

作りましょう 0.8

パラメタ方式フォントファミリ  
校とプリティプリントのソース

Tsukurimashou 0.8

Parametric Font Family  
Proofs and pretty-printed  
source code

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Proofs and pretty-printed source code for Tsukurimashou  
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## Volume IV

U+0000 to U+2FFF

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00

tsuku-01.mp

01

tsuku-02.mp

02

tsuku-03.mp

03

tsuku-20.mp

20

tsuku-21.mp

21

tsuku-24.mp

24

tsuku-25.mp

25

tsuku-26.mp

26

tsuku-27.mp

27

tsuku-2e.mp

2E

tsuku-2f.mp

2F



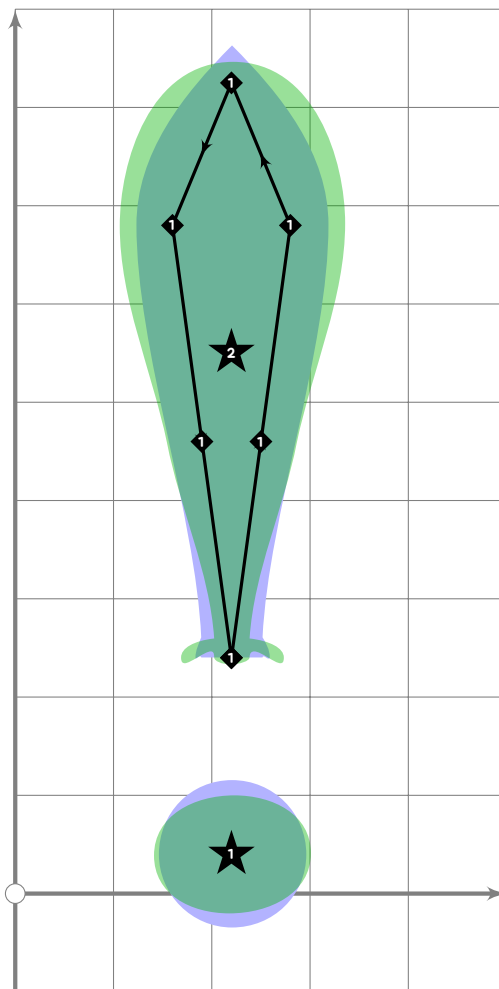
# tsuku-00.mp

00

```
1 %
2 % Unicode page 00 (ASCII/ISO Latin-1) for Tsukurimashou
3 % Copyright (C) 2011, 2012 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31
32
33 beginfont
34
35 input latin-intro.mp;
36
37 % AUTODEPS
38 input accent.mp;
39 input latin.mp;
40 input numerals.mp;
41 input punct.mp;
42
43 do_late_includes;
44
45
46
47 transform ascii_punct_xf;
48 if is_proportional:
49   ascii_punct_xf:=identity scaled (1.7*tsu_punct_size) shifted centre_pt;
50 else:
51   ascii_punct_xf:=
52     identity scaled (1.1*tsu_punct_size) shifted (250,latin_vcentre);
53 fi;
54
55
56
```

## Ascii

```
57 % ASCII
58
59 % WARNING this code is substantially duplicated in tsuku-ff; just
60 % enough differences to make sharing impractical
61
62 % exclamation point
63 tsu_rescale_native_narrow;
```



```

64 begint Suglyph("exclam";33);
65   if tsu_pbrush_size>=(tsu_punct_size*0.5):
66     push_lcblob(fullcircle
67       xscaled (tsu_punct_size+tsu_pbrush_size)
68       yscaled (tsu_punct_size+tsu_pbrush_size*tsu_pbrush_shape)
69       rotated tsu_pbrush_angle
70       shifted (220,40));
71   else:
72     push_stroke(fullcircle scaled tsu_punct_size shifted (220,40),
73       (2,2)-(2,2)-(2,2)-(2,2)-cycle);
74     push_lcblob(get_stroke(0));
75   fi;
76
77   push_stroke((220,240){up}..(280,680){up}..{curl 1}(220,825){curl 1}..
78     (160,680){down}..{down}(220,240),
79     (1,1)-(2,2)-(2,2)-(2,2)-(1,1));
80
81   if tsu_pbrush_size>=30:
82     push_lcblob((subpath (0,1,3.9) of get_stroke(0))-cycle);
83   fi;
84

```



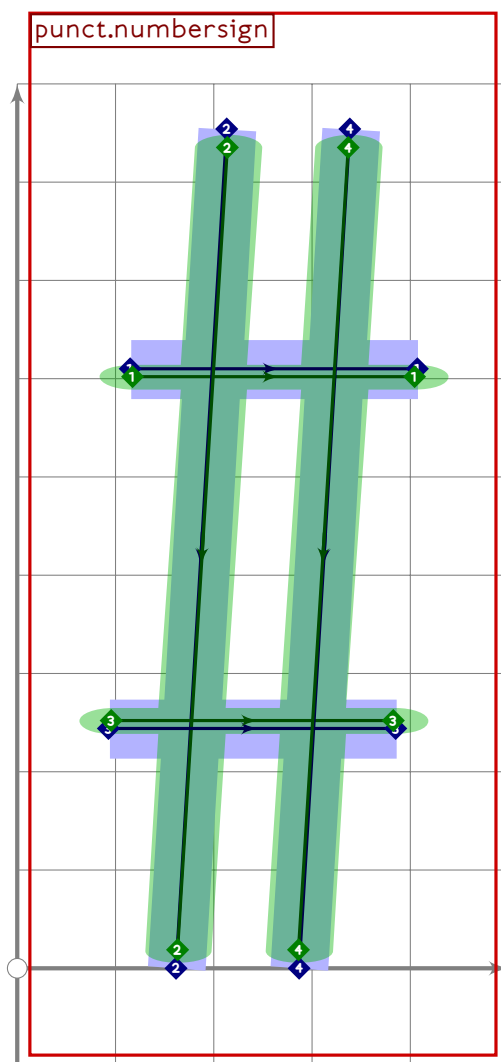
```
85     tsu_render;
86 endtsuglyph;
87 tsu_rescale_half;
88
```



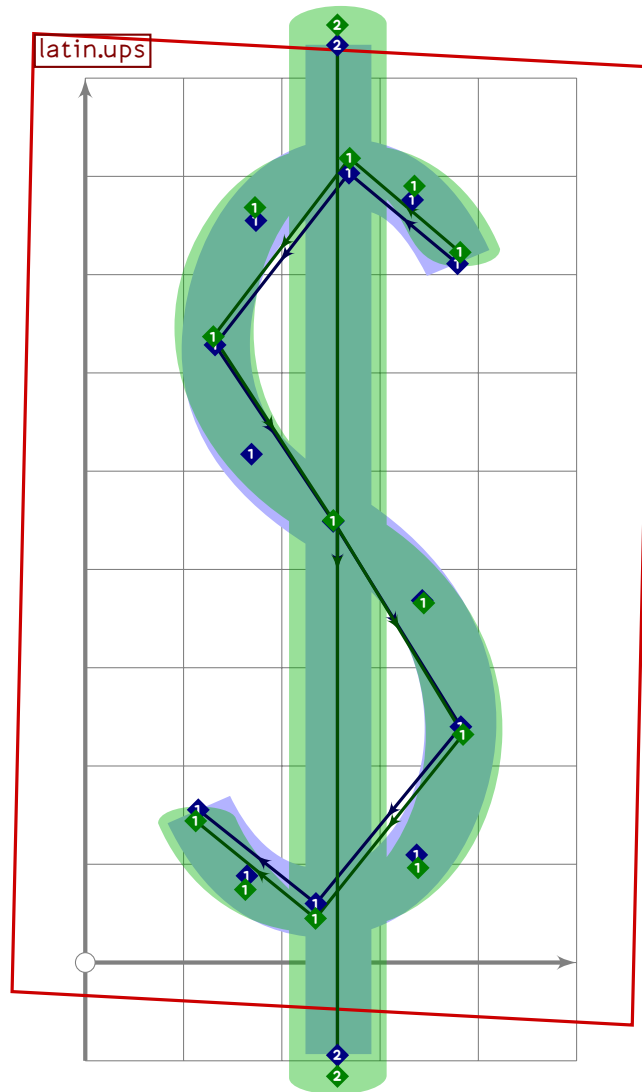
```
89 % ASCII (neither left nor right) quotation mark
90 begint Suglyph("quotedbl";34);
91     punct.asciiquote;
92     tsu_render;
93 endtsuglyph;
94
```

U+0023  
tsuku.numbersign

00



```
95 % number sign
96 begintsuglyph("numbersign";35);
97   punct.numbersign;
98   tsu_render;
99 endtsuglyph;
100
```



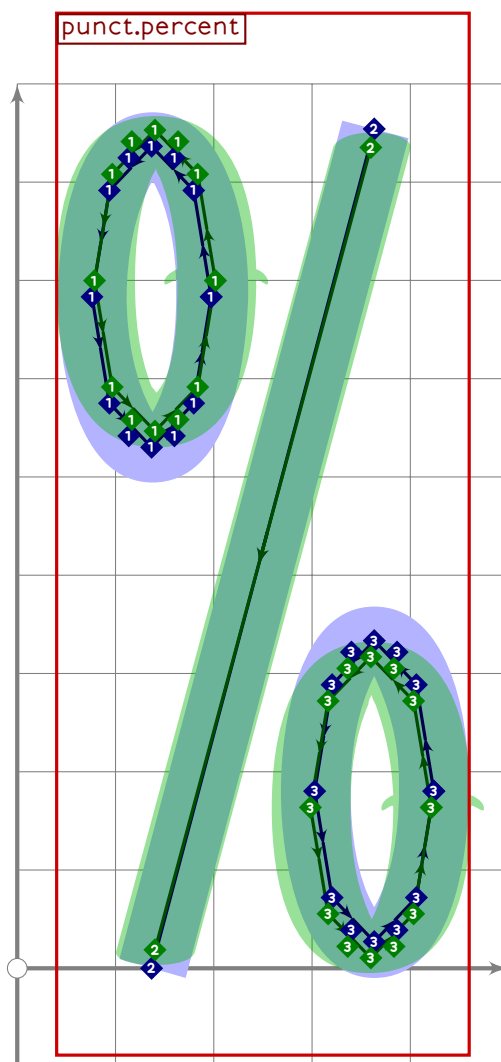
```

101 % dollar sign
102 begintsuglyph("dollar";36);
103   tsu_xform(identity shifted -centre_pt
104     rotated -2 xyscaled (1.06,0.92) shifted centre_pt)(latin.ups);
105
106   numeric x[],y[];
107   x1=x2=0.53[xpart llcorner get_stroke(0),xpart lrcorner get_stroke(0)];
108   y1=1.12[latin_wide_low_r,latin_wide_high_r];
109   y2=(-0.15)[latin_wide_low_r,latin_wide_high_r];
110
111   push_stroke(z1-z2,(2,2)-(2,2));
112   set_bosize(0,90);
113
114   tsu_render;
115 endtsuglyph;
116

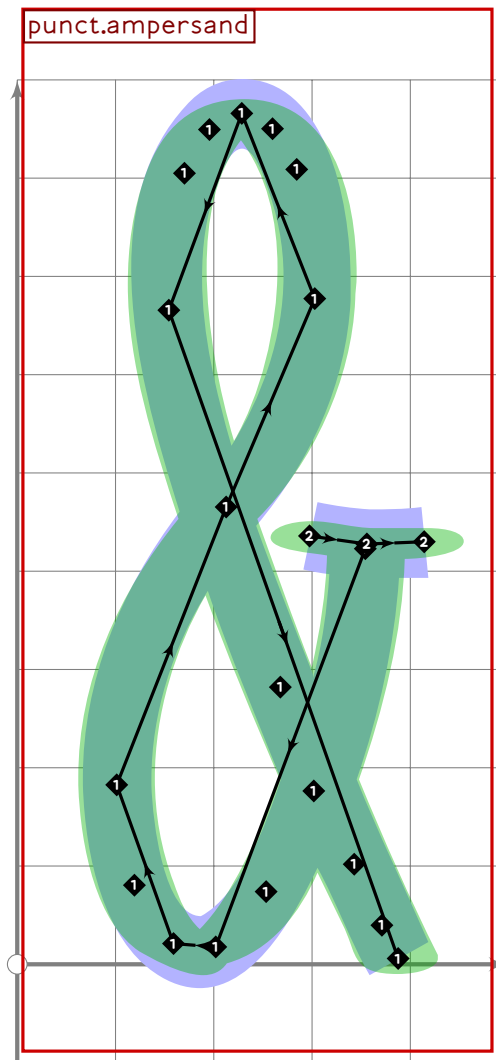
```

U+0025  
tsuku.percent

00



```
117 % percent
118 begintsuglyph("percent",37);
119   punct.percent;
120   tsu_render;
121 endsuglyph;
122
```



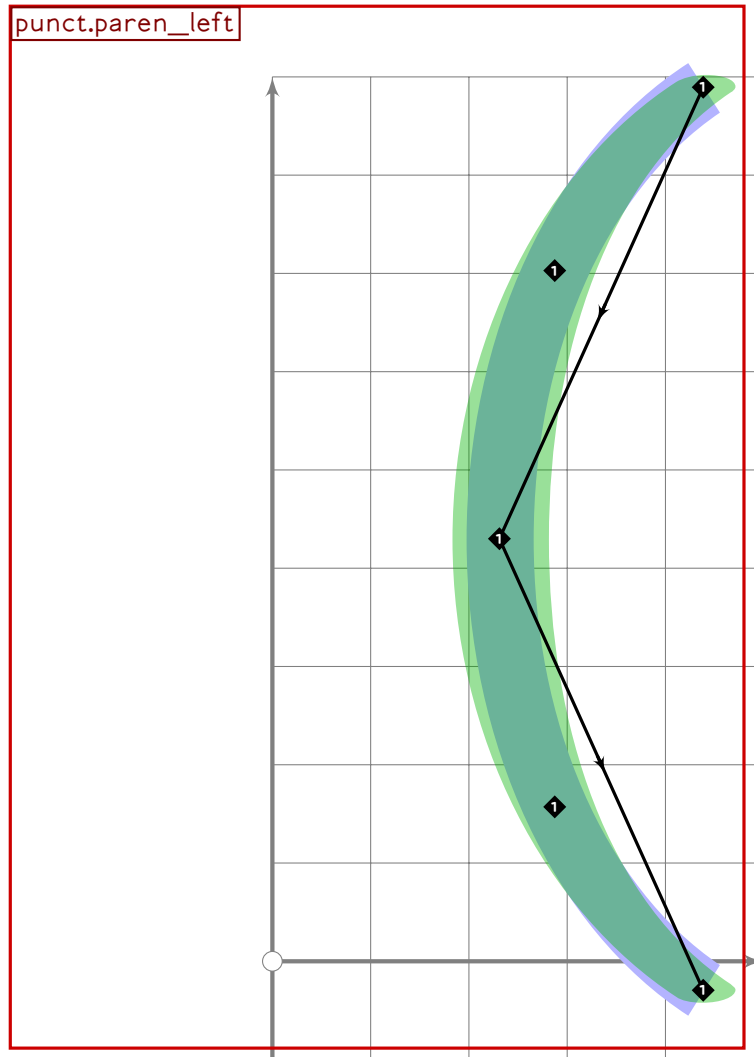
```
123 % ampersand
124 begintsuglyph("ampersand",38);
125   punct.ampersand;
126   tsu_render;
127 endtsuglyph;
128
```

U+0027  
tsuku.quotesingle

00



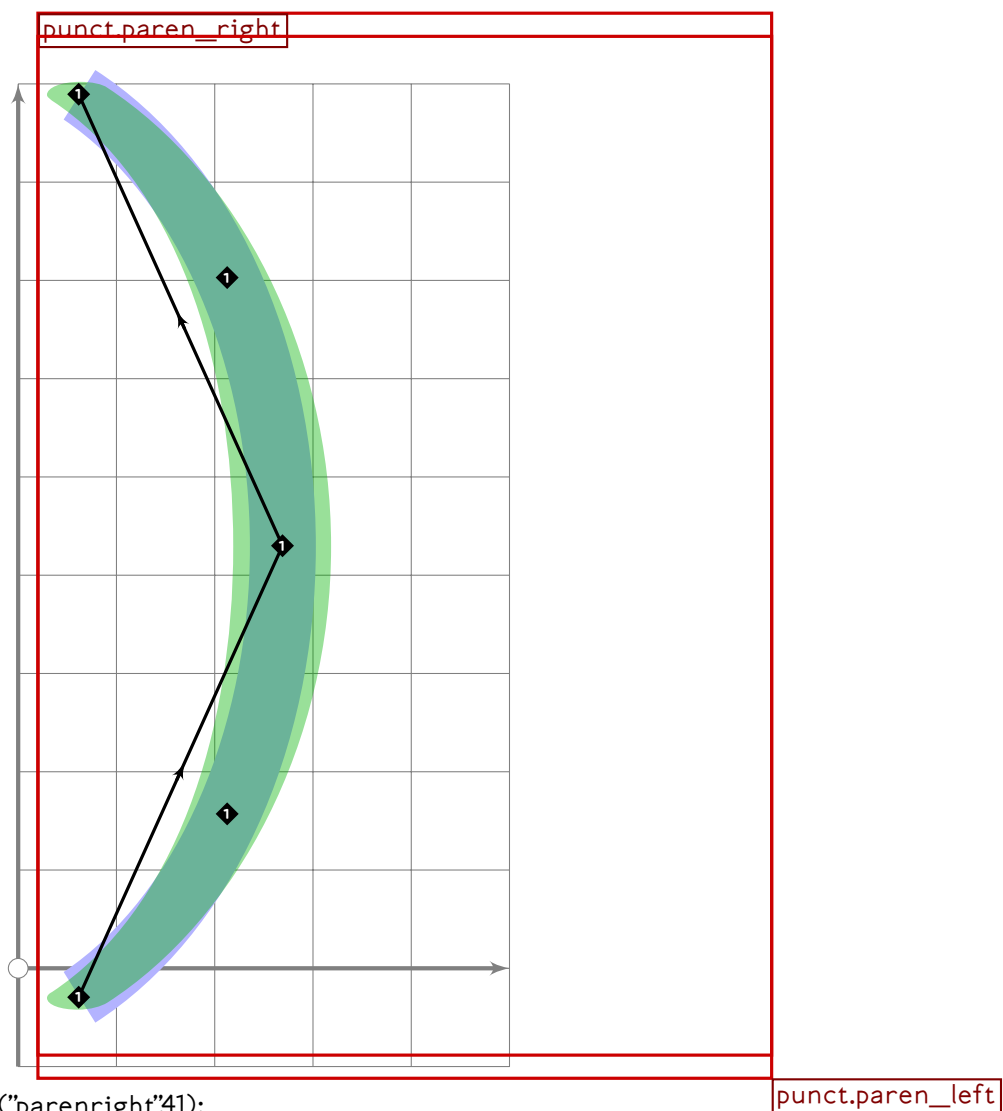
```
129 % apostrophe
130 beginsuglyph("quotesingle",39);
131   punct.make_comma((480,vmetric(0.94)),0);
132   tsu_render;
133 endsuglyph;
134
```



```
135 % left and right parentheses
136 begintsuglyph("parenleft";40);
137 punct.paren_left;
138 tsu_render;
139 endtsuglyph;
```

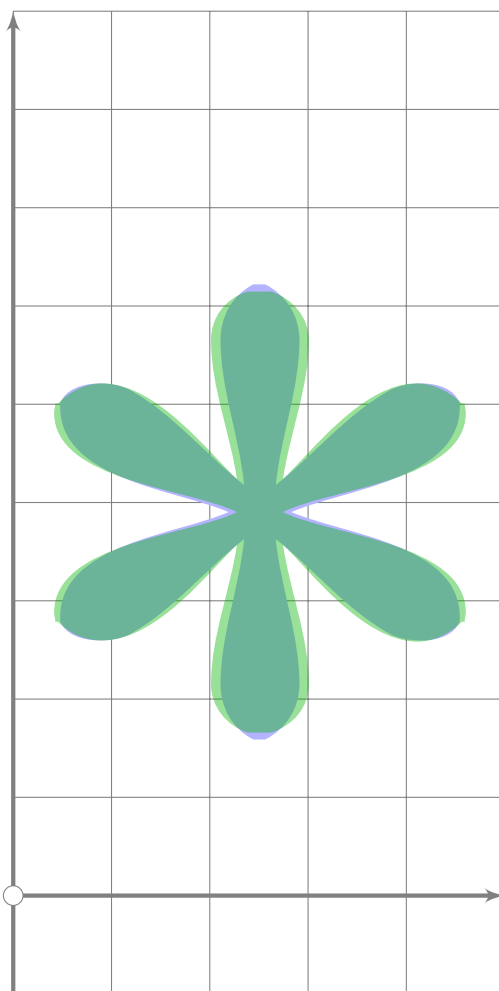
U+0029  
tsuku.parenright

00



```
140 begintsuglyph("parenright";41);
141 punct.paren_right;
142 tsu_render;
143 endtsuglyph;
144
145 % WARNING changing rescale setting
146 tsu_rescale_native_conditional;
147
```





```

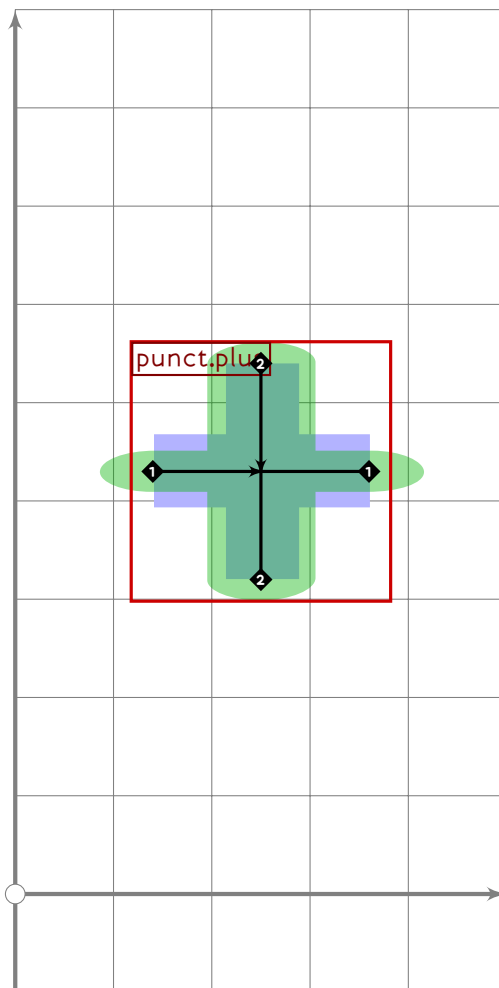
148 % asterisk
149 begintsuglyph("asterisk",42);
150   begingroup
151     save lobe,glyph,nlobes;
152     path lobe,glyph;
153     numeric nlobes;
154
155     lobe:=(1,0){up}{.((1+tsu_brush_max)*tsu_punct_size/8,140){up}
156       ..{curl 1}{0,175){curl 1}
157       ..(-(1+tsu_brush_max)*tsu_punct_size/8,140){down};
158     if rescale_slant>50:
159       lobe:=(lobe..(-1,0){down}..(0,-1)..cycle) scaled (tsu_punct_size/70);
160       nlobes:=5;
161     else:
162       lobe:=(lobe..(lobe rotated 180)..cycle) scaled (tsu_punct_size/80);
163       nlobes:=3;
164     fi;
165
166     default_nib:=fix_nib(35*tsu_brush_max,
167       35*tsu_brush_max*tsu_brush_shape,
168       tsu_brush_angle);

```

```

169
170     for i:=0 upto nlobes-1:
171         pen_stroke()(lobe rotated (i*360/nlobes)
172                     shifted (centre_pt+(-250,0)))(glyph);
173         dangerousFill glyph.r;
174     endfor;
175 endgroup;
176 endtsuglyph;
177

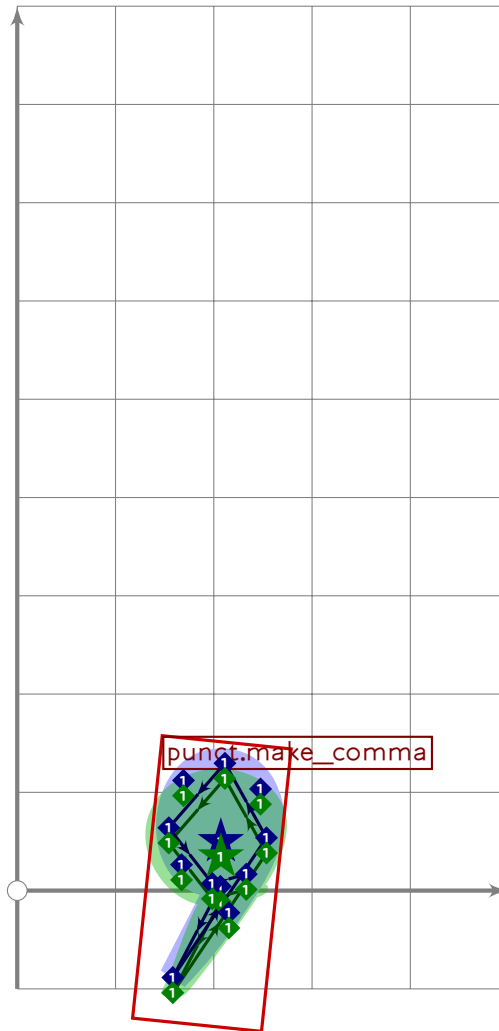
```



```

178 % plus
179 begint Suglyph("plus";43);
180 punct.plus(ascii_punct_xf);
181 tsu_render;
182 endtsuglyph;
183
184 % WARNING changing rescale setting
185 tsu_rescale_half;
186

```



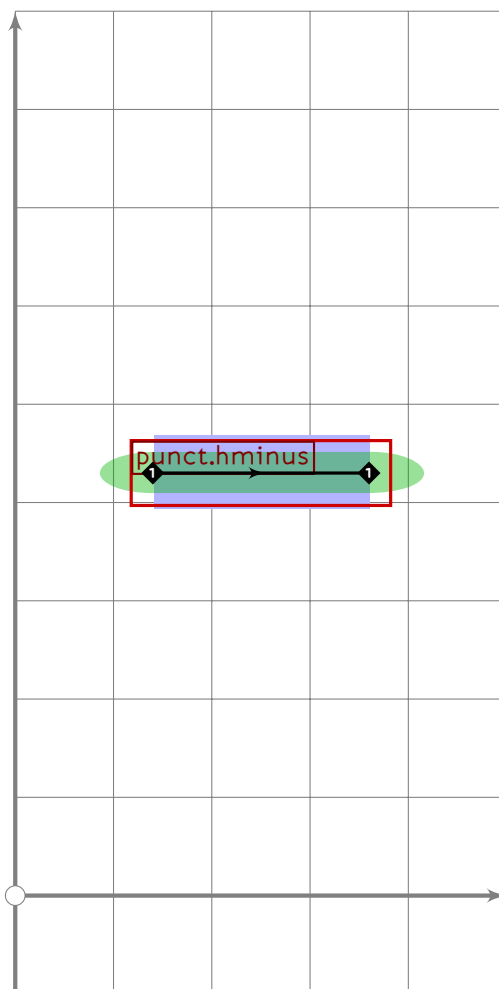
```

187 % comma
188 begintsuglyph("comma"44);
189 punct.make_comma((380,vmetric(0.03)),0);
190 tsu_render;
191 endtsuglyph;
192
193 % hyphen-minus
194 tsu_rescale_native_conditional;

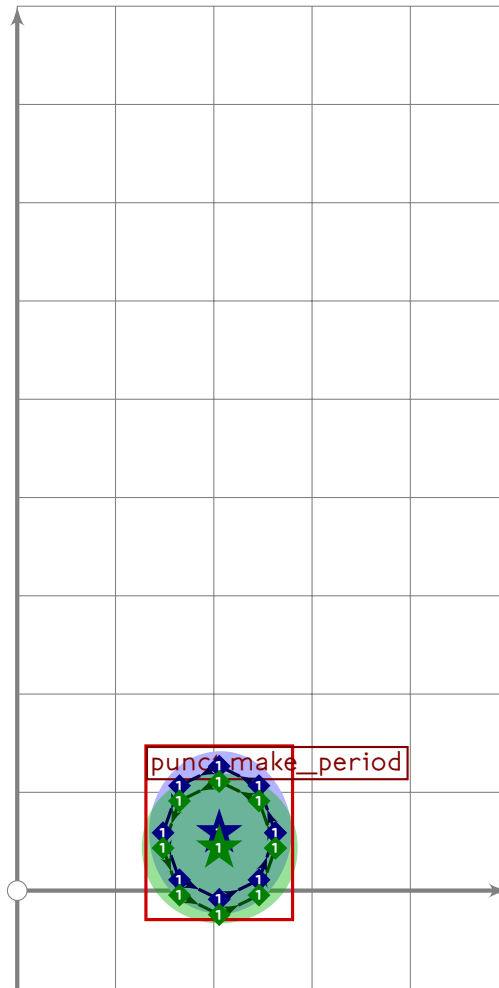
```

U+002D  
tsuku.hyphen

00



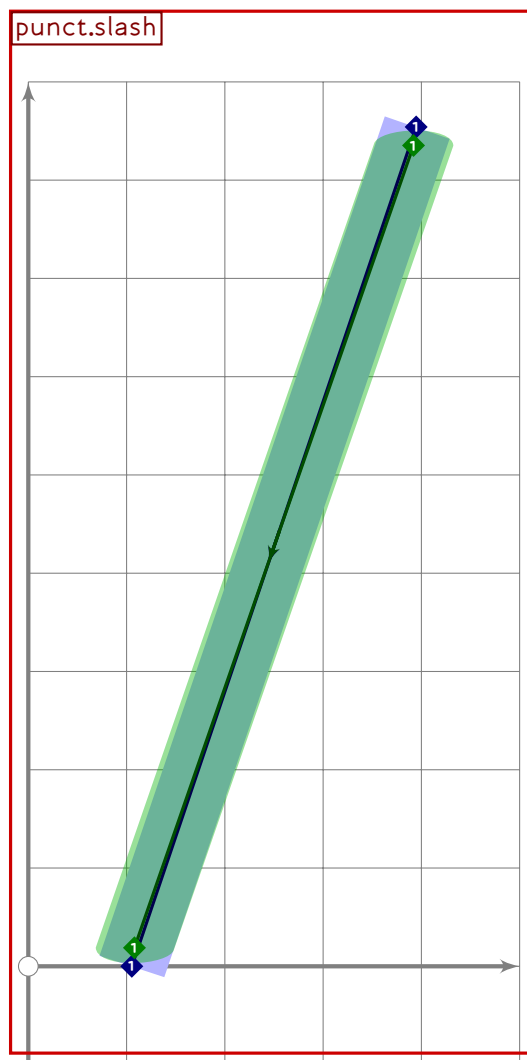
```
195 beginsuglyph("hyphen";45);
196   punct.hminus(ascii_punct_xf);
197   tsu_render;
198 endsuglyph;
199 tsu_rescale_half;
200
```



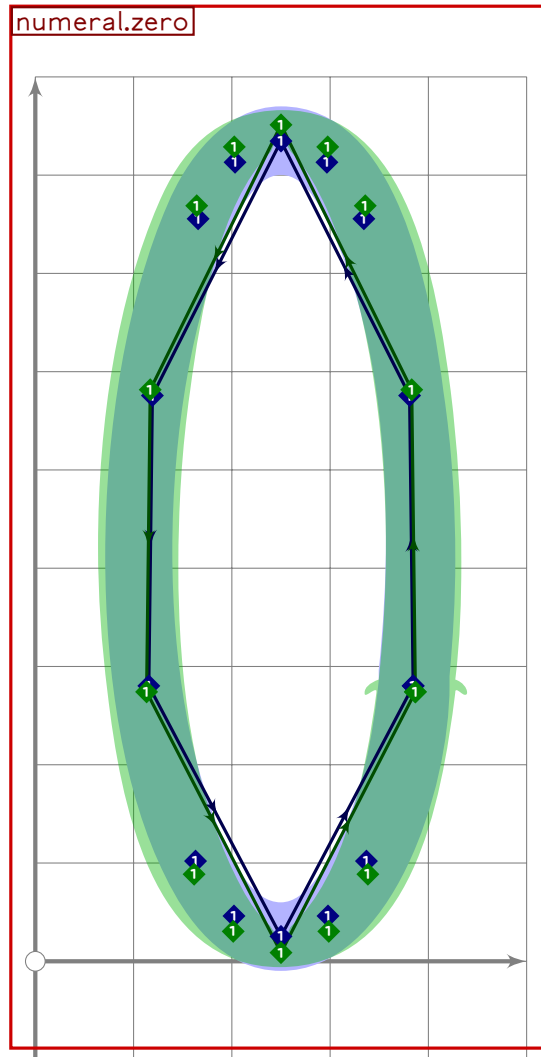
```
201 % period
202 beginsuglyph("period";46);
203 punct.make_period((380,vmetric(0.03)));
204 tsu_render;
205 endsuglyph;
206
```

U+002F  
tsuku.slash

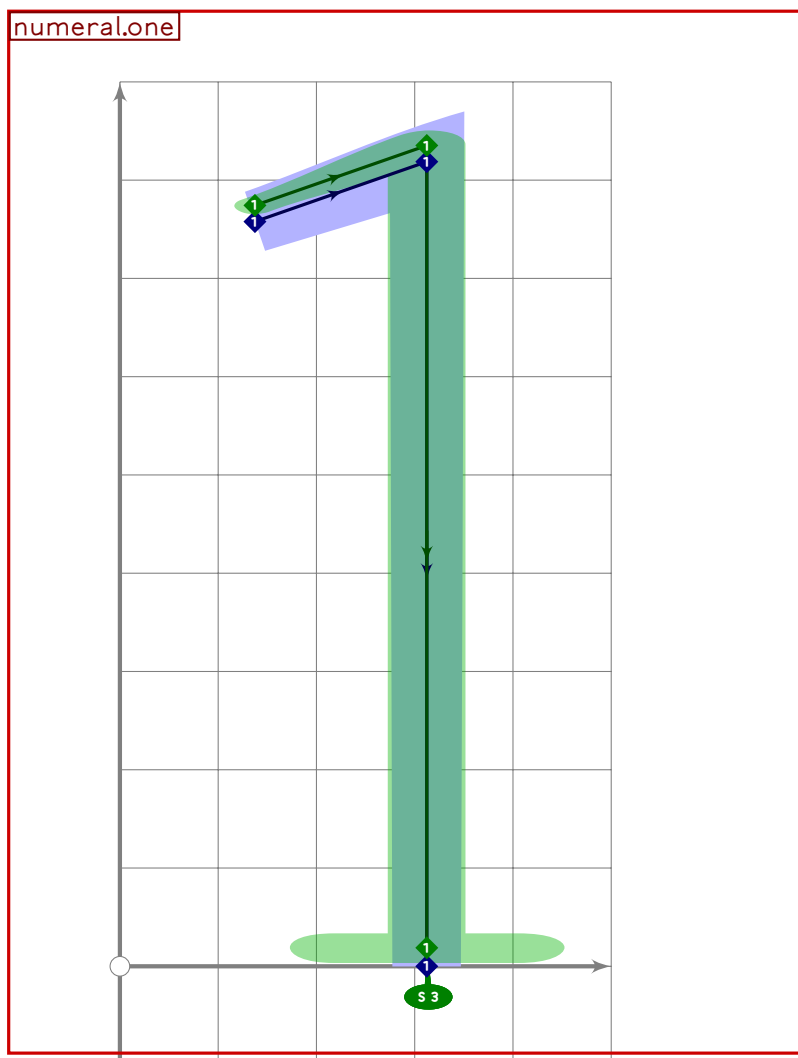
00



```
207 % slash
208 begintsuglyph("slash";47);
209   punct.slash;
210   tsu_render;
211 endtsuglyph;
212
```

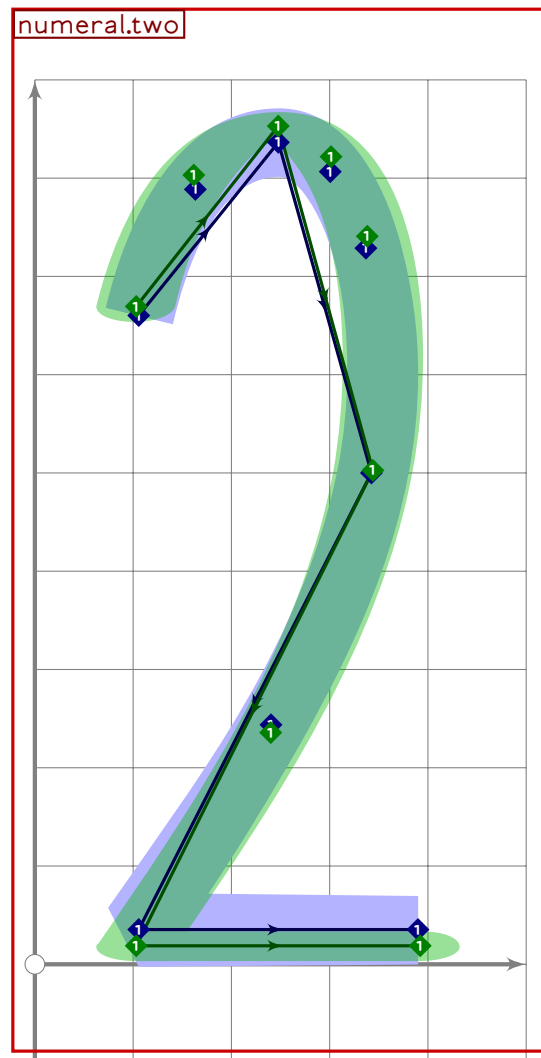


```
213 % 0
214 begintsuglyph("zero";48);
215   numeral.zero;
216   tsu_render;
217 endtsuglyph;
218
```



```
219 % 1
220 beginsuglyph("one";49);
221   numeral.one;
222   tsu_render;
223 endsuglyph;
224
```





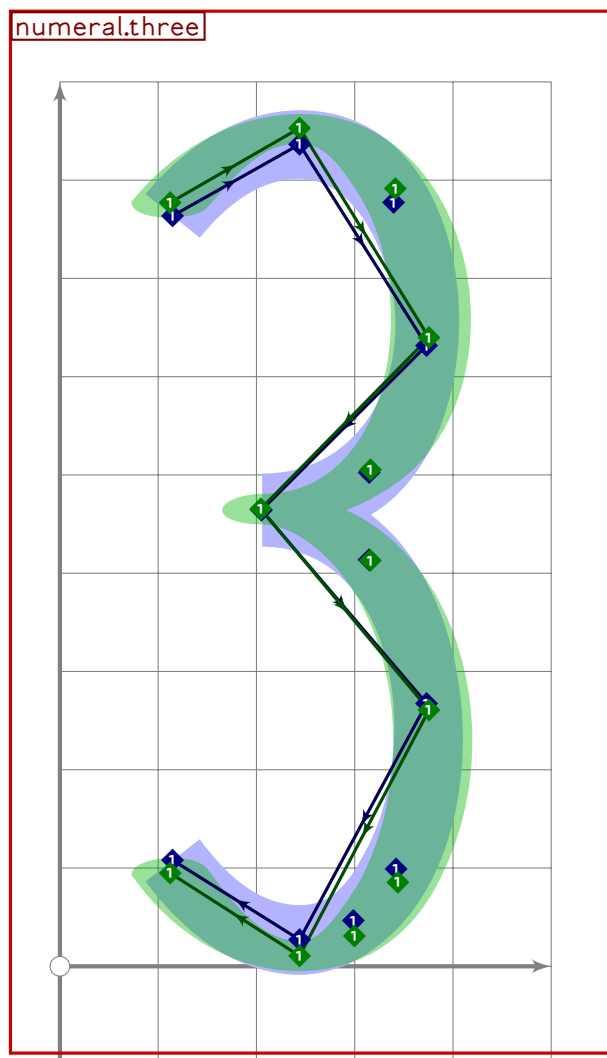
```

225 % 2
226 beginsuglyph("two",50);
227   numeral.two;
228   tsu_render;
229 endsuglyph;
230

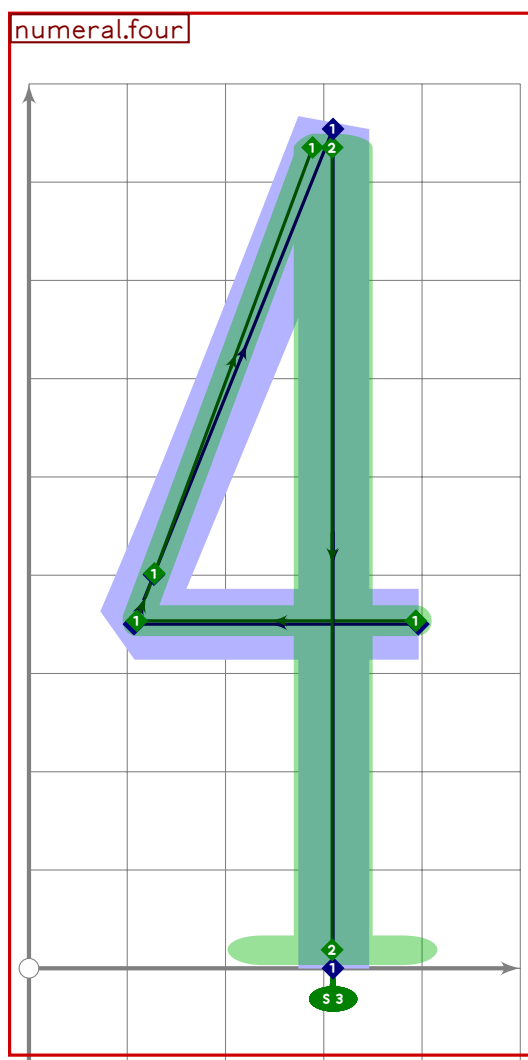
```

U+0033  
tsuku.three

00



```
231 % 3
232 beginsuglyph("three",51);
233   numeral.three;
234   tsu_render;
235 endsuglyph;
236
```



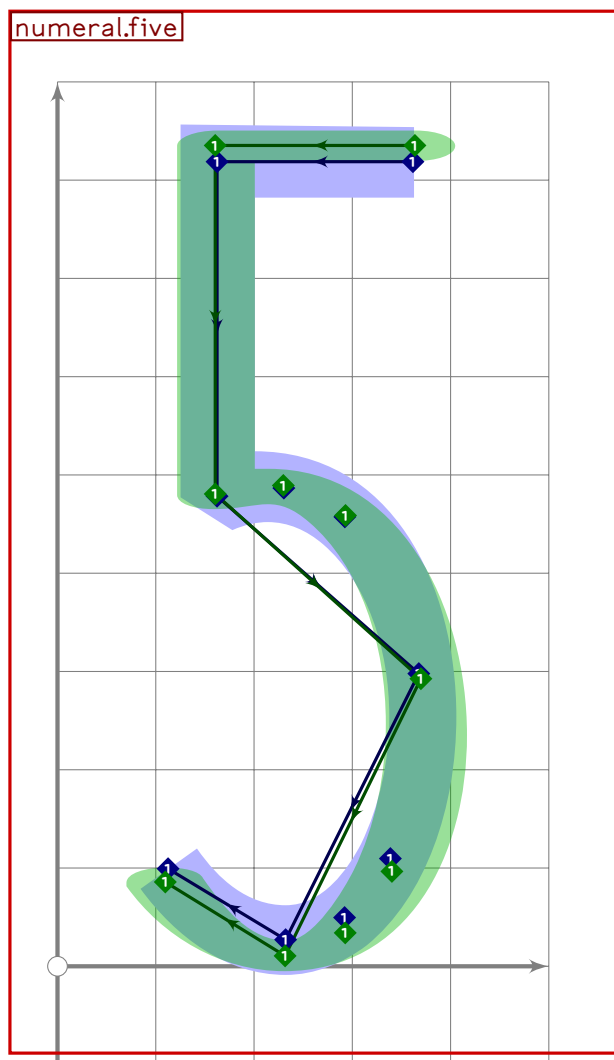
```

237 % 4
238 begintsuglyph("four";52);
239  numeral.four;
240  tsu_render;
241 endtsuglyph;
242

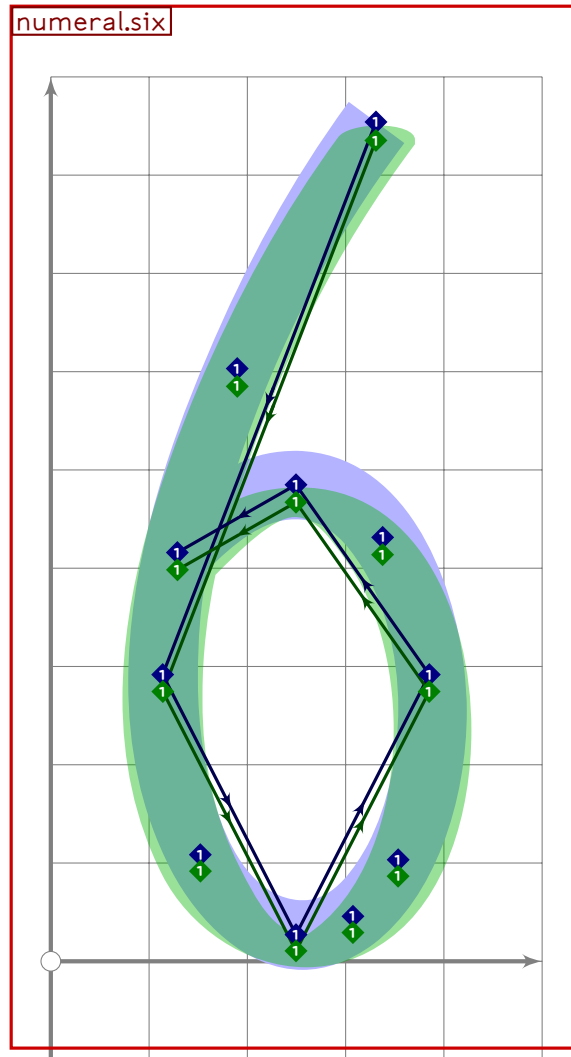
```

U+0035  
tsuku.five

00



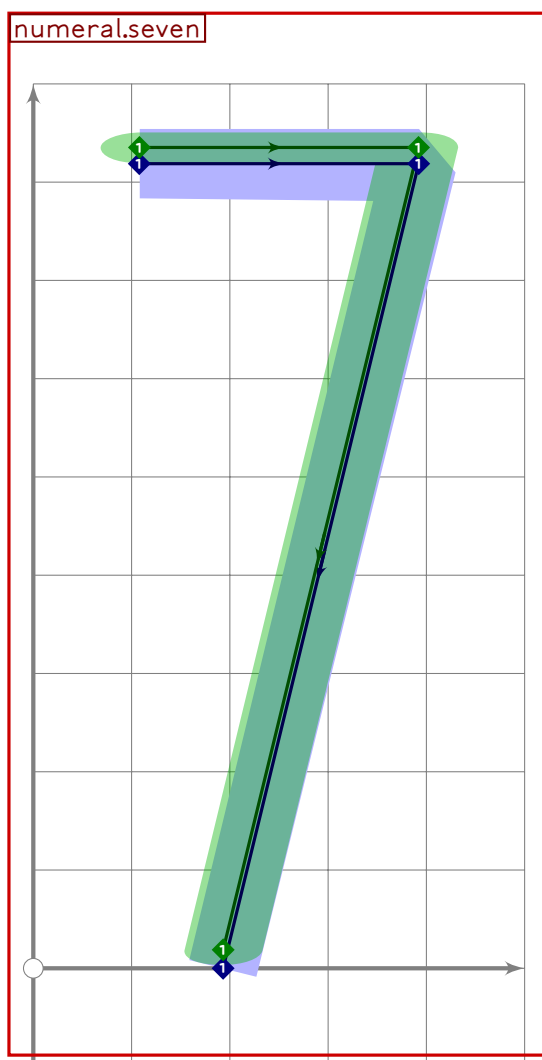
```
243 % 5
244 beginsuglyph("five",53);
245   numeral.five;
246   tsu_render;
247 endsuglyph;
248
```



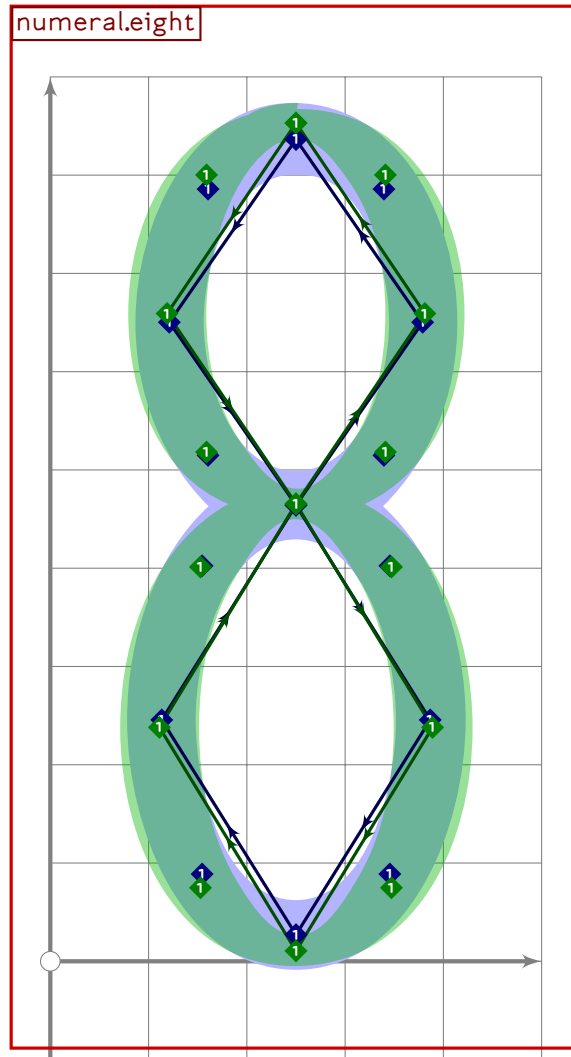
```
249 % 6
250 begintsuglyph("six",54);
251   numeral.six;
252   tsu_render;
253 endtsuglyph;
254
```

U+0037  
tsuku.seven

00



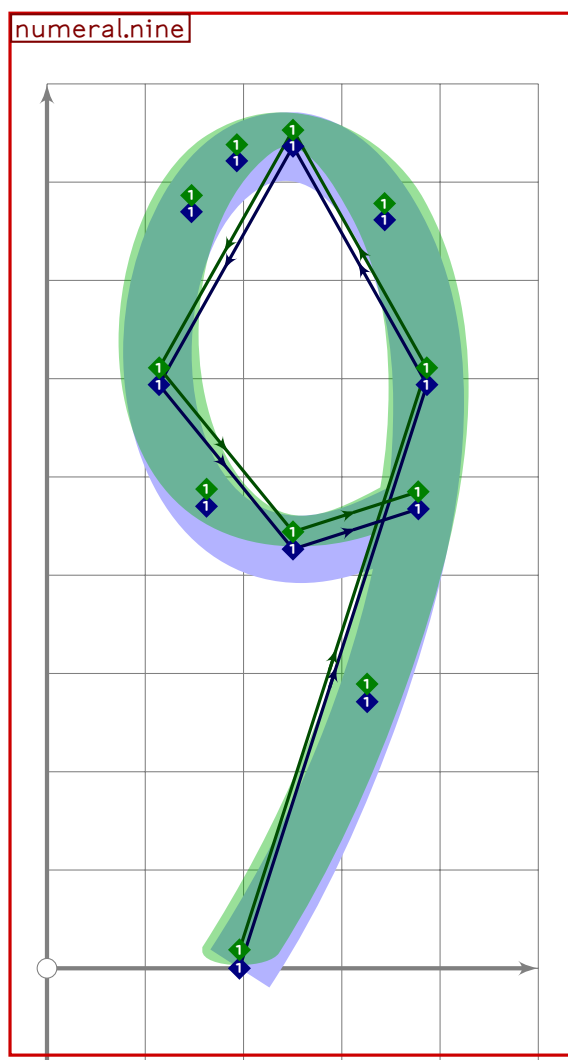
```
255 % 7
256 begint Suglyph("seven",55);
257   numeral.seven;
258   tsu_render;
259 endtsuglyph;
260
```



```

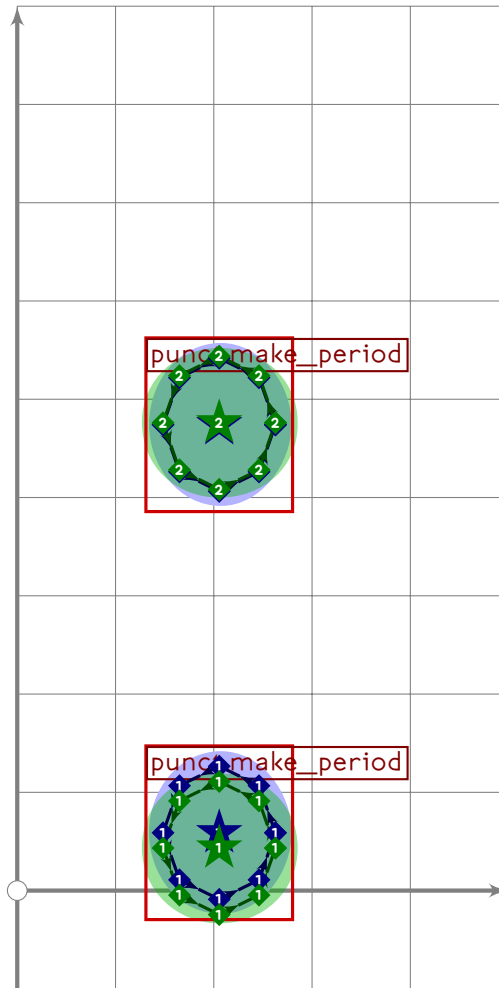
261 % 8
262 begintsuglyph("eight",56);
263  numeral.eight;
264  tsu_render;
265 endtsuglyph;
266

```



```
267 % 9
268 begintsuglyph("nine",57);
269   numeral.nine;
270   tsu_render;
271 endtsuglyph;
272
```





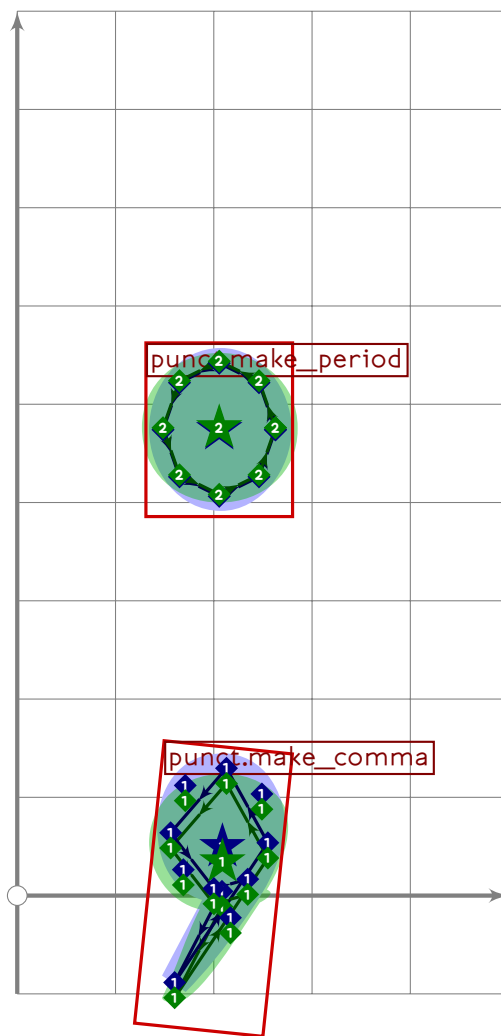
```

273 % colon
274 begintsuglyph("colon";58);
275   punct.make_period((380,ymetric(0.03)));
276   punct.make_period((380,ymetric(0.56)));
277   tsu_render;
278 endtsuglyph;
279

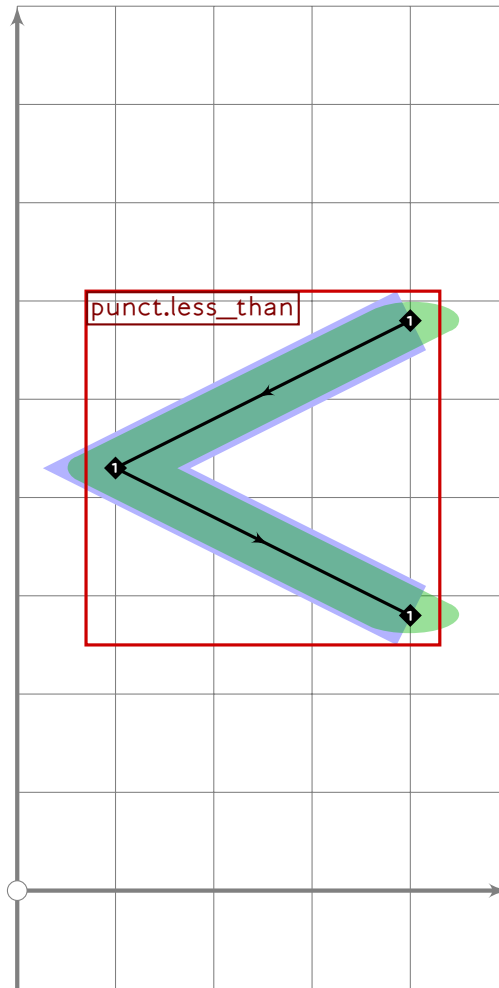
```

U+003B  
tsuku.semicolon

00



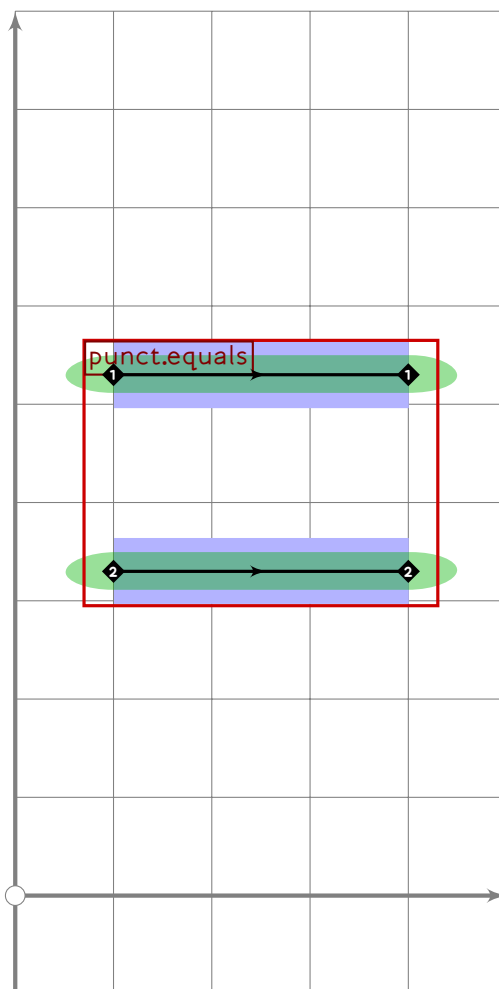
```
280 % semicolon
281 begint Suglyph("semicolon",59);
282 punct.make_comma((380,vmetric(0.03)),0);
283 punct.make_period((380,vmetric(0.56)));
284 tsu_render;
285 endtsuglyph;
286
287 % WARNING, changing rescale setting
288 tsu_rescale_native_conditional;
289
```



```

290 % less than
291 begintsuglyph("less",60);
292   punct.less_than
293     (identity scaled (if is_proportional: 2.1 else: 1.5 fi*tsu_punct_size)
294       shifted (250,latin_vcentre));
295   tsu_render;
296 endtsuglyph;
297

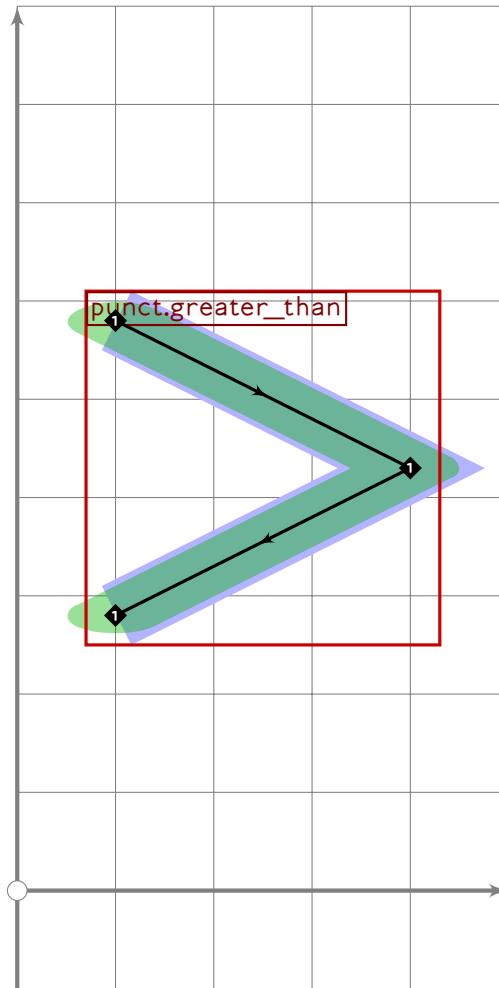
```



```

298 % equals
299 begintsuglyph("equals",61);
300 punct.equals
301     (identity scaled (if is_proportional: 2.1 else: 1.5 fi*tsu_punct_size)
302       shifted (250,latin_vcentre));
303 tsu_render;
304 endtsuglyph;
305

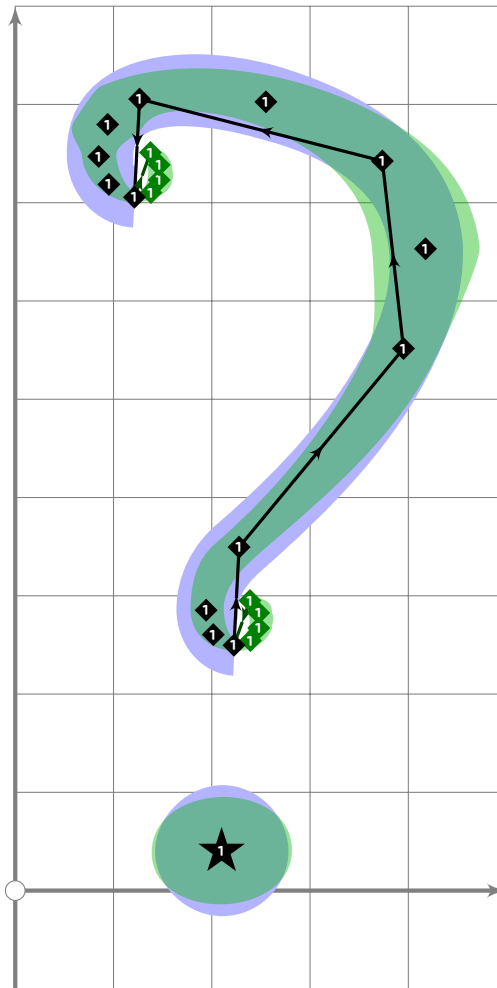
```



```

306 % greater than
307 begintsuglyph("greater",62);
308   punct.greater_than
309     (identity scaled (if is_proportional: 2.1 else: 1.5 fi*tsu_punct_size)
310       shifted (250,latin_vcentre));
311   tsu_render;
312 endtsuglyph;
313

```



```

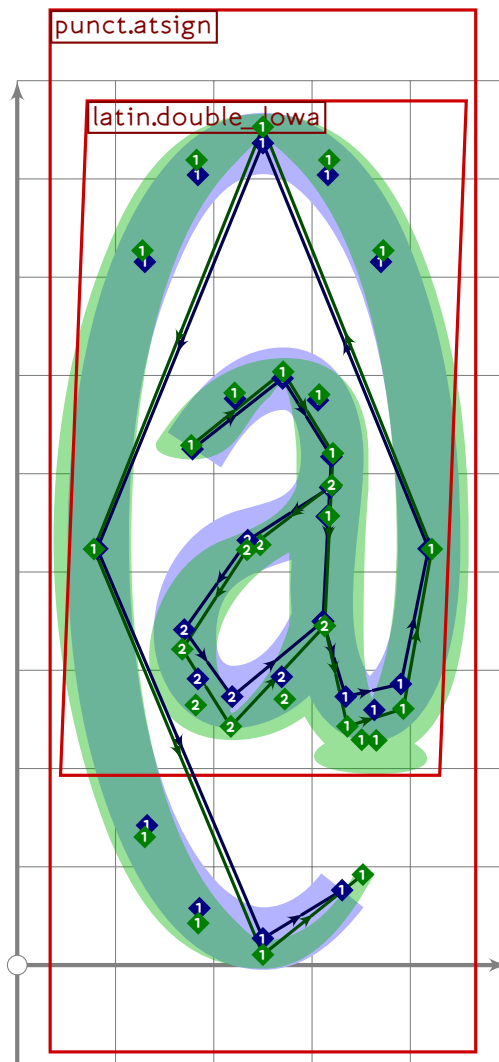
314 % question mark
315 begintsuglyph("question",63);
316   numeric r;
317   if tsu_pbrush_size>=(tsu_punct_size*0.5):
318     push_lcblob(fullcircle
319       xscaled ((tsu_punct_size+tsu_pbrush_size)*0.89)
320       yscaled ((tsu_punct_size+tsu_pbrush_size*tsu_pbrush_shape)*0.89)
321       rotated tsu_pbrush_angle
322       shifted (210,40));
323   else:
324     push_stroke(fullcircle scaled tsu_punct_size shifted (210,40),
325       (2,2)-(2,2)-(2,2)-(2,2));
326     if tsu_pbrush_size>=30:
327       push_lcblob(get_stroke(0));
328     fi;
329   fi;
330   r:=tsu_punct_size/2;
331
332   push_stroke((210,300){right}..(210,300-r){left}..
333     (210,300+r)..(210+2.5*r,750)..
334     tension 1.3..(210-2.5*r,750+r)..

```

```

335      (210-2.5*r,750-r){right}..
336      (210-2.5*r,750){left},
337      (0.8,0.8)-(1,1)-(2,2)-(2,2)-(2,2)-(2,2)-(1,1)-(0.8,0.8));
338      replace_strokep(0)(insert_nodes(oldp)(2.5) rotatedaround ((210,10),-3));
339
340      tsu_render;
341      endtsuglyph;
342
343      % WARNING, changing rescale setting
344      tsu_rescale_half;
345

```



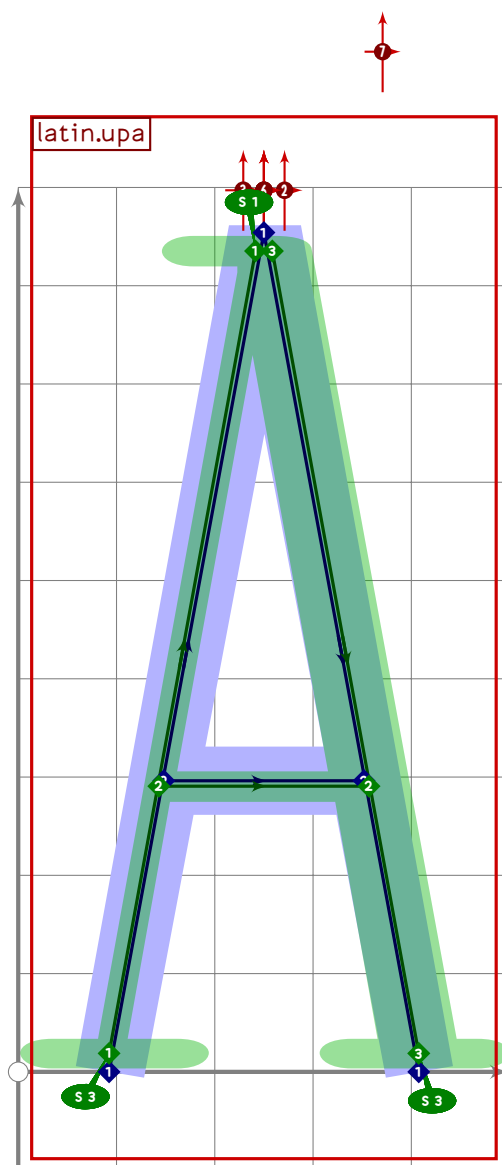
```

346 % commercial at
347 begintuglyph("at",64);
348      punct.atsign;
349      tsu_render;
350      endtsuglyph;
351
352      tsu_accent.up_default_anchors;
353

```

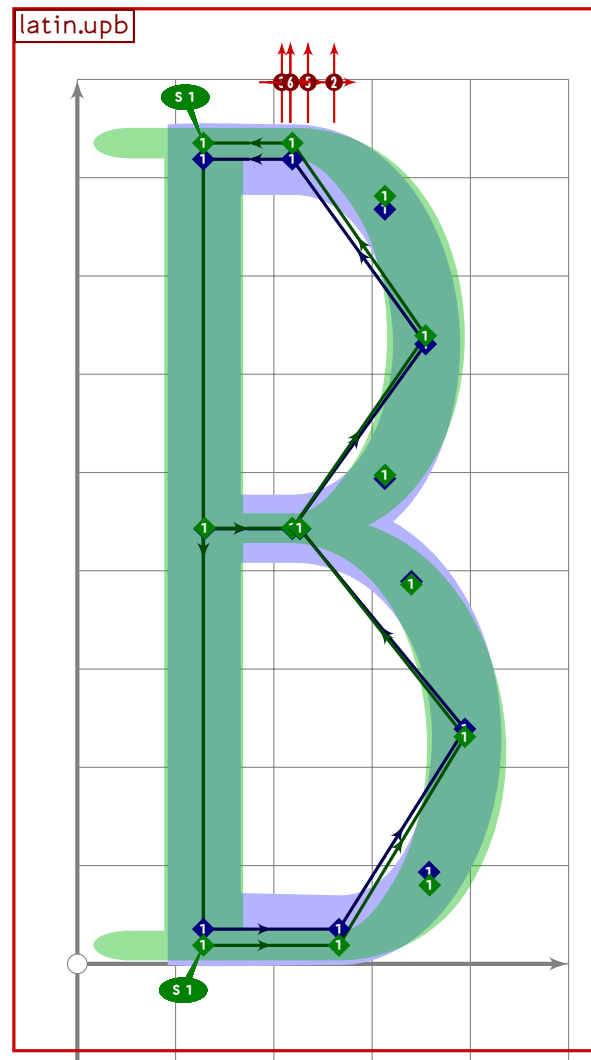
U+0041  
tsuku.A

00



```
354 % A
355 begintsuglyph("A",65);
356 latin.upa;
357 tsu_render;
358 endtsuglyph;
359
```





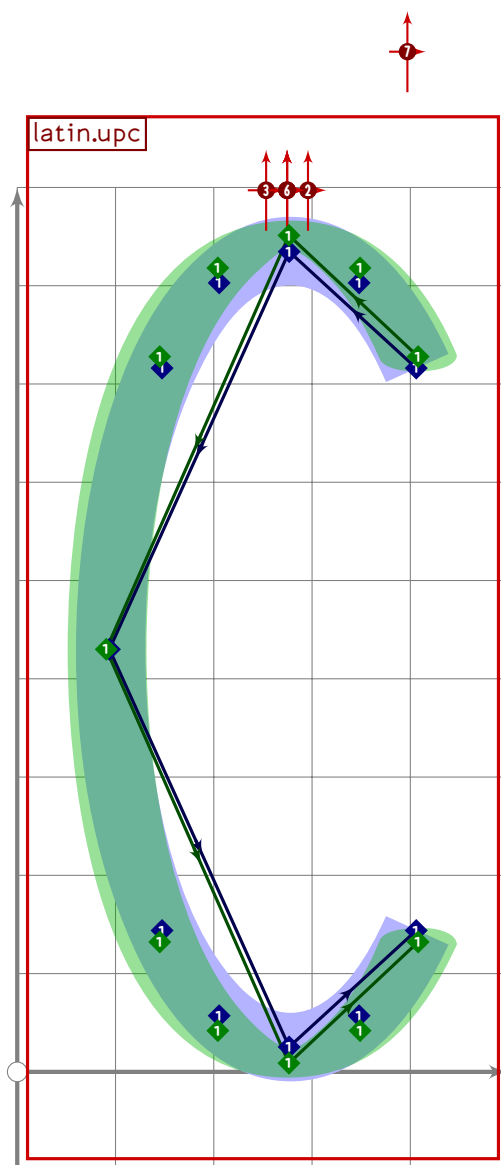
```

360 % B
361 begintsuglyph("B",66);
362   latin.upb;
363   tsu_render;
364 endtsuglyph;
365

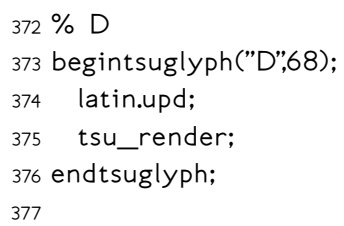
```

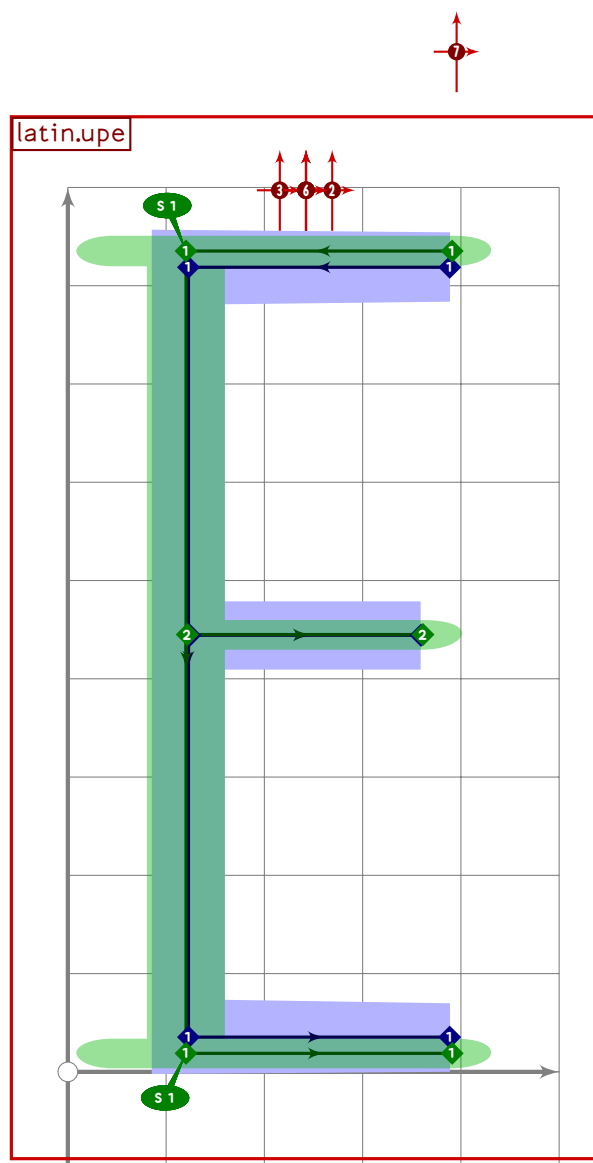
U+0043  
tsuku.C

00



```
366 % C
367 begintsuglyph("C",67);
368 latin.upc;
369 tsu_render;
370 endtsuglyph;
371
```

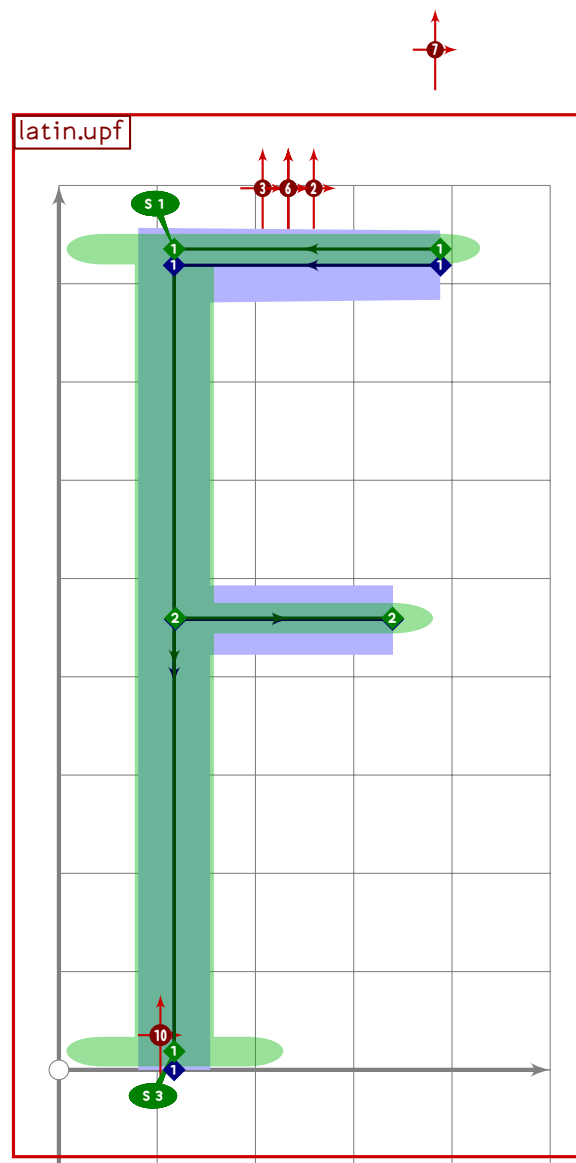




```

378 % E
379 begint Suglyph("E",69);
380 latin.upe;
381 tsu_render;
382 endtsuglyph;
383

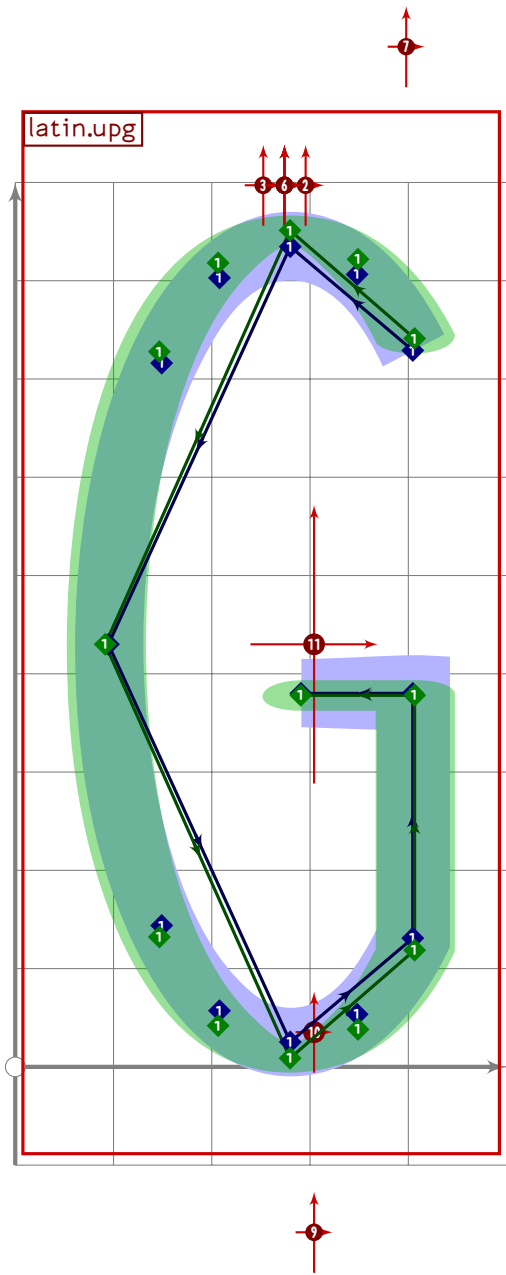
```



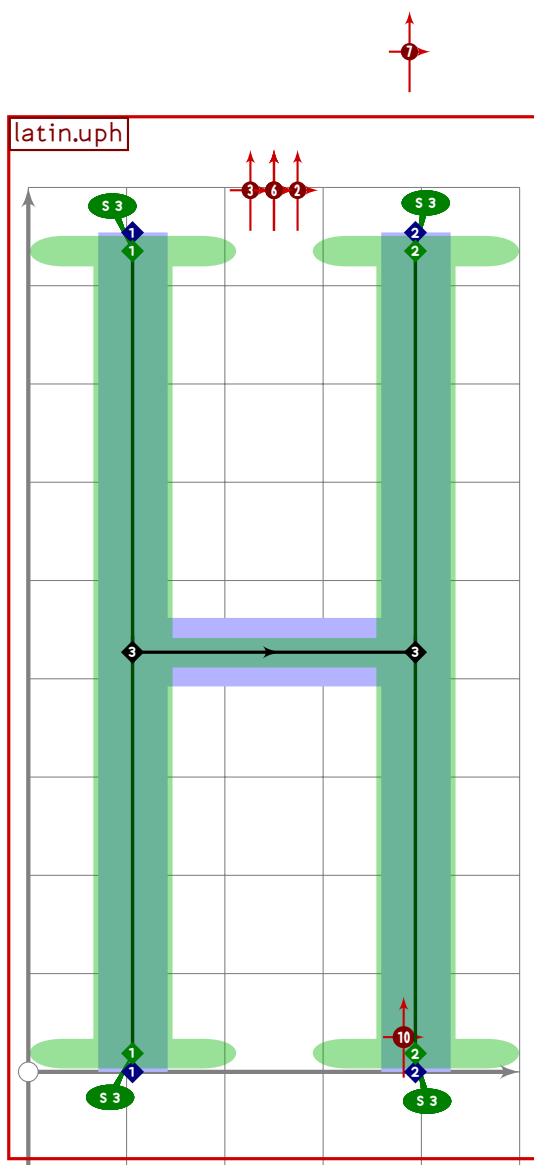
```

384 % F
385 begintsuglyph("F";70);
386 latin.upf;
387 tsu_render;
388 endtsuglyph;
389

```



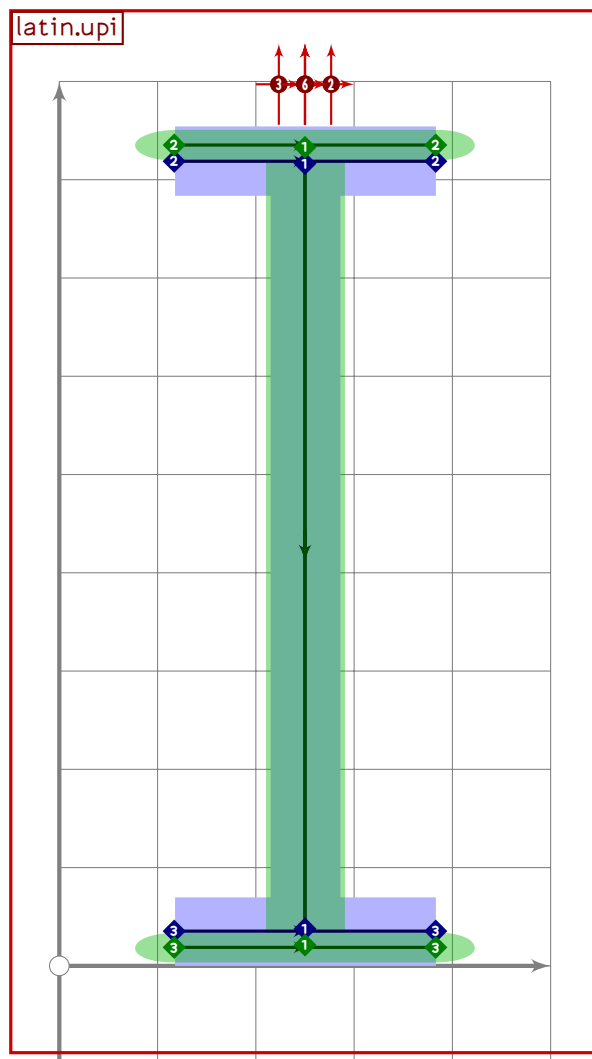
```
390 % G
391 begintsuglyph("G";71);
392 latin.upg;
393 tsu_render;
394 endtsuglyph;
395
```



```

396 % H
397 begintsuglyph("H";72);
398   latin.uph;
399   tsu_render;
400 endtsuglyph;
401

```

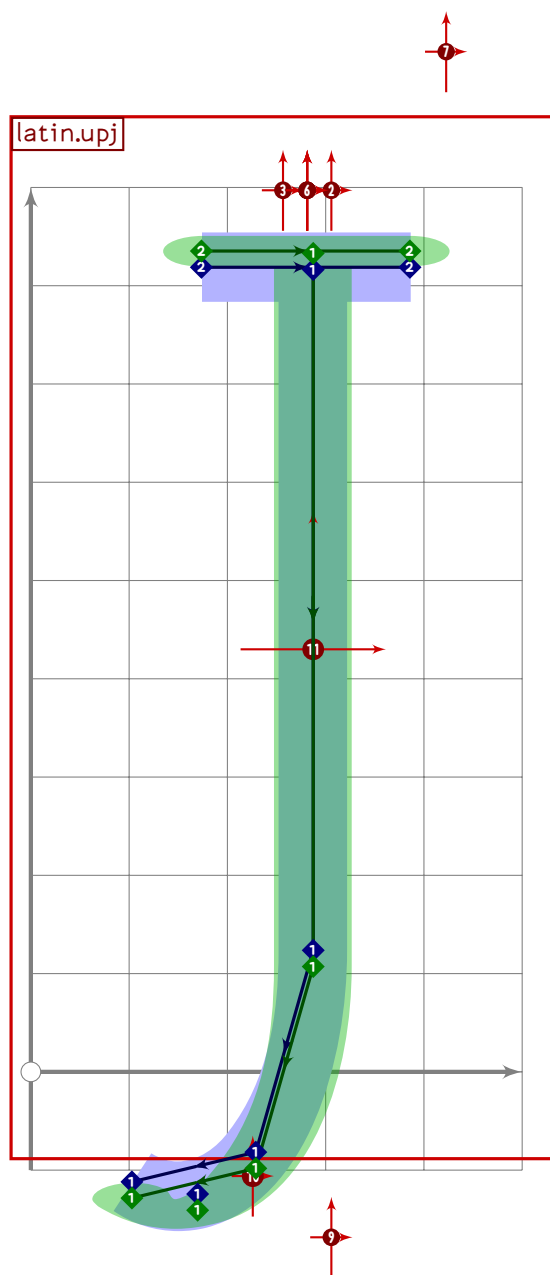


```

402 % I
403 begintsuglyph("I",73);
404   latin.upi;
405   tsu_render;
406 endtsuglyph;
407

```

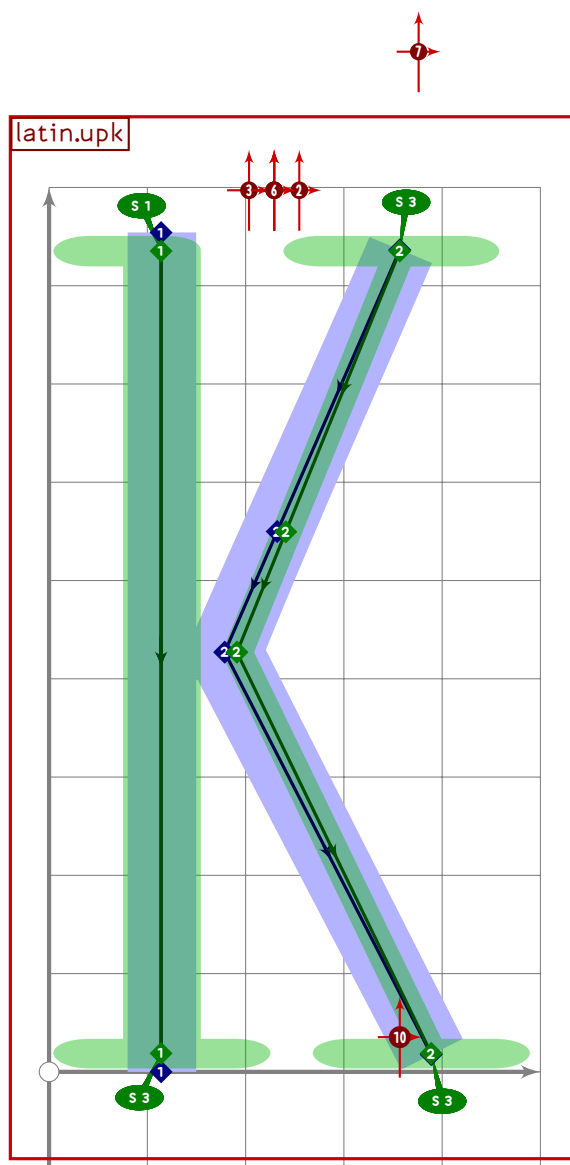




```

408 % J
409 begintsuglyph("J",74);
410 latin.upj;
411 tsu_render;
412 endtsuglyph;
413

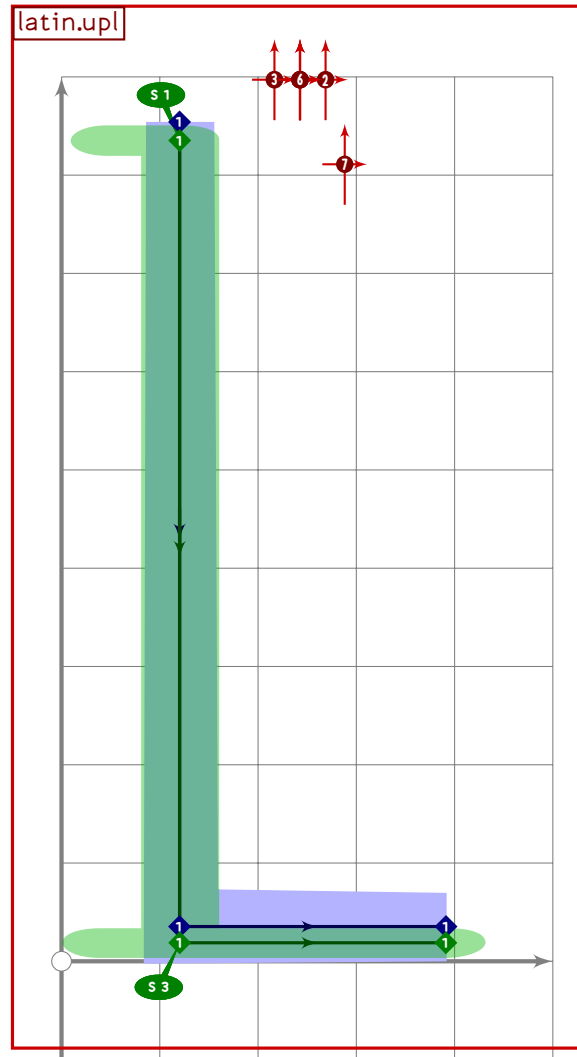
```



```

414 % K
415 begintsuglyph("K";75);
416 latin.upk;
417 tsu_render;
418 endtsuglyph;
419

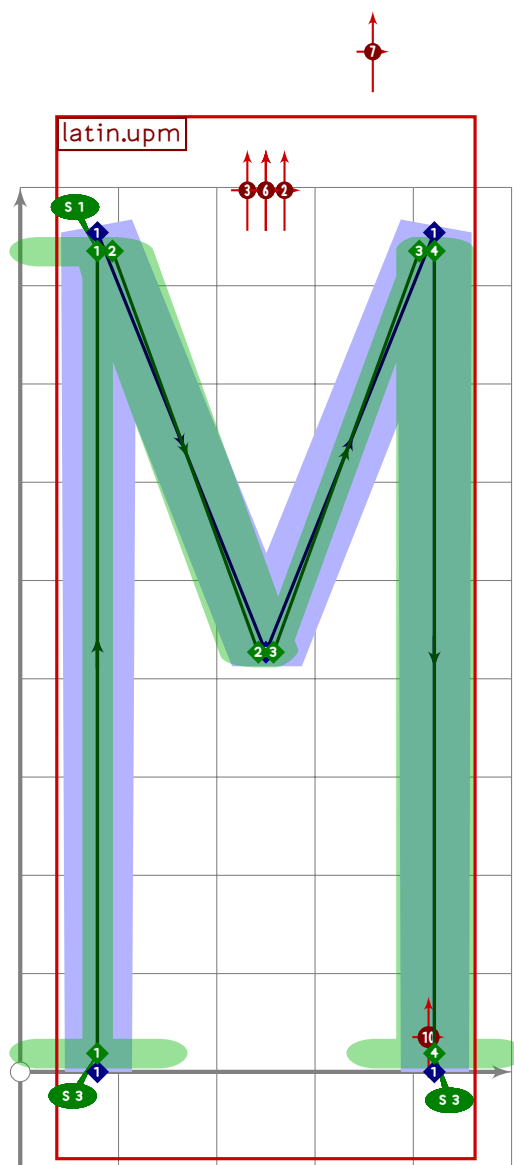
```



```

420 % L
421 begintsuglyph("L",76);
422 latin.upl;
423 tsu_render;
424 endtsuglyph;
425

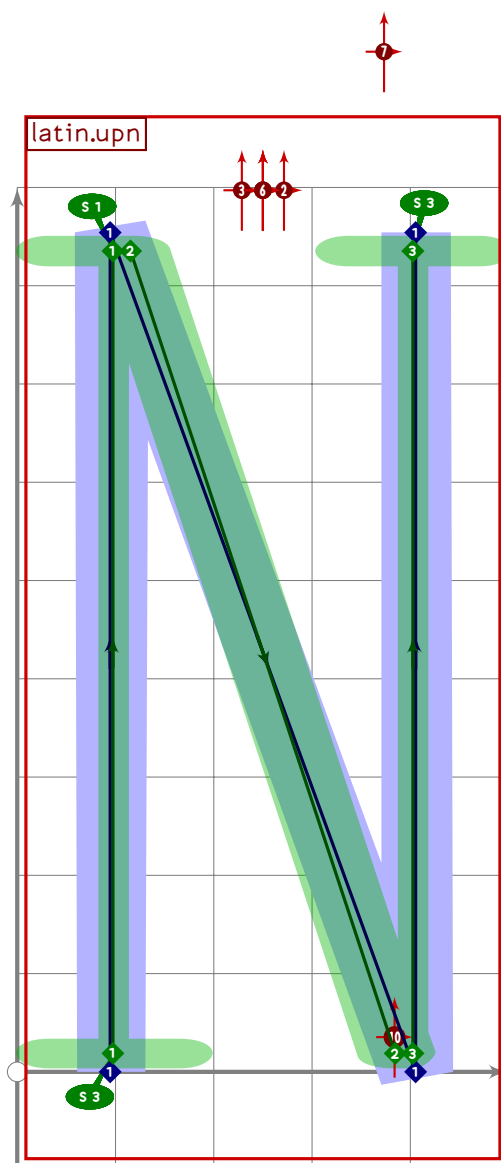
```



```

426 % M
427 begint Suglyph("M";77);
428 latin.upm;
429 tsu_render;
430 endtsuglyph;
431

```



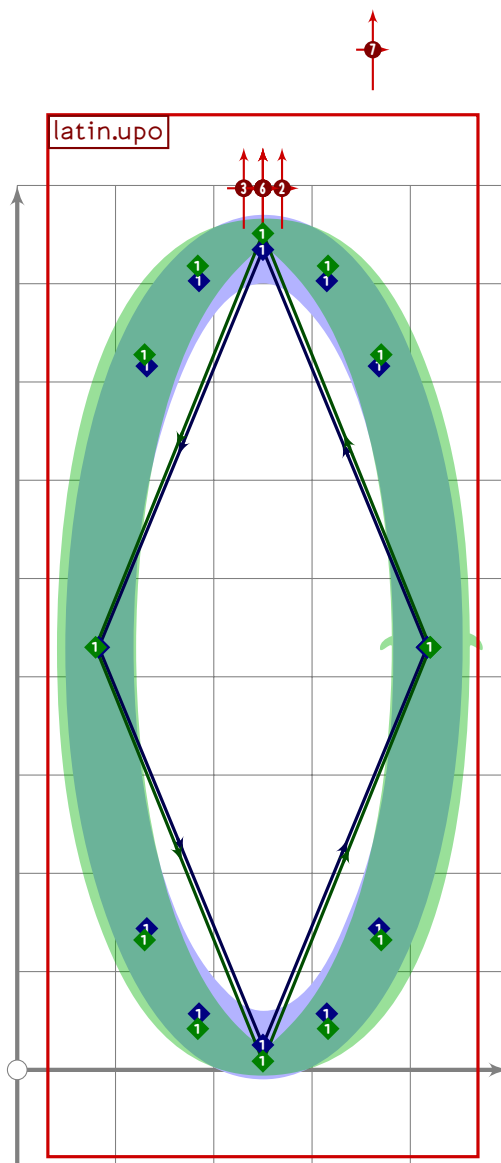
```

432 % N
433 begintsuglyph("N";78);
434 latin.upn;
435 tsu_render;
436 endtsuglyph;
437

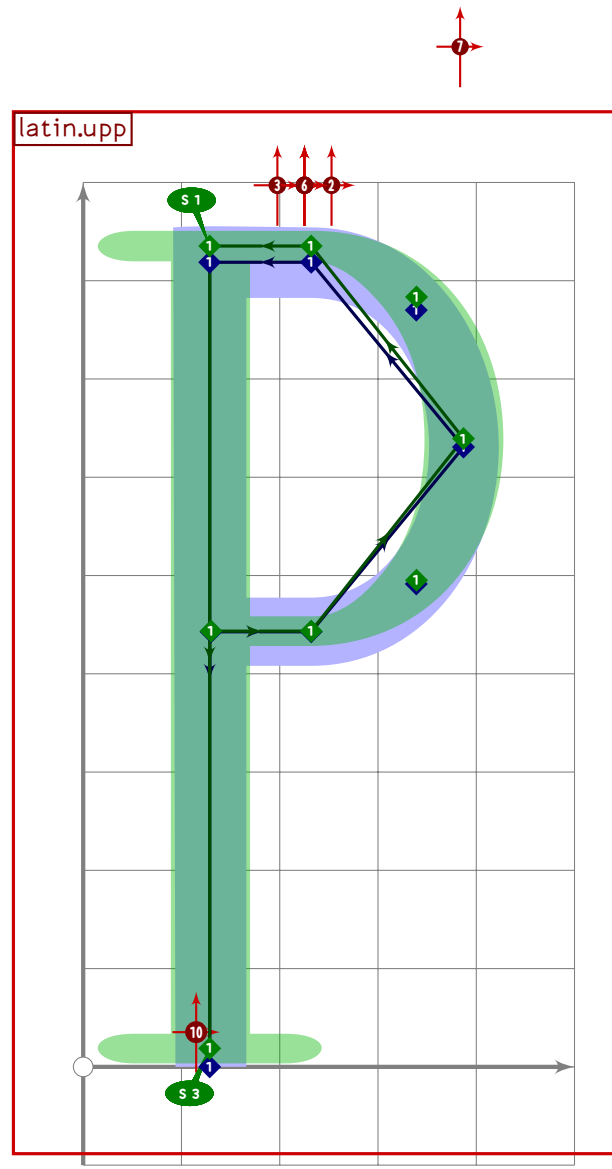
```

U+004F  
tsuku.O

00



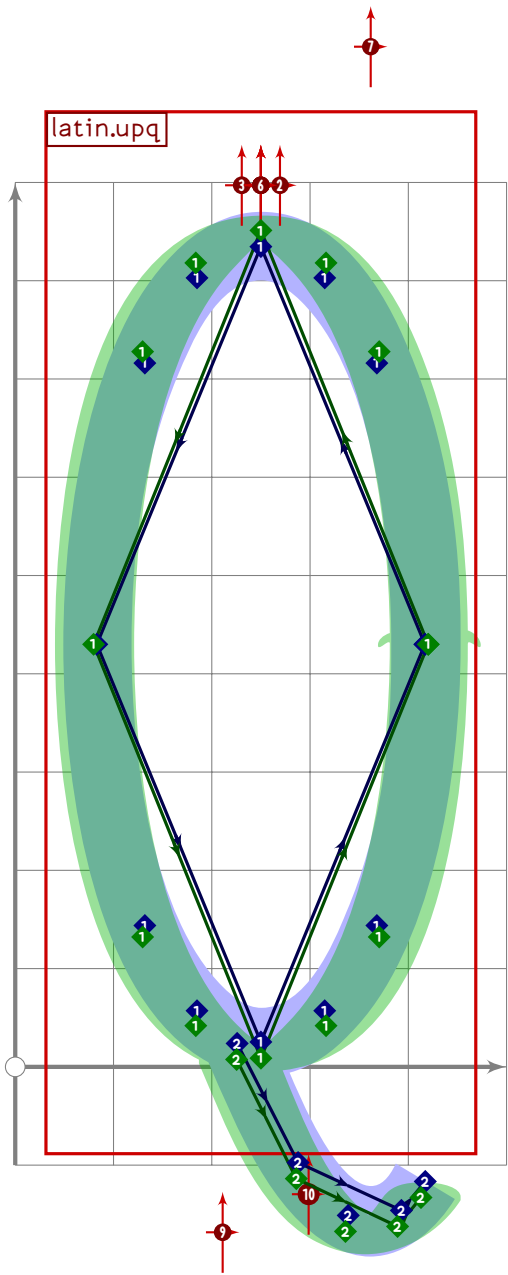
```
438 % O
439 begintsuglyph("O";79);
440 latin.upo;
441 tsu_render;
442 endtsuglyph;
443
```



```

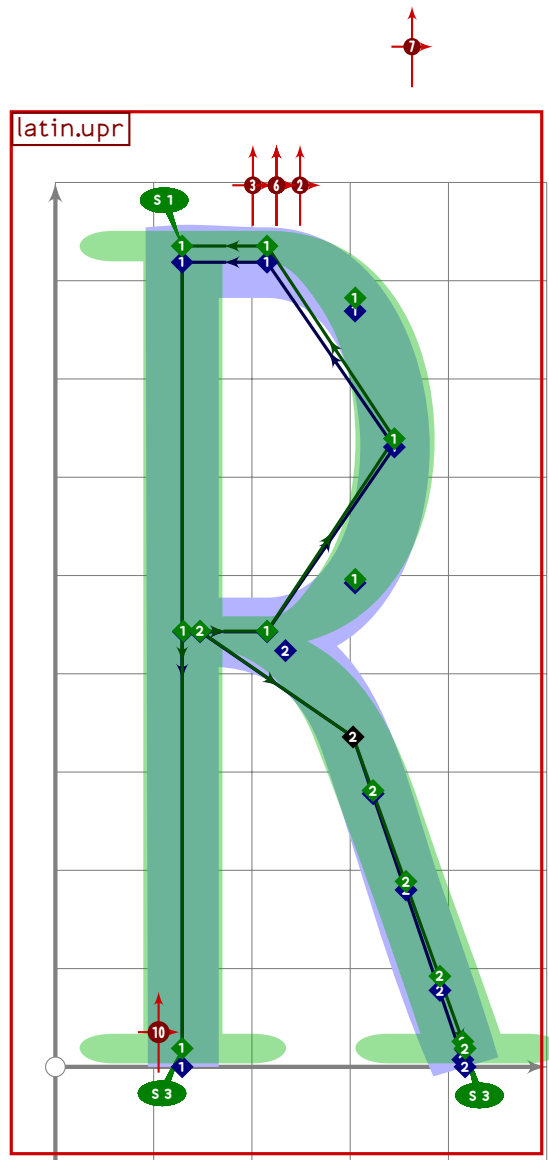
444 % P
445 begint Suglyph("P";80);
446 latin.upp;
447 tsu_render;
448 endtsuglyph;
449

```



```
450 % Q
451 begintsuglyph("Q";81);
452 latin.upq;
453 tsu_render;
454 endtsuglyph;
455
```

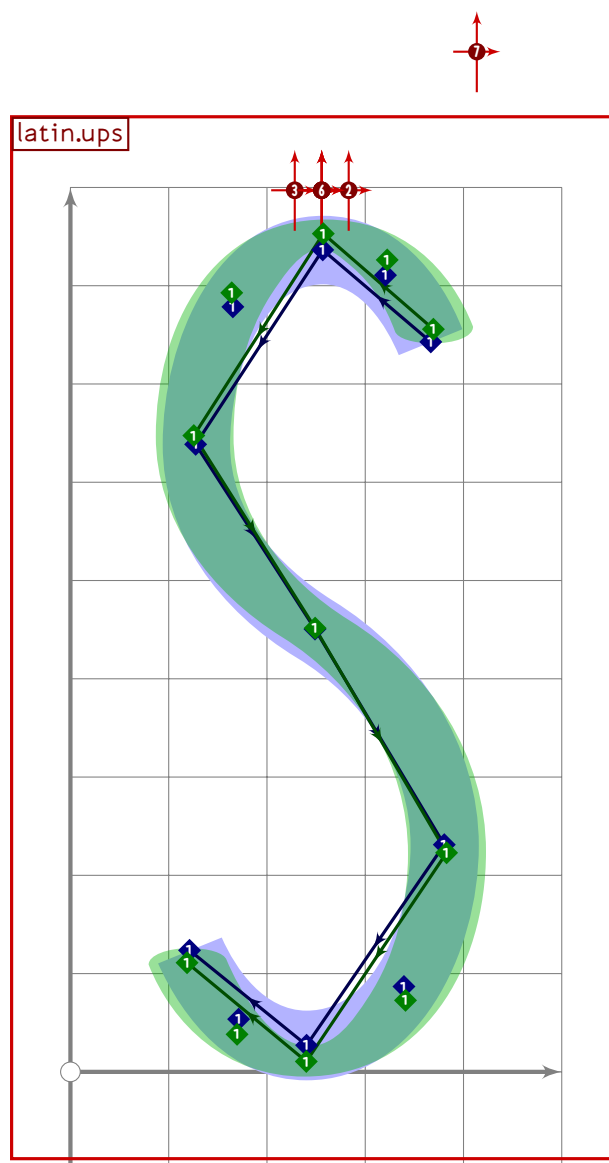




```

456 % R
457 begintsuglyph("R";82);
458 latin.upr;
459 tsu_render;
460 endtsuglyph;
461

```



```

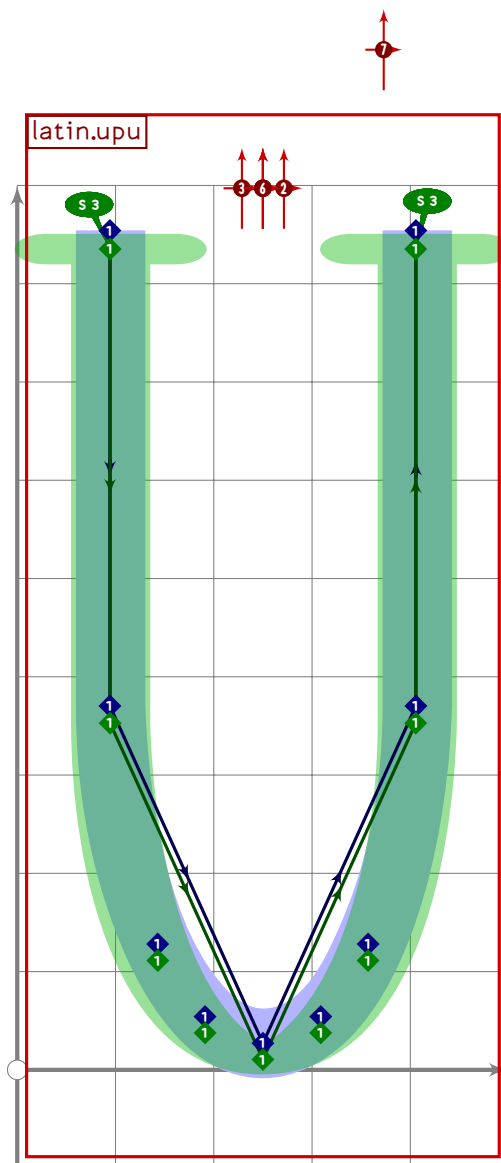
462 % S
463 begintsuglyph("S";83);
464   latin.ups;
465   tsu_render;
466 endtsuglyph;
467

```



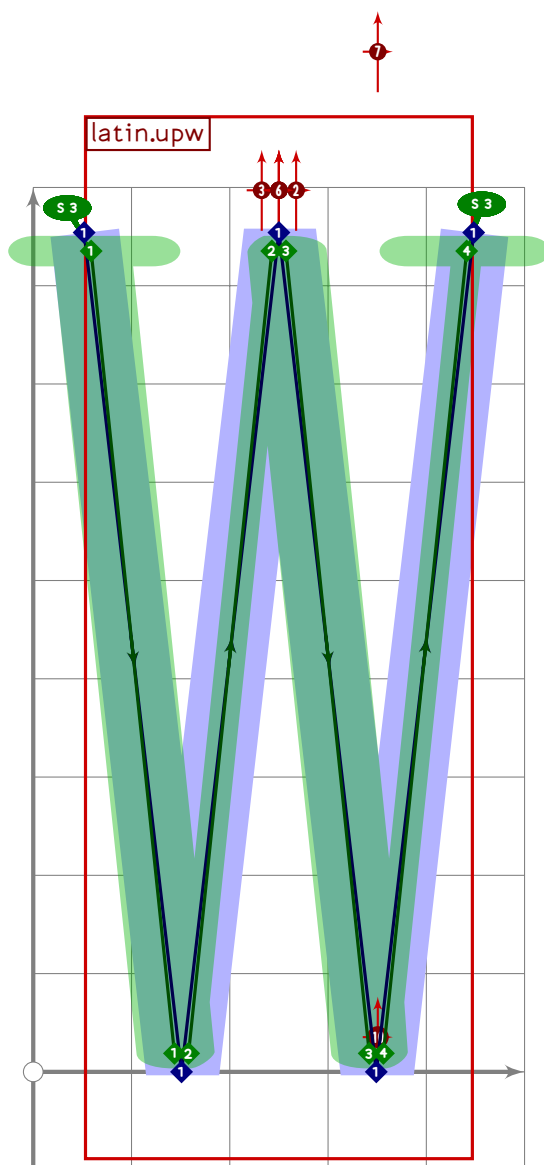
U+0055  
tsuku.U

00



```
474 % U
475 begintsuglyph("U";85);
476 latin.upu;
477 tsu_render;
478 endtsuglyph;
479
```

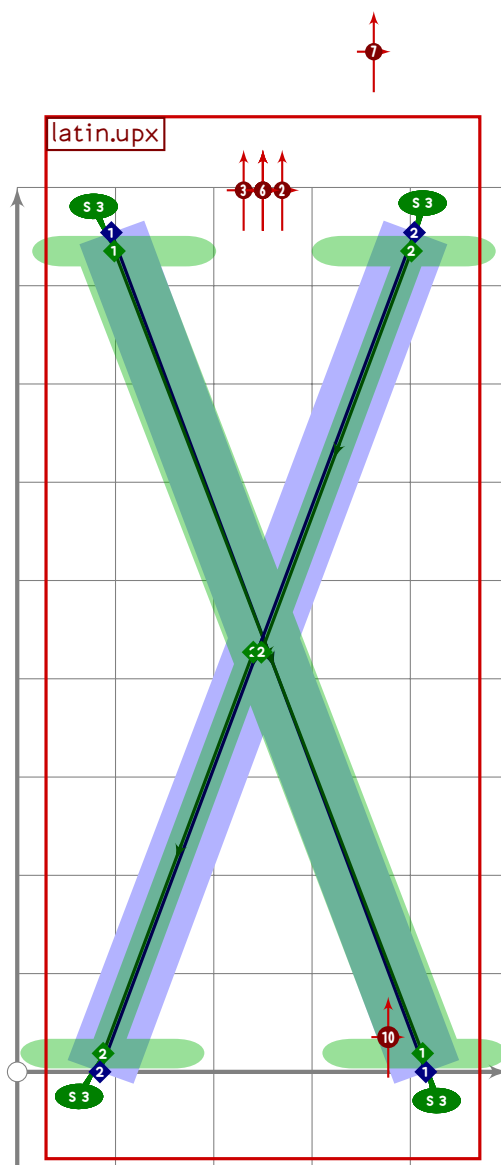




```

486 % W
487 begintsuglyph("W";87);
488   latin.upw;
489   tsu_render;
490 endtsuglyph;
491

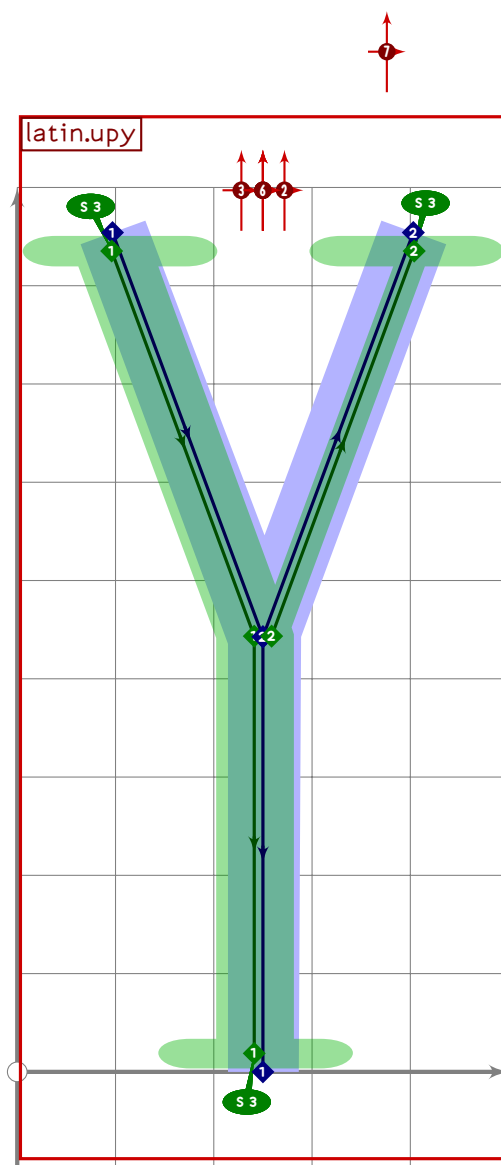
```



```

492 % X
493 begintsuglyph("X";88);
494 latin.upx;
495 tsu_render;
496 endtsuglyph;
497

```

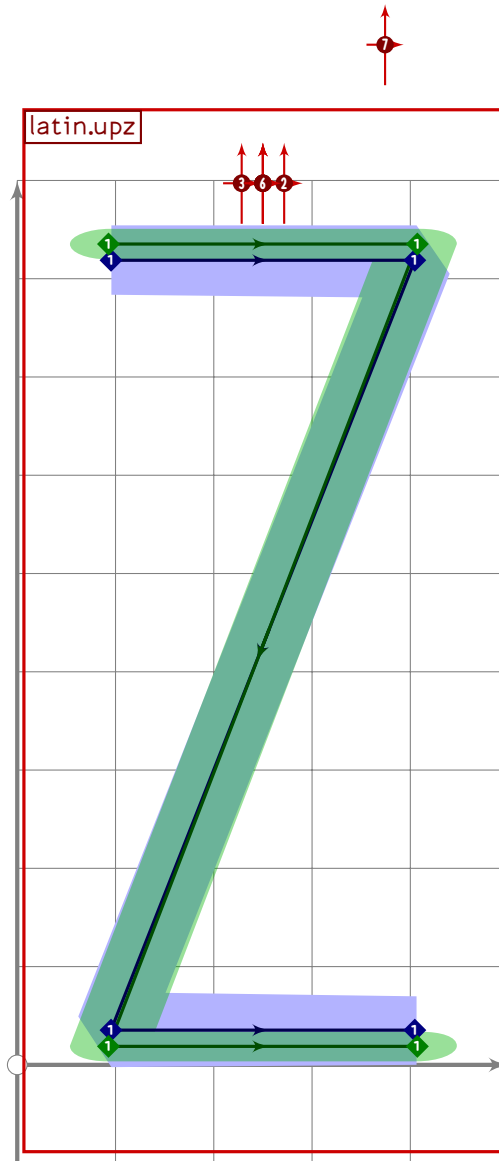


```

498 % Y
499 begintsuglyph("Y";89);
500 latin.upy;
501 tsu_render;
502 endtsuglyph;
503

```





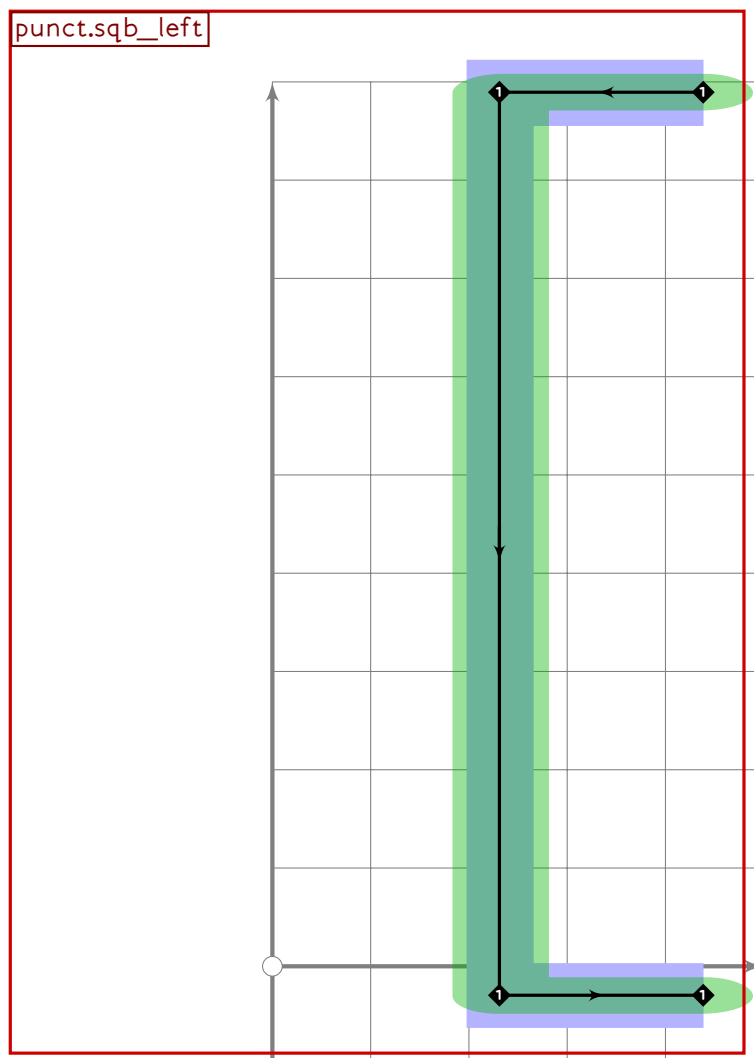
```

504 % Z
505 begintsuglyph("Z";90);
506 latin.upz;
507 tsu_render;
508 endtsuglyph;
509
510 tsu_accent.clear_default_anchors;
511

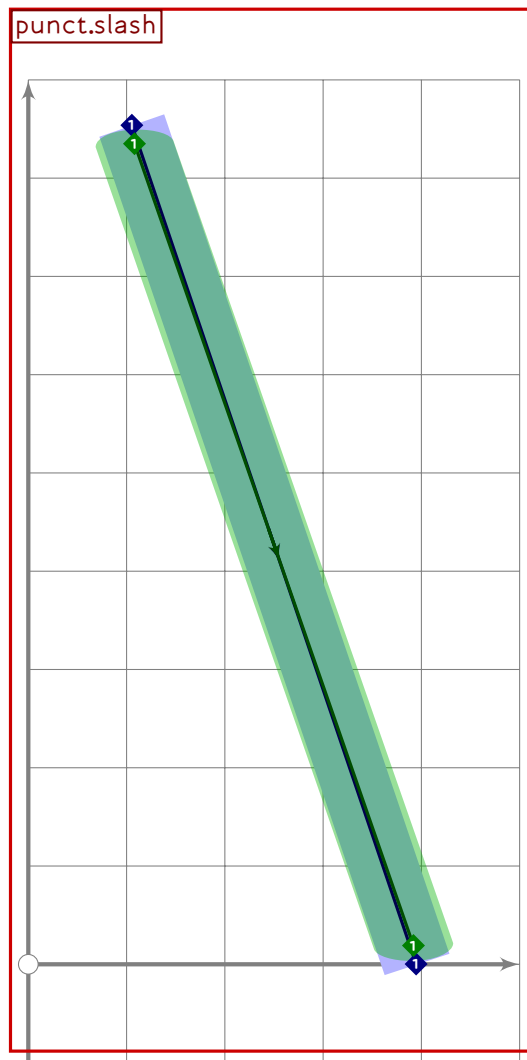
```

U+005B  
tsuku.bracketleft

00



```
512 % left and right square brackets, backslash between
513 beginsuglyph("bracketleft";91);
514   punct.sqb_left;
515   tsu_render;
516 endsuglyph;
```



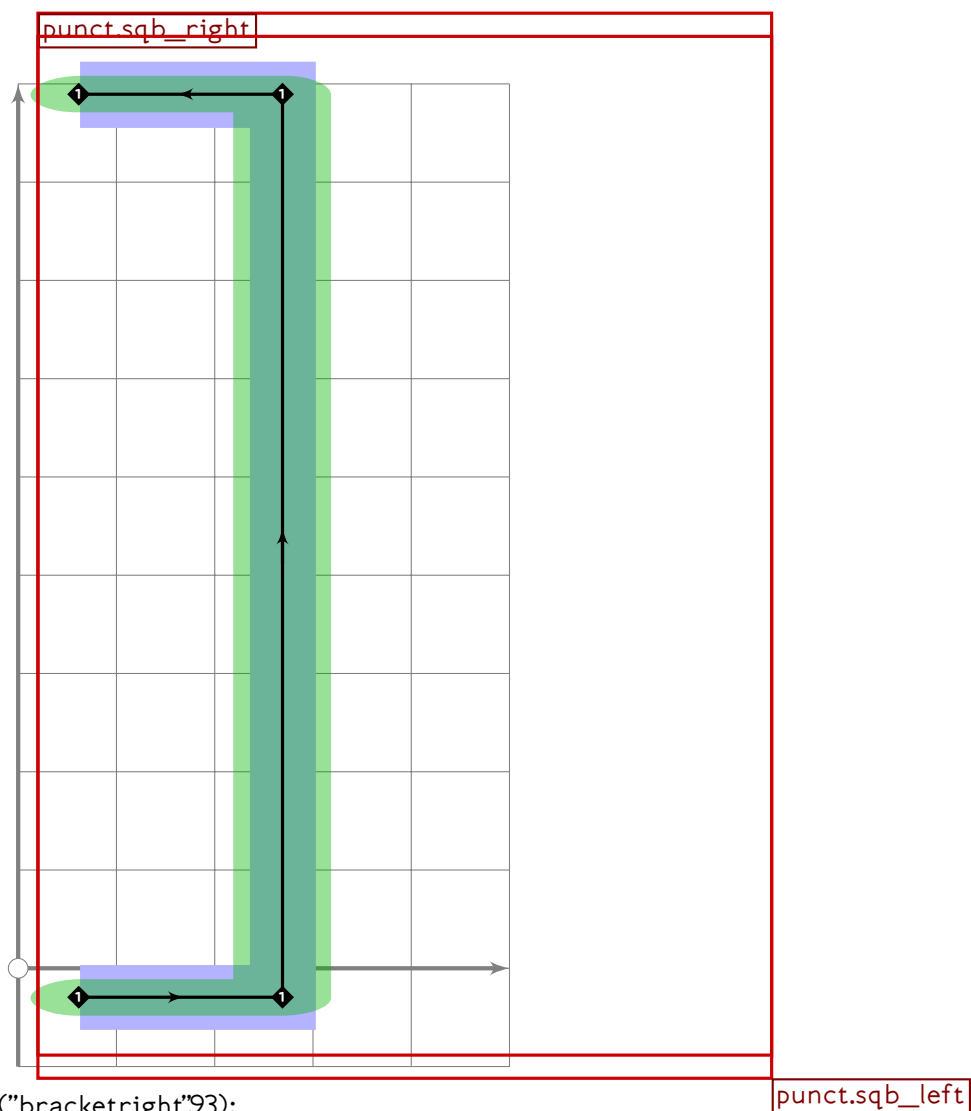
```

517 % backslash
518 begint Suglyph("backslash";92);
519   punct.slash;
520   replace_strokep(0)(oldp reflectedabout (centre_pt,(centre_pt+down)));
521   tsu_render;
522 endtsuglyph;

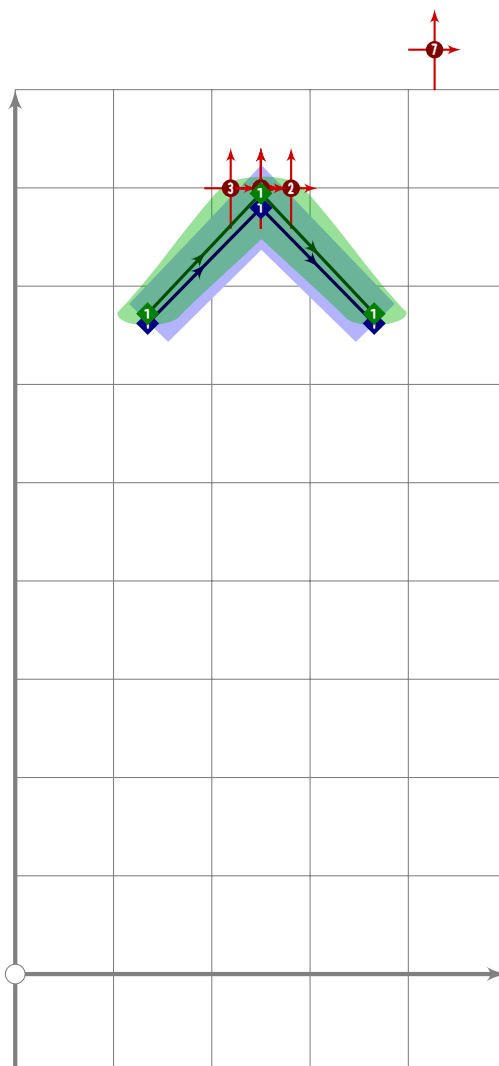
```

U+005D  
tsuku.bracketright

00



```
523 begint Suglyph("bracketright";93);
524   punct.sqb_right;
525   tsu_render;
526 endtsuglyph;
527
```



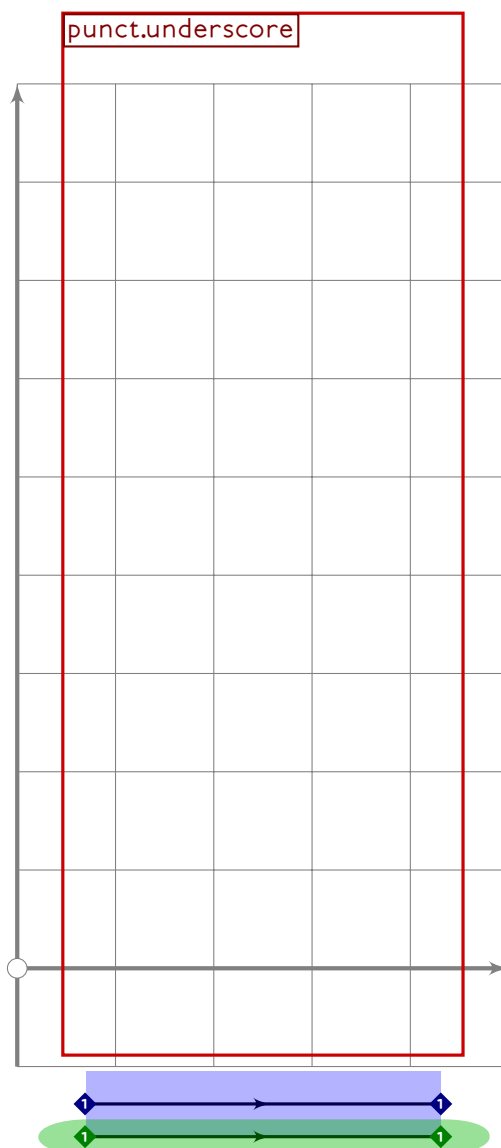
```

528 % circumflex accent/caret
529 begintsuglyph("asciicircum",94);
530   tsu_accent.circumflex;
531   tsu_render;
532 endsuglyph;
533

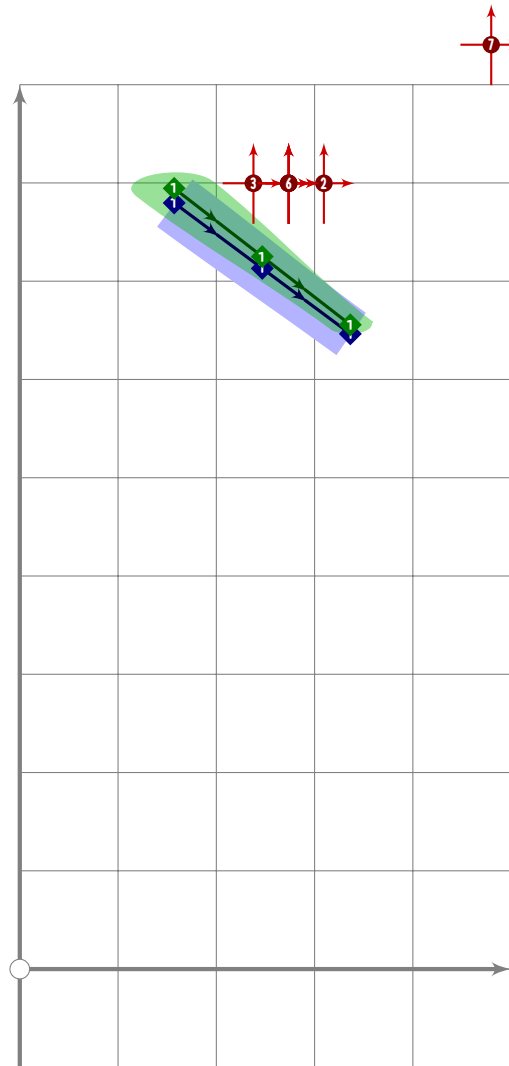
```

U+005F  
tsuku.underscore

00



```
534 % underscore
535 begint Suglyph("underscore";95);
536 punct.underscore;
537 tsu_render;
538 endtsuglyph;
539
```



```

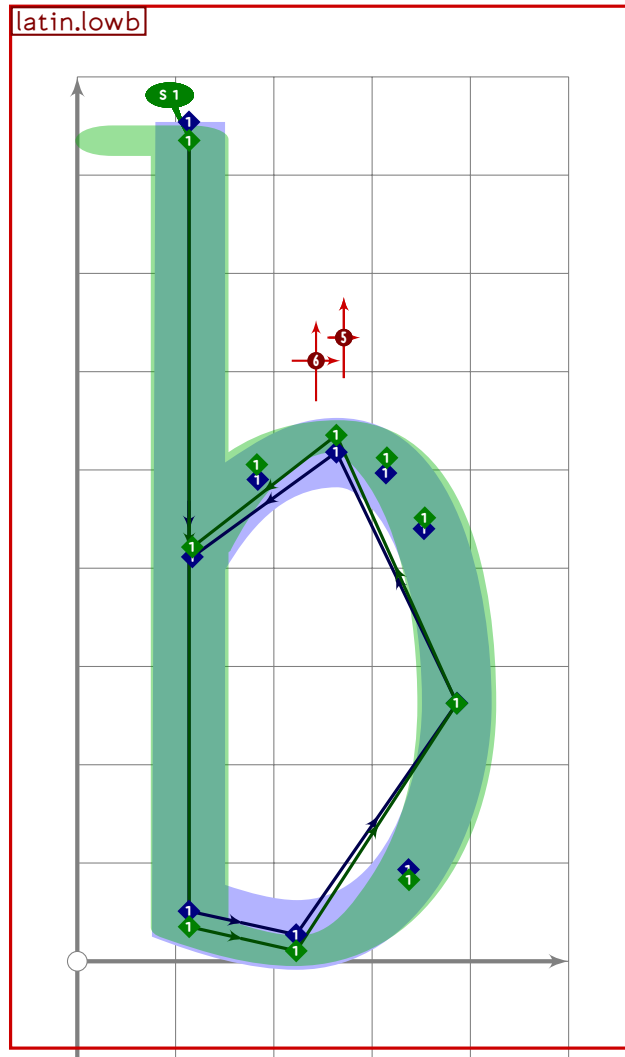
540 % grave accent
541 begintsuglyph("grave",96);
542   tsu_accent.grave;
543   tsu_render;
544 endtsuglyph;
545
546 % WARNING changing rescale setting
547 tsu_rescale_half_lc;
548
549 tsu_accent.low_default_anchors;
550

```

00

926

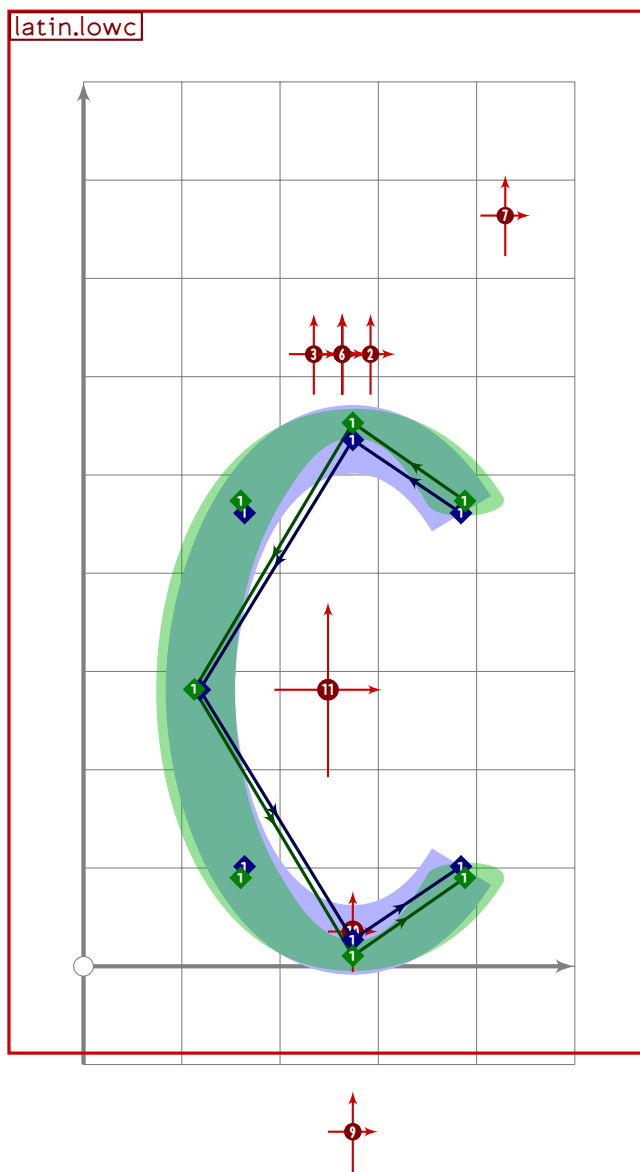




```

557 % b
558 begintsuglyph("b";98);
559   latin.lowb;
560   tsu_render;
561 endtsuglyph;
562

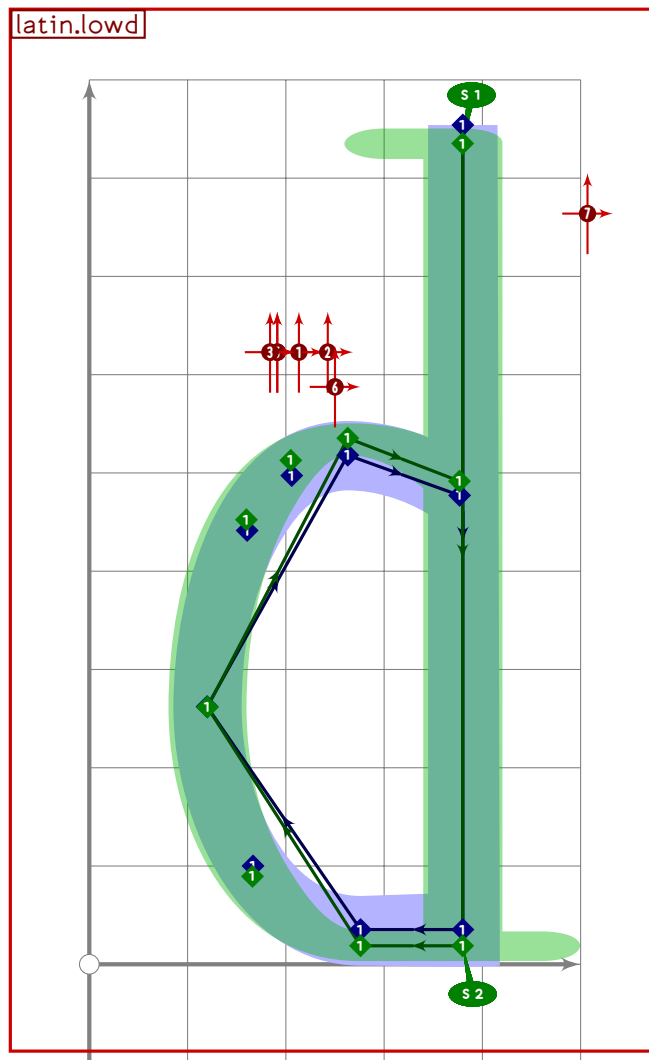
```



```

563 % c
564 begintsuglyph("c";99);
565   latin.lowc;
566   tsu_render;
567 endtsuglyph;
568

```



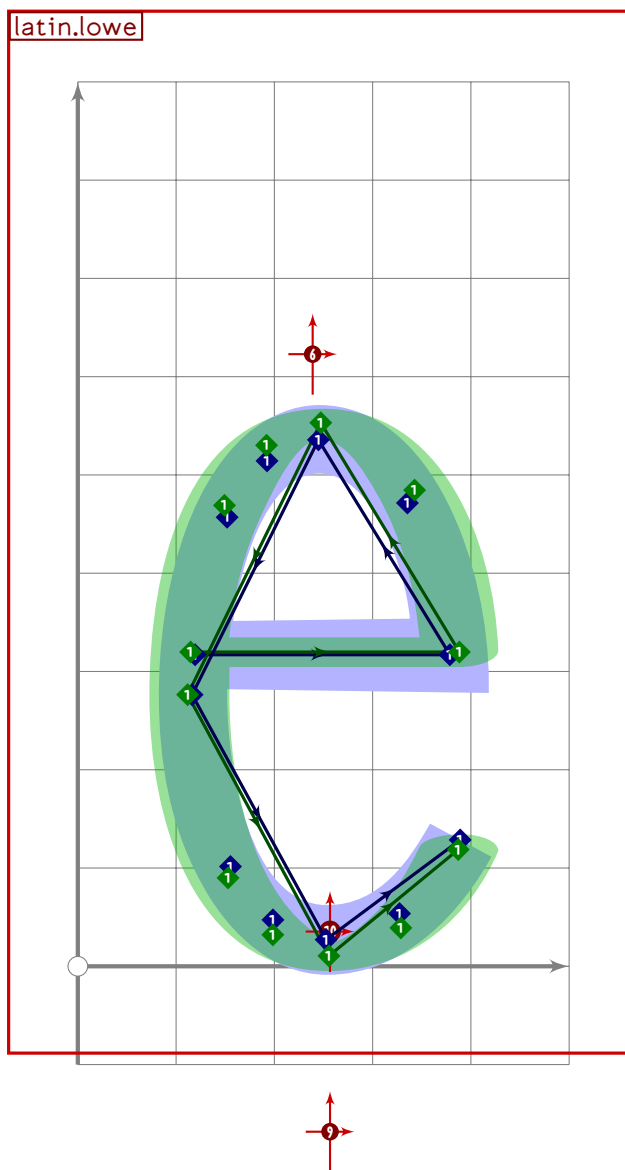
```

569 % d
570 begintsuglyph("d",100);
571   latin.lowd;
572   tsu_render;
573 endtsuglyph;
574

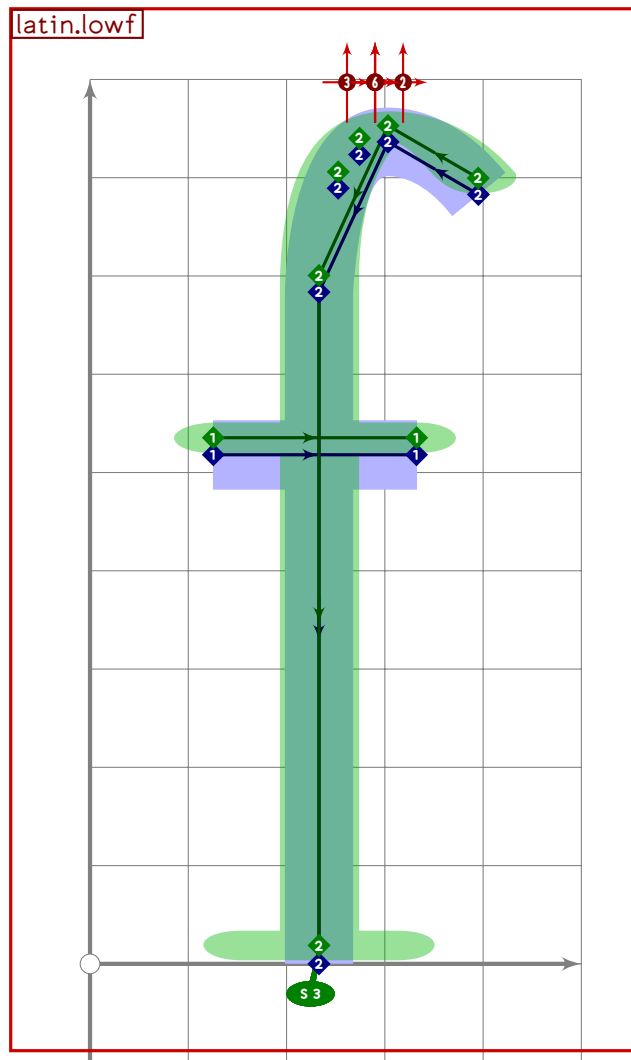
```

U+0065  
tsuku.e

00



```
575 % e
576 begintsuglyph("e",101);
577 latin.lowe;
578 tsu_render;
579 endtsuglyph;
580
```



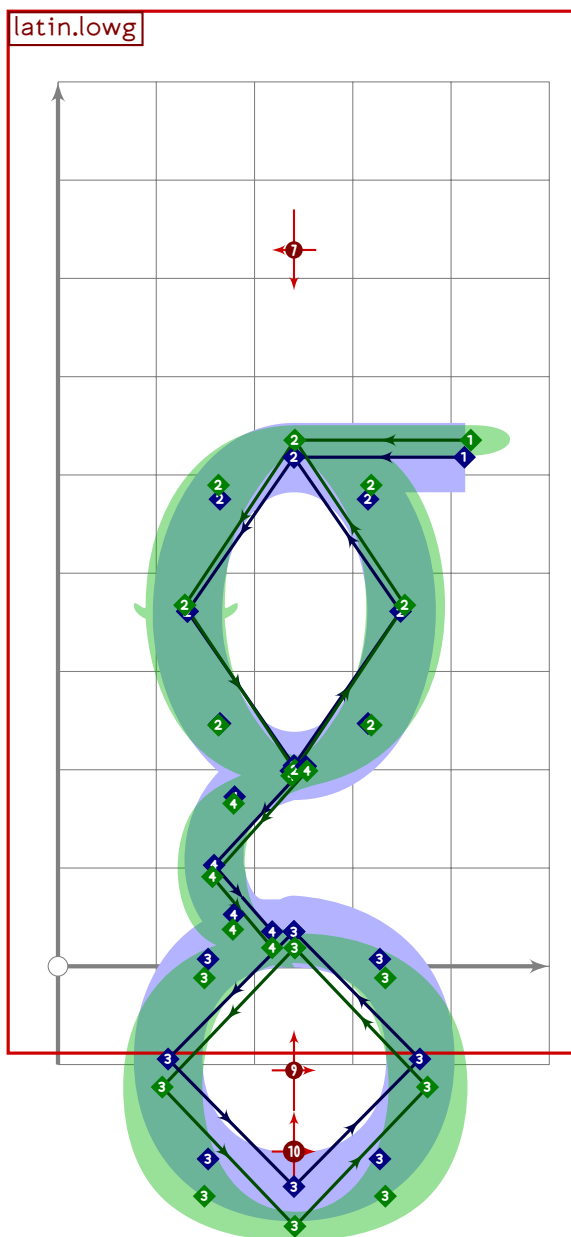
```

581 % f
582 begintsuglyph("f",102);
583 latin.lowf;
584 tsu_render;
585 endtsuglyph;
586

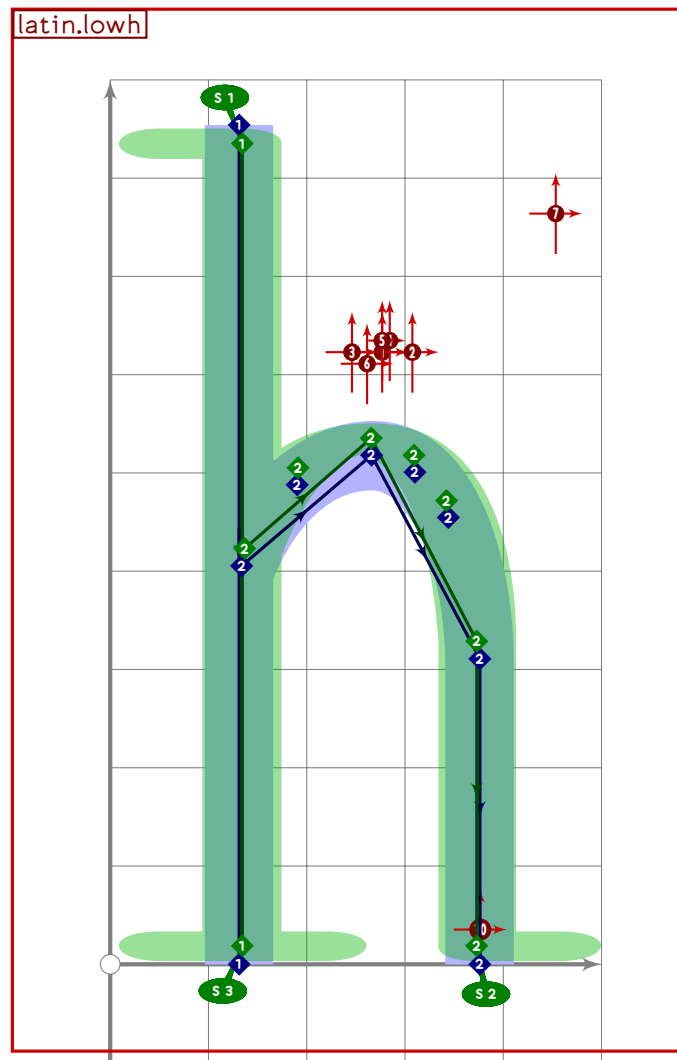
```

U+0067  
tsuku.g

00



```
587 % g
588 begintsuglyph("g",103);
589   latin.lowg;
590   tsu_render;
591 endtsuglyph;
592
```



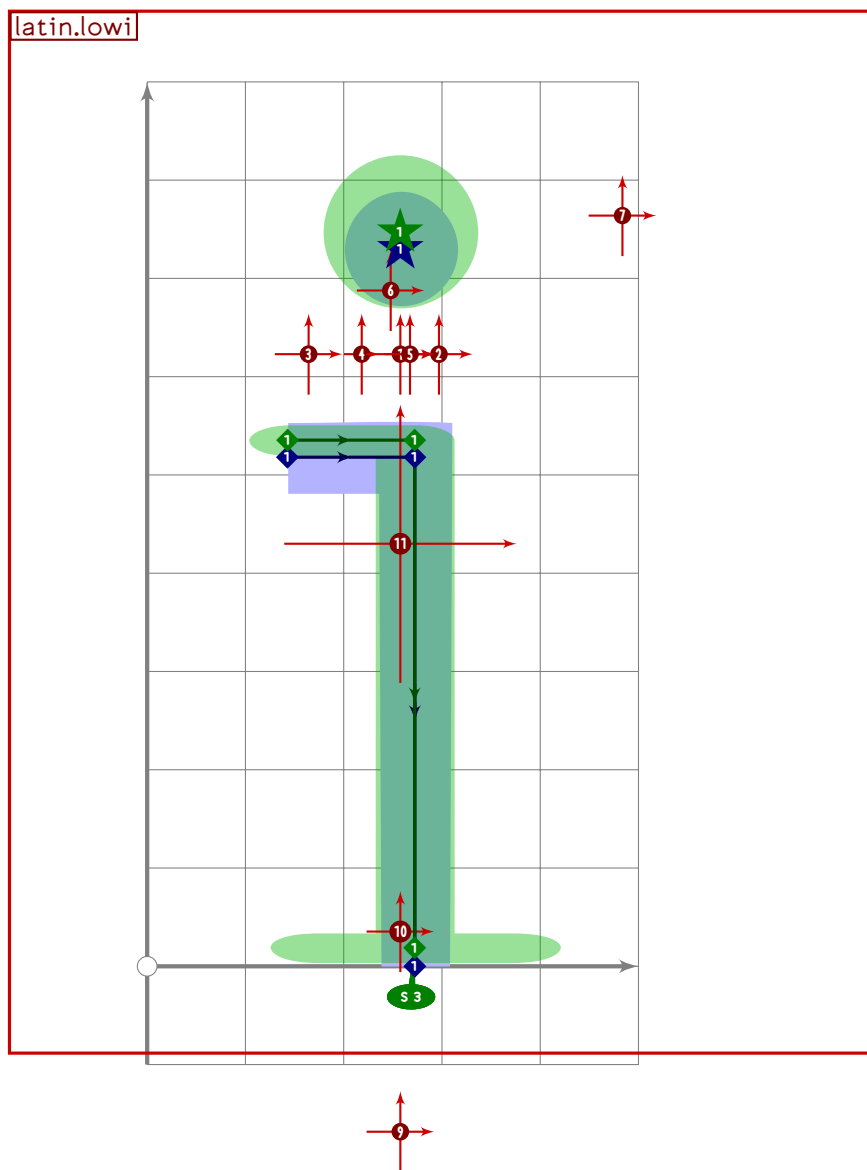
```

593 % h
594 begintsuglyph("h",104);
595   latin.lowh;
596   tsu_render;
597 endtsuglyph;
598

```

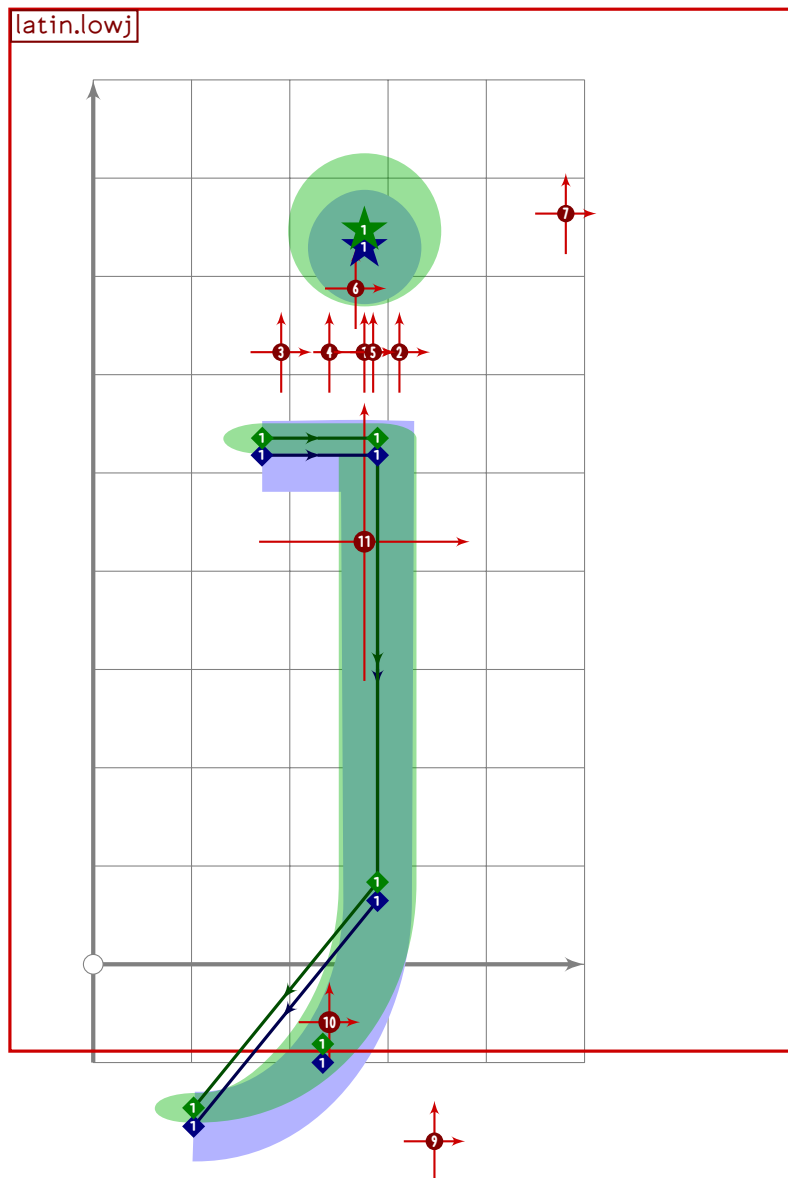
U+0069  
tsuku.i

00



```
599 % i
600 begintsuglyph("i";105);
601 latin.lowi;
602 tsu_render;
603 endtsuglyph;
604
```

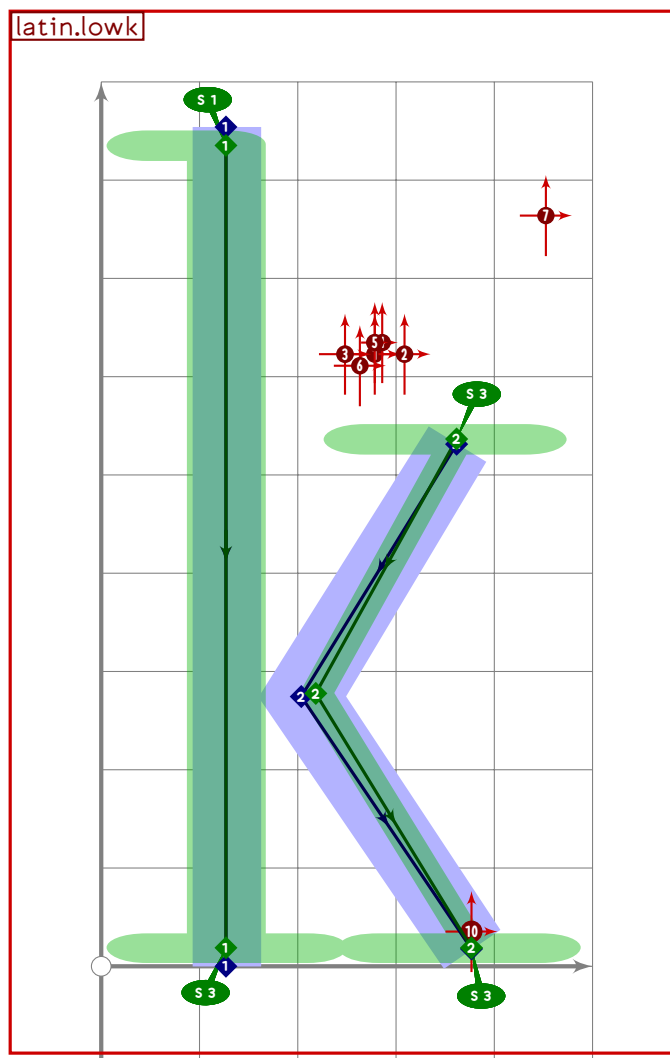




```

605 % j
606 begintsuglyph("j";106);
607   latin.lowj;
608   tsu_render;
609 endtsuglyph;
610

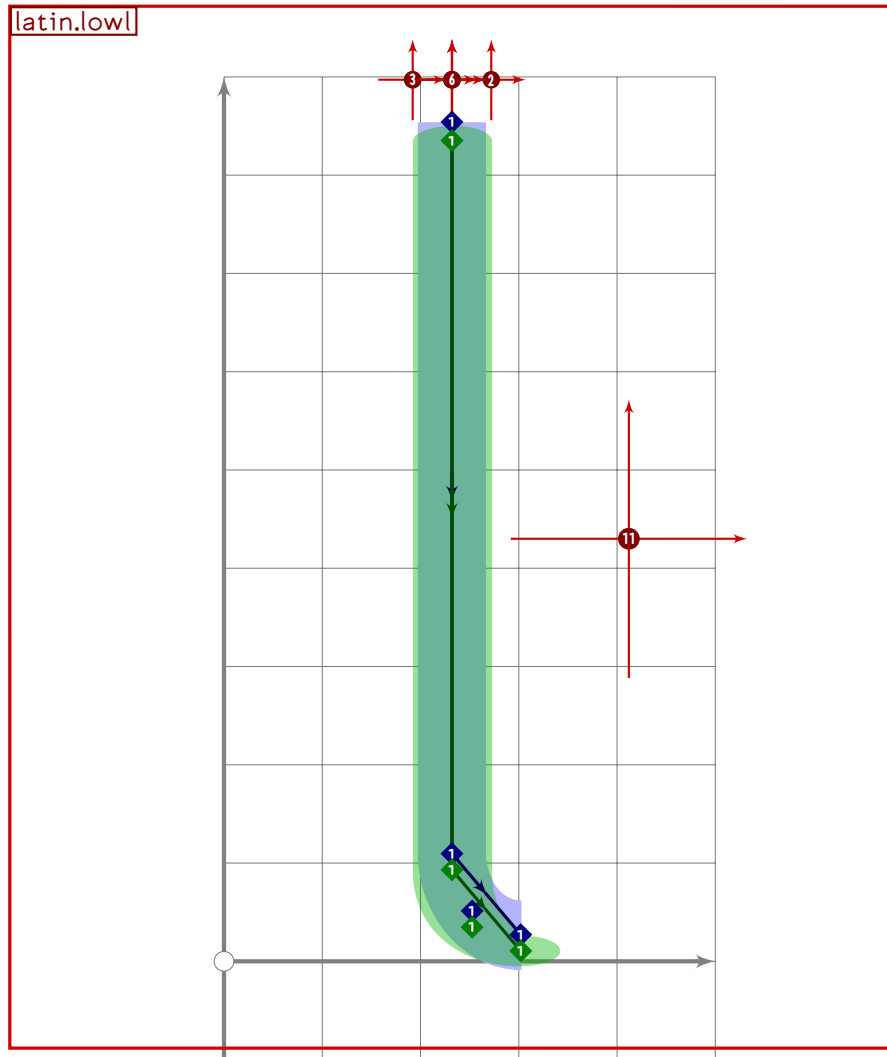
```



```

611 % k
612 beginsuglyph("k",107);
613   latin.lowk;
614   tsu_render;
615 endsuglyph;
616

```



```

617 % l
618 beginsuglyph("l";108);
619   latin.lowl;
620   tsu_render;
621 endtsuglyph;
622

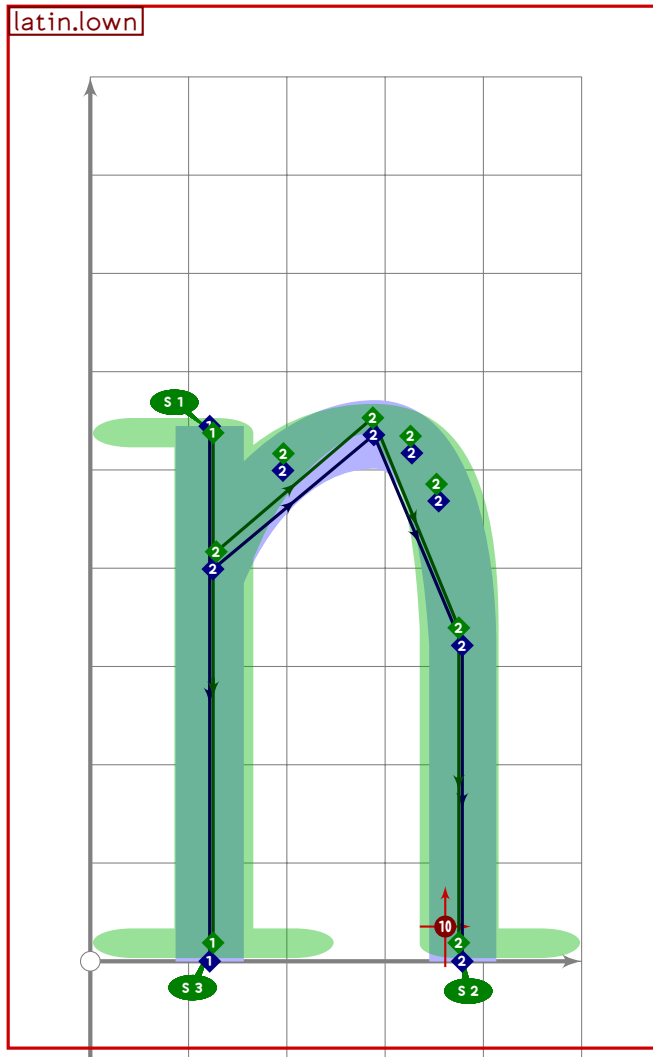
```

U+006D  
tsuku.m

00



```
623 % m
624 beginsuglyph("m",109);
625   latin.lowm;
626   tsu_render;
627 endsuglyph;
628
```



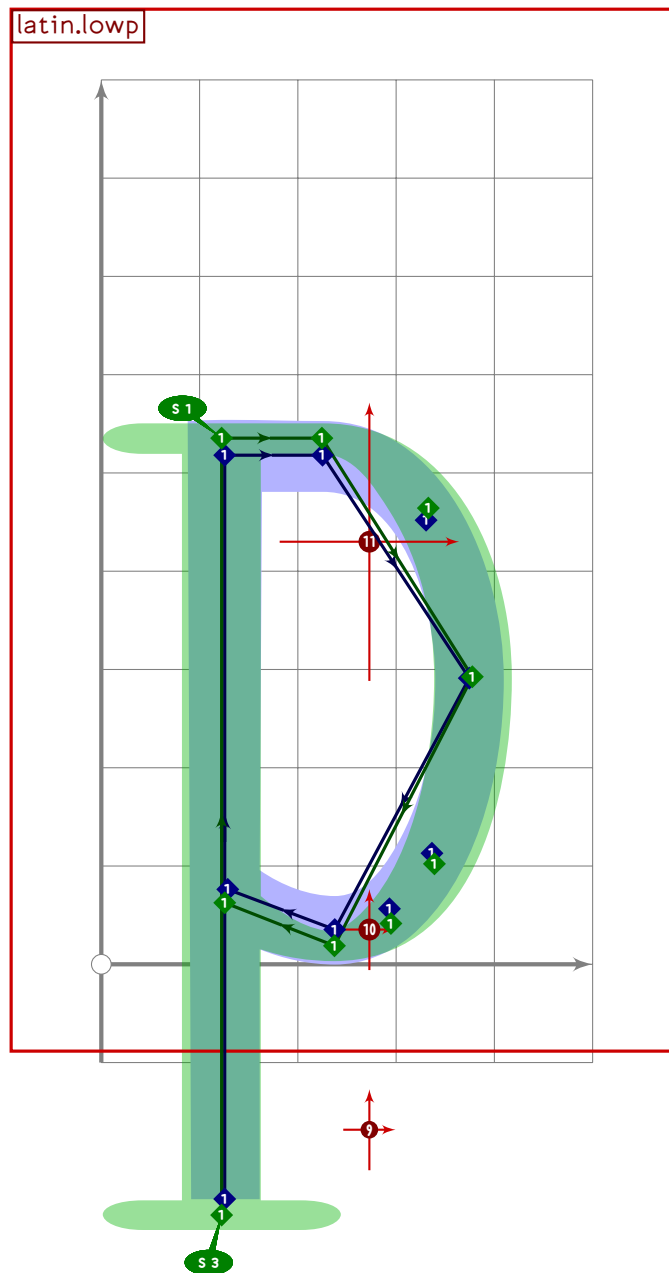
```

629 % n
630 beginsuglyph("n",110);
631   latin.lown;
632   tsu_render;
633 endsuglyph;
634

```

00

```
635 % o
636 begint Suglyph("o";111);
637   latin.low;
638   tsu_ender;
639 endtsuglyph;
640
```



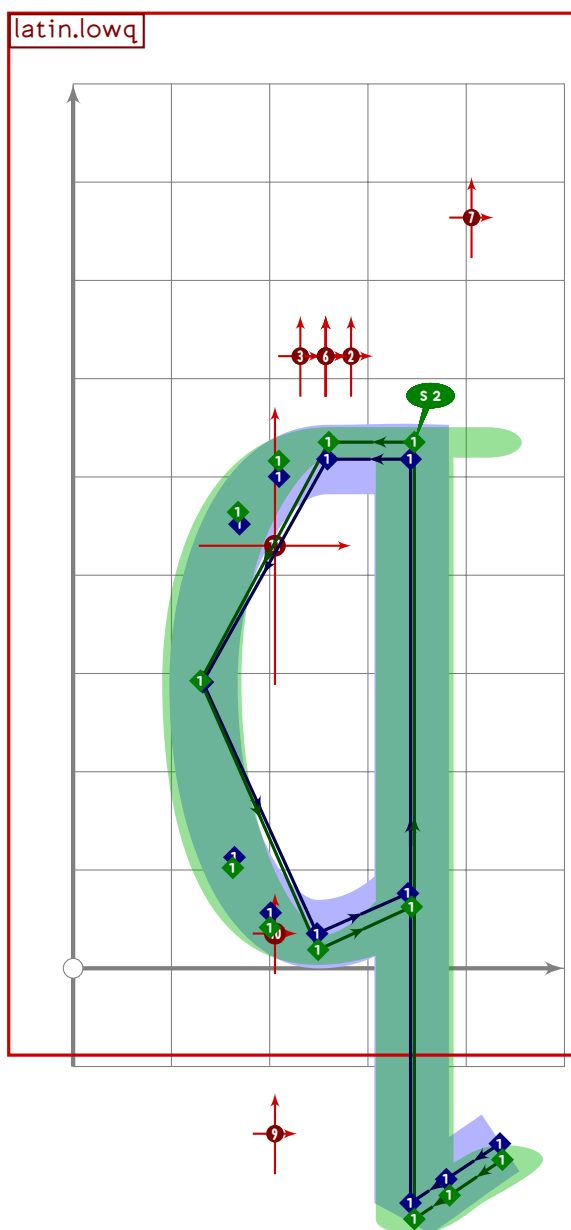
```

641 % p
642 begintsuglyph("p",112);
643   latin.lowp;
644   tsu_render;
645 endtsuglyph;
646

```

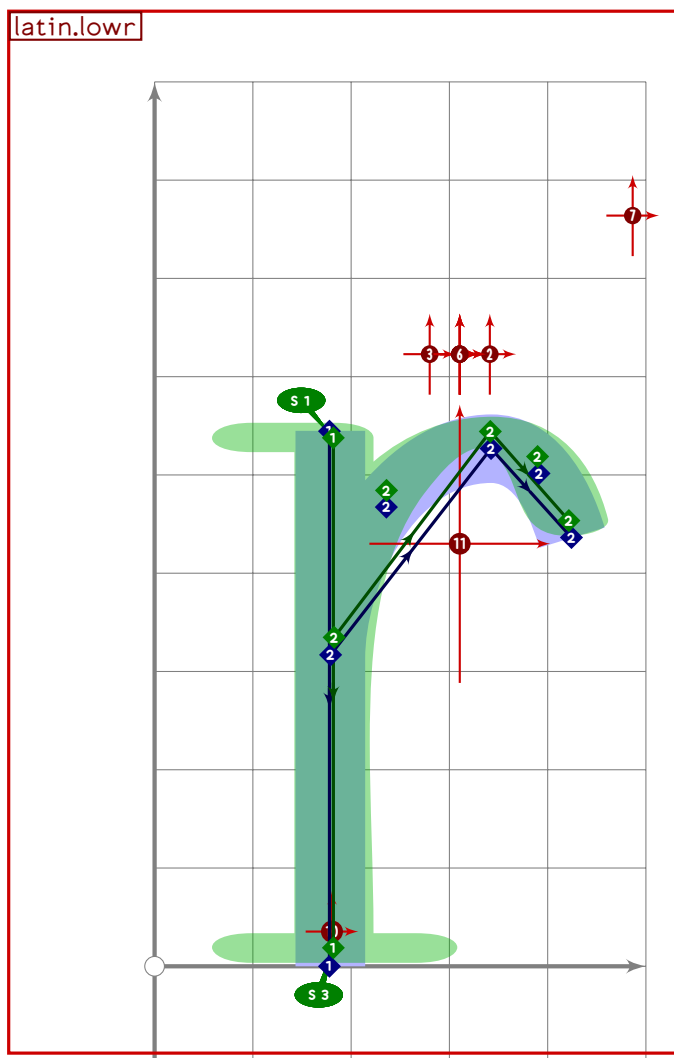
U+0071  
tsuku.q

00



```
647 % q
648 begintsuglyph("q",113);
649   latin.lowq;
650   tsu_render;
651 endtsuglyph;
652
```





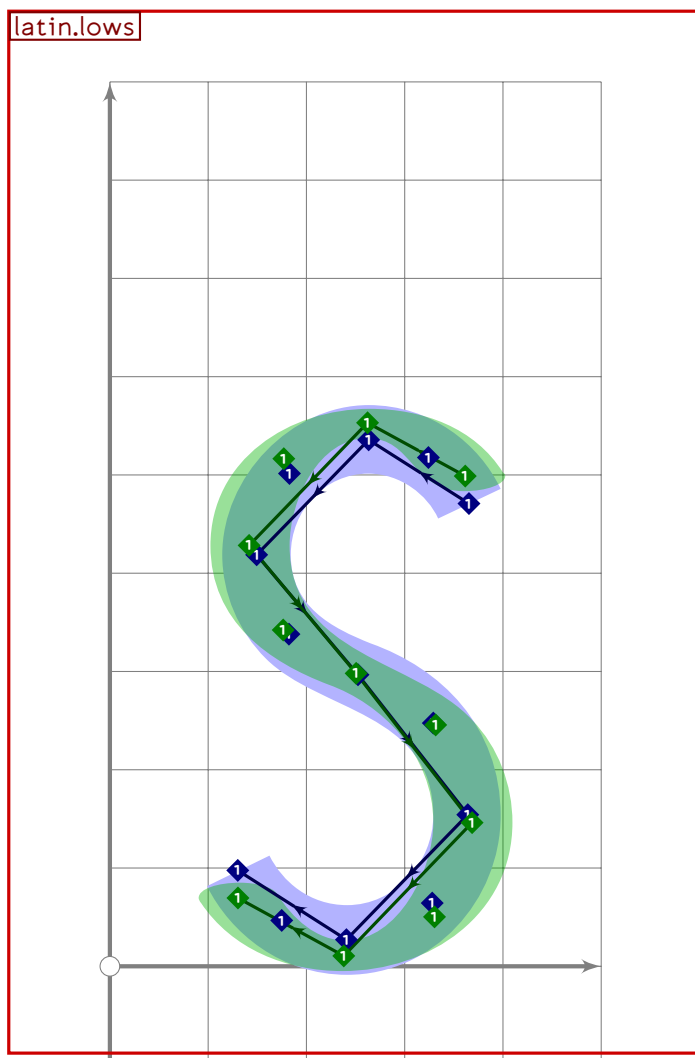
```

653 % r
654 beginsuglyph("r",114);
655   latin.lowr;
656   tsu_render;
657 endsuglyph;
658

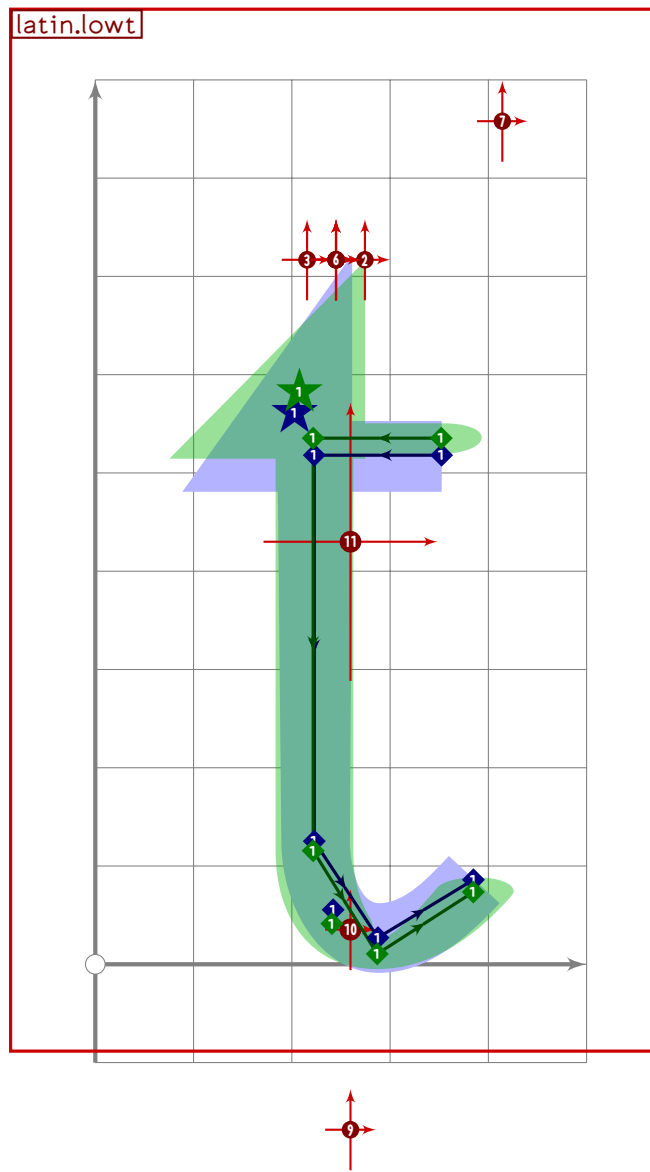
```

U+0073  
tsuku.s

00



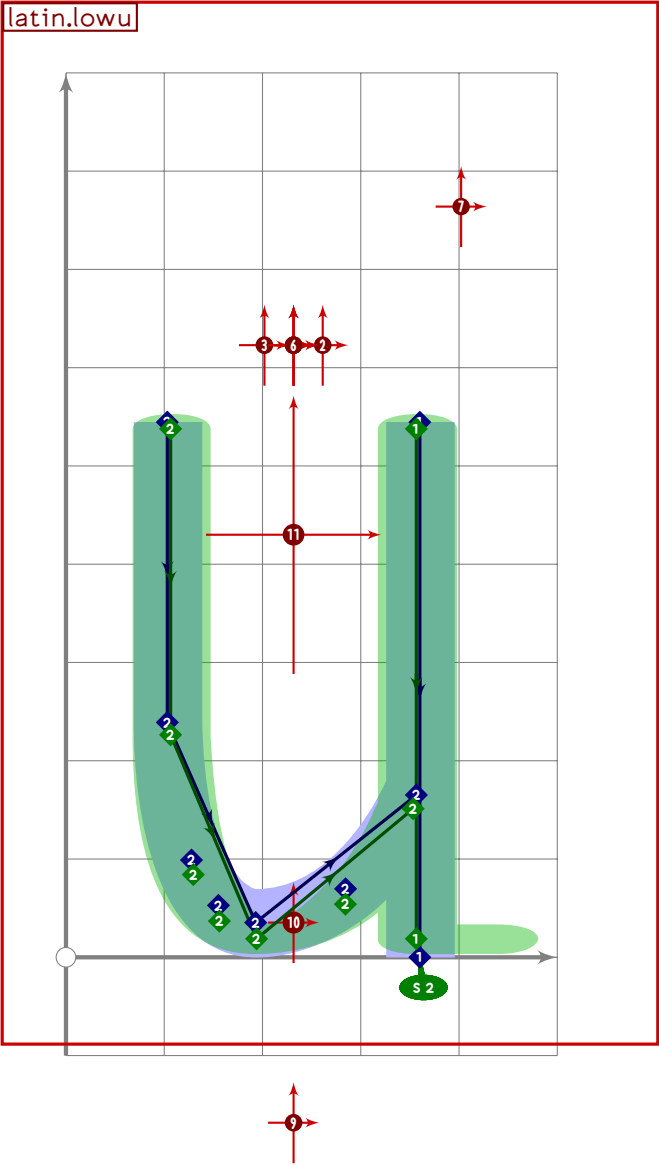
```
659 % s
660 begintsuglyph("s";115);
661   latin.lows;
662   tsu_render;
663 endsuglyph;
664
```



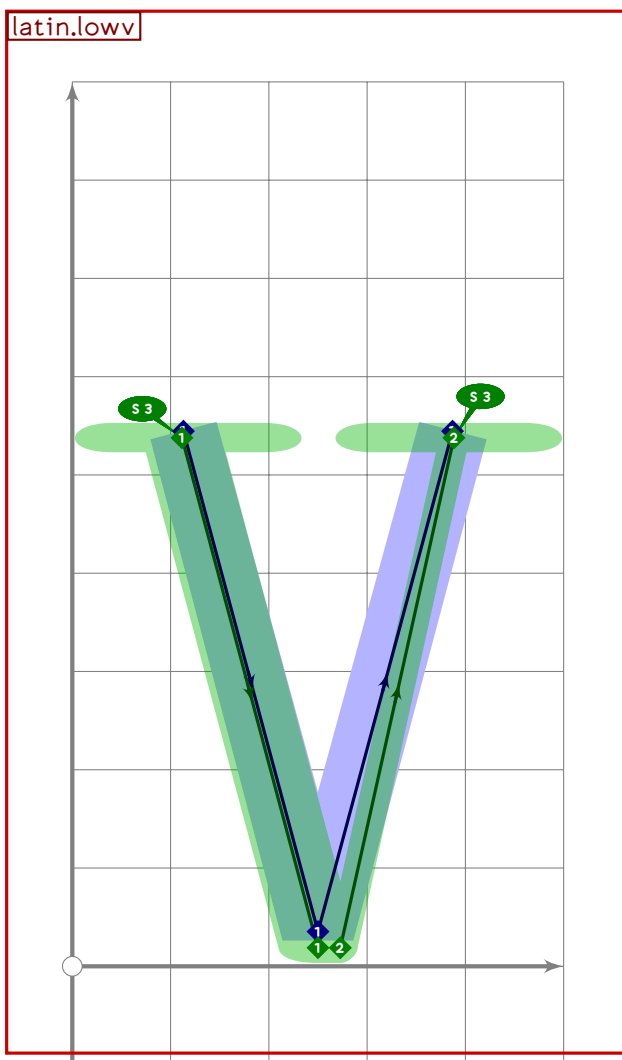
```

665 % t
666 begintsuglyph("t",116);
667   latin.lowt;
668   tsu_render;
669 endtsuglyph;
670

```



```
671 % u
672 begintsuglyph("u",117);
673 latin.lowu;
674 tsu_render;
675 endtsuglyph;
676
```



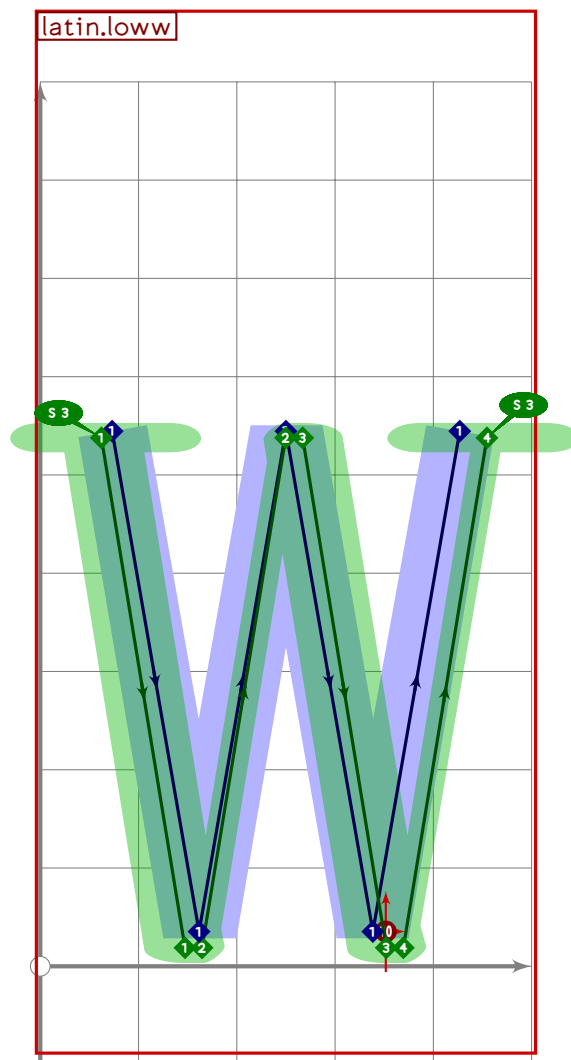
```

677 % v
678 begintsuglyph("V",118);
679   latin.lowv;
680   tsu_render;
681 endtsuglyph;
682

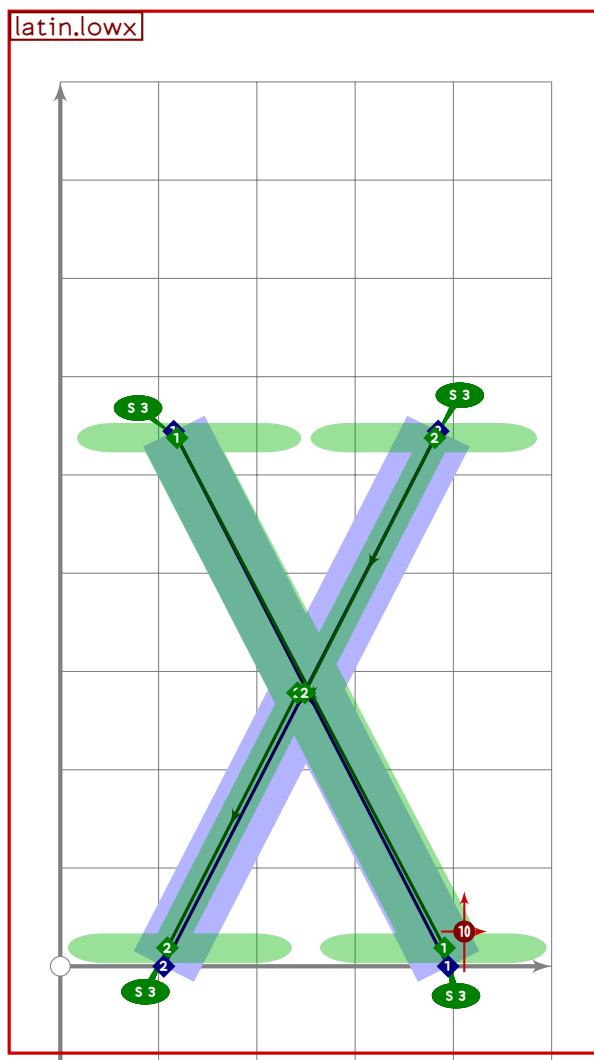
```

U+0077  
tsuku.w

00



```
683 % w
684 beginsuglyph("w",119);
685   latin.loww;
686   tsu_render;
687 endsuglyph;
688
```



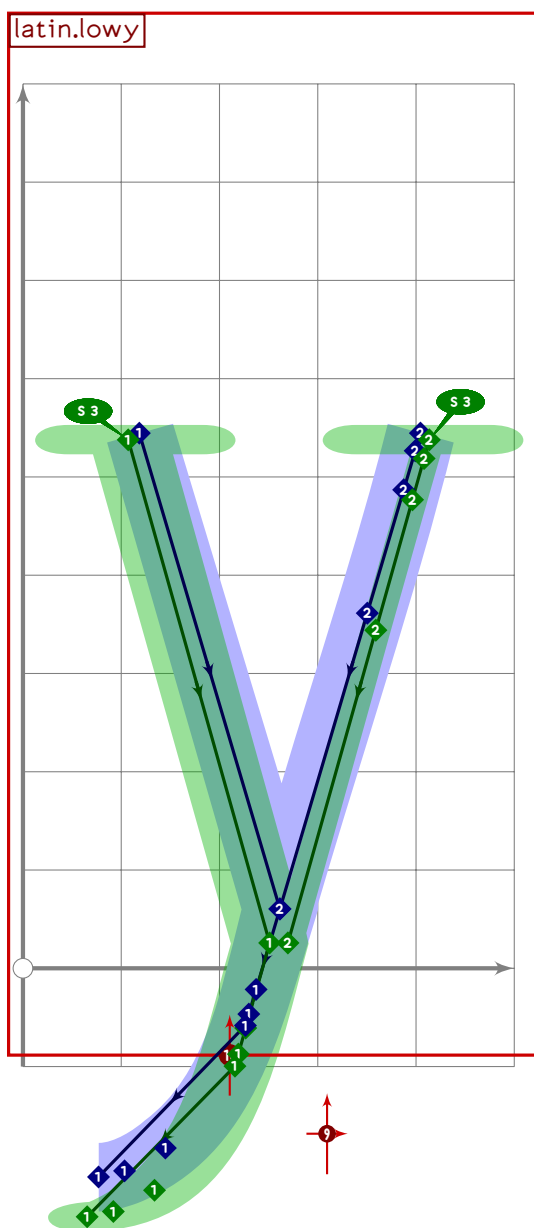
```

689 % x
690 beginsuglyph("x",120);
691   latin.lowx;
692   tsu_render;
693 endsuglyph;
694

```

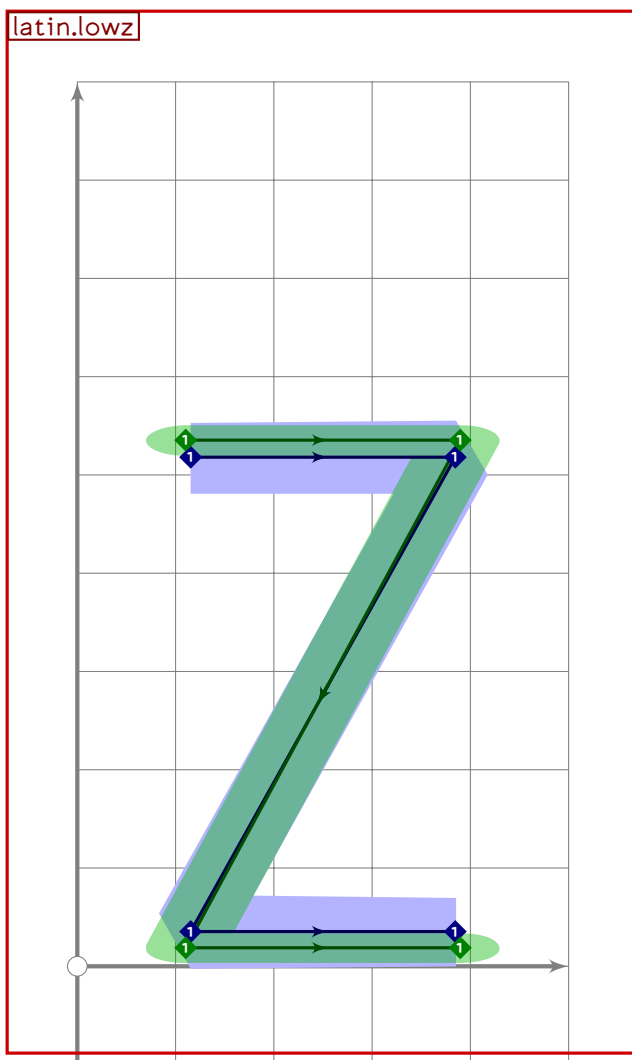
U+0079  
tsuku.y

00



```
695 % y
696 begintsuglyph("y",121);
697   latin.lowy;
698   tsu_render;
699 endtsuglyph;
700
```





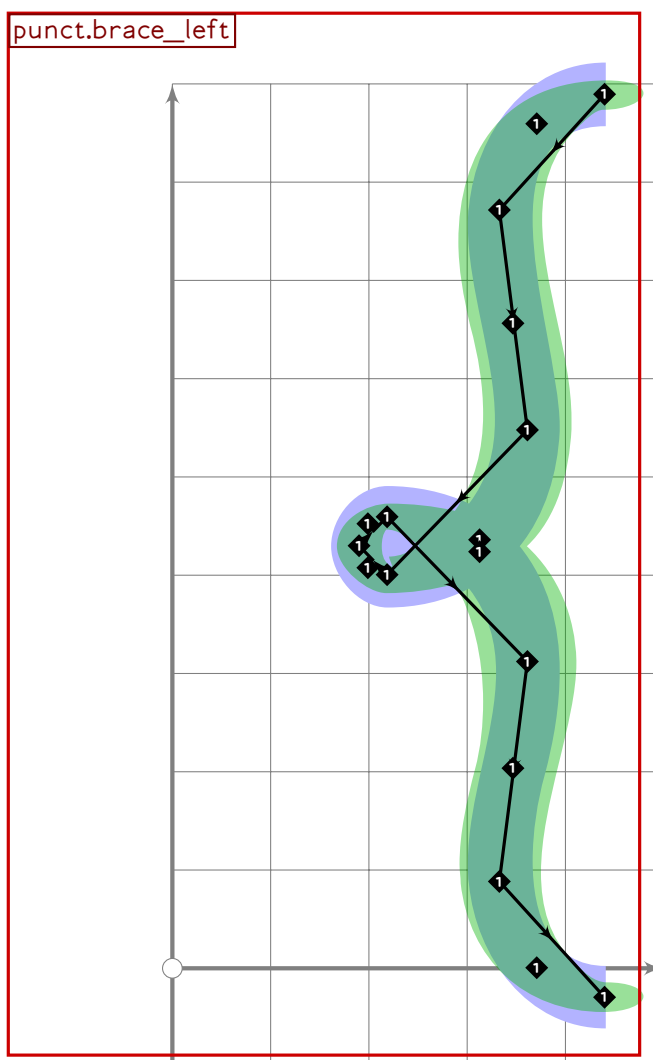
```

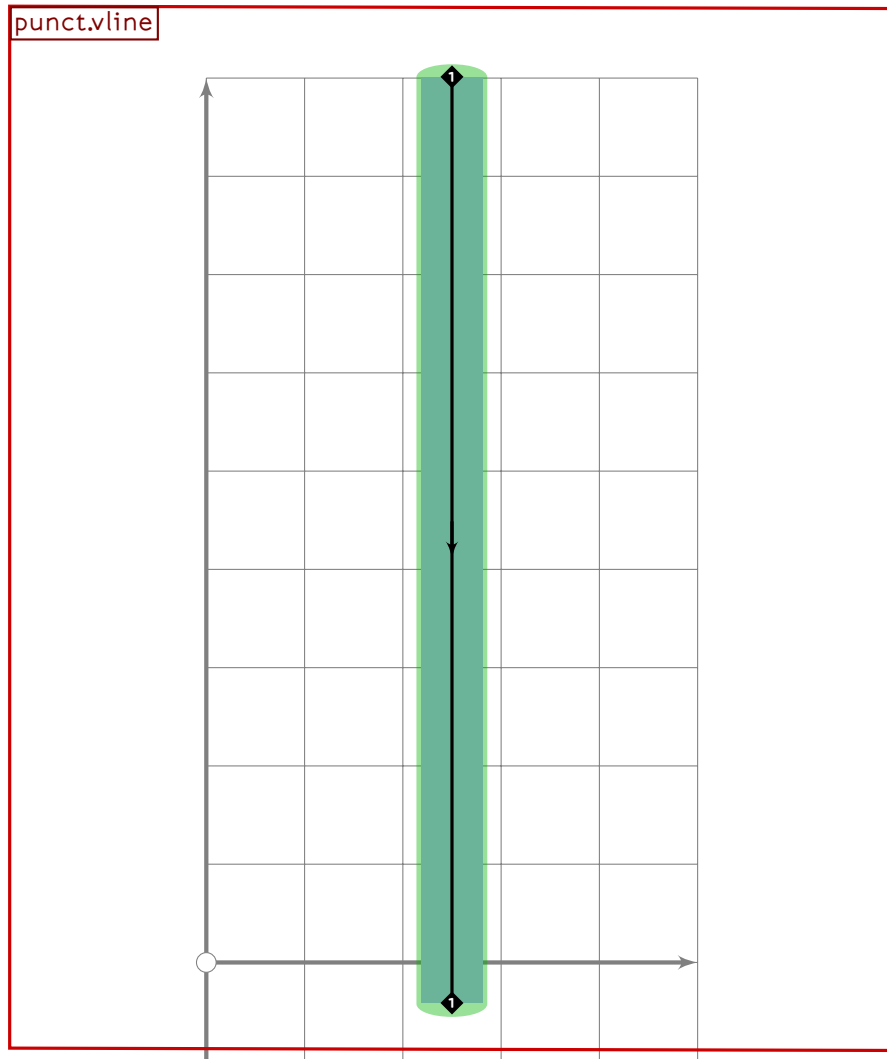
701 % z
702 beginsuglyph("z";122);
703   latin.lowz;
704   tsu_render;
705 endsuglyph;
706
707 tsu_accent.clear_default_anchors;
708
709 % WARNING changing rescale setting
710 tsu_rescale_half;
711

```

U+007B  
tsuku.braceleft

00

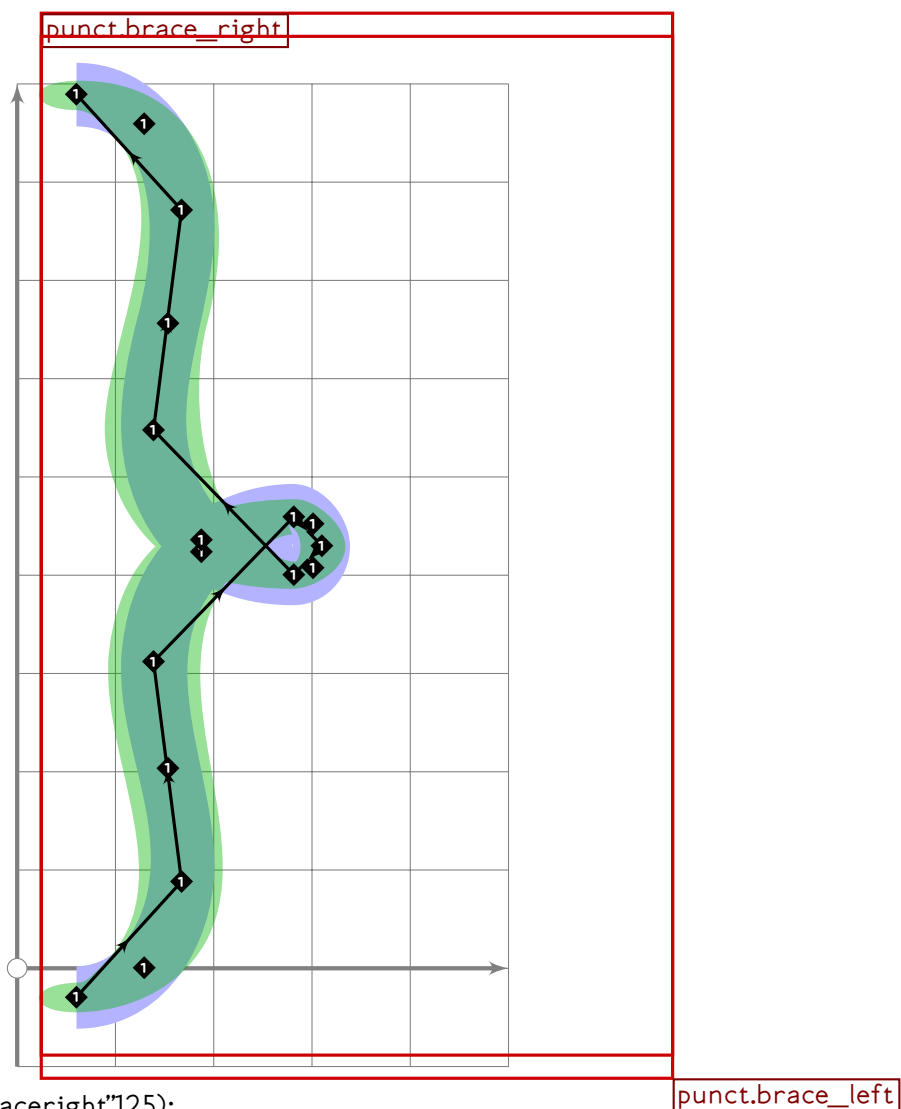




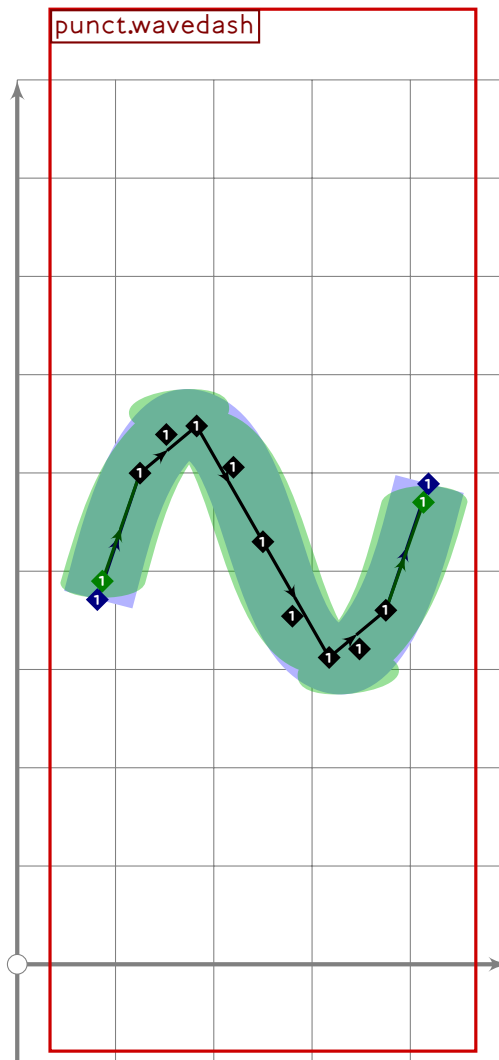
```
717 begintsuglyph("bar",124);  
718 punct.vline;  
719 tsu_render;  
720 endtsuglyph;
```

U+007D  
tsuku.braceright

00



```
721 begint Suglyph("braceright";125);  
722 punct.brace_right;  
723 tsu_render;  
724 endsuglyph;  
725
```



```

726 % "tilde" - rescaled "wave dash"
727 begintsuglyph("asciitilde",126);
728   punct.wavedash;
729   tsu_render;
730 endtsuglyph;
731
732
733
734 % 007F through 009F are nonprinting control characters.
735 % 00A0 is a space, supplied by the make-font script later
736
737
738
```

## Latin-1 Extra Characters

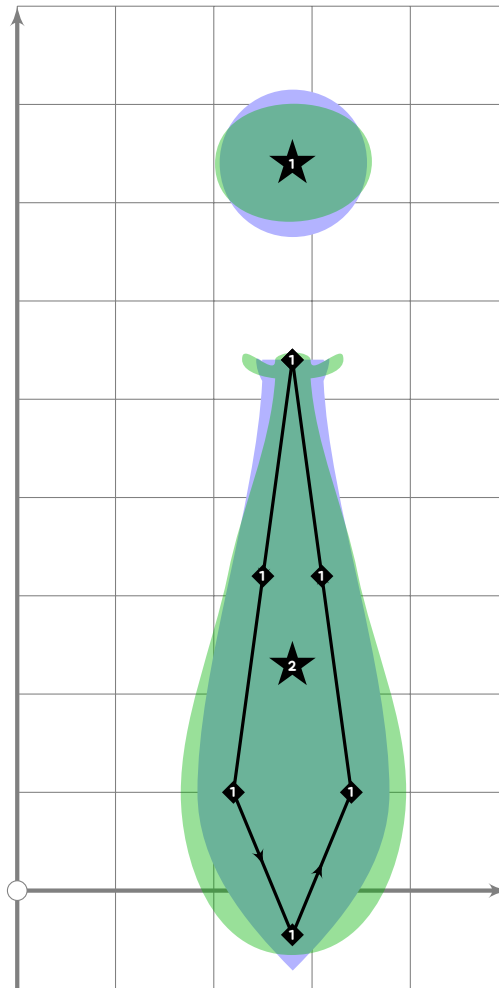
```

739 % LATIN-1 EXTRA CHARACTERS
740
741 transform tsu_xf.latin_one_super,tsu_xf.latin_one_circled,
742   tsu_xf.latin_one_cbound;
```

```

743
744 if is_proportional:
745     xypart tsu_xf.latin_one_super=yxpart tsu_xf.latin_one_super=0;
746     xxpart tsu_xf.latin_one_super=yypart tsu_xf.latin_one_super=0.65;
747     (500,latin_wide_xheight_r) transformed tsu_xf.latin_one_super=
748         (500,2*latin_vcentre);
749
750     xypart tsu_xf.latin_one_circled=yxpart tsu_xf.latin_one_circled=0;
751     xxpart tsu_xf.latin_one_circled=yypart tsu_xf.latin_one_circled=0.5;
752     centre_pt transformed tsu_xf.latin_one_circled=centre_pt;
753
754     tsu_xf.latin_one_cbound=identity scaled 225 shifted centre_pt;
755
756 else:
757     xypart tsu_xf.latin_one_super=yxpart tsu_xf.latin_one_super=0;
758     xxpart tsu_xf.latin_one_super=yypart tsu_xf.latin_one_super=0.55;
759     (500,latin_wide_xheight_r) transformed tsu_xf.latin_one_super=
760         (250,2*latin_vcentre);
761
762     xypart tsu_xf.latin_one_circled=yxpart tsu_xf.latin_one_circled=0;
763     xxpart tsu_xf.latin_one_circled=yypart tsu_xf.latin_one_circled=0.333;
764     centre_pt transformed tsu_xf.latin_one_circled=(250,latin_vcentre);
765
766     tsu_xf.latin_one_cbound=identity scaled 150 shifted (250,latin_vcentre);
767 fi;
768
769 % inverted exclamation point
770 tsu_rescale_native_narrow;

```



```

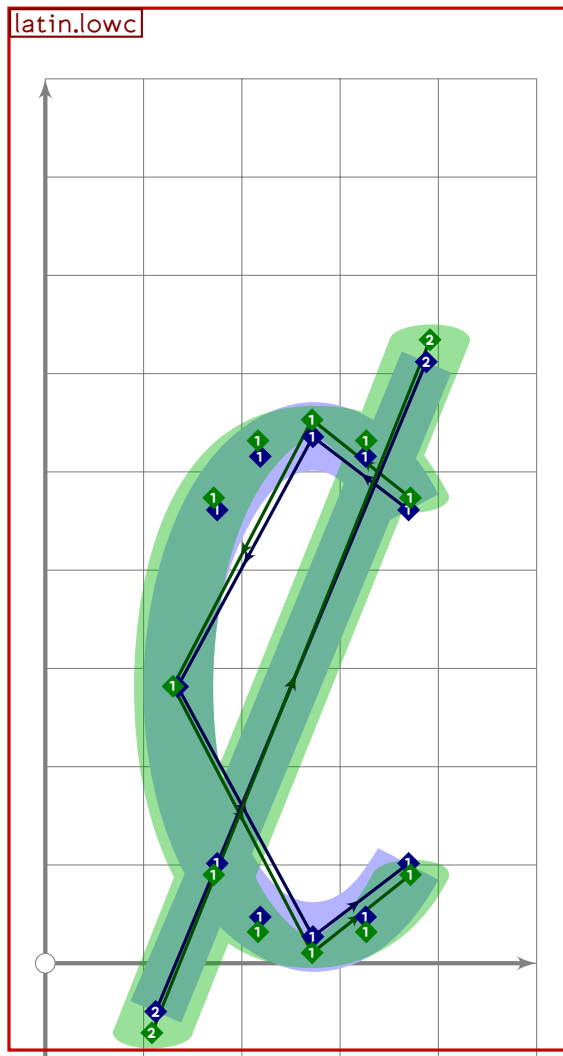
771 begint Suglyph("exclamdown",161);
772   if tsu_pbrush_size>=(tsu_punct_size*0.5):
773     push_lcblob(fullcircle
774       xscaled (tsu_punct_size+tsu_pbrush_size)
775       yscaled (tsu_punct_size+tsu_pbrush_size*tsu_pbrush_shape)
776       rotated tsu_pbrush_angle
777       shifted (220,40)
778       rotatedaround ((250,390),180));
779   else:
780     push_stroke(fullcircle
781       scaled tsu_punct_size
782       shifted (220,40)
783       rotatedaround ((250,390),180),
784       (2,2)-(2,2)-(2,2)-(2,2));
785     if tsu_pbrush_size>=30:
786       push_lcblob(get_stroke(0));
787     fi;
788   fi;
789
790   push_stroke(((220,240){up}..(280,680){up}..{curl 1}(220,825){curl 1}..
791     (160,680){down}..{down}(220,240))

