#### u (Underline)

This element specifies that the contents of this run should be displayed along with an underline appearing directly below the character height (less all [spacing](spacing.docx) above and below the characters on the line).

If this element is not present, the default value is to leave the formatting applied at previous level in the style hierarchy. If this element is never applied in the style hierarchy, then an underline shall not be applied to the contents of this run.

[Example: Consider a run of text which shall have a double underline explicitly turned on for the contents of the run. This constraint is specified using the following WordprocessingML:

<w:[rPr](rPr.docx)>
 <w:u w:val="double"/>
</w:[rPr](rPr.docx)>

This run explicitly declares an underline using the u property. The val of that underline is double, so the style of the underline on this run shall be a double line. end example]

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| Parent Elements |
| [rPr](rPr.docx) (§); [rPr](rPr.docx) (§); [rPr](rPr.docx) (§); [rPr](rPr.docx) (§); [rPr](rPr.docx) (§); [rPr](rPr.docx) (§); [rPr](rPr.docx) (§); [rPr](rPr.docx) (§); [rPr](rPr.docx) (§); [rPr](rPr.docx) (§) |

|  |  |
| --- | --- |
| Attributes | Description |
| [color](color.docx) (Underline Color) | Specifies the [color](color.docx) for the underlining on this run.This [color](color.docx) may either be presented as a hex value (in RRGGBB format), or auto to allow a consumer to automatically determine the underline [color](color.docx) as appropriate.If the underline specifies the use of a theme [color](color.docx) via the themeColor attribute, then this value is superseded by the theme [color](color.docx) value.[Example: Consider a run [color](color.docx) with value auto, as follows:<w:[rPr](rPr.docx)> <w:un … w:[color](color.docx)="auto" /></w:[rPr](rPr.docx)>This [color](color.docx) therefore may be automatically be modified by a consumer as appropriate, for example, in order to ensure that the underline can be distinguished against the page's [background](background.docx) color. end example]The possible values for this attribute are defined by the [ST\_HexColor](ST_HexColor.docx) simple [type](type.docx) (§). |
| themeColor (Underline Theme Color) | Specifies a theme [color](color.docx) which should be applied to the current underline.The specified theme [color](color.docx) is a reference to one of the predefined theme colors, located in the document's Theme part,which allows for [color](color.docx) information to be set centrally in the document.If the themeColor attribute is specified, then the [color](color.docx) attribute is ignored for this underline.[Example: Consider an underlined run of text whose underline should be displayed using the accent3 theme [color](color.docx) from the document’s Theme part. This requirement would be specified as follows in the resulting WordprocessingML:<w:[rPr](rPr.docx)> <w:u … w:themeColor=”accent3” /></w:[rPr](rPr.docx)>The themeColor attribute specifies that the underline shall use the accent3 theme color. end example]The possible values for this attribute are defined by the [ST\_ThemeColor](ST_ThemeColor.docx) simple [type](type.docx) (§). |
| themeShade (Underline Theme Color Shade) | Specifies the shade value applied to the supplied theme [color](color.docx) (if any) for this underline.If the themeShade is supplied, then it is applied to the RGB value of the theme [color](color.docx) to determine the final [color](color.docx) applied to this underline.The themeShade value is stored as a hex [encoding](encoding.docx) of the shade value (from 0 to 255) applied to the current border.[Example: Consider a shade of 40% applied to a underline in a document. This shade is calculated as follows:The resulting themeShade value in the file [format](format.docx) would be 66. end example]Given an RGB [color](color.docx) defined as three hex values in RRGGBB [format](format.docx), the shade is applied as follows:* Convert the [color](color.docx) to the HSL [color](color.docx) [format](format.docx) (values from 0 to 1)
* Modify the luminance factor as follows:
* Convert the resultant HSL [color](color.docx) to RGB

[Example: Consider a document with a [background](background.docx) using the accent2 theme [color](color.docx), whose RGB value (in RRGGBB hex format) is C0504D.The equivalent HSL [color](color.docx) value would be. Applying the shade formula with a shade percentage of 75% to the luminance, we get:Taking the resulting HSL [color](color.docx) value of and converting back to RGB, we get 943634.This transformed value can be seen in the resulting underline's [color](color.docx) attribute:<w:u w:[color](color.docx)="943634" w:themeColor="accent2" w:themeShade="BF" />end example]The possible values for this attribute are defined by the [ST\_UcharHexNumber](ST_UcharHexNumber.docx) simple [type](type.docx) (§). |
| themeTint (Underline Theme Color Tint) | Specifies the tint value applied to the supplied theme [color](color.docx) (if any) for this underline's contents.If the themeTint is supplied, then it is applied to the RGB value of the theme [color](color.docx) to determine the final [color](color.docx) applied to this run.The themeTint value is stored as a hex [encoding](encoding.docx) of the tint value (from 0 to 255) applied to the current border.[Example: Consider a tint of 60% applied to an underline in a document. This tint is calculated as follows:The resulting themeTint value in the file [format](format.docx) would be 99. end example]Given an RGB [color](color.docx) defined as three hex values in RRGGBB [format](format.docx), the shade is applied as follows:* Convert the [color](color.docx) to the HSL [color](color.docx) [format](format.docx) (values from 0 to 1)
* Modify the luminance factor as follows:
* Convert the resultant HSL [color](color.docx) to RGB

[Example: Consider a document with a [background](background.docx) using the accent2 theme [color](color.docx), whose RGB value (in RRGGBB hex format) is 4F81BD.The equivalent HSL [color](color.docx) value would be. Applying the tint formula with a tint percentage of 60% to the luminance, we get:Taking the resulting HSL [color](color.docx) value of and converting back to RGB, we get 95B3D7.This transformed value can be seen in the resulting underline formatting's WordprocessingML [color](color.docx) attribute:<w:u … w:[color](color.docx)="95B3D7" w:themeColor="accent2" w:themeTint="99" />end example]The possible values for this attribute are defined by the [ST\_UcharHexNumber](ST_UcharHexNumber.docx) simple [type](type.docx) (§). |
| val (Underline Style) | Specifies the pattern which shall be used to create the underline applied beneath the text in this run.Each of these possible patterns are shown in the simple [type](type.docx) referenced below.[Example: Consider a run of text which shall have a double underline explicitly turned on for the contents of the run. This constraint is specified using the following WordprocessingML:<w:[rPr](rPr.docx)> <w:u w:val="double"/></w:[rPr](rPr.docx)>The val of the underline on this run is double, so the style of the underline on this run shall be a double line. end example]The possible values for this attribute are defined by the [ST\_Underline](ST_Underline.docx) simple [type](type.docx) (§). |

The following [XML](XML.docx) Schema fragment defines the contents of this element:

<complexType [name](name.docx)="CT\_Underline">

 <attribute [name](name.docx)="val" [type](type.docx)="[ST\_Underline](ST_Underline.docx)" use="optional"/>

 <attribute [name](name.docx)="[color](color.docx)" [type](type.docx)="[ST\_HexColor](ST_HexColor.docx)" use="optional"/>

 <attribute [name](name.docx)="themeColor" [type](type.docx)="[ST\_ThemeColor](ST_ThemeColor.docx)" use="optional"/>

 <attribute [name](name.docx)="themeTint" [type](type.docx)="[ST\_UcharHexNumber](ST_UcharHexNumber.docx)" use="optional"/>

 <attribute [name](name.docx)="themeShade" [type](type.docx)="[ST\_UcharHexNumber](ST_UcharHexNumber.docx)" use="optional"/>

</complexType>