JENS KUTILEK

IF YOU DON'T HAVE A PEN, YOU MUST SCRATCH ANY WAY YOU CAN.

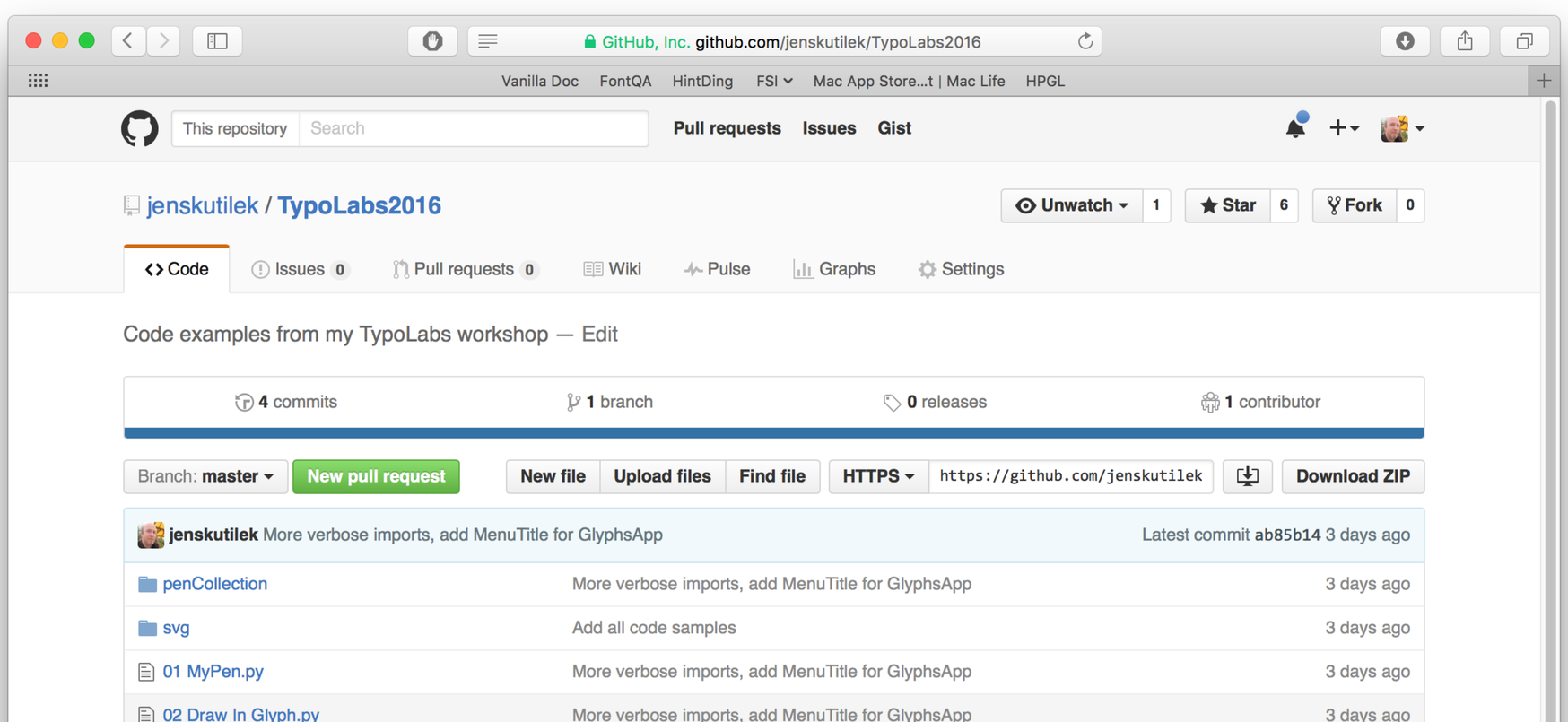
When once the itch of literature
comes over a man, nothing can cure it
but the scratching of a pen.
But if you have not a pen, I suppose
you must scratch any way you can.

Samuel Lover, *Handy Andy. A Tale of Irish Life.* 1841

DOWNLOAD SAMPLE SCRIPTS AT:

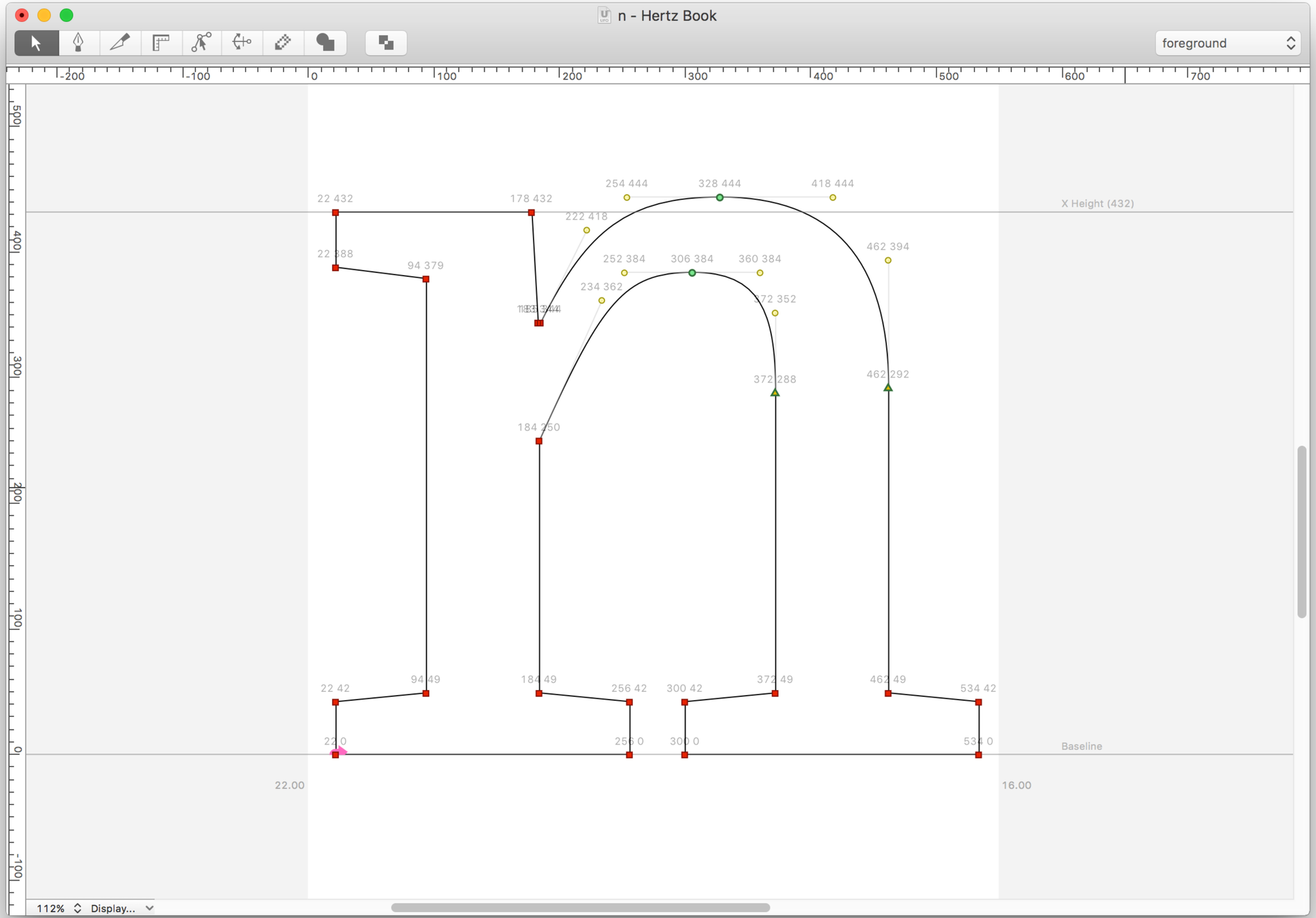
https://goo.gl/xuOdaG

https://github.com/jenskutilek/TypoLabs2016



BASIC USAGE OF PENS

- Asking a glyph to draw itself using a specific pen
- Draw inside a glyph with a pen


n - Hertz Book
foreground
-200
-100
0
100
200
300
400
500
600
700
500
400
300
200
100
0
-100
X Height (432)
Baseline
22 432
178 432
254 444
328 444
418 444
222 418
22 388
94 379
252 384
306 384
360 384
462 394
234 362
372 352
372 288
462 292
184 250
22 42
94 49
184 49
256 42
300 42
372 49
462 49
534 42
22 0
256 0
300 0
534 0
22.00
16.00
112%
Display...

```
from fontTools.pens.basePen import AbstractPen

class MyPen(AbstractPen):

    def moveTo(self, pt):
        print "pen.moveTo(%s)" % (pt,)

    def lineTo(self, pt):
        print "pen.lineTo(%s)" % (pt,)

    def curveTo(self, *pts):
        print "pen.curveTo%s" % (pts,)

    def qCurveTo(self, *pts):
        print "pen.qCurveTo%s" % (pts,)

    def closePath(self):
        print "pen.closePath()"

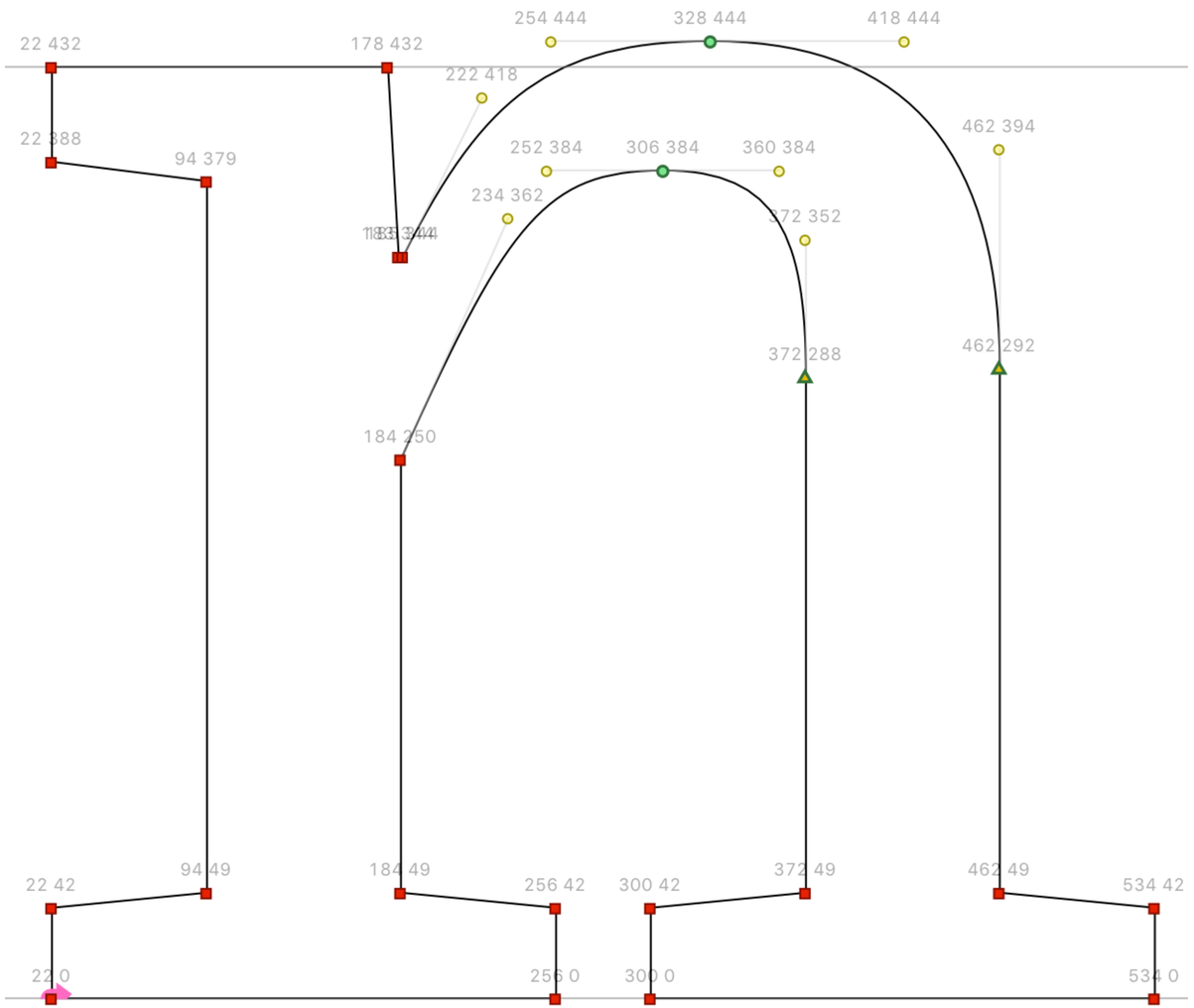
    def endPath(self):
        print "pen.endPath()"

    def addComponent(self, baseGlyphName, transformation):
        print "pen.addComponent(%r, %s)" % (baseGlyphName, tuple(transformation))


p = MyPen()
CurrentGlyph().draw(p)
```

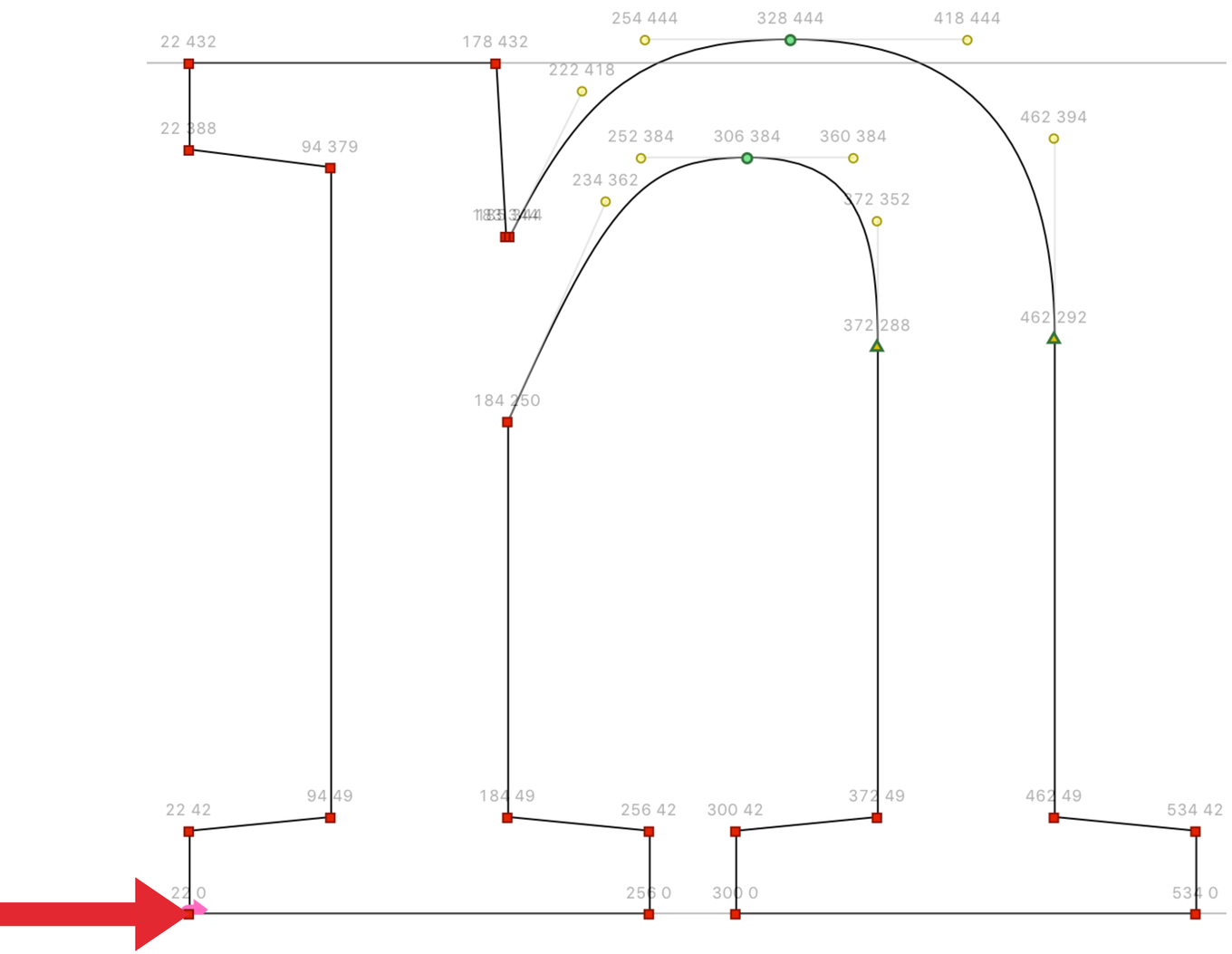
SEGMENT-ORIENTED PEN

```
p = MyPen()
CurrentGlyph().draw(p)
```




```
pen.moveTo((22, 0))
pen.lineTo((256, 0))
pen.lineTo((256, 42))
pen.lineTo((184, 49))
pen.lineTo((184, 250))
pen.curveTo((234, 362), (252, 384), (306, 384))
pen.curveTo((360, 384), (372, 352), (372, 288))
pen.lineTo((372, 49))
pen.lineTo((300, 42))
pen.lineTo((300, 0))
pen.lineTo((534, 0))
pen.lineTo((534, 42))
pen.lineTo((462, 49))
pen.lineTo((462, 292))
pen.curveTo((462, 394), (418, 444), (328, 444))
pen.curveTo((254, 444), (222, 418), (185, 344))
pen.lineTo((183, 344))
pen.lineTo((178, 432))
pen.lineTo((22, 432))
pen.lineTo((22, 388))
pen.lineTo((94, 379))
pen.lineTo((94, 49))
pen.lineTo((22, 42))
pen.closePath()
pen.moveTo((275, 432))
pen.endPath()
pen.moveTo((278, 0))
pen.endPath()
```

```
p = MyPen()
CurrentGlyph().draw(p)
```