```

U+00A2  
tsuku.cent

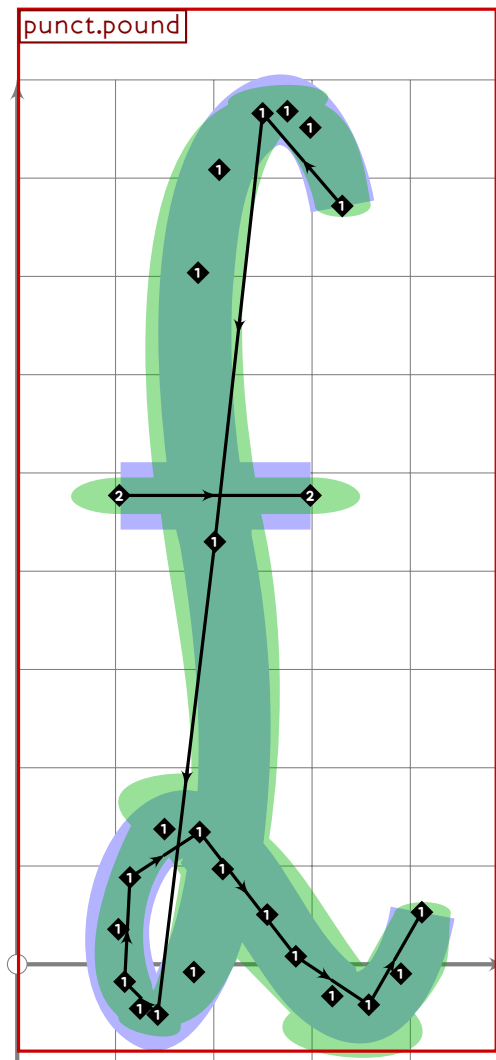
00

```
792     rotatedaround ((250,390),180),
793     (1,1)-(2,2)-(2,2)-(2,2)-(1,1));
794
795     if tsu_pbrush_size>=30:
796         push_lcblob((subpath (0,1,3,9) of get_strokep(0))-cycle);
797     fi;
798
799     tsu_render;
800 endtsuglyph;
801 tsu_rescale_half;
```



```
802
803 begint Suglyph("cent",162);
804     tsu_accent.apply(latin.lowc)(tsu_accent.slash);
805     tsu_render;
806 endtsuglyph;
```





```

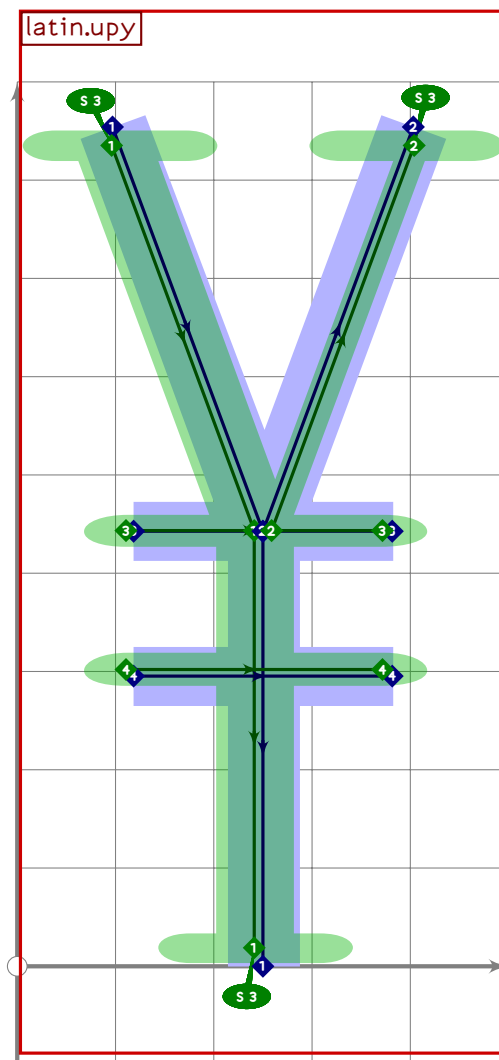
807
808 begintsuglyph("sterling",163);
809   punct.pound;
810   tsu_render;
811 endsuglyph;
812
813 begintsuglyph("currency",164);
814   punct.currency;
815   tsu_render;
816 endsuglyph;
817

```

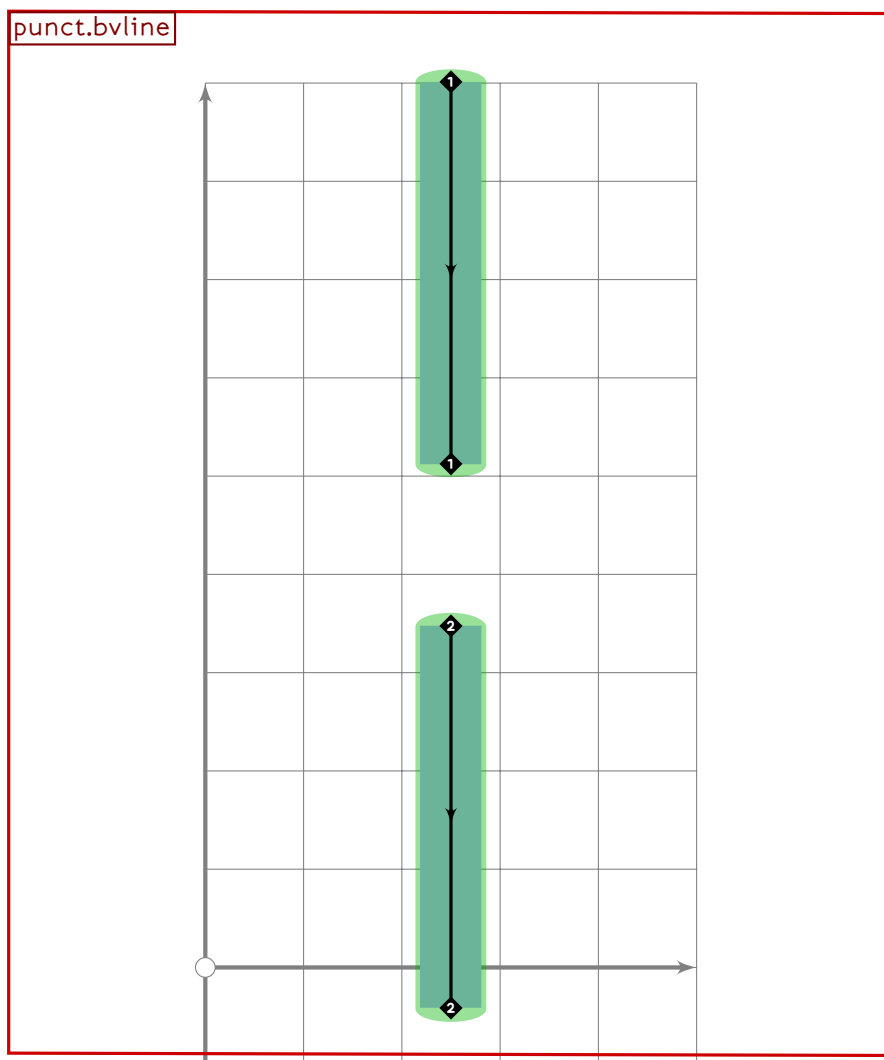
[see page 375]

U+00A5  
tsuku.yen

00



```
818 % yen sign
819 beginsuglyph("yen";165);
820 latin.upy;
821 push_stroke(((240,0)-(240,0)) shifted point 1 of get_strokep(-1),
822   (2,2)-(2,2));
823 set_bosize(0,80);
824 push_stroke(((240,0)-(240,0)) shifted point 1.333 of get_strokep(-2),
825   (2,2)-(2,2));
826 set_bosize(0,80);
827 tsu_render;
828 endtsuglyph;
```



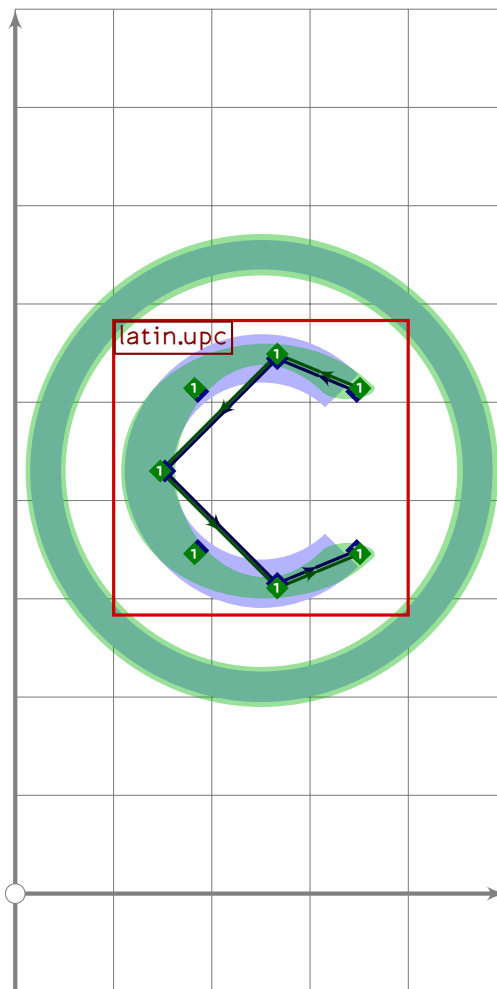
```

829
830 begintsuglyph("brokenbar";166);
831   punct.bvline;
832   tsu_render;
833 endtsuglyph;
834
835 begintsuglyph("section";167);
836   punct.section;
837   tsu_render;
838 endtsuglyph;
839
840 % naked umlaut
841 begintsuglyph("dieresis";168);
842   tsu_accent.umlaut;
843   tsu_render;
844 endtsuglyph;
845
846 % WARNING, setting rescale
847 tsu_rescale_native_conditional;

```

[see page 397]

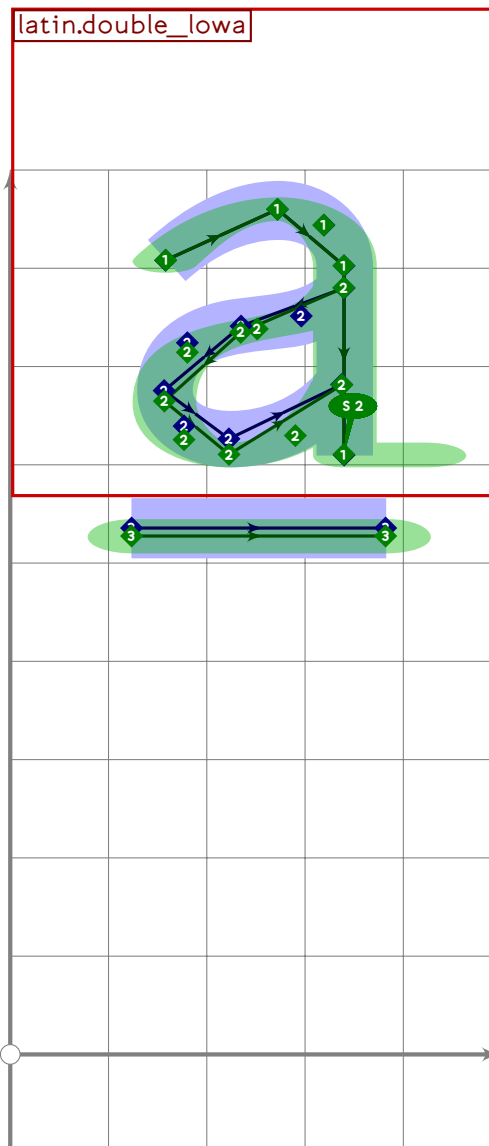
[see page 109]



```

848
849 begint Suglyph("copyright",169);
850   Fill fullcircle scaled (1320+120*tsu_brush_max) shifted centre_pt
851     transformed tsu_xf.latin_one_circled;
852   unFill reverse fullcircle scaled (1320-120*tsu_brush_max)
853     shifted centre_pt transformed tsu_xf.latin_one_circled;
854   tsu_xform(tsu_xf.latin_one_circled)(latin.upc);
855   tsu_render_in_circle(tsu_xf.latin_one_cbound);
856 endsuglyph;

```



```

857
858 beginsuglyph("ordfeminine";170);
859   tsu_xform(tsu_xf.latin_one_super)(
860     latin.low_a;
861     push_stroke((270,-110)-(740,-110),(2,2)-(2,2));
862     set_bosize(0,get_bosize(-1));
863     tsu_render;
864 endtsuglyph;
865
866 % WARNING, changing rescale setting
867 tsu_rescale_half;
868
869 beginsuglyph("guillemotleft";171);
870   punct.guillemet_left;
871   tsu_render;
872 endtsuglyph;
873

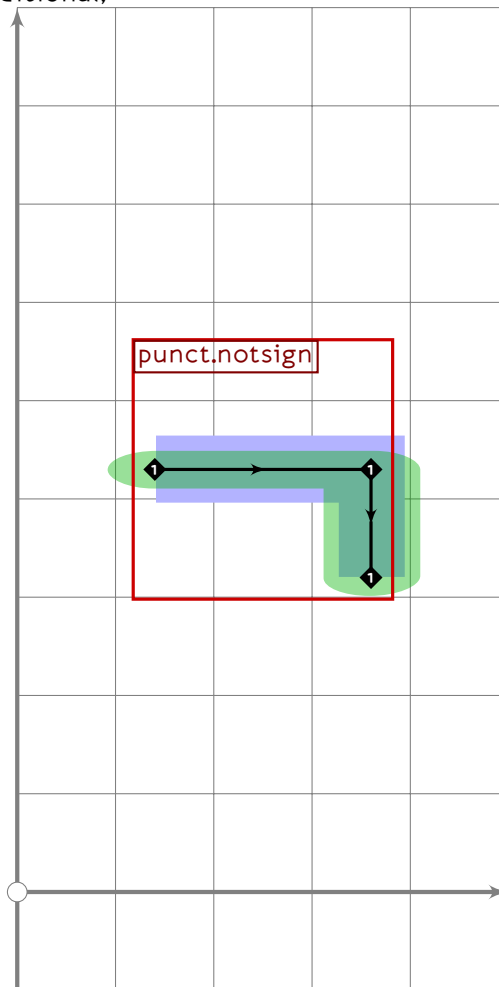
```

[see page 383]

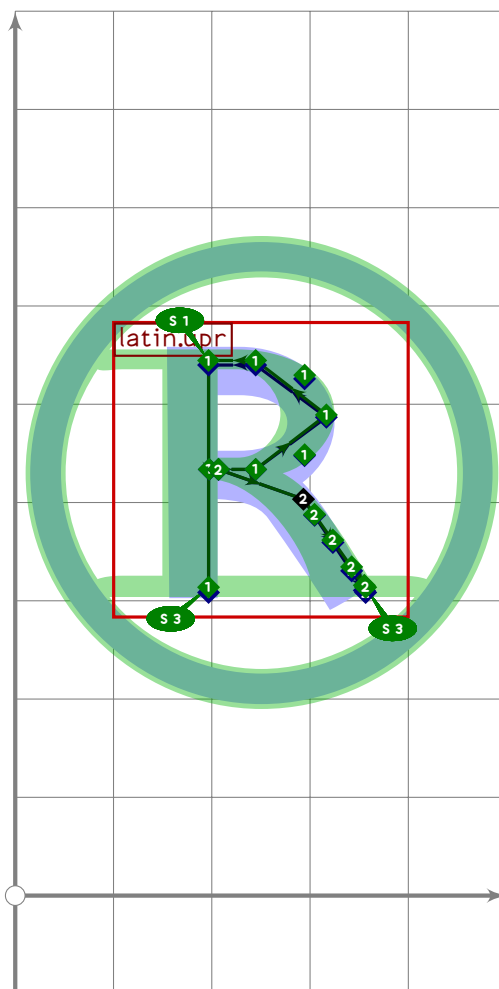
U+00AC  
tsuku.logicalnot

```
874 % WARNING, setting rescale
875 tsu_rescale_native_conditional;
```

00



```
876
877 begint Suglyph("logicalnot",172);
878   punct.notsign(ascii_punct_xf);
879   tsu_render;
880 endtsuglyph;
881
882 % soft hyphen is a zero-width space and added by make-font script
```



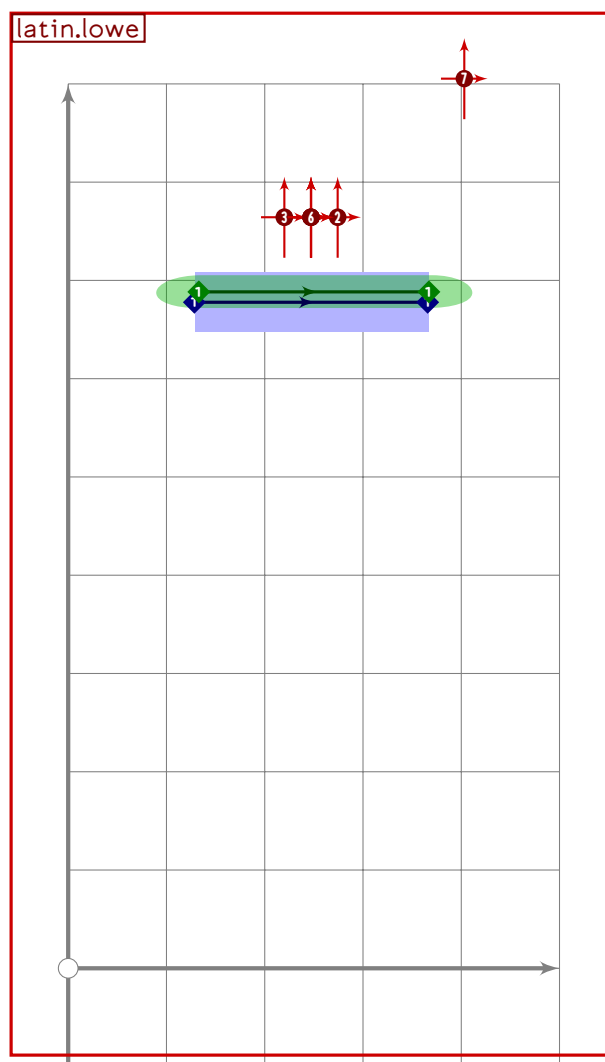
```

883
884 begint Suglyph("registered";174);
885   Fill fullcircle scaled (1320*120*tsu_brush_max) shifted centre_pt
886     transformed tsu_xf.latin_one_circled;
887   unFill reverse fullcircle scaled (1320-120*tsu_brush_max)
888     shifted centre_pt transformed tsu_xf.latin_one_circled;
889   tsu_xform(tsu_xf.latin_one_circled)(latin.upr);
890   tsu_render_in_circle(tsu_xf.latin_one_cbound);
891 endtsuglyph;
892
893 % WARNING, setting rescale
894 tsu_rescale_half;
895

```

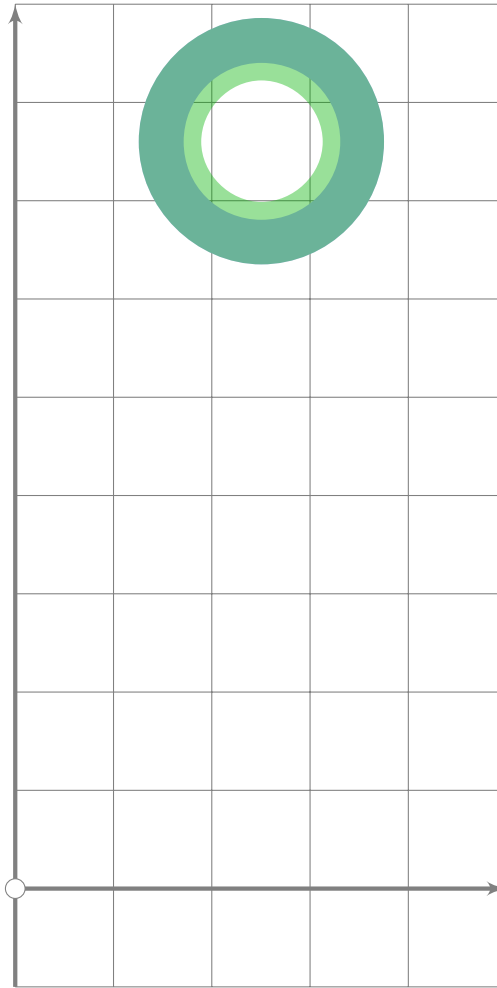
U+00AF  
tsuku.macron

00



```
896 % naked macron
897 begintsuglyph("macron",175);
898   tsu_accent.apply(latin.lowe;set_bosize(0,0))(tsu_accent.macron);
899   tsu_render;
900 endtsuglyph;
901
902 % WARNING, setting rescale
903 tsu_rescale_native_conditional;
```

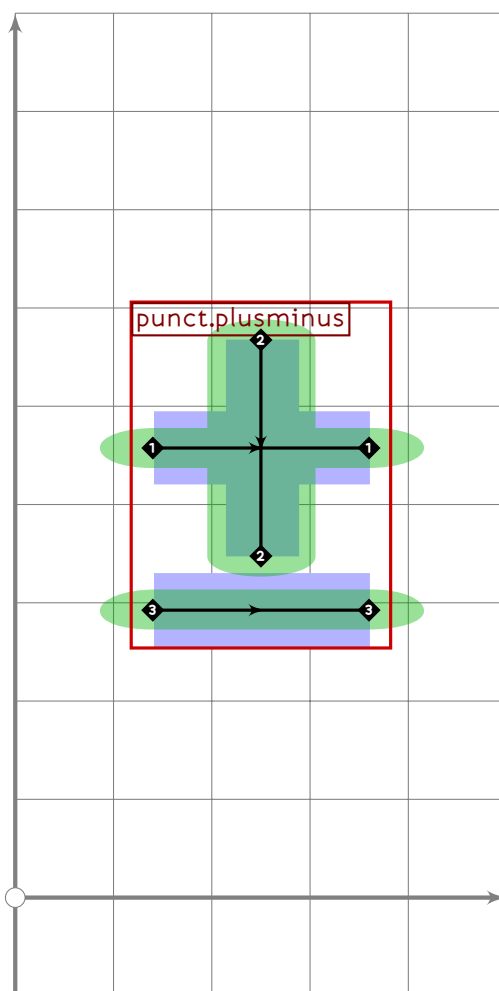




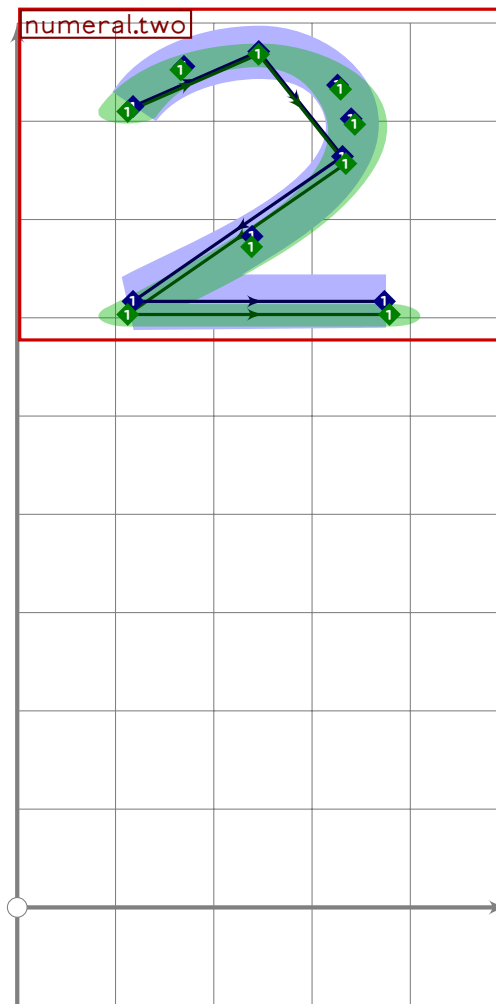
```
904
905 begintsuglyph("degree",176);
906   Fill fullcircle scaled (2.5*tsu_punct_size) shifted (250,760);
907   unFill reverse fullcircle
908     scaled (2.5*tsu_punct_size-120*tsu_brush_max) shifted (250,760);
909 endtsuglyph;
```

U+00B1  
tsuku.plusminus

00



```
910
911 begint Suglyph("plusminus",177);
912   punct.plusminus(ascii_punct_xf);
913   tsu_render;
914 endtsuglyph;
```



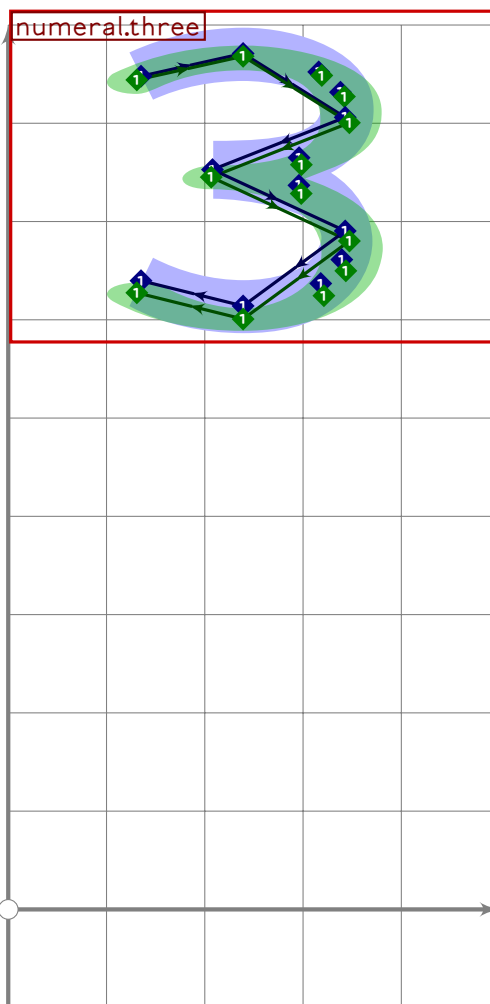
```

915
916 begintsuglyph("uni00B2",178);
917   tsu_xform(identity yscaled 0.68 transformed tsu_xf.latin_one_super)(
918     numeral.two);
919   tsu_render;
920 endtsuglyph;

```

U+00B3  
tsuku.uni00B3

00



```
921
922 begintsuglyph("uni00B3";179);
923   tsu_xform(identity yscaled 0.68 transformed tsu_xf.latin_one_super)(
924     numeral.three);
925   tsu_render;
926 endtsuglyph;
927
928 % WARNING, changing rescale setting
929 tsu_rescale_half;
930
931 % naked acute
932 begintsuglyph("acute";180);
933   tsu_accent.acute;
934   tsu_render;
935 endtsuglyph;
936
937 % micro
938 begintsuglyph("mu";181);
939   punct.micro;
940   tsu_render;
941 endtsuglyph;
```

[see page 101]

[see page 386]

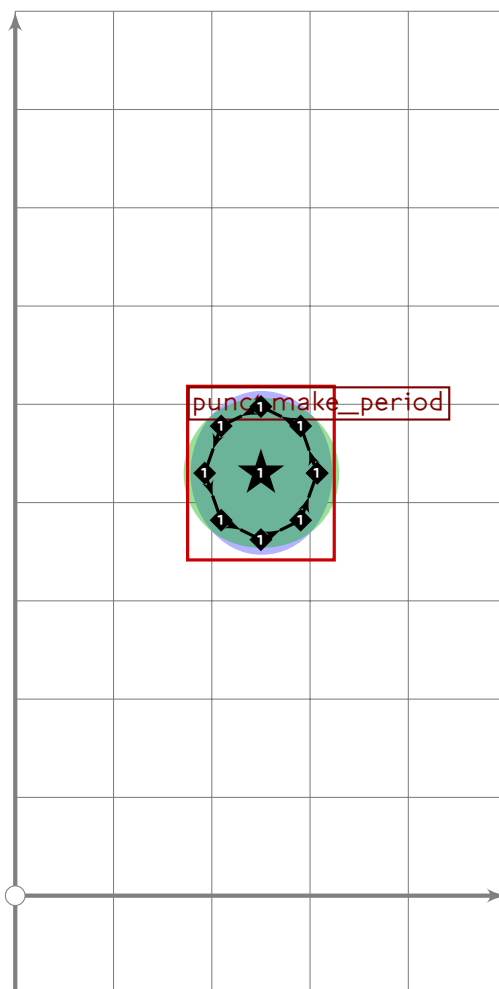
[see page 393]

00

```

942
943 % pilcrow
944 begint Suglyph("paragraph",182);
945   punct.pilcrow;
946   tsu_render;
947 endtsuglyph;
948

```



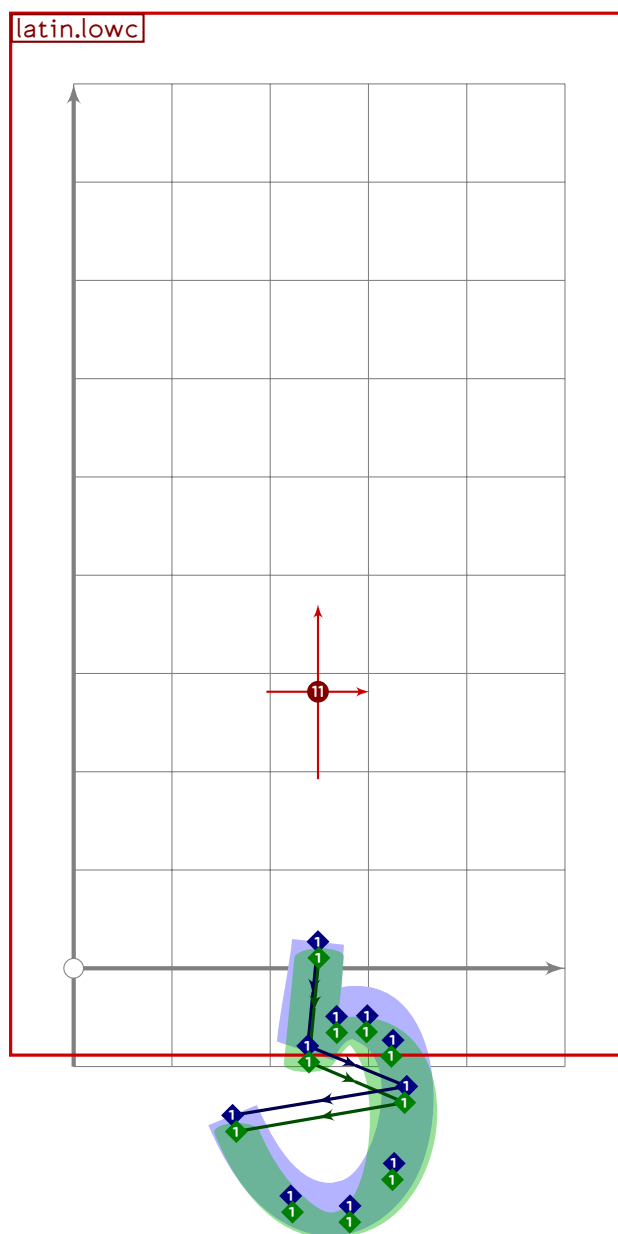
```

949 % period at centre
950 begint Suglyph("periodcentered",183);
951   punct.make_period(centre_pt);
952   tsu_render;
953 endtsuglyph;
954

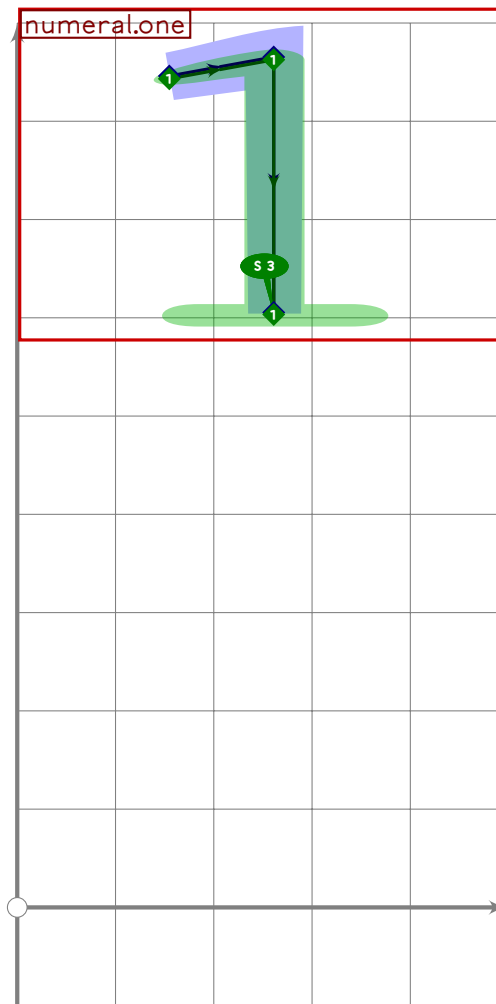
```

U+00B8  
tsuku.cedilla

00



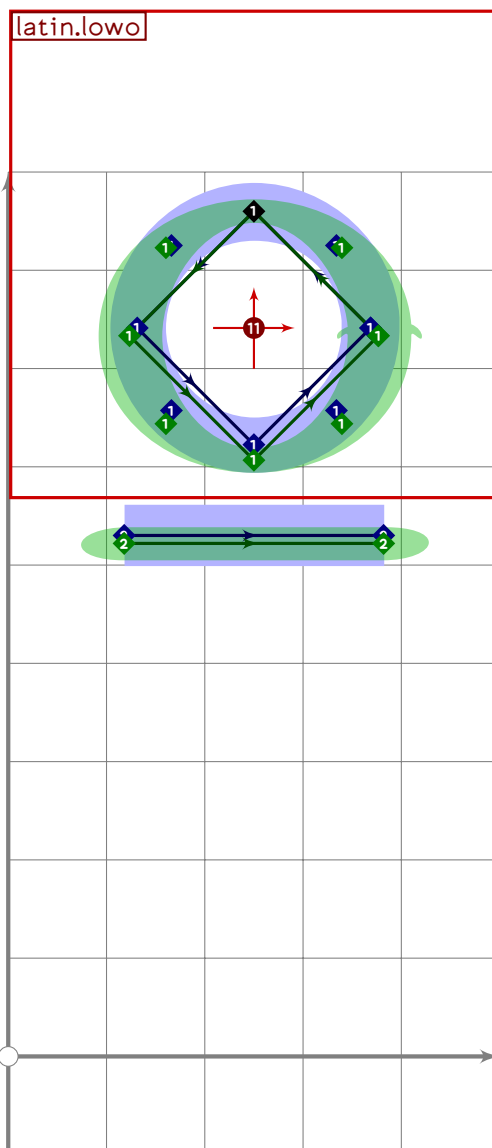
```
955 % naked cedilla
956 begintsuglyph("cedilla",184);
957   tsu_accent.apply(latin.lowc;set_bosize(0,0))(tsu_accent.cedilla);
958   tsu_render;
959 endtsuglyph;
960
961 % WARNING, changing rescale setting
962 tsu_rescale_native_conditional;
```



```

963
964 begintsuglyph("uni00B9",185);
965   tsu_xform(identity yscaled 0.68 transformed tsu_xf.latin_one_super)(
966     numeral.one);
967   tsu_render;
968 endtsuglyph;

```



```

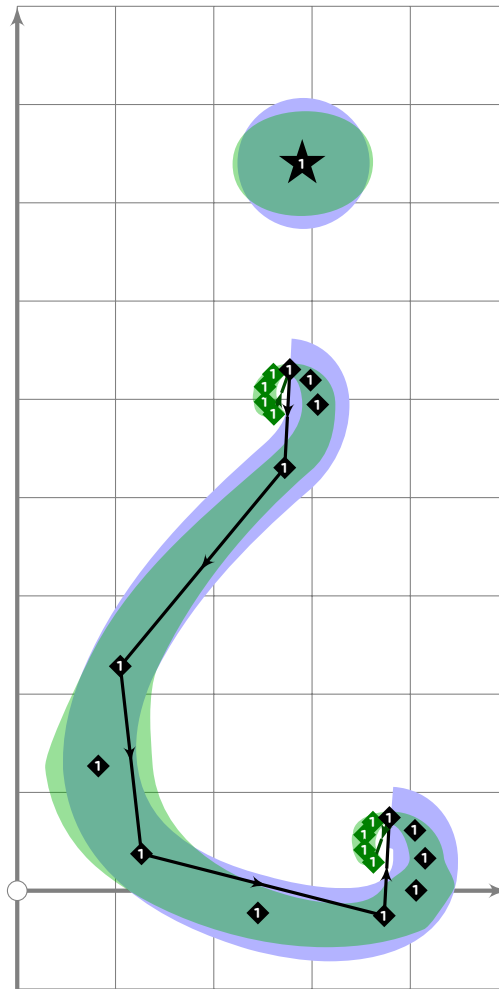
969
970 beginsuglyph("ordmasculine",186);
971   tsu_xform(tsu_xf.latin_one_super)(
972     latin.lowo;
973     push_stroke((260,120)-(740,120),(2,2)-(2,2)));
974   tsu_render;
975 endtsuglyph;
976
977 % WARNING, changing rescale setting
978 tsu_rescale_half;
979
980 beginsuglyph("guillemotright",187);
981   punct.guillemet_right;
982   tsu_render;
983 endtsuglyph;
984
985 % WARNING, changing rescale setting

```

[see page 384]



```
986 tsu_rescale_native_conditional;
987
```



```
988 % question mark
989 begintsuglyph("questiondown",191);
990 if tsu_pbrush_size>=(tsu_punct_size*0.5):
991     push_lcblob(fullcircle
992         xscaled ((tsu_punct_size+tsu_pbrush_size)*0.89)
993         yscaled ((tsu_punct_size+tsu_pbrush_size*tsu_pbrush_shape)*0.89)
994         rotated tsu_pbrush_angle
995         shifted (210,40)
996         rotatedaround ((250,390),180));
997 else:
998     push_stroke(fullcircle scaled tsu_punct_size shifted (210,40)
999         rotatedaround ((250,390),180),
1000         (1,1)..(2,2)..(2,2)..(1,1));
1001     if tsu_pbrush_size>=30:
1002         push_lcblob(get_strokep(0));
1003     fi;
1004 fi;
1005 r:=tsu_punct_size/2;
1006
```

```

1007   push_stroke((210,300){right}..(210,300-r){left}..
1008           (210,300+r)..(210+2.5*r,750)..
1009           tension 1.3..(210-2.5*r,750+r)..
1010           (210-2.5*r,750-r){right}..
1011           (210-2.5*r,750){left},
1012           (0.8,0.8)-(1,1)-(2,2)-(2,2)-(2,2)-(2,2)-(1,1)-(0.8,0.8));
1013   replace_strokep(0)(insert_nodes(oldp)(2.5)
1014           rotatedaround ((210,10),-3) rotatedaround ((250,390),180));
1015
1016   tsu_render;
1017 endtsuglyph;
1018
1019 _____
1020

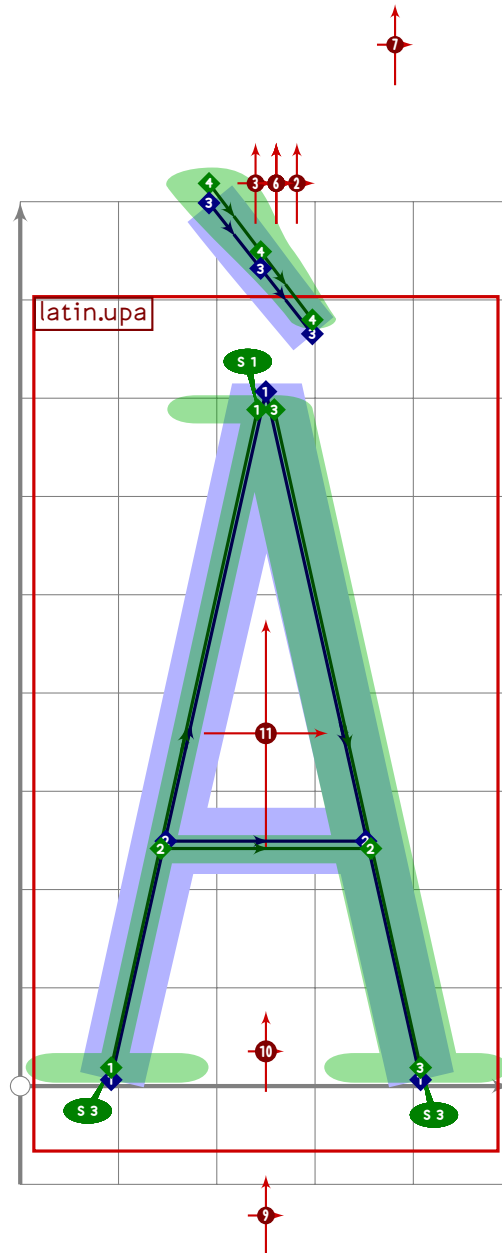
```

## Accented Latin

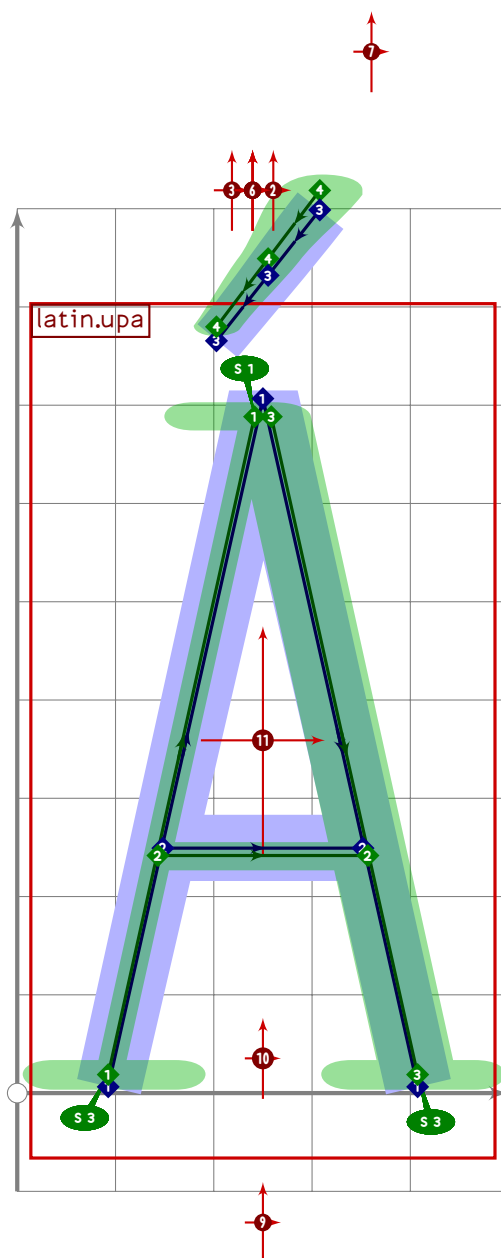
```

1021 % ACCENTED LATIN
1022
1023 % WARNING, setting rescale
1024 tsu_rescale_half;
1025 tsu_accent.up_default_anchors;
1026

```



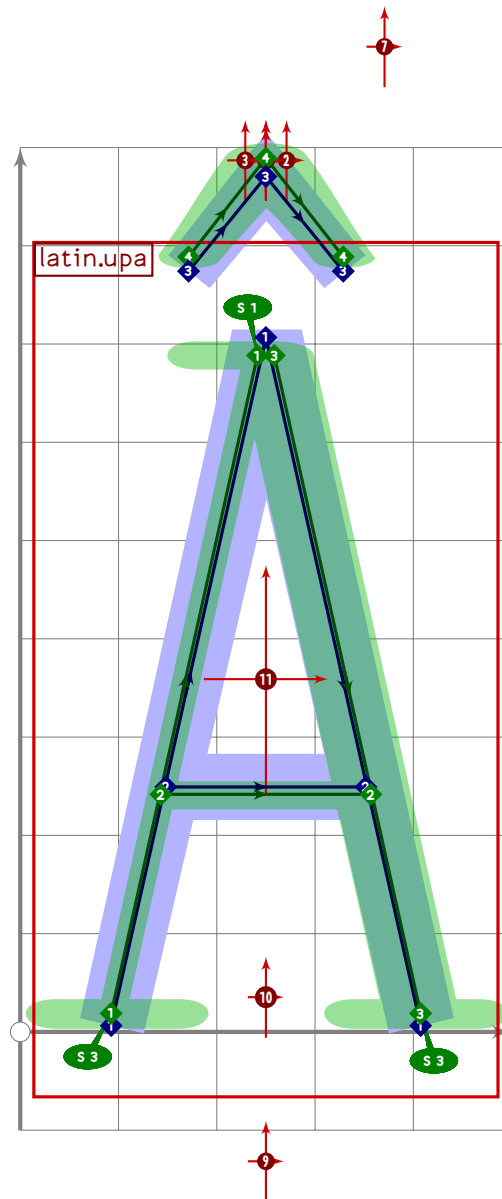
977



```

1033 % A with acute
1034 begintsuglyph("Aacute",193);
1035   tsu_accent.apply(tsu_accent.capital(latin.upa))(tsu_accent.acute);
1036   tsu_render;
1037 endtsuglyph;
1038

```



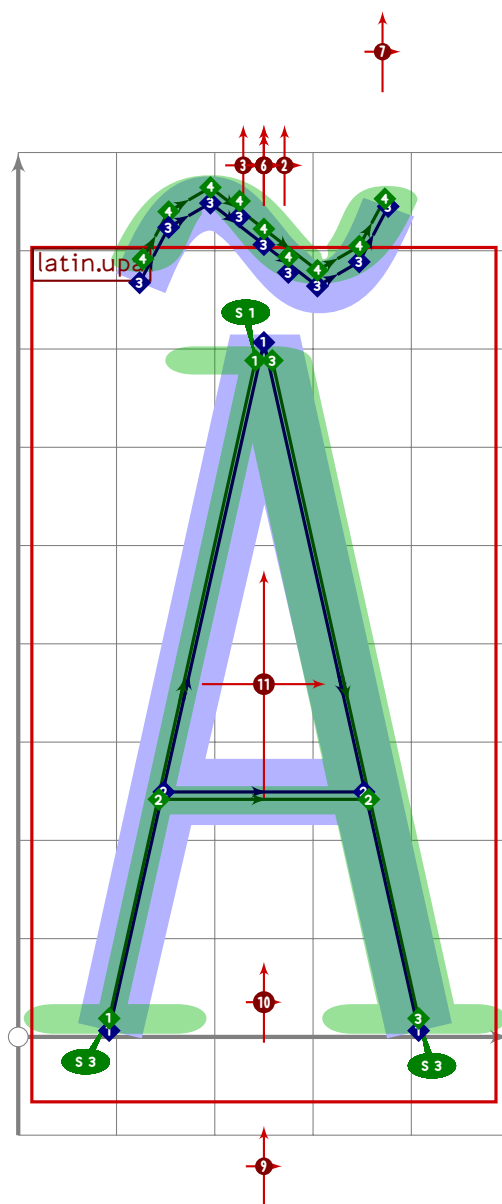
```

1039 % A with circumflex
1040 begint Suglyph("Acircumflex";194);
1041   tsu_accent.apply(tsu_accent.capital(latin.upa))(tsu_accent.circumflex);
1042   tsu_render;
1043 endtsuglyph;
1044

```

U+00C3  
tsuku.Atilde

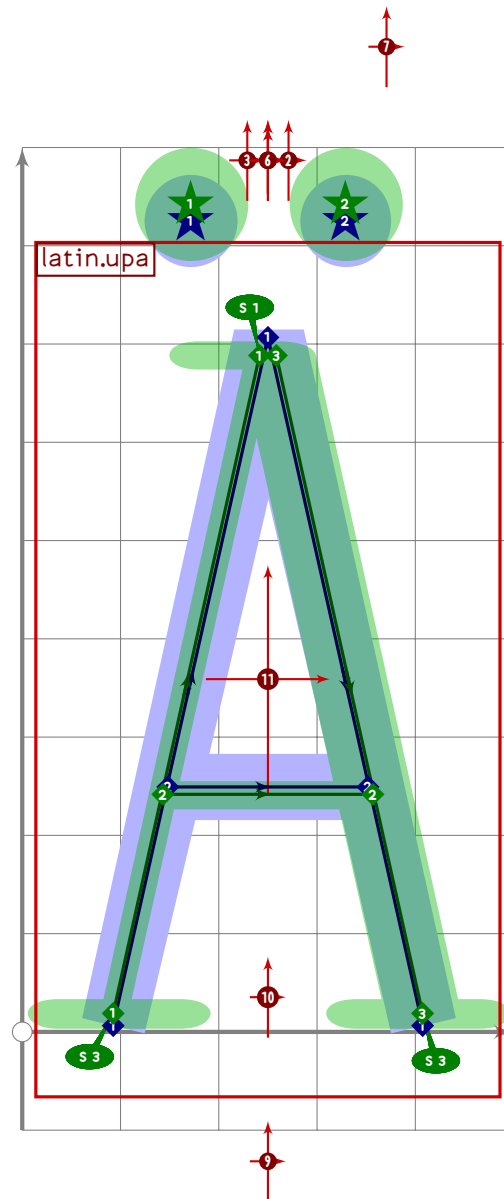
00



```

1045 % A with tilde
1046 begintsuglyph("Atilde",195);
1047   tsu_accent.apply(tsu_accent.capital(latin.upa))(tsu_accent.tilde);
1048   tsu_render;
1049 endtsuglyph;
1050

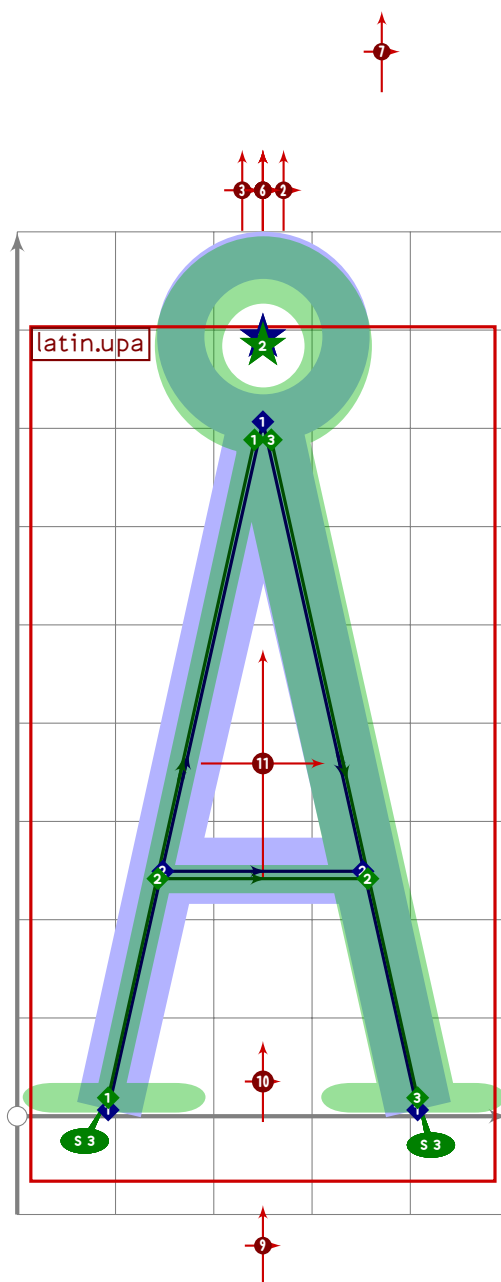
```



```

1051 % A with dieresis/umlaut
1052 begintsuglyph("Adieresis",196);
1053   tsu_accent.apply(tsu_accent.capital(latin.upa))(tsu_accent.umlaut);
1054   tsu_render;
1055 endtsuglyph;
1056

```



```

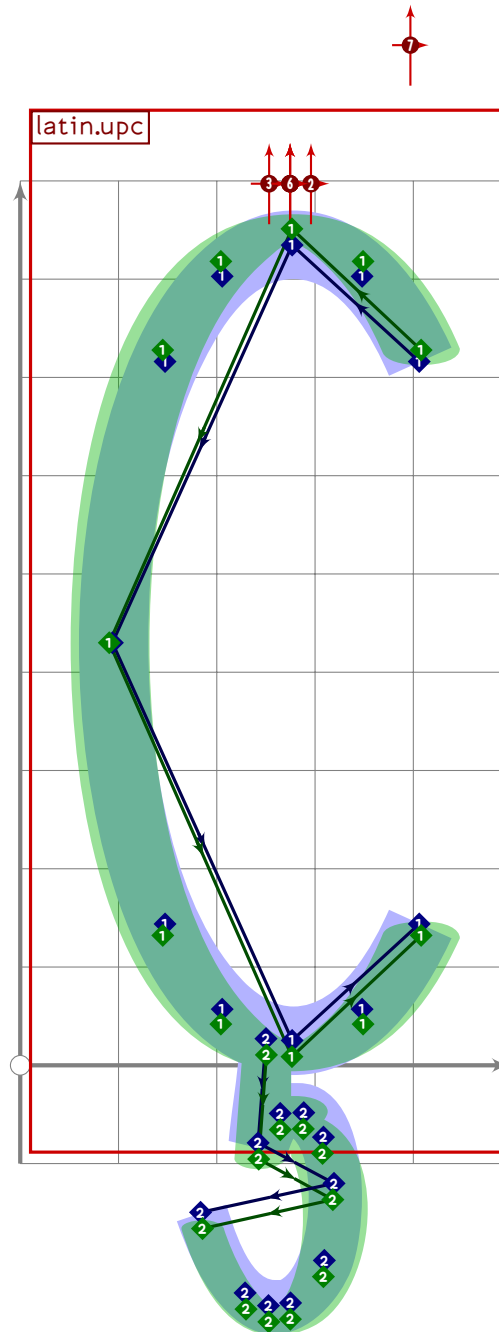
1057 % A with ring above
1058 begintsuglyph("Aring";197);
1059   tsu_accent.apply(tsu_accent.capital(latin.upa))(tsu_accent.ringabove);
1060   if do_alteration:
1061     set_boserif(-2,1,whatever);
1062   else:
1063     set_boserif(-1,1,whatever);
1064   fi;
1065   tsu_render;
1066 endtsuglyph;
1067
1068 % AE ligature
1069 begintsuglyph("AE";198);

```

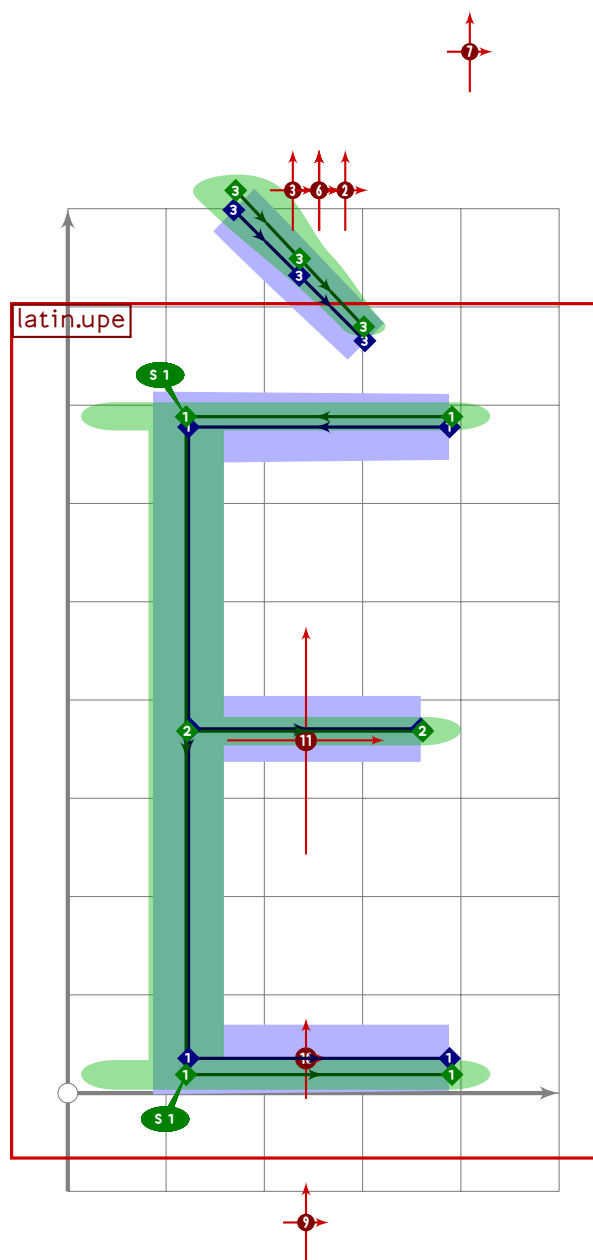
[see page 254]



```
1070 latin.upae;
1071 tsu_render;
1072 endtsuglyph;
1073
```



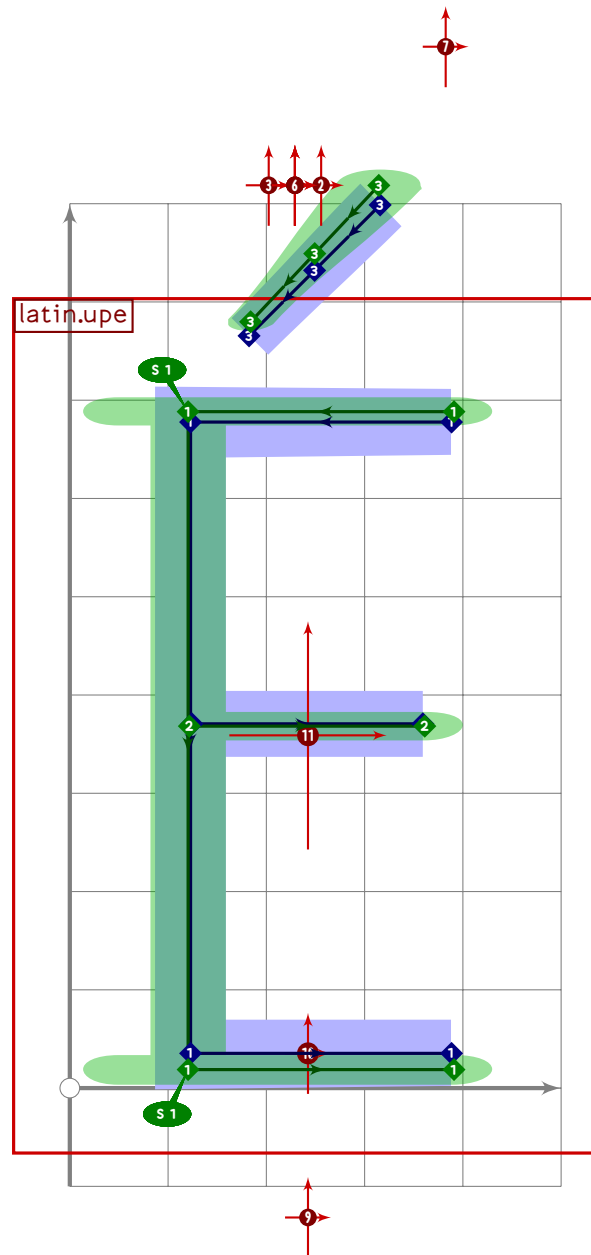
```
1074 % C with cedilla
1075 begint Suglyph("Ccedilla",199);
1076 tsu_accent.apply(latin.upc)(tsu_accent.cedilla);
1077 tsu_render;
1078 endtsuglyph;
1079
```



```

1080 % E with grave
1081 begintsuglyph("Egrave";200);
1082 tsu_accent.apply(tsu_accent.capital(latin.upe))(tsu_accent.grave);
1083 tsu_render;
1084 endtsuglyph;
1085

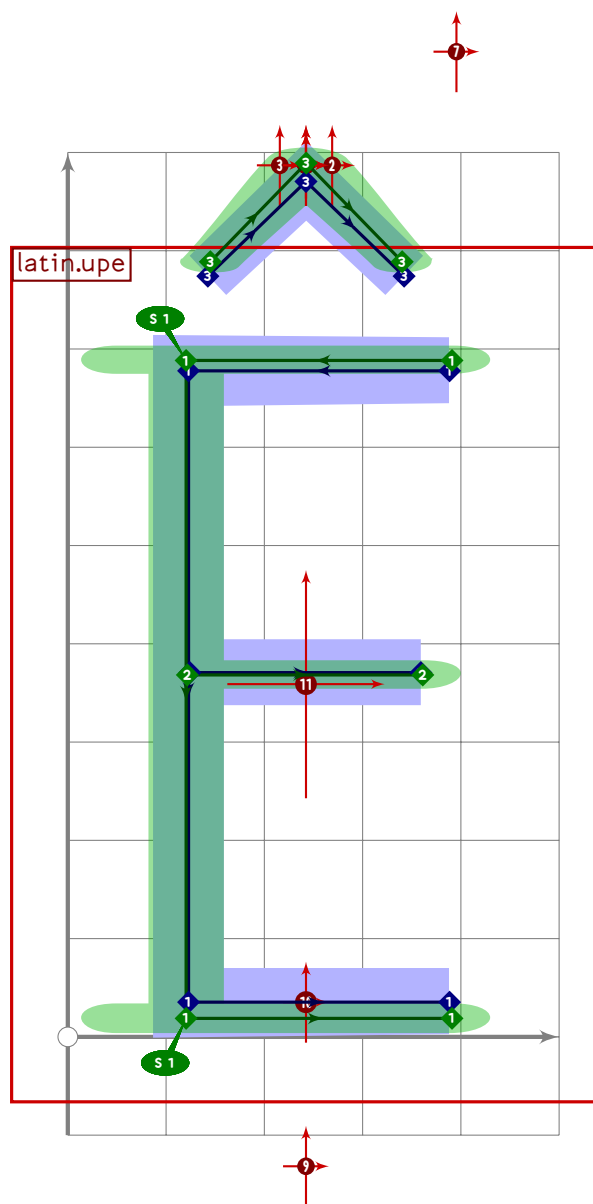
```



```

1086 % E with acute
1087 begintsuglyph("Eacute";201);
1088   tsu_accent.apply(tsu_accent.capital(latin.upe))(tsu_accent.acute);
1089   tsu_render;
1090 endtsuglyph;
1091

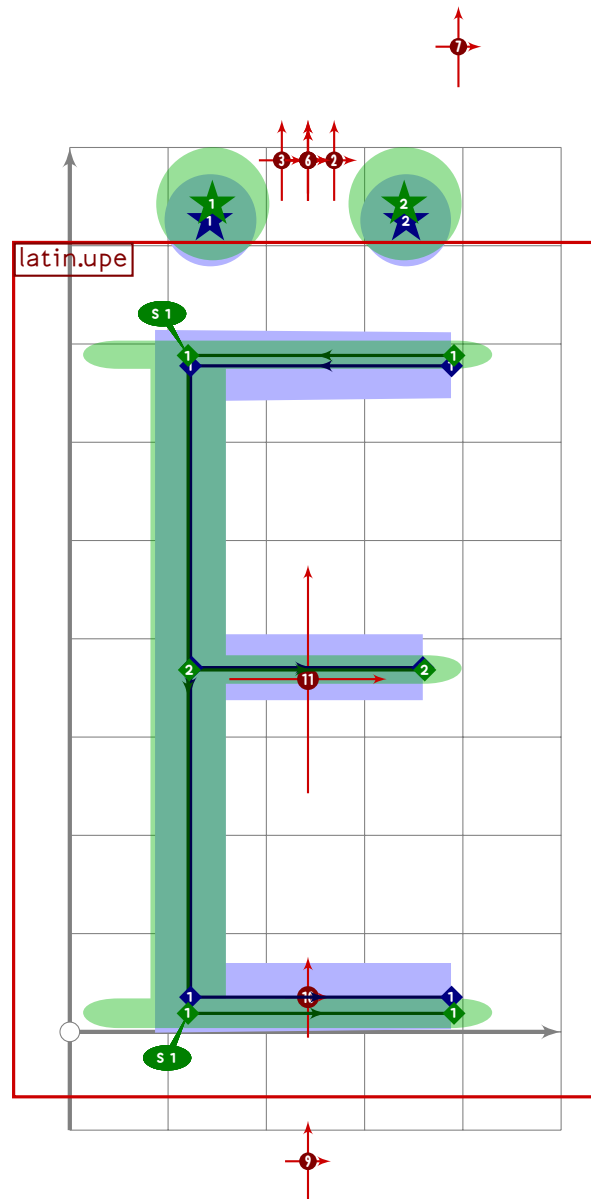
```



```

1092 % E with circumflex
1093 begint Suglyph("Ecircumflex";202);
1094   tsu_accent.apply(tsu_accent.capital(latin.upe))(tsu_accent.circumflex);
1095   tsu_render;
1096 endtsuglyph;
1097

```



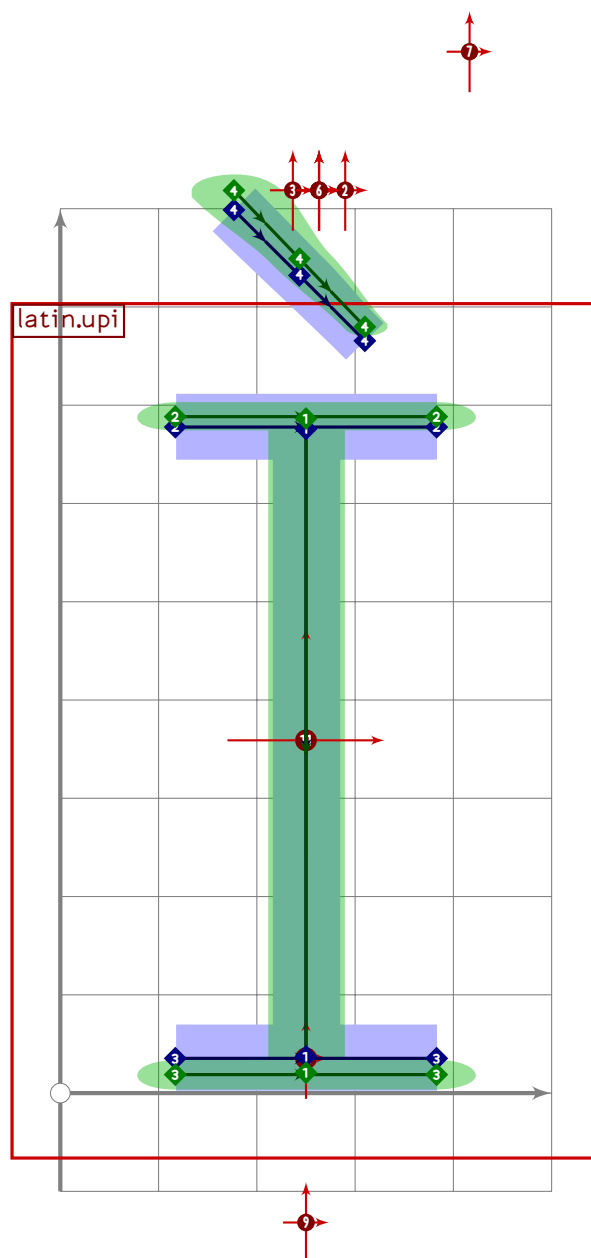
```

1098 % E with dieresis/umlaut
1099 begint Suglyph("Edieresis",203);
1100   tsu_accent.apply(tsu_accent.capital(latin.upe))(tsu_accent.umlaut);
1101   tsu_render;
1102 endtsuglyph;
1103

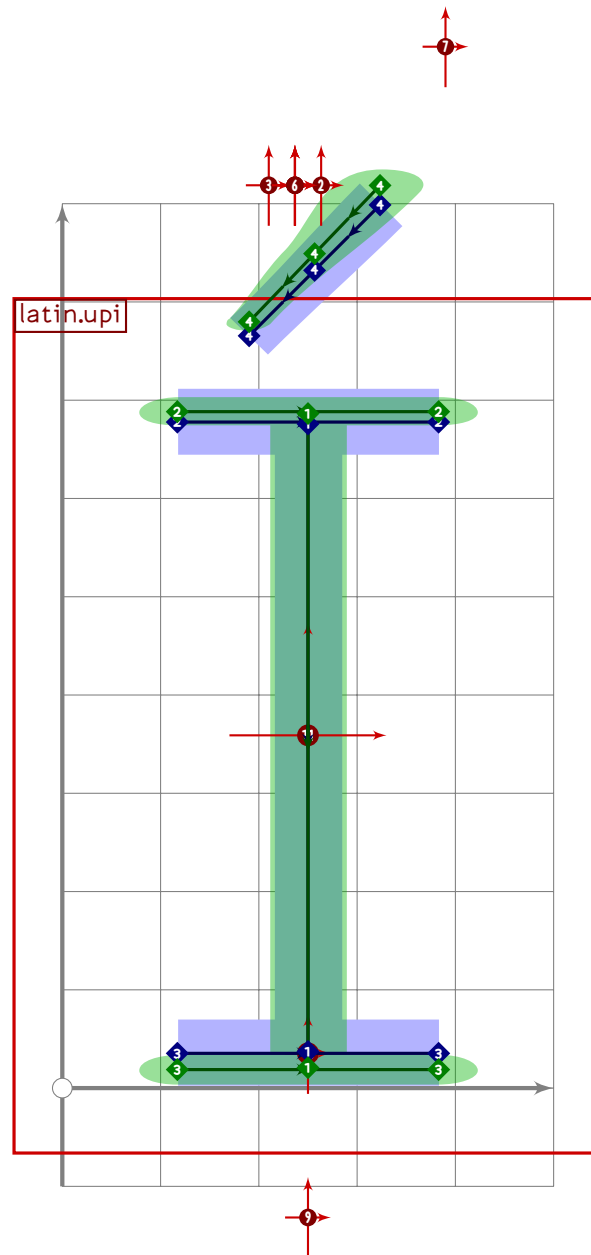
```

U+00CC  
tsuku.Igrave

00



```
1104 % I with grave
1105 begint Suglyph("Igrave";204);
1106 tsu_accent.apply(tsu_accent.capital(latin.upi))(tsu_accent.grave);
1107 tsu_render;
1108 endtsuglyph;
1109
```

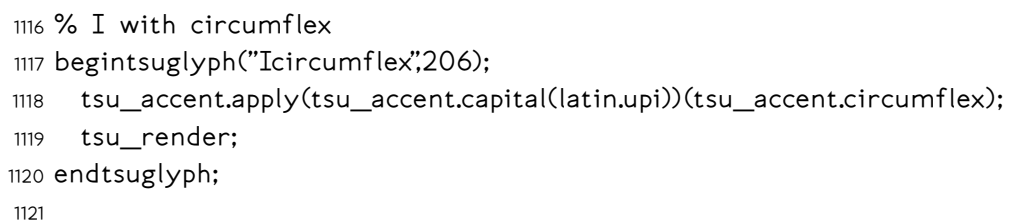


```

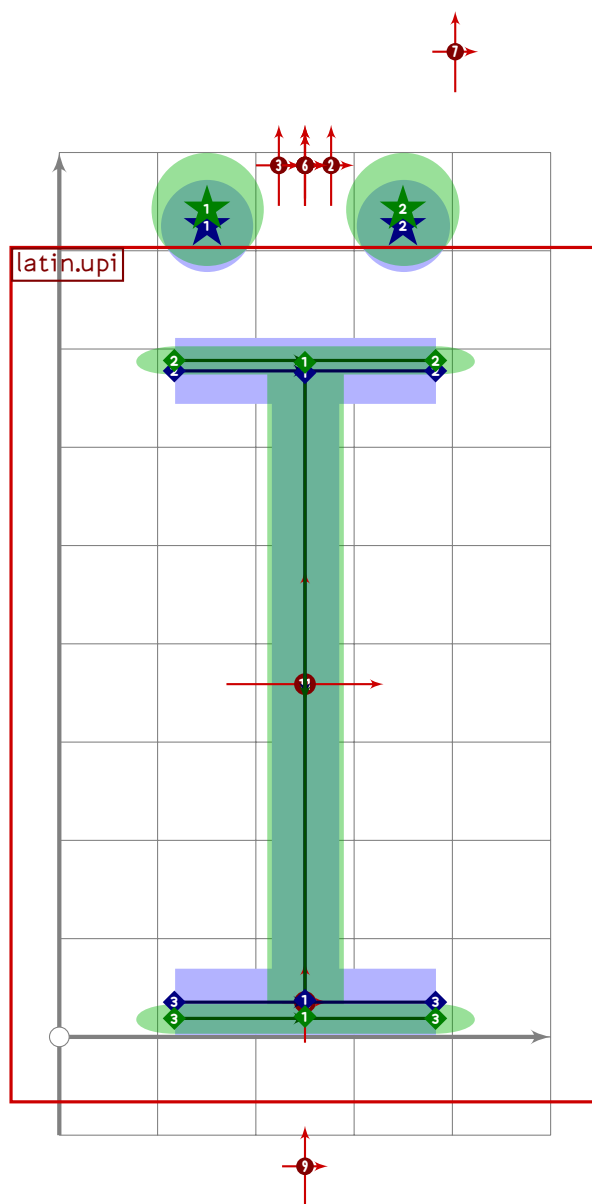
1110 % I with acute
1111 begint Suglyph("Iacute";205);
1112   tsu_accent.apply(tsu_accent.capital(latin.upi))(tsu_accent.acute);
1113   tsu_render;
1114 endtsuglyph;
1115

```

00







```

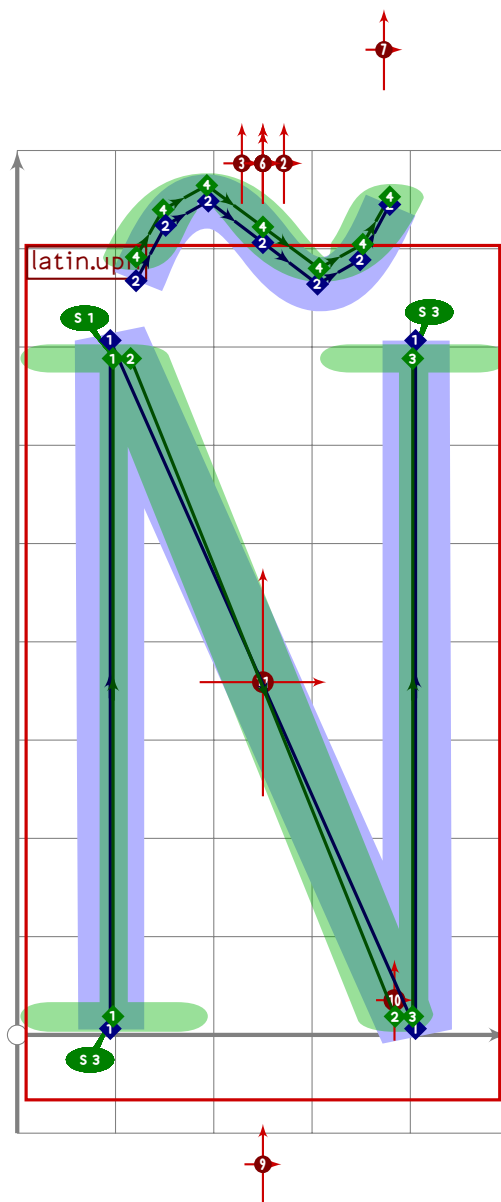
1122 % I with dieresis/umlaut
1123 begintsuglyph("Idieresis",207);
1124 tsu_accent.apply(tsu_accent.capital(latin.upi))(tsu_accent.umlaut);
1125 tsu_render;
1126 endtsuglyph;
1127
1128 % uppercase Icelandic Eth
1129 begintsuglyph("Eth",208);
1130 latin.upeth;
1131 tsu_render;
1132 endtsuglyph;
1133

```

[see page 260]

U+00D1  
tsuku.Ntilde

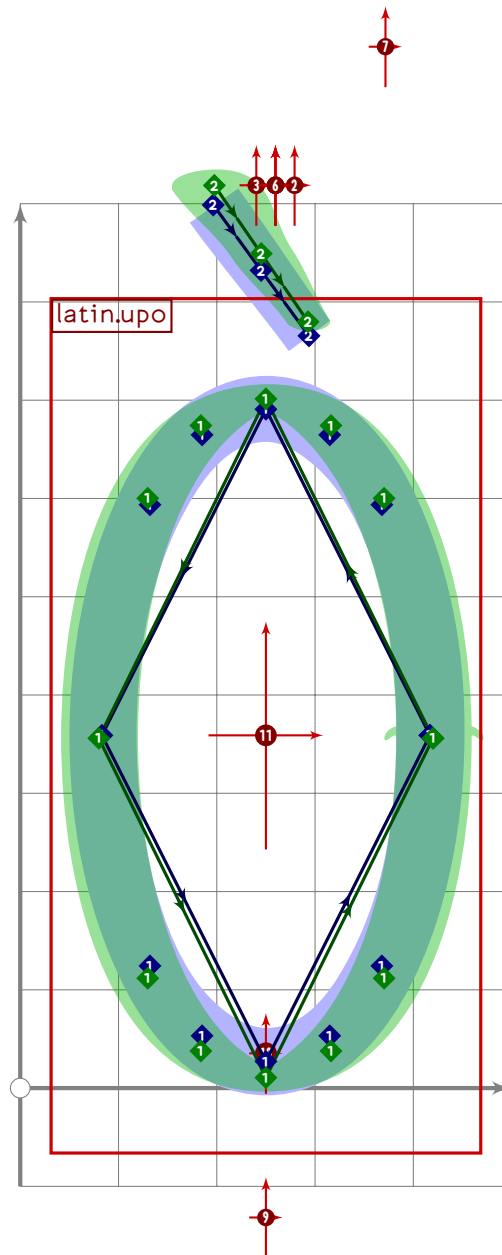
00



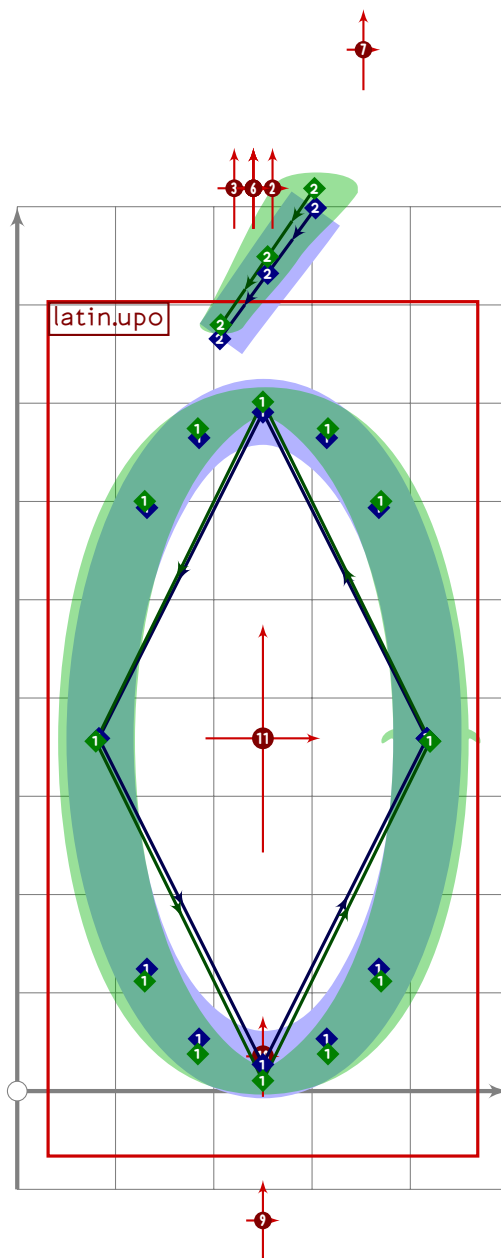
```

1134 % N with tilde
1135 begint Suglyph("Ntilde",209);
1136   tsu_accent.apply(tsu_accent.capital(latin.upn))(tsu_accent.tilde);
1137   tsu_render;
1138 endtsuglyph;
1139

```



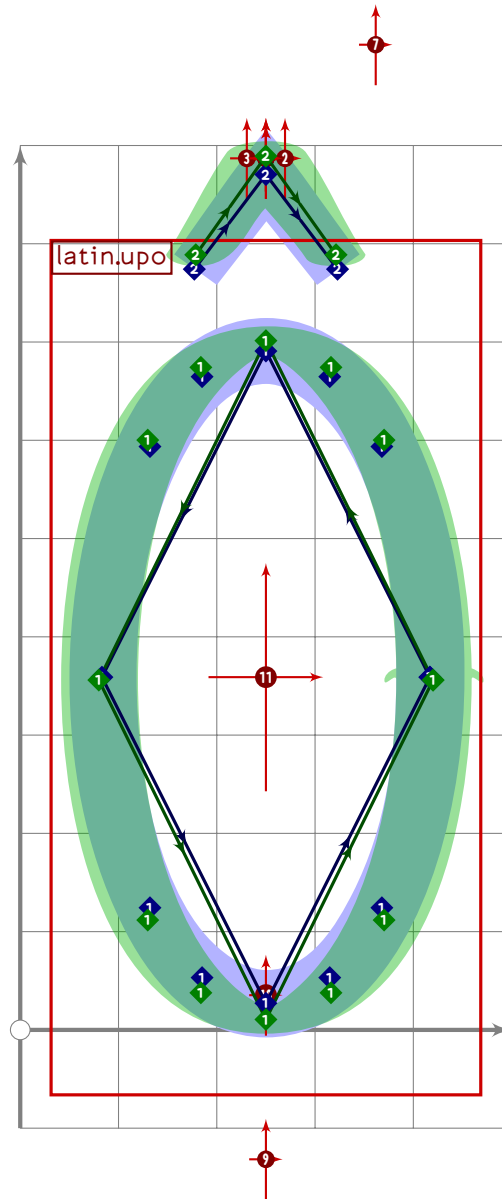
993



```

1146 % O with acute
1147 begintsuglyph("Oacute";211);
1148   tsu_accent.apply(tsu_accent.capital(latin.upo))(tsu_accent.acute);
1149   tsu_render;
1150 endtsuglyph;
1151

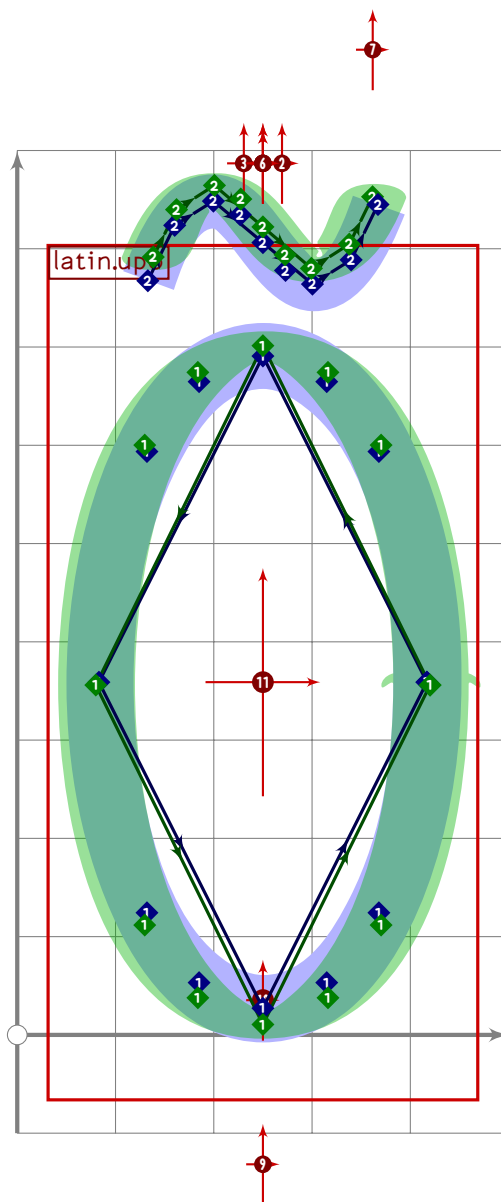
```



```

1152 % O with circumflex
1153 begint Suglyph("Ocircumflex",212);
1154   tsu_accent.apply(tsu_accent.capital(latin.upo))(tsu_accent.circumflex);
1155   tsu_render;
1156 endtsuglyph;
1157

```



```

1158 % O with tilde
1159 begintsuglyph("Otilde",213);
1160   tsu_accent.apply(tsu_accent.capital(latin.upo))(tsu_accent.tilde);
1161   tsu_render;
1162 endtsuglyph;
1163

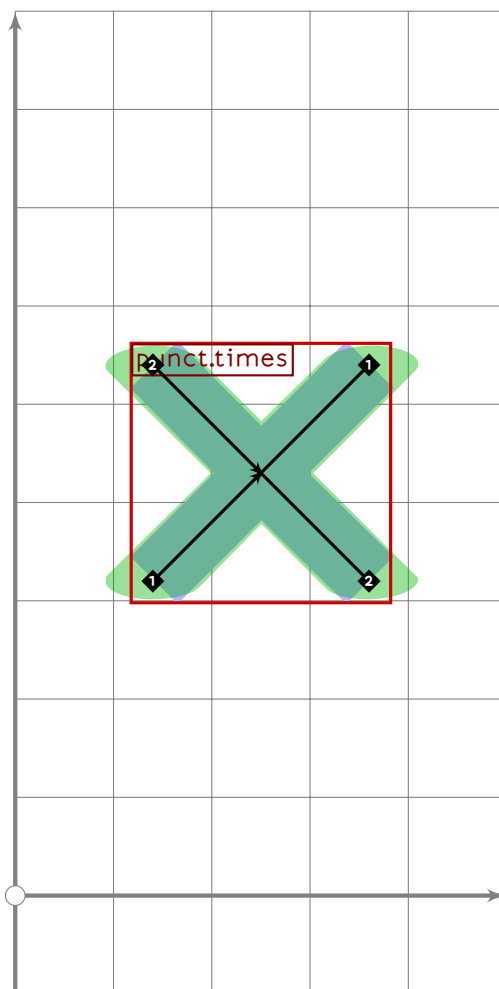
```



997

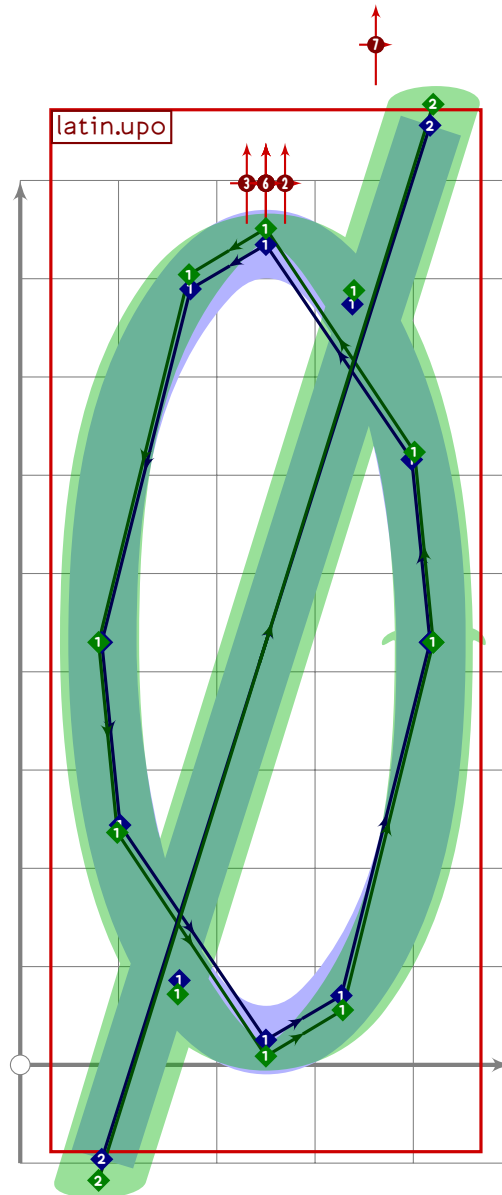
U+00D7  
tsuku.multiply

00



```
1173 begintsuglyph("multiply";215);
1174   punct.times(ascii_punct_xf);
1175   tsu_render;
1176 endtsuglyph;
1177 tsu_rescale_half;
1178 tsu_accent.up_default_anchors;
1179
```





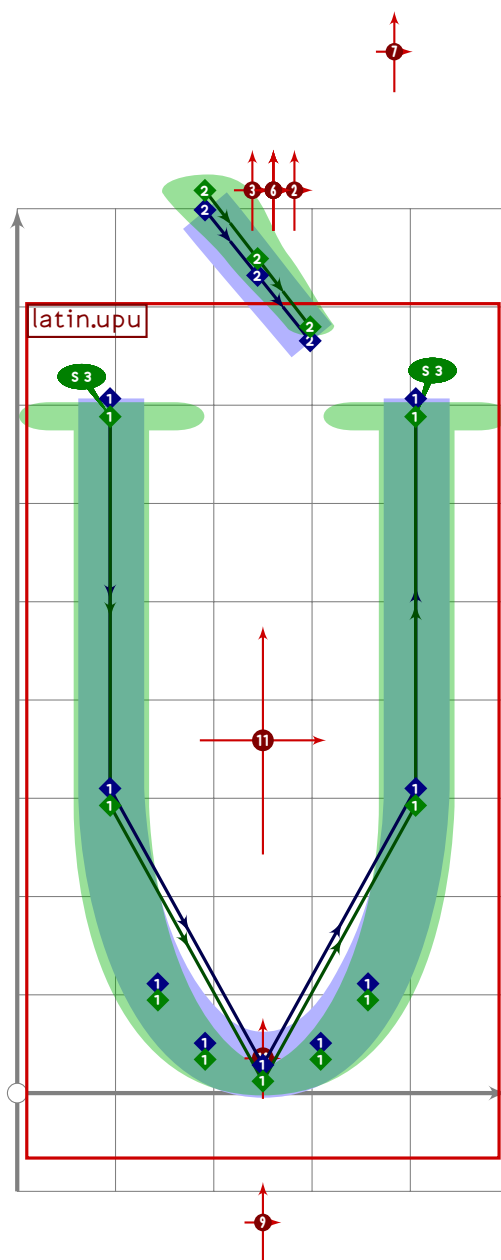
```

1180 % O with stroke
1181 begintsuglyph("Oslash";216);
1182 tsu_accent.apply(latin.upo)(tsu_accent.slash);
1183 replace_strokep(-1)(insert_nodes(oldp)(0.3,1.3,2.3,3.3));
1184 replace_strokeq(-1)(insert_nodes(oldq)(0.3,1.3,2.3,3.3));
1185 tsu_render;
1186 endtsuglyph;
1187

```

U+00D9  
tsuku.Ugrave

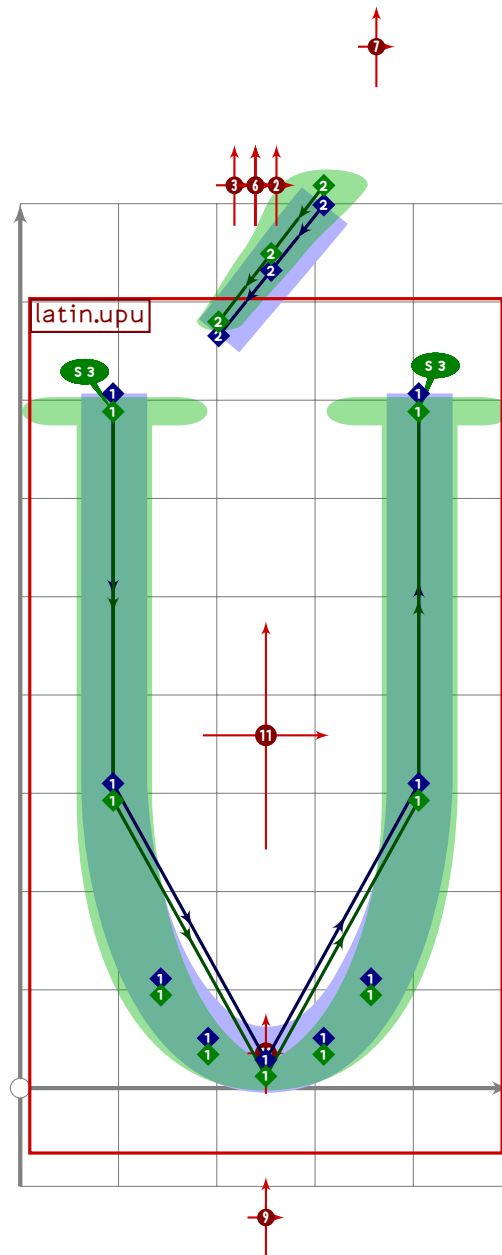
00



```

1188 % U with grave
1189 begintsuglyph("Ugrave";217);
1190 tsu_accent.apply(tsu_accent.capital(latin.upu))(tsu_accent.grave);
1191 tsu_render;
1192 endtsuglyph;
1193

```



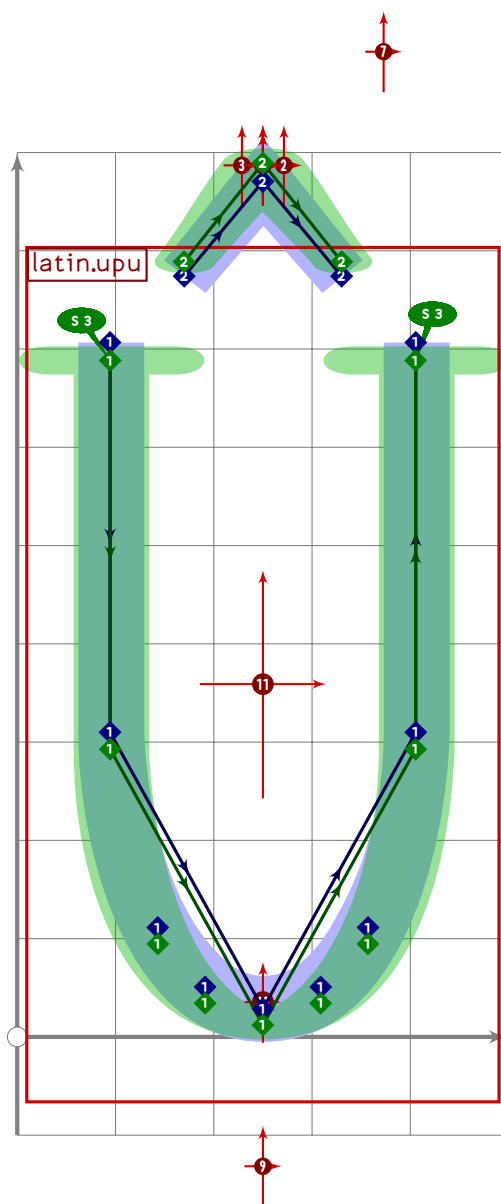
```

1194 % U with acute
1195 begint Suglyph("Uacute";218);
1196   tsu_accent.apply(tsu_accent.capital(latin.upu))(tsu_accent.acute);
1197   tsu_render;
1198 endtsuglyph;
1199

```

U+00DB  
tsuku.Ucircumflex

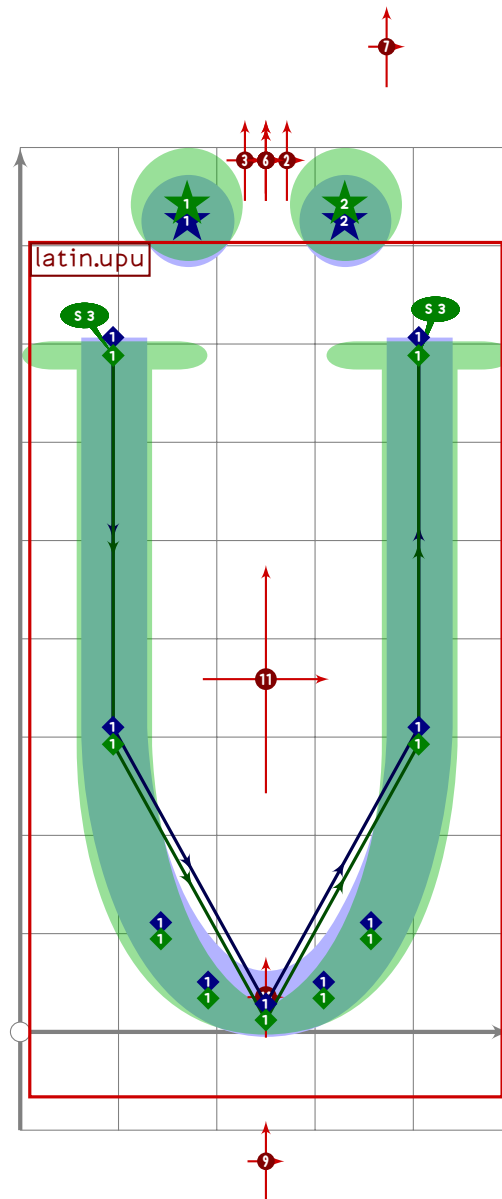
00



```

1200 % U with circumflex
1201 begint Suglyph("Ucircumflex",219);
1202   tsu_accent.apply(tsu_accent.capital(latin.upu))(tsu_accent.circumflex);
1203   tsu_render;
1204 endtsuglyph;
1205

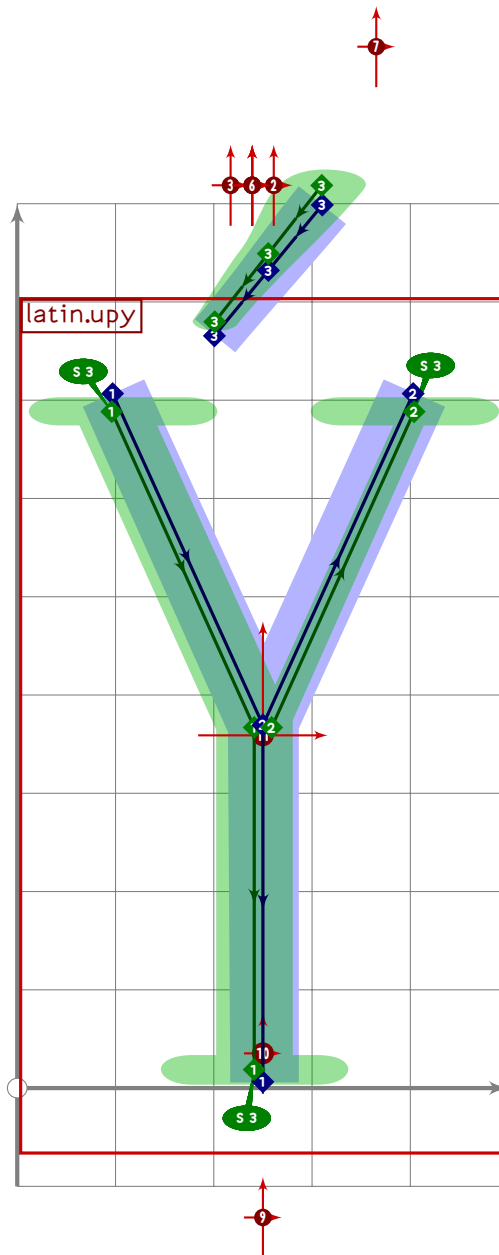
```



```

1206 % U with dieresis/umlaut
1207 begintsuglyph("Udiereis",220);
1208   tsu_accent.apply(tsu_accent.capital(latin.upu))(tsu_accent.umlaut);
1209   tsu_render;
1210 endtsuglyph;
1211

```



```

1212 % Y with acute
1213 begintsuglyph("Yacute";221);
1214 tsu_accent.apply(tsu_accent.capital(latin.upy))(tsu_accent.acute);
1215 tsu_render;
1216 endtsuglyph;
1217
1218 % uppercase Thorn
1219 begintsuglyph("Thorn";222);
1220 latin.upthorn;
1221 tsu_render;
1222 endtsuglyph;
1223
1224 tsu_accent.low_default_anchors;
1225

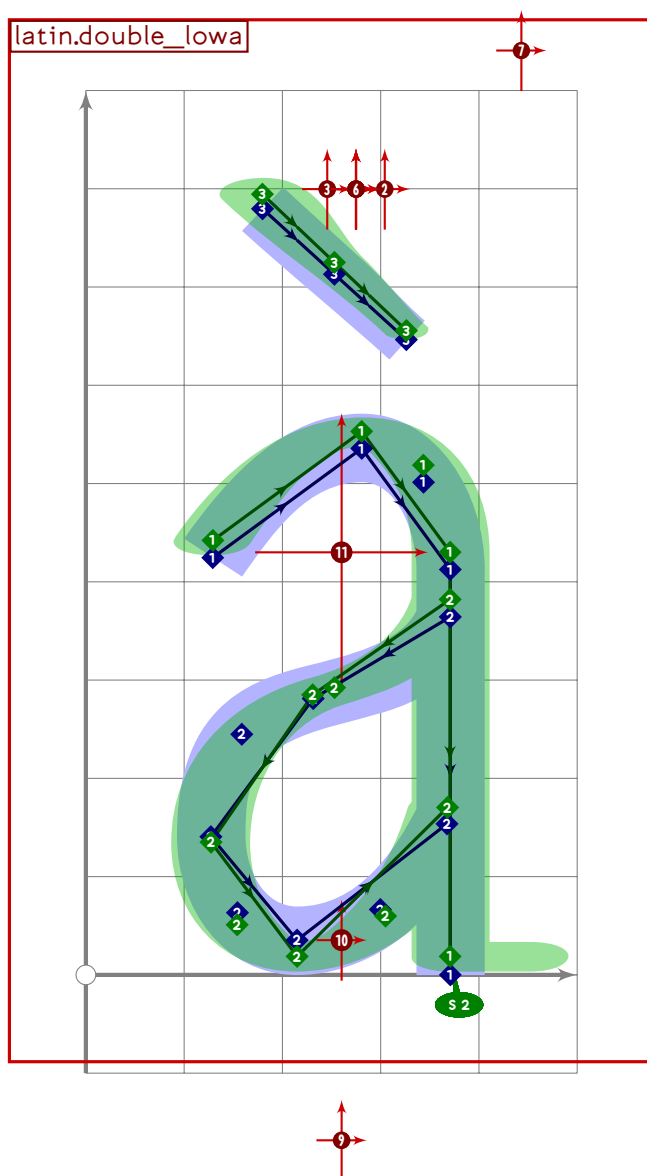
```

[see page 285]

[see page 303]

00

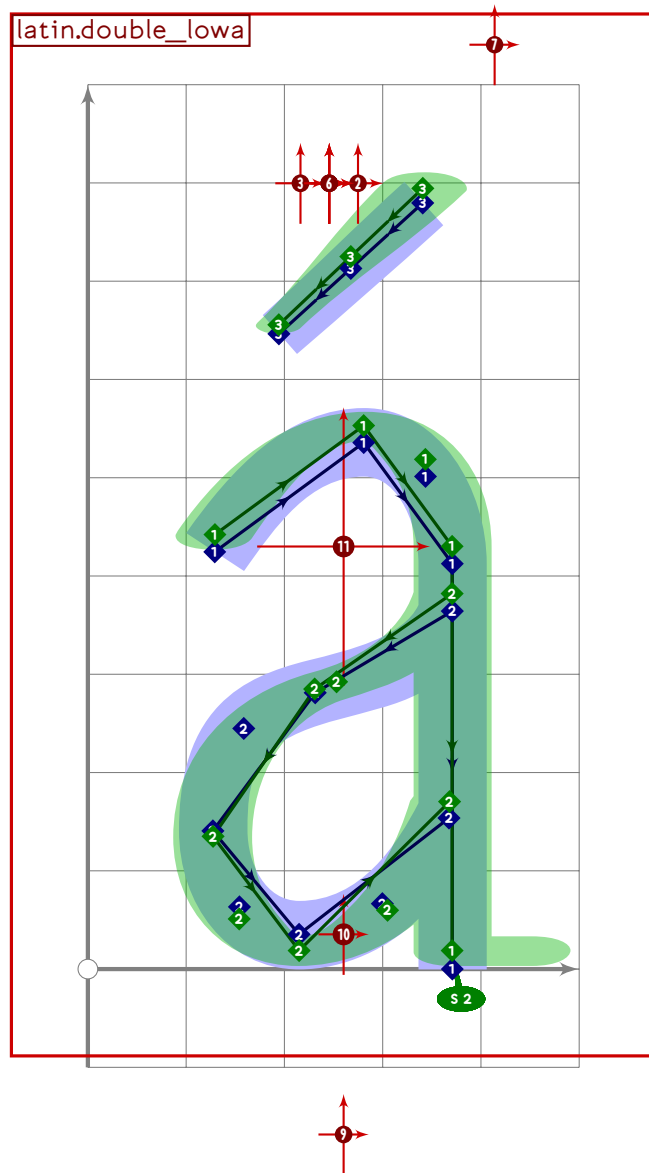
```
1226 % eszett
1227 begintsuglyph("germandbls",223);
1228 latin.loweszett;
1229 tsu_render;
1230 endsuglyph;
1231
```



```
1232 % a with grave
1233 begintsuglyph("agrave",224);
1234 tsu_accent.apply(latin.lowa)(tsu_accent.grave);
1235 tsu_render;
1236 endsuglyph;
1237
```

U+00E1  
tsuku.acute

00

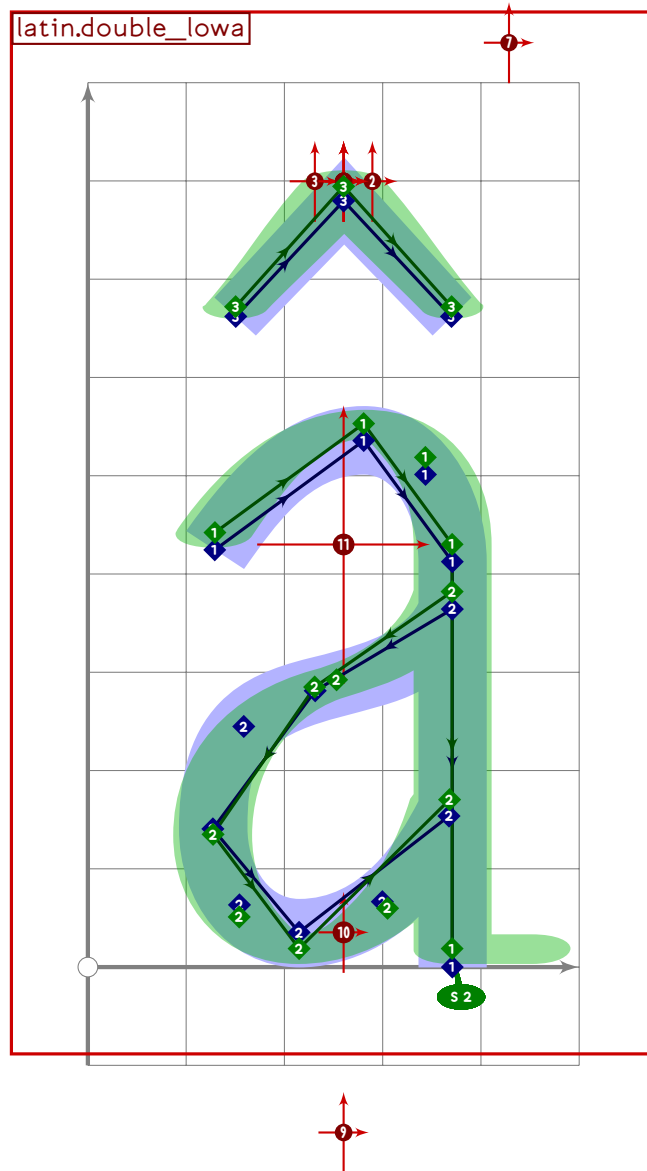


```

1238 % a with acute
1239 begintzuglyph("acute";225);
1240   tsu_accent.apply(latin.lowa)(tsu_accent.acute);
1241   tsu_render;
1242 endtsuglyph;
1243

```





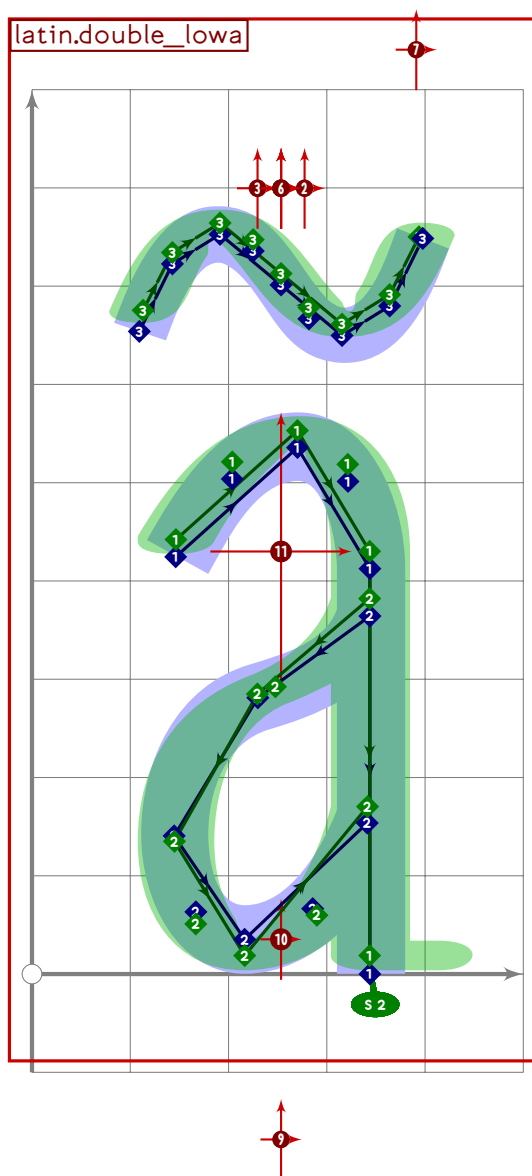
```

1244 % a with circumflex
1245 begint Suglyph("acircumflex";226);
1246   tsu_accent.apply(latin.double_low_a)(tsu_accent.circumflex);
1247   tsu_render;
1248 endtsuglyph;
1249

```

U+00E3  
tsuku.atilde

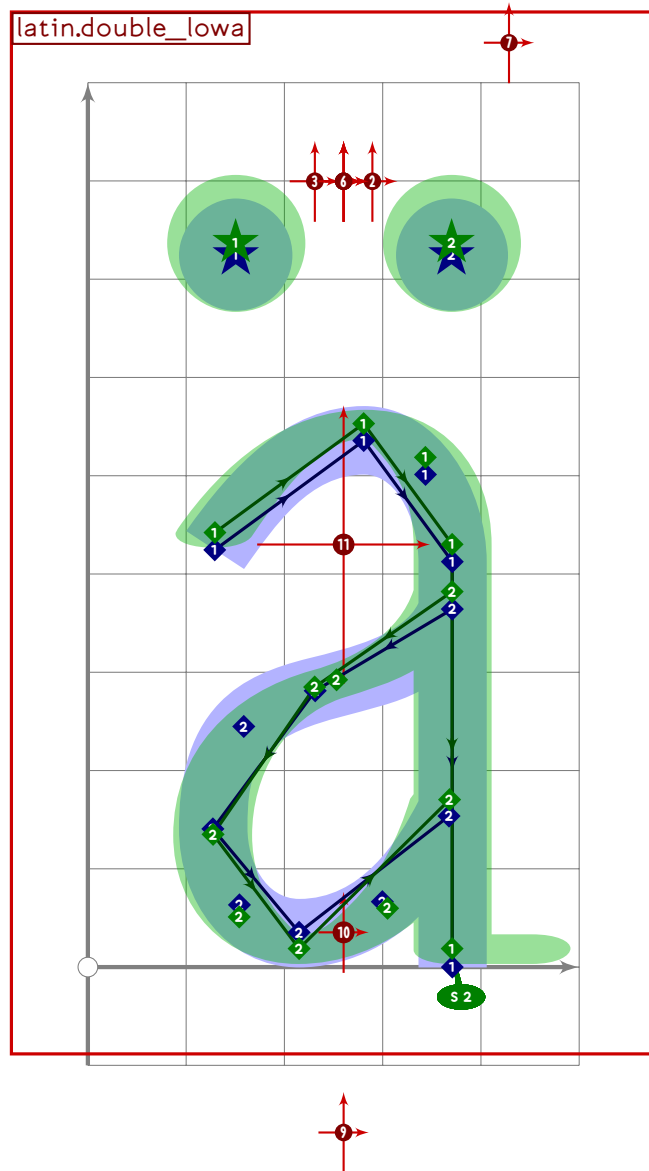
00



```

1250 % a with tilde
1251 begintsuglyph("atilde";227);
1252   tsu_accent.apply(latin.low_a)(tsu_accent.tilde);
1253   tsu_render;
1254 endtsuglyph;
1255

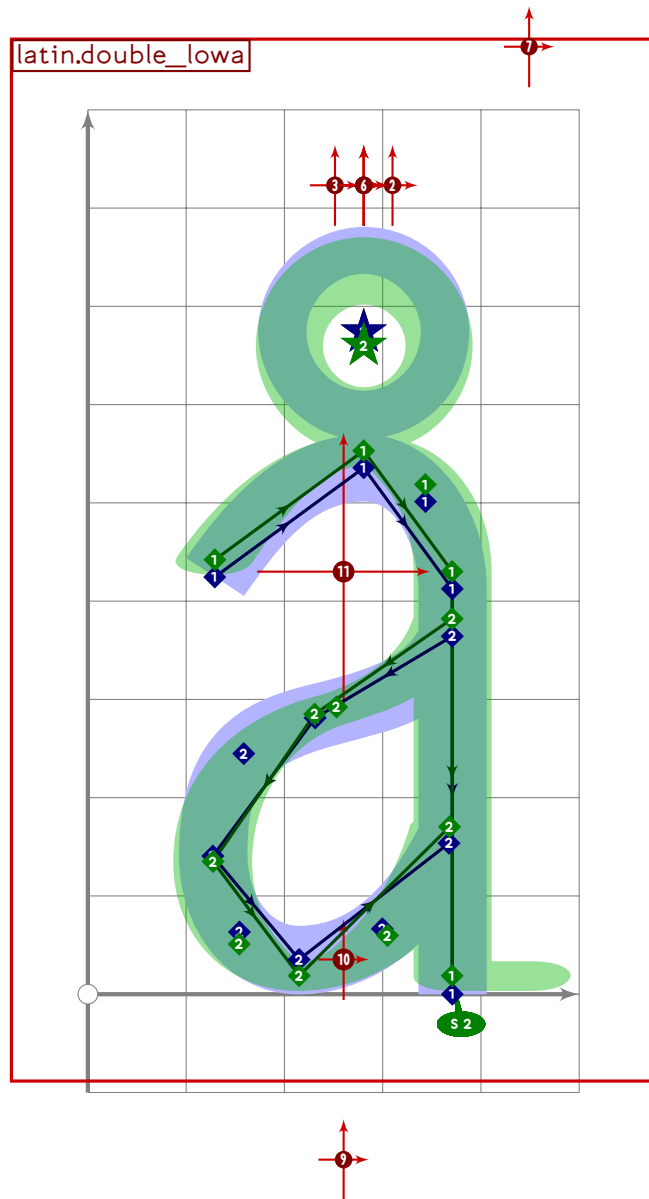
```



```

1256 % a with dieresis/umlaut
1257 begint Suglyph("adieresis",228);
1258   tsu_accent.apply(latin.lowa)(tsu_accent.umlaut);
1259   tsu_render;
1260 endtsuglyph;
1261

```

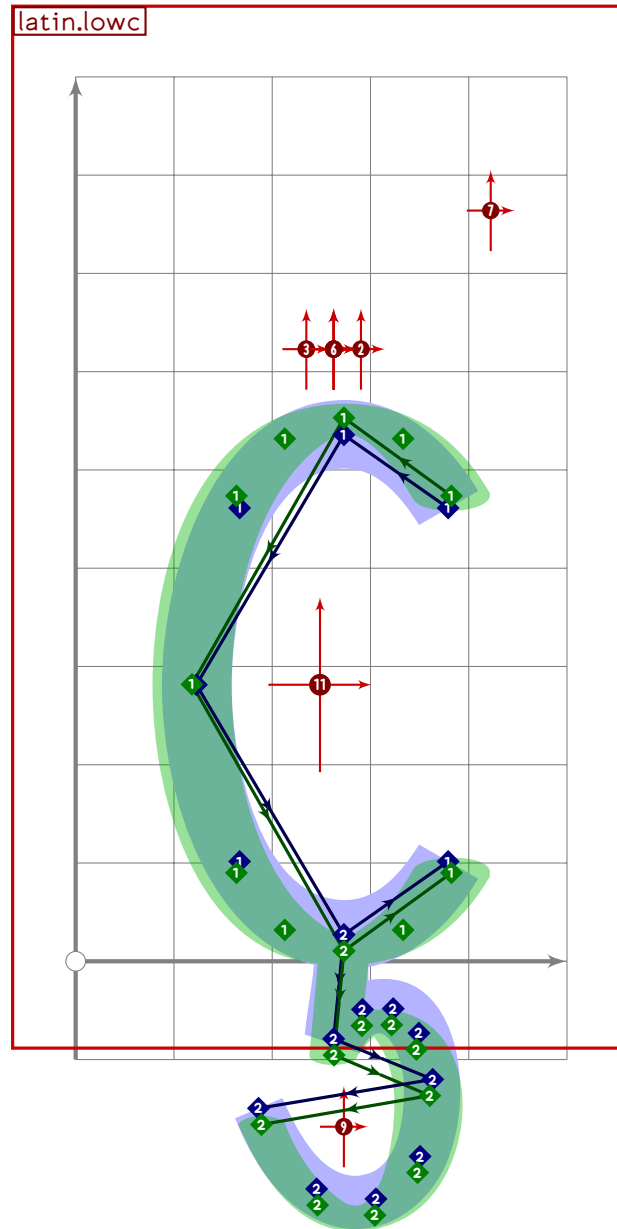


```

1262 % a with ring above
1263 begintsuglyph("aring",229);
1264   tsu_accent.apply(latin.low_a)(tsu_accent.ringabove);
1265   tsu_render;
1266 endtsuglyph;
1267
1268 % ae ligature
1269 begintsuglyph("ae",230);
1270   latin.low_ae;
1271   tsu_render;
1272 endtsuglyph;
1273

```

[see page 296]



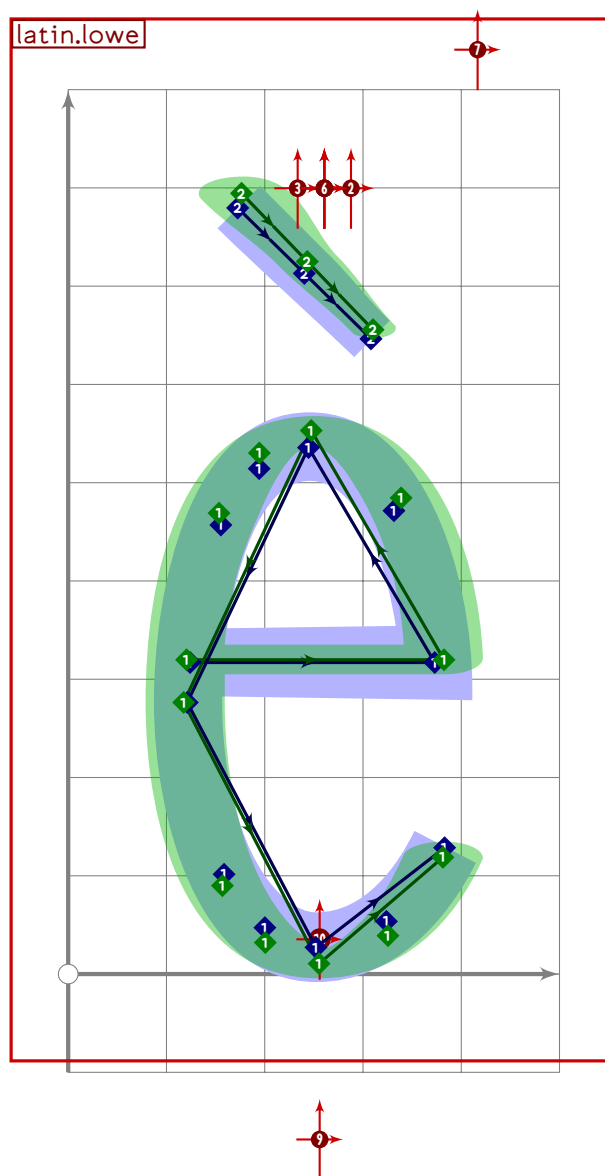
```

1274 % c with cedilla
1275 begintsuglyph("ccedilla";231);
1276   tsu_accent.apply(latin.lowc)(tsu_accent.cedilla);
1277   tsu_render;
1278 endtsuglyph;
1279

```

U+00E8  
tsuku.egrave

00



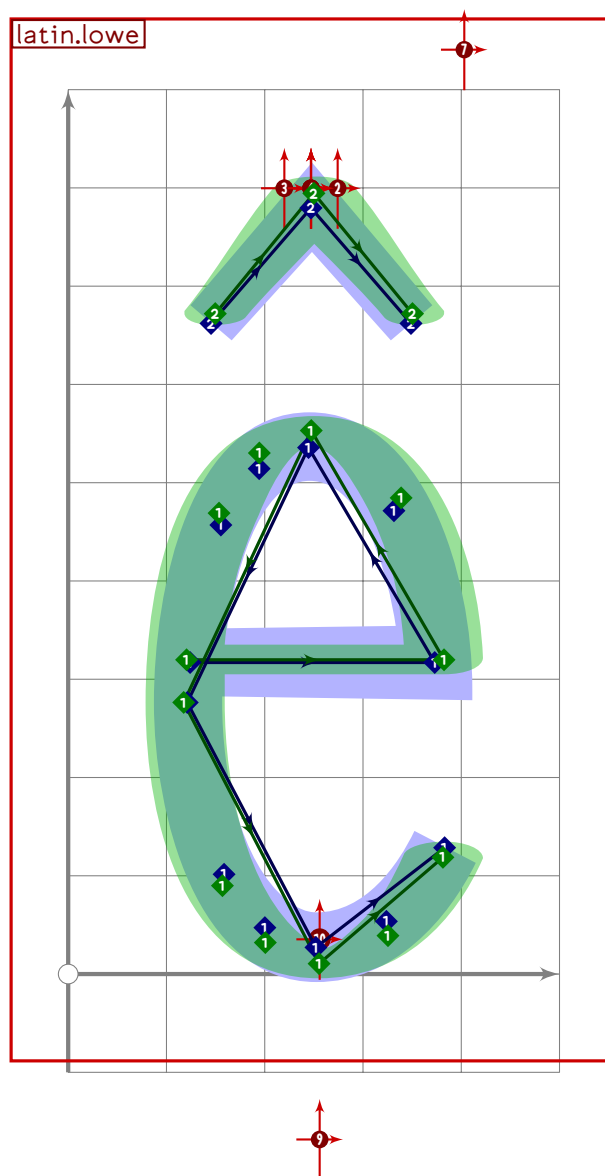
```
1280 % e with grave
1281 begintsuglyph("egrave",232);
1282   tsu_accent.apply(latin.lowe)(tsu_accent.grave);
1283   tsu_render;
1284 endtsuglyph;
1285
```



1291

U+00EA  
tsuku.ecircumflex

00

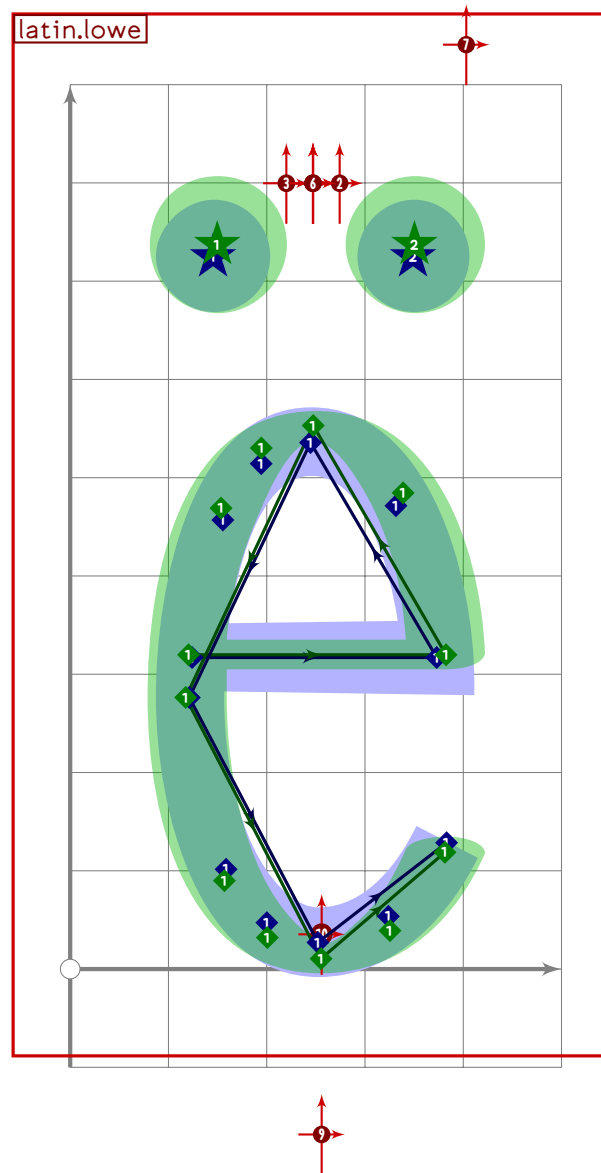


```

1292 % e with circumflex
1293 begintsuglyph("ecircumflex";234);
1294   tsu_accent.apply(latin.lowe)(tsu_accent.circumflex);
1295   tsu_render;
1296 endtsuglyph;
1297

```





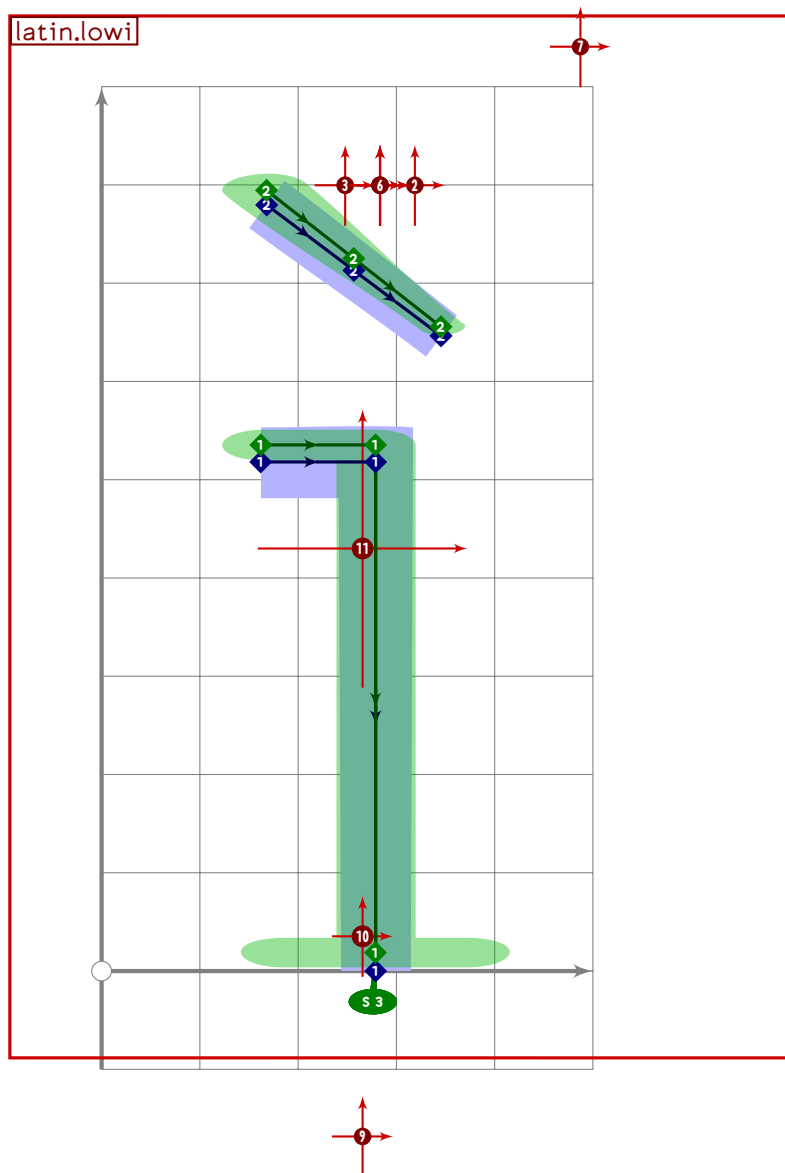
```

1298 % e with dieresis/umlaut
1299 begint Suglyph("edieresis";235);
1300   tsu_accent.apply(latin.lowe)(tsu_accent.umlaut);
1301   tsu_render;
1302 endtsuglyph;
1303

```

U+00EC  
tsuku.igrave

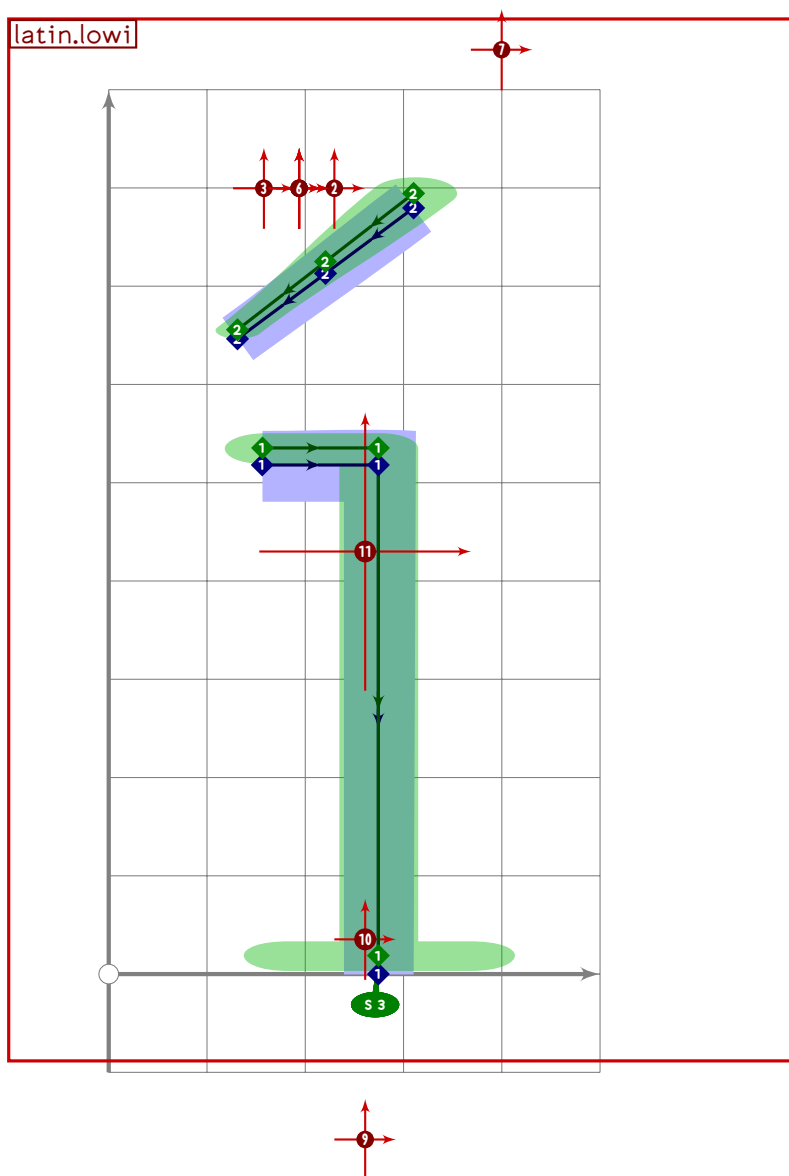
00



```

1304 % i with grave
1305 begintsuglyph("igrave",236);
1306   tsu_accent.apply(
1307     tsu_xform(identity shifted (70,0))(latin.lowi;
1308       tsu_accent.shift_anchors(true)((0,0)));
1309   pop_lcblob;
1310   )(tsu_accent.grave);
1311   tsu_render;
1312 endsuglyph;
1313

```



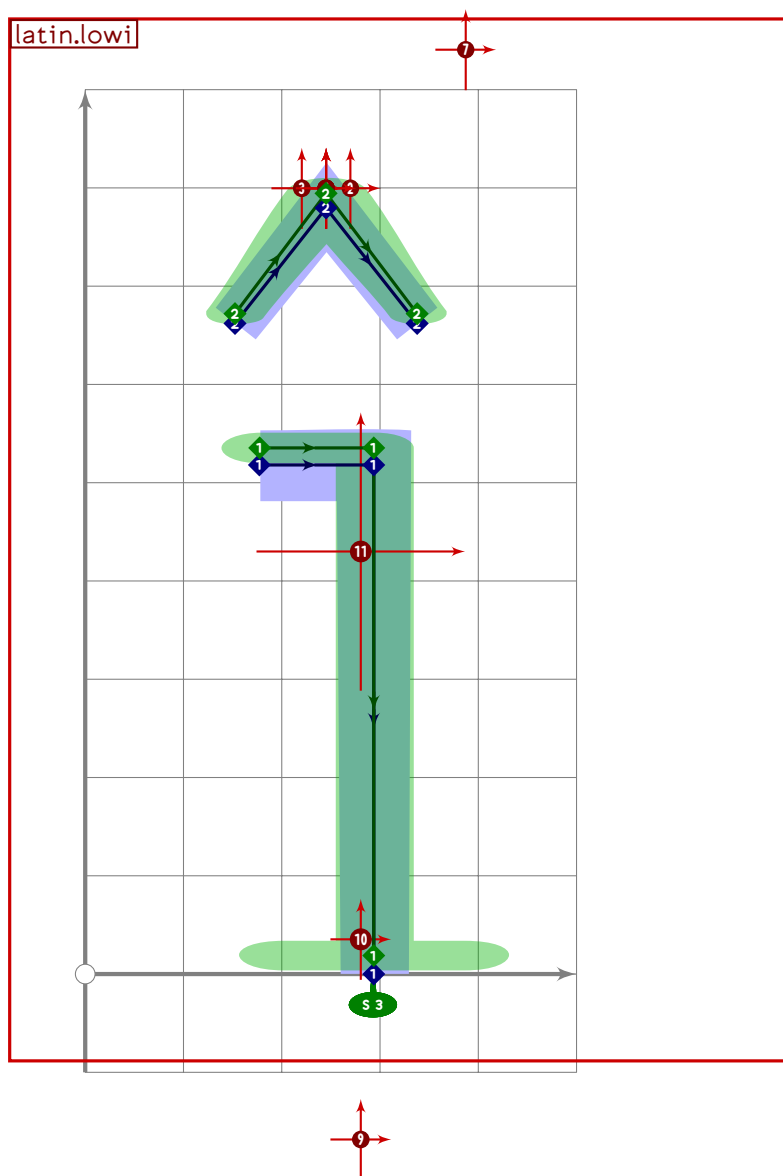
```

1314 % i with acute
1315 begint Suglyph("iacute",237);
1316   tsu_accent.apply(latin.lowi;pop_lcblob)(tsu_accent.acute);
1317   tsu_render;
1318 endtsuglyph;
1319

```

U+00EE  
tsuku.icircumflex

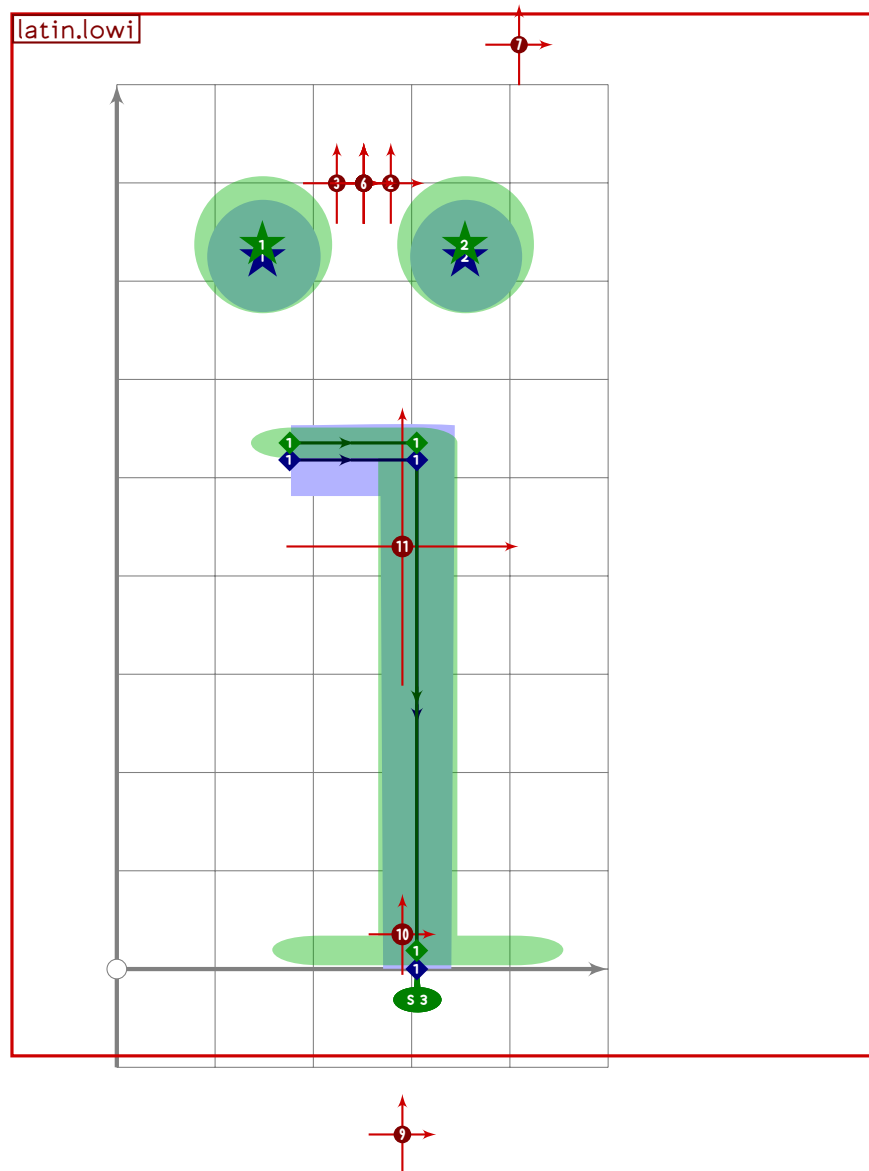
00



```

1320 % i with circumflex
1321 begintsuglyph("icircumflex";238);
1322   tsu_accent.apply(
1323     tsu_xform(identity shifted (70,0))(latin.lowi;
1324       tsu_accent.shift_anchors(true)((0,0)));
1325     pop_lcblob;
1326   )(tsu_accent.circumflex);
1327   tsu_render;
1328 endsuglyph;
1329

```



```

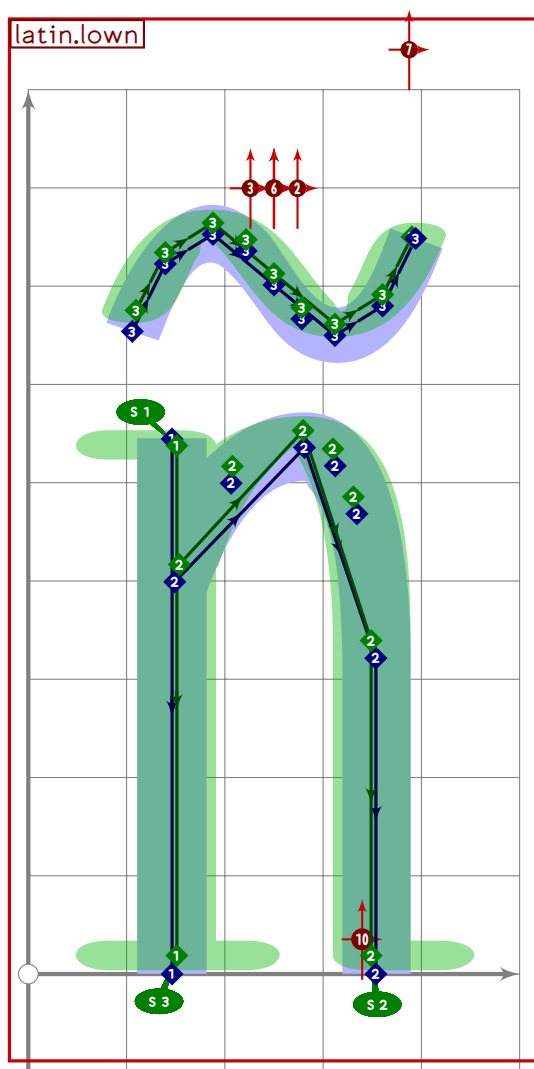
1330 % i with dieresis/umlaut
1331 begintsuglyph("idieresis";239);
1332   tsu_accent.apply(
1333     tsu_xform(identity shifted (70,0))(latin.lowi;
1334       tsu_accent.shift_anchors(true)((0,0)));
1335     pop_lcblob;
1336   )(tsu_accent.umlaut);
1337   tsu_render;
1338 endtsuglyph;
1339
1340 % lowercase Icelandic eth
1341 begintsuglyph("eth";240);
1342   latin.loweth;
1343   tsu_render;
1344 endtsuglyph;
1345

```

[see page 304]

U+00F1  
tsuku.ntilde

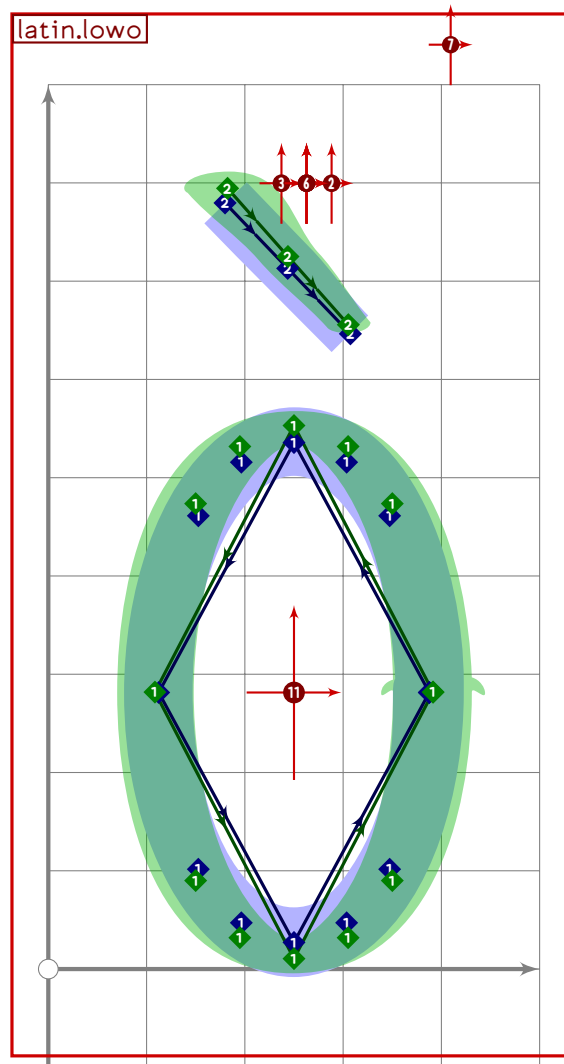
00



```

1346 % n with tilde
1347 begintsuglyph("ntilde",241);
1348 tsu_accent.apply(latin.lown)(tsu_accent.tilde);
1349 tsu_render;
1350 endsuglyph;
1351

```



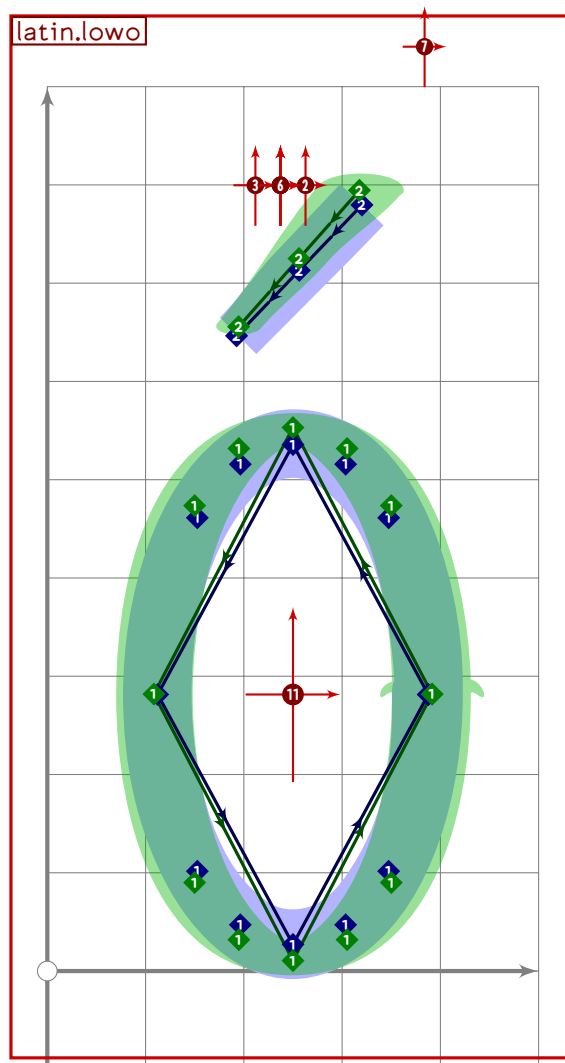
```

1352 % o with grave
1353 begintsuglyph("ograve",242);
1354   tsu_accent.apply(latin.low)(tsu_accent.grave);
1355   tsu_render;
1356 endsuglyph;
1357

```

U+00F3  
tsuku.oacute

00

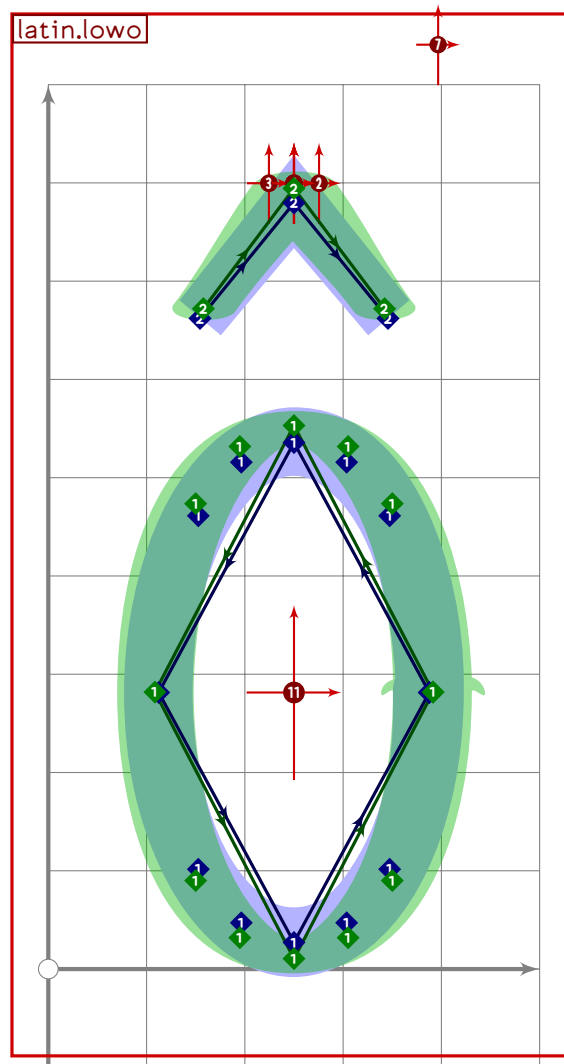


```

1358 % o with acute
1359 begint Suglyph("oacute",243);
1360   tsu_accent.apply(latin.low)(tsu_accent.acute);
1361   tsu_render;
1362 endtsuglyph;
1363

```





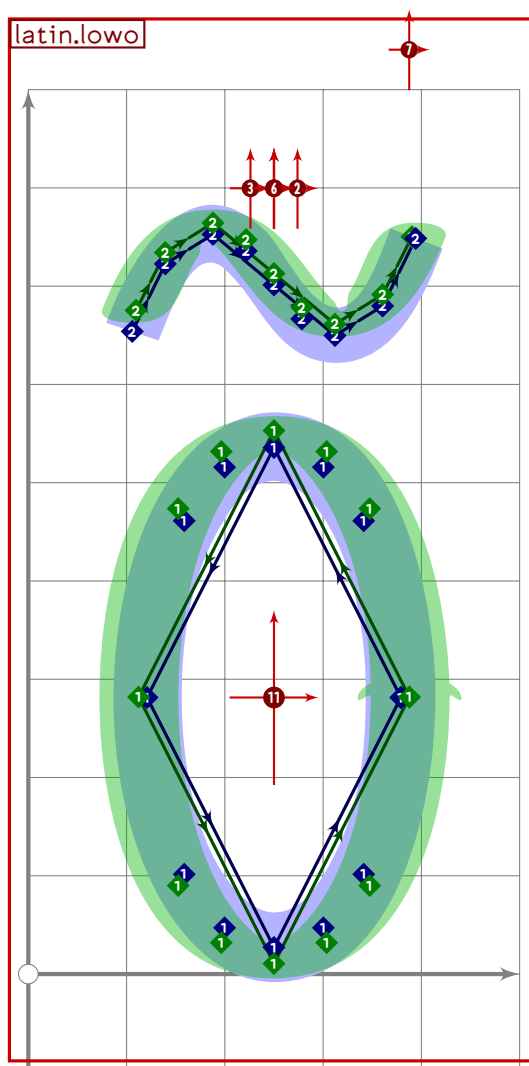
```

1364 % o with circumflex
1365 begint Suglyph("ocircumflex";244);
1366   tsu_accent.apply(latin.lowo)(tsu_accent.circumflex);
1367   tsu_render;
1368 endtsuglyph;
1369

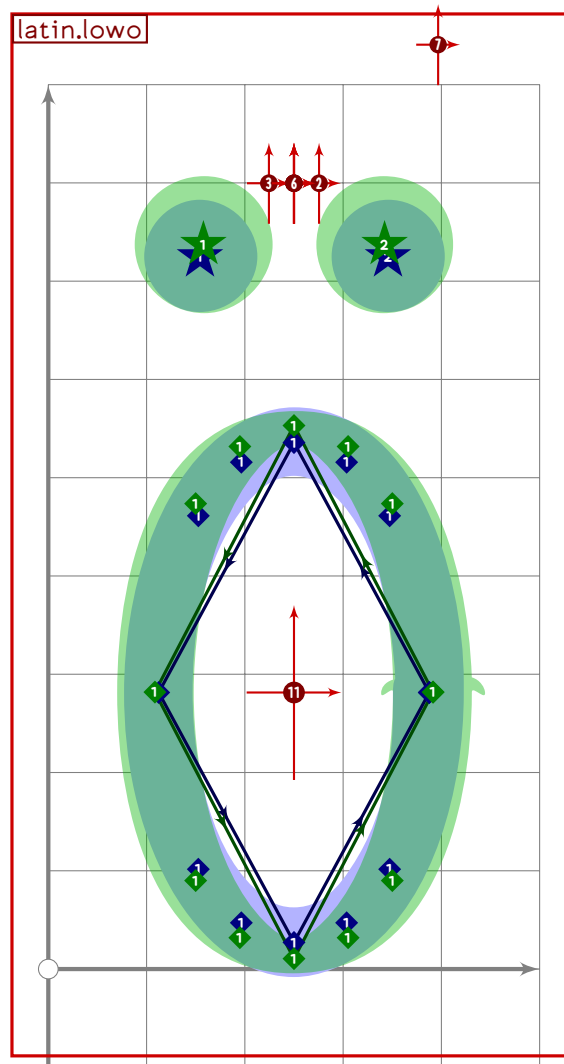
```

U+00F5  
tsuku.otilde

00



```
1370 % o with tilde
1371 beginsuglyph("otilde",245);
1372 tsu_accent.apply(latin.lowo)(tsu_accent.tilde);
1373 tsu_render;
1374 endsuglyph;
1375
```



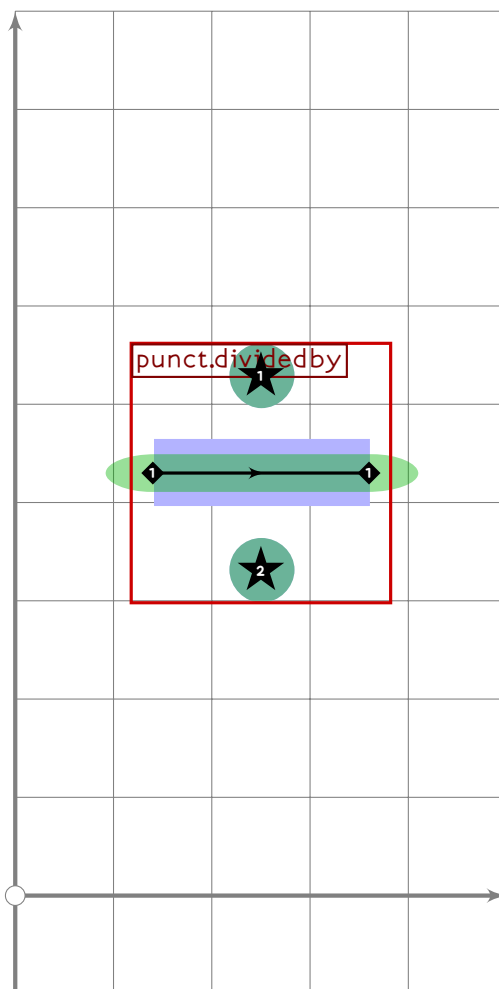
```

1376 % o with dieresis/umlaut
1377 begintsuglyph("odieresis",246);
1378   tsu_accent.apply(latin.low)(tsu_accent.umlaut);
1379   tsu_render;
1380 endsuglyph;
1381
1382 % division sign
1383 tsu_accent.clear_default_anchors;
1384 tsu_rescale_native_conditional;

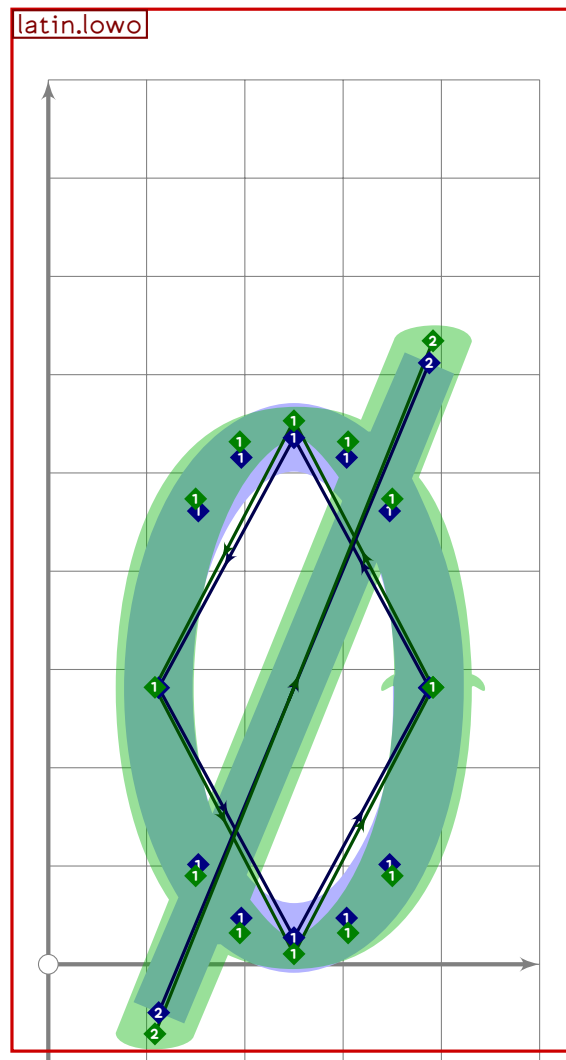
```

U+00F7  
tsuku.divide

00



```
1385 beginsuglyph("divide",247);
1386   punct.dividedby(ascii_punct_xf);
1387   tsu_render;
1388 endsuglyph;
1389 tsu_rescale_half;
1390 tsu_accent.low_default_anchors;
1391
```



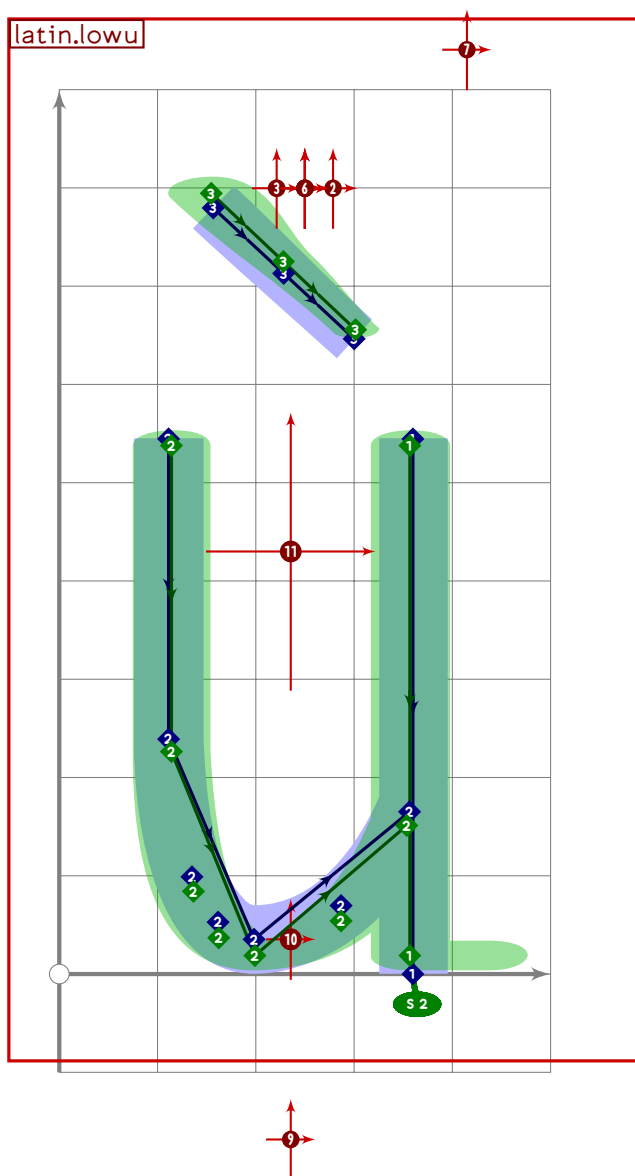
```

1392 % o with stroke
1393 begintsuglyph("oslash";248);
1394   tsu_accent.apply(latin.lowo)(tsu_accent.slash);
1395   tsu_render;
1396 endtsuglyph;
1397

```

U+00F9  
tsuku.ugrave

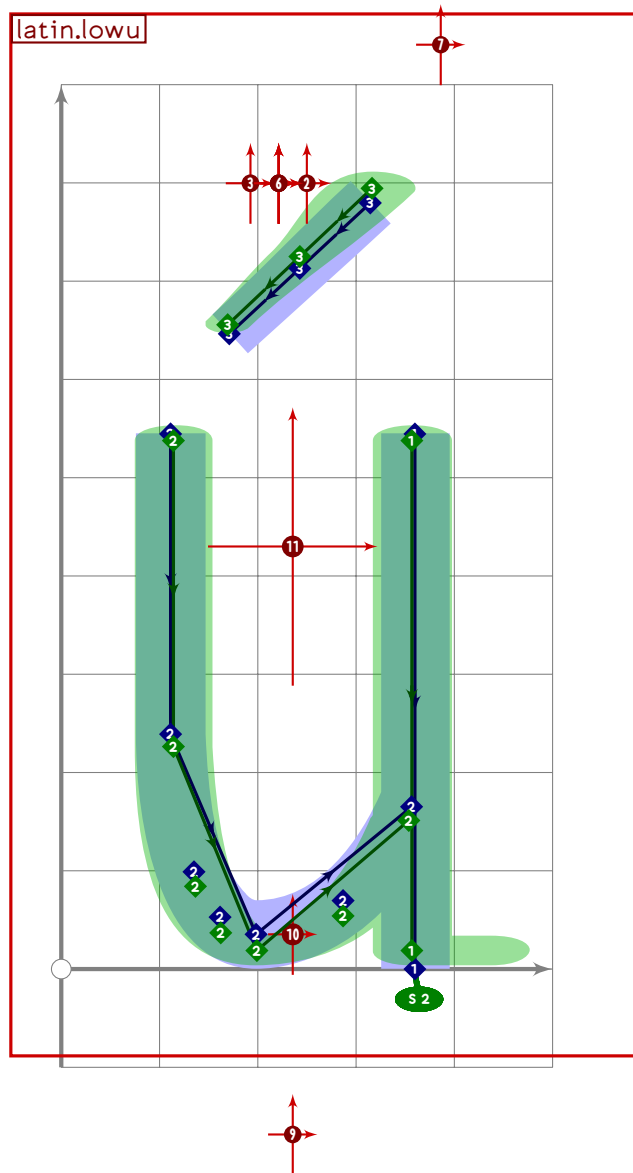
00



```

1398 % u with grave
1399 begint Suglyph("ugrave";249);
1400   tsu_accent.apply(latin.lowu)(tsu_accent.grave);
1401   tsu_render;
1402 endtsuglyph;
1403

```



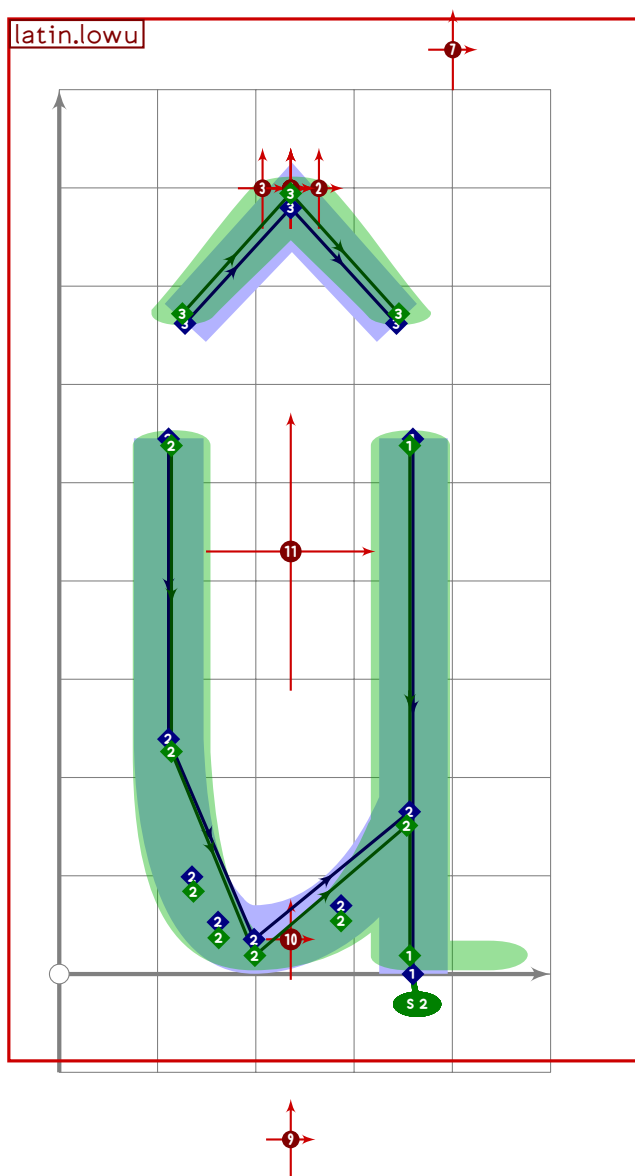
```

1404 % u with acute
1405 begintsuglyph("uacute";250);
1406   tsu_accent.apply(latin.lowu)(tsu_accent.acute);
1407   tsu_render;
1408 endtsuglyph;
1409

```

U+00FB  
tsuku.ucircumflex

00

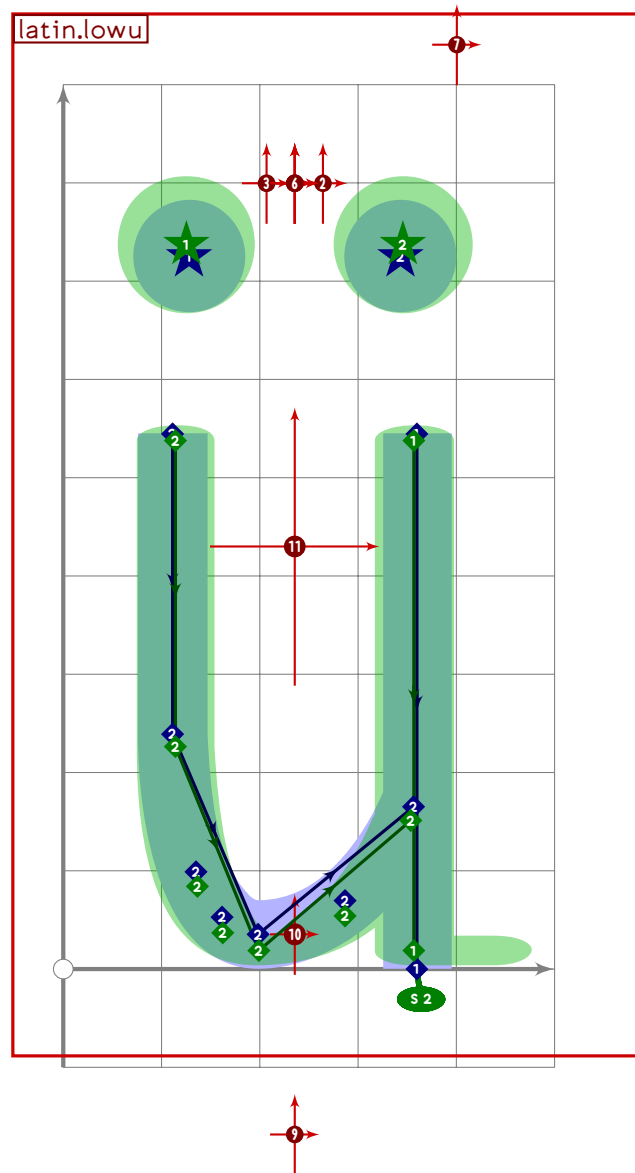


```

1410 % u with circumflex
1411 begint Suglyph("ucircumflex",251);
1412   tsu_accent.apply(latin.lowu)(tsu_accent.circumflex);
1413   tsu_render;
1414 endtsuglyph;
1415

```



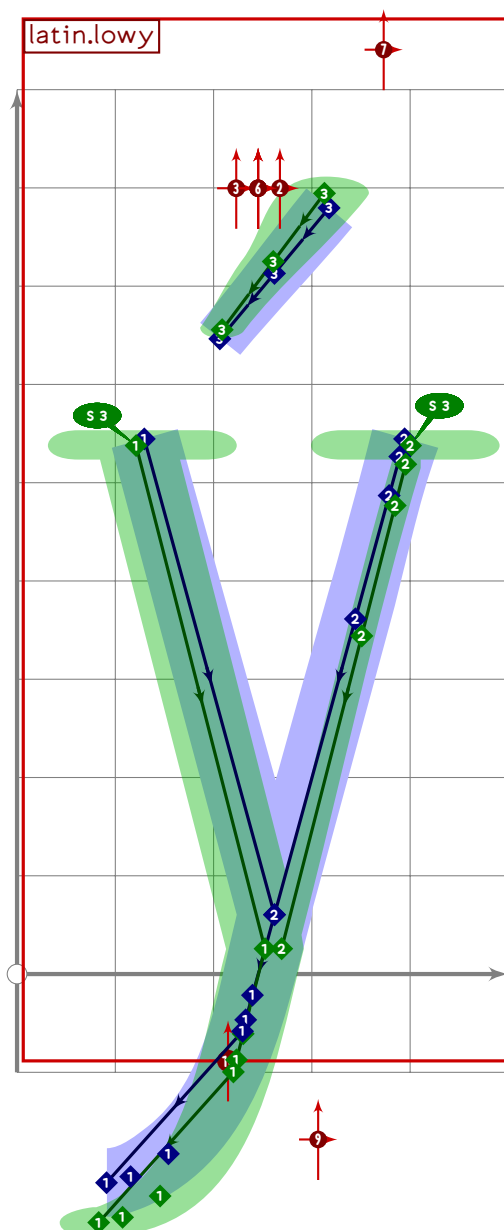


```

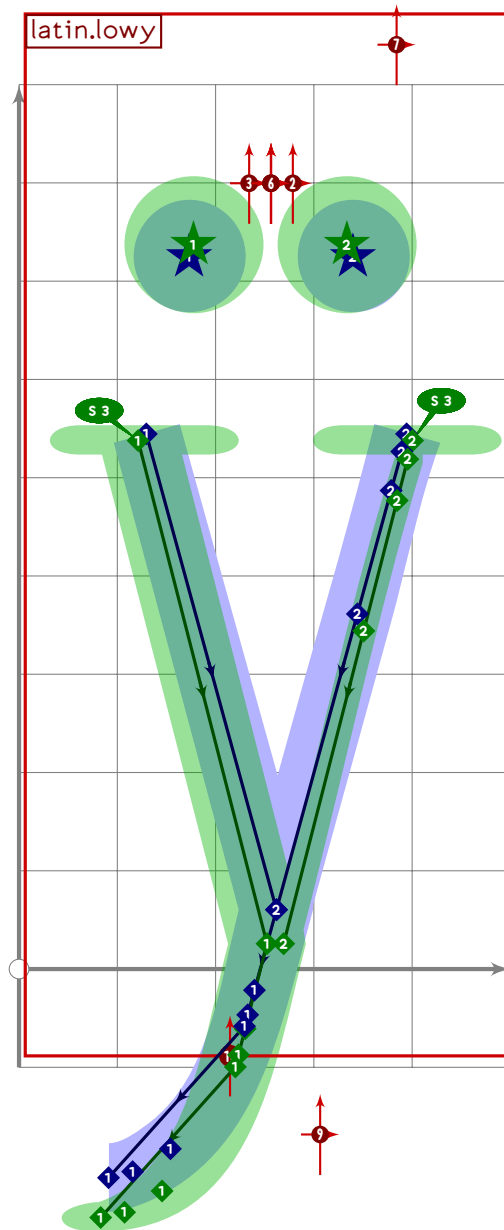
1416 % u with dieresis/umlaut
1417 begint Suglyph("udieresis";252);
1418   tsu_accent.apply(latin.lowu)(tsu_accent.umlaut);
1419   tsu_render;
1420 endtsuglyph;
1421

```

00



[see page 332]



```

1434 % y with dieresis/umlaut
1435 begintsuglyph("ydieresis";255);
1436 tsu_accent.apply(latin.lowy)(tsu_accent.umlaut);
1437 tsu_render;
1438 endtsuglyph;
1439
1440
1441
1442 endfont;
1443
1444

```

# tsuku-01.mp

01

```
1 %
2 % Unicode page 01 (Latin Extended A) for Tsukurimashou
3 % Copyright (C) 2011, 2012 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---

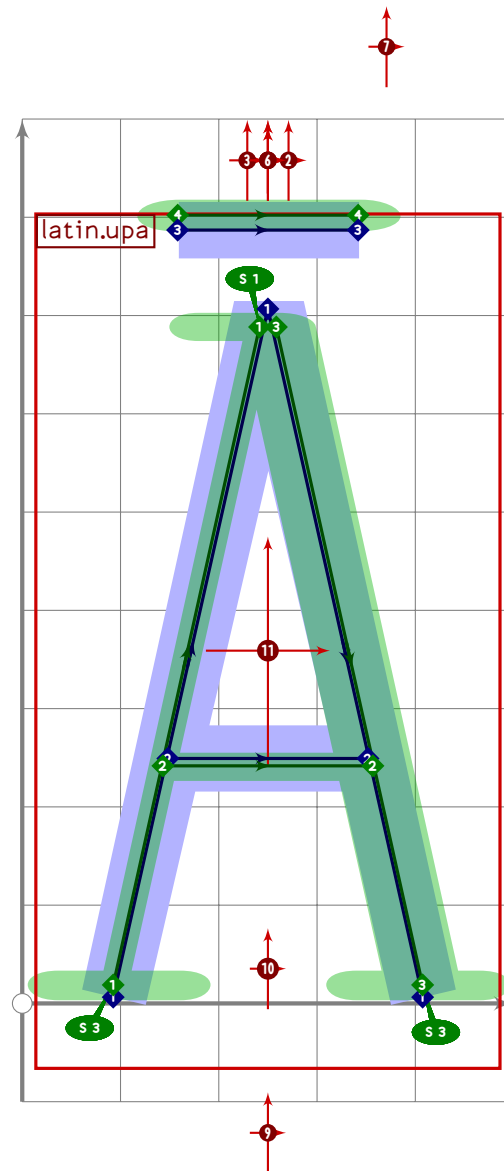

32
33 beginfont
34
35 input latin-intro.mp;
36
37 % AUTODEPS
38 input accent.mp;
39 input latin.mp;
40 input ogonek.mp;
41 input punct.mp;
42
43 do_late_includes;
44
45 

---


46
```

## Latin Extended A Uppercase

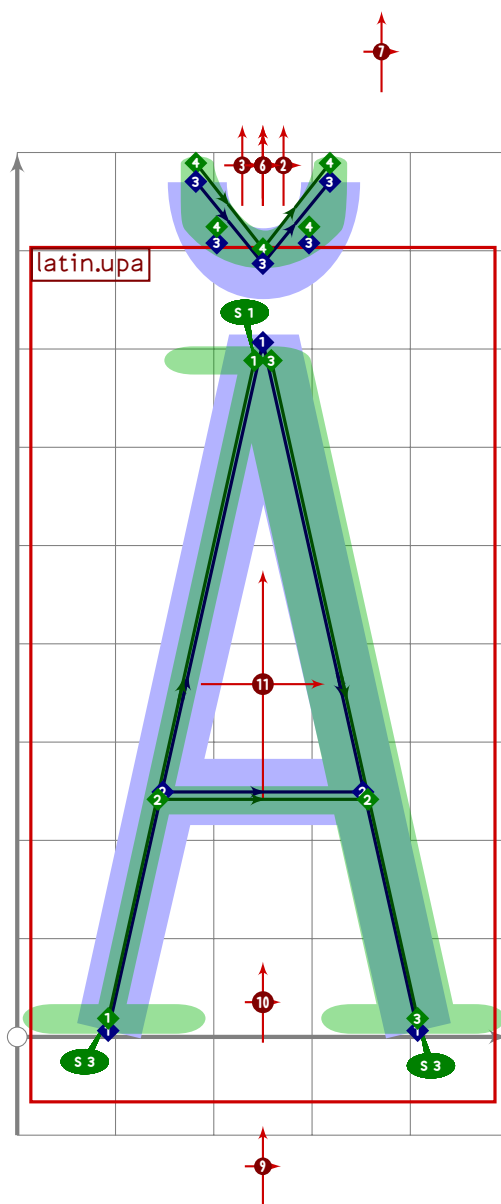
```
47 % LATIN EXTENDED A UPPERCASE
48
49 % note we define these out of code point sequence in order to simplify
50 % default accent anchor definitions
51
52 tsu_rescale_half;
53 sp:=0;
54 tsu_accent.up_default_anchors;
55
```



```

56 % A with macron
57 begintsuglyph("Amacron",0);
58   tsu_accent.apply(tsu_accent.capital(latin.upa))(tsu_accent.macron);
59   tsu_render;
60 endtsuglyph;
61

```

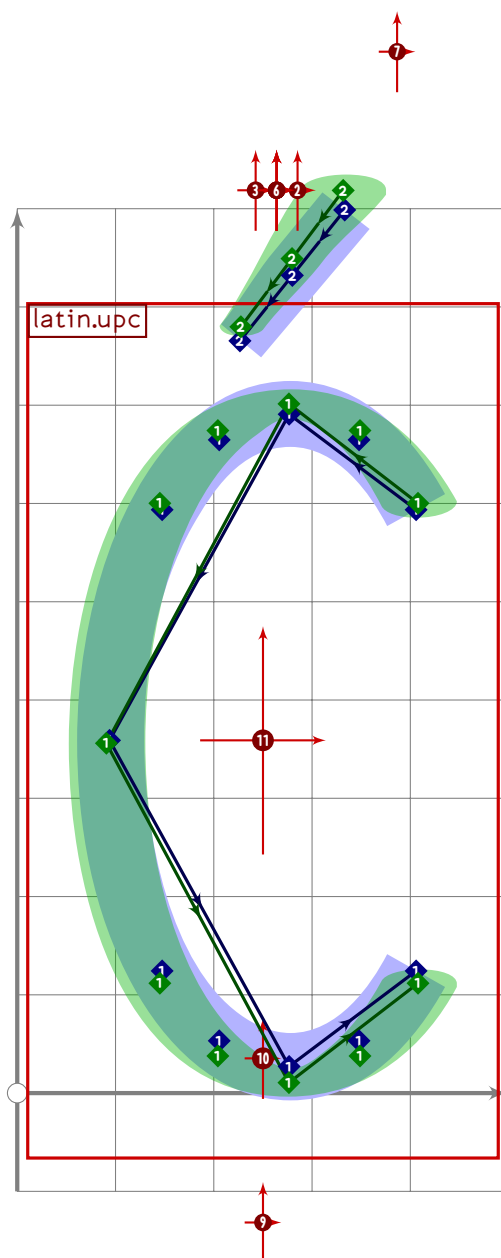


```

62 % A with breve
63 begintsuglyph("Abreve";2);
64 tsu_accent.apply(tsu_accent.capital(latin.upa))(tsu_accent.breve);
65 tsu_render;
66 endtsuglyph;
67
68 % A with ogonek
69 begintsuglyph("Aogonek";4);
70 latin.upaogonek;
71 tsu_render;
72 endtsuglyph;
73

```

[see page 353]

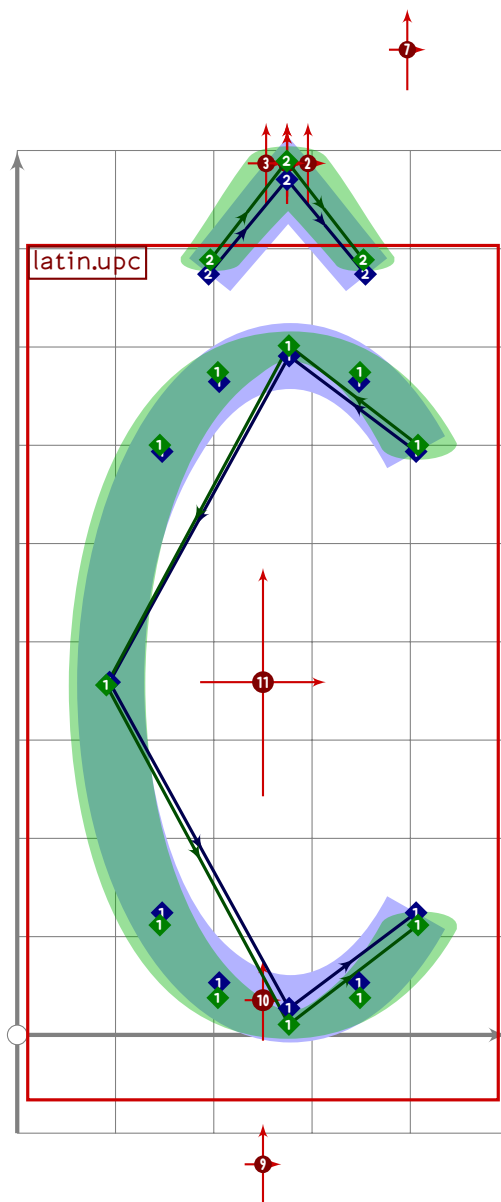


```

74 % C with acute
75 begint Suglyph("Cacute";6);
76   tsu_accent.apply(tsu_accent.capital(latin.upc))(tsu_accent.acute);
77   tsu_render;
78 endtsuglyph;
79

```

01

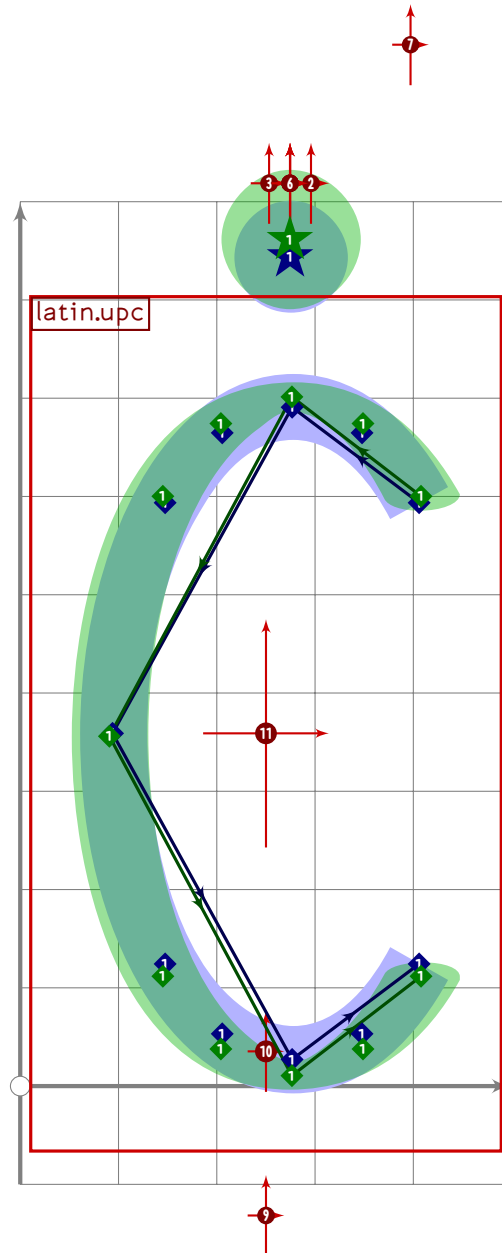


```

80 % C with circumflex
81 begintsuglyph("Ccircumflex";8);
82   tsu_accent.apply(tsu_accent.capital(latin.upc))(tsu_accent.circumflex);
83   tsu_render;
84 endtsuglyph;
85

```

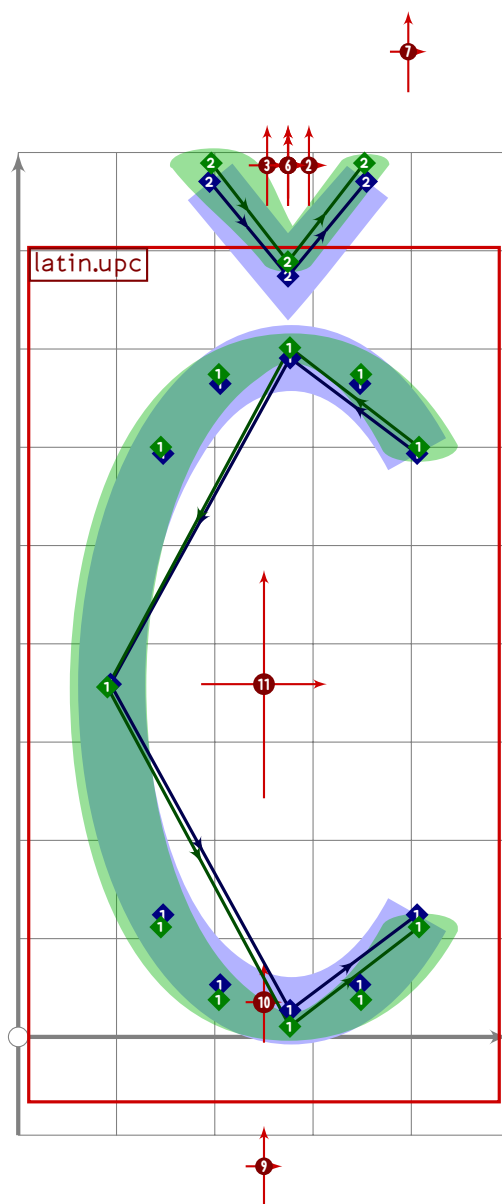




```

86 % C with dot above
87 begint Suglyph("Cdotaccent";10);
88   tsu_accent.apply(tsu_accent.capital(latin.upc))(tsu_accent.dotabove);
89   tsu_render;
90 endtsuglyph;
91

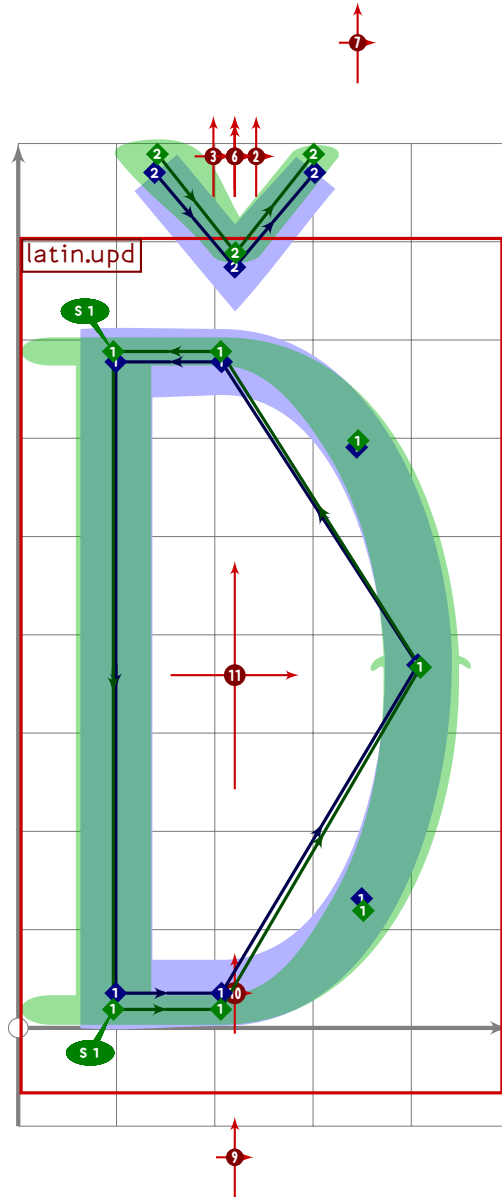
```



```

92 % C with caron
93 begintsuglyph("Ccaron",12);
94   tsu_accent.apply(tsu_accent.capital(latin.upc))(tsu_accent.caron);
95   tsu_render;
96 endtsuglyph;
97

```



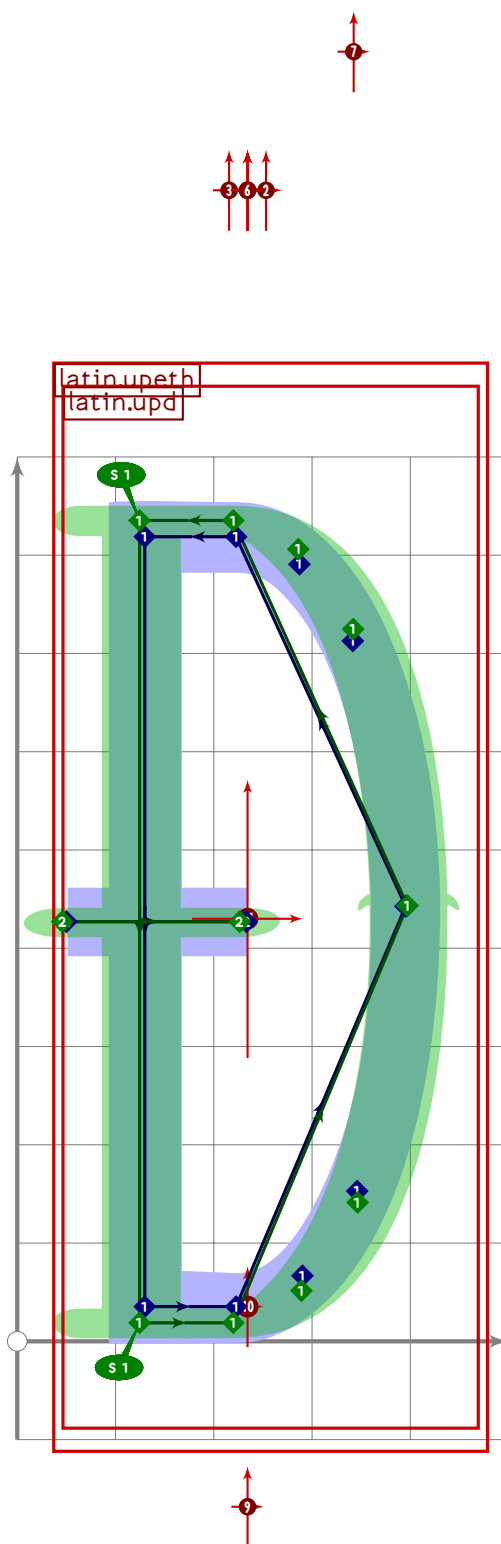
```

98 % D with caron
99 begintsuglyph("Dcaron",14);
100   tsu__accent.apply(tsu__accent.capital(latin.upd))(tsu__accent.caron);
101   tsu__render;
102 endtsuglyph;
103

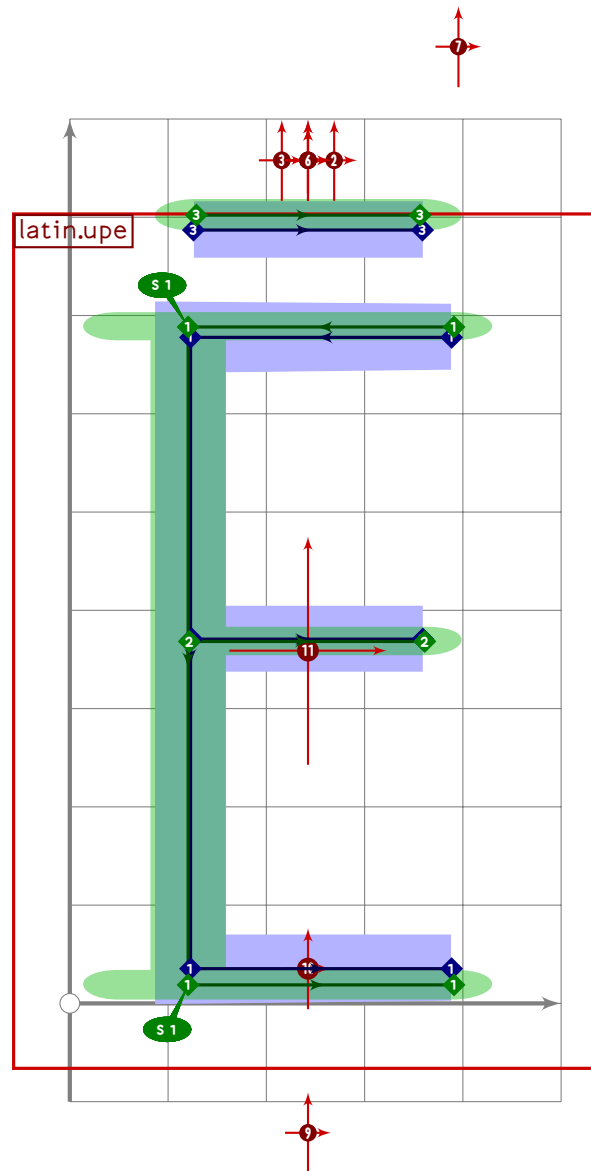
```

U+0110  
tsuku.Dcroat

01



```
104 % D with stroke - same as capital Eth
105 begint Suglyph("Dcroat";16);
106 latin.upeth;
107 tsu_render;
108 endtsuglyph;
109
```

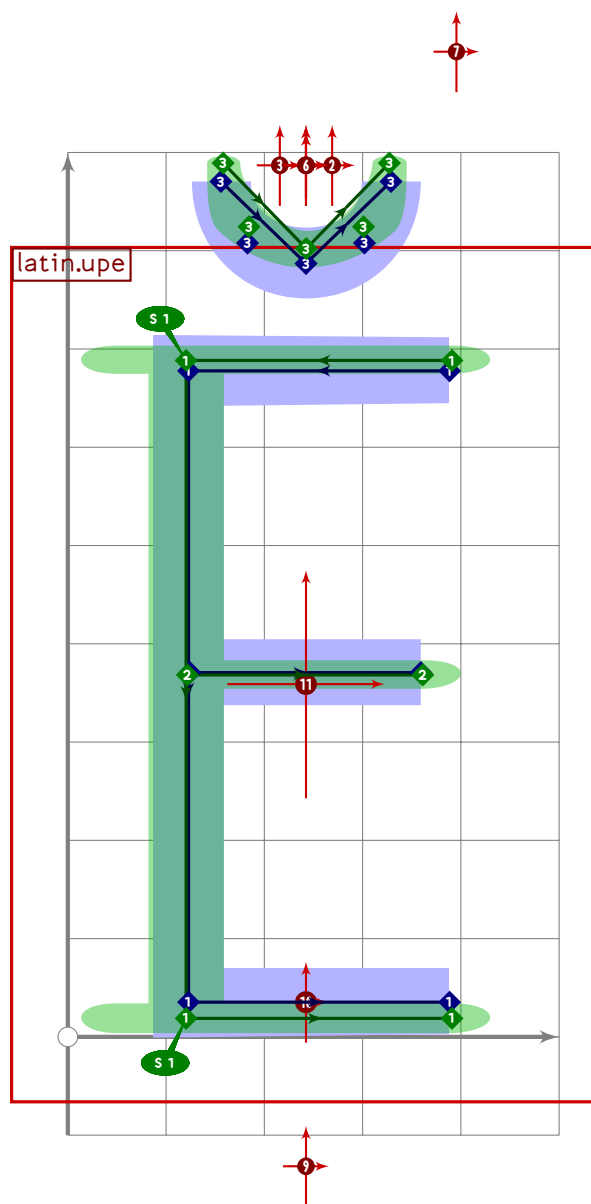


01

```

110 % E with macron
111 begintsuglyph("Emacron",18);
112 tsu_accent.apply(tsu_accent.capital(latin.upe))(tsu_accent.macron);
113 tsu_render;
114 endtsuglyph;
115

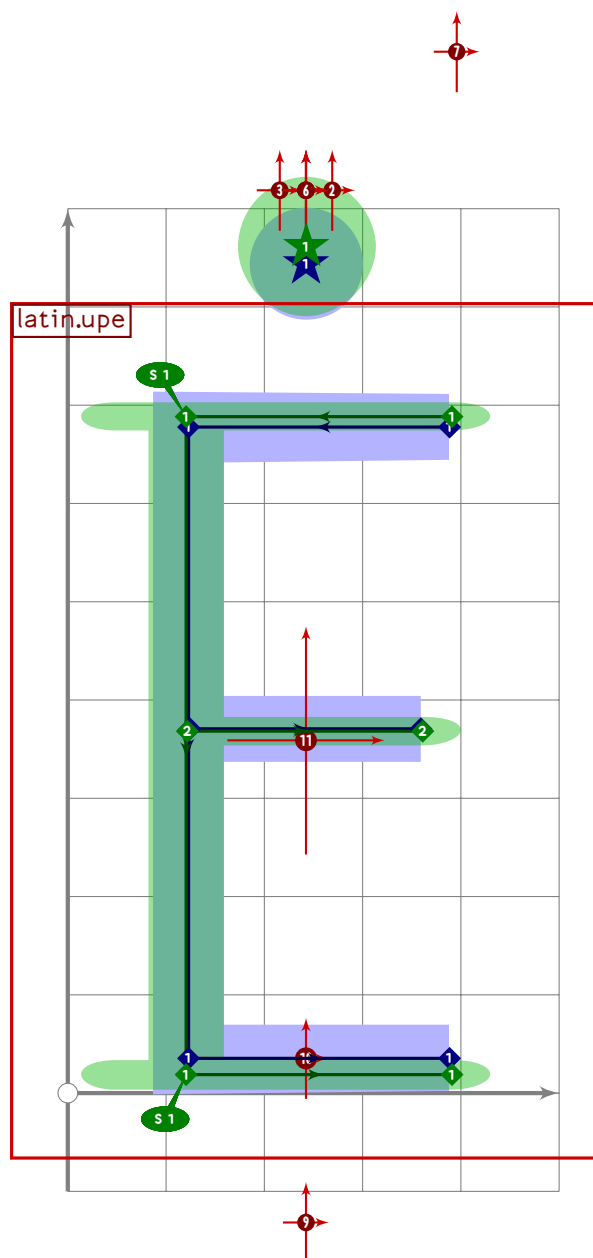
```



```

116 % E with breve
117 begintsuglyph("Ebreve";20);
118   tsu_accent.apply(tsu_accent.capital(latin.upe))(tsu_accent.breve);
119   tsu_render;
120 endtsuglyph;
121

```

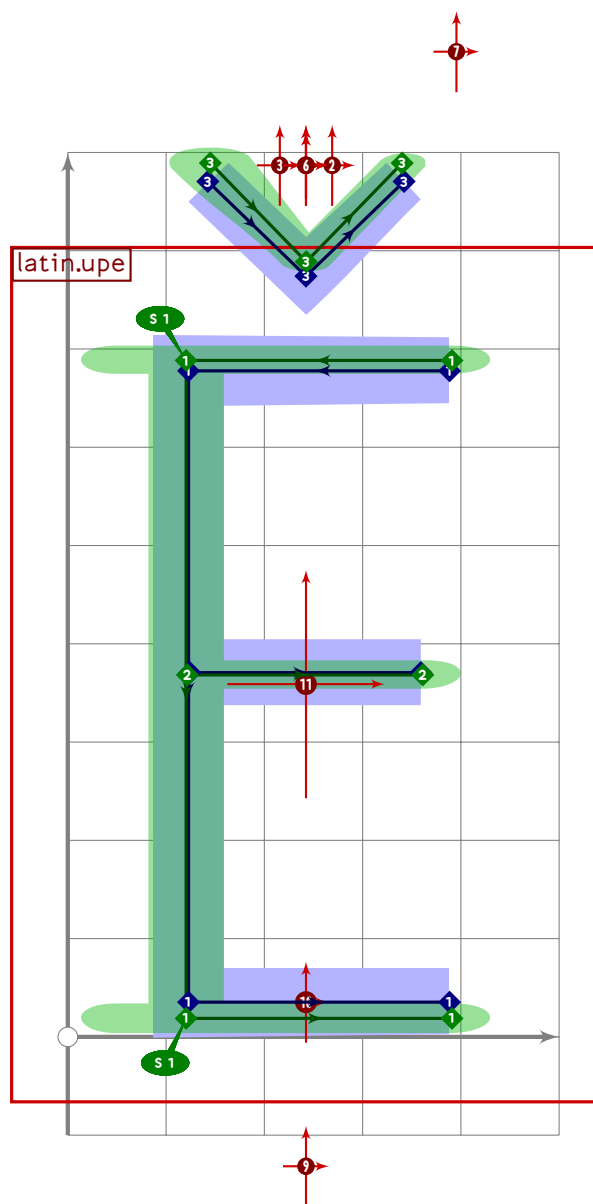


```

122 % E with dot
123 begintsuglyph("Edotaccent";22);
124   tsu_accent.apply(tsu_accent.capital(latin.upe))(tsu_accent.dotabove);
125   tsu_render;
126 endtsuglyph;
127
128 % E with ogonek
129 begintsuglyph("Eogonek";24);
130   latin.upeogonek;
131   tsu_render;
132 endtsuglyph;
133

```

[see page 354]

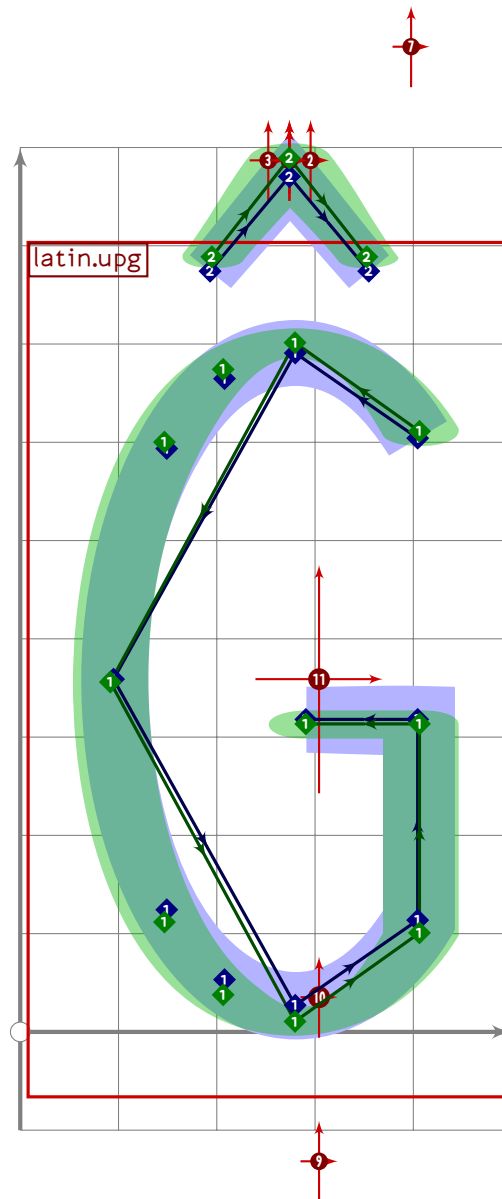


```

134 % E with caron
135 begintsuglyph("Ecaron",26);
136   tsu_accent.apply(tsu_accent.capital(latin.upe))(tsu_accent.caron);
137   tsu_render;
138 endtsuglyph;
139

```

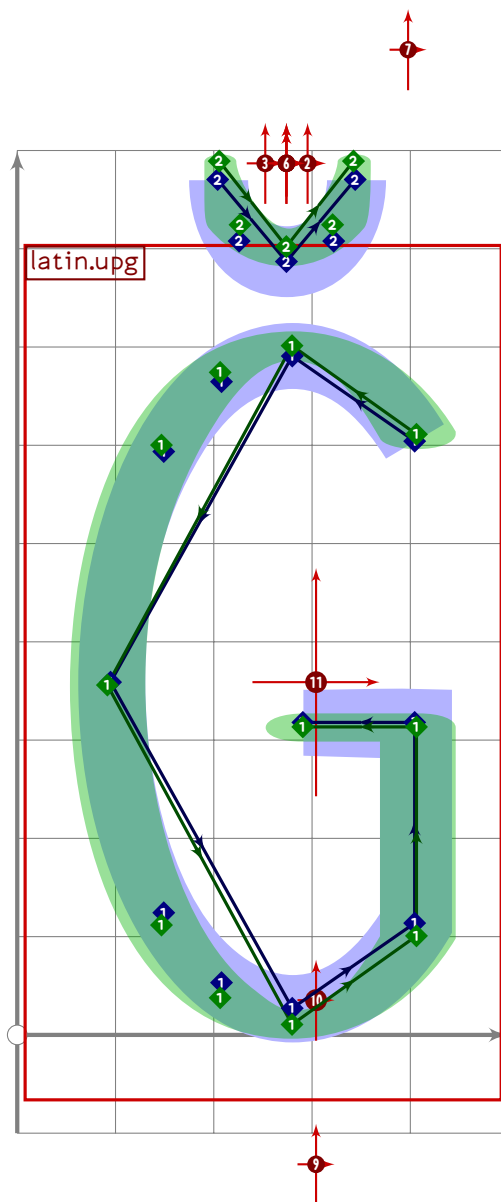




```

140 % G with circumflex
141 begintsuglyph("Gcircumflex",28);
142   tsu_accent.apply(tsu_accent.capital(latin.upg))(tsu_accent.circumflex);
143   tsu_render;
144 endtsuglyph;
145

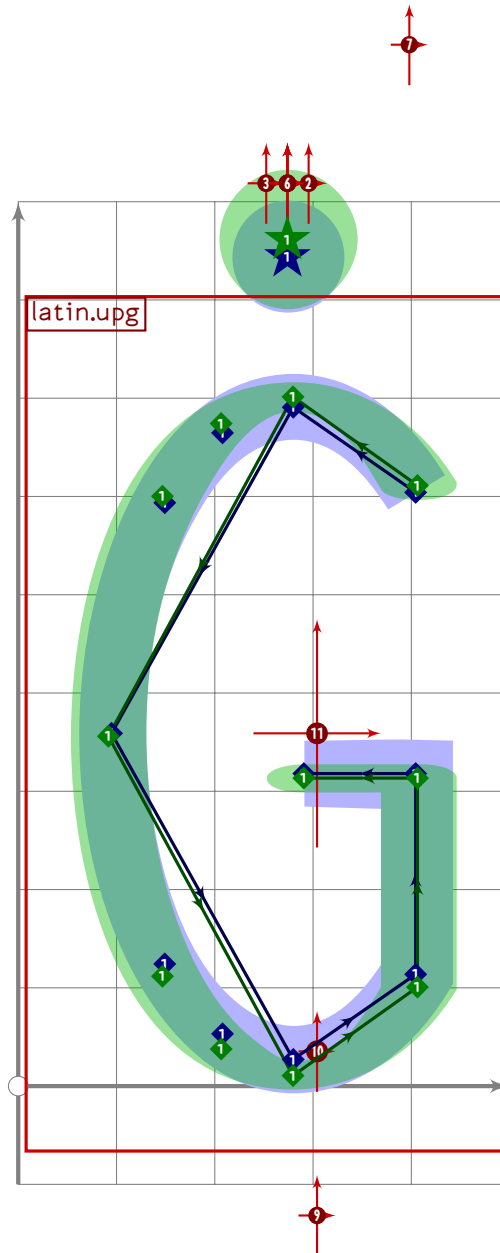
```



```

146 % G with breve
147 begintsuglyph("Gbreve";30);
148   tsu_accent.apply(tsu_accent.capital(latin.upg))(tsu_accent.breve);
149   tsu_render;
150 endtsuglyph;
151

