Chapter 2

The next stage in the production of this font is now to use FFAE0002.TTF "Font for an exhibition 0002" as the working font and to produce a glyph for a small letter o. I have found that the changing of the name of the font at each stage in the production is a useful technique. It means that each version can be added into the fonts directory without first having to remove the previous version. This saves time and also allows different versions to be compared and contrasted when a change in the design of a character glyph is being made or just tried. A small letter o is character 111. I am taking great care over the production of this glyph as its shape will influence the whole look of the font. From an o the design of other letters including b, d, p, q, h and n can be produced. Also, as the letter o is the first letter of the font being produced, its height is influential on the height of other characters.

I decide to make the body of the letter o to be 1024 units wide, though that includes the gap between letters as well as the actual printing part of the letter o. In order to help the font display well on screen at smaller sizes, such as 12 point and 18 point in basic software packages, I base, wherever possible, the positions of contours on an imaginary grid where the lines are spaced at 256 font units apart and on points which are 168 font units from grid lines in either or both directions.

I choose 1024 font units as the height of a letter o. I decide that a capital O is to have a height of 1536 font units, which allows a further 512 font units above the letter for accents for accented characters.

The outer edge of the o is specified by using 16 points, 8 being on the curve and 8 being off the curve. Although listed here in order on the curve, in practice the positions are worked out by first setting the on curve points and then deriving the locations of the off curve points.

88, 512 on the curve, being 256 - 168, 1024/2

88, 688 off the curve, being 88, 856 - 168

256, 856 on the curve, being 256, 1024 - 168

424, 1024 off the curve, being 256 + 168, 1024

512, 1024 on the curve

600, 1024 off the curve, being 768 - 168, 1024

768, 856 on the curve

936, 688 off the curve

936, 512 on the curve, being 768 + 168 ,512

936, 336 off the curve, being 936, 168 + 168

768, 168 on the curve

600, 0 off the curve

512, 0 on the curve

424, 0 off the curve

256, 168 on the curve

88, 336 off the curve

The inner curve also has sixteen points, 8 on the curve and 8 off the curve. These are listed in order, yet the points on the curve are calculated first as the points off the curve depend on them for their location.

256, 512 on the curve

256, 402 off the curve, being 256, 302 + (356 - 256)

356, 302 on the curve. This is computed by having x and y such that 512 - x and 512 - y are in the proportion of 512 - 256 to 512 - 168, so that they are radial to the corresponding point on the outer edge of the o, and so that the thickness of the o is 168 font units. The proportion is 256 to 344, which is 32 to 43.

490, 168 off the curve, being 356 + (302 - 168), 168

512, 168 on the curve

534, 168 off the curve, being 1024 - 490, 168

668, 302 on the curve, being 1024 - 356, 302

768, 402 off the curve

768, 512 on the curve

768, 622 off the curve, being 768, 1024 - 402

668, 722 on the curve, being 668, 1024 - 302

534, 856 off the curve

512, 856 on the curve

490, 856 off the curve

356, 722 on the curve

256, 622 off the curve

This produces an interestingly shaped design for a small o, a design upon which the design of the font can be based.

I have in mind at present a serifed face and hope to make the letter h the next letter to be produced. In order to demonstrate the design of the letter h before and after adding the serif in a later chapter, an unserifed h based on the design of the letter o is added into the 0002 version of the font.

Here is a display of the design of the letter o at 72 point.

Here are two copies side by side to show the letter spacing.
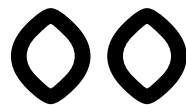
Here is a display of the h, though this is only a temporary stage as the h is intended to be serifed.

Here is a display of the o in a colour.