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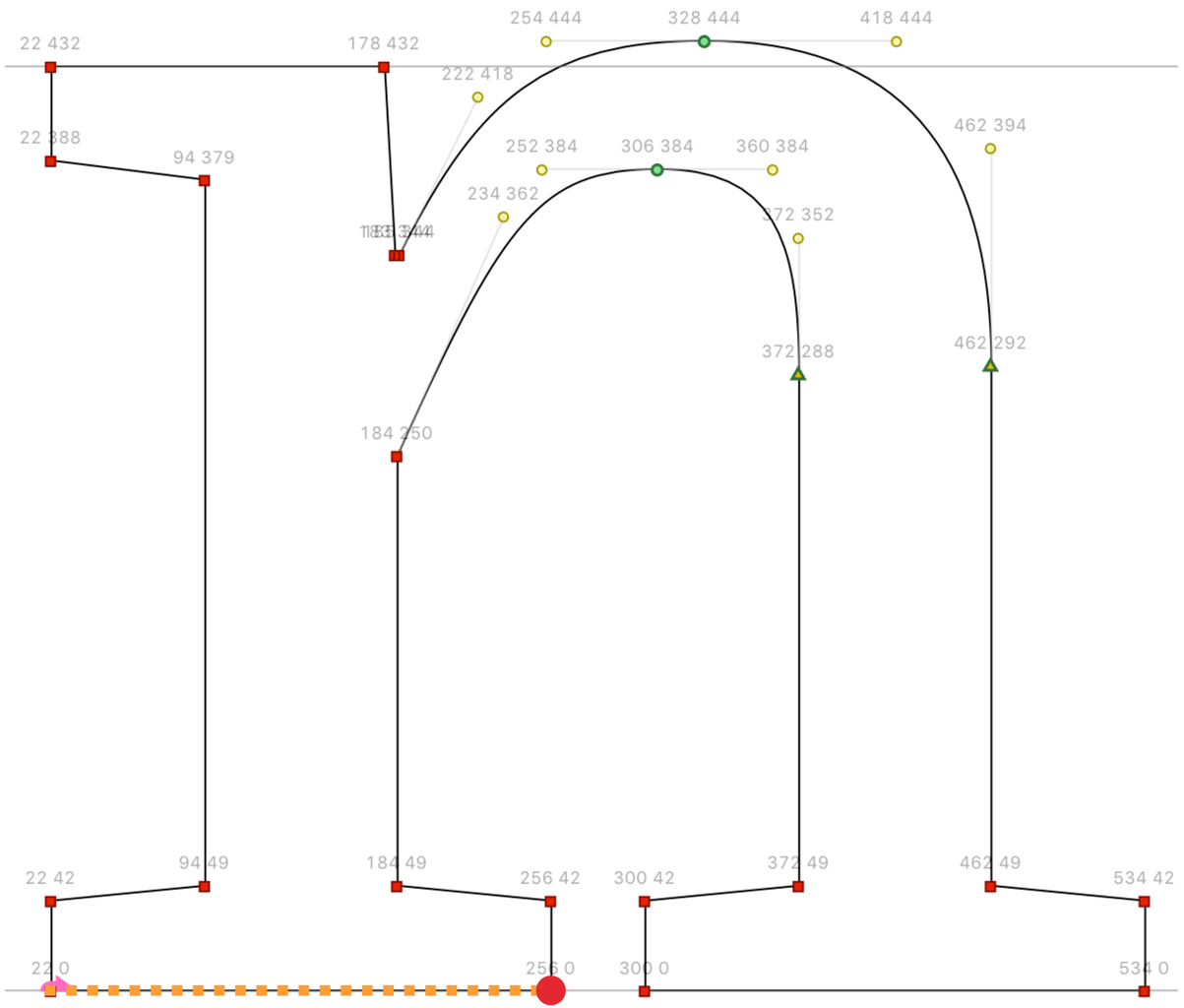


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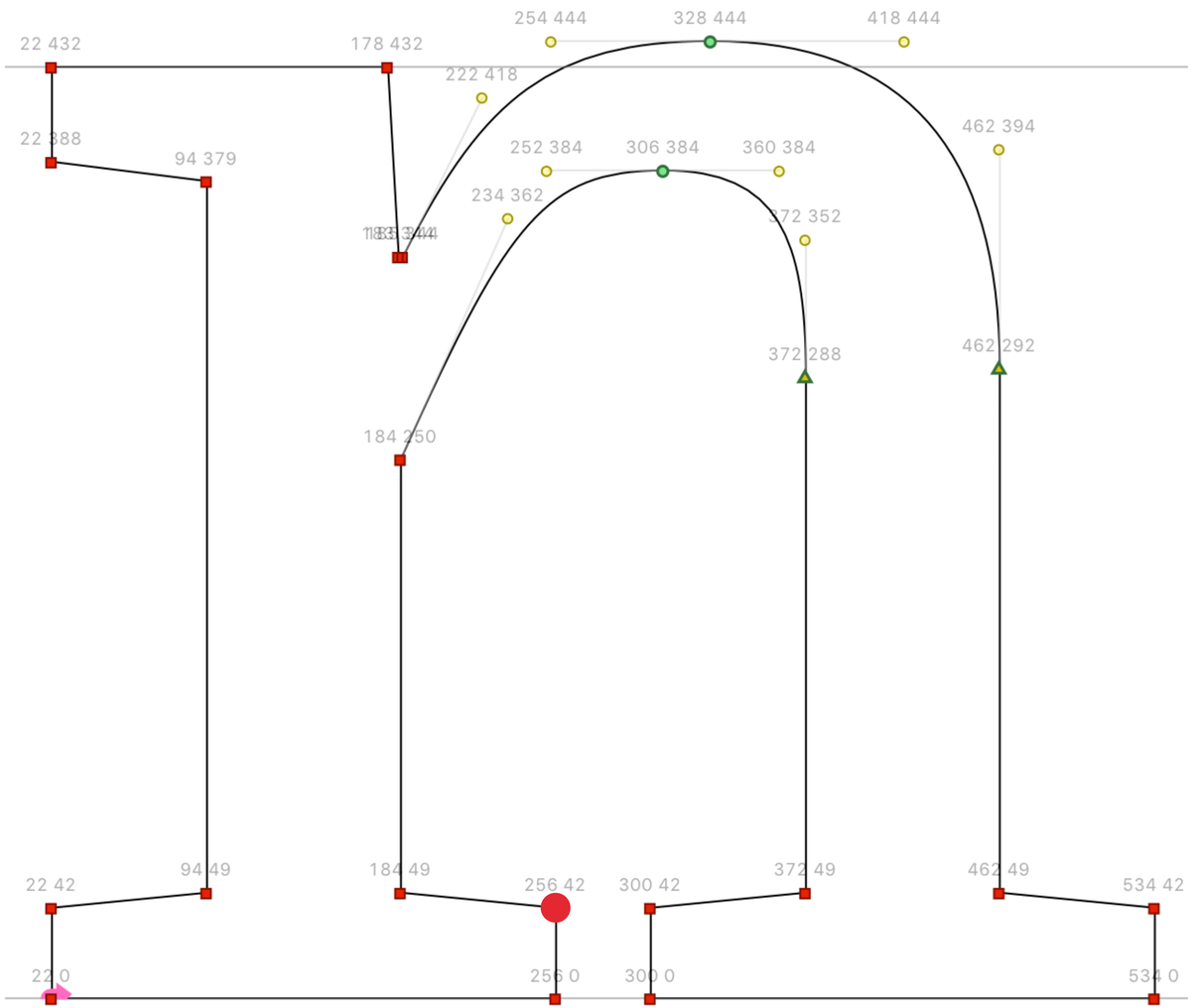


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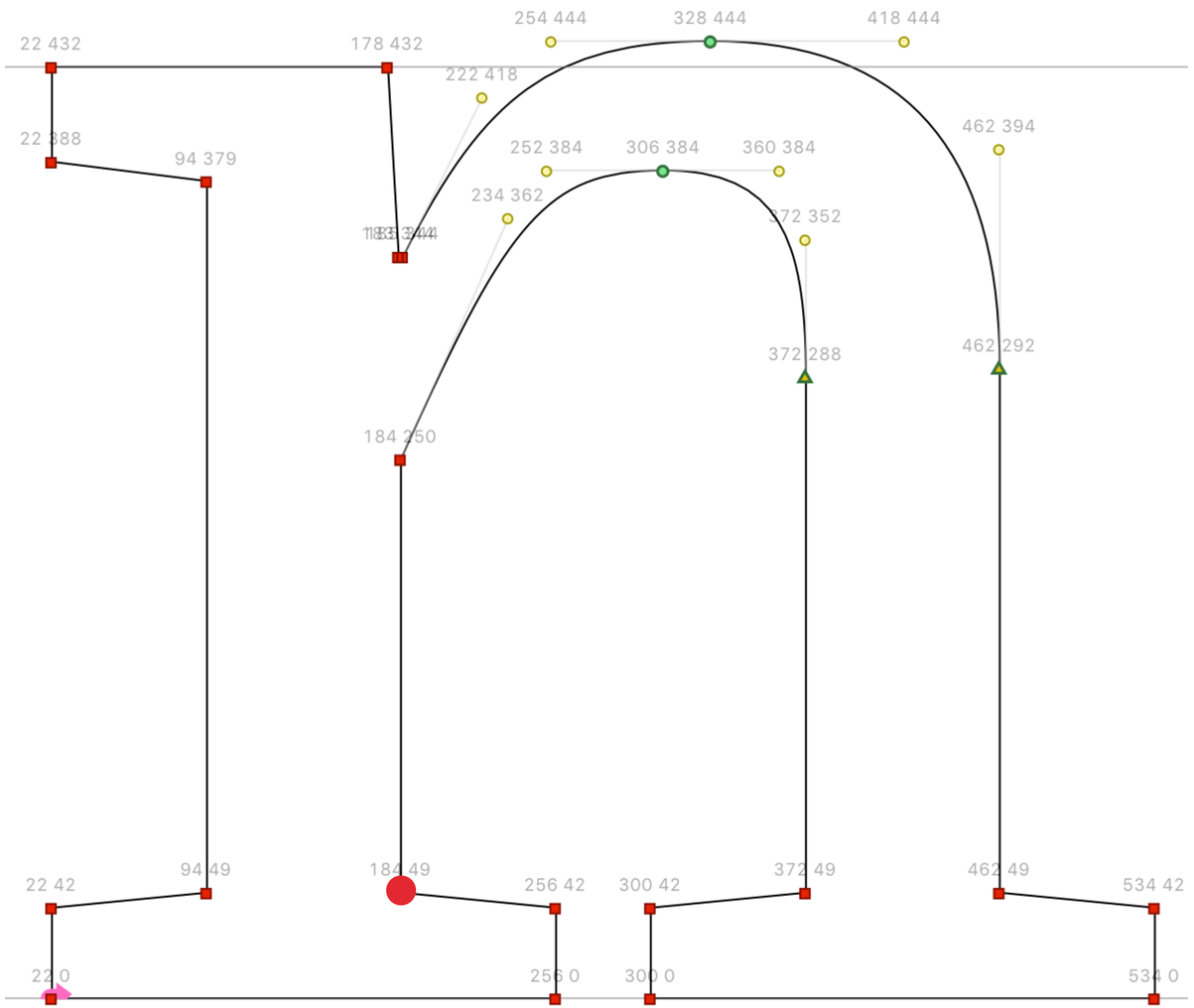


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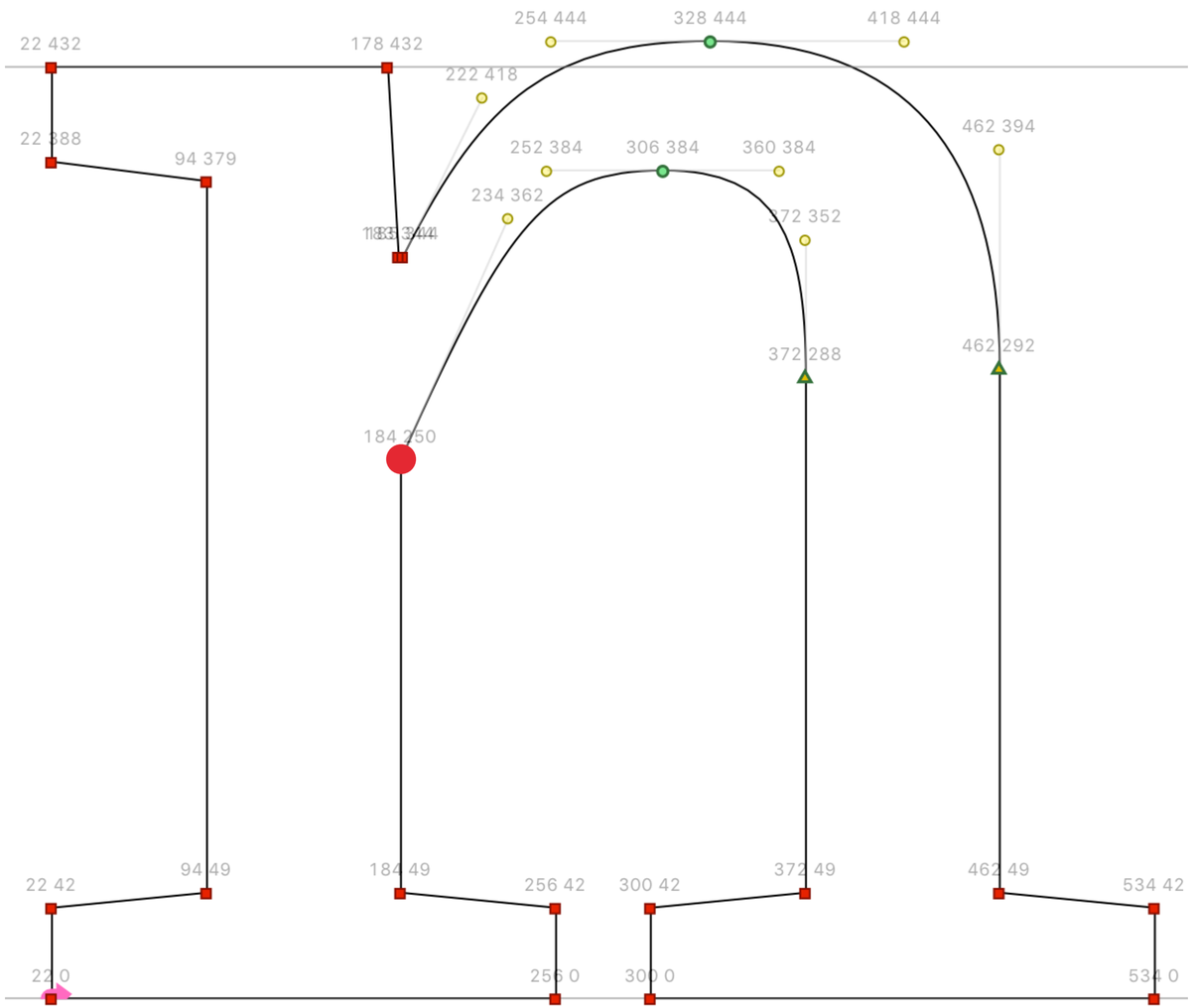


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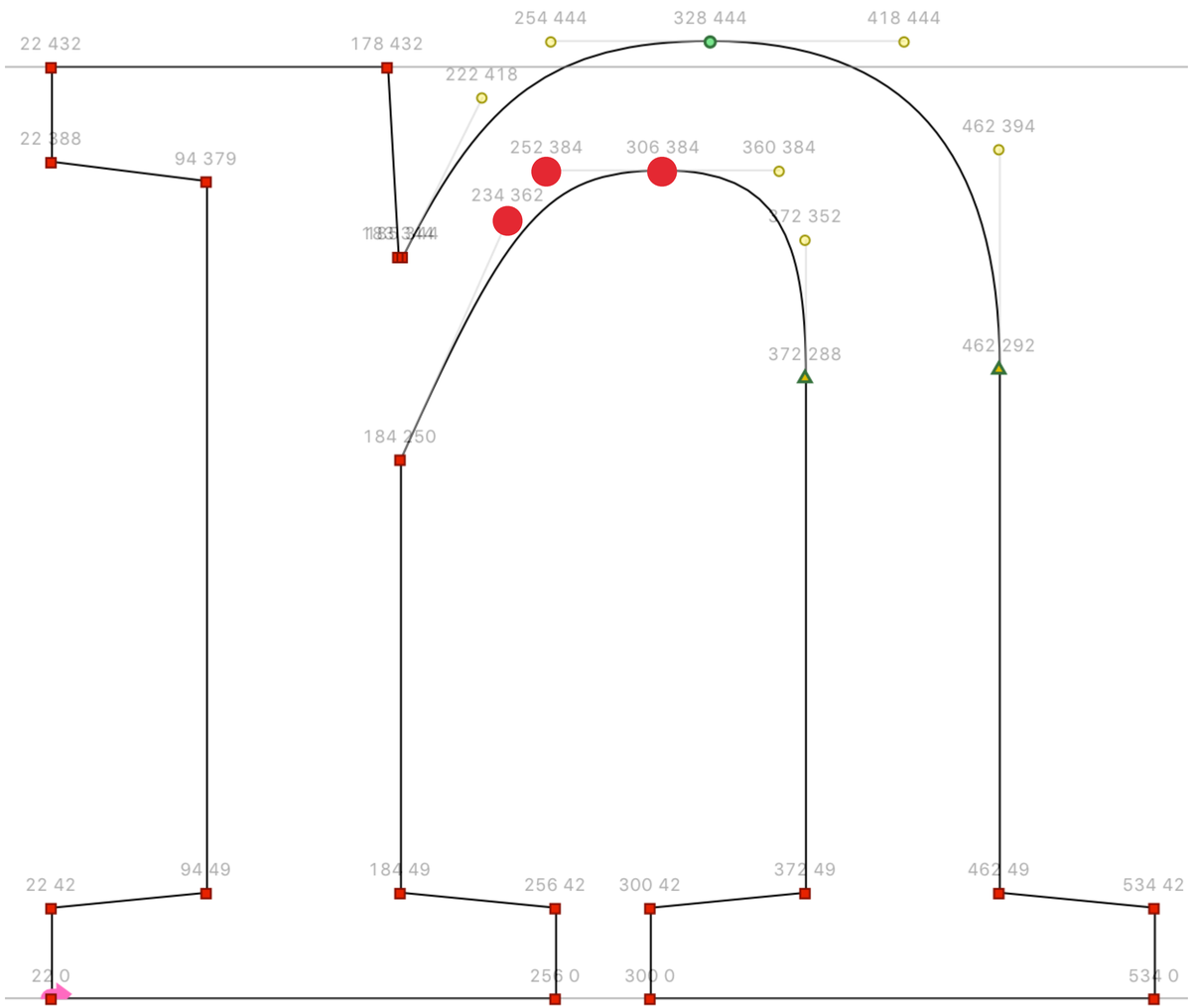