```



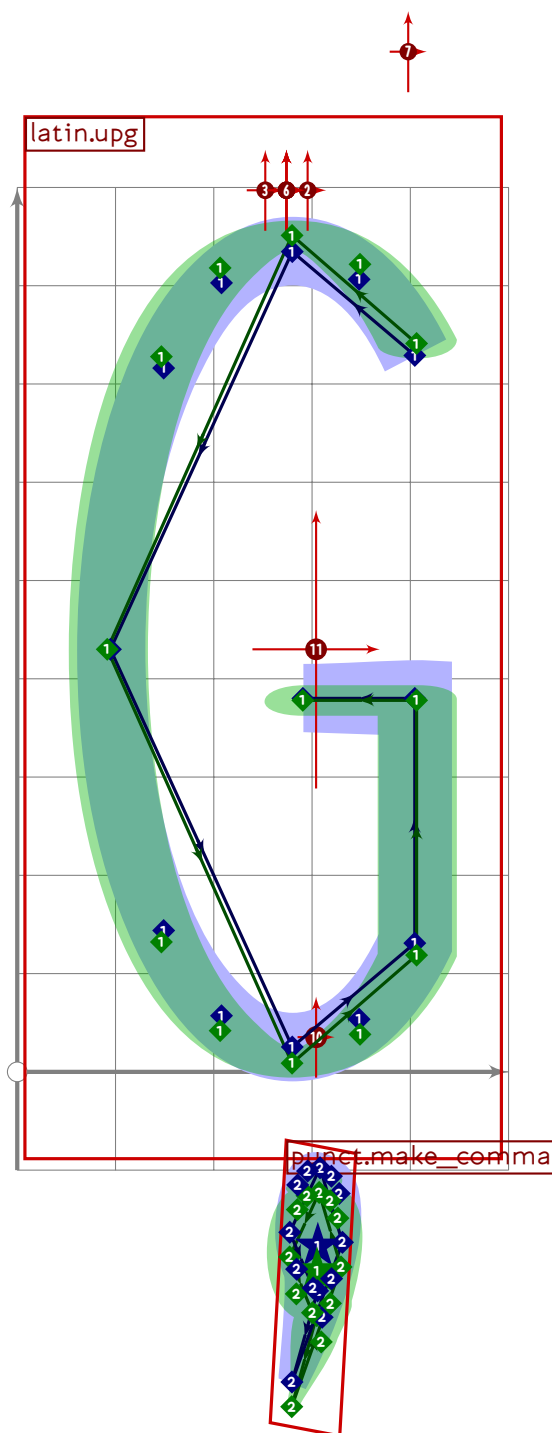
```

152 % G with dot
153 begint Suglyph("Gdotaccent",32);
154   tsu_accent.apply(tsu_accent.capital(latin.upg))(tsu_accent.dotabove);
155   tsu_render;
156 endtsuglyph;
157

```

U+0122  
tsuku.uni0122

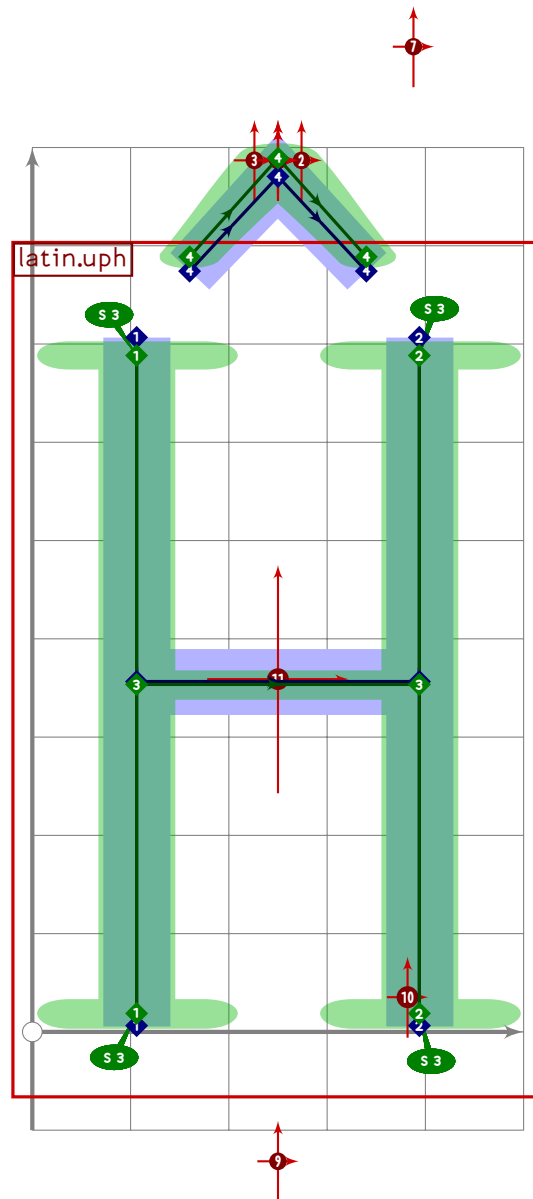
01



```

158 % G with comma below
159 begintsuglyph("uni0122";34);
160 tsu_accent.apply(latin.upg)(tsu_accent.commabelow);
161 tsu_render;
162 endtsuglyph;
163

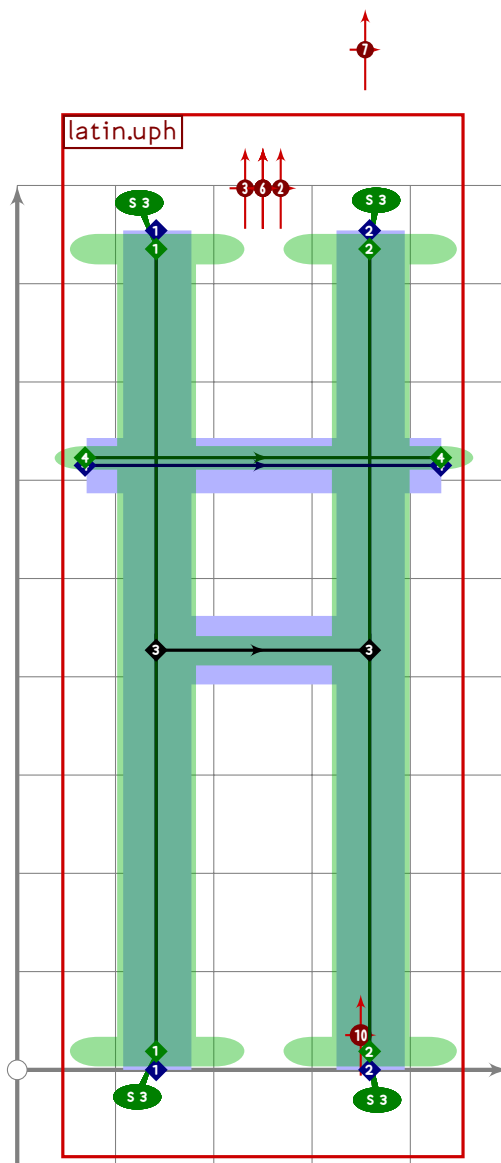
```



```

164 % H with circumflex
165 begintsuglyph("Hcircumflex",36);
166   tsu_accent.apply(tsu_accent.capital(latin.uph))(tsu_accent.circumflex);
167   tsu_render;
168 endsuglyph;
169

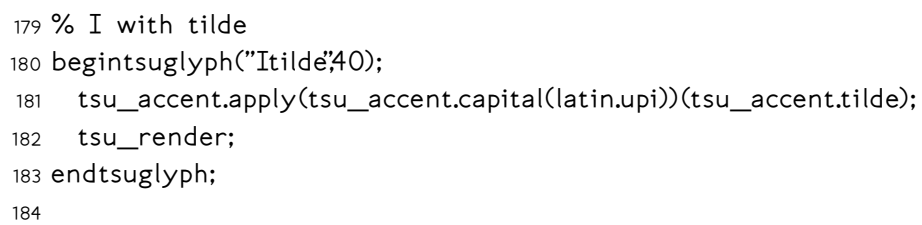
```



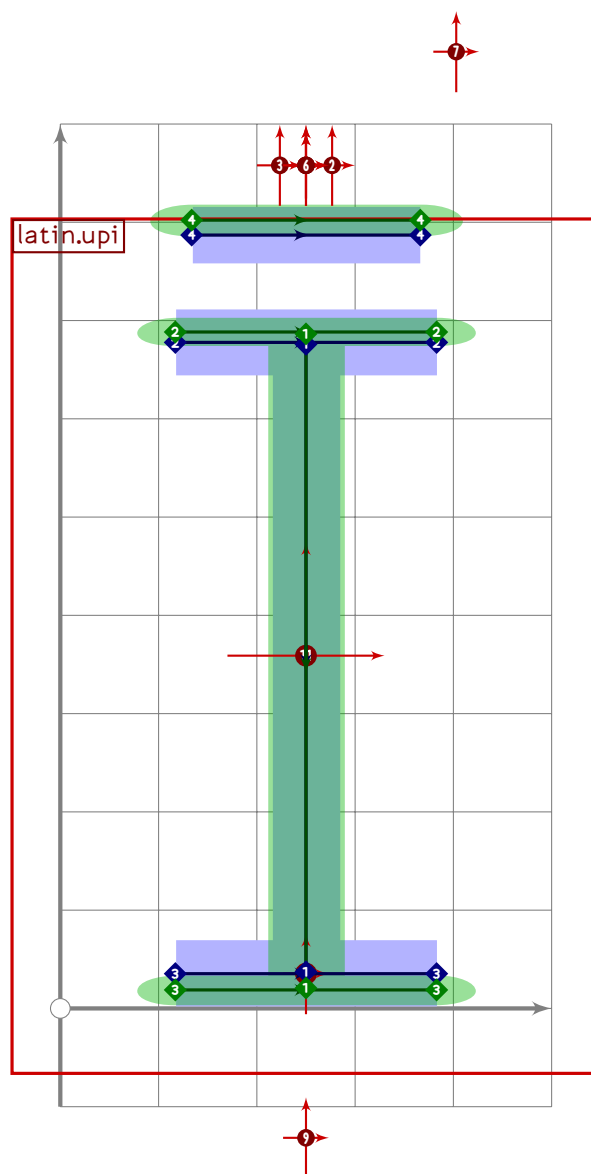
```

170 % H with bar
171 begintsuglyph("Hbar";38);
172 latin.uph;
173 push_stroke((100,vmetric(0.74))-(900,vmetric(0.74)),
174   (1.6,1.6)-(1.6,1.6));
175 set_bosize(0,80);
176 tsu_render;
177 endsuglyph;
178

```



01

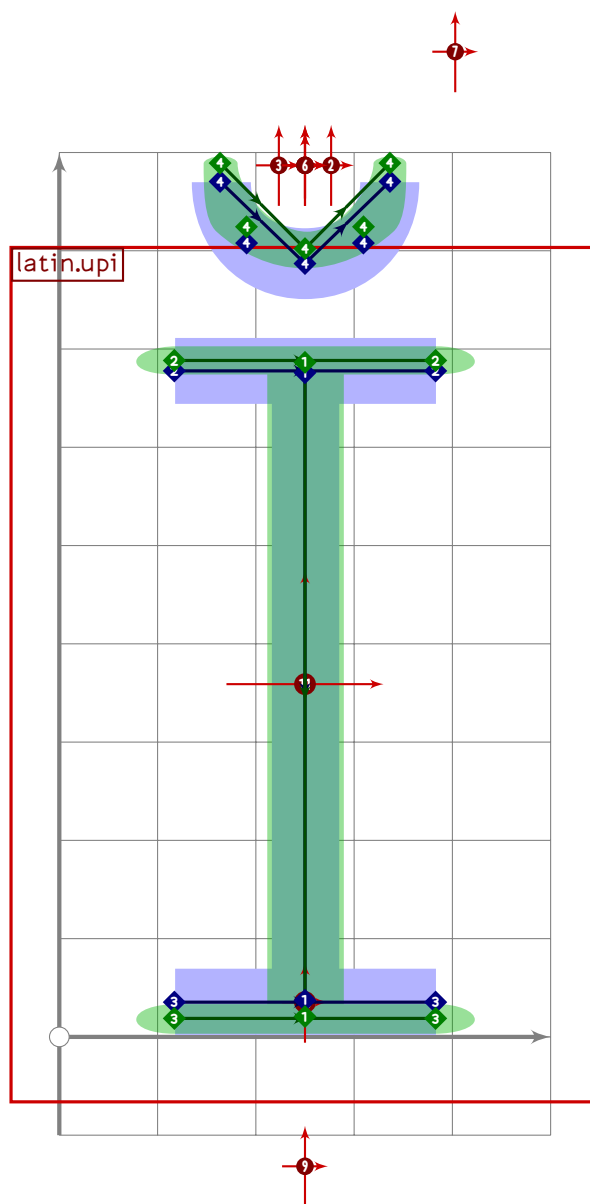


```

185 % I with macron
186 begintsuglyph("Imacron",42);
187   tsu_accent.apply(tsu_accent.capital(latin.upi))(tsu_accent.macron);
188   tsu_render;
189 endtsuglyph;
190

```





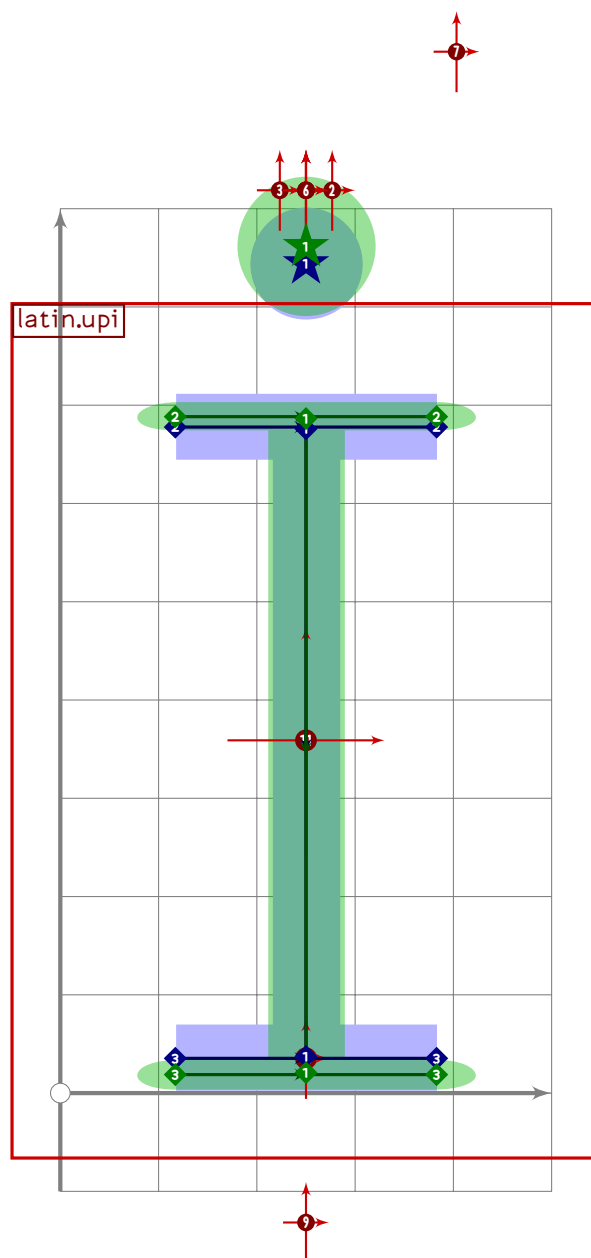
```

191 % I with breve
192 begintsuglyph("Ibreve";44);
193   tsu_accent.apply(tsu_accent.capital(latin.upi))(tsu_accent.breve);
194   tsu_render;
195 endtsuglyph;
196
197 % I with ogonek
198 begintsuglyph("Iogonek";46);
199   latin.upiogonek;
200   tsu_render;
201 endtsuglyph;
202

```

[see page 355]

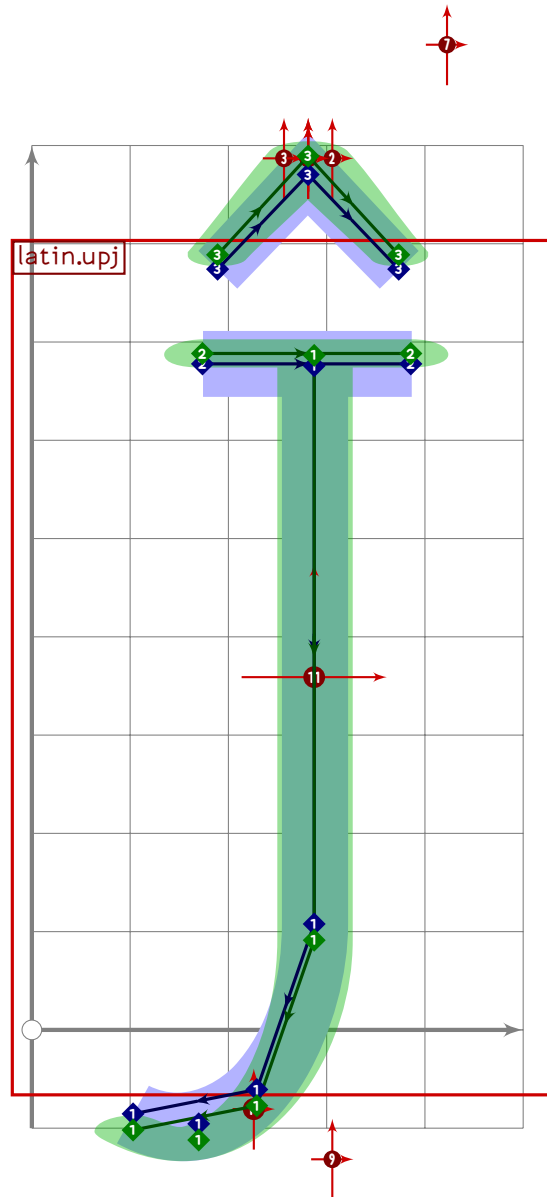
01



```

203 % I with dot
204 begintsuglyph("Idotaccent"48);
205   tsu_accent.apply(tsu_accent.capital(latin.upi))(tsu_accent.dotabove);
206   tsu_render;
207 endtsuglyph;
208

```



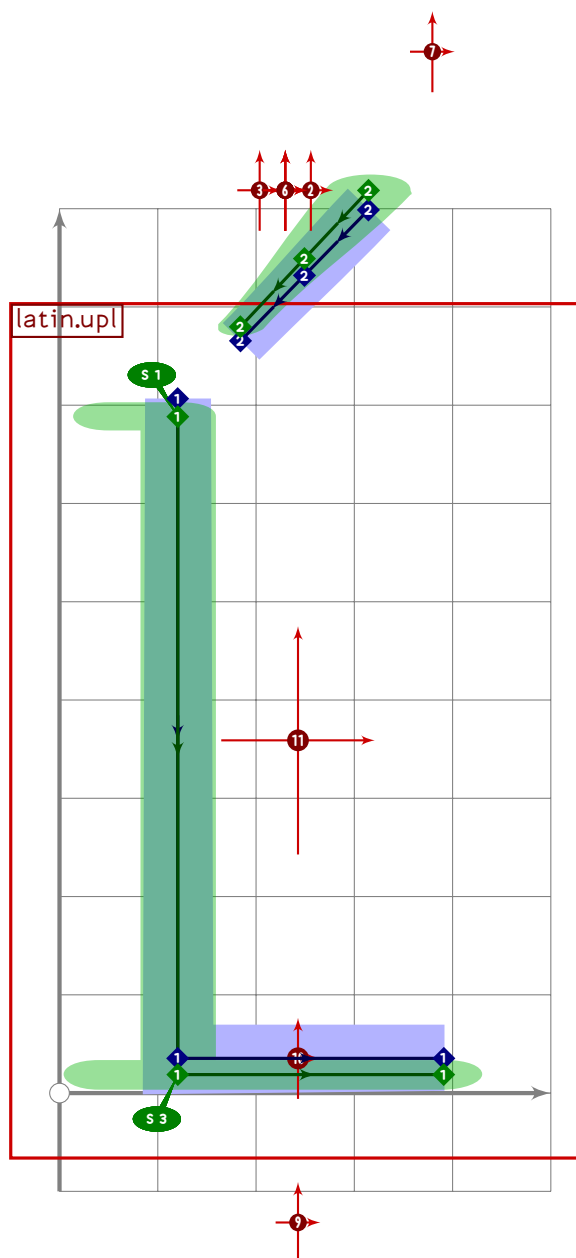
```

209 % J with circumflex
210 begint Suglyph("Jcircumflex";52);
211   tsu_accent.apply(tsu_accent.capital(latin.upj))(tsu_accent.circumflex);
212   tsu_render;
213 endtsuglyph;
214

```



1058



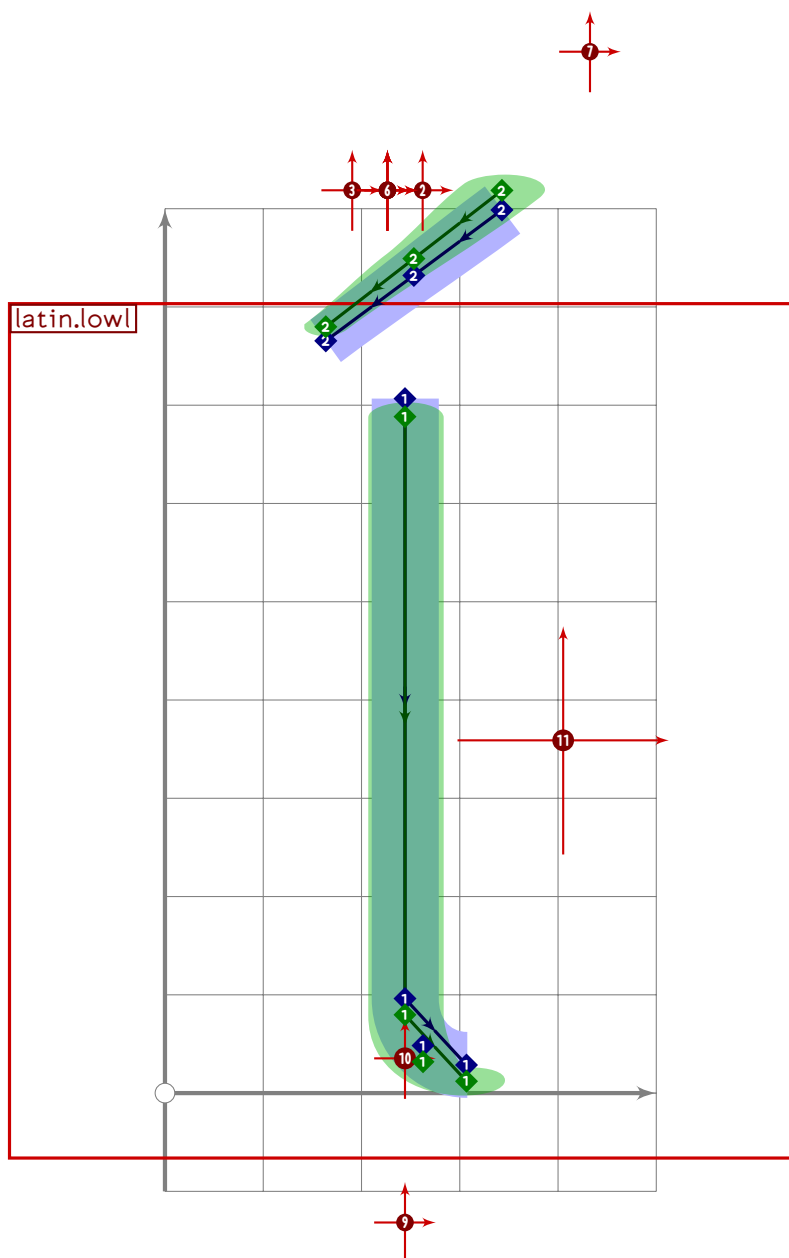
```

221 % L with acute
222 begintsuglyph("Lacute",57);
223   tsu_accent.apply(tsu_accent.capital(latin.upl))(tsu_accent.acute);
224   tsu_render;
225 endtsuglyph;
226

```

U+013A  
tsuku.lacute

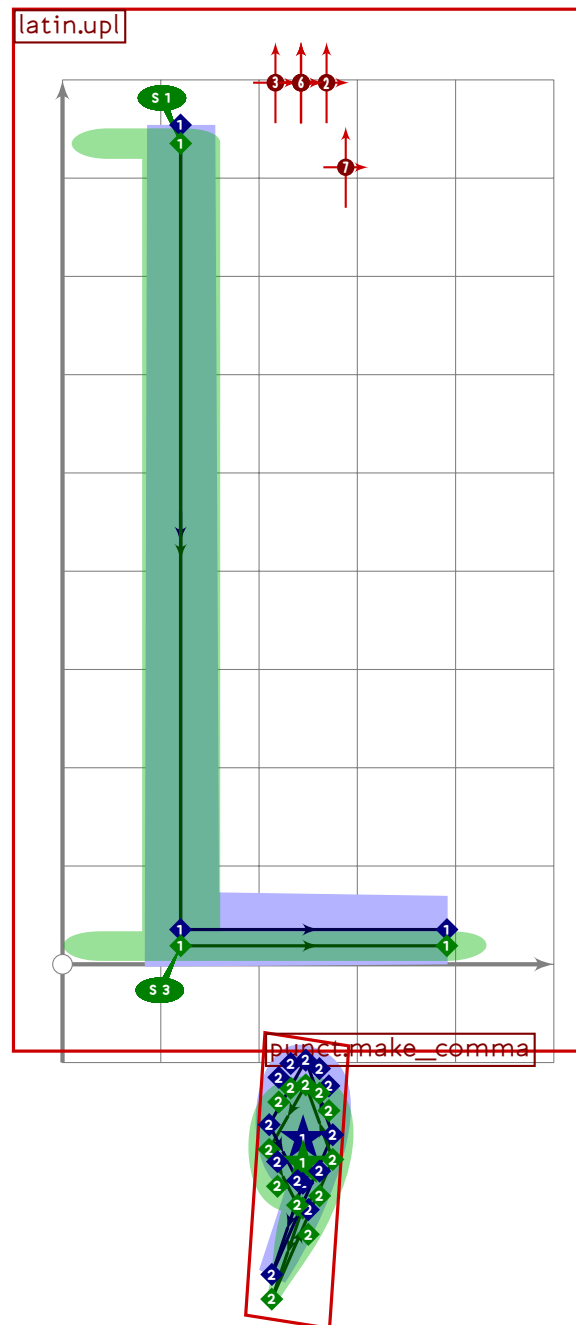
01



```

227 % l with acute
228 begint Suglyph("lacute",58);
229   tsu_accent.apply(tsu_accent.capital(latin.lowl))(tsu_accent.acute);
230   tsu_render;
231 endtsuglyph;
232

```



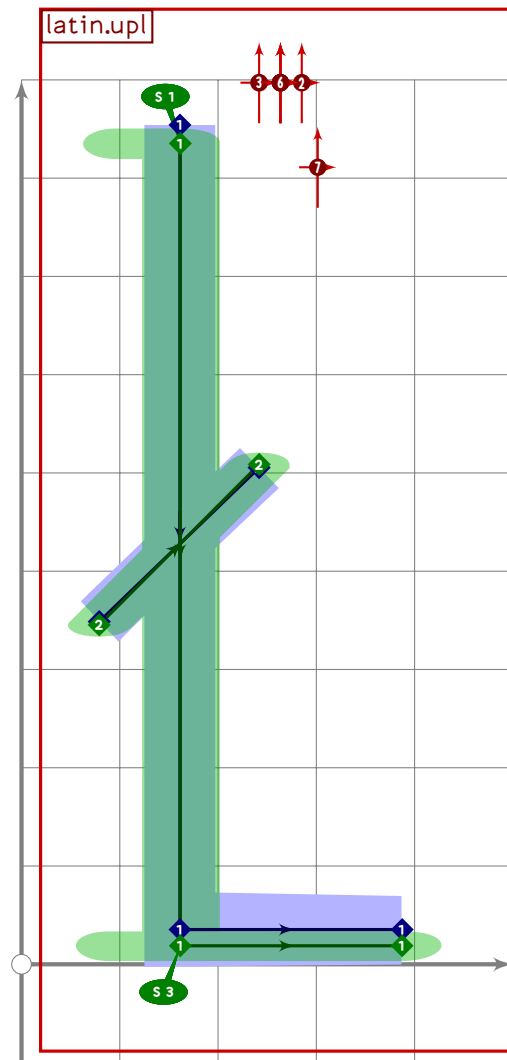
```

233 % L with comma below
234 begintsuglyph("uni013B",59);
235 tsu_accent.apply(latin.upl)(tsu_accent.commabelow);
236 tsu_render;
237 endtsuglyph;
238

```

U+0141  
tsuku.Lslash

01

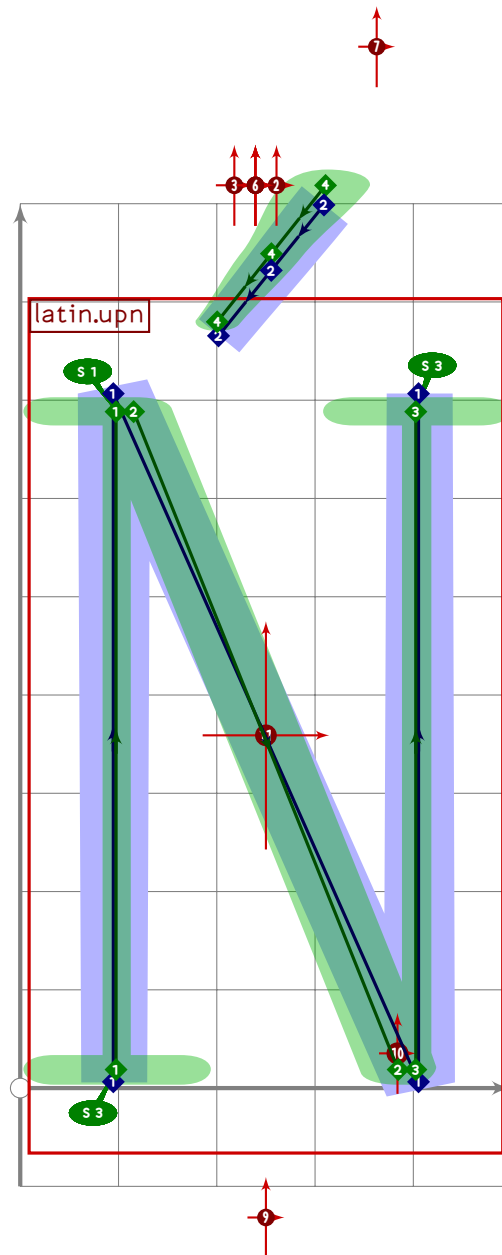


```

239 % L with slash
240 begint Suglyph("Lslash",65);
241   latin.upl;
242   push_stroke((160,vmetric(0.40))-(460,vmetric(0.60)),
243     (1.6,1.6)-(1.6,1.6));
244   set_bosize(0,80);
245   tsu_render;
246 endtsuglyph;
247

```



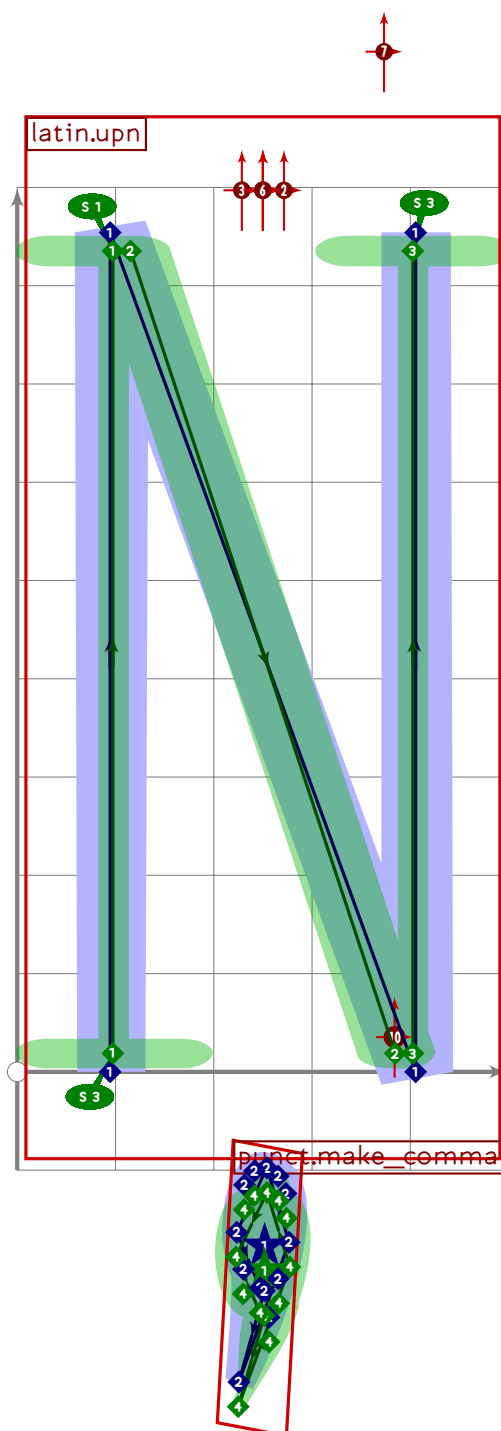


```

248 % N with acute
249 begint Suglyph("Nacute",67);
250   tsu_accent.apply(tsu_accent.capital(latin.upn))(tsu_accent.acute);
251   tsu_render;
252 endtsuglyph;
253

```

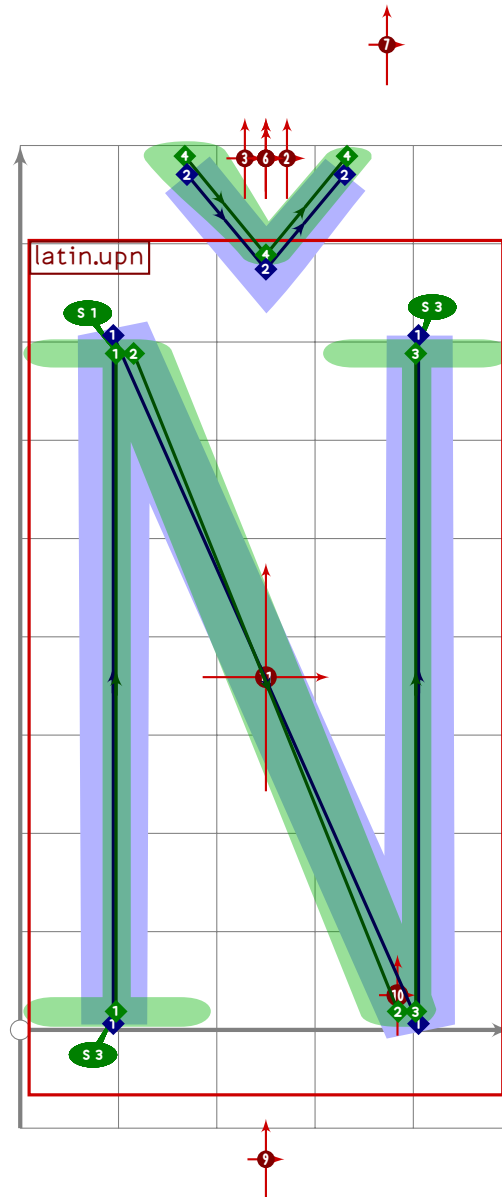
01



```

254 % N with comma below
255 beginsuglyph("uni0145",69);
256 tsu_accent.apply(latin.upn)(tsu_accent.commabelow);
257 tsu_render;
258 endsuglyph;
259

```

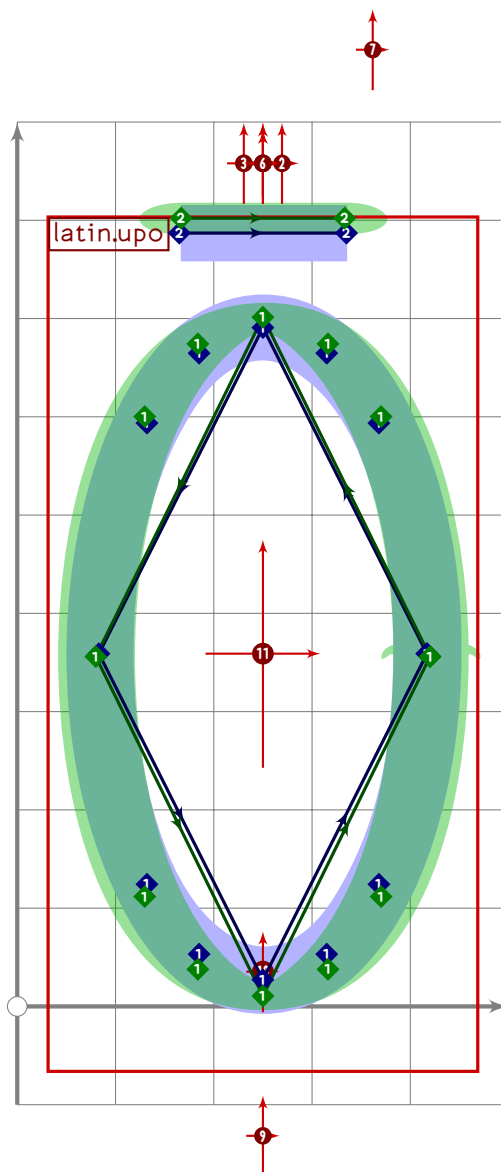


```

260 % N with caron
261 begintsuglyph("Ncaron";71);
262 tsu_accent.apply(tsu_accent.capital(latin.upn))(tsu_accent.caron);
263 tsu_render;
264 endtsuglyph;
265
266 % uppercase Eng
267 begintsuglyph("Eng";74);
268 latin.upeng;
269 tsu_render;
270 endtsuglyph;
271

```

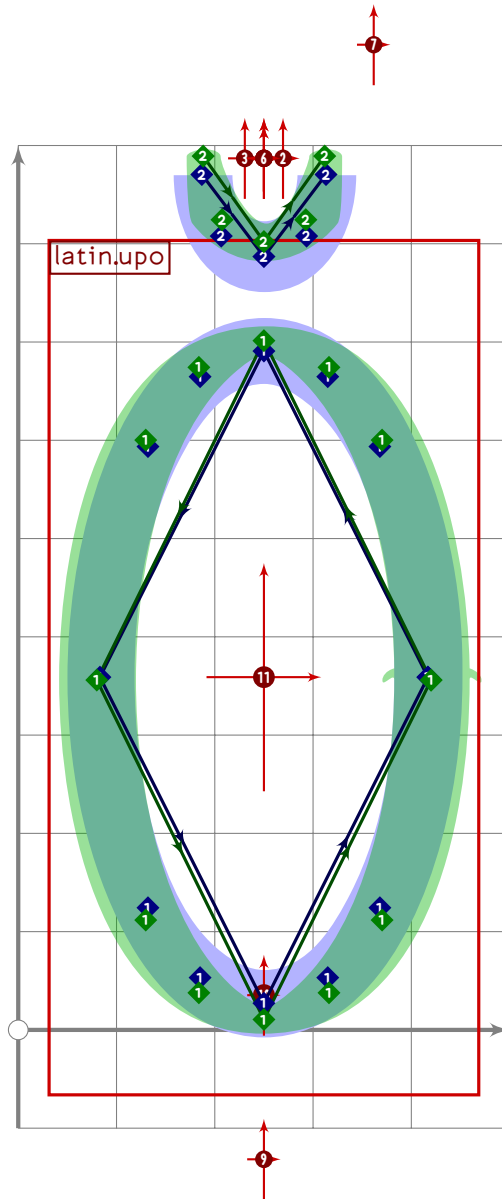
[see page 275]



```

272 % O with macron
273 beginsuglyph("Omacron";76);
274   tsu_accent.apply(tsu_accent.capital(latin.upo))(tsu_accent.macron);
275   tsu_render;
276 endsuglyph;
277

```

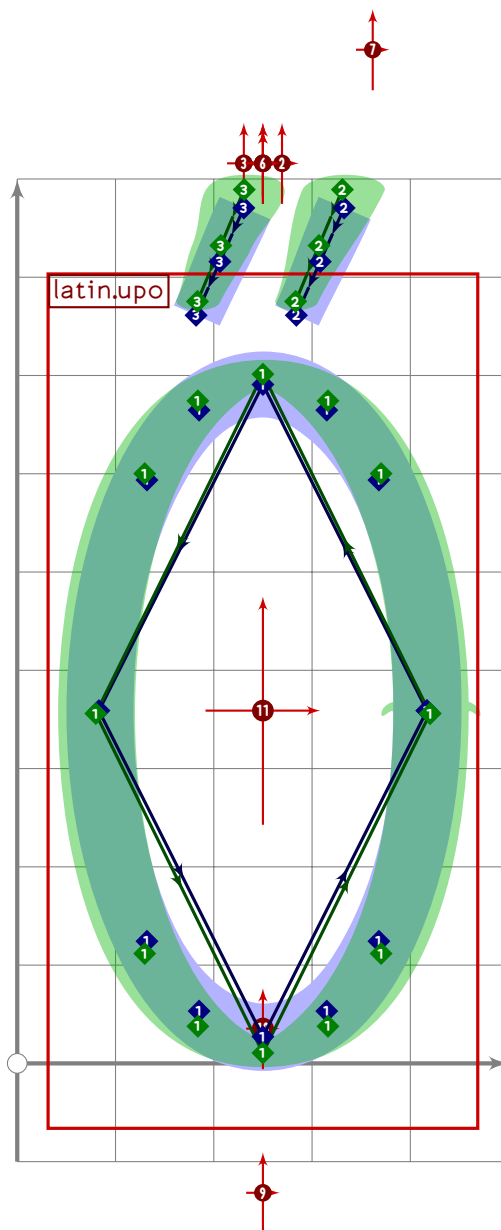


```

278 % O with breve
279 begintsuglyph("Obreve";78);
280   tsu_accent.apply(tsu_accent.capital(latin.upo))(tsu_accent.breve);
281   tsu_render;
282 endtsuglyph;
283

```

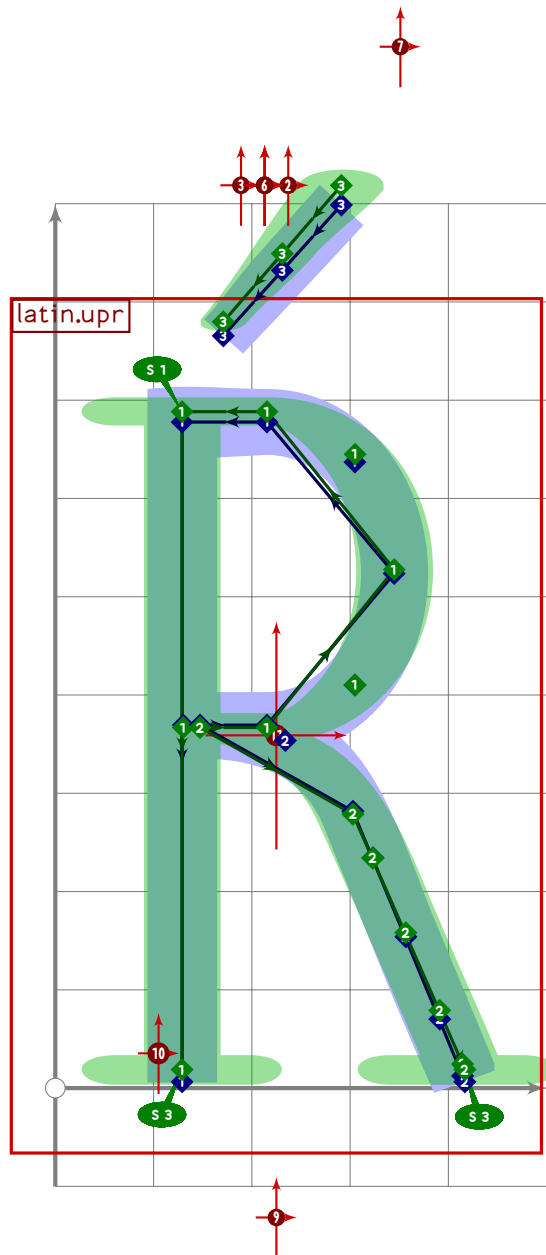
01



```

284 % Ö with Hungarian umlaut
285 begintsuglyph("Öhungarumlaut";80);
286 tsu_accent.apply(tsu_accent.capital(latin.upo))(tsu_accent.hungarian_umlaut);
287 tsu_render;
288 endtsuglyph;
289

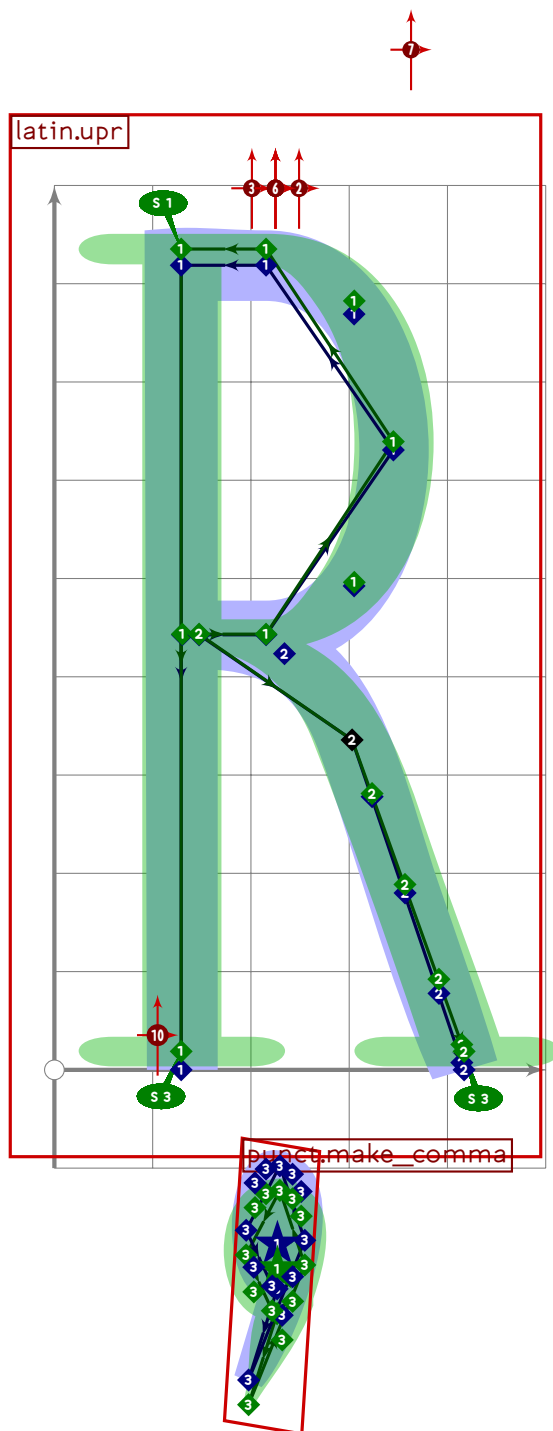
```



```

290 % R with acute
291 begintsuglyph("Racute";84);
292   tsu_accent.apply(tsu_accent.capital(latin.upr))(tsu_accent.acute);
293   tsu_render;
294 endtsuglyph;
295

```

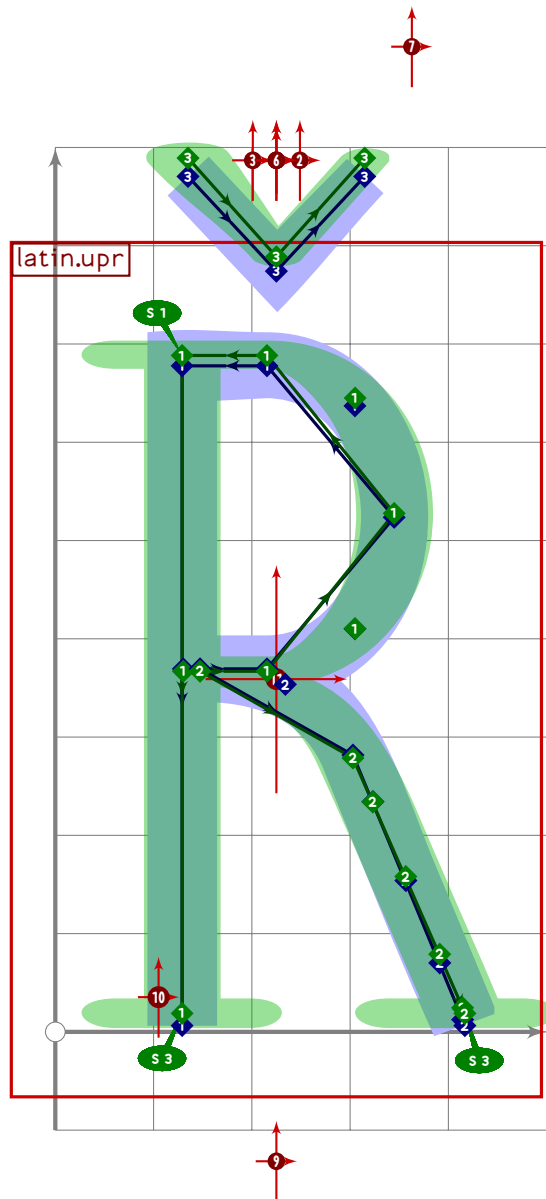


```

296 % R with comma below
297 begintsuglyph("uni0156",86);
298   tsu_accent.apply(latin.upr)(tsu_accent.commabelow);
299   tsu_render;
300 endtsuglyph;
301

```



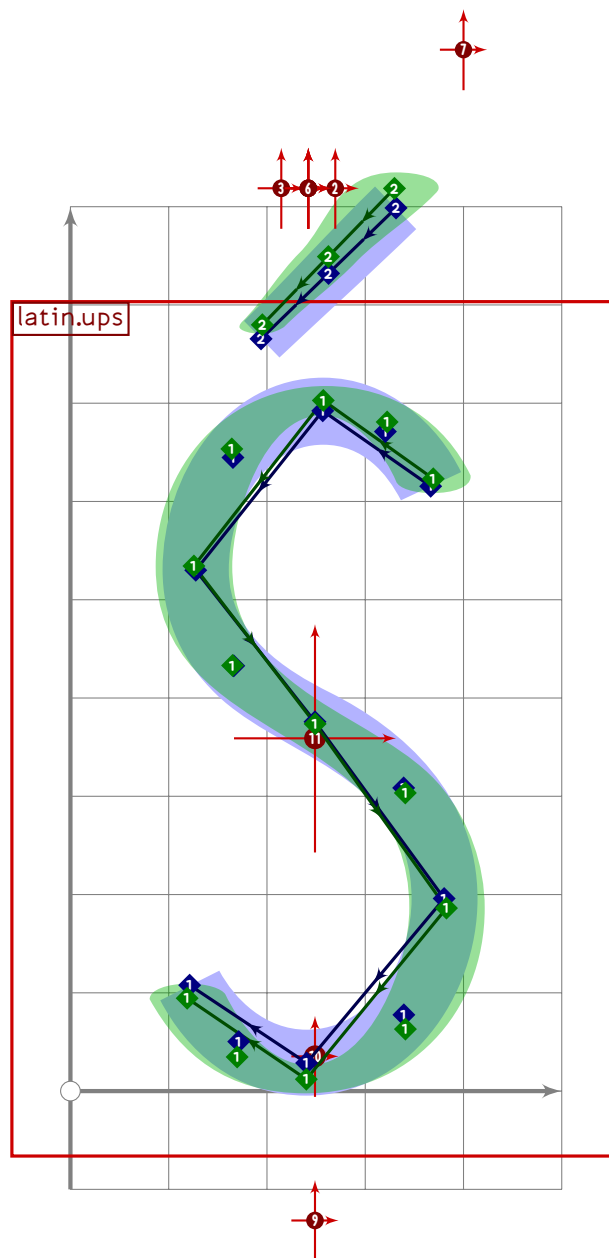


```

302 % R with caron
303 begintsuglyph("Rcaron";88);
304   tsu_accnt.apply(tsu_accnt.capital(latin.upr))(tsu_accnt.caron);
305   tsu_render;
306 endtsuglyph;
307

```

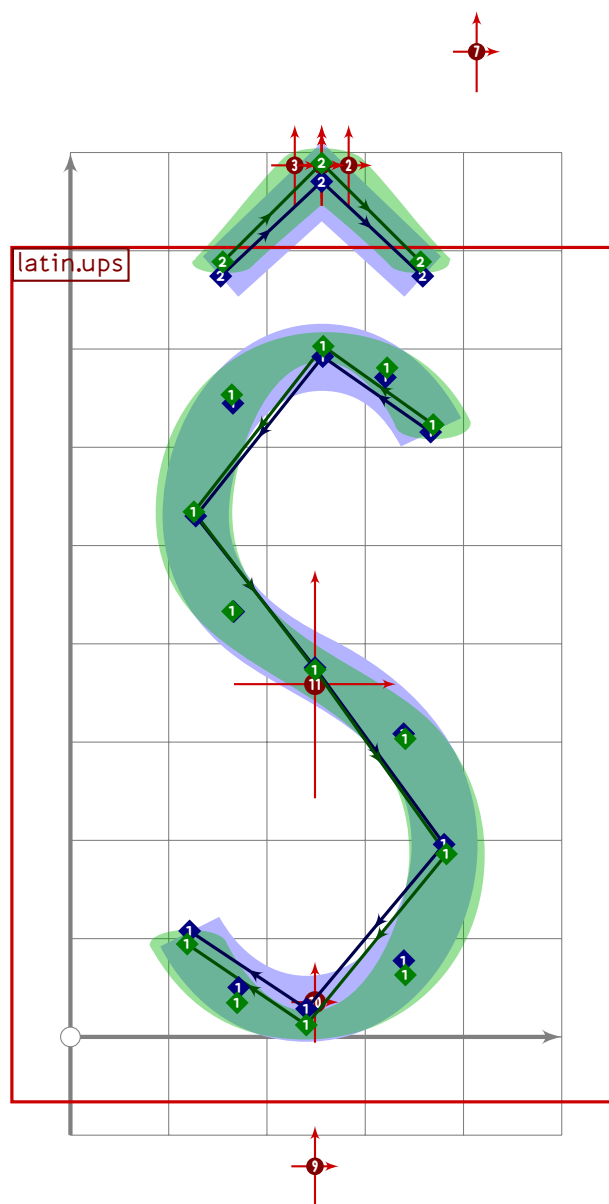
01



```

308 % S with acute
309 begintsuglyph("Sacute";90);
310 tsu_accent.apply(tsu_accent.capital(latin.ups))(tsu_accent.acute);
311 tsu_render;
312 endtsuglyph;
313

```

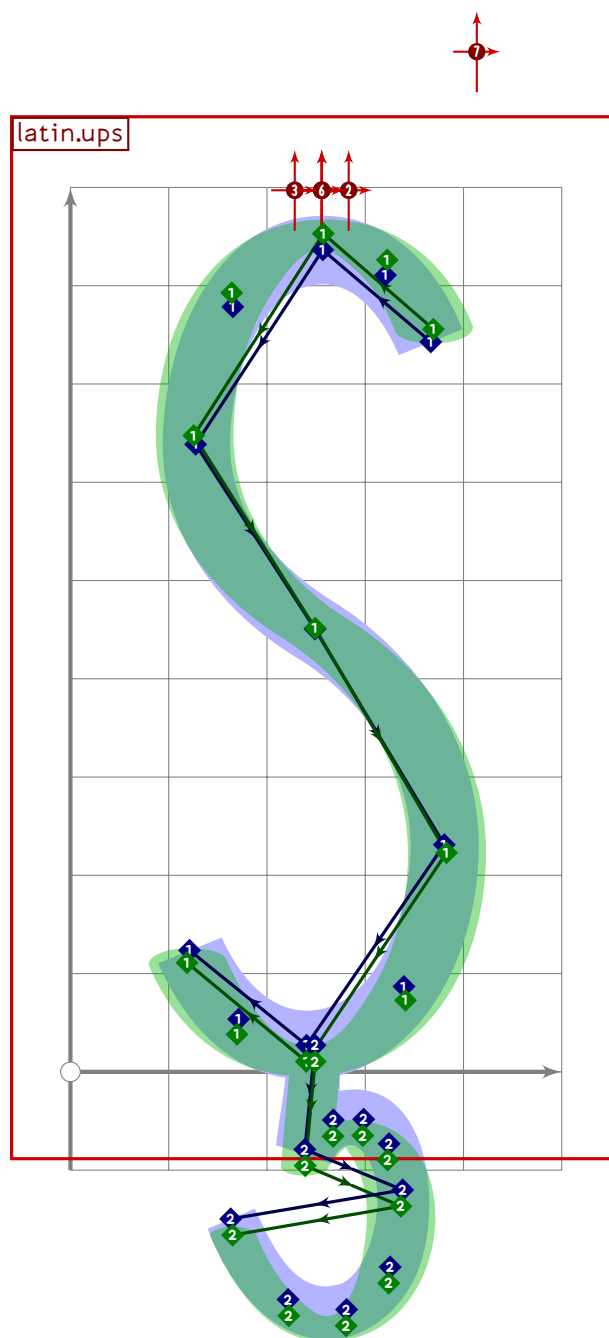


```

314 % S with circumflex
315 begint Suglyph("Scircumflex";92);
316   tsu_accent.apply(tsu_accent.capital(latin.ups))(tsu_accent.circumflex);
317   tsu_render;
318 endtsuglyph;
319

```

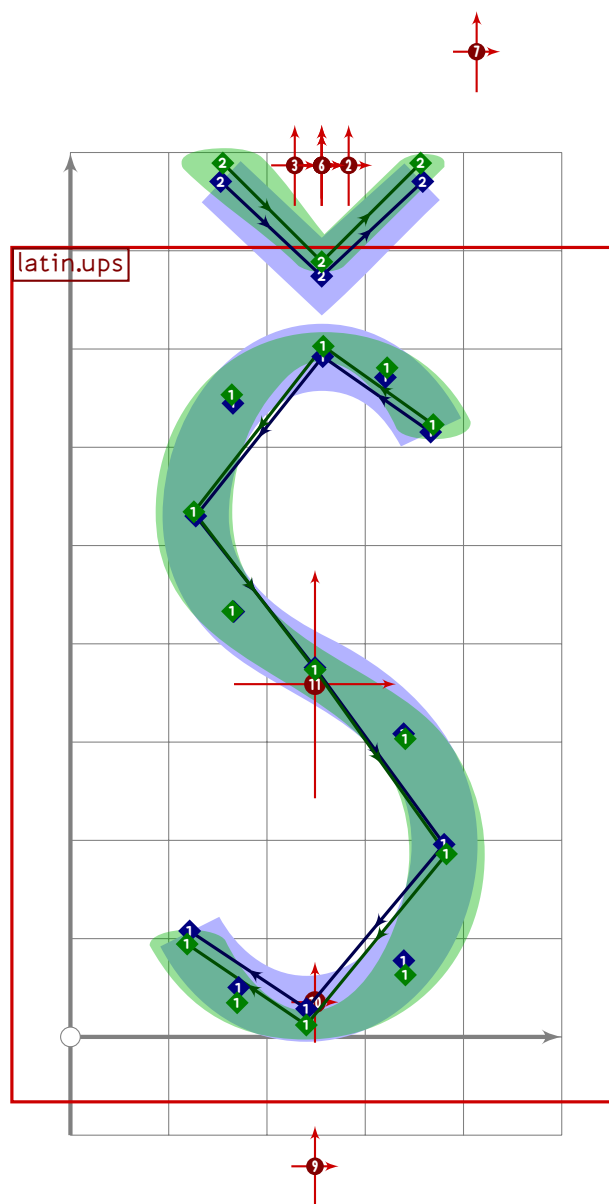
01



```

320 % S with cedilla
321 begintsuglyph("Scedilla";94);
322   tsu_accent.apply(latin.ups)(tsu_accent.cedilla);
323   tsu_render;
324 endtsuglyph;
325

```



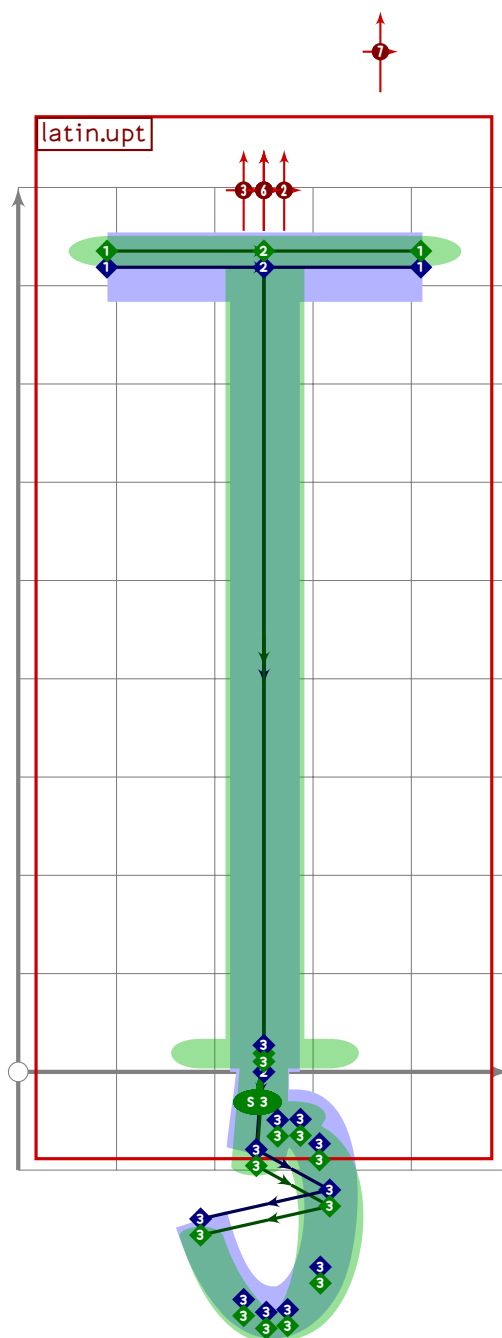
```

326 % S with caron
327 begintsuglyph("Scaron",96);
328   tsu_accent.apply(tsu_accent.capital(latin.ups))(tsu_accent.caron);
329   tsu_render;
330 endtsuglyph;
331

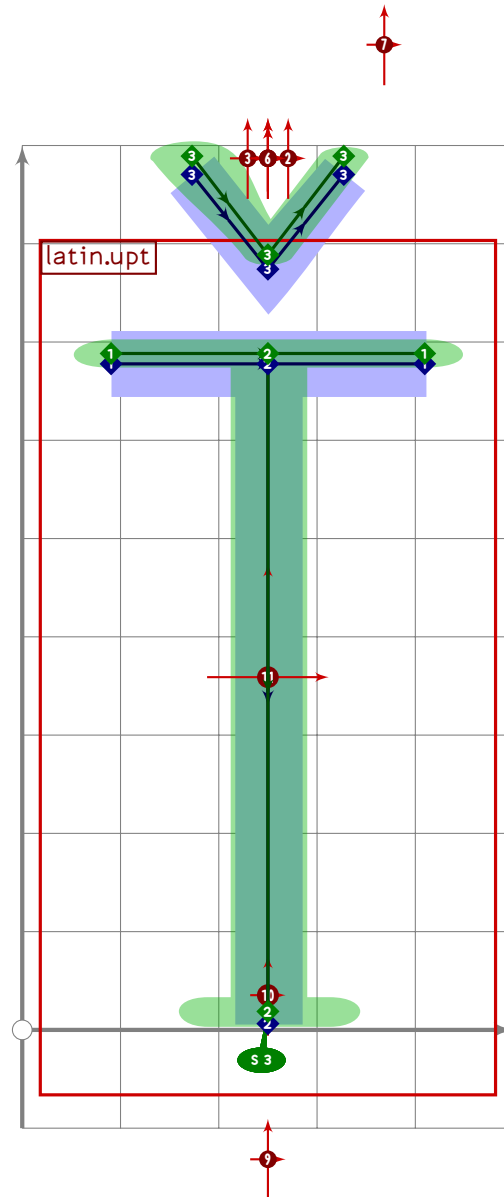
```

U+0162  
tsuku.uni0162

01



```
332 % T with cedilla [sic]
333 begint Suglyph("uni0162";98);
334   tsu_accent.apply(latin.upt)(tsu_accent.cedilla);
335   tsu_render;
336 endtsuglyph;
337
```

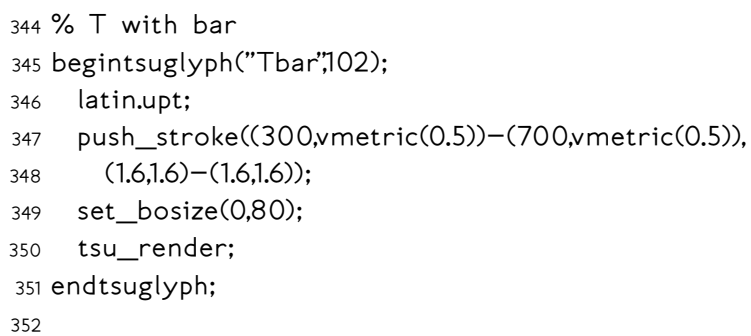


```

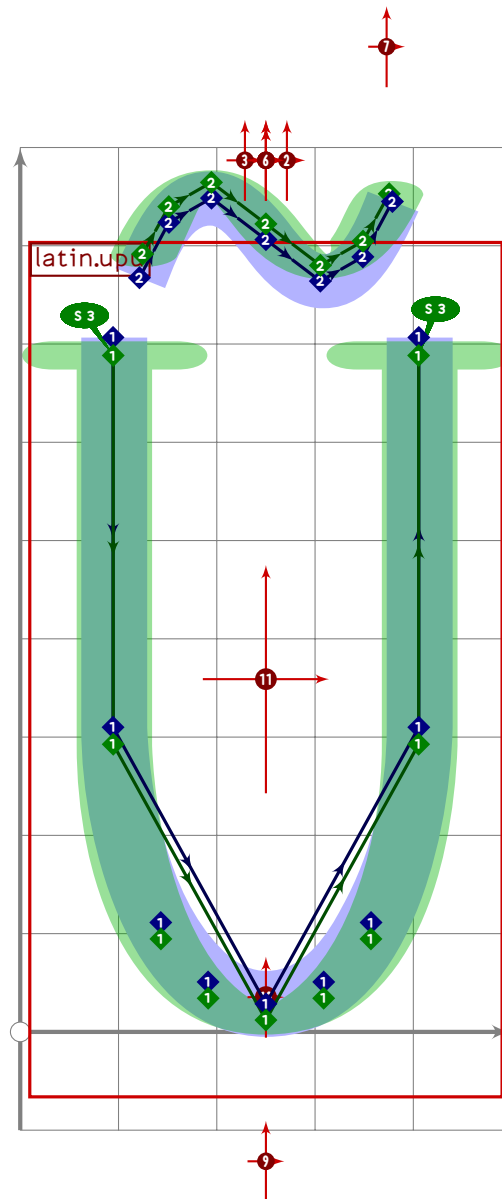
338 % T with caron
339 begintsuglyph("Tcaron";100);
340   tsu_accent.apply(tsu_accent.capital(latin.upt))(tsu_accent.caron);
341   tsu_render;
342 endtsuglyph;
343

```

01



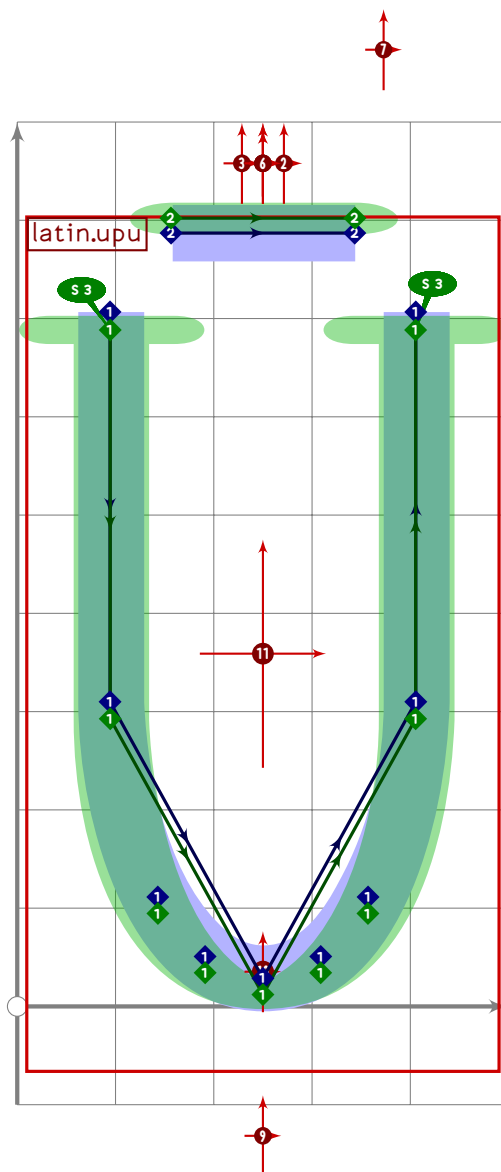




```

353 % U with tilde
354 begintsuglyph("Utilde",104);
355   tsu__accent.apply(tsu__accent.capital(latin.upu))(tsu__accent.tilde);
356   tsu__render;
357 endtsuglyph;
358

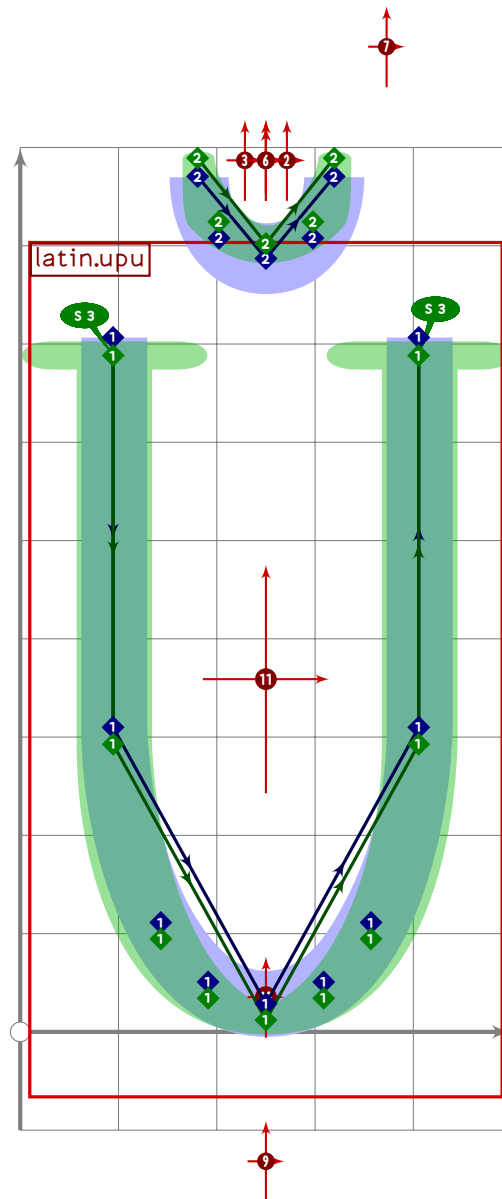
```



```

359 % U with macron
360 beginsuglyph("Umacron";106);
361   tsu_accent.apply(tsu_accent.capital(latin.upu))(tsu_accent.macron);
362   tsu_render;
363 endsuglyph;
364

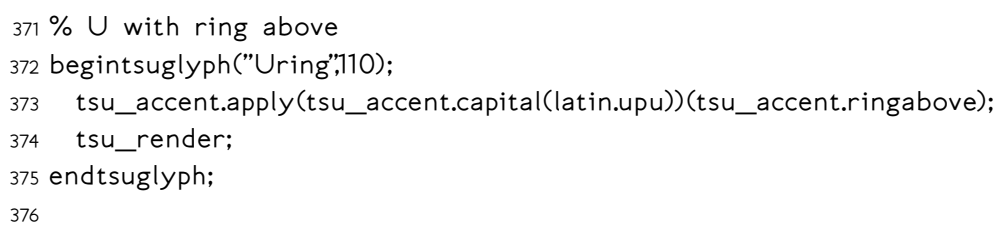
```

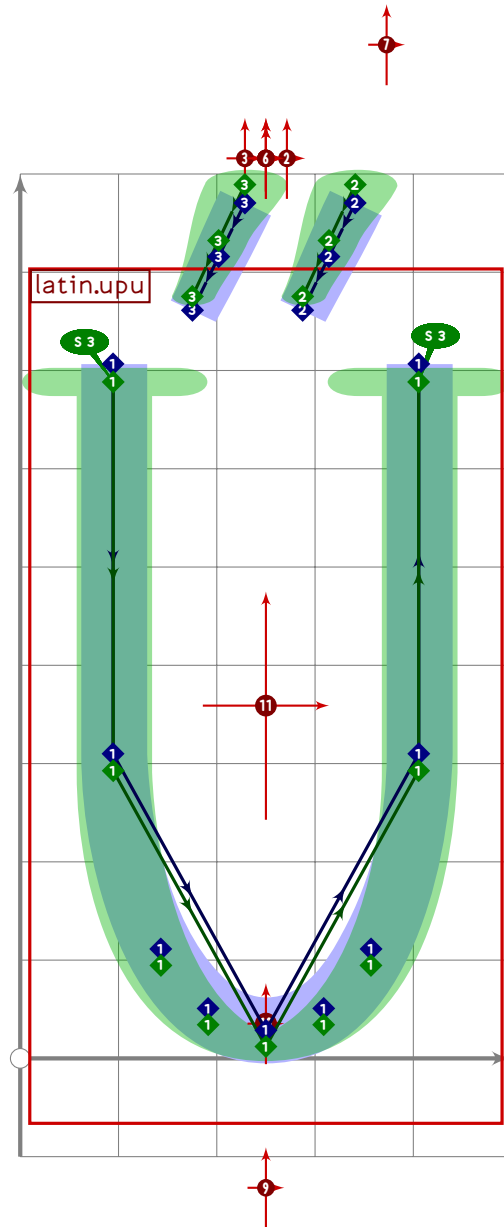


```

365 % U with breve
366 begintsuglyph("Ubreve",108);
367   tsu_accent.apply(tsu_accent.capital(latin.upu))(tsu_accent.breve);
368   tsu_render;
369 endtsuglyph;
370

```



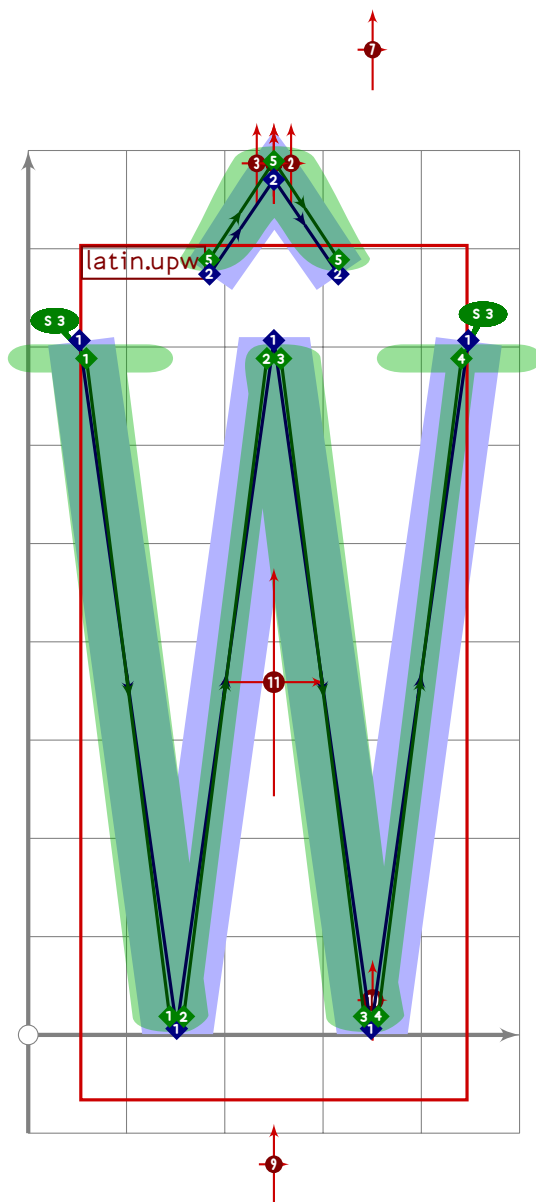


```

377 % U with Hungarian umlaut
378 begintsuglyph("Uhungarumlaut";112);
379     tsu_accent.apply(tsu_accent.capital(latin.upu))(tsu_accent.hungarian_umlaut);
380     tsu_render;
381 endtsuglyph;
382
383 % U with ogonek
384 begintsuglyph("Uogonek";114);
385     latin.upuogonek;
386     tsu_render;
387 endtsuglyph;
388

```

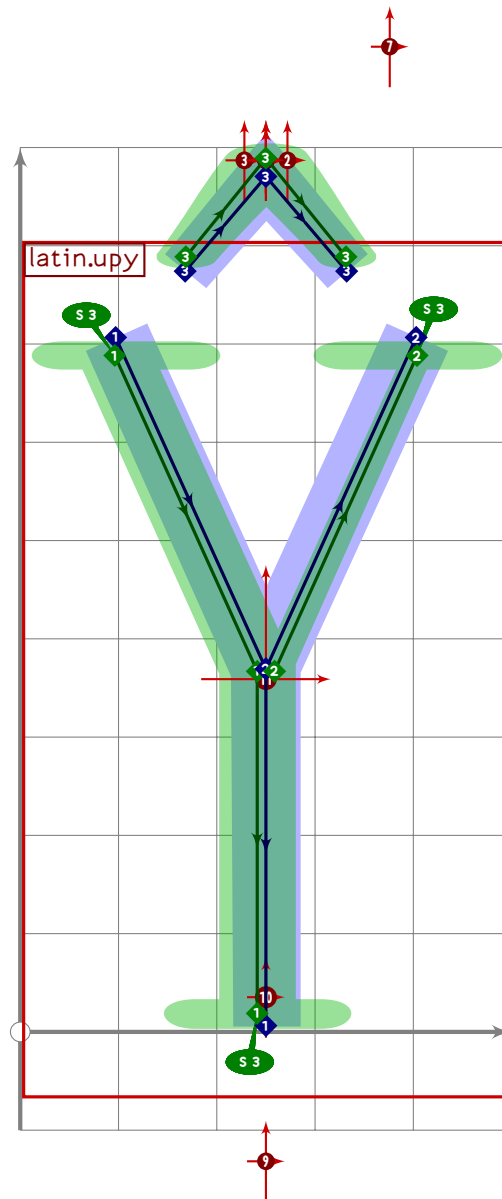
[see page 357]



```

389 % W with circumflex
390 begintsglyph("Wcircumflex";116);
391   tsu_accent.apply(tsu_accent.capital(latin.upw))(tsu_accent.circumflex);
392   tsu_render;
393 endtsuglyph;
394

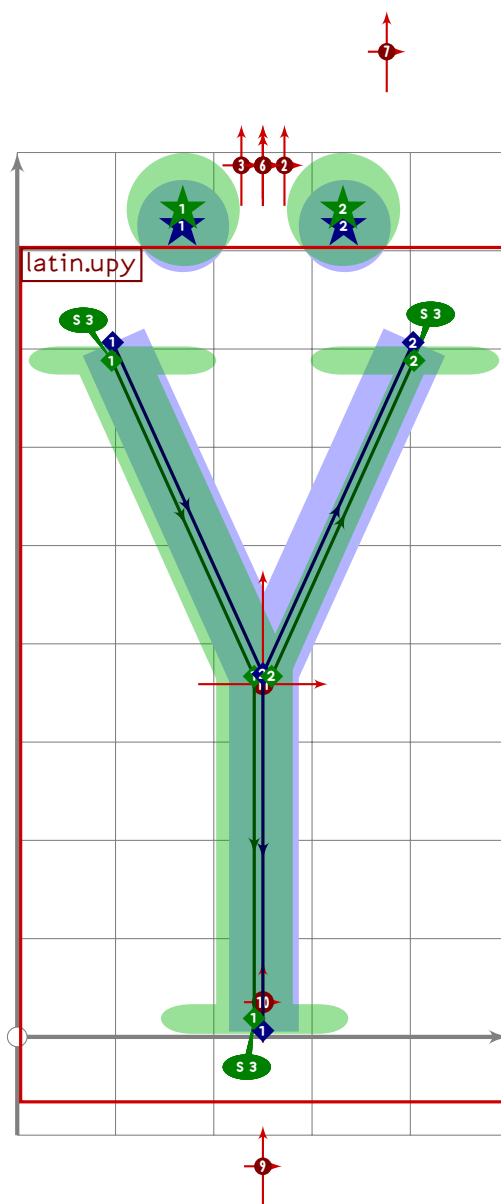
```



```

395 % Y with circumflex
396 begint Suglyph("Ycircumflex",118);
397   tsu_accent.apply(tsu_accent.capital(latin.upy))(tsu_accent.circumflex);
398   tsu_render;
399 endtsuglyph;
400

```

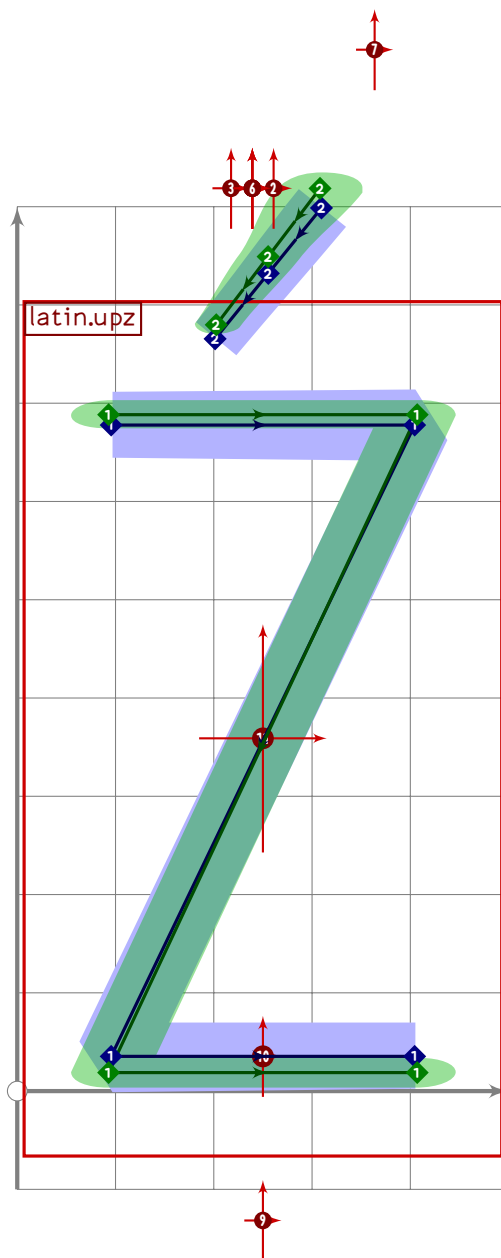


```

401 % Y with umlaut/dieresis
402 begintsuglyph("Ydieresis",120);
403   tsu_accent.apply(tsu_accent.capital(latin.upy))(tsu_accent.umlaut);
404   tsu_render;
405 endtsuglyph;
406

```

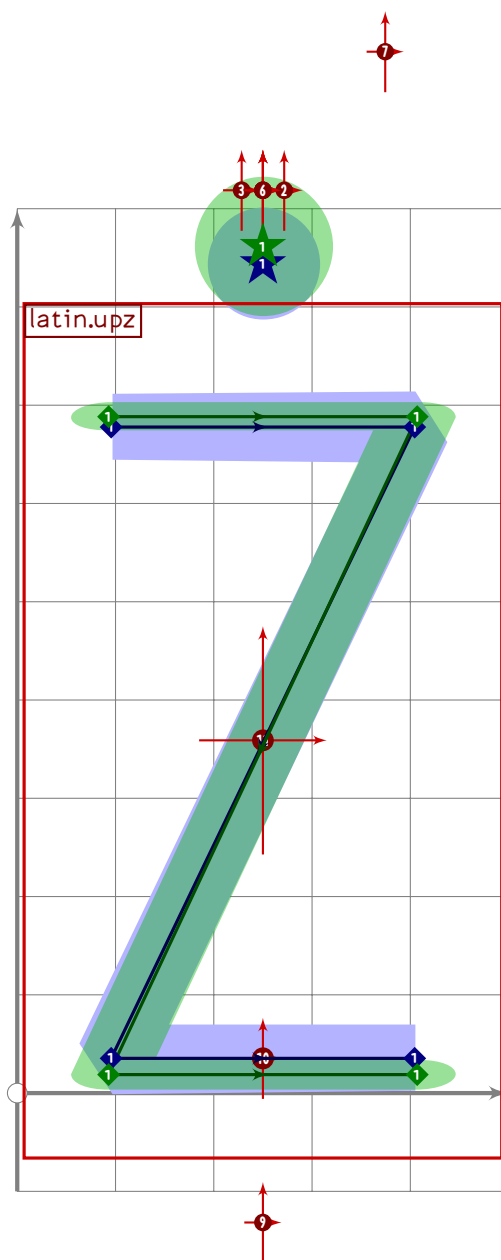




```

407 % Z with acute
408 begintsuglyph("Zacute";121);
409   tsu_accent.apply(tsu_accent.capital(latin.upz))(tsu_accent.acute);
410   tsu_render;
411 endtsuglyph;
412

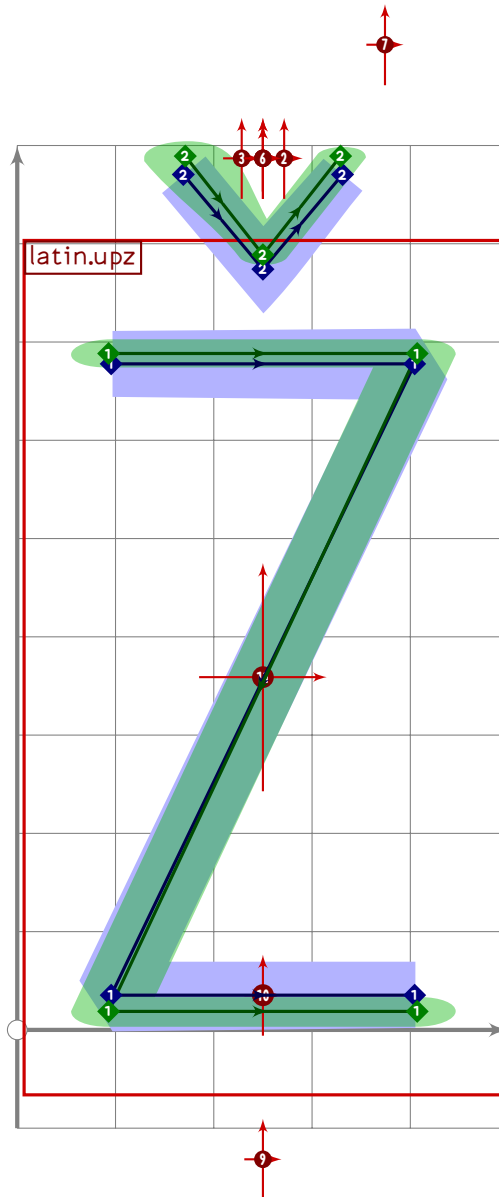
```



```

413 % Z with dot
414 begintsuglyph("Zdotaccent";123);
415   tsu_accent.apply(tsu_accent.capital(latin.upz))(tsu_accent.dotabove);
416   tsu_render;
417 endtsuglyph;
418

```



```

419 % Z with caron
420 begintsuglyph("Zcaron";125);
421   tsu_accent.apply(tsu_accent.capital(latin.upz))(tsu_accent.caron);
422   tsu_render;
423 endtsuglyph;
424
425
426

```

## Latin Extended A Lowercase

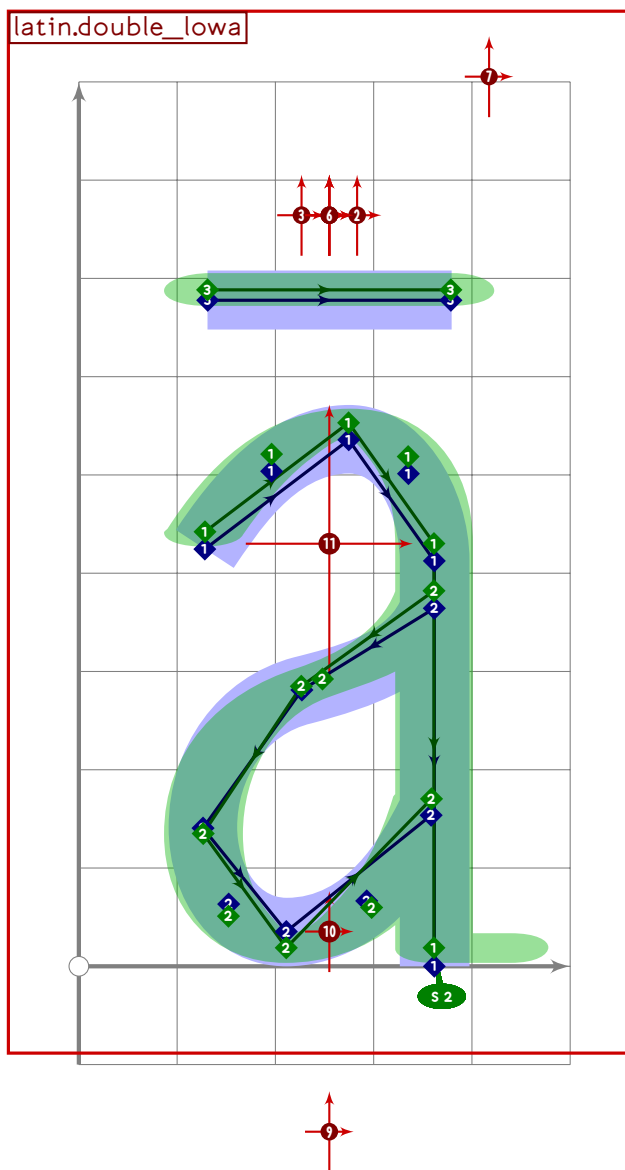
```

427 % LATIN EXTENDED A LOWERCASE
428
429 tsu_accent.low_default_anchors;
430

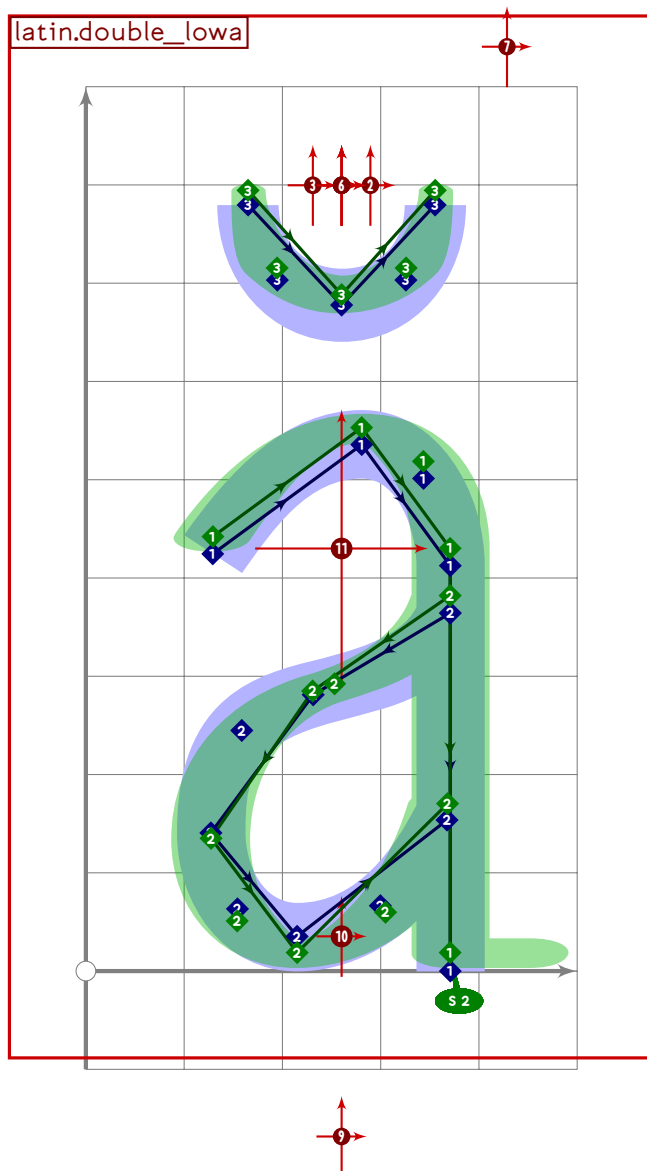
```

U+0101  
tsuku.amacron

01



```
431 % a with macron
432 begintsuglyph("amacron",1);
433   tsu_accent.apply(latin.low_a)(tsu_accent.macron);
434   tsu_render;
435 endsuglyph;
436
```



```

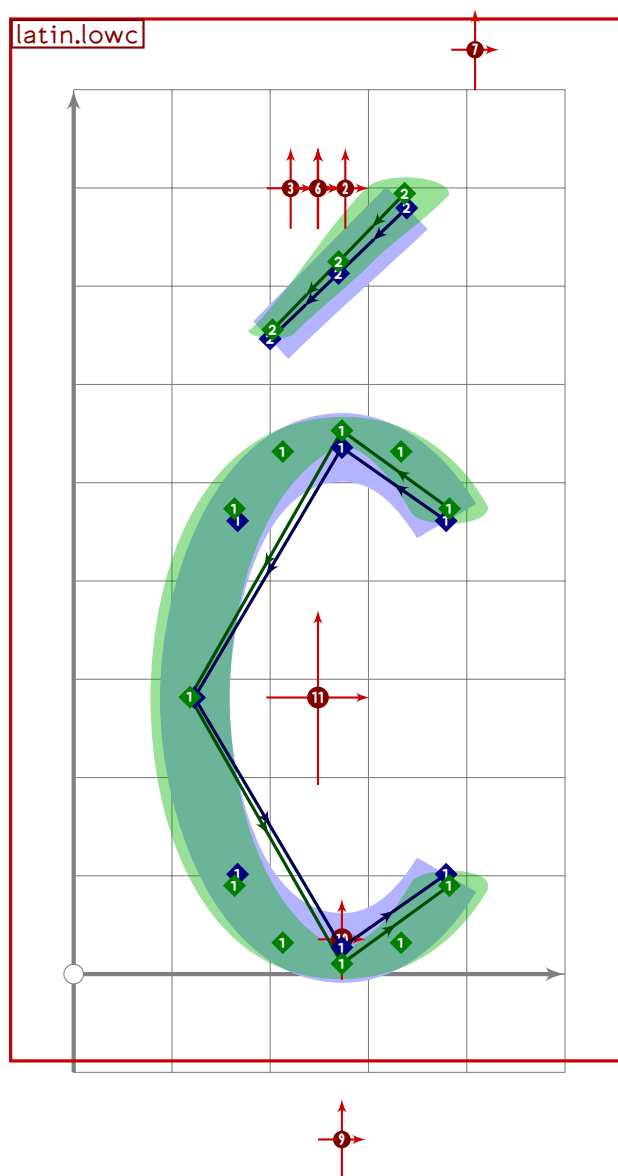
437 % a with breve
438 begintsuglyph("abreve";3);
439   tsu_accent.apply(latin.lowa)(tsu_accent.breve);
440   tsu_render;
441 endtsuglyph;
442
443 % a with ogonek
444 begintsuglyph("aogonek";5);
445   latin.lowaogonek;
446   tsu_render;
447 endtsuglyph;
448

```

[see page 359]

U+0107  
tsuku.cacute

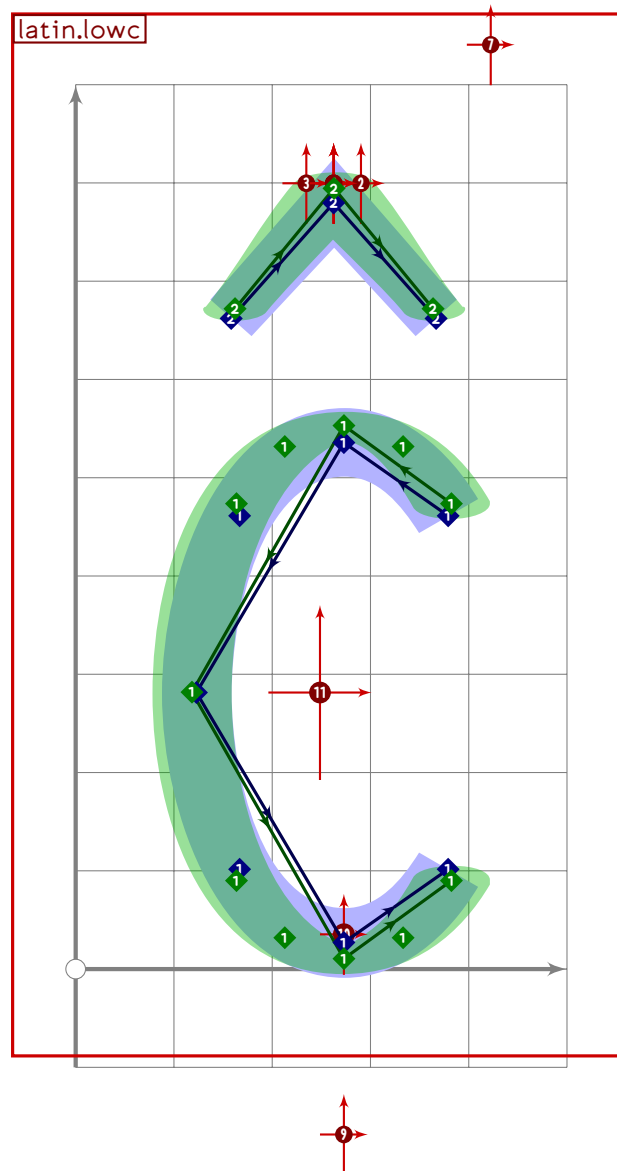
01



```

449 % c with acute
450 begint Suglyph("cacute",7);
451   tsu_accent.apply(latin.lowc)(tsu_accent.acute);
452   tsu_render;
453 endtsuglyph;
454

```



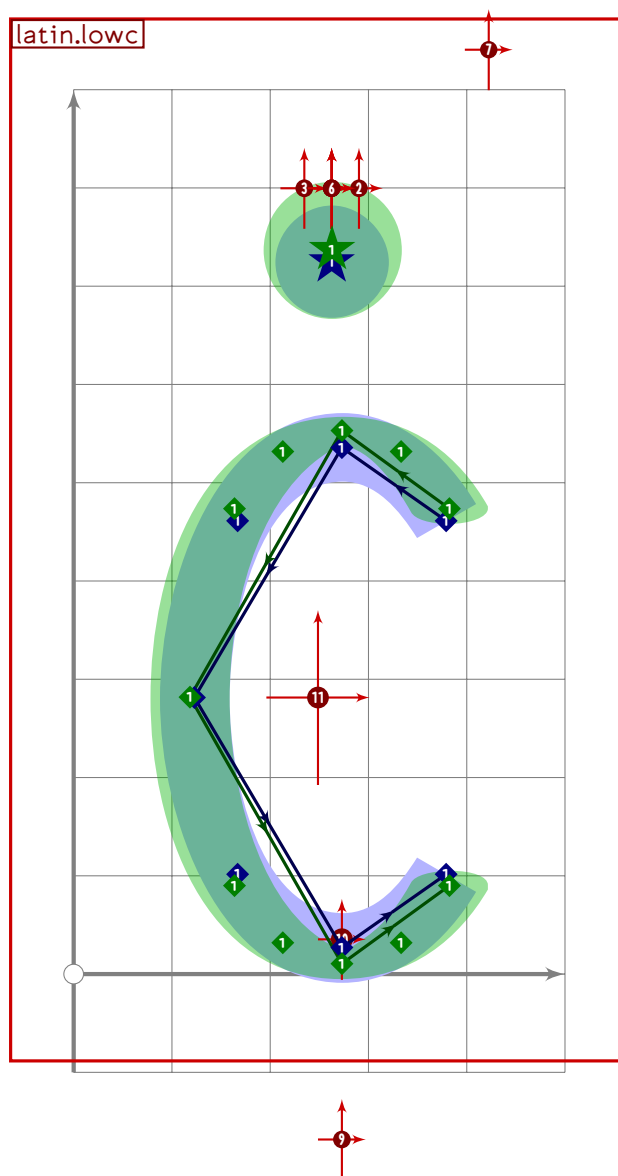
```

455 % c with circumflex
456 begint Suglyph("ccircumflex";9);
457   tsu_accent.apply(latin.lowc)(tsu_accent.circumflex);
458   tsu_render;
459 endtsuglyph;
460

```

U+010B  
tsuku.cdottaccent

01

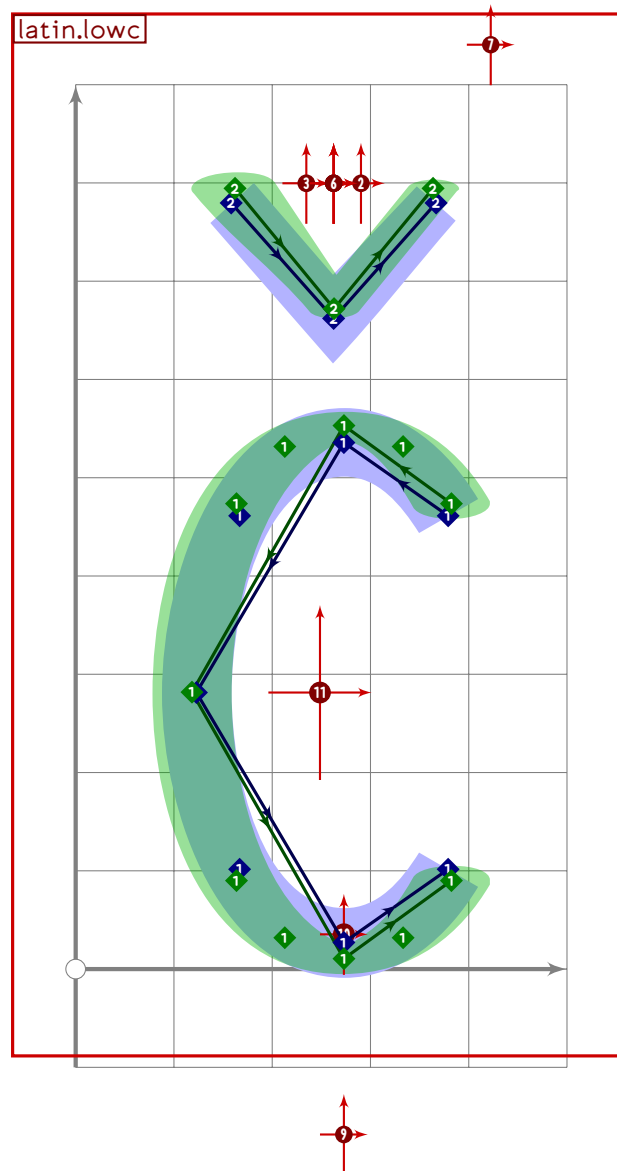


```

461 % c with dot above
462 begintsuglyph("cdottaccent",11);
463   tsu_accent.apply(latin.lowc)(tsu_accent.dotabove);
464   tsu_render;
465 endtsuglyph;
466

```





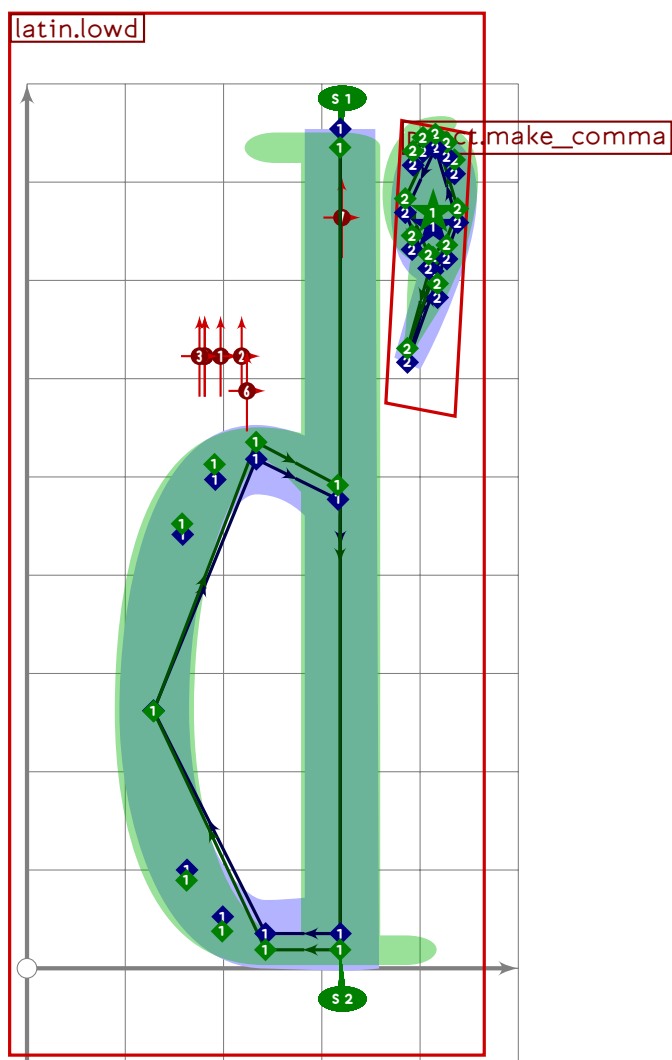
```

467 % c with caron
468 begintsuglyph("ccaron",13);
469   tsu_accent.apply(latin.lowc)(tsu_accent.caron);
470   tsu_render;
471 endtsuglyph;
472

```

U+010F  
tsuku.dcaron

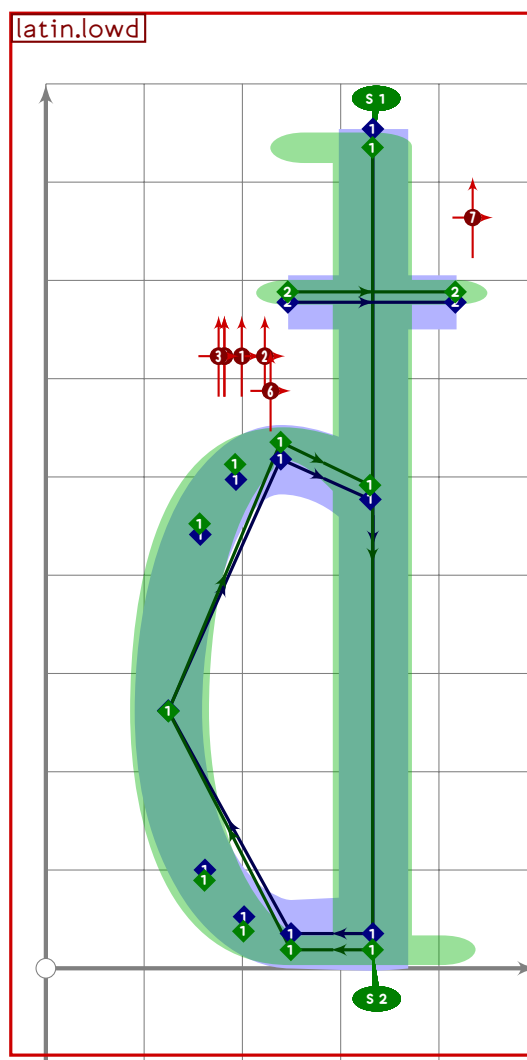
01



```

473 % d with caron apostrophe
474 begintsuglyph("dcaron";15);
475   tsu_accent.apply(latin.lowd)(tsu_accent.caron_comma);
476   tsu_render;
477 endtsuglyph;
478

```



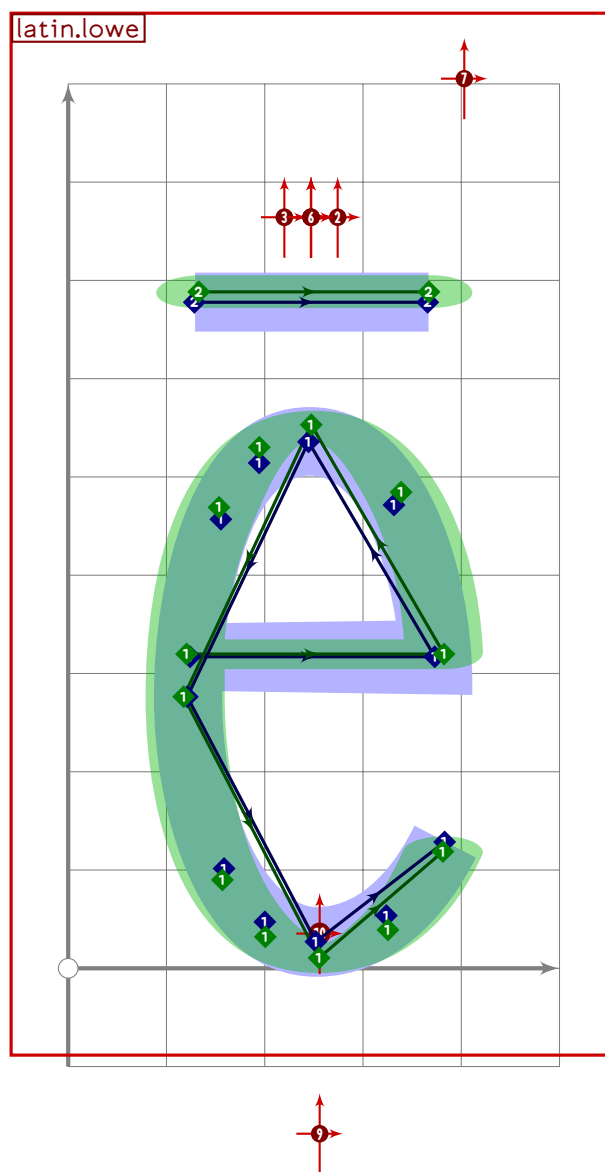
```

479 % d with bar
480 begintsuglyph("dcroat",17);
481   latin.lowd;
482   push_stroke((530,vmetric(0.82))-(820,vmetric(0.82)),
483     (1.6,1.6)-(1.6,1.6));
484   set_bosize(0,80);
485   tsu_render;
486 endtsuglyph;
487

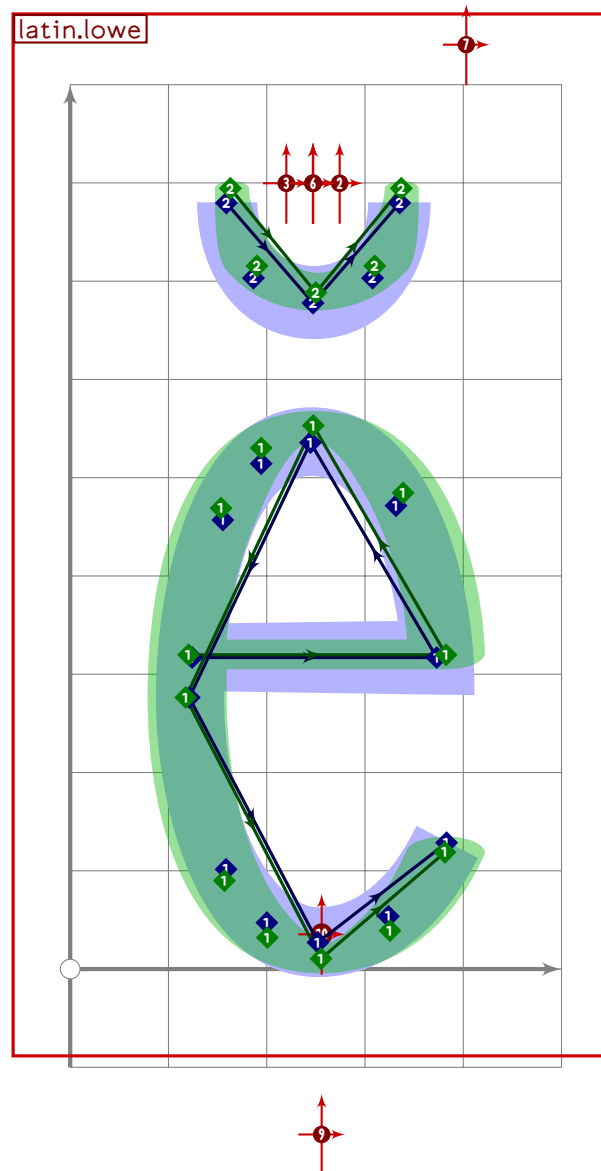
```

U+0113  
tsuku.emacron

01



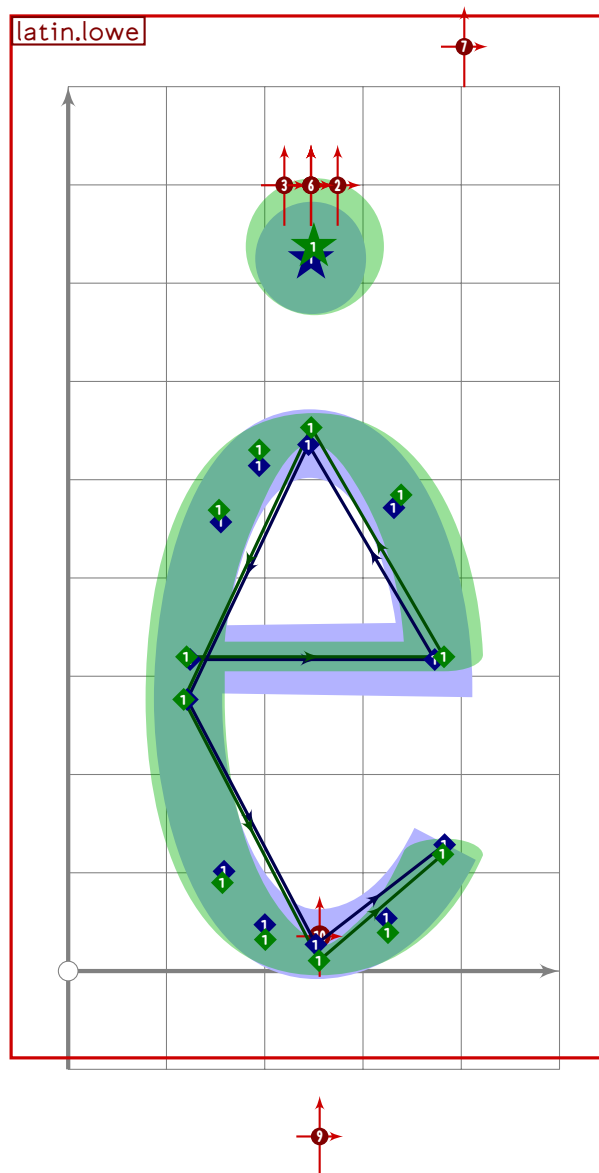
```
488 % e with macron
489 begintsuglyph("emacron",19);
490 tsu_accent.apply(latin.love)(tsu_accent.macron);
491 tsu_render;
492 endtsuglyph;
493
```



```

494 % e with breve
495 begintzuglyph("ebreve";21);
496   tsu_accent.apply(latin.lowe)(tsu_accent.breve);
497   tsu_render;
498 endtsuglyph;
499

```

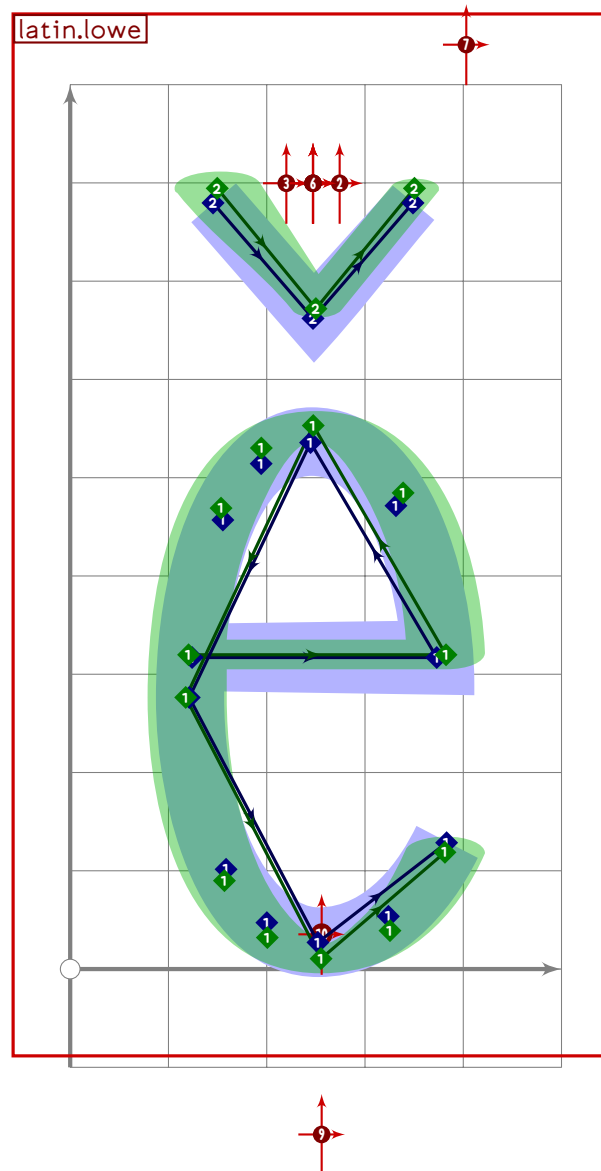


```

500 % e with dot
501 begintsuglyph("edotaccent";23);
502   tsu_accent.apply(latin.lowe)(tsu_accent.dotabove);
503   tsu_render;
504 endtsuglyph;
505
506 % e with ogonek
507 begintsuglyph("eogonek";25);
508   latin.loweogonek;
509   tsu_render;
510 endtsuglyph;
511

```

[see page 360]



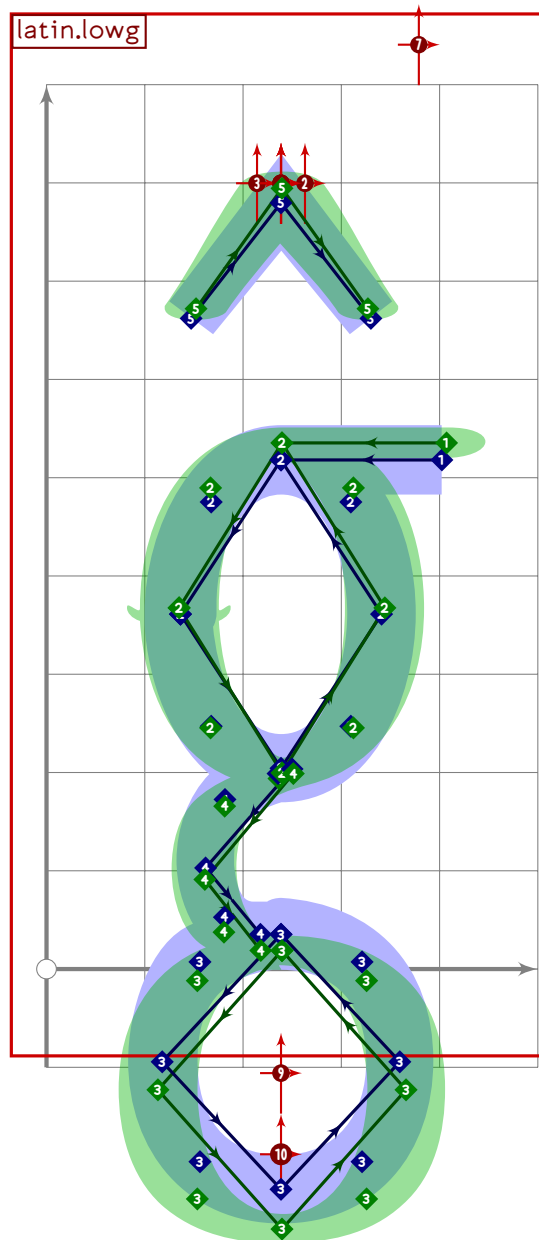
```

512 % e with caron
513 begintzuglyph("ecaron";27);
514   tsu_accent.apply(latin.lowe)(tsu_accent.caron);
515   tsu_render;
516 endtsuglyph;
517

```

U+011D  
tsuku.gcircumflex

01

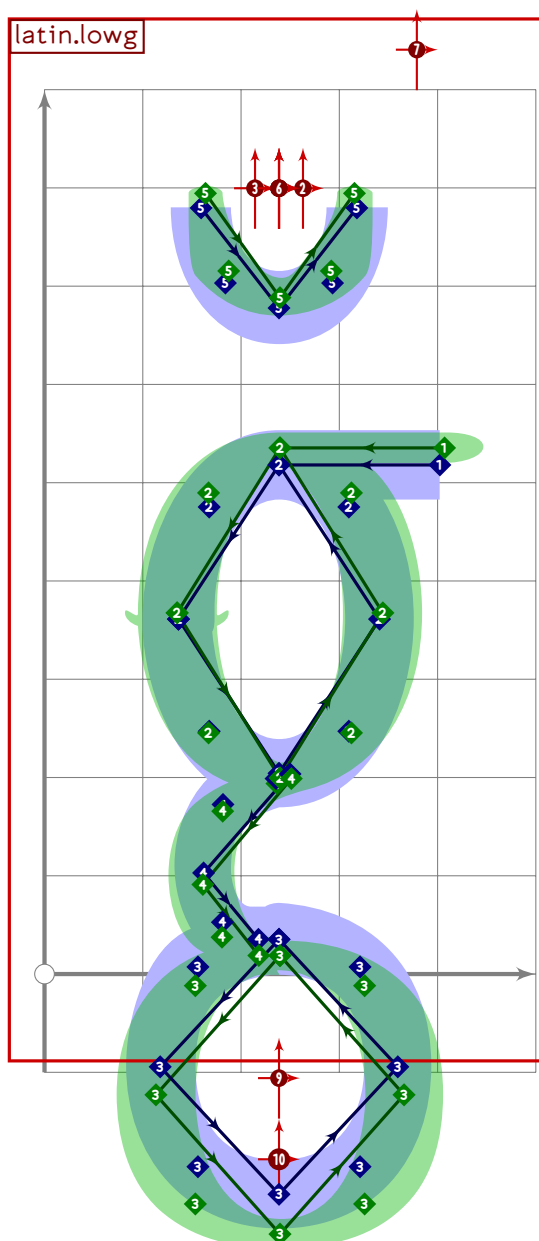


```

518 % g with circumflex
519 begint Suglyph("gcircumflex";29);
520   tsu_accent.apply(latin.lowg)(tsu_accent.circumflex);
521   tsu_render;
522 endtsuglyph;
523

```





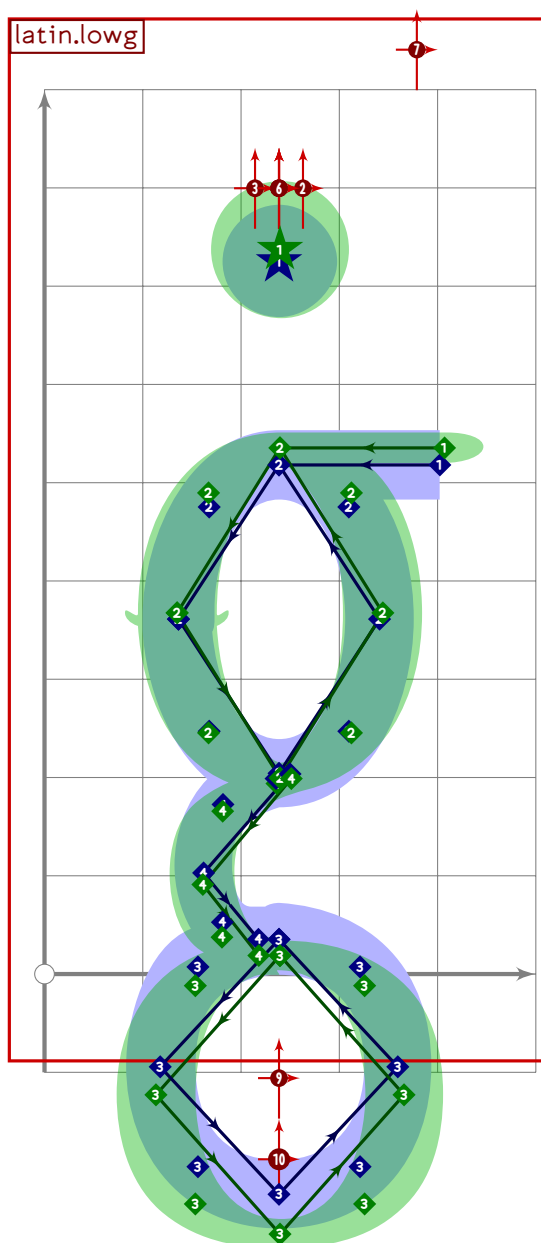
```

524 % g with breve
525 begintsuglyph("gbreve",31);
526   tsu_accent.apply(latin.lowg)(tsu_accent.breve);
527   tsu_render;
528 endtsuglyph;
529

```

U+0121  
tsuku.gdotaccent

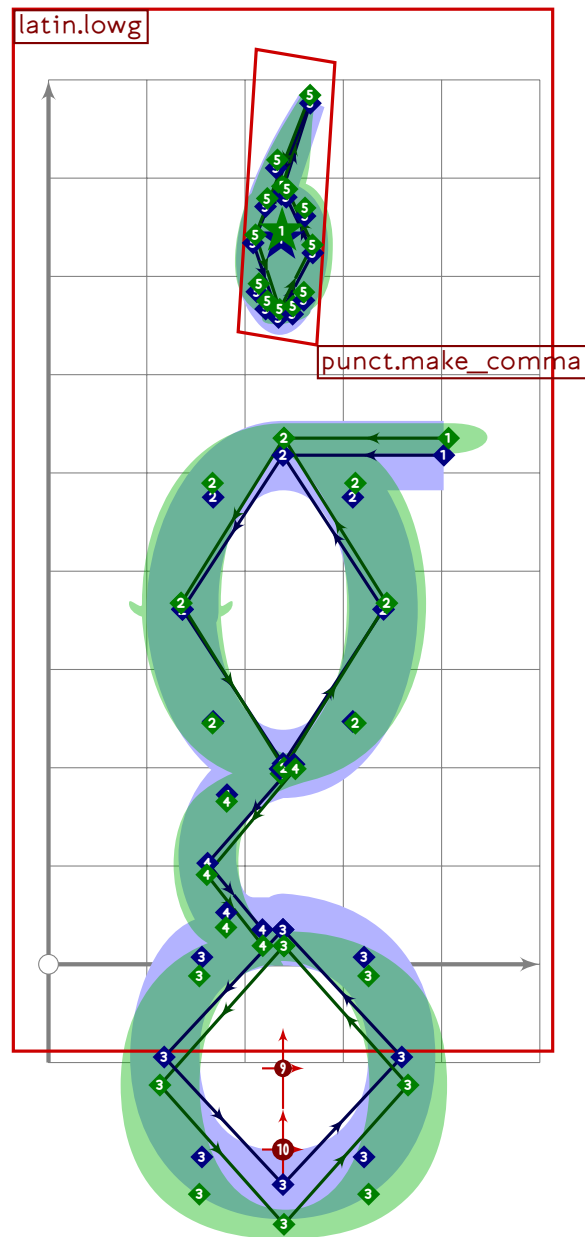
01



```

530 % g with dot
531 begintsuglyph("gdotaccent";33);
532   tsu_accent.apply(latin.lowg)(tsu_accent.dotabove);
533   tsu_render;
534 endtsuglyph;
535

```

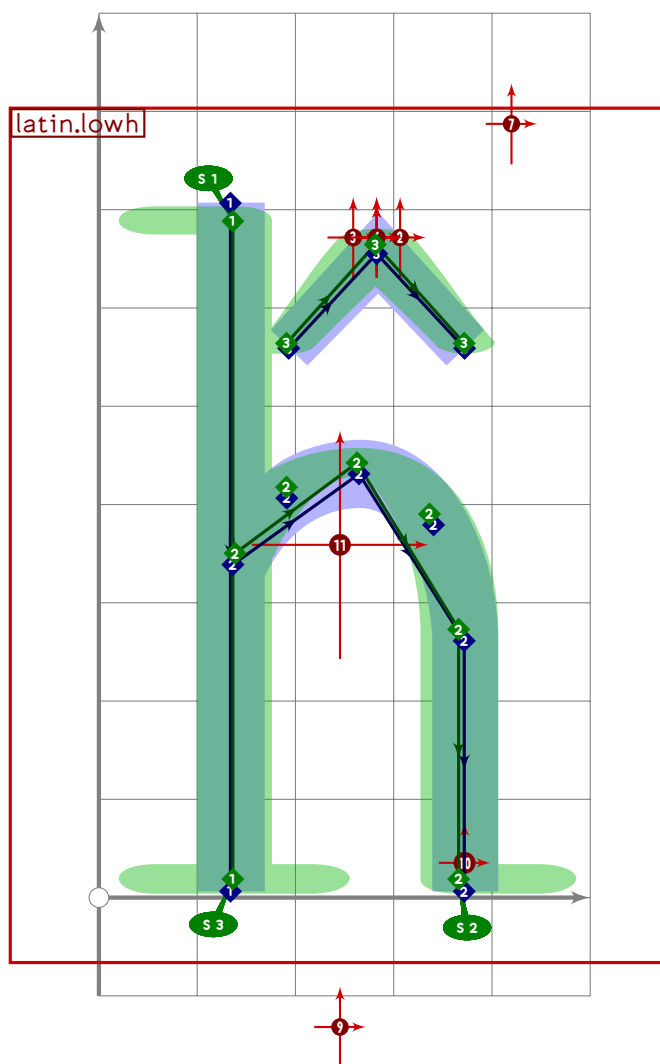


```

536 % g with comma upside-down above
537 begintsuglyph("uni0123",35);
538 tsu_accent.apply(latin.lowg)(tsu_accent.caron_comma);
539 tsu_render;
540 endtsuglyph;
541

```

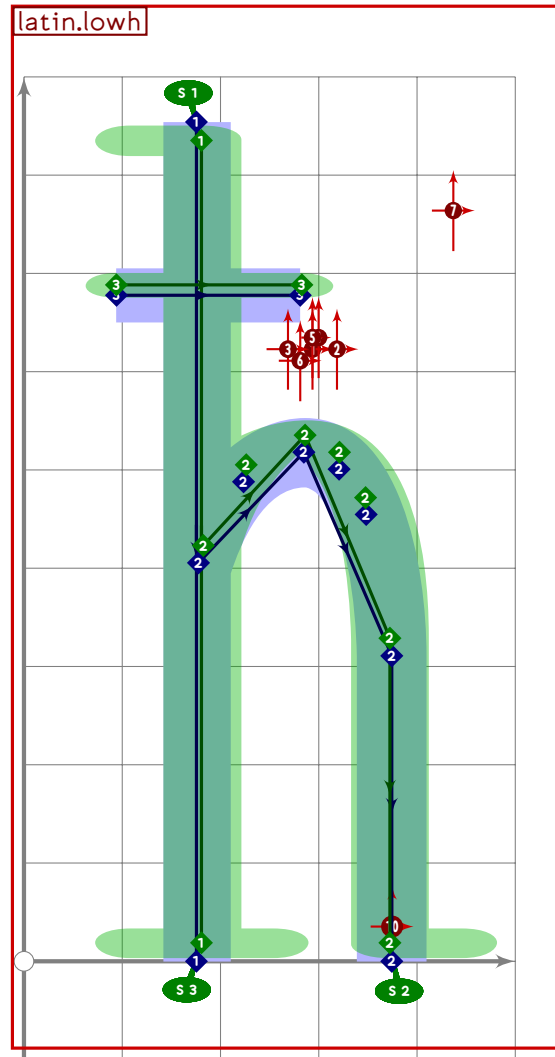
01



```

542 % h with circumflex
543 begintsuglyph("hcircumflex",37);
544   tsu_accent.apply(tsu_accent.capital(latin.lowh))(tsu_accent.circumflex);
545   tsu_render;
546 endtsuglyph;
547

```



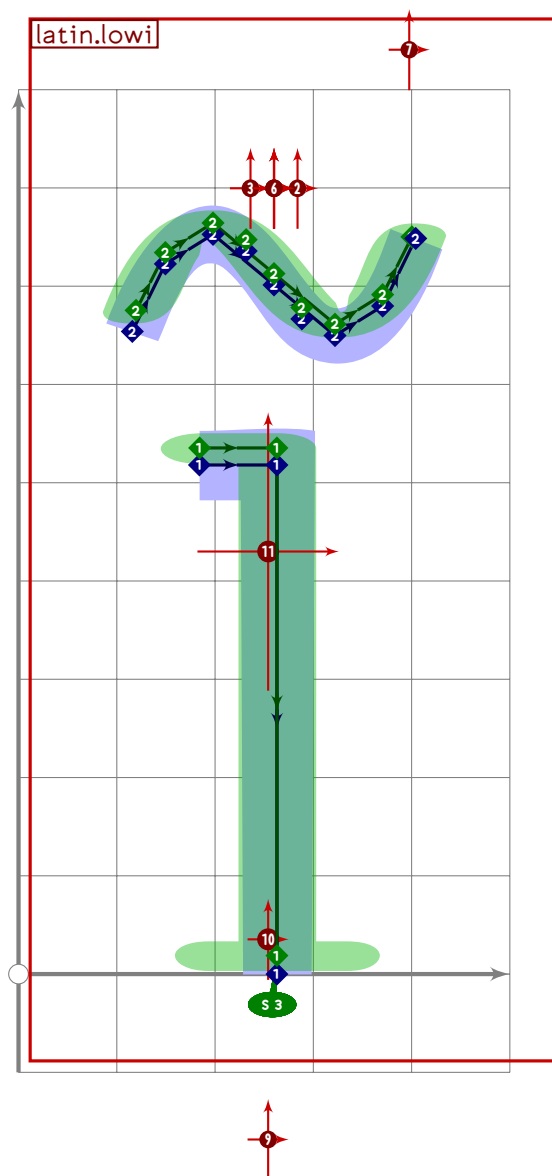
```

548 % h with bar
549 begint Suglyph("hbar",39);
550   latin.lowh;
551   push_stroke((220,vmetric(0.82))-(520,vmetric(0.82)),
552     (1.6,1.6)-(1.6,1.6));
553   set_bosize(0,80);
554   tsu_render;
555 endtsuglyph;
556

```

U+0129  
tsuku.itilde

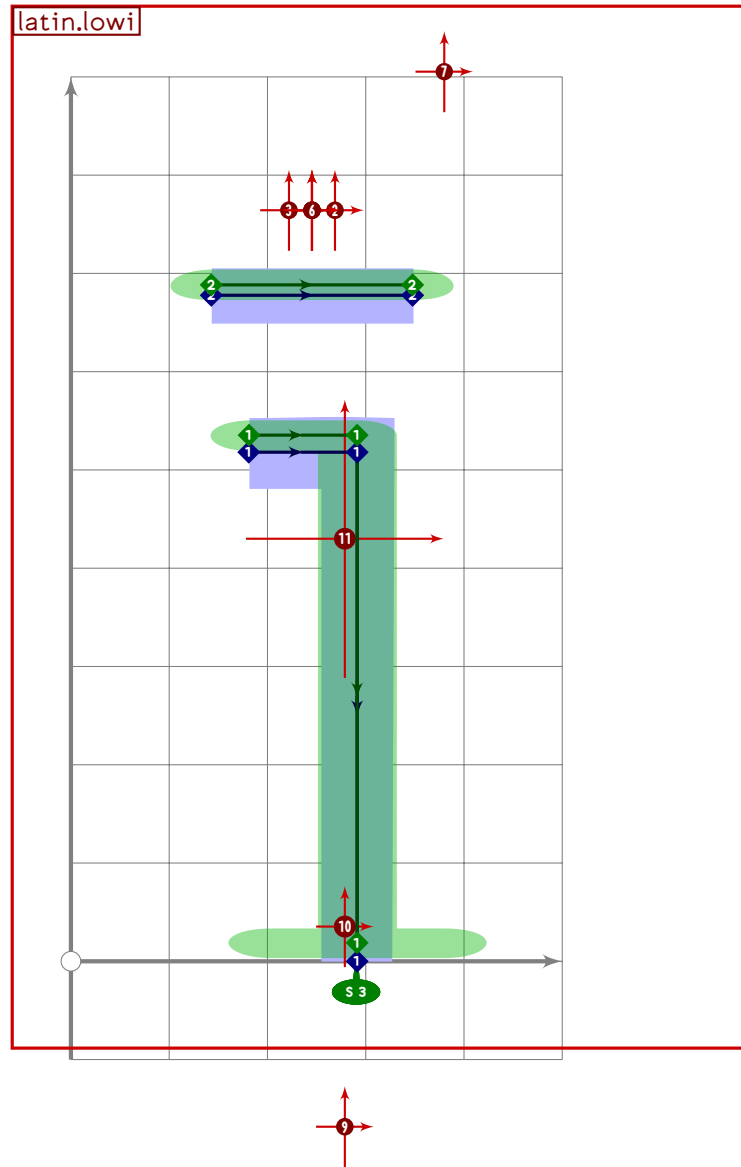
01



```

557 % i with tilde
558 begintsuglyph("itilde",41);
559   tsu_accent.apply(
560     tsu_xform(identity shifted (70,0))(latin.lowi;
561       tsu_accent.shift_anchors(true)((0,0)));
562     pop_lcblob;
563   )(tsu_accent.tilde);
564   tsu_render;
565 endsuglyph;
566

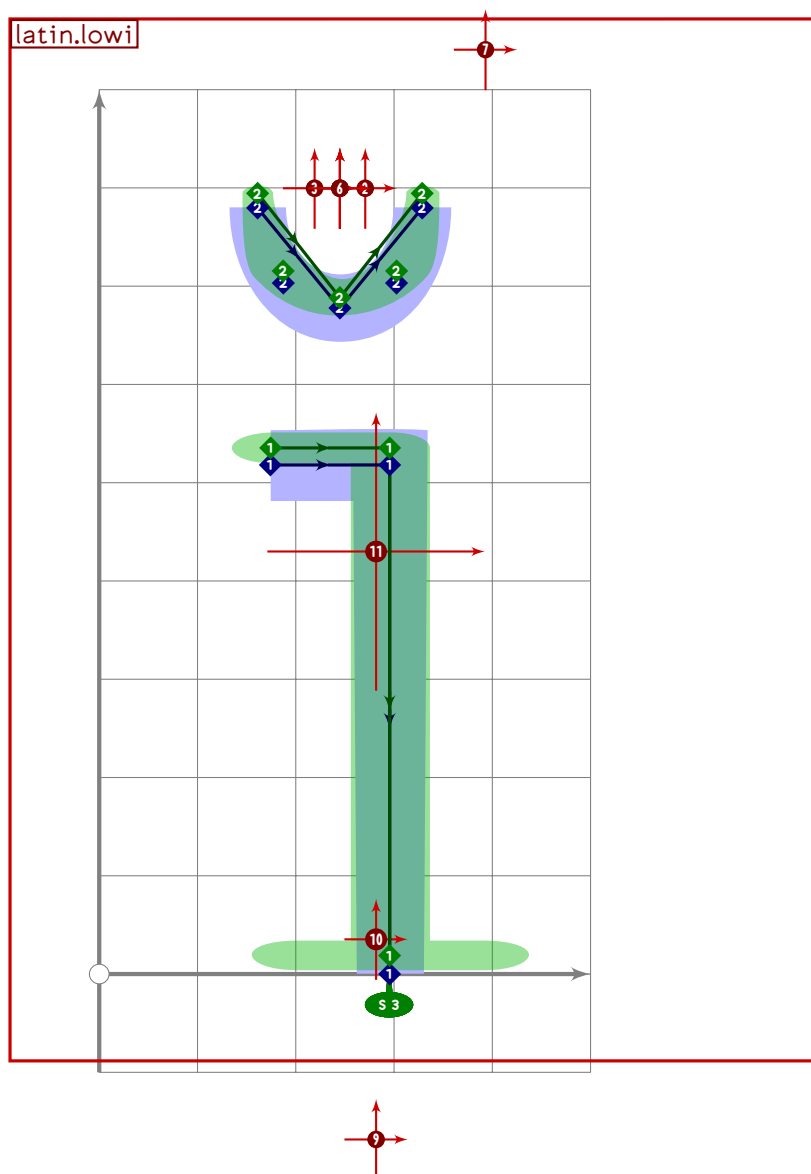
```



```

567 % i with macron
568 begintsuglyph("imacron",43);
569   tsu_accent.apply(
570     tsu_xform(identity shifted (70,0))(latin.lowi;
571     tsu_accent.shift_anchors(true)((0,0)));
572   pop_lcblob;
573 )(tsu_accent.macron);
574   tsu_render;
575 endtsuglyph;
576

```



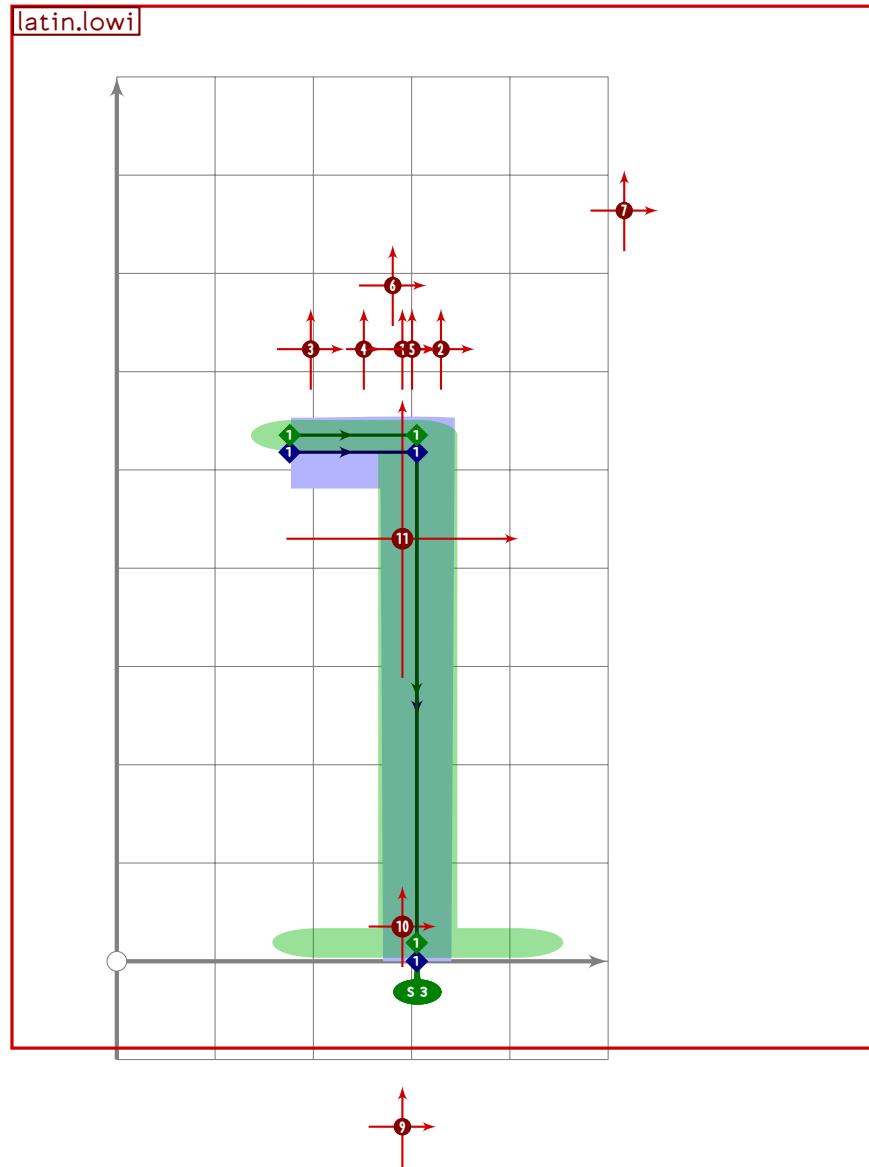
```

577 % i with breve
578 beginsuglyph("ibreve"45);
579   tsu_accent.apply(
580     tsu_xform(identity shifted (70,0))(latin.lowi;
581       tsu_accent.shift_anchors(true)((0,0)));
582     pop_lcblob;
583   )(tsu_accent.breve);
584   tsu_render;
585 endsuglyph;
586
587 % i with ogonek
588 beginsuglyph("iogonek"47);
589   latin.lowiogonek;
590   tsu_render;
591 endsuglyph;
592

```

[see page 361]





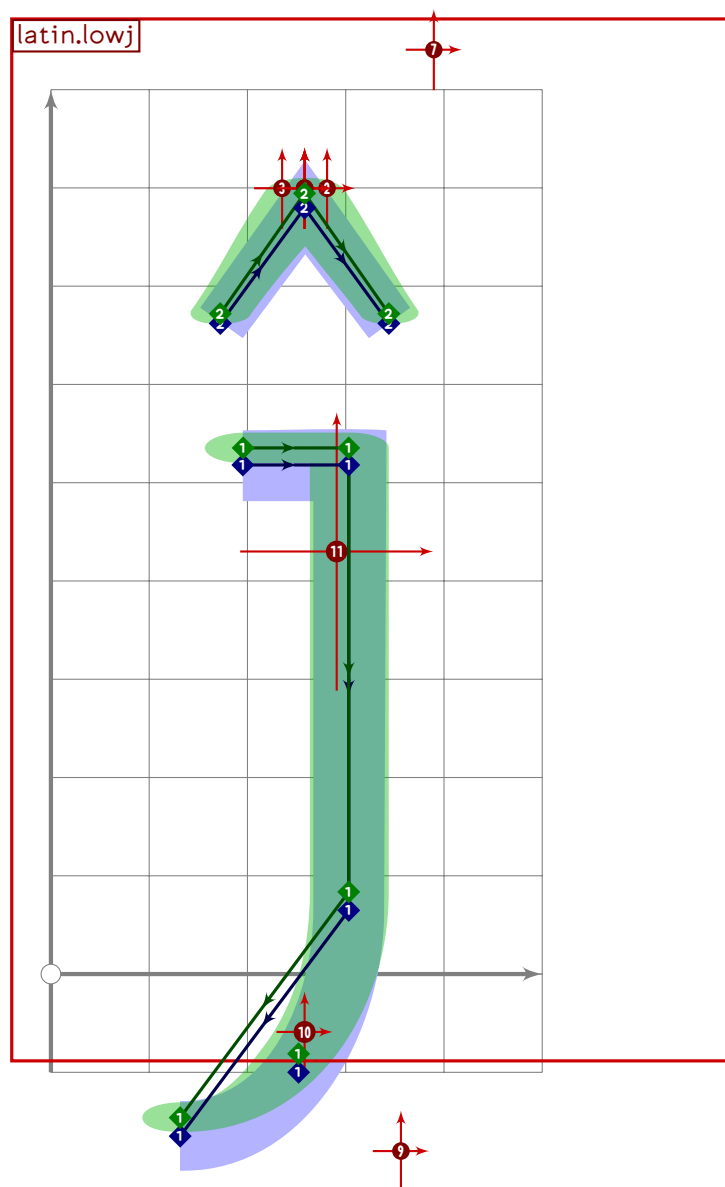
```

593 % i without dot
594 begintsuglyph("dotlessi",49);
595   tsu_xform(identity shifted (70,0))(latin.lowi;
596     tsu_accent.shift_anchors(true)((0,0)));
597   pop_lcblob;
598   tsu_render;
599 endtsuglyph;
600

```

U+0135  
tsuku.jcircumflex

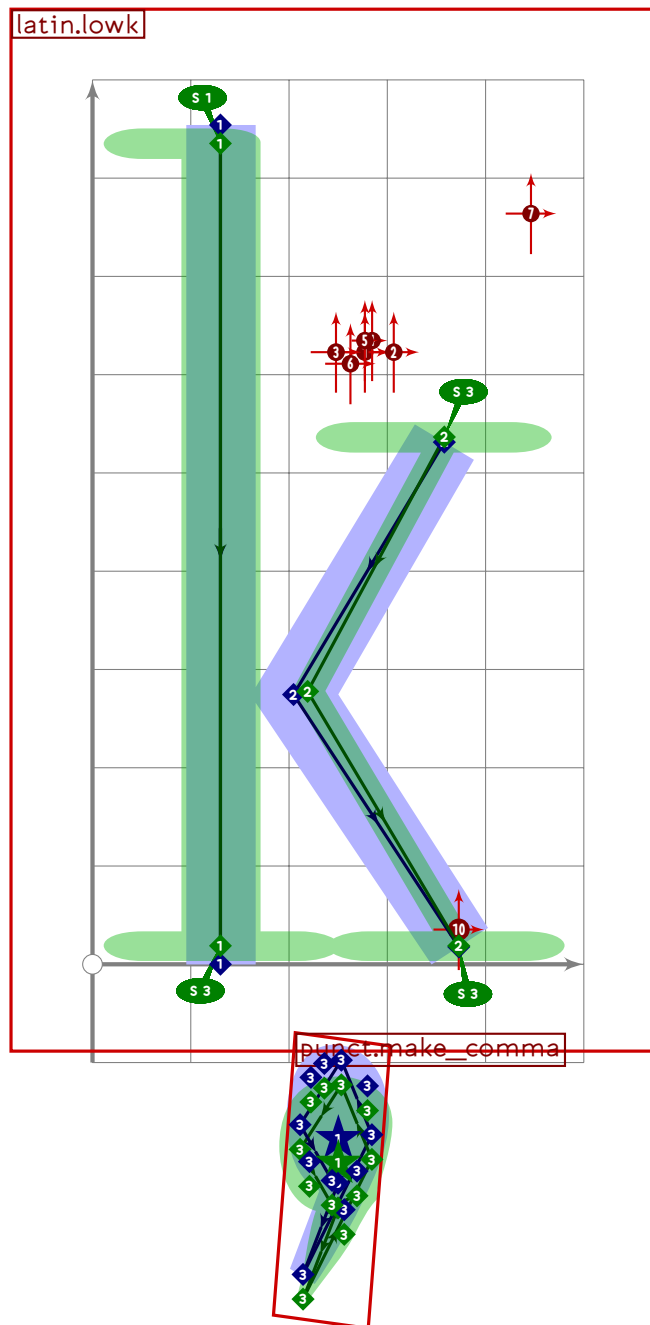
01



```

601 % j with circumflex
602 begint Suglyph("jcircumflex";53);
603   tsu_accent.apply(
604     tsu_xform(identity shifted (70,0))(latin.lowj;
605       tsu_accent.shift_anchors(true)((0,0)));
606     pop_lcblob;
607   )(tsu_accent.circumflex);
608   tsu_render;
609 endtsuglyph;
610

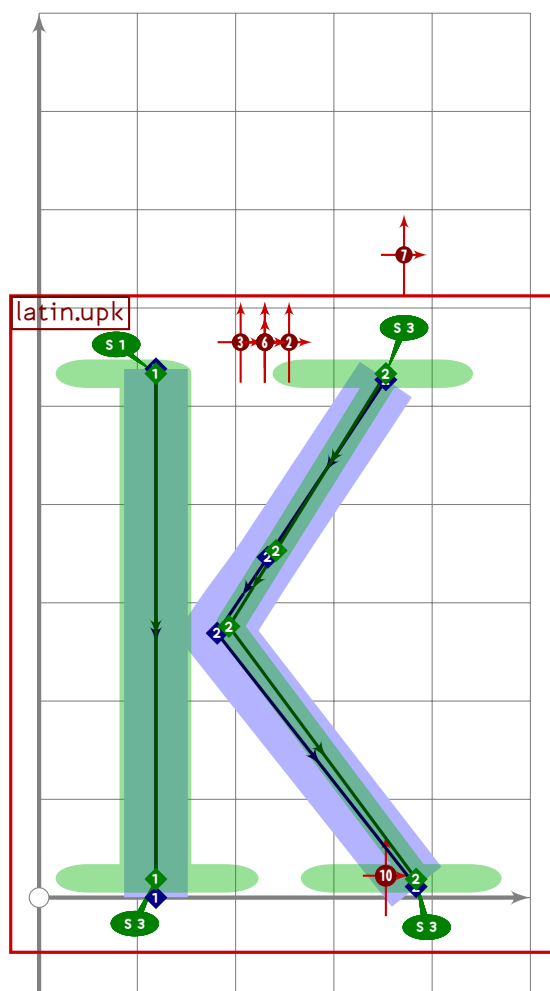
```



```

611 % k with comma below
612 begint Suglyph("uni0137";55);
613   tsu_accent.apply(latin.lowk)(tsu_accent.commabelow);
614   tsu_render;
615 endtsuglyph;
616

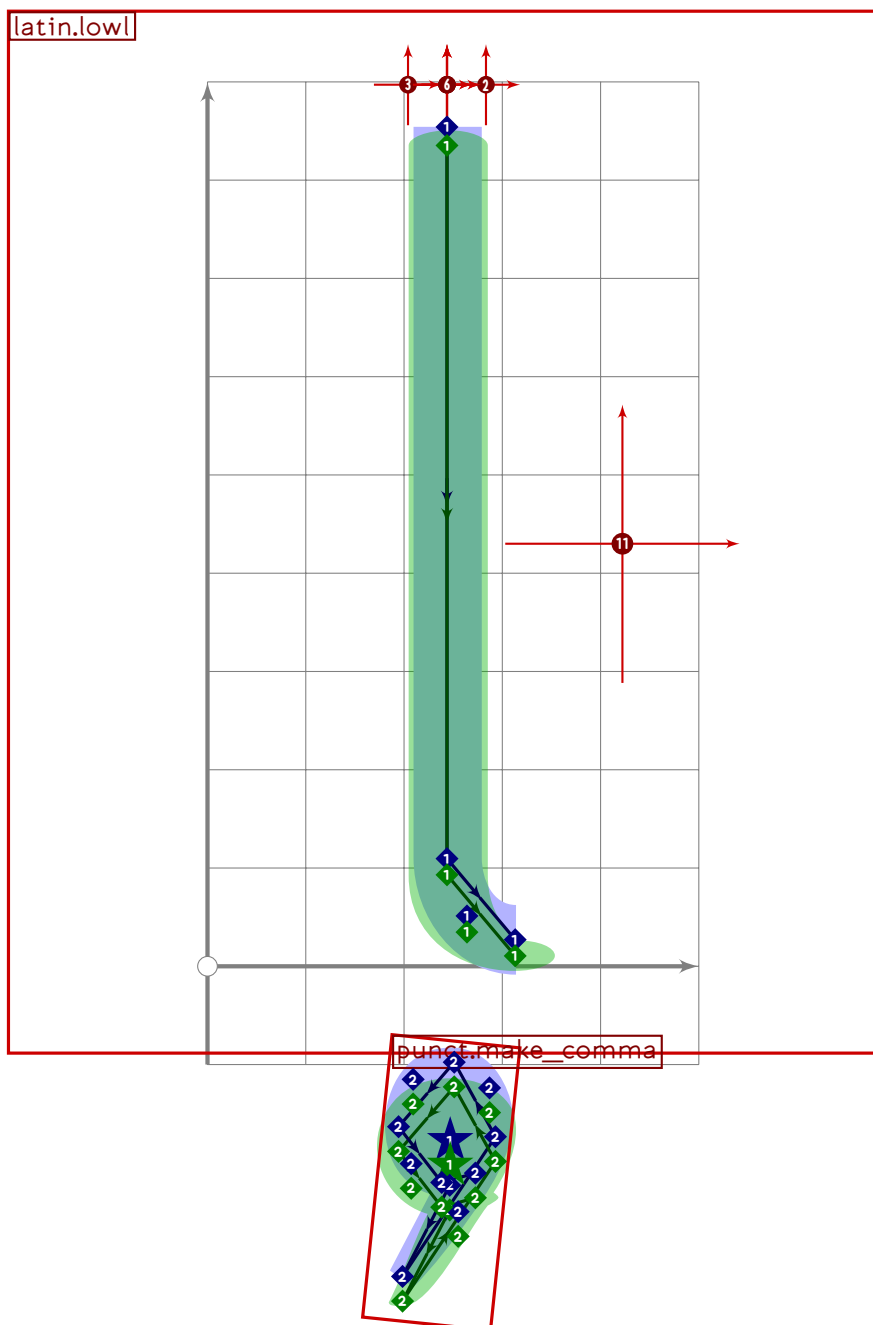
```



```

617 % Greenlandic k, which I'm interpreting as a squashed K
618 begintsuglyph("kgreenlandic",56);
619   tsu_xform(identity shifted (-500,latin_wide_low_v) xyscaled (0.92,0.63)
620     shifted (500,latin_wide_low_v))(latin.upk);
621   tsu_render;
622 endtsuglyph;
623

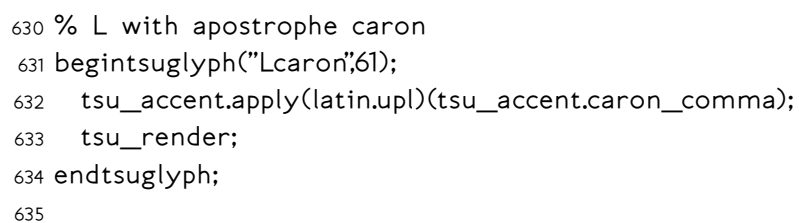
```

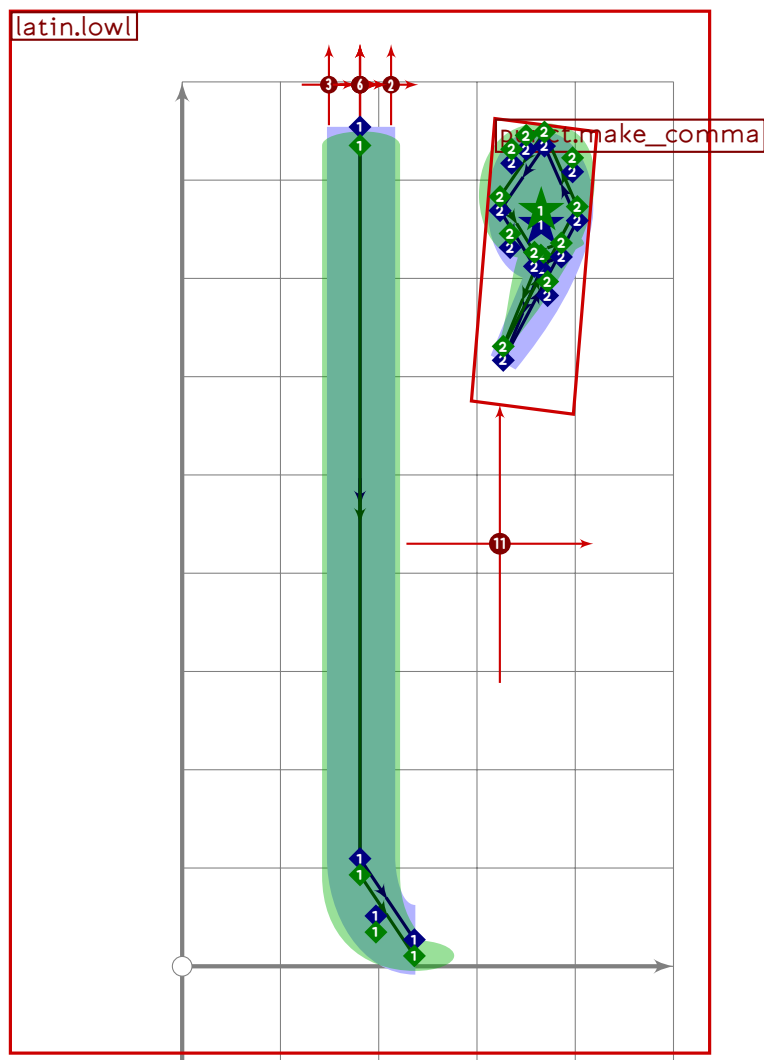


```

624 % l with comma below
625 begintsuglyph("uni013C",60);
626 tsu_accent.apply(latin.lowl)(tsu_accent.commabelow);
627 tsu_render;
628 endtsuglyph;
629

```





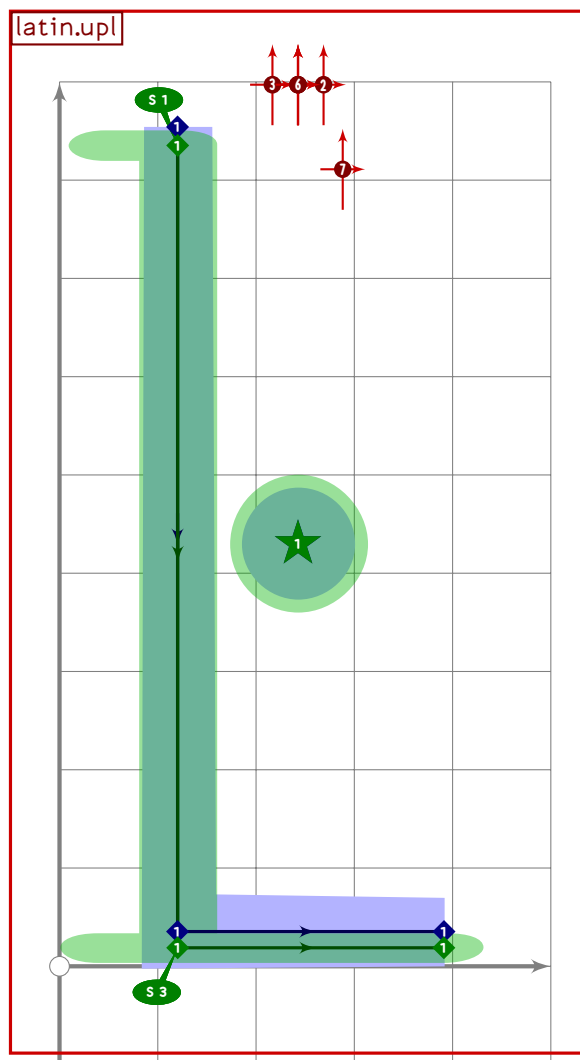
```

636 % l with apostrophe caron
637 begintsuglyph("lcaron",62);
638   tsu_accent.apply(latin.lowl)(tsu_accent.caron_comma);
639   tsu_render;
640 endtsuglyph;
641

```

U+013F  
tsuku.Ldot

01



```

642 % L with dot
643 beginsuglyph("Ldot";63);
644   tsu_accent.apply(latin.upl)(tsu_accent.dotcentred);
645   tsu_render;
646 endsuglyph;
647

```

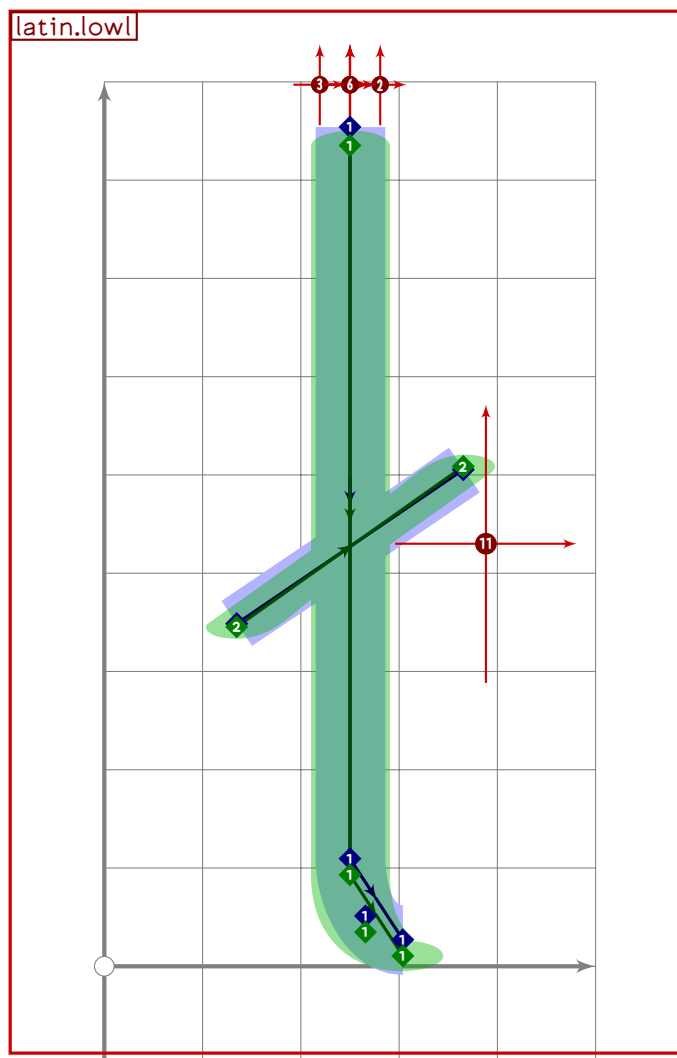




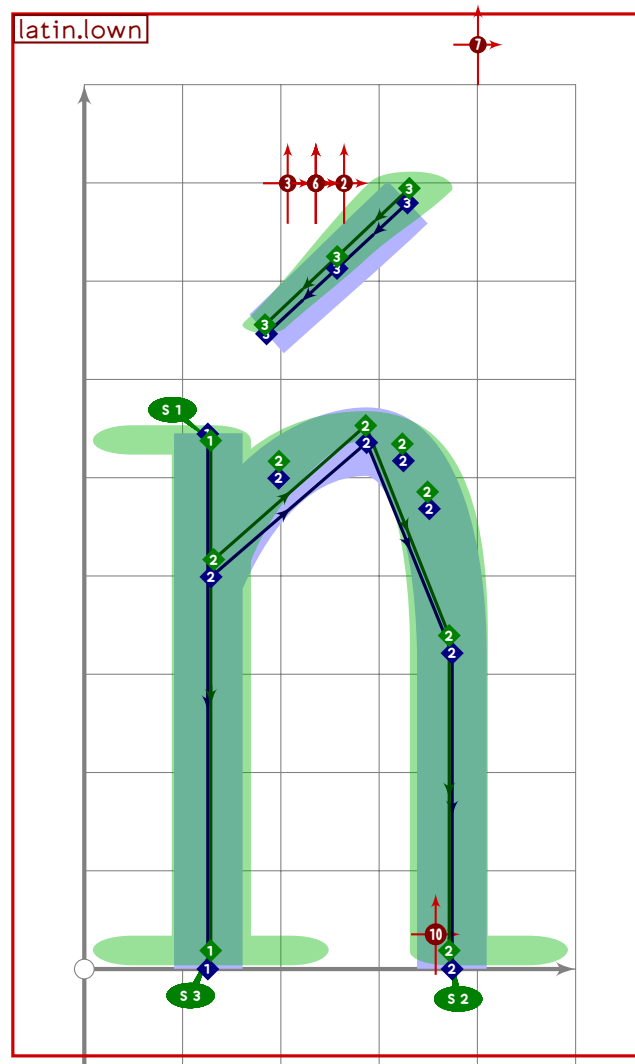
1119

U+0142  
tsuku.lslash

01



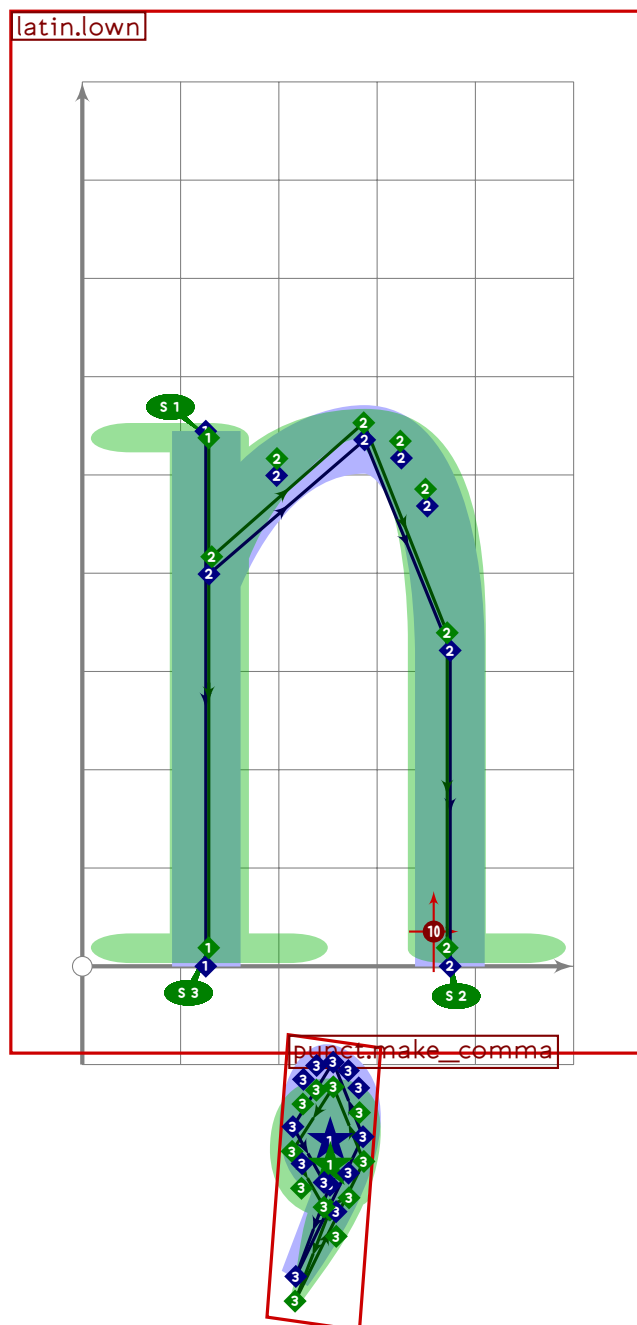
```
656 % l with slash
657 begint Suglyph("lslash",66);
658   latin.lowl;
659   push_stroke((350,vmetric(0.40))-(650,vmetric(0.60)),
660     (1.6,1.6)-(1.6,1.6));
661   set_bosize(0,80);
662   tsu_render;
663 endtsuglyph;
664
```



```

665 % n with acute
666 begintsuglyph("nacute",68);
667   tsu_accent.apply(latin.lown)(tsu_accent.acute);
668   tsu_render;
669 endsuglyph;
670

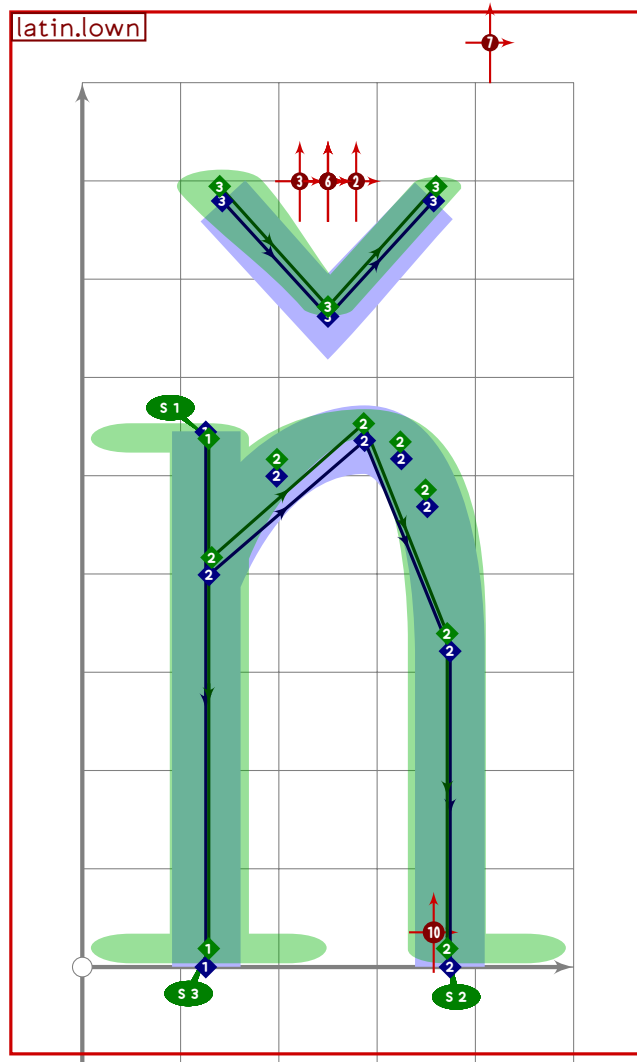
```



```

671 % n with comma below
672 begint Suglyph("uni0146;70);
673 tsu_accent.apply(latin.lown)(tsu_accent.commabelow);
674 tsu_render;
675 endtsuglyph;
676

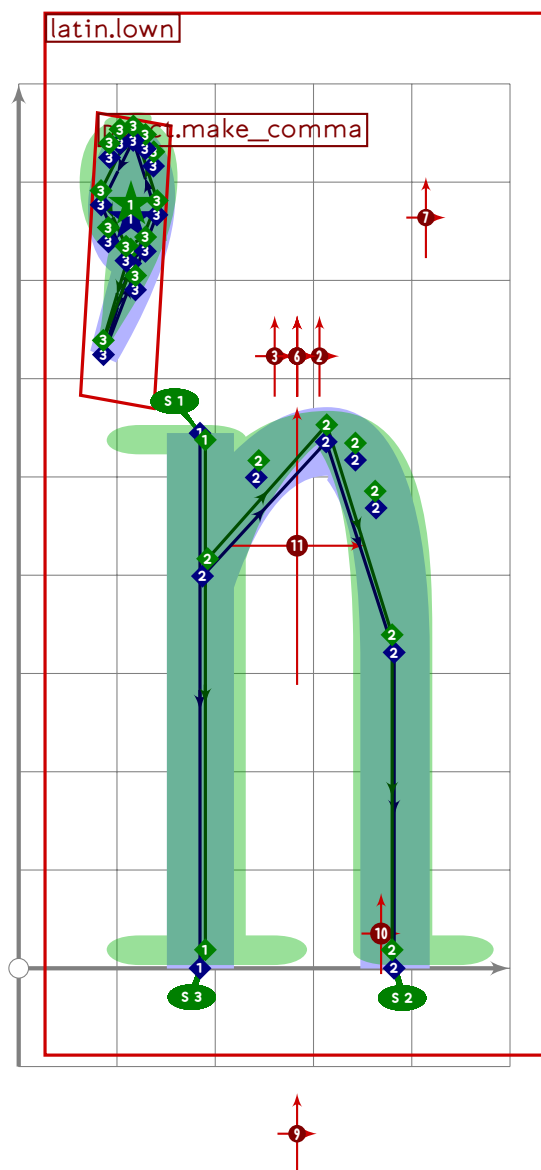
```



```

677 % n with caron
678 begintsuglyph("ncaron";72);
679 tsu_accent.apply(latin.lown)(tsu_accent.caron);
680 tsu_render;
681 endsuglyph;
682

```

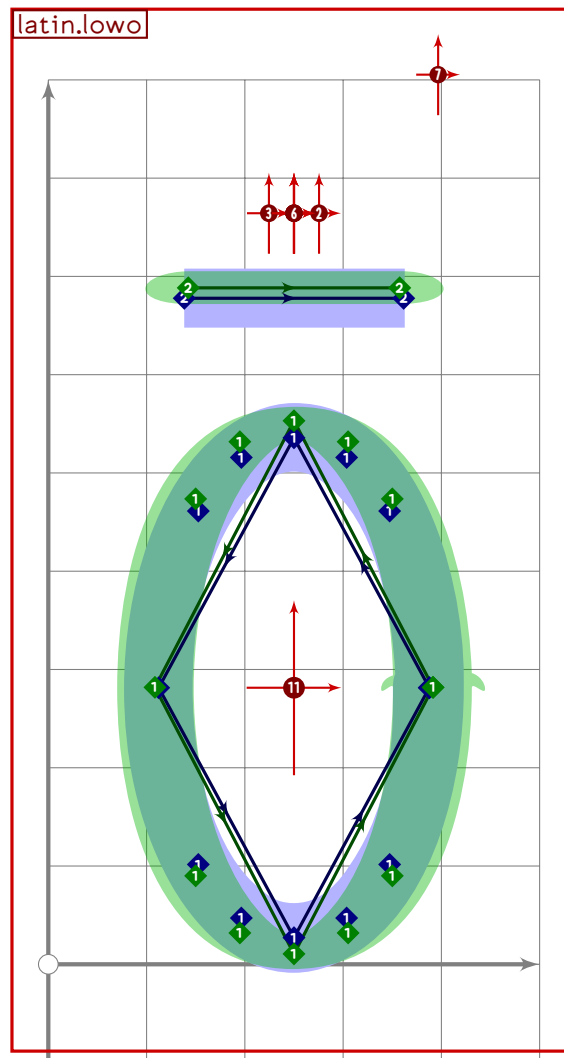


```

683 % n with apostrophe before
684 begintsuglyph("napostrophe",73);
685 tsu_xform(identity shifted (30,0))(latin.lown;
686     tsu_accent.shift_anchors(true)((0,0)));
687 punct.make_comma((230,vmetric(0.94)),0);
688 tsu_render;
689 endtsuglyph;
690
691 % lowercase eng
692 begintsuglyph("eng",75);
693 latin.loweng;
694 tsu_render;
695 endtsuglyph;
696

```

[see page 320]



01

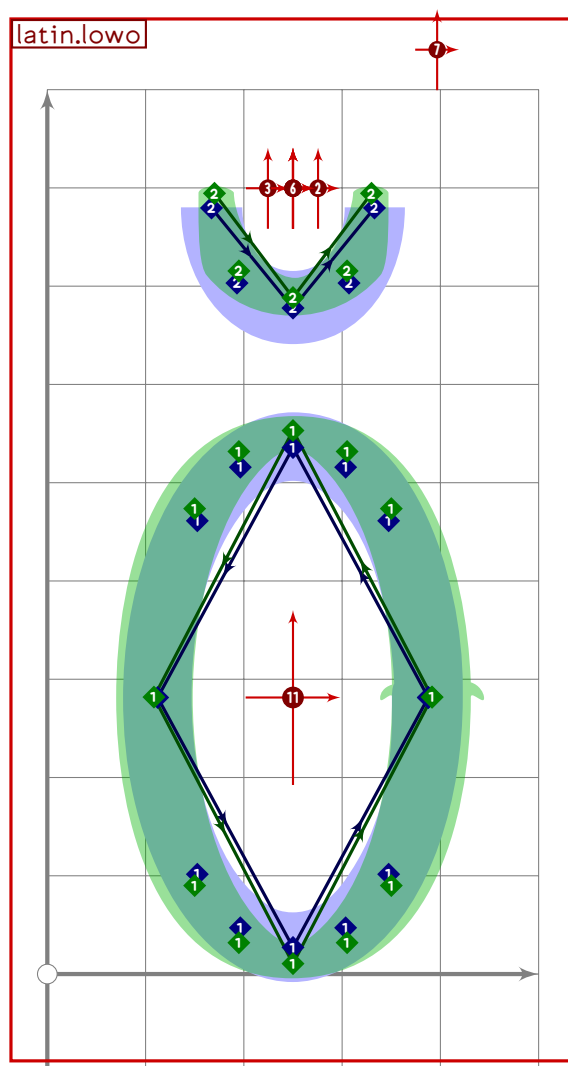
```

697 % o with macron
698 begintsuglyph("omacron";77);
699   tsu_accent.apply(latin.lowo)(tsu_accent.macron);
700   tsu_render;
701 endtsuglyph;
702

```

U+014F  
tsuku.obreve

01

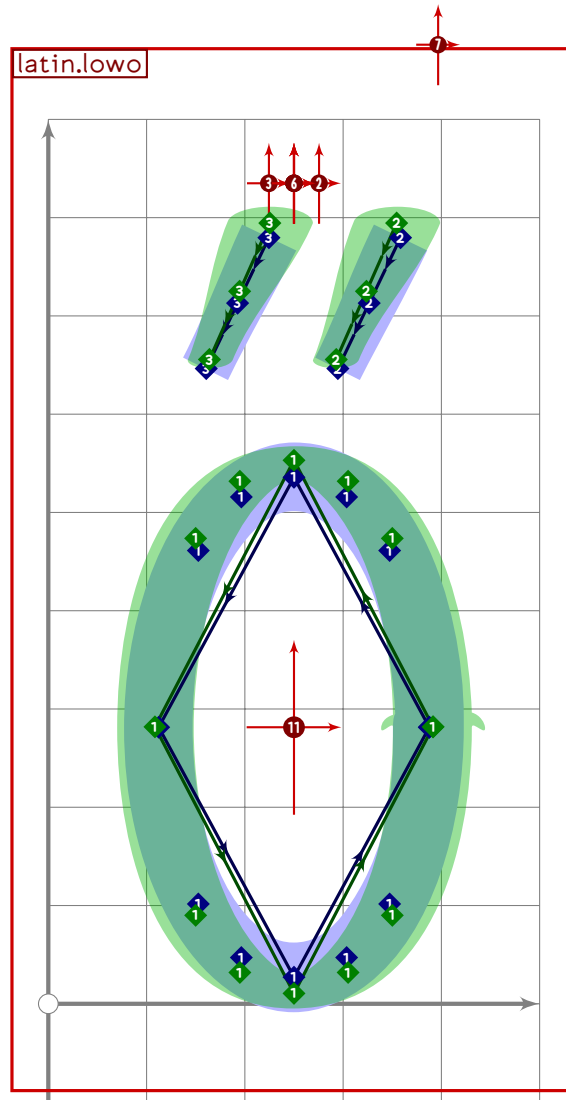


```

703 % o with breve
704 begintsuglyph("obreve",79);
705   tsu_accent.apply(latin.low)(tsu_accent.breve);
706   tsu_render;
707 endsuglyph;
708

```



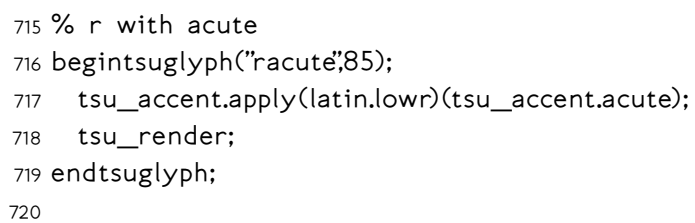


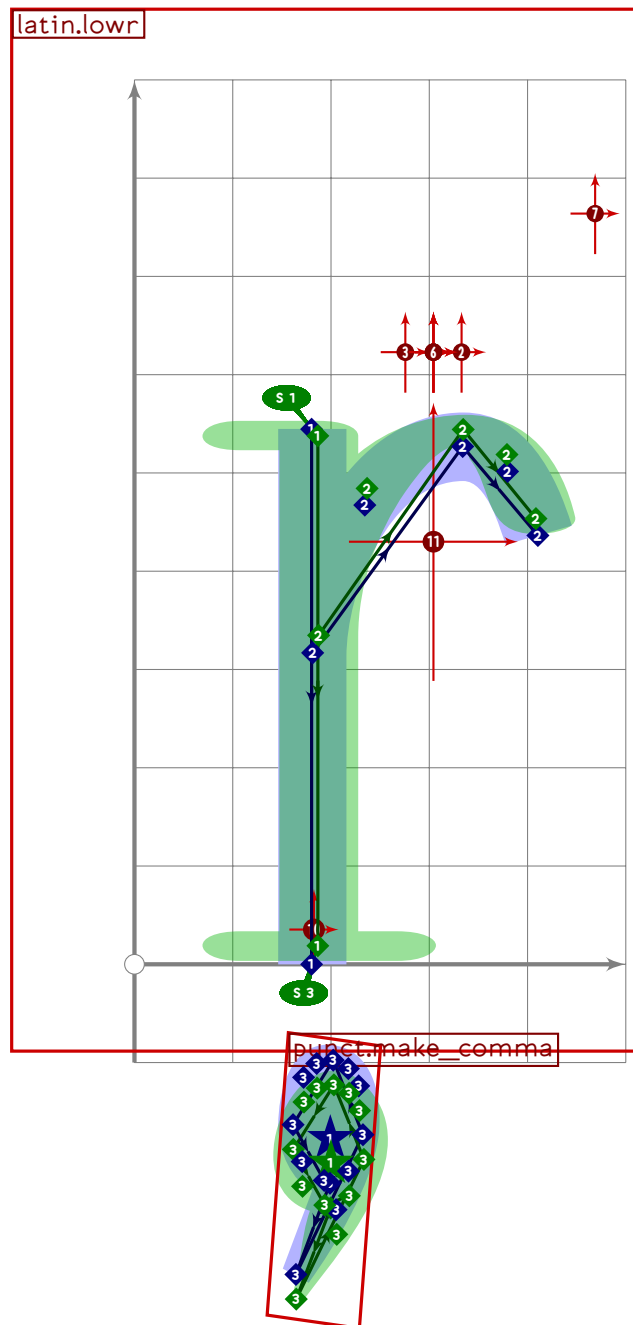
```

709 % o with hungarian umlaut
710 begintsuglyph("ohungarumlaut",81);
711   tsu_accent.apply(latin.lowo)(tsu_accent.hungarian_umlaut);
712   tsu_render;
713 endtsuglyph;
714

```

01





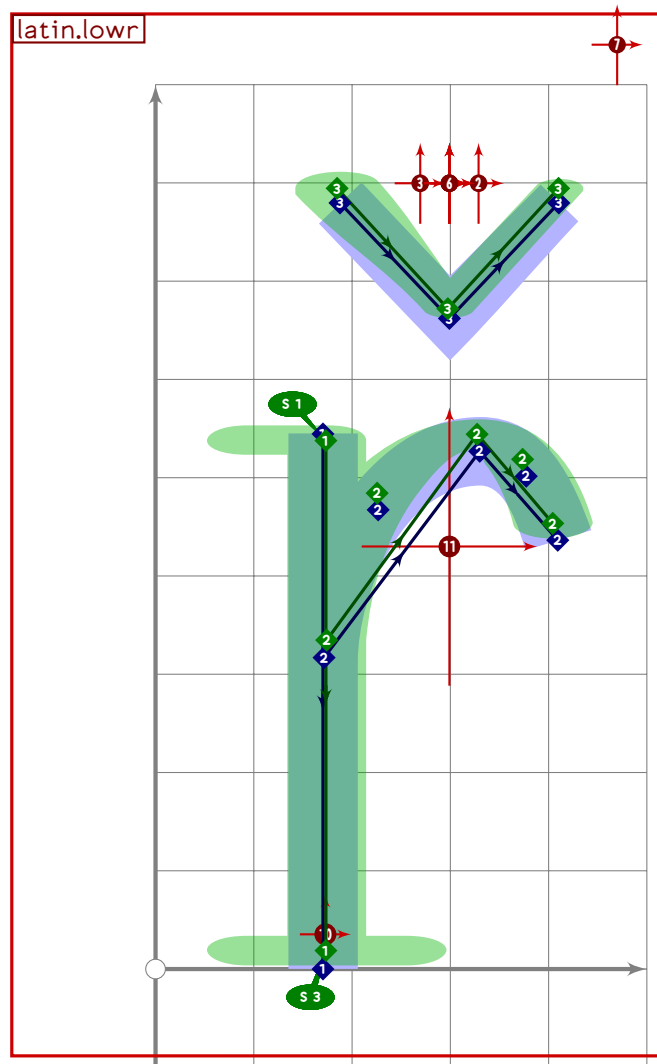
```

721 % r with comma below
722 begintsuglyph("uni0157";87);
723 tsu_accent.apply(latin.lowr)(tsu_accent.commabelow);
724 tsu_render;
725 endtsuglyph;
726

```

U+0159  
tsuku.rcaron

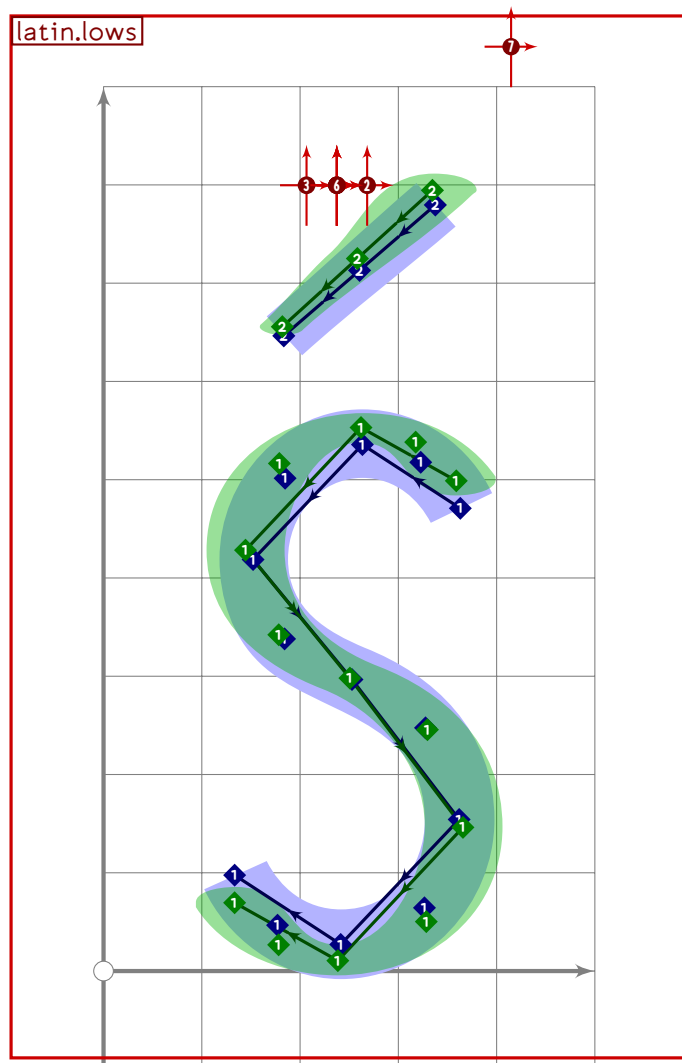
01



```

727 % r with caron
728 begintsuglyph("rcaron",89);
729 tsu_accent.apply(latin.lowr)(tsu_accent.caron);
730 tsu_render;
731 endsuglyph;
732

```



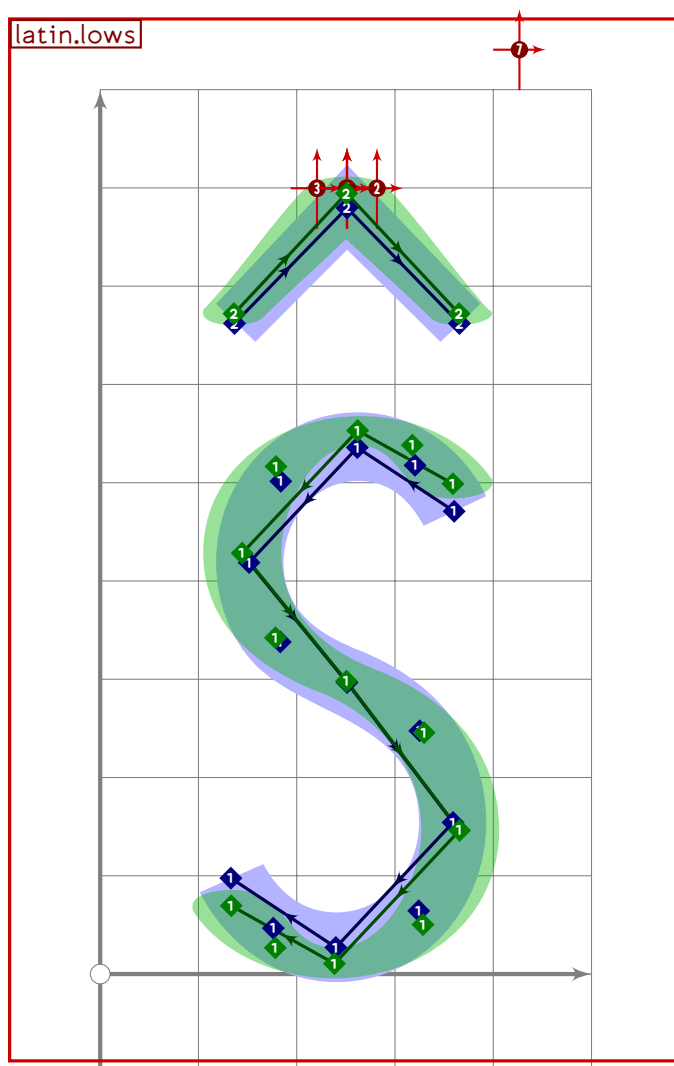
```

733 % s with acute
734 begintsuglyph("sacute";91);
735   tsu_accent.apply(latin.lows)(tsu_accent.acute);
736   tsu_render;
737 endsuglyph;
738

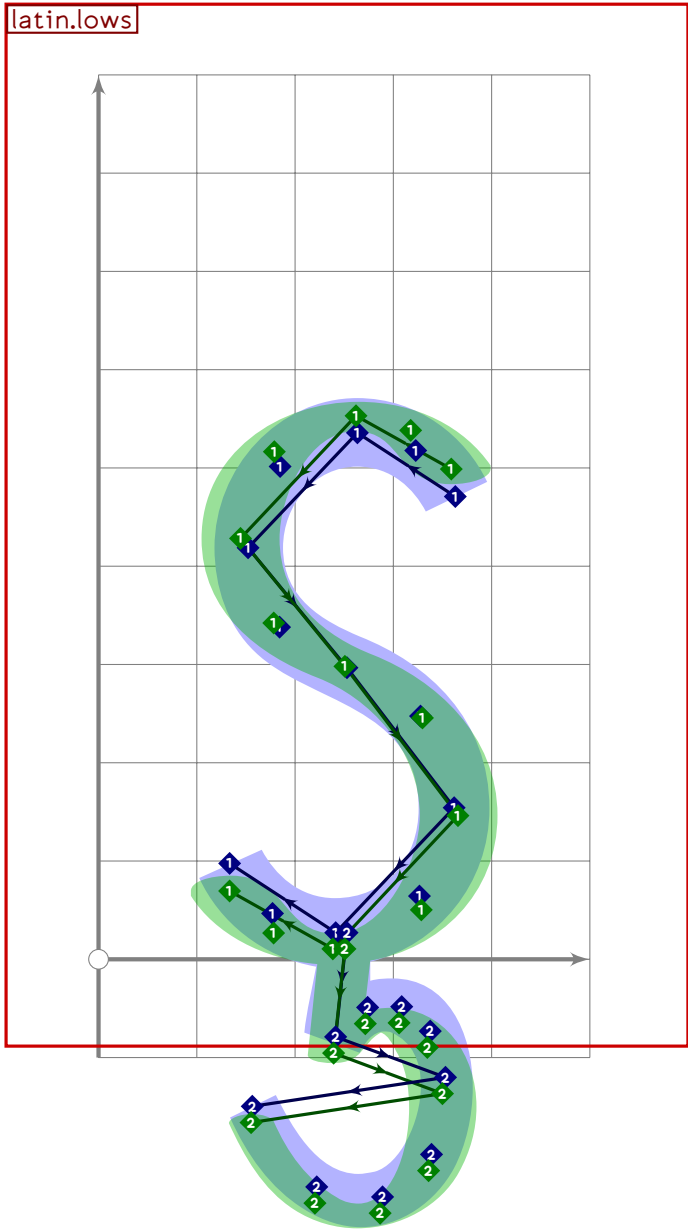
```

U+015D  
tsuku.scircumflex

01



```
739 % s with circumflex
740 begintsuglyph("scircumflex",93);
741 tsu_accent.apply(latin.lows)(tsu_accent.circumflex);
742 tsu_render;
743 endtsuglyph;
744
```



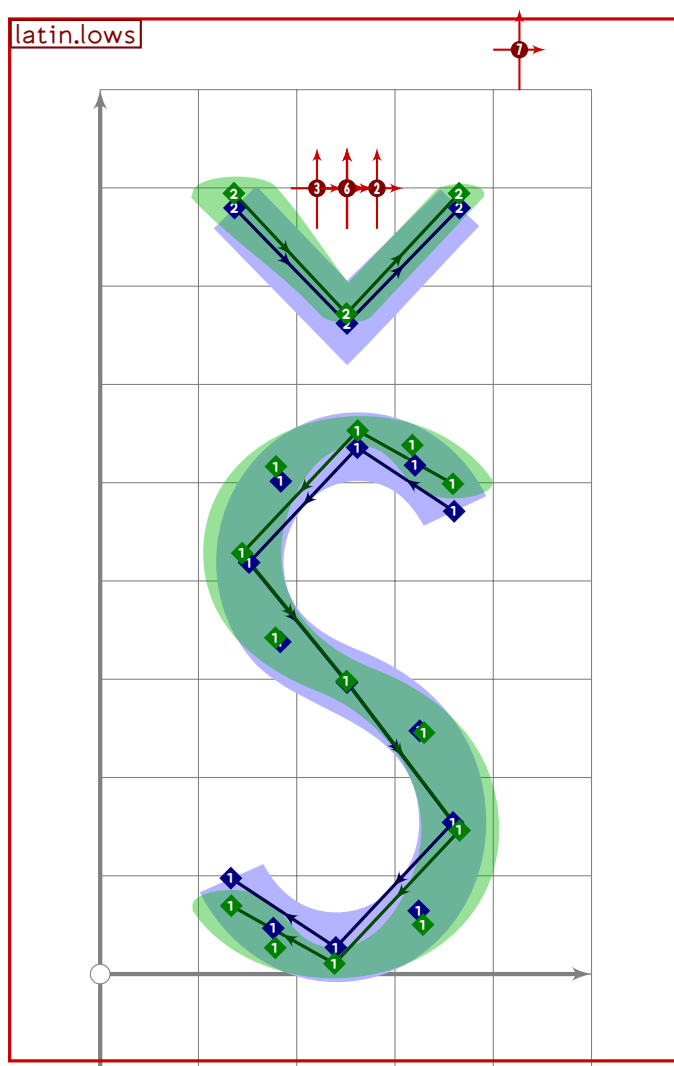
```

745 % s with cedilla
746 begint Suglyph("scedilla",95);
747   tsu__accent.apply(latin.lows)(tsu__accent.cedilla);
748   tsu__render;
749 endtsuglyph;
750

```

U+0161  
tsuku.scaron

01

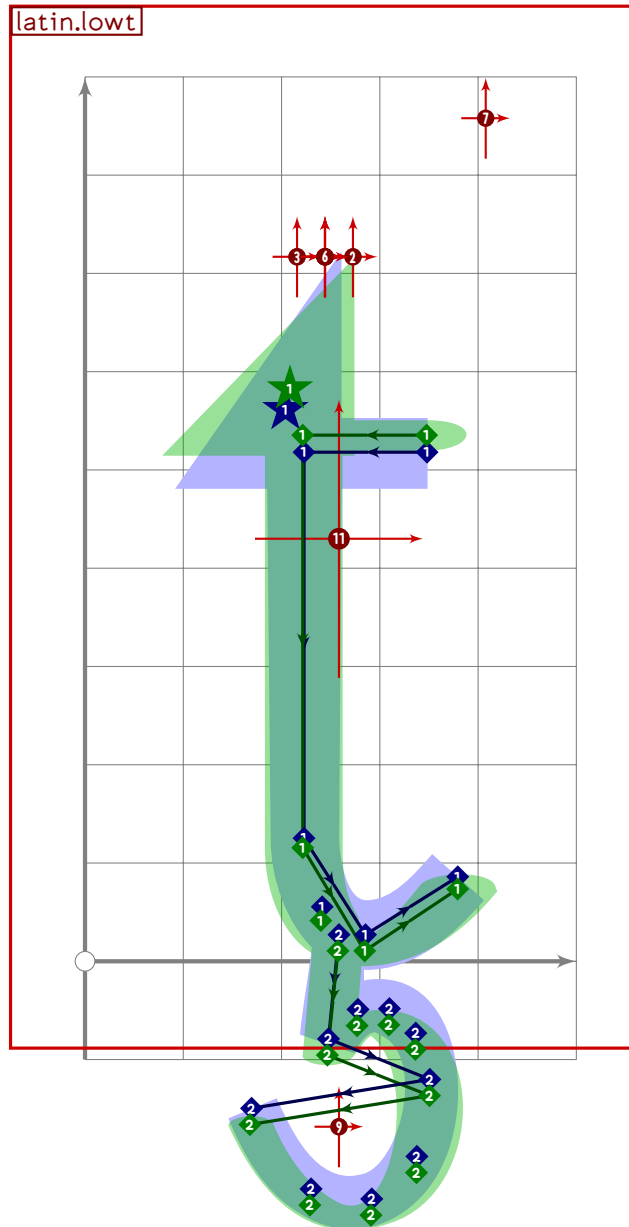


```

751 % s with caron
752 begintsuglyph("scaron";97);
753   tsu_accent.apply(latin.lows)(tsu_accent.caron);
754   tsu_render;
755 endtsuglyph;
756

```





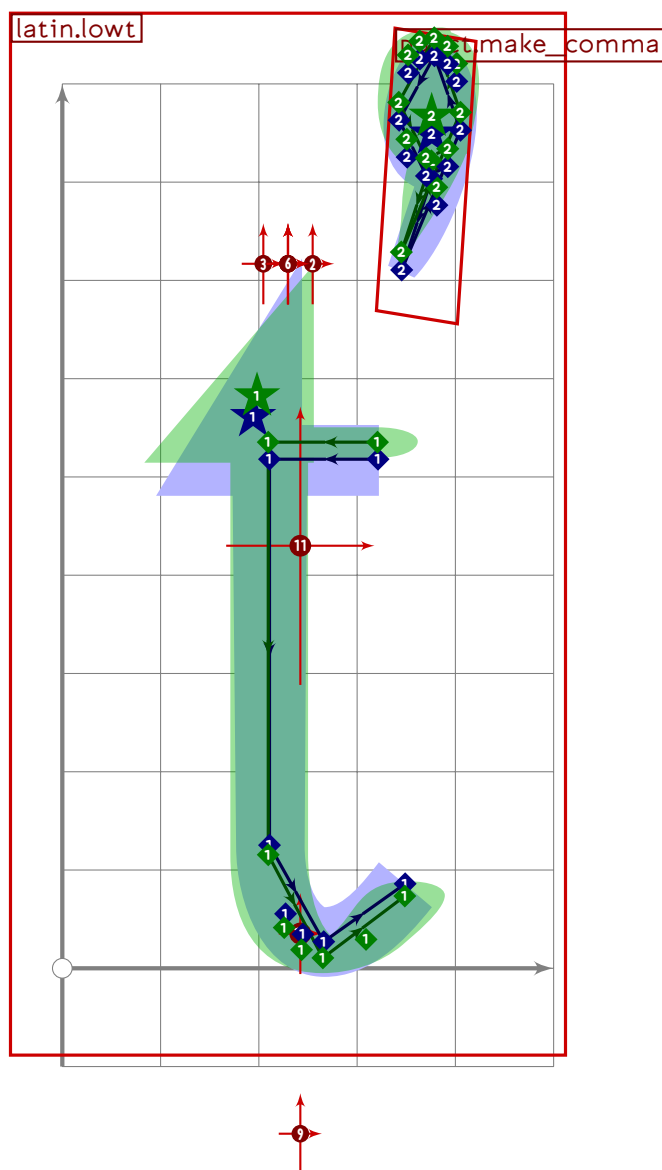
```

757 % t with cedilla [sic]
758 begintsuglyph("uni0163";99);
759   tsu_accent.apply(latin.lowt)(tsu_accent.cedilla);
760   tsu_render;
761 endtsuglyph;
762

