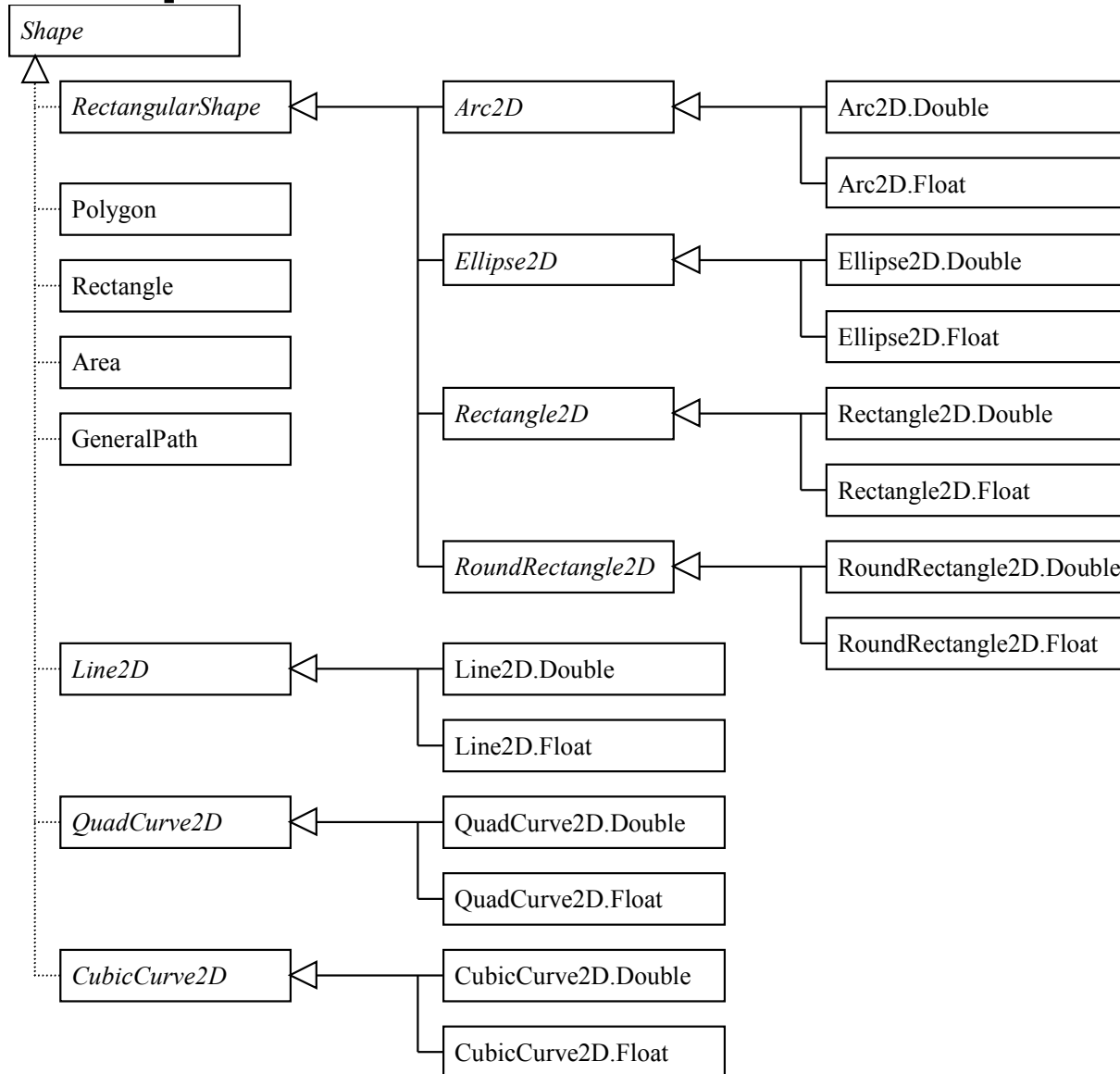# Geometric Shapes, Constructive Area Geometry, and General Path

The Shape Interface

Draw Shapes

- Line
- Rectangle
- Round rectangle
- Ellipse

- Arc
- Quadratic curve
- Cubic curve
- Polygon

Source

Run

Constructive Area Geometry

- **Set-theoretic operations**
  - ☐ Intersect
  - ☐ Add
  - ☐ Subtract
  - ☐ Exclusive or

Source

Run

GeneralPath
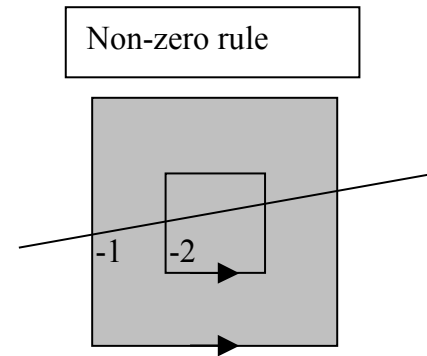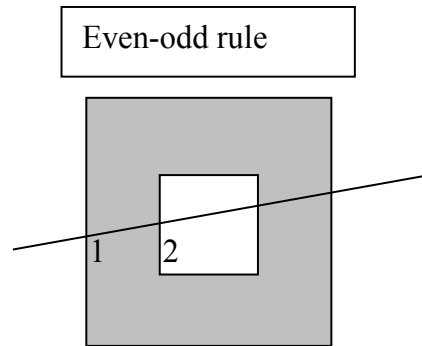
- Five segment types
  - SEG_MOVETO
  - SEG_LINETO
  - SEG_QUADTO
  - SEG_CUBICTO
  - SEG_CLOSE

- GeneralPath methods
  - moveTo
  - lineTo
  - quadTo
  - curveTo
  - closePath

Winding Rules

- To determine interior regions
- Crossing number
- Even-odd rule
- Non-zero rule

Even-odd rule

1   2

Non-zero rule

-1   -2

Source

Run