#### arc (Arc Segment)

This element specifies an arc defined as a segment of an oval.  The CSS2 style content width and height define the width and height of that oval.  The arc is defined by the intersection of the [oval](oval.docx) with the start and end radius vectors given by the angles.   The angles are calculated on the basis of a circle (width equal to height) which is then scaled anisotropically to the desired width and height.

[Example: The following specifies a simple half-circle arc open at the top:

<v:arc

 style="position:relative;top:120;left:20;width:200;height:200"

 startangle="90" endangle="270">

</v:arc>

The shape looks like this:



end example]

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| Parent Elements |
| [background](background.docx) (§); [group](group.docx) (§); object (§); pict (§); pict (§) |

|  |  |
| --- | --- |
| Child Elements | Subclause |
| [anchorlock](anchorlock.docx) (Anchor Location Is Locked) | § |
| [borderbottom](borderbottom.docx) (Bottom Border) | § |
| [borderleft](borderleft.docx) (Left Border) | § |
| [borderright](borderright.docx) (Right Border) | § |
| [bordertop](bordertop.docx) (Top Border) | § |
| [callout](callout.docx) (Callout) | § |
| [ClientData](ClientData.docx) (Attached Object Data) | § |
| [clippath](clippath.docx) (Shape Clipping Path) | § |
| [extrusion](extrusion.docx) (3D Extrusion) | § |
| [fill](fill.docx) (Shape Fill Properties) | § |
| [formulas](formulas.docx) (Set of Formulas) | § |
| [handles](handles.docx) (Set of Handles) | § |
| [imagedata](imagedata.docx) (Image Data) | § |
| [lock](lock.docx) (Shape Protections) | § |
| [path](path.docx) (Shape Path) | § |
| [shadow](shadow.docx) (Shadow Effect) | § |
| [signatureline](signatureline.docx) (Digital Signature Line) | § |
| [skew](skew.docx) (Skew Transform) | § |
| [stroke](stroke.docx) (Line Stroke Settings) | § |
| [textbox](textbox.docx) (Text Box) | § |
| [textdata](textdata.docx) (VML Diagram Text) | § |
| [textpath](textpath.docx) (Text Layout Path) | § |
| [wrap](wrap.docx) (Text Wrapping) | § |