```

U+0165  
tsuku.tcaron

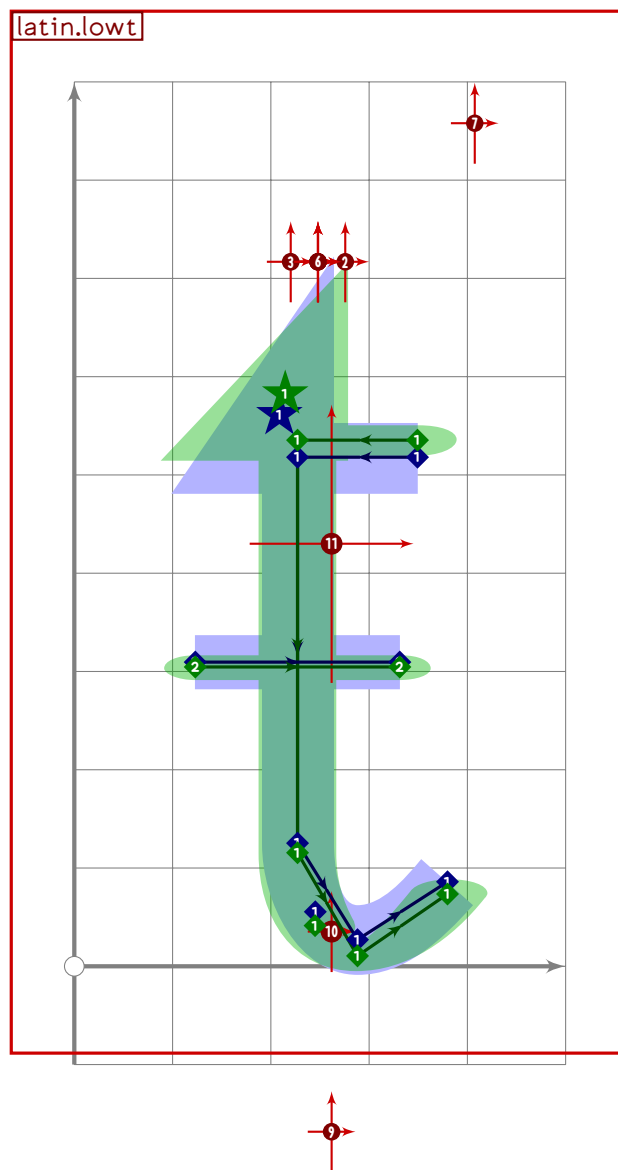
01



```

763 % t with apostrophe caron
764 begintsuglyph("tcaron",101);
765   tsu_accent.apply(latin.lowt)(tsu_accent.caron_comma);
766   tsu_render;
767 endtsuglyph;
768

```



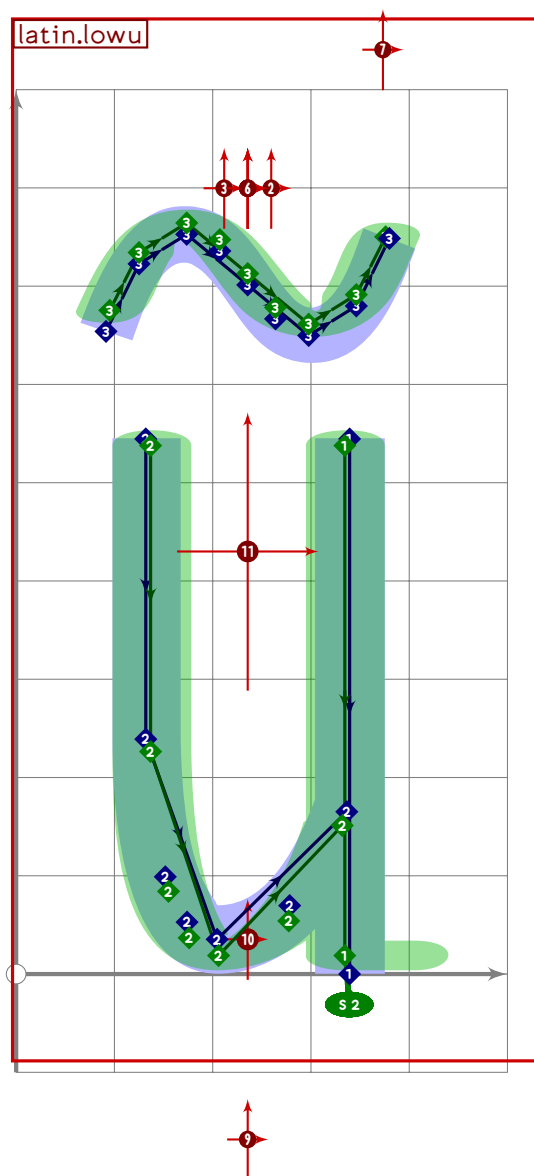
```

769 % t with bar
770 begintsuglyph("tbar";103);
771 latin.lowt;
772 push_stroke(((320,vmetric(0.35))-(620,vmetric(0.35)),
773   (1.6,1.6)-(1.6,1.6));
774 set_bosize(0,80);
775 tsu_render;
776 endsuglyph;
777

```

U+0169  
tsuku.utilde

01



```

778 % u with tilde
779 begintzuglyph("utilde";105);
780   tsu_accent.apply(latin.lowu)(tsu_accent.tilde);
781   tsu_render;
782 endtsuglyph;
783

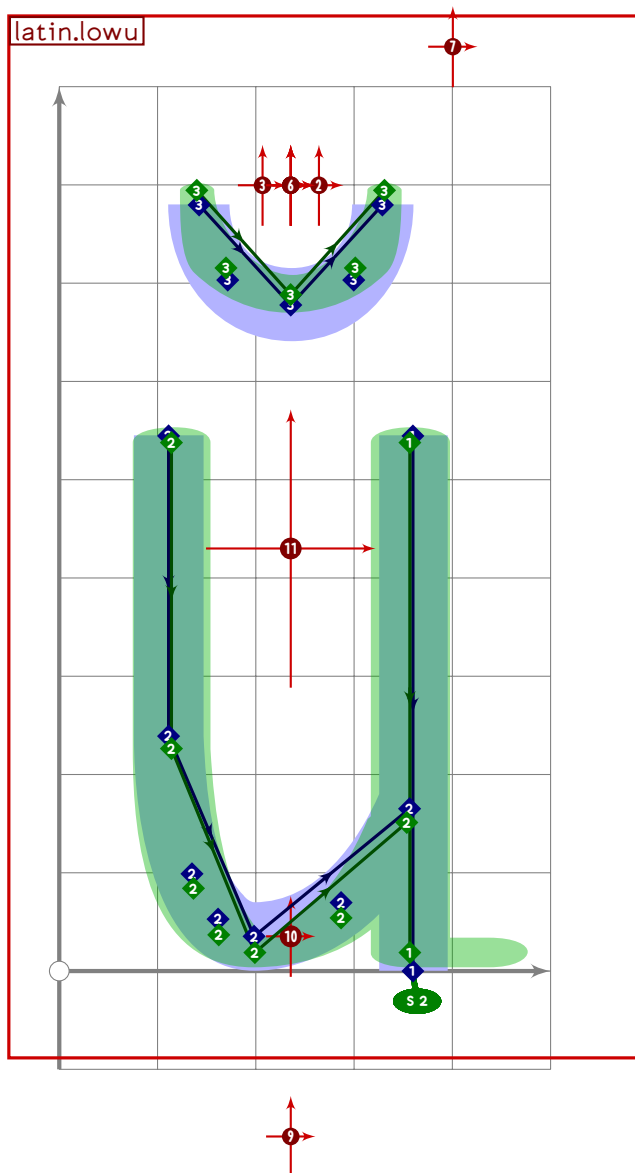
```



1139

U+016D  
tsuku.ubreve

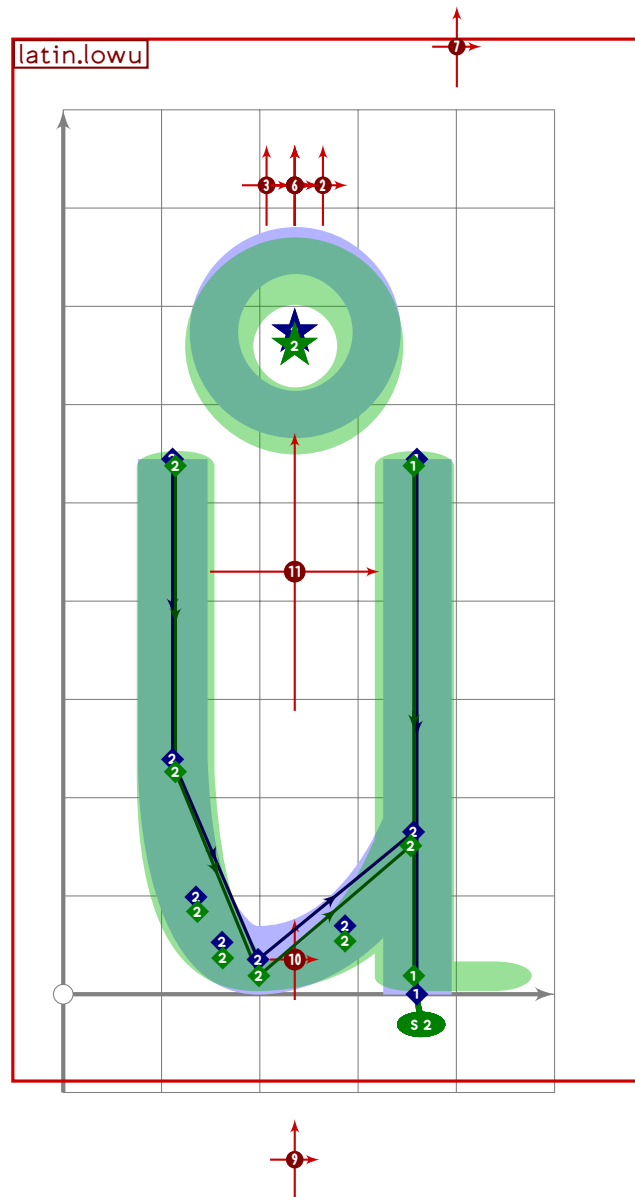
01



```

790 % u with breve
791 begint Suglyph("ubreve",109);
792   tsu_accent.apply(latin.lowu)(tsu_accent.breve);
793   tsu_render;
794 endtsuglyph;
795

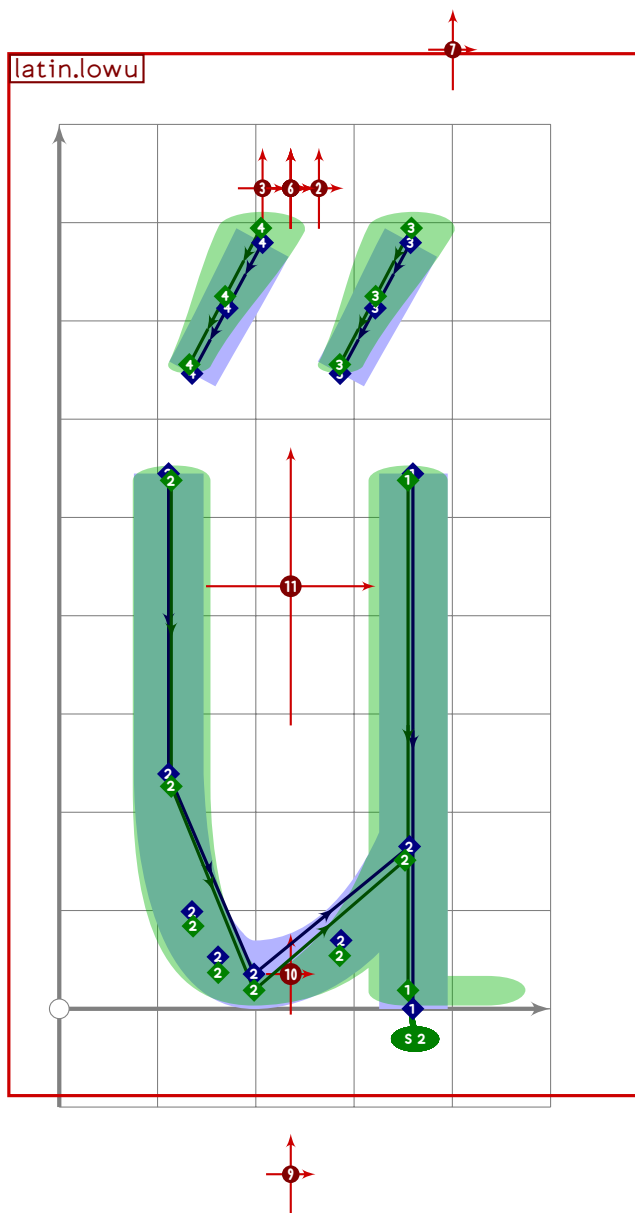
```



```

796 % u with ring above
797 begintsuglyph("uring",111);
798   tsu_accent.apply(latin.lowu)(tsu_accent.ringabove);
799   tsu_render;
800 endtsuglyph;
801

```



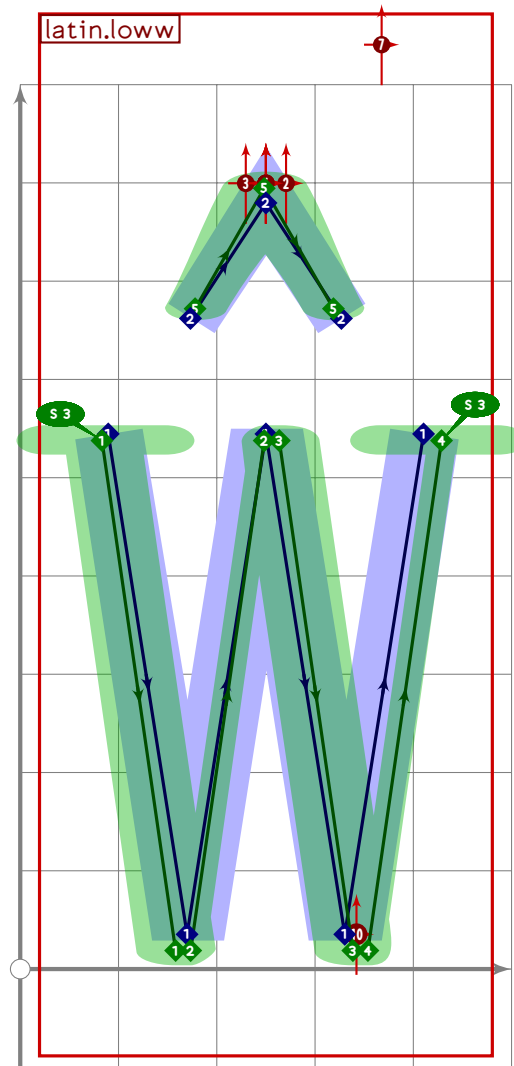
```

802 % u with Hungarian umlaut
803 begintsuglyph("uhungarumlaut";113);
804   tsu_accent.apply(latin.lowu)(tsu_accent.hungarian_umlaut);
805   tsu_render;
806 endtsuglyph;
807
808 % u with ogonek
809 begintsuglyph("uogonek";115);
810   latin.lowuogonek;
811   tsu_render;
812 endtsuglyph;
813

```

[see page 363]





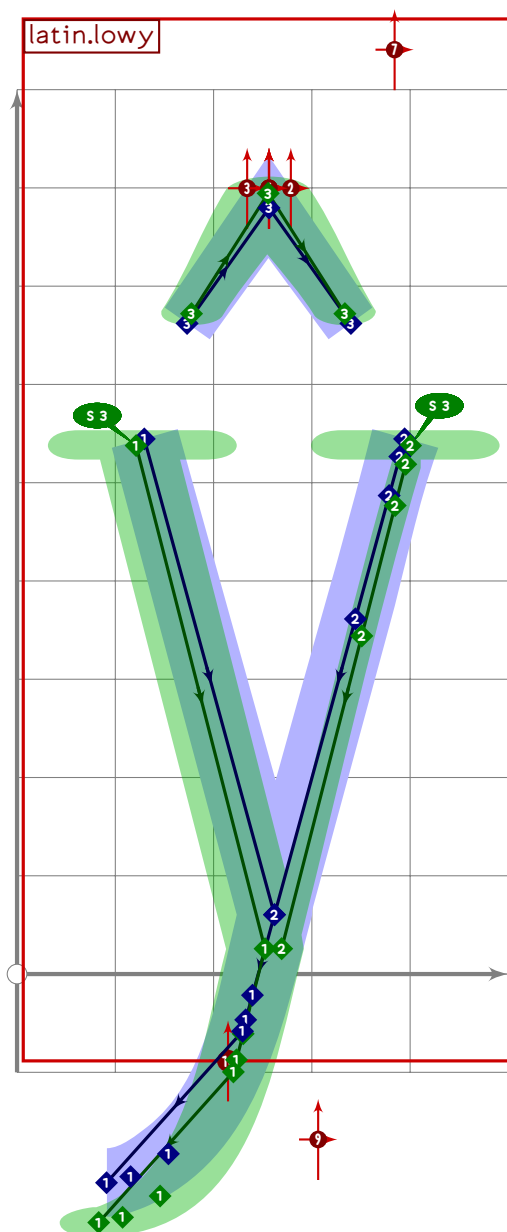
```

814 % w with circumflex
815 begintsuglyph("wcircumflex",117);
816 tsu_accent.apply(latin.loww)(tsu_accent.circumflex);
817 tsu_render;
818 endsuglyph;
819

```

U+0177  
tsuku.ycircumflex

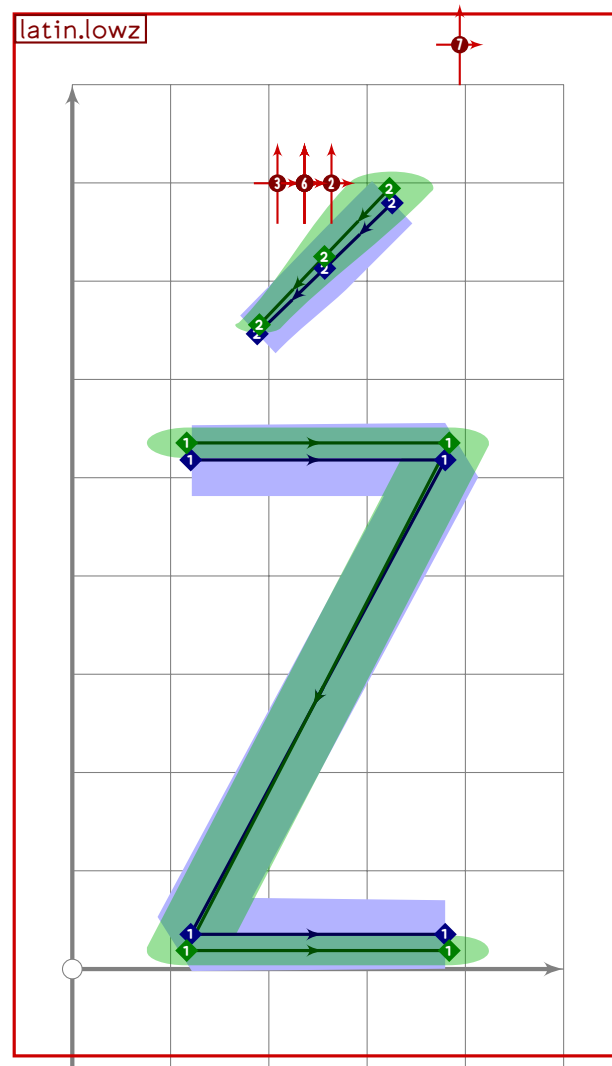
01



```

820 % y with circumflex
821 begintsuglyph("ycircumflex",119);
822 tsu_accent.apply(latin.lowy)(tsu_accent.circumflex);
823 tsu_render;
824 endtsuglyph;
825

```



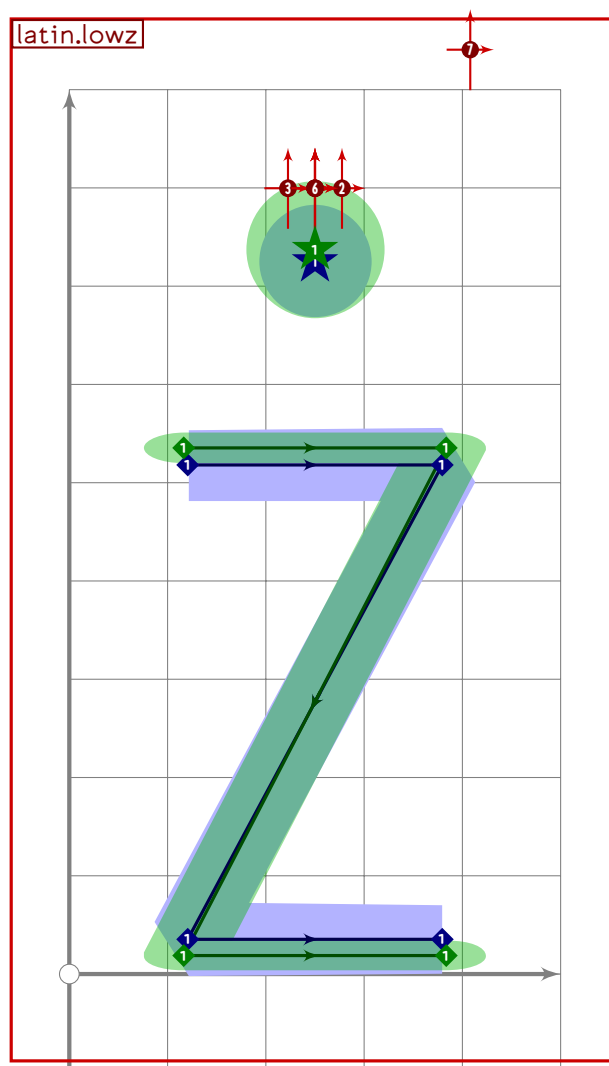
```

826 % z with acute
827 begintsuglyph("zacute",122);
828   tsu_accent.apply(latin.lowz)(tsu_accent.acute);
829   tsu_render;
830 endsuglyph;
831

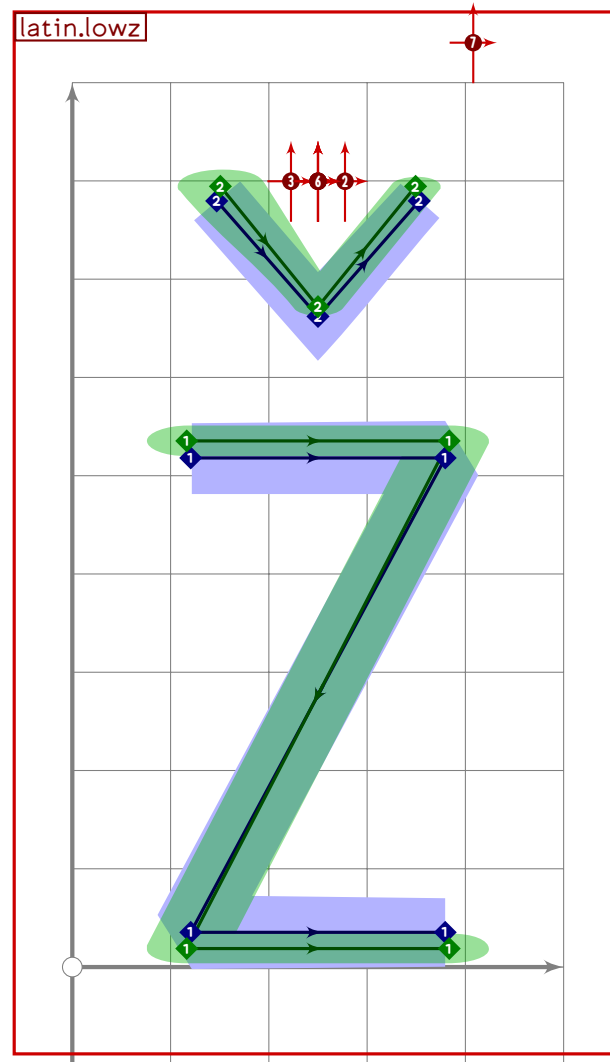
```

U+017C  
tsuku.zdotaccent

01



```
832 % z with dot
833 begintsuglyph("zdotaccent",124);
834 tsu_accent.apply(latin.lowz)(tsu_accent.dotabove);
835 tsu_render;
836 endtsuglyph;
837
```



```

838 % z with caron
839 begintsuglyph("zcaron";126);
840 tsu_accent.apply(latin.lowz)(tsu_accent.caron);
841 tsu_render;
842 endtsuglyph;
843
844 % long s
845 begintsuglyph("longs";127);
846 latin.lowlongs;
847 tsu_render;
848 endtsuglyph;
849
850
851

```

[see page 329]

## Latin Extended A Other

```

852 % LATIN EXTENDED A OTHER
853
854 tsu_accent.clear_default_anchors;

```

```
855
856 % Dutch IJ ligature
857 begintsuglyph("IJ",50); [see page 268]
858 latin.upij;
859 tsu_render;
860 endtsuglyph;
861
862 % Dutch ij ligature
863 begintsuglyph("ij",51); [see page 313]
864 latin.lowij;
865 tsu_render;
866 endtsuglyph;
867
868 % OE ligature
869 begintsuglyph("OE",82); [see page 277]
870 latin.upoe;
871 tsu_render;
872 endtsuglyph;
873
874 % oe ligature
875 begintsuglyph("oe",83); [see page 322]
876 latin.lowoe;
877 tsu_render;
878 endtsuglyph;
879
880
881
882 endfont;
883
884
```

---

## tsuku-02.mp

```
1 %
2 % Unicode page 02 (Spacing Modifier Letters) for Tsukurimashou
3 % Copyright (C) 2011, 2012, 2013 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 _____
32
33 beginfont
34
35 input latin-intro.mp;
36
37 % AUTODEPS
38 input accent.mp;
39 input latin.mp;
40 input ogonek.mp;
41
42 do_late_includes;
43
44 _____
45
```

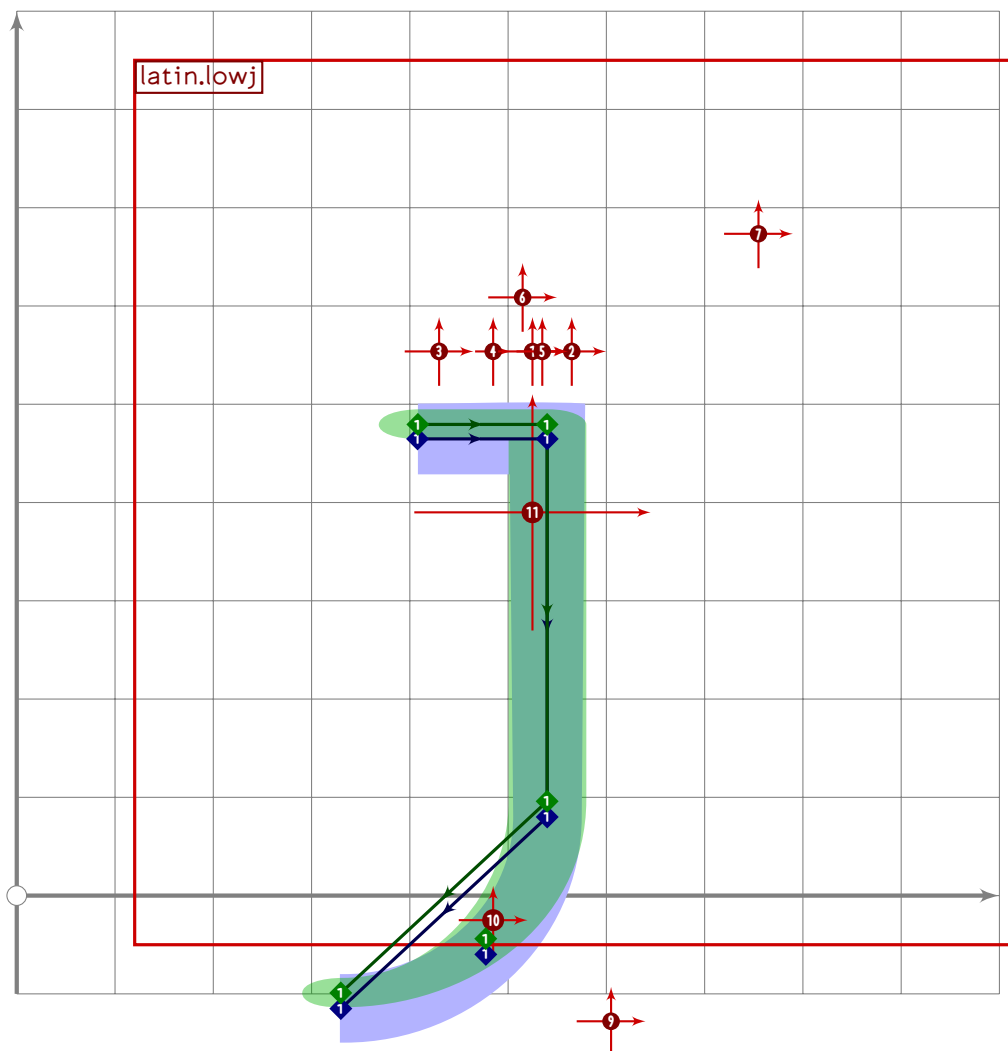
02

## Latin Extended B

```
46 % LATIN EXTENDED B
47
48 tsu_accent.low_default_anchors;
49
```

U+0237  
tsuku.uni0237

02

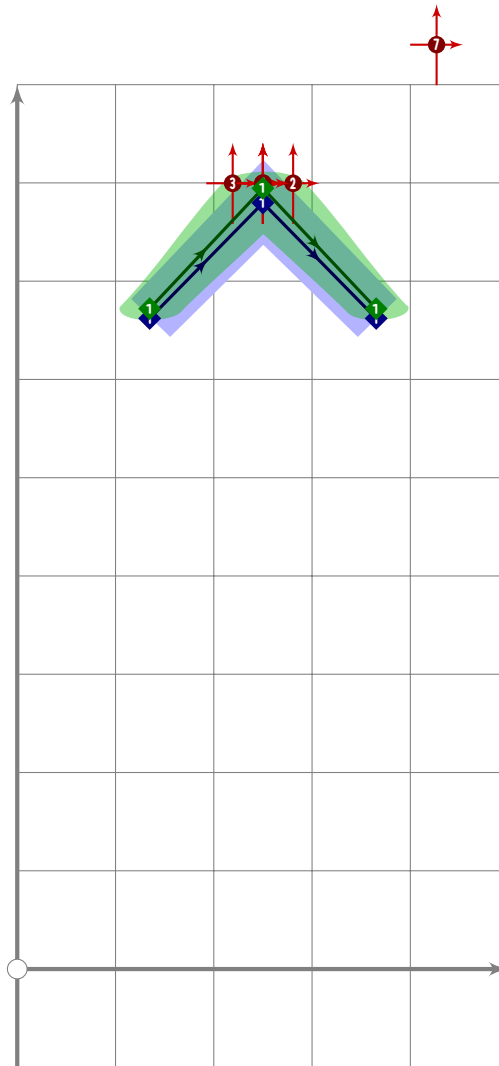


```
50 % j without dot
51 begintsuglyph("uni0237";55);
52 tsu_xform(identity shifted (70,0))(latin.lowj;
53     tsu_accent.shift_anchors(true)((0,0)));
54 pop_lcblob;
55 tsu_render;
56 endtsuglyph;
57
58 tsu_accent.clear_default_anchors;
59
60
61
```

## Spacing Modifier Letters

```
62 % SPACING MODIFIER LETTERS
63
64 tsu_rescale_half;
65
```

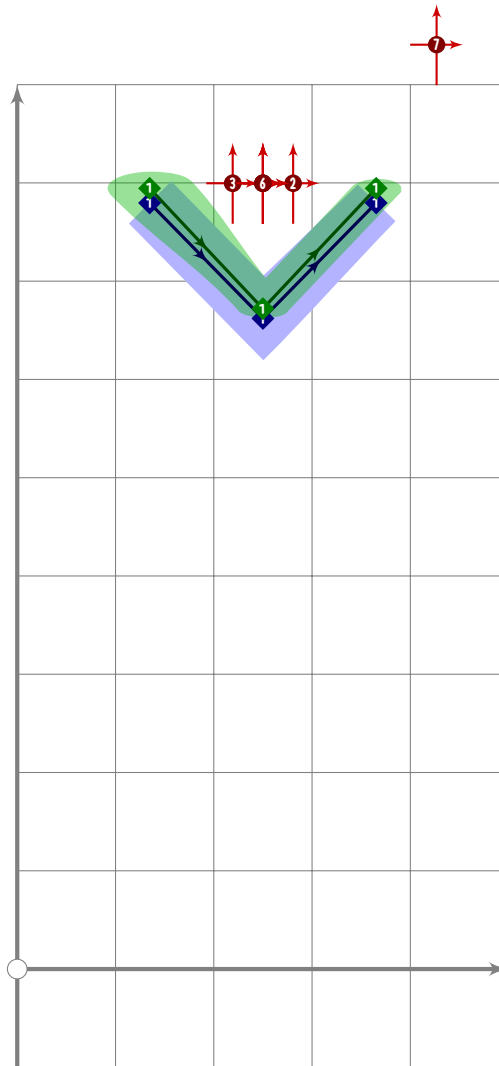




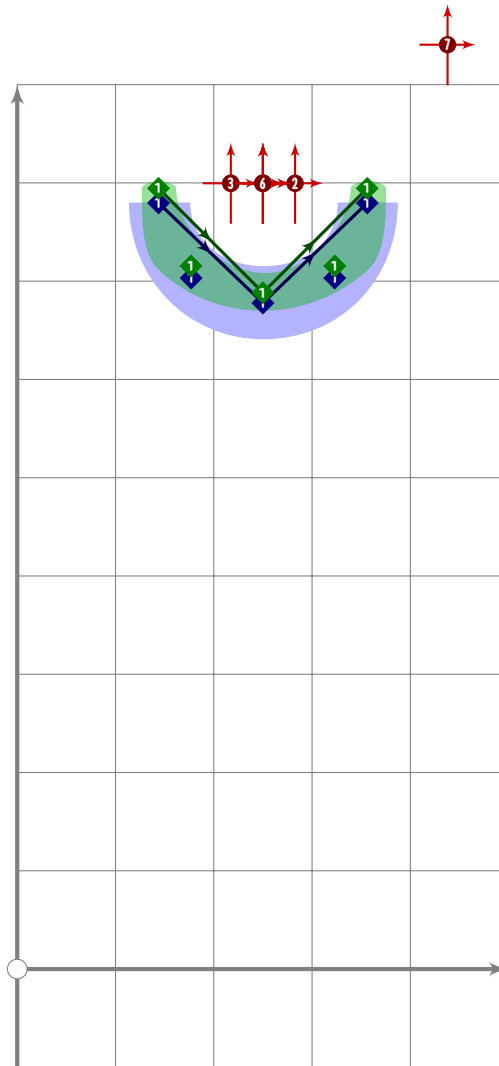
```
66 % circumflex accent
67 begintsuglyph("circumflex",198);
68 tsu_accent.apply()(tsu_accent.circumflex);
69 tsu_render;
70 endtsuglyph;
71
```

U+02C7  
tsuku.caron

02



```
72 % caron
73 begint Suglyph("caron",199);
74   tsu_accent.apply()(tsu_accent.caron);
75   tsu_render;
76 endtsuglyph;
77
```



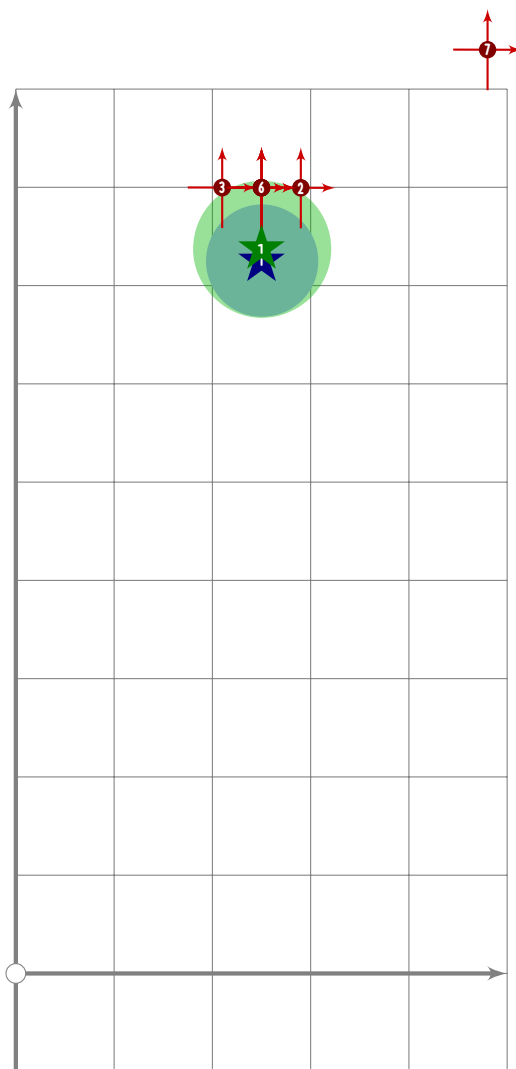
```

78 % breve
79 begintsuglyph("breve";216);
80 tsu_accent.apply()(tsu_accent.breve);
81 tsu_render;
82 endsuglyph;
83

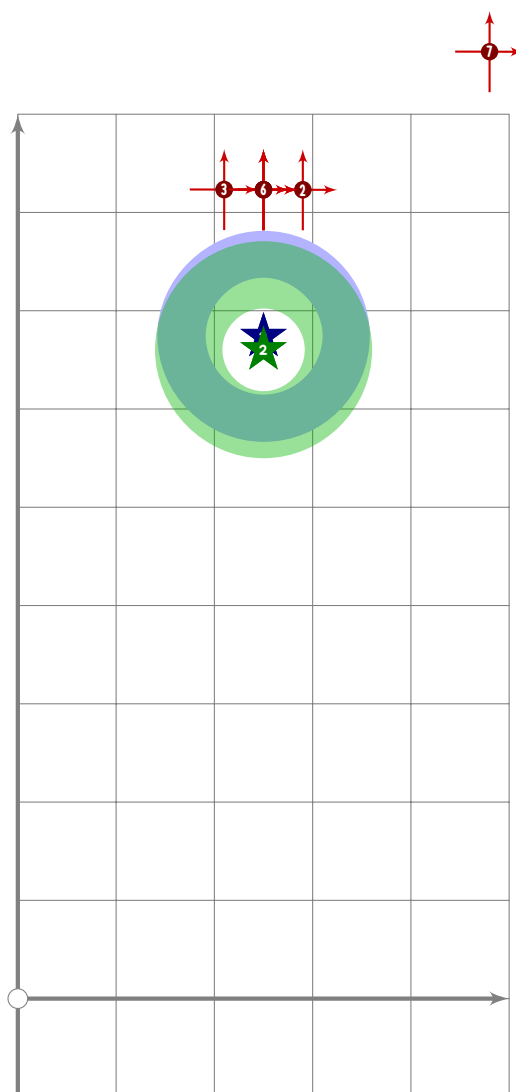
```

U+02D9  
tsuku.dotaccent

02



```
84 % dot above
85 begintsuglyph("dotaccent";217);
86 tsu_accent.apply()(tsu_accent.dotabove);
87 tsu_render;
88 endtsuglyph;
89
```



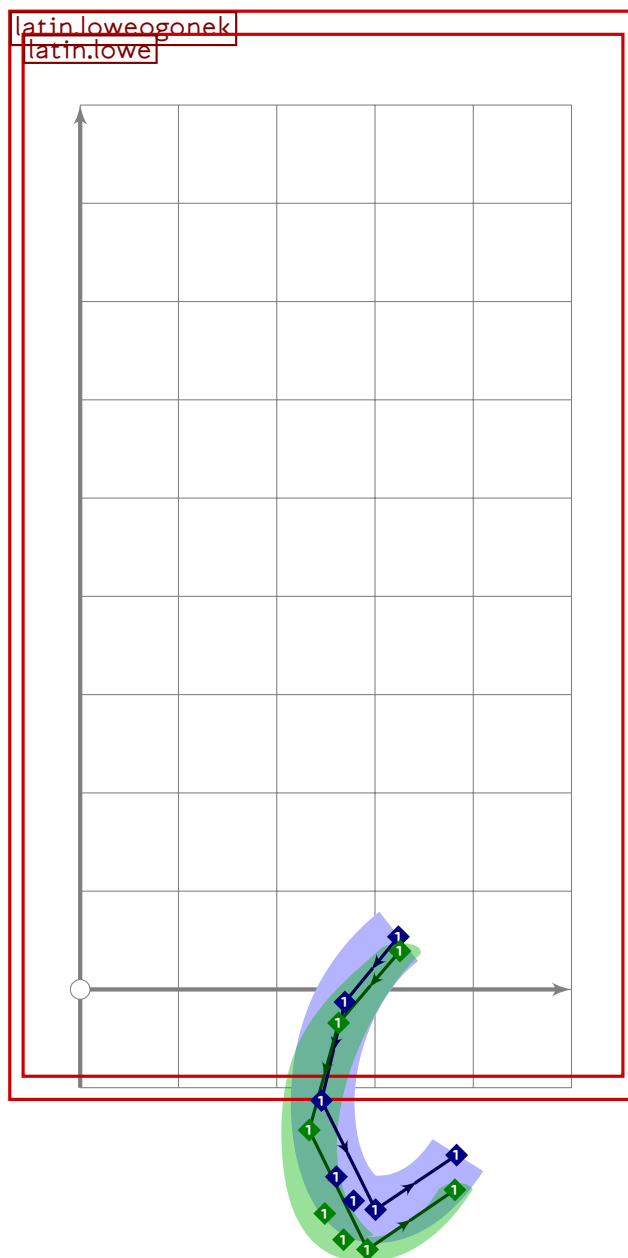
```

90 % ring above
91 begint Suglyph("ring";218);
92   tsu_accent.apply()(tsu_accent.ringabove);
93   tsu_render;
94 endtsuglyph;
95

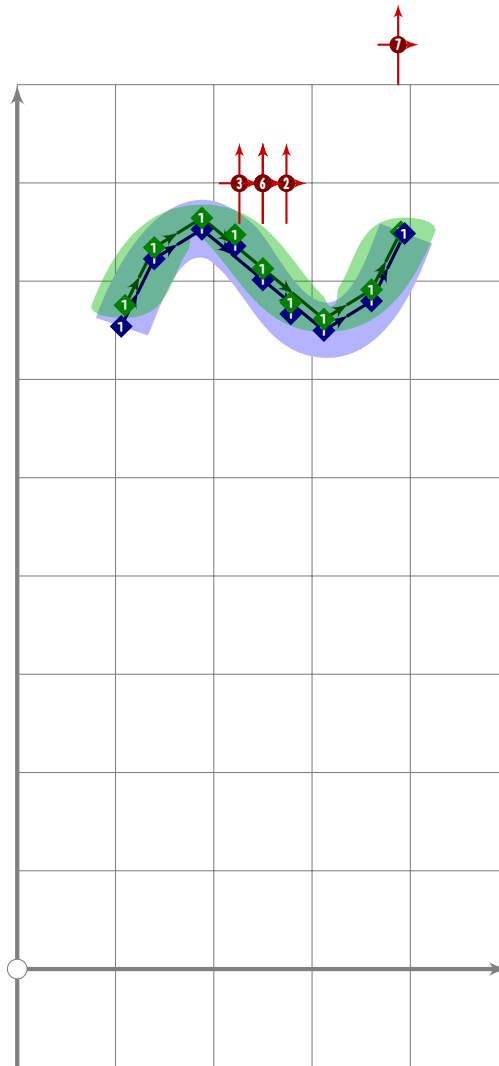
```

U+02DB  
tsuku.ogonek

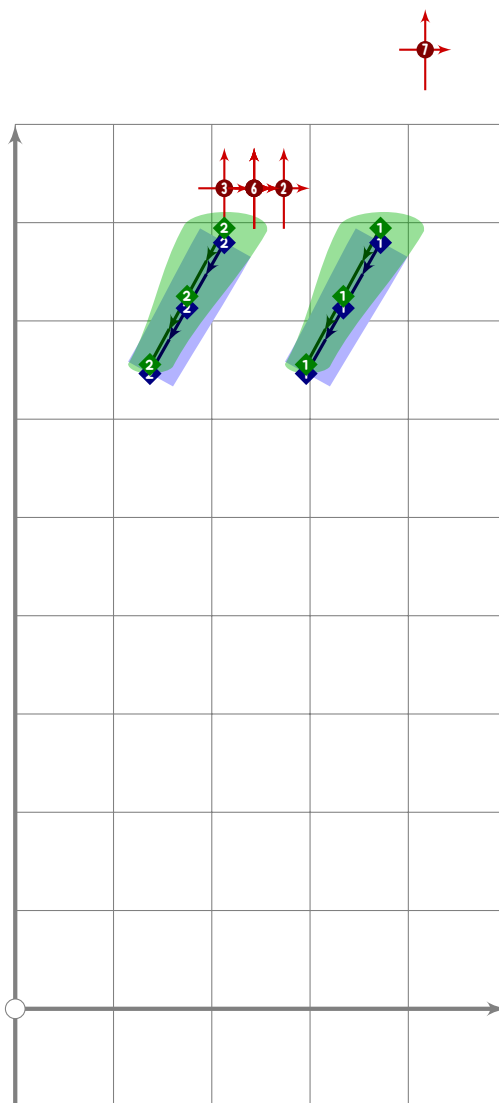
02



```
96 % ogonek
97 begintsuglyph("ogonek";219);
98 latin.loweogonek;
99 set_bosize(-1,0);
100 tsu_render;
101 endtsuglyph;
102
```



```
103 % small tilde
104 beginsuglyph("tilde";220);
105   tsu_accent.apply()(tsu_accent.tilde);
106   tsu_render;
107 endsuglyph;
108
```



```

109 % double acute accent
110 begintsuglyph("hungarumlaut",221);
111   tsu_accent.apply()(tsu_accent.hungarian_umlaut);
112   tsu_render;
113 endtsuglyph;
114
115 _____
116
117 endfont;
118
119 _____

```



# tsuku-03.mp

```
1 %
2 % Unicode page 03 (Combining Diacritical Marks) for Tsukurimashou
3 % Copyright (C) 2011, 2012, 2013 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---


32
33 beginfont
34
35 input latin-intro.mp;
36
37 % AUTODEPS
38 input accent.mp;
39 input punct.mp;
40
41 do_late_includes;
42
43 

---


44
```

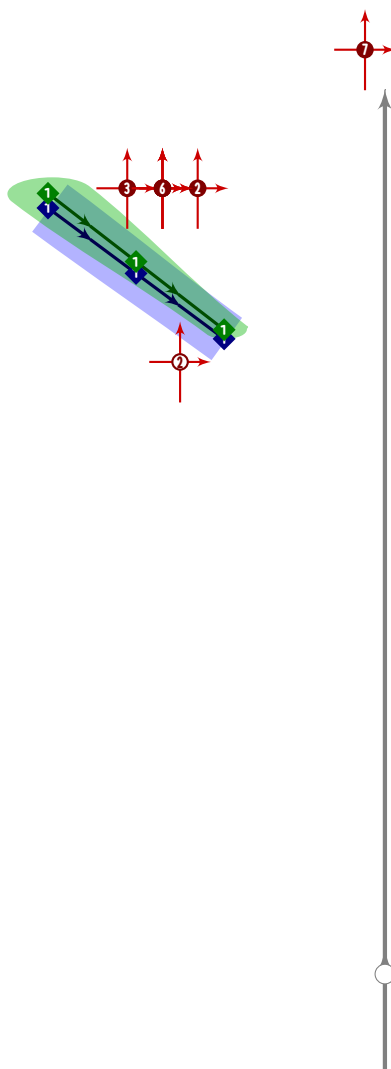
03

## Combining Diacritical Marks

```
45 % COMBINING DIACRITICAL MARKS
46
47 tsu_rescale_combining_accent;
48
```

U+0300  
tsuku.gravecomb

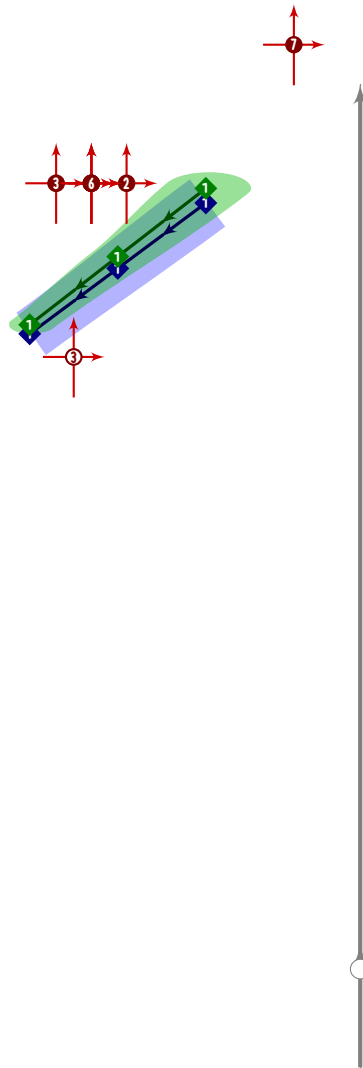
03



```

49 % grave accent
50 begintsuglyph("gravecomb",0);
51   tsu_accent.apply()(tsu_accent.grave);
52   push_anchor(-anc_grave,accent_default[anc_grave]);
53   tsu_render;
54 endtsuglyph;
55

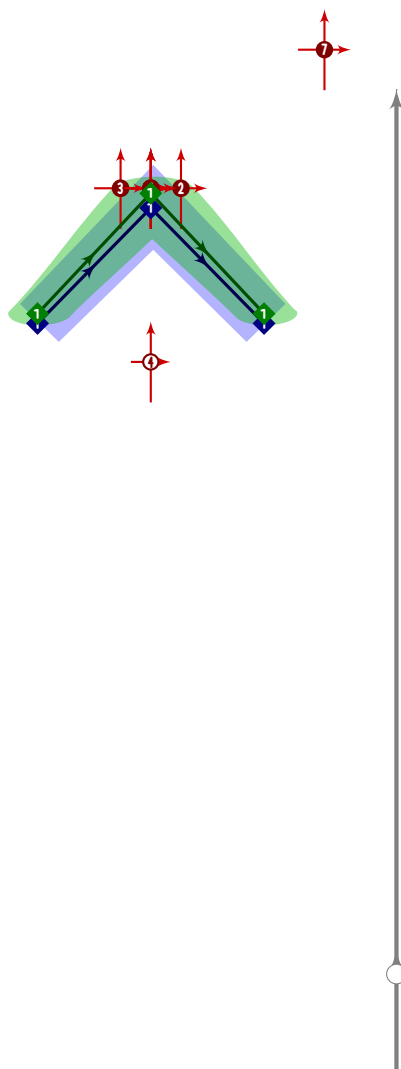
```



```

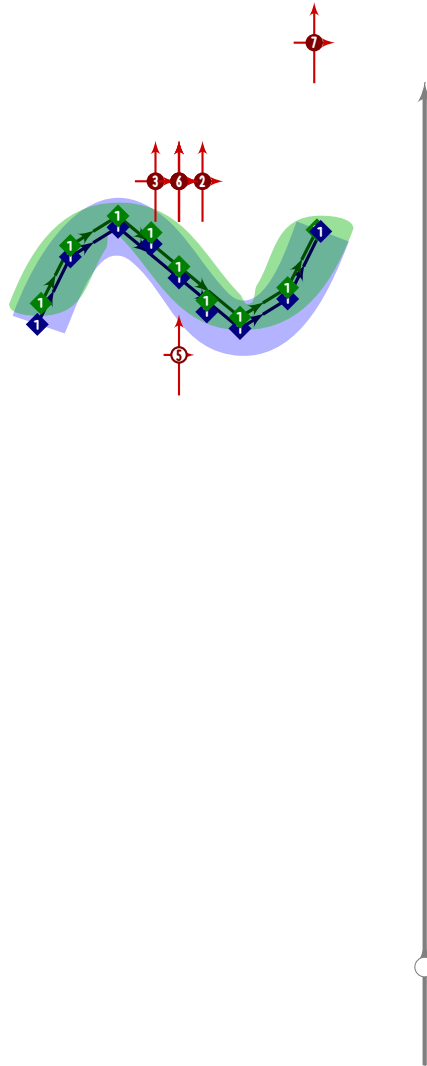
56 % acute accent
57 begintsuglyph("acutecomb",1);
58   tsu_accent.apply()(tsu_accent.acute);
59   push_anchor(-anc_acute,accent_default[anc_acute]);
60   tsu_render;
61 endtsuglyph;
62

```

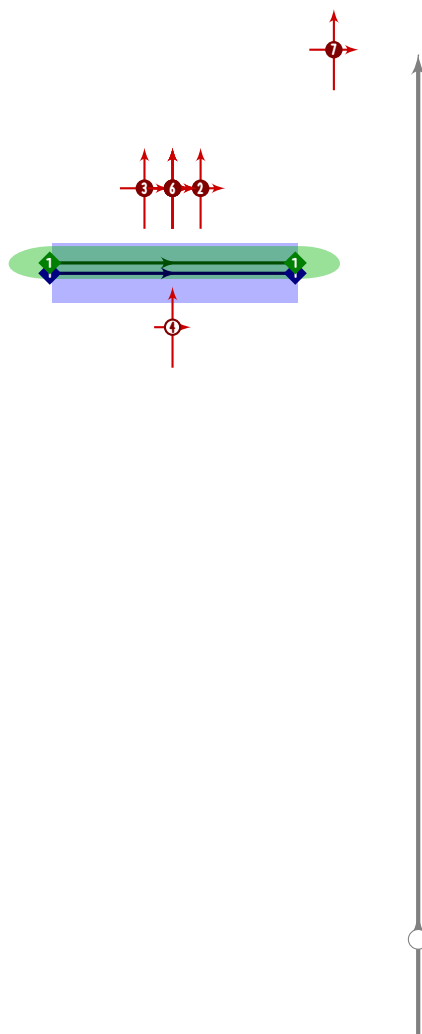


03

```
63 % circumflex accent
64 begintsuglyph("uni0302";2);
65   tsu_accent.apply()(tsu_accent.circumflex);
66   push_anchor(-anc_wide,accent_default[anc_wide]);
67   tsu_render;
68 endtsuglyph;
69
```

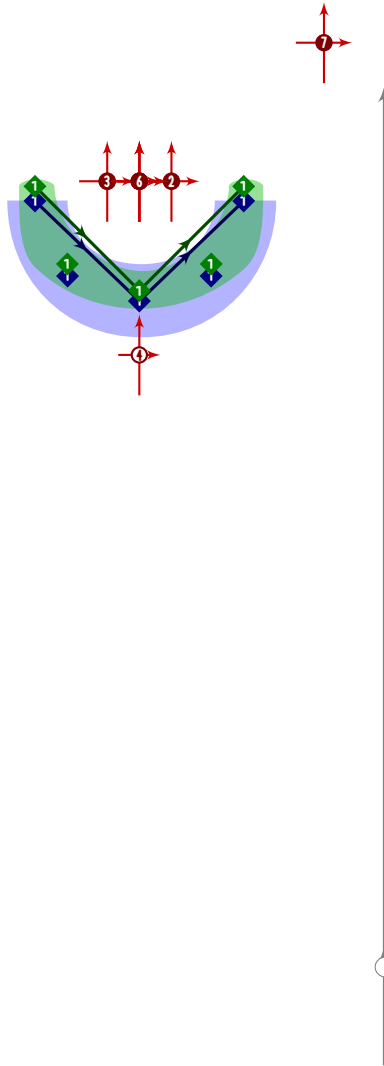


```
70 % tilde accent
71 begint Suglyph("tildecomb",3);
72   tsu_accent.apply()(tsu_accent.tilde);
73   push_anchor(-anc_tilde,accent_default[anc_tilde]);
74   tsu_render;
75 endtsuglyph;
76
```

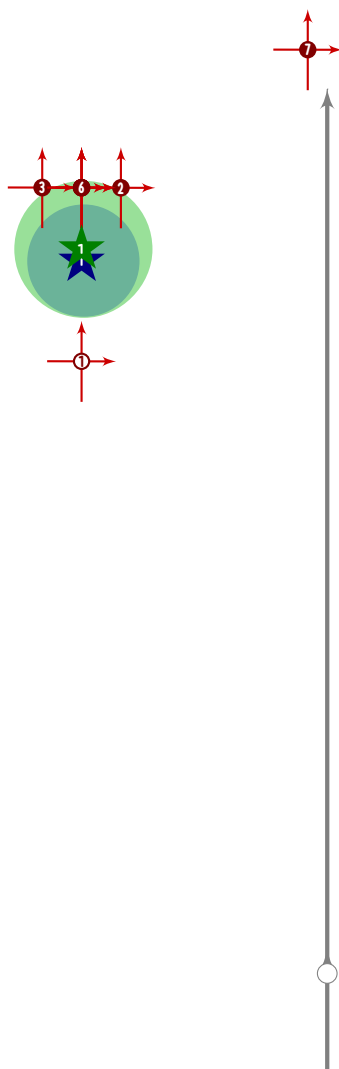


03

```
77 % macron
78 begint Suglyph("uni0304"4);
79   tsu_accent.apply()(tsu_accent.macron);
80   push_anchor(-anc_wide,accent_default[anc_wide]);
81   tsu_render;
82 endtsuglyph;
83
```



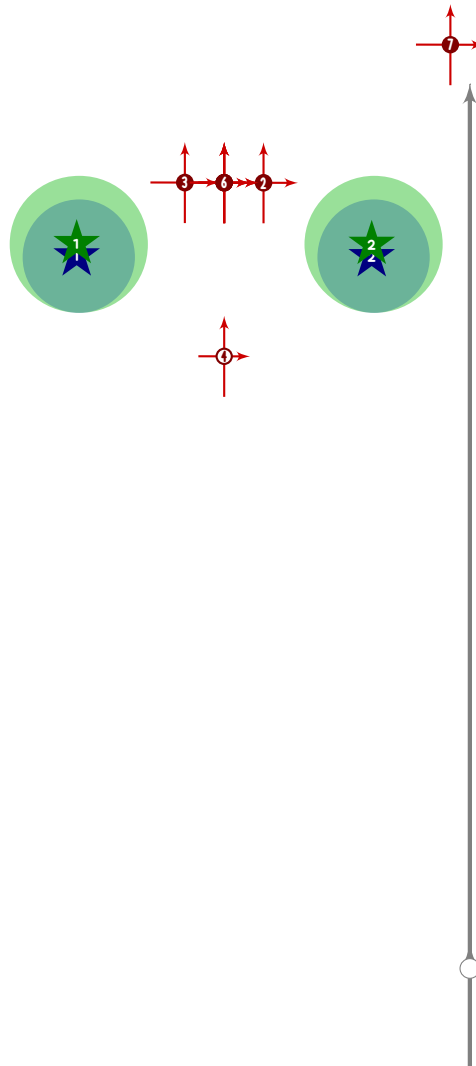
```
84 % breve
85 begintsuglyph("uni0306",6);
86 tsu_accent.apply()(tsu_accent.breve);
87 push_anchor(-anc_wide,accent_default[anc_wide]);
88 tsu_render;
89 endtsuglyph;
90
```



03

```
91 % dot above
92 begint Suglyph("uni0307";7);
93   tsu_accent.apply()(tsu_accent.dotabove);
94   push_anchor(-anc_upper,accent_default[anc_upper]);
95   tsu_render;
96 endtsuglyph;
97
```



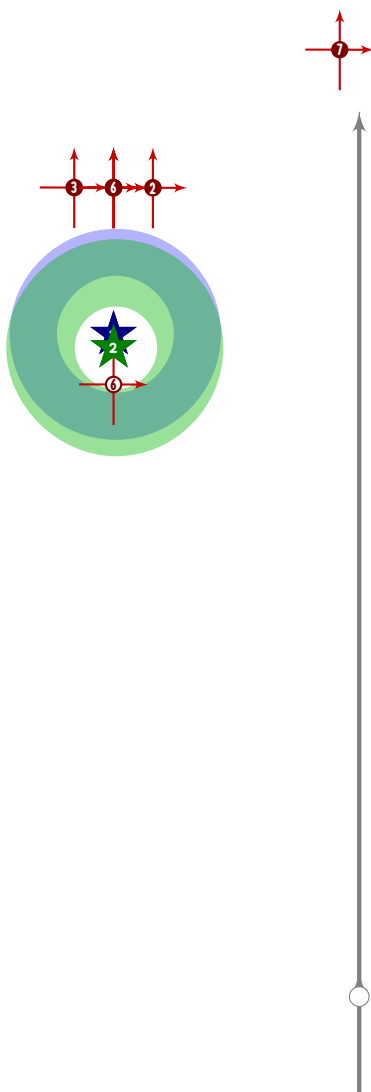


```

98 % umlaut/diaeresis
99 begintsuglyph("uni0308";8);
100 tsu_accent.apply()(tsu_accent.umlaut);
101 push_anchor(-anc_wide,accent_default[anc_wide]);
102 tsu_render;
103 endtsuglyph;
104
105 % 0309;hookabovecomb;COMBINING HOOK ABOVE
106

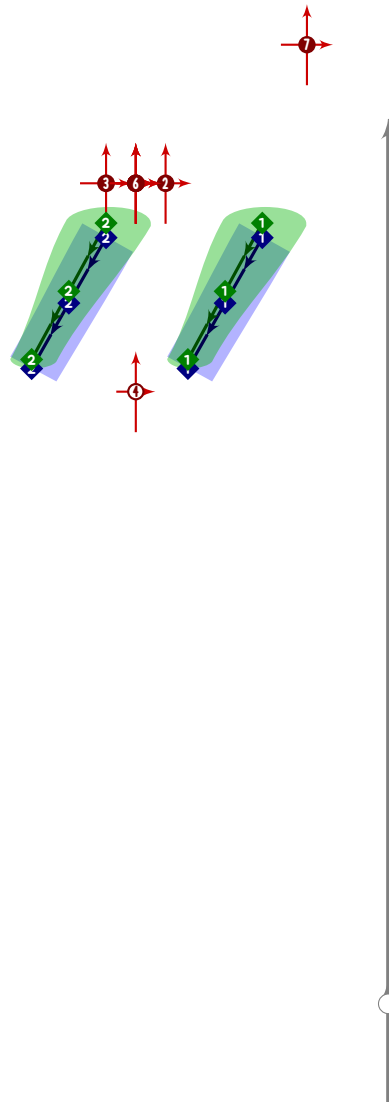
```

U+030A  
tsuku.uni030A



03

```
107 % ring above
108 begint Suglyph("uni030A";10);
109   tsu_accent.apply()(tsu_accent.ringabove);
110   push_anchor(-anc_ring,accent_default[anc_ring]);
111   tsu_render;
112 endtsuglyph;
113
```

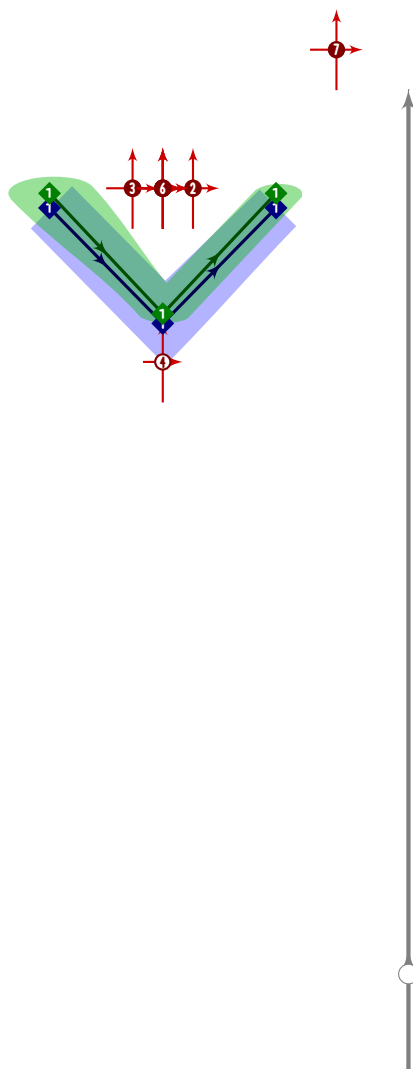


```

114 % double acute/hungarian umlaut
115 begintsuglyph("uni030B",11);
116   tsu_accent.apply()(tsu_accent.hungarian_umlaut);
117   push_anchor(-anc_wide,accent_default[anc_wide]);
118   tsu_render;
119 endtsuglyph;
120

```

U+030C  
tsuku.uni030C



03

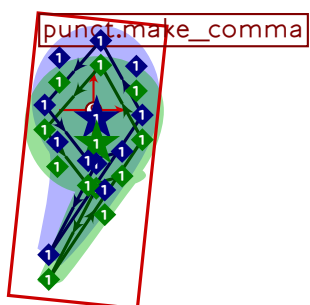
```
121 % caron/hacek
122 begintsuglyph("uni030C",12);
123   tsu_accent.apply()(tsu_accent.caron);
124   push_anchor(-anc_wide,accent_default[anc_wide]);
125   tsu_render;
126 endtsuglyph;
127
```



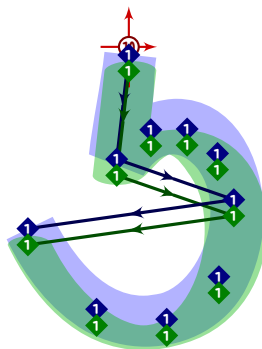
```
128 % dot below
129 beginsuglyph("dotbelowcomb";35);
130 tsu_accent.apply()(tsu_accent.dotbelow);
131 push_anchor(-anc_lower,accent_default[anc_lower]);
132 tsu_render;
133 endsuglyph;
134
```

U+0326  
tsuku.uni0326

03



```
135 % comma below
136 begintsuglyph("uni0326";38);
137   tsu_accent.apply()(tsu_accent.commabelow);
138   push_anchor(-anc_lower,accent_default[anc_lower]);
139   tsu_render;
140 endtsuglyph;
141
```



```
142 % cedilla
143 begint Suglyph("uni0327",39);
144   tsu_accent.apply()(tsu_accent.cedilla);
145   push_anchor(-anc_lower_connect,accent_default[anc_lower_connect]);
146   tsu_render;
147 endtsuglyph;
148
149 _____
150
151 endfont;
152
153 _____
```

## tsuku-20.mp

```
1 %
2 % Unicode page 20 (Punctuation) for Tsukurimashou
3 % Copyright (C) 2011, 2012 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---


32
33 beginfont
34
35 input latin-intro.mp;
36
37 % AUTODEPS
38 input punct.mp;
39
40 do_late_includes;
41
42 

---


43
```

20

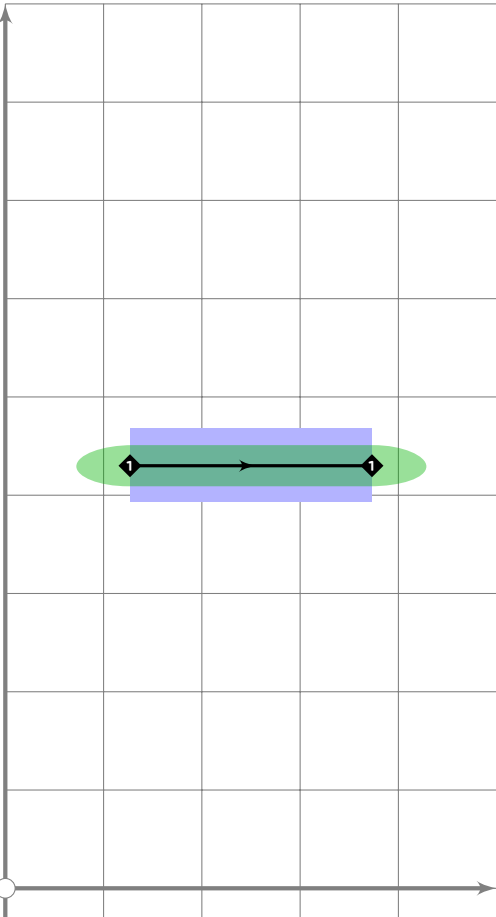
## General Punctuation

```
44 % GENERAL PUNCTUATION
45
46 % WARNING changing rescale setting
47 tsu_rescale_half;
48
49 % hyphen
50 begintsuglyph("uni2010",16);
51   punct.dash.hyphen;
52   tsu_render;
53 endtsuglyph;
54
```

[see page 379]



punct.dash.hyphen



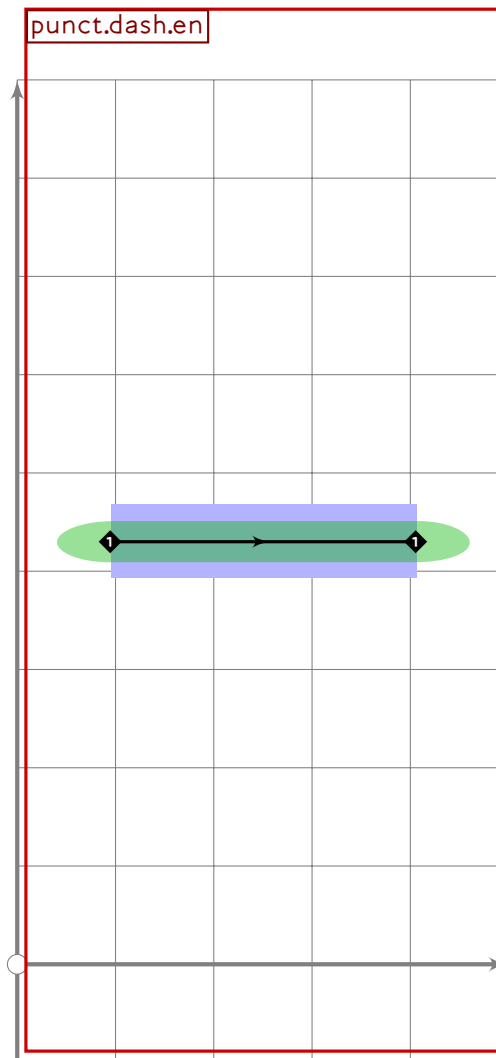
```

55 % non-breaking hyphen
56 begintsuglyph("uni2011";17);
57   punct.dash.hyphen;
58   tsu_render;
59 endtsuglyph;

60
61 % figure dash
62 begintsuglyph("figuredash";18);
63   punct.dash.en;
64   tsu_render;
65 endtsuglyph;
66

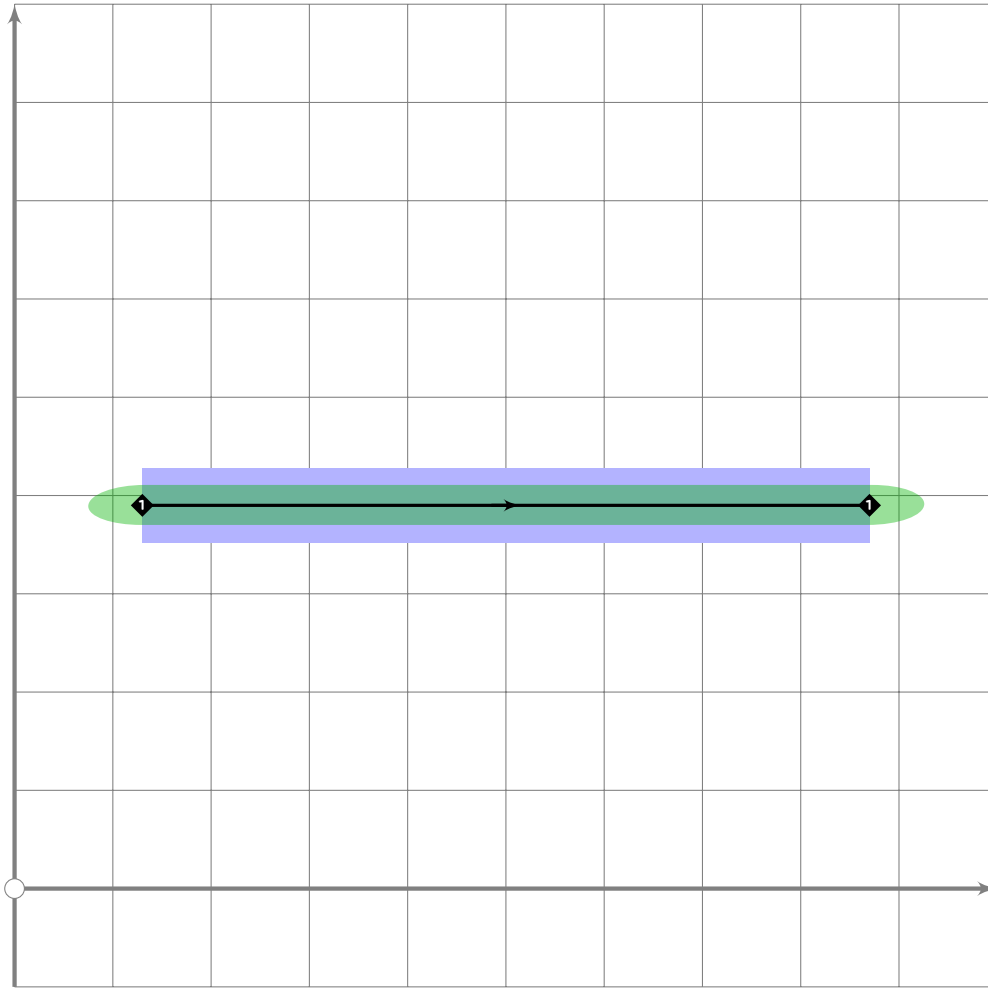
```

[see page 378]



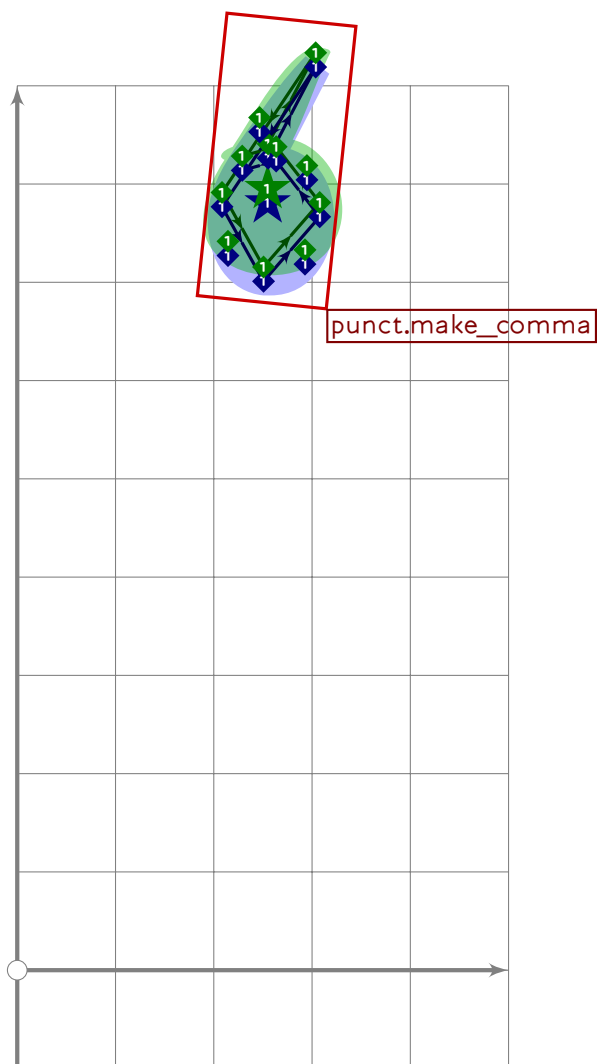
```
67 % en dash
68 begintsuglyph("endash";19);
69   punct.dash.en;
70   tsu_render;
71 endtsuglyph;
72
73 % WARNING changing rescale setting
74 tsu_rescale_full;
75
76 % em dash
77 begintsuglyph("emdash";20);
78   punct.dash.em;
79   tsu_render;
80 endtsuglyph;
81
```

[see page 377]



```
82 % horizontal bar
83 begintsuglyph("uni2015",21);
84   push_stroke((130,390)-(870,390),(2,2)-(2,2));
85   tsu_render;
86 endtsuglyph;
87
88 % WARNING changing rescale setting
89 tsu_rescale_half;
90
```

U+2018  
tsuku.quoteleft

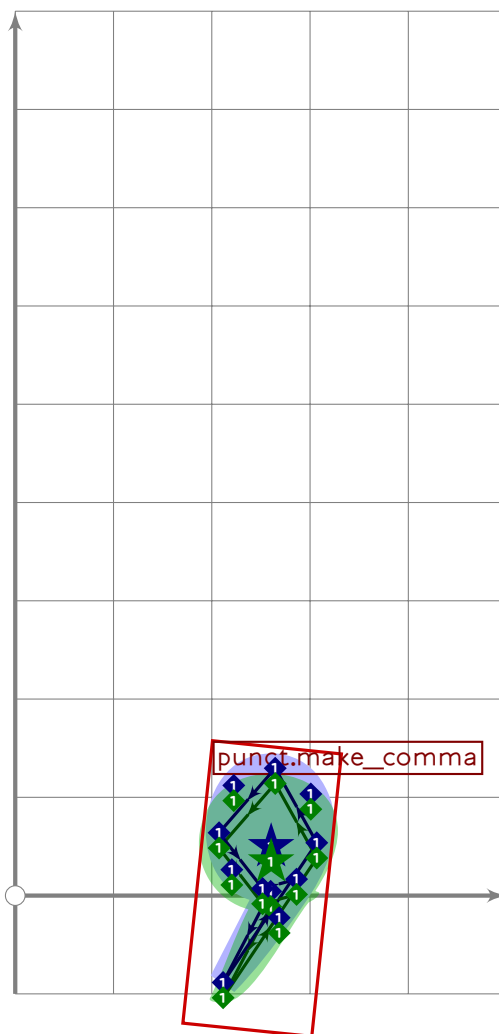


20

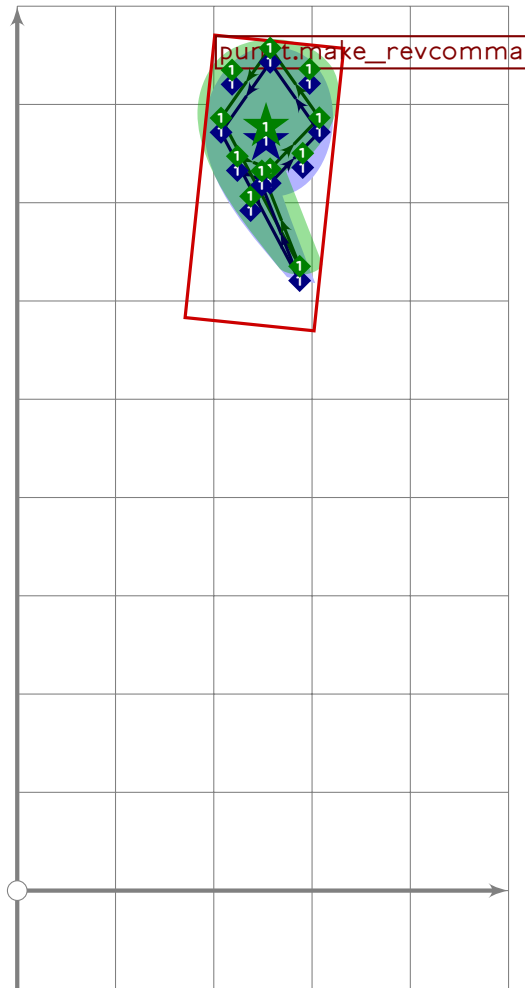
```
91 % high-6
92 begintsuglyph("quoteleft";24);
93   punct.make_comma((520,vmetric(0.94)),180);
94   tsu_render;
95 endtsuglyph;
96
```



```
97 % high-9
98 begintsuglyph("quoteright";25);
99   punct.make_comma((480,vmetric(0.94)),0);
100   tsu_render;
101 endsuglyph;
102
```

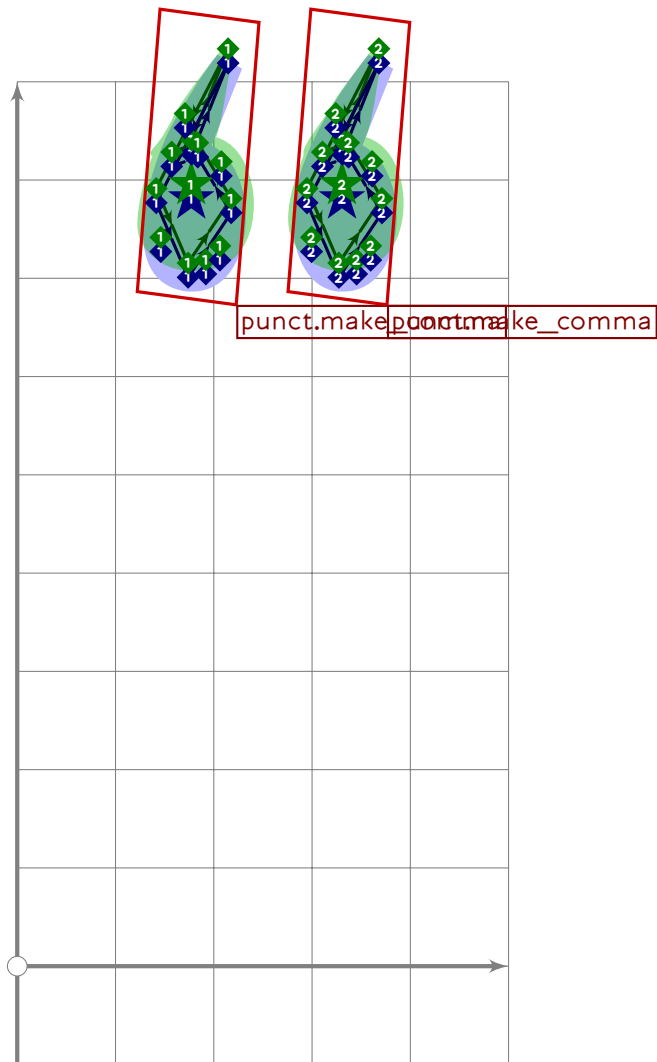


```
103 % low-9
104 begint Suglyph("quotesinglbase",26);
105   punct.make_comma((520,vmetric(0.03)),0);
106   tsu_render;
107 endtsuglyph;
108
```



```
109 % high-rev-9
110 begintsuglyph("quotereversed";27);
111   punct.make_revcomma((520,ymetric(0.94)),0);
112   tsu_render;
113 endsuglyph;
114
```

U+201C  
tsuku.quotedblleft



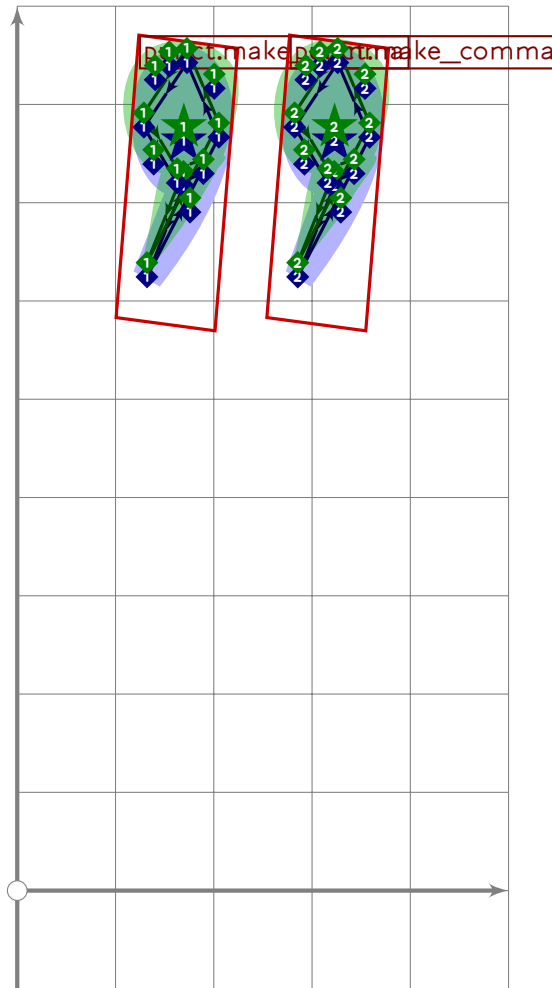
20

```

115 % high-66
116 begintsuglyph("quotedblleft";28);
117 punct.make_comma((520-tsu_punct_size,vmetric(0.94)),180);
118 punct.make_comma((520+tsu_punct_size,vmetric(0.94)),180);
119 tsu_render;
120 endsuglyph;
121

```

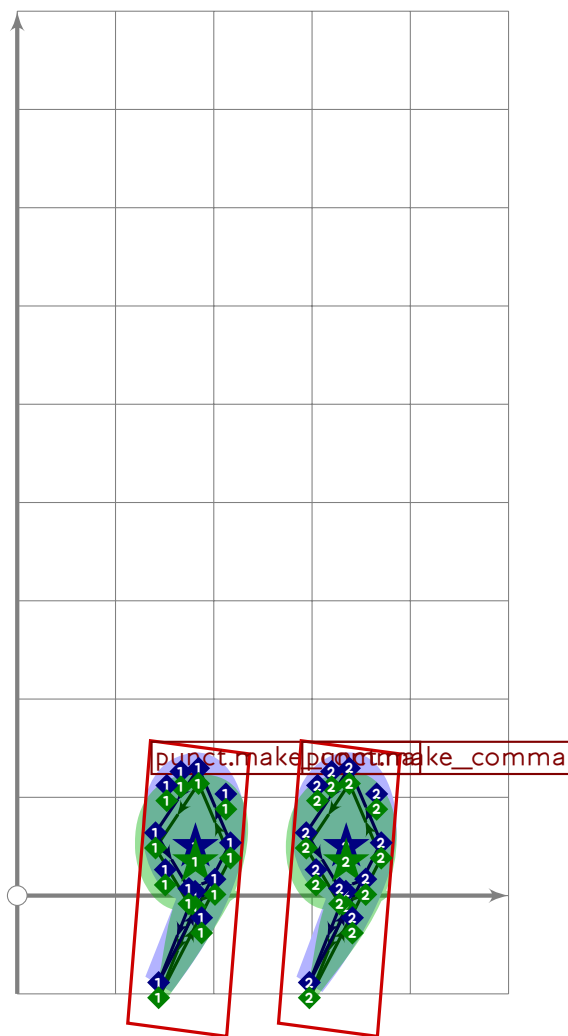




```

122 % high-99
123 begint Suglyph("quotedblright",29);
124   punct.make_comma((480-tsu_punct_size,vmetric(0.94)),0);
125   punct.make_comma((480+tsu_punct_size,vmetric(0.94)),0);
126   tsu_render;
127 endtsuglyph;
128

```



```

129 % low-99
130 begint Suglyph("quotedblbase",30);
131   punct.make_comma((520-tsu_punct_size,vmetric(0.03)),0);
132   punct.make_comma((520+tsu_punct_size,vmetric(0.03)),0);
133   tsu_render;
134 endtsuglyph;
135

```



```

136 % high-rev-99
137 begint Suglyph("quotedblreversed",31);
138 punct.make_revcomma((520-tsu_punct_size,vmetric(0.94)),0);
139 punct.make_revcomma((520+tsu_punct_size,vmetric(0.94)),0);
140 tsu_render;
141 endtsuglyph;
142
143 % WARNING changing rescale setting
144 tsu_rescale_native_narrow;
145
146 vardef dagger_spur =
147   if sharp_corners:
148     dagger_x:=(tsu_punct_size-60)*1.25;
149     if dagger_x<12: dagger_x:=15; fi;
150     (4,mincho*30){curl 0}..
151     (0.5[(0,mincho*20),(dagger_x,222-mincho*72)]+mincho*(-74))..
152     {curl 1}(dagger_x,222-mincho*72)-(0,200)-
153     (-dagger_x,222-mincho*72){curl 1}..
154     (0.5[(0,mincho*20),(-dagger_x,222-mincho*72)]+mincho*(74))..
155     {curl 0}(-4,mincho*30)-cycle
156   else:

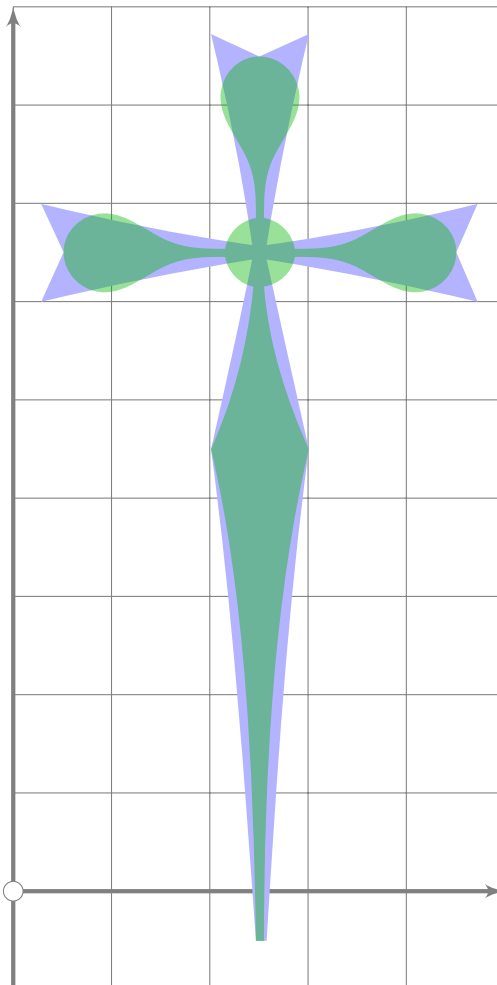
```

U+2020  
tsuku.dagger

```

157 dagger_x:=tsu_punct_size-60;
158 if dagger_x<12: dagger_x:=15; fi;
159 (4,mincho*30){curl 0}..
160 (0.5[(0,mincho*20),(dagger_x,160)]+mincho*(-74))..
161 (dagger_x,160)..(0,200)..(-dagger_x,160)..
162 (0.5[(0,mincho*20),(-dagger_x,160)]+mincho*(74))..
163 {curl 0}(-4,mincho*30)-cycle
164 fi
165 enddef;
166

```



```

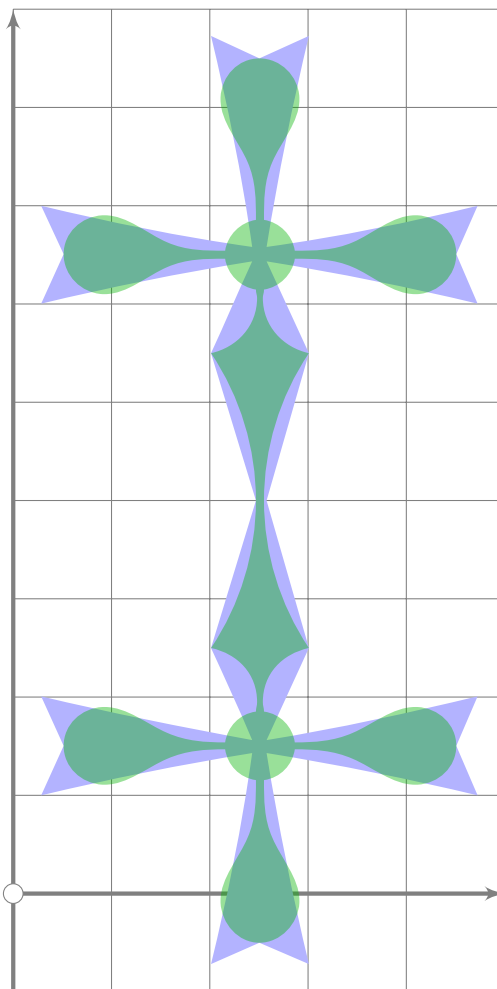
167 % dagger
168 begintsuglyph("dagger",32);
169 begingroup
170 save tsx;
171 transform tsx;
172
173 tsx:=tsu_slant_xform;
174
175 dangerousFill (dagger_spur rotated 90 shifted (250,650)
176 transformed tsx);
177 dangerousFill (dagger_spur shifted (250,650)

```

```

178     transformed tsx);
179 dangerousFill (dagger_spur rotated -90 shifted (250,650)
180     transformed tsx);
181 dangerousFill (fullcircle scaled (20+mincho*50) shifted (250,650)
182     transformed tsx);
183
184 x1=x5=246;
185 x3=250-(tsu_punct_size-60)*1.25;
186 x2=x4=0.5[x1,x3];
187 x6=x10=500-x1;
188 x7=x9=500-x2;
189 x8=500-x3;
190 x11=x12=0.4[250,x3];
191 x13=x14=500-x11;
192
193 y1=y10=650;
194 y2=y9=550;
195 y3=y8=450;
196 y4=y7=250;
197 y5=y6=-50;
198 y11=y14=535;
199 y12=y13=280;
200
201 dangerousFill (interpath(mincho,
202     z1-z2-z3-z4-z5-z6-z7-z8-z9-z10-cycle,
203     z1{curl 1}..z11.{curl 1}z3{curl 1}..z12..{curl 0}z5-
204     z6{curl 0}..z13..{curl 1}z8{curl 1}..z14..{curl 1}z10-cycle)
205     transformed tsx);
206 endgroup;
207 endtsuglyph;
208

```



```

209 % double dagger
210 begintsuglyph("daggerdbl",33);
211 begingroup
212   save x,y,tsx;
213   numeric x[],y[];
214   transform tsx;
215
216   tsx:=tsu_slant_xform;
217
218   dangerousFill (dagger_spur rotated 90 shifted (250,650)
219     transformed tsx);
220   dangerousFill (dagger_spur shifted (250,650)
221     transformed tsx);
222   dangerousFill (dagger_spur rotated -90 shifted (250,650)
223     transformed tsx);
224   dangerousFill (fullcircle scaled (20*mincho*50) shifted (250,650)
225     transformed tsx);
226   dangerousFill (dagger_spur rotated -90 shifted (250,150)
227     transformed tsx);
228   dangerousFill (dagger_spur rotated 180 shifted (250,150)
229     transformed tsx);

```

```

230    dangerousFill (dagger_spur rotated 90 shifted (250,150)
231        transformed tsx);
232    dangerousFill (fullcircle scaled (20*mincho*50) shifted (250,150)
233        transformed tsx);
234
235    x1=x4=x7=246;
236    x3=x5=250-(tsu_punct_size-60)*1.25;
237    x2=x6=0.5[x1,x3];
238    x8=x11=x14=500-x1;
239    x9=x13=500-x2;
240    x10=x12=500-x3;
241
242    y1=y14=650-mincho*30;
243    y3=y12=550;
244    y2=y13=0.5[y1,y3];
245    y4=y11=400;
246    y5=y10=800-y3;
247    y6=y9=800-y2;
248    y7=y8=800-y1;
249
250    x15=x16=x2+7*mincho;
251    x17=x18=500-x15;
252
253    y15=y18=y2-20*mincho;
254    y16=y17=800-y15;
255
256    dangerousFill (interpath(mincho,
257        z1-z2-z3-z4-z5-z6-z7-z8-z9-z10-z11-z12-z13-z14-cycle,
258        z1{curl 1}..z15.{curl 1}z3{curl 1}..z4..
259        {curl 1}z5{curl 1}..z16.{curl 1}z7-
260        z8{curl 1}..z17.{curl 1}z10{curl 1}..z11..
261        {curl 1}z12{curl 1}..z18.{curl 1}z14-cycle)
262        transformed tsx);
263    endgroup;
264    endtsuglyph;
265
266    % WARNING changing rescale setting
267    tsu_rescale_full;
268
269    % euro symbol
270    begintugslyph("Euro",172);
271    punct.euro;
272    tsu_render;
273    endtsuglyph;
274
275    _____
276
277    endfont;

```

[see page 381]

278

279

---



## tsuku-21.mp

```
1 %
2 % Unicode page 21 (Symbols) for Tsukurimashou
3 % Copyright (C) 2011, 2012 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---

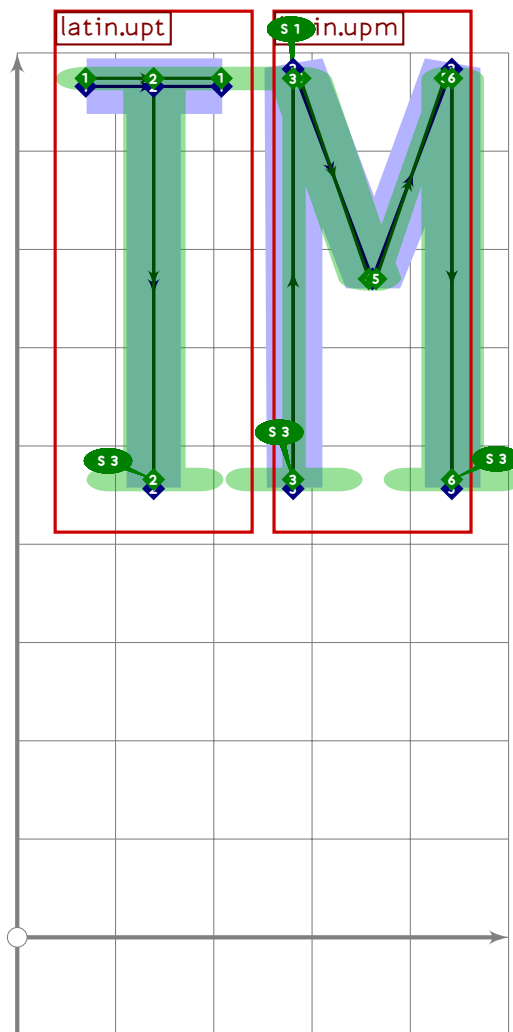

32
33 beginfont
34
35 input latin-intro.mp;
36
37 % AUTODEPS
38 input latin.mp;
39 input punct.mp;
40
41 do_late_includes;
42
43 

---


44
```

## Symbols Required By Mes-1

```
45 % SYMBOLS REQUIRED BY MES-1
46
47 % WARNING changing rescale setting
48 tsu_rescale_half;
49
```



```

50 % trademark symbol
51 begintsuglyph("trademark";34);
52   tsu_xform(identity scaled 0.5 shifted (0,400))(latin.upt);
53   numeric x[],y[];
54   tsu_xform(identity scaled 0.5 shifted (500,400))(latin.upm);
55   tsu_render;
56 endtsuglyph;
57
58 % ohm (resistance unit) symbol
59 begintsuglyph("uni2126";38);
60   punct.ohm;
61   tsu_render;
62 endtsuglyph;
63
64 % Note: 0x5B through 0x5E, which are x/8 fractions, are assembled by the
65 % assemble-font script
66
67 % WARNING changing rescale setting
68 tsu_rescale_full;
69

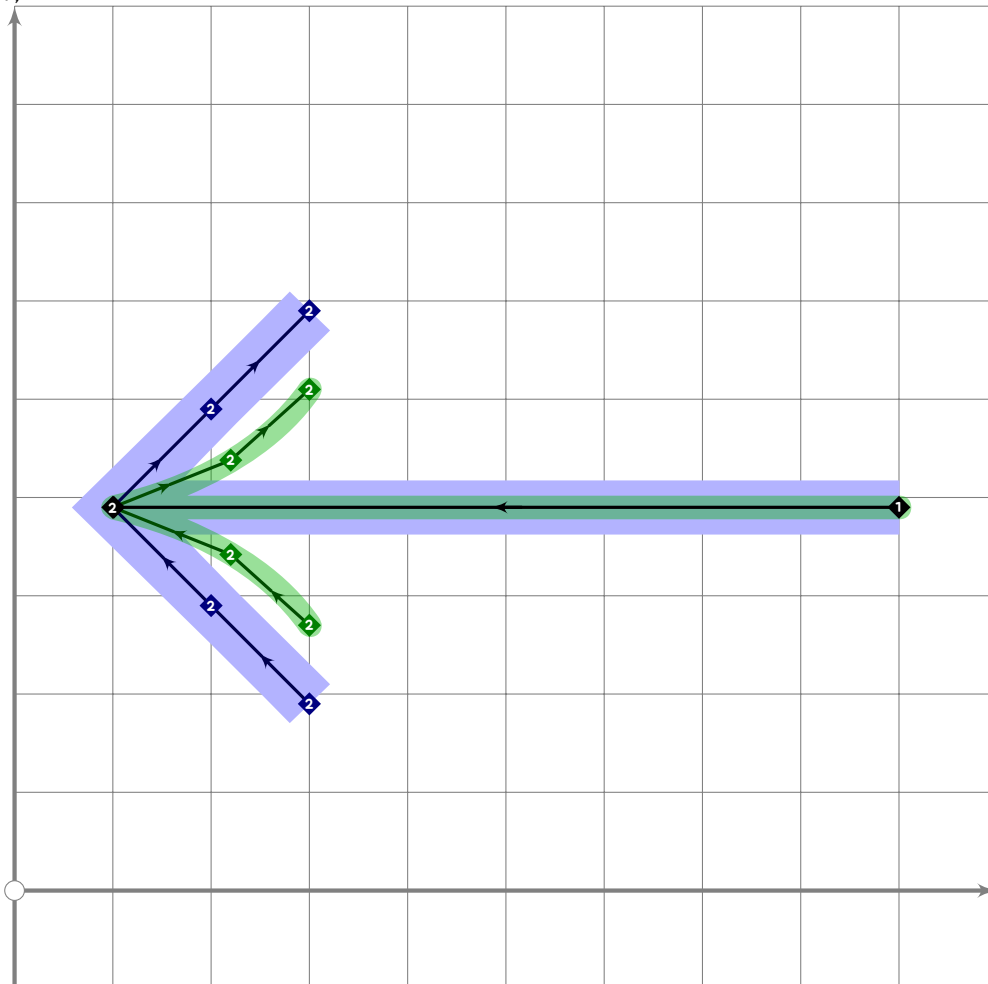
```

[see page 389]

```

70 vardef arrow(expr rot) =
71   push_stroke(((4,0)-(3,99,0))
72     scaled tsu_punct_size rotated rot shifted centre_pt,
73     (1,6,1,6)-(1,6,1,6));
74   set_boalternate(0);
75   set_bosize(0,80);
76   push_stroke(((2,2)..((3,1)+(0.2*mincho*(-1,-1)))..
77     {curl 1}(4,0){curl 1}..
78     ((3,-1)+(0.2*mincho*(-1,1)))..(2,-2))
79     xyscaled (1,1-0.4*mincho)
80     scaled tsu_punct_size rotated rot shifted centre_pt,
81     (1,6,1,6)-(1,6,1,6)-(1,6,1,6)-(1,6,1,6)-(1,6,1,6));
82   set_botip(0,2,1);
83   set_boalternate(0);
84   set_bosize(0,80);
85 enddef;

```

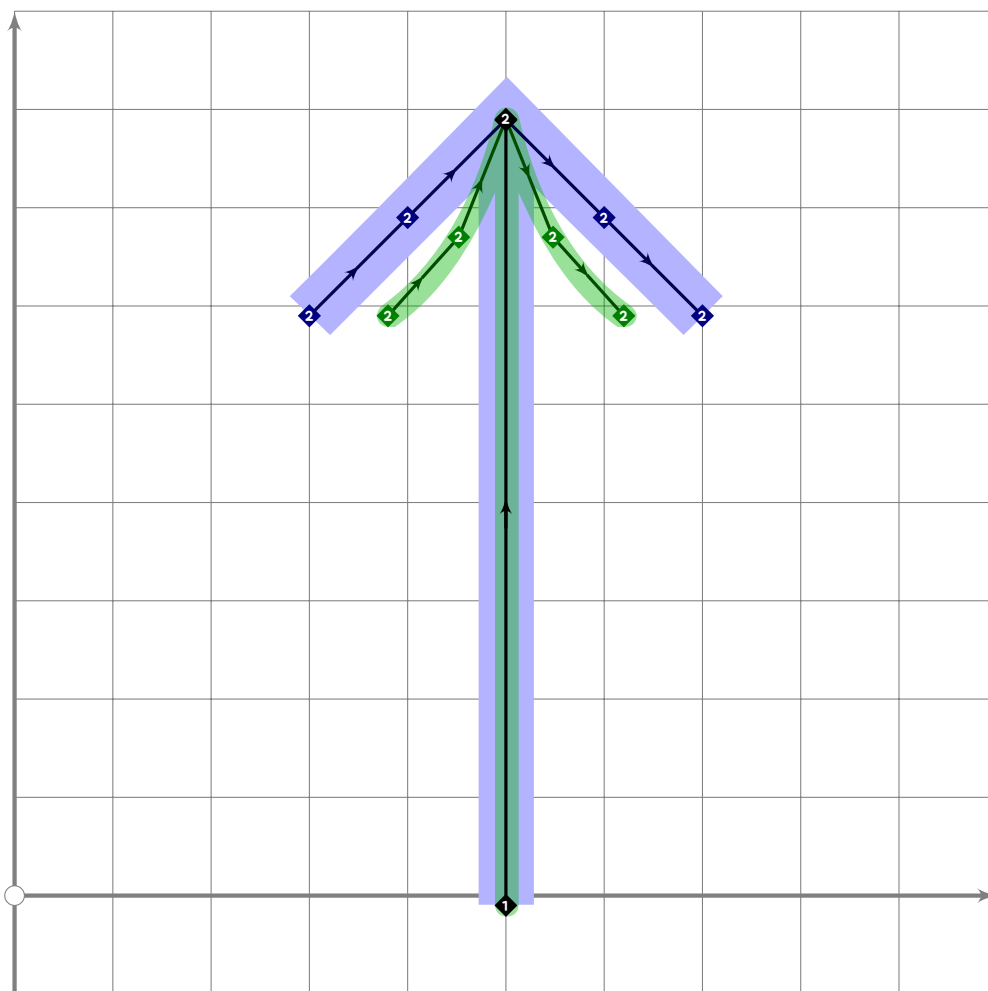


```

86
87 beginsuglyph("arrowleft";144);
88   arrow(180);
89   tsu_render;
90 endtsuglyph;

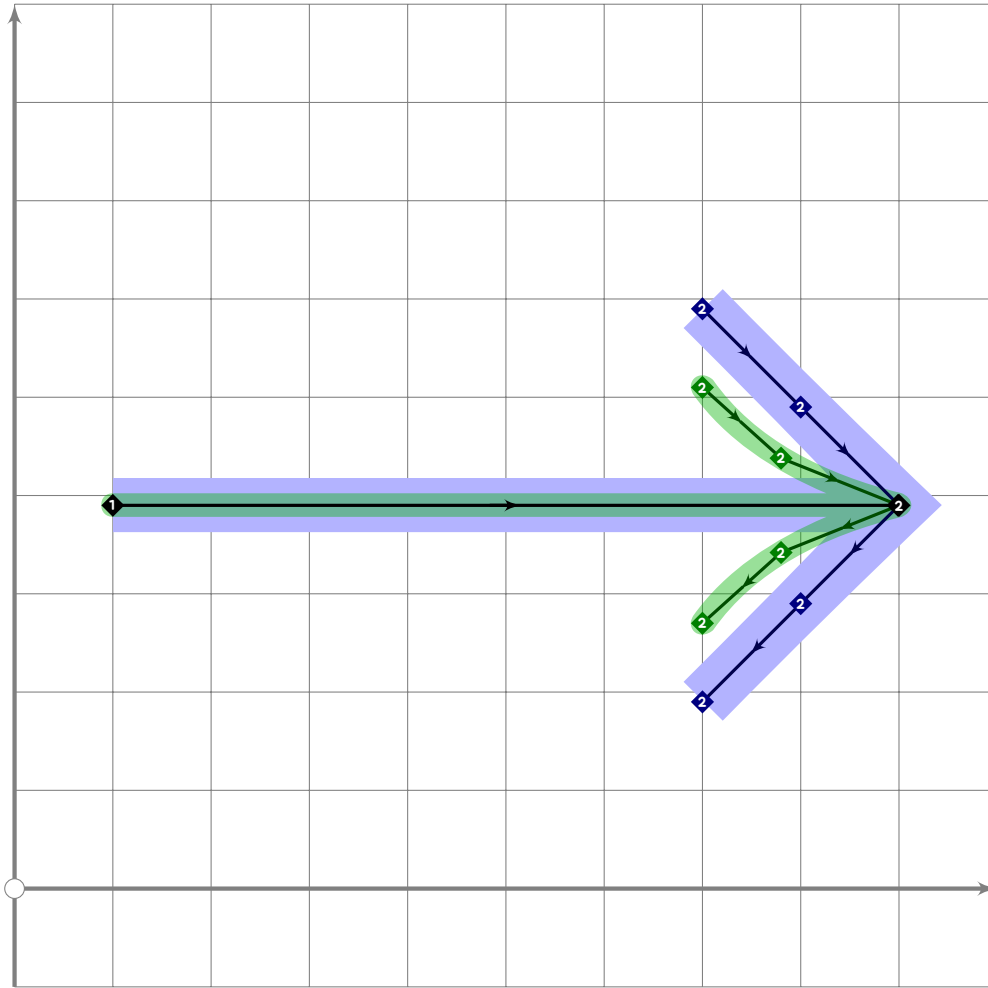
```

U+2191  
tsuku.arrowup



21

```
91  
92 begintsuglyph("arrowup",145);  
93   arrow(90);  
94   tsu_render;  
95 endsuglyph;
```

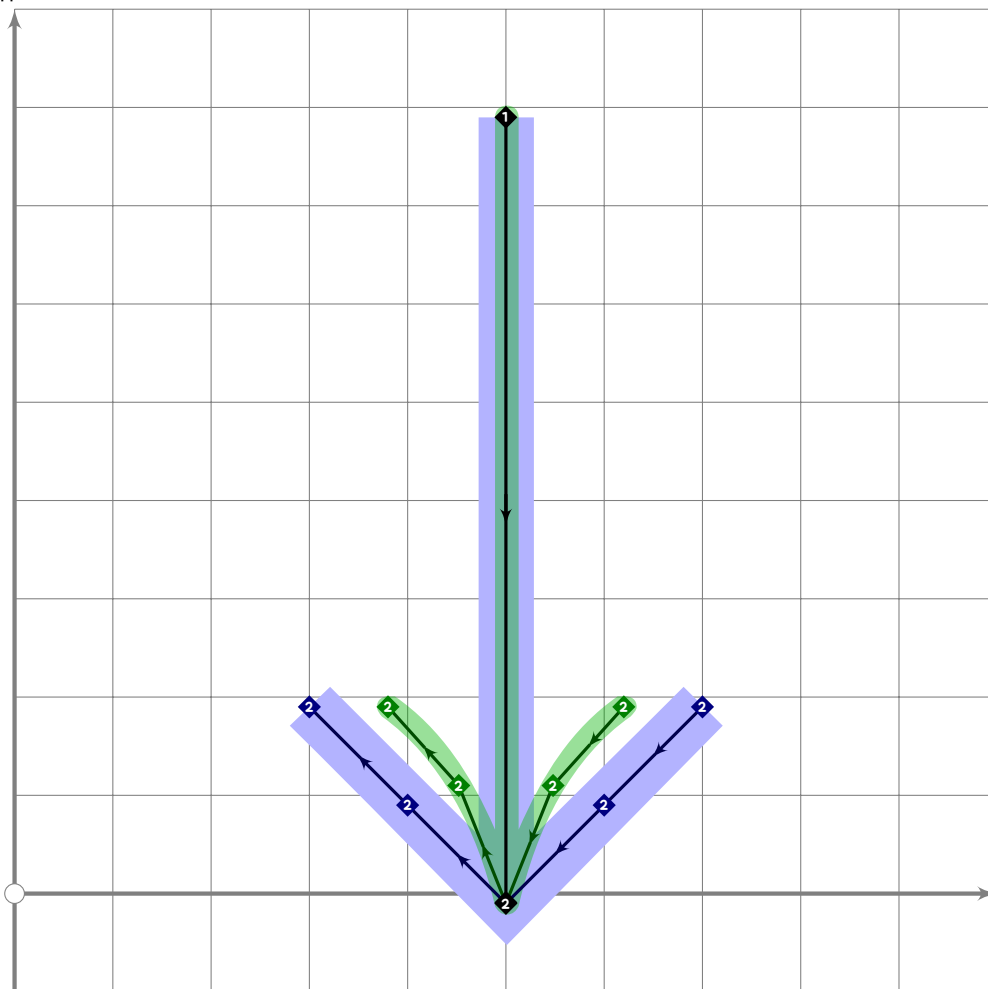


```

96
97 begintsuglyph("arrowright",146);
98   arrow(0);
99   tsu_render;
100 endsuglyph;

```

U+2193  
tsuku.arrowdown



21

```
101
102 begint Suglyph("arrowdown",147);
103   arrow(270);
104   tsu_render;
105 endtsuglyph;
106
107 _____
108
109 endfont;
110
111 _____
```

# tsuku-24.mp

```
1 %
2 % Unicode page 24 (Enclosed Numerics) for Tsukurimashou
3 % Copyright (C) 2011, 2012 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---


32
33 beginfont
34
35 input latin-intro.mp;
36
37 % AUTODEPS
38 input enclosed.mp;
39 input latin.mp;
40 input numerals.mp;
41
42 do_late_includes;
43
44 

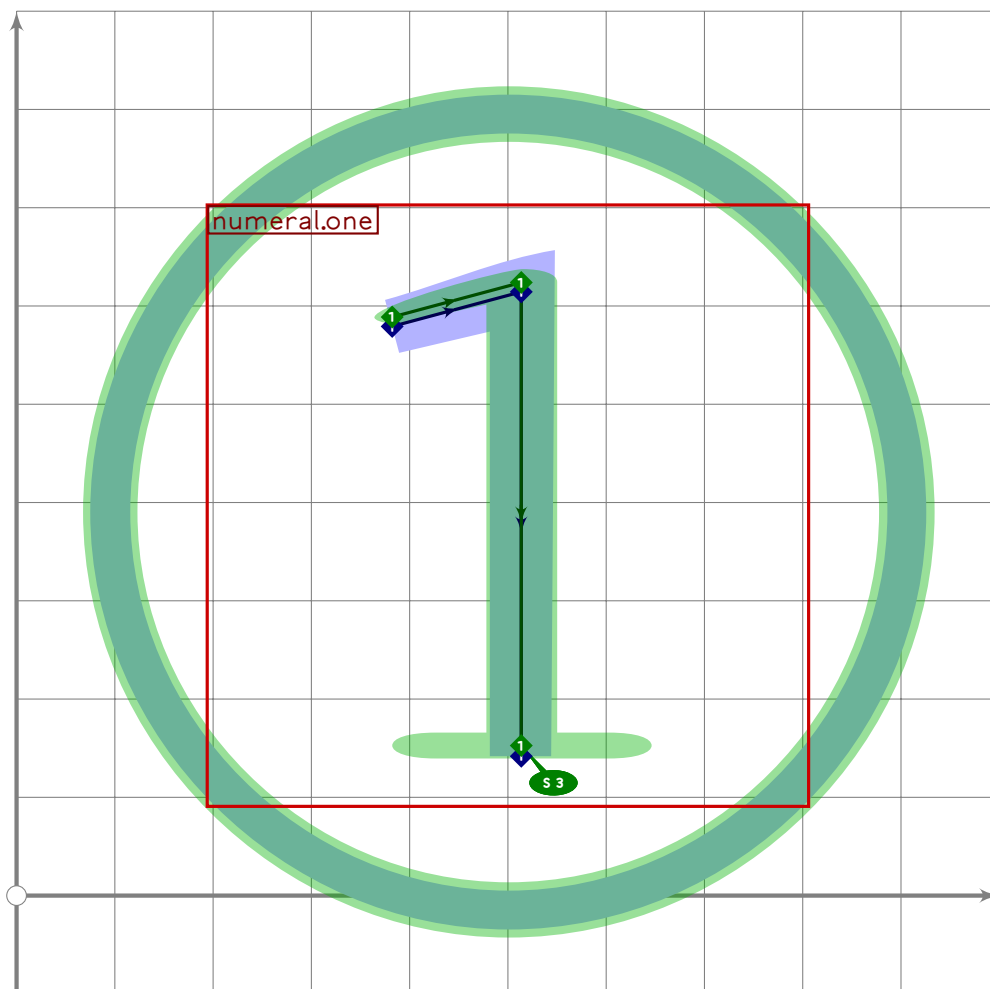
---


45
```

## Circled Numerals

```
46 % CIRCLED NUMERALS
47
```

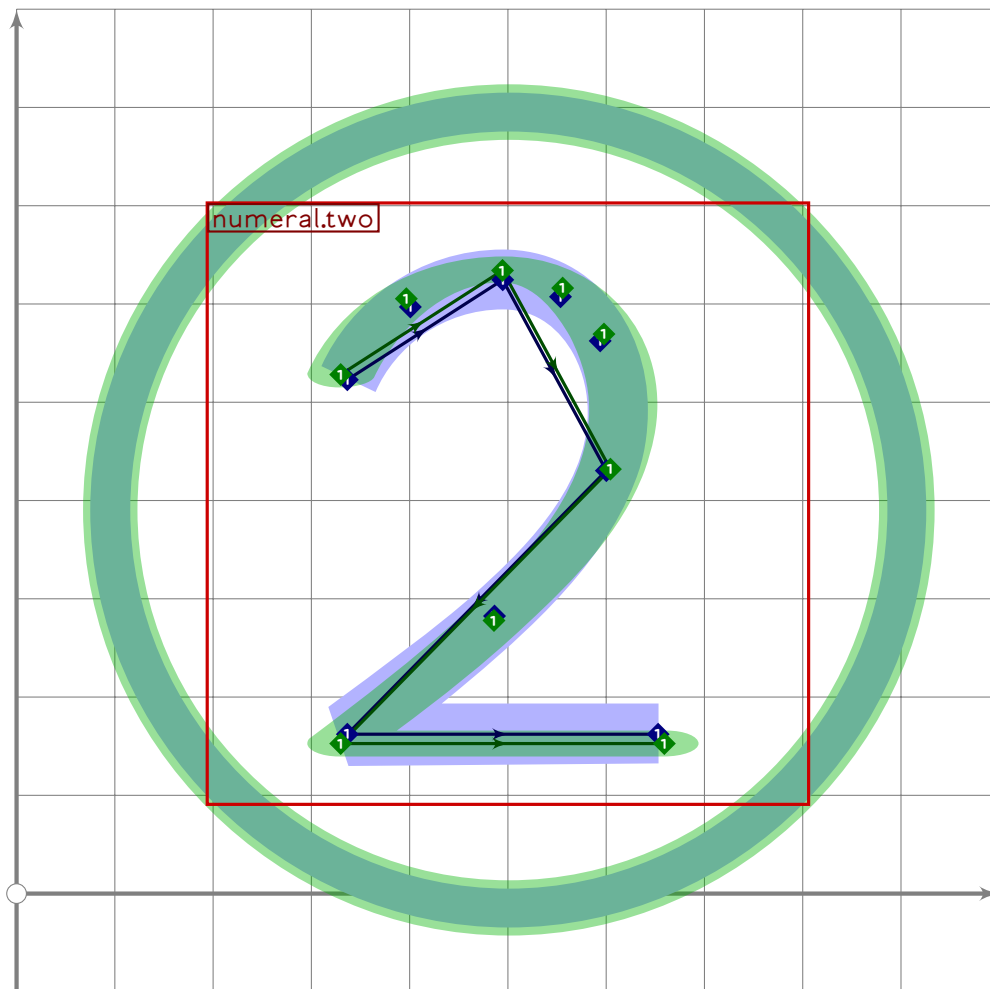
U+2460  
tsuku.uni2460



24

```
48 % 1
49 begint Suglyph("uni2460";96);
50   circle.single;
51   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.one);
52   tsu_render;
53 endtsuglyph;
54
```



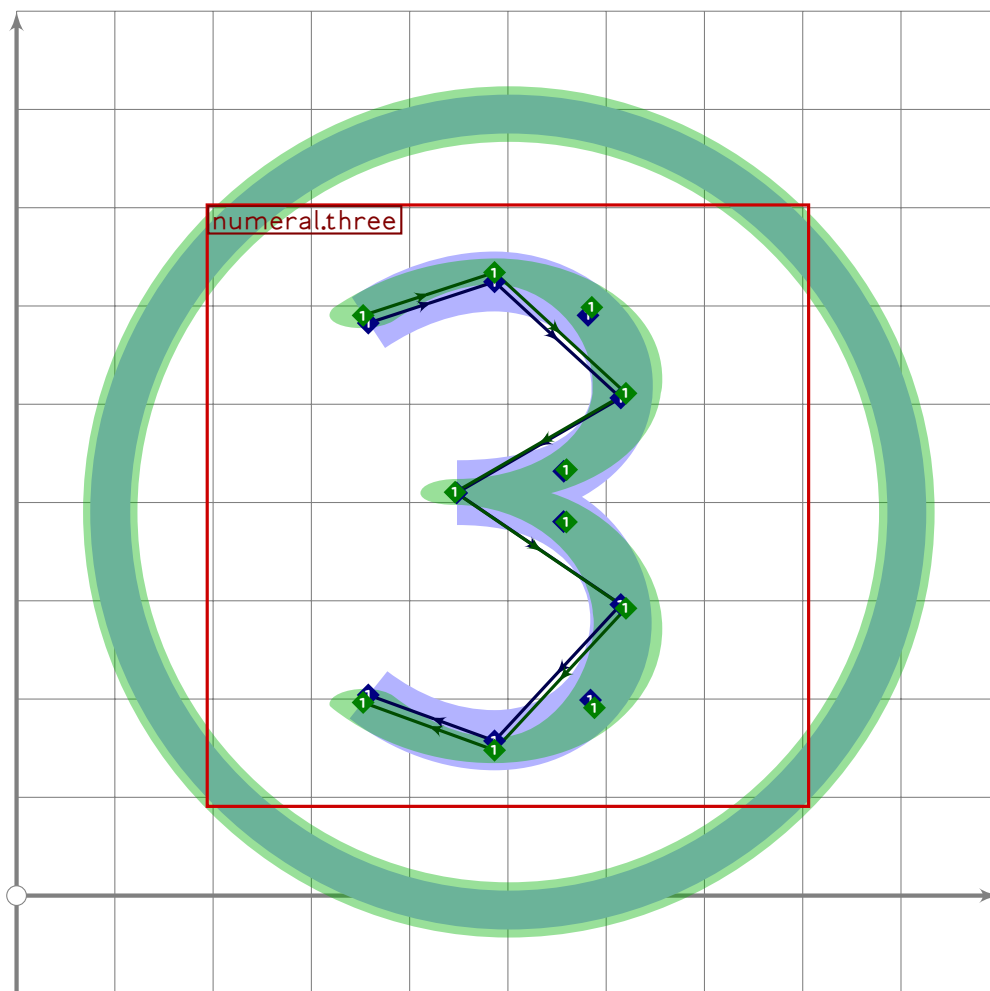


```

55 % 2
56 begintsuglyph("uni2461";97);
57   circle.single;
58   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.two);
59   tsu_render;
60 endtsuglyph;
61

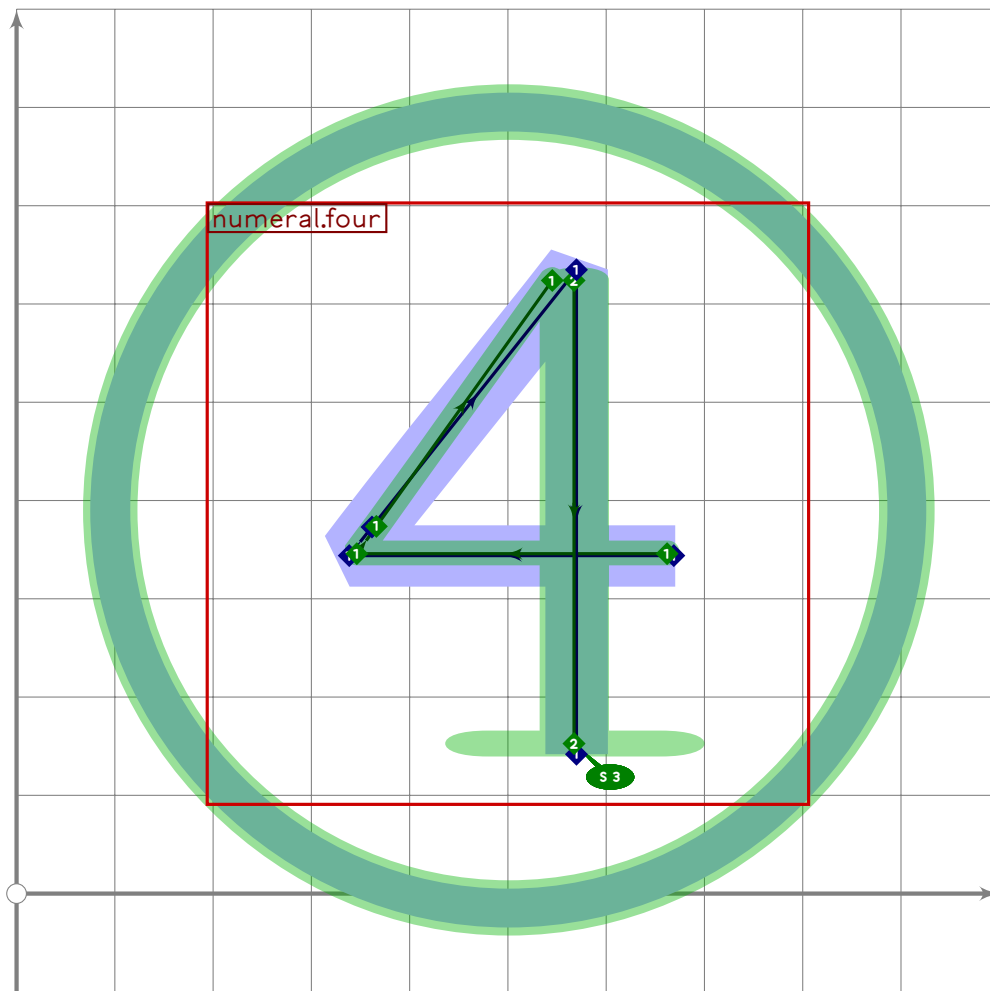
```

U+2462  
tsuku.uni2462



24

```
62 % 3
63 begintsuglyph("uni2462'98);
64   circle.single;
65   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.three);
66   tsu_render;
67 endtsuglyph;
68
```

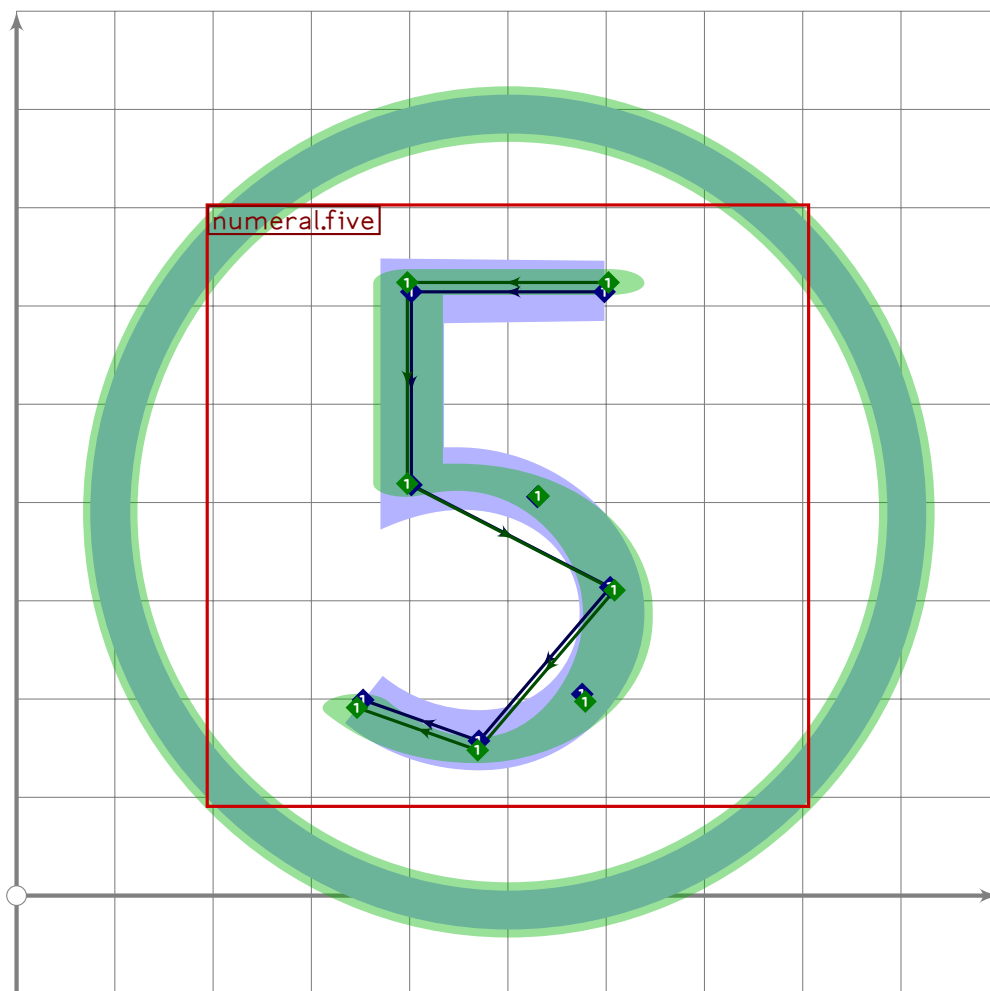


```

69 % 4
70 begintsuglyph("uni2463",99);
71   circle.single;
72   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.four);
73   tsu_render;
74 endtsuglyph;
75

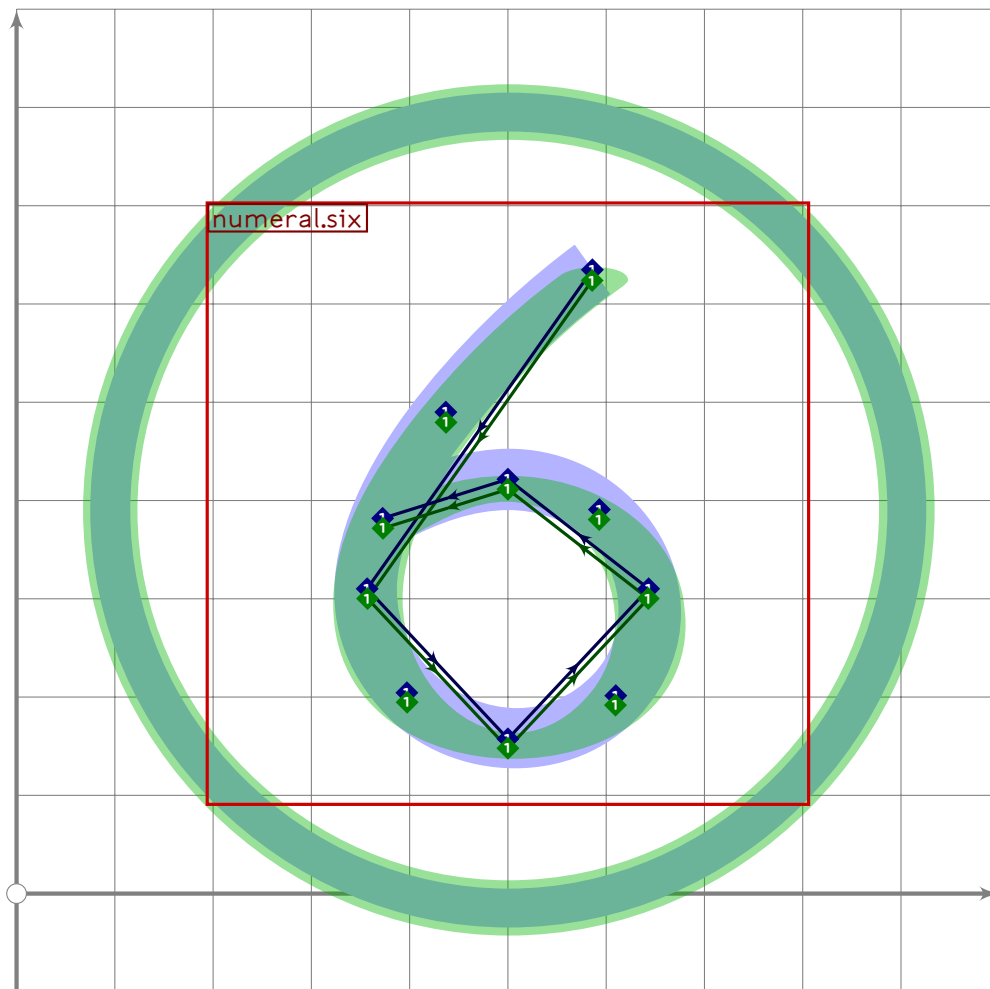
```

U+2464  
tsuku.uni2464



24

```
76 % 5
77 begintsuglyph("uni2464";100);
78   circle.single;
79   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.five);
80   tsu_render;
81 endtsuglyph;
82
```

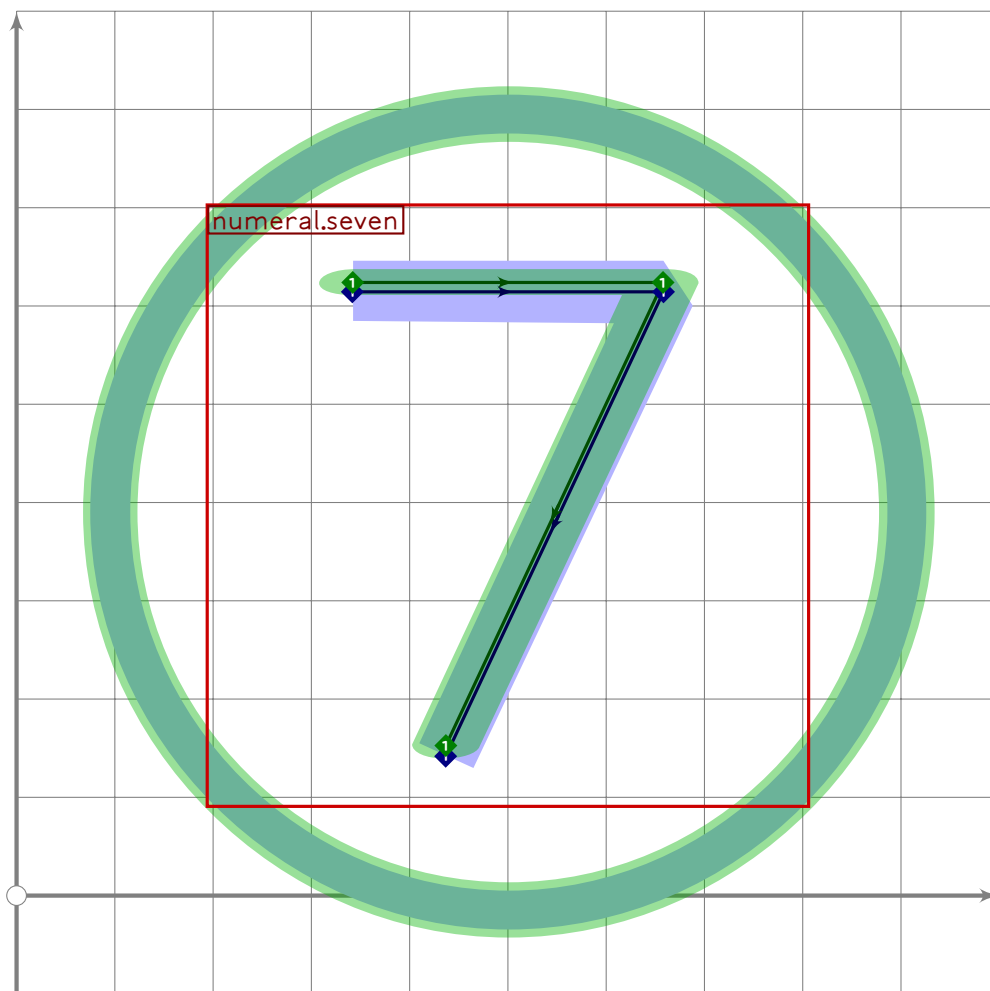


```

83 % 6
84 begintsuglyph("uni2465",101);
85   circle.single;
86   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.six);
87   tsu_render;
88 endtsuglyph;
89

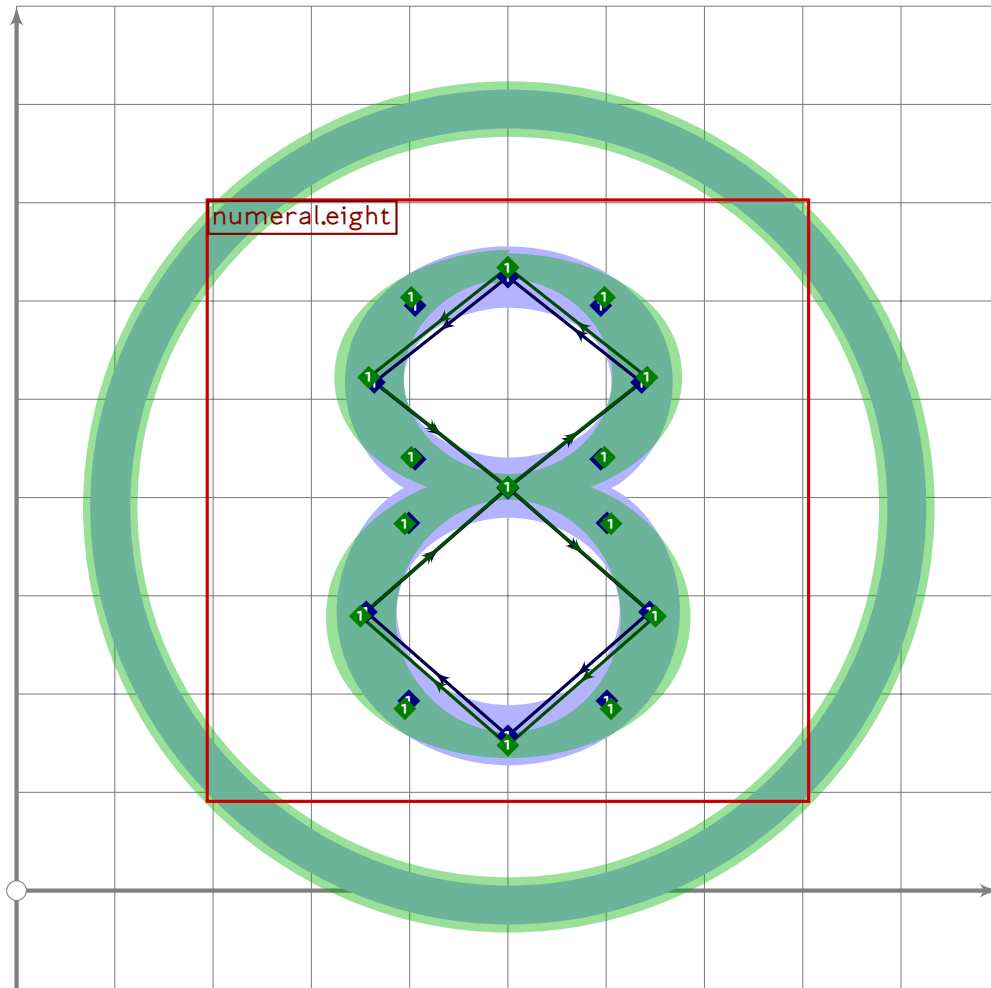
```

U+2466  
tsuku.uni2466



24

```
90 % 7
91 begintsuglyph("uni2466",102);
92   circle.single;
93   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.seven);
94   tsu_render;
95 endtsuglyph;
96
```

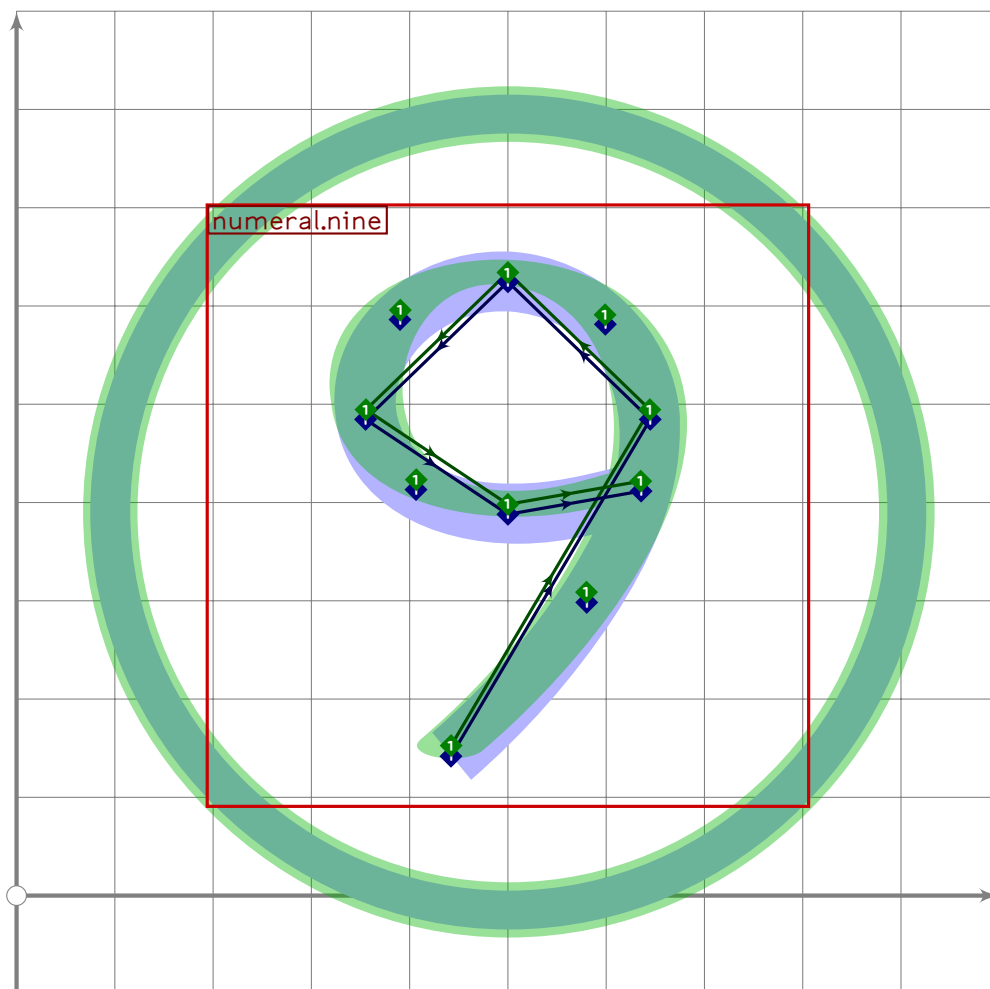


```

97 % 8
98 begintsuglyph("uni2467",103);
99   circle.single;
100   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.eight);
101   tsu_render;
102 endtsuglyph;
103

```

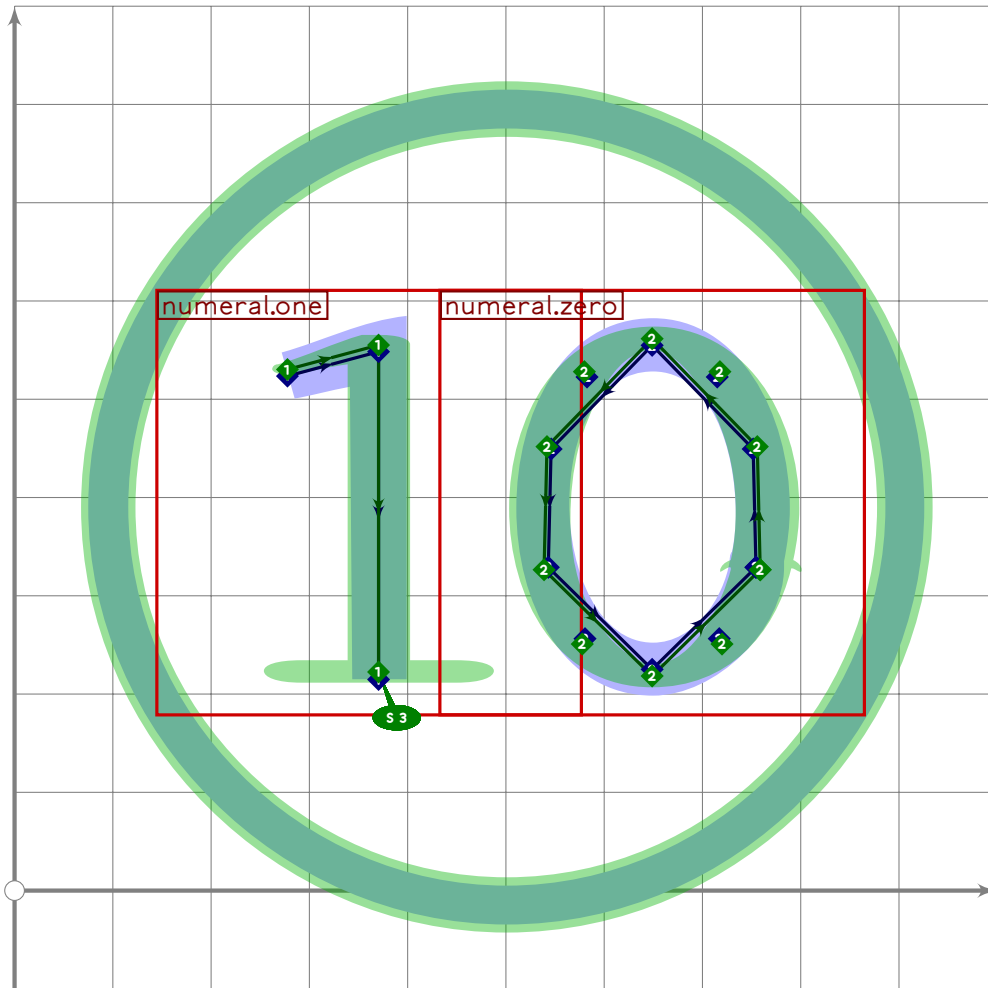
U+2468  
tsuku.uni2468



24

```
104 % 9
105 begintsuglyph("uni2468",104);
106   circle.single;
107   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.nine);
108   tsu_render;
109 endtsuglyph;
110
```

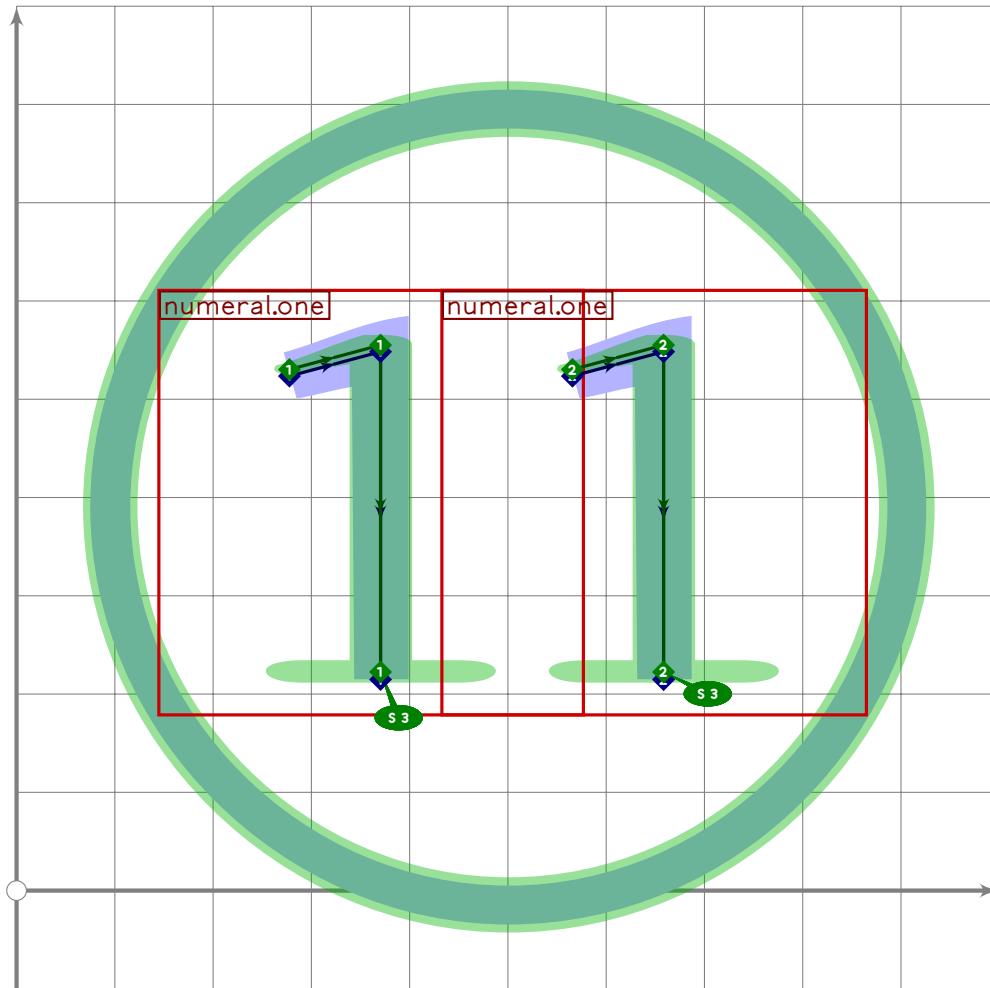




```

111 % 10
112 begintuglyph("uni2469",105);
113   circle.single;
114   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
115   numeric x[],y[];
116   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.zero);
117   tsu_render;
118 endtuglyph;
119

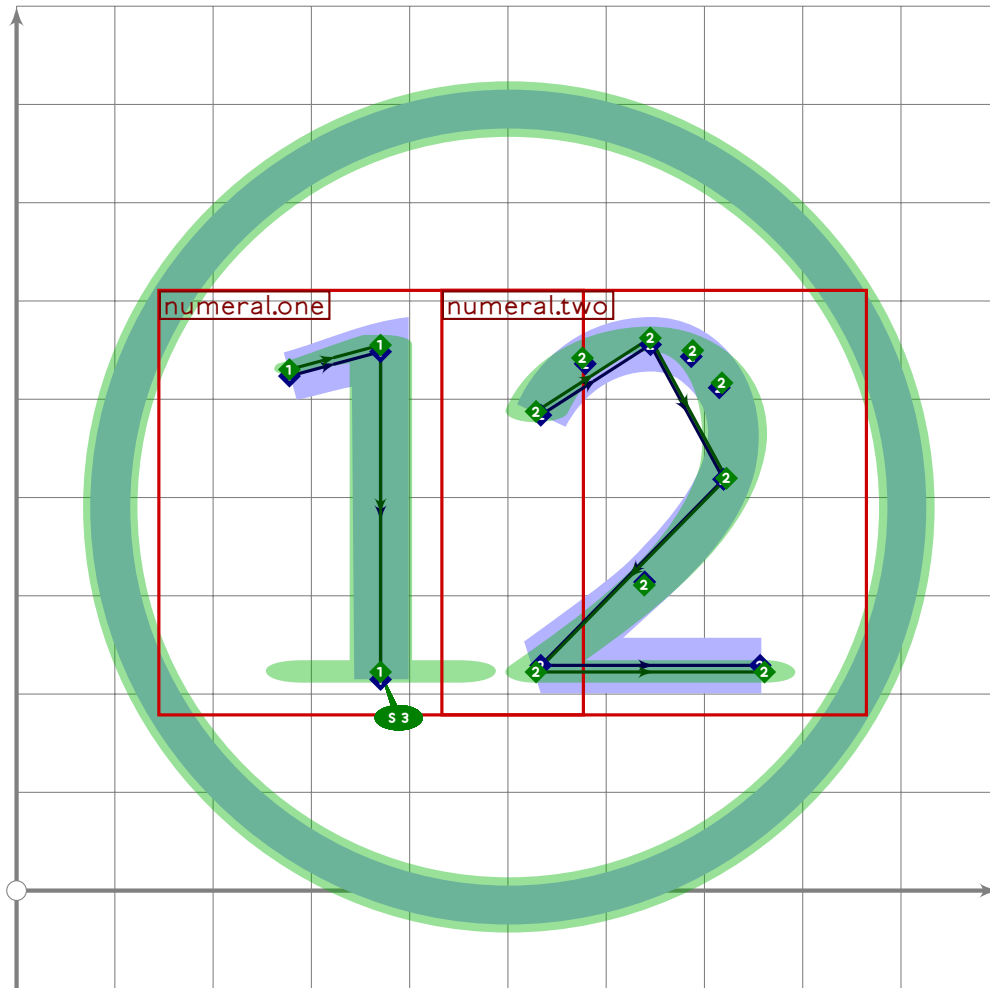
```



```

120 % 11
121 begintuglyph("uni246A",106);
122   circle.single;
123   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
124   numeric x[],y[];
125   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.one);
126   tsu_render;
127 endtuglyph;
128

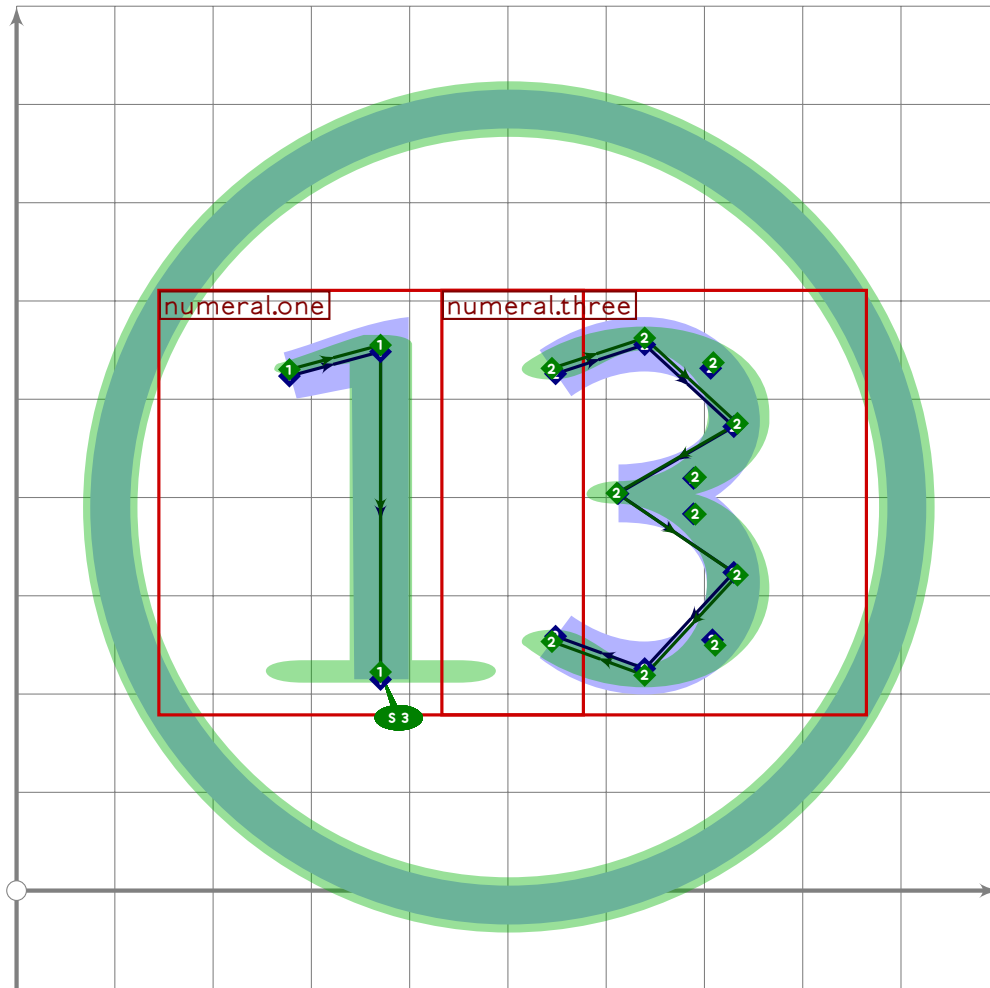
```



```

129 % 12
130 begintsuglyph("uni246B",107);
131   circle.single;
132   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
133   numeric x[],y[];
134   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.two);
135   tsu_render;
136 endtsuglyph;
137

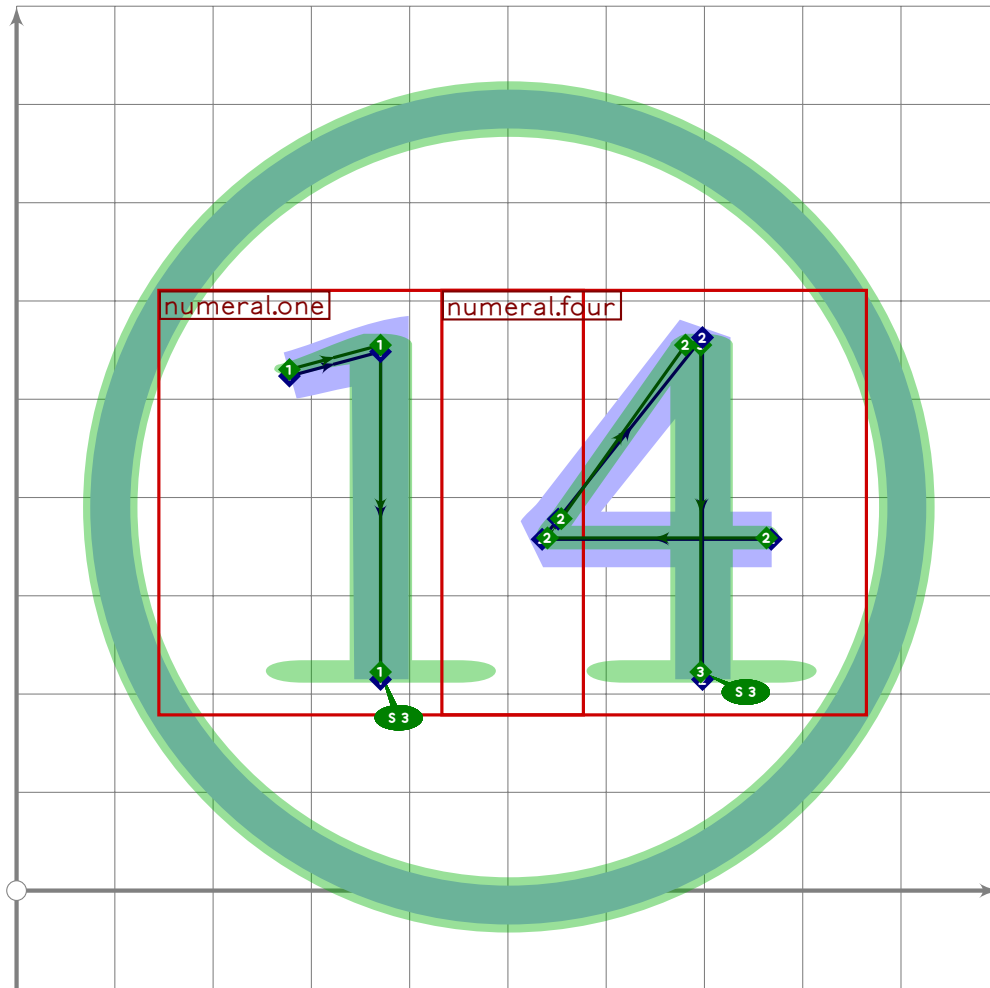
```



```

138 % 13
139 begintsuglyph("uni246C";108);
140 circle.single;
141 tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
142 numeric x[],y[];
143 tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.three);
144 tsu_render;
145 endtsuglyph;
146

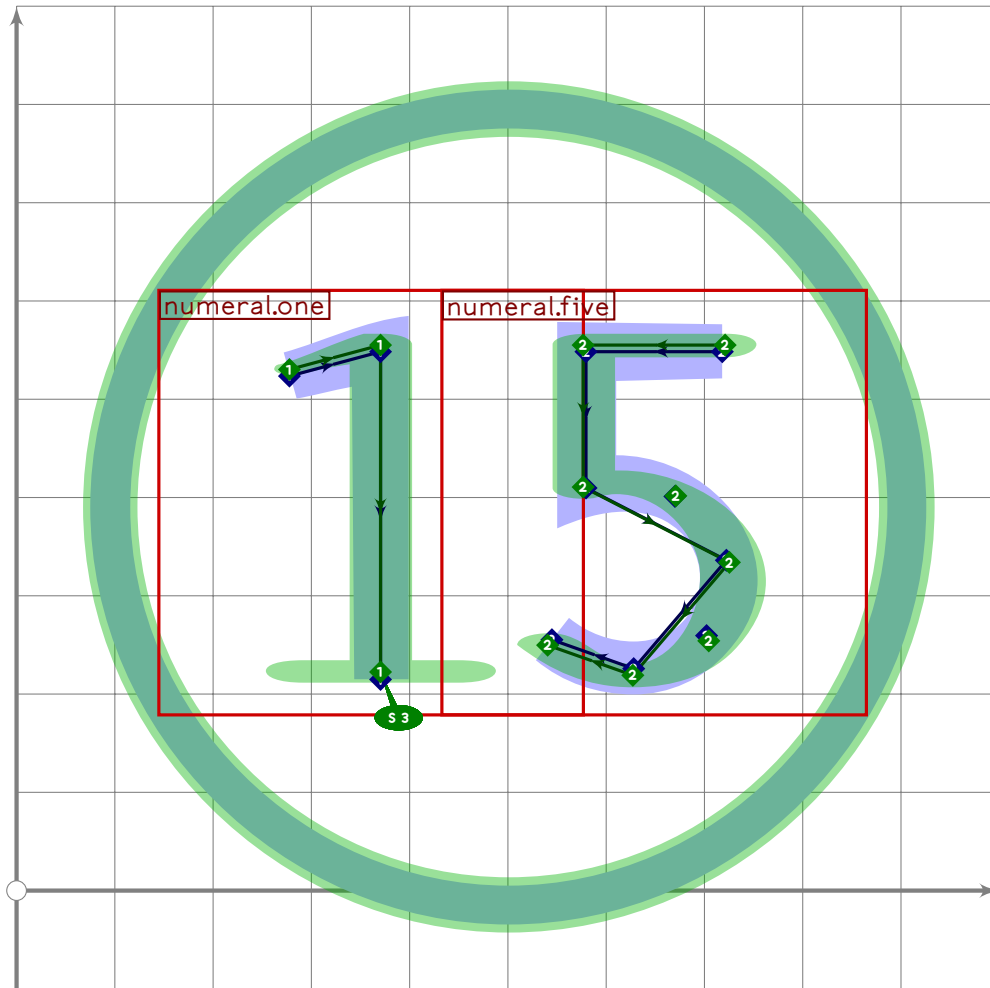
```



```

147 % 14
148 begintsuglyph("uni246D";109);
149 circle.single;
150 tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
151 numeric x[],y[];
152 tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.four);
153 tsu_render;
154 endtsuglyph;
155

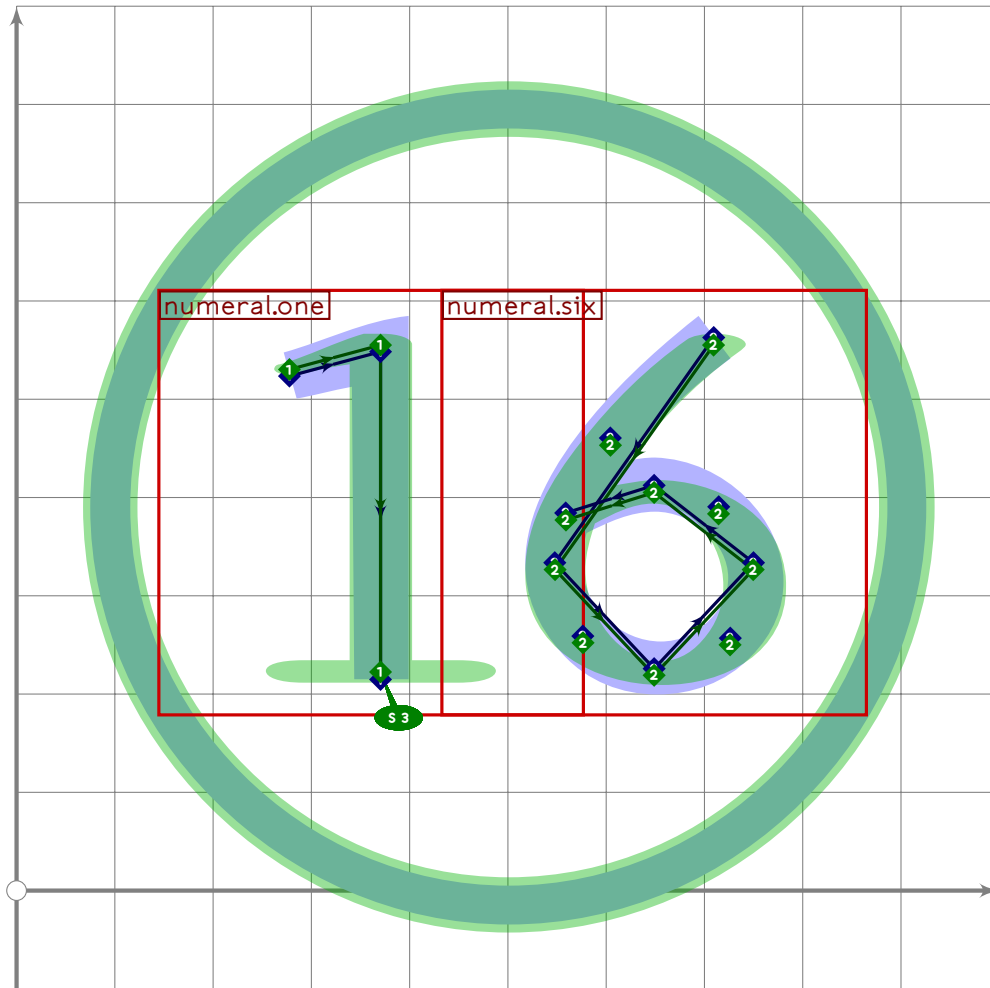
```



```

156 % 15
157 begintsuglyph("uni246E";110);
158 circle.single;
159 tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
160 numeric x[],y[];
161 tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.five);
162 tsu_render;
163 endtsuglyph;
164

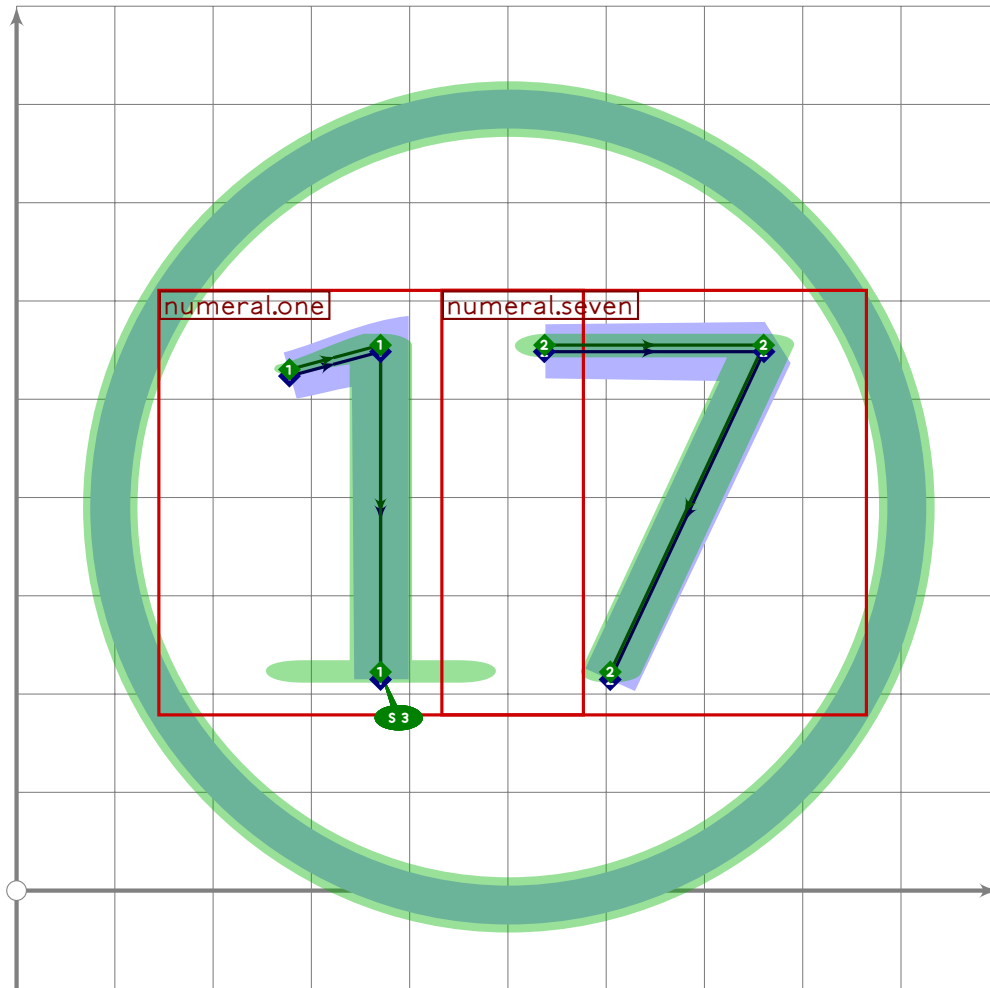
```



```

165 % 16
166 begintuglyph("uni246F";11);
167   circle.single;
168   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
169   numeric x[],y[];
170   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.six);
171   tsu_render;
172 endtuglyph;
173

```

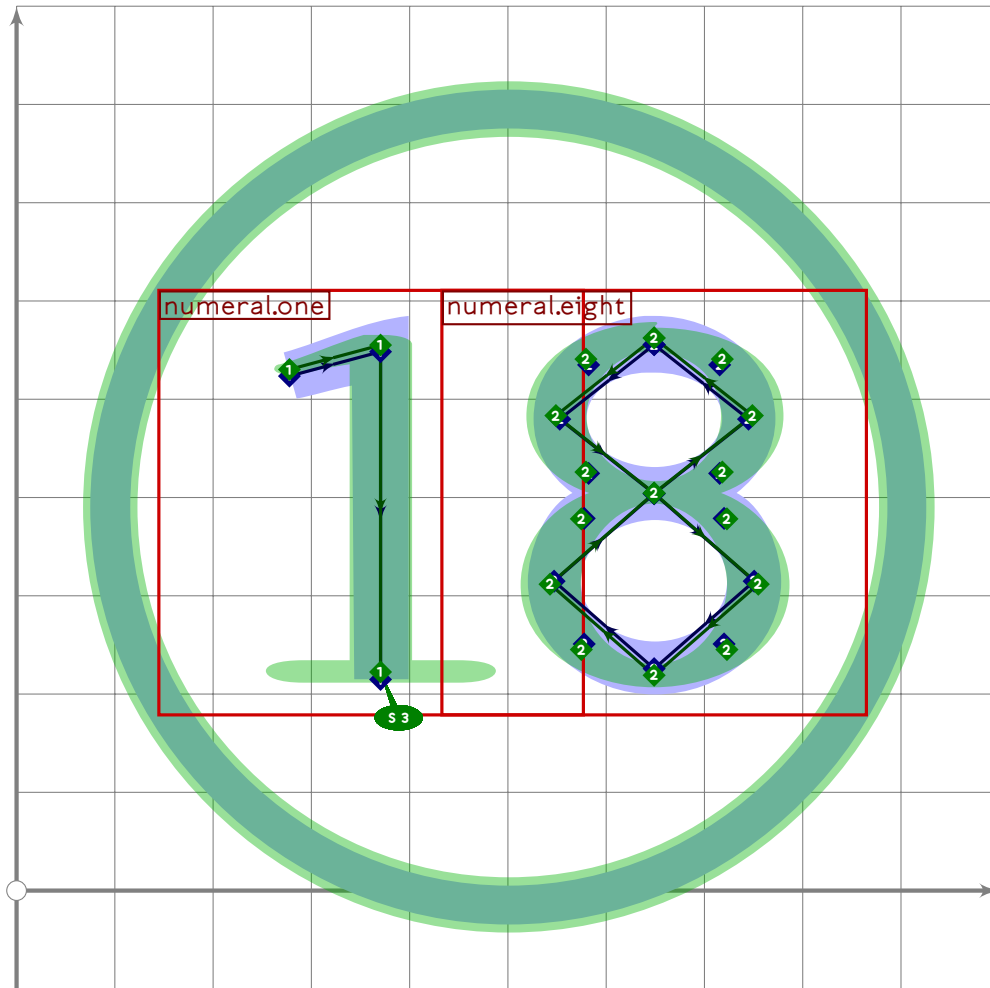


```

174 % 17
175 begint Suglyph("uni2470",112);
176   circle.single;
177   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
178   numeric x[],y[];
179   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.seven);
180   tsu_render;
181   endtsuglyph;
182

```

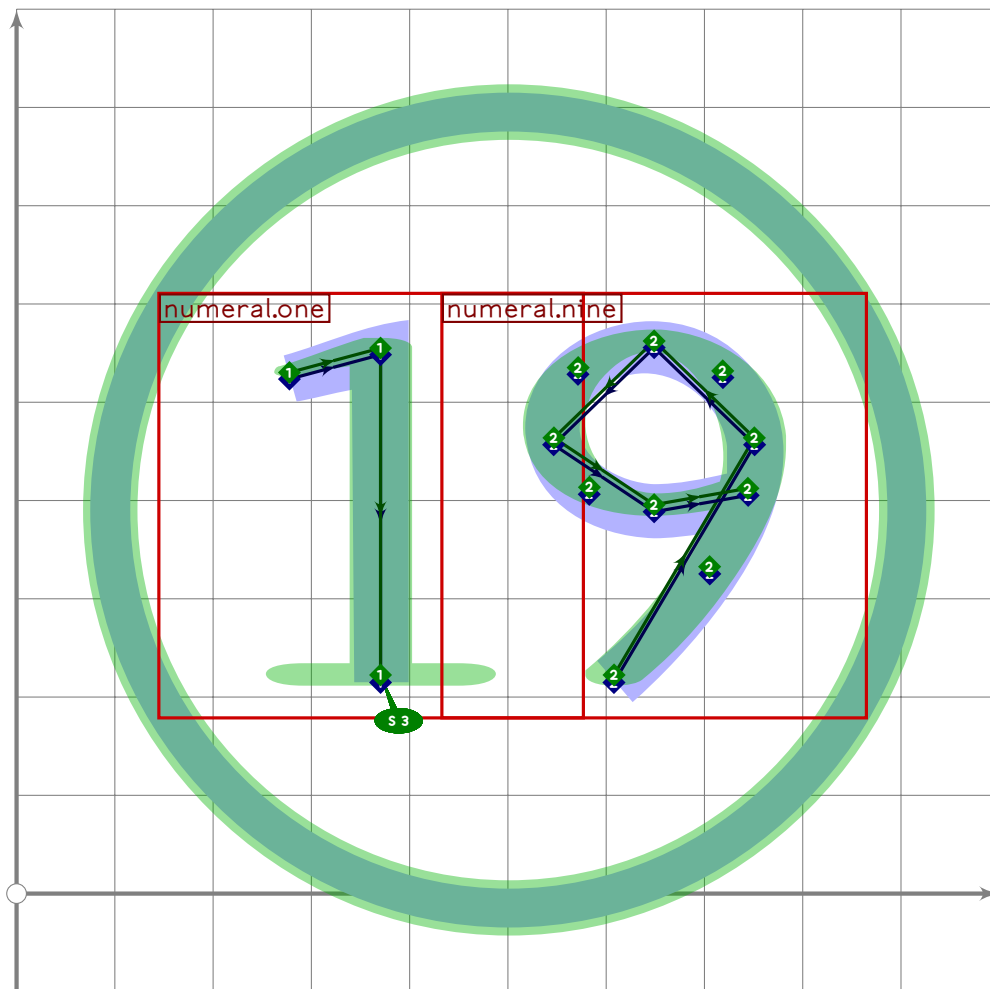




```

183 % 18
184 beginsuglyph("uni2471",113);
185   circle.single;
186   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
187   numeric x[],y[];
188   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.eight);
189   tsu_render;
190 endsuglyph;
191

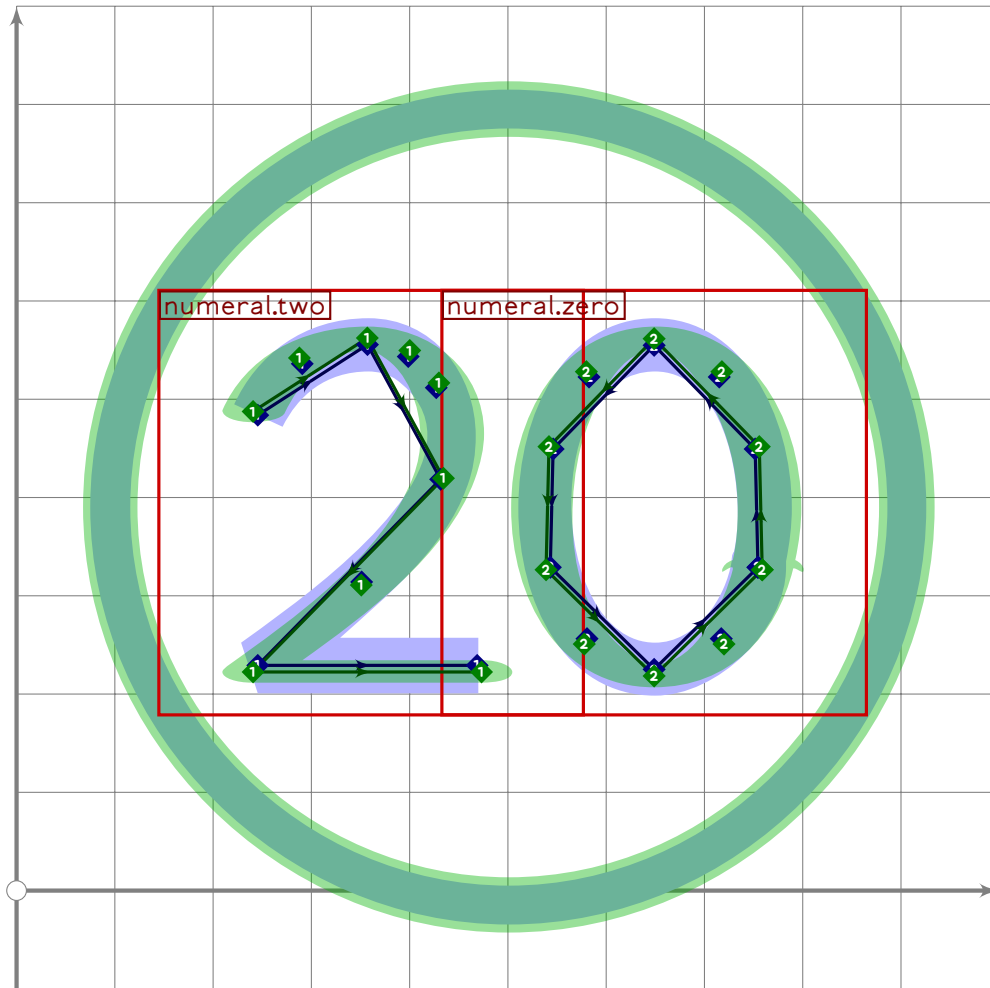
```



```

192 % 19
193 begintsuglyph("uni2472",114);
194   circle.single;
195   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
196   numeric x[],y[];
197   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.nine);
198   tsu_render;
199 endtsuglyph;
200

```



```

201 % 20
202 begintsuglyph("uni2473",115);
203   circle.single;
204   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.two);
205   numeric x[],y[];
206   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.zero);
207   tsu_render;
208 endtsuglyph;
209
210
211

```

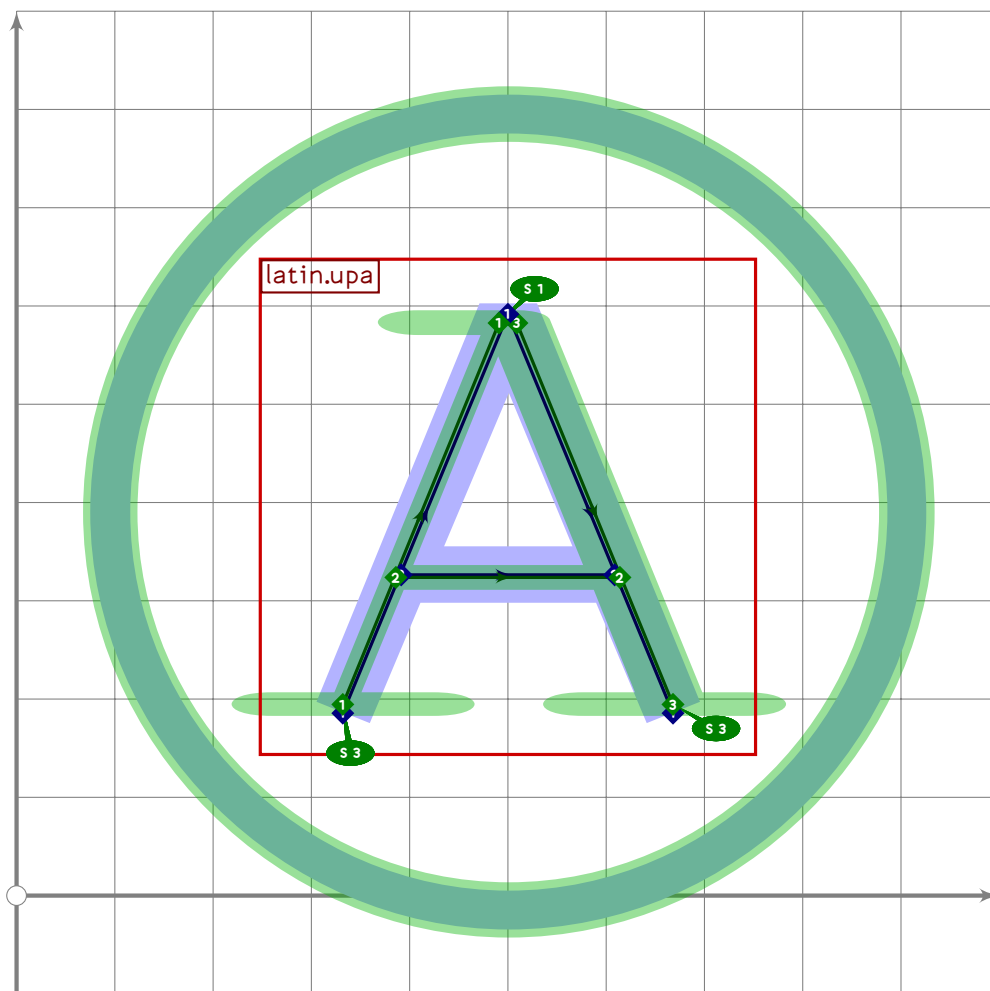
## Circled Latin And Zero

```

212 % CIRCLED LATIN AND ZERO
213

```

U+24B6  
tsuku.uni24B6

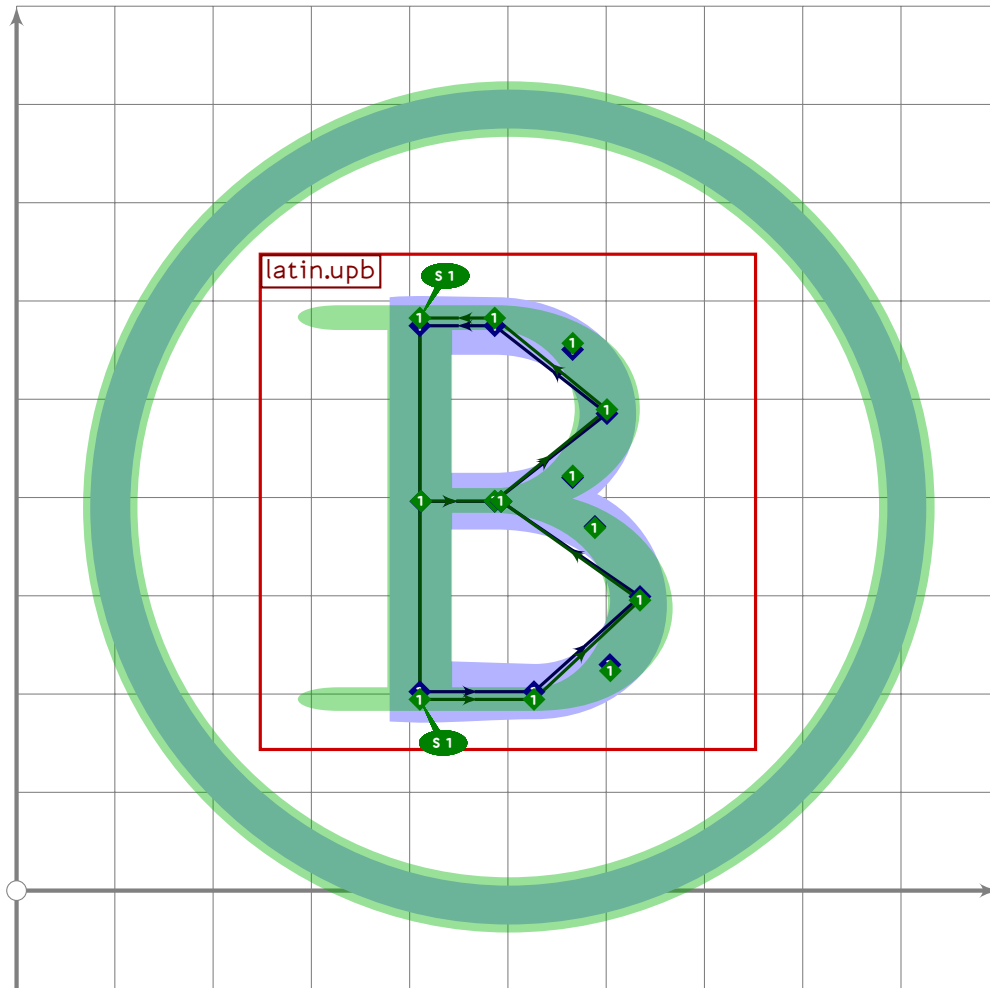


24

```

214 % A
215 begintsuglyph("uni24B6",182);
216   circle.single;
217   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upa);
218   tsu_render;
219 endsuglyph;
220

```

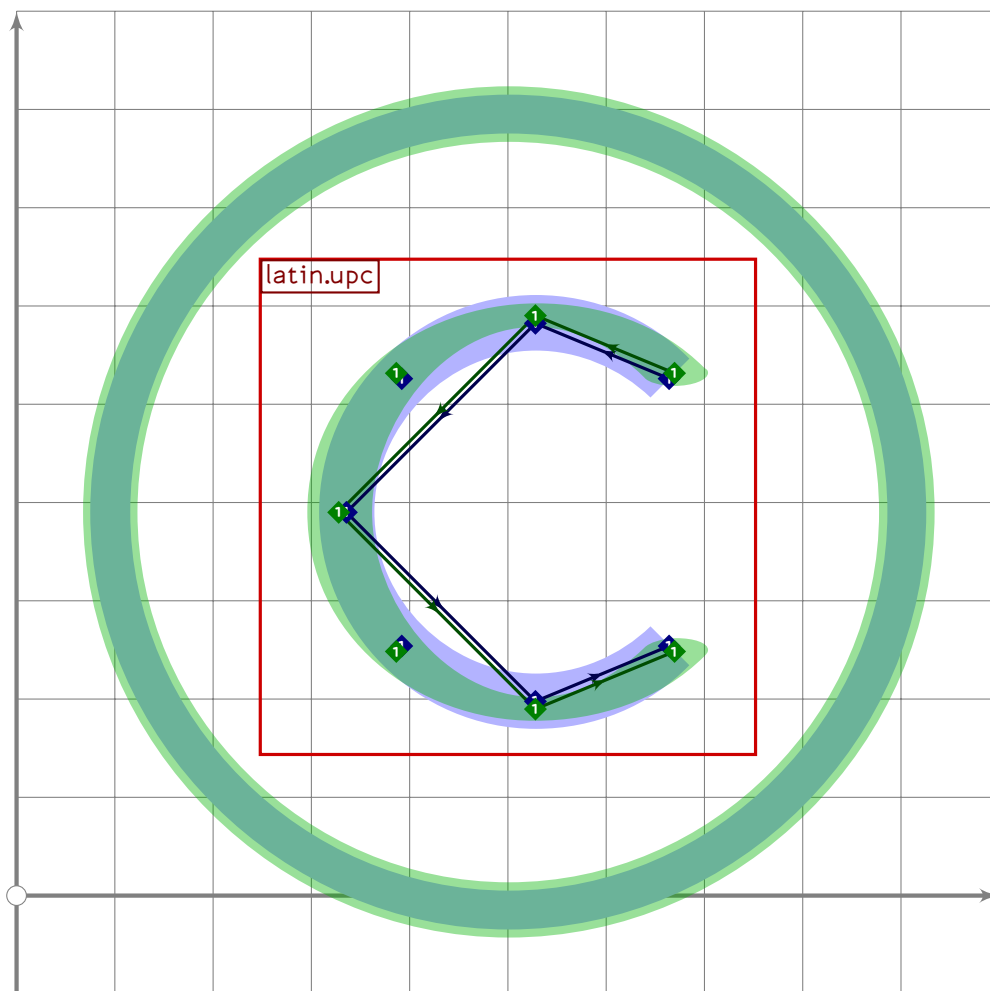


```

221 % B
222 beginsuglyph("uni24B7";183);
223   circle.single;
224   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upb);
225   tsu_render;
226 endtsuglyph;
227

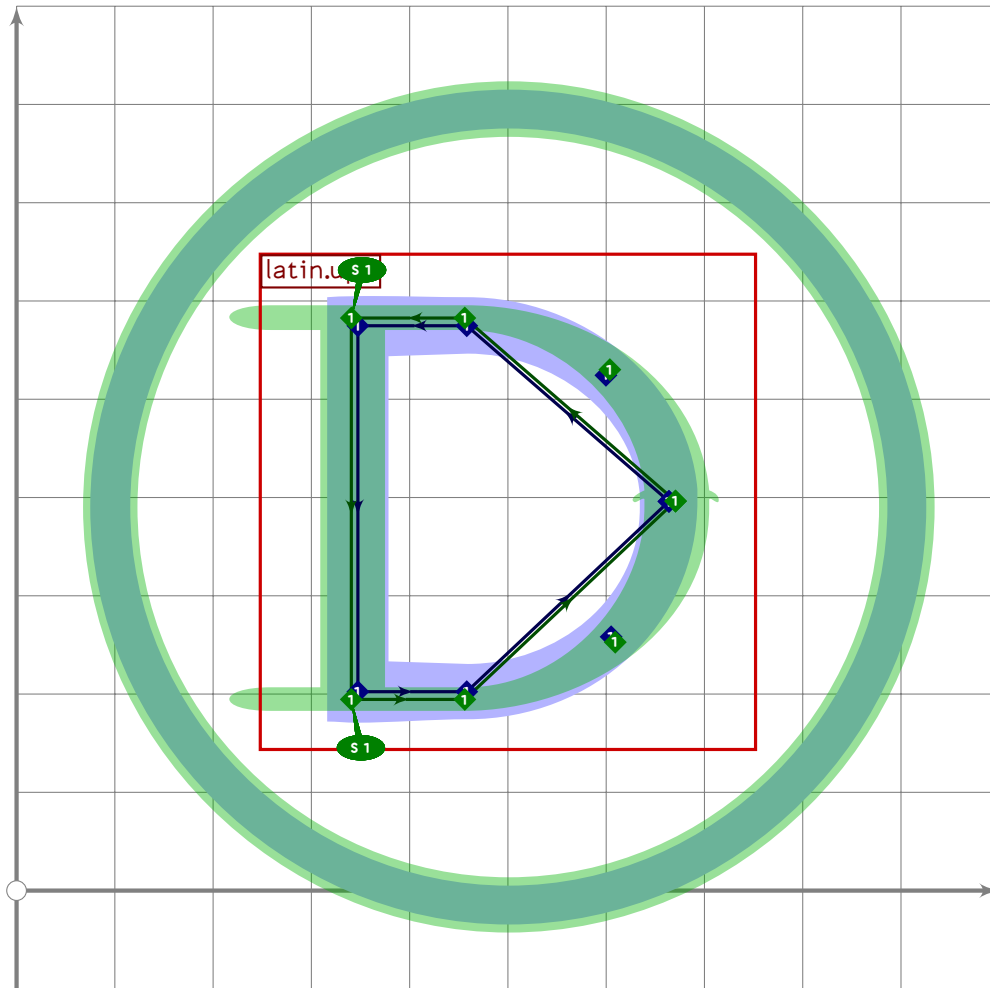
```

U+24B8  
tsuku.uni24B8



24

```
228 % C
229 begintsuglyph("uni24B8",184);
230   circle.single;
231   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upc);
232   tsu_render;
233 endtsuglyph;
234
```

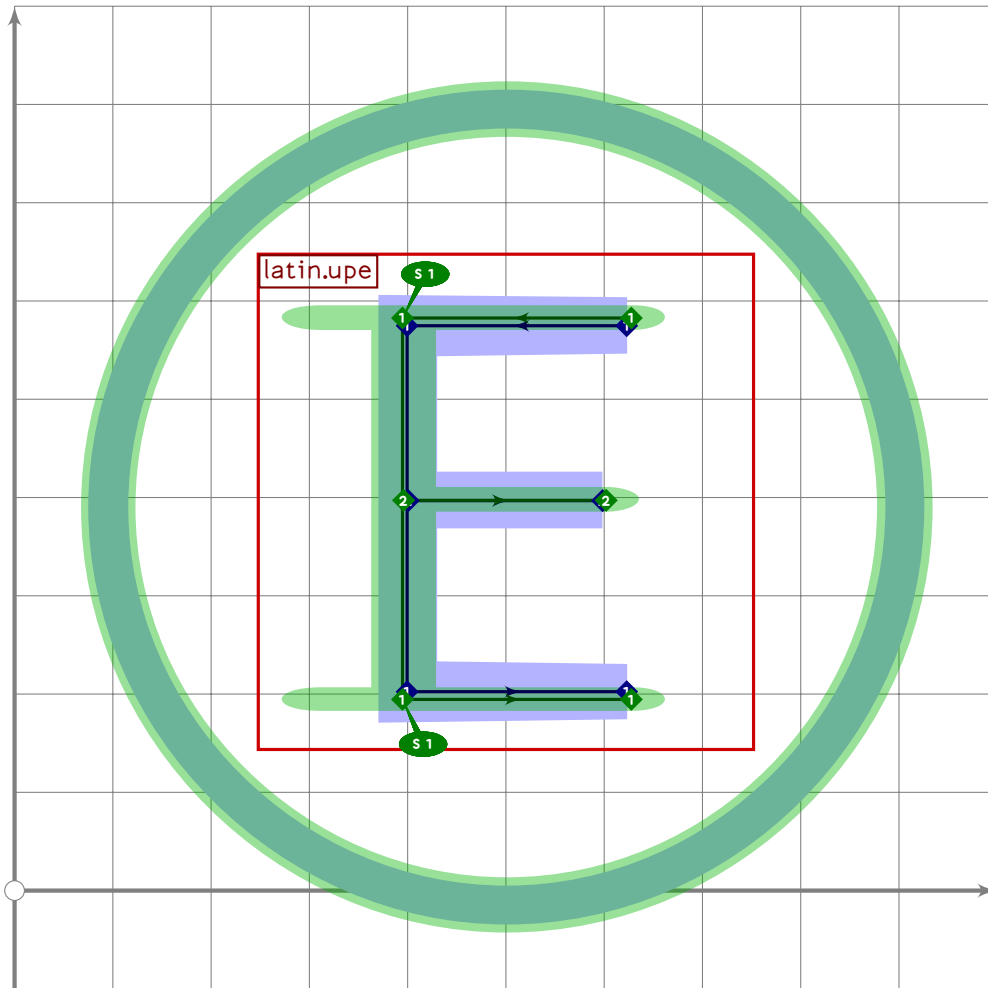


```

235 % D
236 begint Suglyph("uni24B9",185);
237   circle.single;
238   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upd);
239   tsu_render;
240 endtsuglyph;
241

```

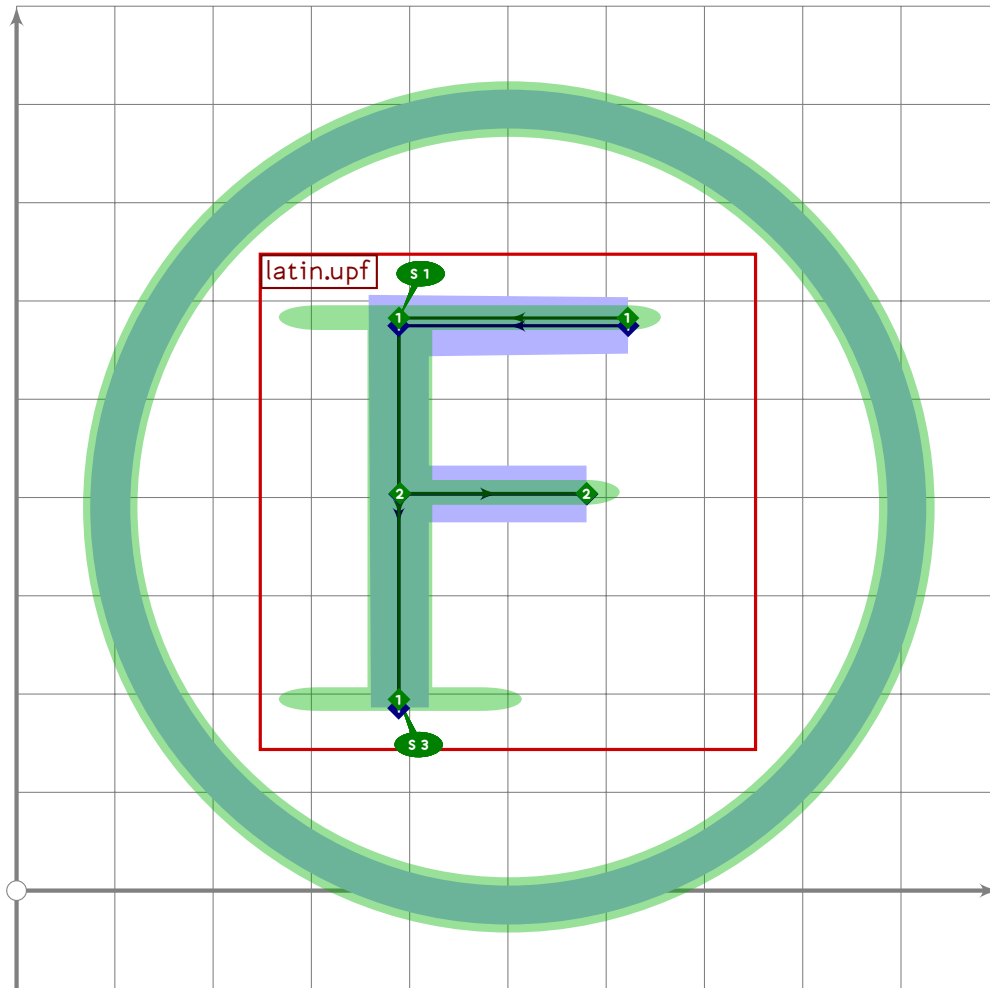
U+24BA  
tsuku.uni24BA



24

```
242 % E
243 begint Suglyph("uni24BA",186);
244   circle.single;
245   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upe);
246   tsu_render;
247 endtsuglyph;
248
```



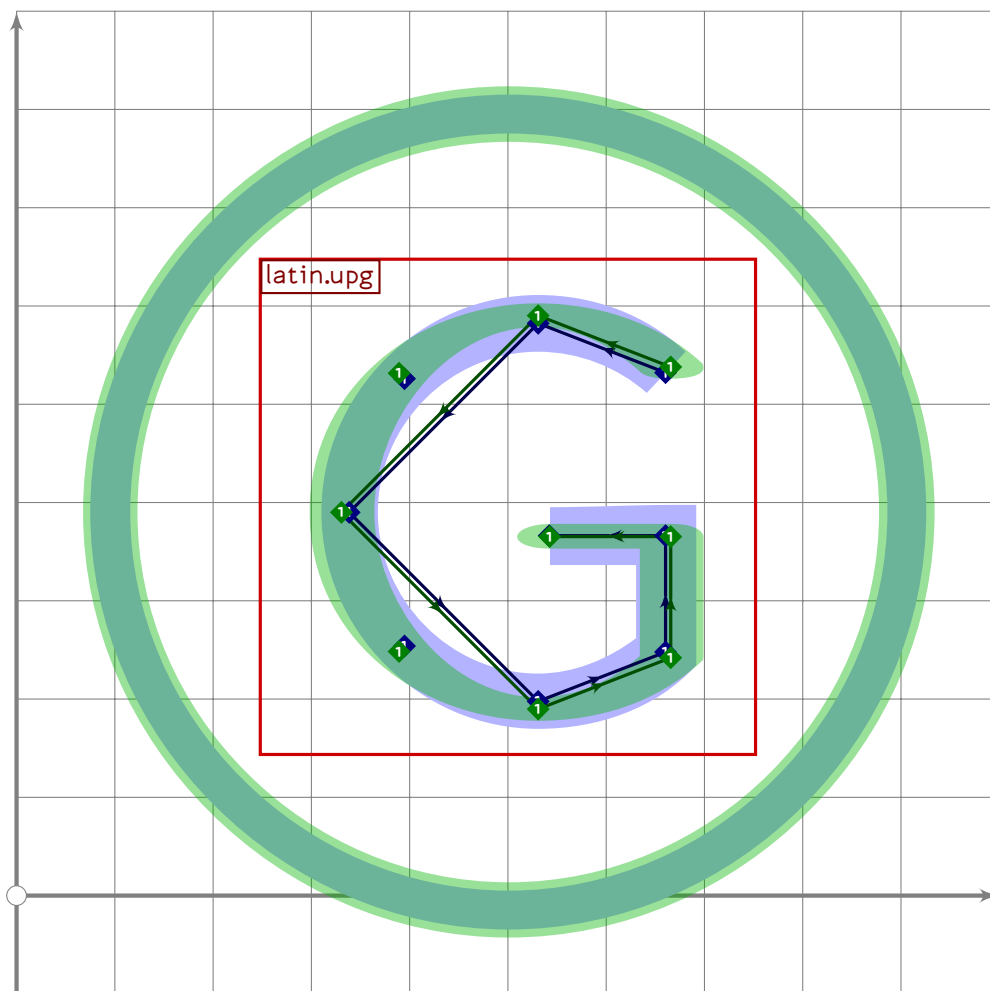


```

249 % F
250 begint Suglyph("uni24BB",187);
251   circle.single;
252   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upf);
253   tsu_render;
254 endtsuglyph;
255

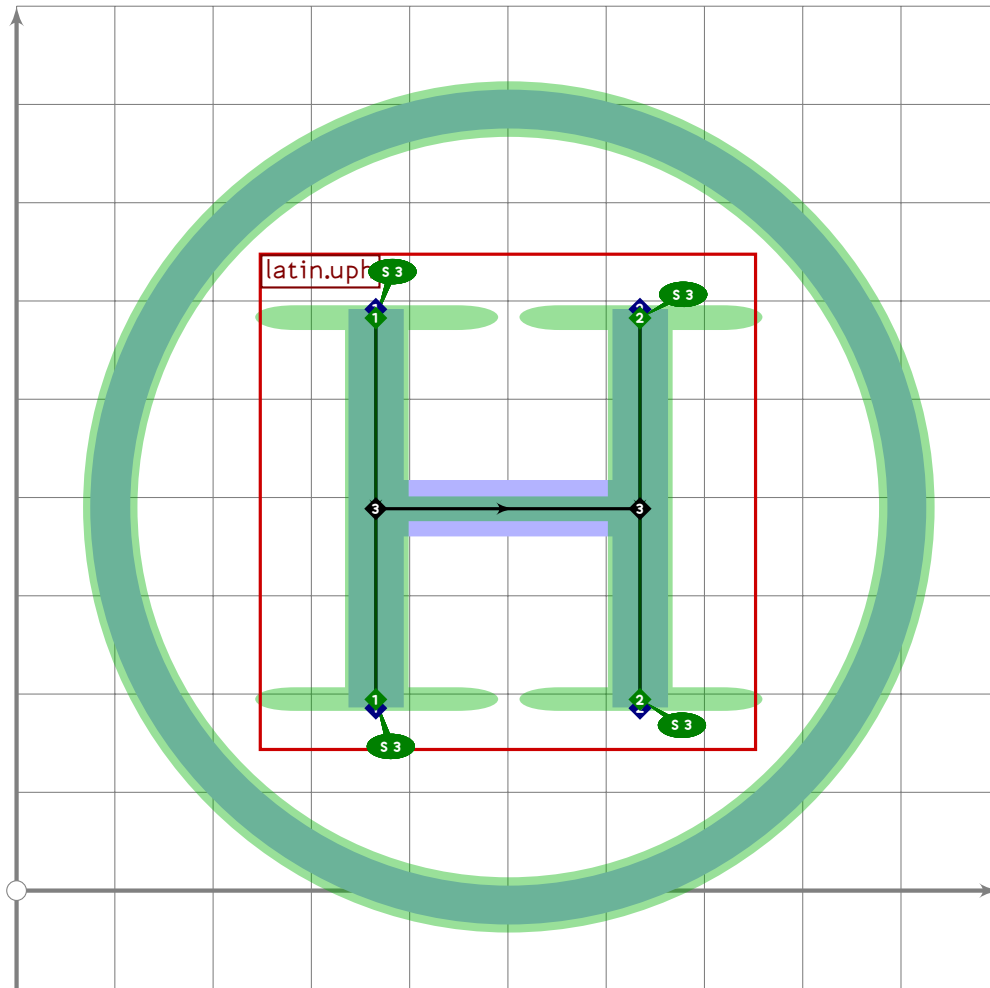
```