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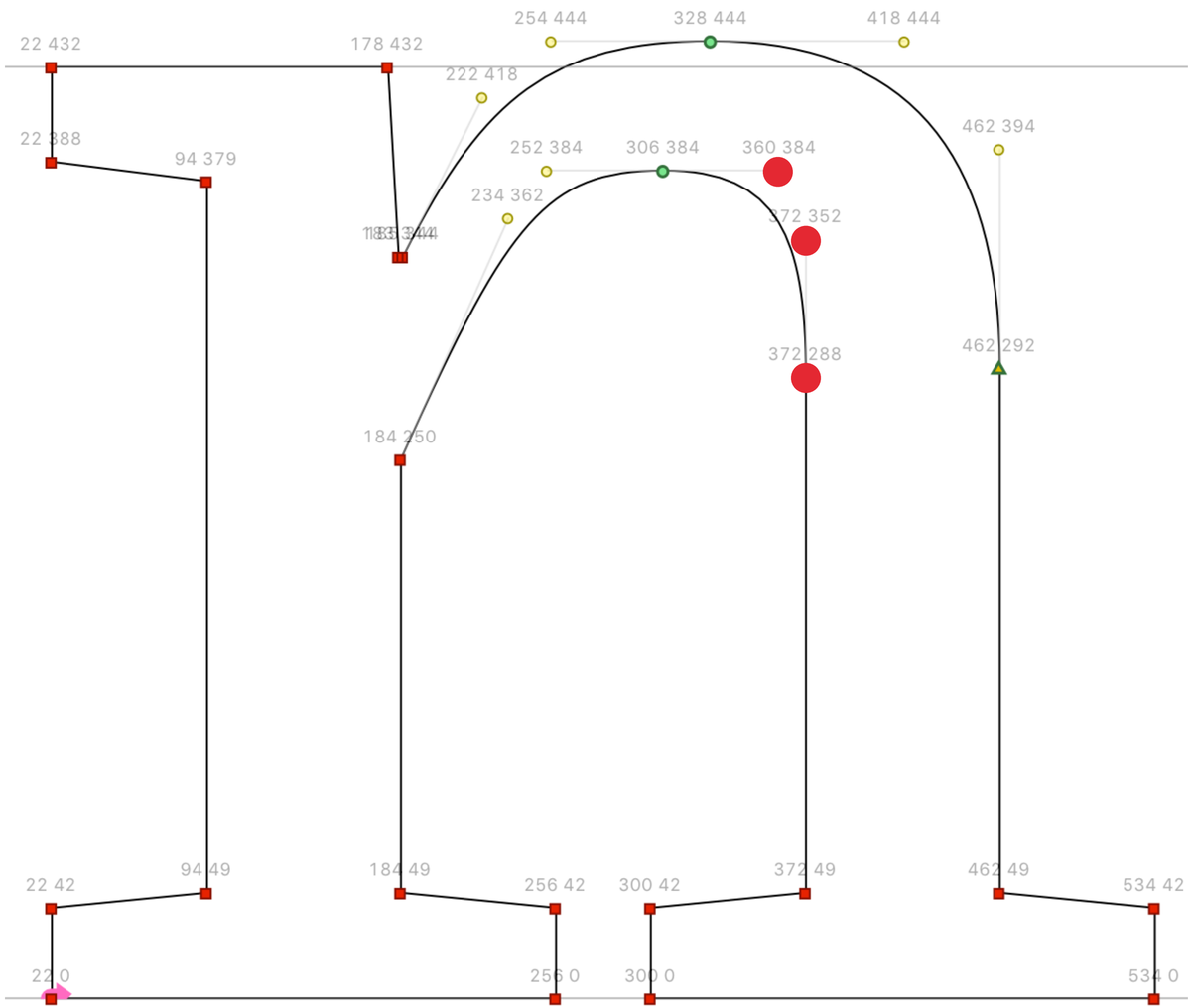


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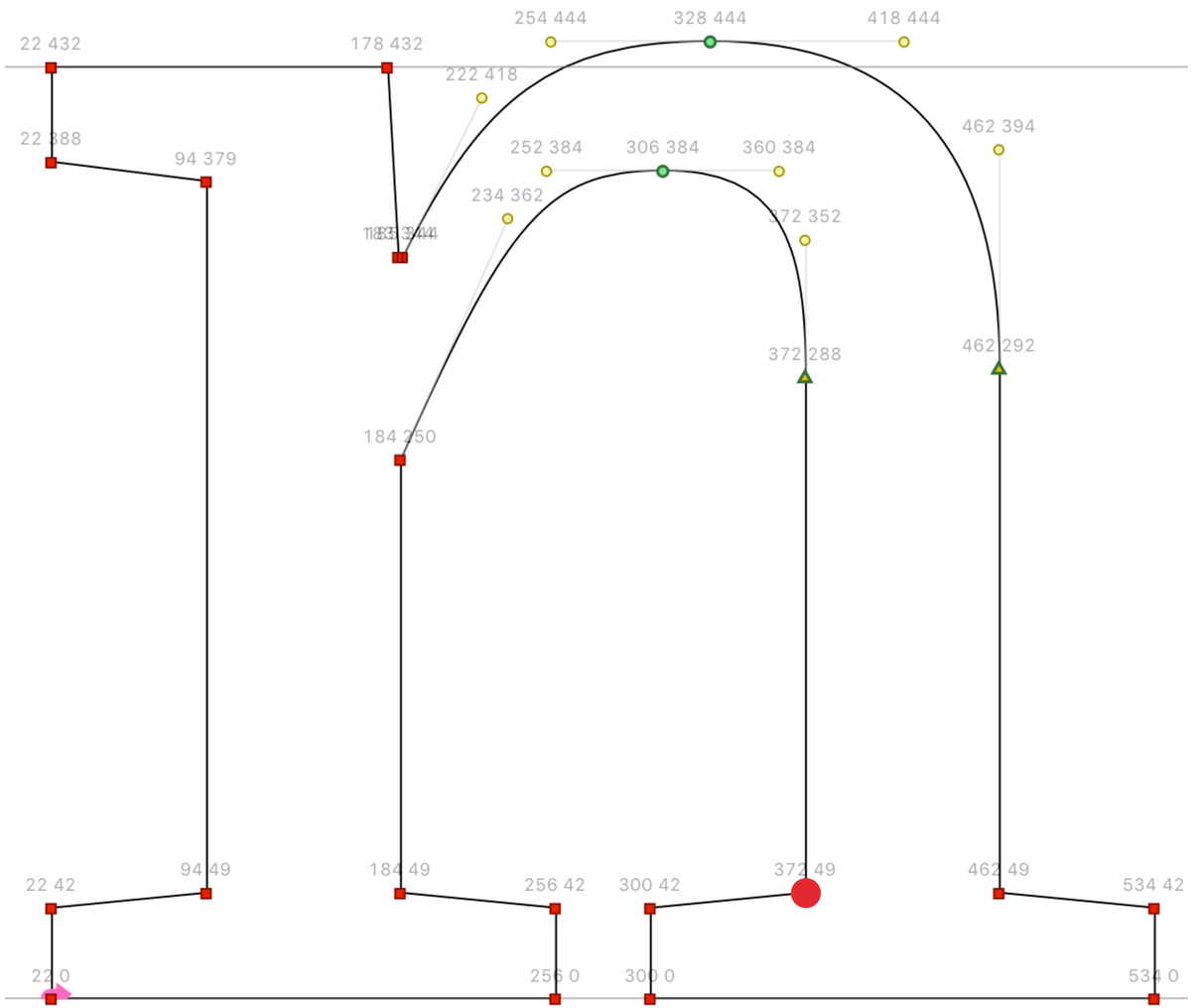


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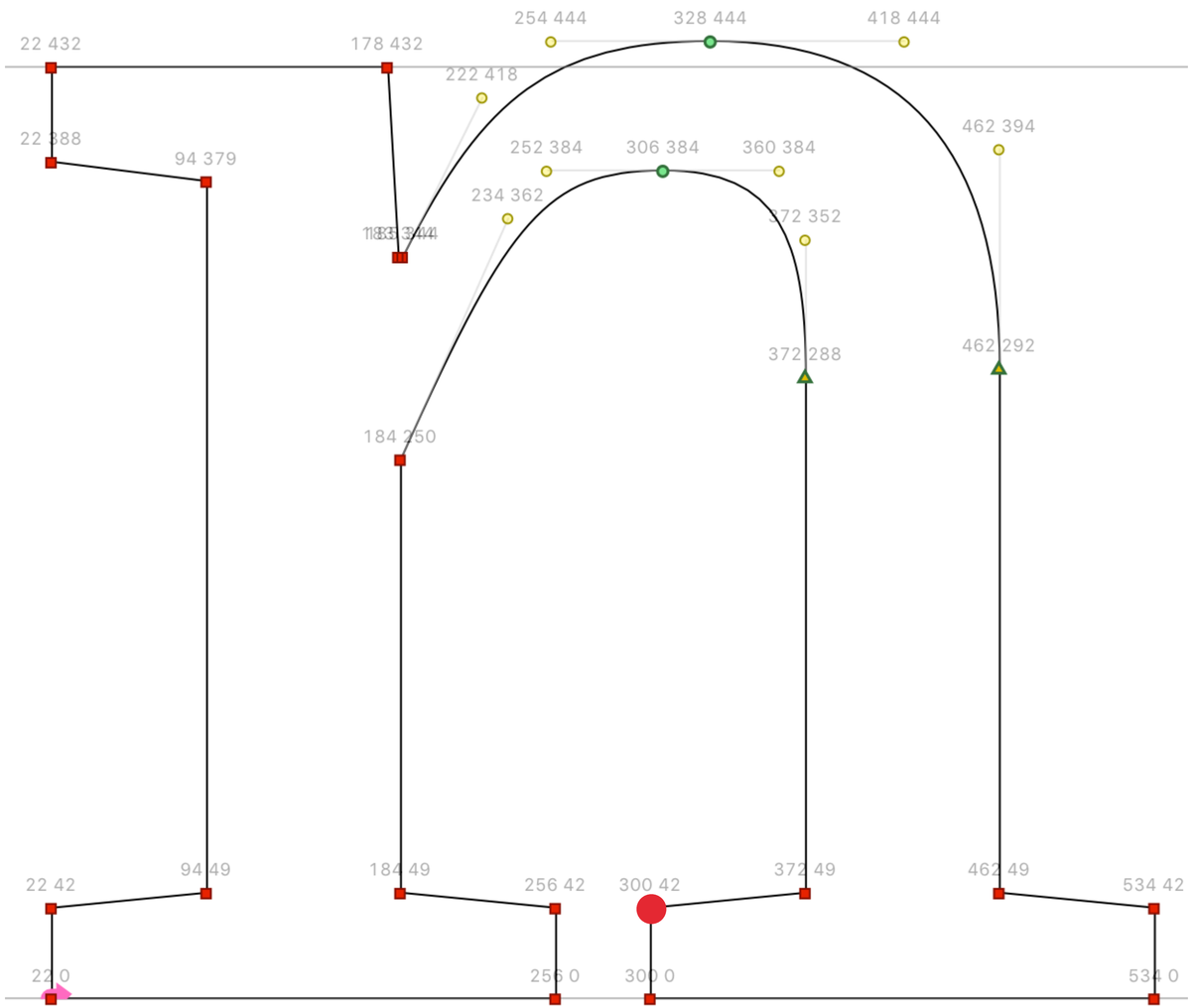


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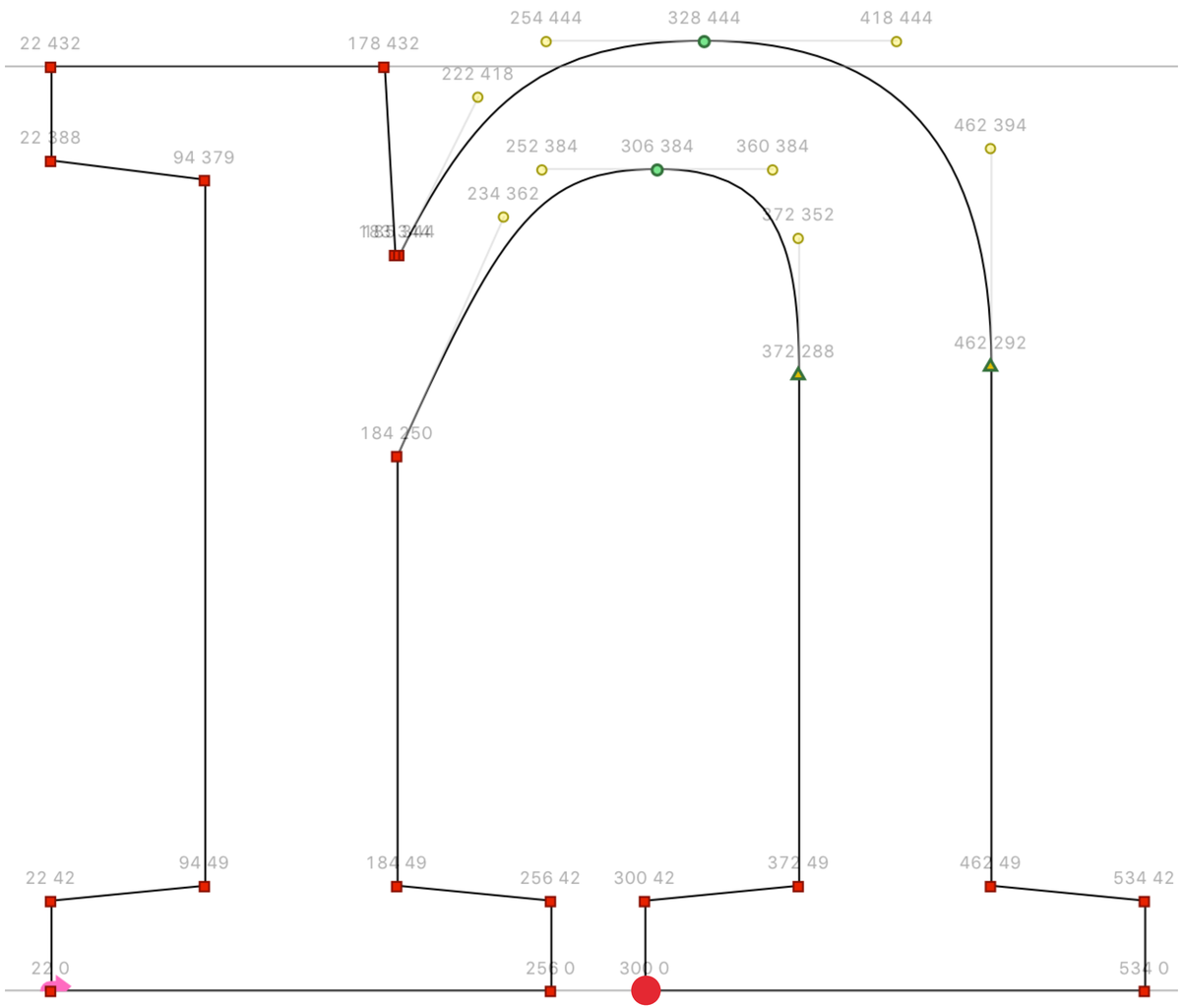


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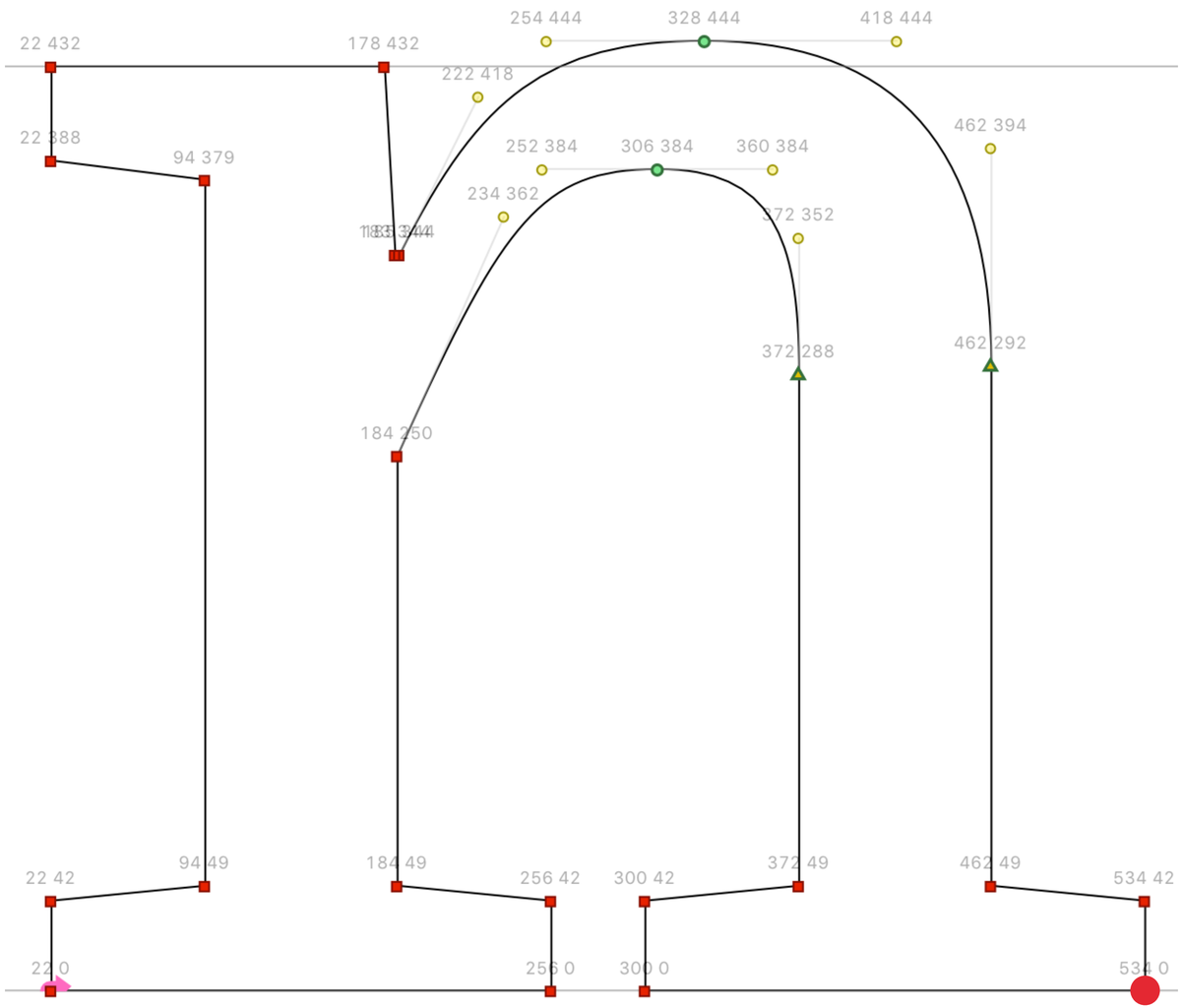