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| Attributes | Description |
| allowincell (Allow in Table Cell)Namespace: urn:schemas-microsoft-com:office:office | Specifies whether a shape can be placed in a table. [Default](Default.docx) is false.[Example:<v:shape ... o:allowincell="true" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| allowoverlap (Allow Shape Overlap)Namespace: urn:schemas-microsoft-com:office:office | Specifies whether a shape can overlap another shape. [Default](Default.docx) is true. If false, the shape will shift left or right so as not to overlap another shape, similar to the behavior of the HTML float attribute.[Example:<v:shape ... o:allowoverlap="false" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| alt (Alternate Text) | Specifies alternative text describing the graphical object. This text should provide a brief description of the shape for use by accessibility tools. [Default](Default.docx) is no value.[Example: The alt text describes the basic shape:<v:[shape](shape.docx) ... fillcolor="red"  alt="Red rectangle"></v:[shape](shape.docx)>The alt text describes the contents of a shape displaying an image:<v:shape ... alt="Picture of a sunset"></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the XML Schema string datatype. |
| borderbottomcolor (Bottom Border Color)Namespace: urn:schemas-microsoft-com:office:office | Specifies the bottom border color of an inline shape. [Default](Default.docx) is no value.[Example:<v:shape ... o:borderbottomcolor="red" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the XML Schema string datatype. |
| borderleftcolor (Border Left Color)Namespace: urn:schemas-microsoft-com:office:office | Specifies the left border color of an inline shape. [Default](Default.docx) is no value.[Example:<v:shape ... o:borderleftcolor="red" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the XML Schema string datatype. |
| borderrightcolor (Border Right Color)Namespace: urn:schemas-microsoft-com:office:office | Specifies the right border color of an inline shape. [Default](Default.docx) is no value.[Example:<v:shape ... o:borderrightcolor="red" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the XML Schema string datatype. |
| bordertopcolor (Border Top Color)Namespace: urn:schemas-microsoft-com:office:office | Specifies the top border color of an inline shape. [Default](Default.docx) is no value.[Example:<v:shape ... o:bordertopcolor="red" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the XML Schema string datatype. |
| bullet (Graphical Bullet)Namespace: urn:schemas-microsoft-com:office:office | Specifies whether the shape is a graphical bullet. [Default](Default.docx) is false.[Example:<v:shape ... o:bullet="true" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| button (Button Behavior Toggle)Namespace: urn:schemas-microsoft-com:office:office | Specifies whether a shape will exhibit button press behavior on click. [Default](Default.docx) is false.[Example:<v:shape ... o:button="true" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| bwmode (Black-and-White Mode)Namespace: urn:schemas-microsoft-com:office:office | Specifies how a shape will render for black-and-white output devices. When a shape is printed on a black-and-white printer or displayed in a black-and-white view in an application, several options are possible. [Default](Default.docx) is auto, which will use o:bwnormal for normal black-and-white rendering and o:bwpure for pure black-and-white rendering.bwnormal and bwpure are subordinate to bwmode.  If bwmode is "auto" then the value for bwnormal or bwpure is used depending on what the output format is.  An application may define for itself what, if any, difference there is between normal B&W and pure B&W.  For example, normal B&W might allow greyscale and pure B&W might not.[Example: This shape renders in grayscale in a black-and-white environment:<v:shape ... o:bwmode="grayscale" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_BWMode](ST_BWMode.docx) simple type (§). |
| bwnormal (Normal Black-and-White Mode)Namespace: urn:schemas-microsoft-com:office:office | Specifies the black-and-white mode for normal black-and-white output devices. [Default](Default.docx) is auto.[Example: This shape renders in a pale grayscale in a normal black-and-white environment:<v:shape ... o:bwmode="auto" o:bwnormal="lightgrayscale" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_BWMode](ST_BWMode.docx) simple type (§). |
