control which subset(s) of users may edit a particular region of a document. Range permissions specify the user or set of users which are allowed to edit all content between them whenever the document protection specified by the `documentProtection` element (§xx) is enabled and set to `readOnly` or `comments`.

Like bookmarks, range permissions are a legacy word processing function which predates the concepts of XML and well-formedness, so they can start and end at any location within a document's contents and therefore must use the "cross-structure" annotation format described in §2.12.2.

[*Example:* Consider the following WordprocessingML markup for a single paragraph, where a range permission has been added spanning the words `range permission`:

```

<w:p>
  <w:r>
    <w:t xml:space="preserve">This is a </w:t>
  </w:r>
  <w:permStart w:id="0" w:edGrp="everyone"/>
  <w:r>
    <w:t>range permission</w:t>
  </w:r>
  <w:permEnd w:id="0"/>
  <w:r>
    <w:t>.</w:t>
  </w:r>
</w:p>

```

The permStart and permEnd elements (§2.12.7.1; §2.12.7.2) specify the location where the range permission starts and ends. The two tags are part of one group because the id attribute value specifies 0 for both.

If document protection was enabled, then no content in this document shall be editable except for this range permission, which is editable by all users that open the document (specified using an editor group of everyone). *end example*]

2.12.7.1 permEnd (Range Permission End)

This element specifies the end of a single range permission within a WordprocessingML document. This end marker is matched with the appropriately paired start marker by matching the value of the id attribute from the associated permStart element.

If no permStart element exists prior to this element in document order with a matching id attribute value, then this element is ignored and no range permission is present in the document.

[*Example:* Consider a document with a range permission which spans half of paragraph one, and part of paragraph two. The following WordprocessingML illustrates an example of content which fulfills this constraint:

```

<w:p>
  <w:r>
    <w:t xml:space="preserve">This is sentence one.</w:t>
  </w:r>
  <w:permStart w:id="0" w:edGrp="everyone"/>
  <w:r>
    <w:t>This is sentence two.</w:t>
  </w:r>
</w:p>

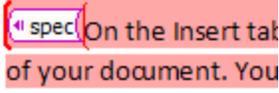
```

```
<w:p>
  <w:r>
    <w:t xml:space="preserve">This </w:t>
  </w:r>
  <w:permEnd w:id="0"/>
  <w:r>
    <w:t>is sentence three.</w:t>
  </w:r>
</w:p>
```

The permEnd element specifies the end of the region for the range permission whose permStart element has an id attribute value of 0. *end example*]

Parent Elements
body (§2.1.2); cfChunk (§2.16.3.3); comment (§2.12.4.2); customXml (§2.4.1.3); customXml (§2.4.1.4); customXml (§2.4.1.5); customXml (§2.4.1.6); del (§2.12.5.12); docPartBody (§2.11.6); endnote (§2.10.2); fldSimple (§2.15.21); footnote (§2.10.10); ftr (§2.9.3); hdr (§2.9.4); hyperlink (§2.15.24); ins (§2.12.5.18); moveFrom (§2.12.5.19); moveTo (§2.12.5.24); p (§2.2.1.22); rt (§2.2.3.23); rubyBase (§2.2.3.26); sdtContent (§2.4.2.33); sdtContent (§2.4.2.34); sdtContent (§2.4.2.35); sdtContent (§2.4.2.36); smartTag (§2.4.1.12); tbl (§2.3.36); tc (§2.3.62); tr (§2.3.75); txbxContent (§2.16.1.1)

Attributes	Description
displacedByCustomXml (Annotation Displaced By Custom XML Markup)	<p>Specifies that the parent annotation's placement shall be directly linked with the location of the physical presentation of a custom XML element in the document. This element only has an effect when the custom XML element is block-level (i.e. surrounds an entire paragraph), as in this scenario the logical and physical placement of the annotation and custom XML element may differ.</p> <p>Specifically, in this case, the custom XML is presented <i>around</i> the block-level object it encloses (the paragraph, table, table row, or table cell), but is physically represented within that same object (i.e. within the paragraph, table, table row or table cell). This requirement stems from the fact that there is no location for the location of the annotation within the document at its logical location (around a table, for example).</p> <p>If this element is omitted, then the annotation shall be anchored inside of all block-level custom XML elements in the paragraph. If this element is present, but no block-level custom XML tag is located at the position it specifies (before or after), then it shall be ignored.</p> <p>[<i>Example:</i> Consider a paragraph with block level custom XML markup and two comment anchor annotations (one before and one after the custom XML element's physical representation), as follows:</p>