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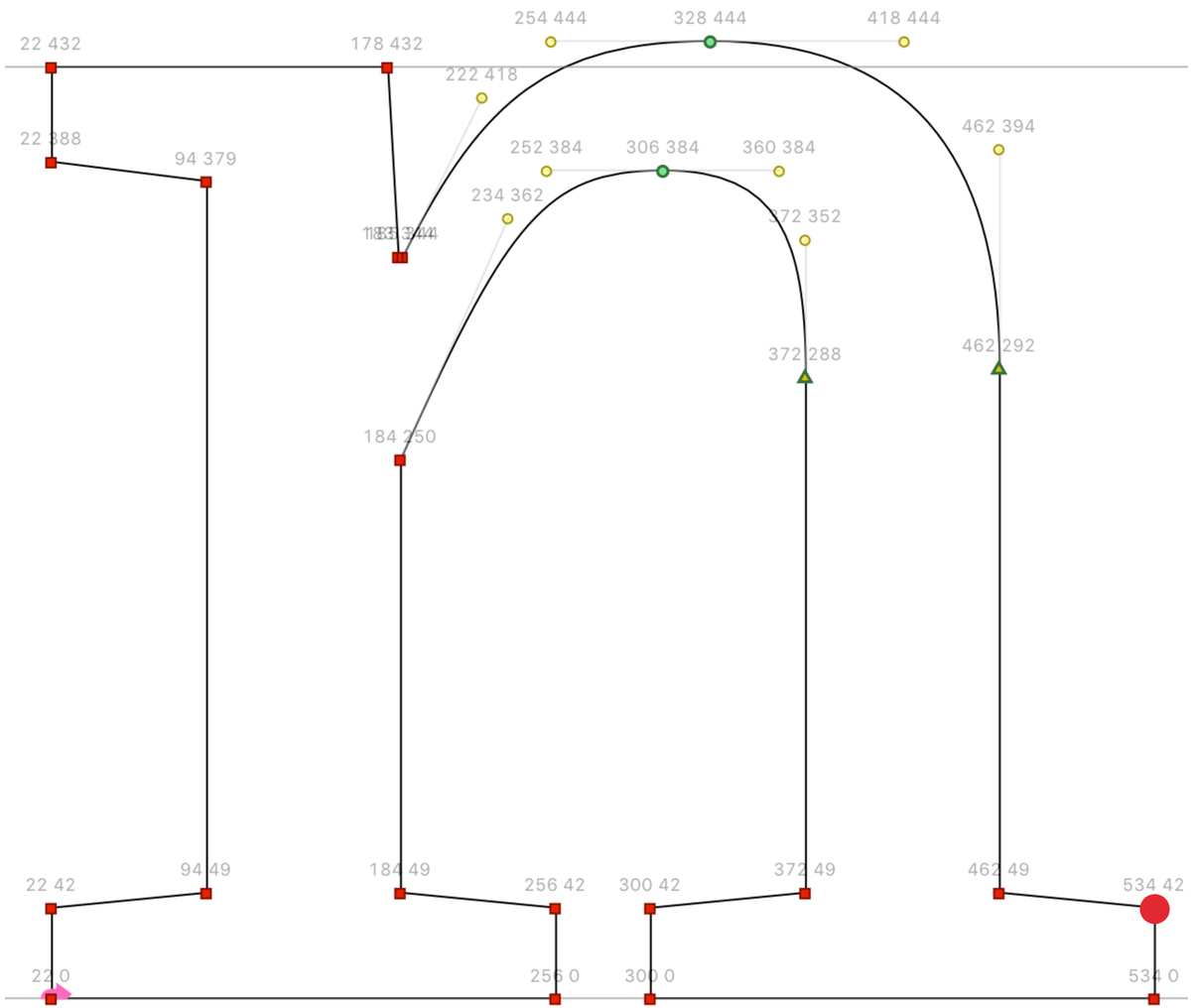


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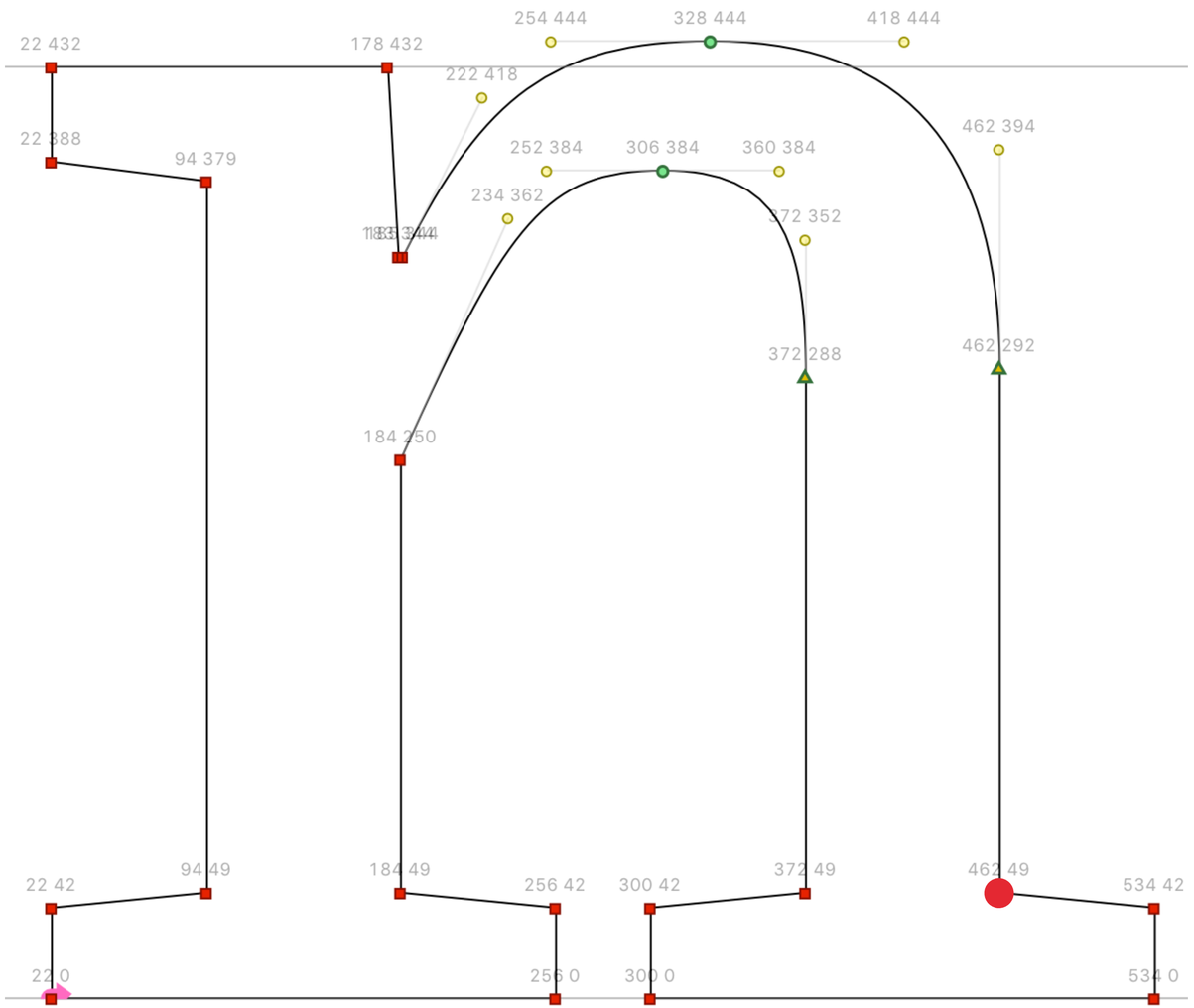


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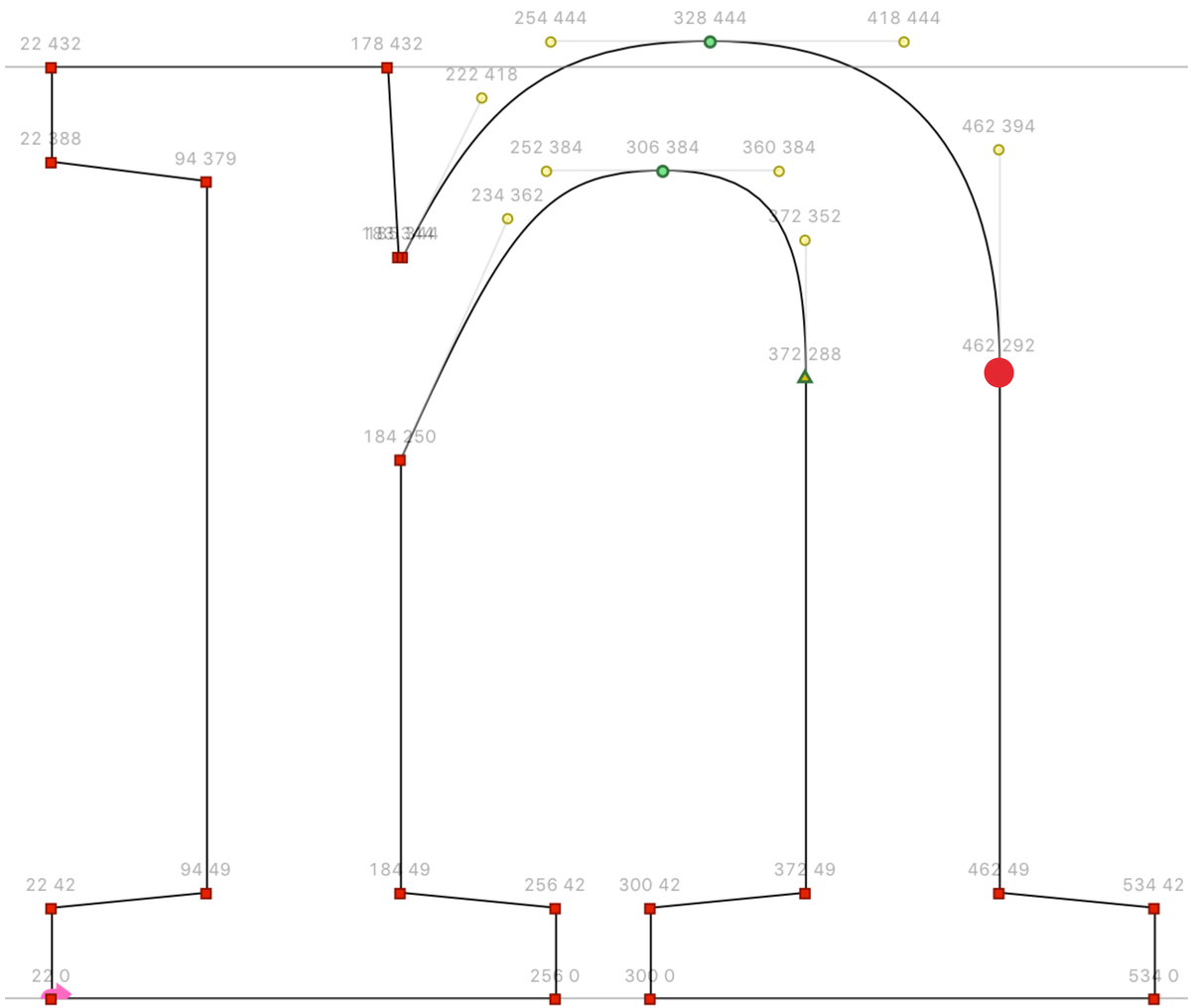
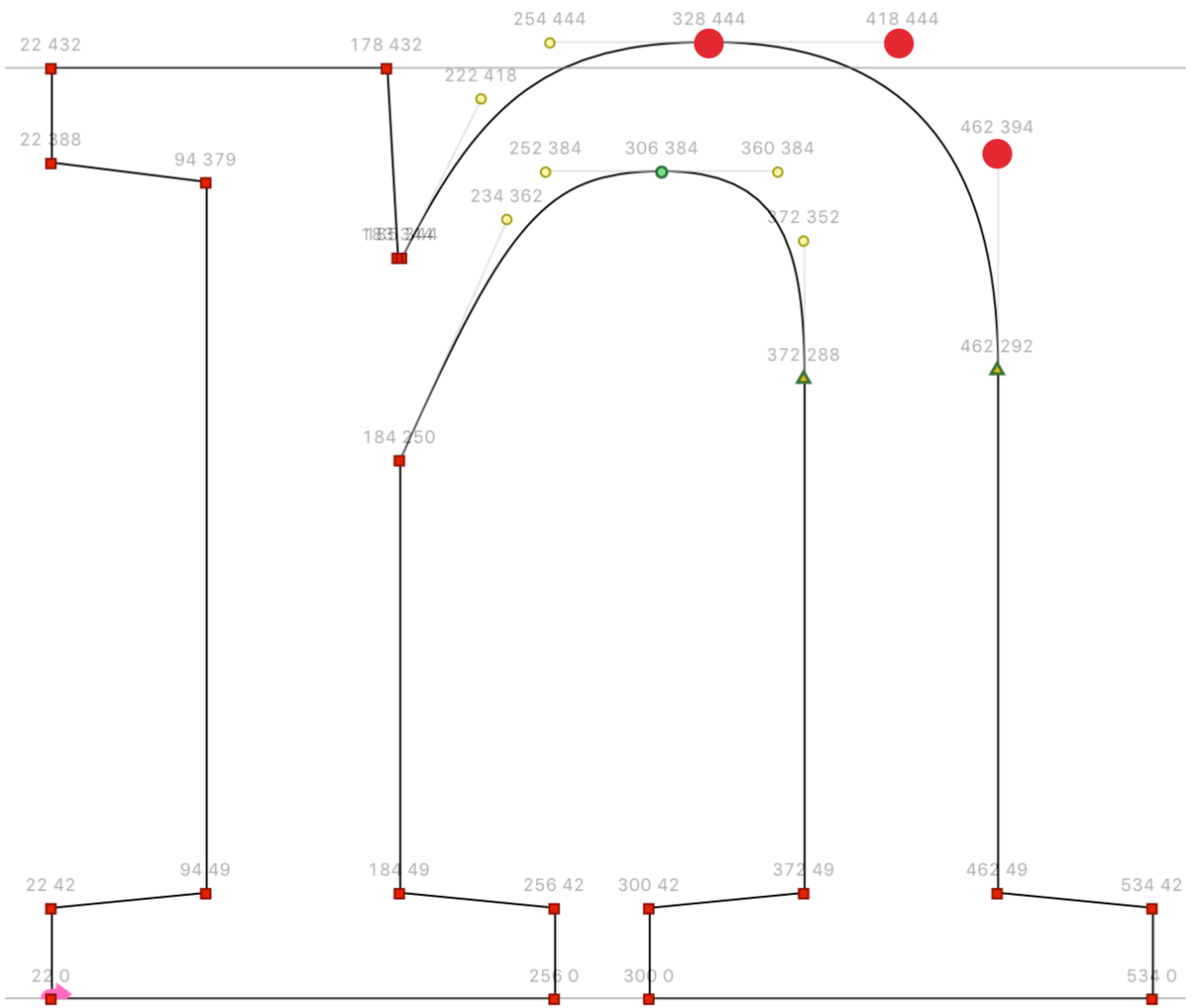
pen.curveTo((254, 444), (222, 418), (185, 344))
pen.lineTo((183, 344))
pen.lineTo((178, 432))
pen.lineTo((22, 432))
pen.lineTo((22, 388))
pen.lineTo((94, 379))
pen.lineTo((94, 49))
pen.lineTo((22, 42))
pen.closePath()
pen.moveTo((275, 432))
pen.endPath()
pen.moveTo((278, 0))
pen.endPath()
```

```
p = MyPen()
CurrentGlyph().draw(p)
```



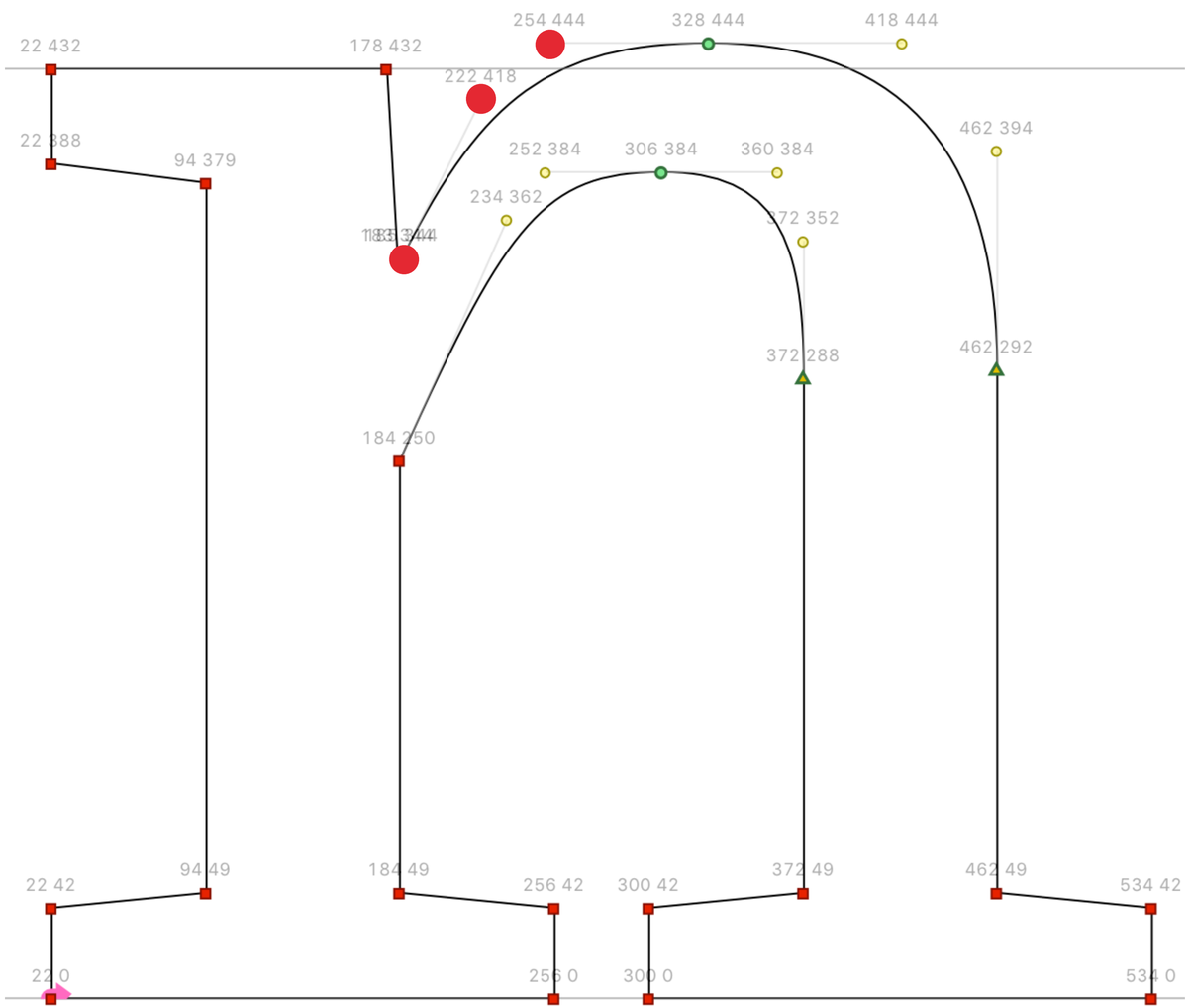

```
pen.moveTo((22, 0))
pen.lineTo((256, 0))
pen.lineTo((256, 42))
pen.lineTo((184, 49))
pen.lineTo((184, 250))
pen.curveTo((234, 362), (252, 384), (306, 384))
pen.curveTo((360, 384), (372, 352), (372, 288))
pen.lineTo((372, 49))
pen.lineTo((300, 42))
pen.lineTo((300, 0))
pen.lineTo((534, 0))
pen.lineTo((534, 42))
pen.lineTo((462, 49))
➡ pen.lineTo((462, 292))
pen.curveTo((462, 394), (418, 444), (328, 444))
pen.curveTo((254, 444), (222, 418), (185, 344))
pen.lineTo((183, 344))
pen.lineTo((178, 432))
pen.lineTo((22, 432))
pen.lineTo((22, 388))
pen.lineTo((94, 379))
pen.lineTo((94, 49))
pen.lineTo((22, 42))
pen.closePath()
pen.moveTo((275, 432))
pen.endPath()
pen.moveTo((278, 0))
pen.endPath()
```