| bwpure (Pure Black-and-White Mode)Namespace: urn:schemas-microsoft-com:office:office | Specifies the black-and-white mode for pure black-and-white output devices. [Default](Default.docx) is auto.[Example: This shape renders in high contrast when in a pure black-and-white environment:<v:shape ... o:bwmode="auto" o:bwpure="highcontrast" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_BWMode](ST_BWMode.docx) simple type (§). |
| chromakey (Image Transparency Color) | Specifies a color value that will be transparent and show anything behind the shape. [Default](Default.docx) is no value.[Example:<v:[image](image.docx) ... chromakey="white" ...></v:[image](image.docx)>end example]The possible values for this attribute are defined by the [ST\_ColorType](ST_ColorType.docx) simple type (§). |
| class (CSS Reference) | Specifies a reference to the definition of a CSS style. [Default](Default.docx) is no value.[Example: The snippets below are equivalent: ....narrowstyle {width:50;height:100}...<v:[shape](shape.docx) ... class="narrowstyle" style="top:1;left:1"></v:[shape](shape.docx)><v:[shape](shape.docx) ... style="top:1;left:1; width:50;height:100"></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the XML Schema string datatype. |
| clip (Clipping Toggle)Namespace: urn:schemas-microsoft-com:office:office | Specifies that the clipping region is active. This is used in conjunction with the [clippath](clippath.docx) (§) element to create a clipping region.[Example:<v:[shape](shape.docx) ... o:clip="true"></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| cliptowrap (Clip to Wrapping Polygon)Namespace: urn:schemas-microsoft-com:office:office | Specifies that the clipping region for the shape aligns with the wrapping polygon that tightly surrounds the entire shape (essentially, that the shape shall not be drawn beyond its wrapping polygon's extents – if it does, the shape shall be clipped). [Default](Default.docx) is false.[Example:<v:[shape](shape.docx) ... o:cliptowrap="true"></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| connectortype (Shape Connector Type)Namespace: urn:schemas-microsoft-com:office:office | Specifies the type of connector used for joining shapes. [Default](Default.docx) is straight.[Example:<v:shape ... o:connectortype="elbow" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_ConnectorType](ST_ConnectorType.docx) simple type (§). |
| coordorigin (Coordinate Space Origin) | Specifies the coordinate of the top left corner of the shape's coordinate space. This determines the position of the (0,0) coordinate space origin within the shape's bounding box. [Default](Default.docx) is "0,0", which places the (0,0) origin at the top left corner of the bounding box.This affects shape properties that specify coordinate positions, such as the [path](path.docx) attribute. Thus a [path](path.docx) can be defined against a generic (0,0) origin and the coordorigin value translates the entire [path](path.docx) within the shape's bounding space.[Example: The horizontal and vertical coordinate space ranges from -100 to +100 because the coordinate space (coordsize) is 200 by 200 and the top left coordinate is (-100,-100). The (0,0) origin lies at the center of the shape's bounding box, as evidenced by the position of the shape's [path](path.docx) within the coordinate space:<v:[shape](shape.docx) ... coordsize="200,200" coordorigin="-100,-100" [path](path.docx)="m 0,0 l 0,50, 50,50, 50,0 x e"></v:[shape](shape.docx)> end example]The possible values for this attribute are defined by the XML Schema string datatype. |
| coordsize (Coordinate Space Size) | Specifies the size of the shape's coordinate space in coordinate units. [Default](Default.docx) is "1000,1000".The physical size of a coordinate unit length is determined by both the size of the coordinate space (coordsize) and the size of the shape (style width and height). The coordsize attribute defines the number of horizontal and vertical subdivisions into which the shape's bounding box is divided. The combination of coordsize and style width/height effective scales the shape anisotropically.[Example: The [path](path.docx) is 50 units wide and tall, which is 25% of the size of the coordinate space:<v:[shape](shape.docx) ... coordsize="200,200" coordorigin="-100,-100" [path](path.docx)="m 0,0 l 0,50, 50,50, 50,0 x e"></v:[shape](shape.docx)> end example]The possible values for this attribute are defined by the XML Schema string datatype. |
| dgmlayout (Diagram Node Layout Identifier)Namespace: urn:schemas-microsoft-com:office:office | Specifies the type of automatic layout to apply to the [diagram](diagram.docx) node. This is only meaningful for organization charts. Valid values for organization charts are:

|  |  |
| --- | --- |
| Value | Description |
| 0 | Top-down, centered layout. |
| 1 | Hanging, both sides layout. |
| 2 | Hanging, [right](right.docx) side layout. |
| 3 | Hanging, [left](left.docx) side layout. |

[Example:<v:[shape](shape.docx) ... dgmlayout="1"></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the XML Schema integer datatype. |
| dgmlayoutmru (Diagram Node Recent Layout Identifier)Namespace: urn:schemas-microsoft-com:office:office | Specifies the type of automatic layout most recently used on the child elements of the [diagram](diagram.docx) node. This is only meaningful for organization charts. Valid values for organization charts are:

|  |  |
| --- | --- |
| Value | Description |
| 0 | Top-down, centered layout. |
| 1 | Hanging, both sides layout. |
| 2 | Hanging, [right](right.docx) side layout. |
| 3 | Hanging, [left](left.docx) side layout. |

[Example:<v:[shape](shape.docx) ... dgmlayout="1"></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the XML Schema integer datatype. |
| dgmnodekind (Diagram Node Identifier)Namespace: urn:schemas-microsoft-com:office:office | Specifies an optional, application-specific parameter that is intended to be used by the application to tag different types of nodes in a diagram.[Example:<v:[shape](shape.docx) ... dgmnodekind="1"></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the XML Schema integer datatype. |
| doubleclicknotify (Double-click Notification Toggle)Namespace: urn:schemas-microsoft-com:office:office | Specifies that an event message is sent when a shape is double-clicked. [Default](Default.docx) is false.[Example:<v:shape ... o:doubleclicknotify="true" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| endAngle (Ending Angle) | Specifies the angle that defines the endpoint of the arc. The angle is measured in degrees clockwise from the vertical. [Default](Default.docx) is 90.[Example: This arc ends at the bottom center of the shape's region:<v:arc ... endangle="180" ... ></v:arc>end example]The possible values for this attribute are defined by the XML Schema decimal datatype. |
| fillcolor (Fill Color) | Specifies the color to use for the fill. [Default](Default.docx) is white. If the [fill](fill.docx) element (§) is present, its color attribute takes precedence. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.[Example: This shape is red if its [fill](fill.docx) is visible:<v:shape ... fillcolor="red" ... ></v:[shape](shape.docx)>This is equivalent to:<v:shape ... fillcolor="#ff0000" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_ColorType](ST_ColorType.docx) simple type (§). |
| filled (Shape Fill Toggle) | Specifies whether the closed [path](path.docx) will be filled. [Default](Default.docx) is true. This attribute is overridden by the [fill](fill.docx) on attribute.[Example:<v:[shape](shape.docx) ... filled="[f](f.docx)"  fillcolor="red" ...></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| forcedash (Force Dashed Outline)Namespace: urn:schemas-microsoft-com:office:office | Specifies whether a dashed outline is used to draw a shape when a shape has no [line](line.docx) or fill. [Default](Default.docx) is false.Used by PresentationML placeholders to draw a dashed outline when there is no [line](line.docx) and no [fill](fill.docx) for a shape.[Example:<v:shape ... o:forcedash="true" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| hr (Horizontal Rule Toggle)Namespace: urn:schemas-microsoft-com:office:office | Specifies that a shape is a horizontal rule. [Default](Default.docx) is false.[Example:<v:shape ... o:hr="true" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| hralign (Horizontal Rule Alignment)Namespace: urn:schemas-microsoft-com:office:office | Specifies the alignment of a horizontal rule. [Default](Default.docx) is left.[Example:<v:shape ... o:hralign="center" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_HrAlign](ST_HrAlign.docx) simple type (§). |
| href (Hyperlink Target) | Specifies a hyperlink URL target for the shape. [Default](Default.docx) is no value.[Example:<v:shape ... href="http://www.openxmlformats.org" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the XML Schema string datatype. |
| hrnoshade (Horizontal Rule 3D Shading Toggle)Namespace: urn:schemas-microsoft-com:office:office | Specifies that the horizontal rule does not have 3-D shading. [Default](Default.docx) is false.[Example:<v:shape ... o:hrnoshade="true" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| hrpct (Horizontal Rule Length Percentage)Namespace: urn:schemas-microsoft-com:office:office | Specifies the length of a horizontal rule as a percentage of page width. [Default](Default.docx) is 0.[Example:<v:shape ... o:hrpct="85" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the XML Schema float datatype. |
| hrstd (Horizontal Rule Standard Display Toggle)Namespace: urn:schemas-microsoft-com:office:office | Specifies whether a shape is displayed as a standard horizontal rule. Only applies if hr is true. [Default](Default.docx) is false.[Example:<v:shape ... o:hrstd="true" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| id (Unique Identifier) | Specifies a unique identifier that can be used to reference a [VML](VML.docx) object.[Default](Default.docx) is no value.[Example:<v:shape ... id="myShape" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the XML Schema string datatype. |
| insetmode (Text Inset Mode)Namespace: urn:schemas-microsoft-com:office:office | Specifies whether the application calculates the internal text margin instead of using the inset attribute. [Default](Default.docx) is custom. This attribute is only meaningful for text boxes.[Example:<v:shape ... o:insetmode="auto" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_InsetMode](ST_InsetMode.docx) simple type (§). |