Attributes	Description
	 <p>On the Insert tab of your document. You</p> <p>Since all three of these items are around the entire paragraph, they are stored outside of the paragraph. However, in order to ensure that their relative positions are stored correctly, any annotation which shall be displaced by the physical custom XML element specifies this information, resulting in the following WordprocessingML:</p> <pre data-bbox="505 615 1230 821"> <w:commentRangeStart w:id="0" /> <w:commentRangeStart w:id="1" w:displaced byCustomXml="next" /> <w:customXml w:element="spec" ... /> <w:p> ... </w:p> </pre> <p>The displacedByCustomXml attribute specifies that even though all three of these items are around the paragraph and will be moved inside the paragraph to be represented physically, the comment with ID 0 shall be inside the custom XML, but the comment with ID 1 shall be displaced to stay outside of the relative location of the next custom XML element (the spec element). <i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_DisplacedByCustomXml simple type (§2.17.17).</p>
id (Annotation ID)	<p>Specifies a unique identifier for an annotation within a WordprocessingML document. The restrictions on the id attribute, if any, are defined by the parent XML element.</p> <p>If this attribute is omitted, then the document is non-conformant.</p> <p>[<i>Example:</i> Consider an annotation represented using the following WordprocessingML fragment:</p> <pre data-bbox="505 1472 805 1560"> <w:... w:id="1" ... > ... </w:...> </pre> <p>The id attribute specifies that the ID of the current annotation is 1. This value is used to uniquely identify this annotation within the document content. <i>end example]</i></p> <p>The possible values for this attribute are defined by the ST_String simple type (§2.17.88).</p>

The following XML Schema fragment defines the contents of this element:

```
<complexType name="CT_Perm">
  <attribute name="id" type="ST_String" use="required"/>
  <attribute name="displacedByCustomXml" type="ST_DisplacedByCustomXml"
    use="optional"/>
</complexType>
```

2.12.7.2 permStart (Range Permission Start)

This element specifies the start of a range permission within a WordprocessingML document. This start marker is matched with the appropriately paired end marker by matching the value of the `id` attribute from the associated `permEnd` element.

If no `permEnd` element exists subsequent to this element in document order with a matching `id` attribute value, then this element is ignored and no range permission is present in the document.

If a range permission begins and ends within a single table, it is possible for that permission to cover discontinuous parts of that table which are logically related (e.g. a single column in a table). This type of placement for a range permission is accomplished (and described in detail) on the `colFirst` and `colLast` attributes on this element.

[*Example:* Consider a document with a range permission which spans half of paragraph one, and part of paragraph two. The following WordprocessingML illustrates an example of content which fulfills this constraint:

```
<w:p>
  <w:r>
    <w:t xml:space="preserve">This is sentence one.</w:t>
  </w:r>
  <w:permStart w:id="0" w:edGrp="everyone"/>
  <w:r>
    <w:t>This is sentence two.</w:t>
  </w:r>
</w:p>
<w:p>
  <w:r>
    <w:t xml:space="preserve">This </w:t>
  </w:r>
  <w:permEnd w:id="0"/>
  <w:r>
    <w:t>is sentence three.</w:t>
  </w:r>
</w:p>
```

The `permStart` element specifies the start of the region for the range permission. This element is then linked to the `permEnd` element which also has an `id` attribute value of 0. *end example*]

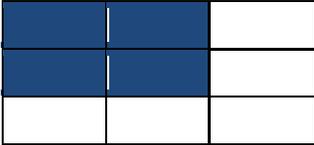
Parent Elements

body (§2.1.2); cfChunk (§2.16.3.3); comment (§2.12.4.2); customXml (§2.4.1.3); customXml (§2.4.1.4);