```
p = MyPen()
CurrentGlyph().draw(p)
```



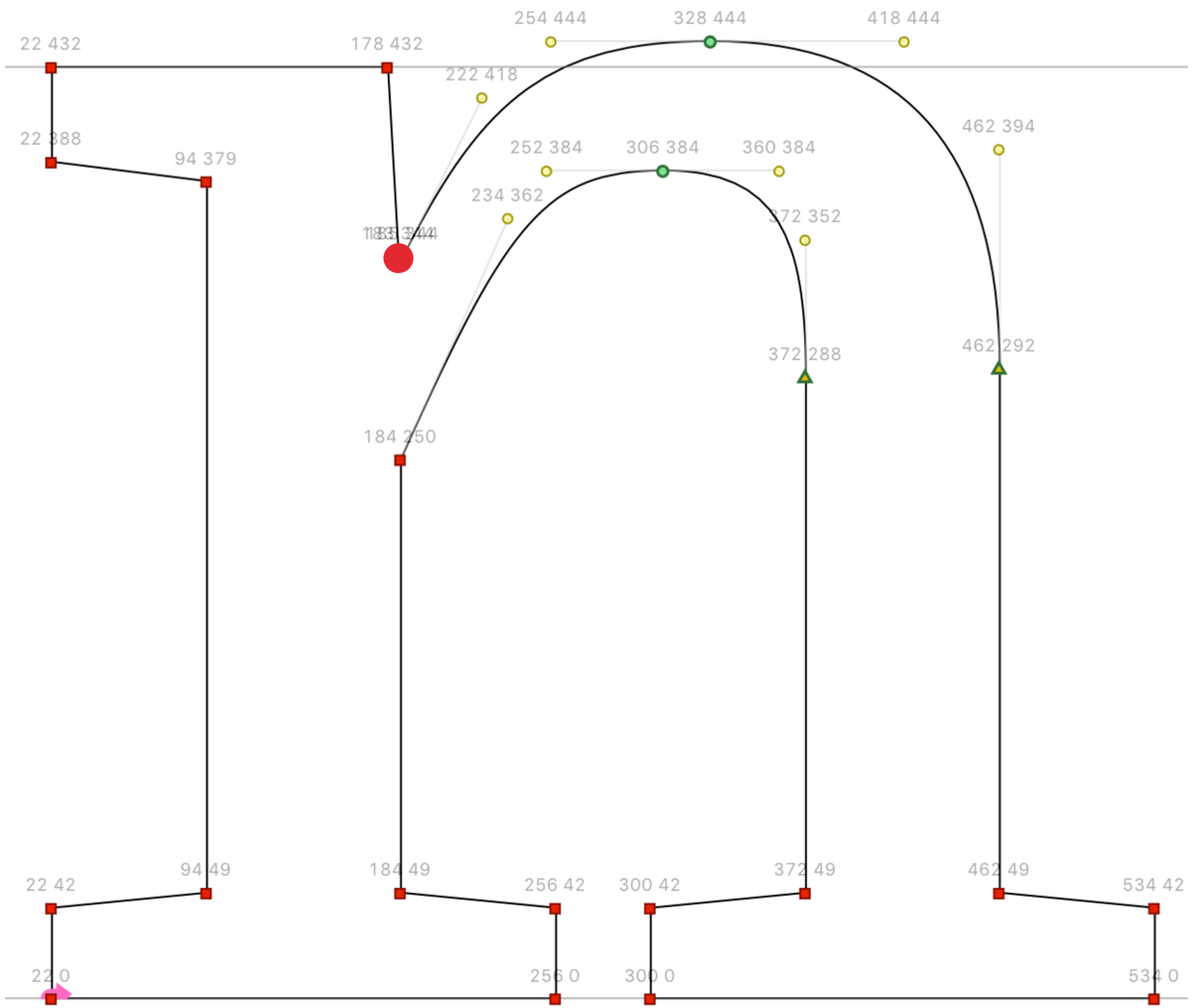

```
pen.moveTo((22, 0))
pen.lineTo((256, 0))
pen.lineTo((256, 42))
pen.lineTo((184, 49))
pen.lineTo((184, 250))
pen.curveTo((234, 362), (252, 384), (306, 384))
pen.curveTo((360, 384), (372, 352), (372, 288))
pen.lineTo((372, 49))
pen.lineTo((300, 42))
pen.lineTo((300, 0))
pen.lineTo((534, 0))
pen.lineTo((534, 42))
pen.lineTo((462, 49))
pen.lineTo((462, 292))
➡ pen.curveTo((462, 394), (418, 444), (328, 444))
pen.curveTo((254, 444), (222, 418), (185, 344))
pen.lineTo((183, 344))
pen.lineTo((178, 432))
pen.lineTo((22, 432))
pen.lineTo((22, 388))
pen.lineTo((94, 379))
pen.lineTo((94, 49))
pen.lineTo((22, 42))
pen.closePath()
pen.moveTo((275, 432))
pen.endPath()
pen.moveTo((278, 0))
pen.endPath()
```

```
p = MyPen()
CurrentGlyph().draw(p)
```




```
pen.moveTo((22, 0))
pen.lineTo((256, 0))
pen.lineTo((256, 42))
pen.lineTo((184, 49))
pen.lineTo((184, 250))
pen.curveTo((234, 362), (252, 384), (306, 384))
pen.curveTo((360, 384), (372, 352), (372, 288))
pen.lineTo((372, 49))
pen.lineTo((300, 42))
pen.lineTo((300, 0))
pen.lineTo((534, 0))
pen.lineTo((534, 42))
pen.lineTo((462, 49))
pen.lineTo((462, 292))
pen.curveTo((462, 394), (418, 444), (328, 444))
➡ pen.curveTo((254, 444), (222, 418), (185, 344))
pen.lineTo((183, 344))
pen.lineTo((178, 432))
pen.lineTo((22, 432))
pen.lineTo((22, 388))
pen.lineTo((94, 379))
pen.lineTo((94, 49))
pen.lineTo((22, 42))
pen.closePath()
pen.moveTo((275, 432))
pen.endPath()
pen.moveTo((278, 0))
pen.endPath()
```

```
p = MyPen()
CurrentGlyph().draw(p)
```




```
pen.moveTo((22, 0))
pen.lineTo((256, 0))
pen.lineTo((256, 42))
pen.lineTo((184, 49))
pen.lineTo((184, 250))
pen.curveTo((234, 362), (252, 384), (306, 384))
pen.curveTo((360, 384), (372, 352), (372, 288))
pen.lineTo((372, 49))
pen.lineTo((300, 42))
pen.lineTo((300, 0))
pen.lineTo((534, 0))
pen.lineTo((534, 42))
pen.lineTo((462, 49))
pen.lineTo((462, 292))
pen.curveTo((462, 394), (418, 444), (328, 444))
pen.curveTo((254, 444), (222, 418), (185, 344))
pen.lineTo((183, 344))
pen.lineTo((178, 432))
pen.lineTo((22, 432))
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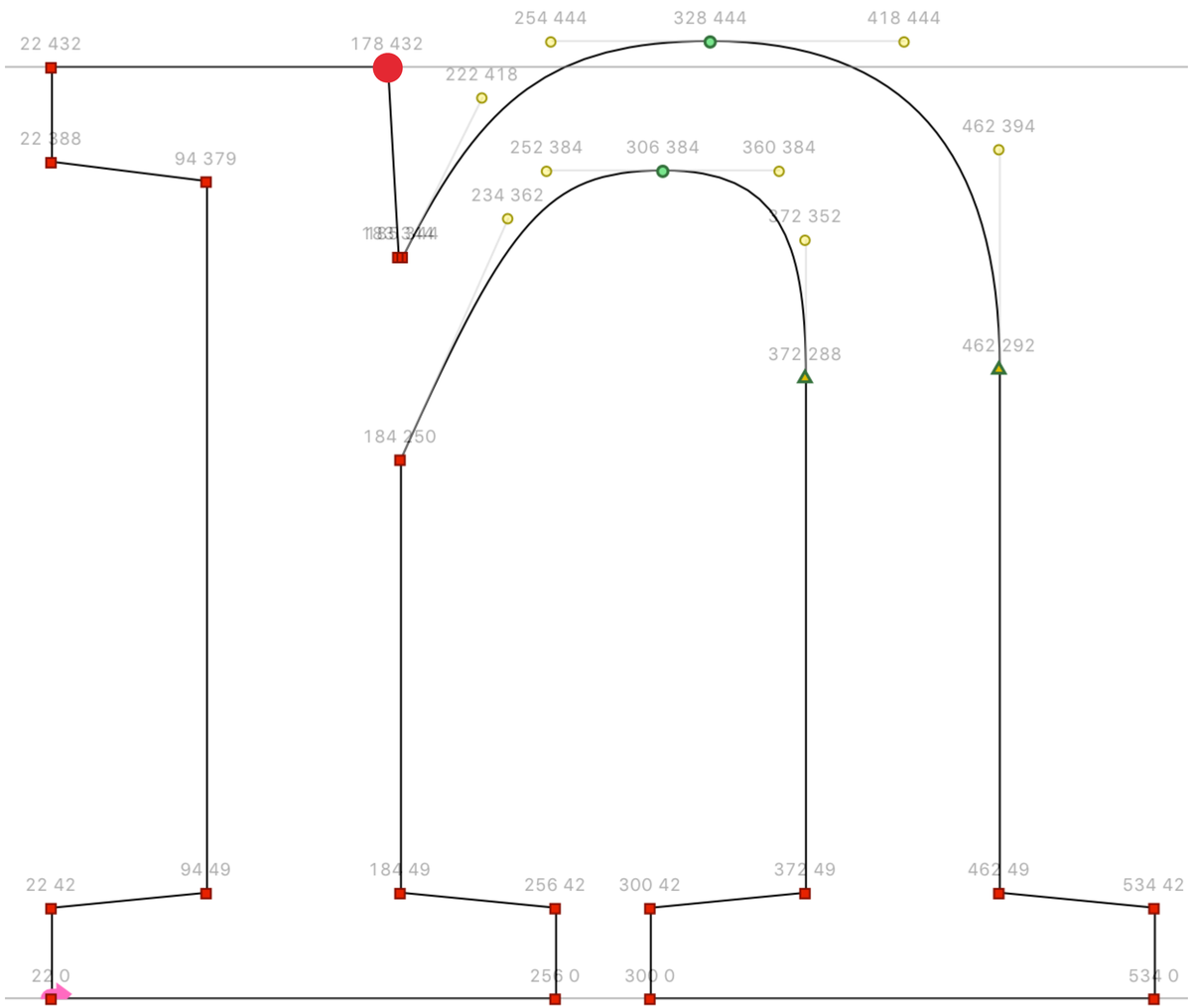
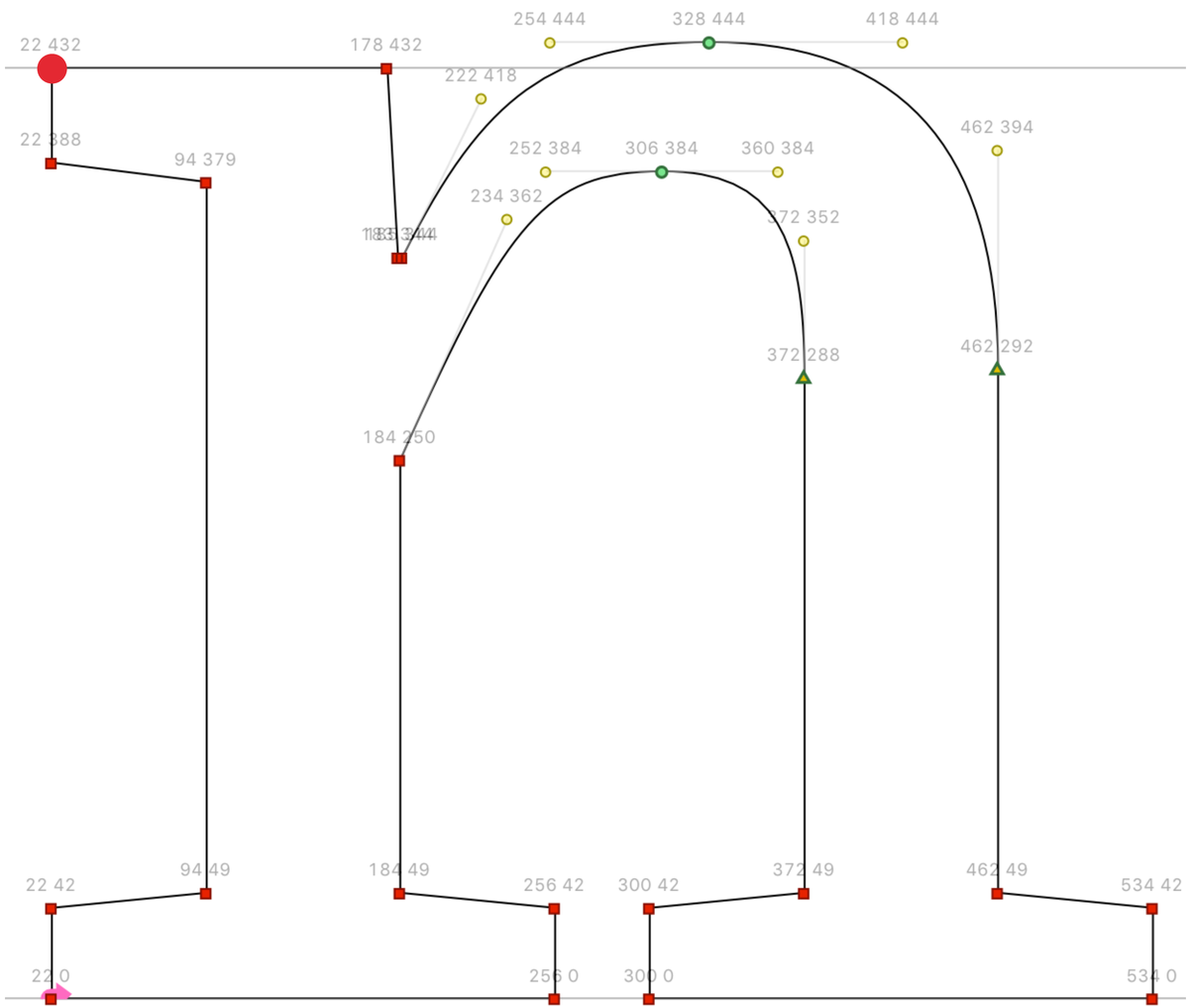
pen.lineTo((22, 42))
pen.closePath()
pen.moveTo((275, 432))
pen.endPath()
pen.moveTo((278, 0))
pen.endPath()
```

```
p = MyPen()
CurrentGlyph().draw(p)
```



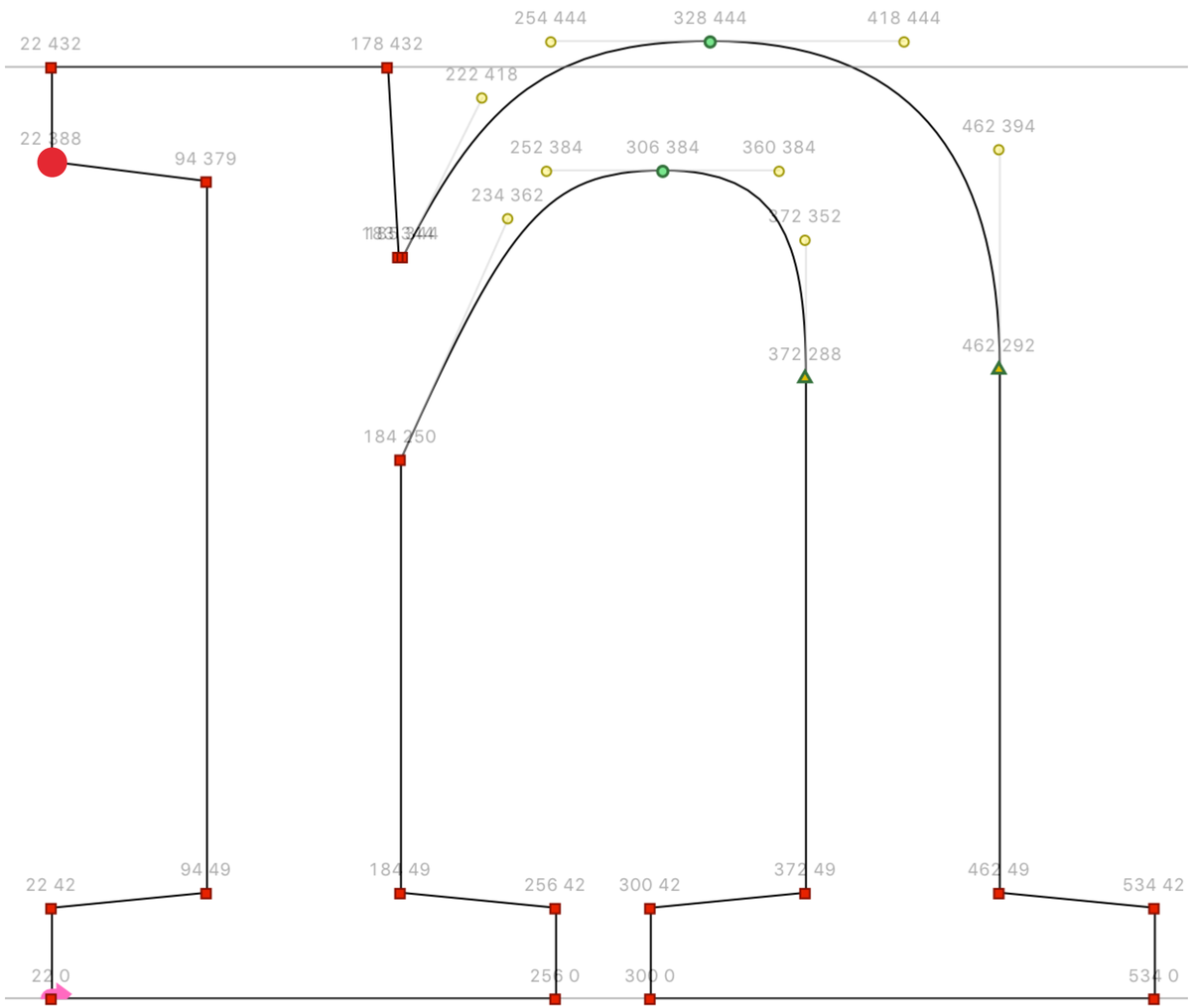