| insetpen (Inset Border From Path) | Specifies that the border shall be displayed inside of the [path](path.docx) defining the shape, rather than along the [path](path.docx) (the default border placement), or outside of the [path](path.docx) as might be done with an image.[Example:<v:shape ... insetpen="true" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| ole (Embedded Object Toggle)Namespace: urn:schemas-microsoft-com:office:office | Specifies whether the shape is an embedded object. [Default](Default.docx) is false.[Example:<v:shape ... o:ole="true" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalseBlank](ST_TrueFalseBlank.docx) simple type (§). |
| oleicon (Embedded Object Icon Toggle)Namespace: urn:schemas-microsoft-com:office:office | Specifies whether an embedded object will be displayed as an icon. [Default](Default.docx) is false.[Example:<v:shape ... o:oleicon="true" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| oned (Shape Handle Toggle)Namespace: urn:schemas-microsoft-com:office:office | Specifies whether the extra [handles](handles.docx) of a shape are hidden. If true, hides all shape [handles](handles.docx) except the top left and bottom right; that is, the same [handles](handles.docx) that are used for a straight [line](line.docx) segment. [Default](Default.docx) is false.[Example:<v:shape ... o:oned="true" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| opacity (Fill Color Opacity) | Specifies the opacity of the primary [fill](fill.docx) color. [Default](Default.docx) is 1.0. This numeric value may also be specified in 1/65536-ths if a trailing "[f](f.docx)" is supplied. For example, a value of "52429f" represents 52429/65536 or 0.8.[Example: The red color is 25% opaque:<v:[fill](fill.docx) type="gradient" color="red" color2="blue" opacity=".25"></v:[fill](fill.docx)> opacity="1" opacity=".25"end example]The possible values for this attribute are defined by the XML Schema string datatype. |
| preferrelative (Relative Resize Toggle)Namespace: urn:schemas-microsoft-com:office:office | Specifies whether the original size of an object is saved after reformatting. [Default](Default.docx) is false. If true, the original size of the object is stored and all resizing is based on a percentage of that original size. Otherwise, each resizing will reset the scale to 100%.[Example:<v:shape ... o:preferrelative="true" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| print (Print Toggle) | Specifies whether the shape will be printed. [Default](Default.docx) is true.[Example:<v:shape ... print="false" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| regroupid (Regroup ID)Namespace: urn:schemas-microsoft-com:office:office | Specifies a previous [group](group.docx) for a shape. An ID number is used to identify groups of shapes that are no longer grouped. This allows shapes to be regrouped programmatically.[Example: The shape was part of a [group](group.docx) identified by the ID 040754:<v:shape ... o:regroupid="040754" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the XML Schema integer datatype. |
| spid (Optional String)Namespace: urn:schemas-microsoft-com:office:office | Specifies an optional string that an application may use to Identify the particular shape. [Default](Default.docx) is no value.The possible values for this attribute are defined by the XML Schema string datatype. |
| spt (Optional Number)Namespace: urn:schemas-microsoft-com:office:office | Specifies an optional number that an application may use to associate the particular shape with a defined shape type. [Default](Default.docx) is 0.The possible values for this attribute are defined by the XML Schema float datatype. |
| startAngle (Starting Angle) | Specifies an angle that defines the starting point of the arc. The angle is measured in degrees clockwise from the vertical.[Default](Default.docx) is 0.[Example: This arc begins in the upper-right quadrant:<v:arc ... startangle="45" ... ></v:arc>end example]The possible values for this attribute are defined by the XML Schema decimal datatype. |
| strokecolor (Shape Stroke Color) | Specifies the primary color of the brush to use to [stroke](stroke.docx) the [path](path.docx) of the shape. [Default](Default.docx) is black. The color attribute of the [stroke](stroke.docx) element (§) overrides this. Colors are typically specified as either a named color, such as red, or six hexadecimal digits representing the red, green and blue values of the color, such as #00FF30. Full details are specified in the simple type description.[Example:<v:[shape](shape.docx) ... strokecolor="red" ...></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_ColorType](ST_ColorType.docx) simple type (§). |
| stroked (Shape Stroke Toggle) | Specifies whether the [path](path.docx) defining the shape is stroked with a solid line. The [stroke](stroke.docx) element (§) defines other strokes. The on attribute of the [stroke](stroke.docx) element overrides this attribute. [Default](Default.docx) is true.[Example:<v:[shape](shape.docx) ... fillcolor="red" stroked="false" strokecolor="blue"...></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| strokeweight (Shape Stroke Weight) | Specifies the width of the brush to use to [stroke](stroke.docx) the path. [Default](Default.docx) is 1 point. If a number is given without units, the emu is used. The weight attribute of the [stroke](stroke.docx) element (§) overrides this attribute.[Example:<v:shape ... strokeweight="3pt" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the XML Schema string datatype. |
| style (Shape Styling Properties) | Specifies the CSS2 styling properties of the shape. This uses the syntax described in the "Visual formatting model" of the Cascading Style Sheets, Level 2 specification, a Recommendation of the World Wide Web Consortium available here: http://www.w3.org/TR/REC-CSS2. Full descriptions of each property are not repeated here, but the [VML](VML.docx) treatment of each property is defined. Allowed properties include:

|  |  |
| --- | --- |
| Property | Description |
| flip | Specifies that the orientation of a shape is flipped. [Default](Default.docx) is no value. Allowed values are:* x - Flip along the y-axis, reversing the x-coordinates.
* y - Flip along the x-axis, reversing the y-coordinates.
* xy - Flip along both the y- and x-axis.
* yx - Flip along both the x- and y-axis.
 |
| height | Specifies the height of the containing block of the shape.  [Default](Default.docx) is 0. It is specified in CSS units or, for elements in a [group](group.docx), in the coordinate system of the parent element. Allowed values are: * auto - [Default](Default.docx) position of an element in the flow of the page.
* <units>- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.
* <percentage>- Value expressed as a percentage of the parent object's height.
 |
| [left](left.docx) | Specifies the position of the left of the containing block of the shape relative to the element left of it in the flow of the page. [Default](Default.docx) is 0. It is specified in CSS units or, for elements in a [group](group.docx), in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are: * auto - [Default](Default.docx) position of an element in the flow of the page.
* <units> - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.
* <percentage>- Value expressed as a percentage of the parent object's width.
 |
| margin-bottom | Specifies the position of the bottom of the containing block of the shape relative to the shape anchor. [Default](Default.docx) is 0. It is specified in CSS units or, for elements in a [group](group.docx), in the coordinate system of the parent element. Allowed values are: * auto - [Default](Default.docx) position of an element in the flow of the page.
* <units>- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.
* <percentage>- Value expressed as a percentage of the parent object's height.
 |
| margin-left | Specifies the position of the left of the containing block of the shape relative to the shape anchor. [Default](Default.docx) is 0. It is specified in CSS units or, for elements in a [group](group.docx), in the coordinate system of the parent element. Allowed values are: * auto - [Default](Default.docx) position of an element in the flow of the page.
* <units>- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.
* <percentage>- Value expressed as a percentage of the parent object's width.
 |
| margin-right | Specifies the position of the right of the containing block of the shape relative to the shape anchor. [Default](Default.docx) is 0. It is specified in CSS units or, for elements in a [group](group.docx), in the coordinate system of the parent element. Allowed values are: * auto - [Default](Default.docx) position of an element in the flow of the page.
* <units> - A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.
* <percentage>- Value expressed as a percentage of the parent object's width.
 |
| margin-top | Specifies the position of the top of the containing block of the shape relative to the shape anchor. [Default](Default.docx) is 0. It is specified in CSS units or, for elements in a [group](group.docx), in the coordinate system of the parent element. Allowed values are:* auto - [Default](Default.docx) position of an element in the flow of the page.
* <units>- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.
* <percentage>- Value expressed as a percentage of the parent object's height.
 |
| mso-position-horizontal | Specifies the horizontal positioning data for objects in WordprocessingML documents. [Default](Default.docx) is absolute. Allowed values are:* absolute
* [left](left.docx)
* center
* [right](right.docx)
* inside
* outside
 |
| mso-position-horizontal-relative | Specifies relative horizontal position data for objects in WordprocessingML documents. This modifies the mso-position-horizontal property. [Default](Default.docx) is text. Allowed values are:* margin
* page
* text
* char
 |
| mso-position-vertical | Specifies the vertical positioning data for objects in WordprocessingML documents. [Default](Default.docx) is absolute. Allowed values are:* absolute
* [top](top.docx)
* center
* [bottom](bottom.docx)
* inside
* outside
 |
| mso-position-vertical-relative | Specifies relative vertical position data for objects in WordprocessingML documents. This modifies the mso-position-vertical property. [Default](Default.docx) is text. Allowed values are:* margin
* page
* text
* [line](line.docx)
 |
| mso-wrap-distance-bottom | Specifies the distance from the bottom of the shape to the text that wraps around it. [Default](Default.docx) is 0 pt. Note that this property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin. |
| mso-wrap-distance-left | Specifies the distance from the left side of the shape to the text that wraps around it. [Default](Default.docx) is 0 pt. Note that this property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin. |
| mso-wrap-distance-right | Specifies the distance from the right side of the shape to the text that wraps around it. [Default](Default.docx) is 0 pt. Note that this property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin. |
| mso-wrap-distance-top | Specifies the distance from the top of the shape to the text that wraps around it. [Default](Default.docx) is 0 pt. Note that this property is different from the CSS margin property, which changes the origin of the shape to include the margin areas. This property does not change the origin. |
| mso-wrap-edited | Specifies whether the [wrap](wrap.docx) coordinates were customized by the user. If the [wrap](wrap.docx) coordinates are generated by an editor, this property is true; otherwise they were customized by a user. [Default](Default.docx) is false. |
| mso-wrap-style | Specifies the wrapping mode for text in shapes in WordprocessingML documents. [Default](Default.docx) is square. Allowed values are:* square - Wraps text inside the shape in a square.
* none - Text does not wrap.
 |
| position | Specifies the type of positioning used to place an element. [Default](Default.docx) is static. When the element is contained inside a [group](group.docx), this property must be absolute. Allowed values are:* static - The element is positioned according to the normal flow of the page. The top and left properties are ignored. If the object is anchored inline, this value is used.
* absolute - The element is positioned relative to the parent, using the top and left properties.
* relative - The element is positioned according to the normal flow of the page, but the top and left properties are used. The overlap of overlapping elements is governed by the z-index property.
 |
| rotation | Specifies the angle that a shape is rotated, in degrees. [Default](Default.docx) is 0. Positive angles are clockwise. |
| [top](top.docx) | Specifies the position of the top of the containing block of the shape relative to the element above it in the flow of the page. [Default](Default.docx) is 0. It is specified in CSS units or, for elements in a [group](group.docx), in the coordinate system of the parent element. This property shall not be used for shapes anchored inline. Allowed values are:* auto - [Default](Default.docx) position of an element in the flow of the page.
* <units>- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.
* <percentage>- Value expressed as a percentage of the parent object's height.
 |
| visibility | Specifies whether a shape is displayed. Only inherit and hidden are used; any other values are mapped to inherit. [Default](Default.docx) is inherit. Allowed values are:* hidden - The shape is not visible, but is still part of the flow of the objects in the browser. Mouse events are not processed.
* inherit - The visibility state is inherited from the parent of the shape.
 |
| width | Specifies the width of the containing block of the shape.  [Default](Default.docx) is 0. It is specified in CSS units or, for elements in a [group](group.docx), in the coordinate system of the parent element. Allowed values are: * auto - [Default](Default.docx) position of an element in the flow of the page.
* <units>- A number with an absolute units designator (cm, mm, in, pt, pc, or px) or a relative units designator (em or ex). If no units are given, pixels (px) is assumed.
* <percentage>- Value expressed as a percentage of the parent object's width.
 |
| z-index | Specifies the display order of overlapping shapes. [Default](Default.docx) is 0. This property shall not be used for shapes anchored inline. Allowed values are:* auto - Uses the order that the shapes appear in the page, bottom to top.
* <order>- A number that represents the stacking precedence. Shapes with higher numbers are placed on top of those with lower numbers. Negative numbers are allowed.
 |

