#### usePrinterMetrics (Use Printer Metrics To Display Documents)

This element specifies whether applications shall use the printer metrics of the currently [active](active.docx) printer when determining how to display the contents of a WordprocessingML document. Printer metrics are printer-specific settings which can be queried to tell an application how and where text shall be displayed on a printed page.

Typically, applications display the content of a document in a device independent manner - the application is therefore not changing the layout of a document based on the currently attached printer, and instead shall dictate to the printer where characters shall be presented on the page when printed. This element, when present with a val attribute value of true (or equivalent), specifies that the metrics of the current printer shall be used to display the document instead.

Specifically, when this setting is [enabled](enabled.docx), the printer metrics are used to determine the number of pixels per logical inch along the screen width and height. This should then be used to compute the pixel height of the [fonts](fonts.docx) requested when displaying the document, as well as to scale [between](between.docx) any logical units within the document (e.g. [drawing](drawing.docx) [object](object.docx) sizes) to the appropriate device units. Those units would then need to be scaled back into screen units for final display to a screen, but not scaled again when displayed to a printer.

[Note: On the Windows platform, you can use the GetDeviceCaps function to retrieve device-specific information for the specified printer. For this specific setting, you can use GetDeviceCaps(hdc, LOGPIXELSX) and GetDeviceCaps(hdc, LOGPIXELSY) with a printer DC to retrieve the number of pixels per logical inch along the screen width and height. With this, you can then use those DPI metrics to compute a pixel value for the font request in the LOGFONT structure (the LOGFONT structure defines the attributes of a font). A common formula to do this is$ S\_{px}=S\_{pts}\*\frac{LOGPIXELSY}{72}$. end note]

[Example: Consider a WordprocessingML document. The default shall use device-independent layout to present the contents of the page.

However, if this compatibility setting is turned on:

<w:[compat](compat.docx)>
 <w:usePrinterMetrics />
</w:[compat](compat.docx)>

Then the printer metrics of the current [active](active.docx) printer shall be used to determine the display of the contents of the document instead, as needed. end example]

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| Parent Elements |
| [compat](compat.docx) (§) |

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| --- | --- |
| Attributes | Description |
| val (On/Off Value) | Specifies a binary value for the property defined by the parent [XML](XML.docx) element.A value of on, 1, or true specifies that the property shall be explicitly applied. This is the default value for this attribute, and is implied when the parent element is present, but this attribute is omitted. A value of off, 0, or false specifies that the property shall be explicitly turned off.[Example: For example, consider the following on/off property:<w:… w:val="off"/>The val attribute explicitly declares that the property is turned off. end example]The possible values for this attribute are defined by the [ST\_OnOff](ST_OnOff.docx) simple [type](type.docx) (§). |

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

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

 <attribute [name](name.docx)="val" [type](type.docx)="[ST\_OnOff](ST_OnOff.docx)"/>

</complexType>