```
pen.moveTo((22, 0))
pen.lineTo((256, 0))
pen.lineTo((256, 42))
pen.lineTo((184, 49))
pen.lineTo((184, 250))
pen.curveTo((234, 362), (252, 384), (306, 384))
pen.curveTo((360, 384), (372, 352), (372, 288))
pen.lineTo((372, 49))
pen.lineTo((300, 42))
pen.lineTo((300, 0))
pen.lineTo((534, 0))
pen.lineTo((534, 42))
pen.lineTo((462, 49))
pen.lineTo((462, 292))
pen.curveTo((462, 394), (418, 444), (328, 444))
pen.curveTo((254, 444), (222, 418), (185, 344))
pen.lineTo((183, 344))
➡ pen.lineTo((178, 432))
pen.lineTo((22, 432))
pen.lineTo((22, 388))
pen.lineTo((94, 379))
pen.lineTo((94, 49))
pen.lineTo((22, 42))
pen.closePath()
pen.moveTo((275, 432))
pen.endPath()
pen.moveTo((278, 0))
pen.endPath()
```

```
p = MyPen()
CurrentGlyph().draw(p)
```



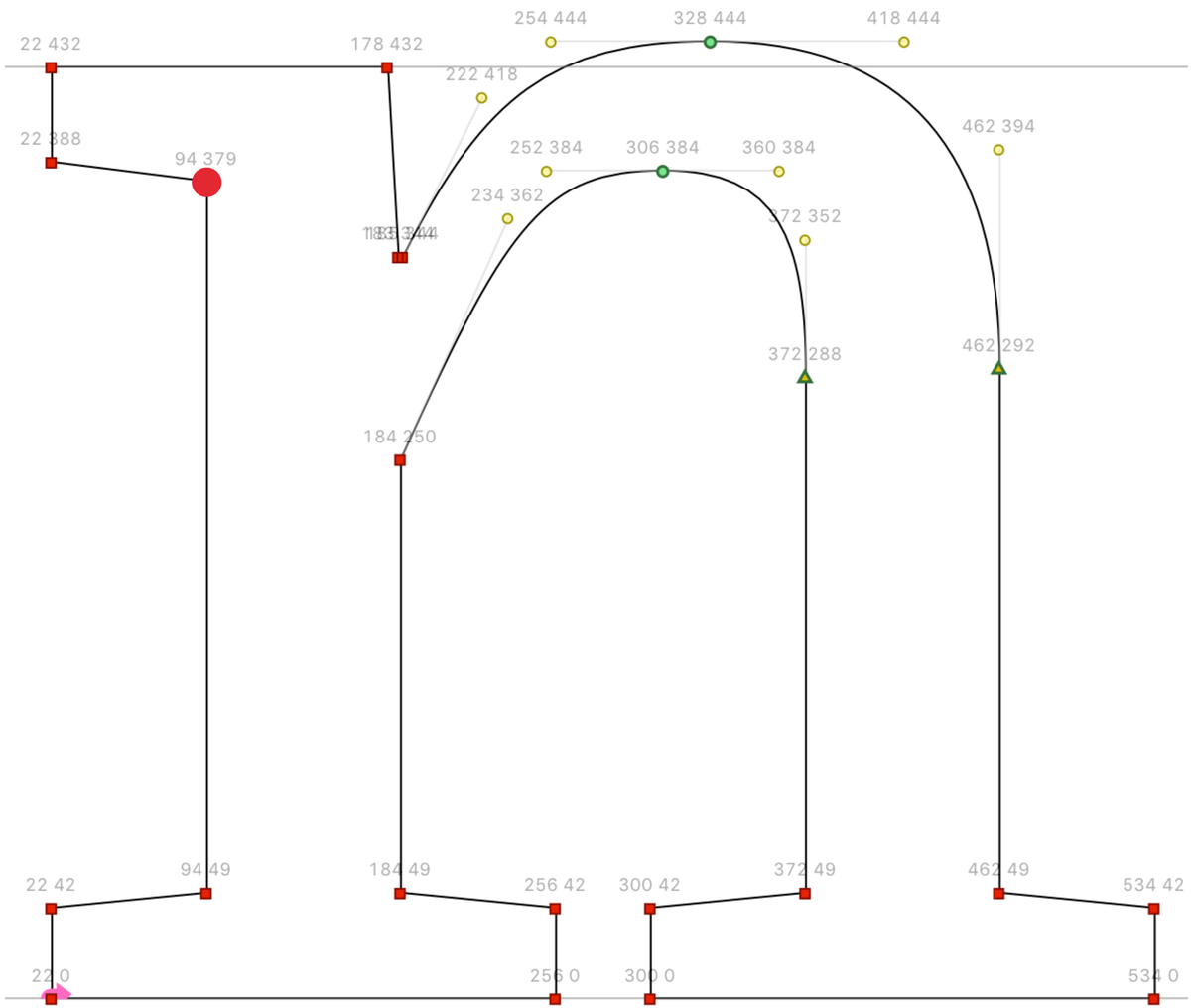

```
pen.moveTo((22, 0))
pen.lineTo((256, 0))
pen.lineTo((256, 42))
pen.lineTo((184, 49))
pen.lineTo((184, 250))
pen.curveTo((234, 362), (252, 384), (306, 384))
pen.curveTo((360, 384), (372, 352), (372, 288))
pen.lineTo((372, 49))
pen.lineTo((300, 42))
pen.lineTo((300, 0))
pen.lineTo((534, 0))
pen.lineTo((534, 42))
pen.lineTo((462, 49))
pen.lineTo((462, 292))
pen.curveTo((462, 394), (418, 444), (328, 444))
pen.curveTo((254, 444), (222, 418), (185, 344))
pen.lineTo((183, 344))
pen.lineTo((178, 432))
pen.lineTo((22, 432))
pen.lineTo((22, 388))
pen.lineTo((94, 379))
pen.lineTo((94, 49))
pen.lineTo((22, 42))
pen.closePath()
pen.moveTo((275, 432))
pen.endPath()
pen.moveTo((278, 0))
pen.endPath()
```

```
p = MyPen()
CurrentGlyph().draw(p)
```



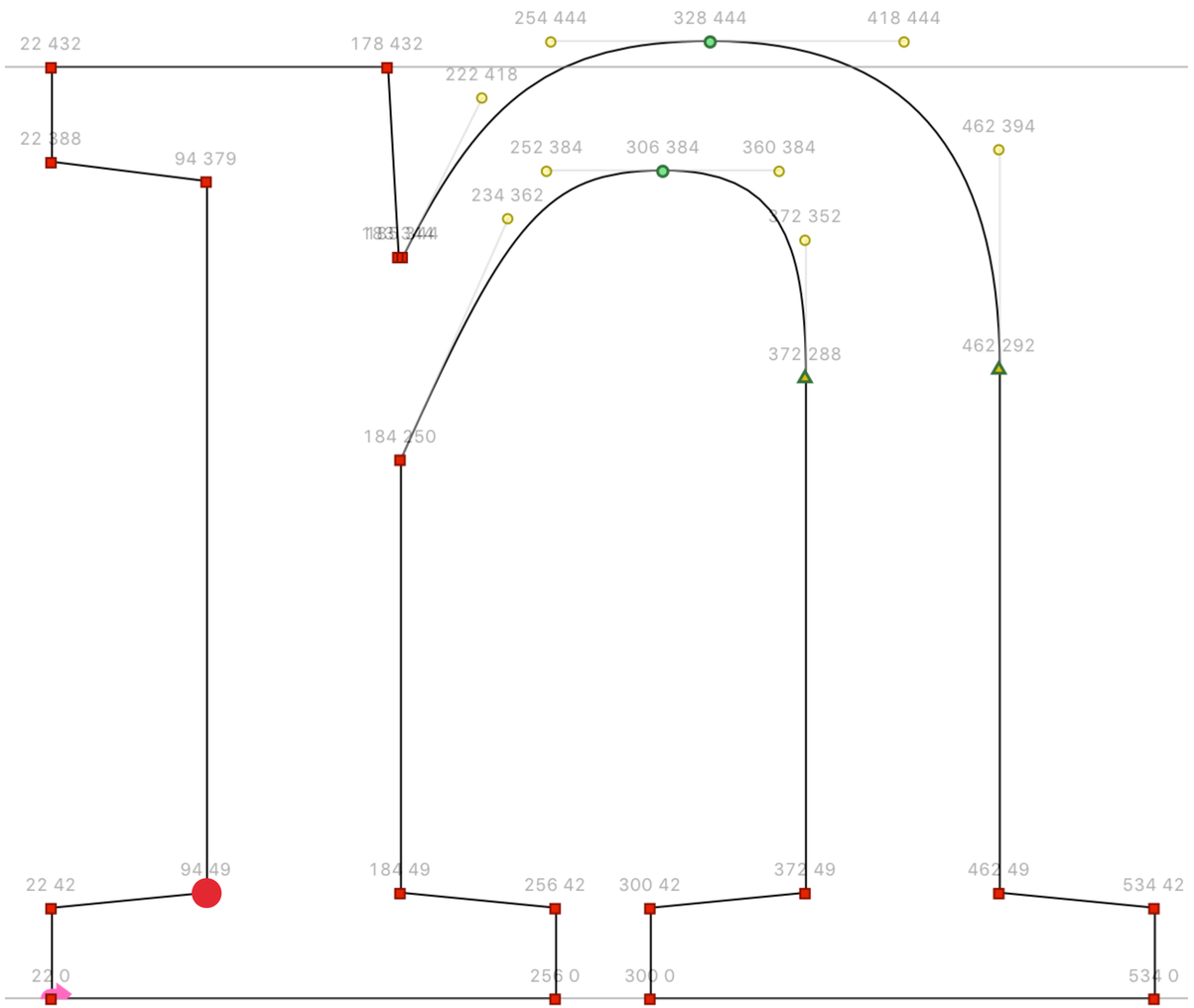

```
pen.moveTo((22, 0))
pen.lineTo((256, 0))
pen.lineTo((256, 42))
pen.lineTo((184, 49))
pen.lineTo((184, 250))
pen.curveTo((234, 362), (252, 384), (306, 384))
pen.curveTo((360, 384), (372, 352), (372, 288))
pen.lineTo((372, 49))
pen.lineTo((300, 42))
pen.lineTo((300, 0))
pen.lineTo((534, 0))
pen.lineTo((534, 42))
pen.lineTo((462, 49))
pen.lineTo((462, 292))
pen.curveTo((462, 394), (418, 444), (328, 444))
pen.curveTo((254, 444), (222, 418), (185, 344))
pen.lineTo((183, 344))
pen.lineTo((178, 432))
pen.lineTo((22, 432))
pen.lineTo((22, 388))
pen.lineTo((94, 379))
pen.lineTo((94, 49))
pen.lineTo((22, 42))
pen.closePath()
pen.moveTo((275, 432))
pen.endPath()
pen.moveTo((278, 0))
pen.endPath()
```

```
p = MyPen()
CurrentGlyph().draw(p)
```



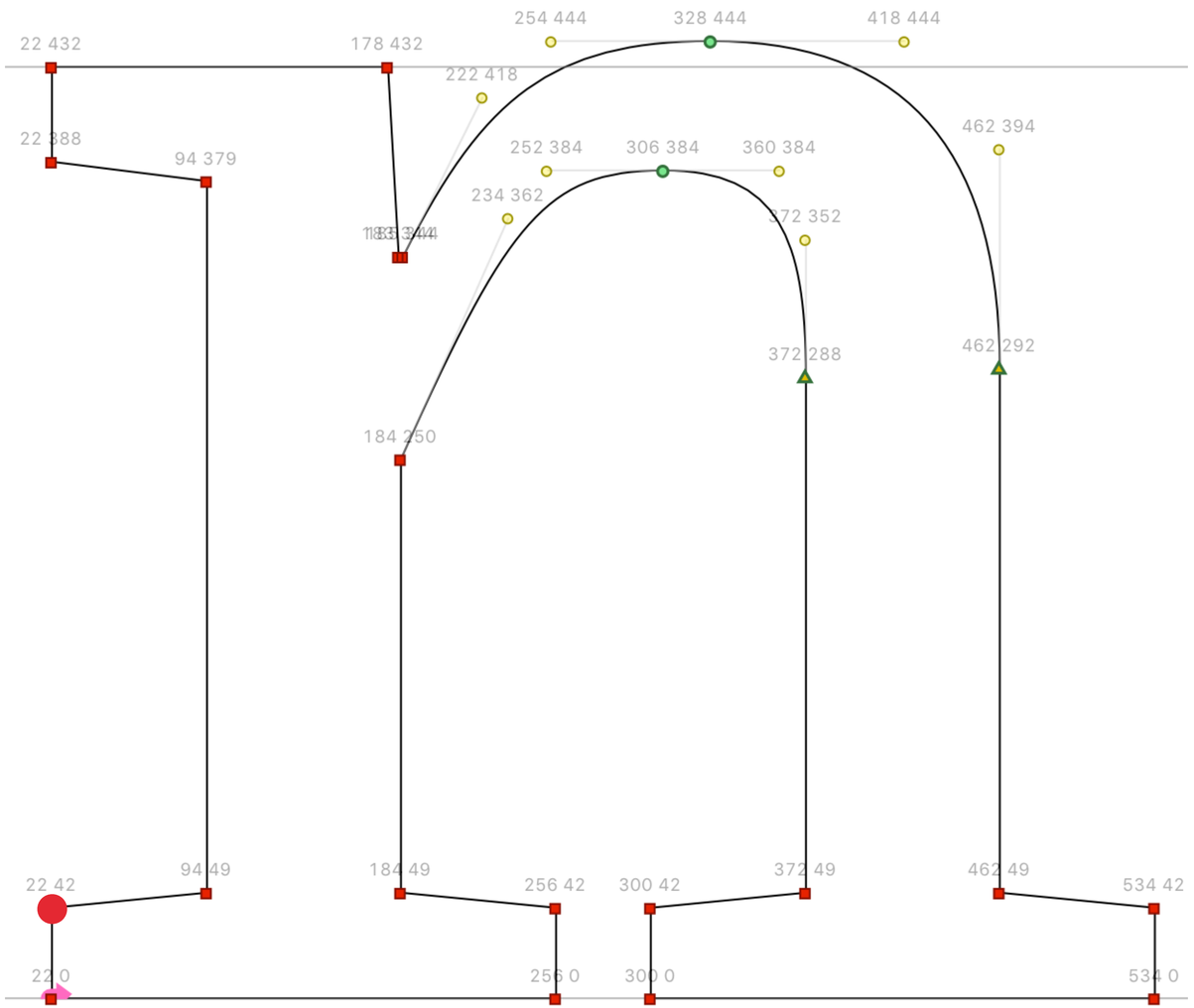

```
pen.moveTo((22, 0))
pen.lineTo((256, 0))
pen.lineTo((256, 42))
pen.lineTo((184, 49))
pen.lineTo((184, 250))
pen.curveTo((234, 362), (252, 384), (306, 384))
pen.curveTo((360, 384), (372, 352), (372, 288))
pen.lineTo((372, 49))
pen.lineTo((300, 42))
pen.lineTo((300, 0))
pen.lineTo((534, 0))
pen.lineTo((534, 42))
pen.lineTo((462, 49))
pen.lineTo((462, 292))
pen.curveTo((462, 394), (418, 444), (328, 444))
pen.curveTo((254, 444), (222, 418), (185, 344))
pen.lineTo((183, 344))
pen.lineTo((178, 432))
pen.lineTo((22, 432))
pen.lineTo((22, 388))
➡ pen.lineTo((94, 379))
pen.lineTo((94, 49))
pen.lineTo((22, 42))
pen.closePath()
pen.moveTo((275, 432))
pen.endPath()
pen.moveTo((278, 0))
pen.endPath()
```

```
p = MyPen()
CurrentGlyph().draw(p)
```



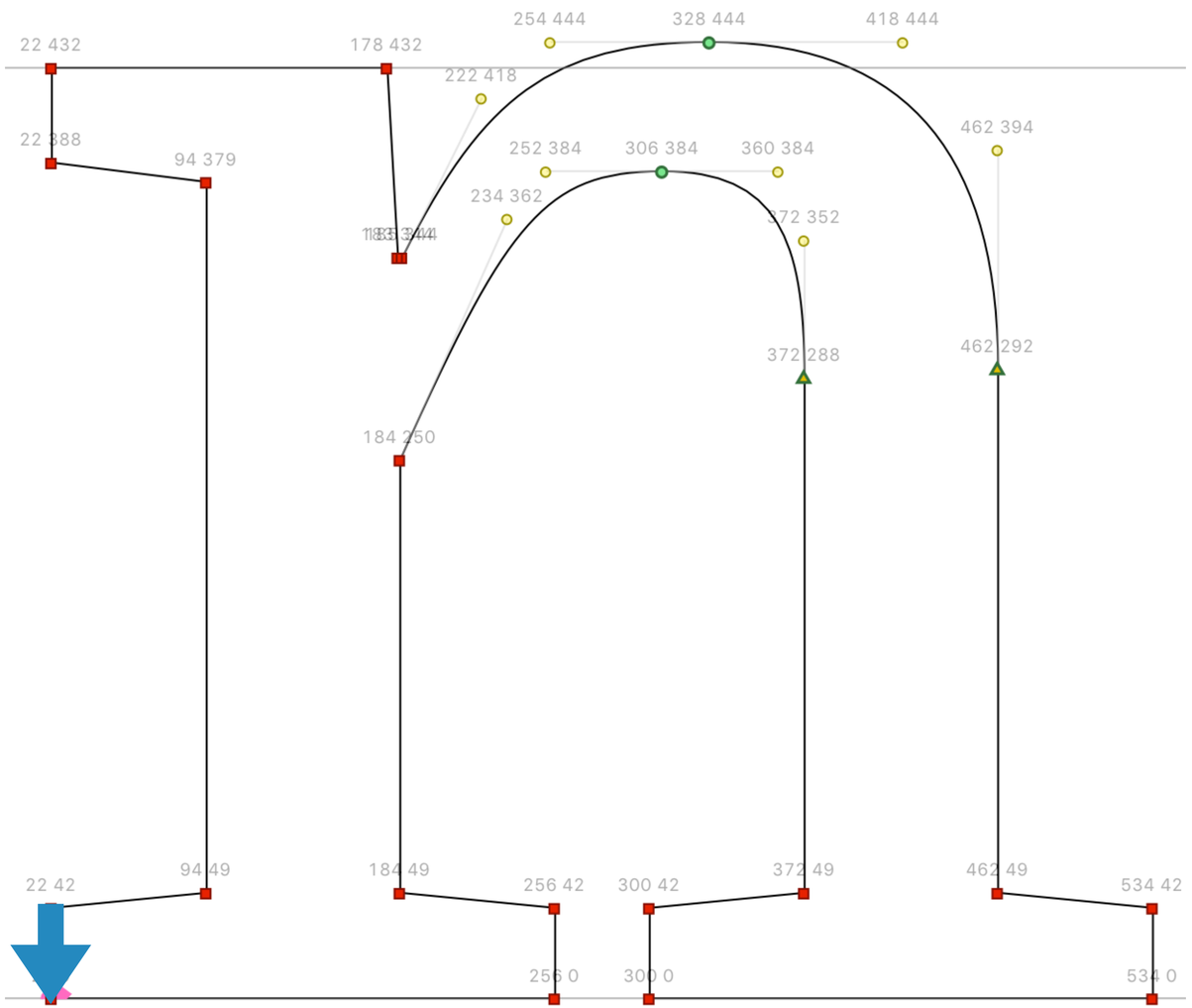