The following properties are only used by the [textbox](textbox.docx) element (§):

|  |  |
| --- | --- |
| Property | Description |
| direction | Specifies the direction of the text in the textbox. [Default](Default.docx) is ltr. This property is superceded by the mso-direction-alt property if that is specified. Allowed values are:* ltr - Test is displayed left-to-right.
* rtl - Test is displayed right-to-left.
 |
| layout-flow | Determines the flow of the text layout in a textbox. [Default](Default.docx) is horizontal. Allowed values are:* horizontal - Text is displayed horizontally.
* vertical - Text is displayed vertically.
* vertical-ideographic - Ideographic text is displayed vertically.
* horizontal-ideographic - Ideographic text is displayed horizontally.
 |
| mso-direction-alt | Specifies an alternate direction for text in textboxes. Overrides the direction property. The only allowed value is context. |
| mso-fit-shape-to-text | Specifies whether the shape stretches to fit the text in the textbox. [Default](Default.docx) is false. |
| mso-fit-text-to-shape | Specifies whether the text stretches to fit the textbox. [Default](Default.docx) is false. |
| mso-layout-flow-alt | Specifies the alternate layout flow for text in textboxes. This property is used instead of layout-flow when the layout flow is from bottom to top for non-ideographic languages.  Its only value is bottom-to-top. |
| mso-next-textbox | Specifies the ID of the next [textbox](textbox.docx) in a series. Used to keep track of a set of linked textboxes. [Default](Default.docx) is no value. |
| mso-rotate | Specifies a specific rotation value for text in a textbox. [Default](Default.docx) is 0. Allowed values are:* 0
* 90
* 180
* -90
 |
| mso-text-scale | Specifies the scaling factor for fitting text to shapes. [Default](Default.docx) is 0. This property is only used if mso-fit-text-to-shape is true. |
| v-text-anchor | Specifies the vertical anchoring of text in a textbox. [Default](Default.docx) is top. The alignment of a text anchor only becomes evident if mso-fit-text-to-shape is false. This property is different from the vertical-align CSS property, which is used for ideographic languages. Allowed values are:* [top](top.docx)
* middle
* [bottom](bottom.docx)
* top-center
* middle-center
* bottom-center
* top-baseline
* bottom-baseline
* top-center-baseline
* bottom-center-baseline
 |

The following properties are only used by the [textpath](textpath.docx) element (§):

|  |  |
| --- | --- |
| Property | Description |
| font | Specifies a compound value of font settings. [Default](Default.docx) is no value. The values are the same as those of the CSS font property. The order of definitions in the string is: font-style, font-variant, font-weight, font-size, line-height, font-family. |
| font-family | Specifies the family of the font. [Default](Default.docx) is no value. The values are the same as those of the CSS font-family property. |
| font-size | Specifies the size of the font. [Default](Default.docx) is no value. The font size is defined in points. The values are the same as those of the CSS font-size property. |
| font-style | Specifies the amount of slant for a font. [Default](Default.docx) is normal. The values are the same as those of the CSS font-style property. Allowed values are:* normal
* italic
* oblique - Treated the same as italic.
 |
| font-variant | Specifies the variant style of a font. [Default](Default.docx) is normal. The values are the same as those of the CSS font-variant property. Allowed values are:* normal
* small-caps
 |
| font-weight | Specifies the thickness of the letters of the font. [Default](Default.docx) is normal. The values are the same as those of the CSS font-weight property. Allowed values are:

|  |  |
| --- | --- |
| Value | Description |
| normallighter100200300400 | Treated as non-bold. |
| boldbolder500600700800900 | Treated as bold. |