U+24BC  
tsuku.uni24BC



24

```
256 % G
257 begintsuglyph("uni24BC",188);
258   circle.single;
259   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upg);
260   tsu_render;
261 endtsuglyph;
262
```

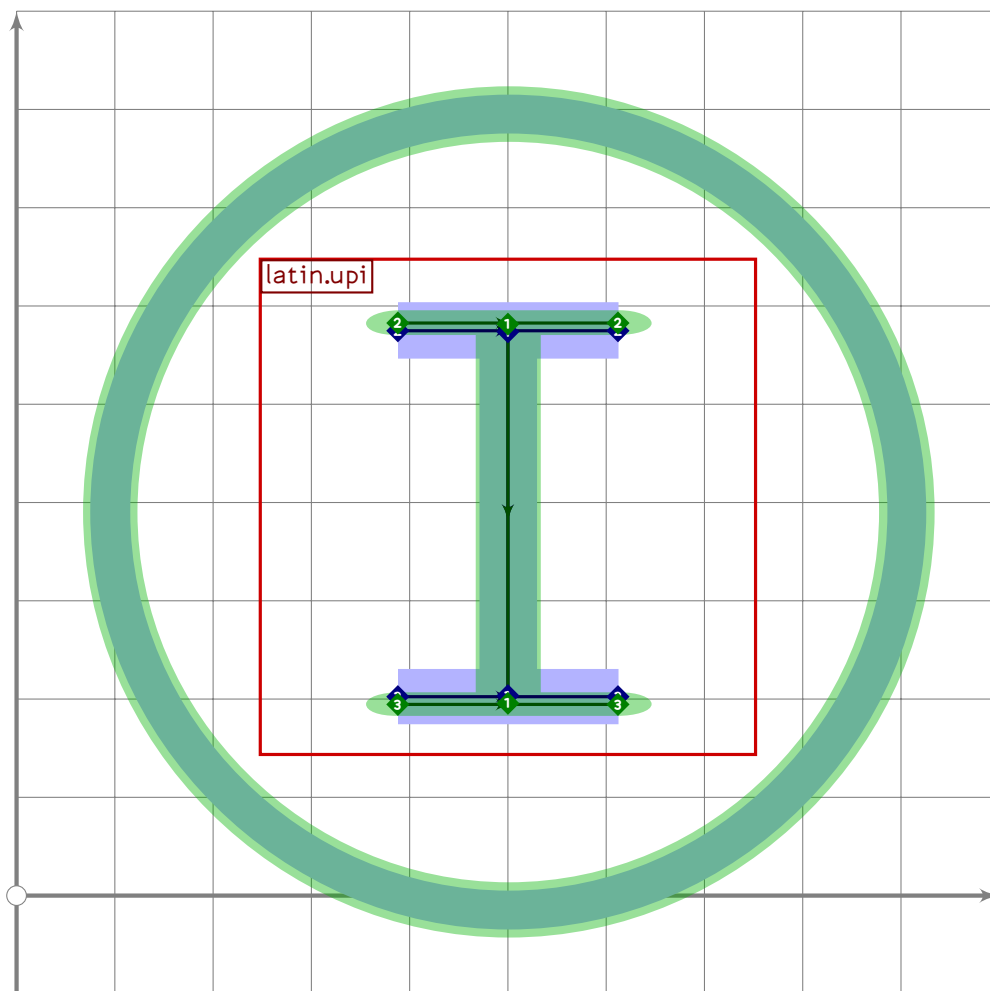


```

263 % H
264 begintsuglyph("uni24BD";189);
265   circle.single;
266   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.uph);
267   tsu_render;
268 endtsuglyph;
269

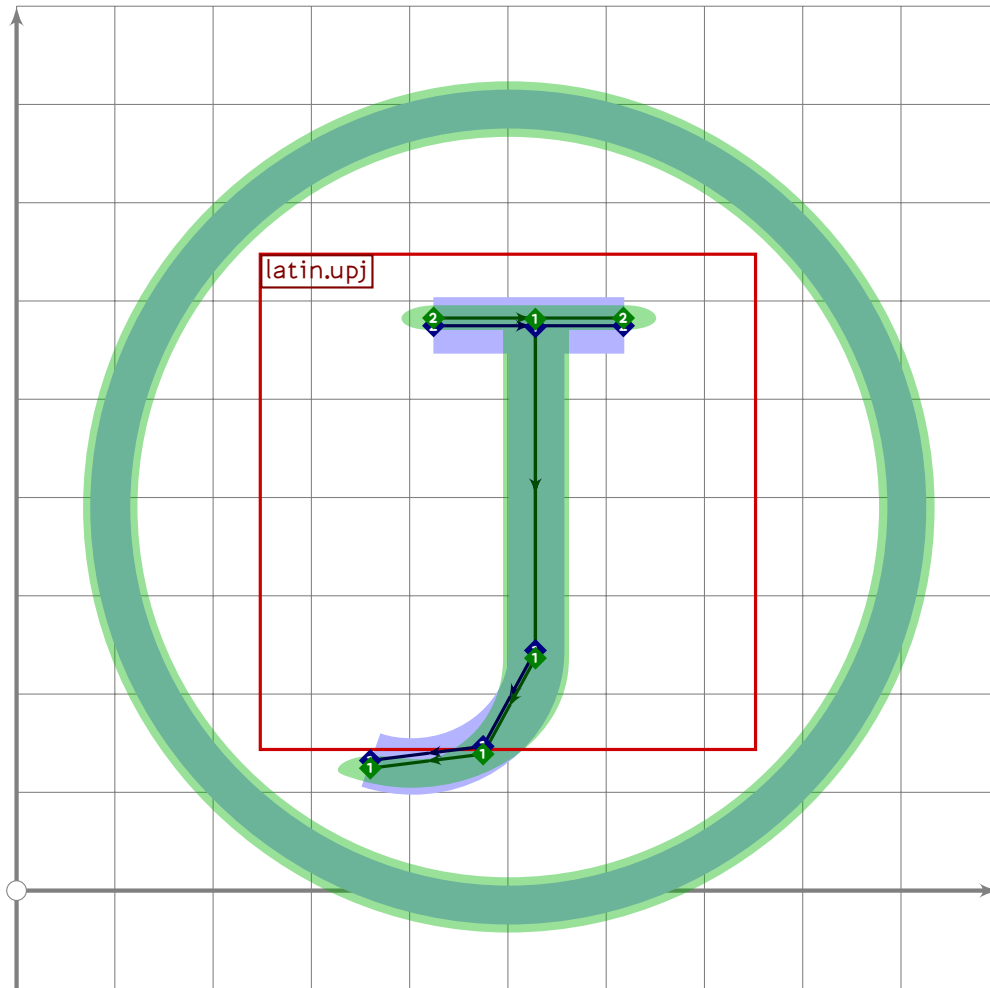
```

U+24BE  
tsuku.uni24BE



24

```
270 % I
271 begintsuglyph("uni24BE";190);
272   circle.single;
273   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upi);
274   tsu_render;
275 endtsuglyph;
276
```

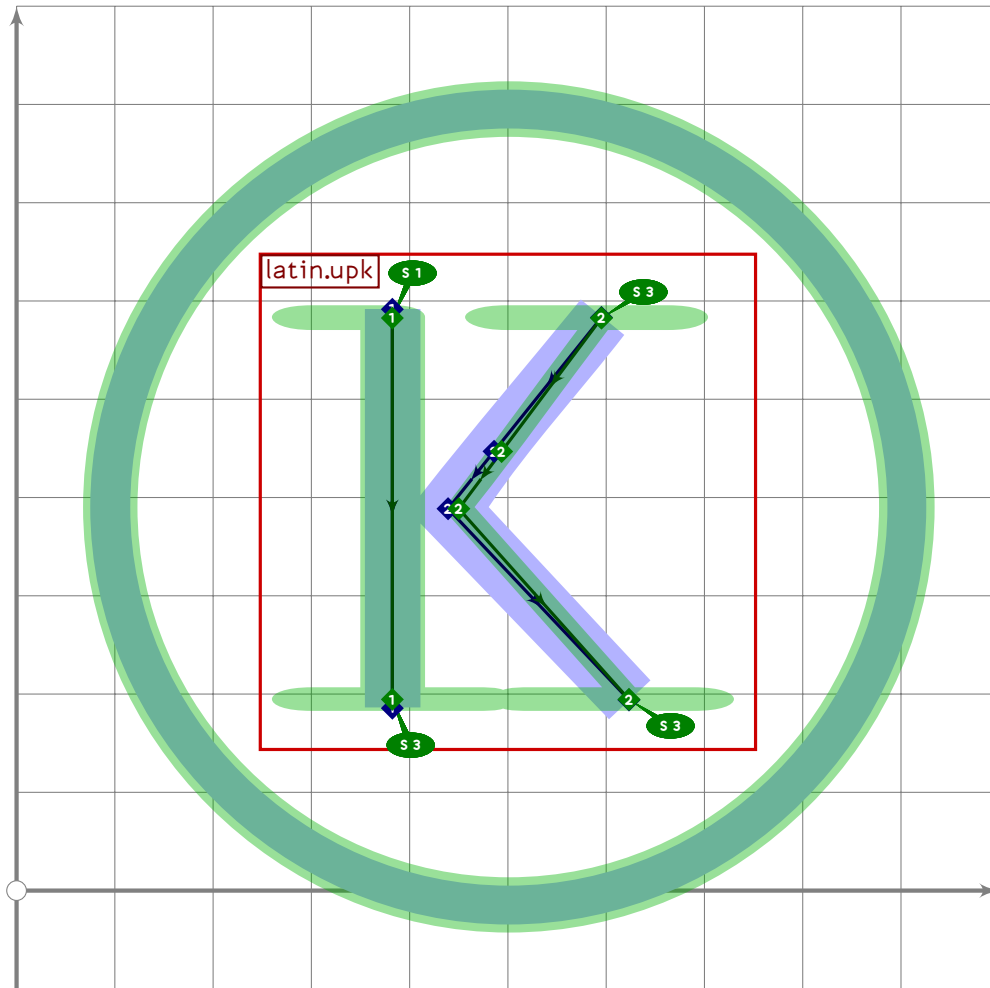


```

277 % J
278 begintsuglyph("uni24BF";191);
279   circle.single;
280   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upj);
281   tsu_render;
282 endtsuglyph;
283

```

U+24C0  
tsuku.uni24C0

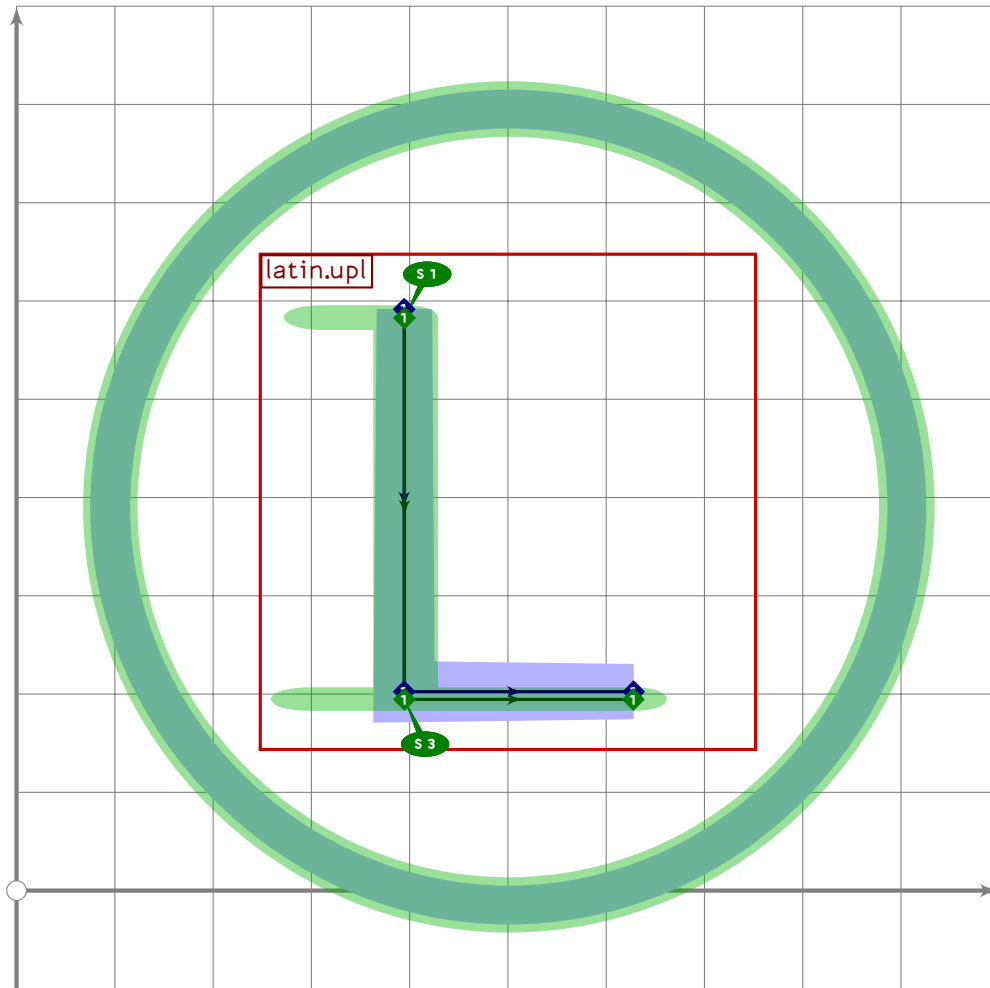


24

```

284 % K
285 begintsuglyph("uni24C0";192);
286   circle.single;
287   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upk);
288   tsu_render;
289 endtsuglyph;
290

```

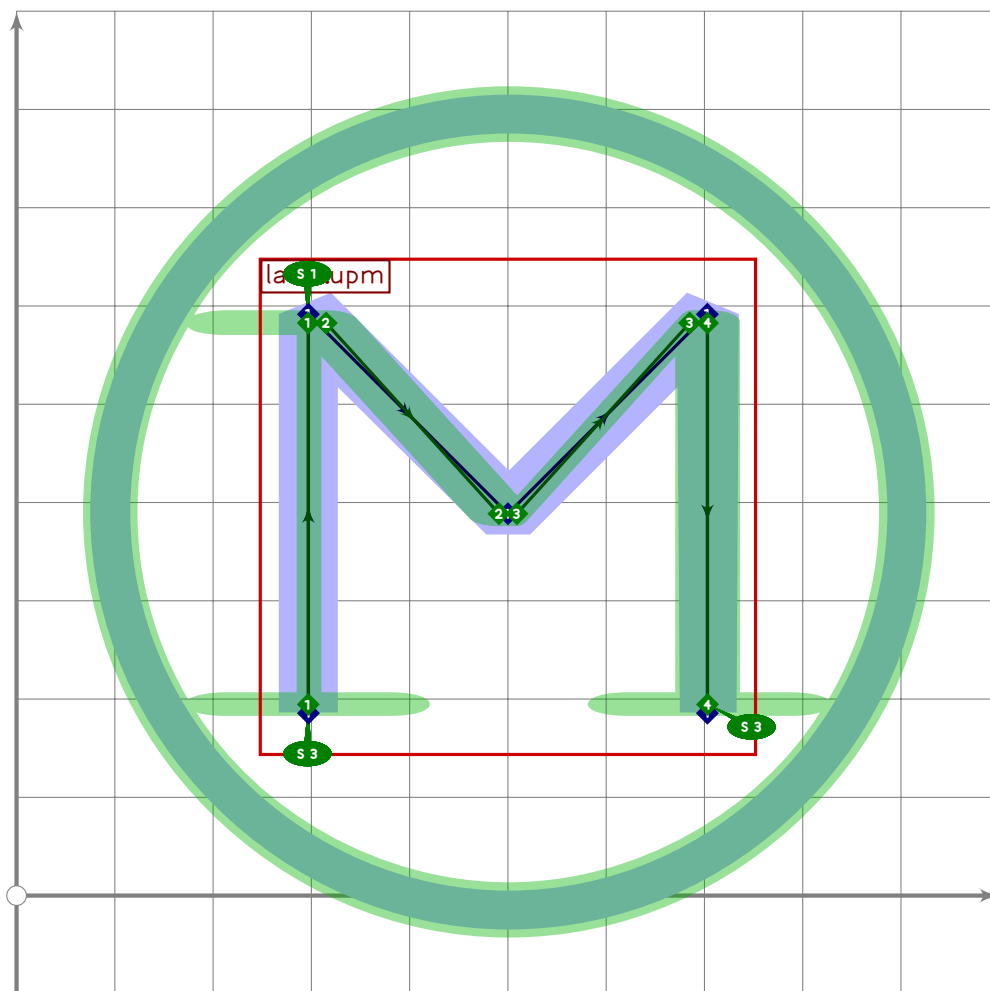


```

291 % L
292 begint Suglyph("uni24C1",193);
293   circle.single;
294   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upl);
295   tsu_render;
296 endtsuglyph;
297

```

U+24C2  
tsuku.uni24C2



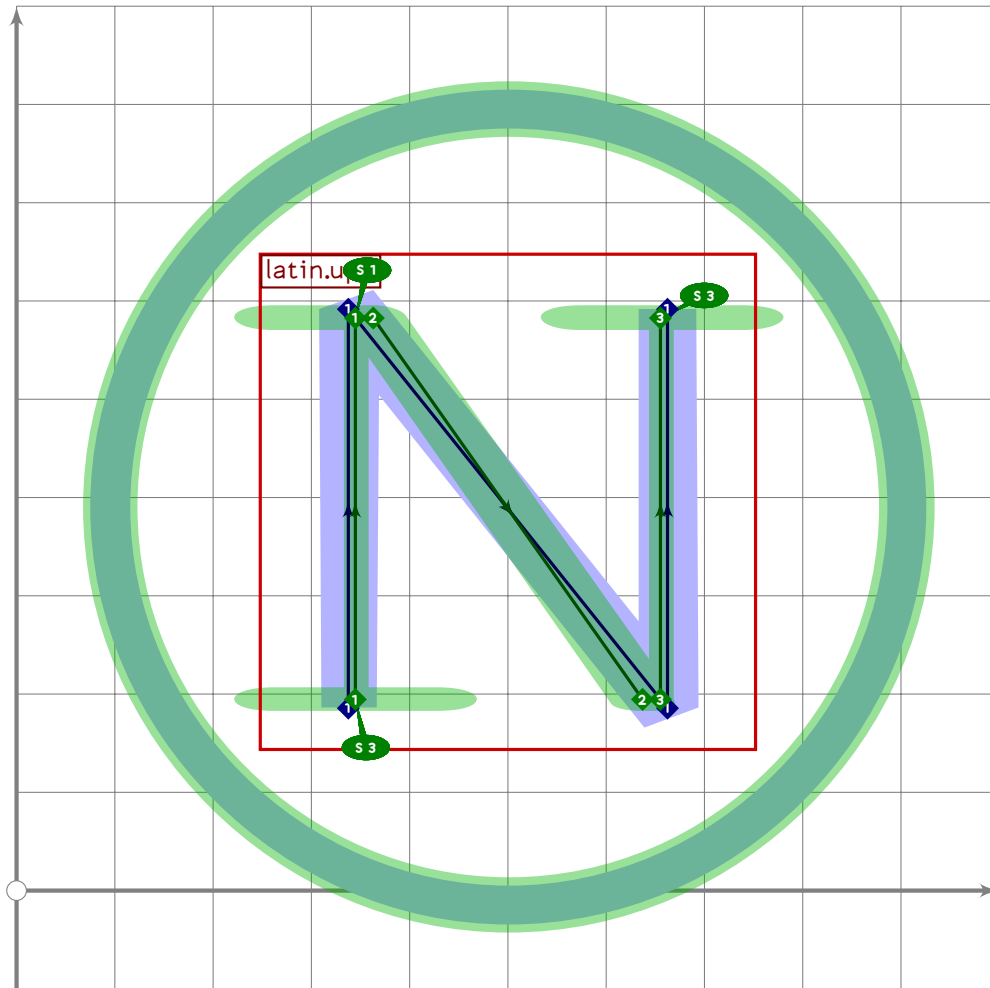
24

```

298 % M
299 begintsuglyph("uni24C2";194);
300 circle.single;
301 tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upm);
302 tsu_render;
303 endtsuglyph;
304

```



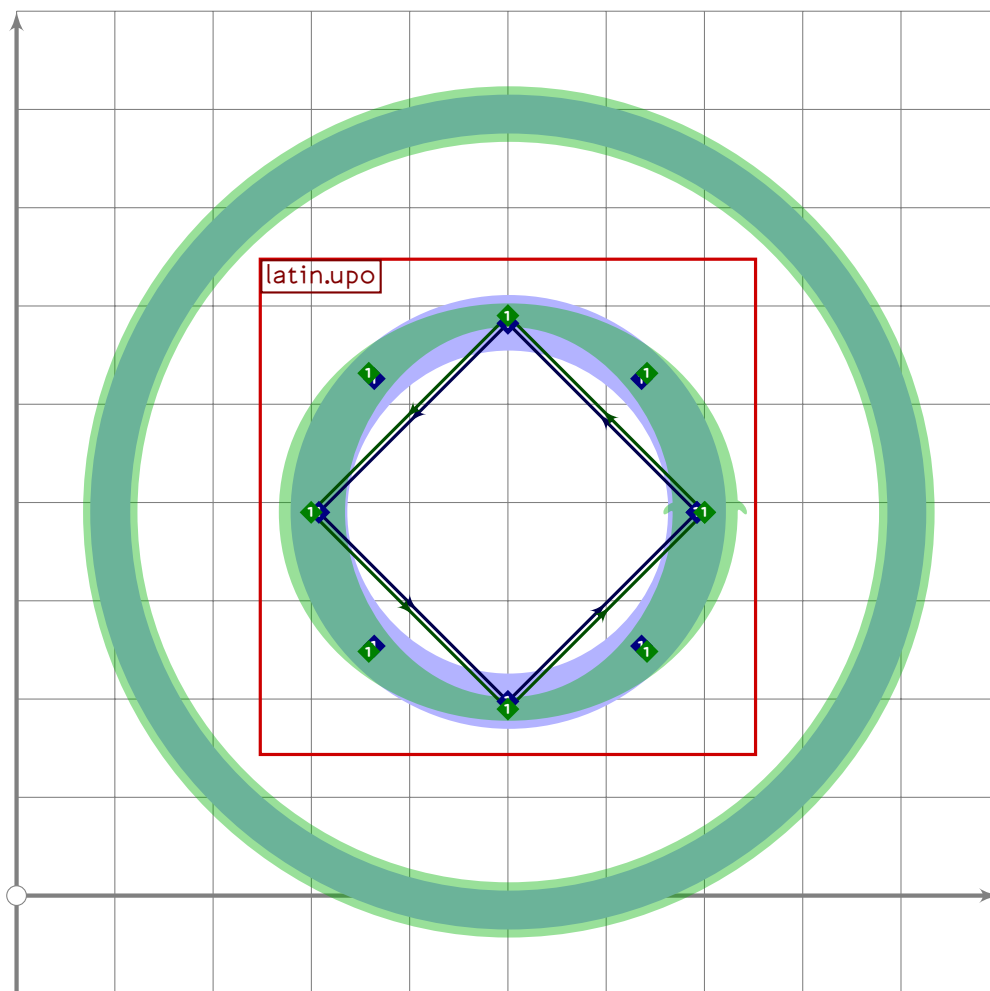


```

305 % N
306 begintsuglyph("uni24C3";195);
307   circle.single;
308   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upn);
309   tsu_render;
310 endtsuglyph;
311

```

U+24C4  
tsuku.uni24C4

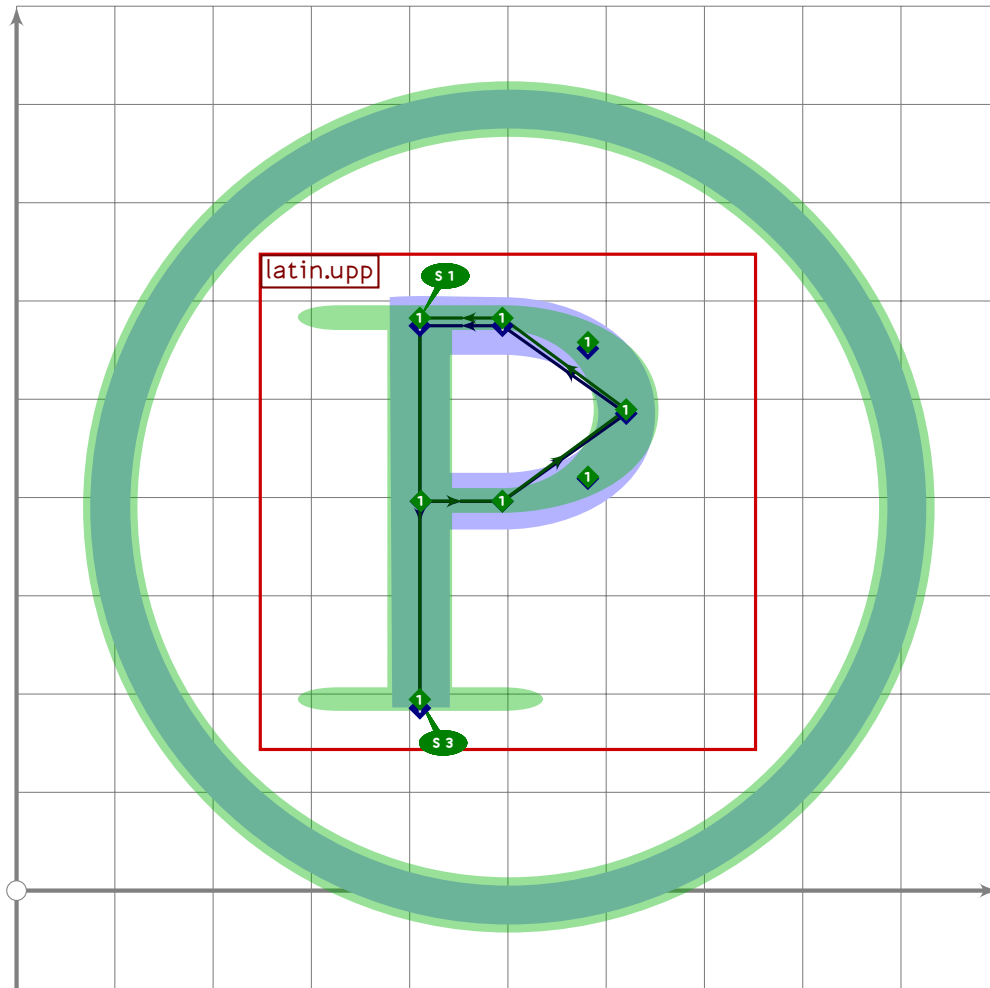


24

```

312 % O
313 begintsuglyph("uni24C4";196);
314   circle.single;
315   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upo);
316   tsu_render;
317 endtsuglyph;
318

```

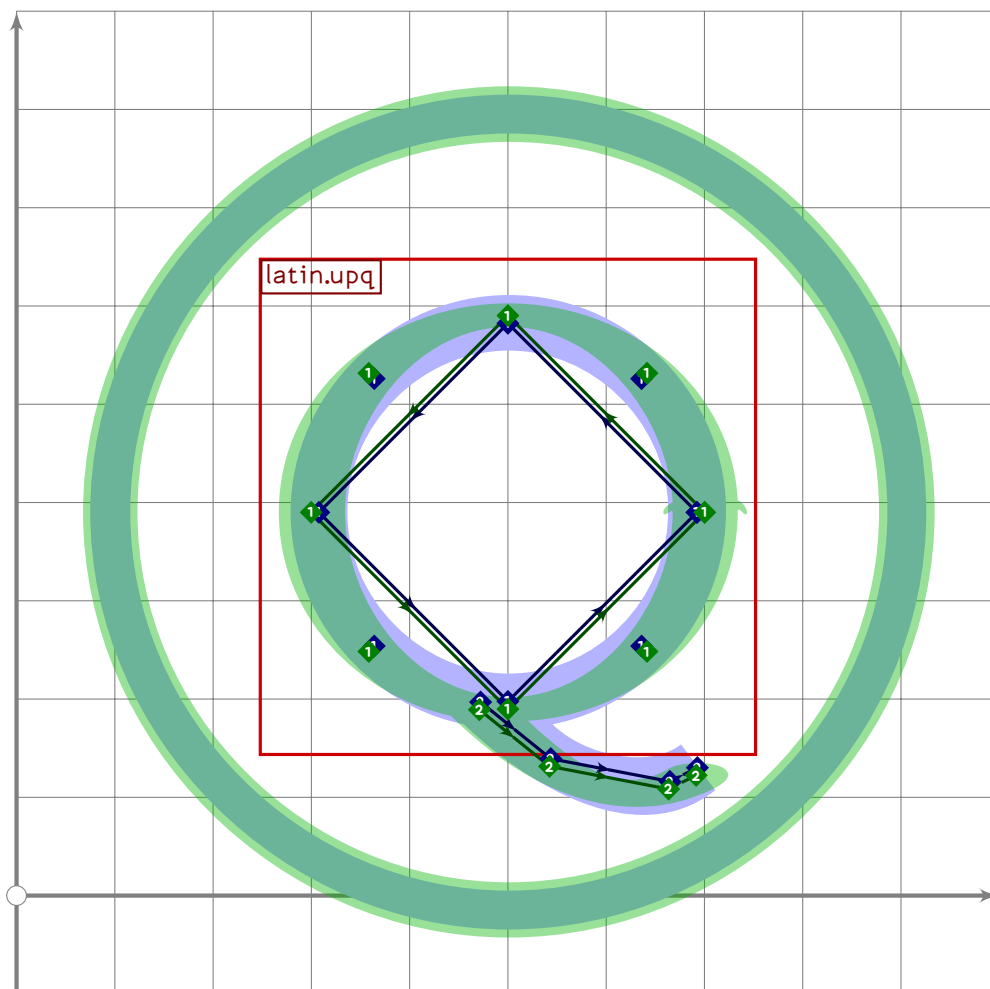


```

319 % P
320 begintsuglyph("uni24C5";197);
321   circle.single;
322   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upp);
323   tsu_render;
324 endtsuglyph;
325

```

U+24C6  
tsuku.uni24C6

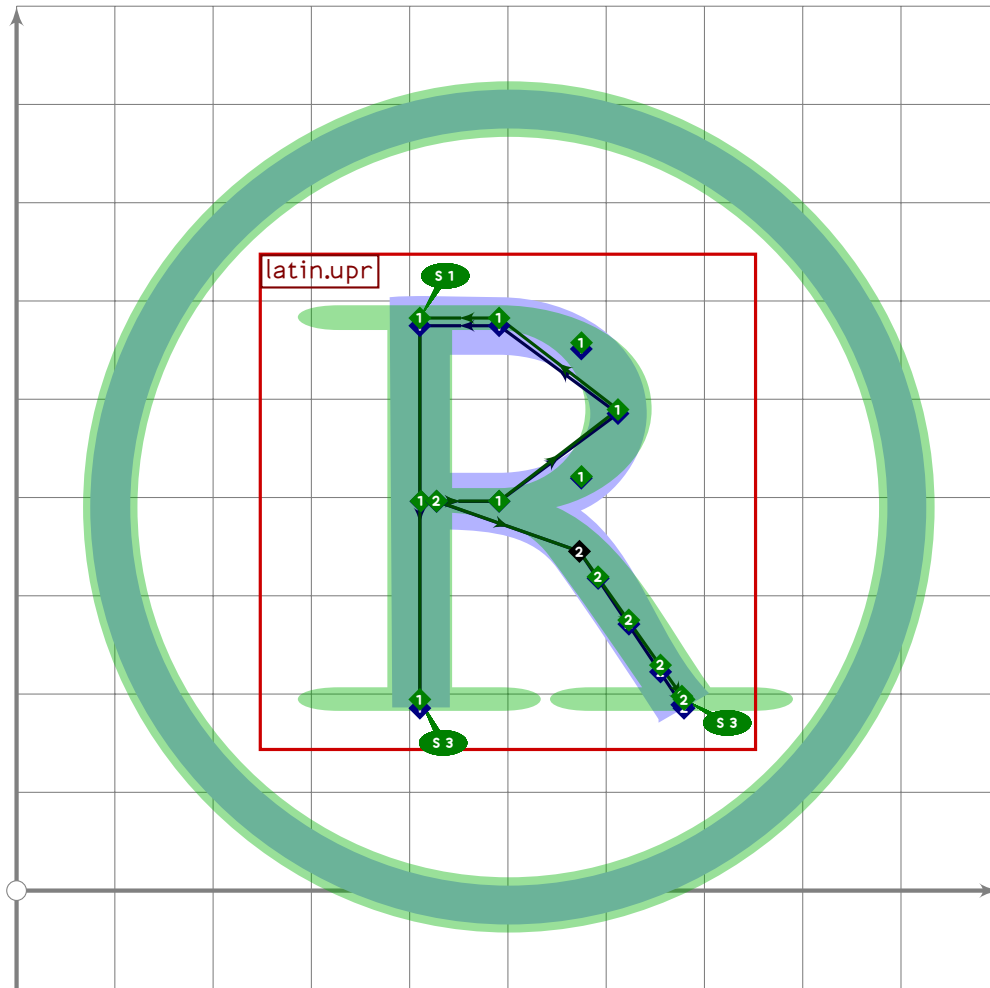


24

```

326 % Q
327 begintsuglyph("uni24C6";198);
328   circle.single;
329   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upq);
330   tsu_render;
331 endtsuglyph;
332

```

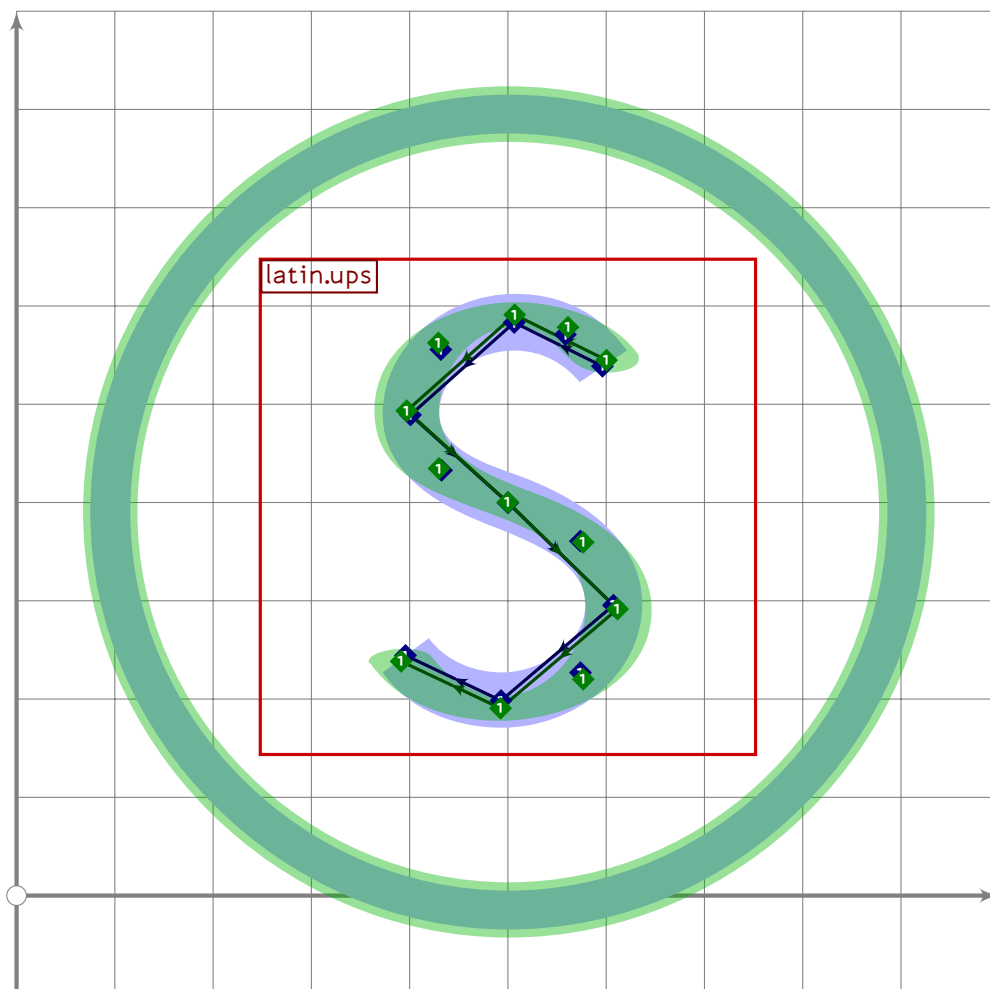


```

333 % R
334 begint Suglyph("uni24C7";199);
335   circle.single;
336   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upr);
337   tsu_render;
338 endtsuglyph;
339

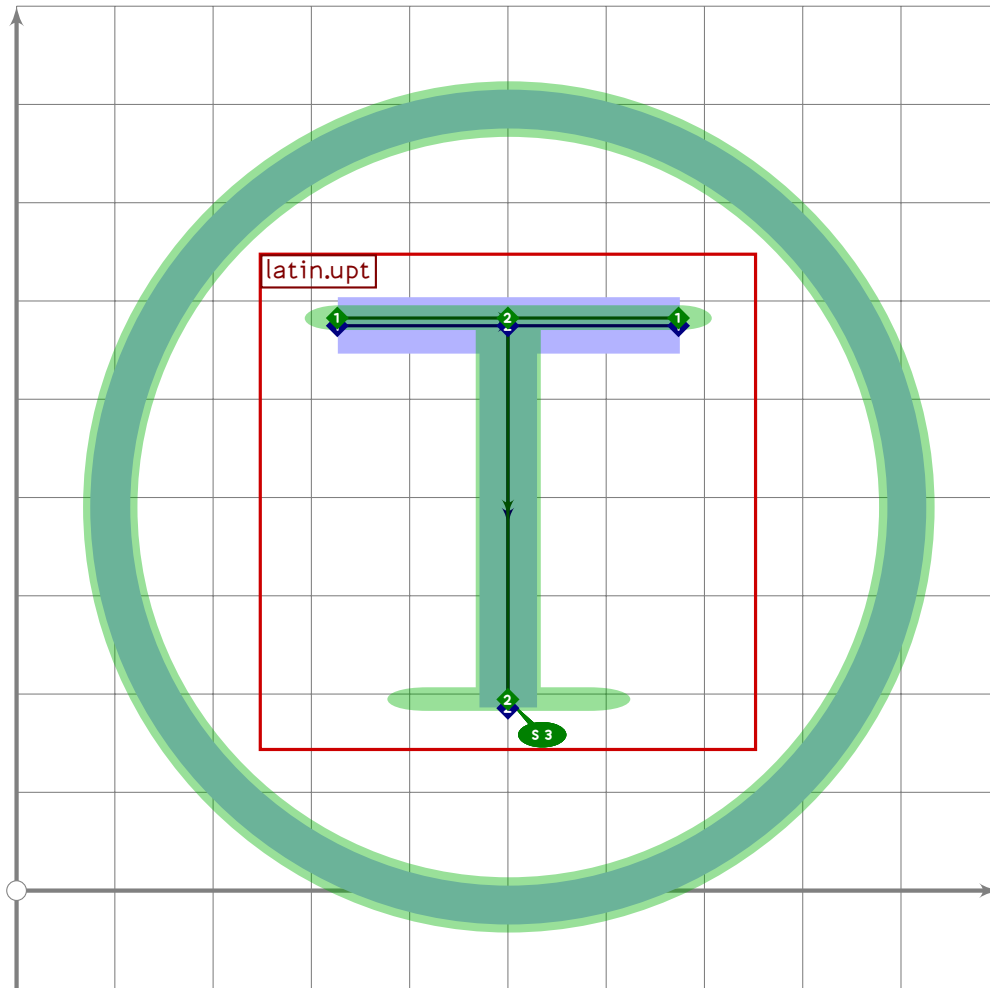
```

U+24C8  
tsuku.uni24C8



24

```
340 % S
341 begintsuglyph("uni24C8";200);
342   circle.single;
343   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.ups);
344   tsu_render;
345 endtsuglyph;
346
```

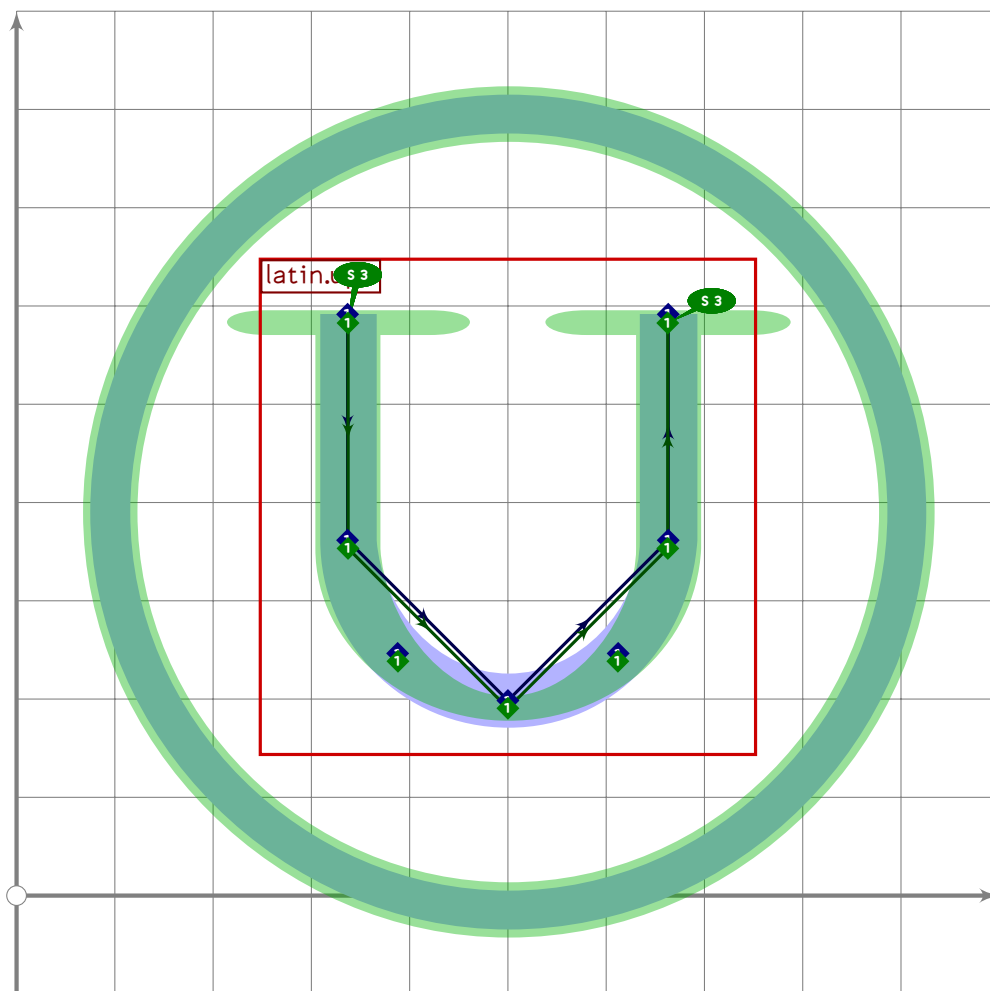


```

347 % T
348 begintsuglyph("uni24C9";201);
349   circle.single;
350   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upt);
351   tsu_render;
352 endsuglyph;
353

```

U+24CA  
tsuku.uni24CA



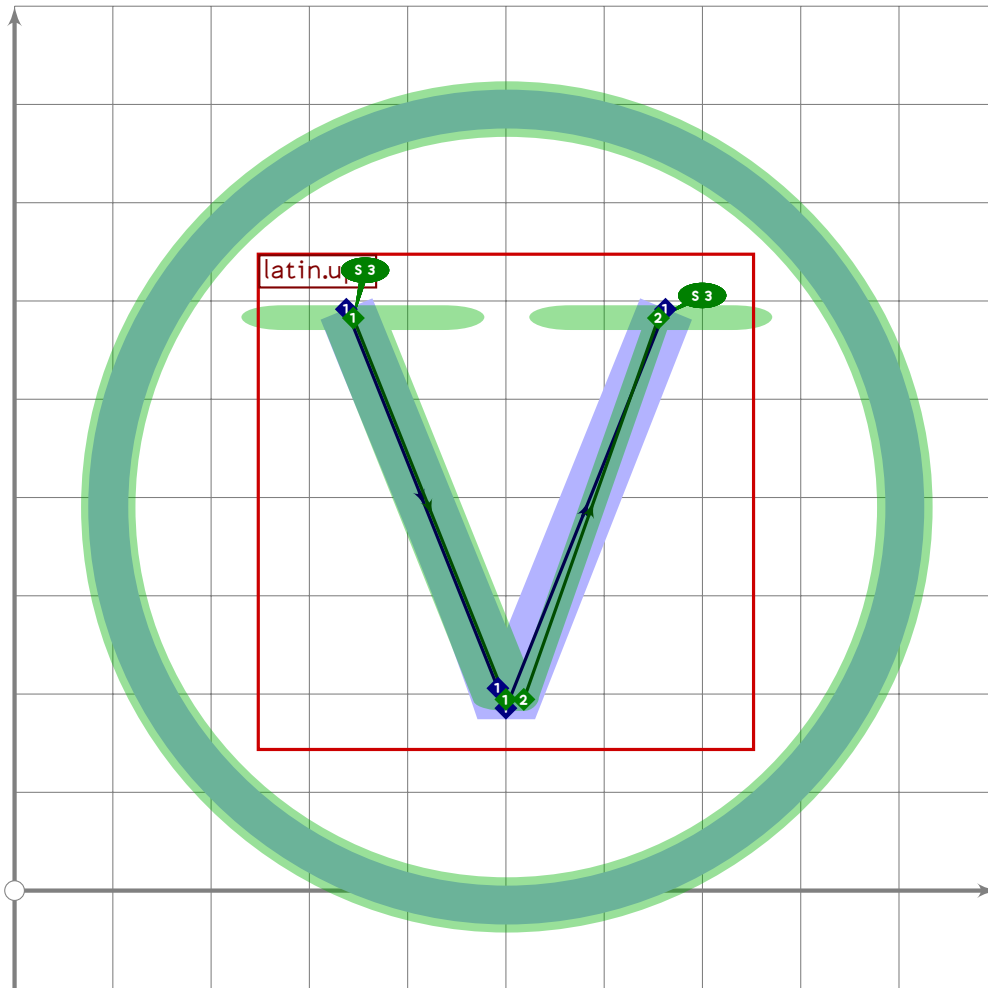
24

```

354 % U
355 begintuglyph("uni24CA";202);
356   circle.single;
357   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upu);
358   tsu_render;
359 endtuglyph;
360

```



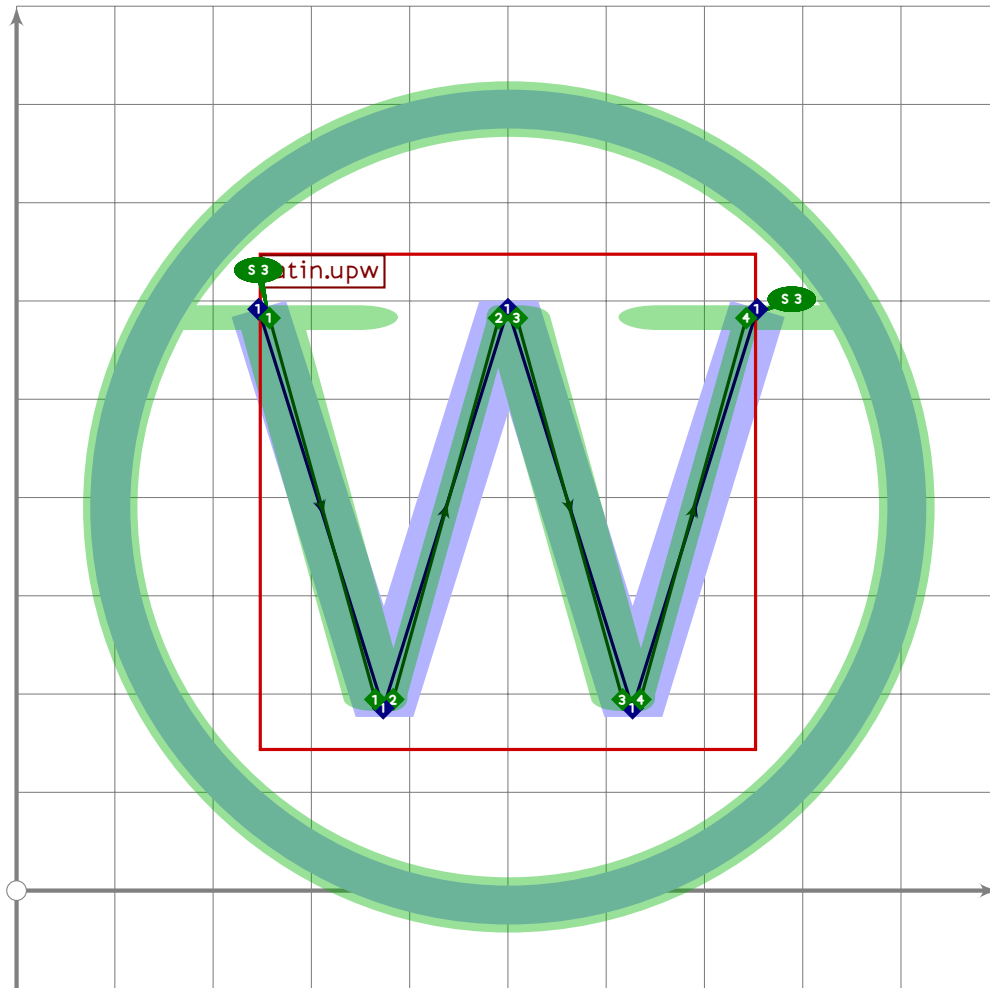


```

361 % V
362 begintsuglyph("uni24CB";203);
363   circle.single;
364   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upv);
365   tsu_render;
366 endsuglyph;
367

```

U+24CC  
tsuku.uni24CC

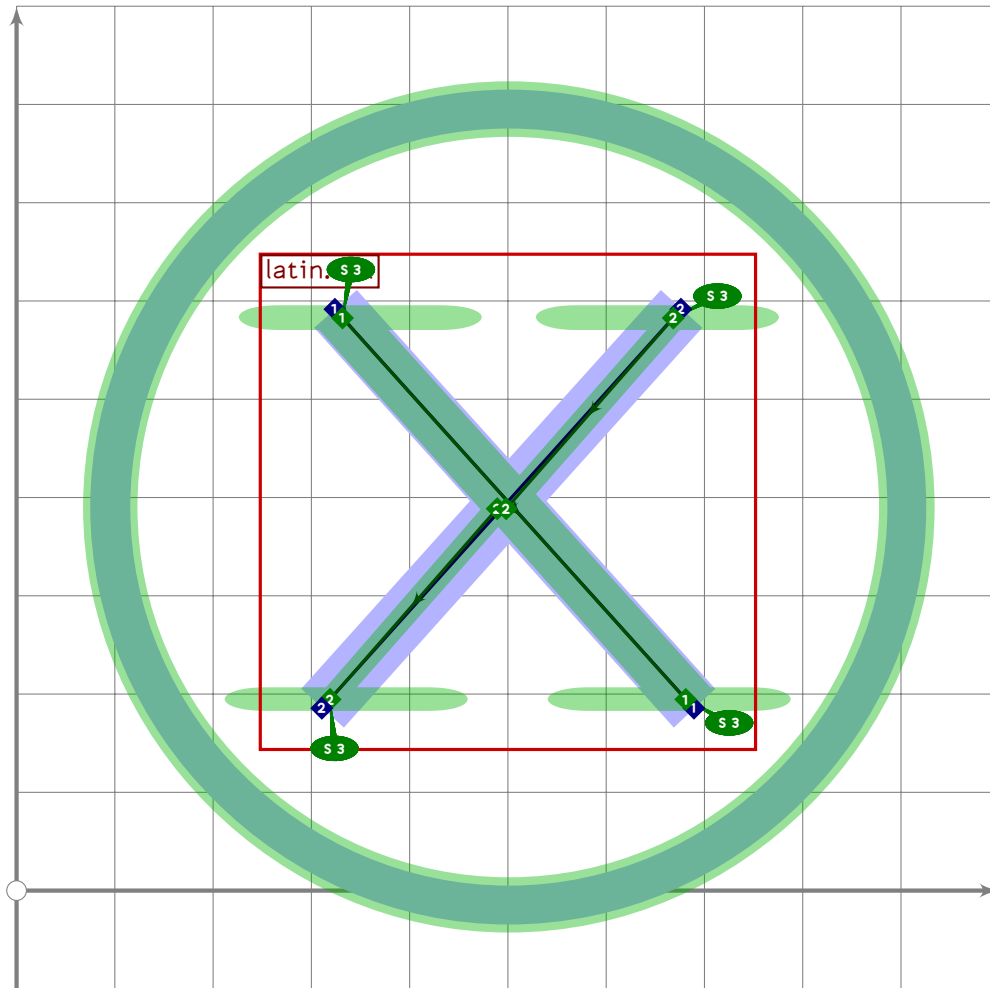


24

```

368 % W
369 begintsuglyph("uni24CC",204);
370   circle.single;
371   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upw);
372   tsu_render;
373 endtsuglyph;
374

```

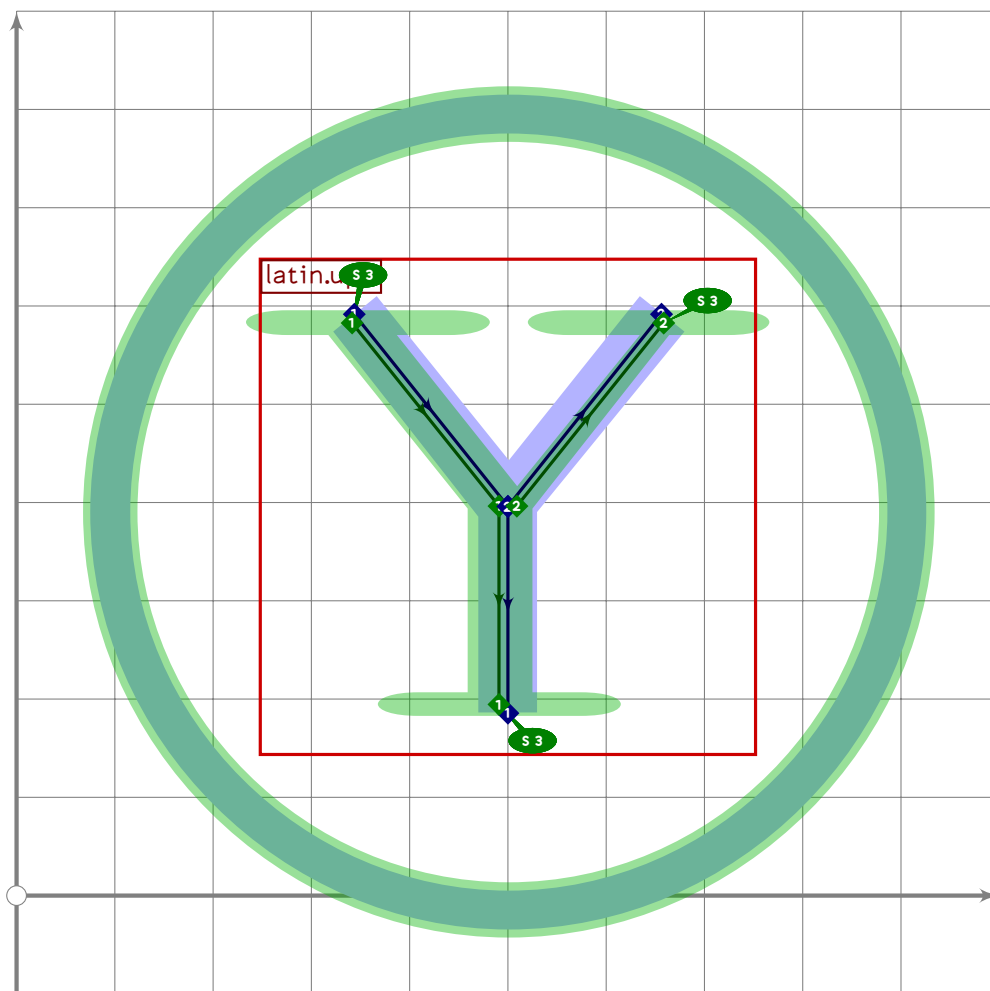


```

375 % X
376 begintsuglyph("uni24CD";205);
377   circle.single;
378   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upx);
379   tsu_render;
380 endtsuglyph;
381

```

U+24CE  
tsuku.uni24CE

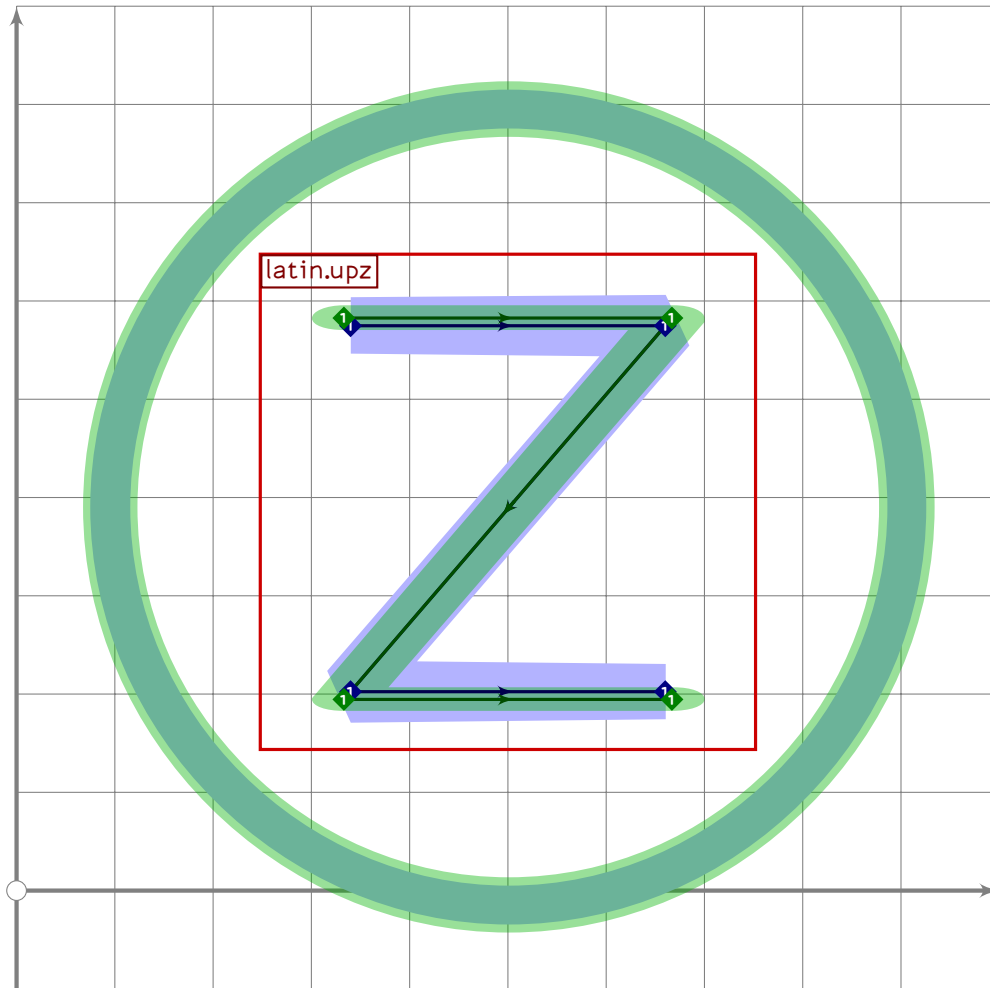


24

```

382 % Y
383 begint Suglyph("uni24CE";206);
384   circle.single;
385   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upy);
386   tsu_render;
387 endtsuglyph;
388

```

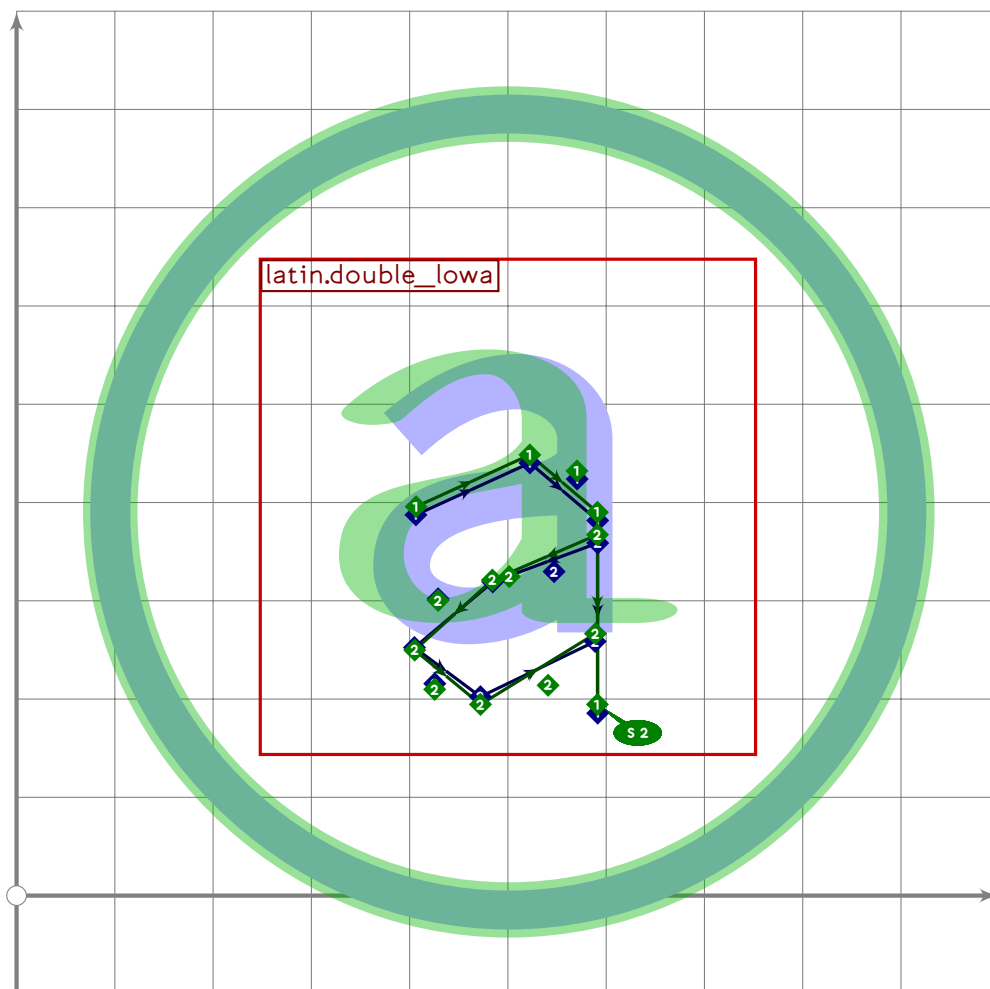


```

389 % Z
390 begint Suglyph("uni24CF";207);
391   circle.single;
392   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.upz);
393   tsu_render;
394 endtsuglyph;
395

```

U+24D0  
tsuku.uni24D0

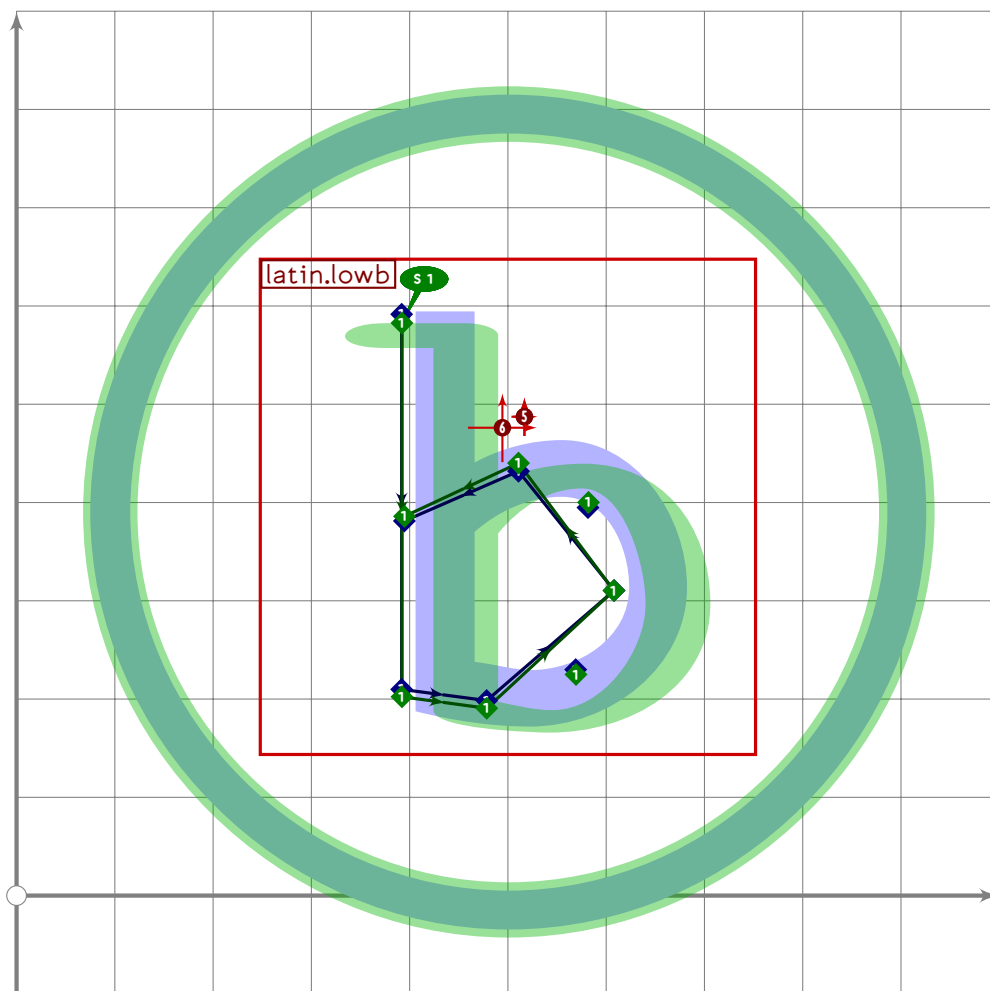


24

```

396 % a
397 begintsuglyph("uni24D0";208);
398   circle.single;
399   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.low_a);
400   tsu_render_in_circle(tsu_xf.cbound);
401 endtsuglyph;
402

```

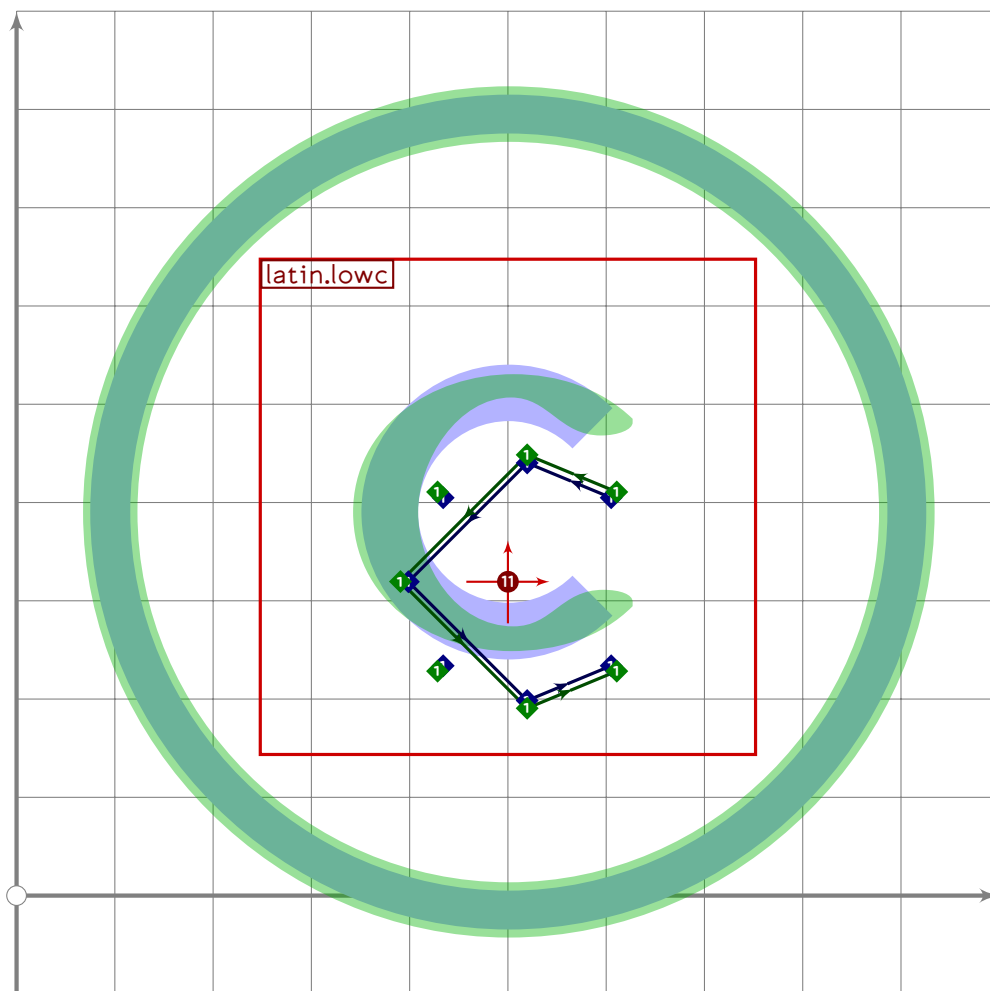


```

403 % b
404 begint Suglyph("uni24D1",209);
405   circle.single;
406   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowb);
407   tsu_render_in_circle(tsu_xf.cbound);
408 endtsuglyph;
409

```

U+24D2  
tsuku.uni24D2



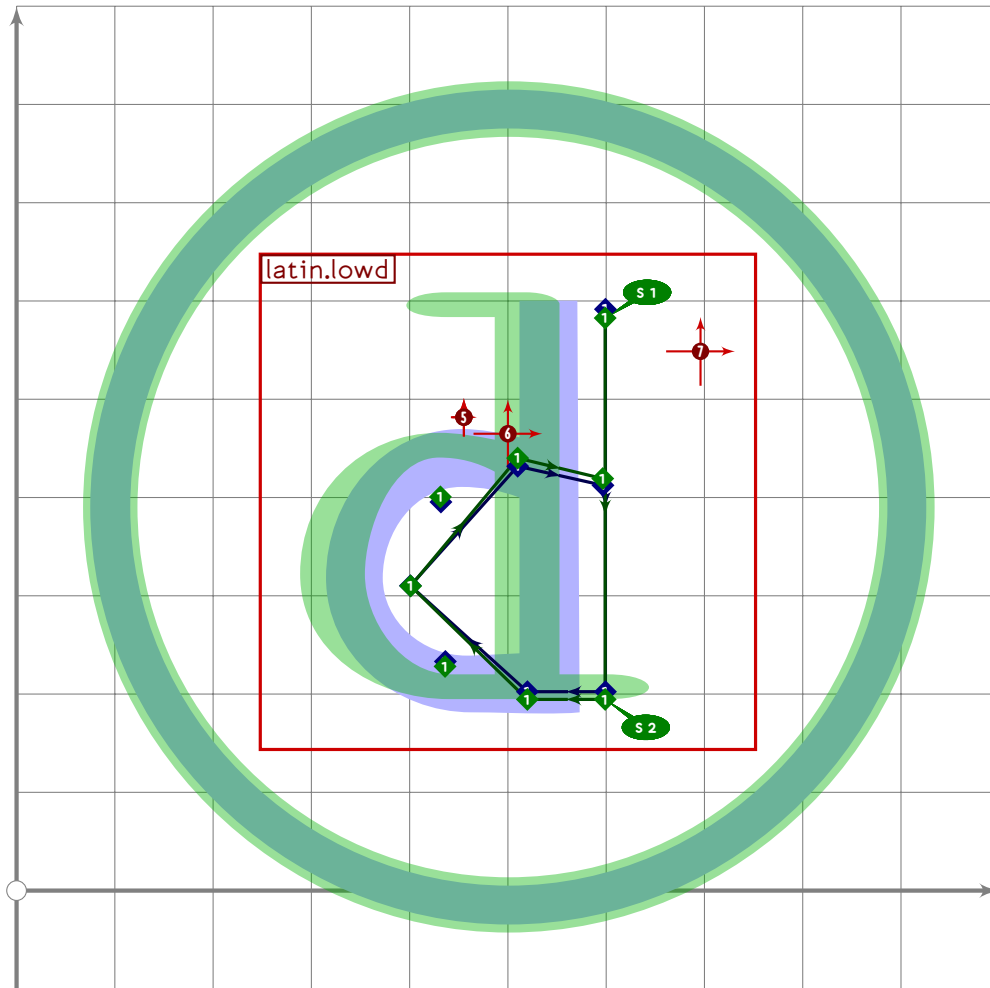
24

```

410 % c
411 begint Suglyph("uni24D2";210);
412   circle.single;
413   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowc);
414   tsu_render_in_circle(tsu_xf.cbound);
415 endtsuglyph;
416

```



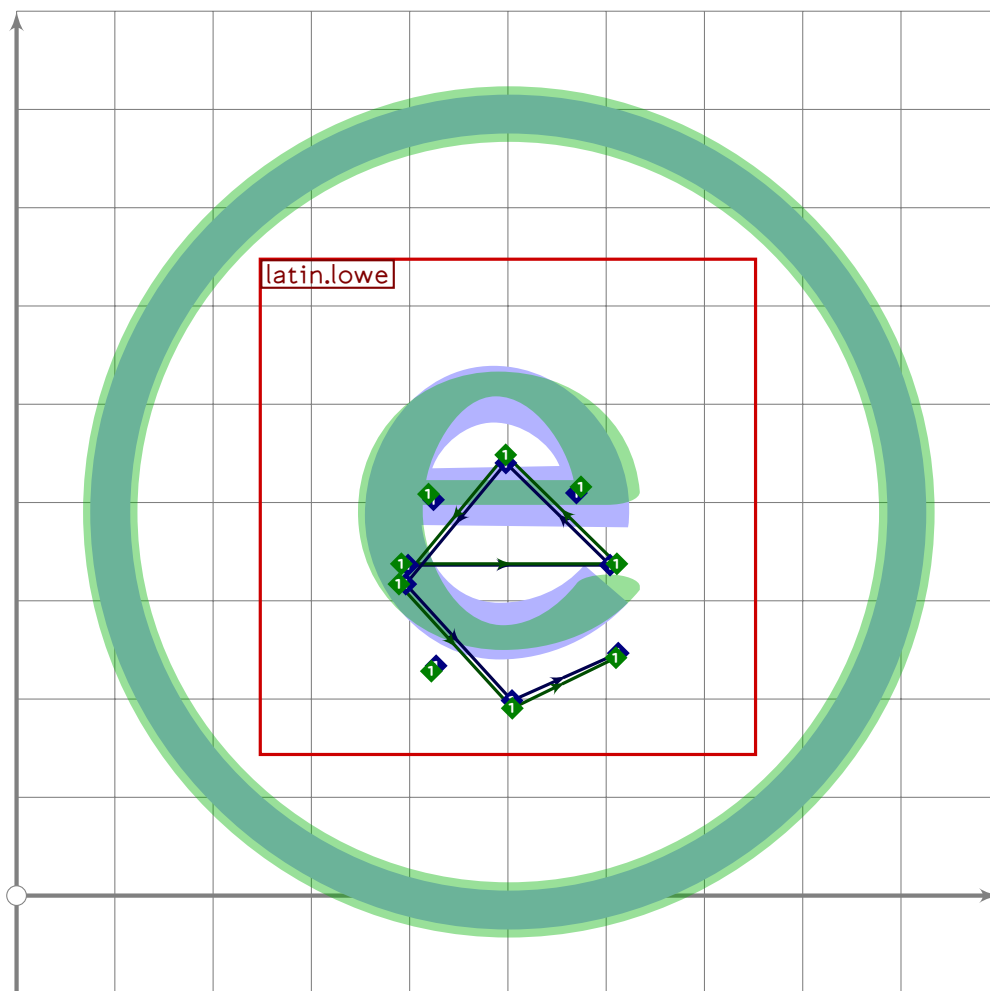


```

417 % d
418 begint Suglyph("uni24D3";211);
419   circle.single;
420   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowd);
421   tsu_render_in_circle(tsu_xf.cbound);
422 endtsuglyph;
423

```

U+24D4  
tsuku.uni24D4

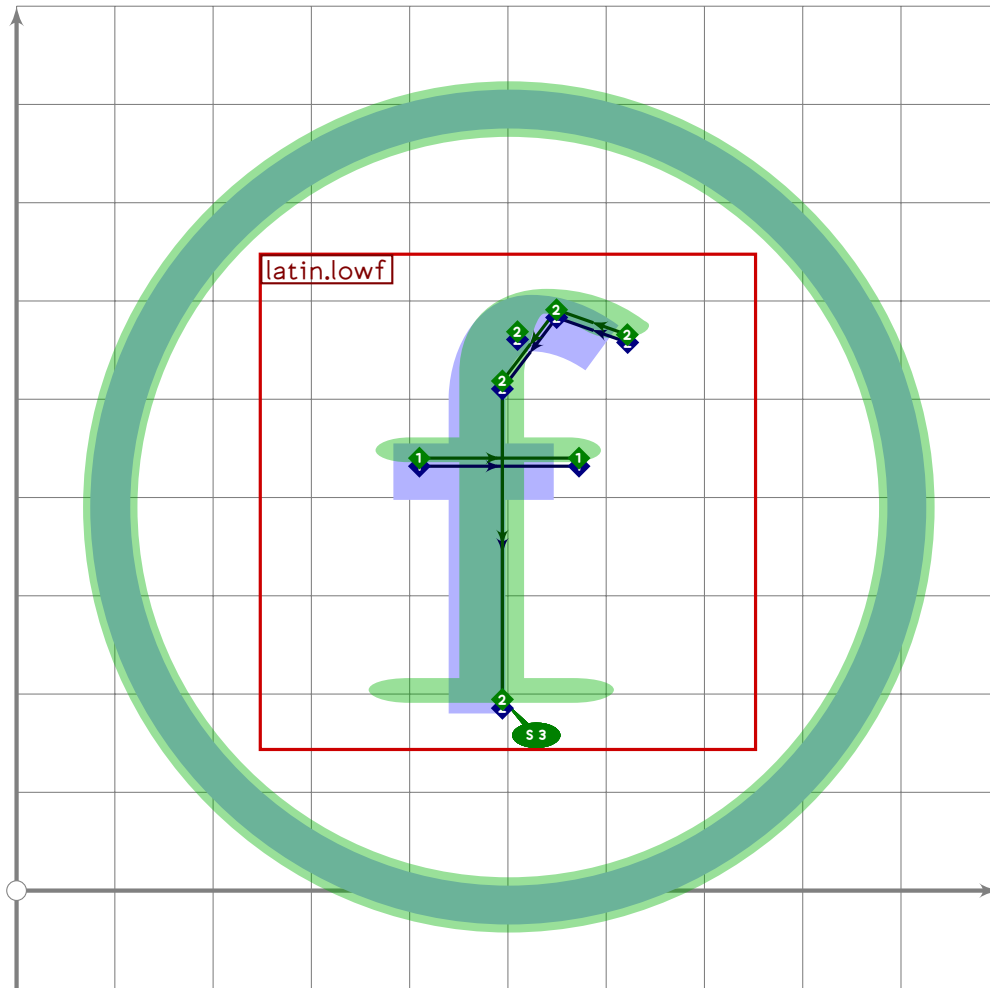


24

```

424 % e
425 begintsuglyph("uni24D4";212);
426   circle.single;
427   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowe);
428   tsu_render_in_circle(tsu_xf.cbound);
429 endtsuglyph;
430

```

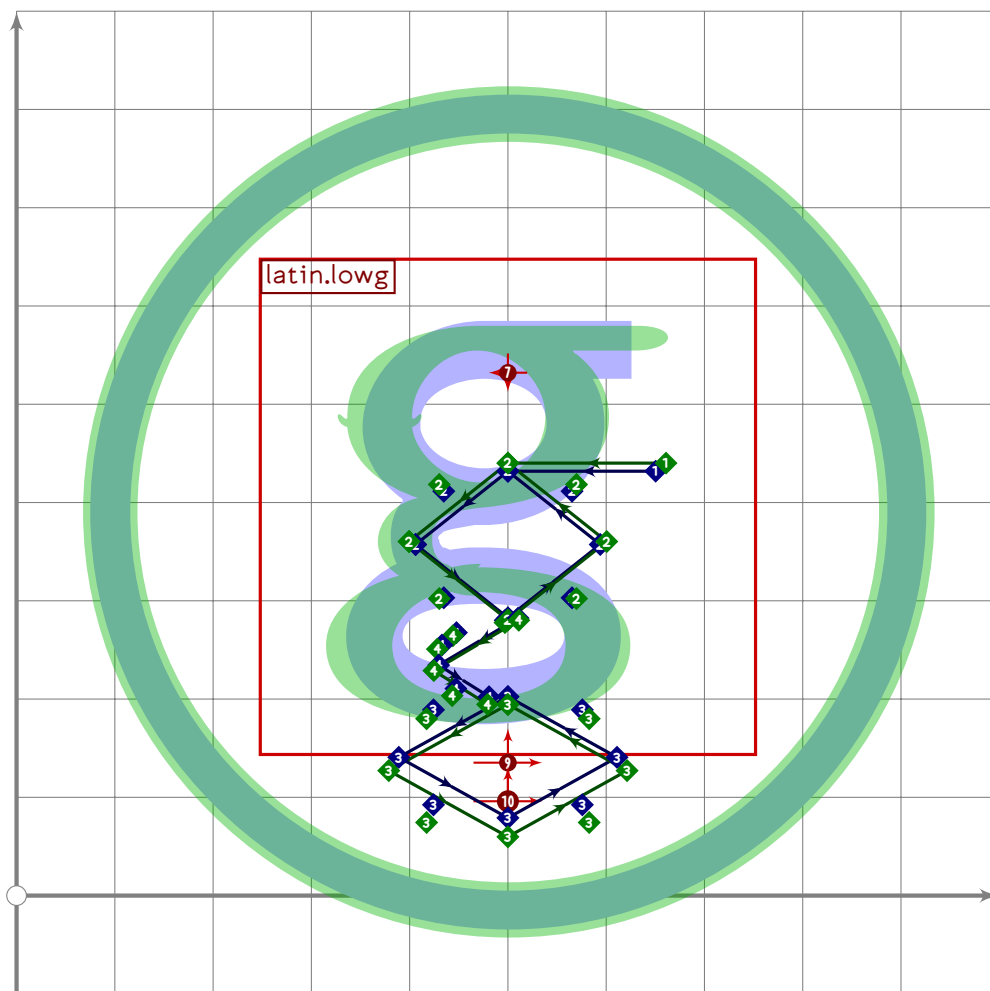


```

431 % f
432 begint Suglyph("uni24D5";213);
433   circle.single;
434   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowf);
435   tsu_render_in_circle(tsu_xf.cbound);
436 endtsuglyph;
437

```

U+24D6  
tsuku.uni24D6

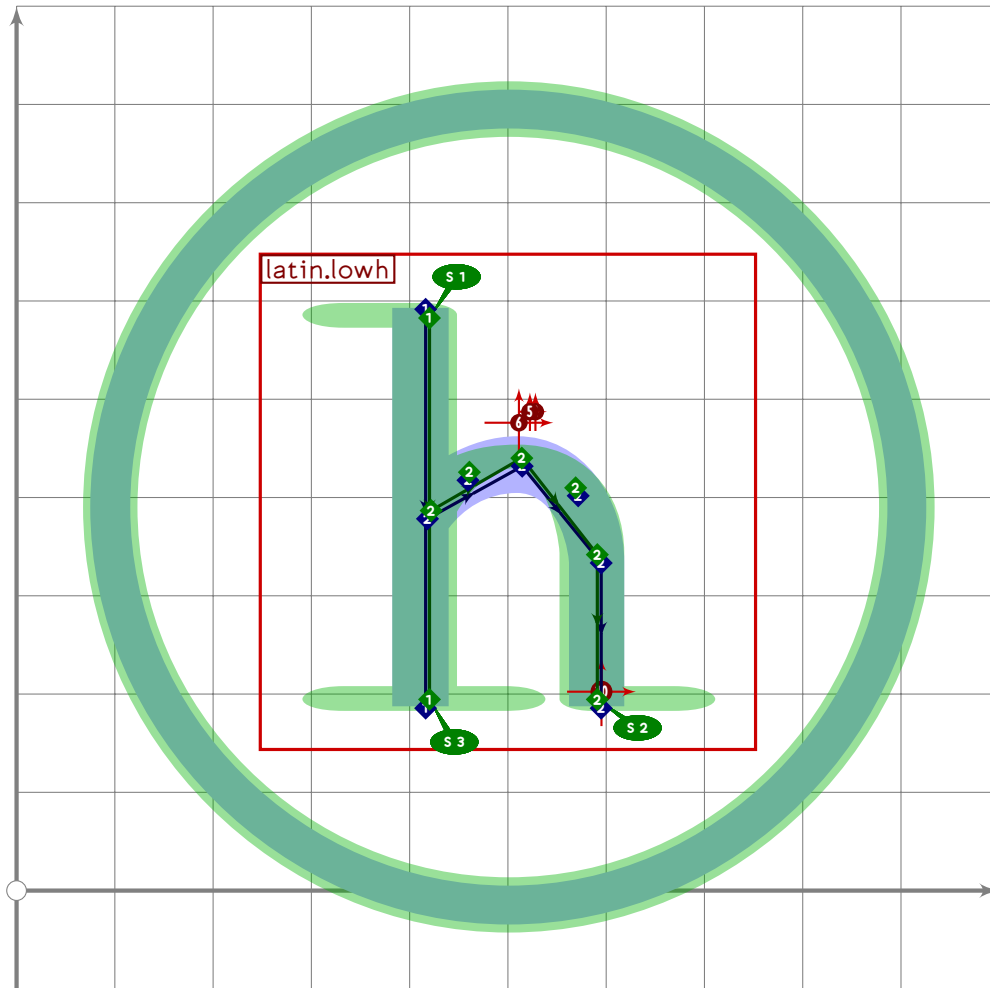


24

```

438 % g
439 begintsuglyph("uni24D6";214);
440   circle.single;
441   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowg);
442   tsu_render_in_circle(tsu_xf.cbound);
443 endsuglyph;
444

```

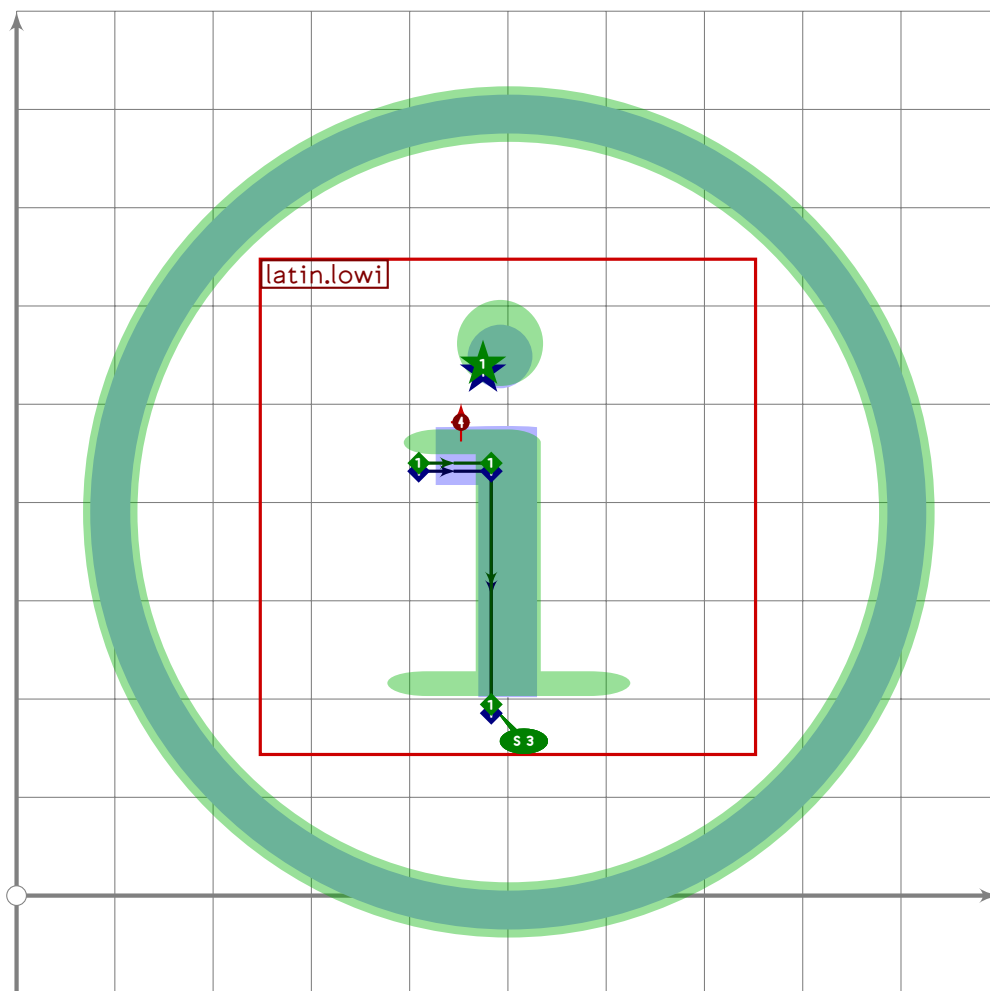


```

445 % h
446 begint Suglyph("uni24D7";215);
447   circle.single;
448   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowh);
449   tsu_render_in_circle(tsu_xf.cbound);
450 endtsuglyph;
451

```

U+24D8  
tsuku.uni24D8

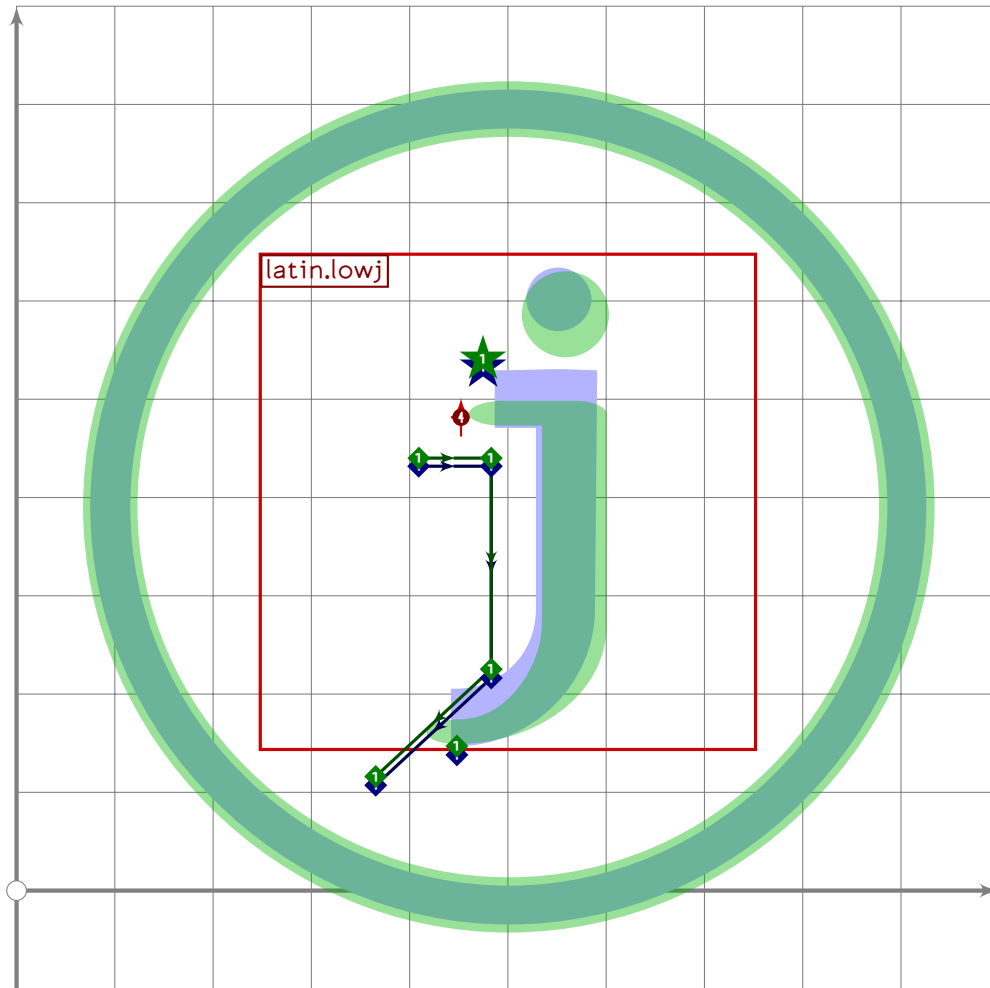


24

```

452 % i
453 begintsuglyph("uni24D8",216);
454   circle.single;
455   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowi);
456   tsu_render_in_circle(tsu_xf.cbound);
457 endtsuglyph;
458

```

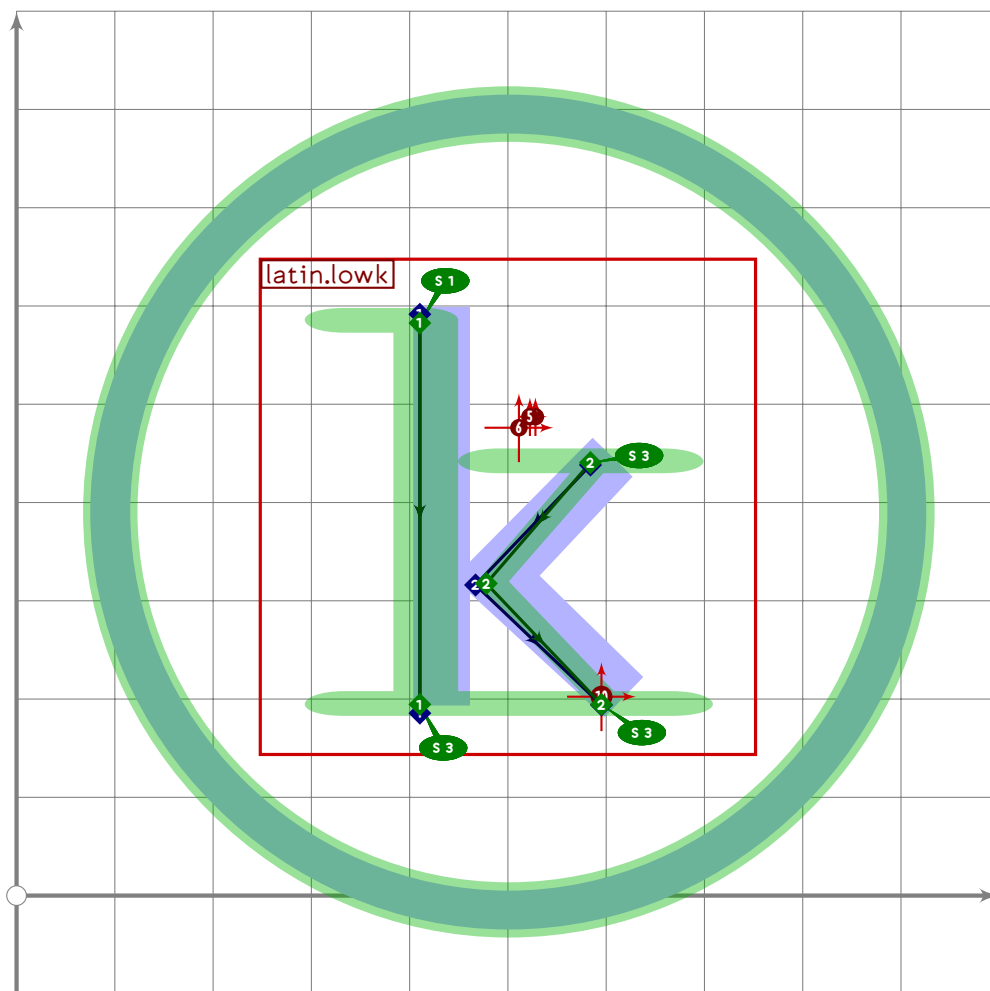


```

459 % j
460 begint Suglyph("uni24D9";217);
461   circle.single;
462   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowj);
463   tsu_render_in_circle(tsu_xf.cbound);
464 endtsuglyph;
465

```

U+24DA  
tsuku.uni24DA



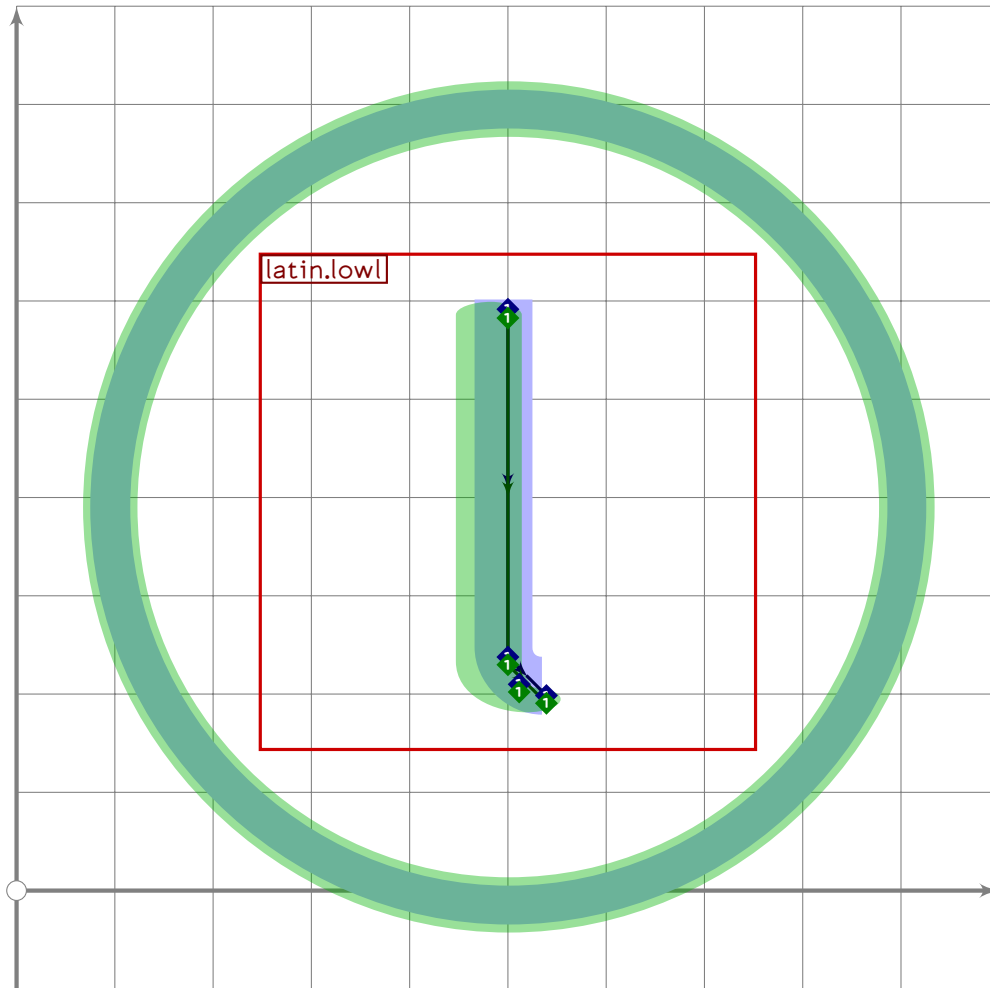
24

```

466 % k
467 begintuglyph("uni24DA";218);
468   circle.single;
469   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowk);
470   tsu_render_in_circle(tsu_xf.cbound);
471 endtuglyph;
472

```



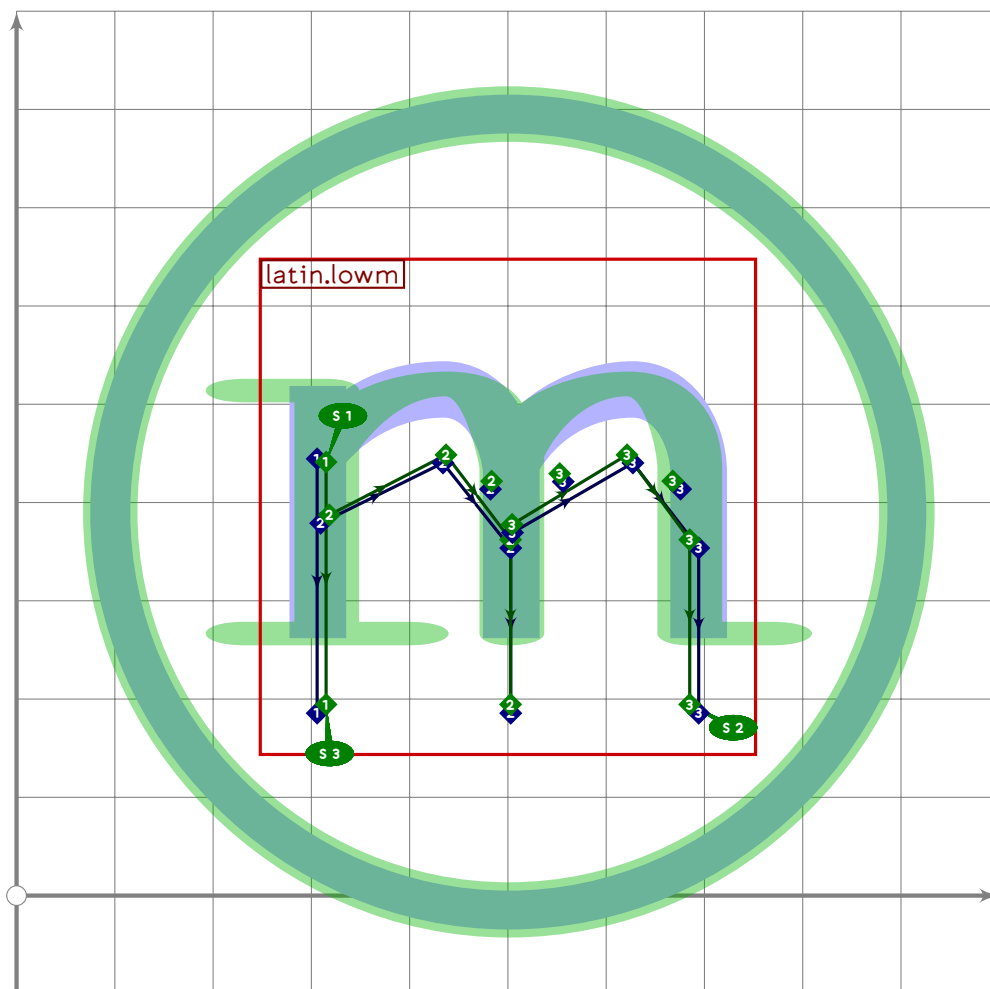


```

473 % l
474 begintsuglyph("uni24DB";219);
475   circle.single;
476   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowl);
477   tsu_render_in_circle(tsu_xf.cbound);
478 endtsuglyph;
479

```

U+24DC  
tsuku.uni24DC

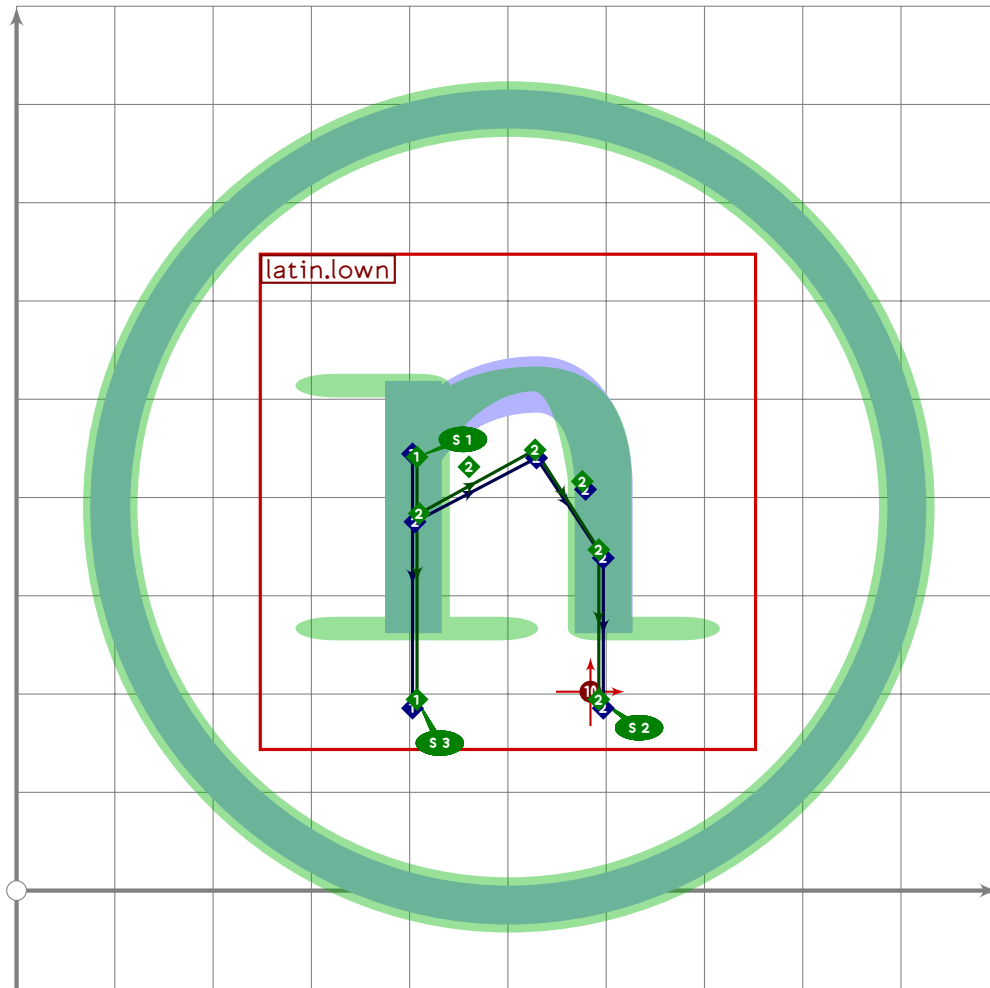


24

```

480 % m
481 begint Suglyph("uni24DC",220);
482   circle.single;
483   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowm);
484   tsu_render_in_circle(tsu_xf.cbound);
485 endtsuglyph;
486

```

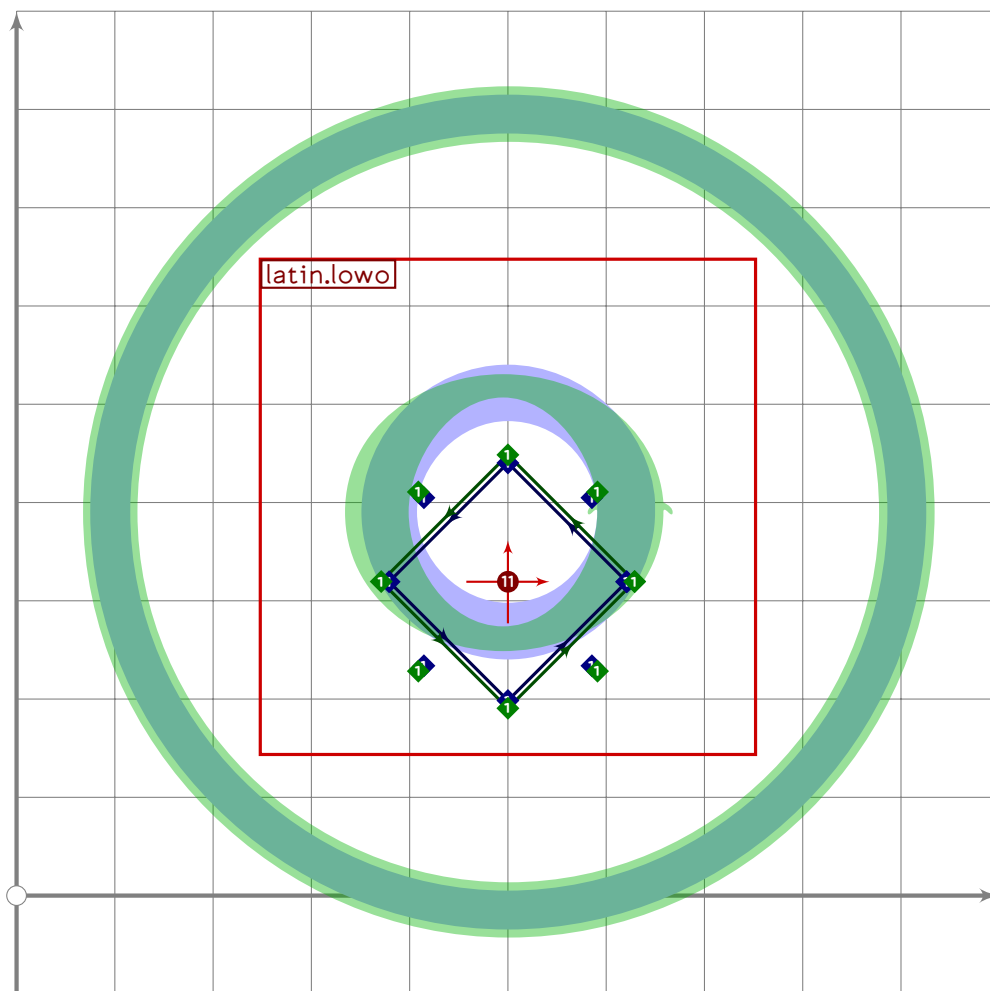


```

487 % n
488 begintsuglyph("uni24DD";221);
489   circle.single;
490   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lown);
491   tsu_render_in_circle(tsu_xf.cbound);
492 endtsuglyph;
493

```

U+24DE  
tsuku.uni24DE

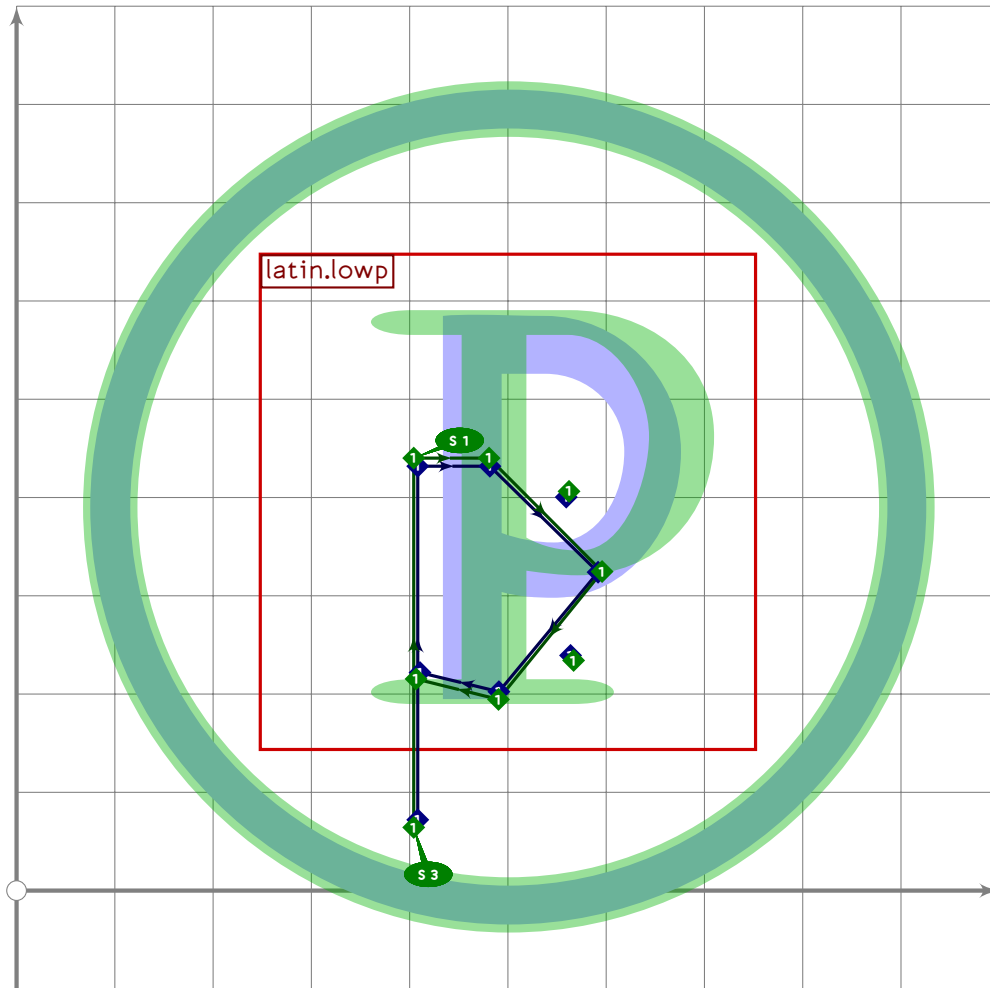


24

```

494 % o
495 begintsuglyph("uni24DE";222);
496   circle.single;
497   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowo);
498   tsu_render_in_circle(tsu_xf.cbound);
499 endtsuglyph;
500

```

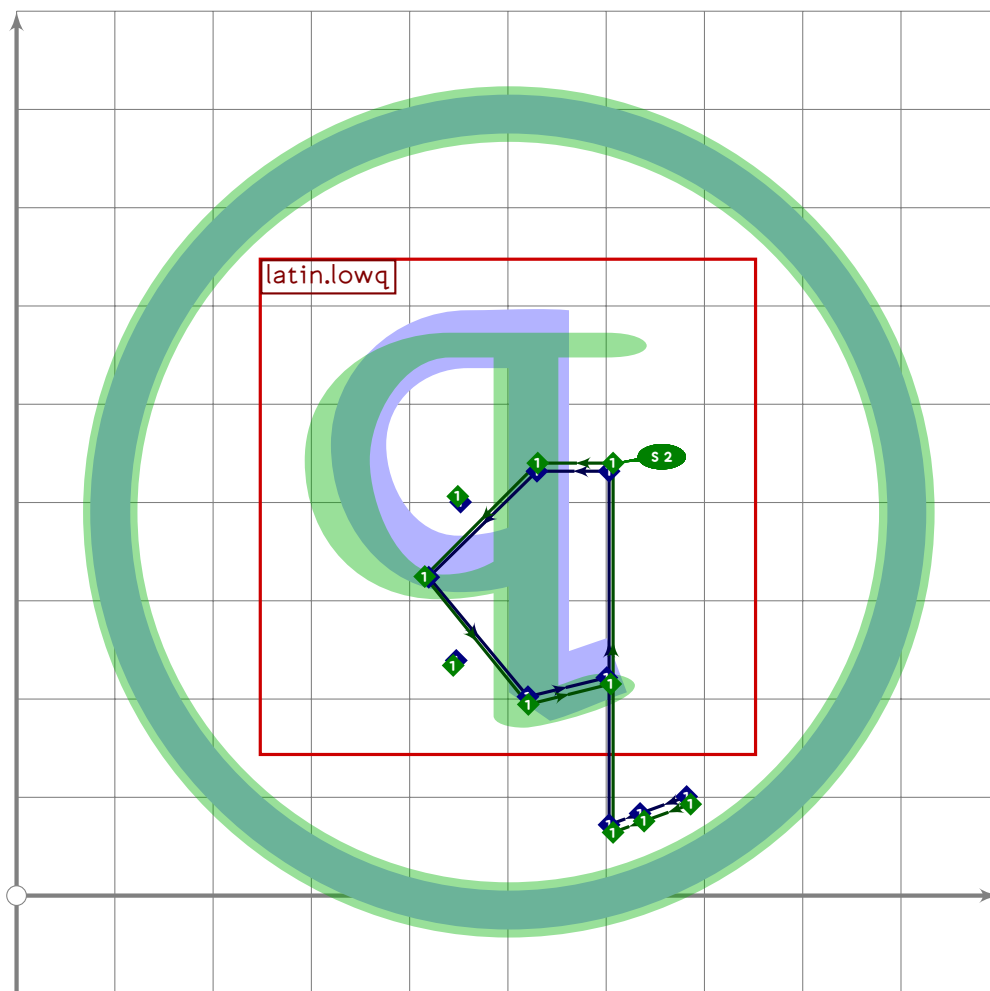


```

501 % p
502 begintsuglyph("uni24DF";223);
503   circle.single;
504   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowp);
505   tsu_render_in_circle(tsu_xf.cbound);
506 endtsuglyph;
507

```

U+24E0  
tsuku.uni24E0

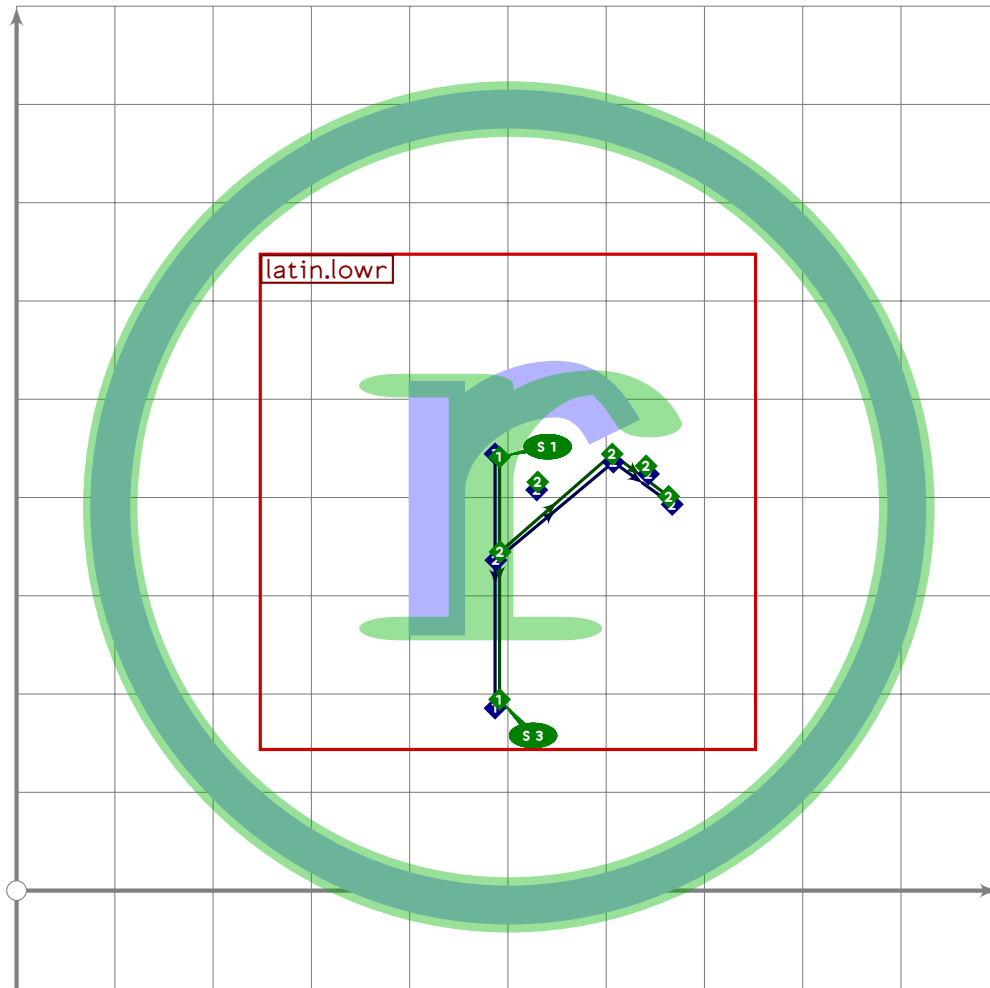


24

```

508 % q
509 begint Suglyph("uni24E0";224);
510   circle.single;
511   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowq);
512   tsu_render_in_circle(tsu_xf.cbound);
513 endtsuglyph;
514

```

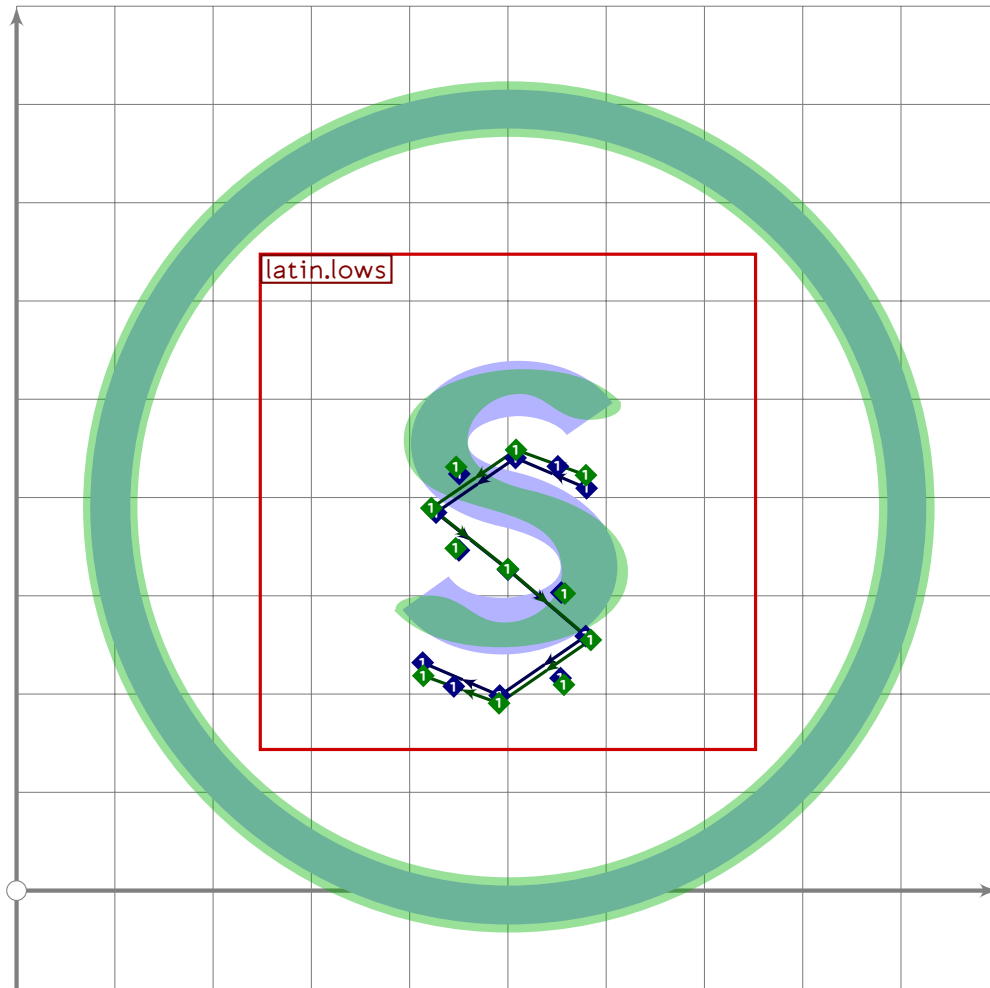


```

515 % r
516 begint Suglyph("uni24E1",225);
517   circle.single;
518   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowr);
519   tsu_render_in_circle(tsu_xf.cbound);
520 endtsuglyph;
521

```

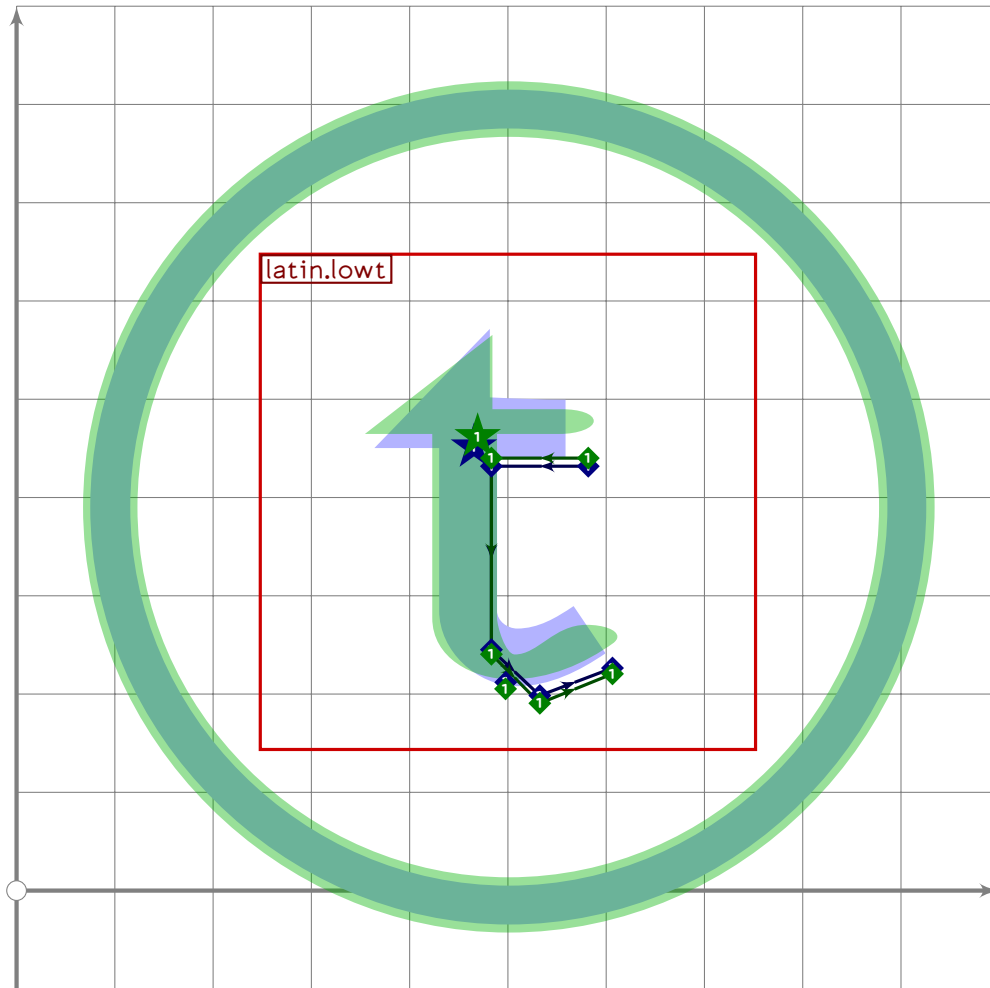
U+24E2  
tsuku.uni24E2



24

```
522 % s
523 begint Suglyph("uni24E2";226);
524   circle.single;
525   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lows);
526   tsu_render_in_circle(tsu_xf.cbound);
527 endtsuglyph;
528
```



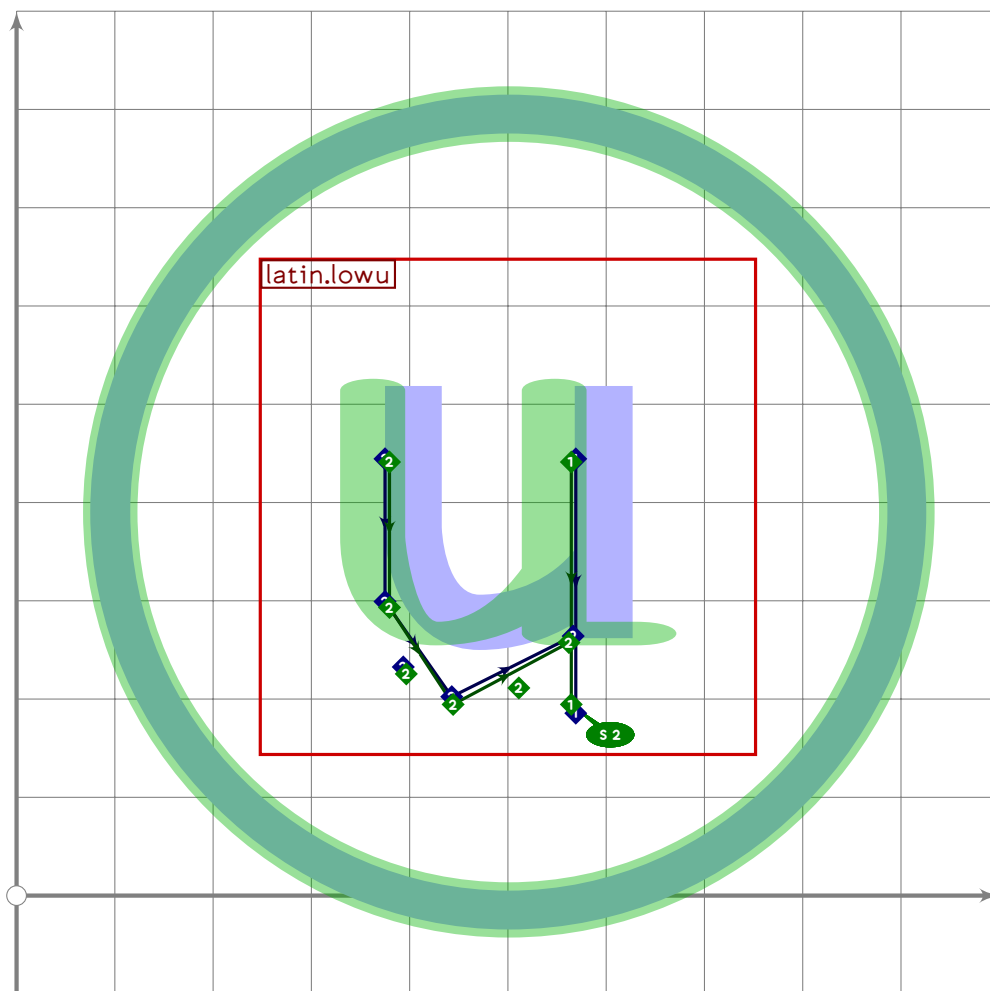


```

529 % t
530 begint Suglyph("uni24E3",227);
531   circle.single;
532   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowt);
533   tsu_render_in_circle(tsu_xf.cbound);
534 endtsuglyph;
535

```

U+24E4  
tsuku.uni24E4

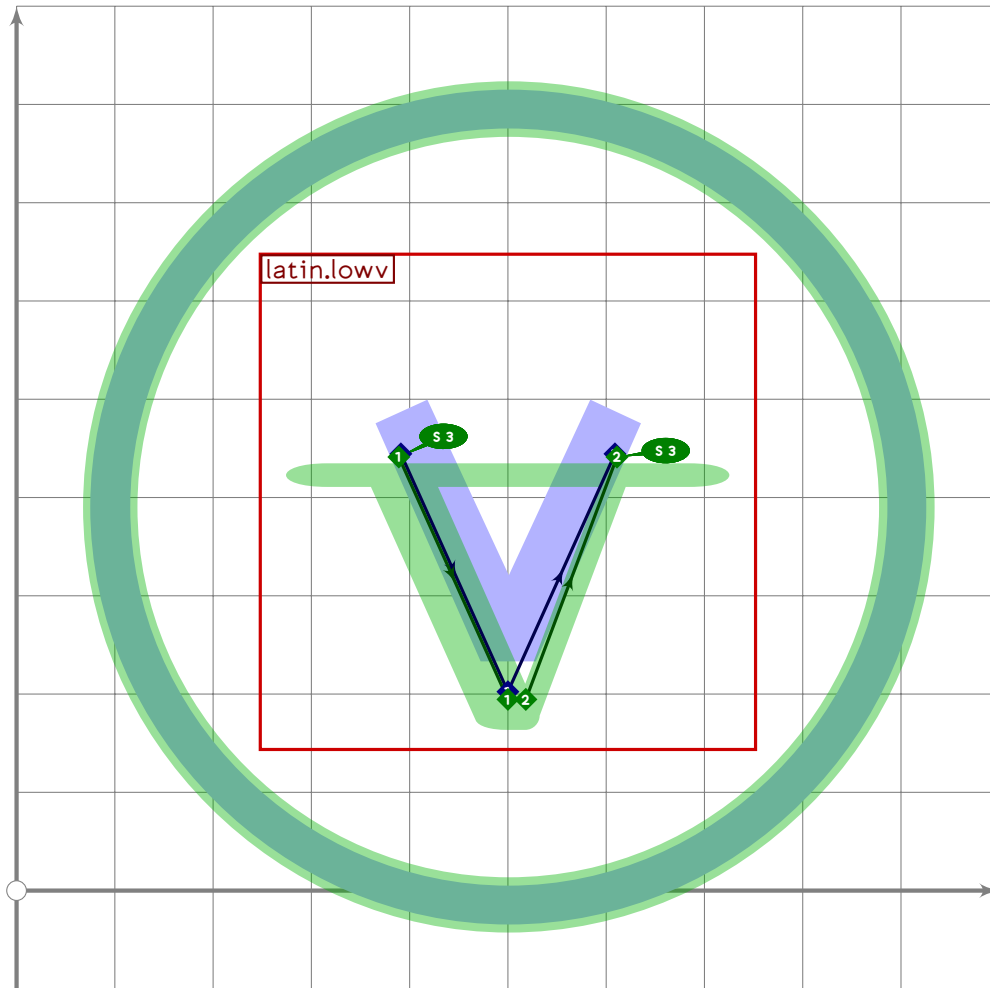


24

```

536 % u
537 begint Suglyph("uni24E4",228);
538   circle.single;
539   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowu);
540   tsu_render_in_circle(tsu_xf.cbound);
541 endtsuglyph;
542

```

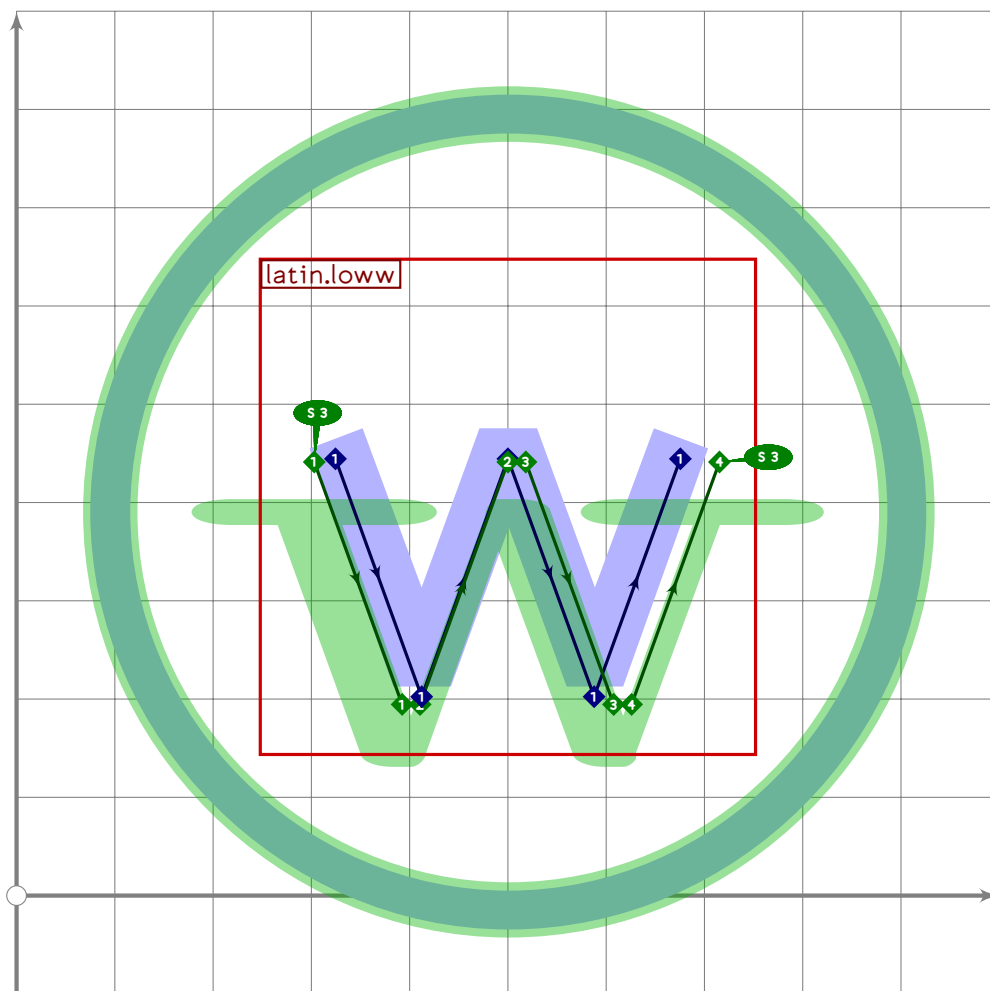


```

543 % v
544 begintsuglyph("uni24E5",229);
545   circle.single;
546   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowv);
547   tsu_render_in_circle(tsu_xf.cbound);
548 endsuglyph;
549

```

U+24E6  
tsuku.uni24E6

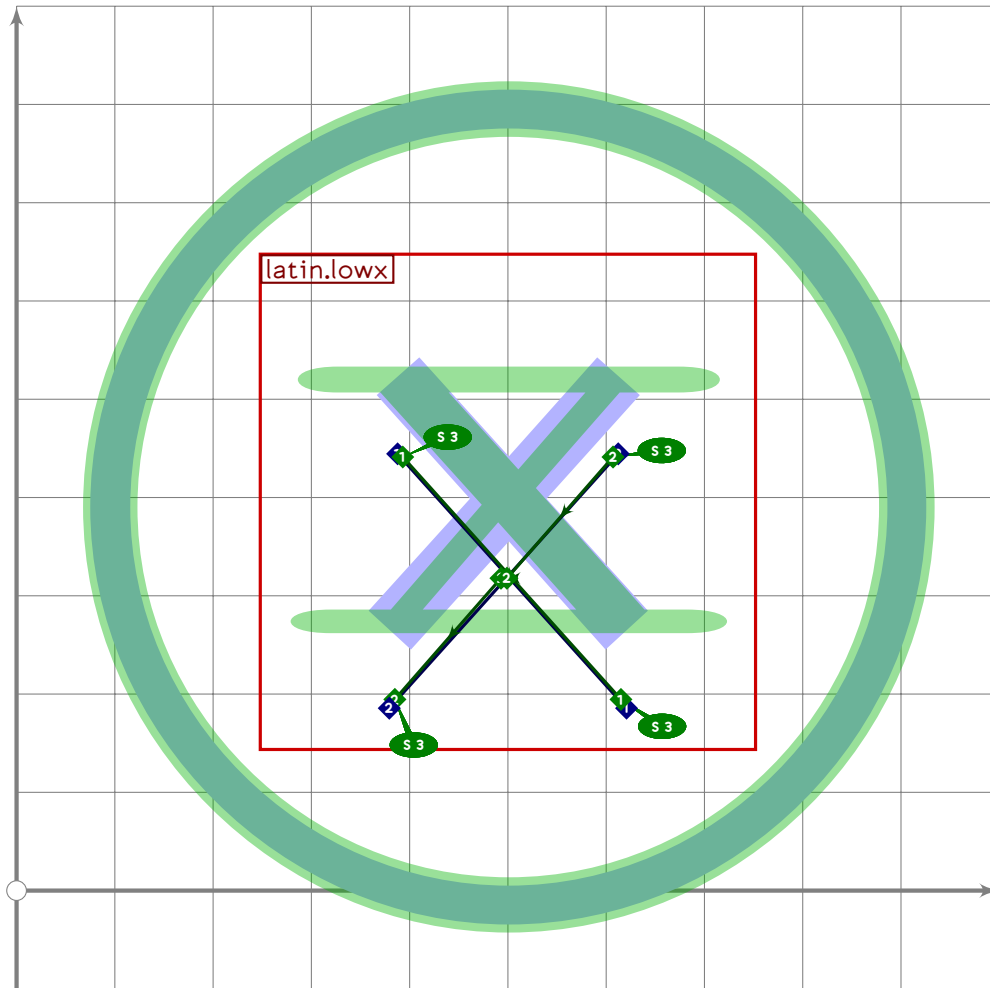


24

```

550 % w
551 begint Suglyph("uni24E6",230);
552   circle.single;
553   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.loww);
554   tsu_render_in_circle(tsu_xf.cbound);
555 endtsuglyph;
556

```

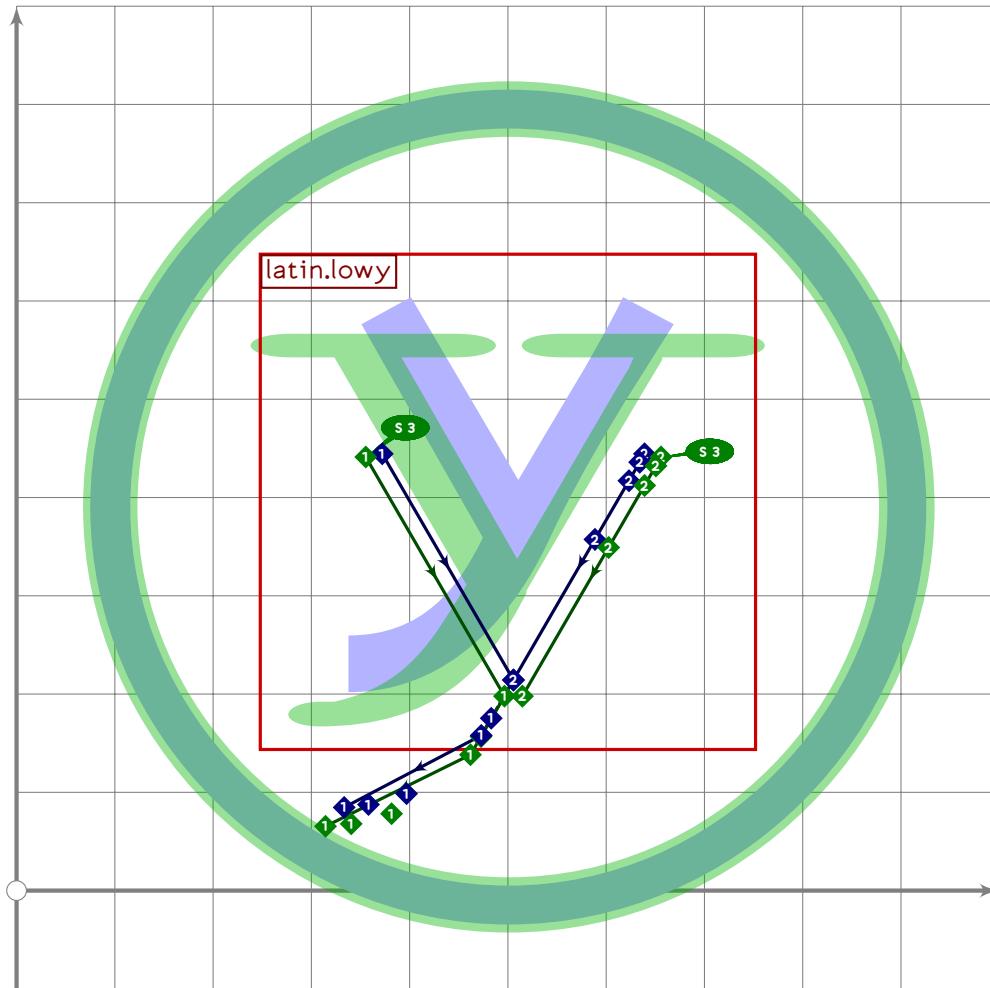


```

557 % x
558 begint Suglyph("uni24E7";231);
559   circle.single;
560   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowx);
561   tsu_render_in_circle(tsu_xf.cbound);
562 endtsuglyph;
563

```

U+24E8  
tsuku.uni24E8

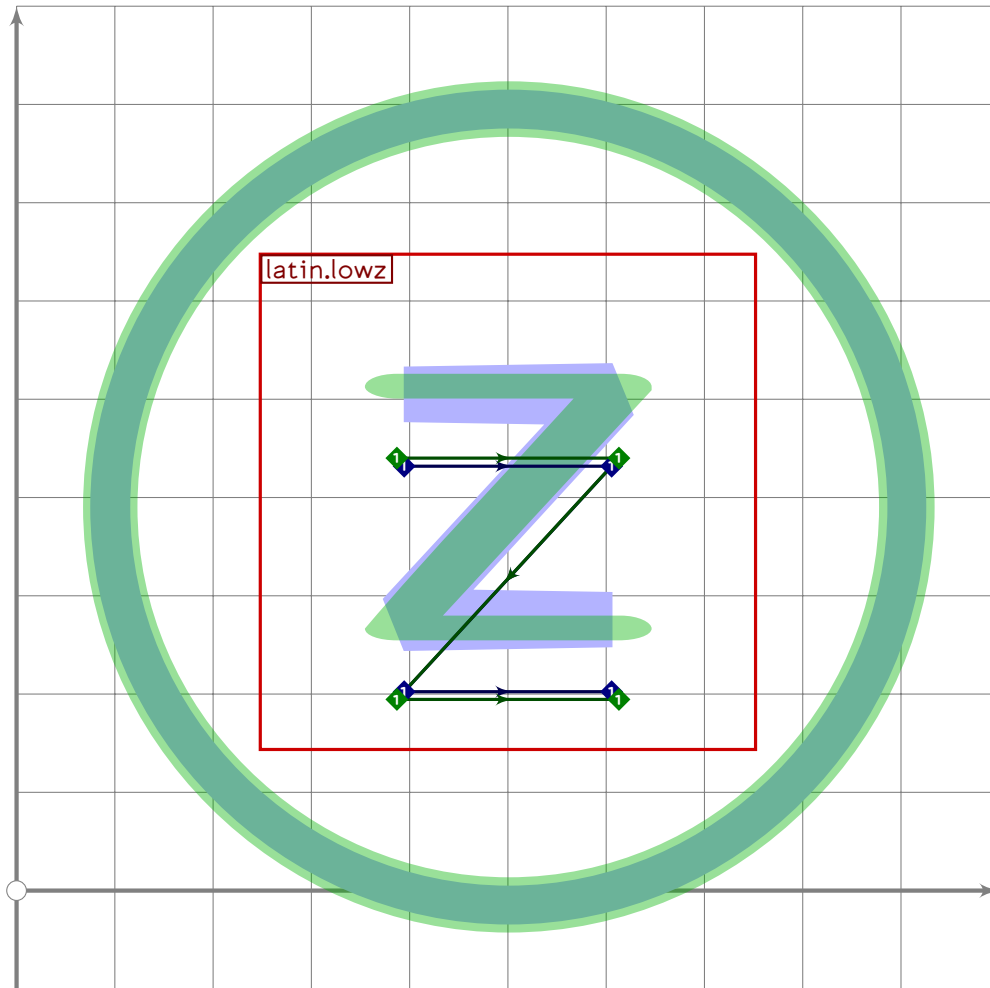


24

```

564 % y
565 begint Suglyph("uni24E8",232);
566   circle.single;
567   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowy);
568   tsu_render_in_circle(tsu_xf.cbound);
569 endtsuglyph;
570

```

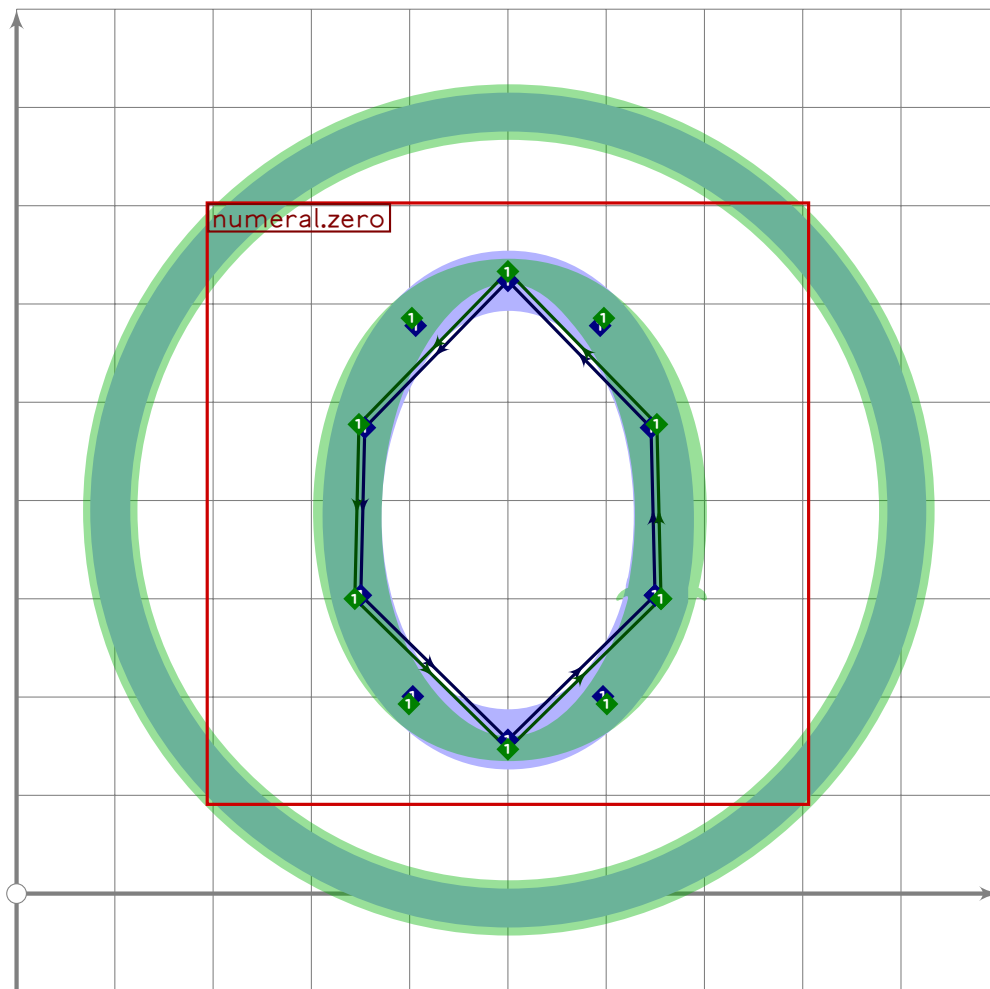


```

571 % z
572 begint Suglyph("uni24E9",233);
573   circle.single;
574   tsu_xform(tsu_xf.cletter shifted tsu_xf.circ_slant_shift)(latin.lowz);
575   tsu_render_in_circle(tsu_xf.cbound);
576 endtsuglyph;
577

```

U+24EA  
tsuku.uni24EA



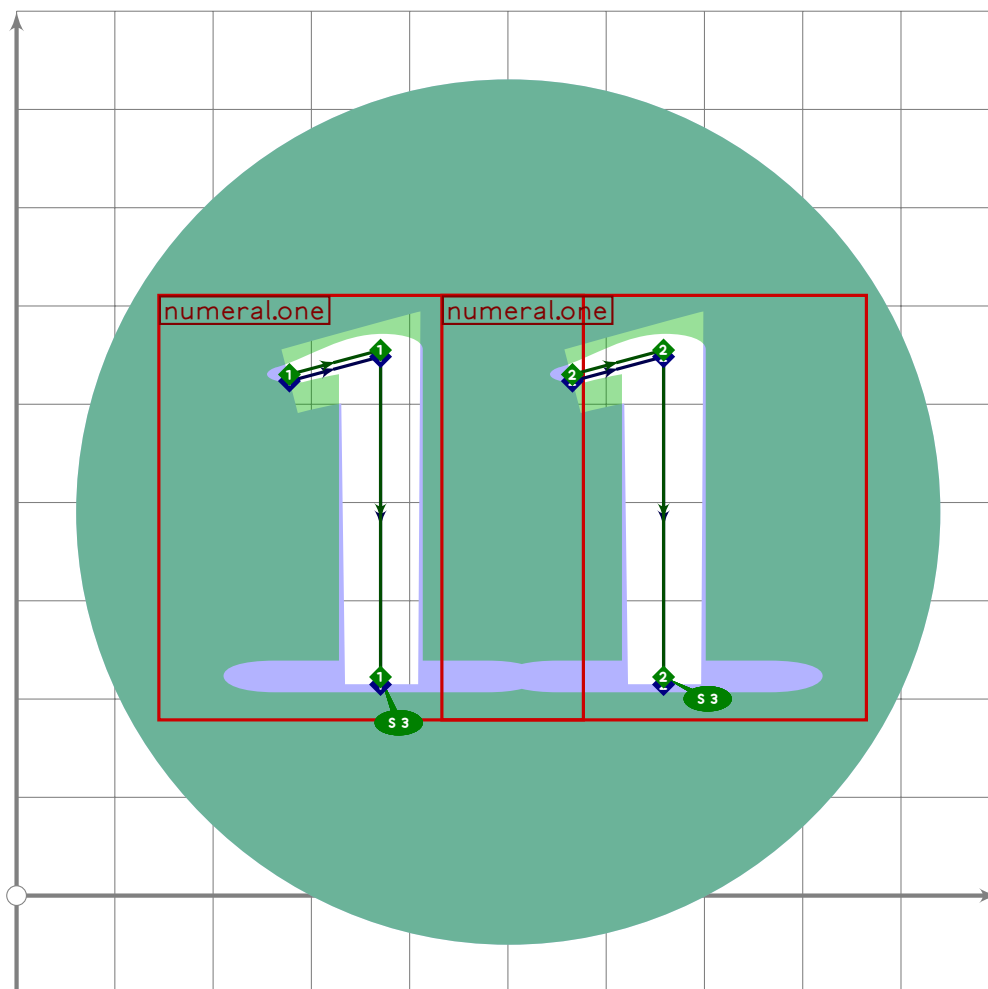
24

```
578 % 0
579 begintsuglyph("uni24EA";234);
580   circle.single;
581   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.zero);
582   tsu_render;
583 endtsuglyph;
584
585
586
```

## Inverted Circled Numerals

```
587 % INVERTED CIRCLED NUMERALS
588
```

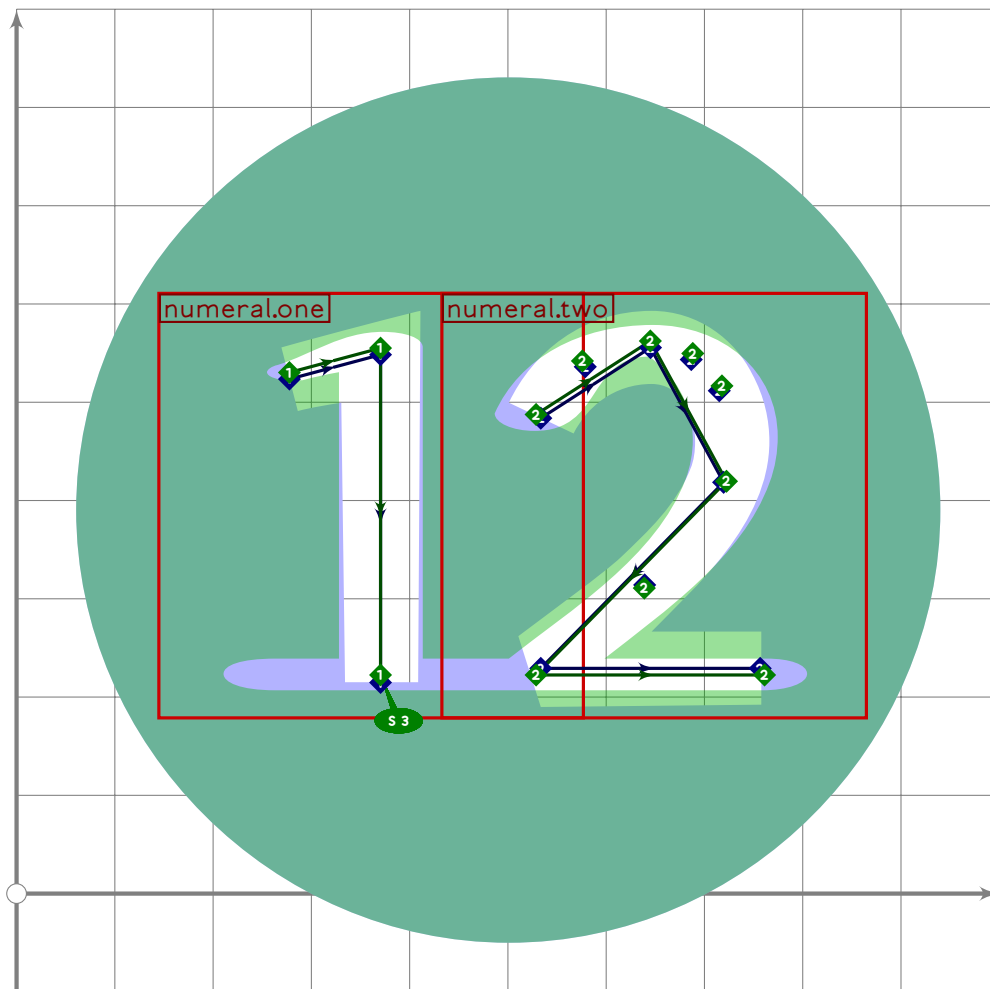




```

589 % 11
590 % BACKGROUND 25CF
591 begint Suglyph("uni24EB";235);
592   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
593   numeric x[],y[];
594   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.one);
595   i:=0; forever: exitif find_stroke(i)<1;
596     set_bosize(i,107); i:=i-1; endfor;
597   tsu_render;
598 endtsuglyph;
599

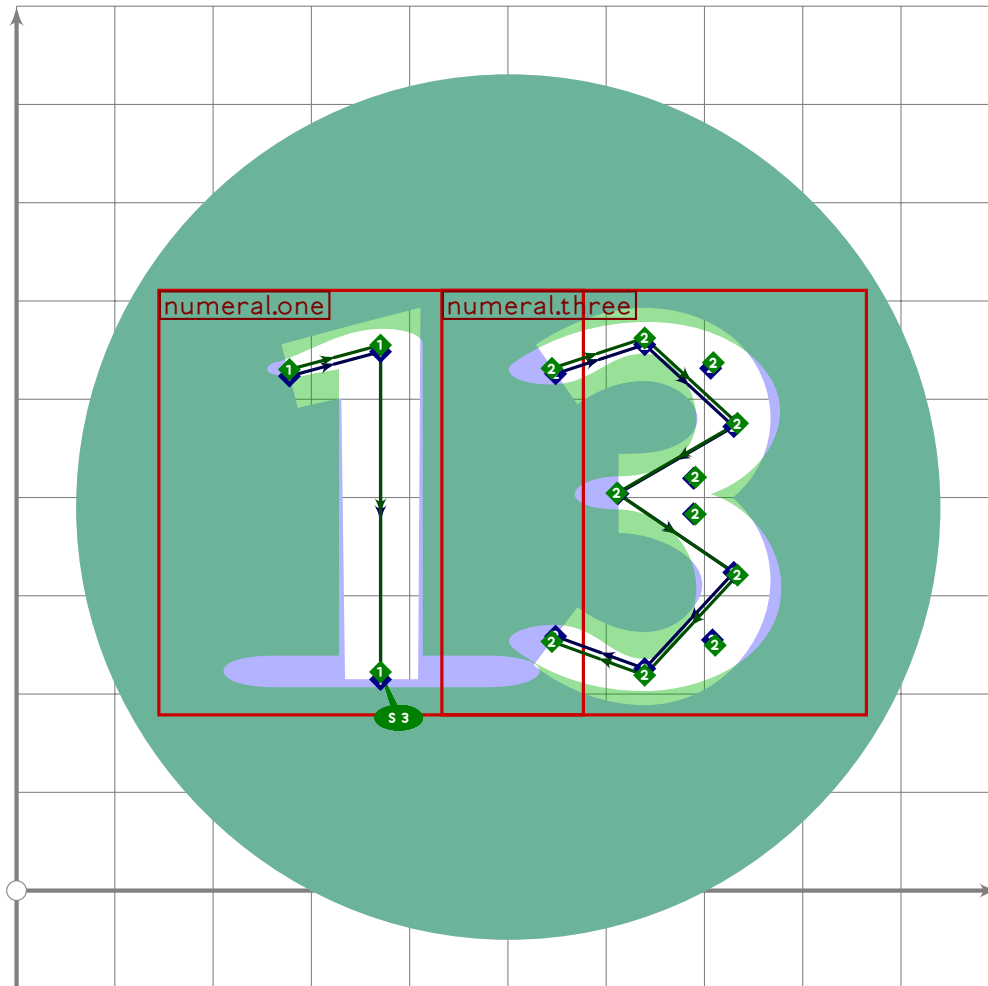
```



```

600 % 12
601 % BACKGROUND 25CF
602 begintsuglyph("uni24EC";236);
603 tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
604 numeric x[],y[];
605 tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.two);
606 i:=0; forever: exitif find_stroke(i)<1;
607   set_bosize(i,107); i:=i-1; endfor;
608 tsu_render;
609 endtsuglyph;
610

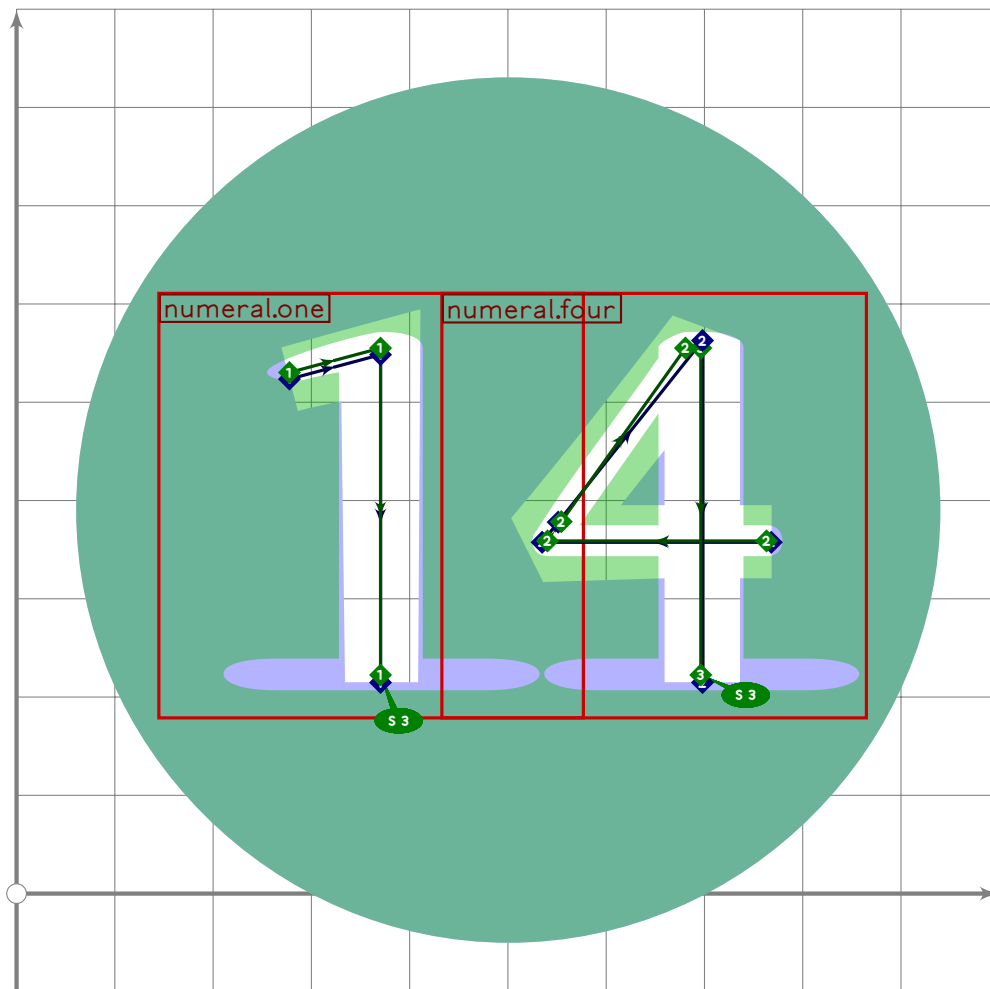
```



```

611 % 13
612 % BACKGROUND 25CF
613 begint Suglyph("uni24ED";237);
614   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
615   numeric x[],y[];
616   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.three);
617   i:=0; forever: exitif find_stroke(i)<1;
618     set_bosize(i,107); i:=i-1; endfor;
619   tsu_render;
620 endtsuglyph;
621

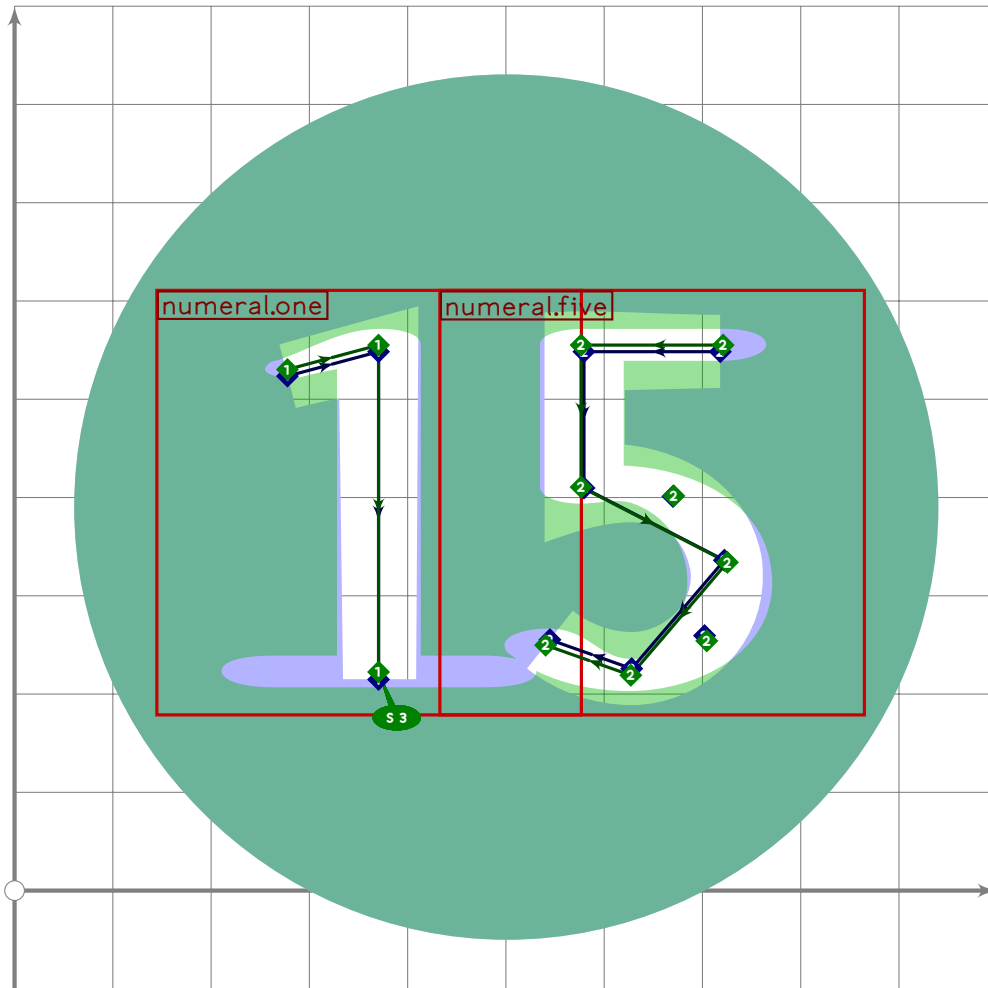
```



```

622 % 14
623 % BACKGROUND 25CF
624 begint Suglyph("uni24EE";238);
625   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
626   numeric x[],y[];
627   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.four);
628   i:=0; forever: exitif find_stroke(i)<1;
629     set_bosize(i,107); i:=i-1; endfor;
630   tsu_render;
631 endtsuglyph;
632

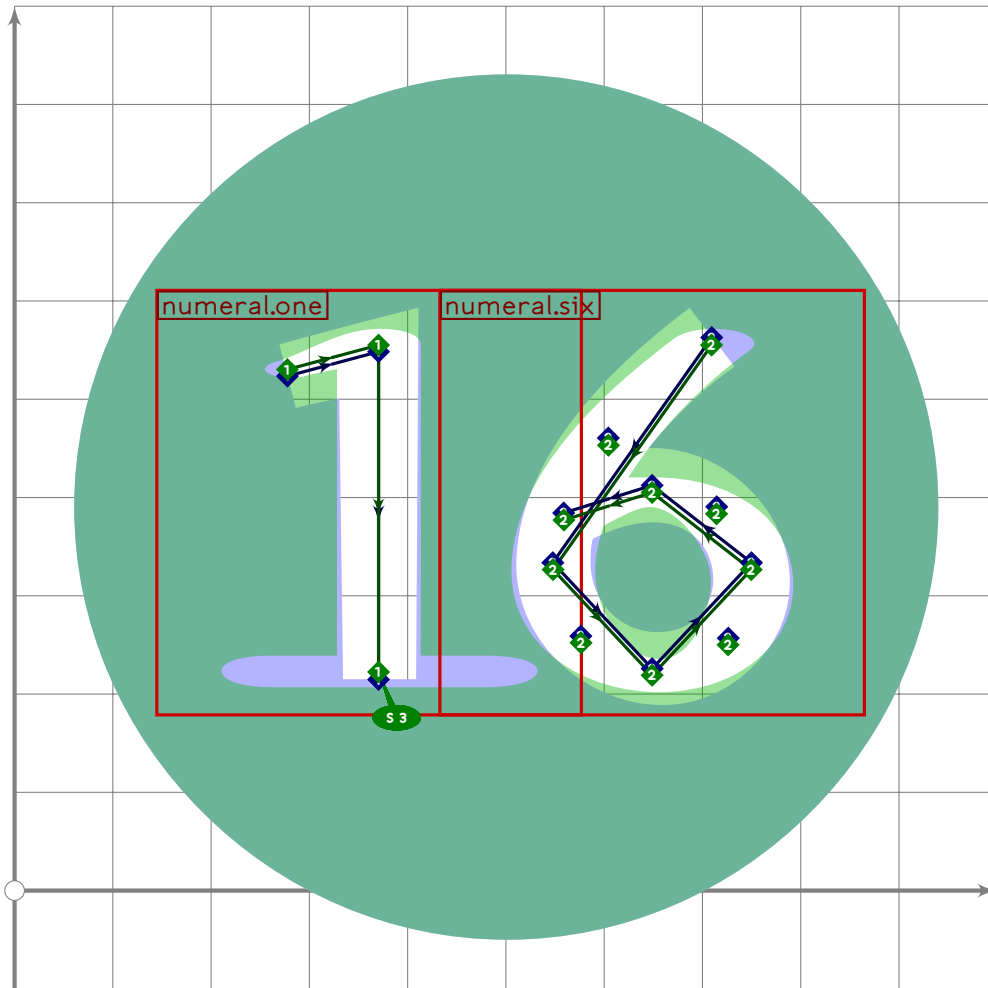
```



```

633 % 15
634 % BACKGROUND 25CF
635 begint Suglyph("uni24EF";239);
636   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
637   numeric x[],y[];
638   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.five);
639   i:=0; forever: exitif find_stroke(i)<1;
640     set_bosize(i,107); i:=i-1; endfor;
641   tsu_render;
642 endtsuglyph;
643

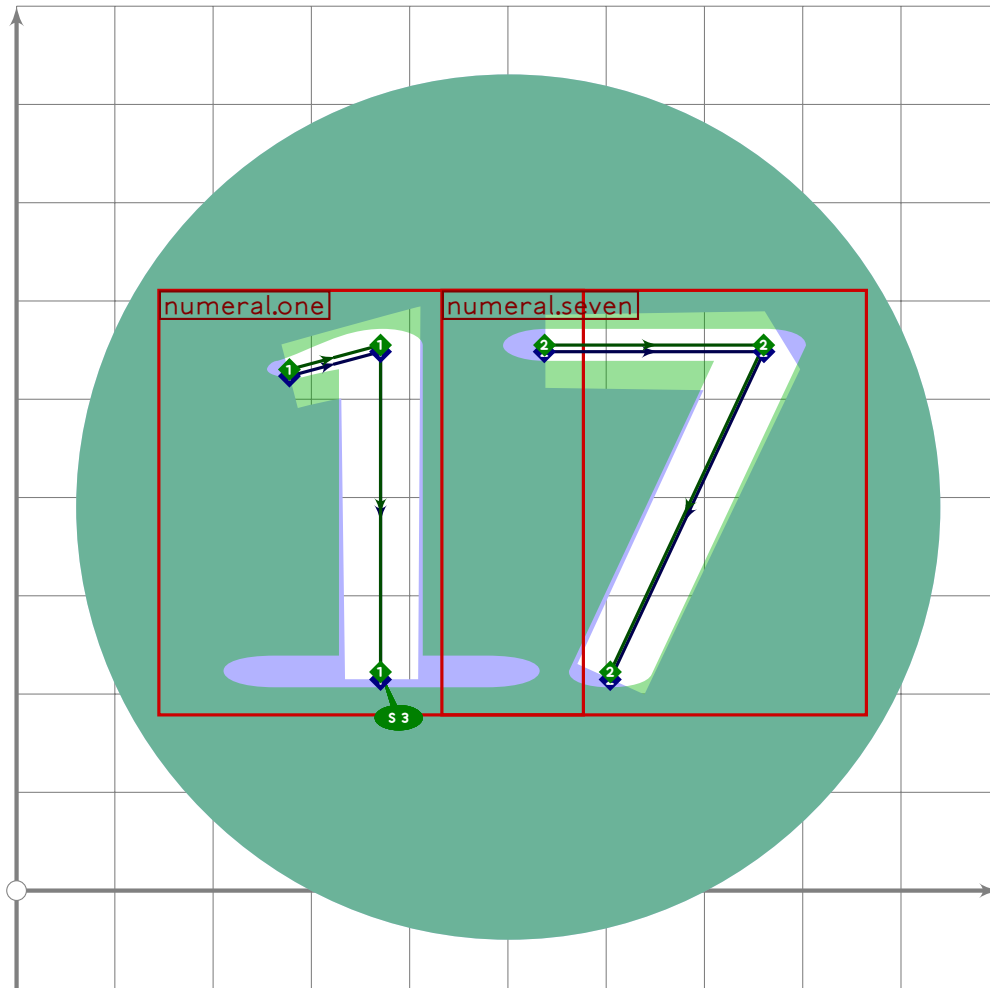
```



```

644 % 16
645 % BACKGROUND 25CF
646 begint Suglyph("uni24F0";240);
647   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
648   numeric x[],y[];
649   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.six);
650   i:=0; forever: exitif find_stroke(i)<1;
651     set_bosize(i,107); i:=i-1; endfor;
652   tsu_render;
653 endtsuglyph;
654

```

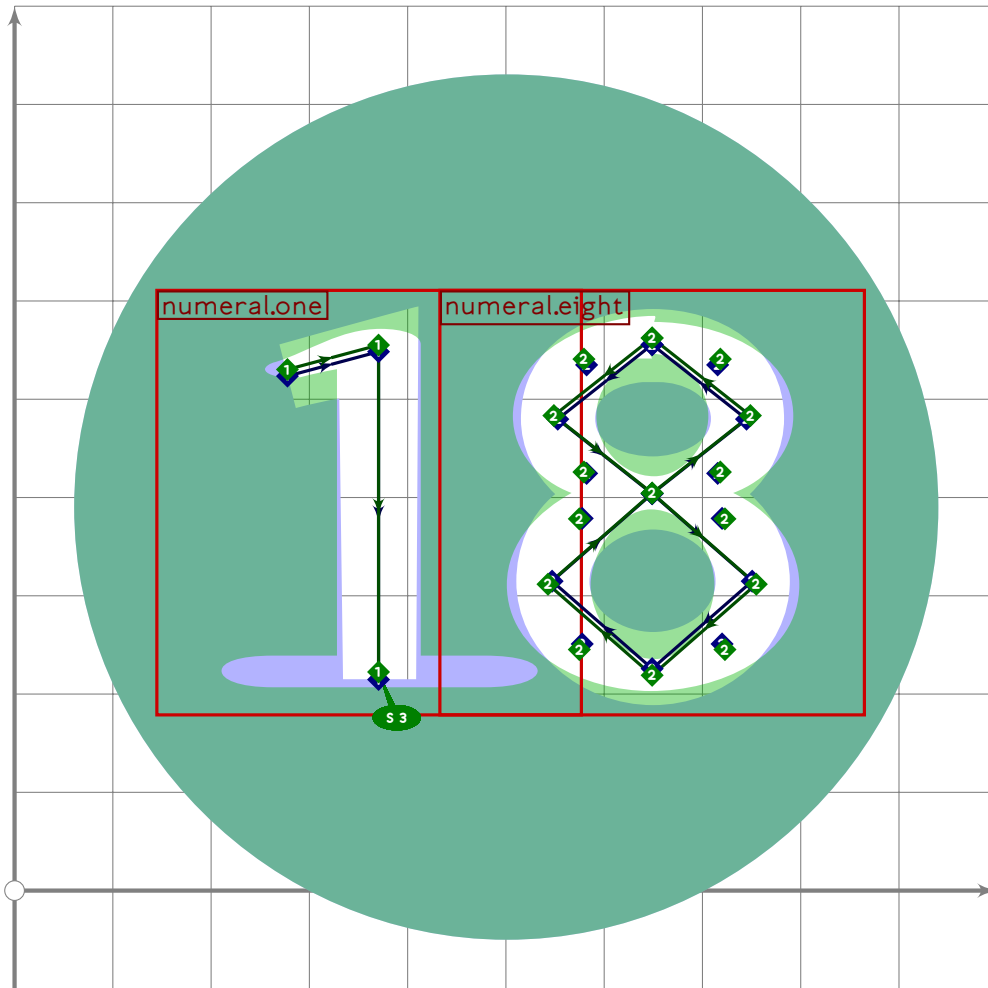


```

655 % 17
656 % BACKGROUND 25CF
657 begint Suglyph("uni24F1",241);
658   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
659   numeric x[],y[];
660   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.seven);
661   i:=0; forever: exitif find_stroke(i)<1;
662     set_bosize(i,107); i:=i-1; endfor;
663   tsu_render;
664 endtsuglyph;
665

```

U+24F2  
tsuku.uni24F2



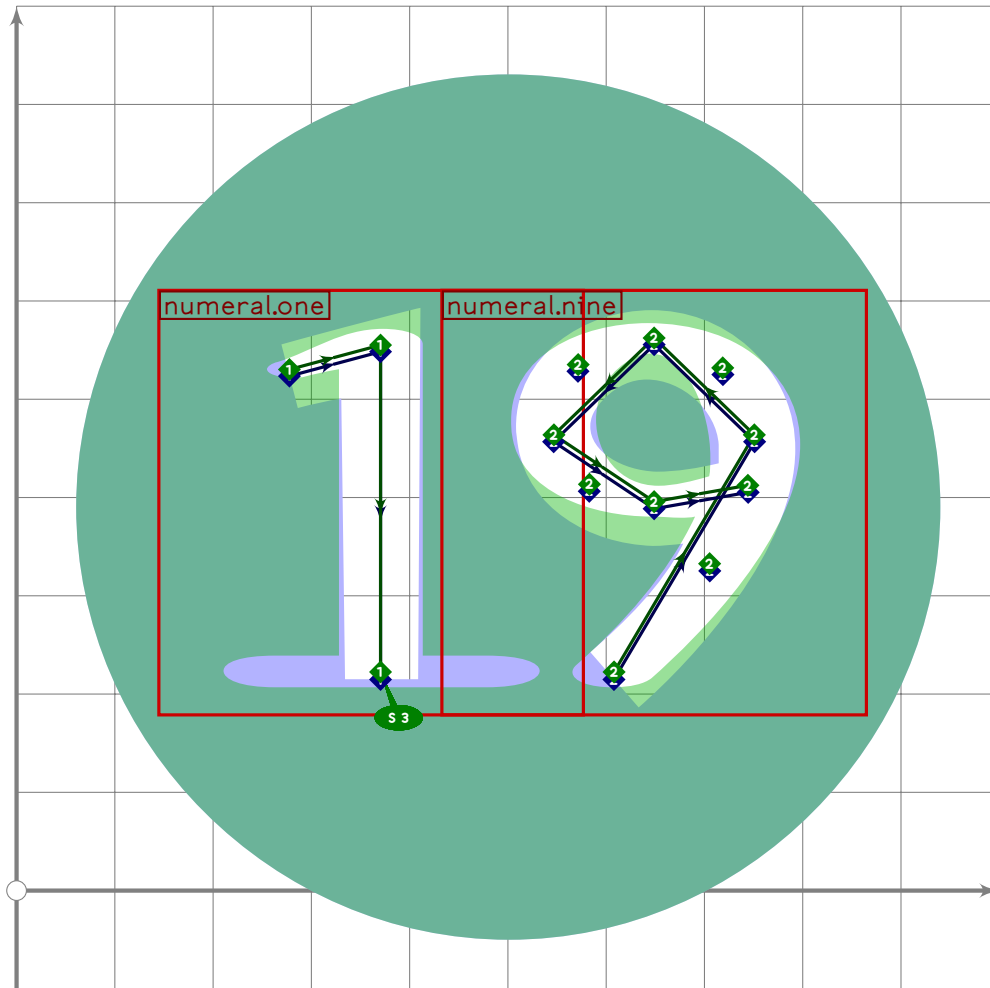
24

```

666 % 18
667 % BACKGROUND 25CF
668 begint Suglyph("uni24F2";242);
669   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
670   numeric x[],y[];
671   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.eight);
672   i:=0; forever: exitif find_stroke(i)<1;
673     set_bosize(i,107); i:=i-1; endfor;
674   tsu_render;
675 endtsuglyph;
676

```



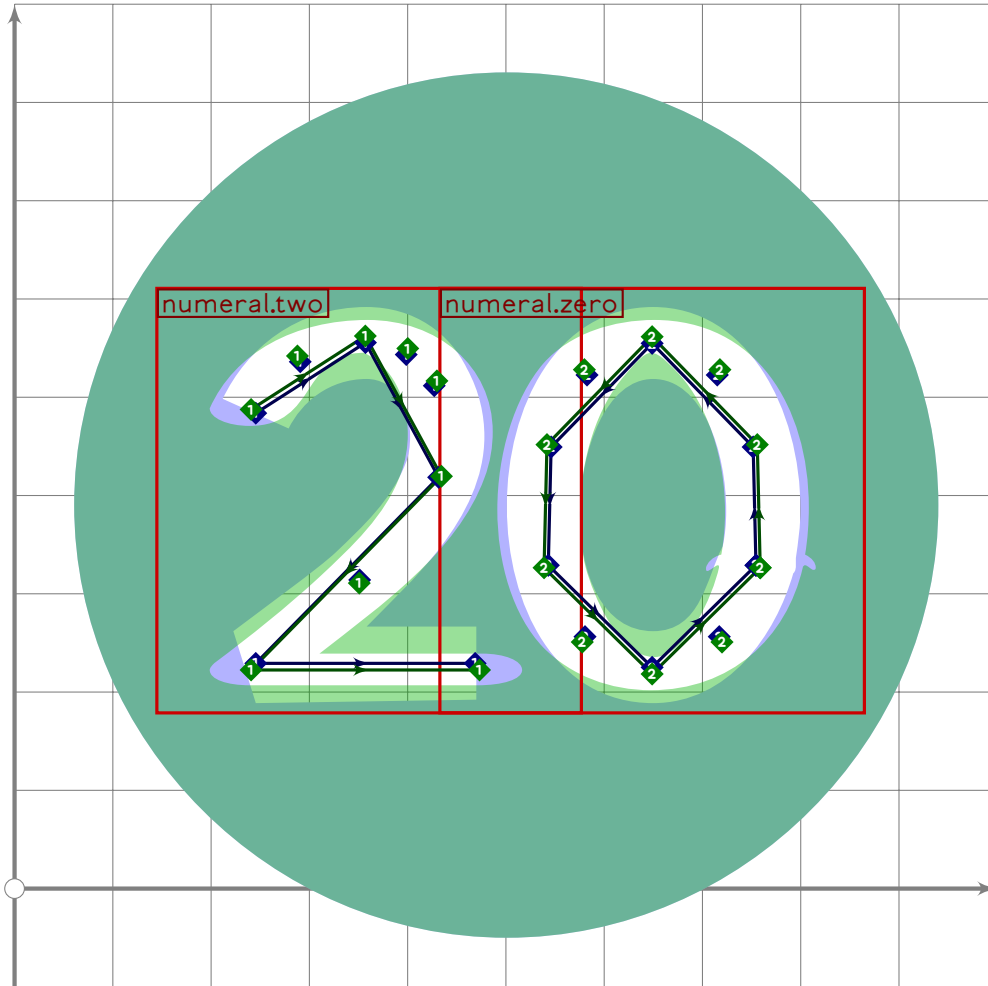


```

677 % 19
678 % BACKGROUND 25CF
679 begint Suglyph("uni24F3",243);
680   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
681   numeric x[],y[];
682   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.nine);
683   i:=0; forever: exitif find_stroke(i)<1;
684     set_bosize(i,107); i:=i-1; endfor;
685   tsu_render;
686 endtsuglyph;
687

```

U+24F4  
tsuku.uni24F4



24

```

688 % 20
689 % BACKGROUND 25CF
690 begintsuglyph("uni24F4",244);
691   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.two);
692   numeric x[],y[];
693   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.zero);
694   i:=0; forever: exitif find_stroke(i)<1;
695     set_bosize(i,107); i:=i-1; endfor;
696   tsu_render;
697 endtsuglyph;
698
699
700

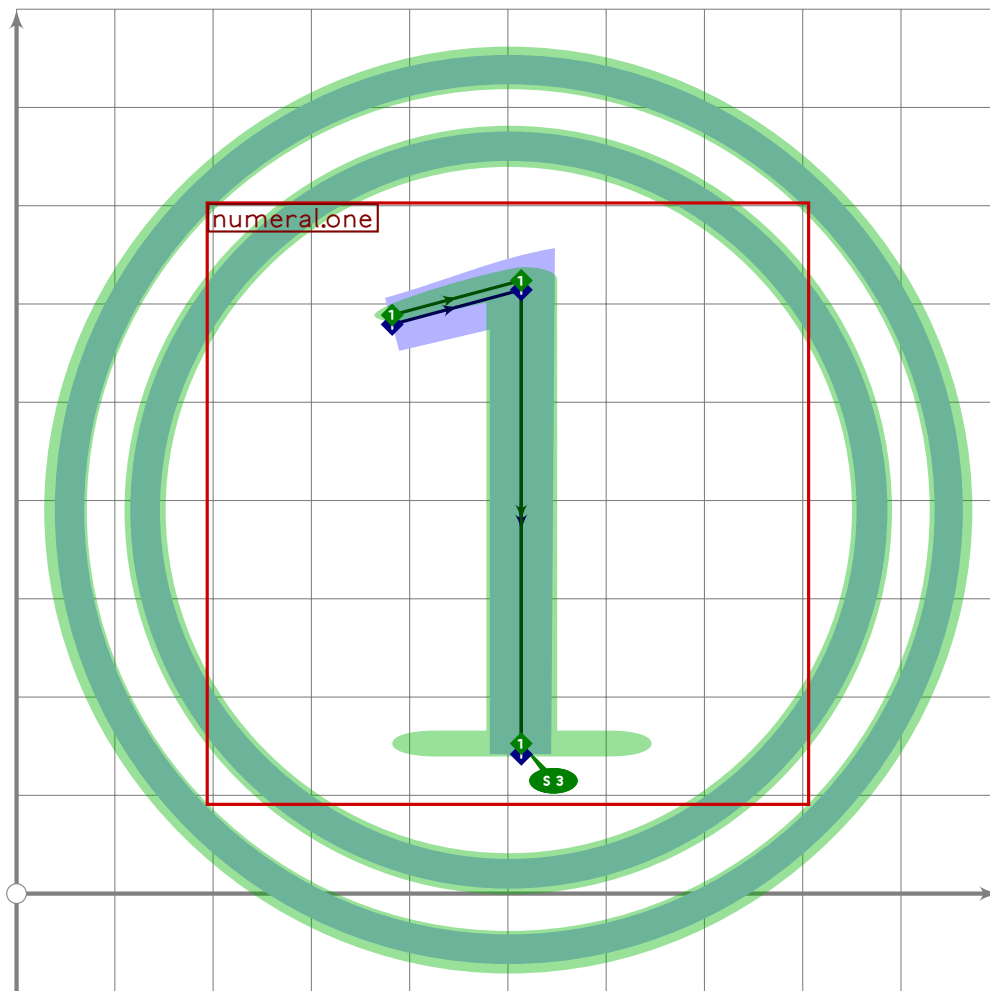
```

## Doubly Circled Numerals

```

701 % DOUBLY CIRCLED NUMERALS
702

```

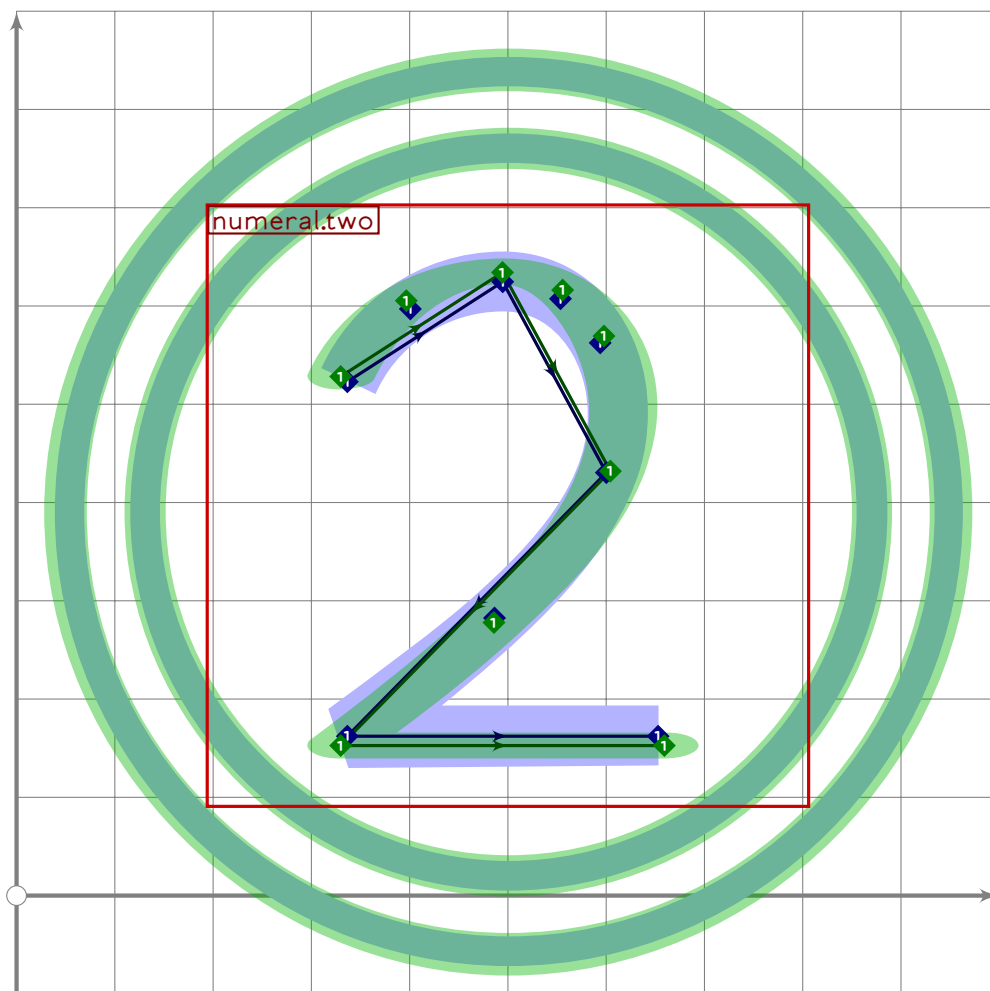


```

703 % 1
704 begint Suglyph("uni24F5",245);
705   circle.double;
706   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.one);
707   tsu_render;
708 endtsuglyph;
709

```

U+24F6  
tsuku.uni24F6

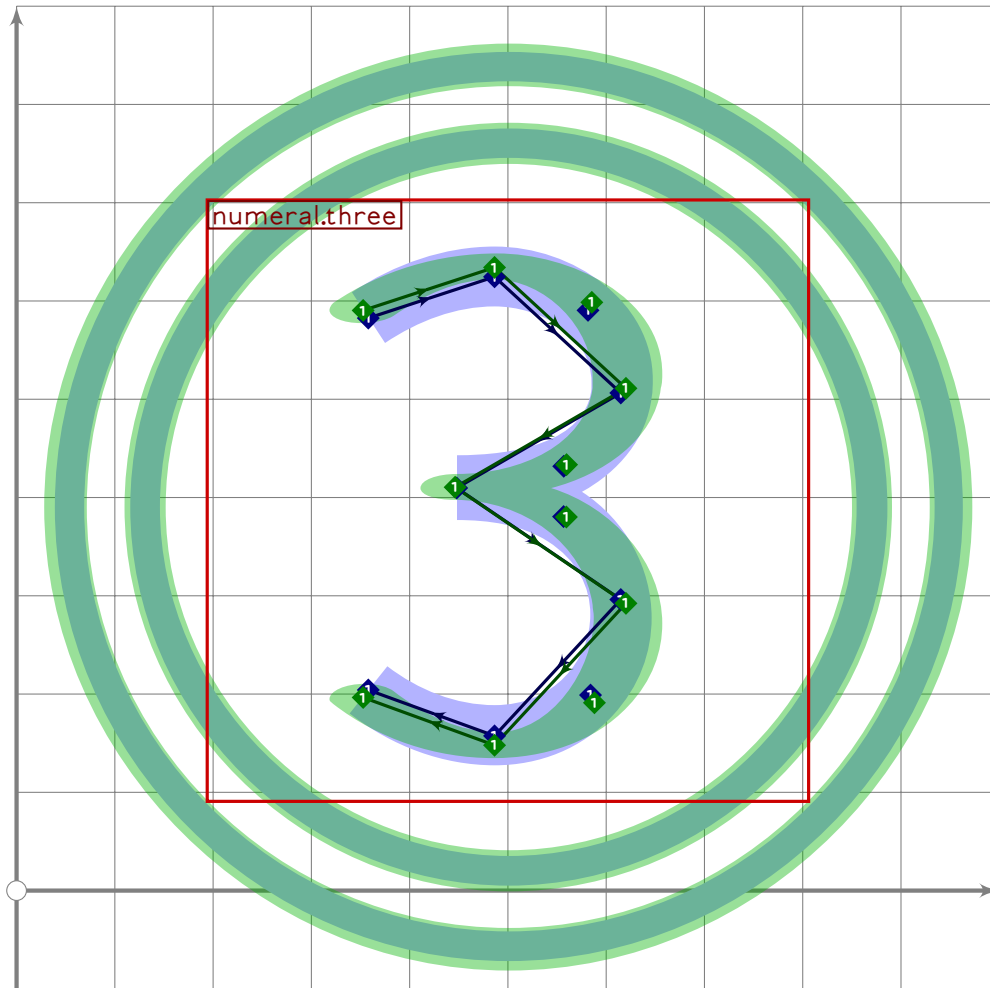


24

```

710 % 2
711 begintsuglyph("uni24F6";246);
712   circle.double;
713   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.two);
714   tsu_render;
715 endtsuglyph;
716

```

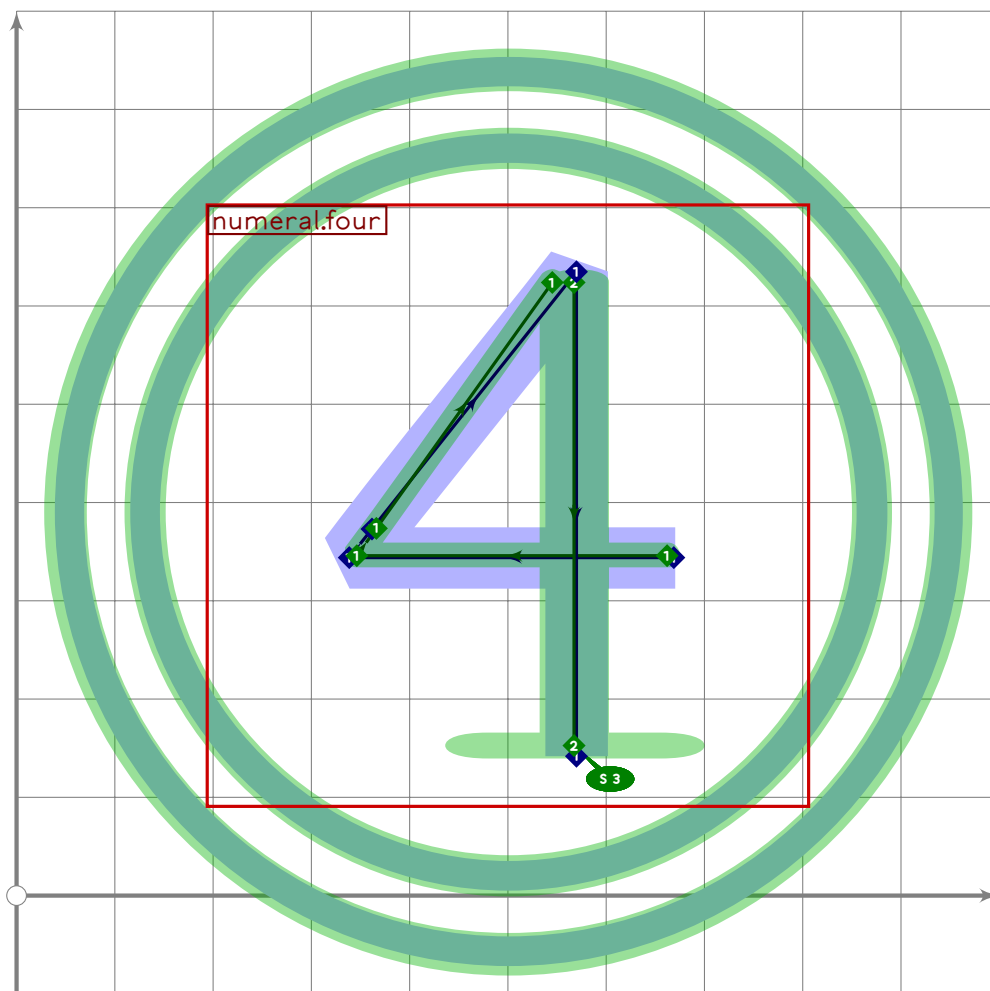


```

717 % 3
718 begintsuglyph("uni24F7";247);
719   circle.double;
720   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.three);
721   tsu_render;
722 endtsuglyph;
723

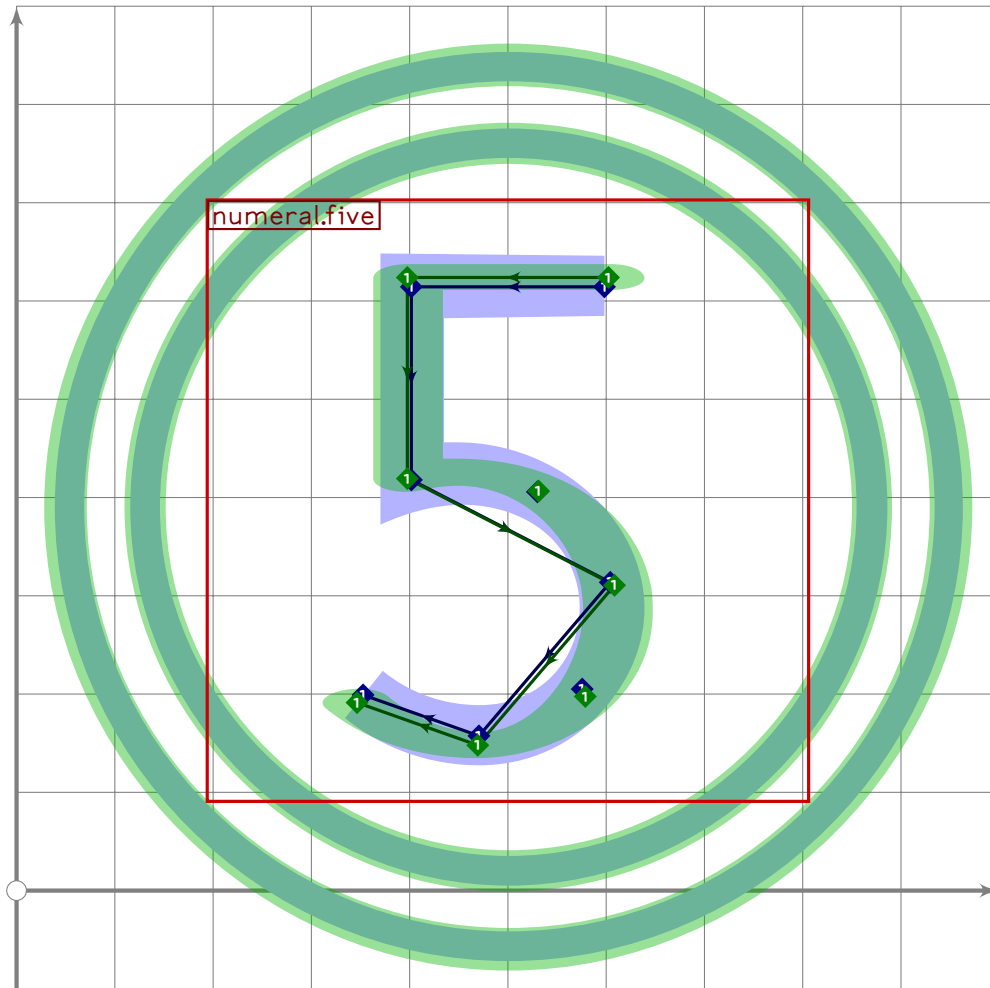
```