```
pen.moveTo((22, 0))
pen.lineTo((256, 0))
pen.lineTo((256, 42))
pen.lineTo((184, 49))
pen.lineTo((184, 250))
pen.curveTo((234, 362), (252, 384), (306, 384))
pen.curveTo((360, 384), (372, 352), (372, 288))
pen.lineTo((372, 49))
pen.lineTo((300, 42))
pen.lineTo((300, 0))
pen.lineTo((534, 0))
pen.lineTo((534, 42))
pen.lineTo((462, 49))
pen.lineTo((462, 292))
pen.curveTo((462, 394), (418, 444), (328, 444))
pen.curveTo((254, 444), (222, 418), (185, 344))
pen.lineTo((183, 344))
pen.lineTo((178, 432))
pen.lineTo((22, 432))
pen.lineTo((22, 388))
pen.lineTo((94, 379))
pen.lineTo((94, 49))
pen.lineTo((22, 42))
pen.closePath()
pen.moveTo((275, 432))
pen.endPath()
pen.moveTo((278, 0))
pen.endPath()
```

```
p = MyPen()
CurrentGlyph().draw(p)
```



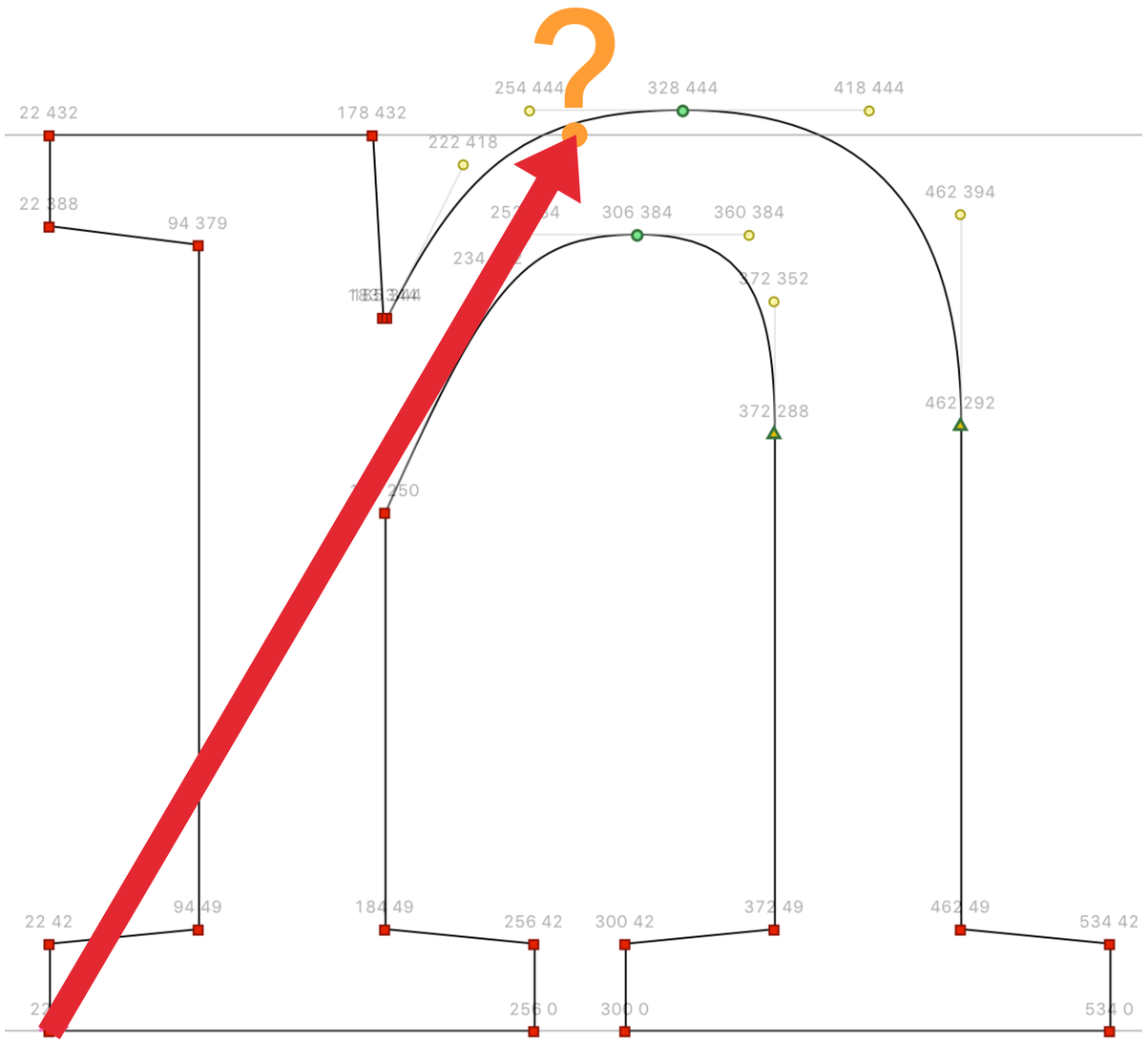

```
pen.moveTo((22, 0))
pen.lineTo((256, 0))
pen.lineTo((256, 42))
pen.lineTo((184, 49))
pen.lineTo((184, 250))
pen.curveTo((234, 362), (252, 384), (306, 384))
pen.curveTo((360, 384), (372, 352), (372, 288))
pen.lineTo((372, 49))
pen.lineTo((300, 42))
pen.lineTo((300, 0))
pen.lineTo((534, 0))
pen.lineTo((534, 42))
pen.lineTo((462, 49))
pen.lineTo((462, 292))
pen.curveTo((462, 394), (418, 444), (328, 444))
pen.curveTo((254, 444), (222, 418), (185, 344))
pen.lineTo((183, 344))
pen.lineTo((178, 432))
pen.lineTo((22, 432))
pen.lineTo((22, 388))
pen.lineTo((94, 379))
pen.lineTo((94, 49))
➡ pen.lineTo((22, 42))
pen.closePath()
pen.moveTo((275, 432))
pen.endPath()
pen.moveTo((278, 0))
pen.endPath()
```

```
p = MyPen()
CurrentGlyph().draw(p)
```




```
pen.moveTo((22, 0))
pen.lineTo((256, 0))
pen.lineTo((256, 42))
pen.lineTo((184, 49))
pen.lineTo((184, 250))
pen.curveTo((234, 362), (252, 384), (306, 384))
pen.curveTo((360, 384), (372, 352), (372, 288))
pen.lineTo((372, 49))
pen.lineTo((300, 42))
pen.lineTo((300, 0))
pen.lineTo((534, 0))
pen.lineTo((534, 42))
pen.lineTo((462, 49))
pen.lineTo((462, 292))
pen.curveTo((462, 394), (418, 444), (328, 444))
pen.curveTo((254, 444), (222, 418), (185, 344))
pen.lineTo((183, 344))
pen.lineTo((178, 432))
pen.lineTo((22, 432))
pen.lineTo((22, 388))
pen.lineTo((94, 379))
pen.lineTo((94, 49))
pen.lineTo((22, 42))
➡ pen.closePath()
pen.moveTo((275, 432))
pen.endPath()
pen.moveTo((278, 0))
pen.endPath()
```

```
p = MyPen()
CurrentGlyph().draw(p)
```




```
pen.moveTo((22, 0))
pen.lineTo((256, 0))
pen.lineTo((256, 42))
pen.lineTo((184, 49))
pen.lineTo((184, 250))
pen.curveTo((234, 362), (252, 384), (306, 384))
pen.curveTo((360, 384), (372, 352), (372, 288))
pen.lineTo((372, 49))
pen.lineTo((300, 42))
pen.lineTo((300, 0))
pen.lineTo((534, 0))
pen.lineTo((534, 42))
pen.lineTo((462, 49))
pen.lineTo((462, 292))
pen.curveTo((462, 394), (418, 444), (328, 444))
pen.curveTo((254, 444), (222, 418), (185, 344))
pen.lineTo((183, 344))
pen.lineTo((178, 432))
pen.lineTo((22, 432))
pen.lineTo((22, 388))
pen.lineTo((94, 379))
pen.lineTo((94, 49))
pen.lineTo((22, 42))
pen.closePath()
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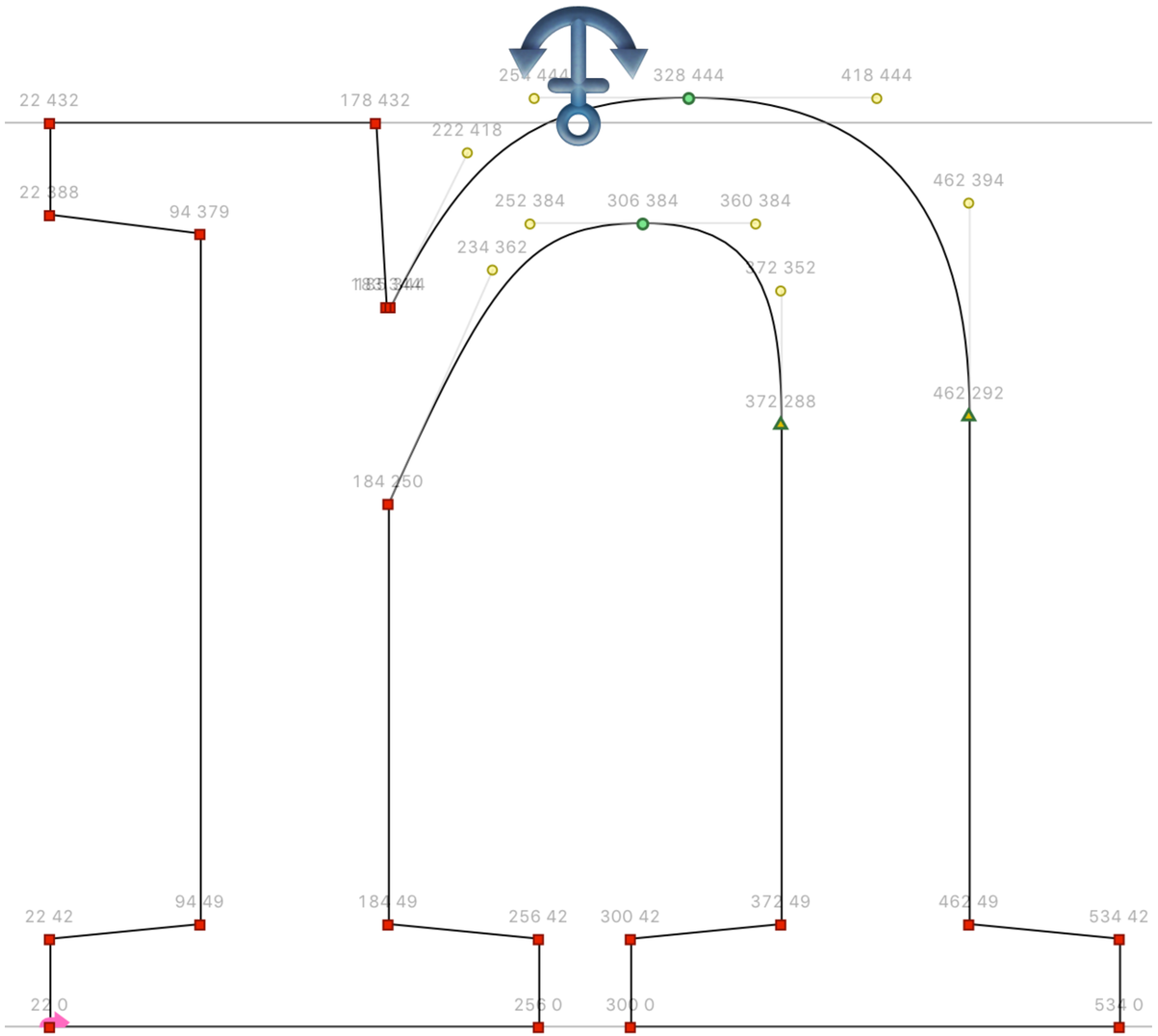
pen.endPath()
pen.moveTo((278, 0))
pen.endPath()
```

```
p = MyPen()
CurrentGlyph().draw(p)
```




```
pen.moveTo((22, 0))
pen.lineTo((256, 0))
pen.lineTo((256, 42))
pen.lineTo((184, 49))
pen.lineTo((184, 250))
pen.curveTo((234, 362), (252, 384), (306, 384))
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pen.lineTo((372, 49))
pen.lineTo((300, 42))
pen.lineTo((300, 0))
pen.lineTo((534, 0))
pen.lineTo((534, 42))
pen.lineTo((462, 49))
pen.lineTo((462, 292))
pen.curveTo((462, 394), (418, 444), (328, 444))
pen.curveTo((254, 444), (222, 418), (185, 344))
pen.lineTo((183, 344))
pen.lineTo((178, 432))
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pen.lineTo((22, 42))
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pen.endPath()
pen.moveTo((278, 0))
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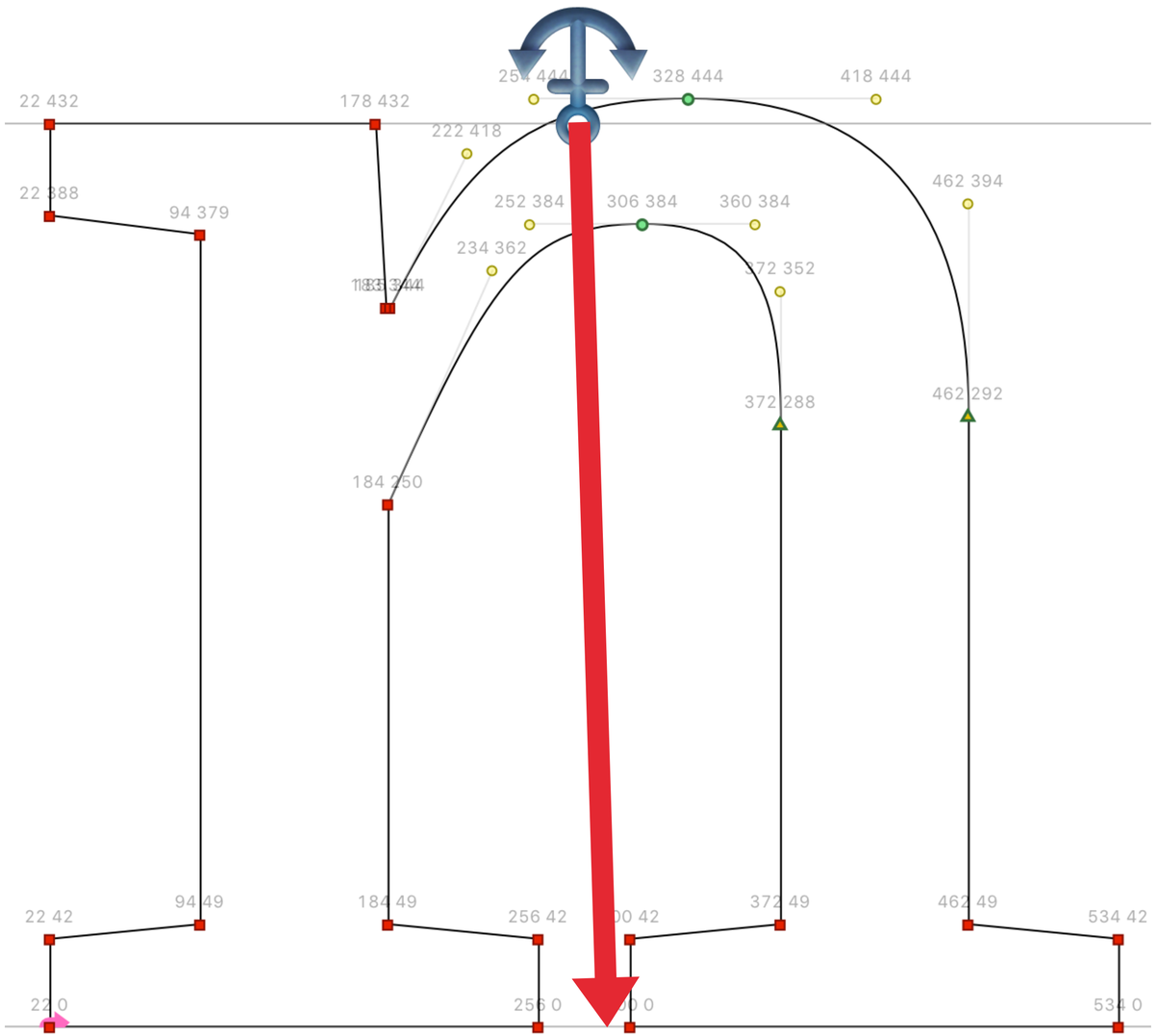
```