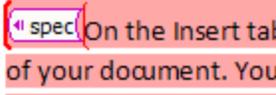
Parent Elements
customXml (§2.4.1.5); customXml (§2.4.1.6); del (§2.12.5.12); docPartBody (§2.11.6); endnote (§2.10.2); fldSimple (§2.15.21); footnote (§2.10.10); ftr (§2.9.3); hdr (§2.9.4); hyperlink (§2.15.24); ins (§2.12.5.18); moveFrom (§2.12.5.19); moveTo (§2.12.5.24); p (§2.2.1.22); rt (§2.2.3.23); rubyBase (§2.2.3.26); sdtContent (§2.4.2.33); sdtContent (§2.4.2.34); sdtContent (§2.4.2.35); sdtContent (§2.4.2.36); smartTag (§2.4.1.12); tbl (§2.3.36); tc (§2.3.62); tr (§2.3.75); txbxContent (§2.16.1.1)

Attributes	Description									
colFirst (First Table Column Covered By Range Permission)	<p>Specifies the zero-based index of the first column in this row which shall be part of this range permission.</p> <p>When a range permission is contained within a table, it is possible for that range permission to only cover cells within a certain column and row range within that table, by specifying:</p> <ul style="list-style-type: none"> • The first row for which the specified columns are part of the table range permission. This is accomplished by placing the permStart element in the first table cell in that row. • The first column included in the range permission for each of the specified row(s) via this attribute. • The last column included in the range permission for each of the specified row(s) via the colLast attribute. • The last row for which the specified columns are part of the table range permission. This is accomplished by placing the permEnd element at the end of that table row. <p>If this attribute appears, then the colLast attribute must also appear (regardless of where this bookmark is located) or the document shall be considered non-conformant. If this attribute and its pair occur on a range permission which is not contained in a table, then their values should be ignored. If this value exceeds the value of colLast or the number of columns in the table, then both values should be ignored.</p> <p>[<i>Example:</i> Consider a three row by three column table where a table range permission shall be applied to the contents of the first two cells in the first two rows in the table (the cells shaded below):</p> <div style="text-align: center;"> <table border="1" style="border-collapse: collapse; width: 100px; height: 60px;"> <tr> <td style="background-color: #003366; width: 33%;"></td> <td style="background-color: #003366; width: 33%;"></td> <td style="width: 33%;"></td> </tr> <tr> <td style="background-color: #003366;"></td> <td style="background-color: #003366;"></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table> </div> <p>This bookmark would be specified using the following WordprocessingML for the table's contents:</p> <pre><w:tbl></pre>									

Attributes	Description
	<pre data-bbox="503 262 1339 1354"> ... <w:tr> <w:tc> <w:permStart w:colFirst="0" w:colLast="1" w:id="0" w:edGrp="everyone"/> <w:p/> </w:tc> <w:tc> <w:p/> </w:tc> <w:tc> <w:p/> </w:tc> </w:tr> <w:tr> <w:tc> <w:p/> </w:tc> <w:tc> <w:p/> </w:tc> <w:tc> <w:p/> </w:tc> <w:permEnd w:id="0" /> </w:tr> <w:tr> <w:tc> <w:p/> </w:tc> <w:tc> <w:p/> </w:tc> <w:tc> <w:p/> </w:tc> </w:tr> </w:tbl> </pre> <p data-bbox="462 1386 1485 1533">The colFirst attribute specifies that all columns starting with the first column shall be included in the table range permission. This will apply starting with the first row and ending with the second row (the two rows within the range permission's start and end). <i>end example</i>]</p> <p data-bbox="462 1564 1485 1638">The possible values for this attribute are defined by the ST_DecimalNumber simple type (§2.17.16).</p>
<p data-bbox="138 1654 381 1753">colLast (Last Table Column Covered By Range Permission)</p>	<p data-bbox="462 1654 1445 1722">Specifies the zero-based index of the last column in this row which shall be part of this range permission.</p> <p data-bbox="462 1753 1445 1858">When a range permission is contained within a table, it is possible for that range permission to only cover cells within a certain column and row range within that table, by specifying:</p>

