Shapes Control Reference

Draw shapes in displays.

Circles, **ellipses**, **rectangles**, **polygons**, shape paths (like hexagon), **p olylines**, and **gridlines** form the core of advanced visual designs. Use these shapes to create intricate graphics in mobile and desktop applications. Combine and manipulate these elements to produce detailed designs. Select shapes from the Components Panel, then drag and drop them into the drawing area.

Circle
Ellipse
Path (Hexagon and others)
Rectangle
Polygon
Polyline and Gridline
Pre-Defined Shapes

Circle

Plots a continuous curve equidistant from a central point. Creates a symbol of unity and continuity, often used in various graphical representations.

Ellipse

Plots an elongated circle, defined by two focal points. Creates shapes for illustrating orbits in astronomy or lenses in physics.

Path (Hexagon and others)

Path implements composed vector graphics. Exxmple; Hexagon plots a six-sided figure with equal-length sides and angles. Creates structures resembling honeycombs in nature and is used in tiling and mosaics.

Rectangle

Plots a four-sided figure with opposite sides parallel and equal. Creates a basis for numerous design and architectural elements, offering simplicity and symmetry.

Polygon

Plots a closed shape formed by joining multiple straight lines. Creates versatile geometric figures used in art, mapping, and computer graphics.

Polyline and Gridline

Plots a series of connected line segments. Creates paths or outlines, commonly used in mapping, drawing, and digital illustrations. Using am attached property, the system can create Gridline, which are polylines that editor allows only horizontal or vertical segments.

> **Tip**
>
> The Shapes can be be used only in CANVAS displays or embedded in Symbols.

The shapes that be using in a Display are directly from System.Windows.Shapes namespaces

Name	Description
Ellipse	Draws an ellipse.
Line	Draws a straight line between two points.
Path	Draws a series of connected lines and curves.
Polygon	Draws a polygon, which is a connected series of lines that form a closed shape.
Polyline	Draws a series of connected straight lines.
Rectangle	Draws a rectangle.
Gridline	The Gridline is a Polyline object with the attached property DynDP.IsGridline set

Pre-Defined Shapes

The Designer Draw UI has a Shapes folder, with some pre-defined elements.

Those are not new element types, but just Polygon, or Path, created using custom data.

Polygon

Built-in shape definitions. Use Polygon with Points or Path with Data.

```
polygonShapes = new
{
    note = "ElementType: 'Polygon', set Points property",
    Triangle = "0,32 16,0 32,32",
    Parallelogram = "4,0 28,0 24,32 0,32",
    Trapezoid = "4,0 28,0 24,32 8,32",
    Arrow = "0,10 0,6 32,6 32,0 40,8 32,16 32,10",
    Star = "16,0 20,12 32,12 22,20 26,32 16,24 6,32 10,20 0,12 12,12",
    Hexagon = "48,32 40,45.86 24,45.86 16,32 24,18.14 40,18.14",
    Pentagon = "16,0.18 31.51,11.27 25.63,29.54 6.37,29.54 0.49,11.27",
    Octagon = "27.31,4.69 38.63,16 38.63,27.31 27.31,38.63 16,38.63 4.69,27.31 4.69,16 16,4.69"
}
```

Path

ElementType: 'Path', set Data property with geometry string

```
pathShapes = new
{
    note = "ElementType: 'Path', set Data property with geometry string",
    Cylinder = "M 10,0 A 10,5 0 1 1 30,0 V 32 A 10,5 0 1 1 10,32 Z",
    Gear = "M 16,0 L 20,4 L 24,0 L 32,8 L 28,12 L 32,16 L 28,20 L 32,24 L 24,32 L 20,28 L 16,32 L 8,24 L 12,20 L 8,16 L 12,12 L 8,8 Z",
    Hill = "M 4,16 C 12,4 20,4 28,16",
    Curve = "M 10,10 C 20,-10 30,30 40,10",
    Senoid = "M 0,16 C 2,8 6,8 8,16 C 10,24 14,24 16,16 C 18,8 22,8 24,16 C 26,24 30,24 32,16",
    Wave = "M 20,20 C 20,0 30,20 40,20",
    Cloud = "M 10,20 C 5,10 25,0 30,10 C 35,5 50,10 45,20 Z",
    TJunction = "M 8,8 H 24 V 12 H 16 V 24 H 12 V 12 H 8 Z"
}
```

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