```
p = MyPen()
CurrentGlyph().draw(p)
```




```
pen.moveTo((22, 0))
pen.lineTo((256, 0))
pen.lineTo((256, 42))
pen.lineTo((184, 49))
pen.lineTo((184, 250))
pen.curveTo((234, 362), (252, 384), (306, 384))
pen.curveTo((360, 384), (372, 352), (372, 288))
pen.lineTo((372, 49))
pen.lineTo((300, 42))
pen.lineTo((300, 0))
pen.lineTo((534, 0))
pen.lineTo((534, 42))
pen.lineTo((462, 49))
pen.lineTo((462, 292))
pen.curveTo((462, 394), (418, 444), (328, 444))
pen.curveTo((254, 444), (222, 418), (185, 344))
pen.lineTo((183, 344))
pen.lineTo((178, 432))
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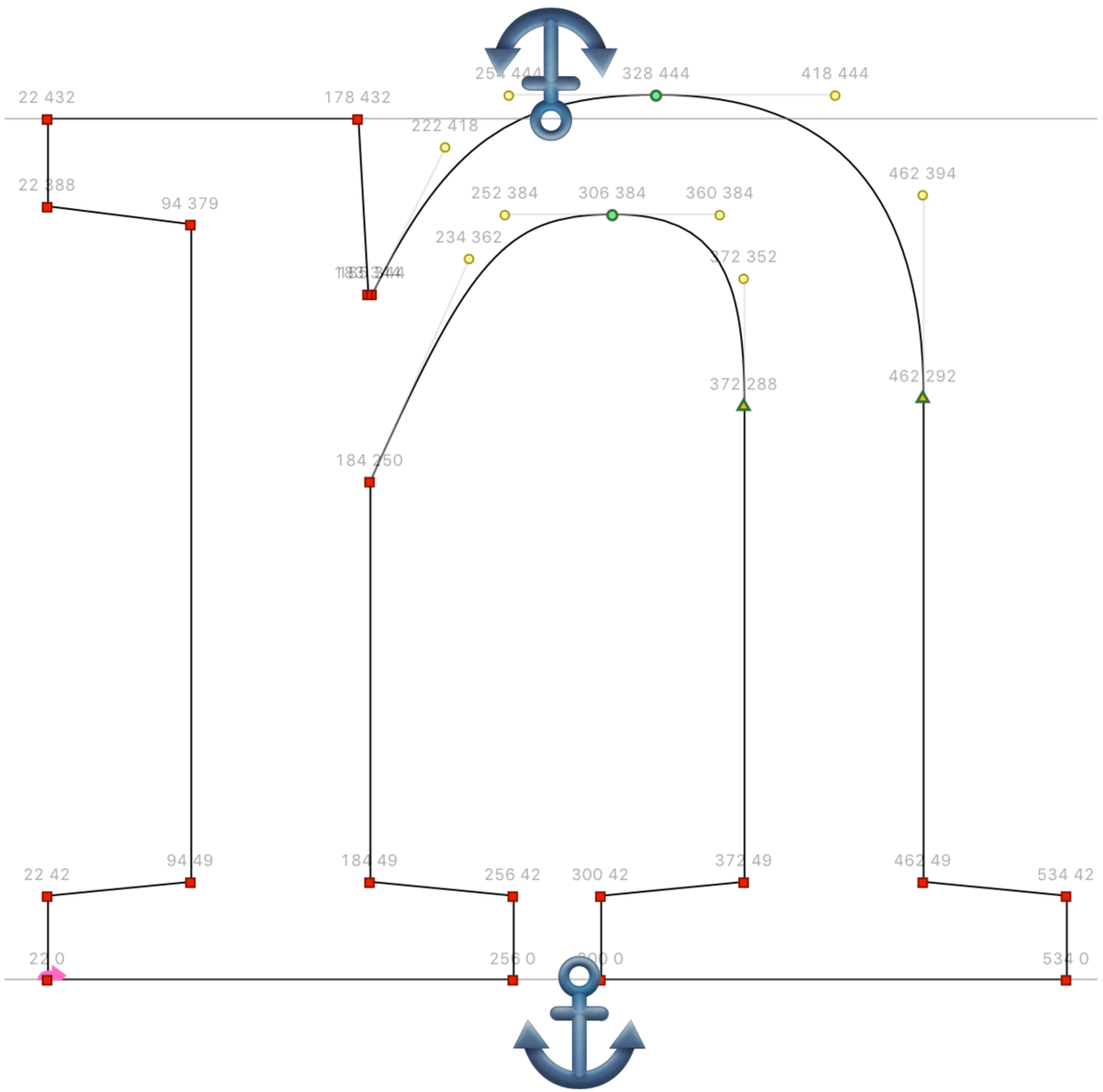
p = MyPen()
CurrentGlyph().draw(p)
```




```
pen.moveTo((22, 0))
pen.lineTo((256, 0))
pen.lineTo((256, 42))
pen.lineTo((184, 49))
pen.lineTo((184, 250))
pen.curveTo((234, 362), (252, 384), (306, 384))
pen.curveTo((360, 384), (372, 352), (372, 288))
pen.lineTo((372, 49))
pen.lineTo((300, 42))
pen.lineTo((300, 0))
pen.lineTo((534, 0))
pen.lineTo((534, 42))
pen.lineTo((462, 49))
pen.lineTo((462, 292))
pen.curveTo((462, 394), (418, 444), (328, 444))
pen.curveTo((254, 444), (222, 418), (185, 344))
pen.lineTo((183, 344))
pen.lineTo((178, 432))
pen.lineTo((22, 432))
pen.lineTo((22, 388))
pen.lineTo((94, 379))
pen.lineTo((94, 49))
pen.lineTo((22, 42))
pen.closePath()
pen.moveTo((275, 432))
pen.endPath()
pen.moveTo((278, 0))
➡ pen.endPath()
```

TWO FLAVOURS OF PENS

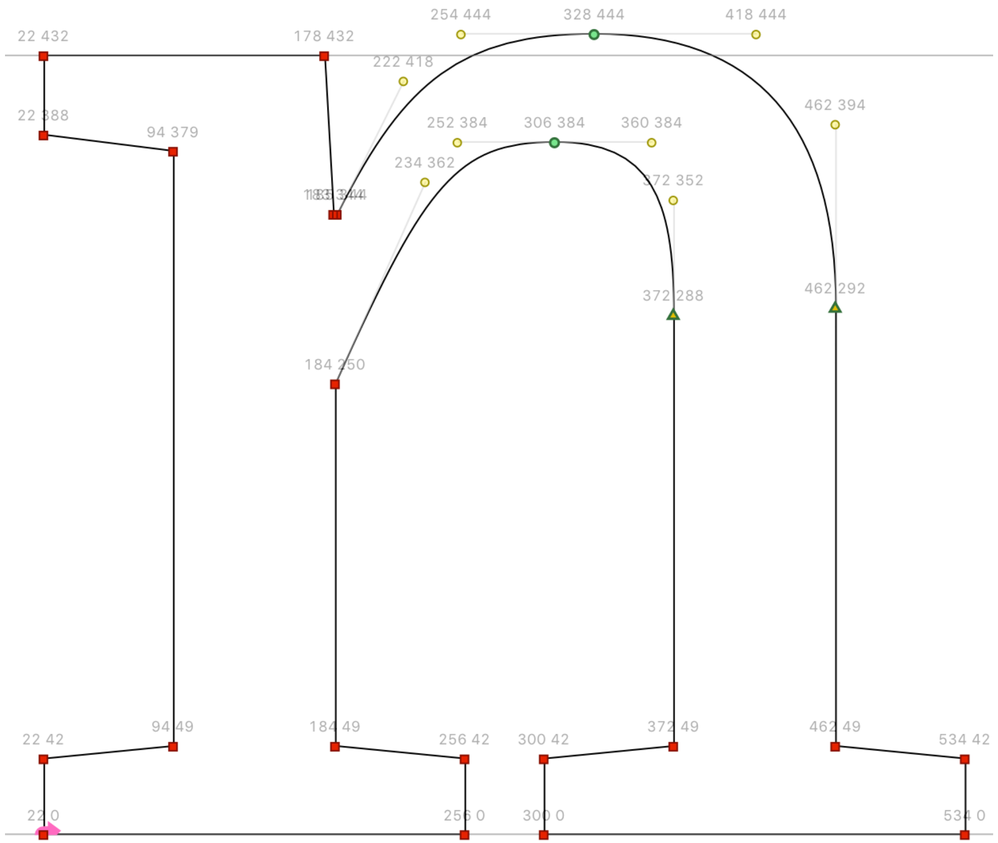
- Segment-oriented pens:
  less information about segments, easier to use
- Point-oriented pens:
  more information about segments, more complicated

```python
class AbstractPointPen(object):

    def beginPath(self):
        """Start a new sub path."""
        raise NotImplementedError

    def endPath(self):
        """End the current sub path."""
        raise NotImplementedError

    def addPoint(self, pt, segmentType=None, smooth=False, name=None, **kwargs):
        """Add a point to the current sub path."""
        raise NotImplementedError

    def addComponent(self, baseGlyphName, transformation):
        """Add a sub glyph."""
        raise NotImplementedError
```

Use a point-oriented pen when you need to preserve more information about each point, e.g. smoothness, point names (anchors), ...

POINT-ORIENTED PEN

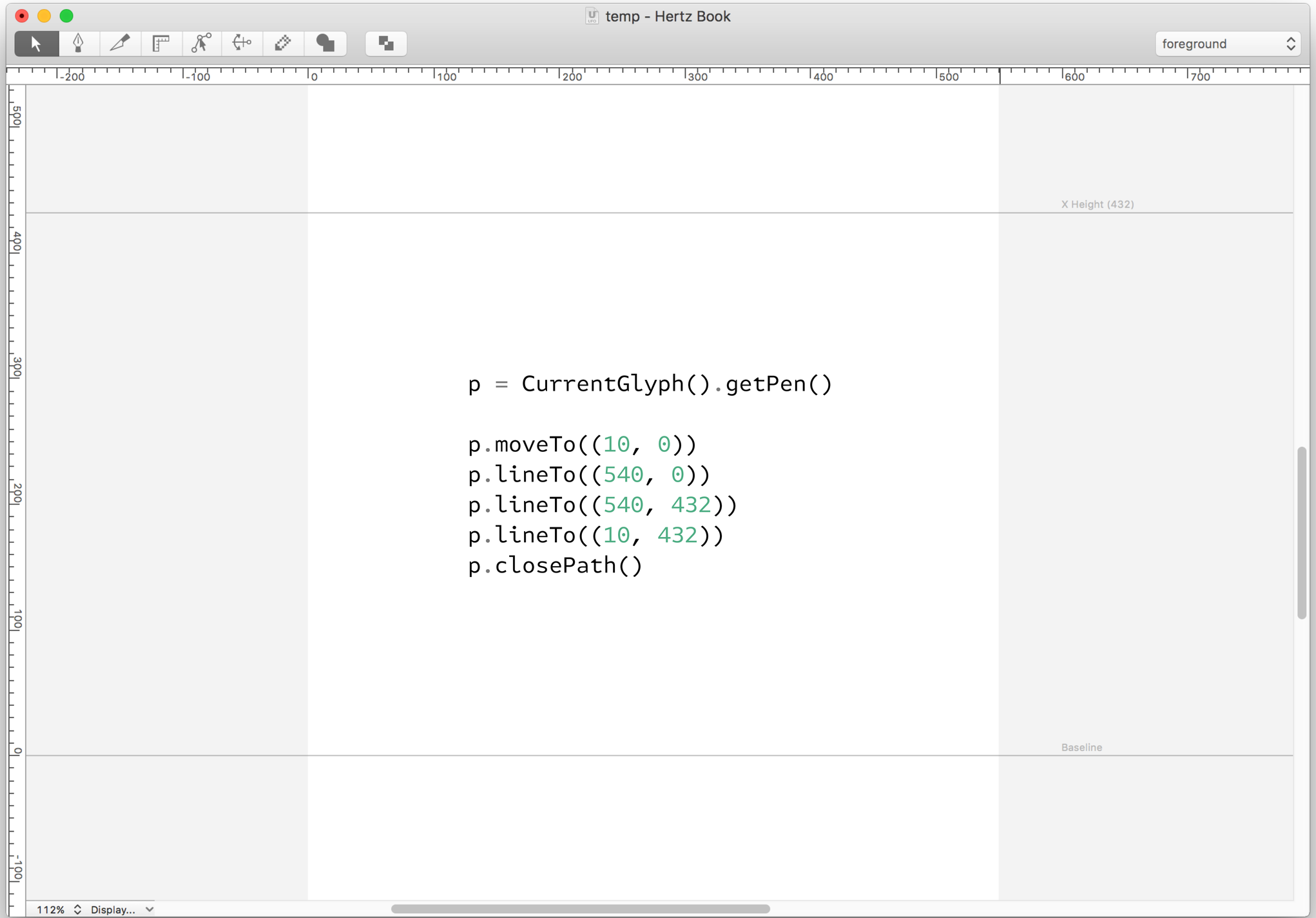
```
from robofab.pens.pointPen import PrintingPointPen
p = PrintingPointPen()
CurrentGlyph().drawPoints(p)
```

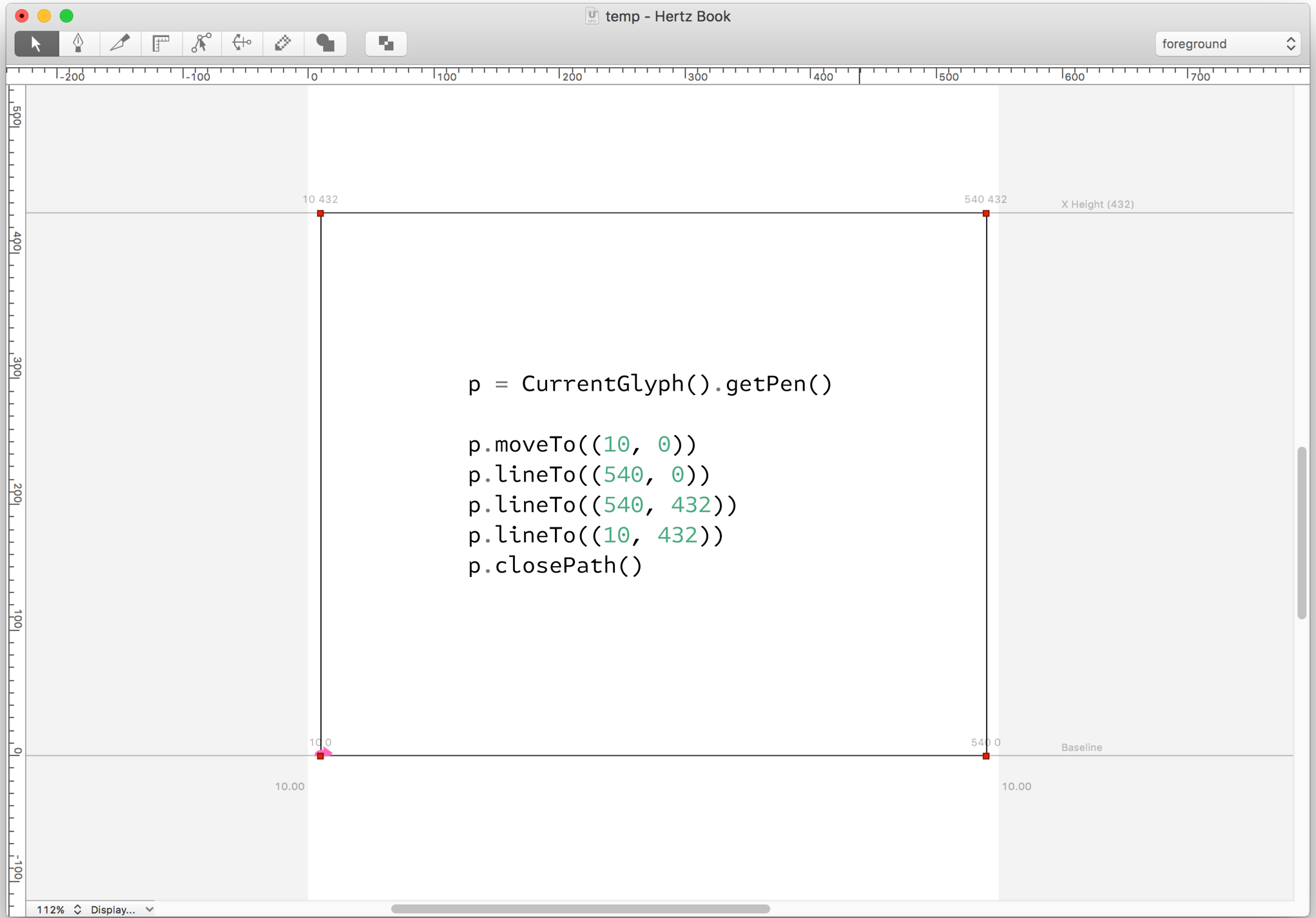



```
pen.beginPath()
pen.addPoint((22, 42), segmentType='line')
pen.addPoint((22, 0), segmentType='line')
pen.addPoint((256, 0), segmentType='line')
pen.addPoint((256, 42), segmentType='line')
pen.addPoint((184, 49), segmentType='line')
pen.addPoint((184, 250), segmentType='line')
pen.addPoint((234, 362))
pen.addPoint((252, 384))
pen.addPoint((306, 384), segmentType='curve', smooth=True)
pen.addPoint((360, 384))
pen.addPoint((372, 352))
pen.addPoint((372, 288), segmentType='curve', smooth=True)
pen.addPoint((372, 49), segmentType='line')
pen.addPoint((300, 42), segmentType='line')
pen.addPoint((300, 0), segmentType='line')
pen.addPoint((534, 0), segmentType='line')
pen.addPoint((534, 42), segmentType='line')
pen.addPoint((462, 49), segmentType='line')
pen.addPoint((462, 292), segmentType='line', smooth=True)
pen.addPoint((462, 394))
pen.addPoint((418, 444))
pen.addPoint((328, 444), segmentType='curve', smooth=True)
pen.addPoint((254, 444))
pen.addPoint((222, 418))
pen.addPoint((185, 344), segmentType='curve')
pen.addPoint((183, 344), segmentType='line')
pen.addPoint((178, 432), segmentType='line')
pen.addPoint((22, 432), segmentType='line')
pen.addPoint((22, 388), segmentType='line')
pen.addPoint((94, 379), segmentType='line')
pen.addPoint((94, 49), segmentType='line')
```

CHECK OUT THE BUILT-IN ROBOFAB PENS:

- RoboFab: MarginPen
- RoboFab: ReverseContourPointPen
- RoboFab: ThresholdPointPen, FlattenPen (in filterPen.py)


temp - Hertz Book
foreground
X Height (432)
Baseline
112%
Display...
p = CurrentGlyph().getPen()
p.moveTo((10, 0))
p.lineTo((540, 0))
p.lineTo((540, 432))
p.lineTo((10, 432))
p.closePath()


temp - Hertz Book
foreground
-200
-100
0
100
200
300
400
500
600
700
500
400
300
200
100
0
-100
10 432
540 432
X Height (432)
p = CurrentGlyph().getPen()
p.moveTo((10, 0))
p.lineTo((540, 0))
p.lineTo((540, 432))
p.lineTo((10, 432))
p.closePath()
10 0
540 0
Baseline
10.00
10.00
112%
Display...

DEMO: DRAWING A CIRCLE

- Code example 03–08

REAL-LIFE EXAMPLES OF PENS THAT DRAW IN A GLYPH

- https://github.com/adobe-type-tools/box-drawing/
- https://github.com/typemytype/outlinerRoboFontExtension
- https://github.com/frankrolf/Rotator

ADVANCED USAGE OF PENS

- Direct the output of one pen into another
- Use pens as effects, filters

DEMO: RANDOMIZING/MODIFYING GLYPH CONTOURS

- Code example 09–16

REAL-LIFE EXAMPLES OF "FILTER" PENS

- https://github.com/typemytype/outlinerRoboFontExtension
- https://github.com/robofab-developers/robofab/blob/master/Lib/robofab/pens/filterPen.py:
  flattenGlyph, spikeGlyph, thresholdGlyphPointPen
  (These are probably installed on your computer already)

DEMO: EXPORTER PEN

- Code examples 17, 20

REAL-LIFE EXAMPLES OF "EXPORTER" PENS

- https://github.com/fontfont/RoboChrome (SVG Export)
- FontTools: T2CharStringPen, TTGlyphPen

DEMO: REPORTER PEN

- Code examples 18, 19

REAL-LIFE EXAMPLES OF “REPORTER” PENS

- https://github.com/jenskutilek/RedArrow-Glyphs
- https://github.com/jenskutilek/RedArrow (RoboFont)