U+24F8  
tsuku.uni24F8



24

```
724 % 4
725 begintsuglyph("uni24F8",248);
726   circle.double;
727   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.four);
728   tsu_render;
729 endtsuglyph;
730
```

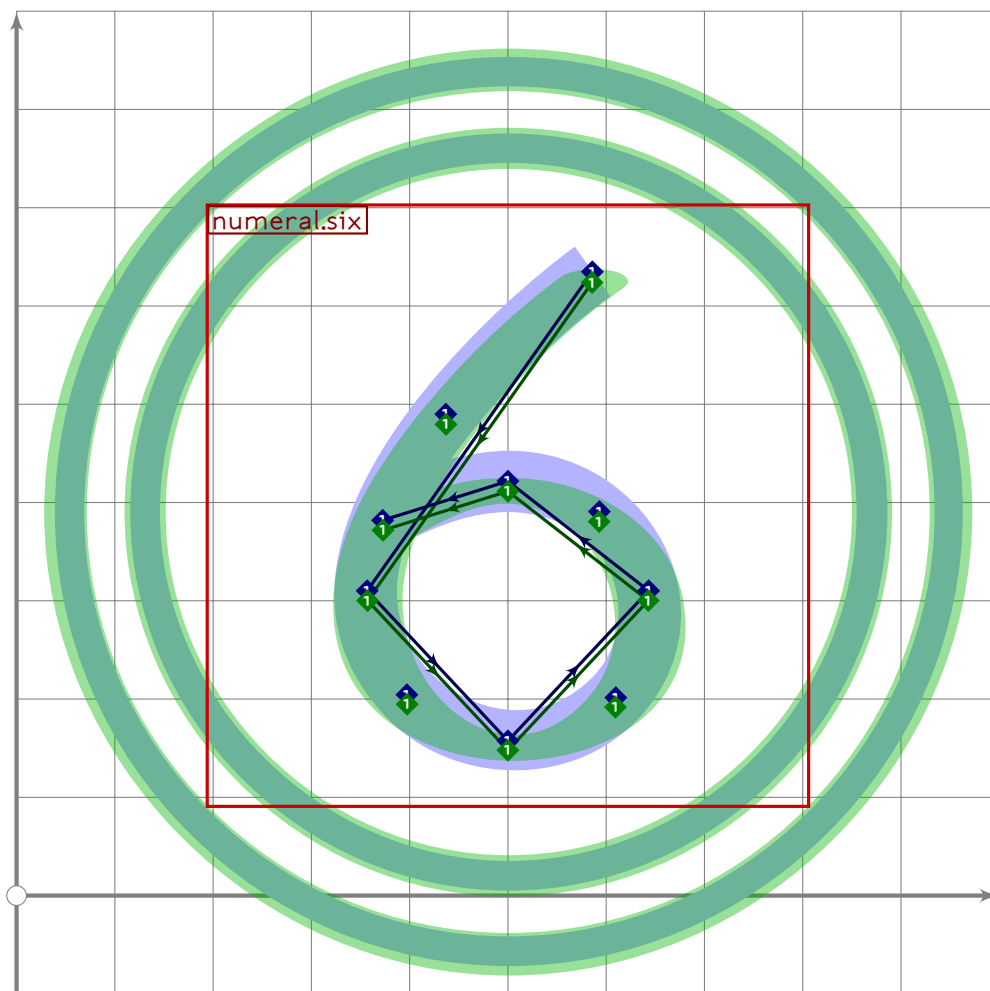


```

731 % 5
732 begintsuglyph("uni24F9",249);
733   circle.double;
734   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.five);
735   tsu_render;
736 endtsuglyph;
737

```

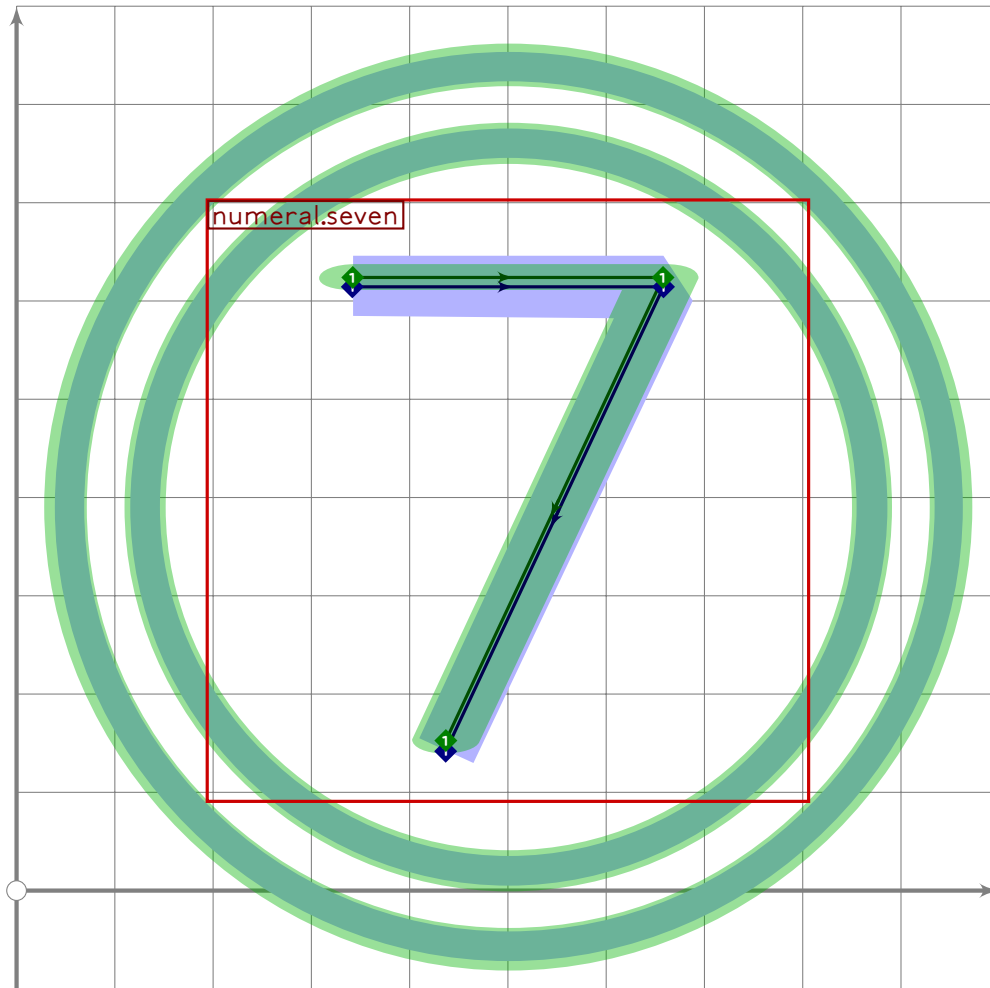
U+24FA  
tsuku.uni24FA



24

```
738 % 6
739 begintsuglyph("uni24FA";250);
740   circle.double;
741   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.six);
742   tsu_render;
743 endtsuglyph;
744
```



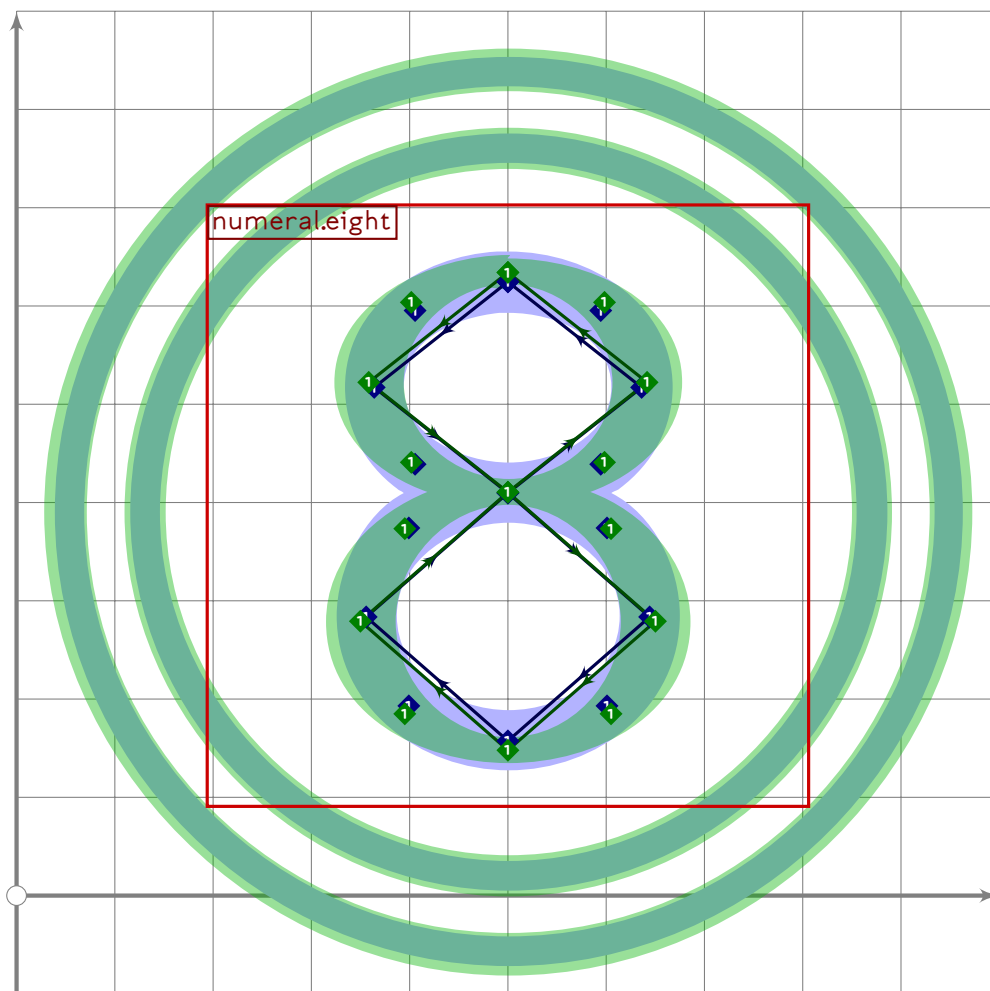


```

745 % 7
746 begintsuglyph("uni24FB",251);
747   circle.double;
748   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.seven);
749   tsu_render;
750 endtsuglyph;
751

```

U+24FC  
tsuku.uni24FC

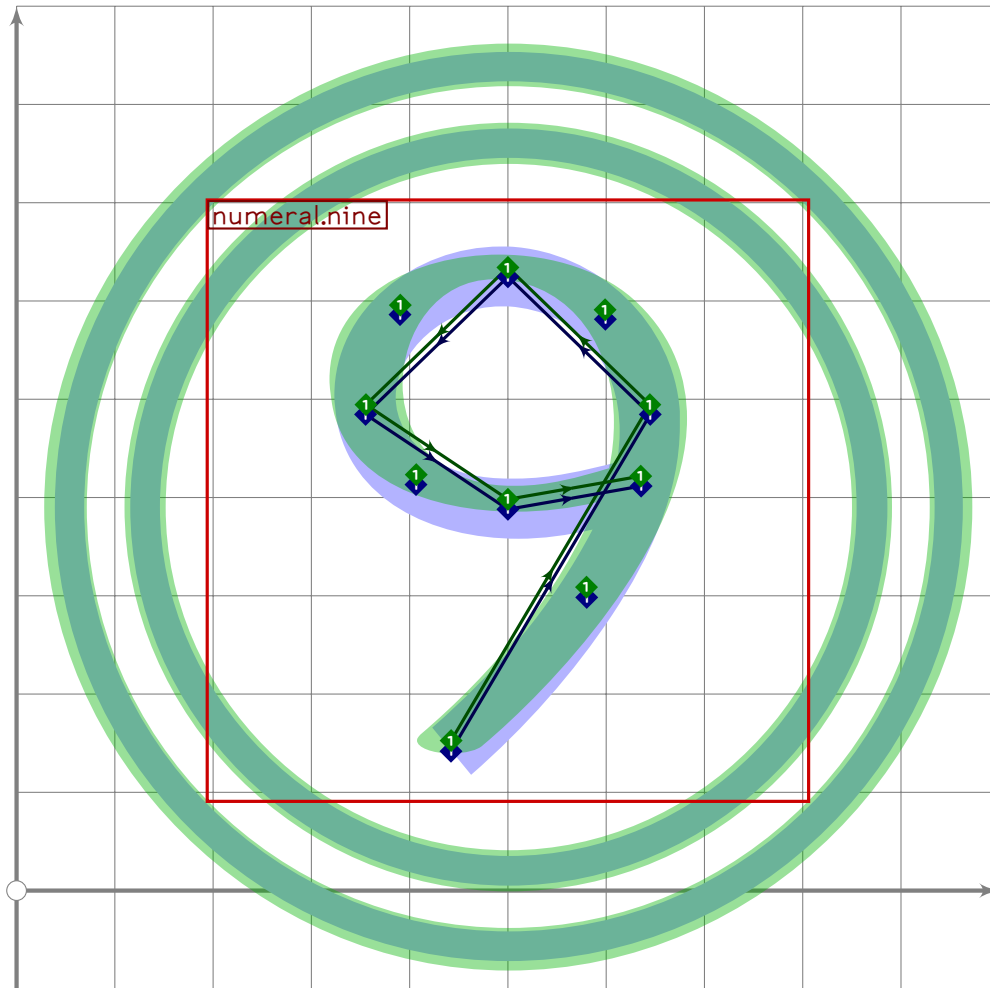


24

```

752 % 8
753 begintsuglyph("uni24FC";252);
754   circle.double;
755   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.eight);
756   tsu_render;
757 endtsuglyph;
758

```

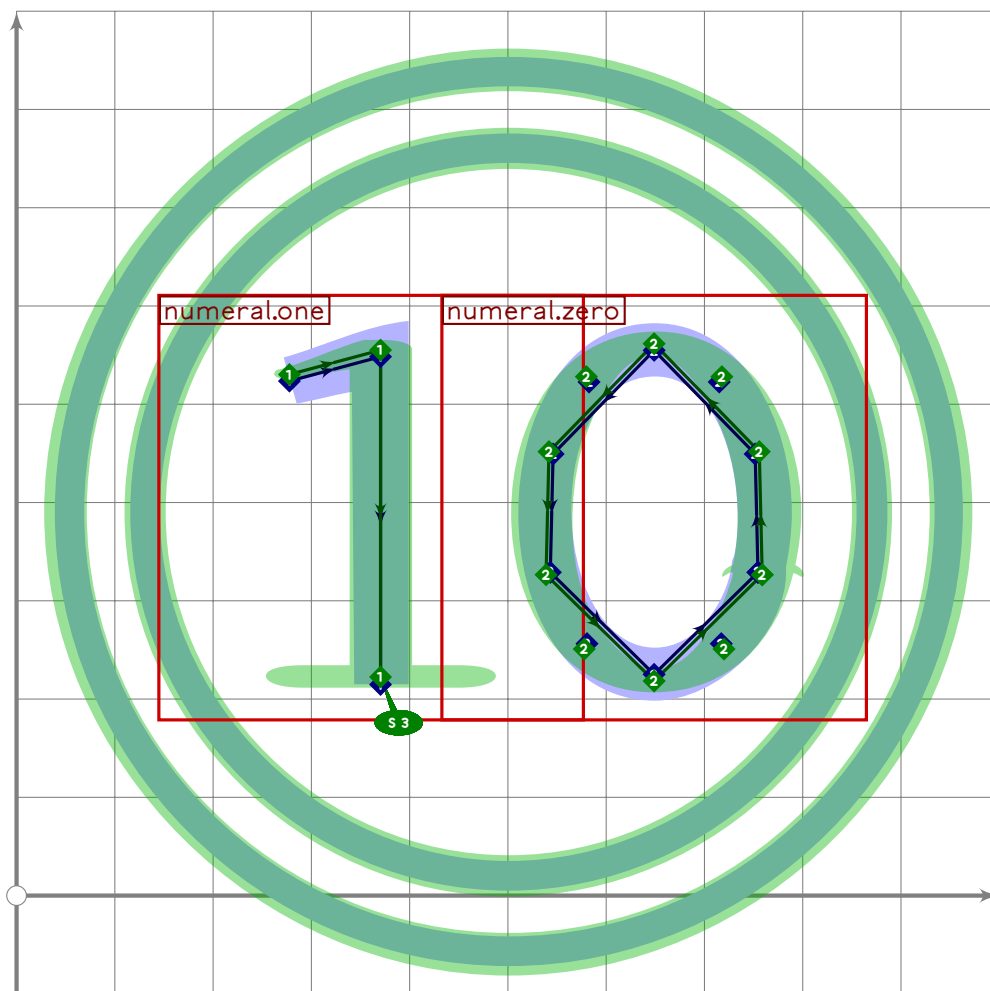


```

759 % 9
760 begintsuglyph("uni24FD";253);
761   circle.double;
762   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.nine);
763   tsu_render;
764 endtsuglyph;
765

```

U+24FE  
tsuku.uni24FE

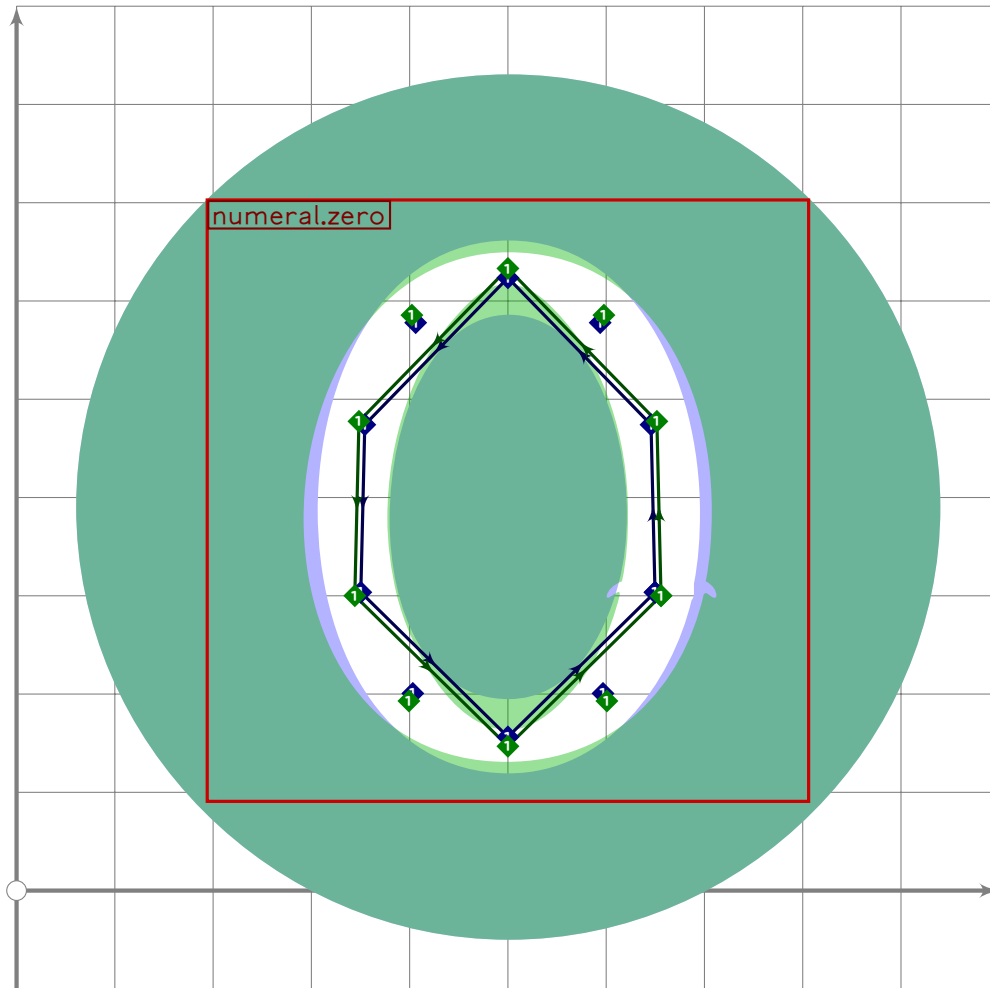


24

```
766 % 10
767 begintsuglyph("uni24FE";254);
768   circle.double;
769   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
770   numeric x[],y[];
771   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.zero);
772   tsu_render;
773 endtsuglyph;
774
775
776
```

## One More Inverted Circled Numeral

```
777 % ONE MORE INVERTED CIRCLED NUMERAL
778
```



```

779 % 9
780 % BACKGROUND 25CF
781 begint Suglyph("uni24FF";255);
782   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.zero);
783   i:=0; forever: exitif find_stroke(i)<1;
784     set_bosize(i,107); i:=i-1; endfor;
785   tsu_render;
786 endtsuglyph;
787
788
789
790 endfont;
791
792

```

## tsuku-25.mp

```
1 %
2 % Unicode page 25 (Geometric Shapes) for Tsukurimashou
3 % Copyright (C) 2011, 2012 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---

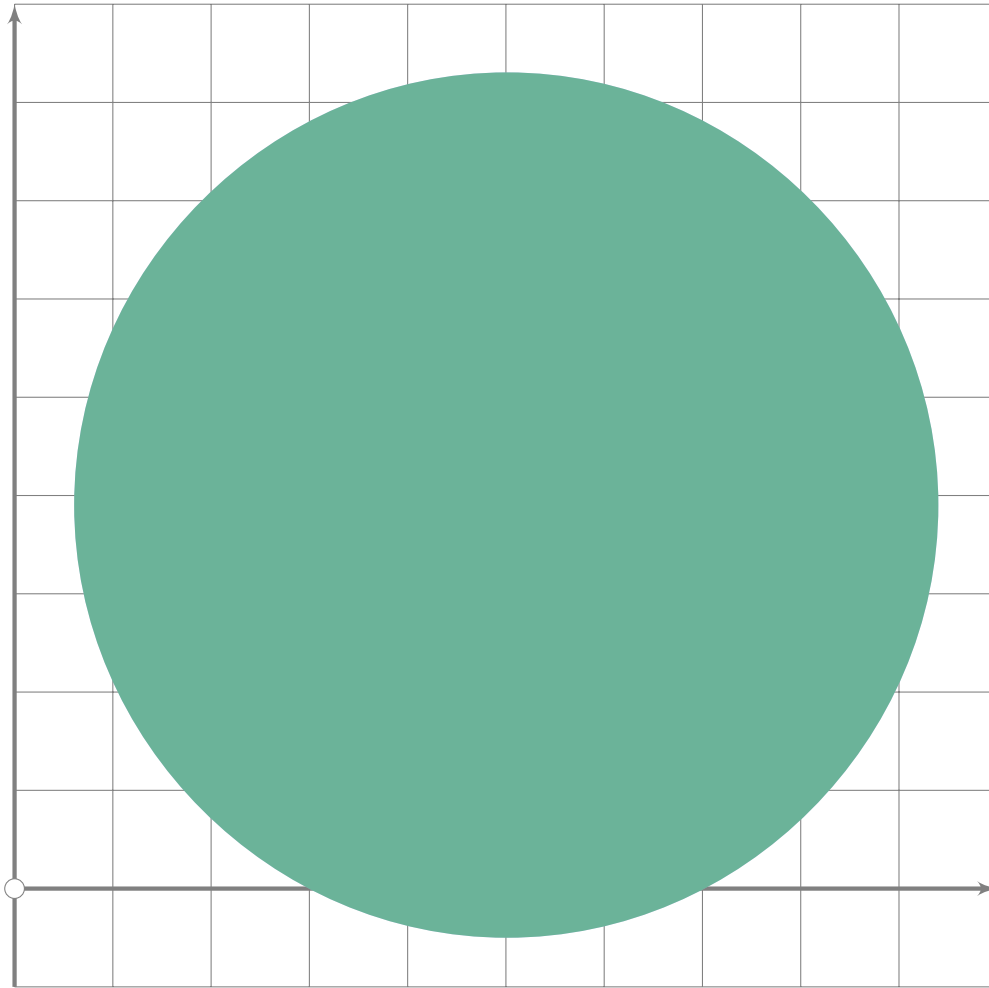

32
33 beginfont
34
35 % AUTODEPS
36
37 do_late_includes;
38
39 

---


40
```

## Geometric Shapes

```
41 % GEOMETRIC SHAPES
42
```



```
43 % black circle - used as background for inverted dingbats
44 begintsuglyph("uni25CF";207);
45   Fill fullcircle scaled 880 shifted centre_pt;
46 endtsuglyph;
47
48 _____
49
50 endfont;
51
52 _____
```

# tsuku-26.mp

```
1 %
2 % Unicode page 26 (Misc. Symbols) for Tsukurimashou
3 % Copyright (C) 2011, 2012 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---


32
33 beginfont
34
35 input latin-intro.mp;
36
37 % AUTODEPS
38 input iching.mp;
39
40 do_late_includes;
41
42 

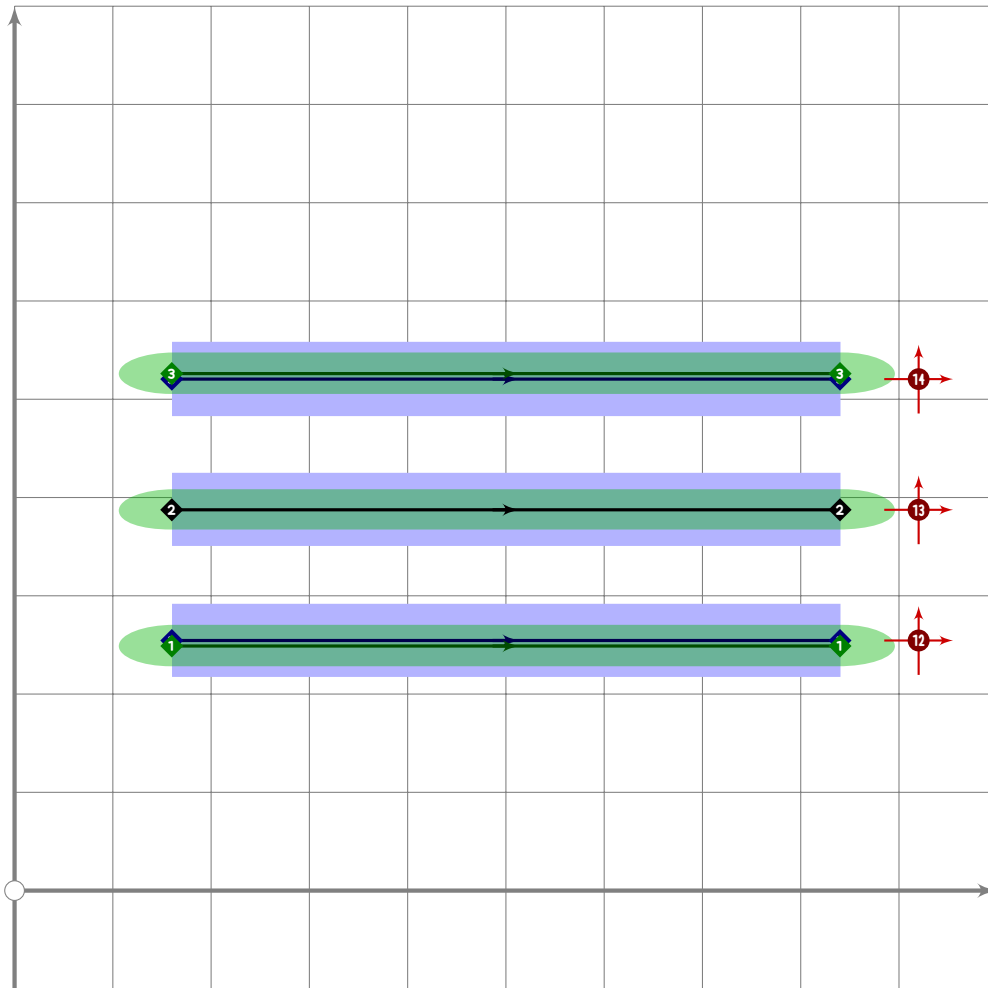
---


43
```

## I Ching

44 % I CHING



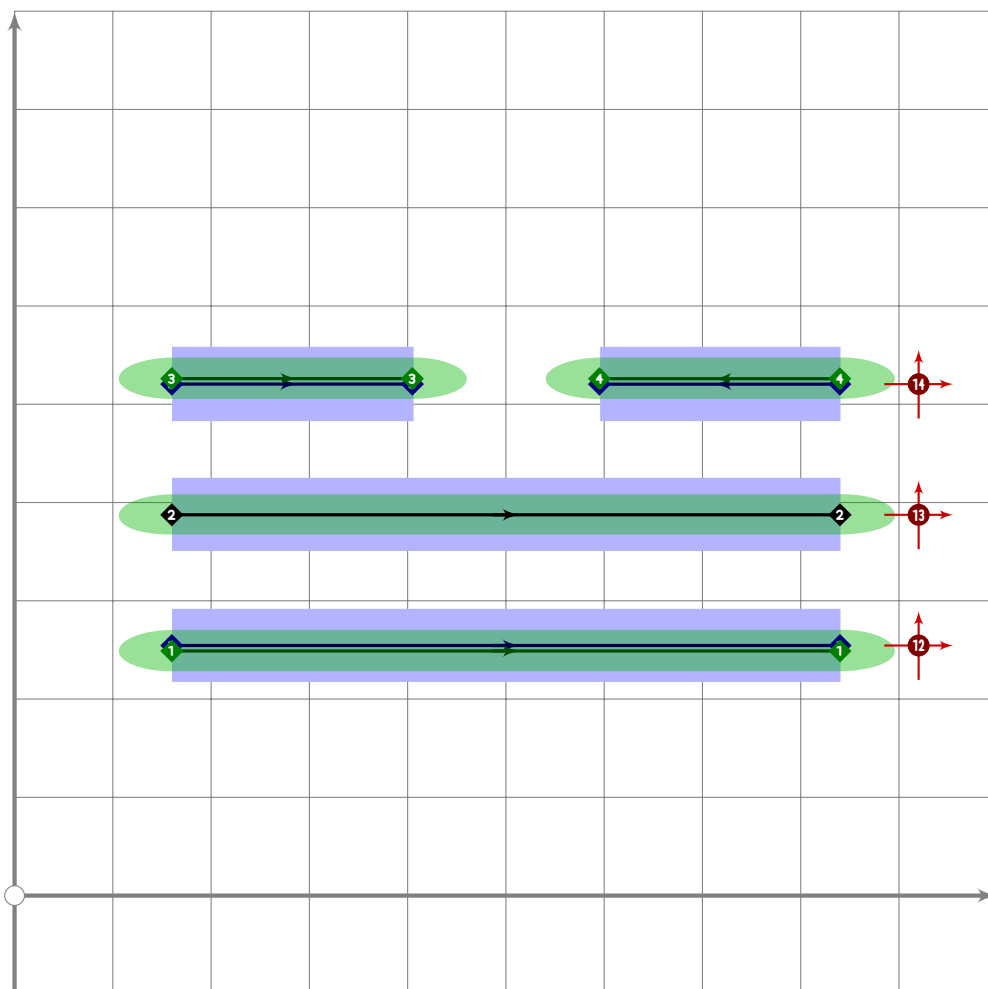


```

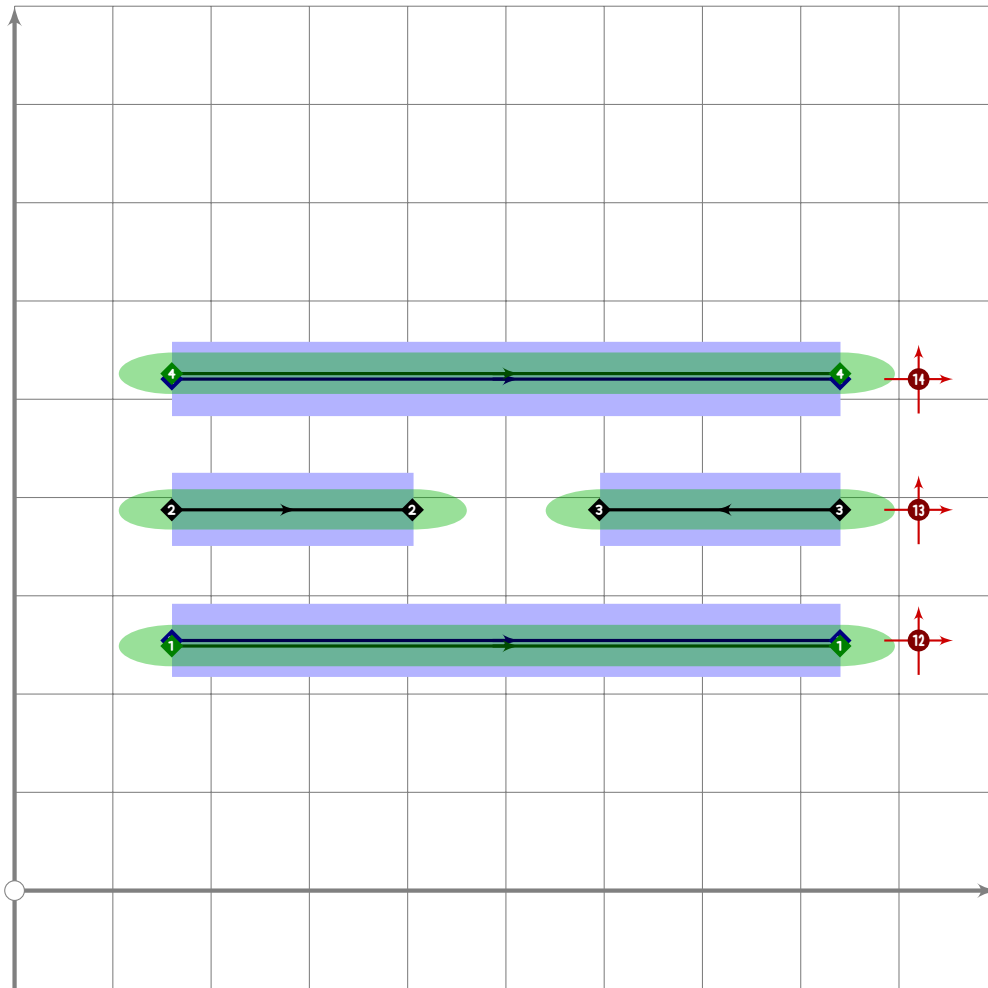
45
46 begintsuglyph("ichingtri1",48);
47   iching.line(1,3,1);
48   iching.line(2,3,1);
49   iching.line(3,3,1);
50   tsu_render;
51 endsuglyph;

```

U+2631  
tsuku.ichingtri2



```
52
53 begint Suglyph("ichingtri2";49);
54   iching.line(1,3,1);
55   iching.line(2,3,1);
56   iching.line(3,3,0);
57   tsu_render;
58 endtsuglyph;
```

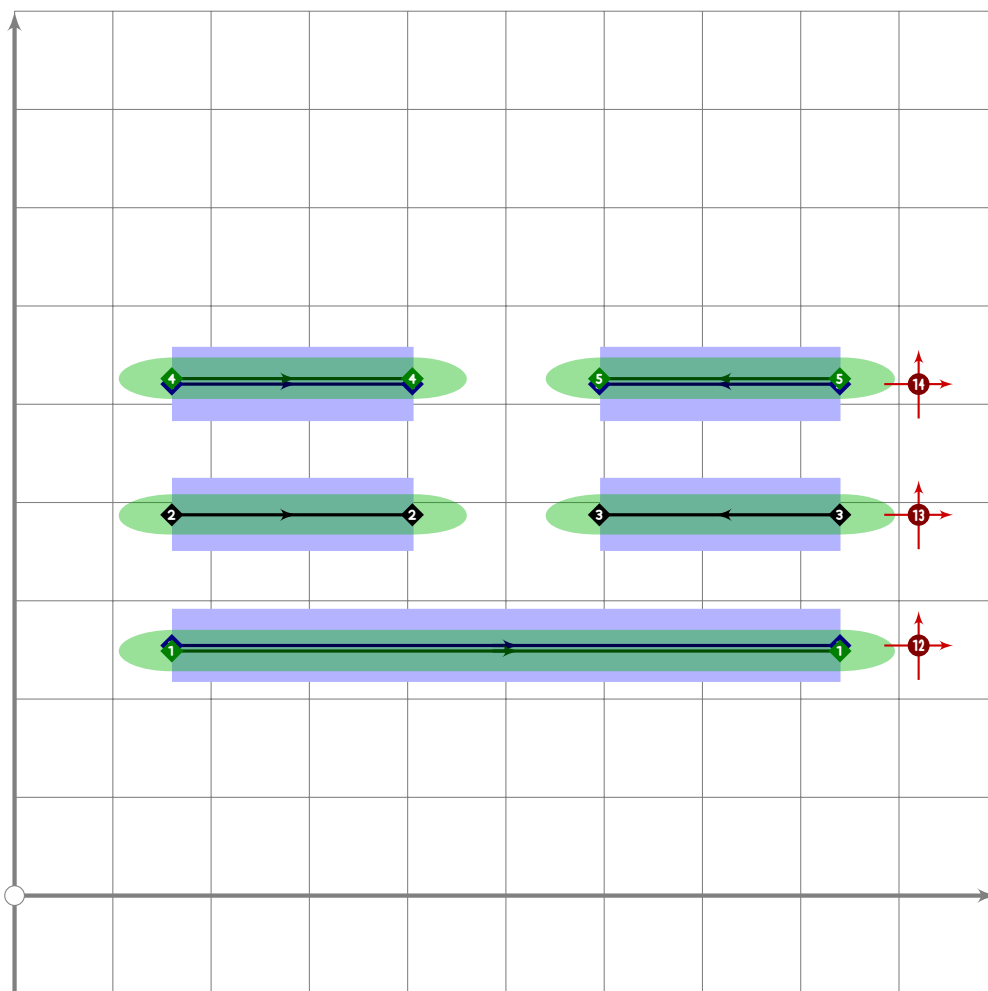


```

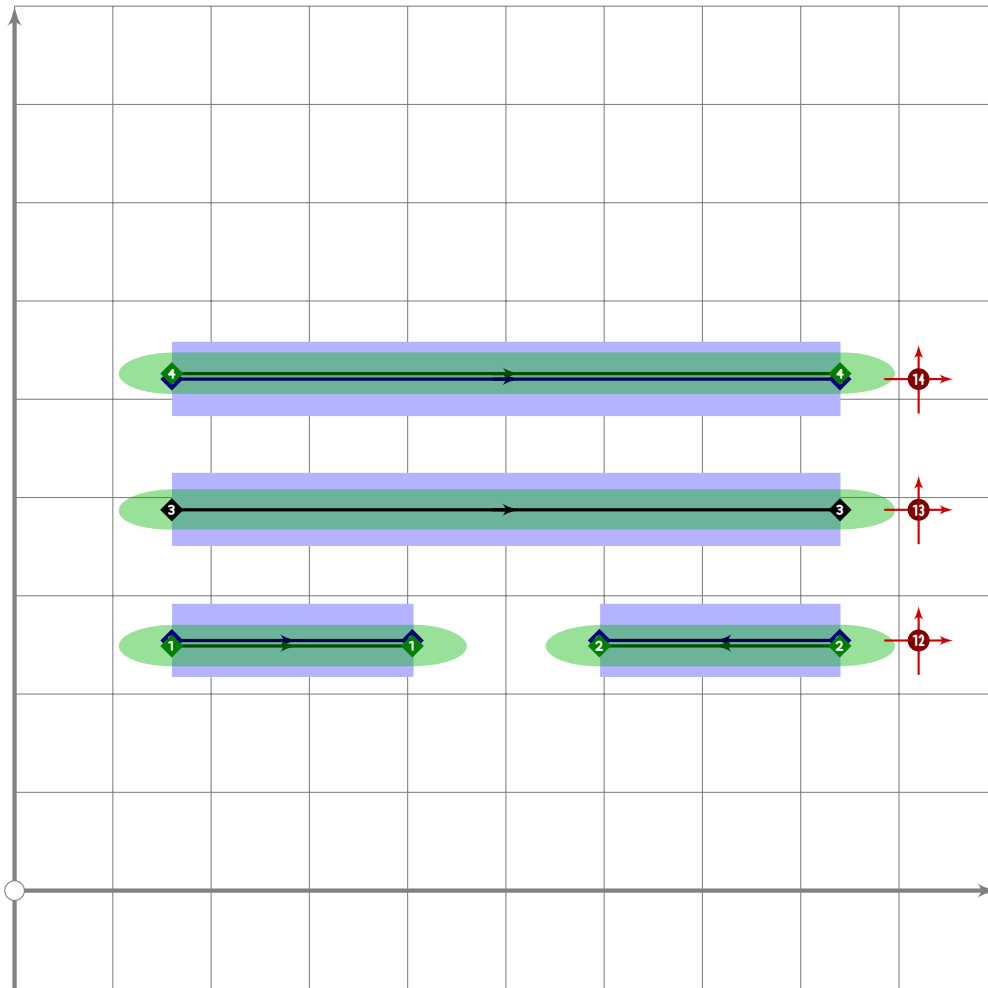
59
60 begint Suglyph("ichingtri3",50);
61   iching.line(1,3,1);
62   iching.line(2,3,0);
63   iching.line(3,3,1);
64   tsu_render;
65 endtsuglyph;

```

U+2633  
tsuku.ichingtri4



```
66
67 begintsuglyph("ichingtri4",51);
68   iching.line(1,3,1);
69   iching.line(2,3,0);
70   iching.line(3,3,0);
71   tsu_render;
72 endsuglyph;
```

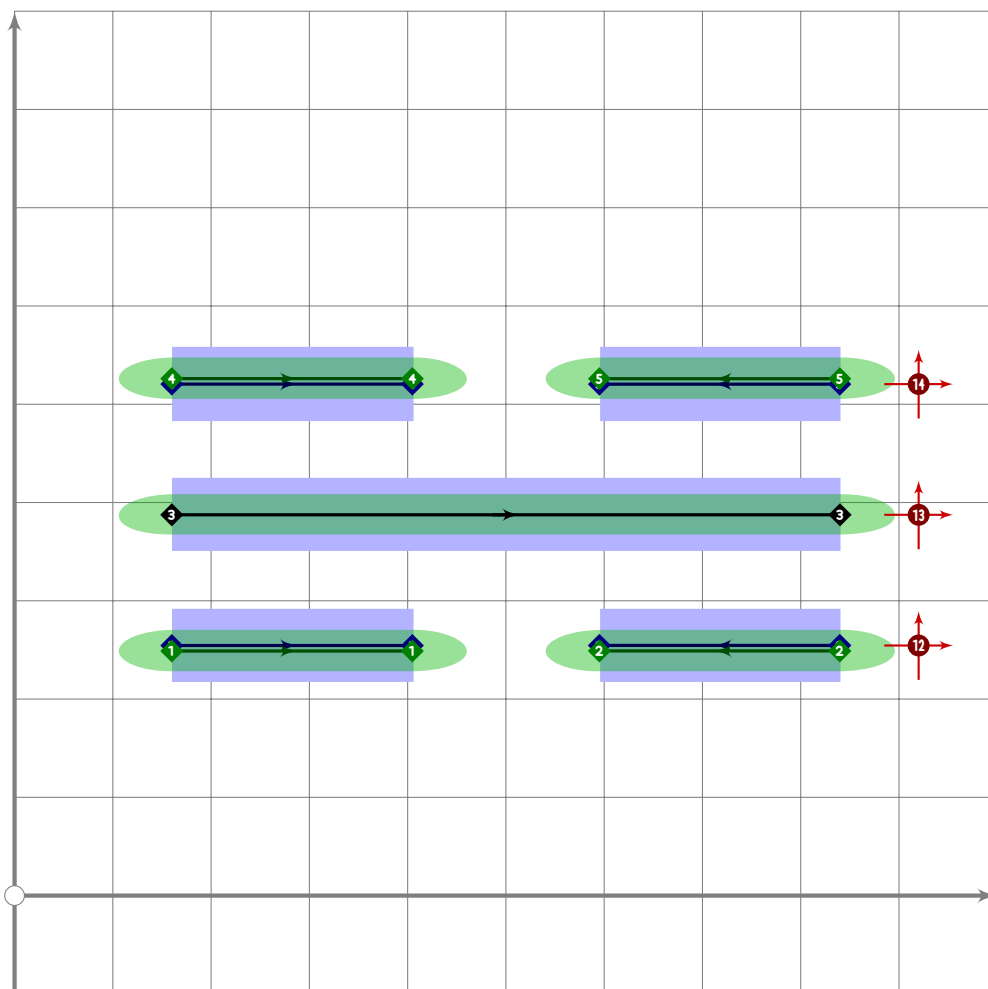


```

73
74 begint Suglyph("ichingtri5",52);
75   iching.line(1,3,0);
76   iching.line(2,3,1);
77   iching.line(3,3,1);
78   tsu_render;
79 endtsuglyph;

```

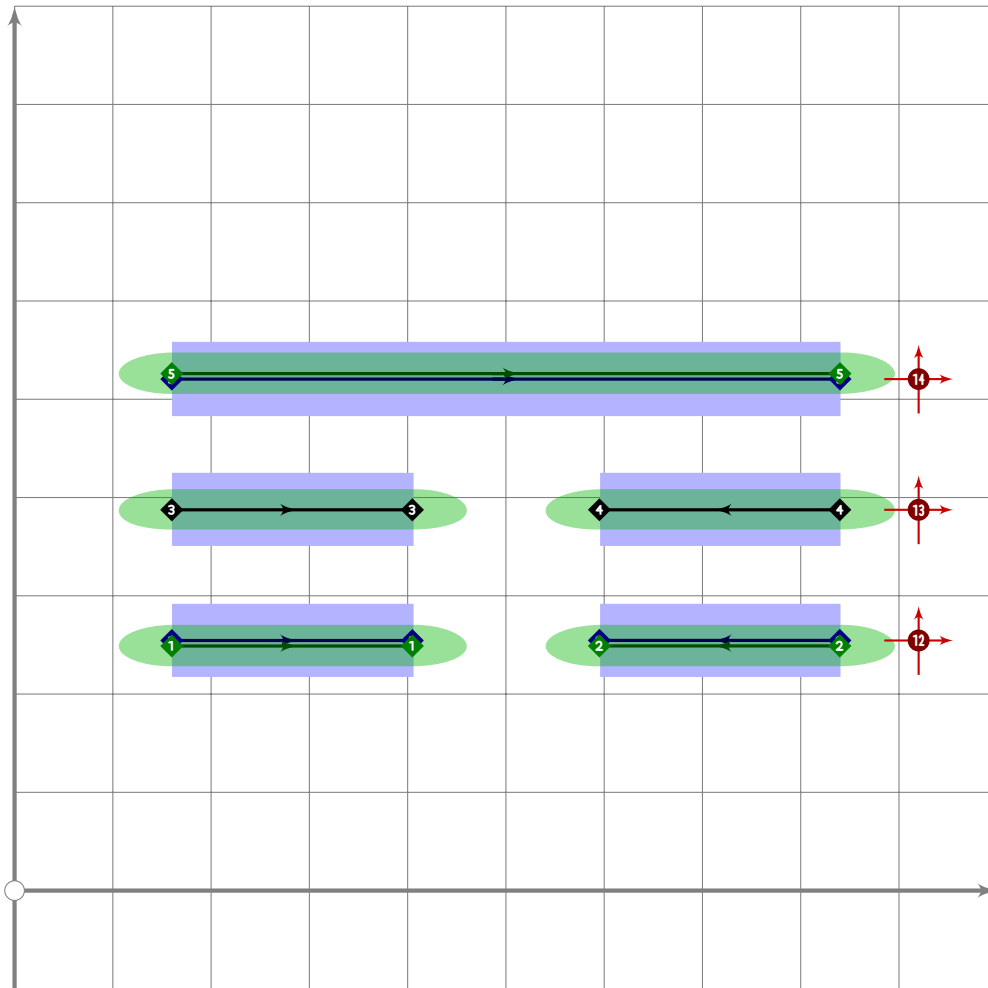
U+2635  
tsuku.ichingtri6



```

80
81 begintsuglyph("ichingtri6",53);
82   iching.line(1,3,0);
83   iching.line(2,3,1);
84   iching.line(3,3,0);
85   tsu_render;
86 endsuglyph;

```

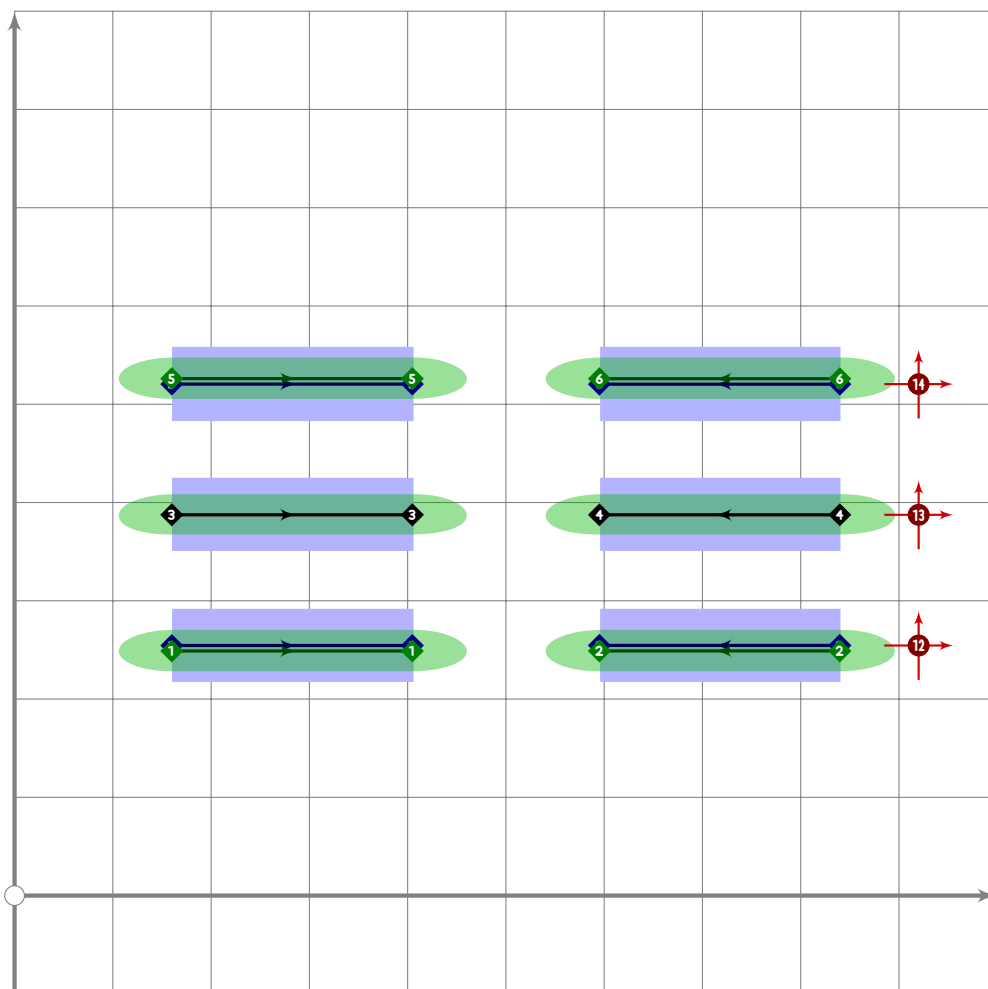


```

87
88 begint Suglyph("ichingtri7",54);
89   iching.line(1,3,0);
90   iching.line(2,3,0);
91   iching.line(3,3,1);
92   tsu_render;
93 endtsuglyph;

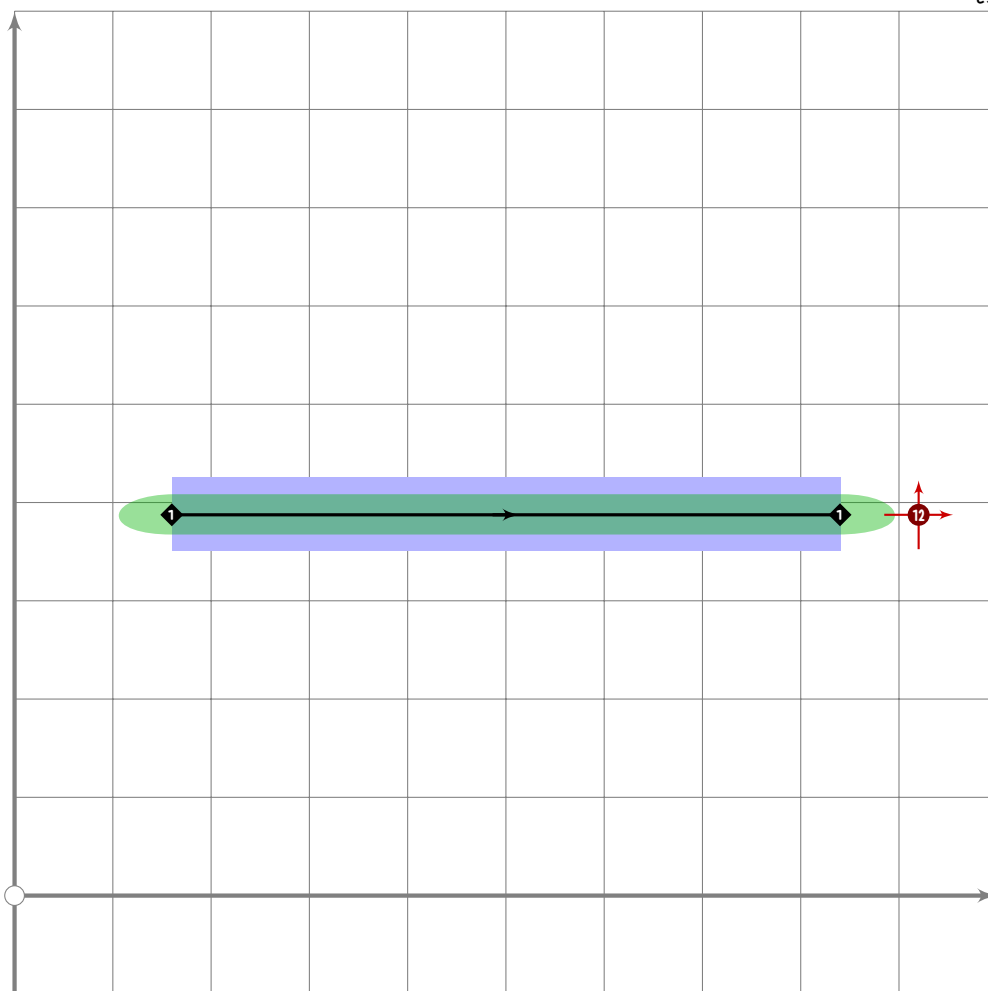
```

U+2637  
tsuku.ichingtri8



```
94  
95 begintsuglyph("ichingtri8",55);  
96   iching.line(1,3,0);  
97   iching.line(2,3,0);  
98   iching.line(3,3,0);  
99   tsu_render;  
100 endsuglyph;
```



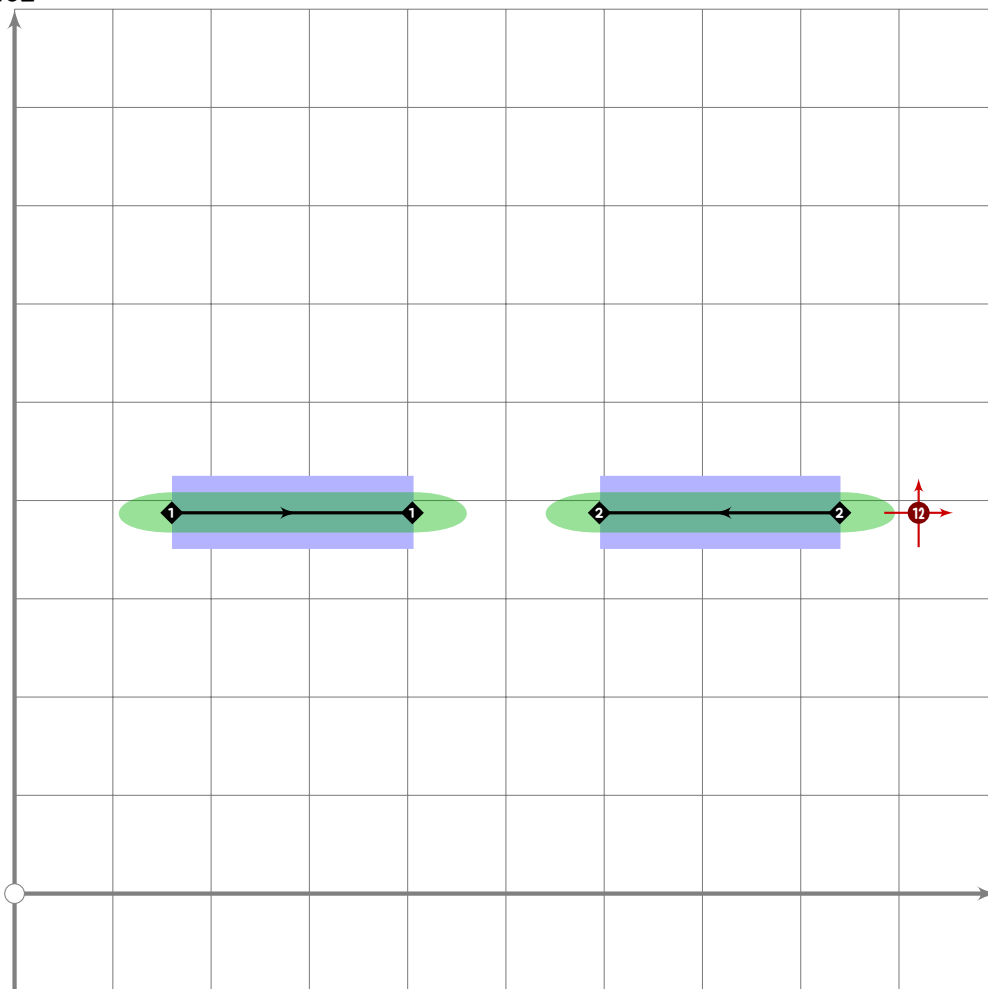


```

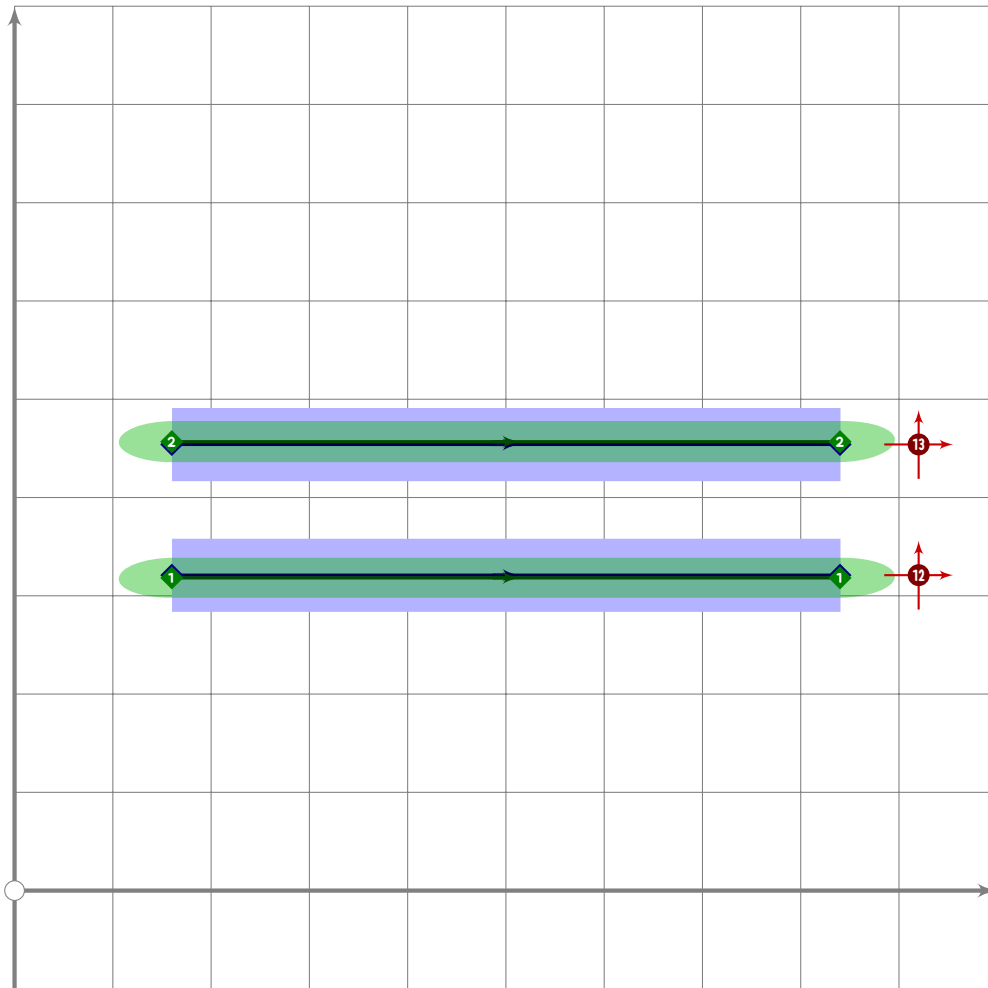
101
102 beginsuglyph("ichingmono1",138);
103   iching.line(1,1,1);
104   tsu_render;
105 endsuglyph;

```

U+268B  
tsuku.ichingmono2



```
106  
107 begint Suglyph("ichingmono2";139);  
108   iching.line(1,1,0);  
109   tsu_render;  
110 endtsuglyph;
```

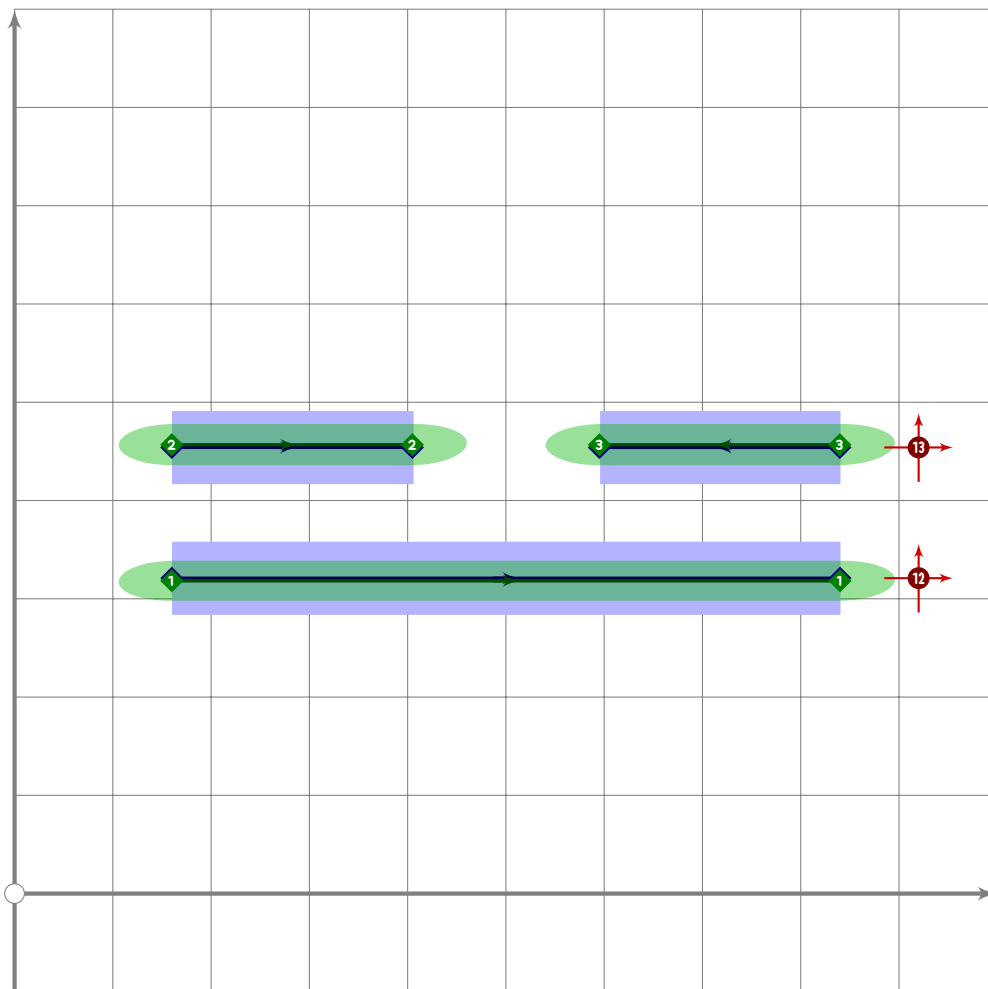


```

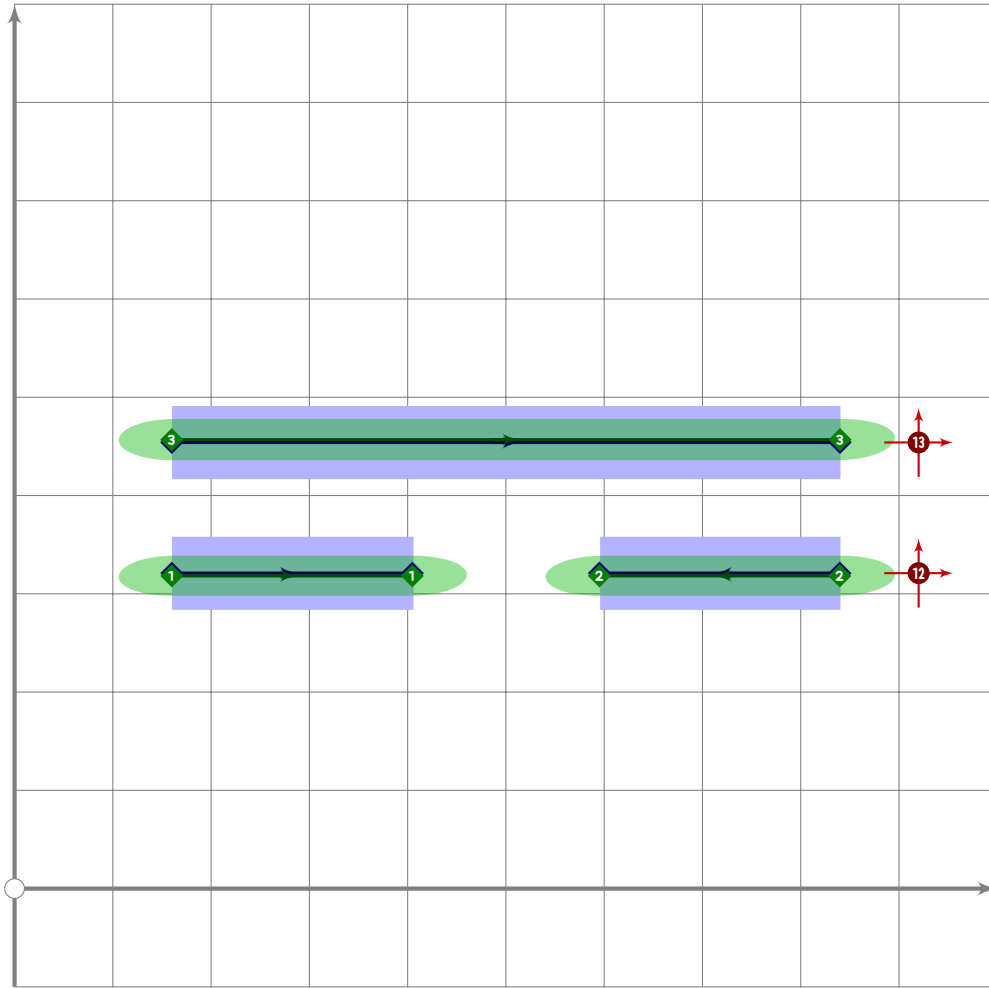
111
112 begint Suglyph("ichingdi1",140);
113   iching.line(1,2,1);
114   iching.line(2,2,1);
115   tsu_render;
116 endtsuglyph;

```

U+268D  
tsuku.ichingdi2



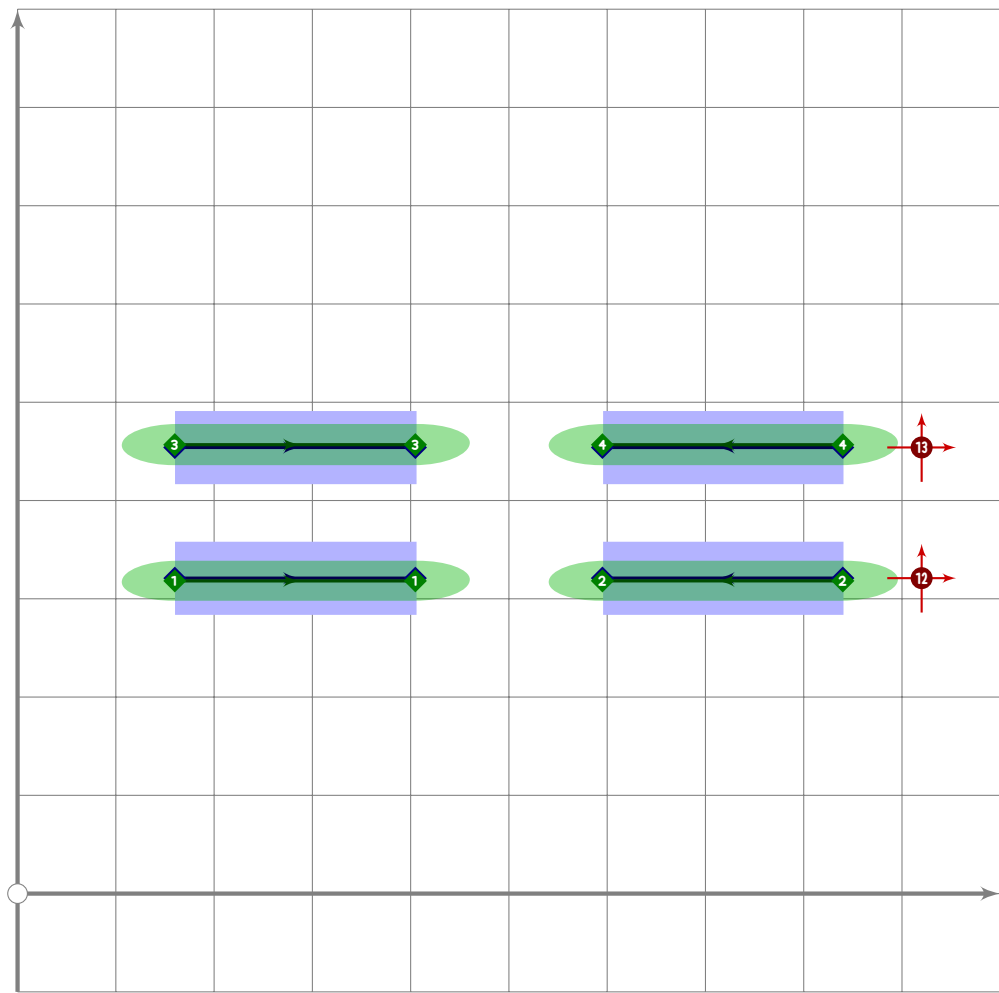
```
117
118 begint Suglyph("ichingdi2",141);
119   iching.line(1,2,1);
120   iching.line(2,2,0);
121   tsu_render;
122 endtsuglyph;
```



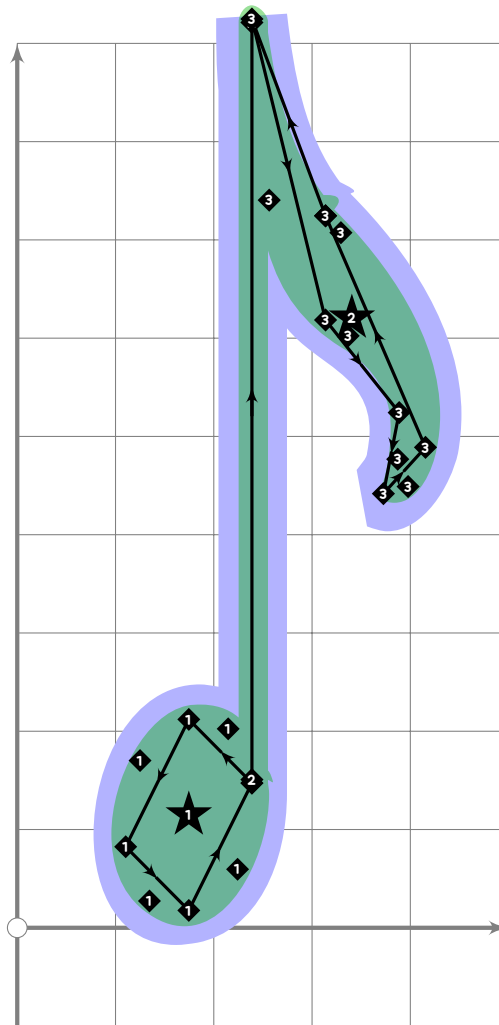
```

123
124 begintsuglyph("ichingdi3",142);
125   iching.line(1,2,0);
126   iching.line(2,2,1);
127   tsu_render;
128 endtsuglyph;

```



```
129
130 begint Suglyph("ichingdi4",143);
131   iching.line(1,2,0);
132   iching.line(2,2,0);
133   tsu_render;
134 endtsuglyph;
135
136
137
138 % musical eighth note, required for MES-1
139 tsu_rescale_half;
```



```

140 beginsuglyph("musicalnote";106);
141  push_stroke((500,150)..(380,205)..(260,95)..(380,40)..cycle,
142    (1,6,1,6)-(1,4,1,4)-(1,4,1,4)-(1,4,1,4)-cycle);
143  set_boalternate(0);
144  push_stroke((500,153)-(500,807),(1,6,1,6)-(1,6,1,6));
145  set_boalternate(0);
146  push_stroke((640,640)..{curl 1}(500,810){down}..(640,550)..(780,470)..
147    {curl 1}(750,400){curl 1}..(830,440)..cycle,
148    (1,3,1,3)-(1,6,1,6)-(1,3,1,3)-(1,3,1,3)-(1,1)-(1,3,1,3));
149  set_botip(0,1,0);
150  set_botip(0,4,0);
151  set_boalternate(0);
152  if tsu_pbrush_size>=30:
153    push_lcblob(get_stroke(-2));
154    push_lcblob(get_stroke(0));
155  fi;
156  tsu_render;
157 endtsuglyph;
158
159

```

160

161 endfont;

162

163

---



# tsuku-27.mp

```
1 %
2 % Unicode page 27 (Zapfian Dingbats) for Tsukurimashou
3 % Copyright (C) 2011, 2012 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---

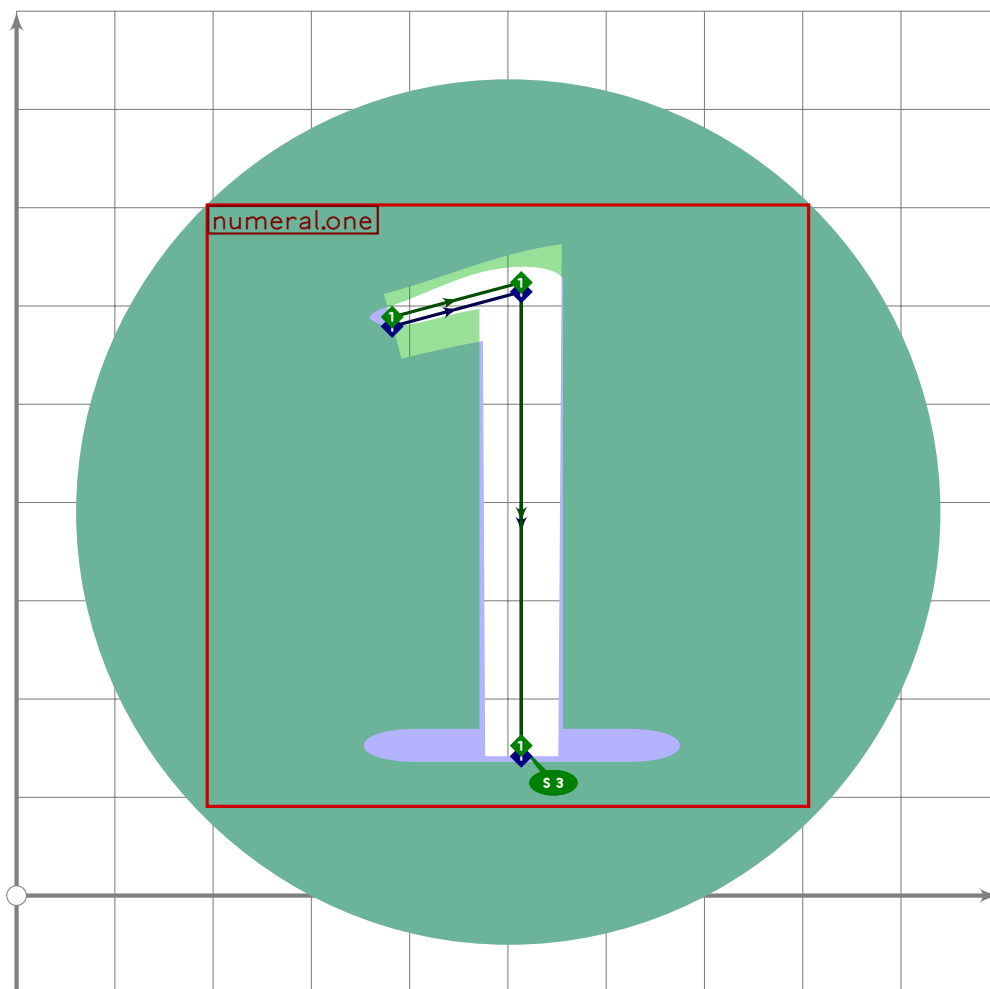

32
33 beginfont
34
35 input latin-intro.mp;
36
37 % AUTODEPS
38 input enclosed.mp;
39 input numerals.mp;
40
41 do_late_includes;
42
43 

---


44
```

## Inverted Circled Numerals

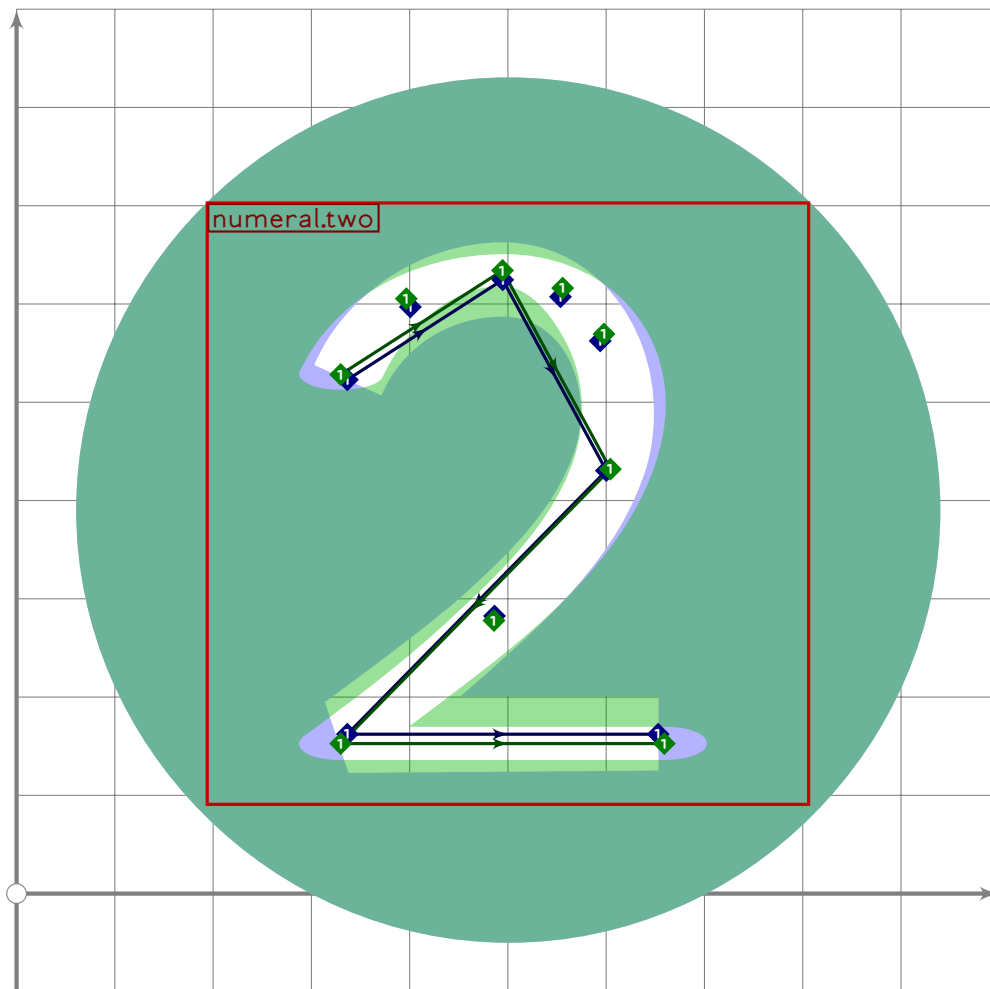
```
45 % INVERTED CIRCLED NUMERALS
46
```



```

47 % 1
48 % BACKGROUND 25CF
49 begint Suglyph("uni2776",118);
50   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.one);
51   i:=0; forever: exitif find_stroke(i)<1;
52     set_bosize(i,107); i:=i-1; endfor;
53   tsu_render;
54 endtsuglyph;
55

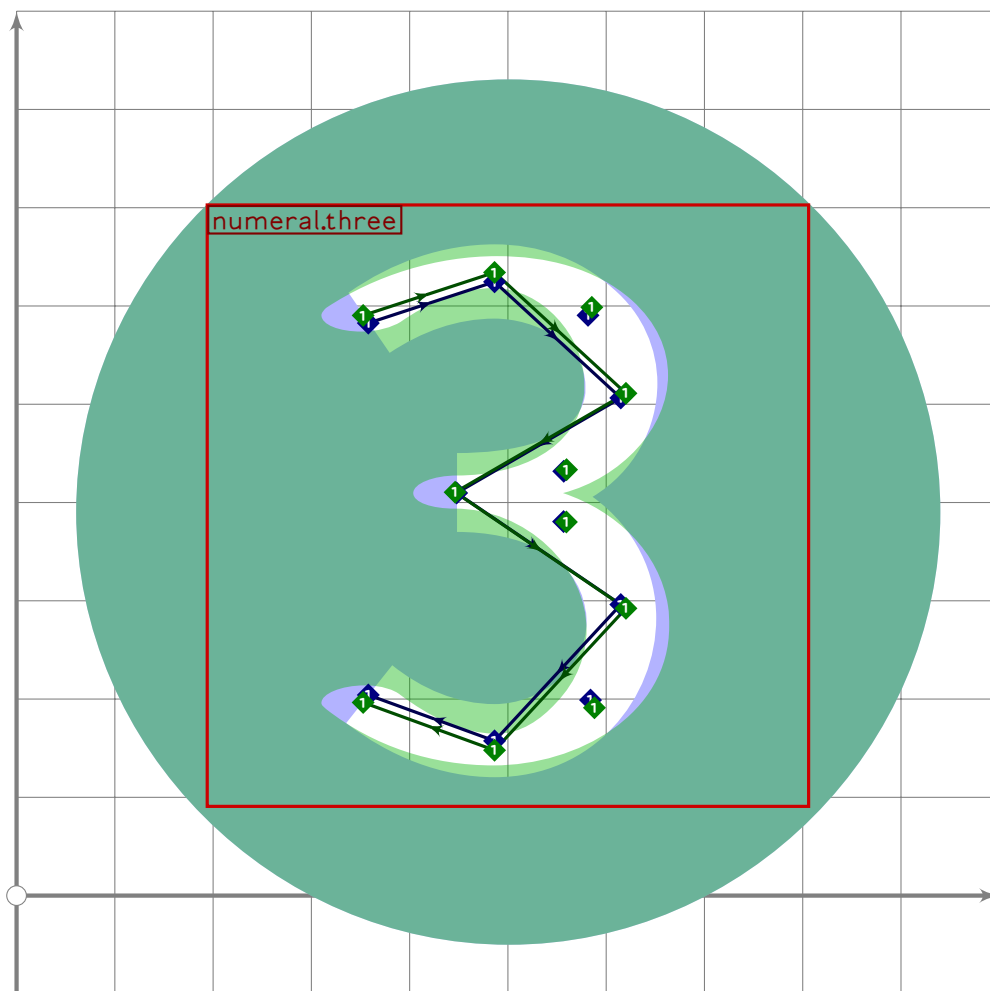
```



```

56 % 2
57 % BACKGROUND 25CF
58 begintsuglyph("uni2777";119);
59   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.two);
60   i:=0; forever: exitif find_stroke(i)<1;
61     set_bosize(i,107); i:=i-1; endfor;
62   tsu_render;
63 endtsuglyph;
64

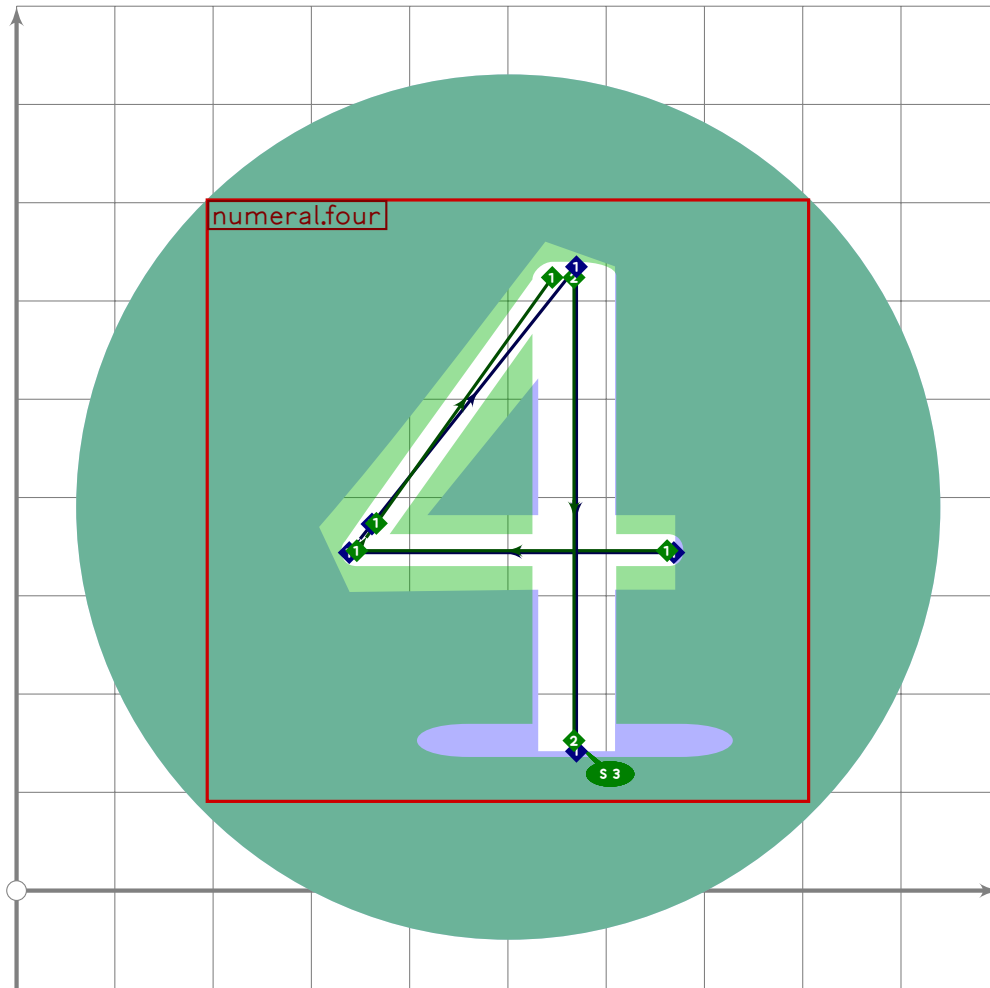
```



```

65 % 3
66 % BACKGROUND 25CF
67 begint Suglyph("uni2778";120);
68   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.three);
69   i:=0; forever: exitif find_stroke(i)<1;
70     set_bosize(i,107); i:=i-1; endfor;
71   tsu_render;
72 endtsuglyph;
73

```

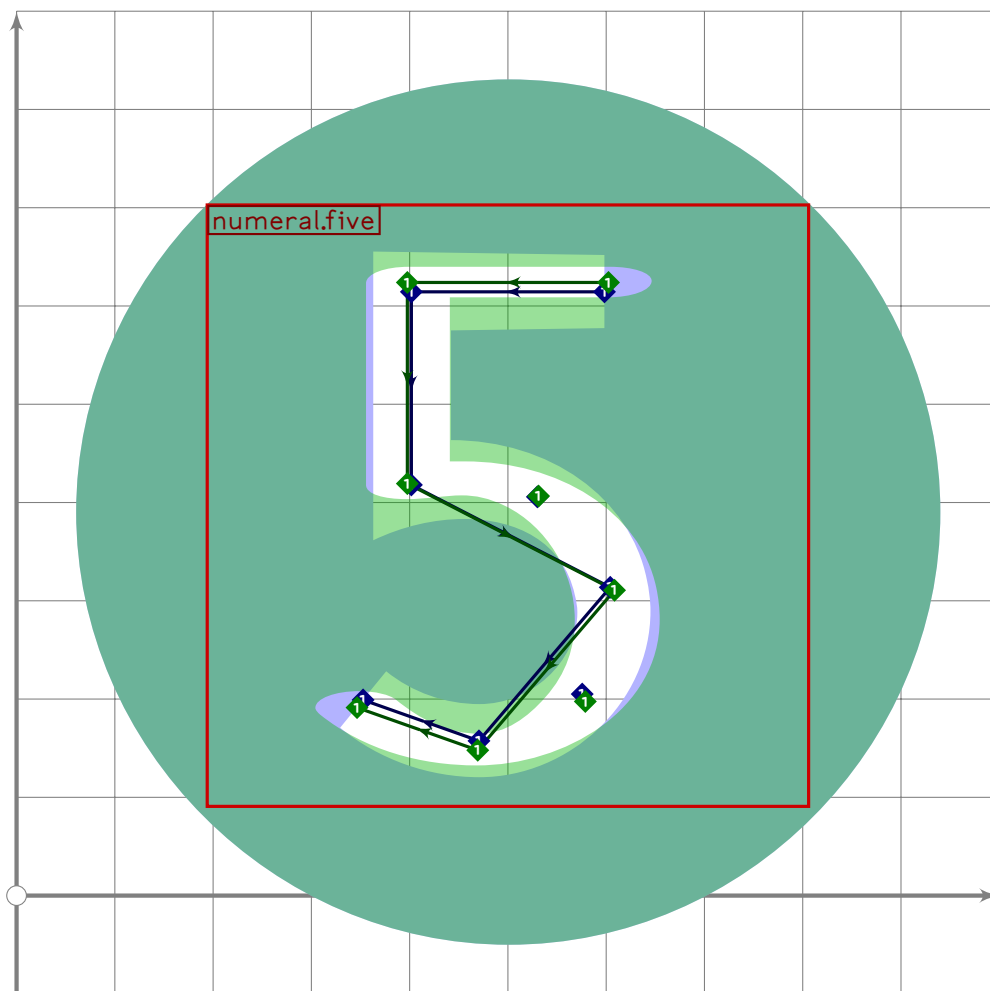


```

74 % 4
75 % BACKGROUND 25CF
76 begintsuglyph("uni2779";121);
77   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.four);
78   i:=0; forever: exitif find_stroke(i)<1;
79     set_bosize(i,107); i:=i-1; endfor;
80   tsu_render;
81 endtsuglyph;
82

```

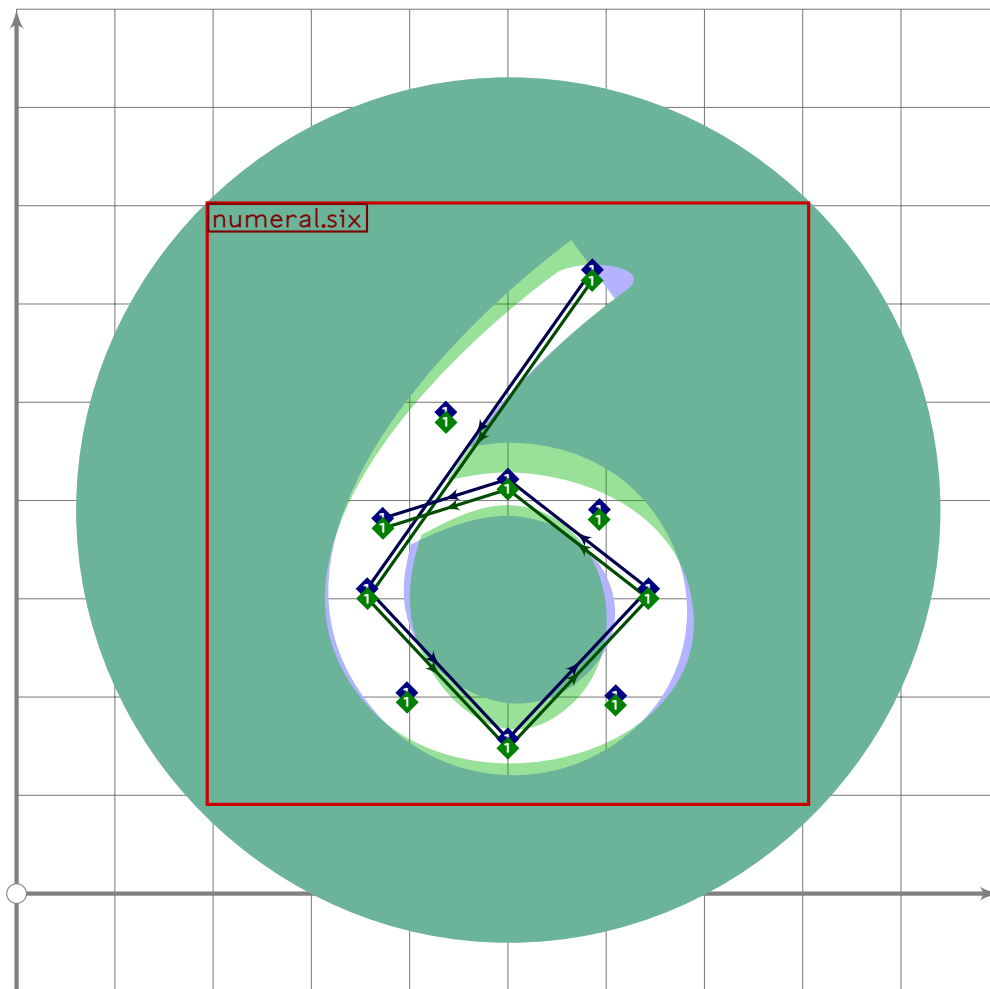
U+277A  
tsuku.uni277A



```

83 % 5
84 % BACKGROUND 25CF
85 begintsuglyph("uni277A",122);
86   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.five);
87   i:=0; forever: exitif find_stroke(i)<1;
88     set_bosize(i,107); i:=i-1; endfor;
89   tsu_render;
90 endtsuglyph;
91

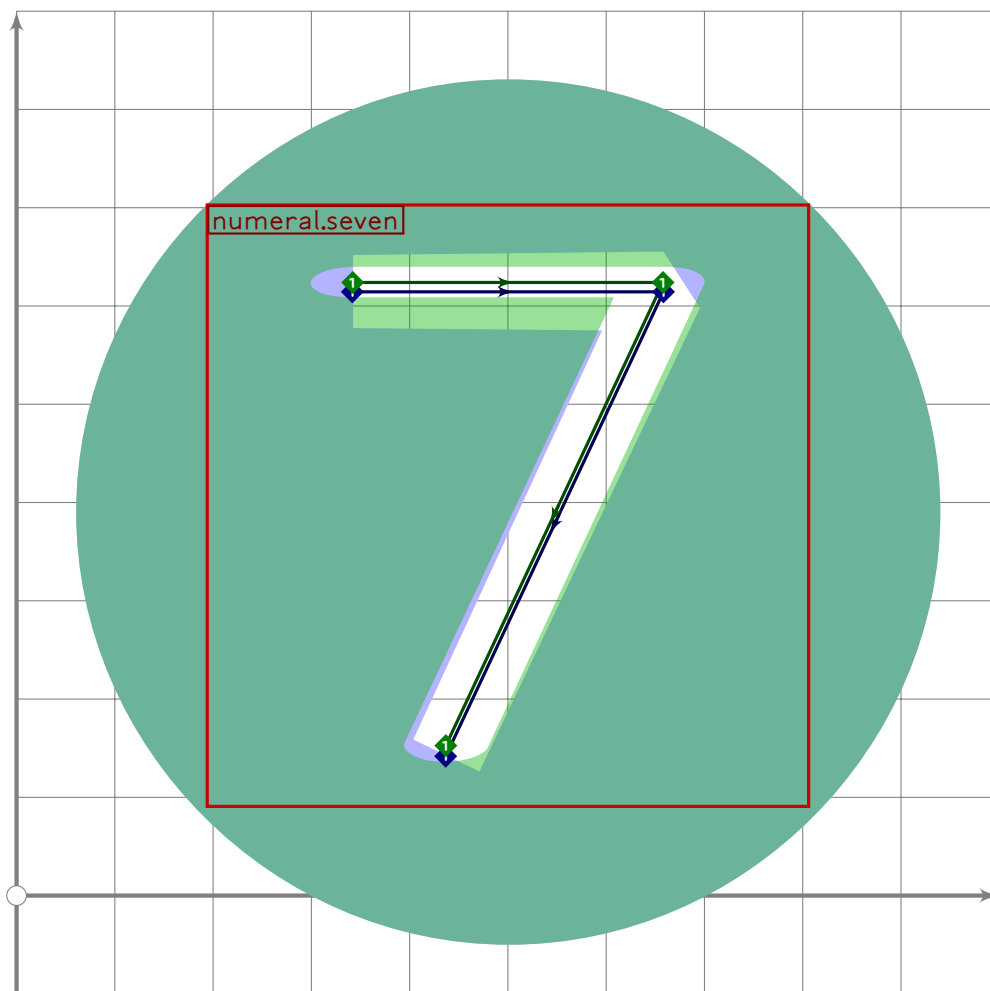
```



```

92 % 6
93 % BACKGROUND 25CF
94 begint Suglyph("uni277B";123);
95   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.six);
96   i:=0; forever: exitif find_stroke(i)<1;
97     set_bosize(i,107); i:=i-1; endfor;
98   tsu_render;
99 endtsuglyph;
100

```

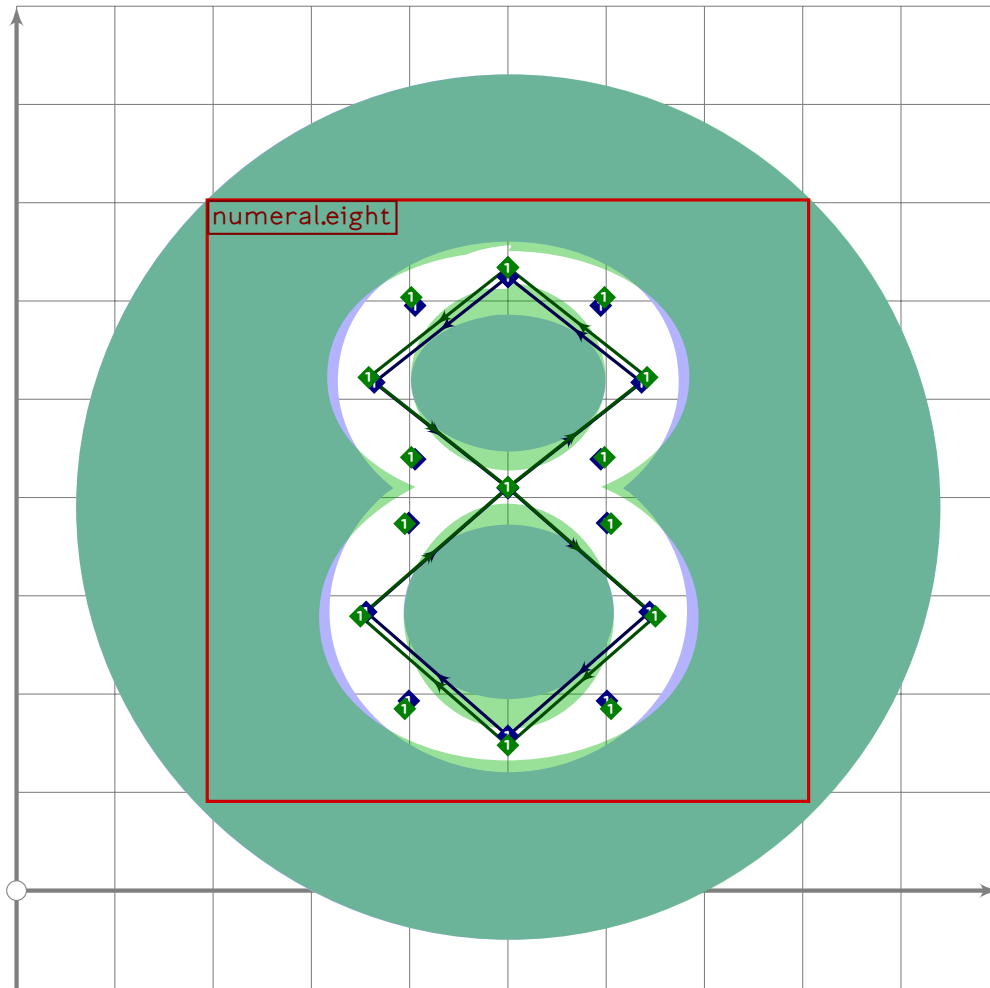


```

101 % 7
102 % BACKGROUND 25CF
103 beginsuglyph("uni277C";124);
104   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.seven);
105   i:=0; forever: exitif find_stroke(i)<1;
106     set_bosize(i,107); i:=i-1; endfor;
107   tsu_render;
108 endtsuglyph;
109

```



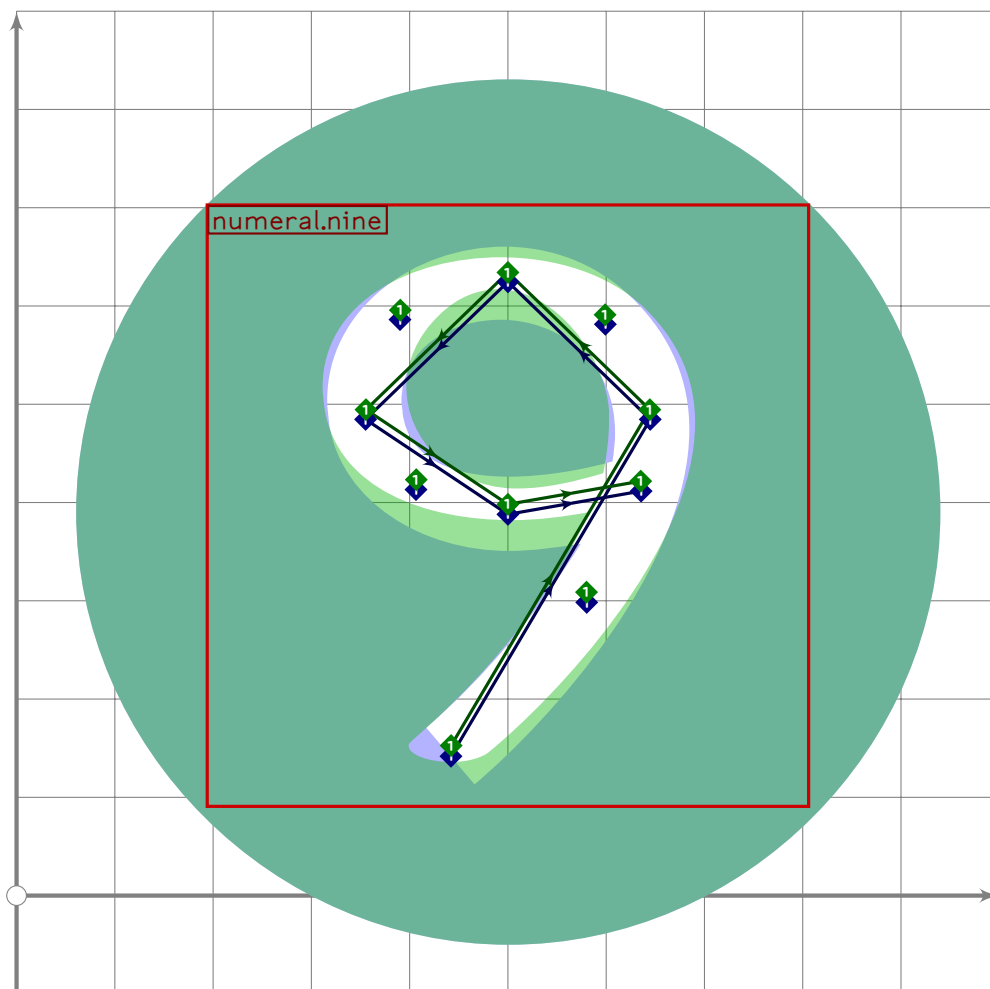


```

110 % 8
111 % BACKGROUND 25CF
112 begintsuglyph("uni277D";125);
113   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.eight);
114   i:=0; forever: exitif find_stroke(i)<1;
115     set_bosize(i,107); i:=i-1; endfor;
116   tsu_render;
117 endtsuglyph;
118

```

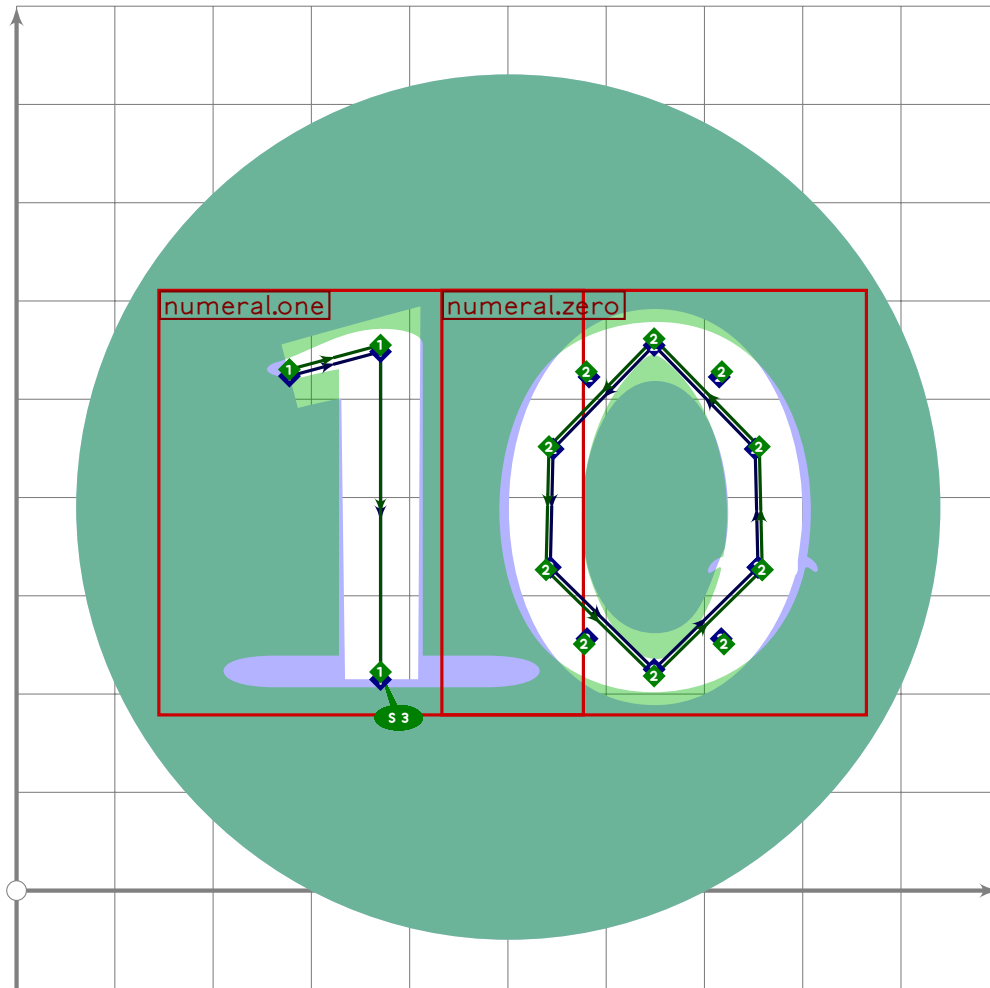
U+277E  
tsuku.uni277E



```

119 % 9
120 % BACKGROUND 25CF
121 begintsuglyph("uni277E";126);
122   tsu_xform(tsu_xf.circled shifted tsu_xf.circ_slant_shift)(numeral.nine);
123   i:=0; forever: exitif find_stroke(i)<1;
124     set_bosize(i,107); i:=i-1; endfor;
125   tsu_render;
126 endtsuglyph;
127

```



```

128 % 10
129 % BACKGROUND 25CF
130 begintsuglyph("uni277F";127);
131   tsu_xform(tsu_xf.ctwo.left shifted tsu_xf.circ_slant_shift)(numeral.one);
132   numeric x[],y[];
133   tsu_xform(tsu_xf.ctwo.right shifted tsu_xf.circ_slant_shift)(numeral.zero);
134   i:=0; forever: exitif find_stroke(i)<1;
135     set_bosize(i,107); i:=i-1; endfor;
136   tsu_render;
137 endtsuglyph;
138
139
140
141 endfont;
142
143

```

# tsuku-2e.mp

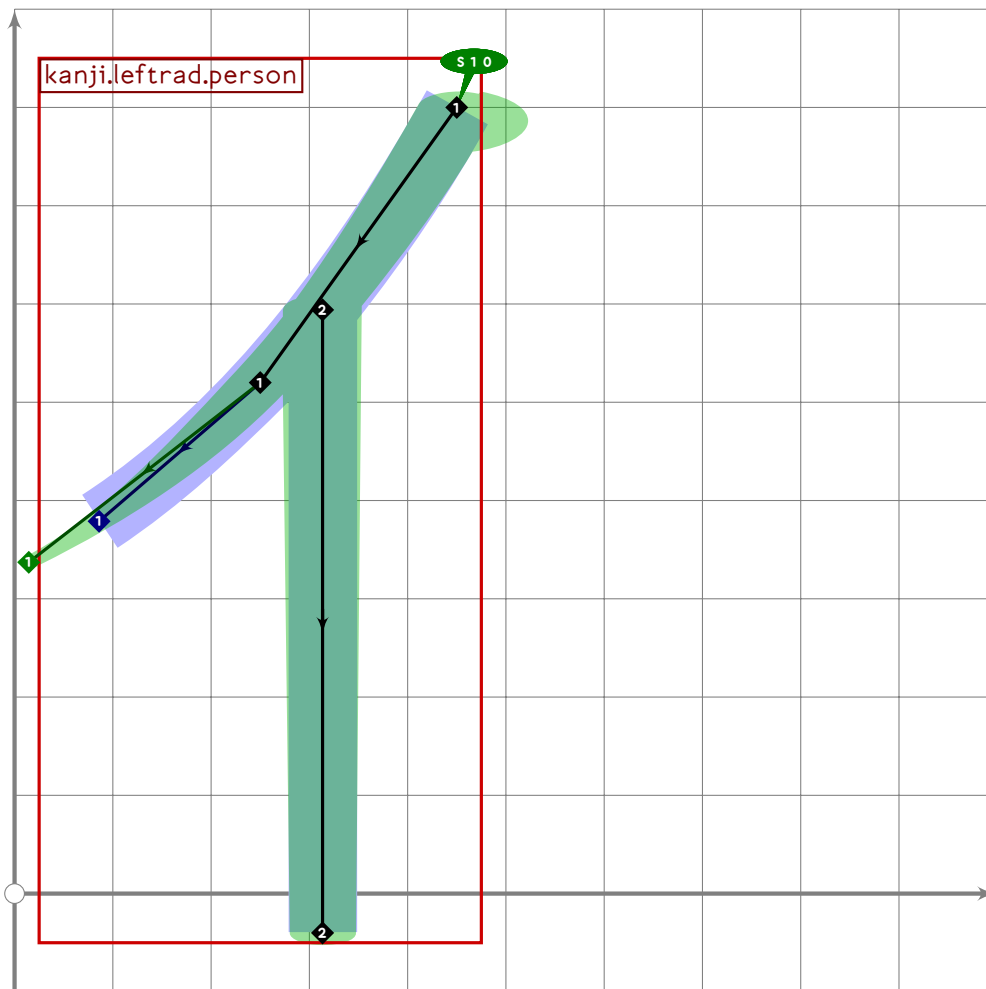
```
1 %
2 % Unicode page 2E (Radicals Supplement) for Tsukurimashou
3 % Copyright (C) 2012, 2013 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---


32
33 beginfont
34
35 % AUTODEPS
36 input bkencl.mp;
37 input bottomrad.mp;
38 input buildkanji.mp;
39 input gradefive.mp;
40 input gradefour.mp;
41 input gradenine.mp;
42 input gradeone.mp;
43 input gradethree.mp;
44 input gradetwo.mp;
45 input leftrad.mp;
46 input radical.mp;
47 input rightrad.mp;
48 input toprad.mp;
49
50 do_late_includes;
51
52 

---


53
```

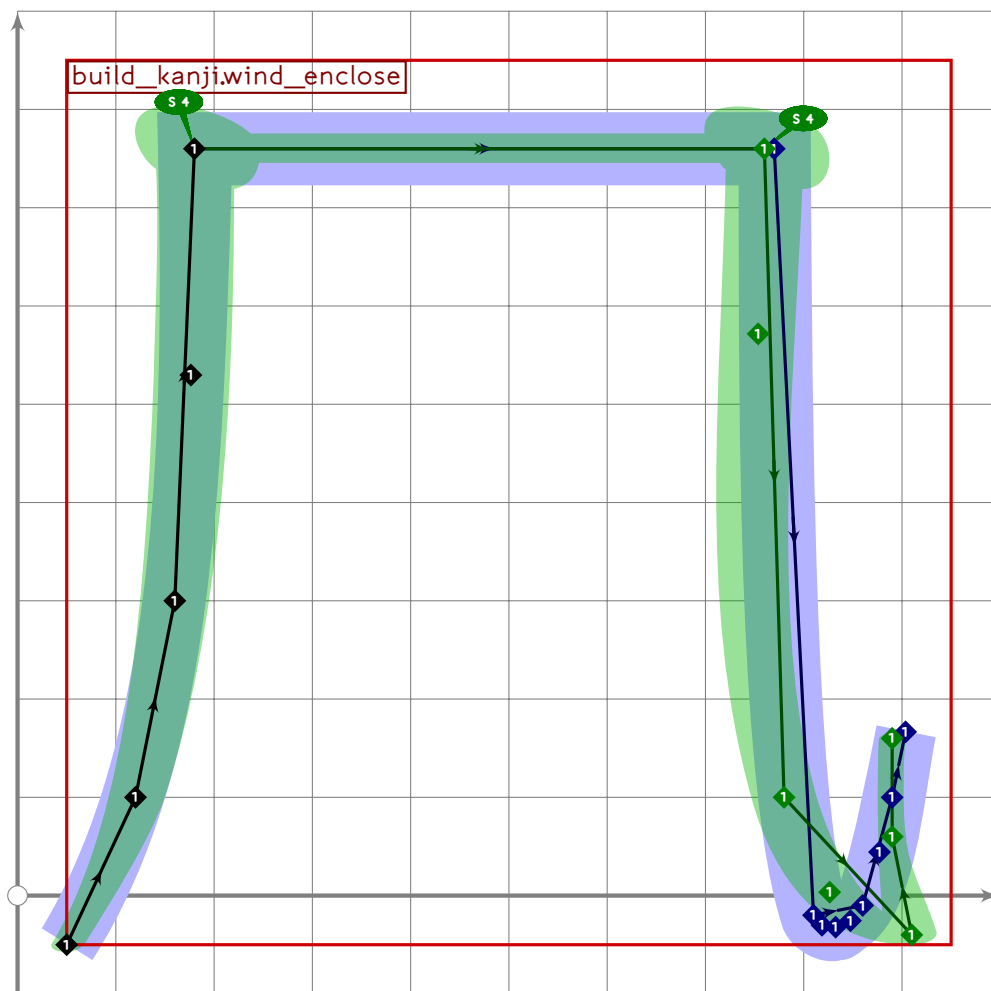


```

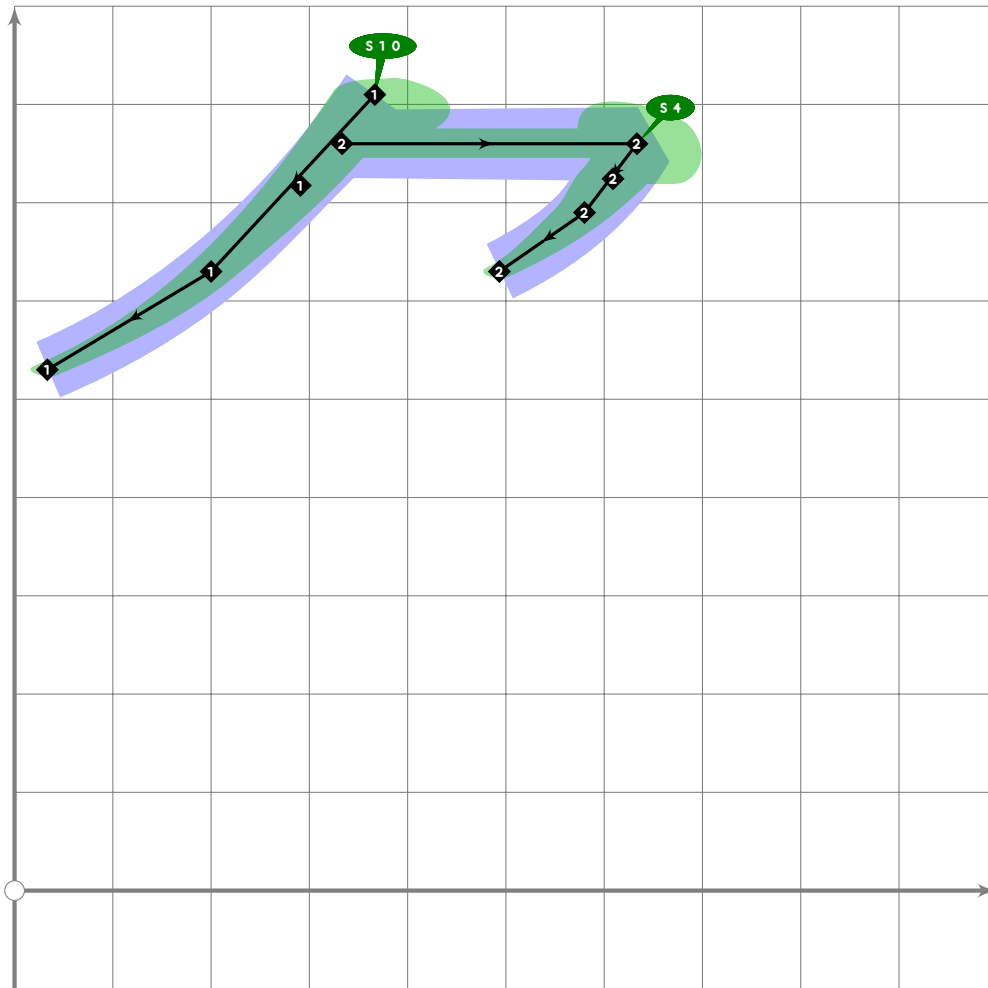
56 % hito/jin "person" as radical
57 begintsuglyph("uni2E85",133);
58   tsu_xform(identity xscaled 0.5)(kanji.leftrad.person);
59   tsu_render;
60 endtsuglyph;
61

```

U+2E87  
tsuku.uni2E87



```
62 % Unicode calls it "table"  
63 begintsuglyph("uni2E87";135);  
64   build_kanji.wind_enclose();  
65   tsu_render;  
66 endsuglyph;  
67
```

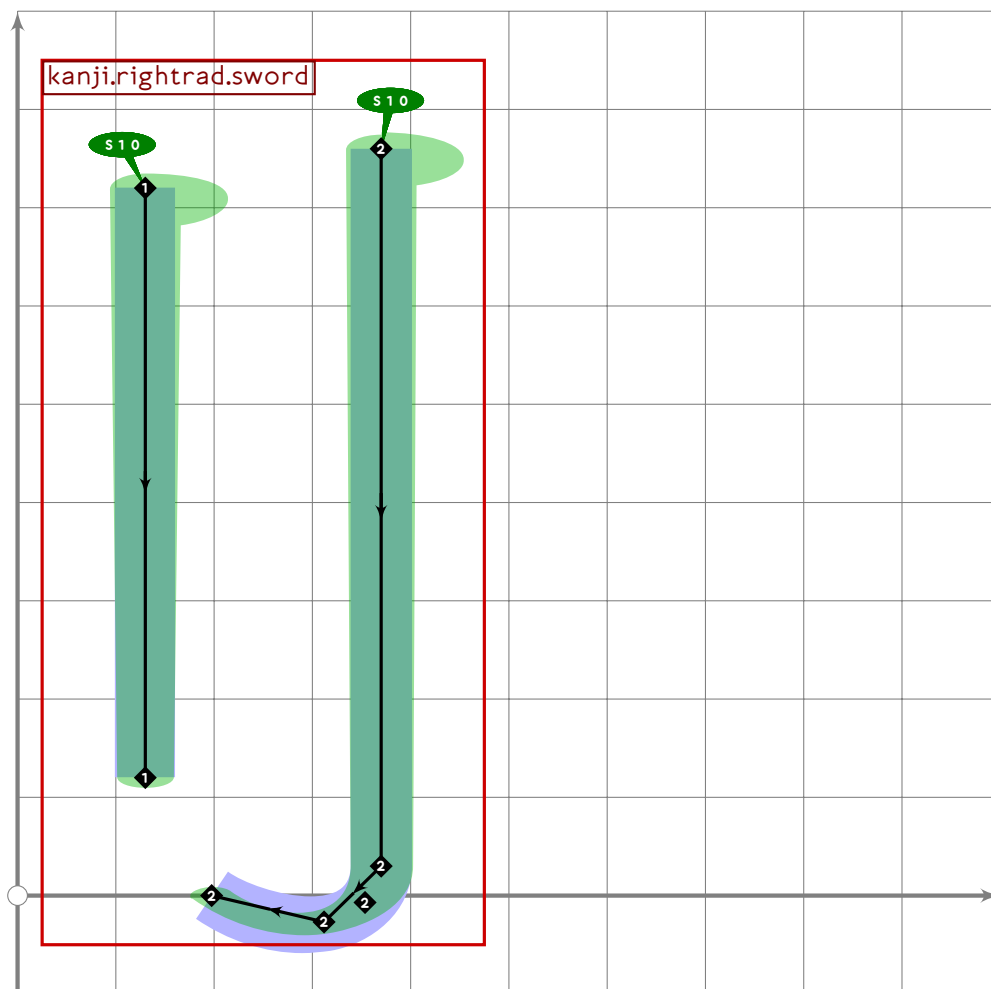


```

68 % Unicode calls it "knife one"
69 begint Suglyph("uni2E88";136);
70 build_kanji.attach_fishhook(0.8)(
71   perl_structure:=perl_structure&"eids._2";
72   push_stroke((200,0)-(200,800)-(800,800),
73     (1.5,1.5)-(1.6,1.6)-(1.6,1.6));
74   set_bosize(0,0));
75 tsu_render;
76 endtsuglyph;
77

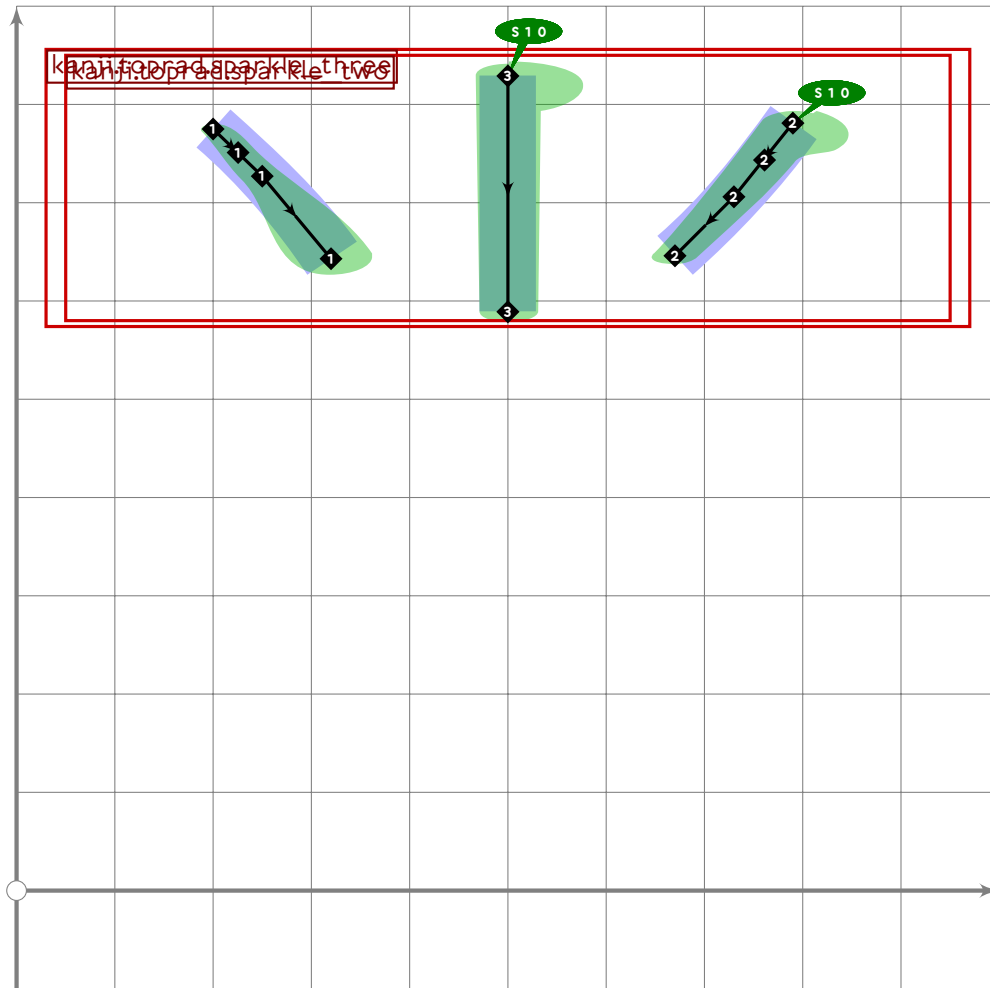
```

U+2E89  
tsuku.uni2E89



```
78 % tou "sword radical"  
79 begintsuglyph("uni2E89";137);  
80 tsu_xform(identity xscaled 0.5)(kanji.rightrad.sword);  
81 tsu_render;  
82 endtsuglyph;  
83
```



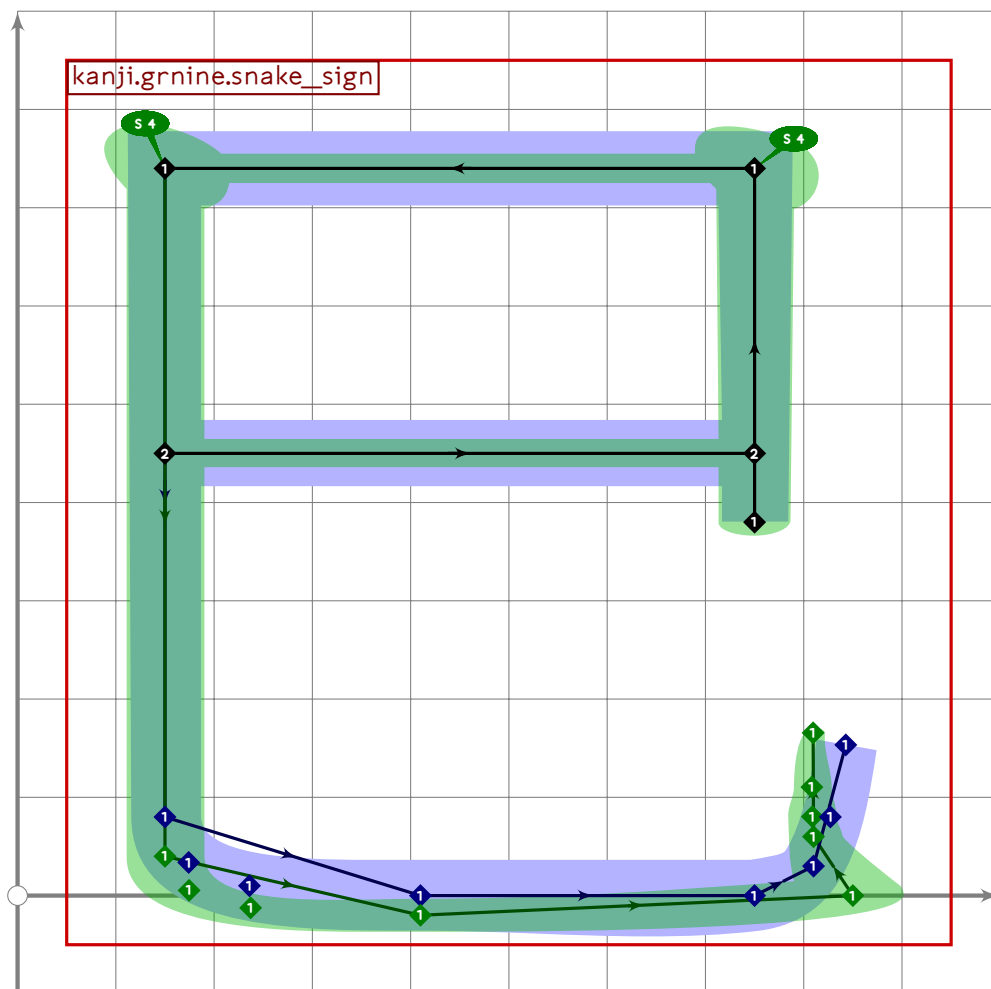


```

84 % Unicode calls it "small one"
85 begintsuglyph("uni2E8C",140);
86   build_kanji.tb(620,80)
87   (kanji.toprad.sparkle_three)
88   ();
89   tsu_render;
90 endtsuglyph;
91

```

U+2E92  
tsuku.uni2E92

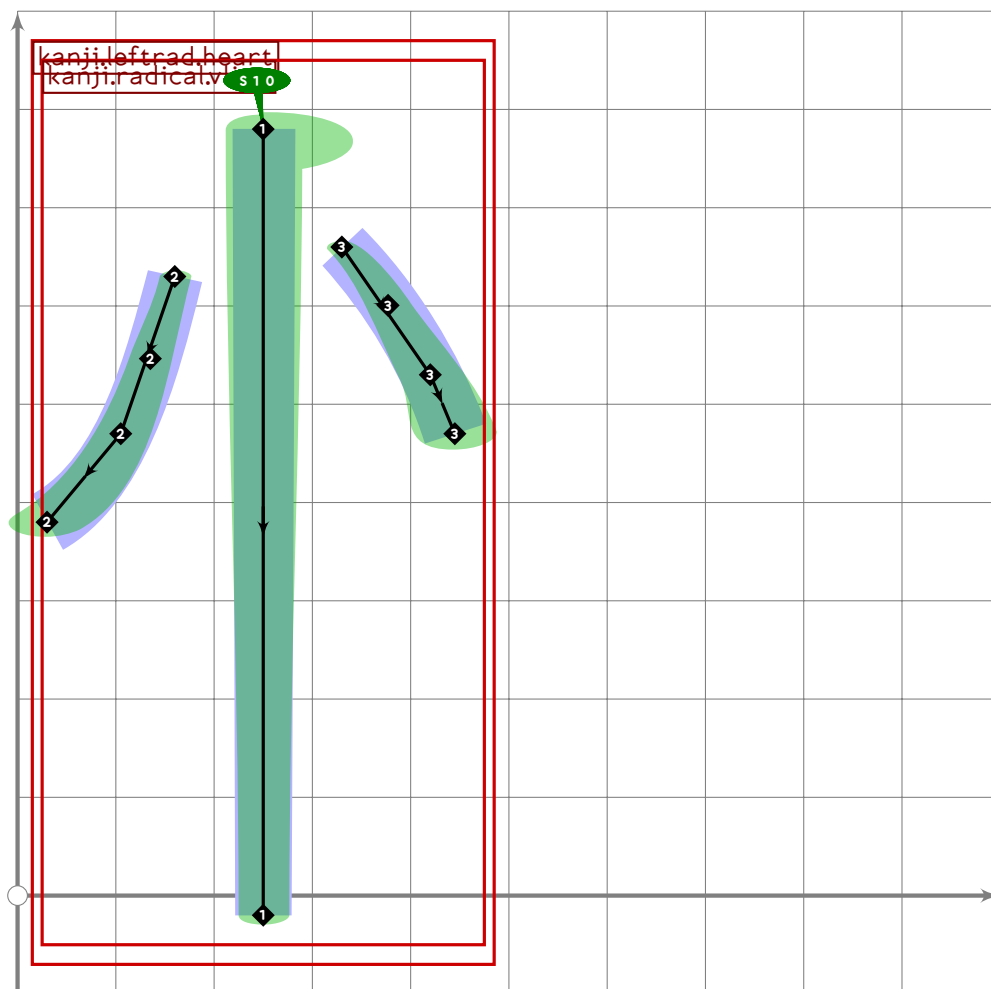


```
92 % shi/mi "snake zodiac sign"  
93 begint Suglyph("uni2E92",146);  
94   kanji.grnine.snake_sign;  
95   tsu_render;  
96 endtsuglyph;  
97
```



103

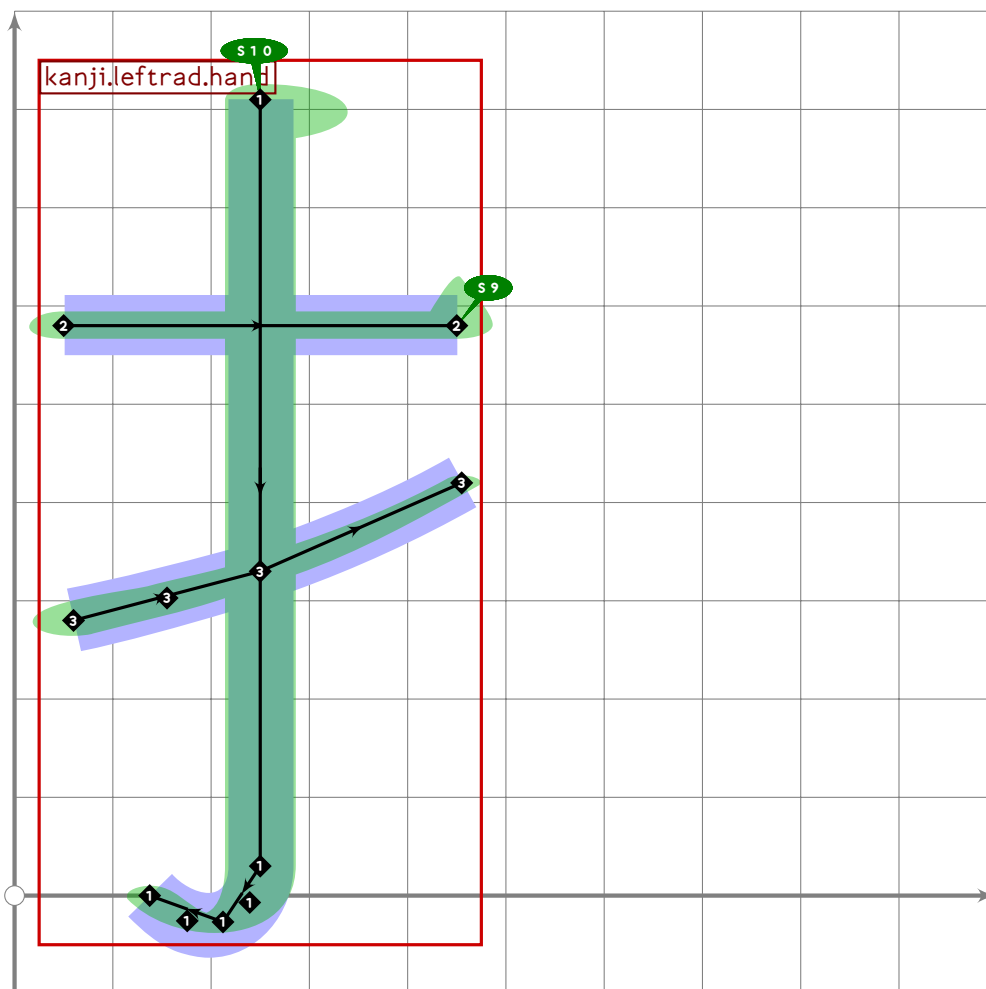
U+2E96  
tsuku.uni2E96



```

104 % left radical version of "heart"
105 begintsuglyph("uni2E96",150);
106   tsu_xform(identity xscaled 0.5)(kanji.leftrad.heart);
107   tsu_render;
108 endsuglyph;
109

```



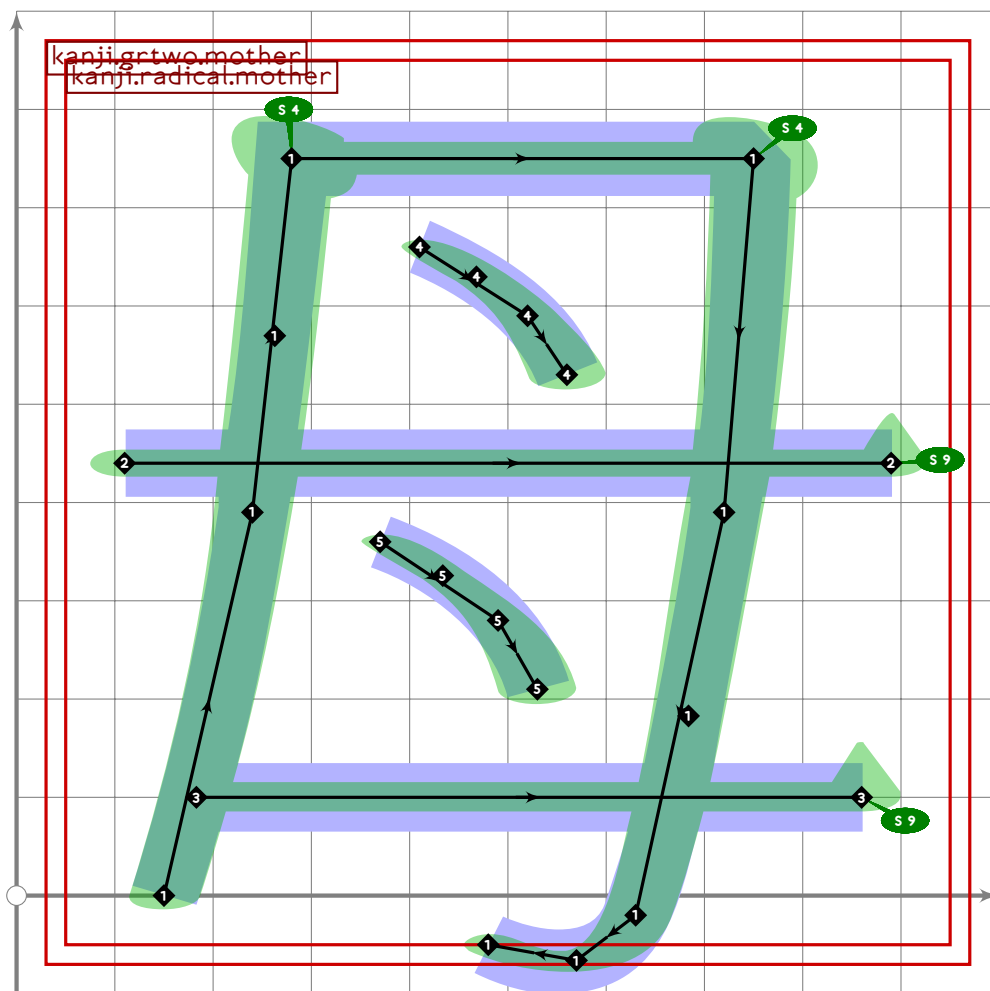
```

110 % hand radical
111 begintsuglyph("uni2E98";152);
112   tsu_xform(identity xscaled 0.5)(kanji.leftrad.hand);
113   tsu_render;
114 endtsuglyph;
115
116 % special form with straight left side
117 begintsuglyph("uni2E9D";157);
118   kanji.bottomrad.moon;
119   tsu_render;
120 endtsuglyph;
121

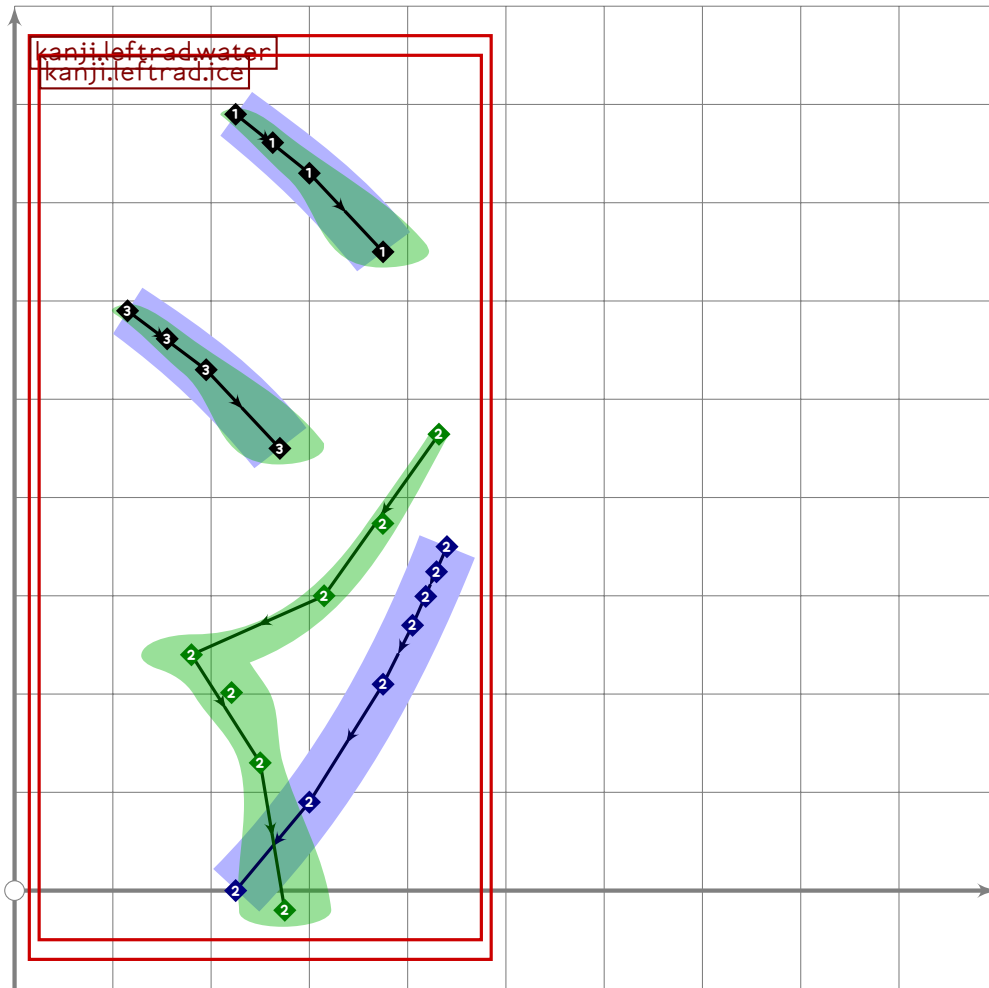
```

[see page 673]

U+2E9F  
tsuku.uni2E9F



```
122 % bo/haha "mother"  
123 beginsuglyph("uni2E9F";159);  
124   kanji.grtwo.mother;  
125   tsu_render;  
126 endsuglyph;  
127
```

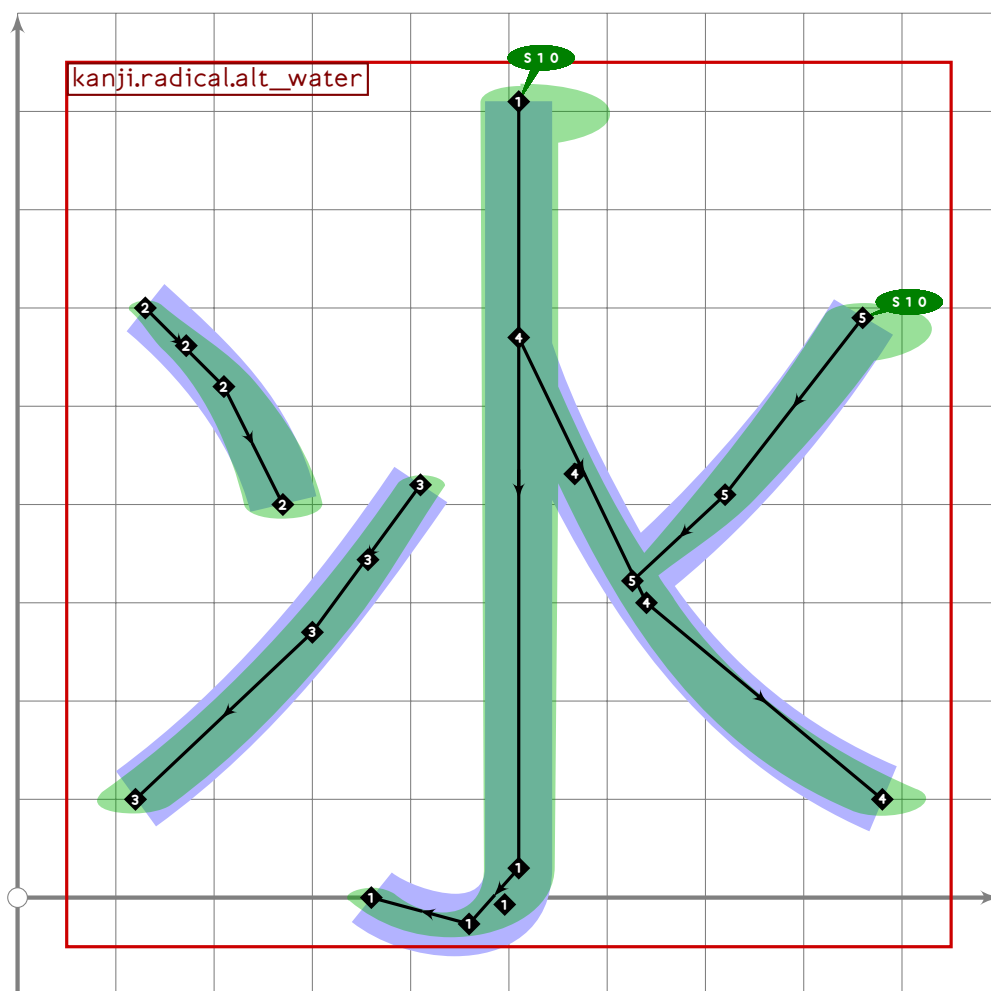


```

128 % extra "water side radical"
129 begintsuglyph("uni2EA1",161);
130   tsu_xform(identity xscaled 0.5)(kanji.leftrad.water);
131   tsu_render;
132 endsuglyph;
133

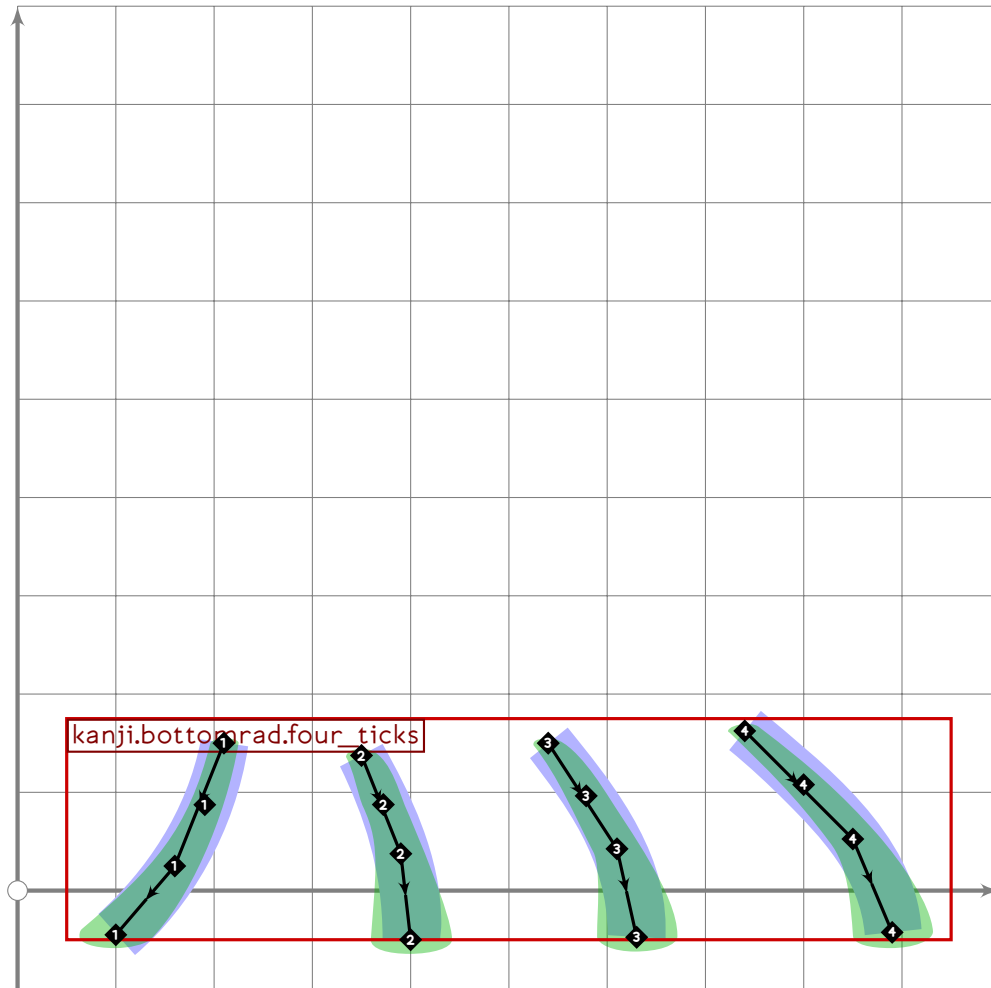
```

U+2EA2  
tsuku.uni2EA2



```
134 % water radical variant
135 begintsuglyph("uni2EA2";162);
136   kanji.radical.alt_water;
137   tsu_render;
138 endsuglyph;
139
```



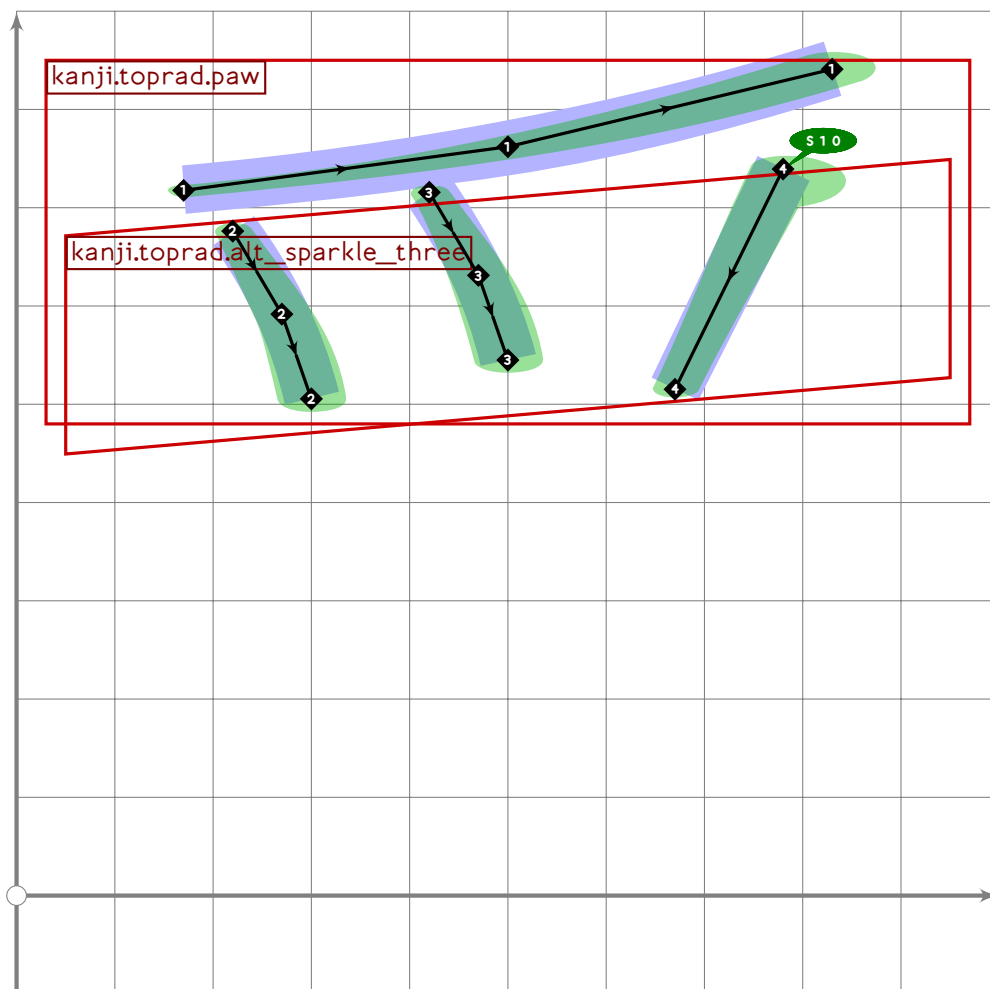


```

140 % Unicode calls it "fire"
141 begintsuglyph("uni2EA3";163);
142   build_kanji.tb(190,-30)
143   ()
144   (kanji.bottomrad.four_ticks);
145   tsu_render;
146 endtsuglyph;
147

```

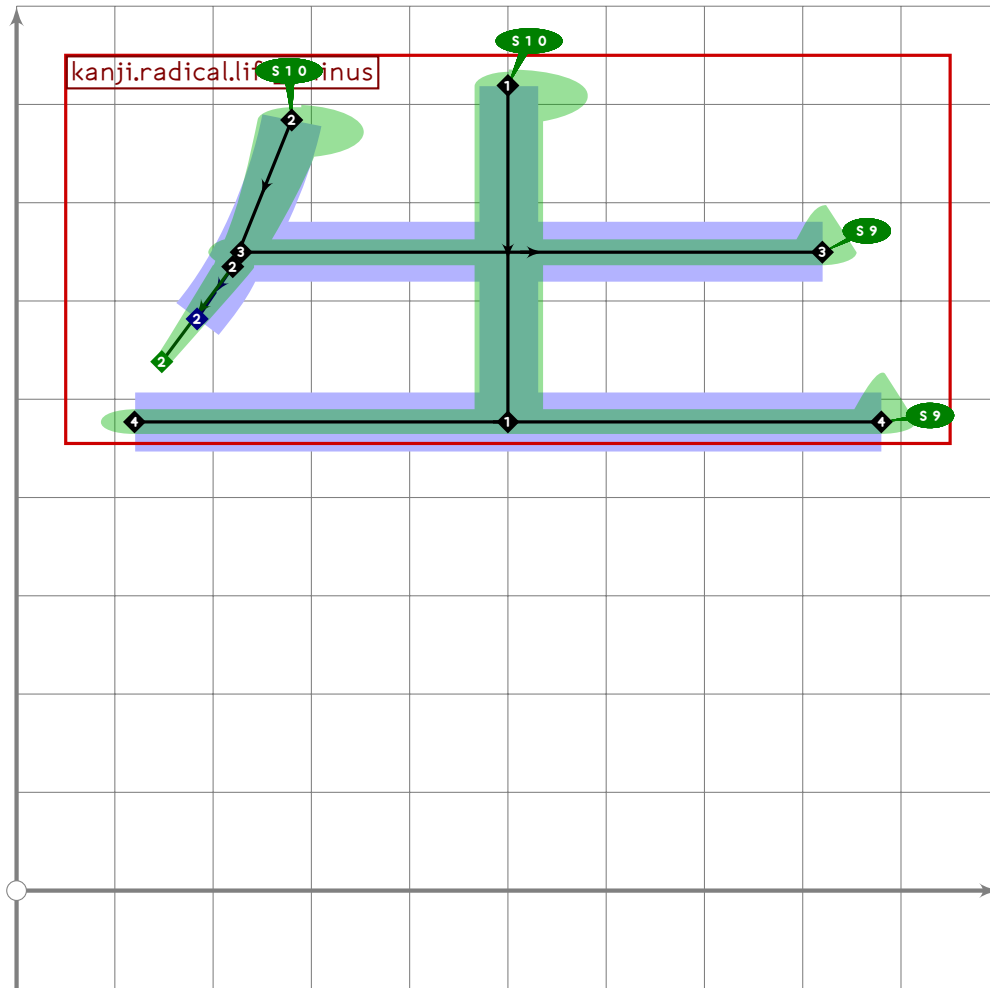
U+2EA4  
tsuku.uni2EA4



```

148 % Unicode calls it "paw one"
149 begintsuglyph("uni2EA4",164);
150   build_kanji.tb(480,0)
151     (kanji.toprad.paw)
152   ();
153   tsu_render;
154 endtsuglyph;
155

```

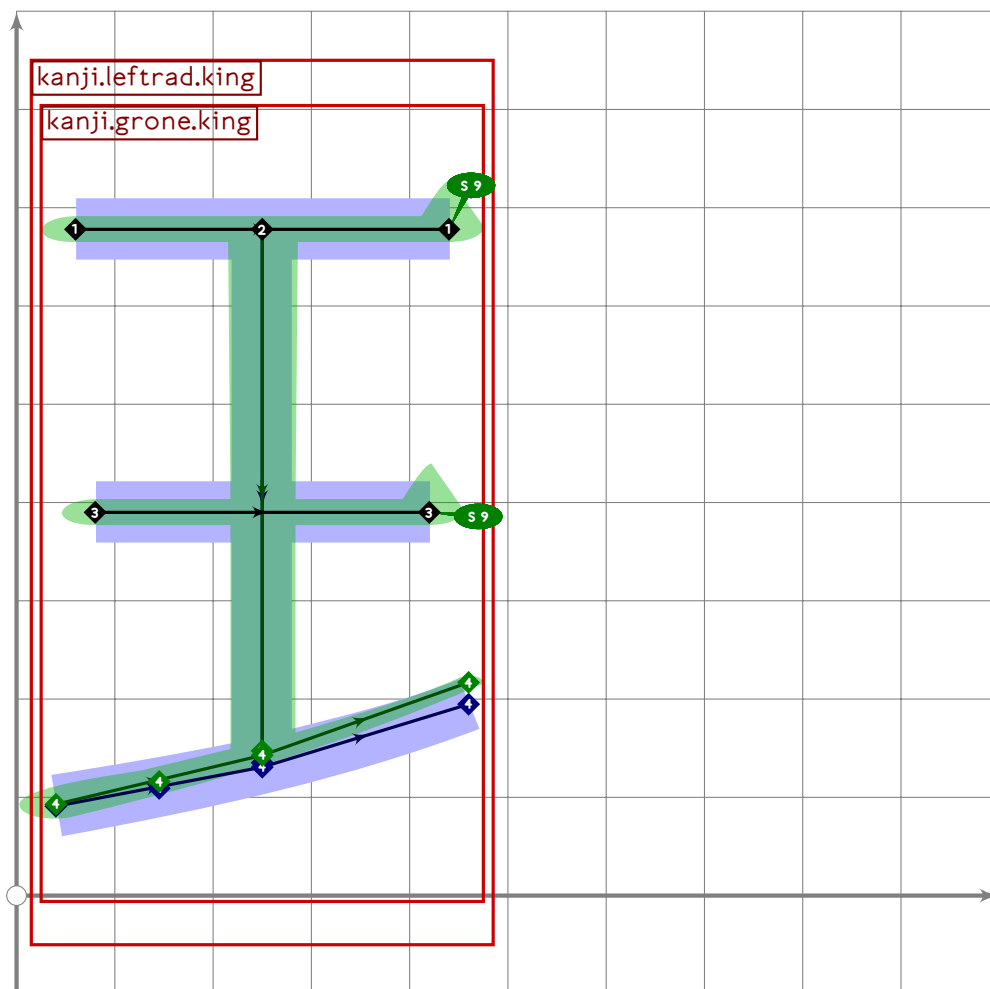


```

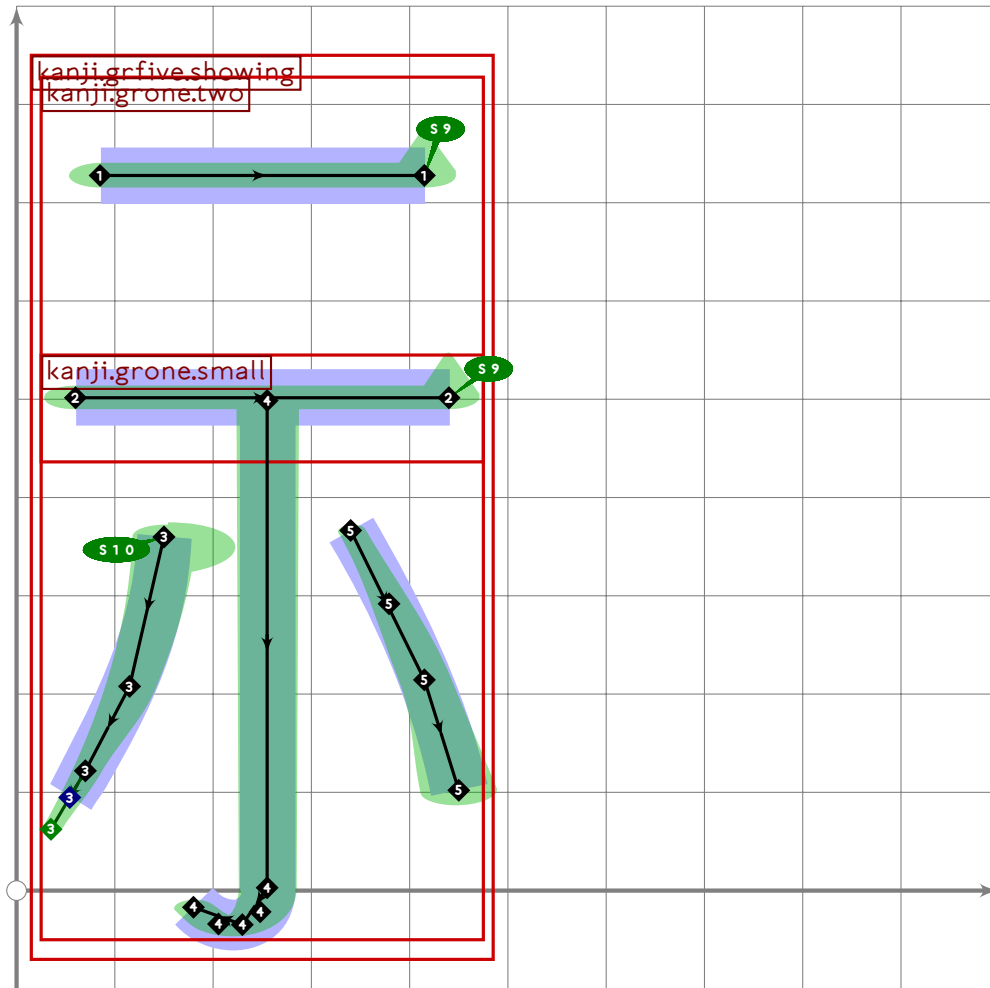
156 % Unicode calls it "cow"
157 begintsuglyph("uni2EA7",167);
158   build_kanji.tb(440,-30)
159     (kanji.radical.life_minus)
160   ();
161   tsu_render;
162 endtsuglyph;
163

```

U+2EA9  
tsuku.uni2EA9



```
164 % Unicode calls it "jade"
165 begintsuglyph("uni2EA9";169);
166 tsu_xform(identity xscaled 0.5)(kanji.leftrad.king);
167 tsu_render;
168 endsuglyph;
169
```

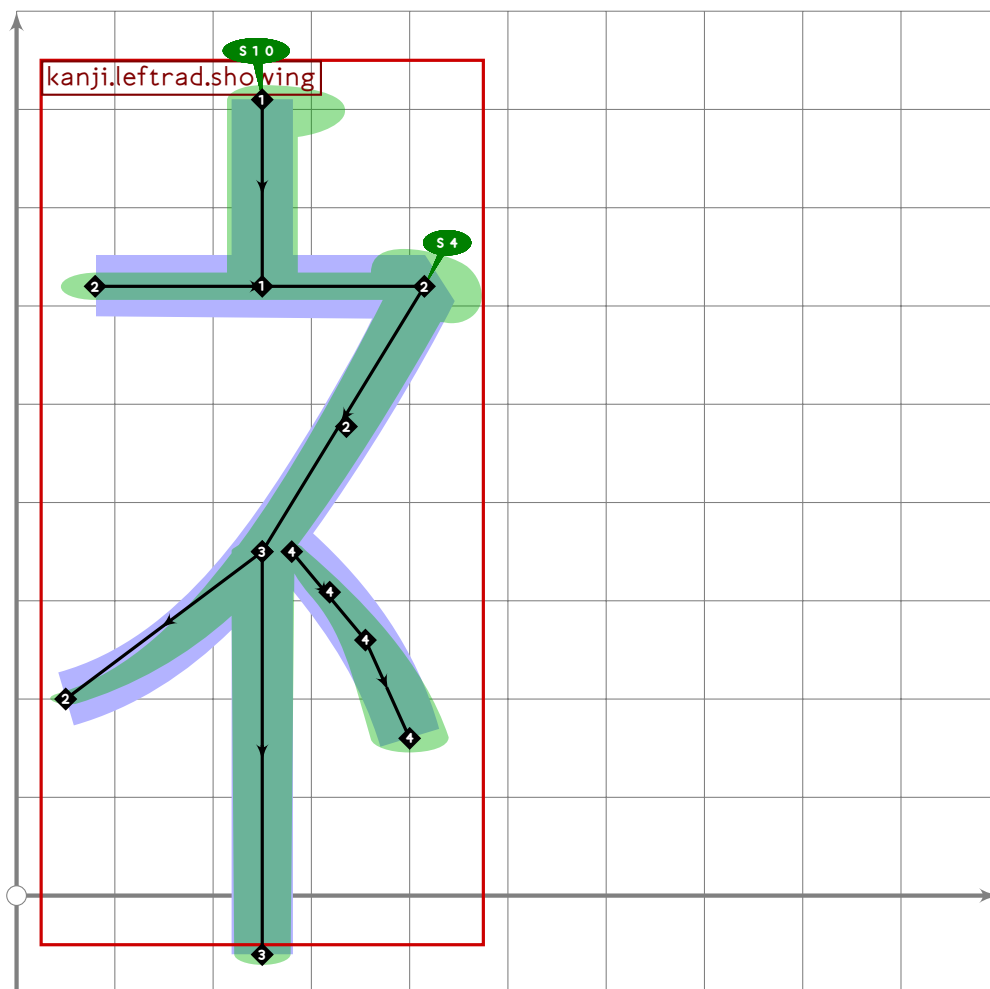


```

170 % Unicode calls it "spirit one"
171 begintsuglyph("uni2EAC",172);
172   tsu_xform(identity xscaled 0.5)(kanji.grfive.showing);
173   tsu_render;
174 endsuglyph;
175

```

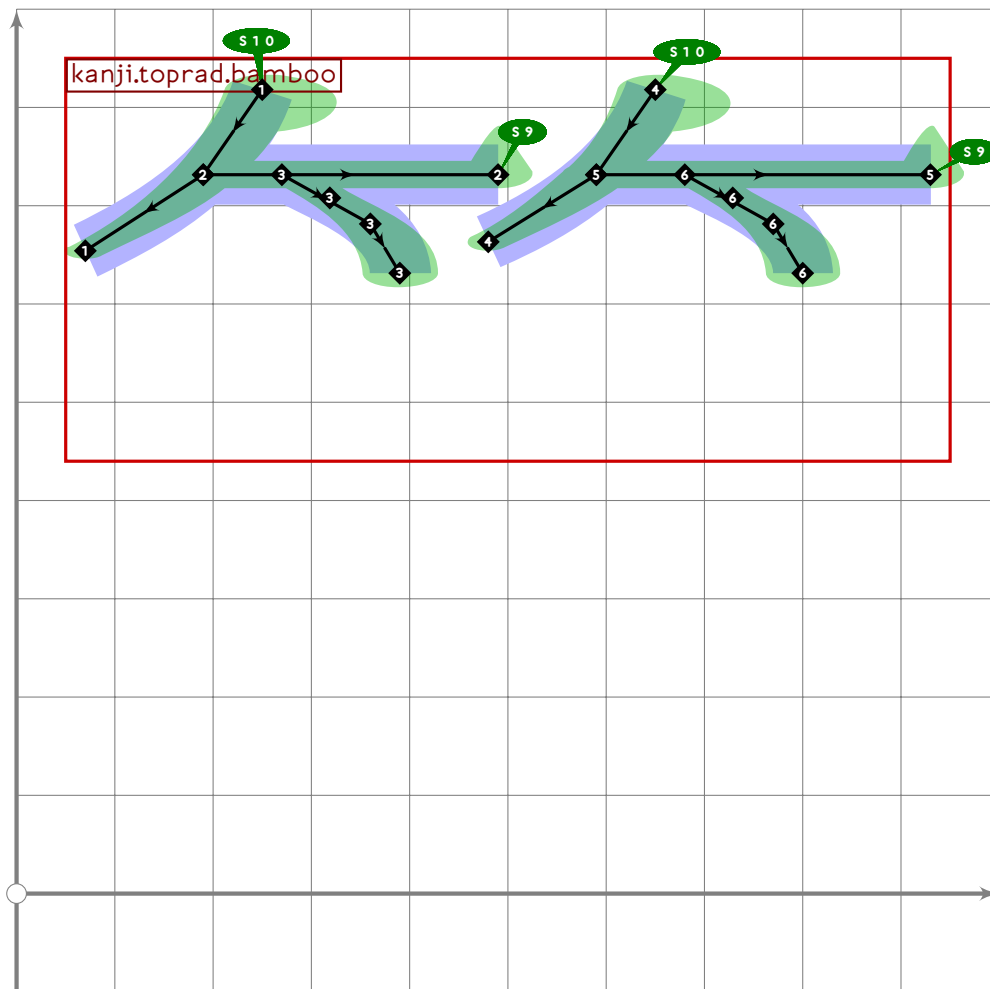
U+2EAD  
tsuku.uni2EAD



```

176 % Unicode calls it "spirit two"
177 begintsuglyph("uni2EAD",173);
178   tsu_xform(identity xscaled 0.5)(kanji.leftrad.showing);
179   tsu_render;
180 endsuglyph;
181

```

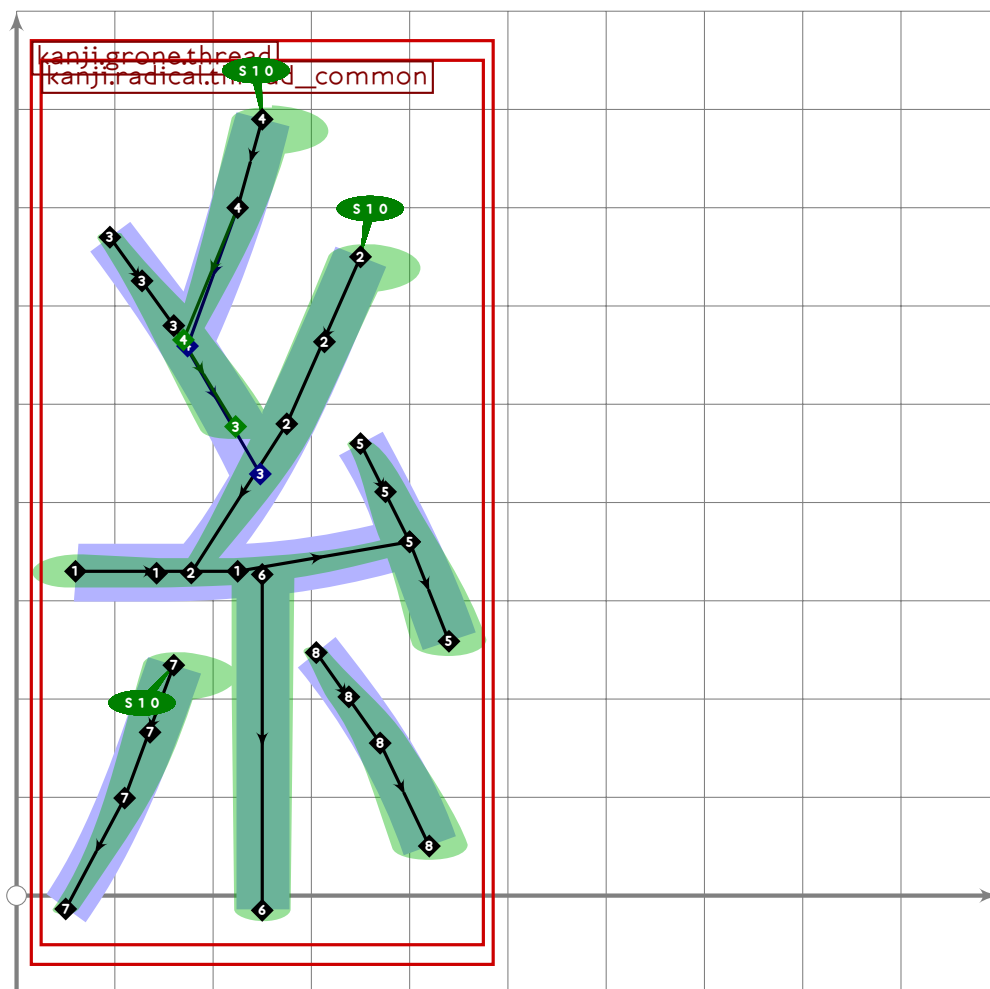


```

182 % "bamboo" top radical
183 begintsuglyph("uni2EAE";174);
184   build_kanji.tb(540,200)
185     (kanji.toprad.bamboo)
186   ();
187   tsu_render;
188 endtsuglyph;
189

```

U+2EAF  
tsuku.uni2EAF

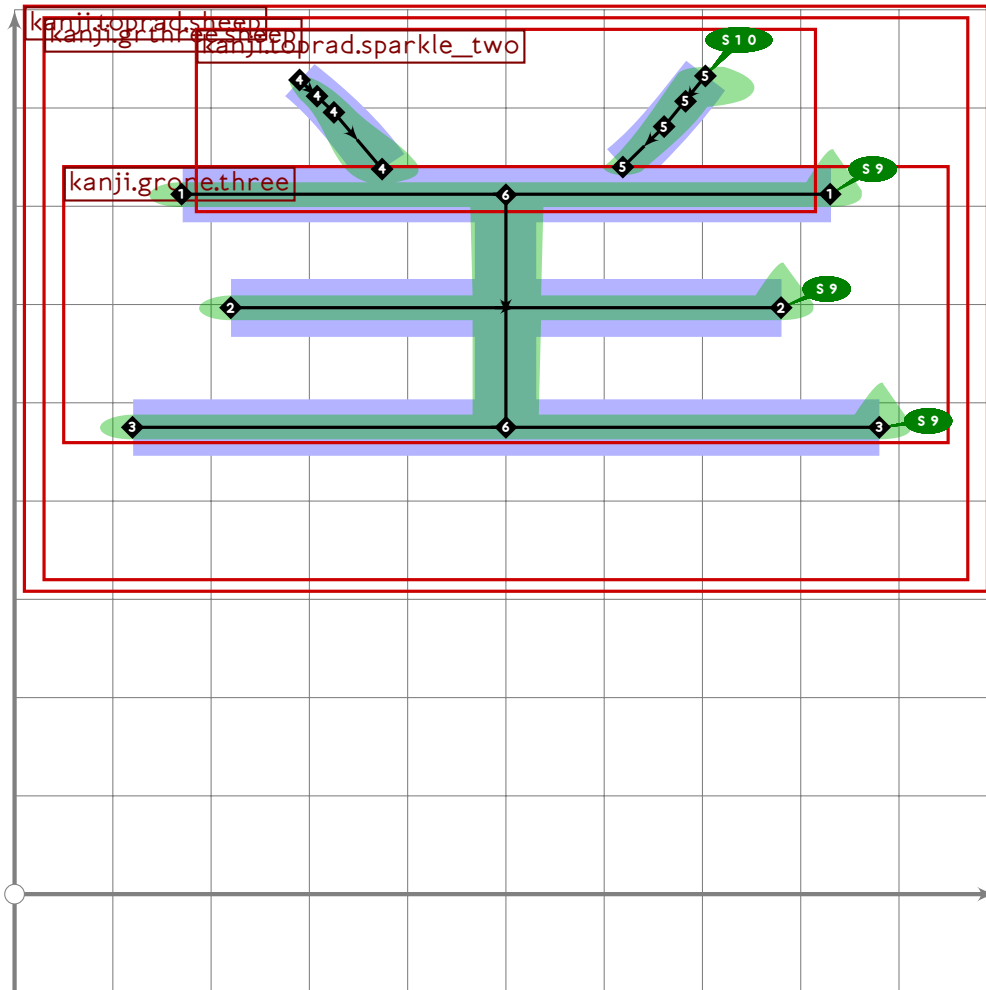


```

190 % Unicode calls it "sil"
191 begintsuglyph("uni2EAF",175);
192   tsu_xform(identity xscaled 0.5)
193     (build_kanji.lift_skirt(300,60)(kanji.grone.thread));
194   tsu_render;
195 endtsuglyph;
196

```



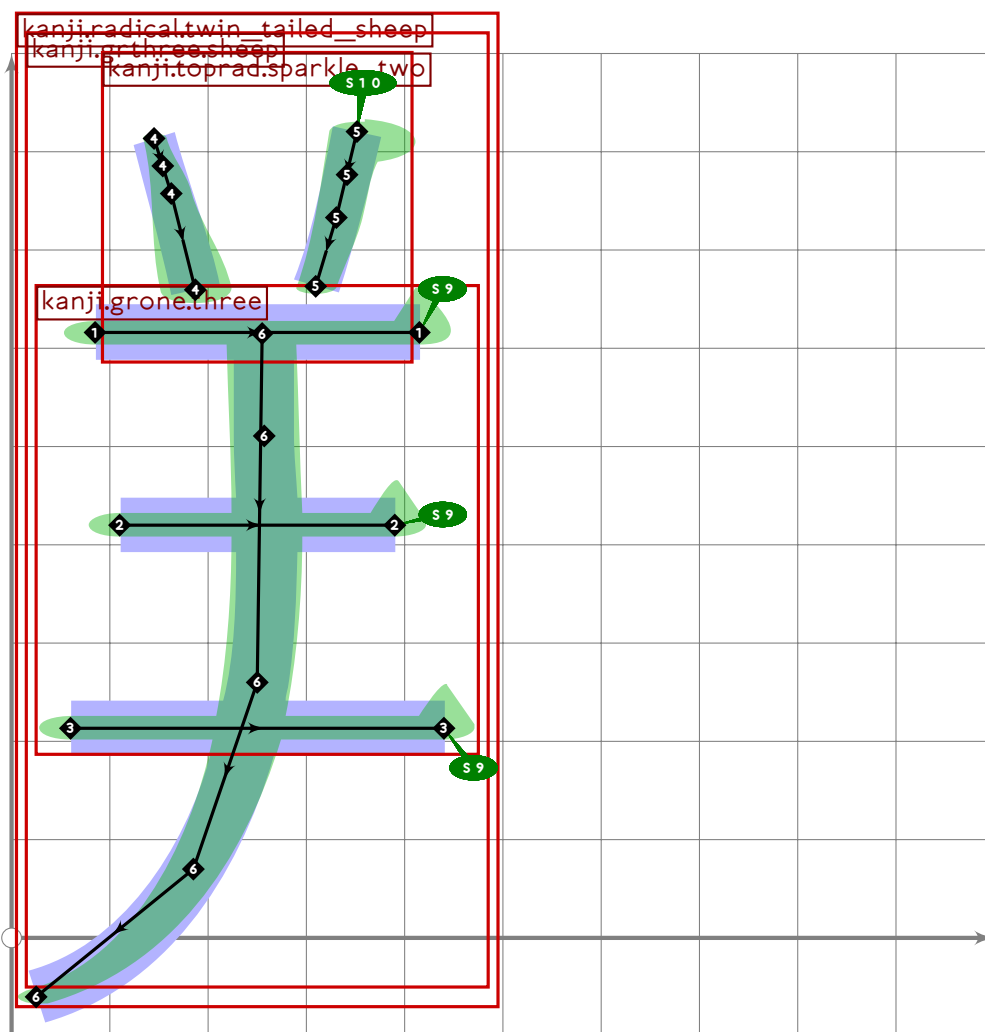


```

197 % "sheep" (ram) top radical
198 begintsuglyph("uni2EB7";183);
199   build_kanji.tb(420,200)
200     (kanji.toprad.sheep)
201     ();
202   tsu_render;
203 endtsuglyph;
204

```

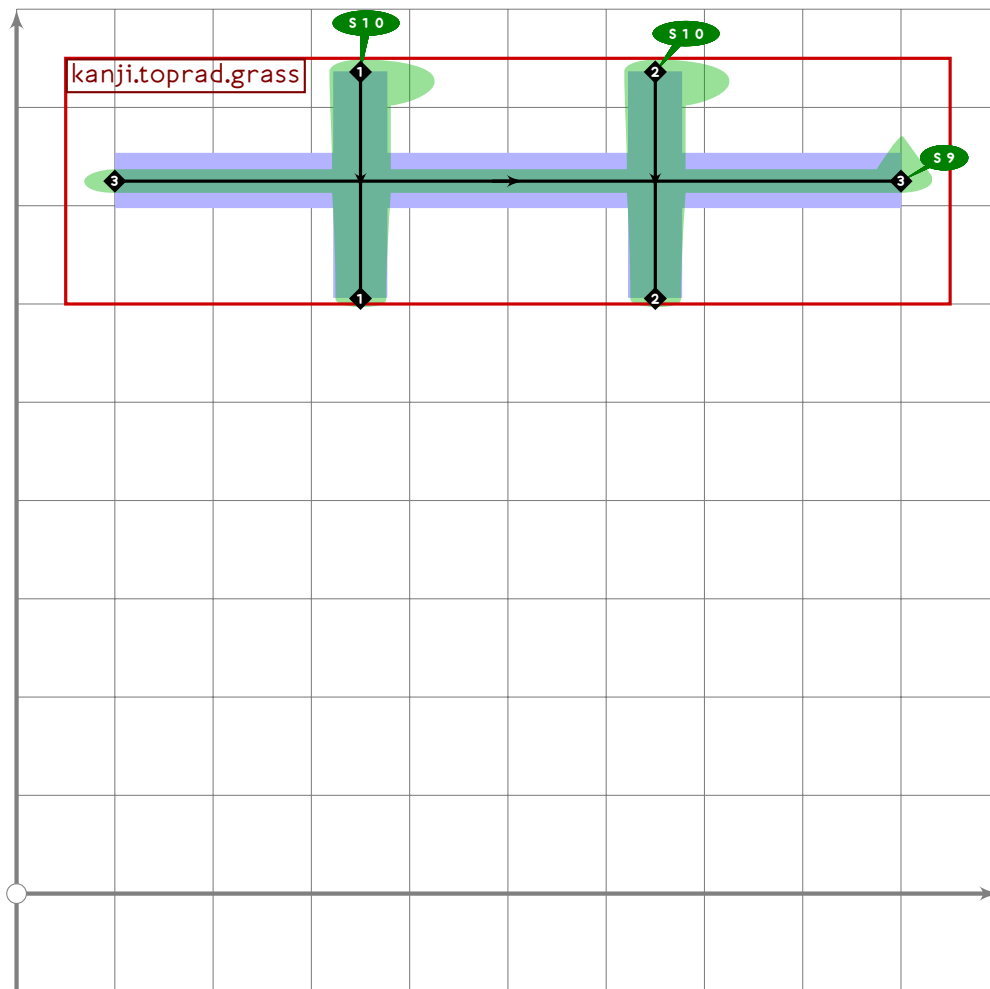
U+2EB8  
tsuku.uni2EB8



```

205 % "sheep" left-side radical
206 begintsuglyph("uni2EB8",184);
207   tsu_xform(identity xscaled 0.5)
208     (kanji.radical.twin_tailed_sheep;
209       pop_stroke);
210   tsu_render;
211 endtsuglyph;
212

```

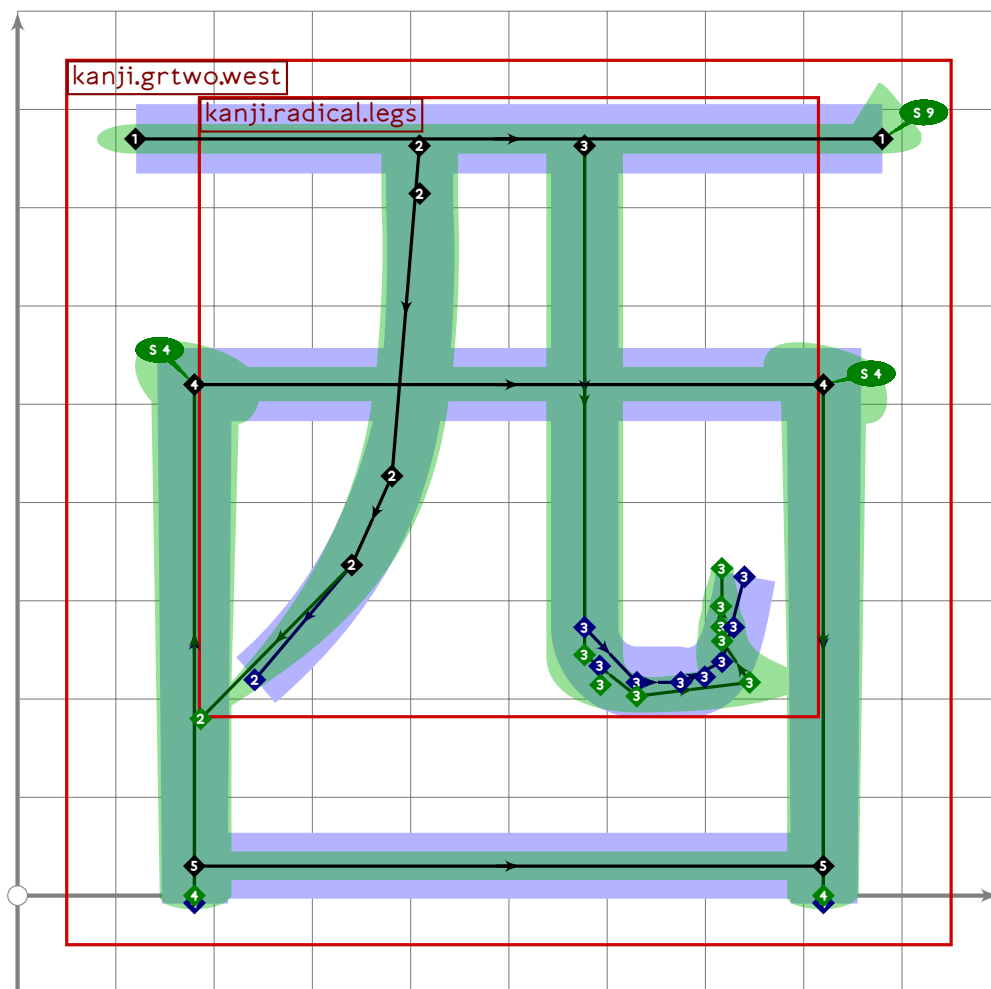


```

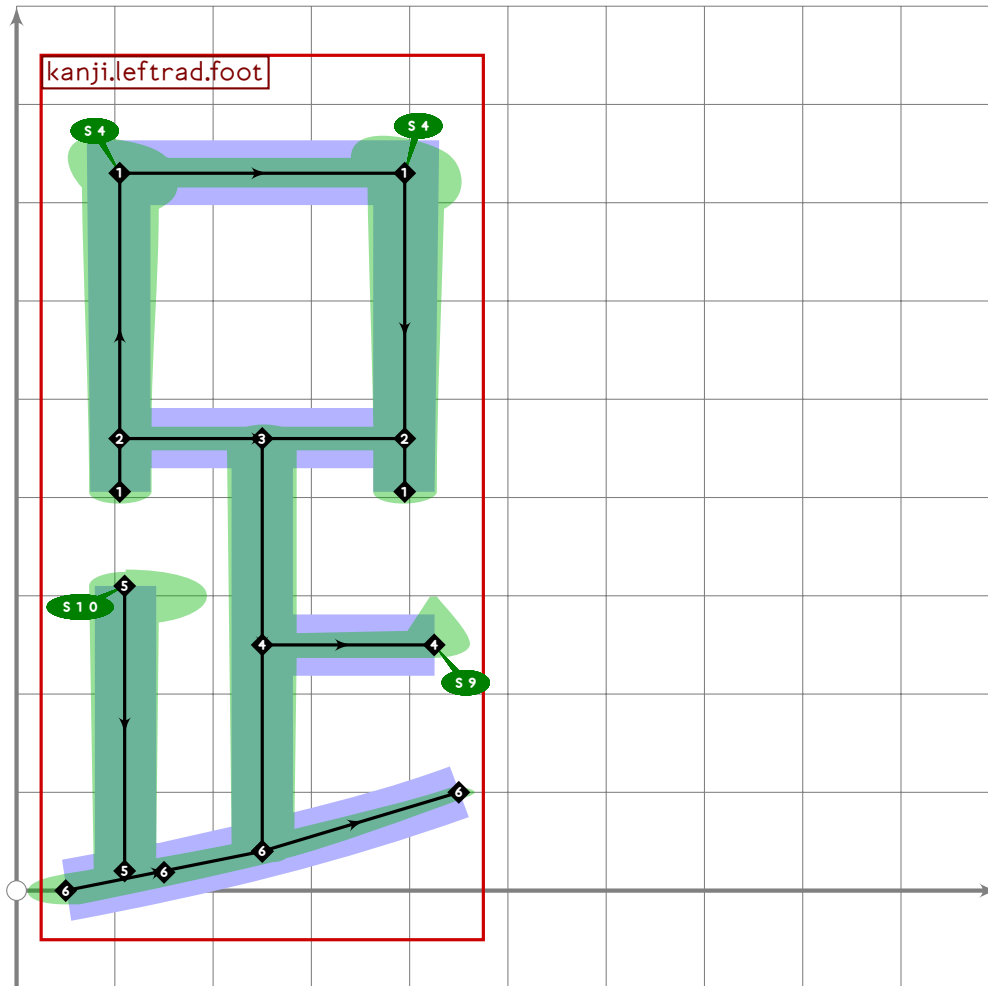
213 % Japanese form of "grass" top radical
214 begintsuglyph("uni2EBE";190);
215   build_kanji.tb(600,0)
216     (kanji.toprad.grass)
217   ();
218   tsu_render;
219 endtsuglyph;
220

```

U+2EC4  
tsuku.uni2EC4



```
221 % sai/nishi "West" or "Spain"
222 begintsuglyph("uni2EC4";196);
223   kanji.grtwo.west;
224   tsu_render;
225 endsuglyph;
226
```

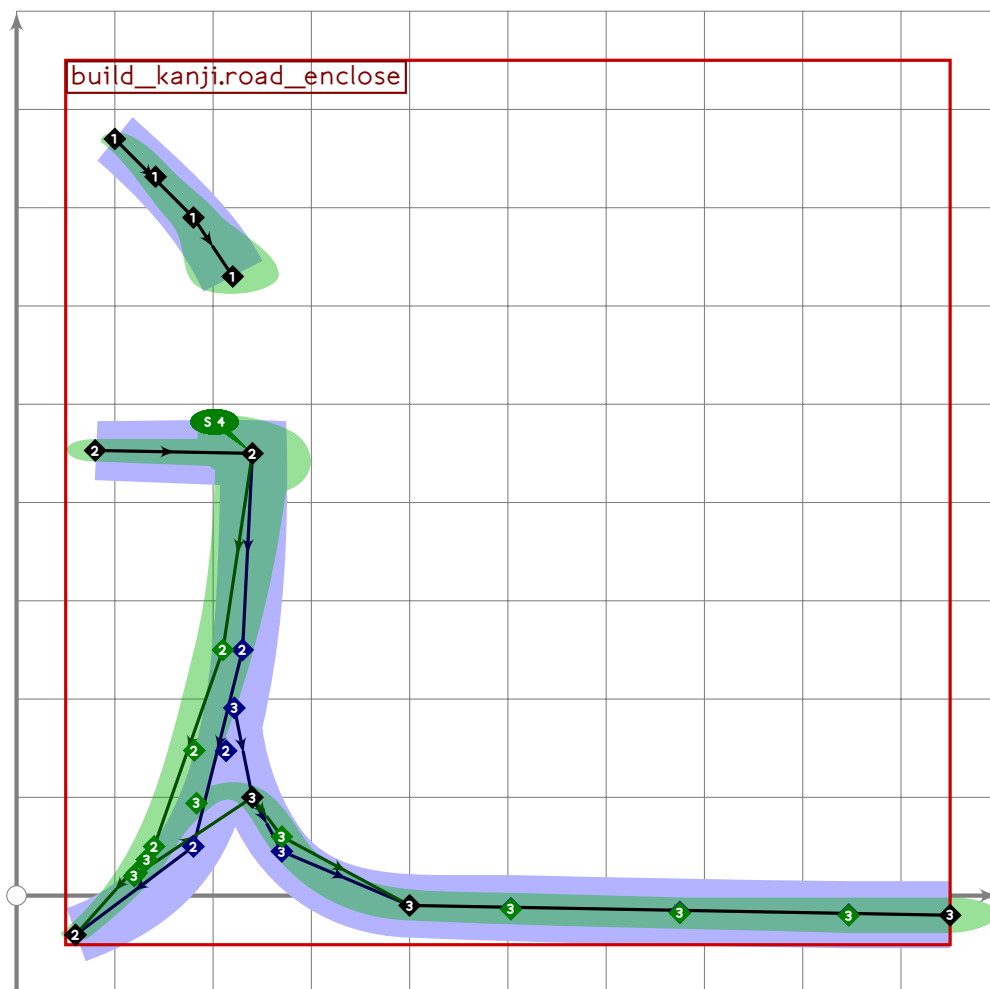


```

227 % foot radical
228 begintsuglyph("uni2ECA";202);
229 tsu_xform(identity xscaled 0.5)(kanji.leftrad.foot);
230 tsu_render;
231 endtsuglyph;
232

```

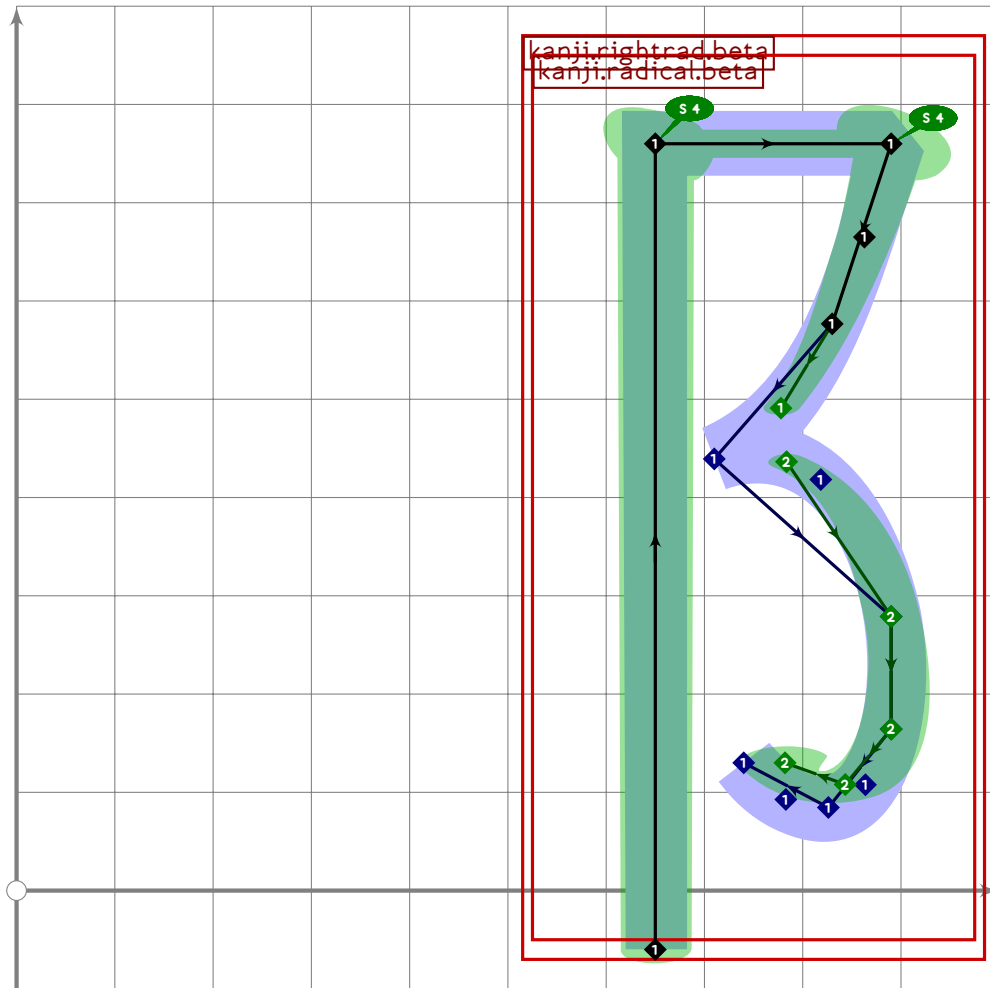
U+2ECC  
tsuku.uni2ECC



```

233 % Unicode calls it "simplified walk"
234 begintsuglyph("uni2ECC";204);
235   build_kanji.road_enclose();
236   tsu_render;
237 endtsuglyph;
238

```

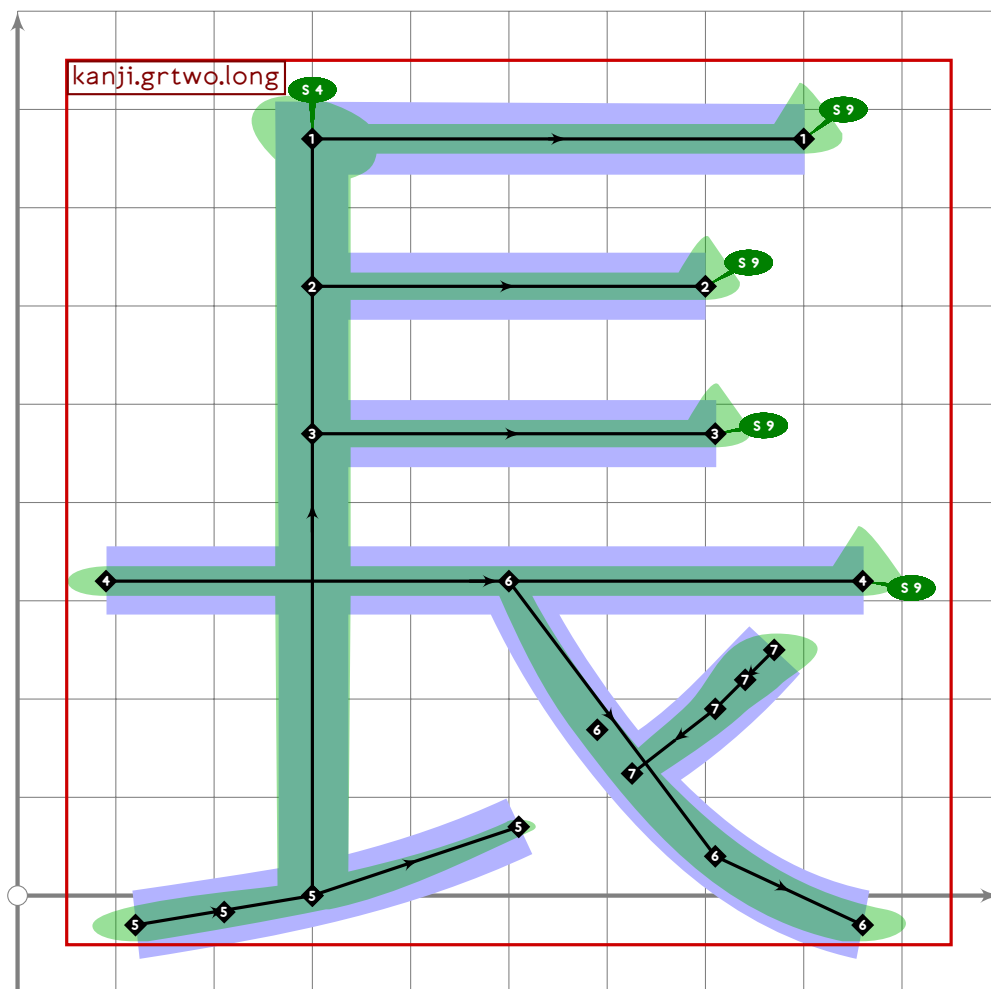


```

239 % Unicode calls it "city"
240 begintsuglyph("uni2ECF";207);
241   tsu_xform(identity xscaled 0.5 shifted (500,0))
242     (kanji.rightrad.beta);
243   tsu_render;
244 endtsuglyph;
245

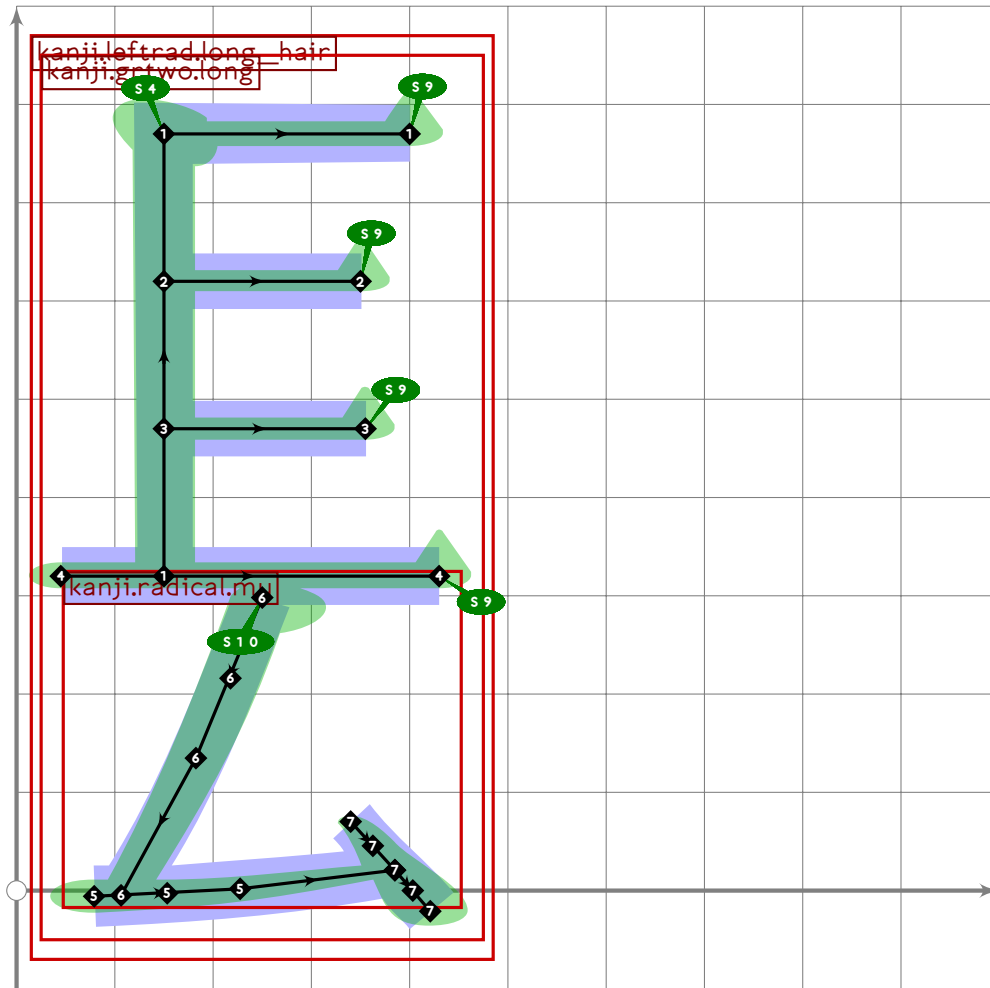
```