Attributes	Description
	<ul style="list-style-type: none"> • The first row for which the specified columns are part of the table range permission. This is accomplished by placing the permStart element in the first table cell in that row. • The first column included in the range permission for each of the specified row(s) via the colFirst attribute. • The last column included in the range permission for each of the specified row(s) via this attribute. • The last row for which the specified columns are part of the table range permission. This is accomplished by placing the permEnd element at the end of that table row. <p>If this attribute appears, then the colFirst attribute must also appear (regardless of where this bookmark is located) or the document shall be considered non-conformant. If this attribute and its pair occur on a bookmark which is not contained in a table, then their values should be ignored. If this value does not equal or exceed the value of colFirst or the number of columns in the table, then both values should be ignored.</p> <p>[<i>Example:</i> Consider a three row by three column table where a table range permission shall be applied to the contents of the first two cells in the first two rows in the table (the cells shaded below):</p>  <p>This bookmark would be specified using the following WordprocessingML for the table's contents:</p> <pre> <w:tbl> ... <w:tr> <w:tc> <w:permStart w:colFirst="0" w:colLast="1" w:id="0" w:edGrp="everyone"/> <w:p/> </w:tc> <w:tc> <w:p/> </w:tc> <w:tc> <w:p/> </w:tc> </w:tr> <w:tr> <w:tc> <w:p/> </w:tc> </pre>

Attributes	Description
	<pre data-bbox="505 247 964 831"> <w:tc> <w:p/> </w:tc> <w:tc> <w:p/> </w:tc> <w:permEnd w:id="0" /> </w:tr> <w:tr> <w:tc> <w:p/> </w:tc> <w:tc> <w:p/> </w:tc> <w:tc> <w:p/> </w:tc> </w:tr> </w:tbl> </pre> <p data-bbox="464 867 1477 1003">The colLast attribute specifies that the last column that shall be included in the table range permission is the second column. This will apply starting with the first row and ending with the second row (the two rows within the range permission's start and end). <i>end example</i>]</p> <p data-bbox="464 1045 1477 1108">The possible values for this attribute are defined by the ST_DecimalNumber simple type (§2.17.16).</p>
<p data-bbox="142 1129 438 1230">displacedByCustomXml (Annotation Displaced By Custom XML Markup)</p>	<p data-bbox="464 1129 1477 1297">Specifies that the parent annotation's placement shall be directly linked with the location of the physical presentation of a custom XML element in the document. This element only has an effect when the custom XML element is block-level (i.e. surrounds an entire paragraph), as in this scenario the logical and physical placement of the annotation and custom XML element may differ.</p> <p data-bbox="464 1339 1477 1549">Specifically, in this case, the custom XML is presented <i>*around*</i> the block-level object it encloses (the paragraph, table, table row, or table cell), but is physically represented within that same object (i.e. within the paragraph, table, table row or table cell). This requirement stems from the fact that there is no location for the location of the annotation within the document at its logical location (around a table, for example).</p> <p data-bbox="464 1591 1477 1728">If this element is omitted, then the annotation shall be anchored inside of all block-level custom XML elements in the paragraph. If this element is present, but no block-level custom XML tag is located at the position it specifies (before or after), then it shall be ignored.</p> <p data-bbox="464 1770 1477 1871">[<i>Example:</i> Consider a paragraph with block level custom XML markup and two comment anchor annotations (one before and one after the custom XML element's physical representation), as follows:</p>

Attributes	Description
	 <p>Since all three of these items are around the entire paragraph, they are stored outside of the paragraph. However, in order to ensure that their relative positions are stored correctly, any annotation which shall be displaced by the physical custom XML element specifies this information, resulting in the following WordprocessingML:</p> <pre data-bbox="505 646 1230 856"> <w:commentRangeStart w:id="0" /> <w:commentRangeStart w:id="1" w:displaced byCustomXml="next" /> <w:customXml w:element="spec" ... /> <w:p> ... </w:p> </pre> <p>The displacedByCustomXml attribute specifies that even though all three of these items are around the paragraph and will be moved inside the paragraph to be represented physically, the comment with ID 0 shall be inside the custom XML, but the comment with ID 1 shall be displaced to stay outside of the relative location of the next custom XML element (the spec element). <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_DisplacedByCustomXml simple type (§2.17.17).</p>
<p>ed (Single User For Range Permission)</p>	<p>Specifies a single user for which this range permission shall be enabled (i.e. a user which shall be able to edit this range when document protection is enabled).</p> <p>This editor can be stored in one of the following forms:</p> <ul data-bbox="516 1339 1477 1549" style="list-style-type: none"> • DOMAIN\username - for users whose access shall be authenticated using the current user's domain credentials • user@domain.com - for users whose access shall be authenticated using the user's e-mail address as credentials • user - for users whose access shall be authenticated using the current user's machine credentials <p>[<i>Example:</i> Consider a range permission defined as follows:</p> <pre data-bbox="505 1654 1442 1749"> <w:permStart w:id="0" w:ed="example@contoso.com" ... /> ... <w:permEnd w:id="0" /> </pre> <p>The ed attribute value of example@contoso.com specifies that only user(s) who can authenticate with an application as associated with that e-mail address shall be allowed to edit the contents between the start and end markers when document</p>