 |
| mso-text-shadow | Specifies whether a [shadow](shadow.docx) is applied to the text on a text path. [Default](Default.docx) is false. |
| text-decoration | Specifies the style of text decoration. [Default](Default.docx) is none. The values are the same as those of the CSS text-decoration property. Allowed values are:* none
* underline
* overline
* line-through
* blink
 |
| v-rotate-letters | Specifies whether the letters of the text are rotated counterclockwise by 90 degrees. [Default](Default.docx) is false. |
| v-same-letter-heights | Specifies whether all letters will be the same height regardless of initial case. If true, the lowercase letters are stretched to the height of the uppercase letters. [Default](Default.docx) is false. |
| v-text-align | Specifies the alignment of text. [Default](Default.docx) is left. Allowed values are:* [left](left.docx)
* [right](right.docx)
* center
* justify
* letter-justify - Distributes the extra space between the letters.
* stretch-justify - Stretches the letters to [fill](fill.docx) in the space.
 |
| v-text-kern | Specifies whether kerning is turned on. [Default](Default.docx) is false. |
| v-text-reverse | Specifies whether the layout order of rows is reversed. [Default](Default.docx) is false. This is used for vertical text layout. |
| v-text-spacing-mode | Specifies the mode for letter spacing. [Default](Default.docx) is tightening. This property determines whether space will be removed between each letter (tightening) or added between each letter (tracking). The amount of letter spacing change is defined by the v-text-spacing property. Allowed values are:* tightening
* tracking
 |
| v-text-spacing | Specifies the amount of spacing for text in 100ths of single [line](line.docx) spacing. [Default](Default.docx) is 100. |

The [line](line.docx) (§), [polyline](polyline.docx) (§) and [curve](curve.docx) (§) elements ignore the following properties:* [top](top.docx)
* [left](left.docx)
* width
* height

The following properties are not inherited by an element that references a [shapetype](shapetype.docx) element (§) via the id attribute:* flip
* height
* [left](left.docx)
* margin-left
* margin-top
* position
* rotation
* [top](top.docx)
* visibility
* width
* z-index

The possible values for this attribute are defined by the XML Schema string datatype. |
| target (Hyperlink Display Target) | Specifies a frame or window that a URL is displayed in. [Default](Default.docx) is no value. Allowed values are:

|  |  |
| --- | --- |
| Value | Description  |
| <targetname> | String containing the name of the frame or window in which to load the document. |
| \_blank | Specifies that the linked document is loaded into a new blank window. This window is not named. |
| \_media | Specifies that the linked document is loaded into the Media Bar. Available in Microsoft® Internet Explorer 6 or later. |
| \_parent | Specifies that the linked document is loaded into the immediate parent of the document containing the link. |
| \_search | Specifies that the linked document is loaded into the browser's search pane. Available in Microsoft Internet Explorer 5 or greater. |
| \_self | Specifies that the linked document is loaded into the window in which the link was clicked (the active window). |
| \_top | Specifies that the linked document is loaded into the topmost window. |

[Example:<v:[shape](shape.docx) ... href="http://www.openxmlformats.org"  target="\_self" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the XML Schema string datatype. |
| title (Shape Title) | Specifies the text displayed when the mouse pointer moves over the shape. [Default](Default.docx) is no value.[Example:<v:shape ... title="tooltip" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the XML Schema string datatype. |
| userdrawn (Exists In Master Slide)Namespace: urn:schemas-microsoft-com:office:office | Specifies whether the user has added the shape to a master slide. [Default](Default.docx) is false. Used by PresentationML.[Example:<v:shape ... o:userdrawn="true" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| userhidden (Hide Script Anchors)Namespace: urn:schemas-microsoft-com:office:office | Specifies whether a script anchor is hidden. [Default](Default.docx) is false. If true, script anchors stay hidden even if the shape is otherwise visible. A script anchor is the visual representation of a script that when displayed in an application.[Example:<v:shape ... o:userhidden="true" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the [ST\_TrueFalse](ST_TrueFalse.docx) simple type (§). |
| wrapcoords (Shape Bounding Polygon) | Specifies the bounding polygon that surrounds a shape. This is specified using a comma-delimited list of x and y coordinates: "x1,y1,x2,y2,x3,y3,..." This is used when text is tightly wrapped around a shape. [Default](Default.docx) is no value until the mso-wrap-mode style attribute is set to tight or through.[Example:<v:[shape](shape.docx) ...  wrapcoords="0,0 0,200, 200,200, 200,0" ... ></v:[shape](shape.docx)>end example]The possible values for this attribute are defined by the XML Schema string datatype. |

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

<complexType name="CT\_Arc">

 <sequence>

 <[group](group.docx) ref="EG\_ShapeElements" minOccurs="0" maxOccurs="unbounded"/>

 </sequence>

 <attributeGroup ref="AG\_AllCoreAttributes"/>

 <attributeGroup ref="AG\_AllShapeAttributes"/>

 <attribute name="startAngle" type="xsd:decimal" use="optional"/>

 <attribute name="endAngle" type="xsd:decimal" use="optional"/>

</complexType>