U+2ED1  
tsuku.uni2ED1



```
246 % chou/naga "long"  
247 begintsuglyph("uni2ED1";209);  
248   kanji.grtwo.long;  
249   tsu_render;  
250 endtsuglyph;  
251
```



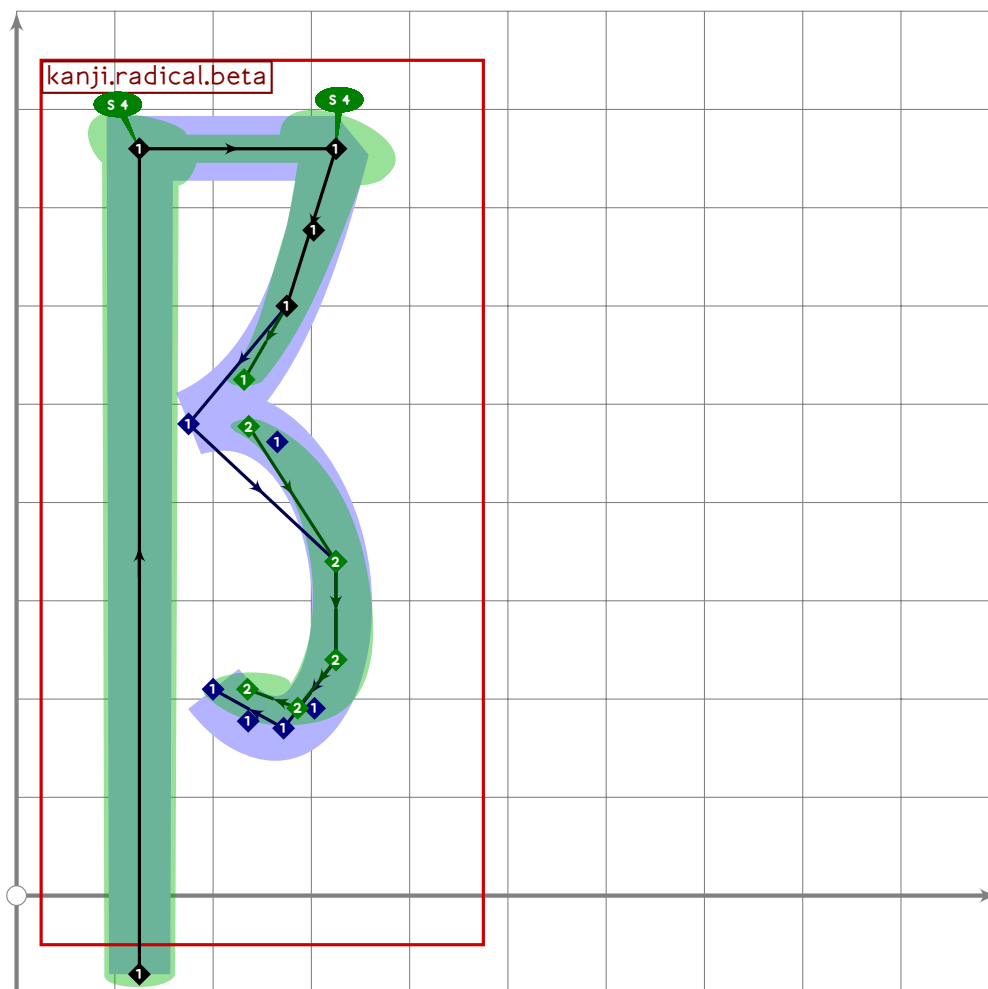


```

252 % Unicode calls it "long two"
253 beginsuglyph("uni2ED2";210);
254   tsu_xform(identity xscaled 0.5)(kanji.leftrad.long_hair);
255   tsu_render;
256 endsuglyph;
257

```

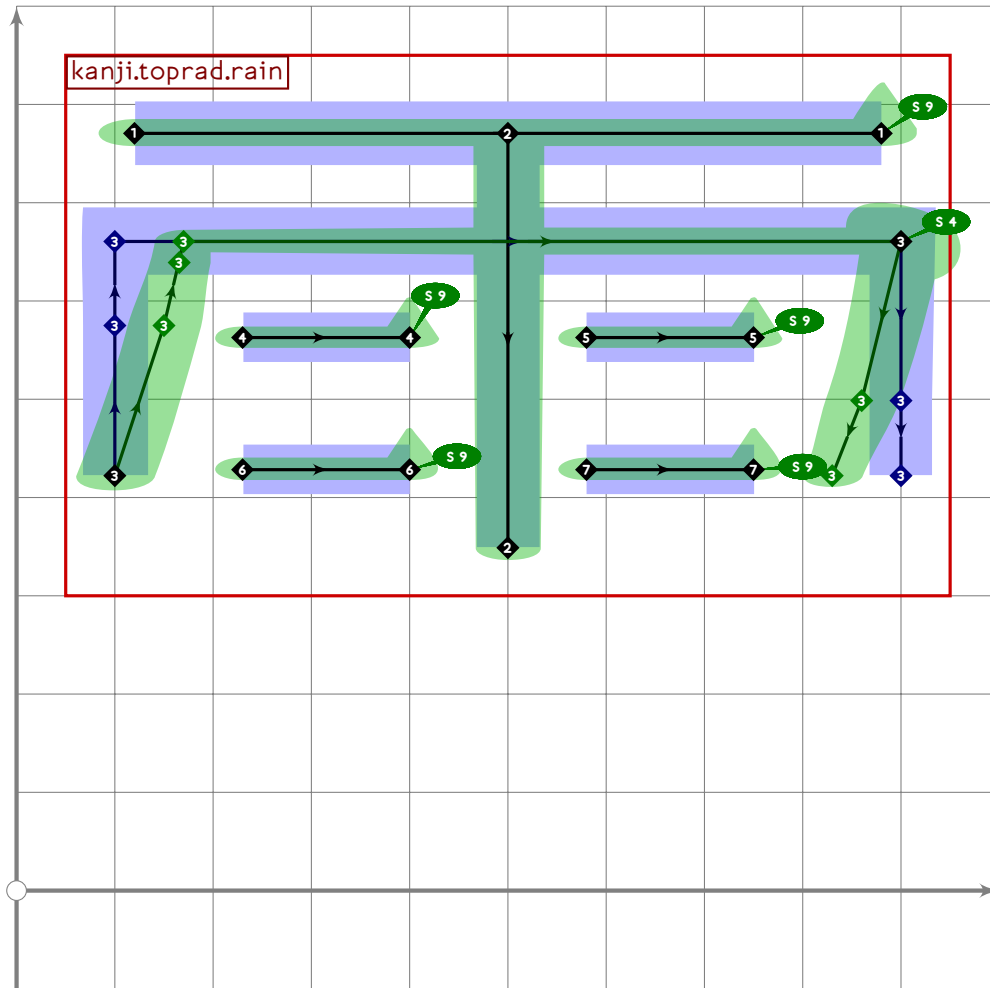
U+2ED6  
tsuku.uni2ED6



```

258 % Unicode calls it "mound two"
259 begintsuglyph("uni2ED6";214);
260   tsu_xform(identity xscaled 0.5)
261     (kanji.radical.beta);
262   tsu_render;
263 endtsuglyph;
264

```

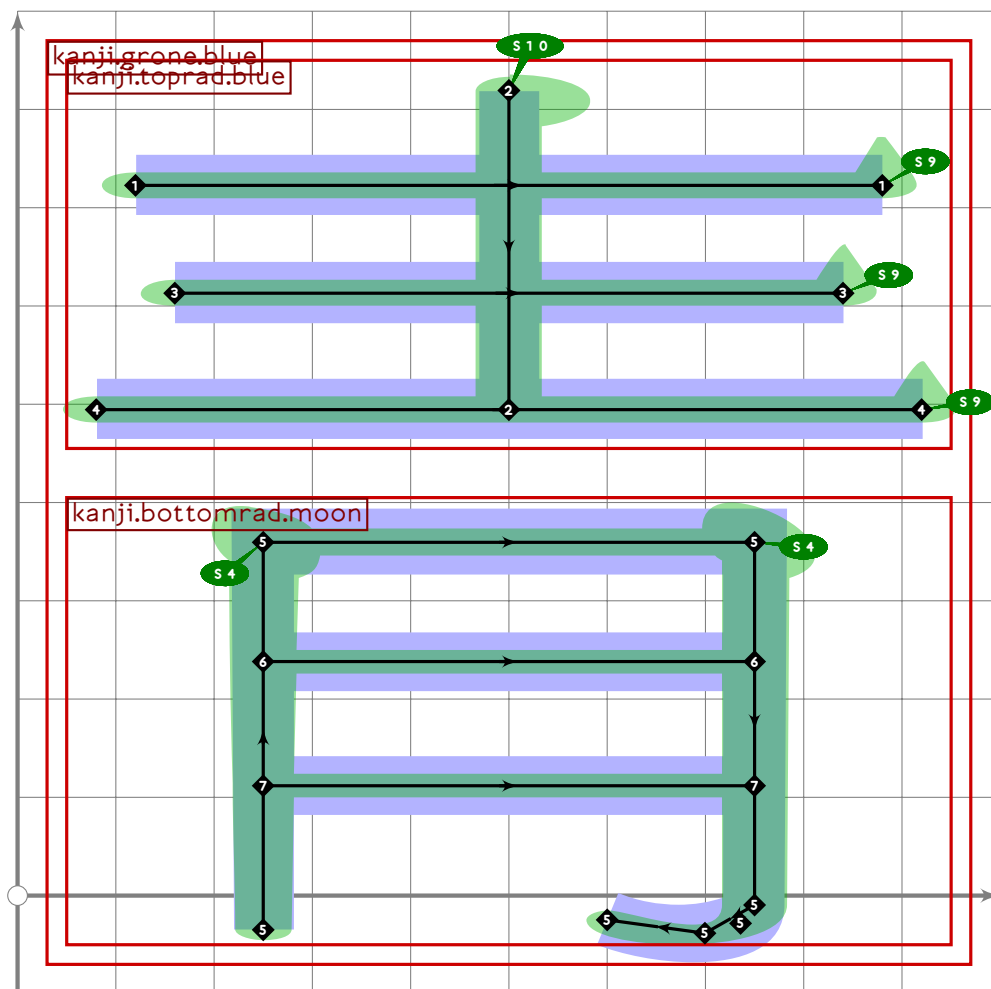


```

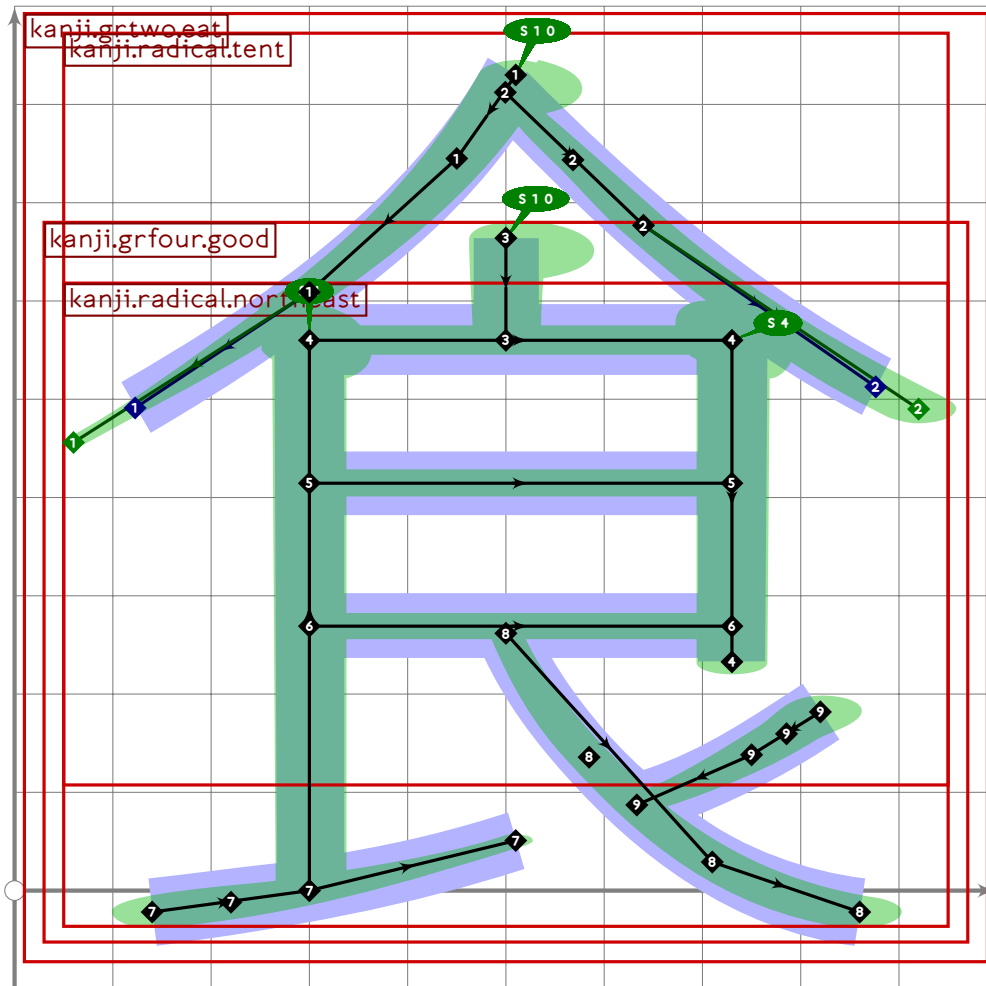
265 % "rain" top radical
266 begintsuglyph("uni2ED7";215);
267   build_kanji.tb(300,0)
268     (kanji.toprad.rain)
269     ();
270   tsu_render;
271 endtsuglyph;
272

```

U+2ED8  
tsuku.uni2ED8



```
273 % ao "blue"  
274 begintsuglyph("uni2ED8";216);  
275   kanji.grone.blue;  
276   tsu_render;  
277 endtsuglyph;  
278
```

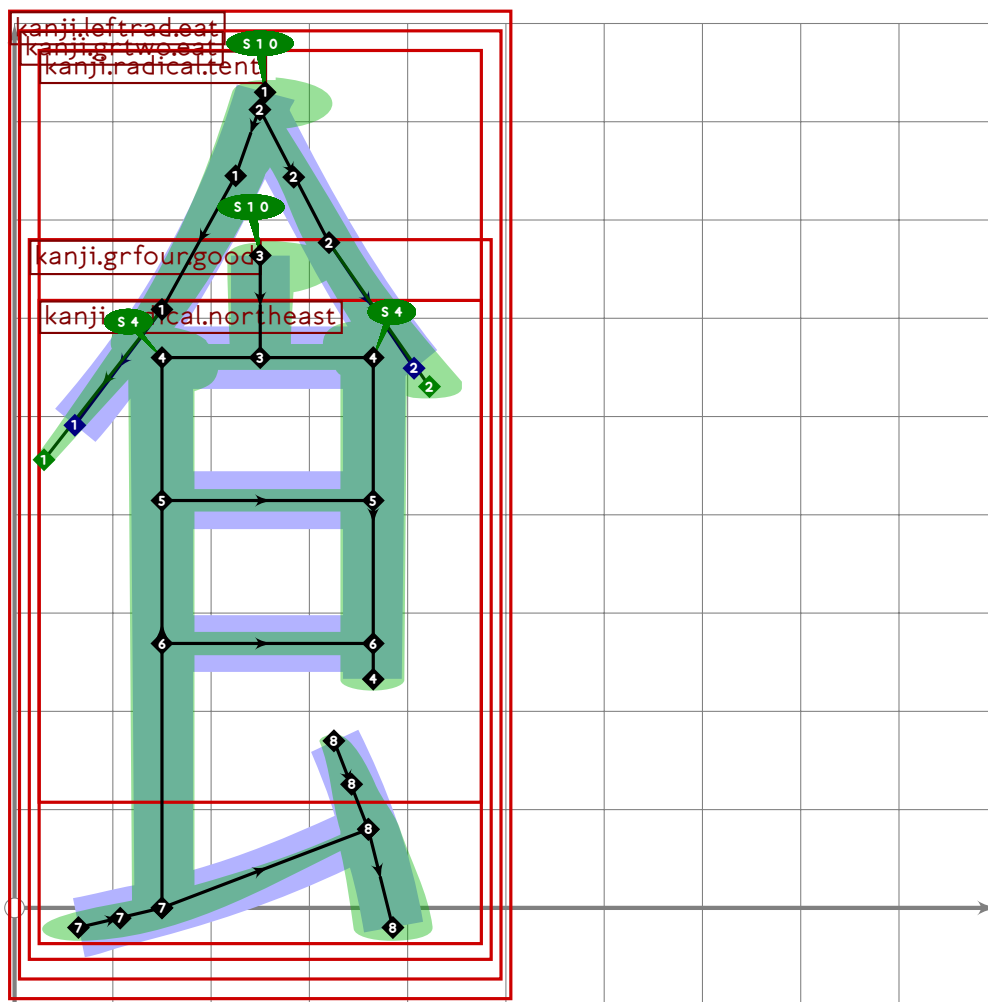


```

279 % shoku/ta "eat"
280 begintsuglyph("uni2EDD",221);
281   kanji.grtwo.eat;
282   tsu_render;
283 endtsuglyph;
284

```

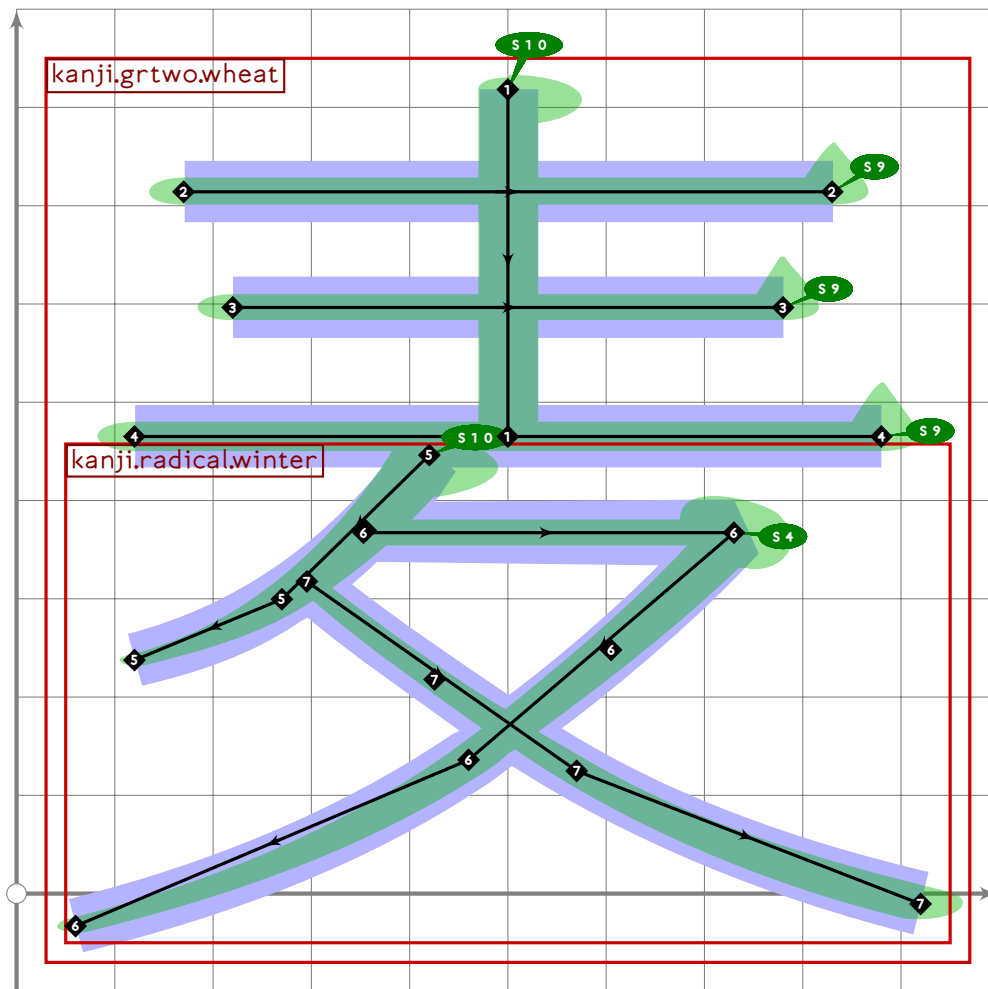
U+2EDF  
tsuku.uni2EDF



```

285 % simplified "eat" for use as radical
286 begintsuglyph("uni2EDF";223);
287   tsu_xform(identity xscaled 0.5)(kanji.leftrad.eat);
288   tsu_render;
289 endtsuglyph;
290

```

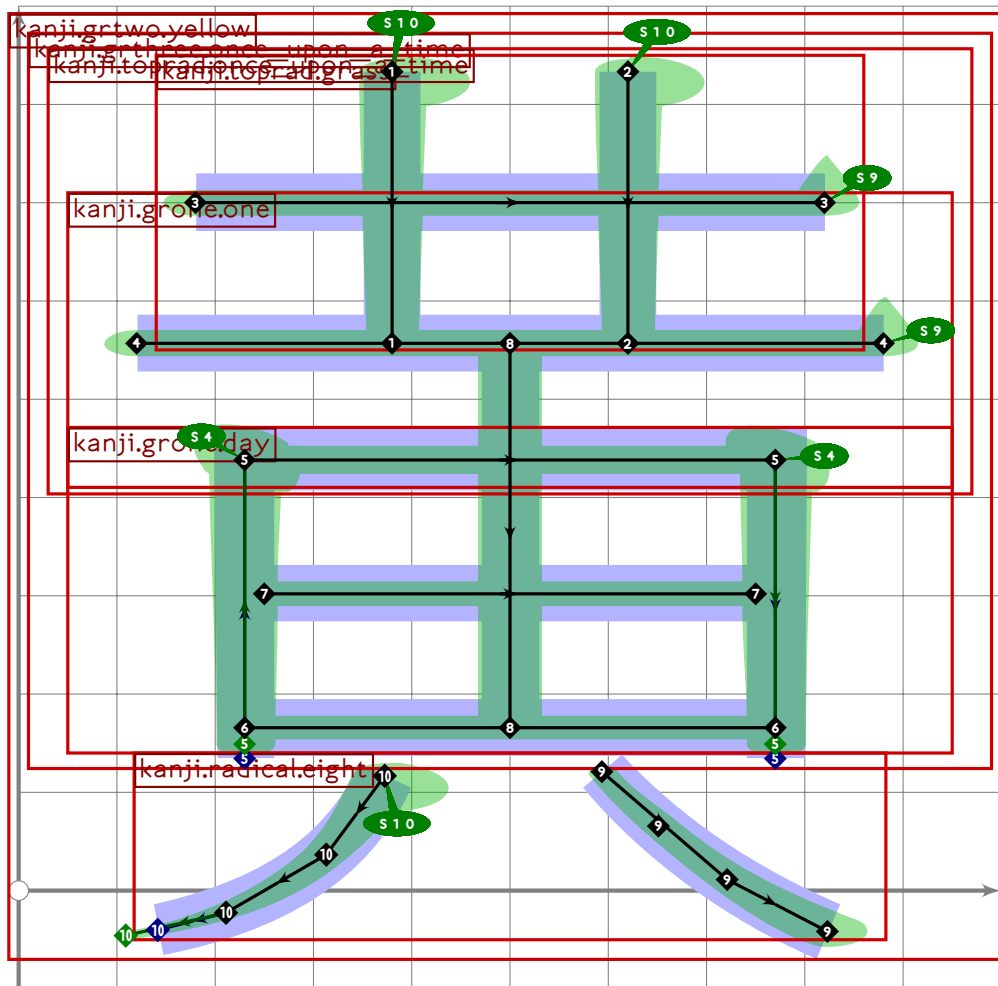


```

291 % baku/mugi "wheat"
292 begintsuglyph("uni2EE8";232);
293   kanji.grtwo.wheat;
294   tsu_render;
295 endtsuglyph;
296

```

U+2EE9  
tsuku.uni2EE9

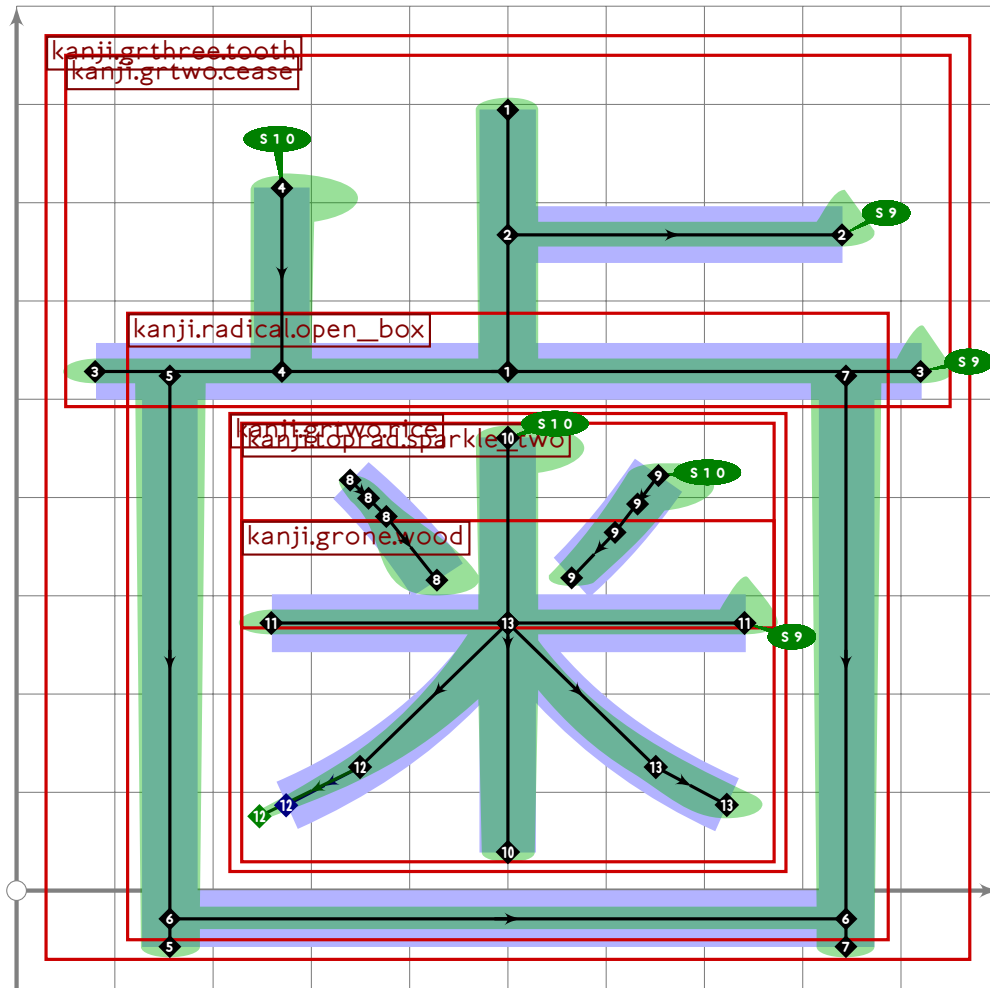


```

297 % kou/ki "yellow"
298 begintsuglyph("uni2EE9";233);
299   kanji.grtwe.yellow;
300   tsu_render;
301 endtsuglyph;
302

```





```

303 % shi/ha "tooth"
304 begintsuglyph("uni2EED";237);
305   kanji.grthree.tooth;
306   tsu_render;
307 endtsuglyph;
308
309 _____
310
311 endfont;
312
313 _____

```

## tsuku-2f.mp

```
1 %
2 % Unicode page 2F (Radicals and IDCs) for Tsukurimashou
3 % Copyright (C) 2011, 2012, 2013 Matthew Skala
4 %
5-29 [Standard copyright notice]
30
31 

---


32
33 beginfont
34
35 % AUTODEPS
36 input bkencl.mp;
37 input bottomrad.mp;
38 input buildkanji.mp;
39 input gradeeight.mp;
40 input gradefive.mp;
41 input gradefour.mp;
42 input gradenine.mp;
43 input gradeone.mp;
44 input gradesix.mp;
45 input gradethree.mp;
46 input gradetwo.mp;
47 input leftrad.mp;
48 input radical.mp;
49 input rightrad.mp;
50 input toprad.mp;
51
52 do_late_includes;
53
54 

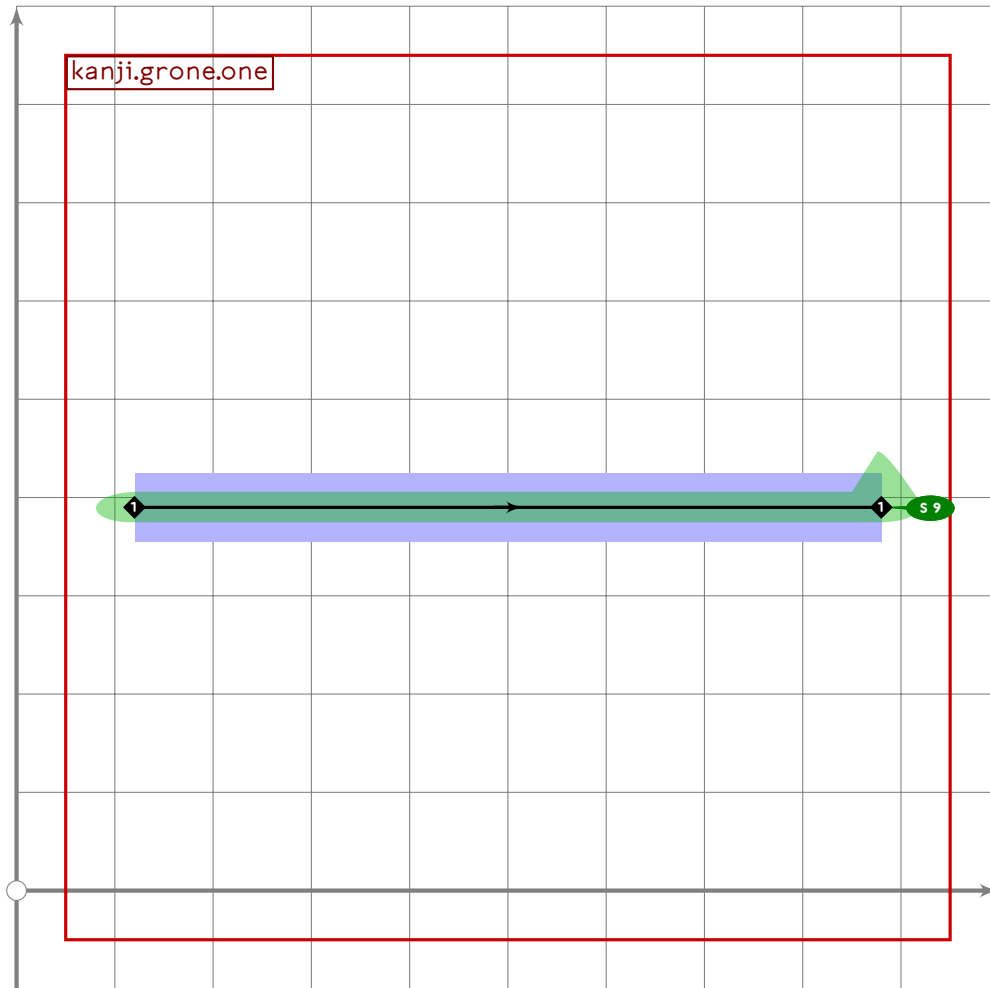
---


55
```

## Kangxi Radicals

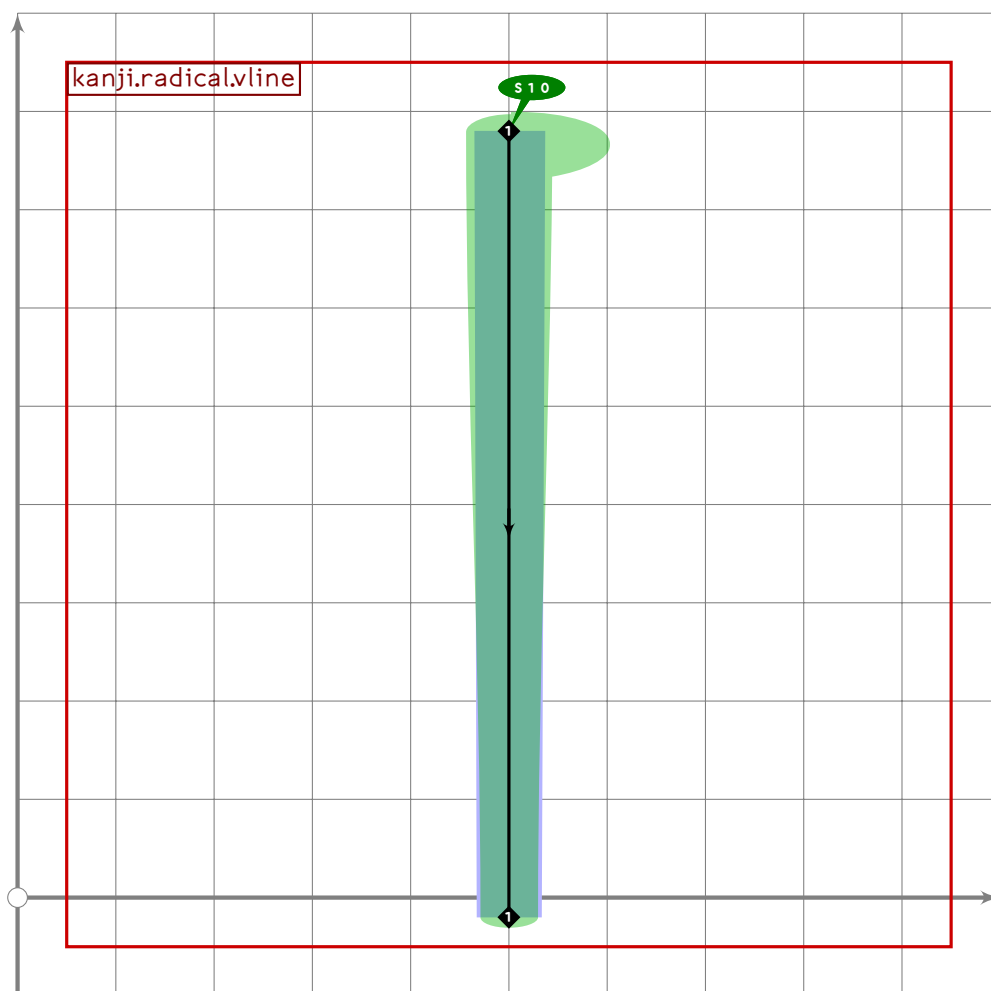
2F

```
56 % KANGXI RADICALS
57
```

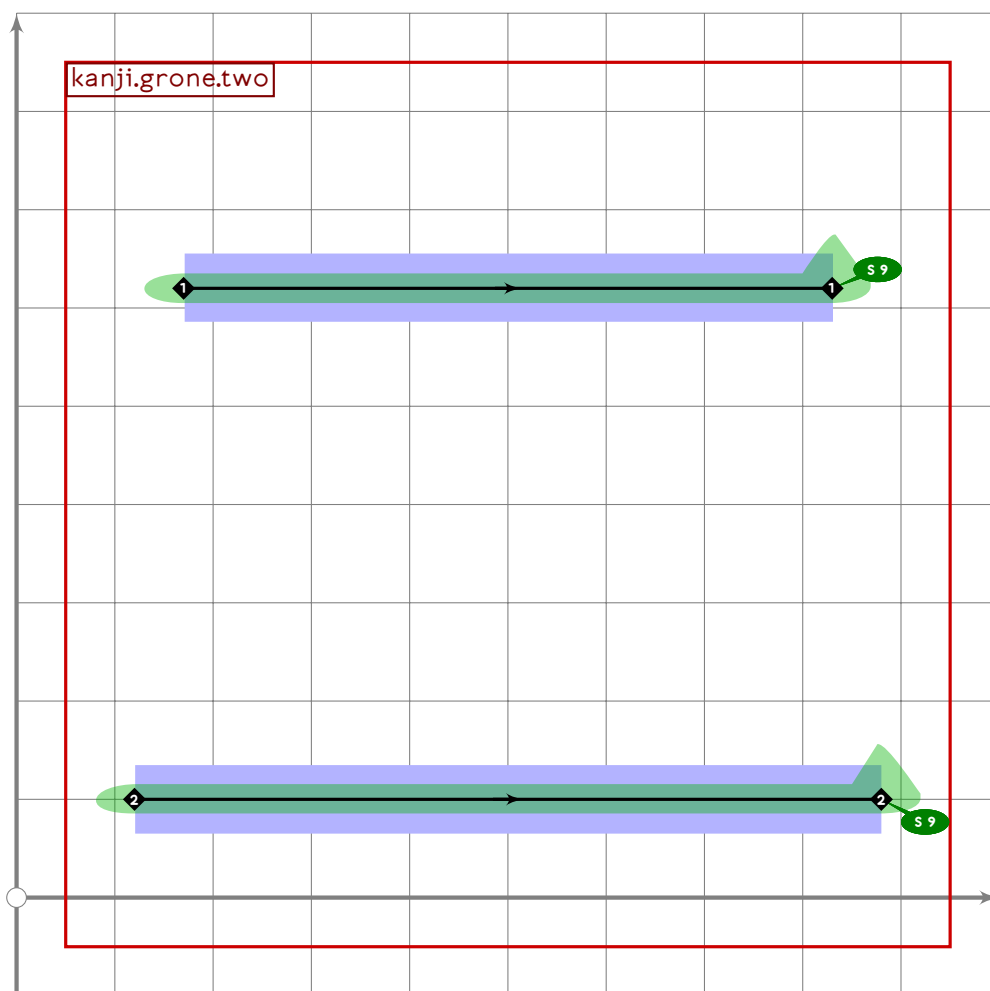


```
58 % ichi/hito "one"  
59 begintsuglyph("uni2F00";0);  
60   kanji.grone.one;  
61   tsu_render;  
62 endtsuglyph;  
63
```

U+2F01  
tsuku.uni2F01



```
64 % extra "vertical line"
65 begintsuglyph("uni2F01";1);
66   kanji.radical.vline;
67   tsu_render;
68 endsuglyph;
69
```

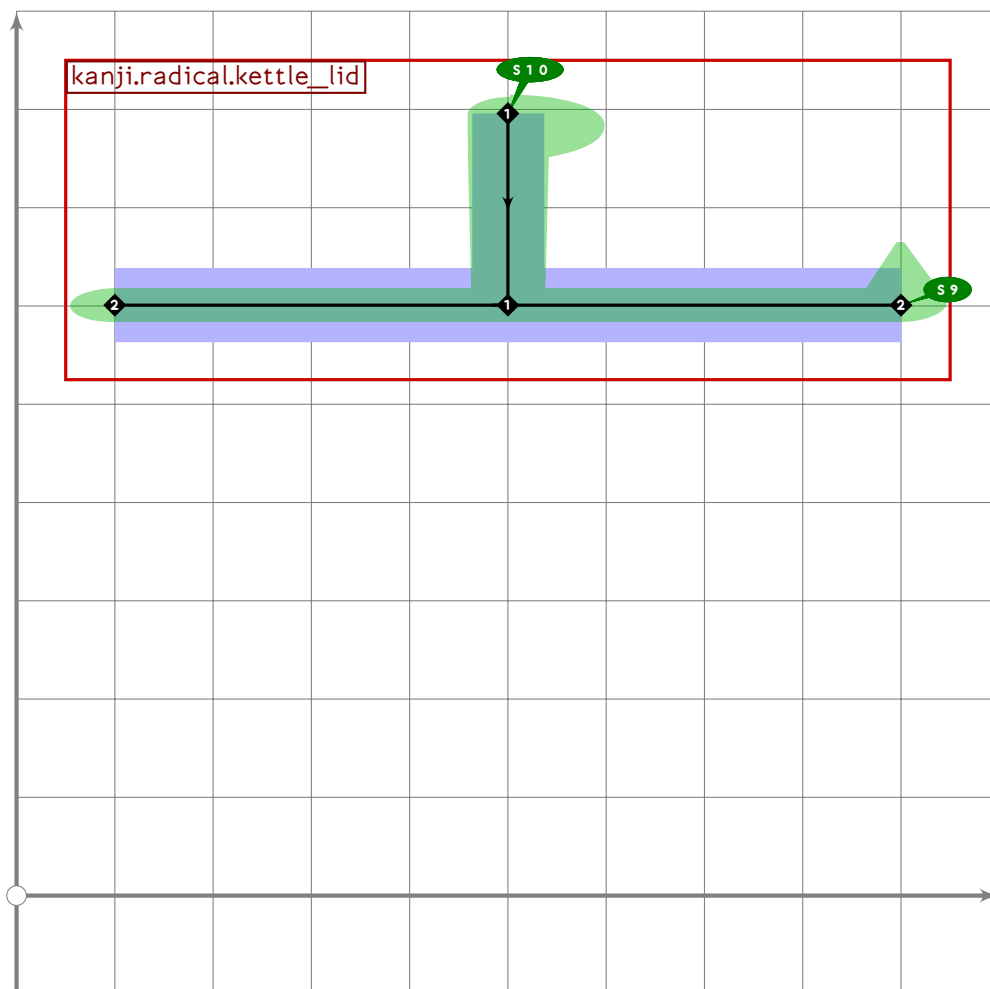


```

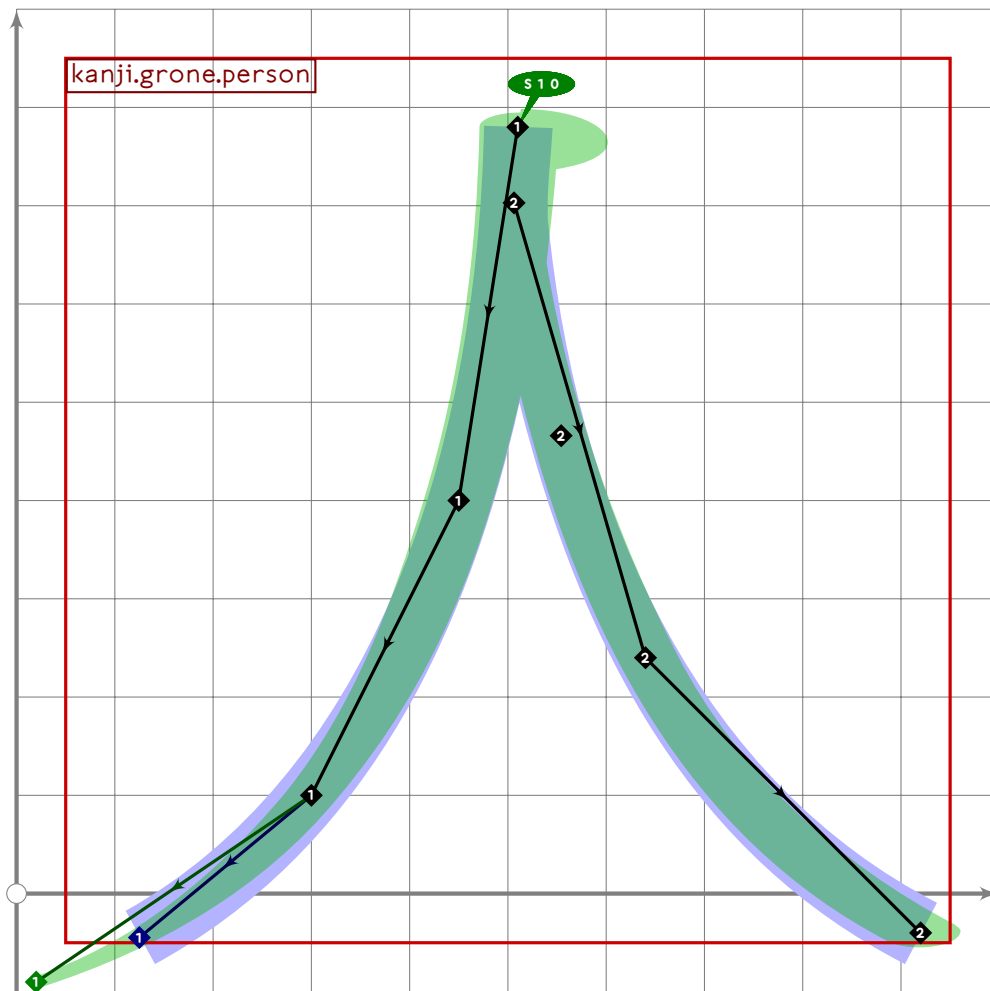
70 % ni/futa "two"
71 begintsuglyph("uni2F06",6);
72   kanji.grone.two;
73   tsu_render;
74 endtsuglyph;
75

```

U+2F07  
tsuku.uni2F07



```
76 % "kettle lid radical"  
77 begintsuglyph("uni2F07";7);  
78   build_kanji.tb(500;50)  
79     (kanji.radical.kettle_lid)  
80   ();  
81   tsu_render;  
82 endtsuglyph;  
83
```

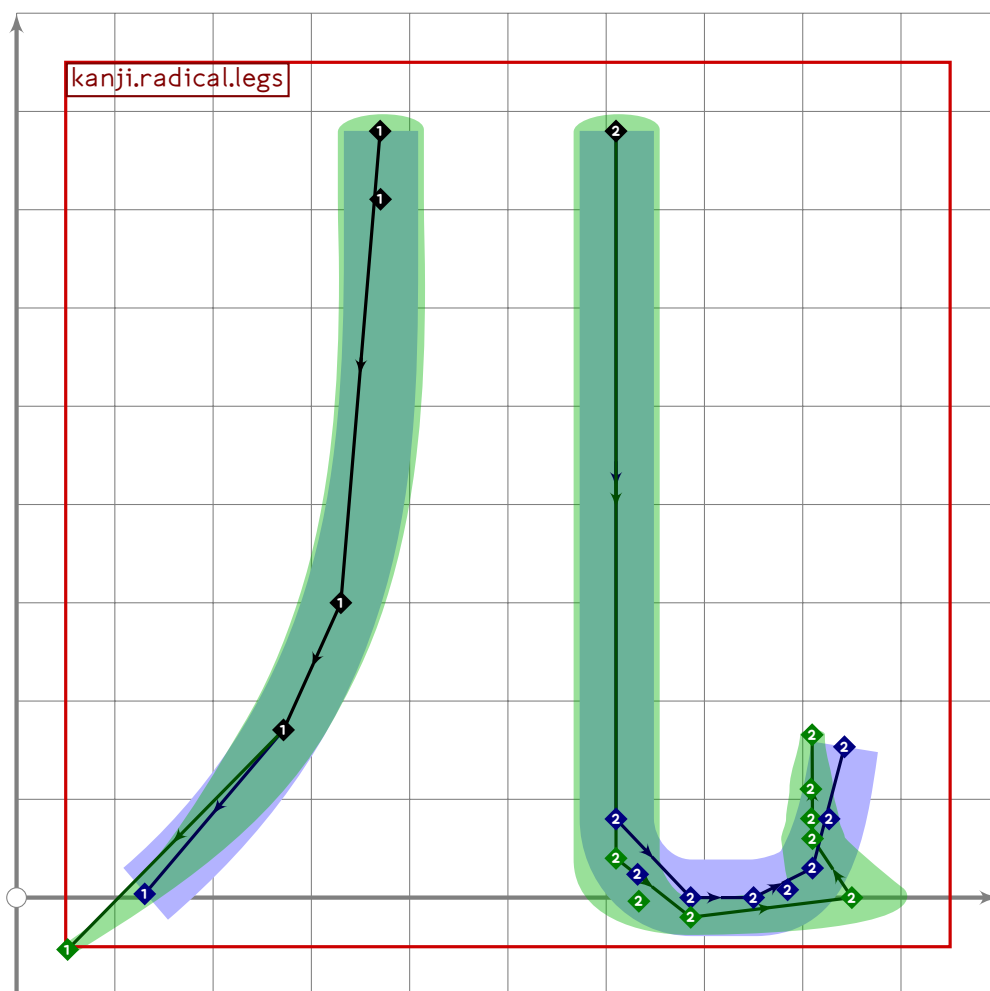


```

84 % hito/jin "person"
85 begintsuglyph("uni2F08";8);
86   kanji.grone.person;
87   tsu_render;
88 endtsuglyph;
89

```

U+2F09  
tsuku.uni2F09

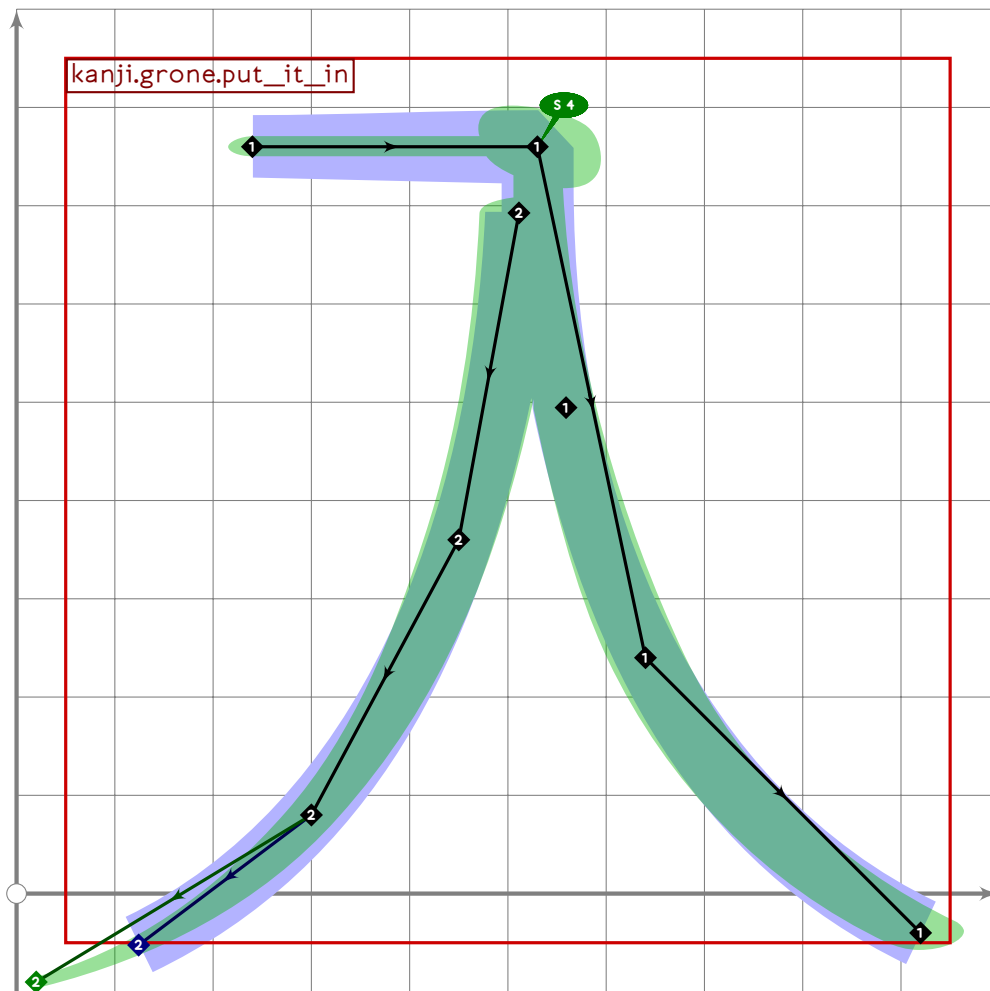


```

90 % legs radical
91 begintsuglyph("uni2F09";9);
92   kanji.radical.legs;
93   tsu_render;
94 endtsuglyph;
95

```



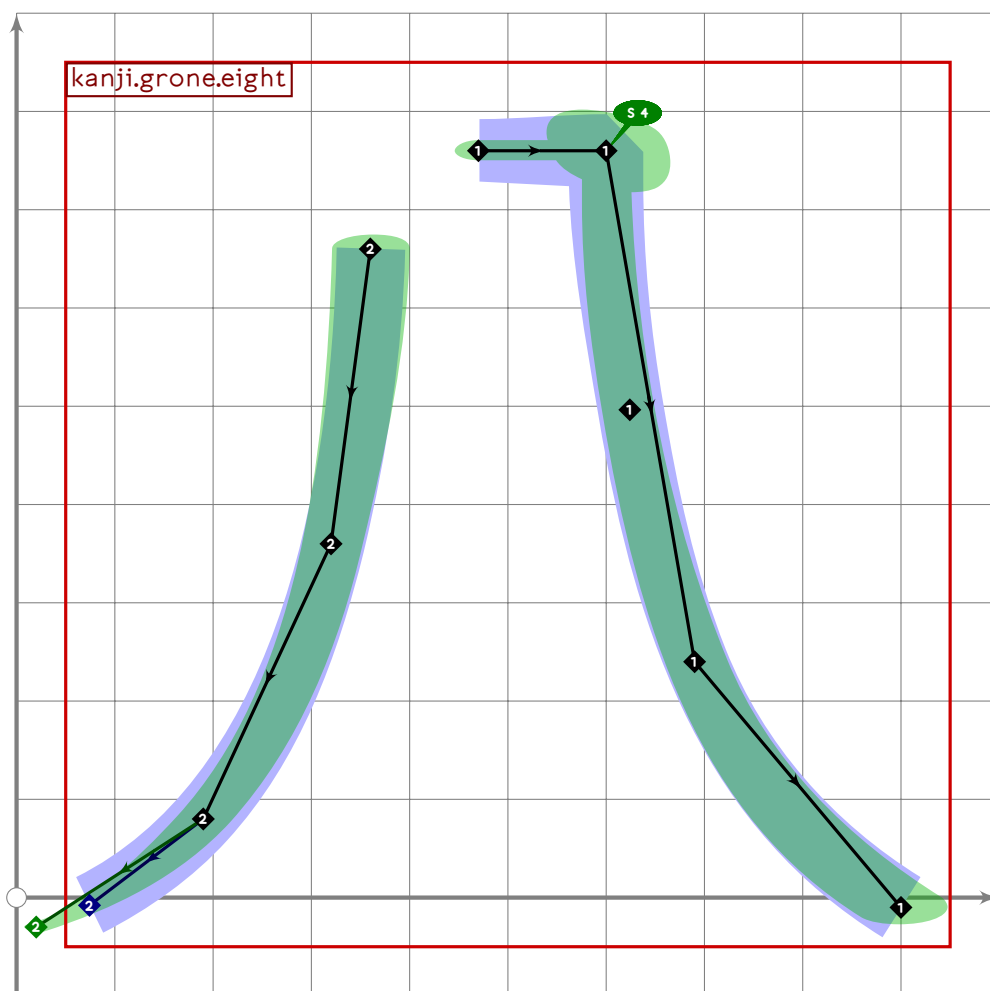


```

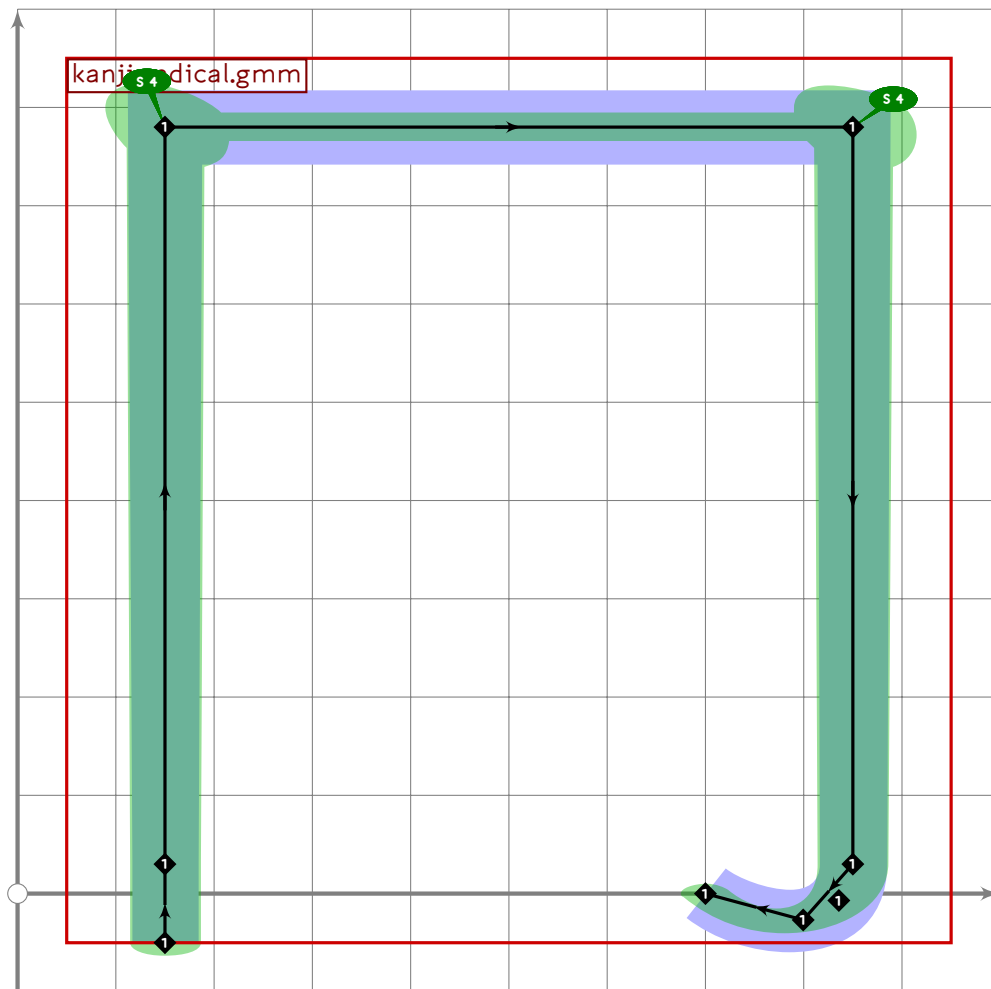
96 % hai/i "put it in"
97 begintsuglyph("uni2F0A";10);
98   kanji.grone.put_it_in;
99   tsu_render;
100 endtsuglyph;
101

```

U+2F0B  
tsuku.uni2F0B



```
102 % hachi/ya "eight"  
103 begint Suglyph("uni2F0B";11);  
104   kanji.grone.eight;  
105   tsu_render;  
106 endtsuglyph;  
107
```

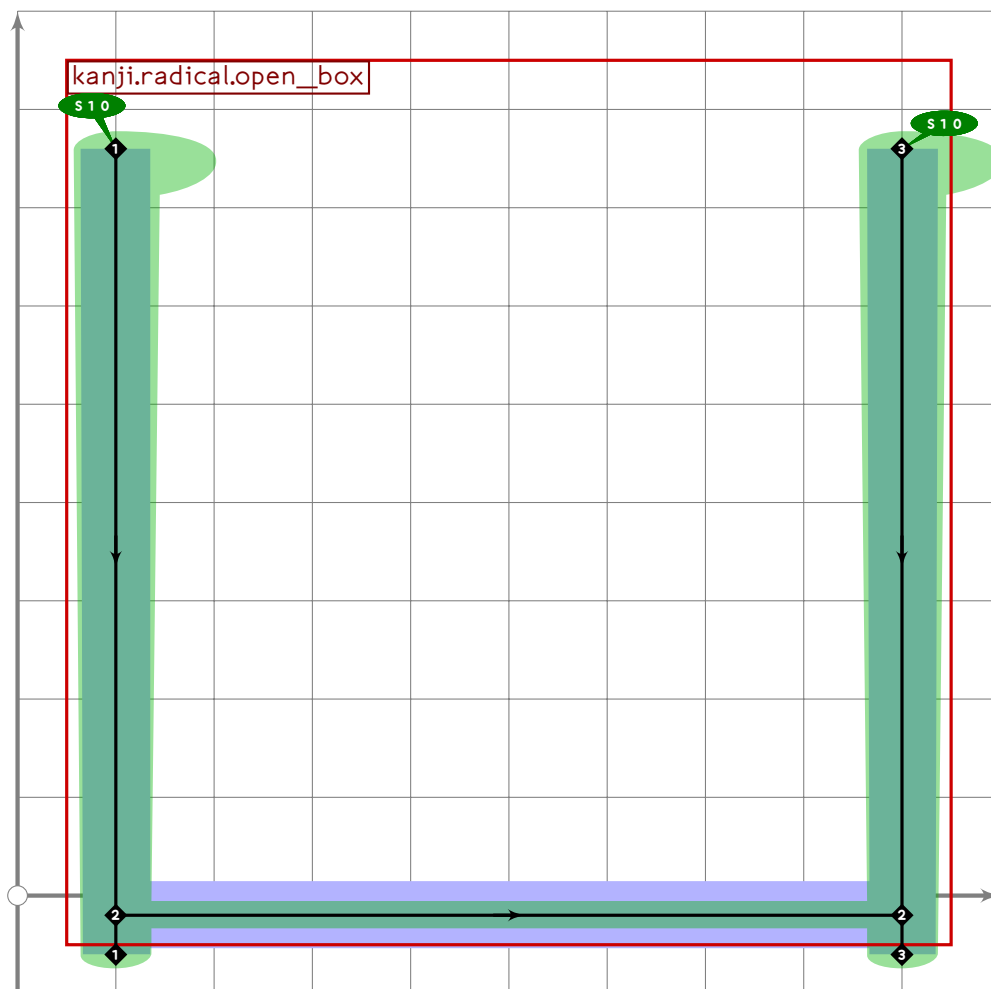


```

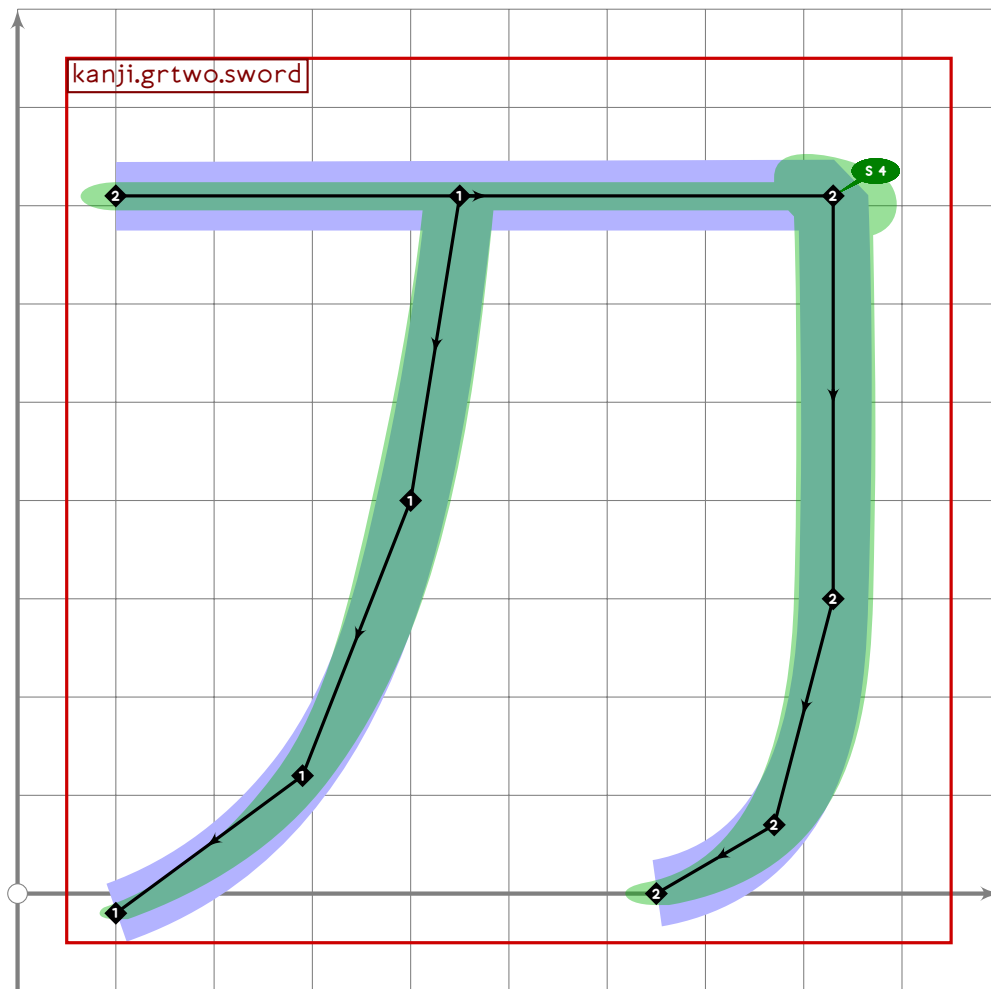
108 % George Michael's Moustache
109 begint Suglyph("uni2F0C",12);
110   kanji.radical.gmm;
111   tsu__render;
112 endtsuglyph;
113

```

U+2F10  
tsuku.uni2F10



```
114 % kan "open box radical"
115 begintsuglyph("uni2F10",16);
116   kanji.radical.open_box;
117   tsu_render;
118 endtsuglyph;
119
```

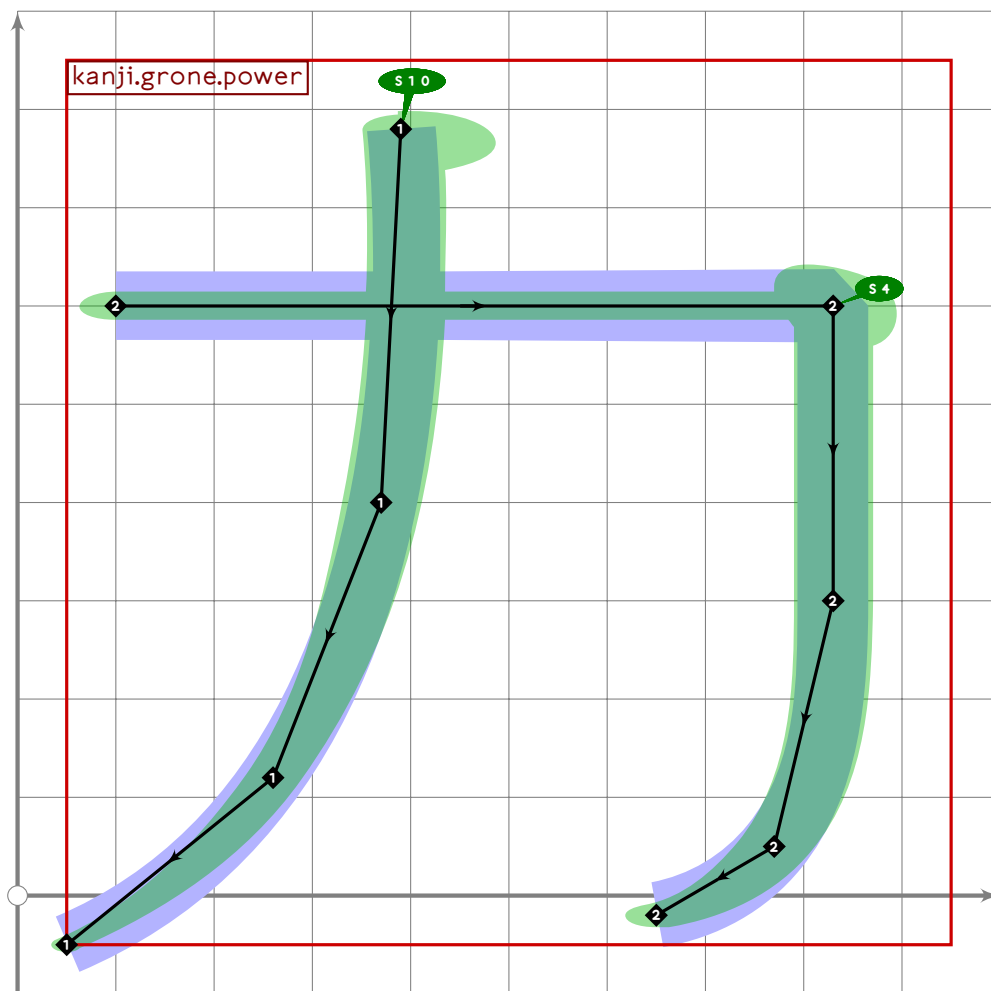


```

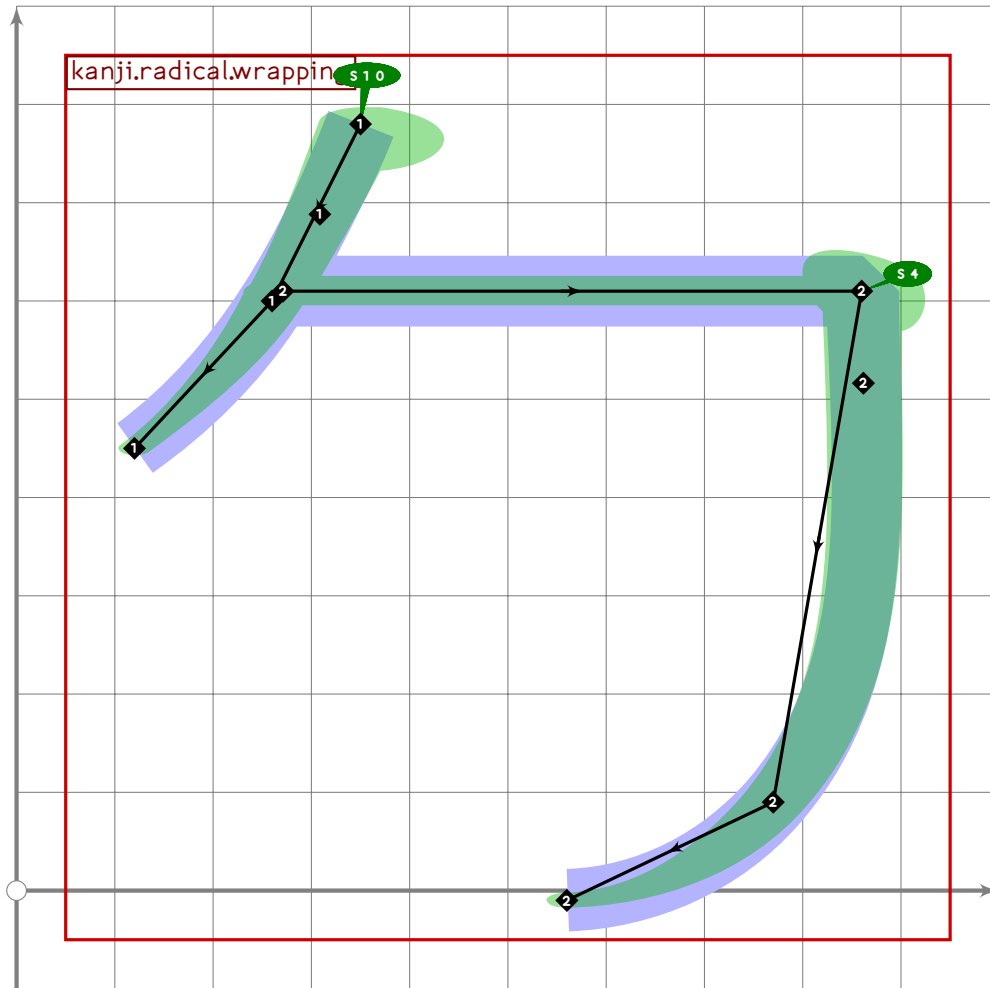
120 % tou/katana "sword"
121 begintsuglyph("uni2F11",17);
122   kanji.grtwo.sword;
123   tsu_render;
124 endtsuglyph;
125

```

U+2F12  
tsuku.uni2F12



```
126 % ryoku "power", as in Koizumi Itsuki has teh "chounouryoku"  
127 begintsuglyph("uni2F12",18);  
128   kanji.grone.power;  
129   tsu_render;  
130 endtsuglyph;  
131
```

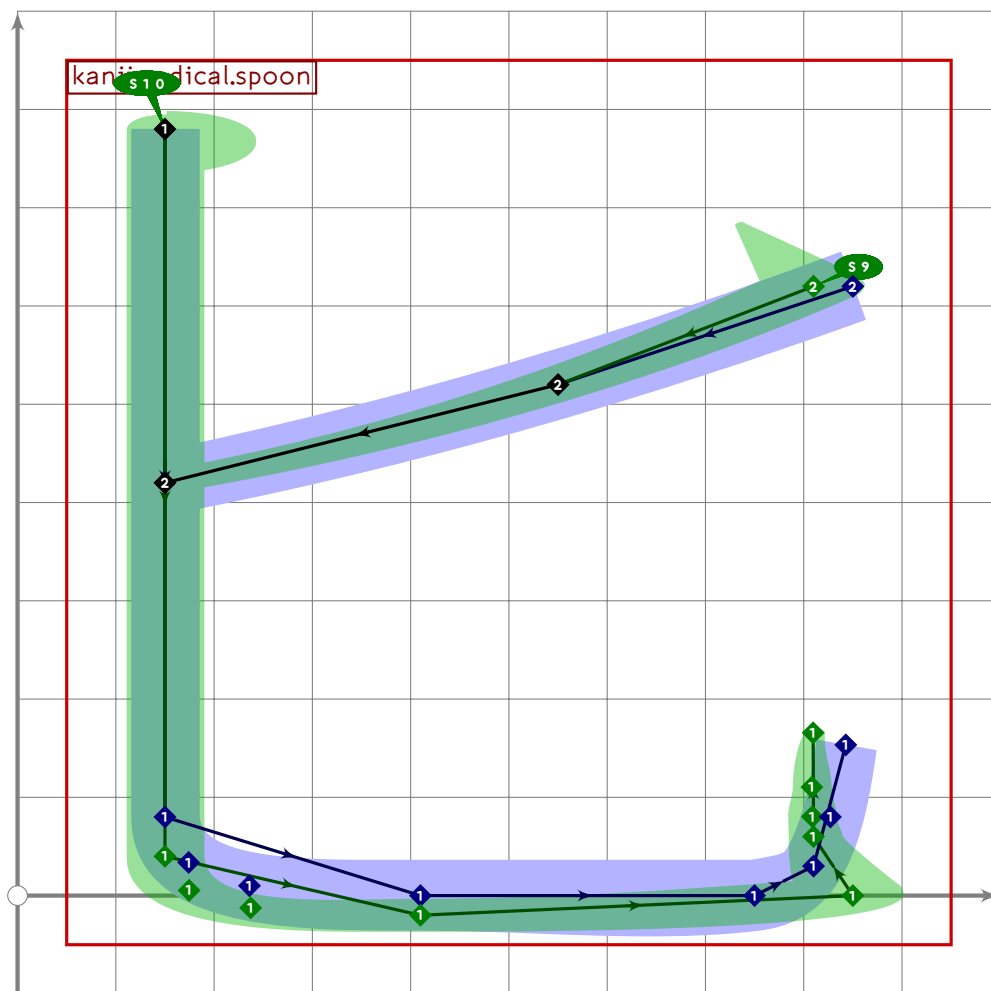


```

132 % hou/tsutsu "wrapping radical"
133 begint Suglyph("uni2F13",19);
134   kanji.radical.wrapping;
135   tsu_render;
136 endtsuglyph;
137

```

U+2F14  
tsuku.uni2F14

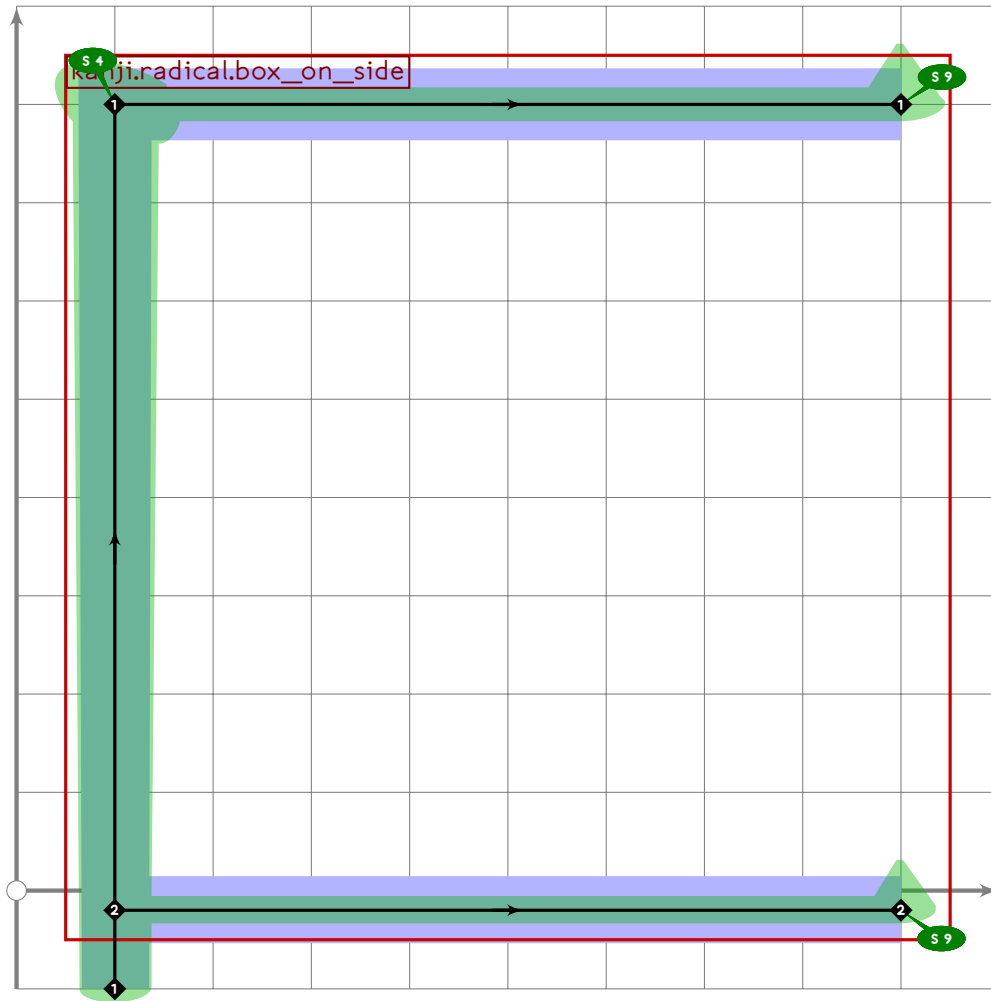


```

138 % hi/saji "spoon"
139 begintsuglyph("uni2F14",20);
140   kanji.radical.spoon;
141   tsu_render;
142 endtsuglyph;
143

```



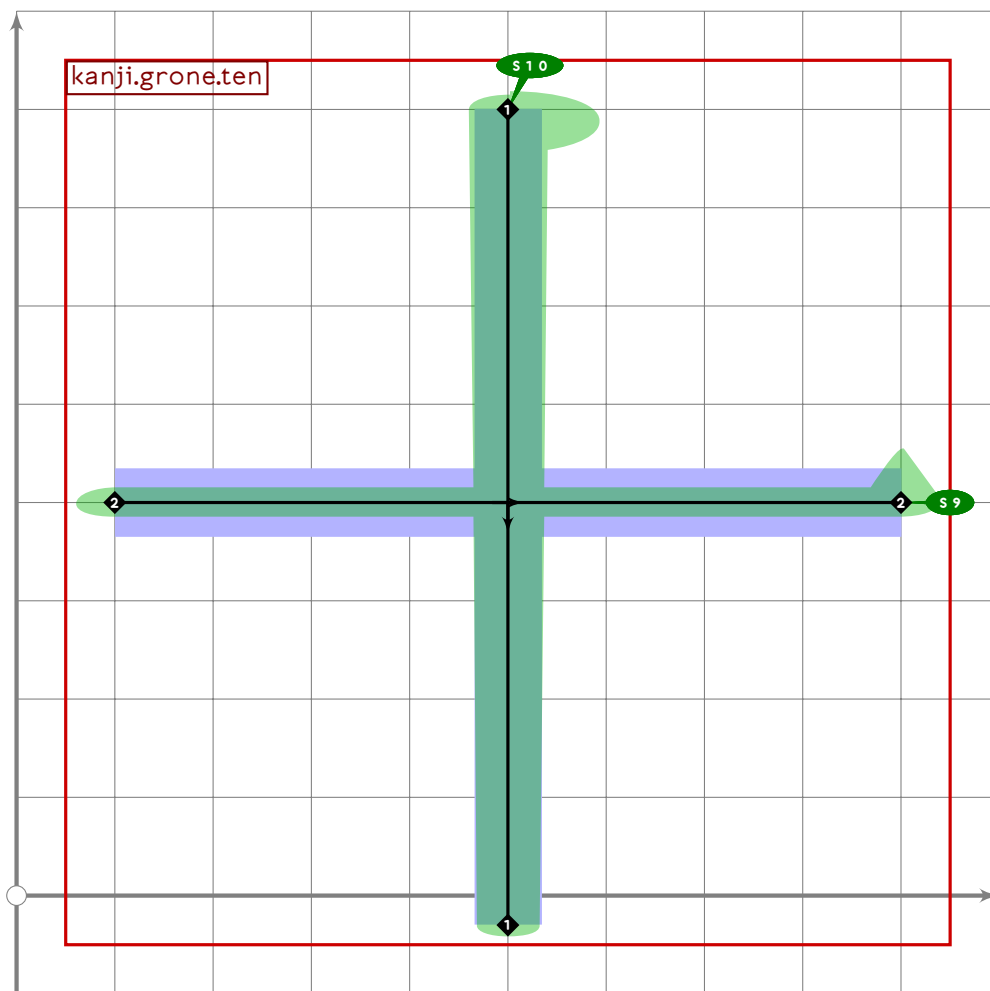


```

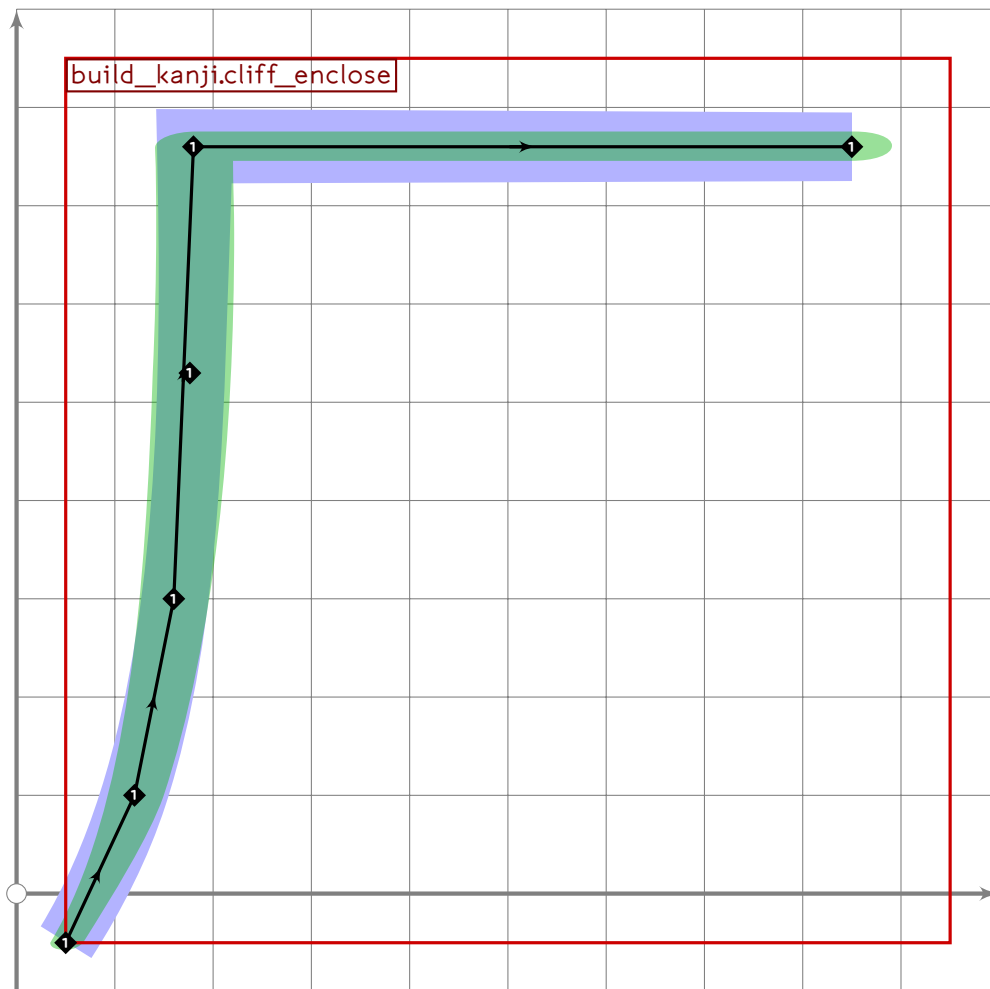
144 % hou/hakogamae "box on side radical"
145 begint Suglyph("uni2F15";21);
146 kanji.radical.box_on_side;
147 tsu_render;
148 endtsuglyph;
149

```

U+2F17  
tsuku.uni2F17



```
150 % juu/too "ten"  
151 begintsuglyph("uni2F17",23);  
152   kanji.grone.ten;  
153   tsu_render;  
154 endtsuglyph;  
155
```

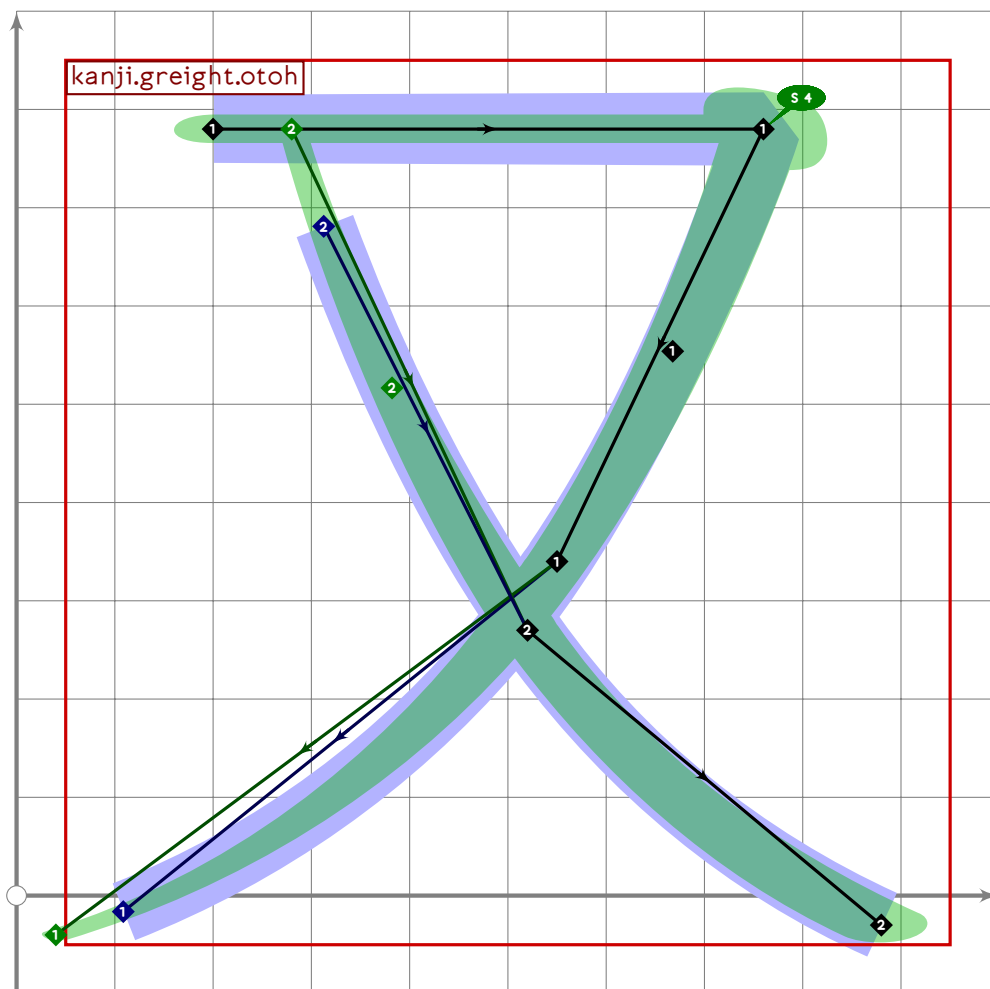


```

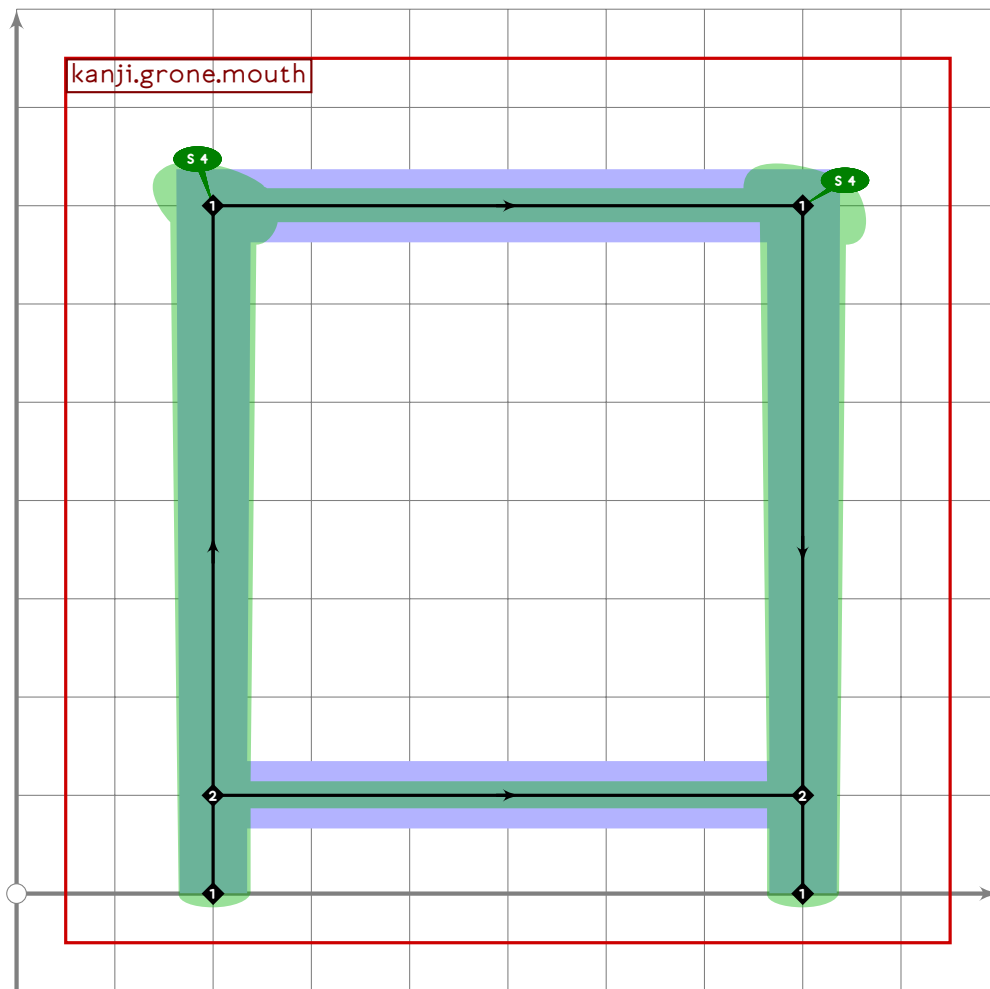
156 % karigane "cliff radical"
157 begintsuglyph("uni2F1A",26);
158   build_kanji.cliff_enclose();
159   tsu_render;
160 endsuglyph;
161

```

U+2F1C  
tsuku.uni2F1C



```
162 % yuu/mata "on the other hand"  
163 begintsuglyph("uni2F1C";28);  
164   kanji.greight.otoh;  
165   tsu_render;  
166 endtsuglyph;  
167
```

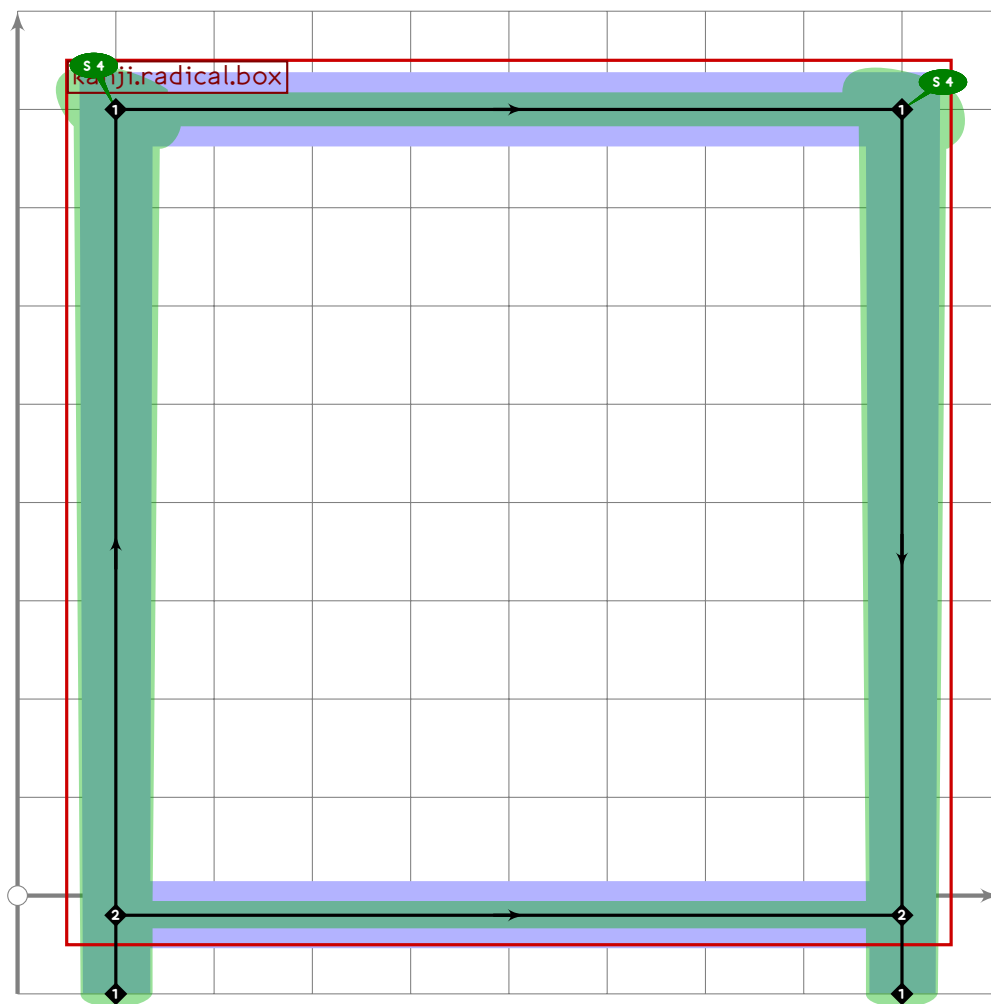


```

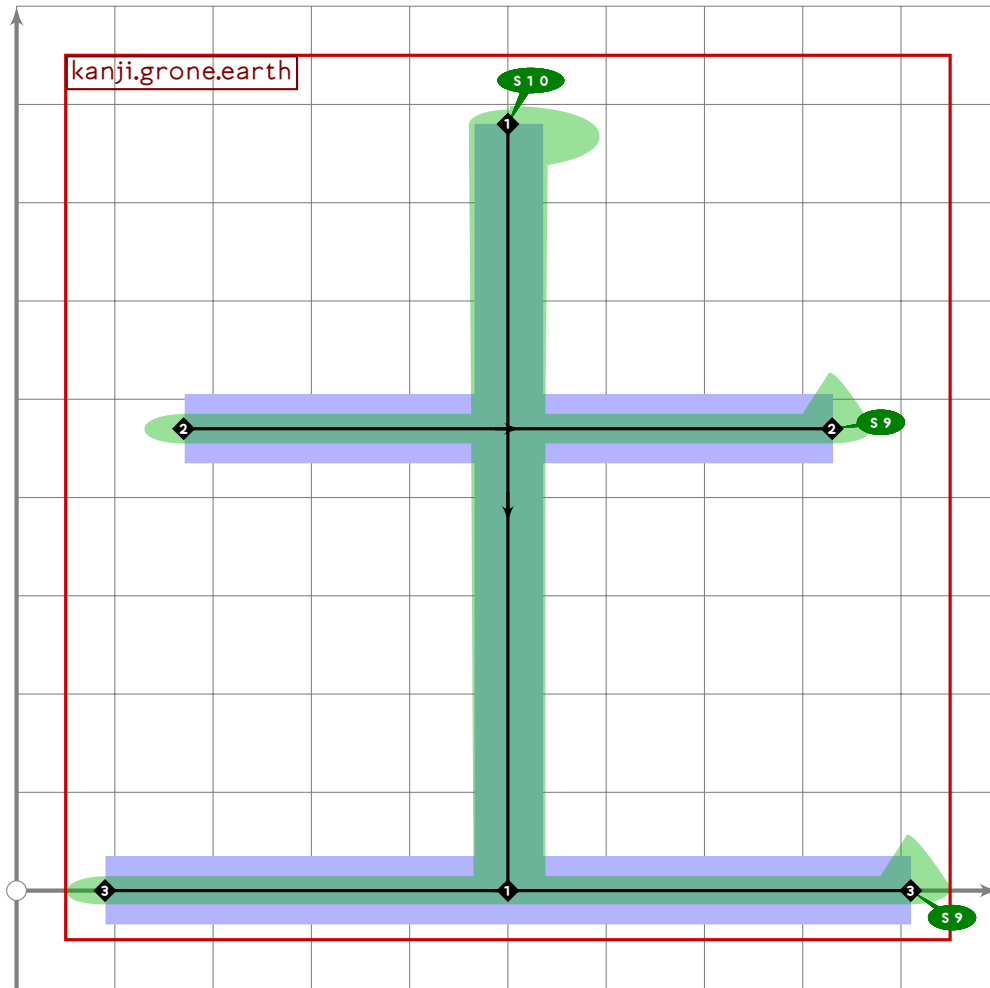
168 % kou/kuchi "mouth"
169 begintsuglyph("uni2F1D";29);
170   kanji.grone.mouth;
171   tsu_render;
172 endtsuglyph;
173

```

U+2F1E  
tsuku.uni2F1E



```
174 % box radical
175 begintsuglyph("uni2F1E";30);
176   kanji.radical.box;
177   tsu_render;
178 endtsuglyph;
179
```

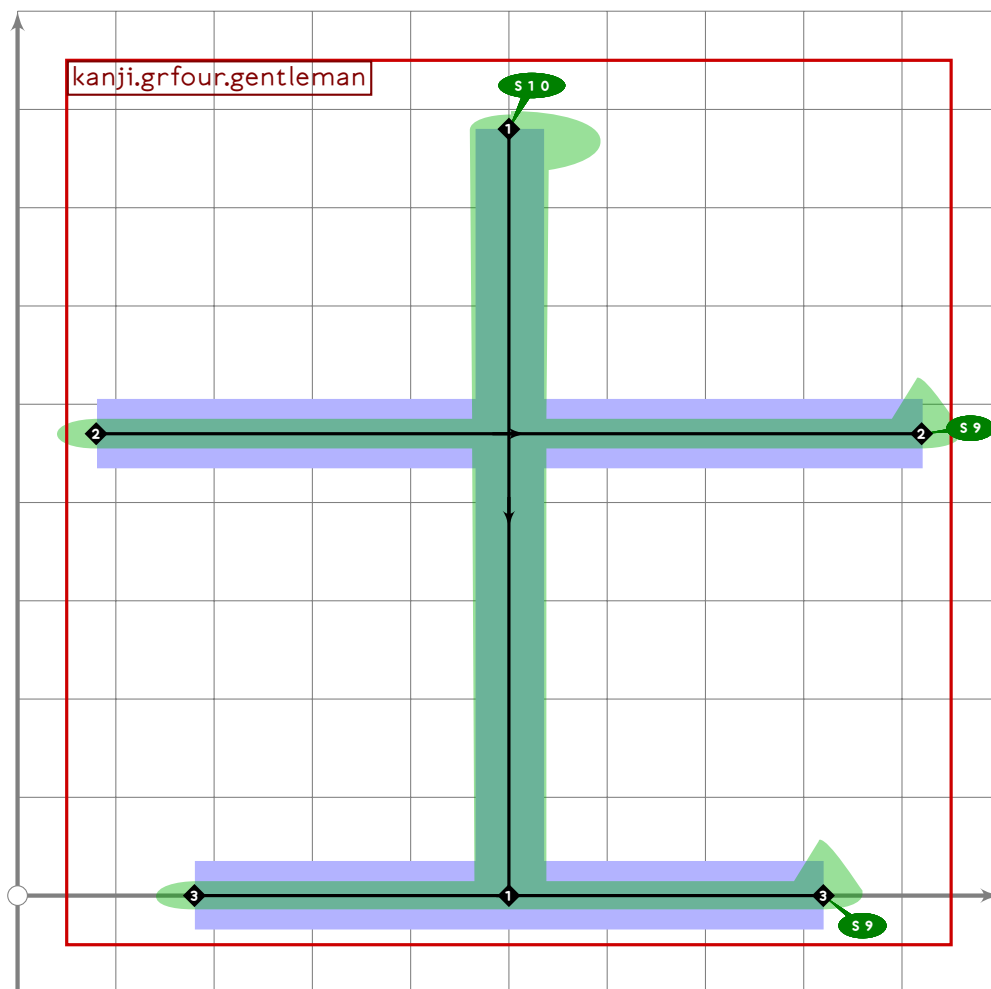


```

180 % tsuchi/do "earth"
181 begintsuglyph("uni2F1F",31);
182   kanji.grone.earth;
183   tsu_render;
184 endtsuglyph;
185

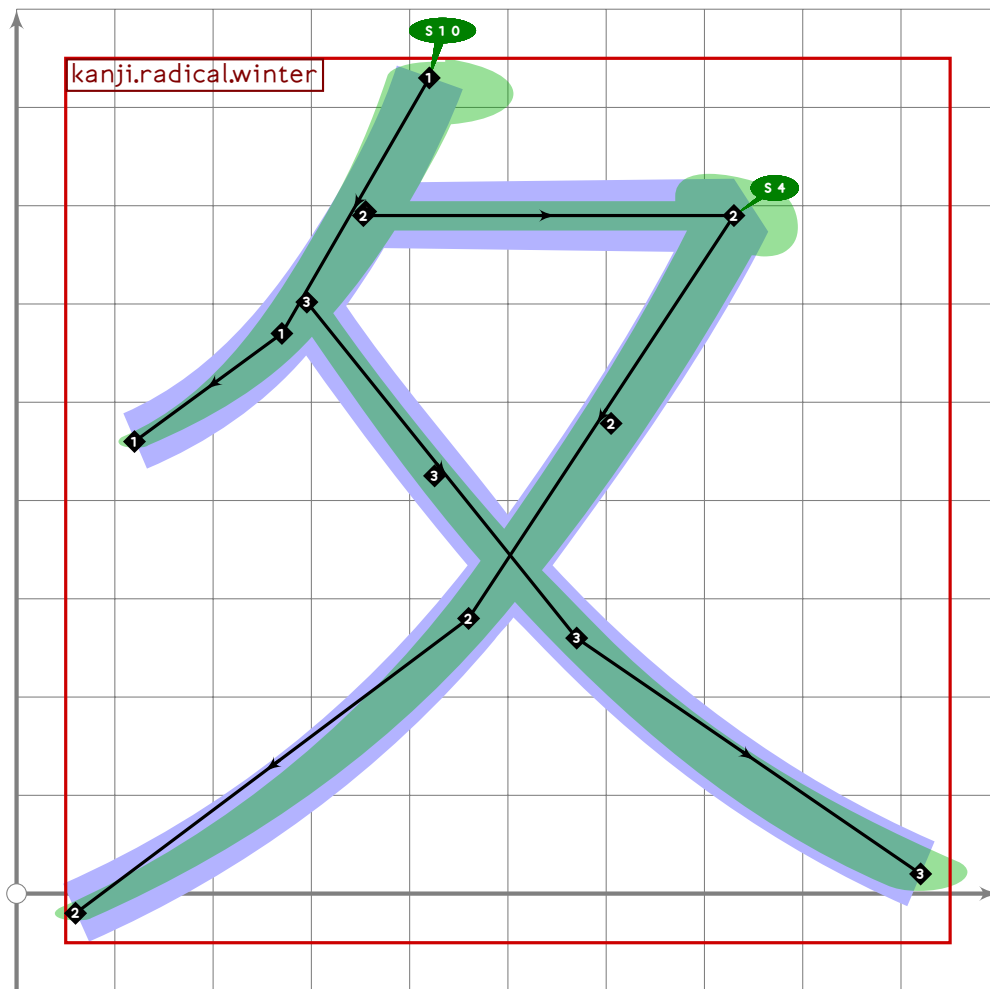
```

U+2F20  
tsuku.uni2F20



```
186 % shi "gentleman" ("samurai" radical)
187 begintsuglyph("uni2F20",32);
188   kanji.grfour.gentleman;
189   tsu_render;
190 endtsuglyph;
191
```



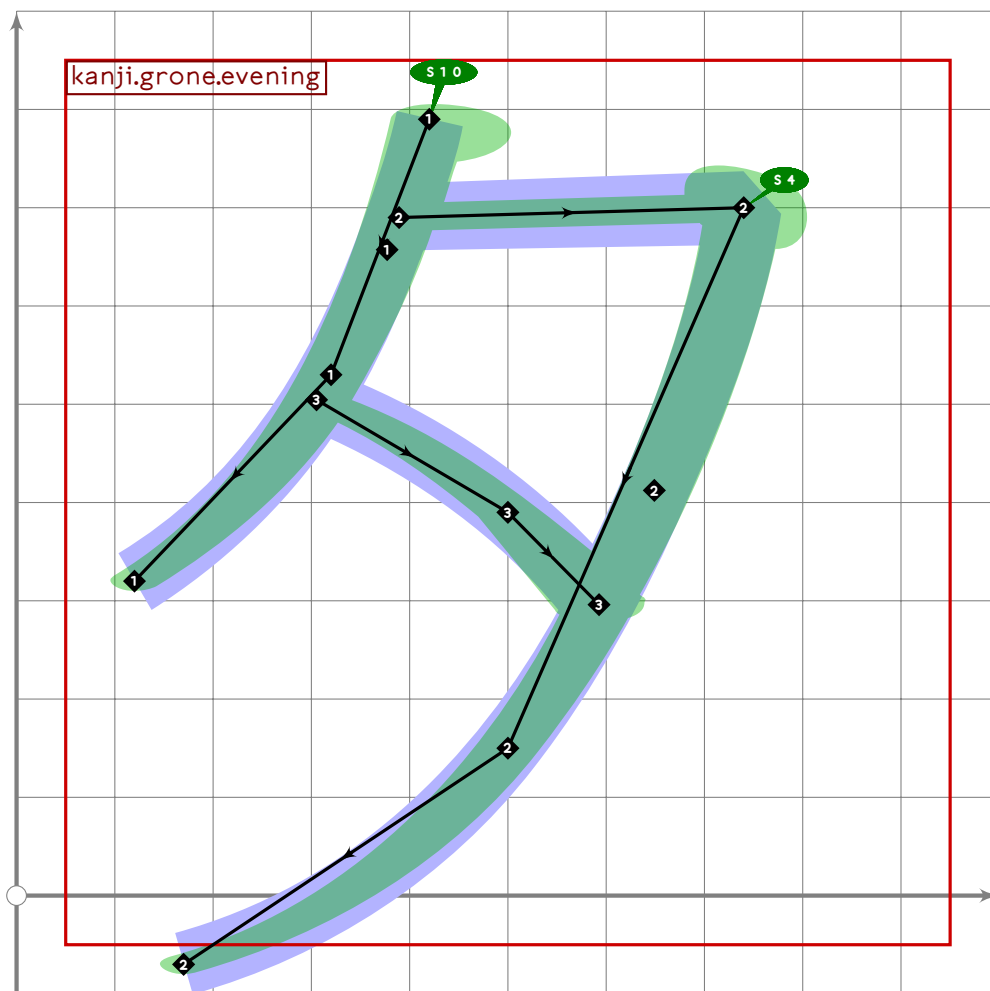


```

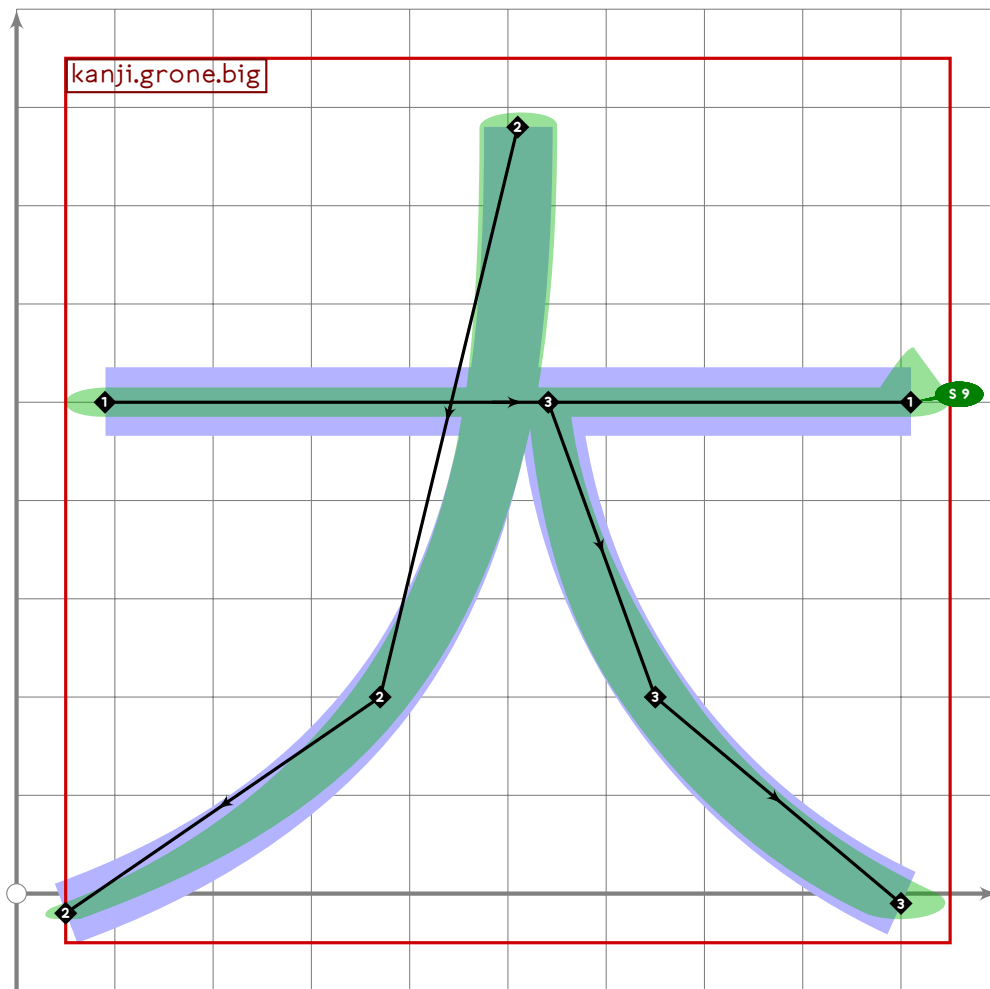
192 % chi/shuu "winter radical"
193 begint Suglyph("uni2F21";33);
194   kanji.radical.winter;
195   tsu_render;
196 endtsuglyph;
197

```

U+2F23  
tsuku.uni2F23



```
198 % yuu/seki "evening"  
199 begintsuglyph("uni2F23",35);  
200   kanji.grone.evening;  
201   tsu_render;  
202 endtsuglyph;  
203
```

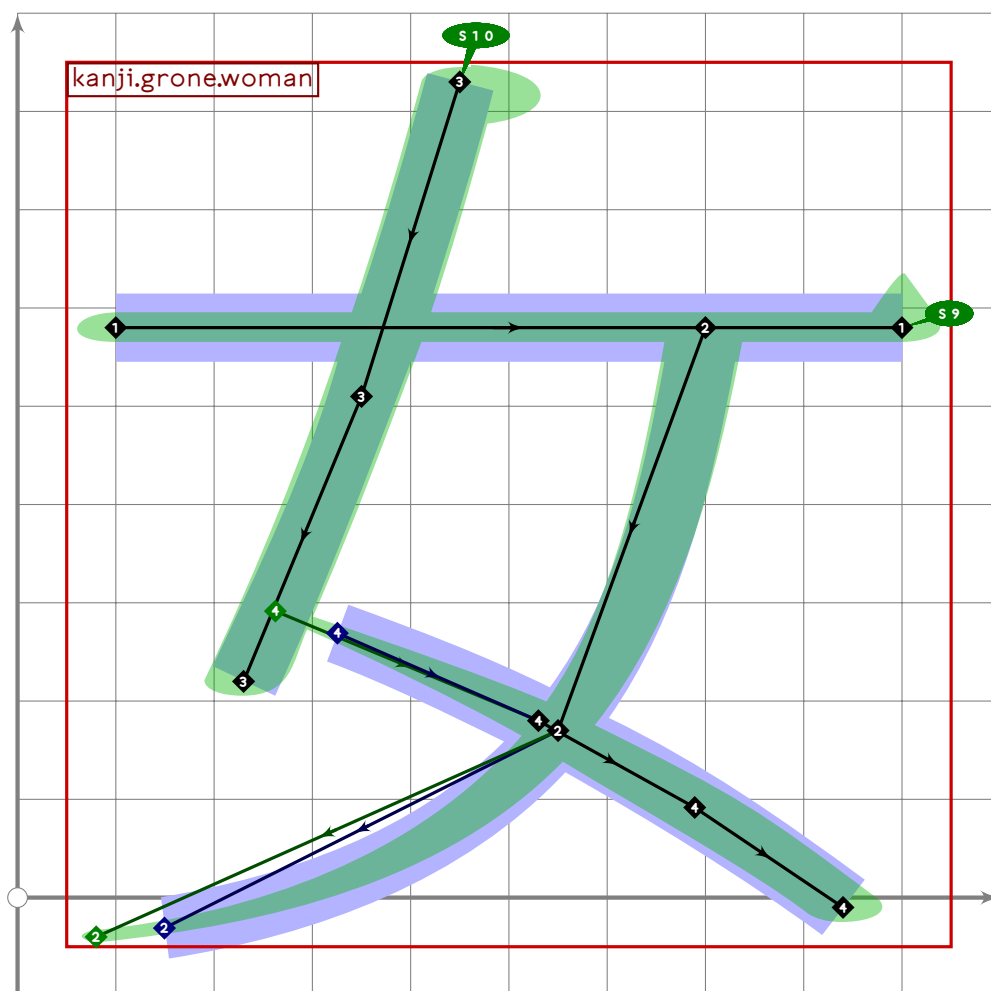


```

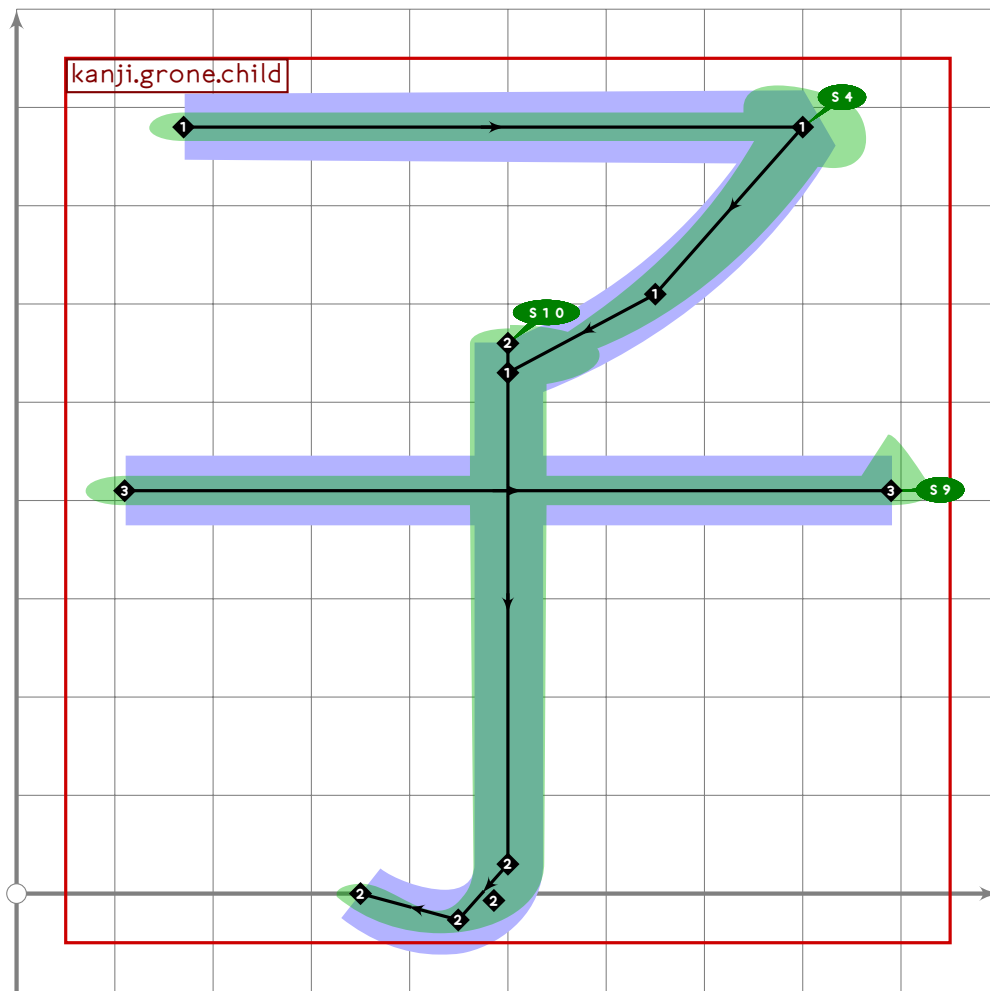
204 % dai/oo "big"
205 begintsuglyph("uni2F24",36);
206   kanji.grone.big;
207   tsu_render;
208 endtsuglyph;
209

```

U+2F25  
tsuku.uni2F25



```
210 % jo/onna "woman"
211 begintsuglyph("uni2F25",37);
212   kanji.grone.woman;
213   tsu_render;
214 endtsuglyph;
215
```

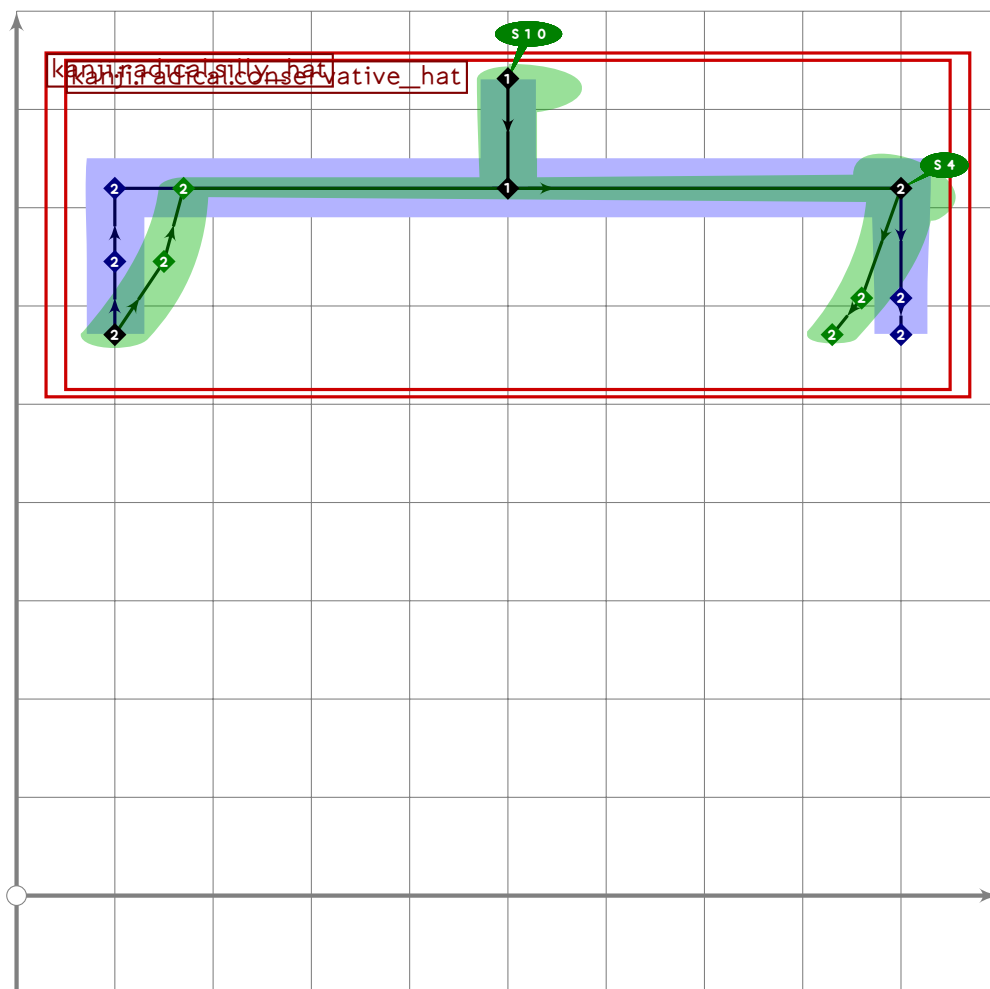


```

216 % ko "child"
217 begintsuglyph("uni2F26",38);
218   kanji.grone.child;
219   tsu_render;
220 endtsuglyph;
221

```

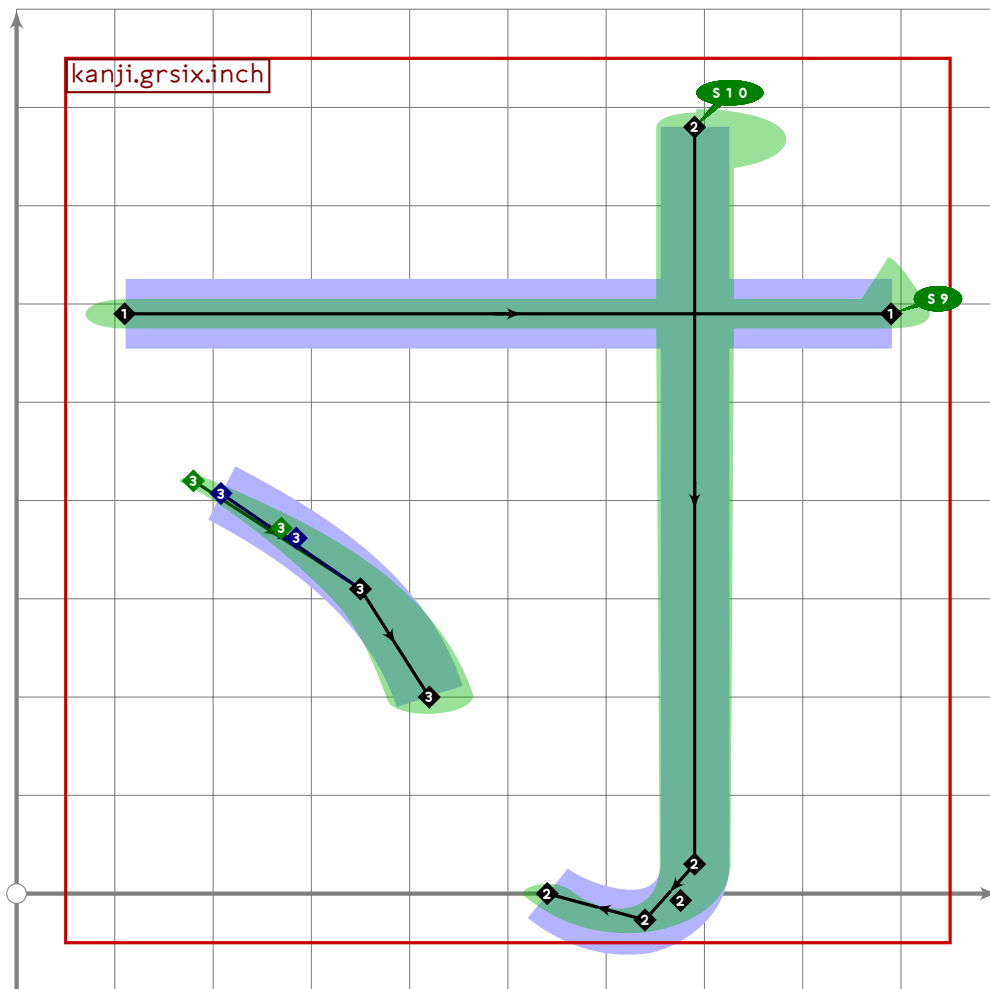
U+2F27  
tsuku.uni2F27



```

222 % silly hat radical
223 begintsuglyph("uni2F27";39);
224   build_kanji.tb(500;30)
225     (kanji.radical.silly_hat)
226   ();
227   tsu_render;
228 endtsuglyph;
229

```

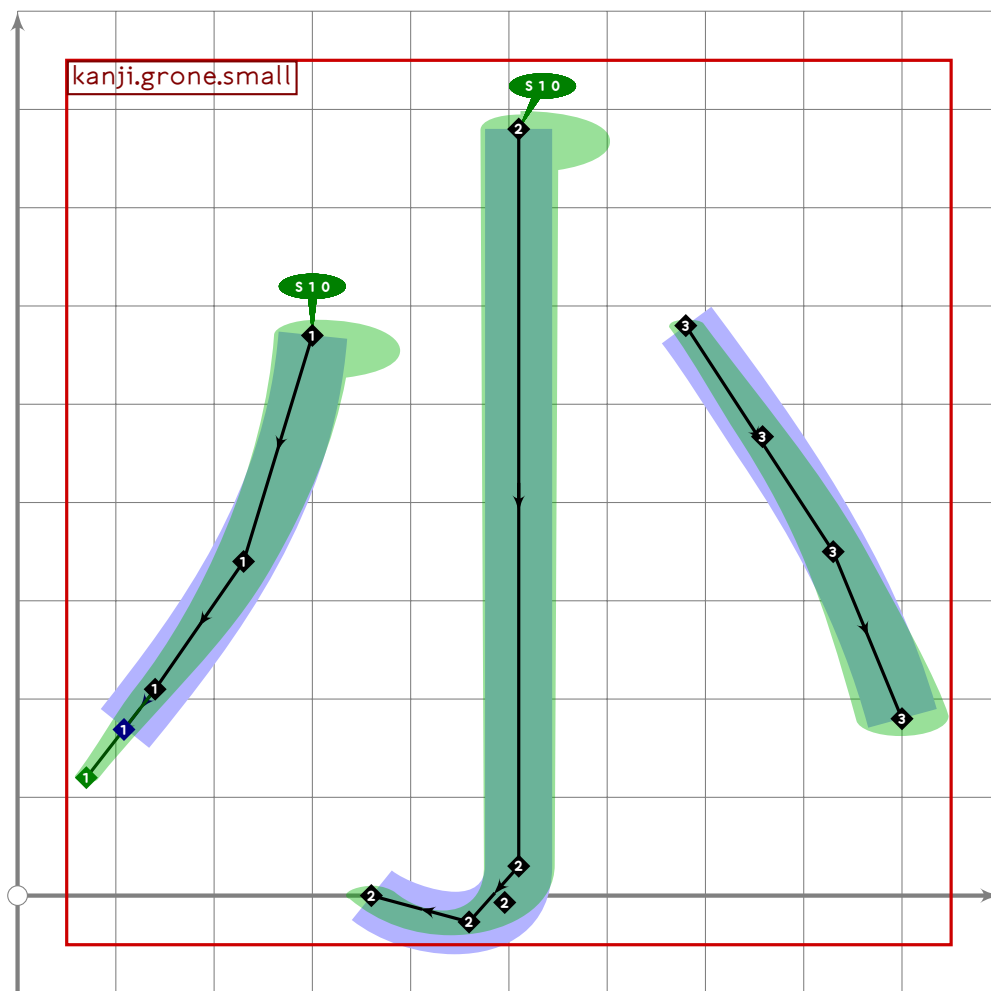


```

230 % su/miki "inch", also often a radical
231 begintsuglyph("uni2F28"40);
232   kanji.grsix.inch;
233   tsu_render;
234 endtsuglyph;
235

```

U+2F29  
tsuku.uni2F29

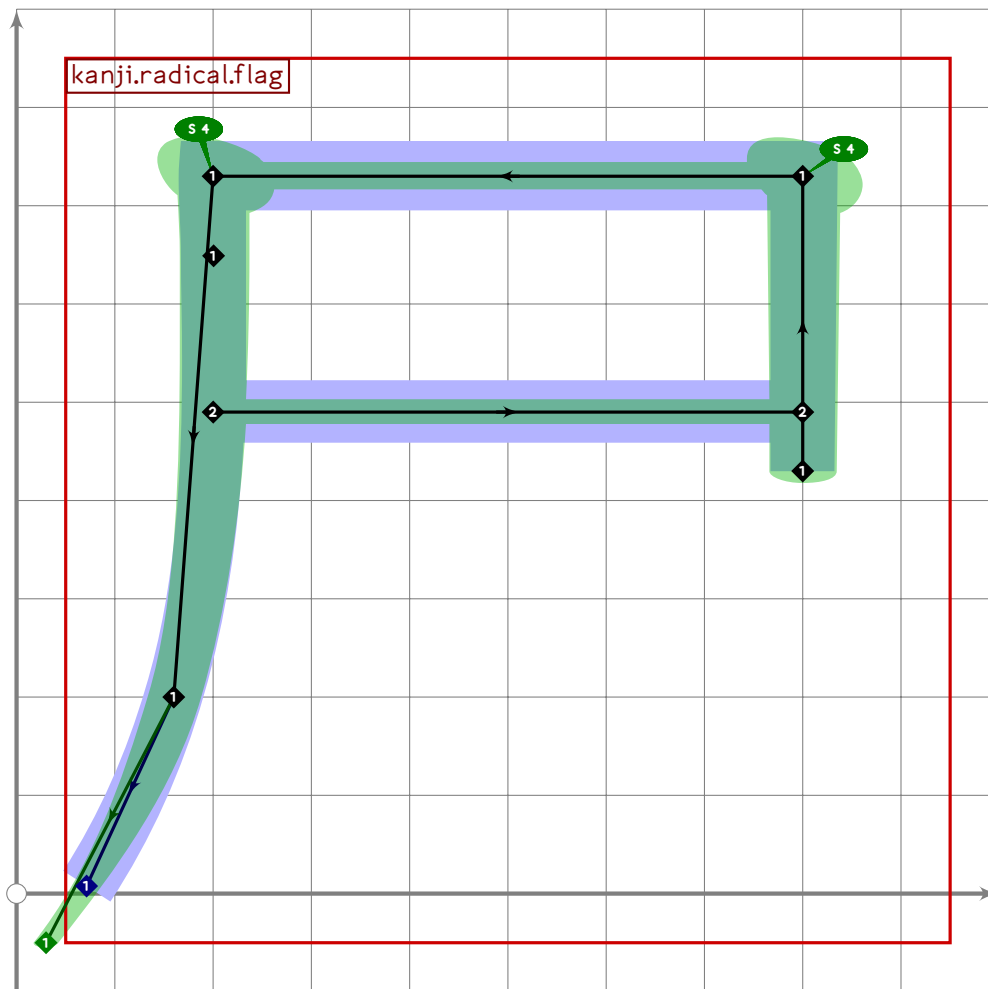


```

236 % shuu/chii "small"
237 begintsuglyph("uni2F29";41);
238   kanji.grone.small;
239   tsu_render;
240 endtsuglyph;
241

```



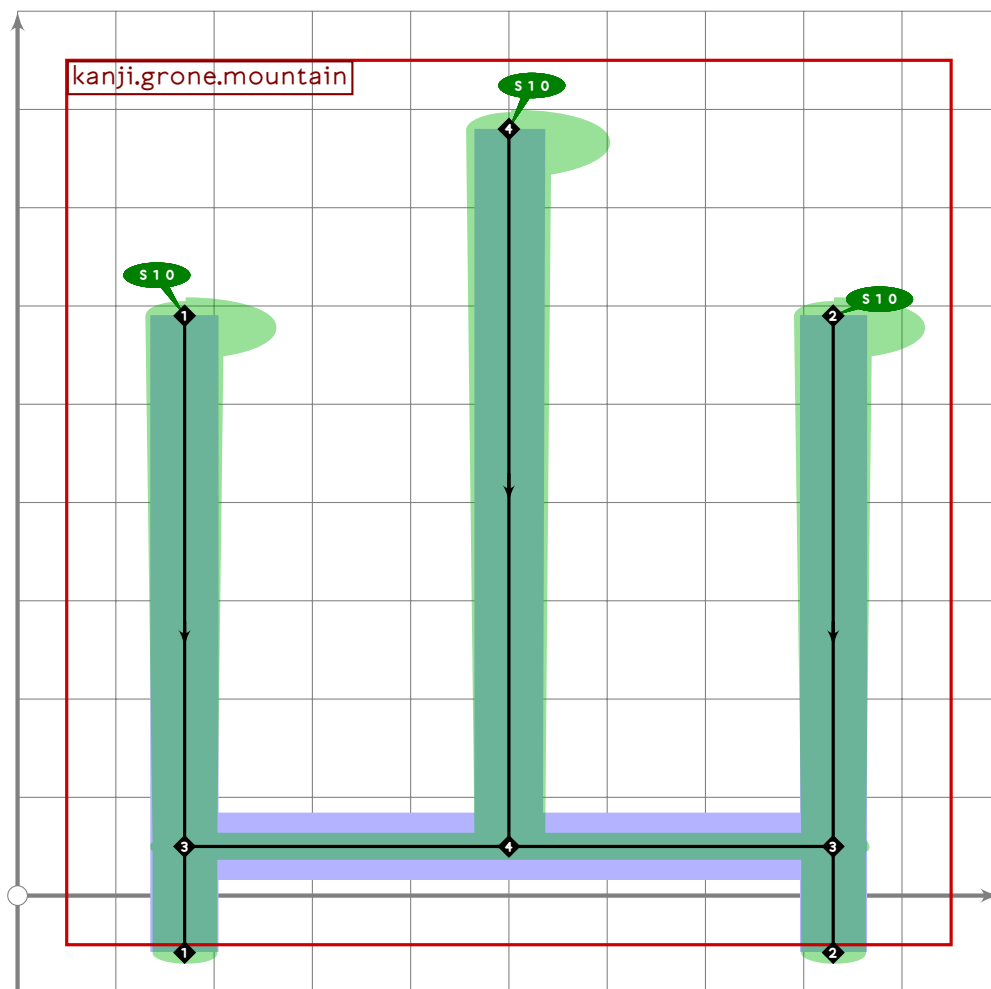


```

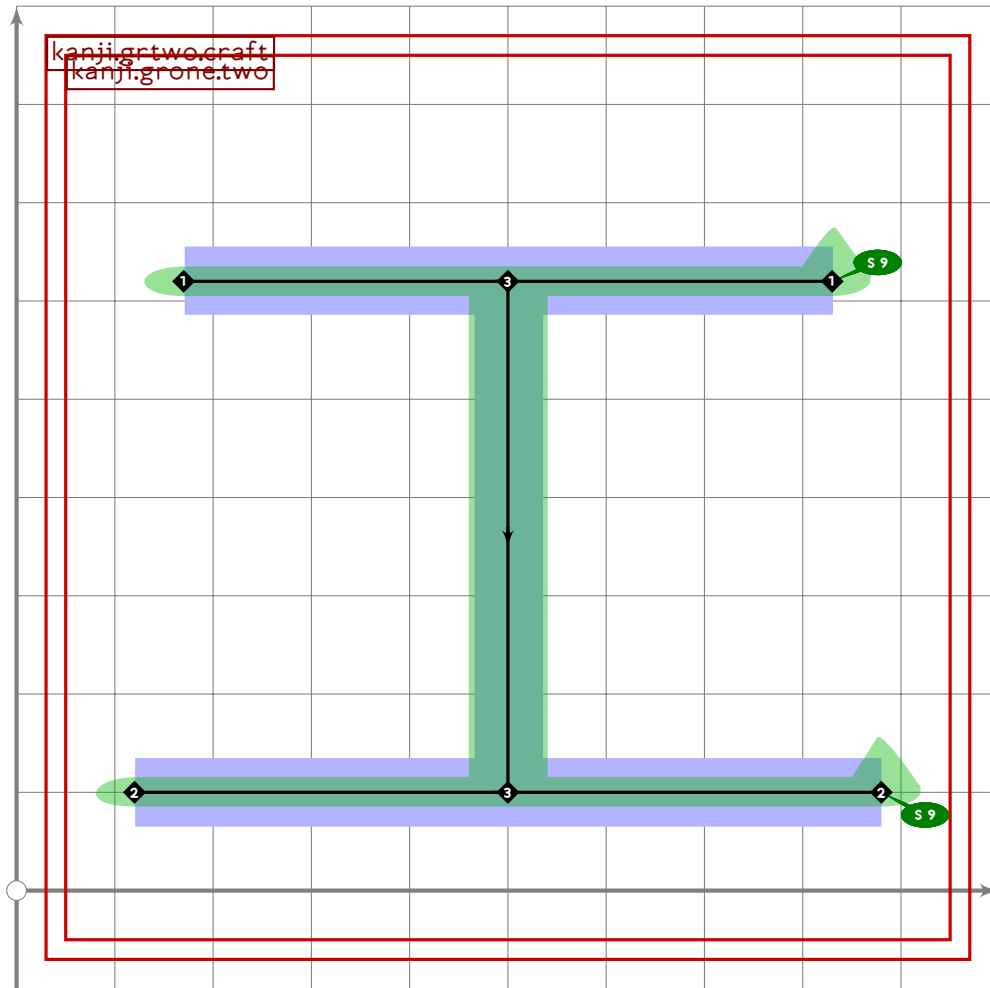
242 % shi/katashiro "corpse" or "flag radial"
243 begintsuglyph("uni2F2B";43);
244   kanji.radical.flag;
245   tsu_render;
246 endtsuglyph;
247

```

U+2F2D  
tsuku.uni2F2D



```
248 % yama/san "mountain"  
249 begintsuglyph("uni2F2D";45);  
250   kanji.grone.mountain;  
251   tsu_render;  
252 endtsuglyph;  
253
```

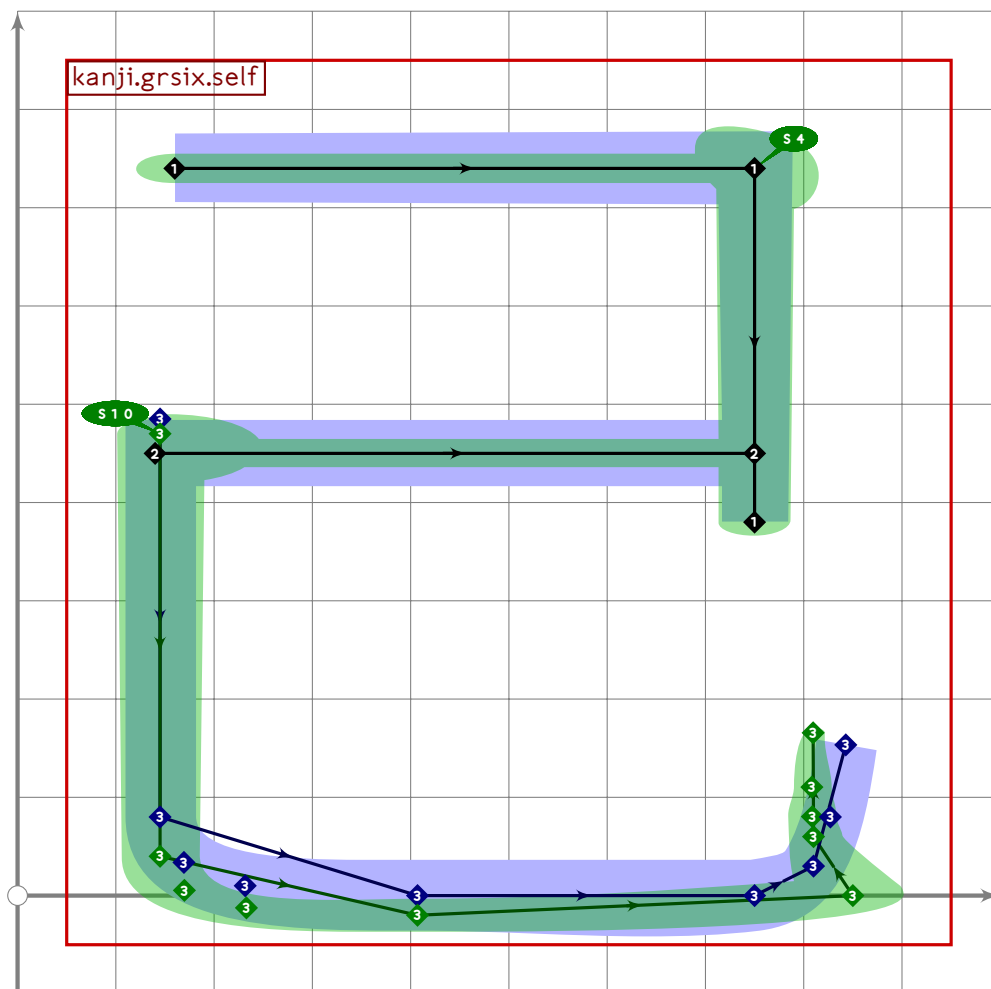


```

254 % takumi "craft"
255 beginsuglyph("uni2F2F";47);
256   kanji.grt.two.craft;
257   tsu_render;
258 endsuglyph;
259

```

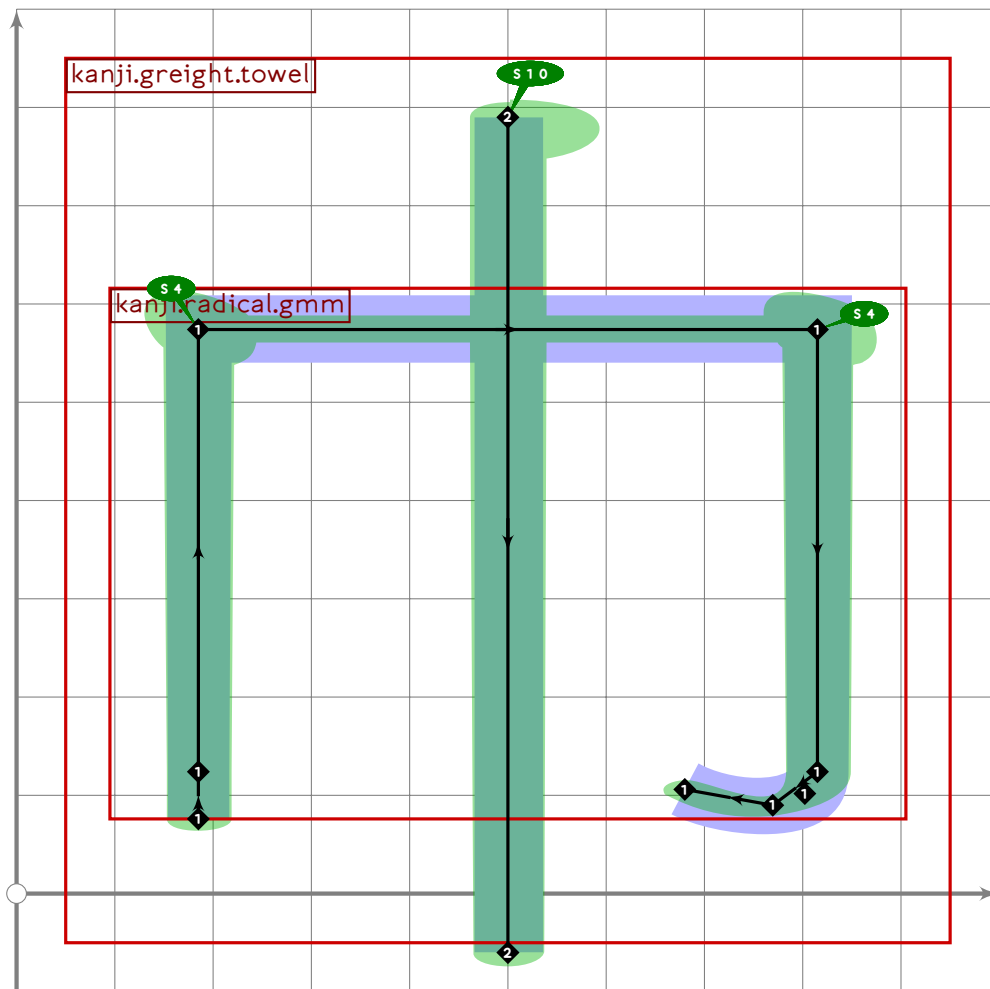
U+2F30  
tsuku.uni2F30



```

260 % ko/ki "self" (dict. says also "snake" but almost no words use it that way)
261 begintsuglyph("uni2F30";48);
262   kanji.grsix.self;
263   tsu_render;
264 endtsuglyph;
265

```

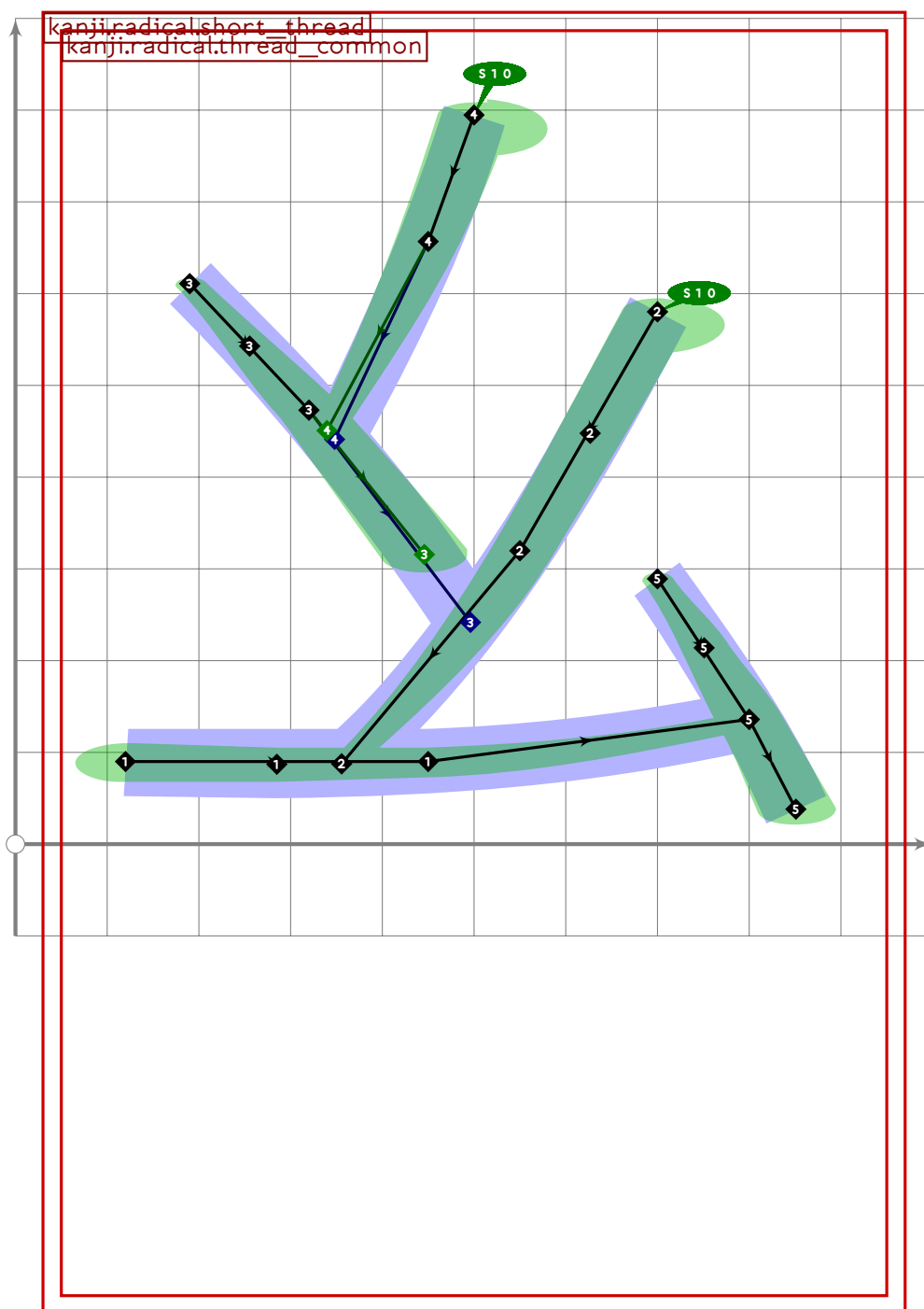


```

266 % kin/oo/aba "towel" or "hanging scroll"
267 begintsuglyph("uni2F31";49);
268   kanji.greight.towel;
269   tsu_render;
270 endtsuglyph;
271

```

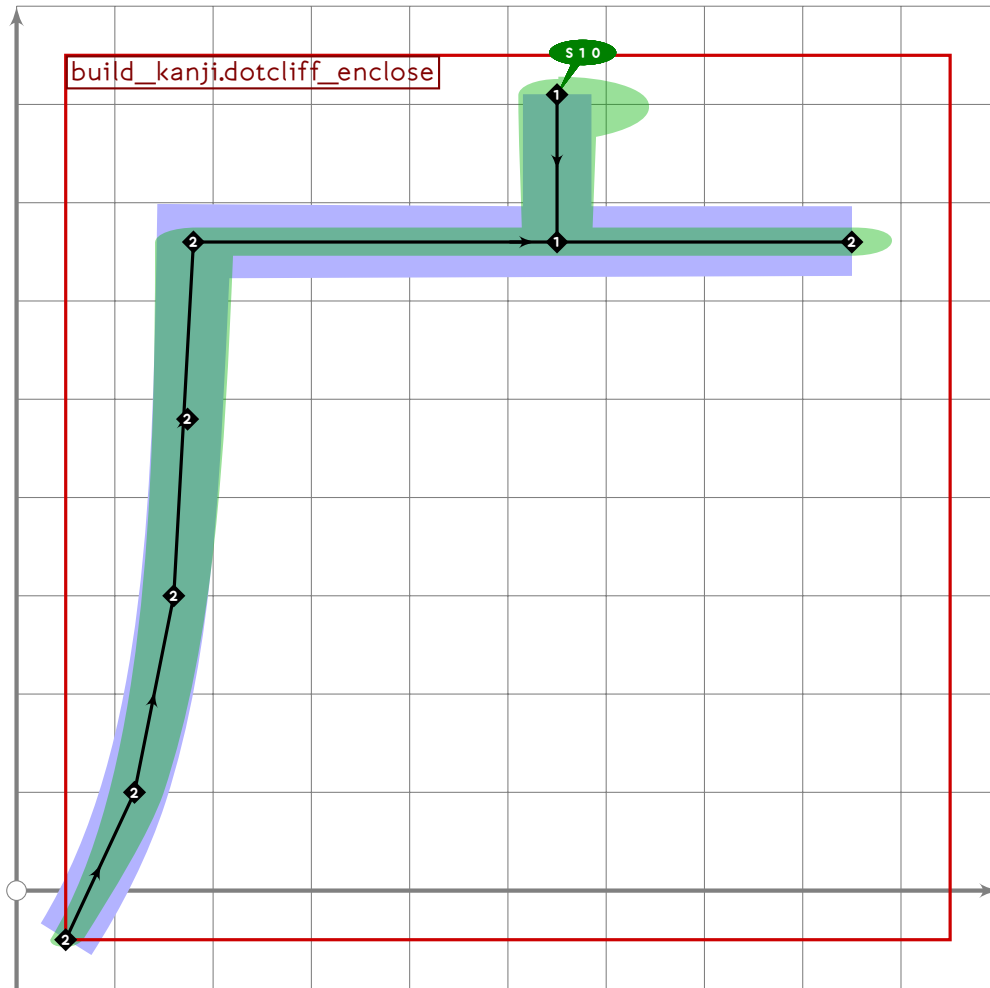
U+2F33  
tsuku.uni2F33



```

272 % you/chiisai "short thread radical"
273 begintsuglyph("uni2F33";51);
274 kanji.radical.short_thread;
275 tsu_render;
276 endsuglyph;
277

```

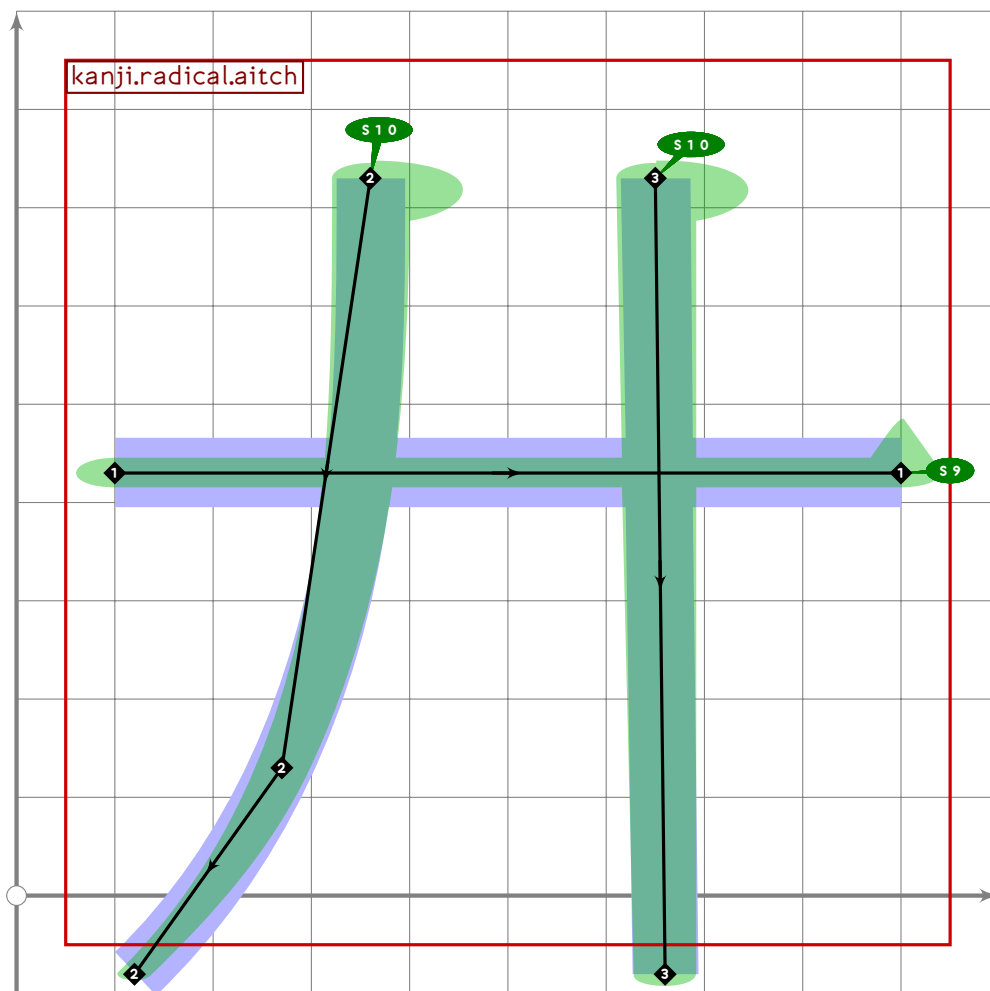


```

278 % madare "dotted cliff radical"
279 begintsuglyph("uni2F34";52);
280   build_kanji.dotcliff_enclose();
281   tsu_render;
282 endtsuglyph;
283

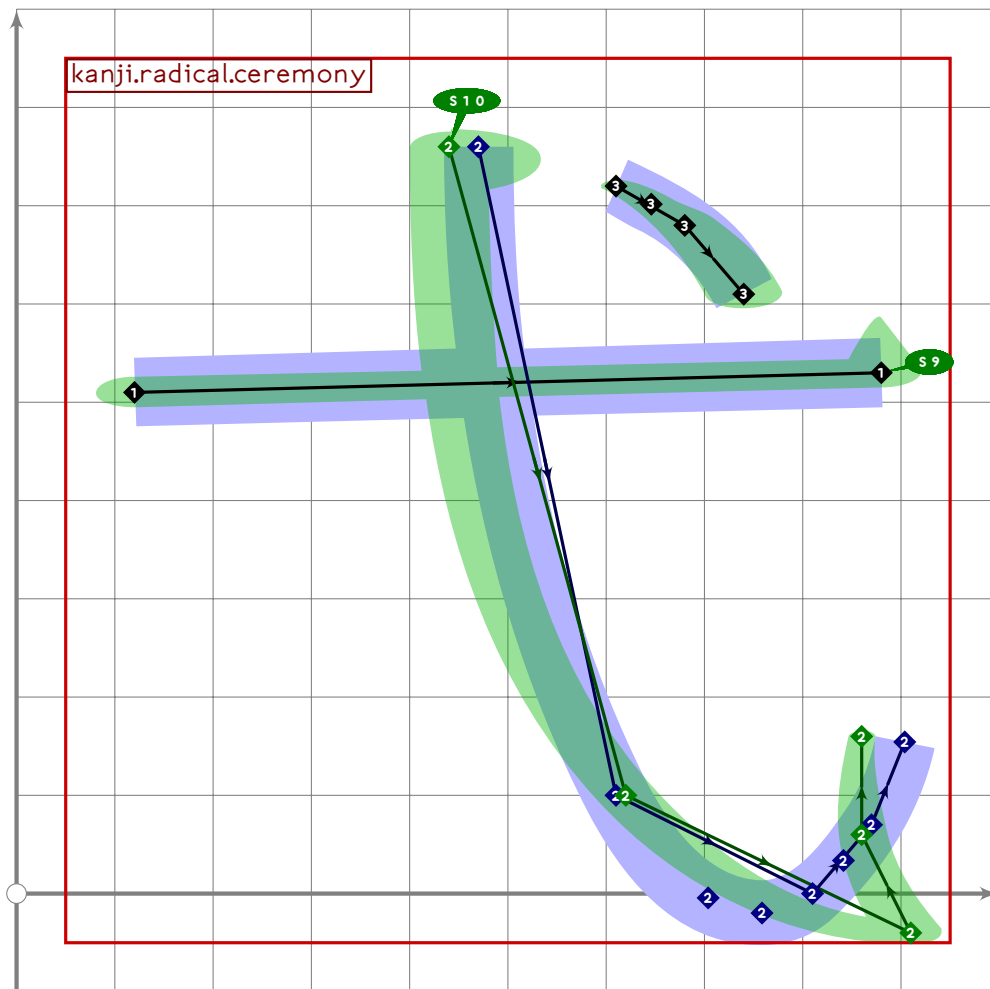
```

U+2F36  
tsuku.uni2F36



```
284 % extra
285 begintsuglyph("uni2F36",54);
286   kanji.radical.aitch;
287   tsu_render;
288 endtsuglyph;
289
```



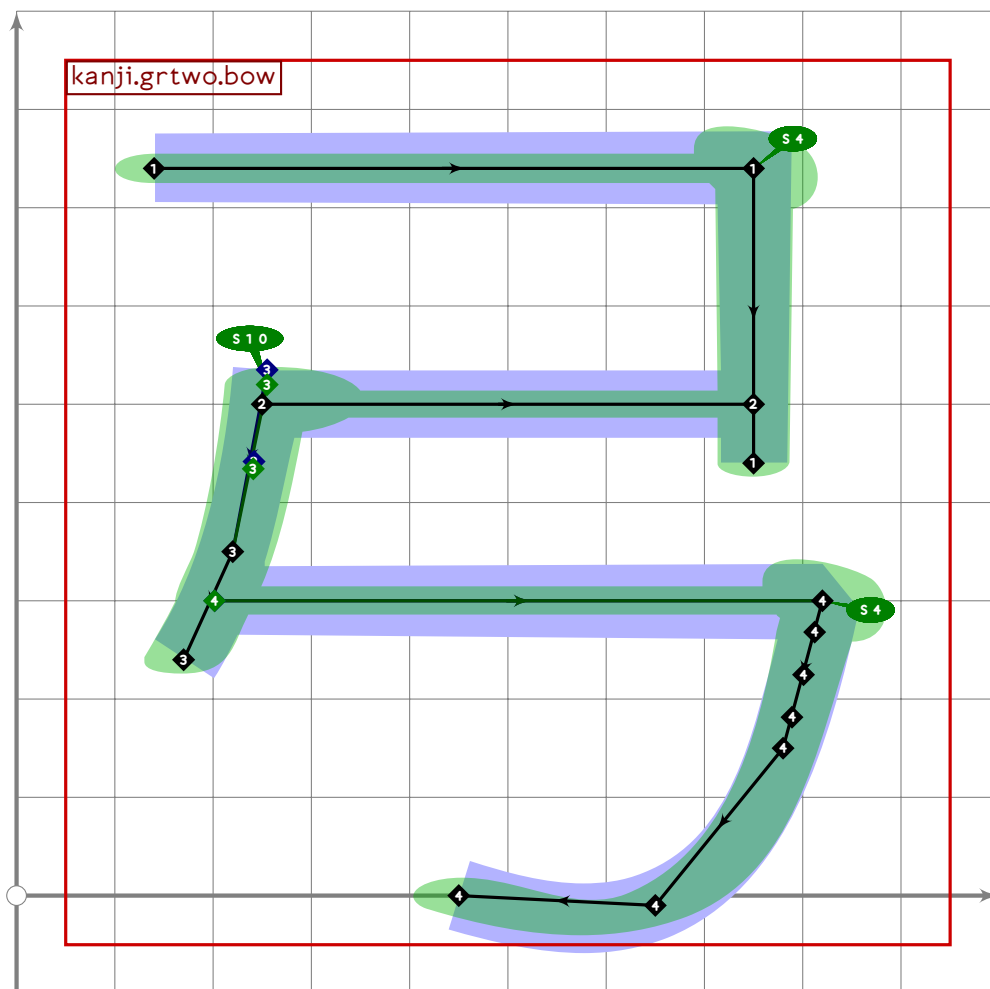


```

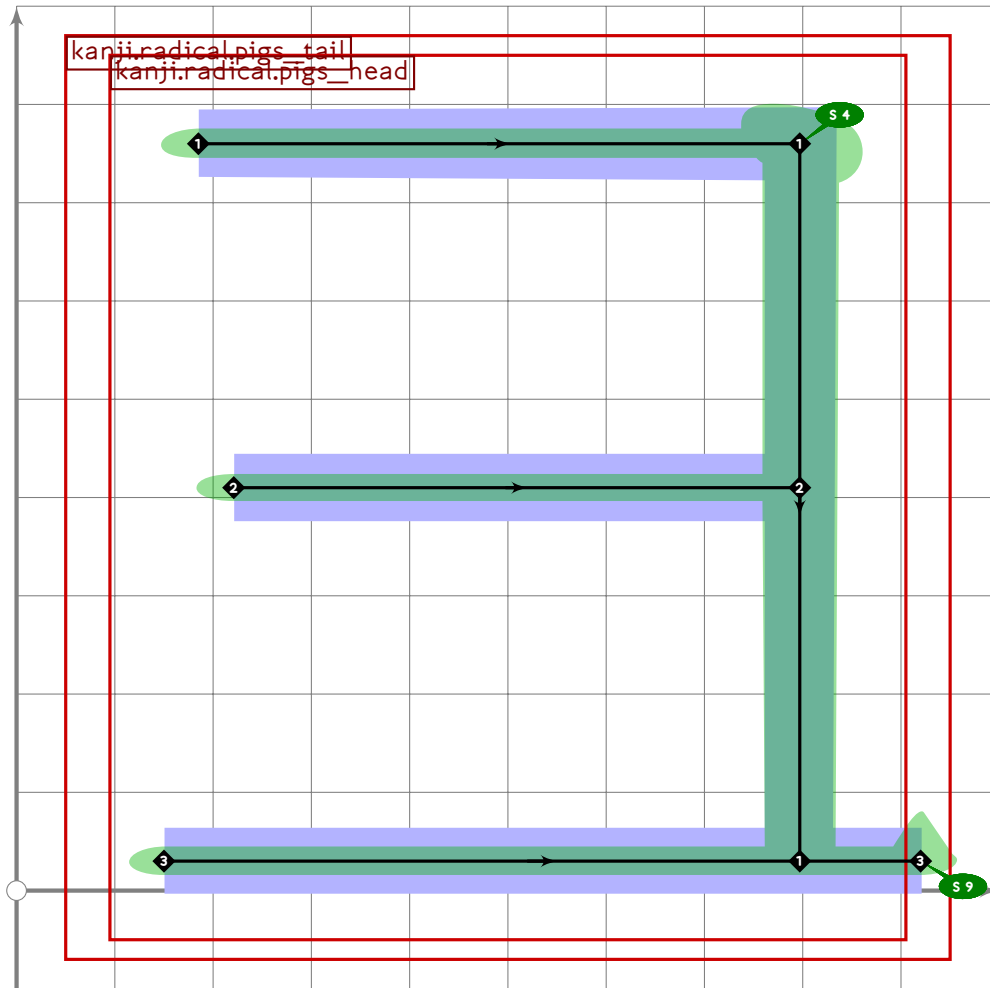
290 % yoku/iguromi "ceremony radical"
291 begintsuglyph("uni2F37";55);
292   kanji.radical.ceremony;
293   tsu_render;
294 endtsuglyph;
295

```

U+2F38  
tsuku.uni2F38



```
296 % kyu/yumi "bow" (projectile weapon)
297 beginsuglyph("uni2F38",56);
298   kanji.grtwo.bow;
299   tsu_render;
300 endsuglyph;
301
```

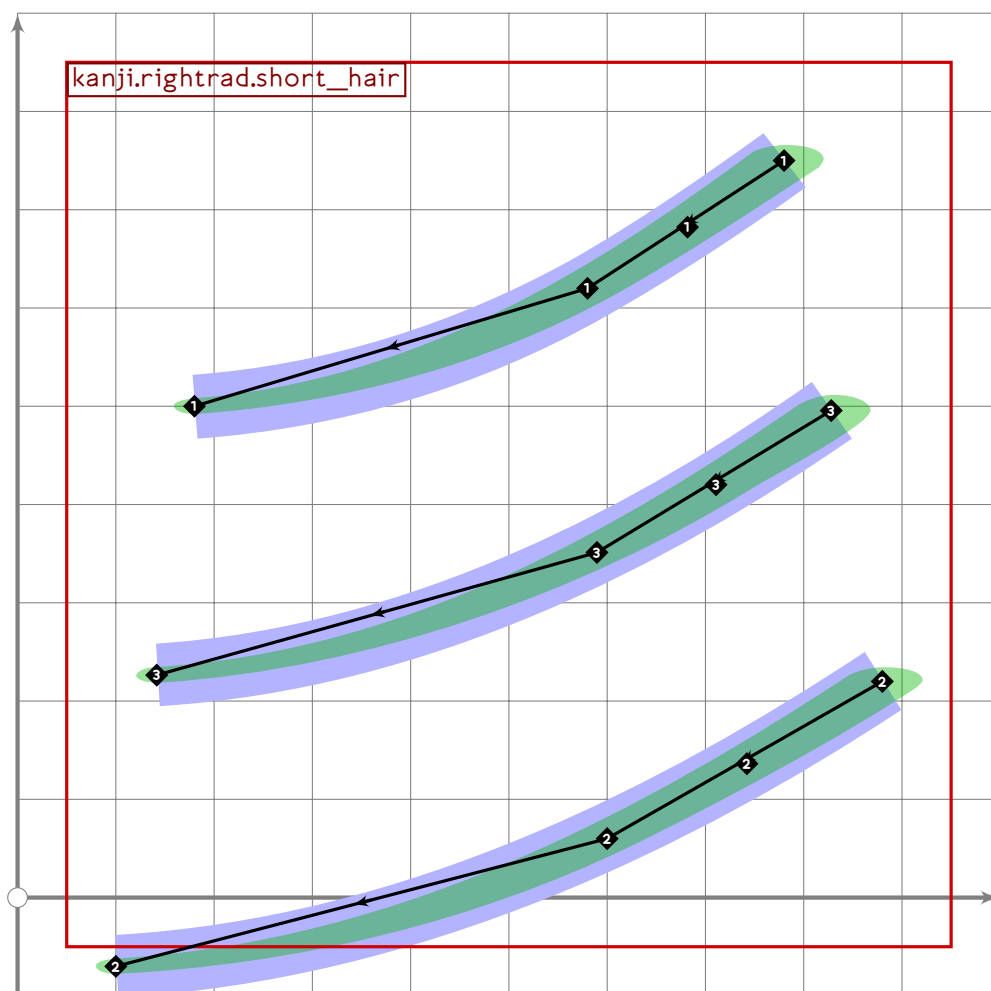


```

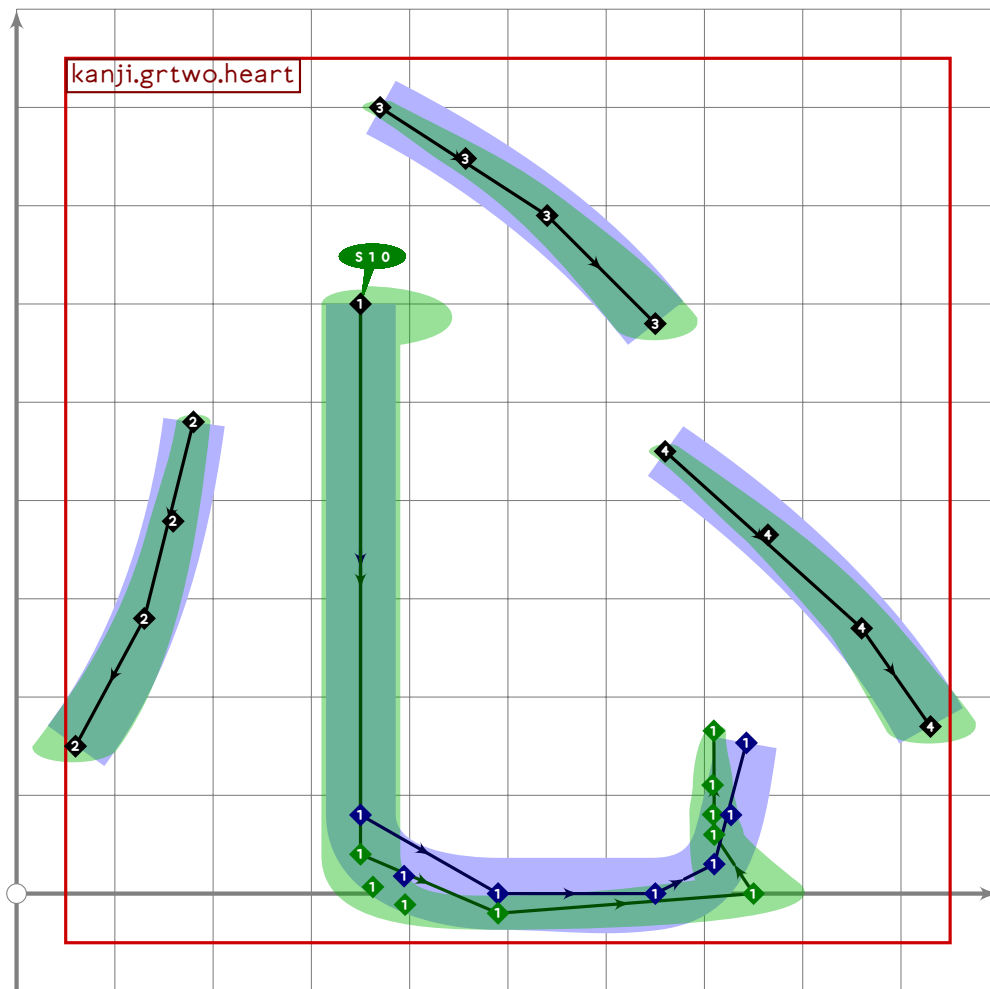
302 % needed for lots of other things, rare by itself
303 beginsuglyph("uni2F39",57);
304   kanji.radical.pigs_tail;
305   tsu_render;
306 endsuglyph;
307

```

U+2F3A  
tsuku.uni2F3A



```
308 % san "short hair radical"
309 begintsuglyph("uni2F3A",58);
310   kanji.rightrad.short_hair;
311   tsu_render;
312 endtsuglyph;
313
```

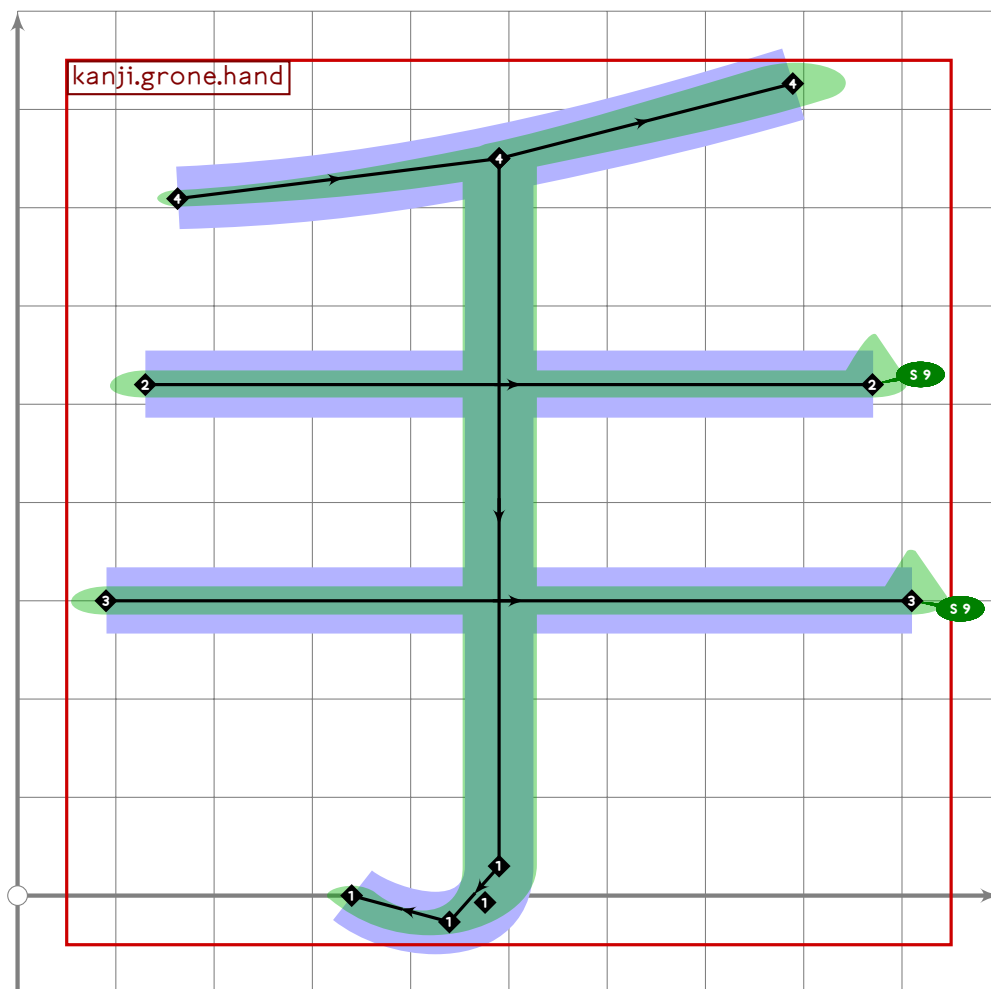


```

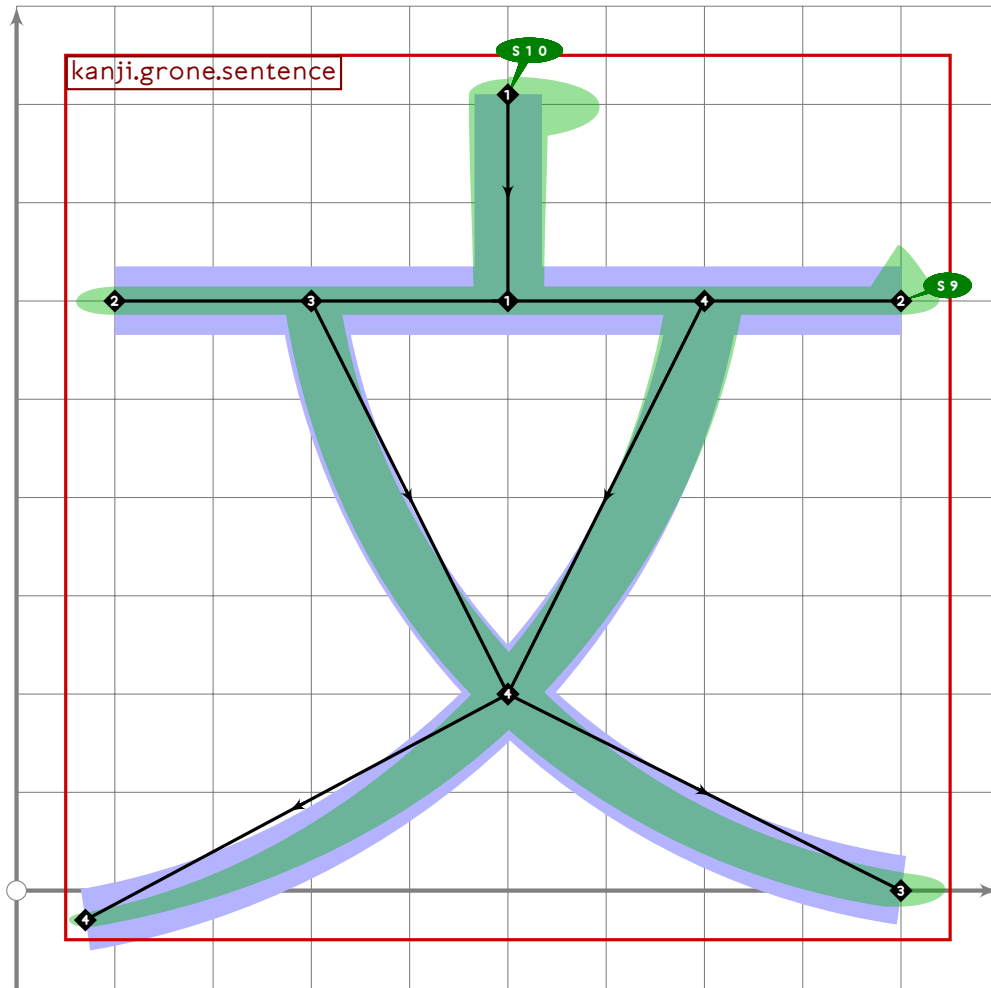
314 % shin/kokoro "heart"
315 begintsuglyph("uni2F3C",60);
316   kanji.grtwo.heart;
317   tsu_render;
318 endsuglyph;
319

```

U+2F3F  
tsuku.uni2F3F



```
320 % te "hand"
321 begintsuglyph("uni2F3F";63);
322   kanji.grone.hand;
323   tsu_render;
324 endtsuglyph;
325
```

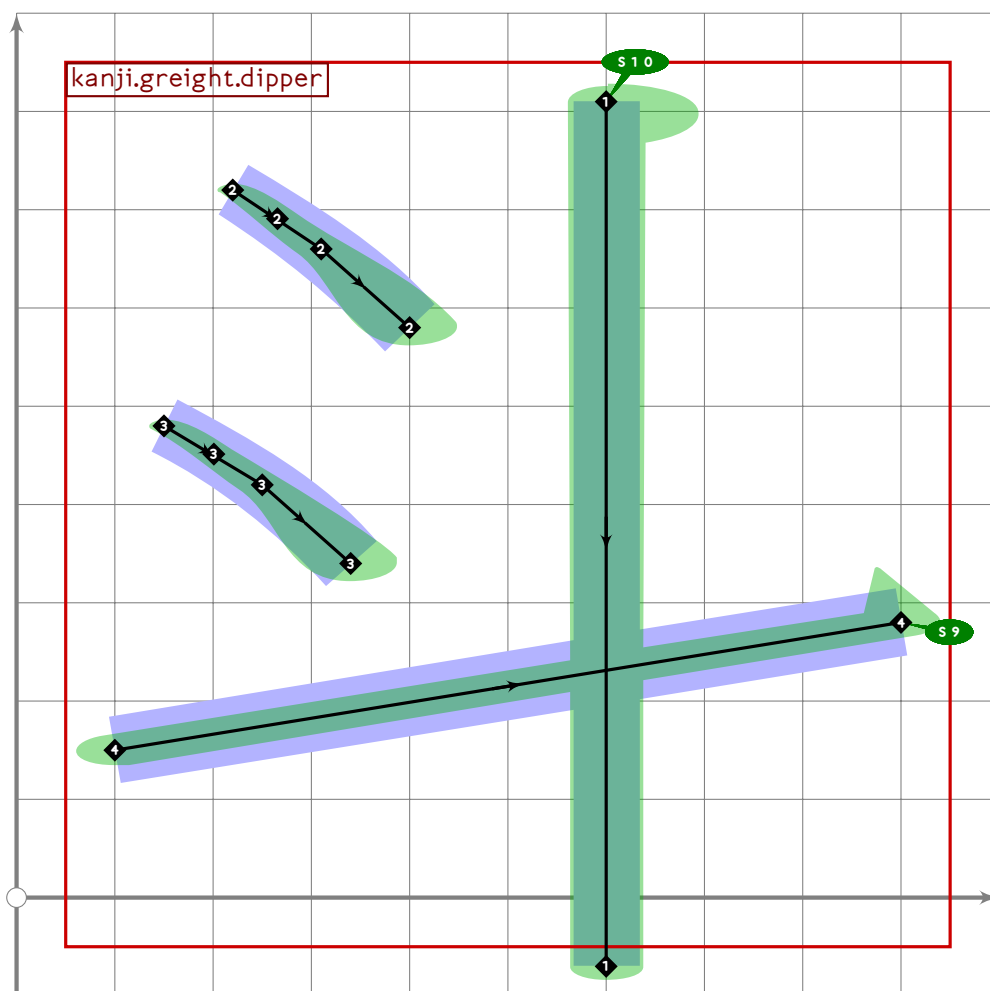


```

326 % bun/fumi "sentence"
327 begintsuglyph("uni2F42",66);
328   kanji.grone.sentence;
329   tsu_render;
330 endtsuglyph;
331

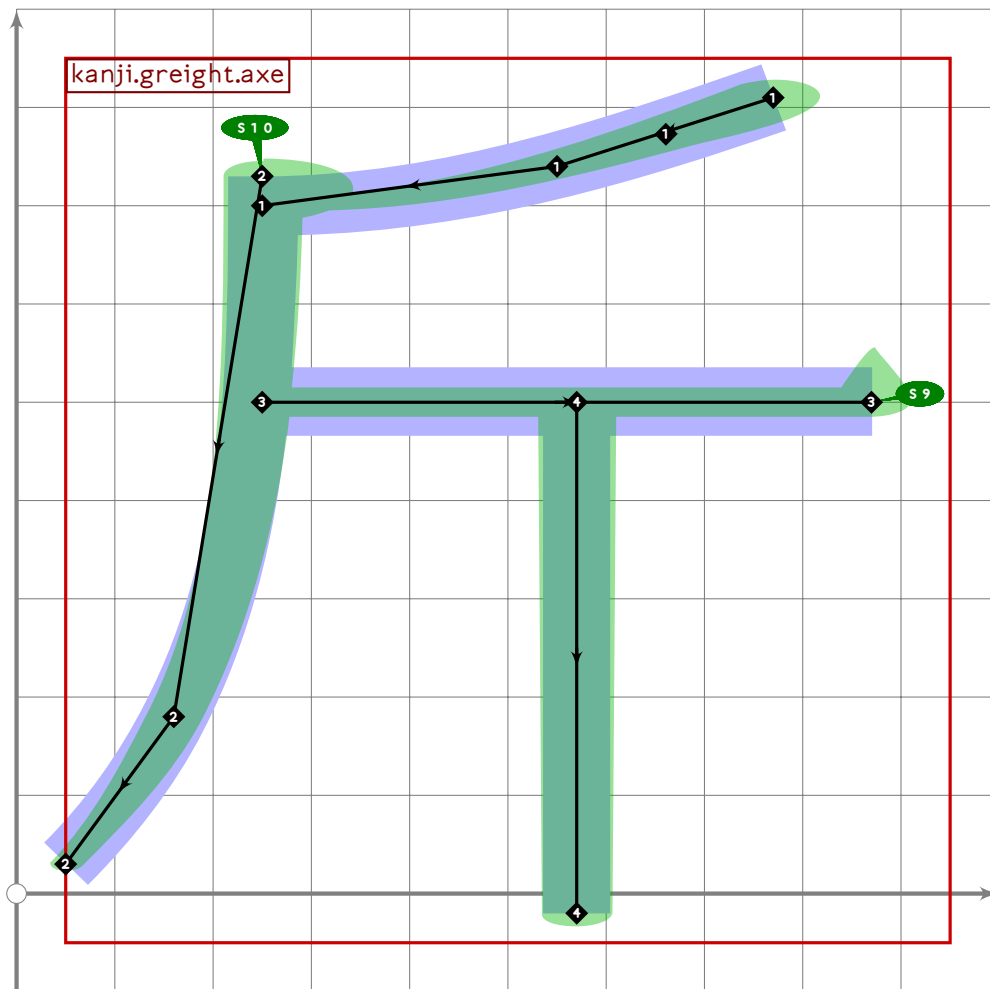
```

U+2F43  
tsuku.uni2F43



```
332 % to/masu "dipper"
333 begintsuglyph("uni2F43",67);
334   kanji.greight.dipper;
335   tsu_render;
336 endtsuglyph;
337
```



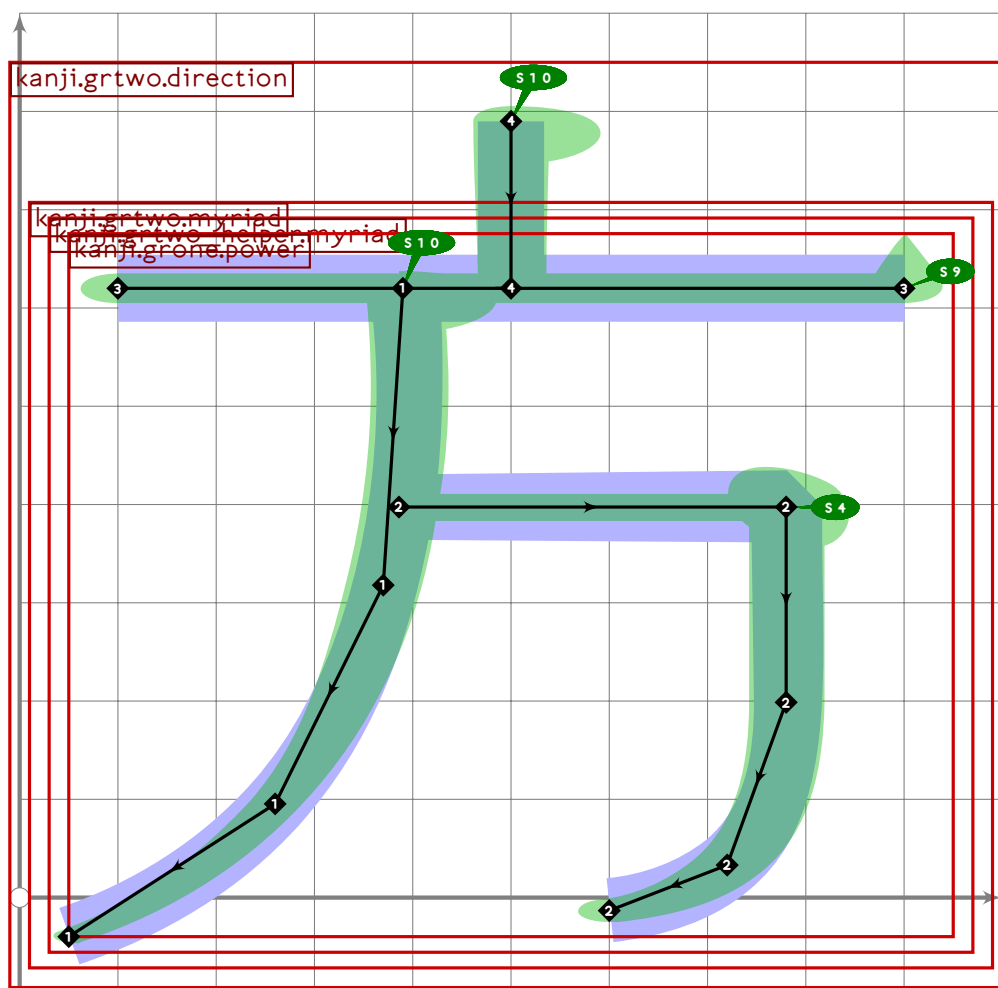


```

338 % kin/ono "axe"
339 begintsuglyph("uni2F44",68);
340   kanji.greight.axe;
341   tsu_render;
342 endtsuglyph;
343

```

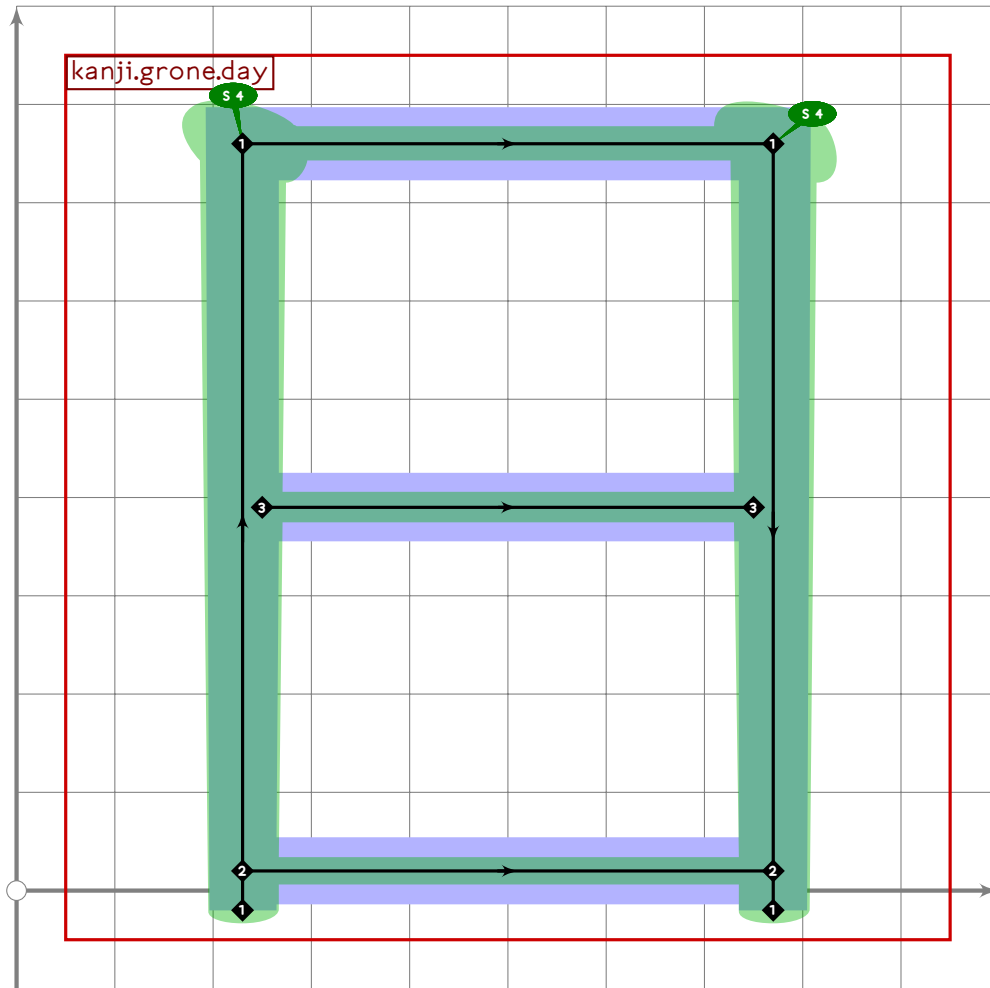
U+2F45  
tsuku.uni2F45



```

344 % hou/kata "direction" or "how to do it"
345 beginsuglyph("uni2F45",69);
346   kanji.grtwo.direction;
347   tsu_render;
348 endsuglyph;
349

```

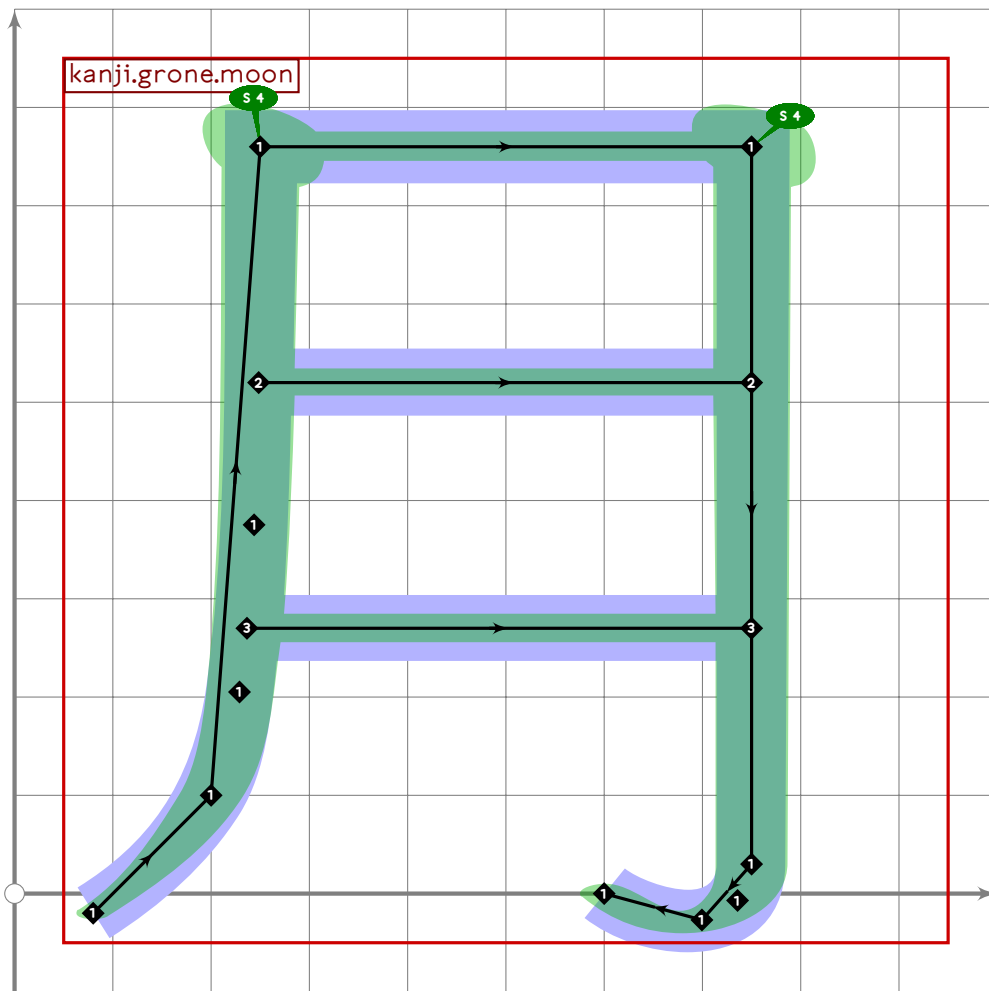


```

350 % hi/nichi "day"
351 begintsuglyph("uni2F47";71);
352   kanji.grone.day;
353   tsu_render;
354 endtsuglyph;
355

```

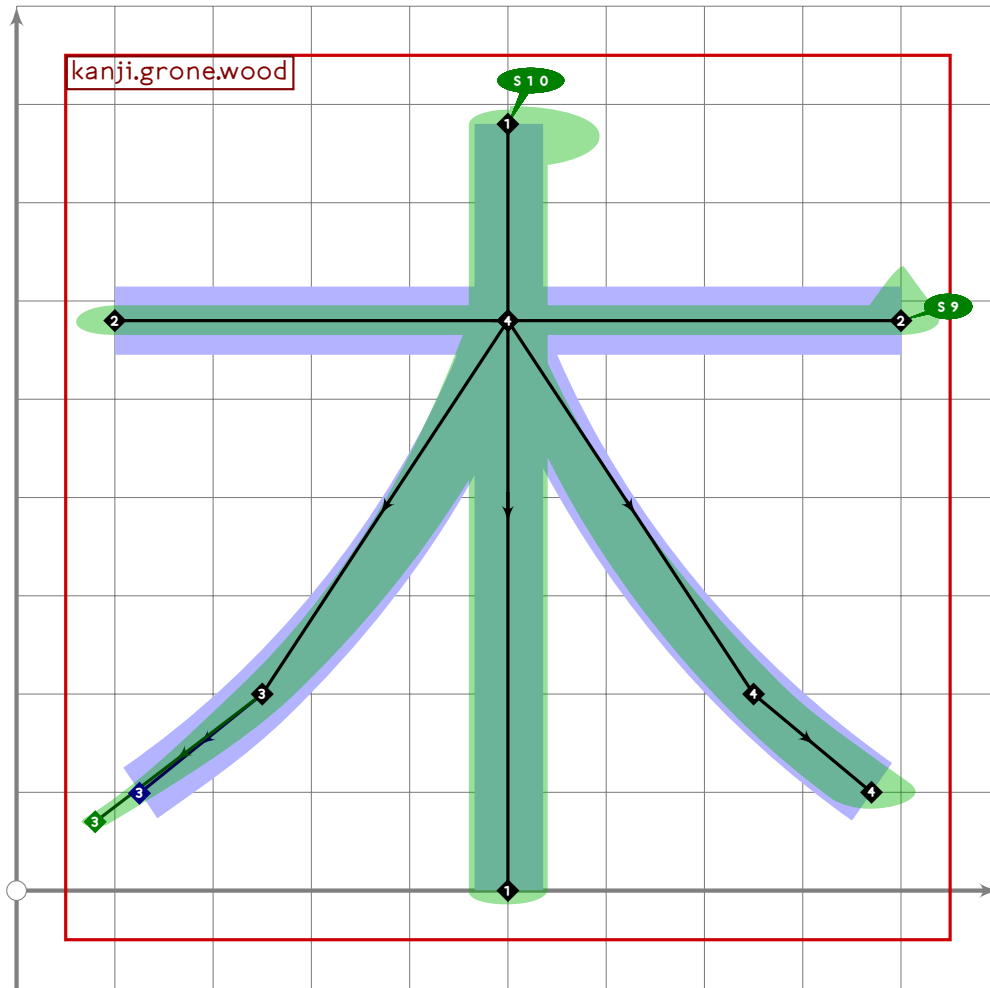
U+2F49  
tsuku.uni2F49



```

356 % tsuki/getsu "moon"
357 begintsuglyph("uni2F49",73);
358   kanji.grone.moon;
359   tsu_render;
360 endtsuglyph;
361

```

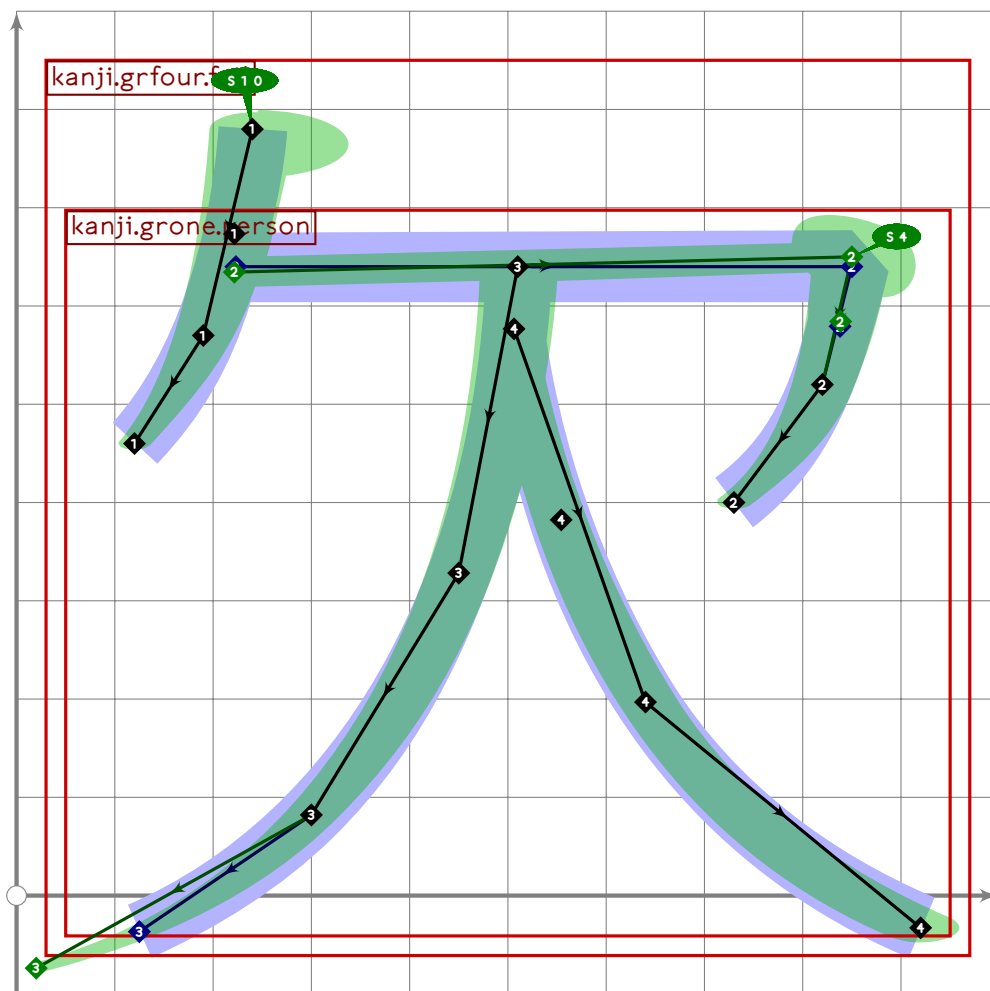


```

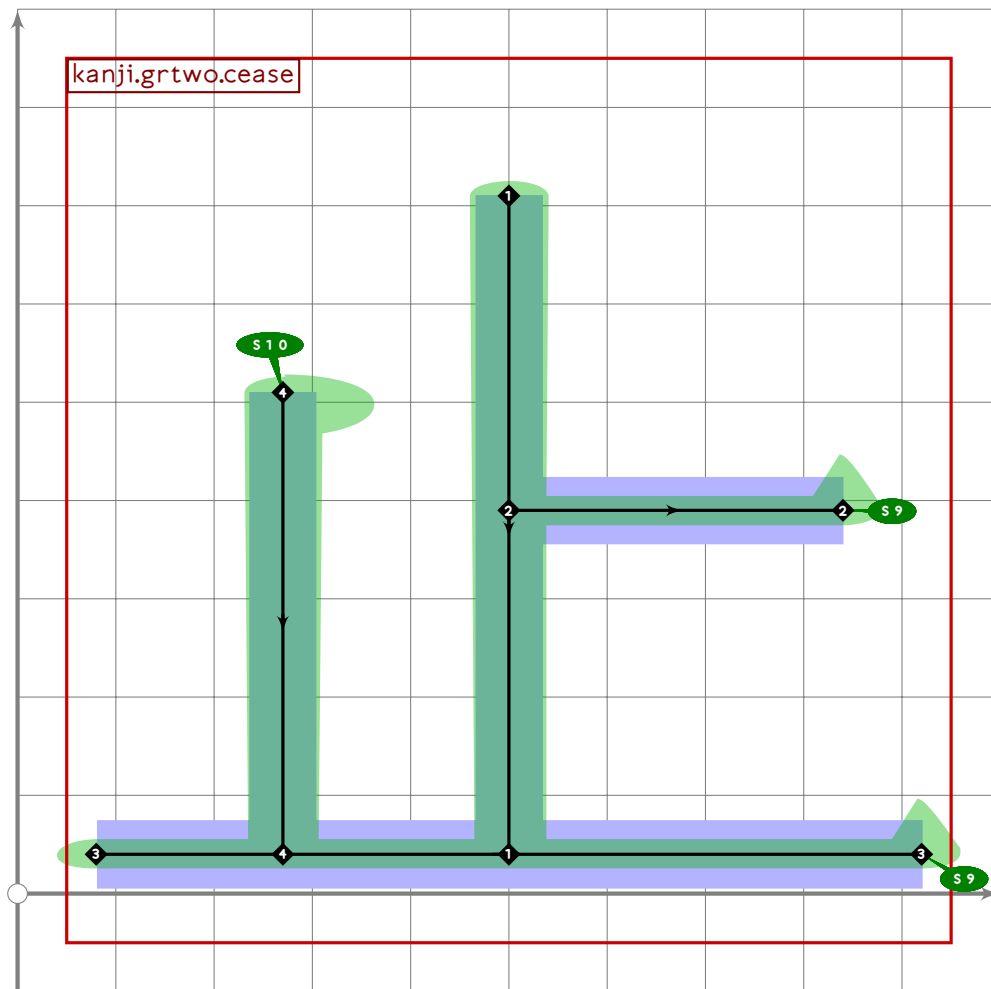
362 % ki "wood"
363 begintsuglyph("uni2F4A";74);
364   kanji.grone.wood;
365   tsu_render;
366 endtsuglyph;
367