Attributes	Description
	<p>protection is being enforced. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_String simple type (§2.17.88).</p>
edGrp (Editor Group For Range Permission)	<p>Specifies an alias (or editing group) which shall be used to determine if the current user shall be allowed to edit this range of the document. This mechanism simply provides a set of predefined editing groups which may be associated with user accounts by applications in any desired manner.</p> <p>[<i>Example</i>: Consider a range permission defined as follows:</p> <pre data-bbox="505 646 1279 737"> <w:permStart w:id="0" w:edGrp="editors" ... /> ... <w:permEnd w:id="0" /> </pre> <p>The edGrp attribute value of editors specifies that only user(s) who the current application associates with the editors group shall be allowed to edit the contents between the start and end markers when document protection is being enforced. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_EdGrp simple type (§2.17.25).</p>
id (Annotation ID)	<p>Specifies a unique identifier for an annotation within a WordprocessingML document. The restrictions on the id attribute, if any, are defined by the parent XML element.</p> <p>If this attribute is omitted, then the document is non-conformant.</p> <p>[<i>Example</i>: Consider an annotation represented using the following WordprocessingML fragment:</p> <pre data-bbox="505 1352 805 1442"> <w:... w:id="1" ... > ... </w:...> </pre> <p>The id attribute specifies that the ID of the current annotation is 1. This value is used to uniquely identify this annotation within the document content. <i>end example</i>]</p> <p>The possible values for this attribute are defined by the ST_String simple type (§2.17.88).</p>

The following XML Schema fragment defines the contents of this element:

```
<complexType name="CT_PermStart">
  <complexContent>
    <extension base="CT_Perm">
      <attribute name="edGrp" type="ST_EdGrp" use="optional"/>
      <attribute name="ed" type="ST_String" use="optional"/>
      <attribute name="colFirst" type="ST_DecimalNumber" use="optional"/>
      <attribute name="colLast" type="ST_DecimalNumber" use="optional"/>
    </extension>
  </complexContent>
</complexType>
```

2.12.8 Spelling & Grammar

The final type of annotation stored in a WordprocessingML document, *spelling and grammar errors* are annotations used to specify the locations of existing spelling and grammatical errors within the contents of a document.

[*Rationale*: When a WordprocessingML document is saved, applications may choose to save currently flagged spelling and grammar errors, for two reasons:

- In order to increase the performance subsequent loads of the document (as those load operations can rely on the persisted proofing state of the document)
- In order to store words which shall not be marked as proofing errors regardless of how they would normally be flagged by the proofing tools engine (i.e. to store spelling and grammar exceptions).

end rationale]

[*Example*: Consider the following paragraph consisting of two misspelled words, where the second word has been explicitly flagged as not being a spelling error. This paragraph would consist of the following WordprocessingML markup:

```
<w:p>
  <w:proofErr w:val="spellStart"/>
  <w:r>
    <w:t>erqwt</w:t>
  </w:r>
  <w:proofErr w:val="spellEnd"/>
  <w:r>
    <w:t xml:space="preserve">werewr</w:t>
  </w:r>
</w:p>
```

The proofErr elements, with a val attribute value of spellStart and spellEnd respectively, delimit the start and end the content in this paragraph which is stored as a spelling error. Since the second word is not included in that range, it is not stored as a spelling error. *end example*]