```

U+2F4B  
tsuku.uni2F4B



```
368 % ketsu/ka/akubi "fail" or "yawn"  
369 begintsuglyph("uni2F4B",75);  
370   kanji.grfour.fail;  
371   tsu_render;  
372 endtsuglyph;  
373
```

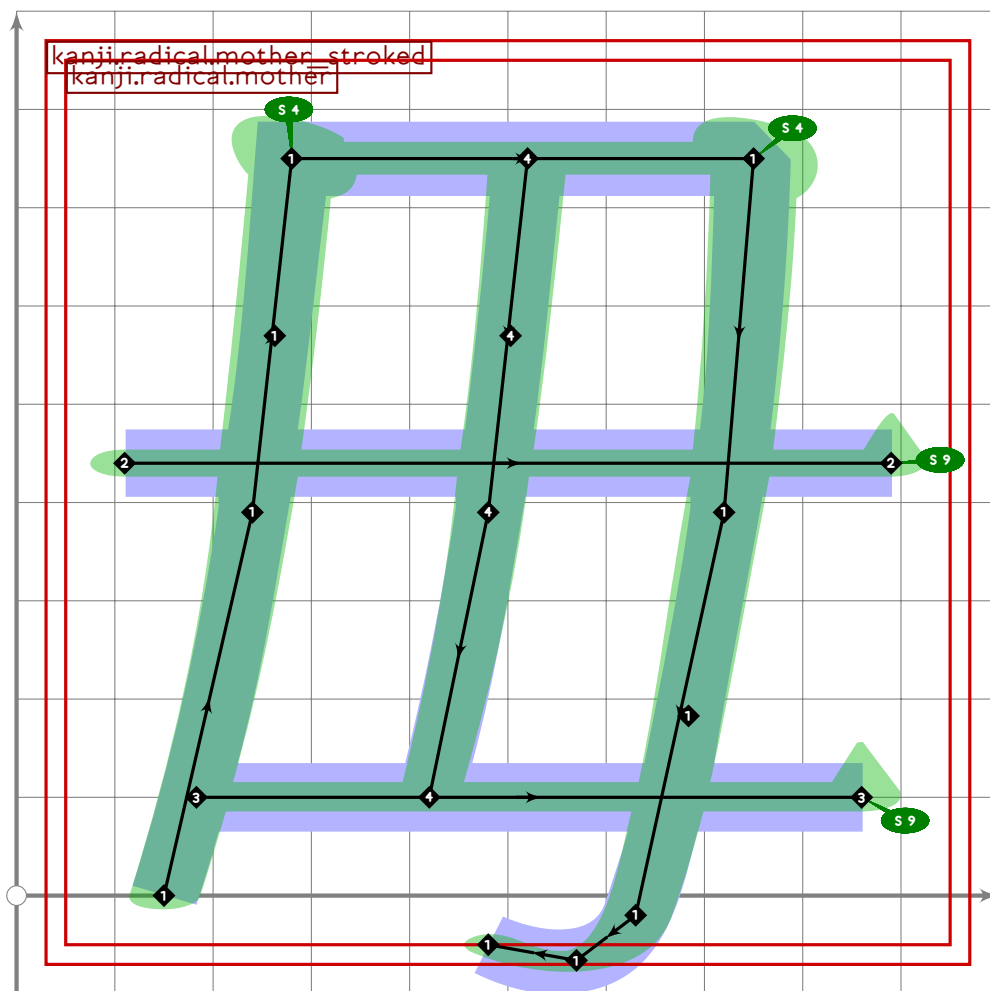


```

374 % shi/toma "stop"
375 begint Suglyph("uni2F4C";76);
376   kanji.grtwo.cease;
377   tsu_render;
378 endtsuglyph;
379

```

U+2F4F  
tsuku.uni2F4F

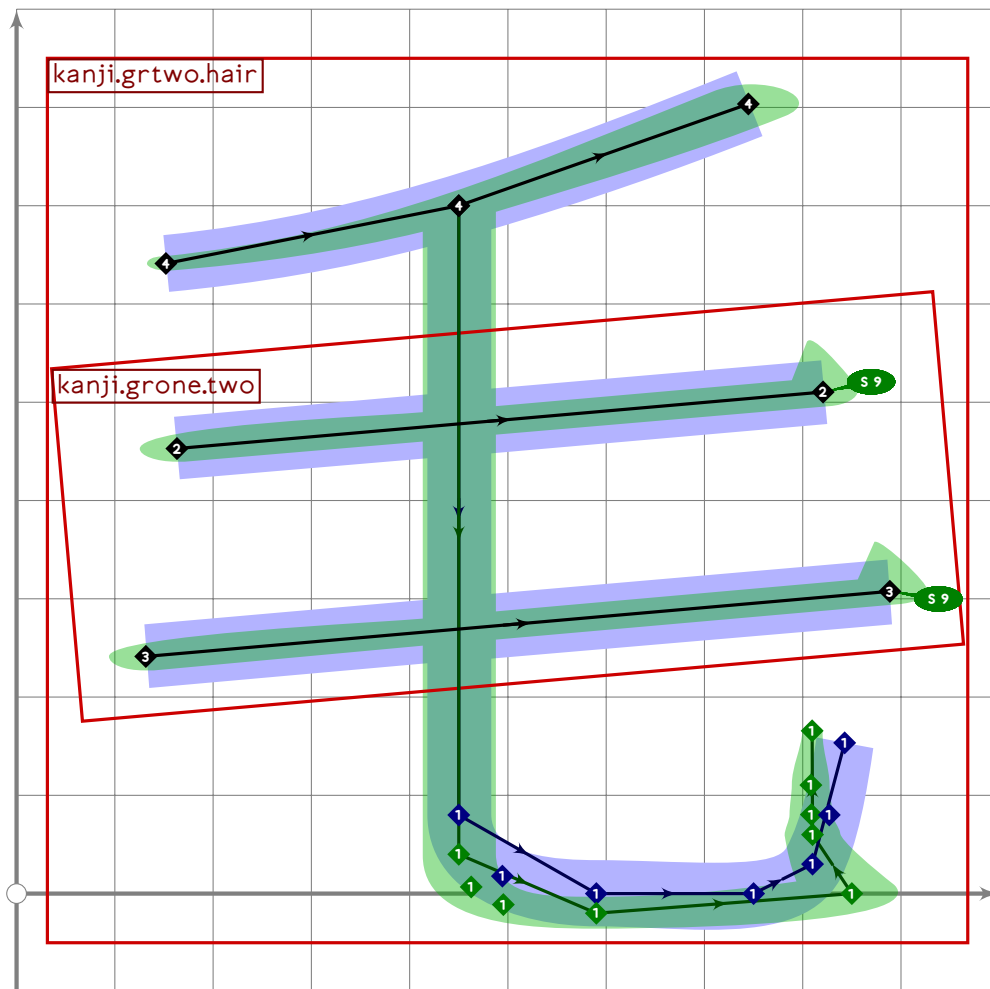


```

380 % extra: mother radical, stroked version
381 begintsuglyph("uni2F4F";79);
382   kanji.radical.mother_stroked;
383   tsu_render;
384 endsuglyph;
385

```



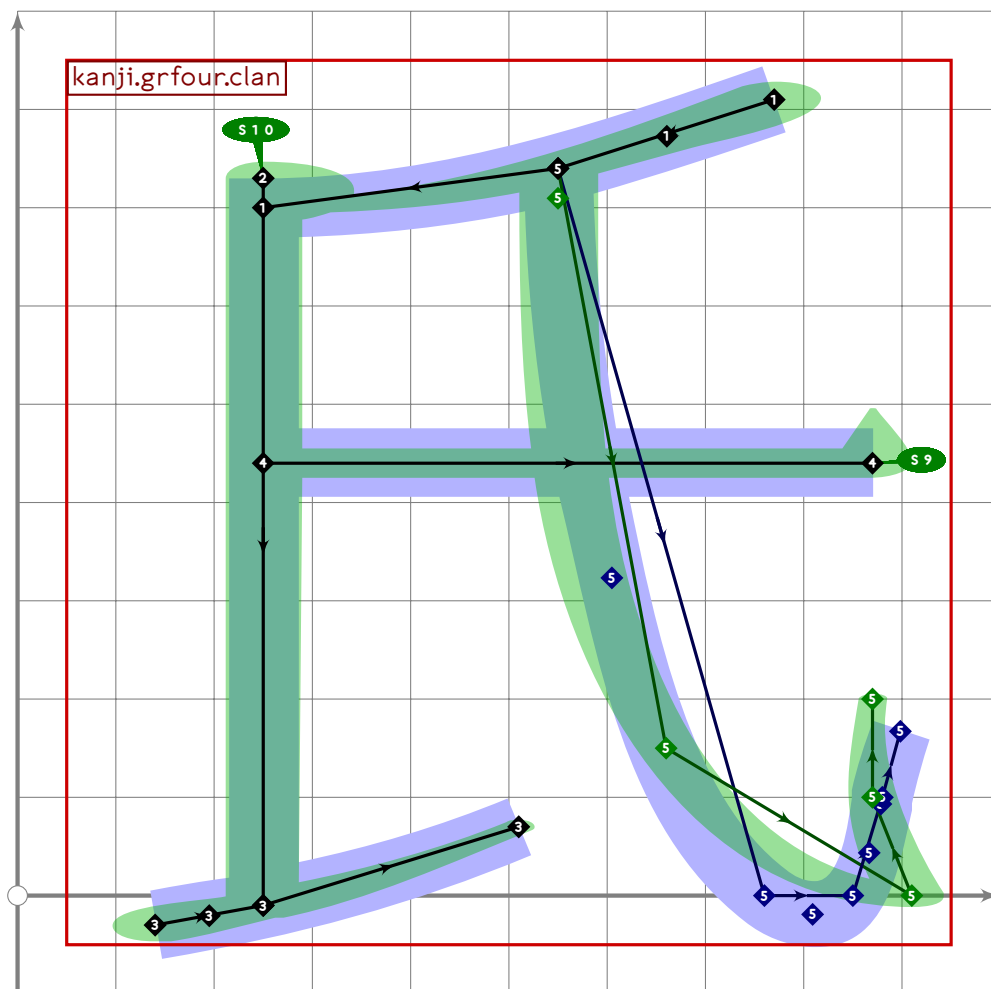


```

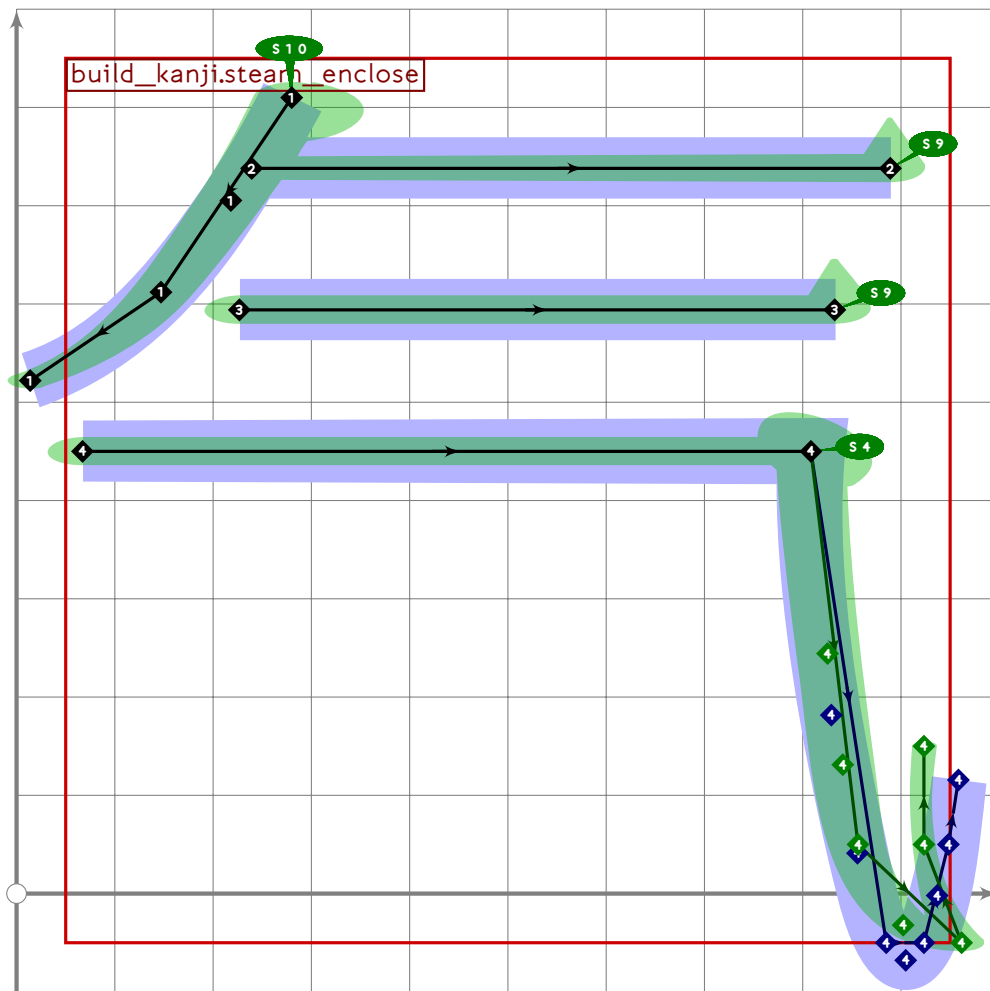
386 % mou/ke "hair"
387 begintsuglyph("uni2F51";81);
388   kanji.grtwo.hair;
389   tsu_render;
390 endtsuglyph;
391

```

U+2F52  
tsuku.uni2F52



```
392 % shi/uji "clan"  
393 begint Suglyph("uni2F52";82);  
394   kanji.grfour.clan;  
395   tsu_render;  
396 endtsuglyph;  
397
```

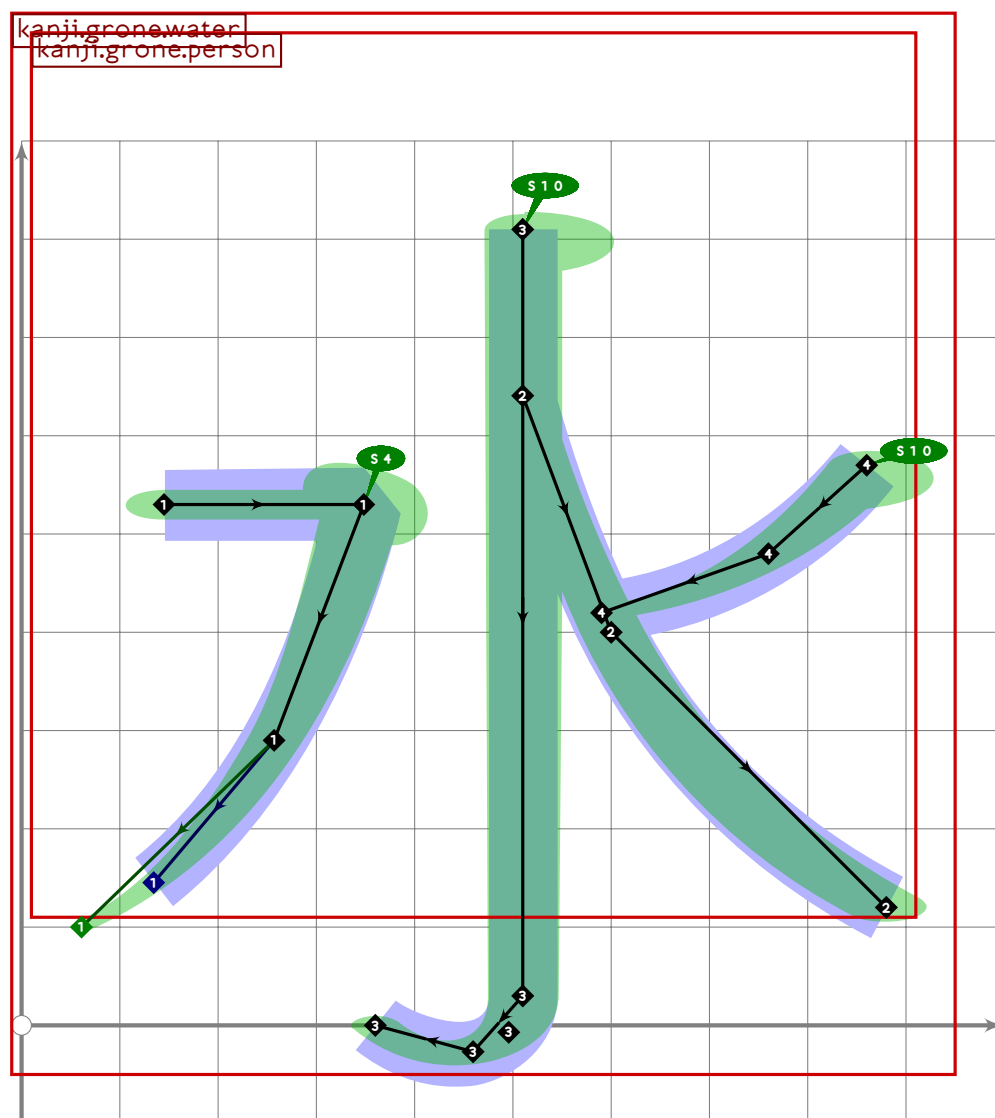


```

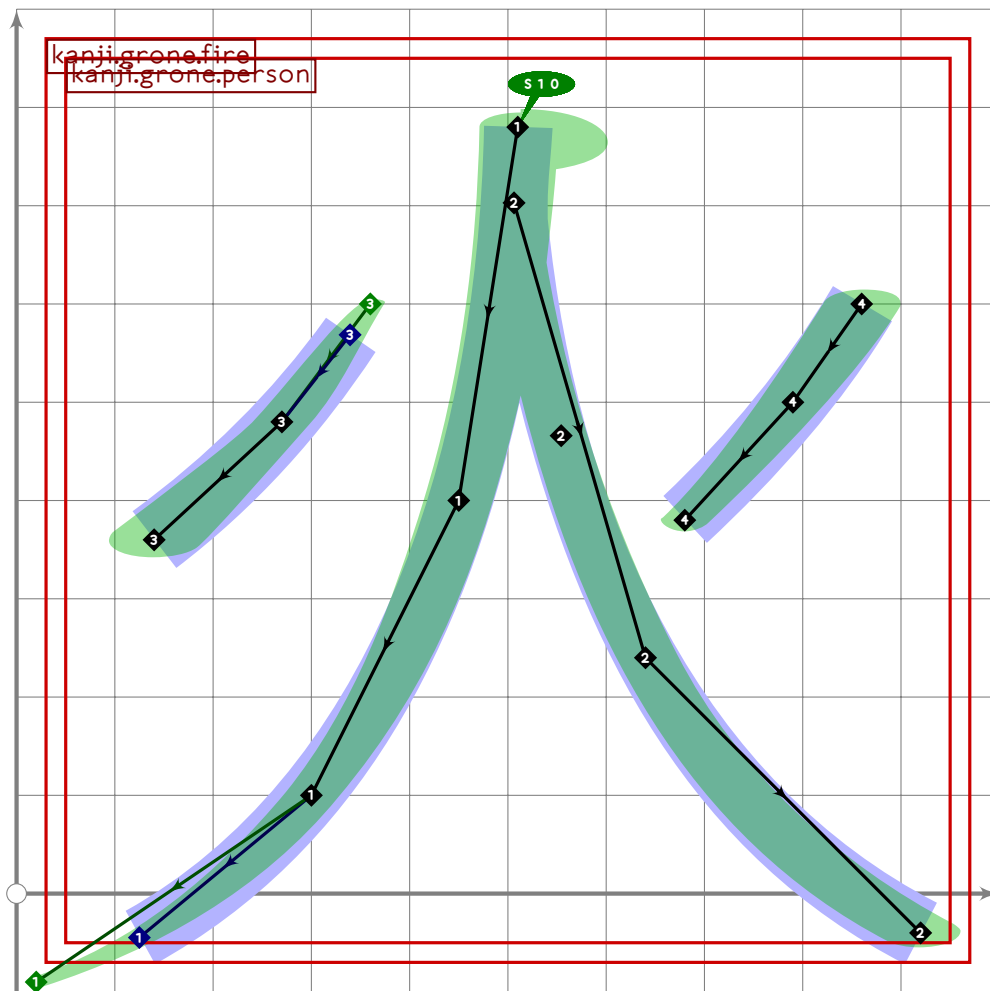
398 % sei/tada/machi "correct"
399 begintsuglyph("uni2F53",83);
400 build_kanji.steam_enclose((700,400))();
401 tsu_render;
402 endtsuglyph;
403

```

U+2F54  
tsuku.uni2F54



```
404 % sui/mizu "water"  
405 begintsuglyph("uni2F54";84);  
406 kanji.grone.water;  
407 tsu_render;  
408 endtsuglyph;  
409
```

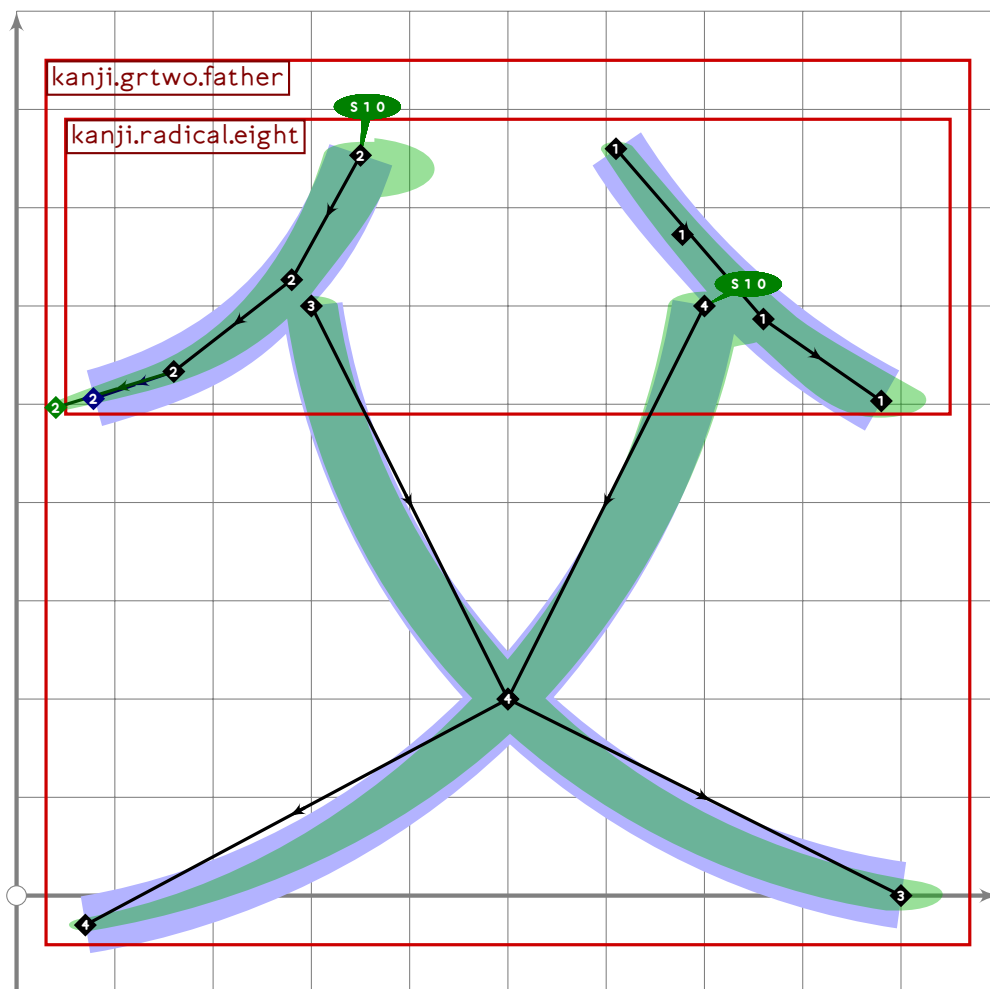


```

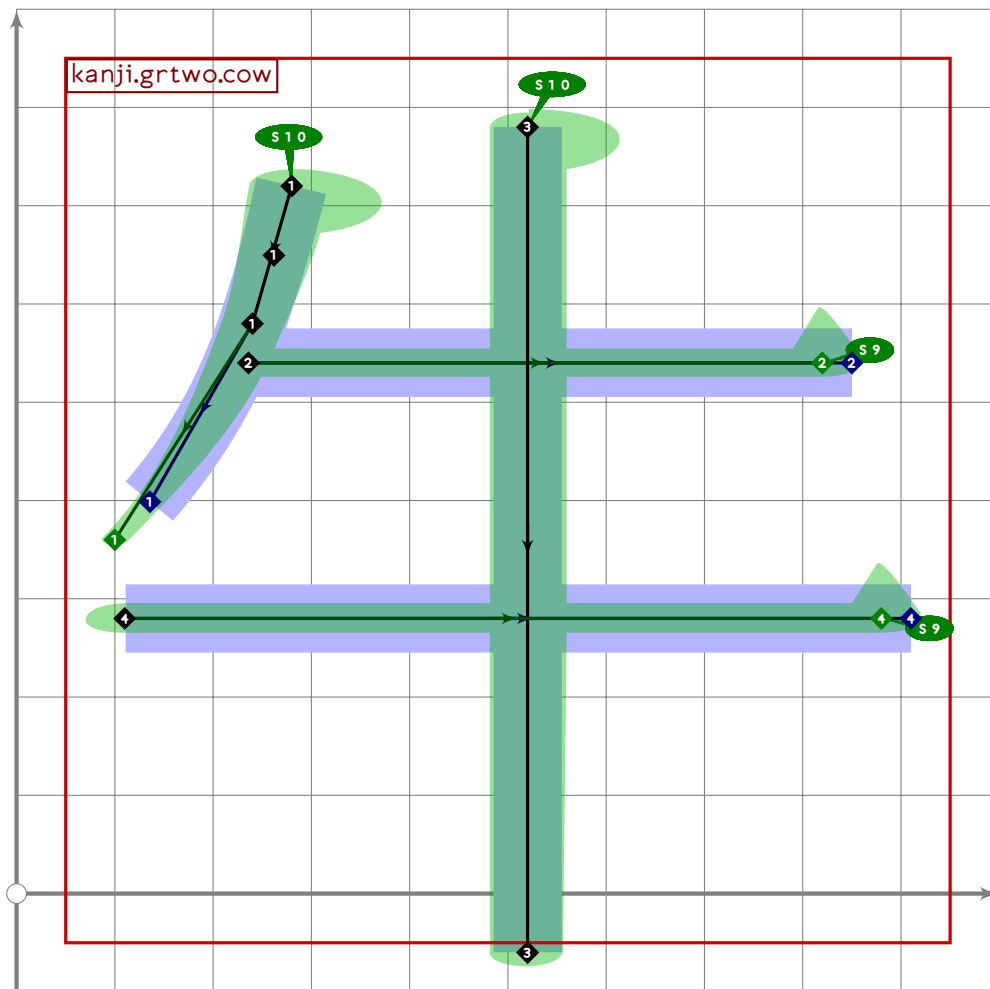
410 % hi/ka "fire"
411 begintsuglyph("uni2F55",85);
412   kanji.grone.fire;
413   tsu_render;
414 endtsuglyph;
415

```

U+2F57  
tsuku.uni2F57



```
416 % chichi "father"  
417 begintsuglyph("uni2F57";87);  
418   kanji.grtwo.father;  
419   tsu_render;  
420 endsuglyph;  
421
```

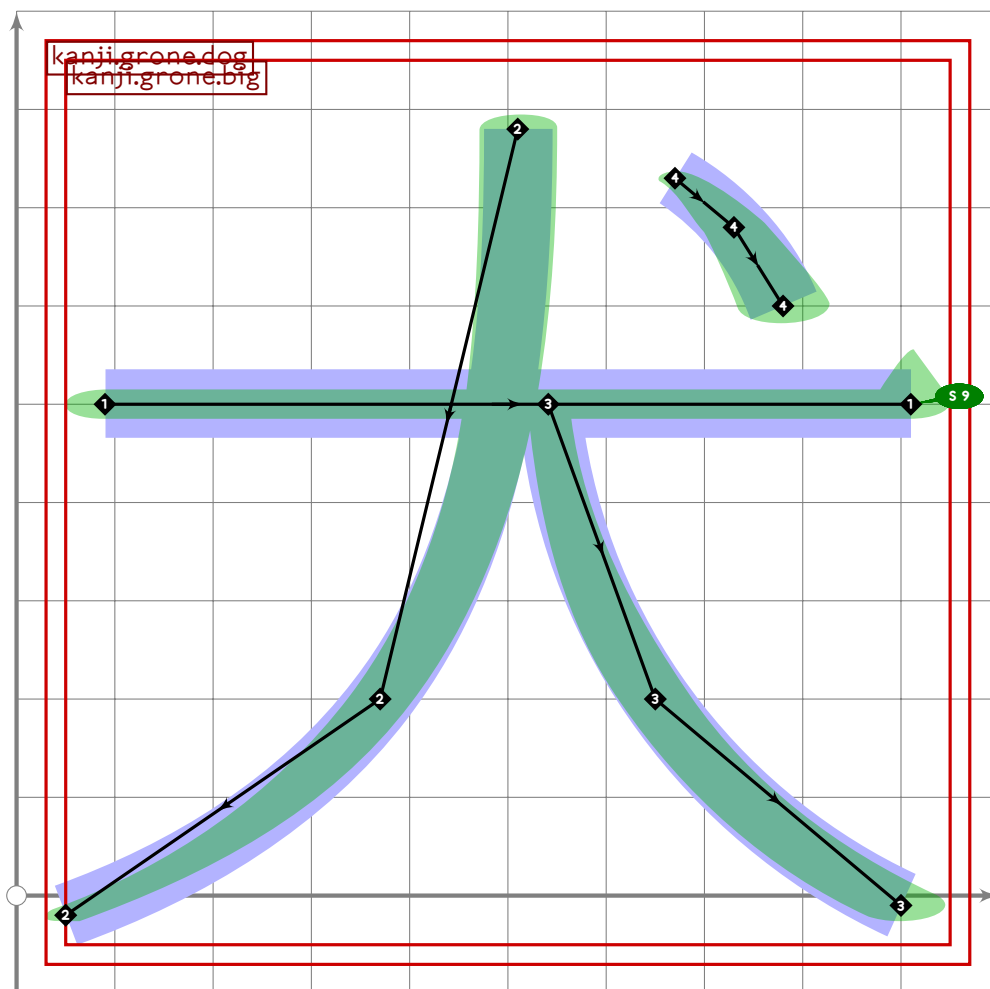


```

422 % kyu/ushi "cow"
423 begintsuglyph("uni2F5C";92);
424   kanji.grtwo.cow;
425   tsu_render;
426 endtsuglyph;
427

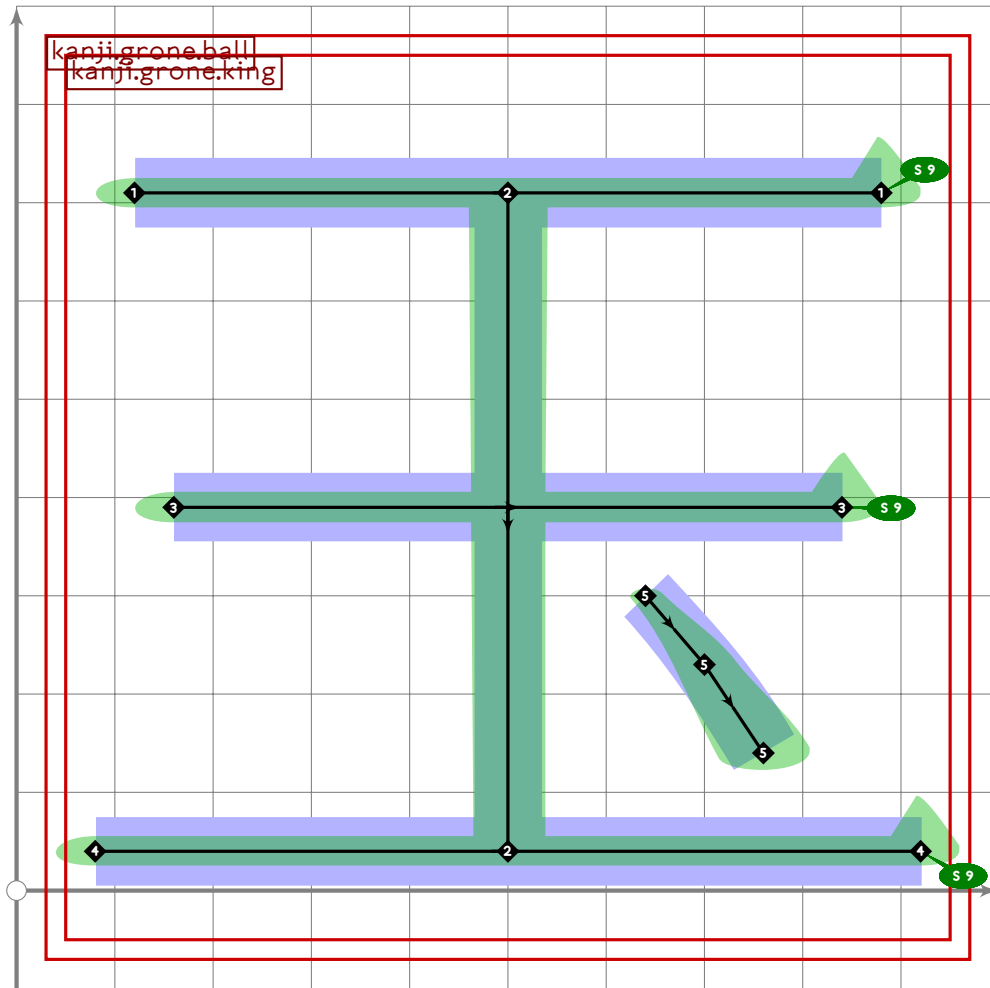
```

U+2F5D  
tsuku.uni2F5D



```
428 % inu "dog"
429 begintsuglyph("uni2F5D";93);
430   kanji.grone.dog;
431   tsu_render;
432 endtsuglyph;
433
```



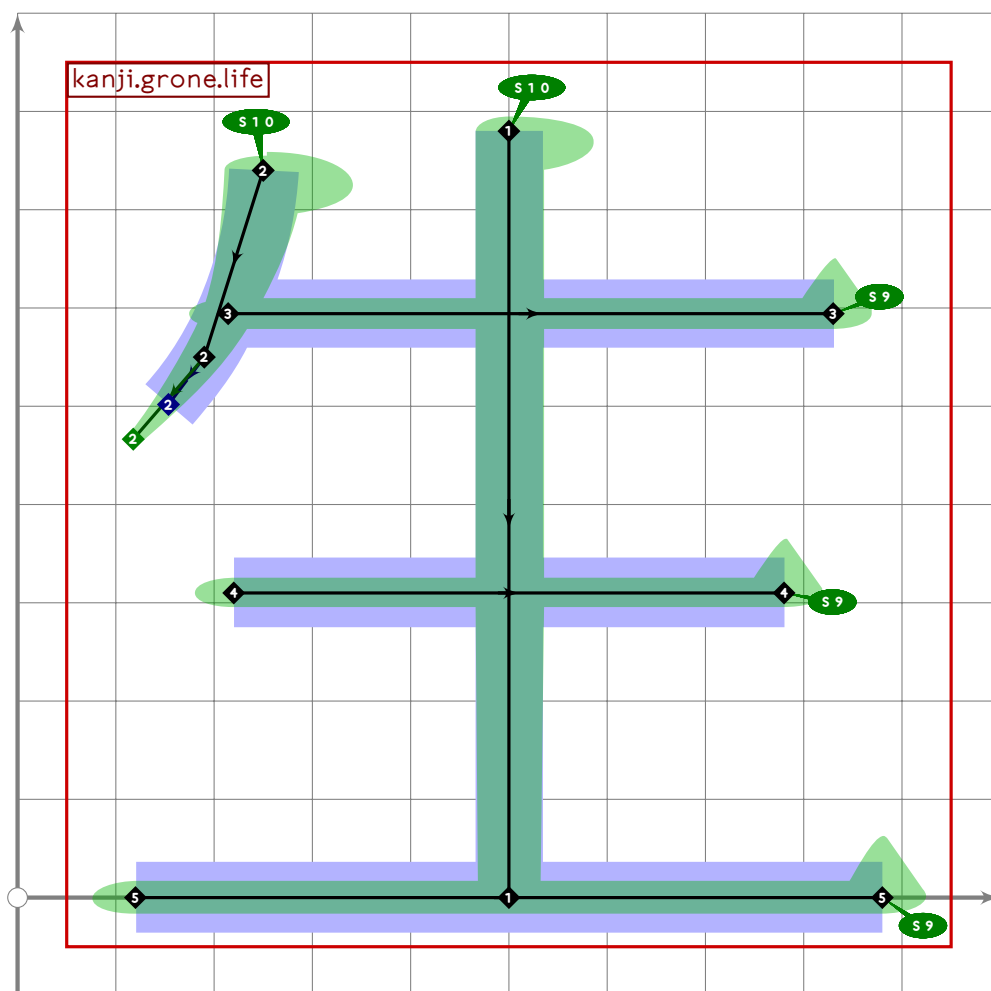


```

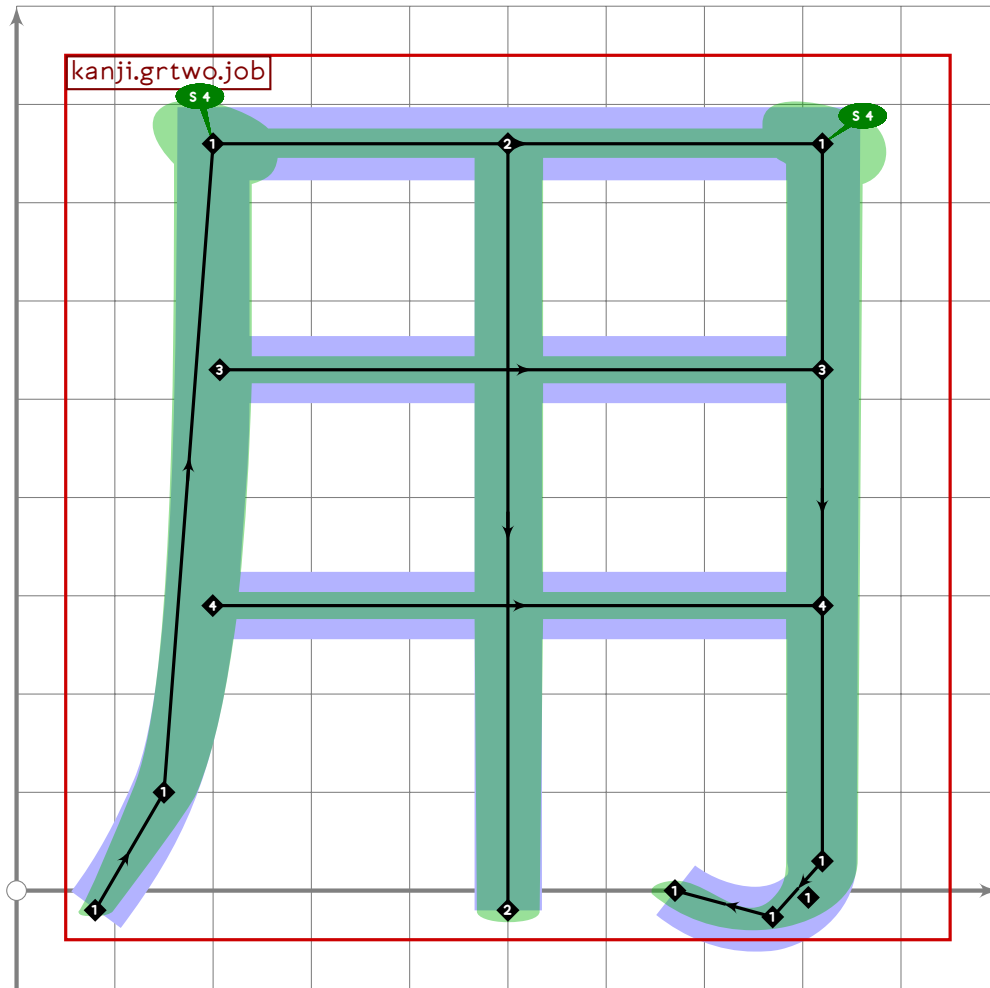
434 % gyoku/tama "ball" or "precious"
435 begint Suglyph("uni2F5F";95);
436   kanji.grone.ball;
437   tsu_render;
438 endtsuglyph;
439

```

U+2F63  
tsuku.uni2F63



```
440 % sei/ki "life"  
441 begintsuglyph("uni2F63";99);  
442   kanji.grone.life;  
443   tsu_render;  
444 endsuglyph;  
445
```

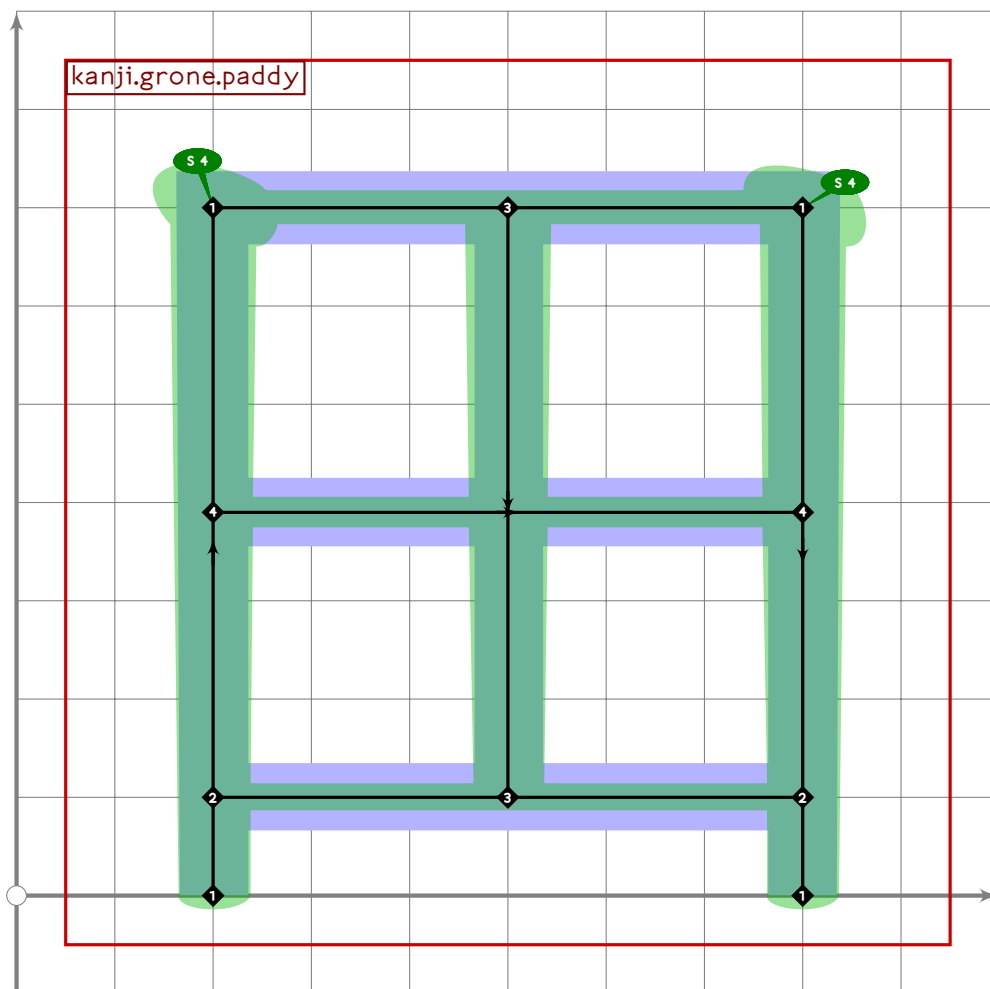


```

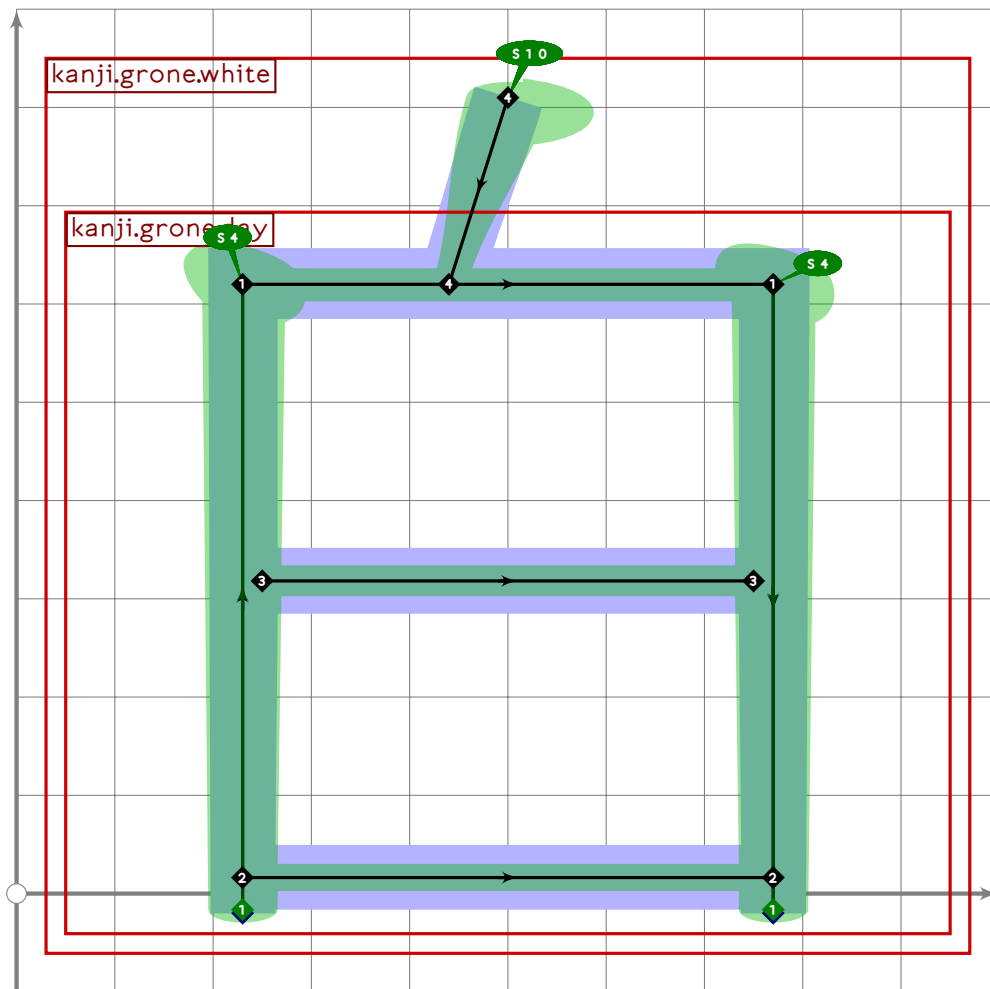
446 % you/mochi "job"
447 begintsuglyph("uni2F64",100);
448   kanji.grtwo.job;
449   tsu_render;
450 endtsuglyph;
451

```

U+2F65  
tsuku.uni2F65



```
452 % ta "rice paddy"  
453 begint Suglyph("uni2F65";101);  
454   kanji.grone.paddy;  
455   tsu_render;  
456 endtsuglyph;  
457
```

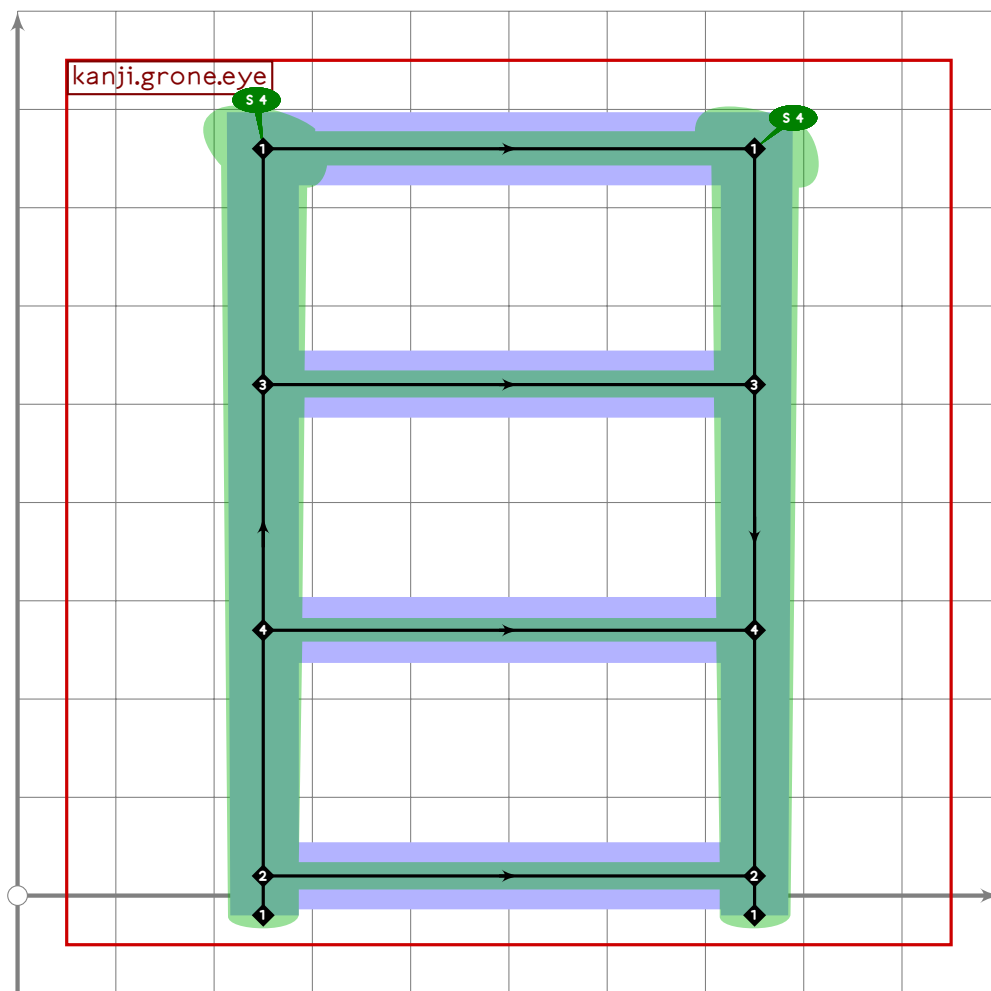


```

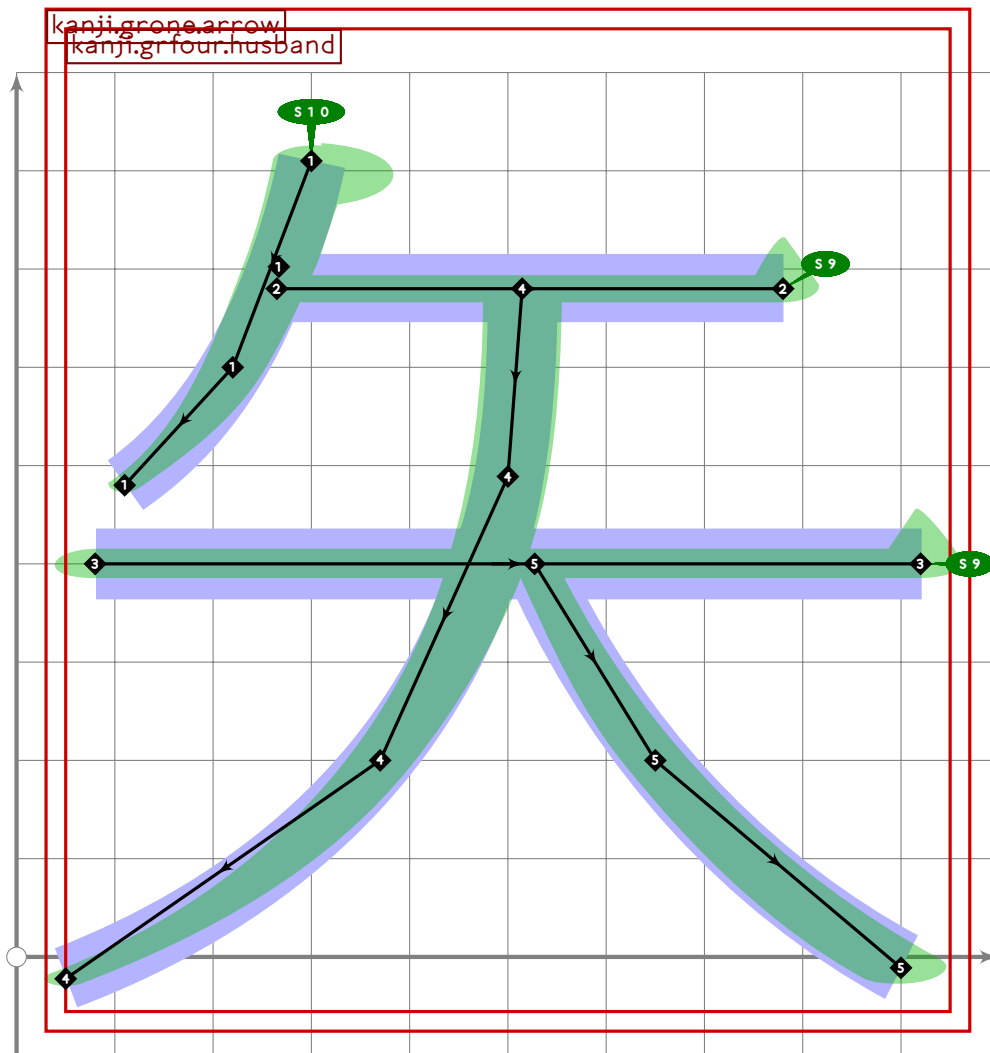
458 % shiro "white"
459 begintsuglyph("uni2F69",105);
460   kanji.grone.white;
461   tsu_render;
462 endtsuglyph;
463

```

U+2F6C  
tsuku.uni2F6C



```
464 % moku/me "eye"  
465 begint Suglyph("uni2F6C";108);  
466   kanji.grone.ey;  
467   tsu_render;  
468 endtsuglyph;  
469
```

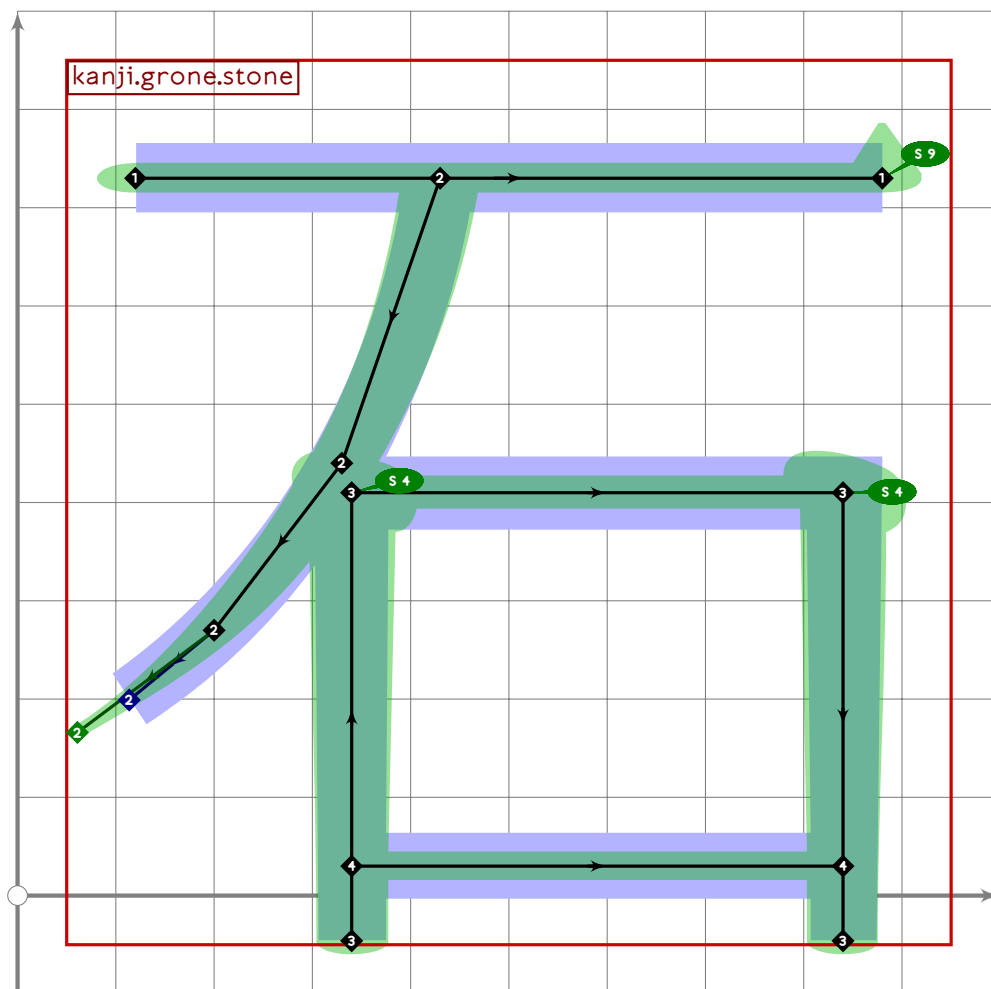


```

470 % shi/ya "arrow"
471 begintsuglyph("uni2F6E";110);
472   kanji.grtwo.arrow;
473   tsu_render;
474 endtsuglyph;
475

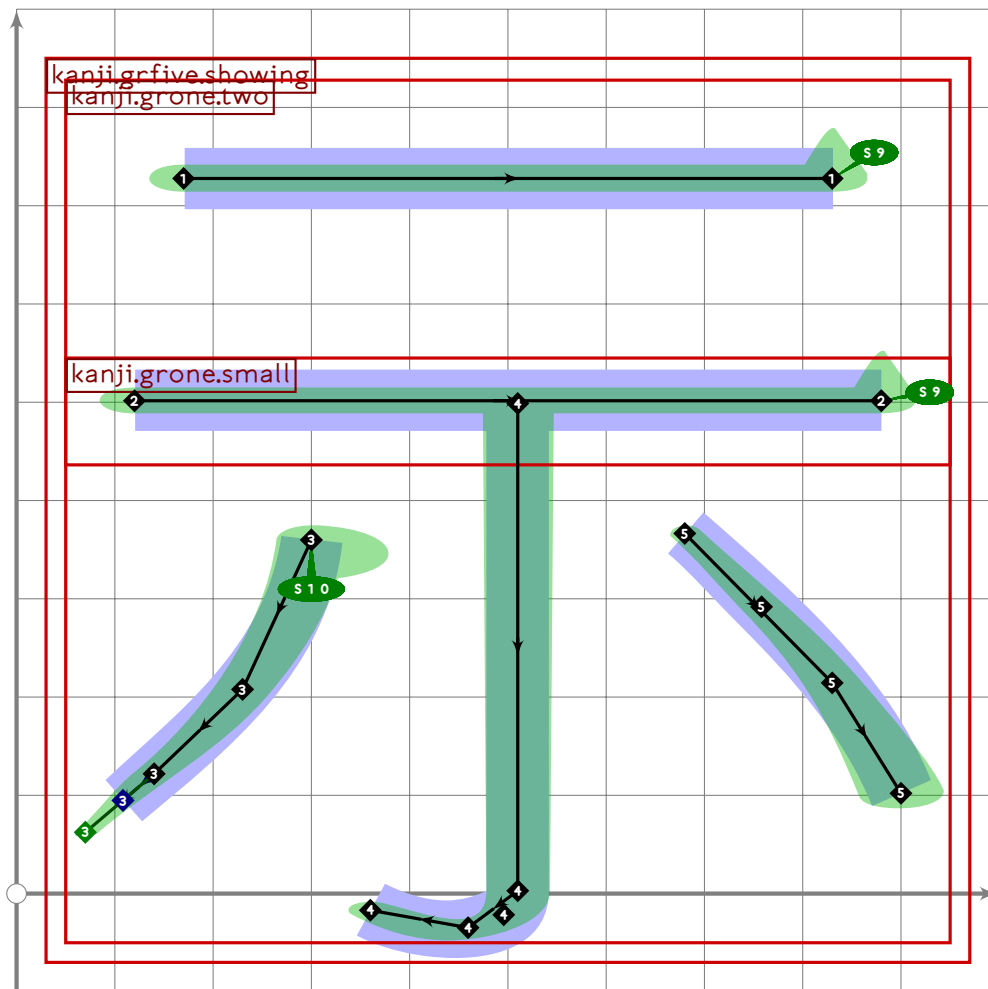
```

U+2F6F  
tsuku.uni2F6F



```
476 % seki/ishi "stone"  
477 begintsuglyph("uni2F6F";111);  
478   kanji.grone.stone;  
479   tsu_render;  
480 endsuglyph;  
481
```



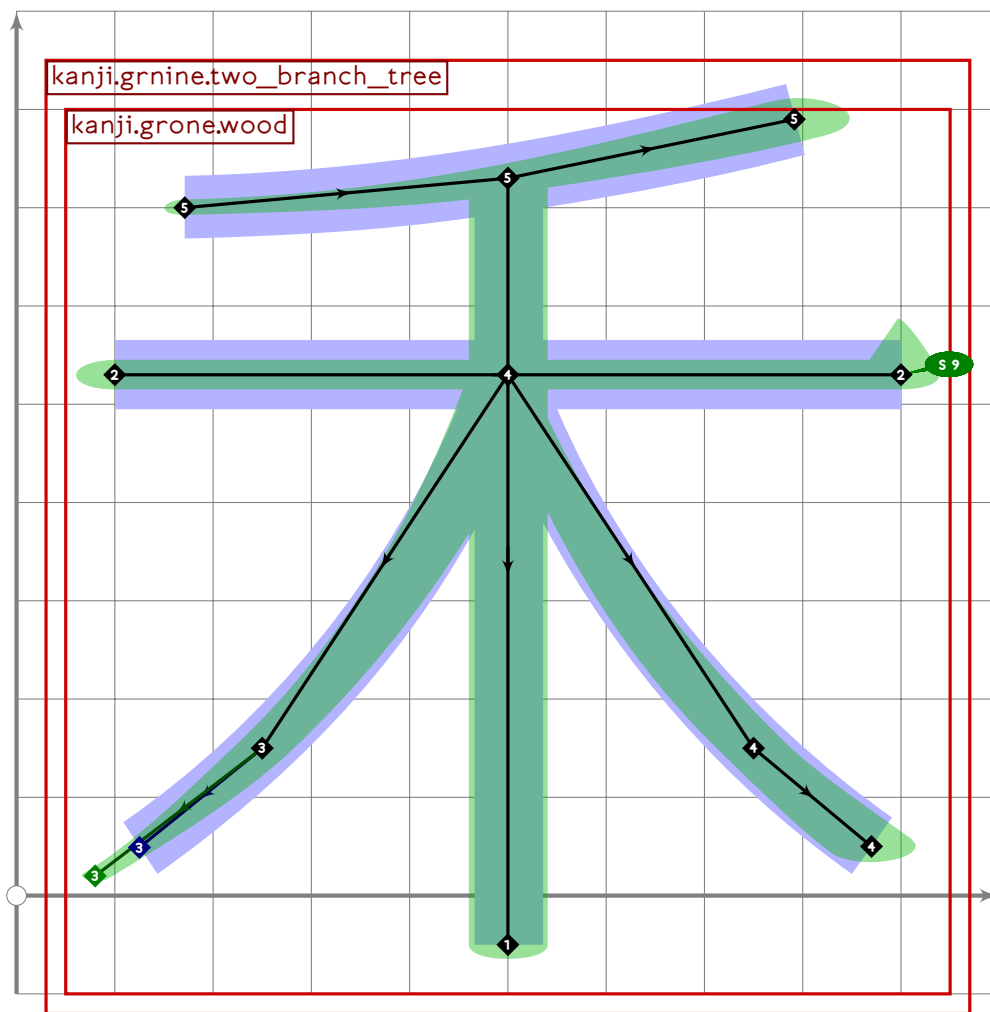


```

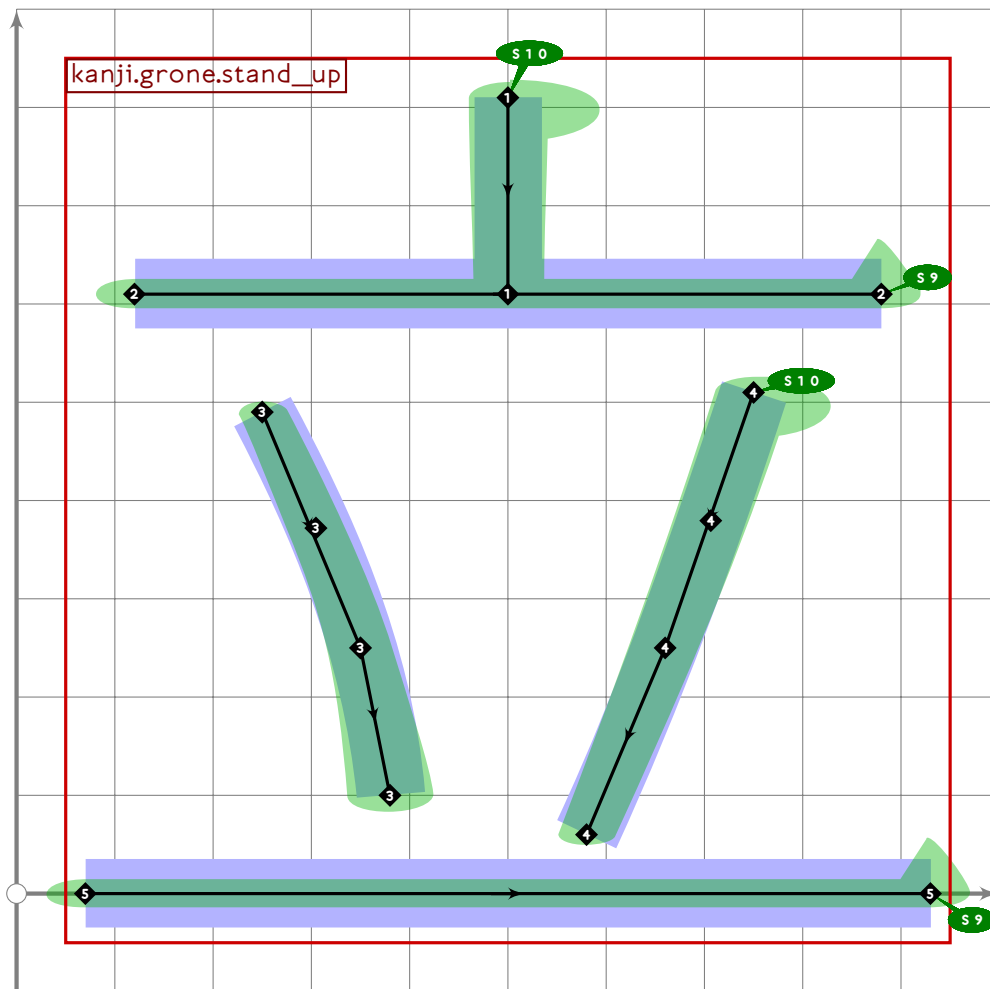
482 % ji/shime "show" (also older radical form)
483 begintsuglyph("uni2F70";112);
484   kanji.grfive.showing;
485   tsu_render;
486 endtsuglyph;
487

```

U+2F72  
tsuku.uni2F72



```
488 % ka/ine little meaning by itself, called "two-branch tree" as a radical
489 begint Suglyph("uni2F72";114);
490   kanji.grnine.two_branch_tree;
491   tsu_render;
492 endtsuglyph;
493
```

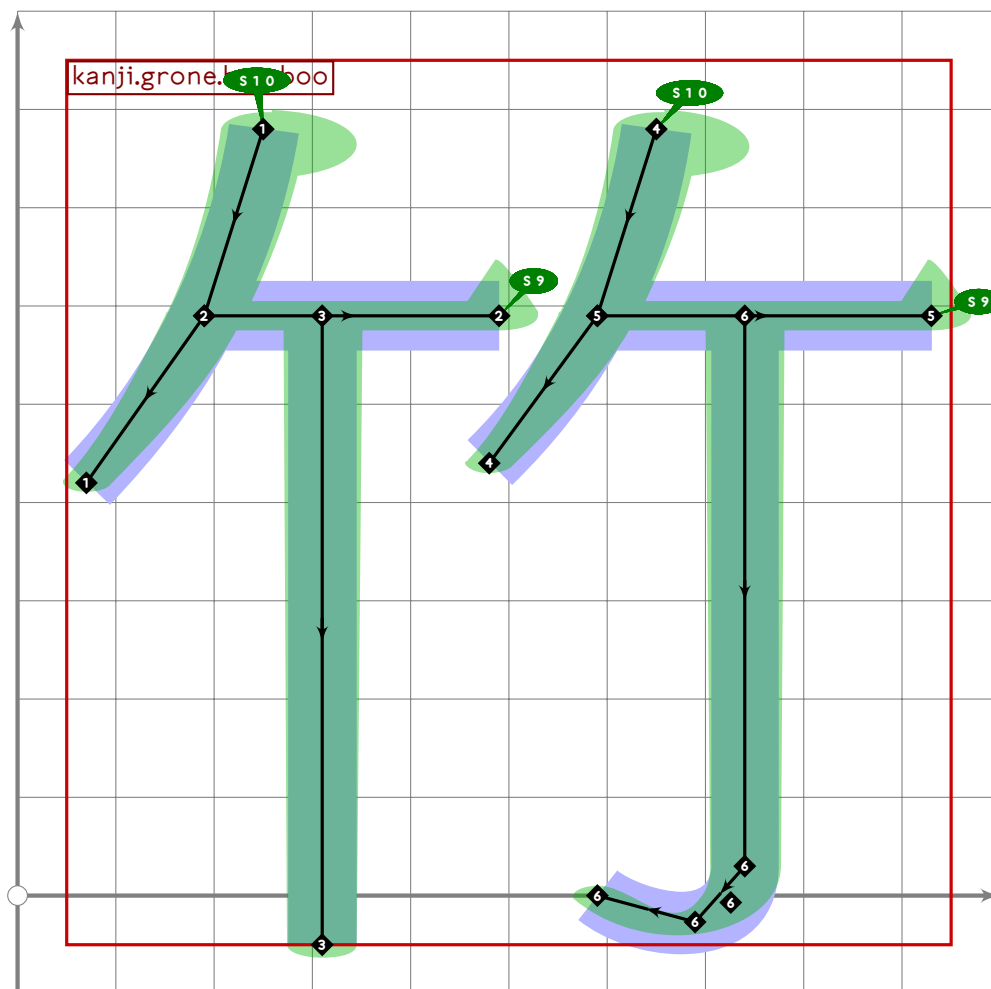


```

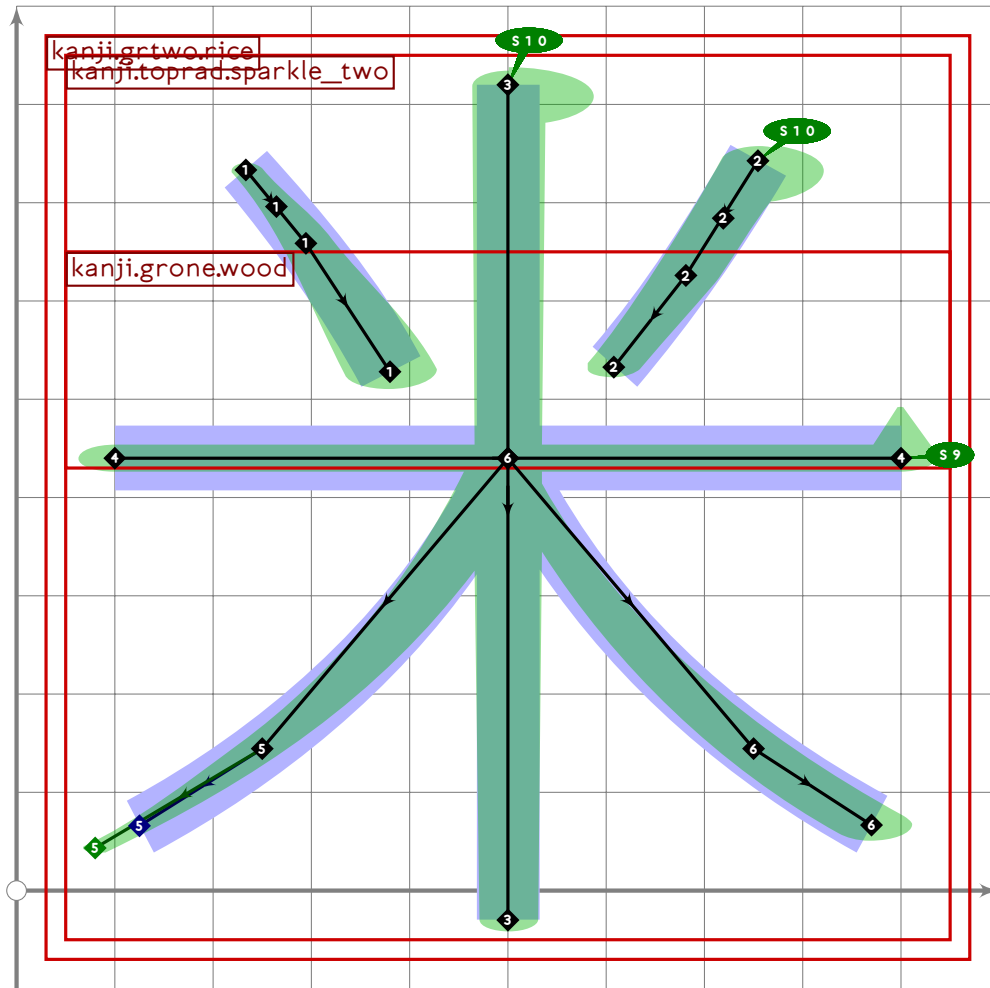
494 % ta "stand up"
495 begint Suglyph("uni2F74";116);
496   kanji.grone.stand_up;
497   tsu_render;
498 endtsuglyph;
499

```

U+2F75  
tsuku.uni2F75



```
500 % chiku/take "bamboo"
501 begintsuglyph("uni2F75",117);
502   kanji.grone.bamboo;
503   tsu_render;
504 endtsuglyph;
505
```

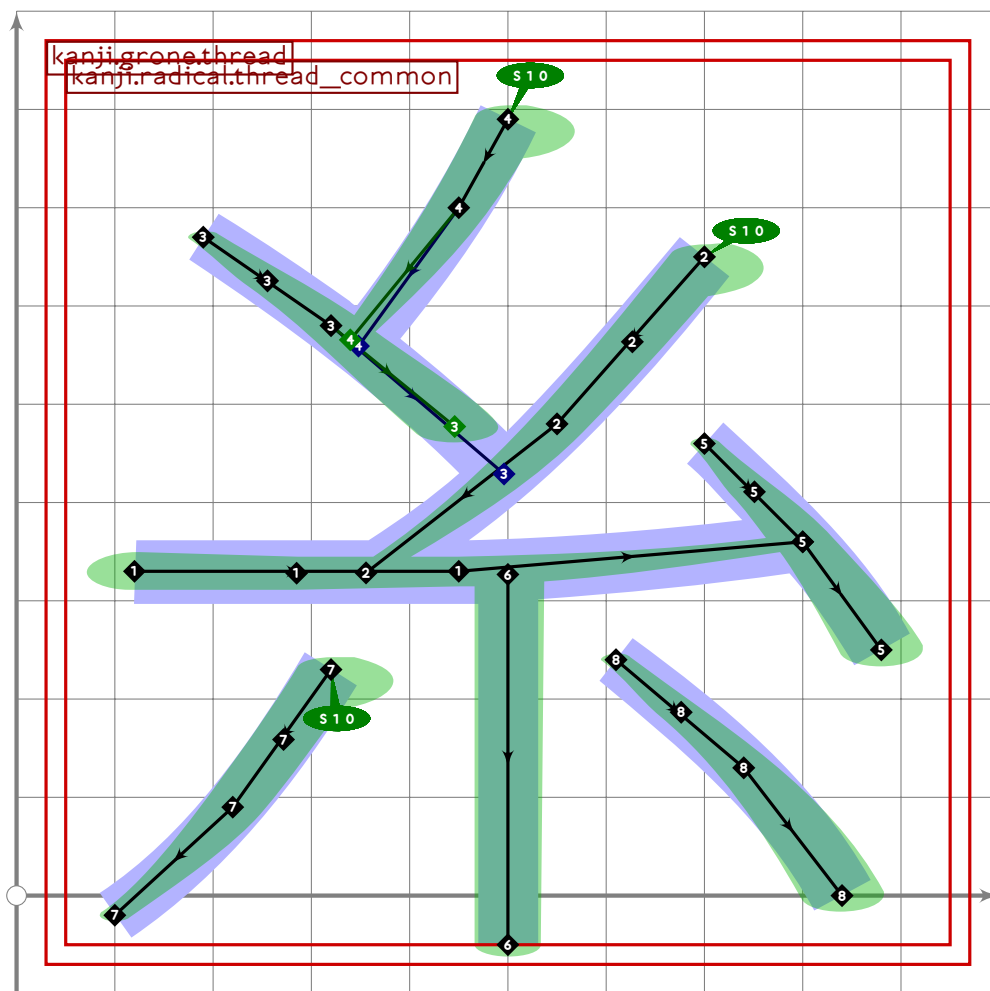


```

506 % bei/kome "rice", also "USA" and "metre"
507 begintsuglyph("uni2F76",118);
508   kanji.grtwo.rice;
509   tsu_render;
510 endsuglyph;
511

```

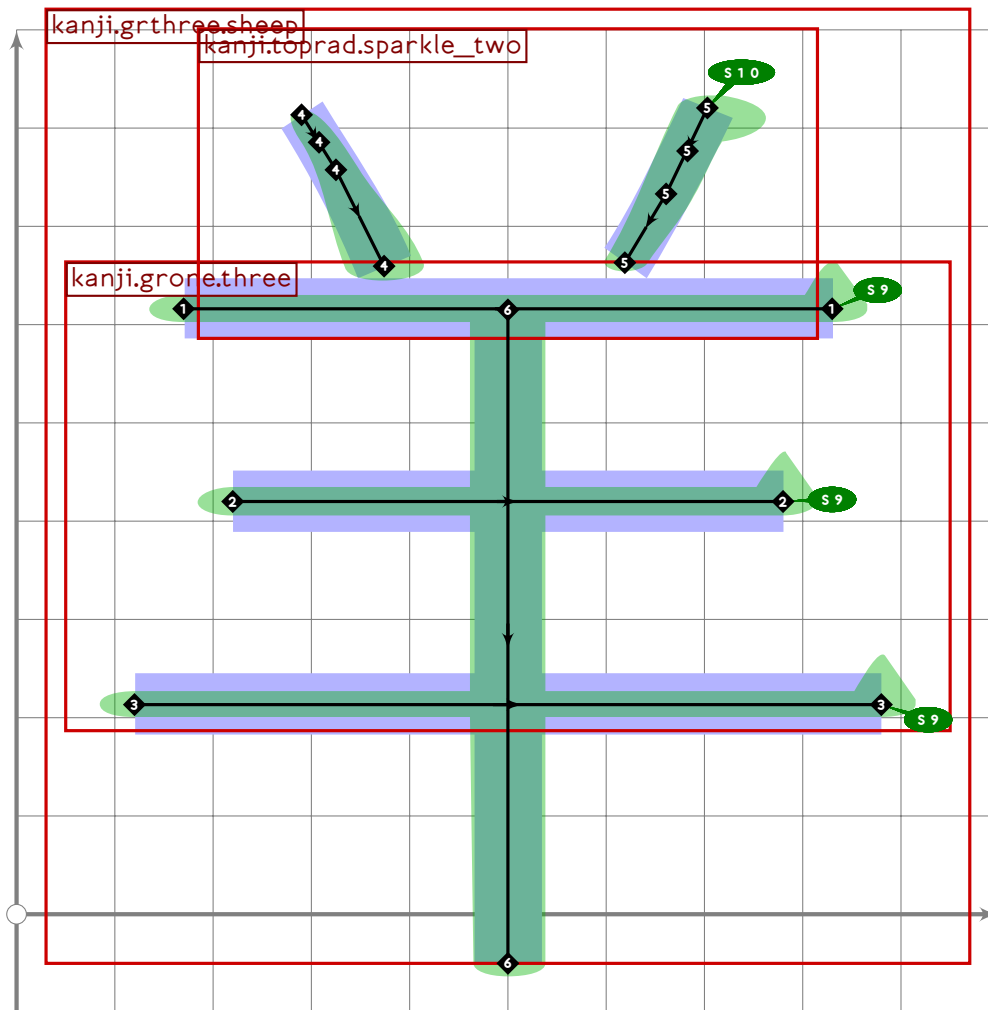
U+2F77  
tsuku.uni2F77



```

512 % shi/ito "thread"
513 begintsuglyph("uni2F77";119);
514   kanji.grone.thread;
515   tsu_render;
516 endsuglyph;
517

```

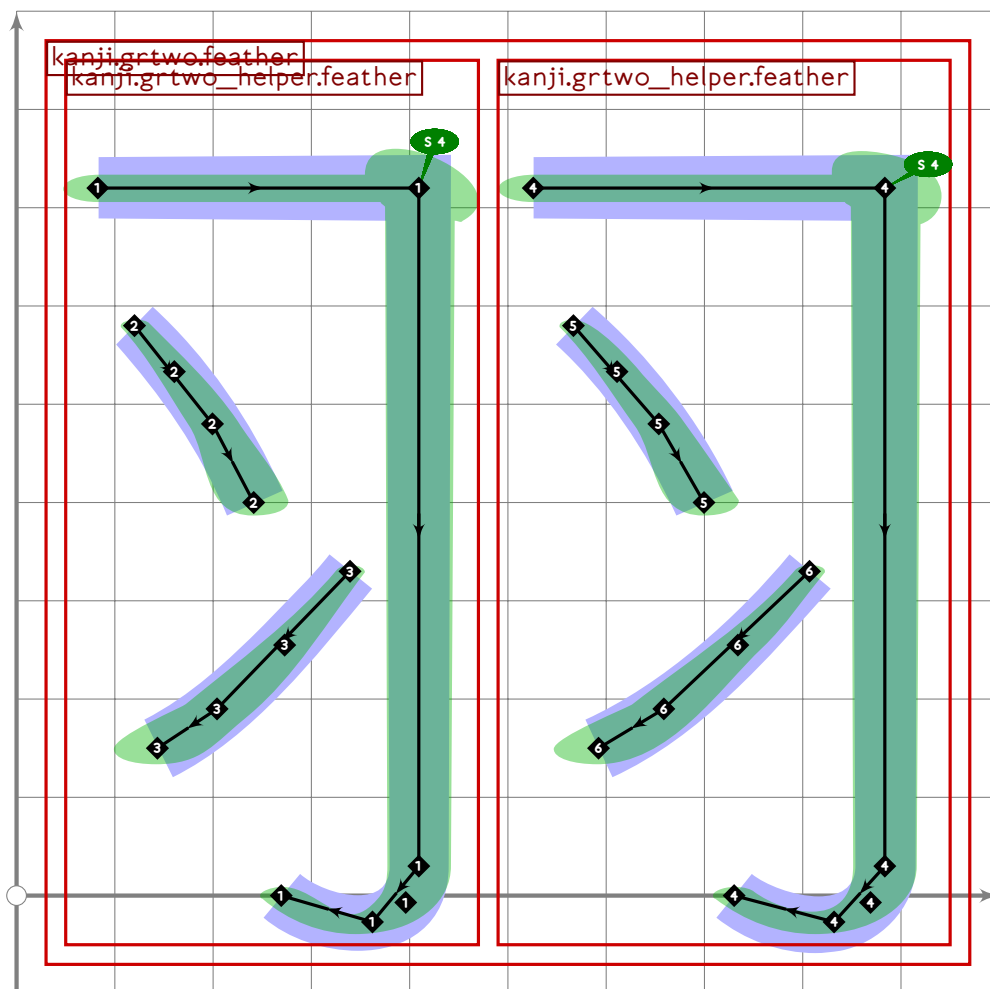


```

518 % you/hitsuji "sheep"
519 begintsuglyph("uni2F7A",122);
520 kanji.grthree.sheep;
521 tsu_render;
522 endtsuglyph;
523

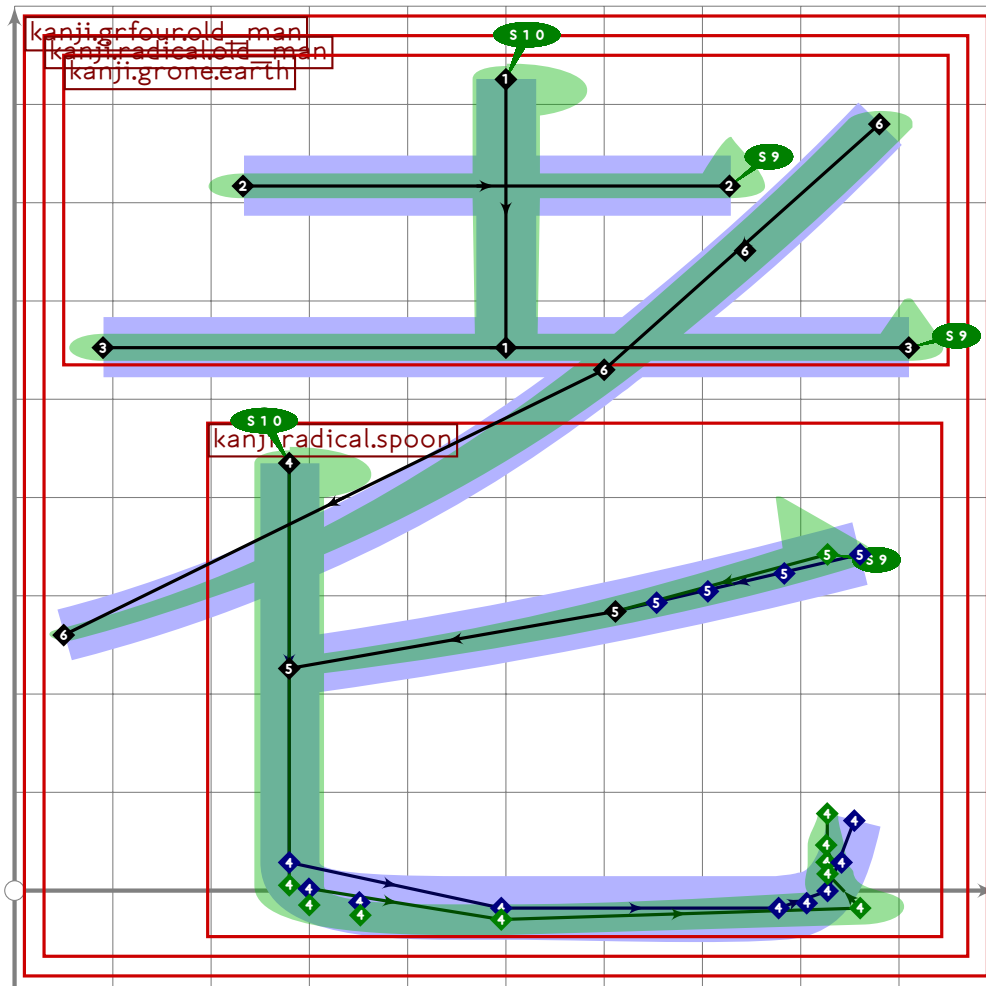
```

U+2F7B  
tsuku.uni2F7B



```
524 % u/hane "feather"  
525 begintsuglyph("uni2F7B",123);  
526   kanji.grtwo.feather;  
527   tsu_render;  
528 endsuglyph;  
529
```



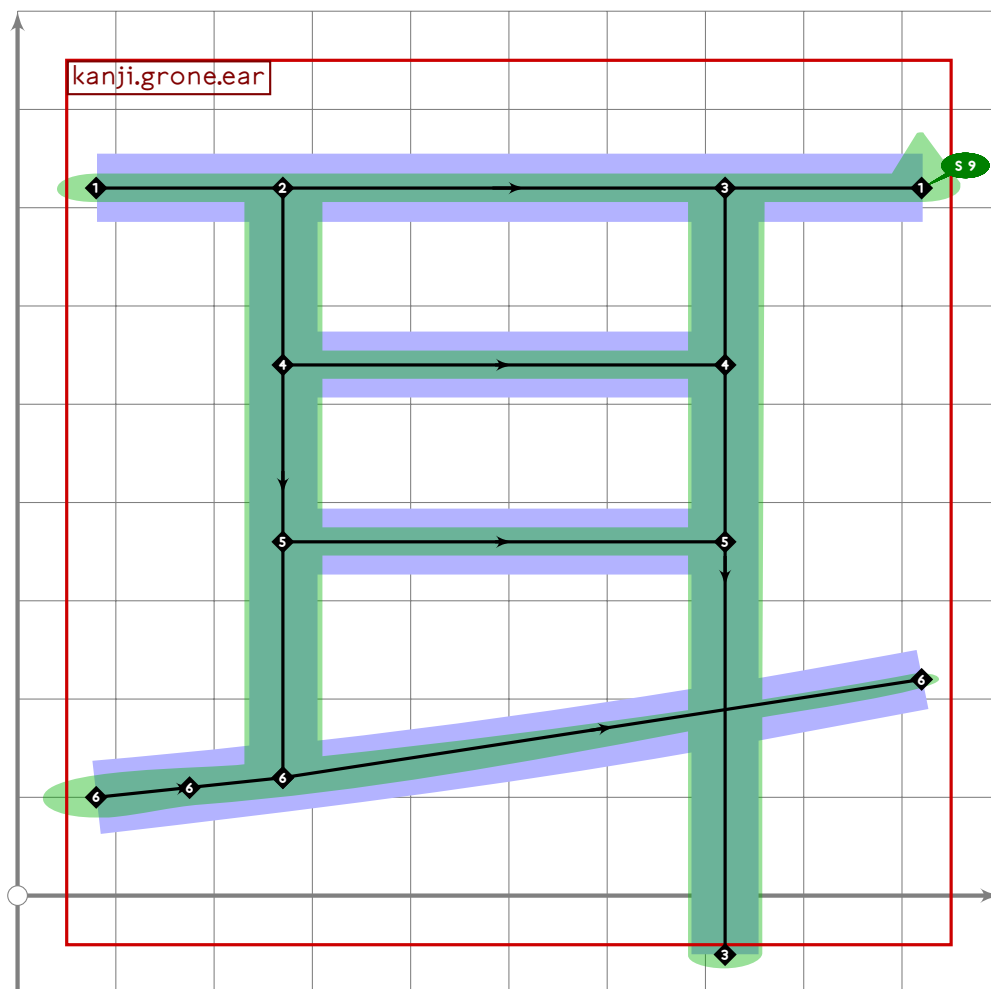


```

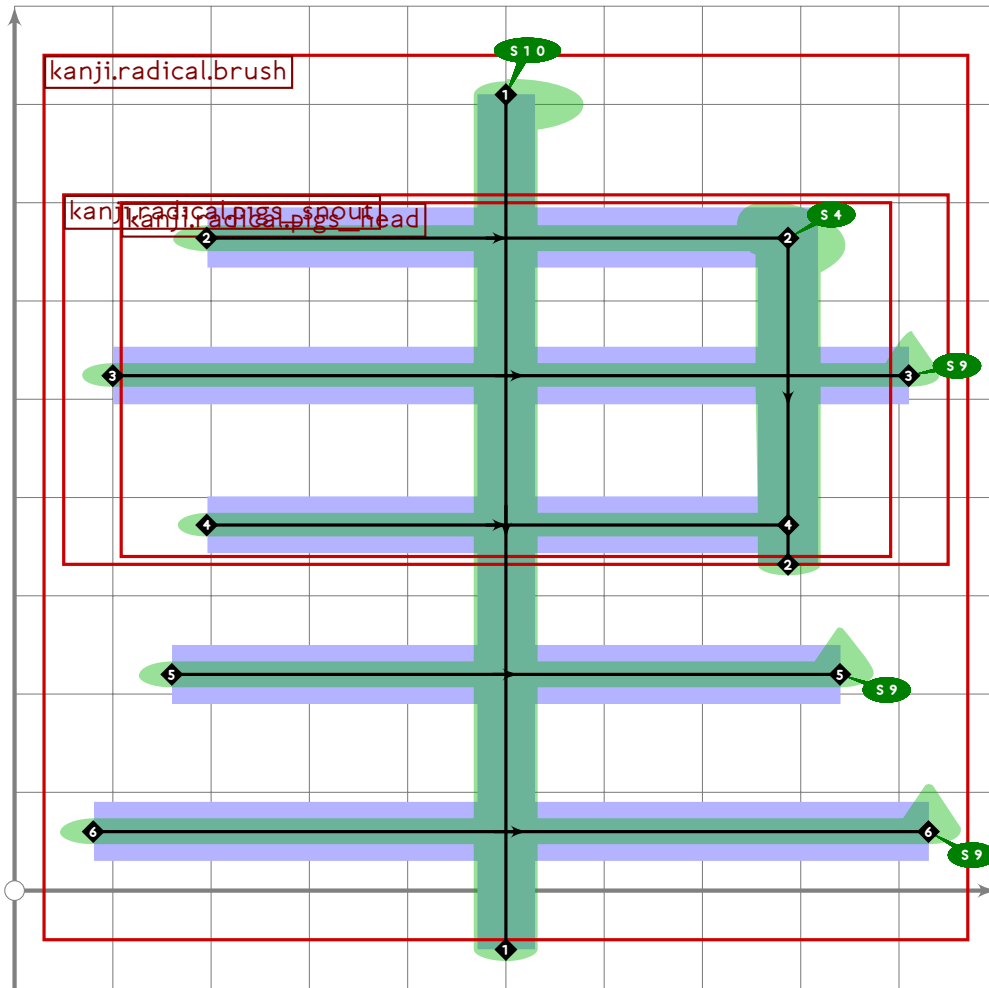
530 % rou/o "old man"
531 begintsuglyph("uni2F7C";124);
532   kanji.grfour.old_man;
533   tsu_render;
534 endsuglyph;
535

```

U+2F7F  
tsuku.uni2F7F



```
536 % ken/mi "ear"  
537 begintsuglyph("uni2F7F";127);  
538   kanji.grone.ear;  
539   tsu_render;  
540 endtsuglyph;  
541
```

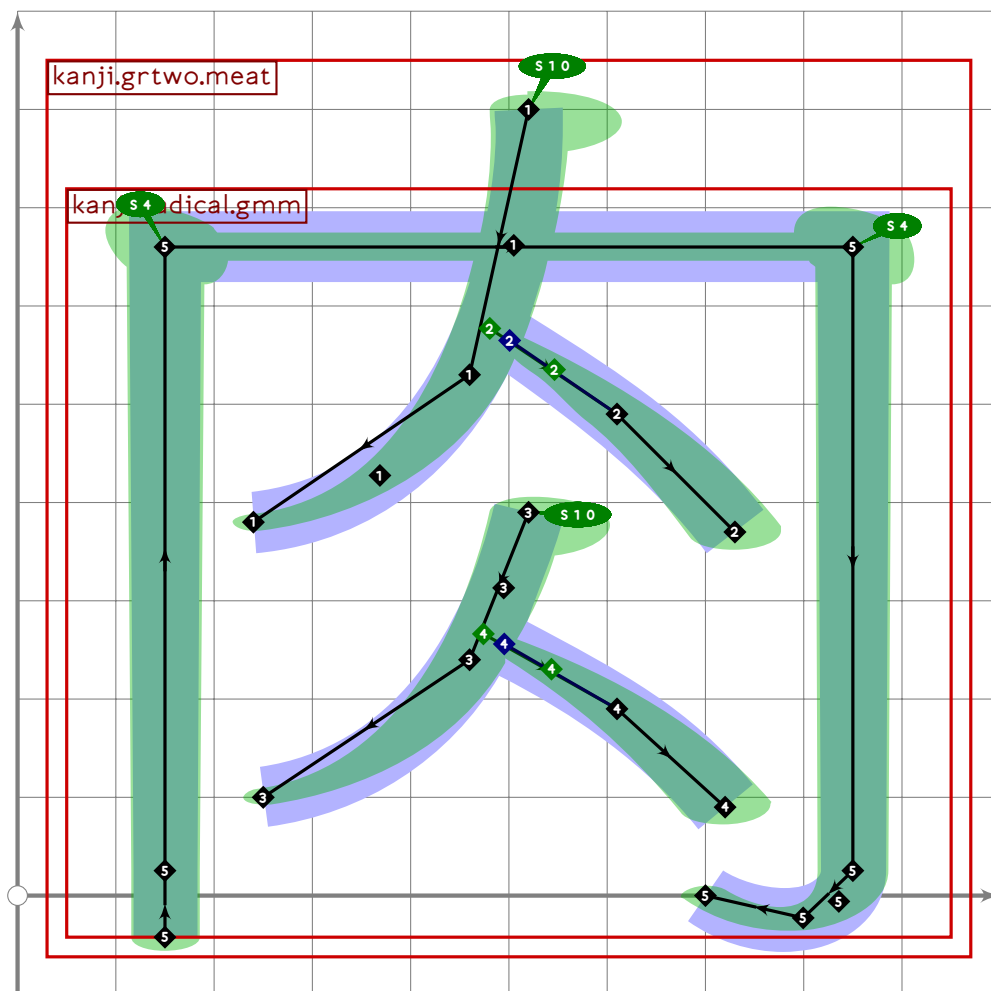


```

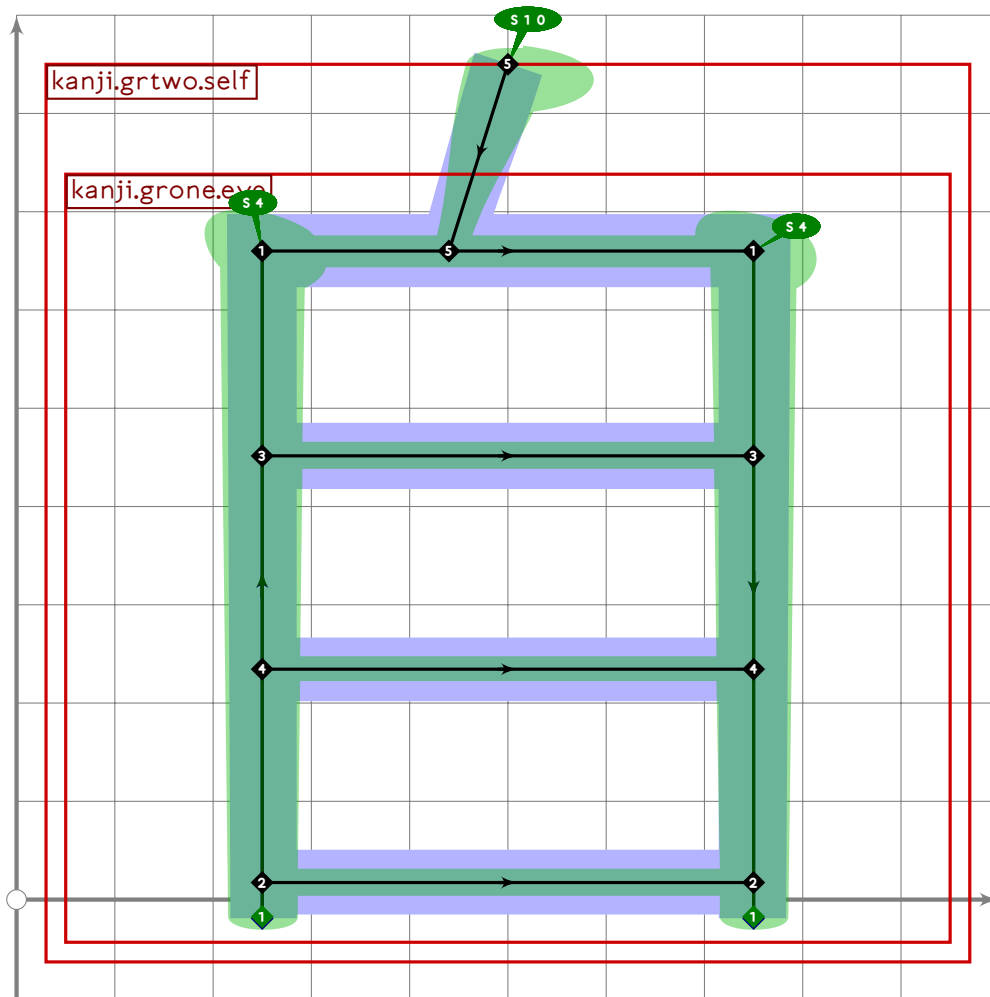
542 % brush radical
543 begintsuglyph("uni2F80",128);
544     kanji.radical.brush;
545     tsu__render;
546 endtsuglyph;
547

```

U+2F81  
tsuku.uni2F81



```
548 % niku "meat"
549 begintsuglyph("uni2F81",129);
550   kanji.grtwo.meat;
551   tsu_render;
552 endtsuglyph;
553
```

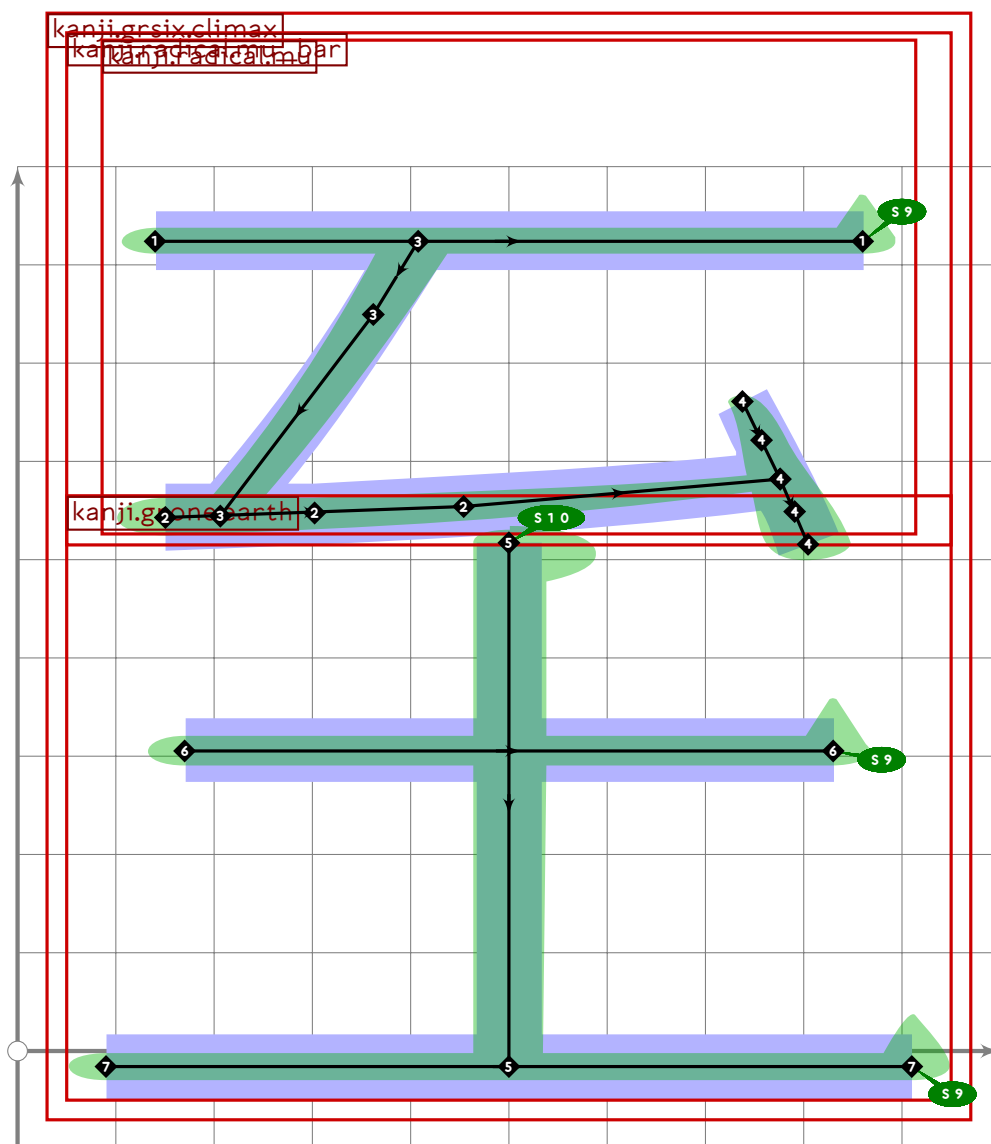


```

554 % ji as in jibun "self"
555 begintsuglyph("uni2F83";131);
556   kanji.grtwo.self;
557   tsu_render;
558 endtsuglyph;
559

```

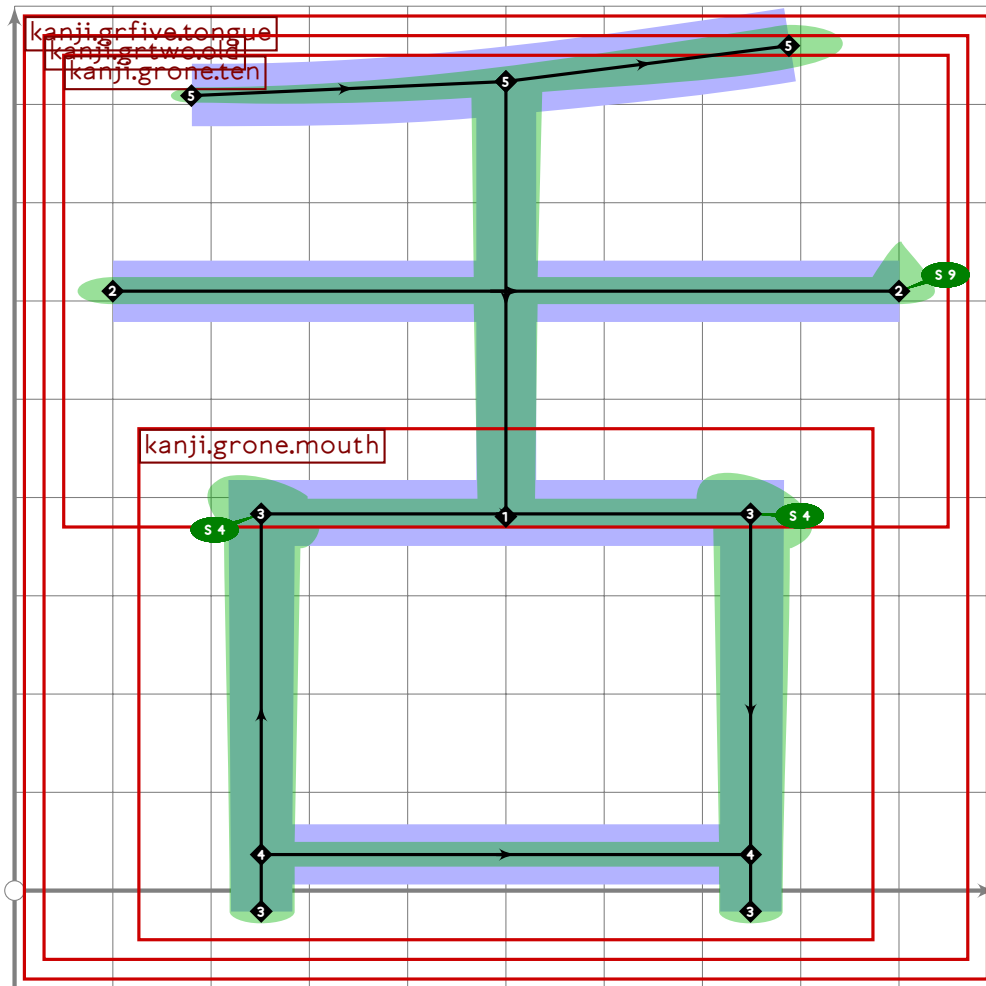
U+2F84  
tsuku.uni2F84



```

560 % shi/ita "climax"
561 begintsuglyph("uni2F84";132);
562 kanji.grsix.climax;
563 tsu_render;
564 endtsuglyph;
565

```

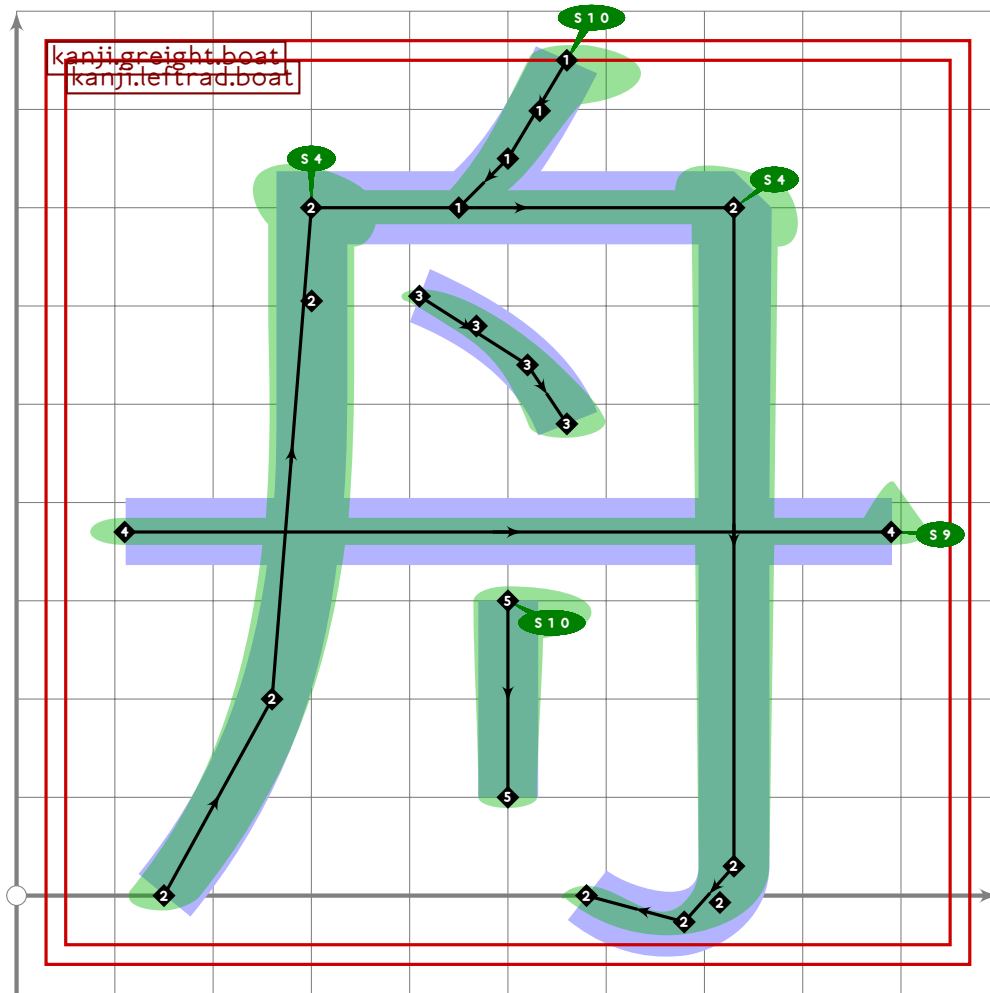


```

566 % zetsu/shita "tongue"
567 begintsuglyph("uni2F86",134);
568   kanji.grfive.tongue;
569   tsu_render;
570 endtsuglyph;
571

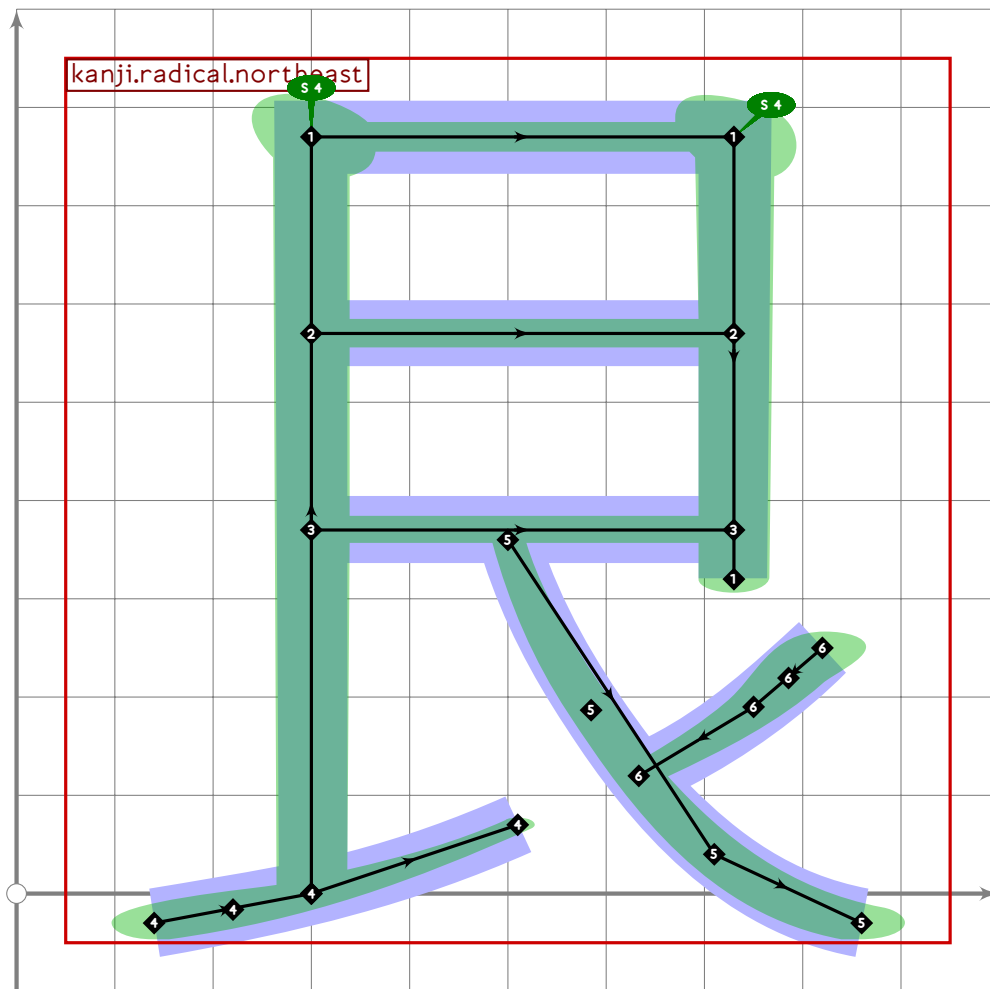
```

U+2F88  
tsuku.uni2F88



```
572 % shuu/fune "boat"
573 beginsuglyph("uni2F88",136);
574   kanji.greight.boat;
575   tsu_render;
576 endsuglyph;
577
```



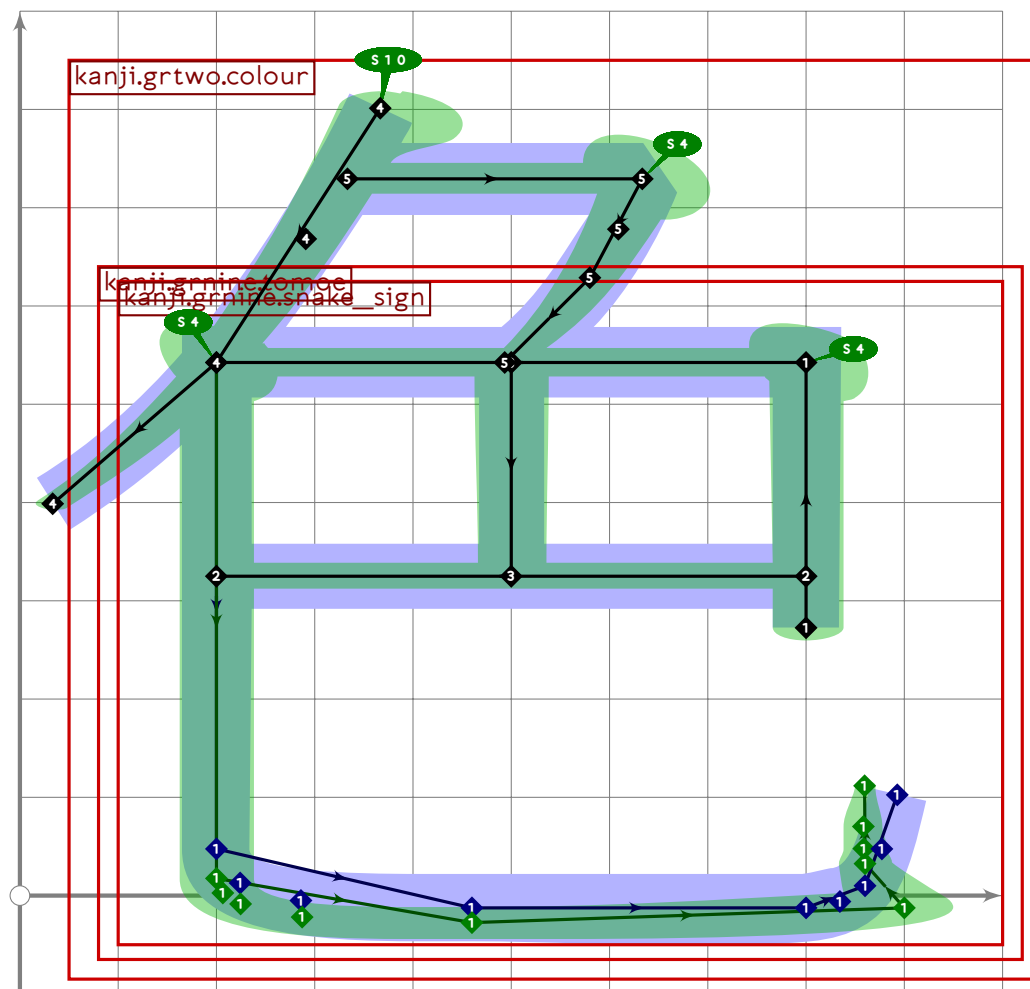


```

578 % kon/ushitora "northeast"
579 begintsuglyph("uni2F89";137);
580   kanji.radical.northeast;
581   tsu_render;
582 endtsuglyph;
583

```

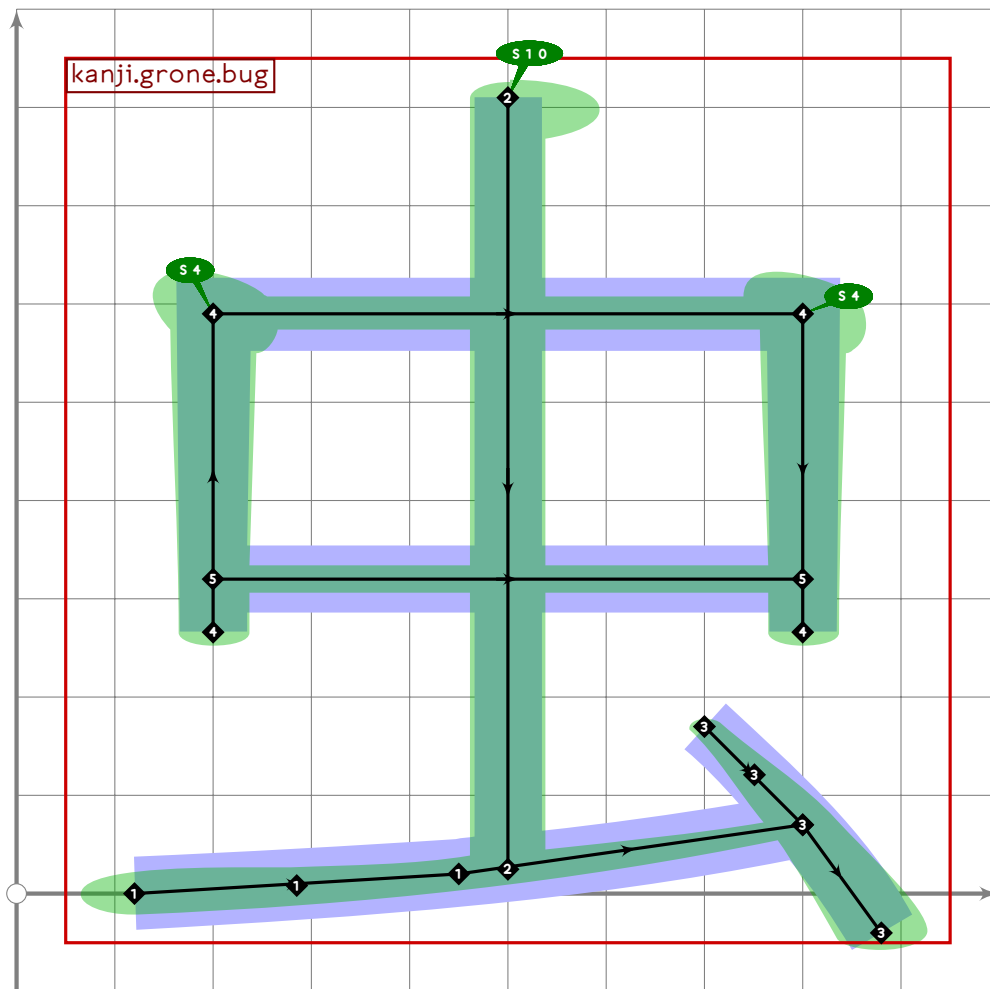
U+2F8A  
tsuku.uni2F8A



```

584 % shoku/iro "colour"
585 begintsuglyph("uni2F8A";138);
586   kanji.grtwo.colour;
587   tsu_render;
588 endtsuglyph;
589

```

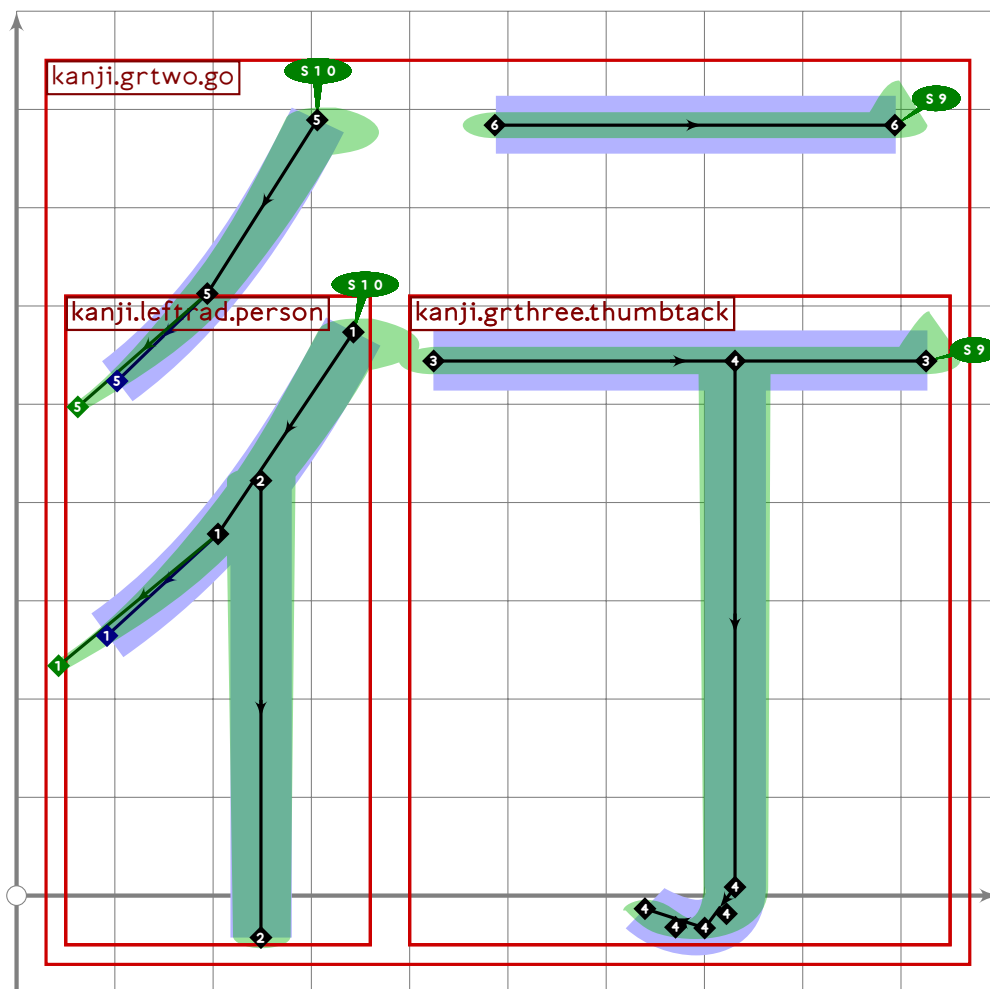


```

590 % mushi "bug"
591 begintsuglyph("uni2F8D",141);
592   kanji.grone.bug;
593   tsu_render;
594 endtsuglyph;
595

```

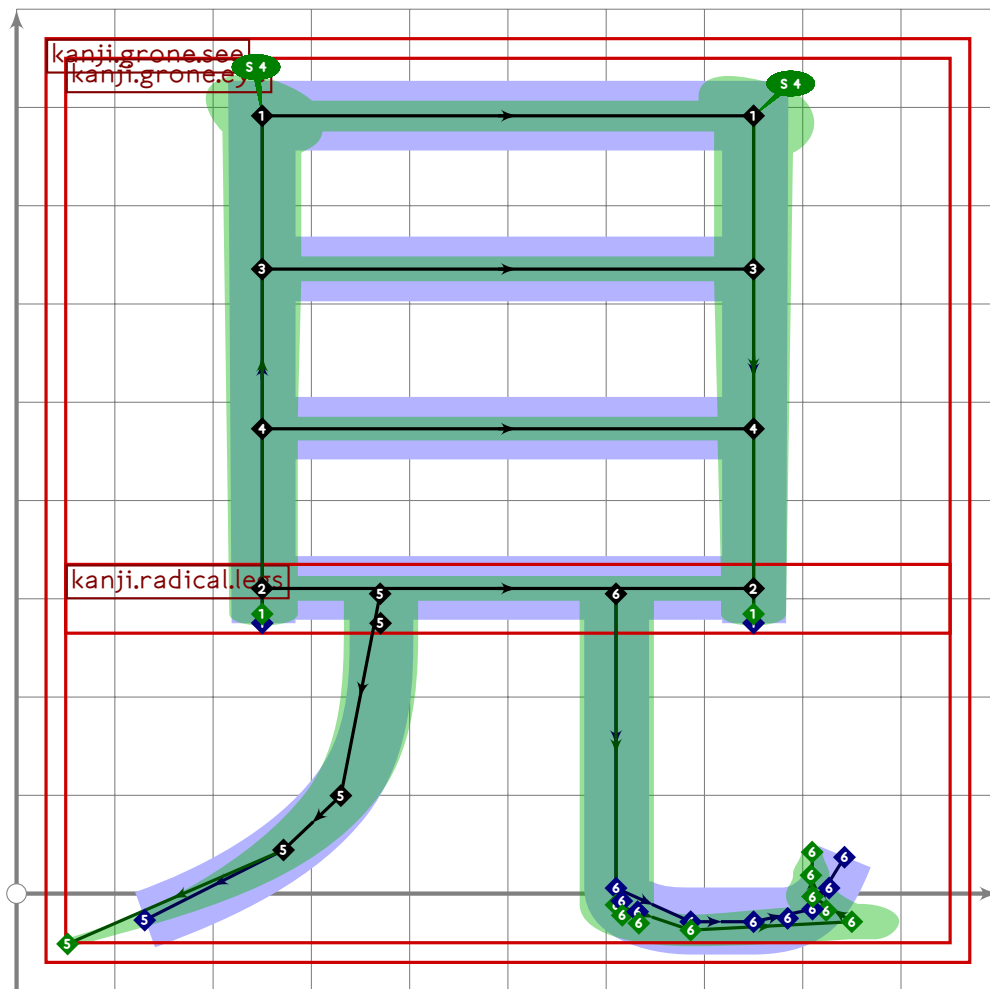
U+2F8F  
tsuku.uni2F8F



```

596 % kou/i(ku) "go"
597 begintsuglyph("uni2F8F",143);
598   kanji.grtwo.go;
599   tsu_render;
600 endsuglyph;
601

```

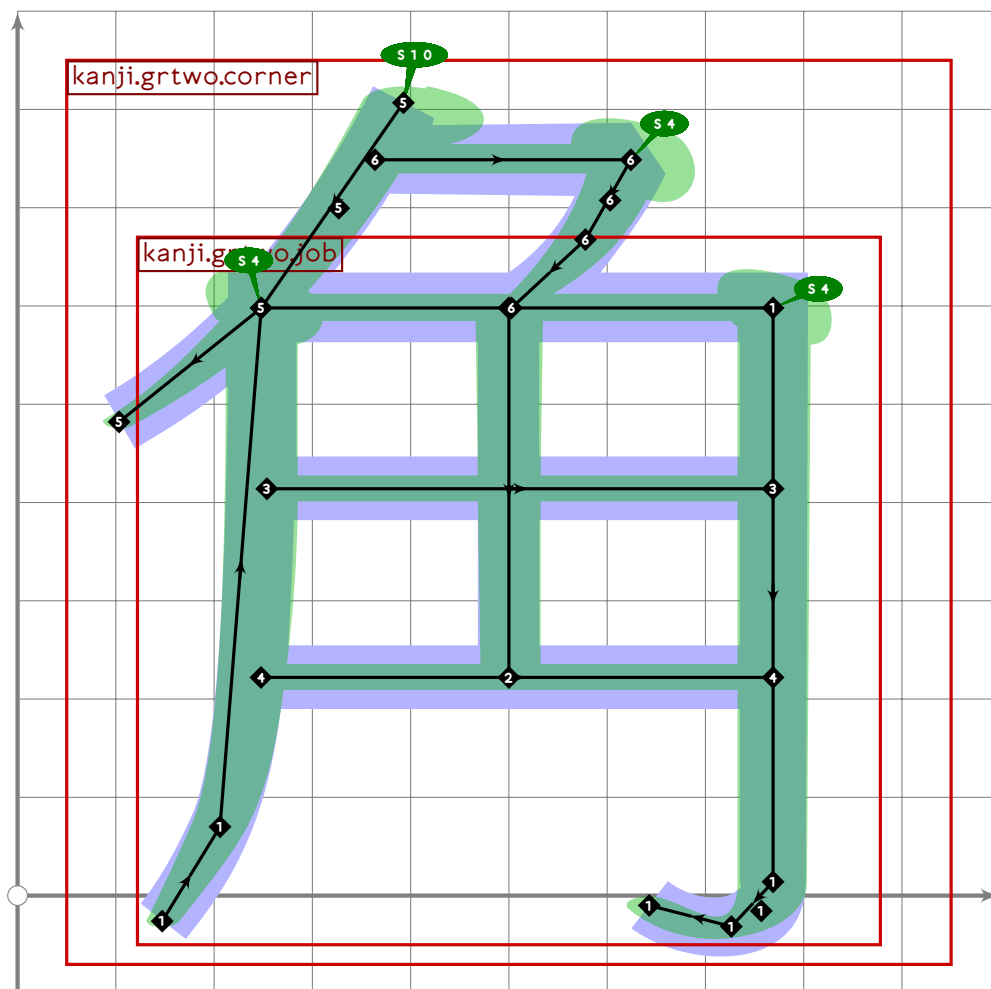


```

602 % ken/mi "see"
603 begintsuglyph("uni2F92";146);
604   kanji.grone.see;
605   tsu_render;
606 endtsuglyph;
607

```

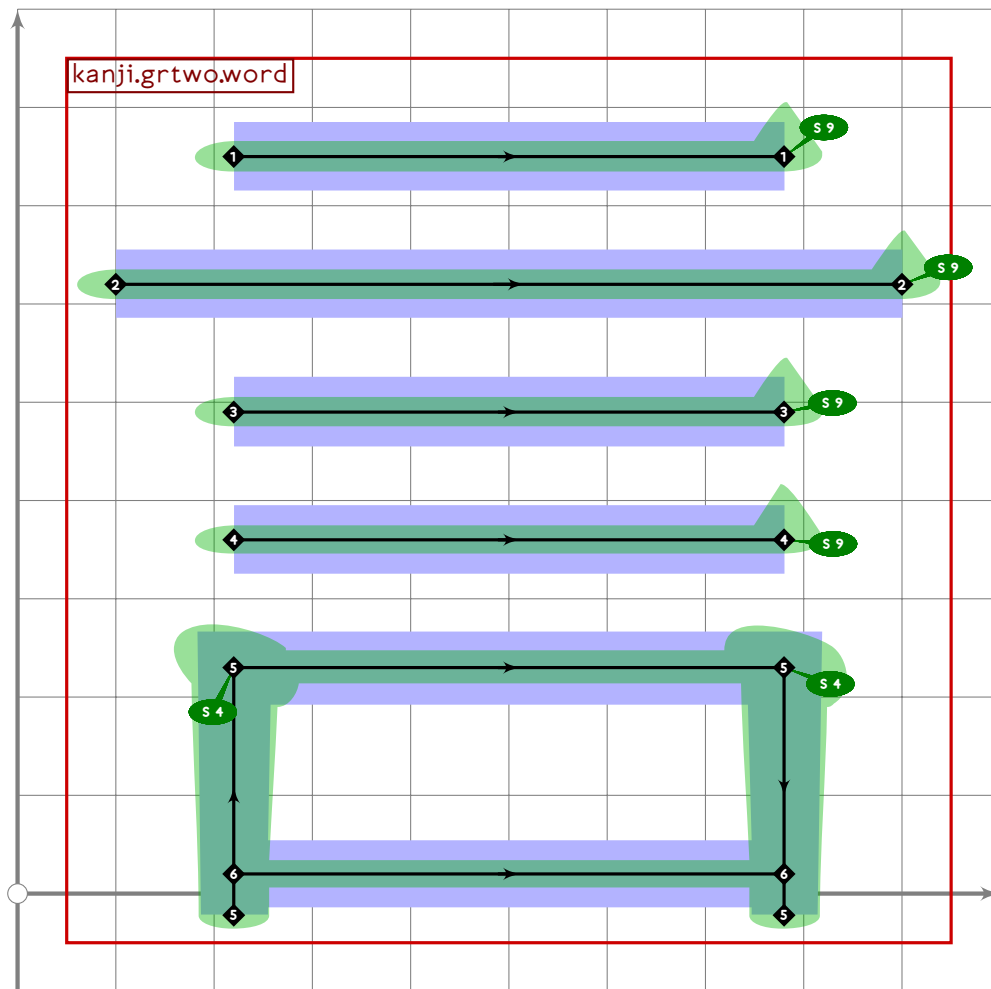
U+2F93  
tsuku.uni2F93



```

608 % kaku/kado "corner"
609 begintsuglyph("uni2F93",147);
610   kanji.grtwo.corner;
611   tsu_render;
612 endtsuglyph;
613

```

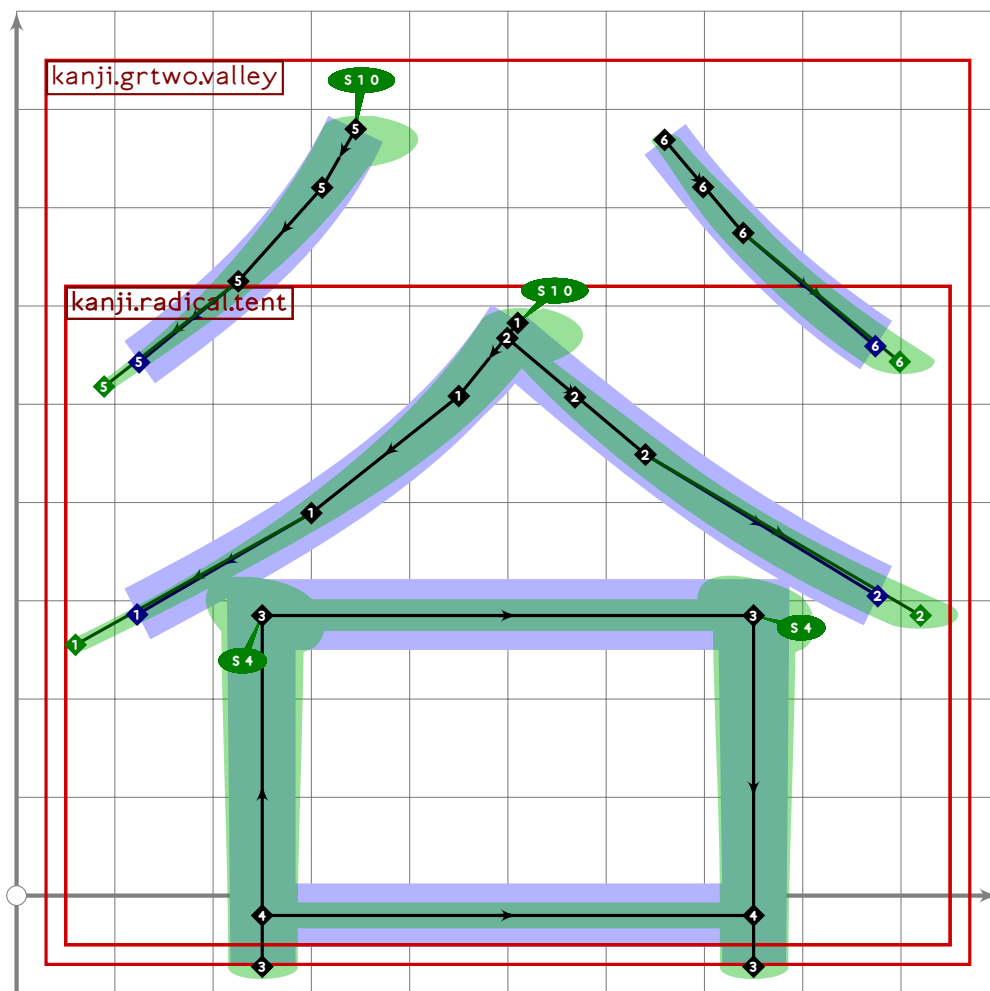


```

614 % gen/i "word"
615 begintsuglyph("uni2F94";148);
616   kanji.grtwo.word;
617   tsu_render;
618 endtsuglyph;
619

```

U+2F95  
tsuku.uni2F95

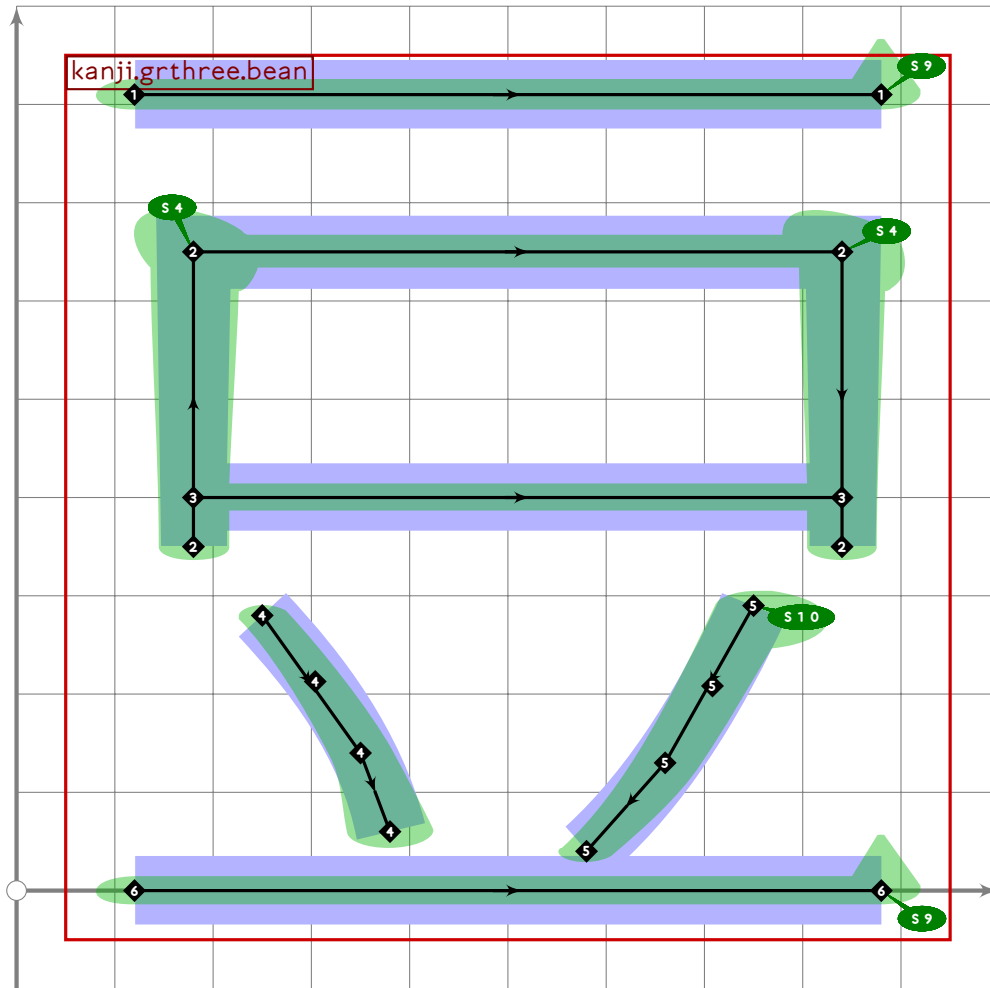


```

620 % koku/tani "valley"
621 begintsuglyph("uni2F95",149);
622   kanji.grtwo.valley;
623   tsu_render;
624 endsuglyph;
625

```



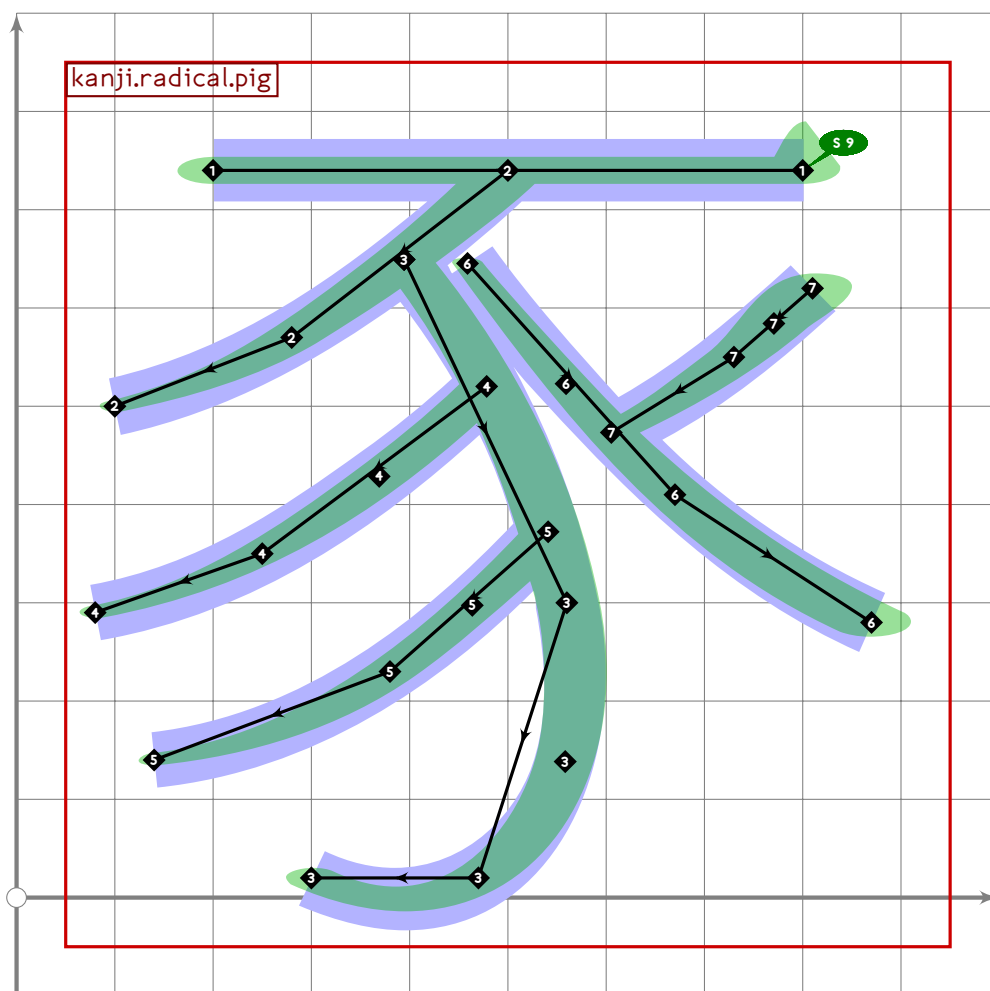


```

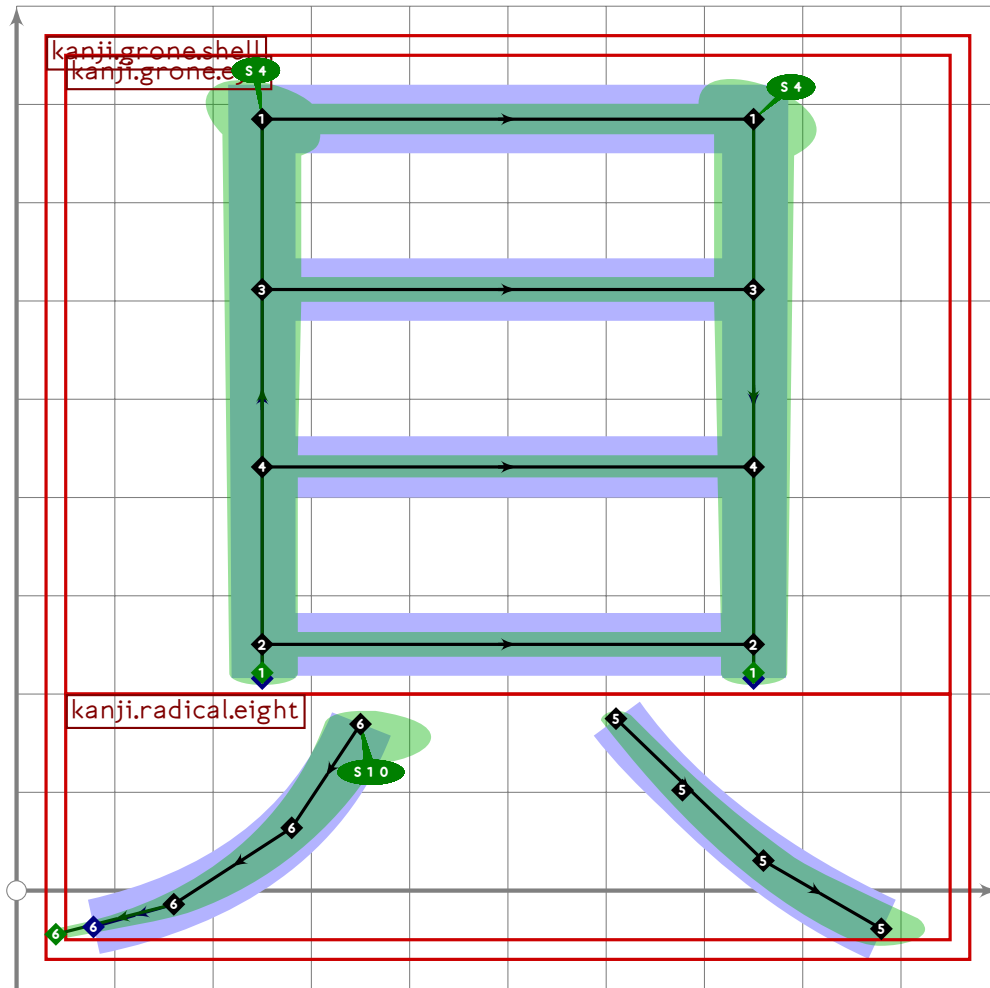
626 % tou/mame "bean"
627 begintsuglyph("uni2F96",150);
628   kanji.grthree.bean;
629   tsu_render;
630 endtsuglyph;
631

```

U+2F97  
tsuku.uni2F97



```
632 % inoko "pig" radical
633 begintsuglyph("uni2F97";151);
634   kanji.radical.pig;
635   tsu_render;
636 endtsuglyph;
637
```

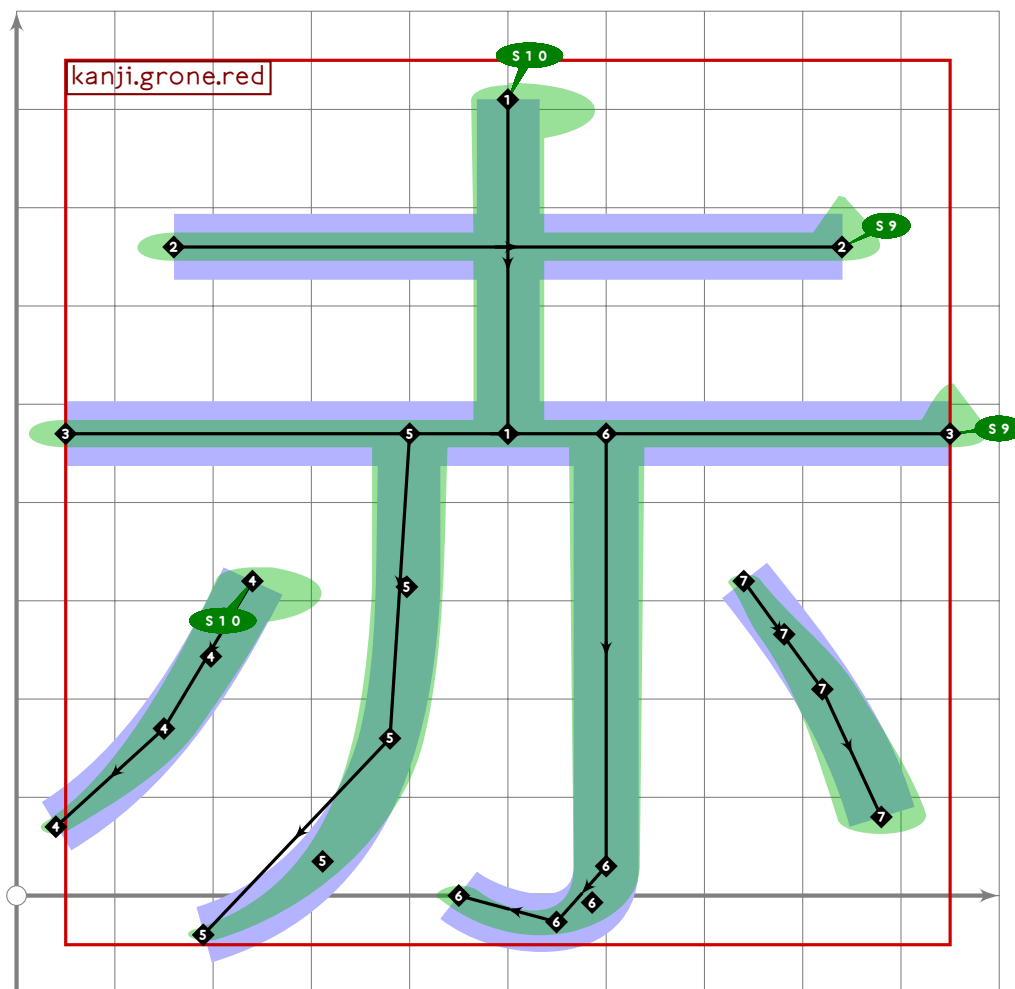


```

638 % bai/kai "shellfish"
639 begintsuglyph("uni2F99";153);
640   kanji.grone.shell;
641   tsu_render;
642 endtsuglyph;
643

```

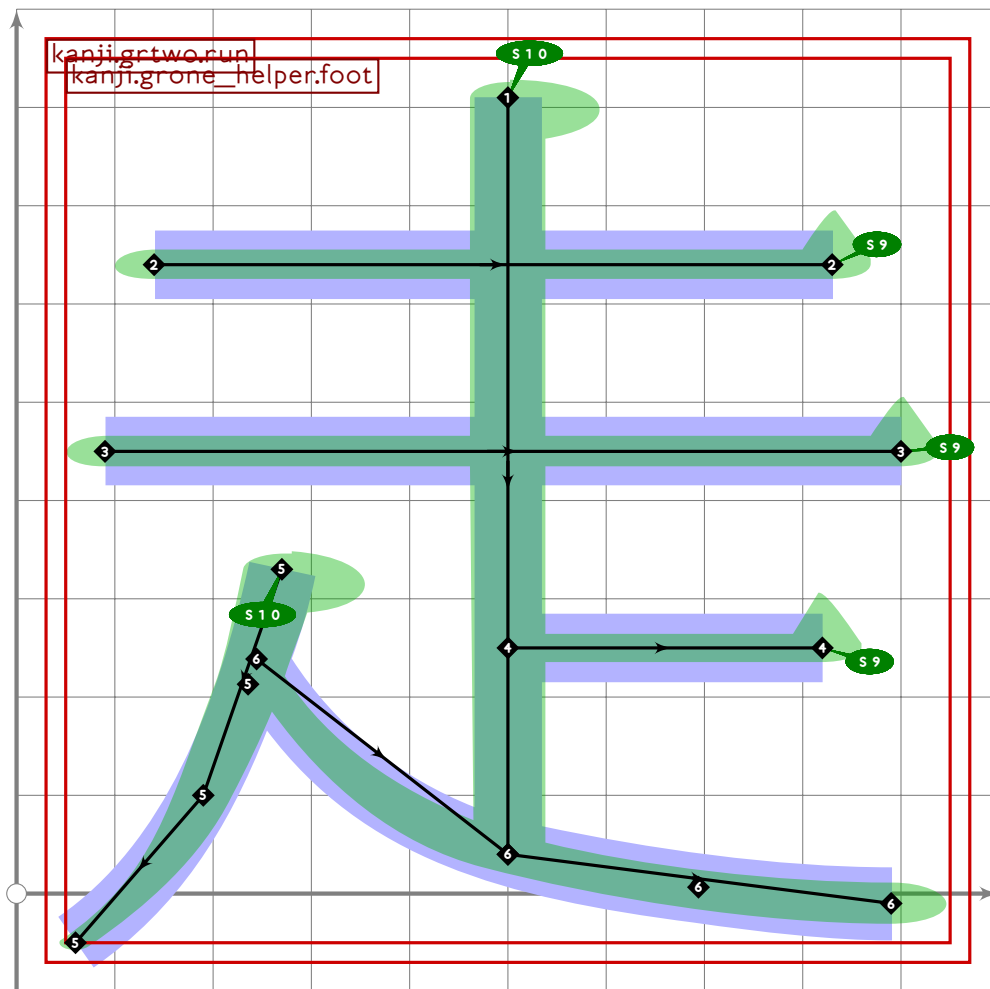
U+2F9A  
tsuku.uni2F9A



```

644 % aka/seki "red"
645 begintsuglyph("uni2F9A",154);
646   kanji.grone.red;
647   tsu_render;
648 endtsuglyph;
649

```

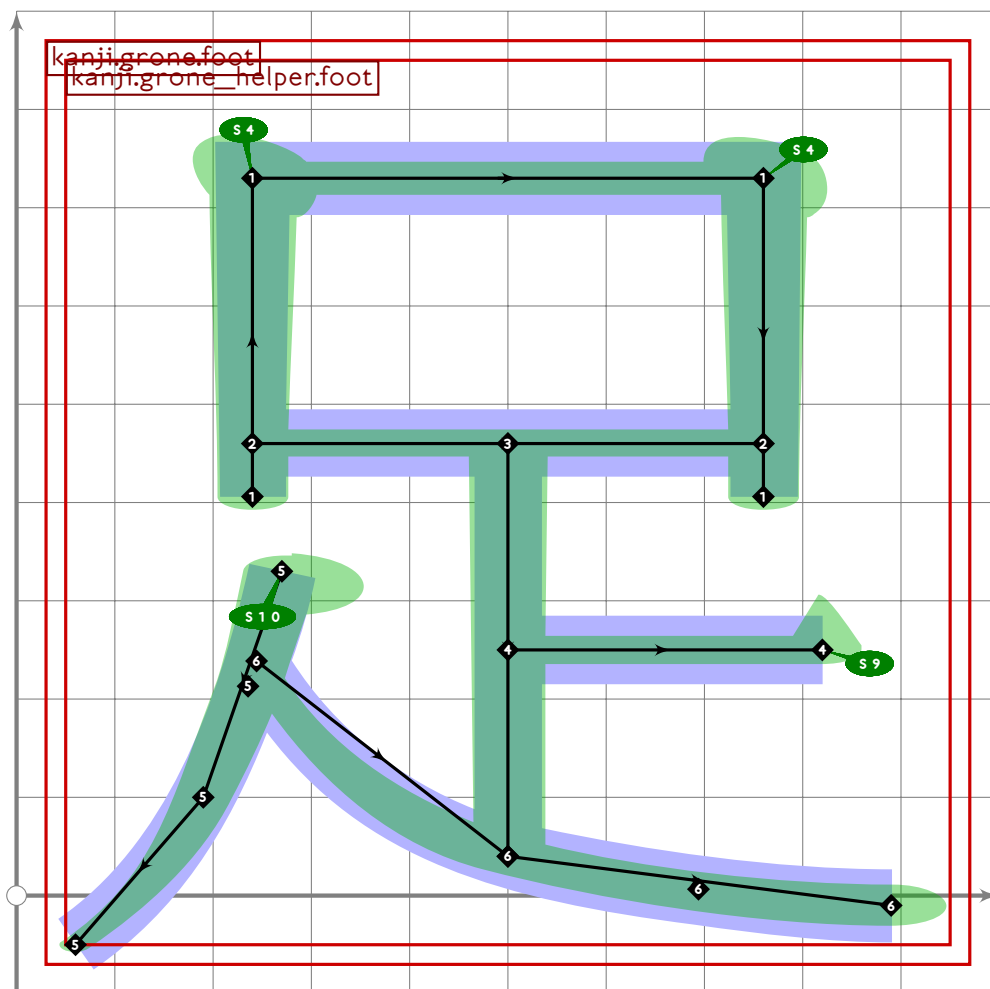


```

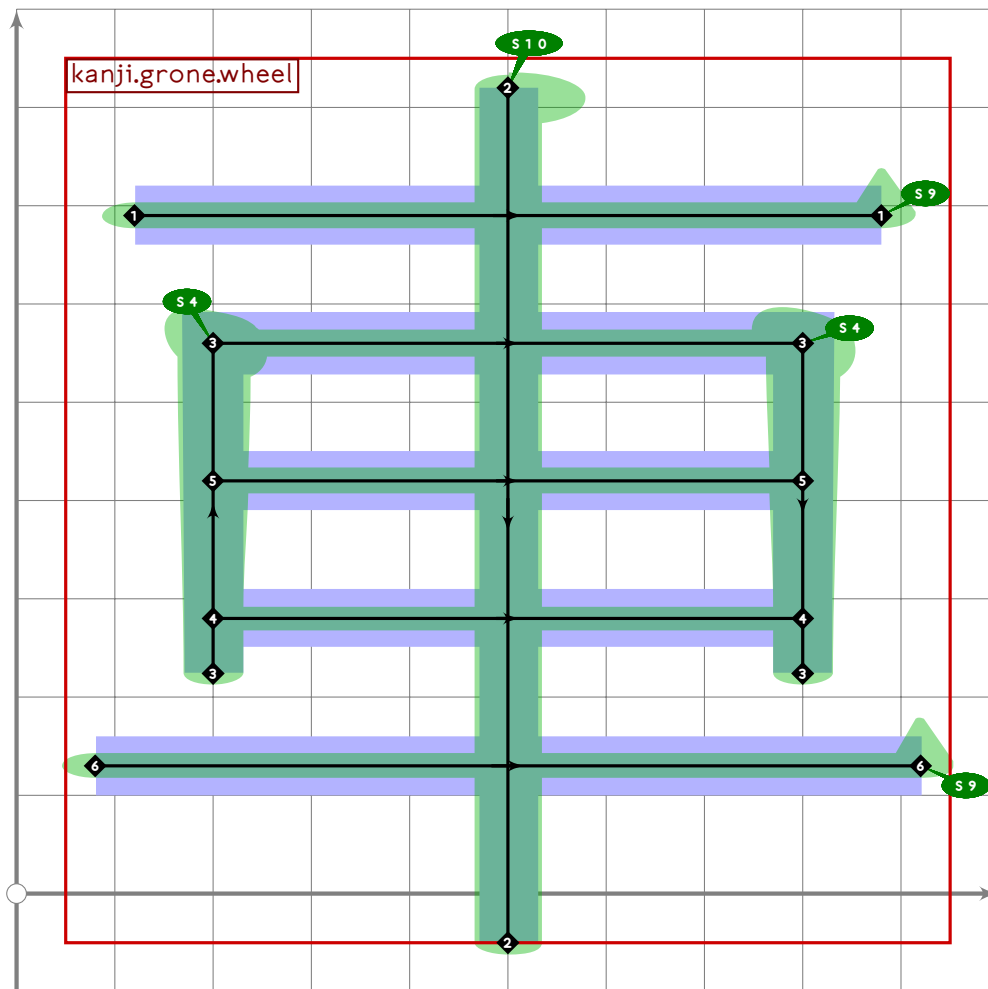
650 % sou/hashi "run"
651 begintsuglyph("uni2F9B",155);
652   kanji.grtwo.run;
653   tsu_render;
654 endtsuglyph;
655

```

U+2F9C  
tsuku.uni2F9C



```
656 % ashi/soku "foot"  
657 begintsuglyph("uni2F9C",156);  
658   kanji.grone.foot;  
659   tsu_render;  
660 endsuglyph;  
661
```

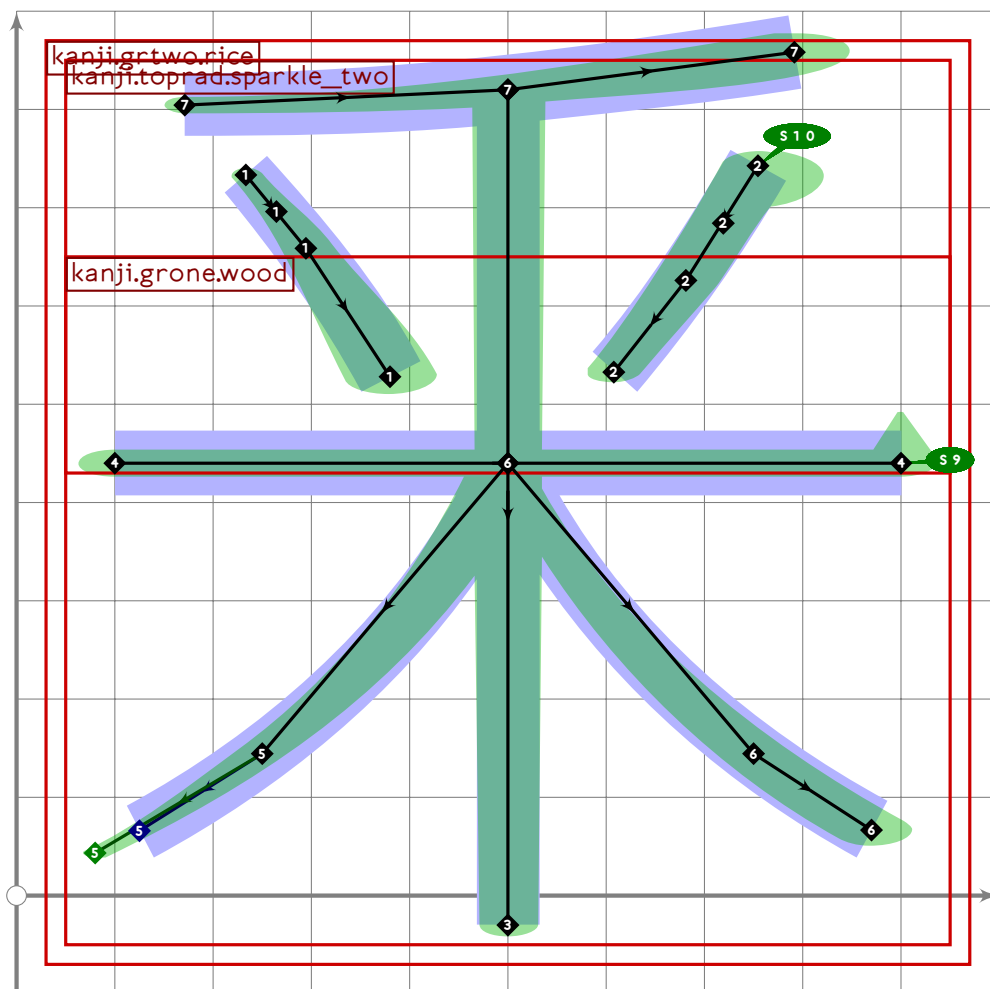


```

662 % kuruma "car/wheel"
663 begint Suglyph("uni2F9E";158);
664   kanji.grone.wheel;
665   tsu_render;
666 endtsuglyph;
667

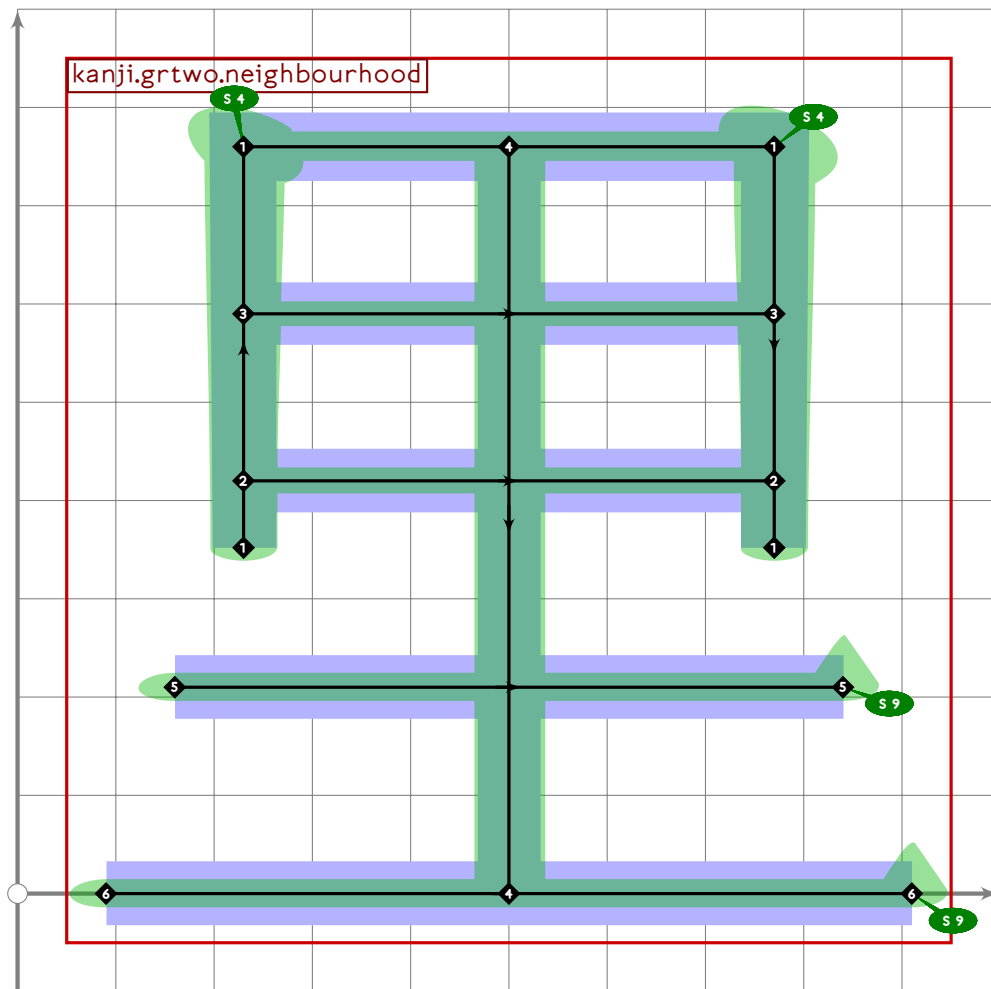
```

U+2FA4  
tsuku.uni2FA4



```
668 % han/irodori "separate" or "divide" but mostly "topped rice radical"  
669 begintsuglyph("uni2FA4";164);  
670   build_kanji.add_beret(kanji.grtwo.rice);  
671   tsu_render;  
672 endsuglyph;  
673
```



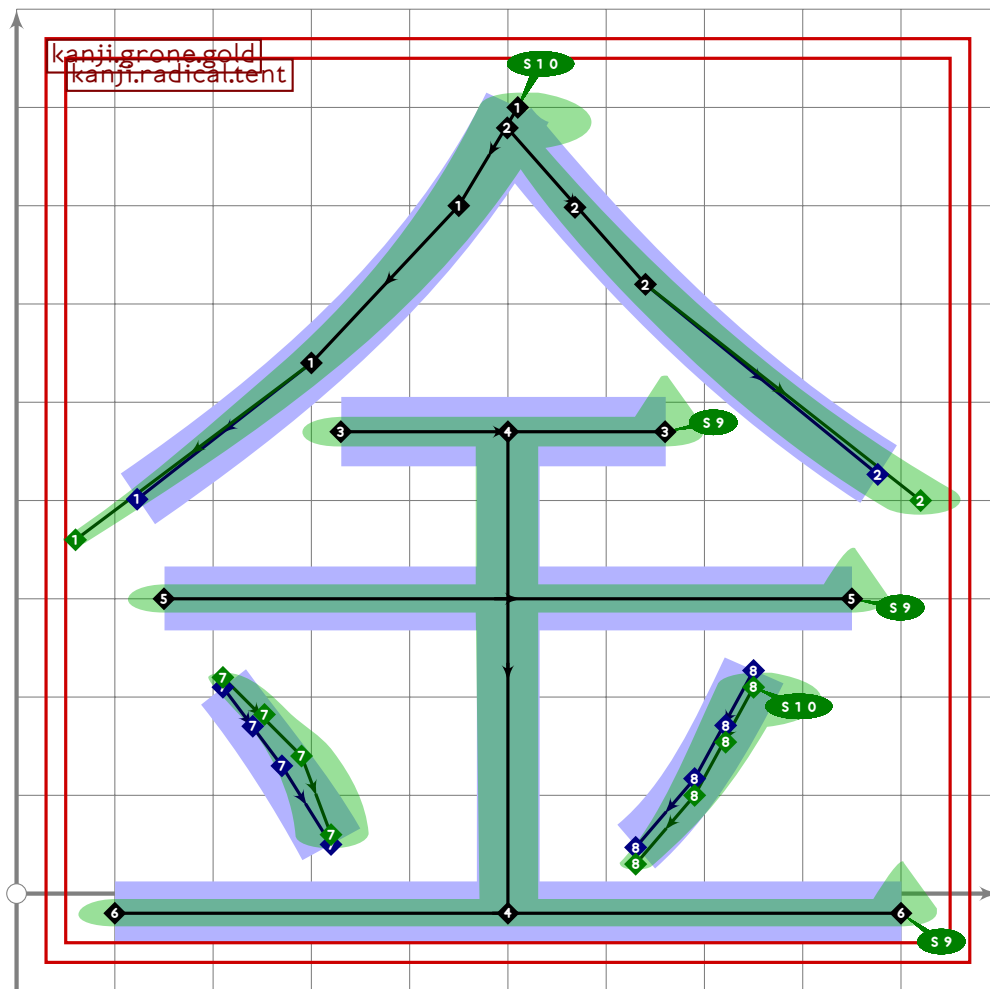


```

674 % ri/sato, multiple meanings including 3.929km and "neighbourhood"
675 begint Suglyph("uni2FA5",165);
676   kanji.grtwo.neighbourhood;
677   tsu_render;
678 endtsuglyph;
679

```

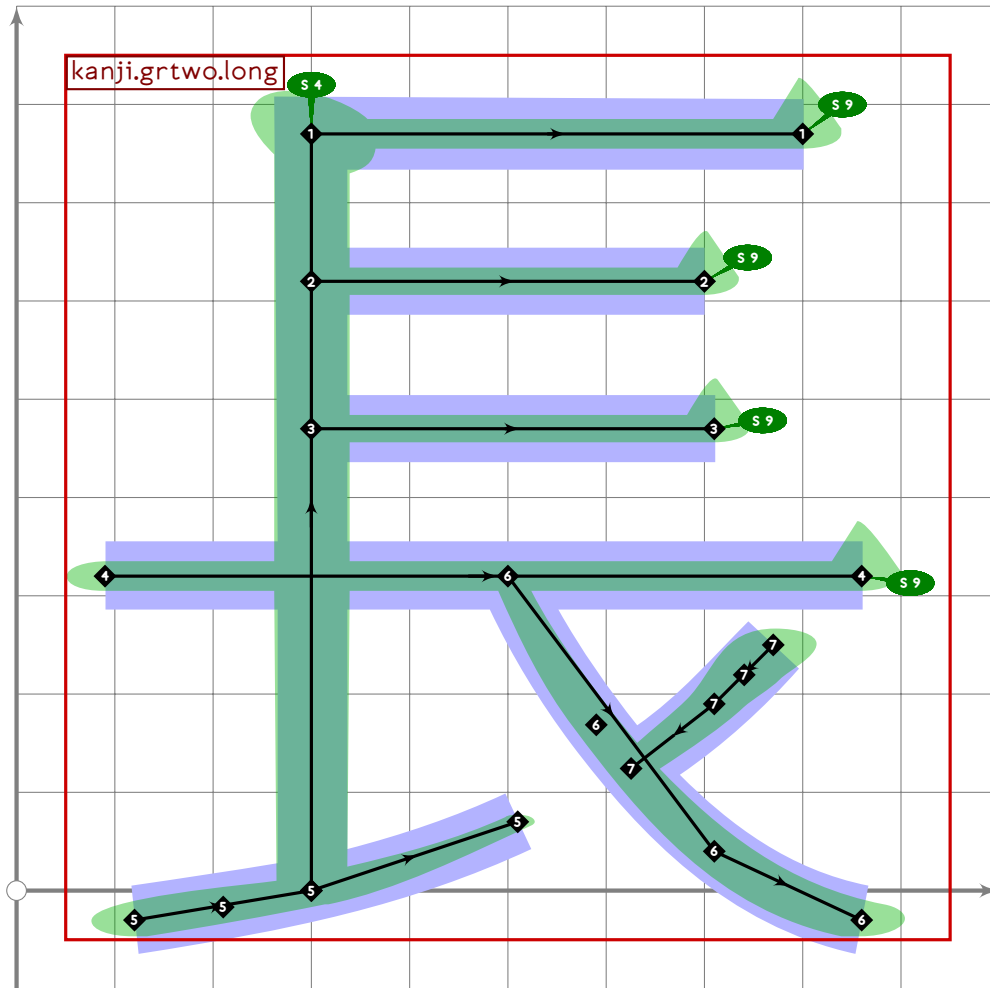
U+2FA6  
tsuku.uni2FA6



```

680 % kane/kin "gold"
681 begintsuglyph("uni2FA6",166);
682   kanji.grone.gold;
683   tsu_render;
684 endsuglyph;
685

```

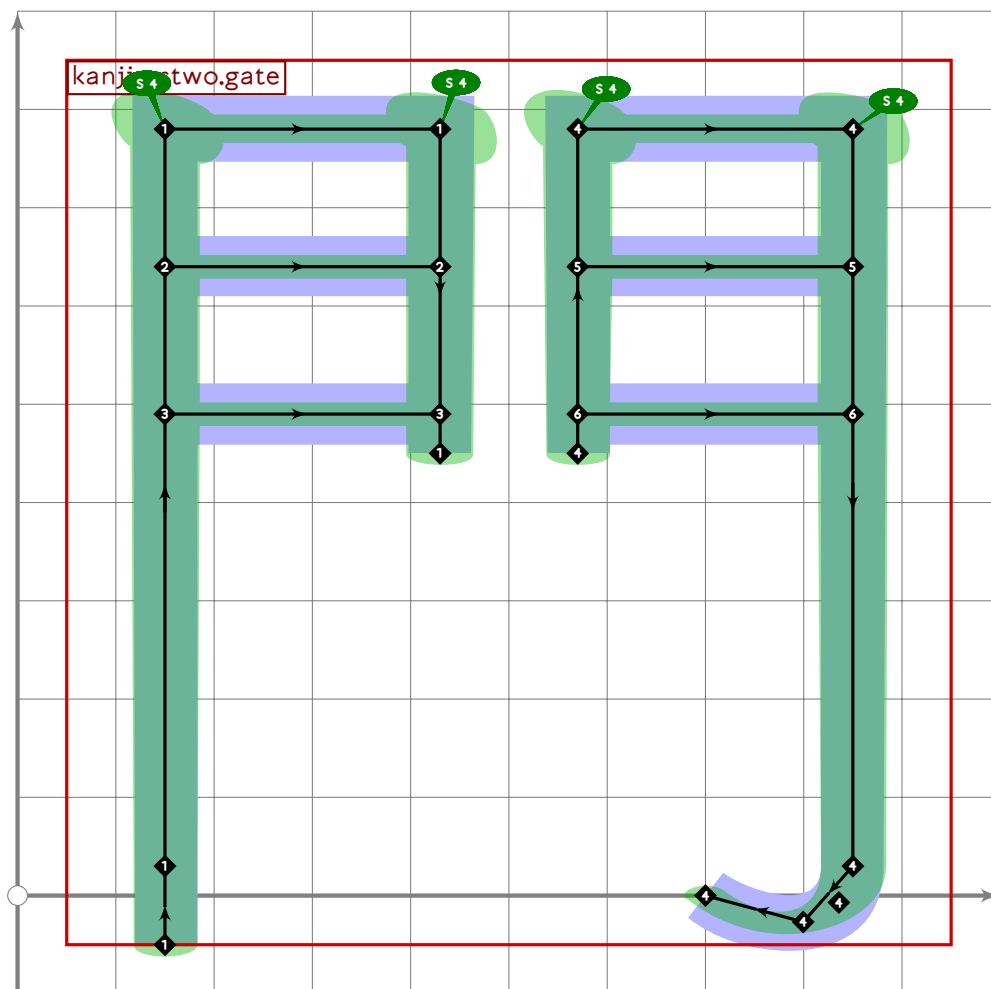


```

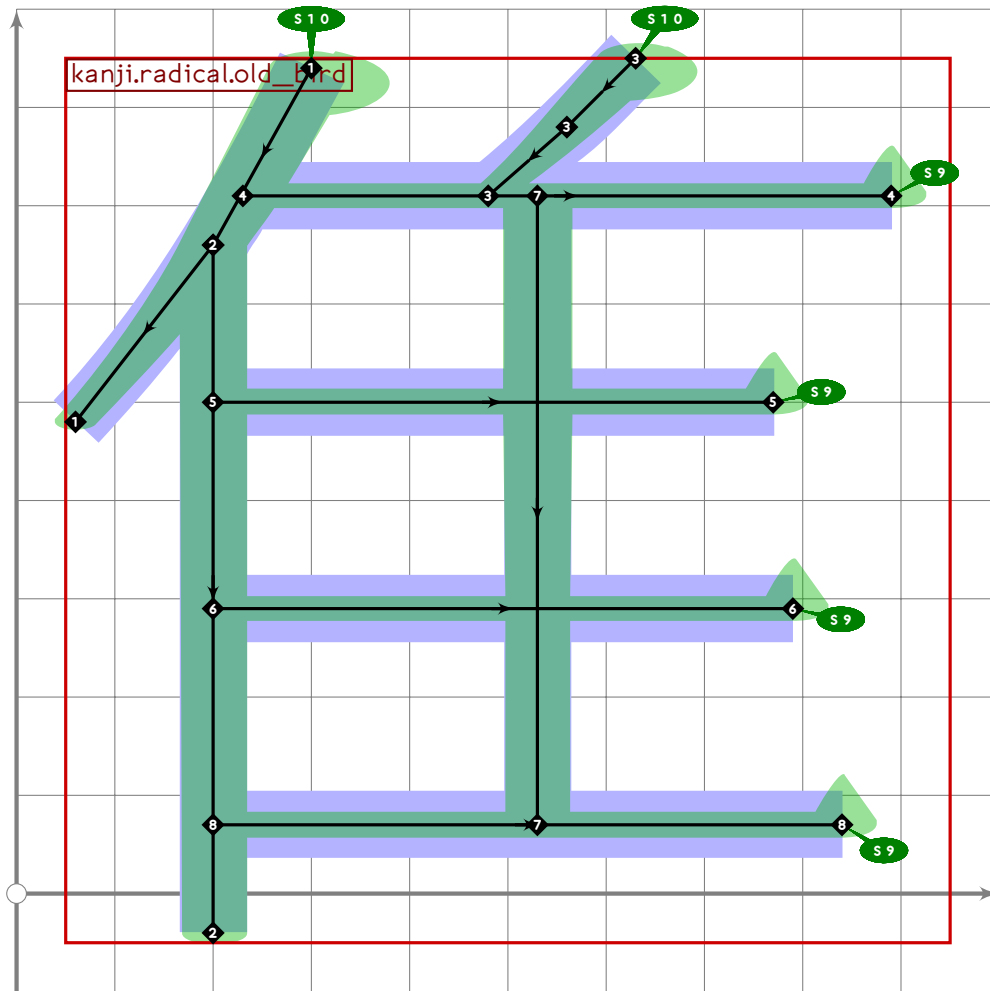
686 % chou/naga "long"
687 begintsuglyph("uni2FA7",167);
688   kanji.grtwo.long;
689   tsu_render;
690 endtsuglyph;
691

```

U+2FA8  
tsuku.uni2FA8



```
692 % mon/kado "gate"  
693 begintsuglyph("uni2FA8",168);  
694   kanji.grtwo.gate;  
695   tsu_render;  
696 endtsuglyph;  
697
```

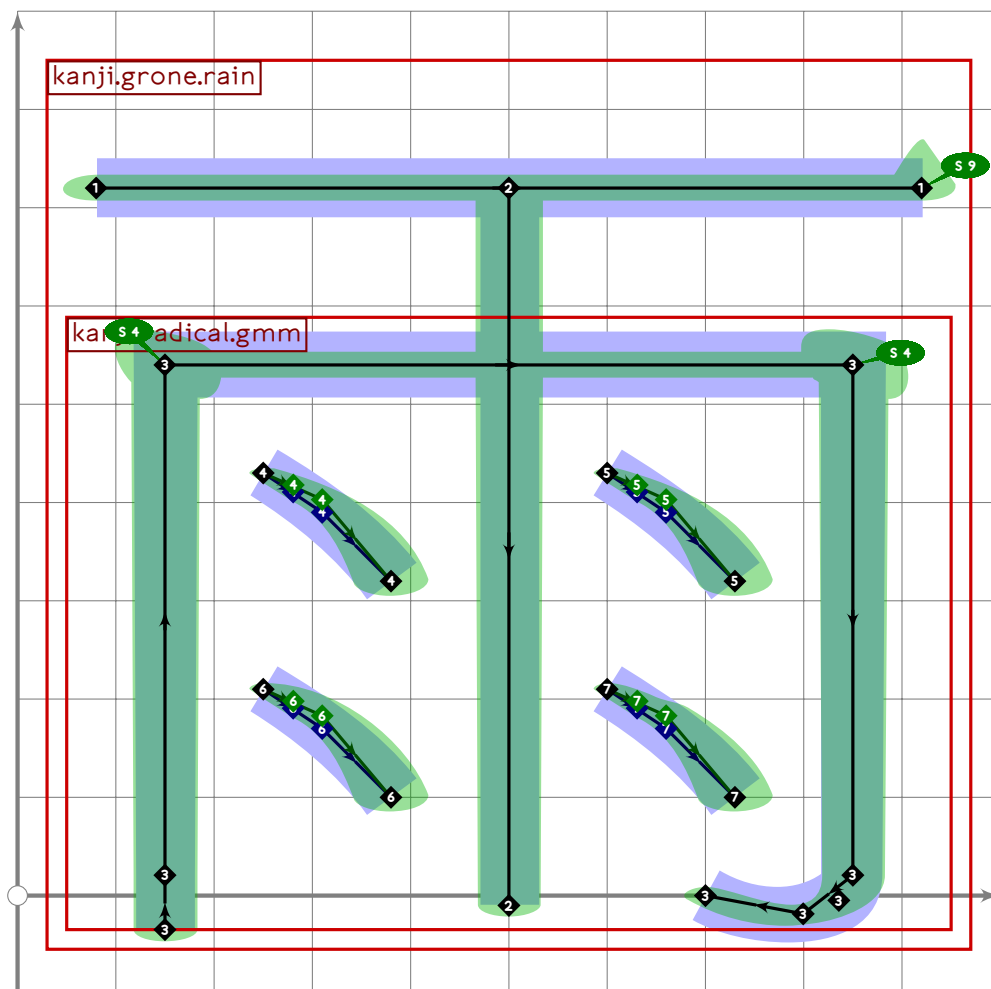


```

698 % sai/tori "old bird" radical
699 begintsuglyph("uni2FAB",171);
700 kanji.radical.old_bird;
701 tsu_render;
702 endsuglyph;
703

```

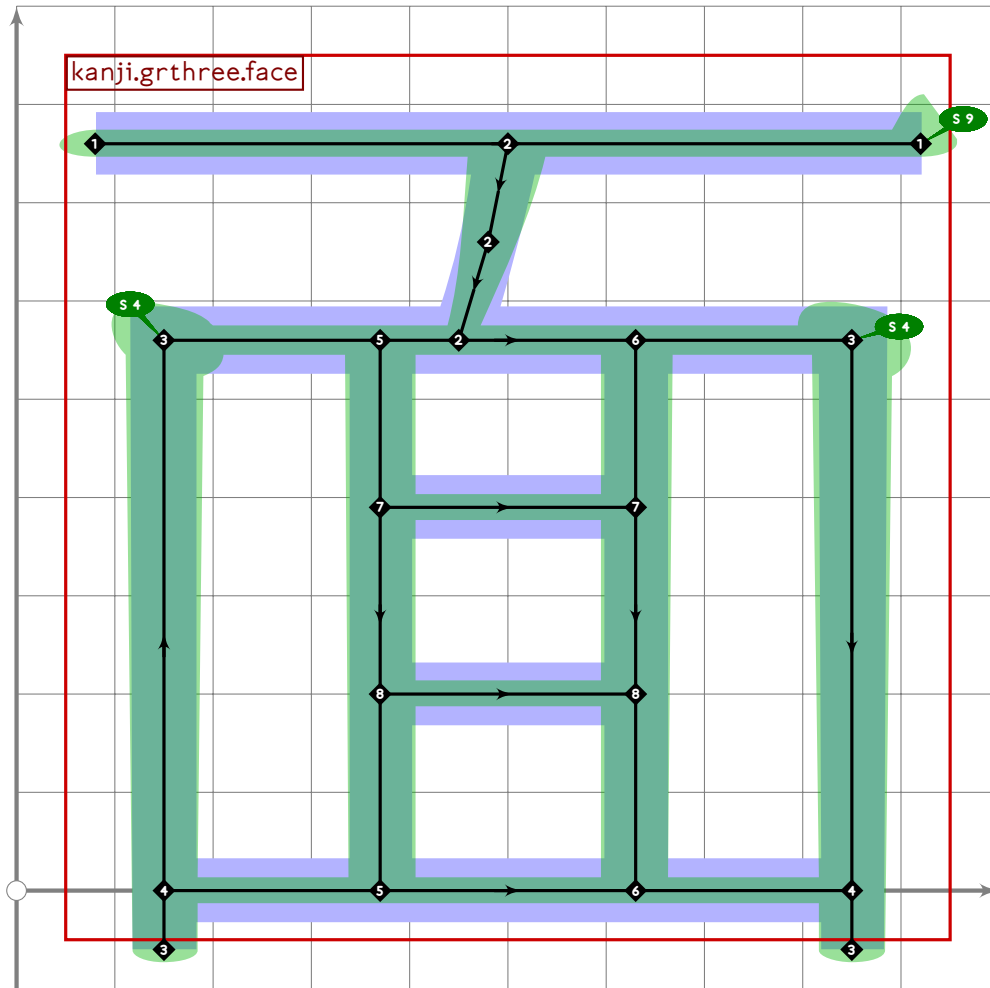
U+2FAC  
tsuku.uni2FAC



```

704 % u/ame "rain"
705 begintsuglyph("uni2FAC";172);
706   kanji.grone.rain;
707   tsu_render;
708 endtsuglyph;
709

```

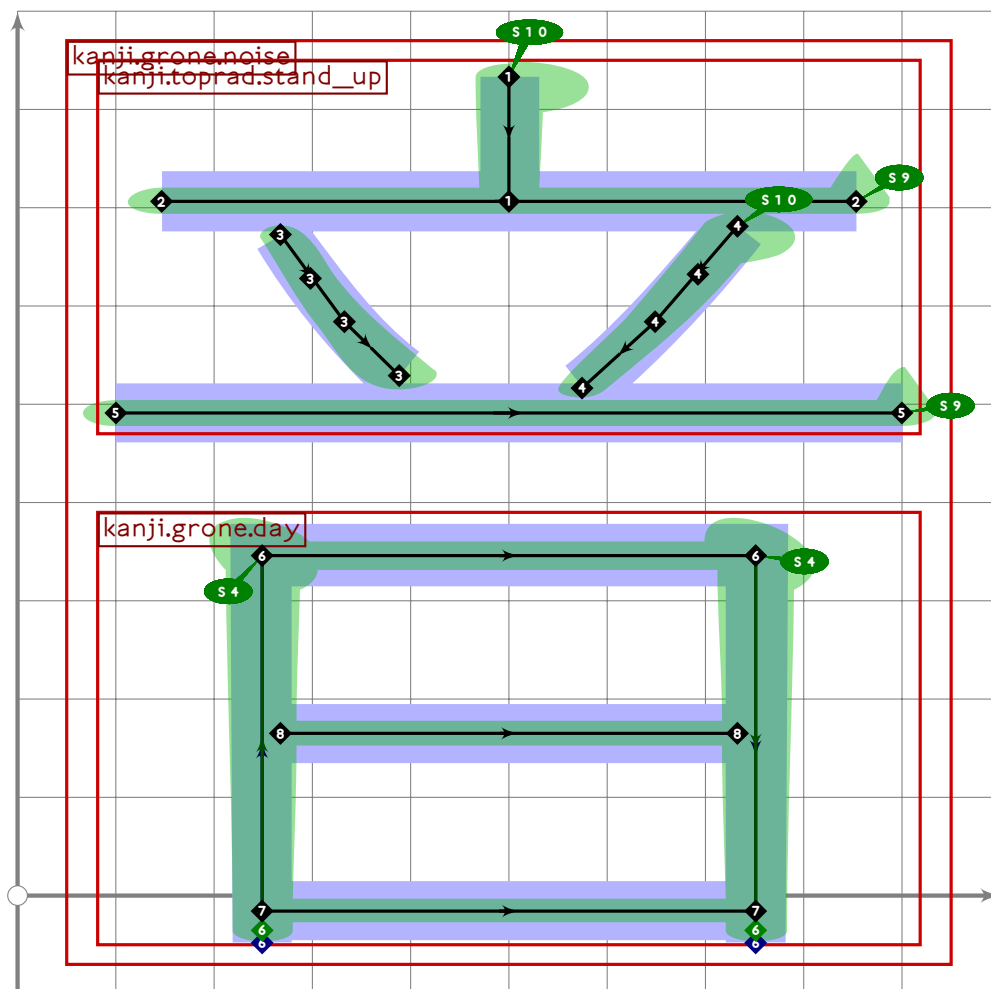


```

710 % men/omo "face"
711 begintsuglyph("uni2FAF";175);
712   kanji.grthree.face;
713   tsu_render;
714 endtsuglyph;
715

```

U+2FB3  
tsuku.uni2FB3

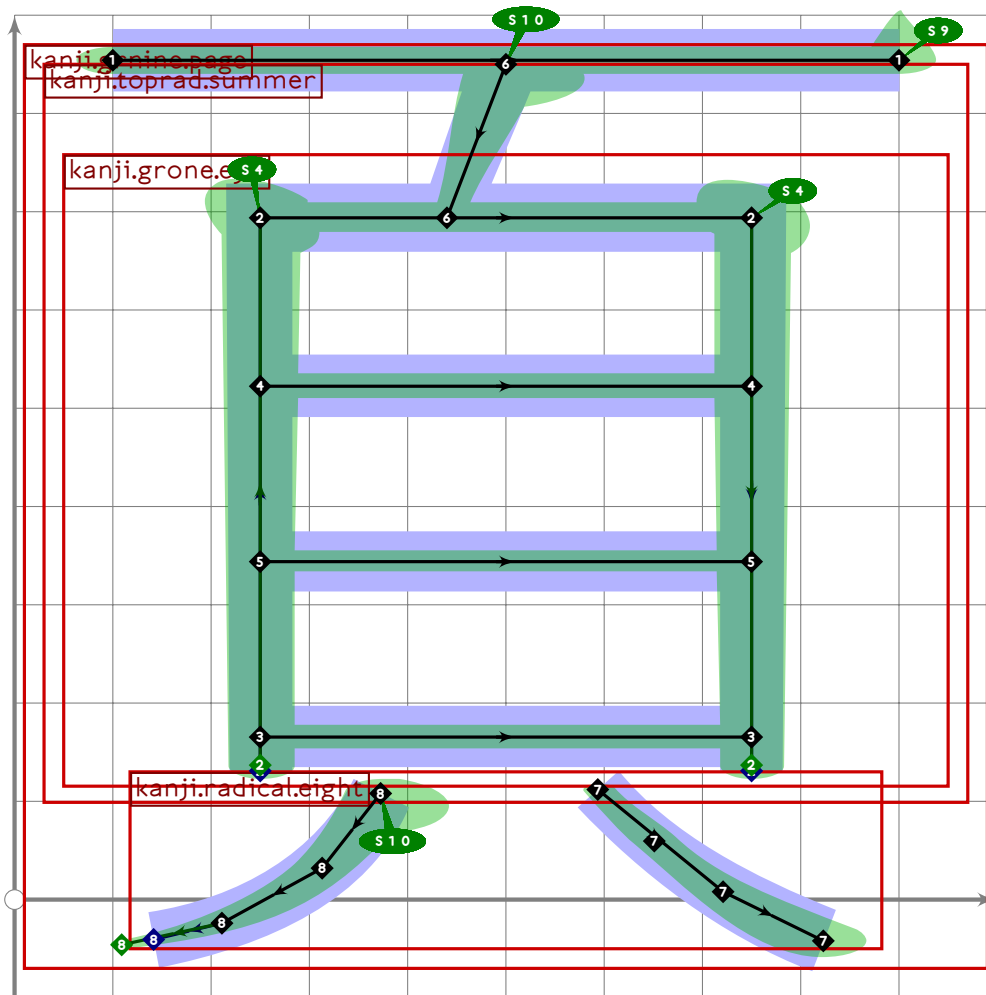


```

716 % oto/on "noise"
717 begintsuglyph("uni2FB3";179);
718   kanji.grone.noise;
719   tsu_render;
720 endsuglyph;
721

```



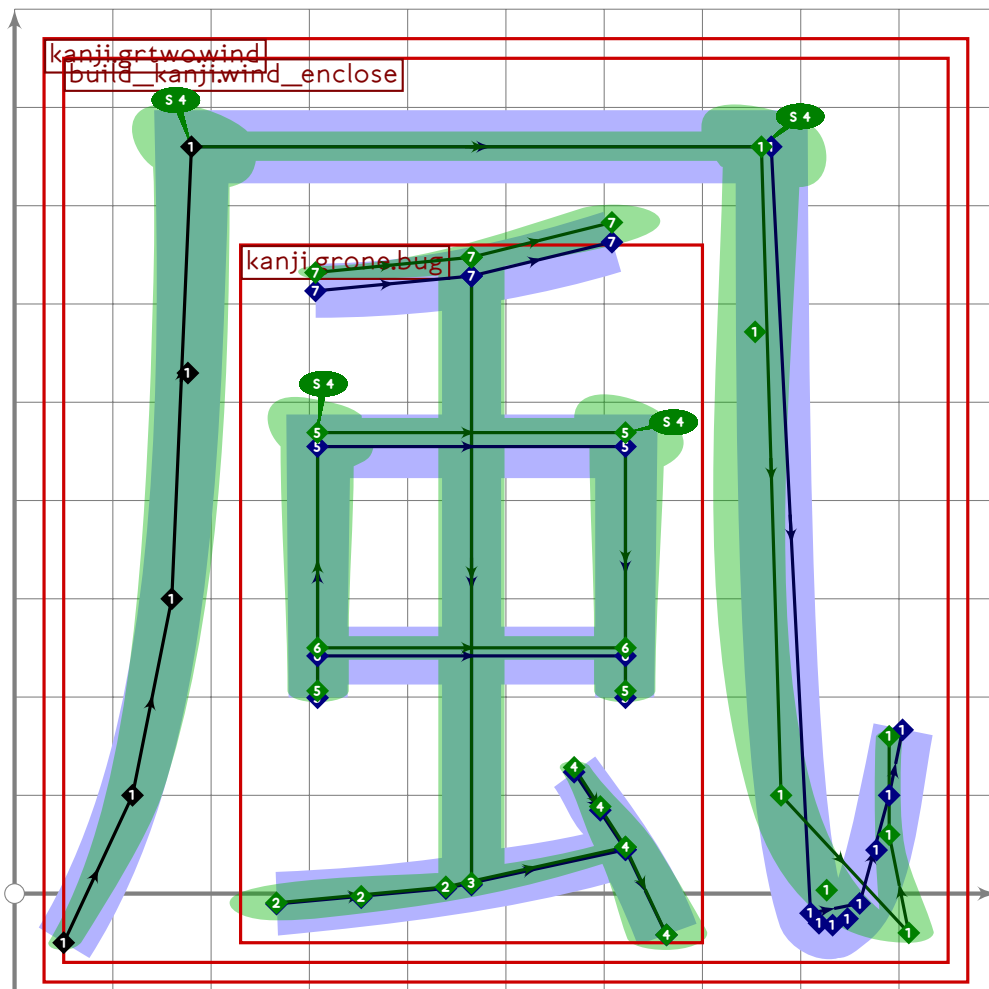


```

722 % ketsu/peeji "page"
723 begintsuglyph("uni2FB4";180);
724   kanji.grnine.page;
725   tsu_render;
726 endtsuglyph;
727

```

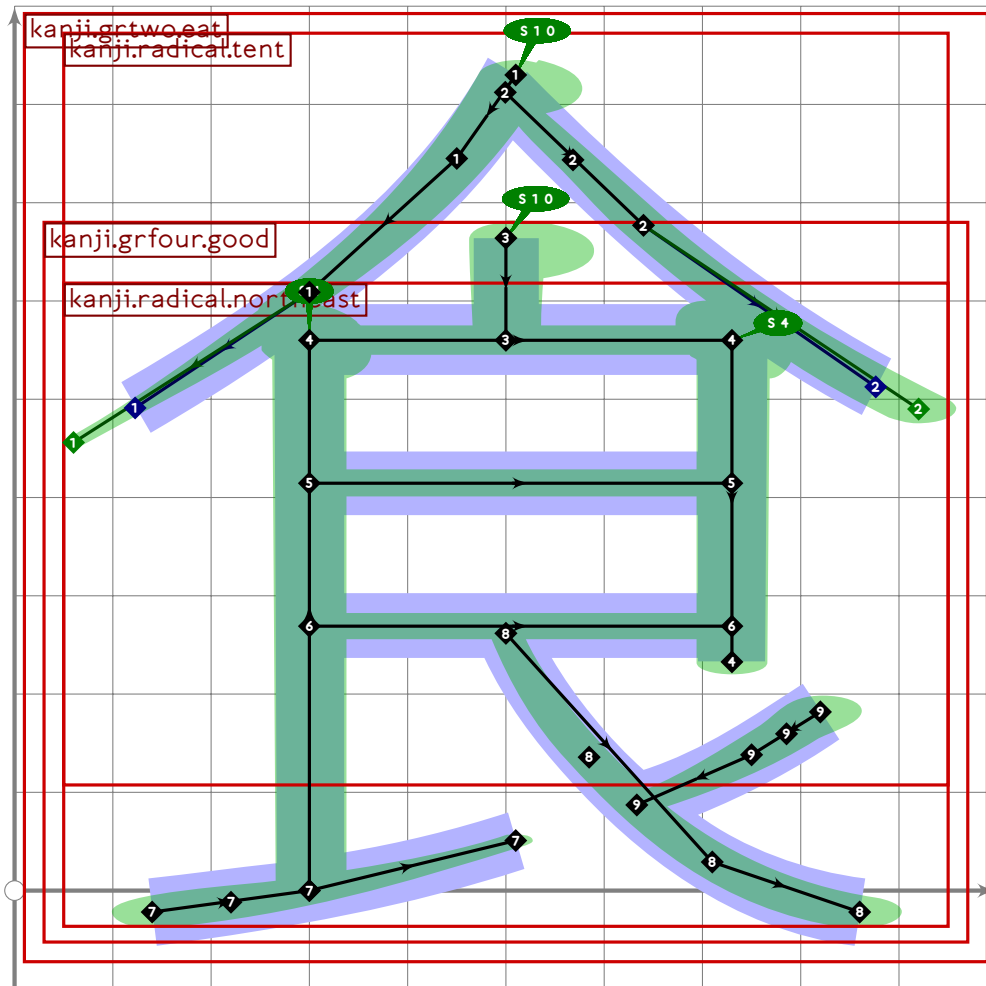
U+2FB5  
tsuku.uni2FB5



```

728 % fuu/kaze "wind"
729 begintsuglyph("uni2FB5",181);
730 kanji.grtwo.wind;
731 tsu_render;
732 endtsuglyph;
733

```

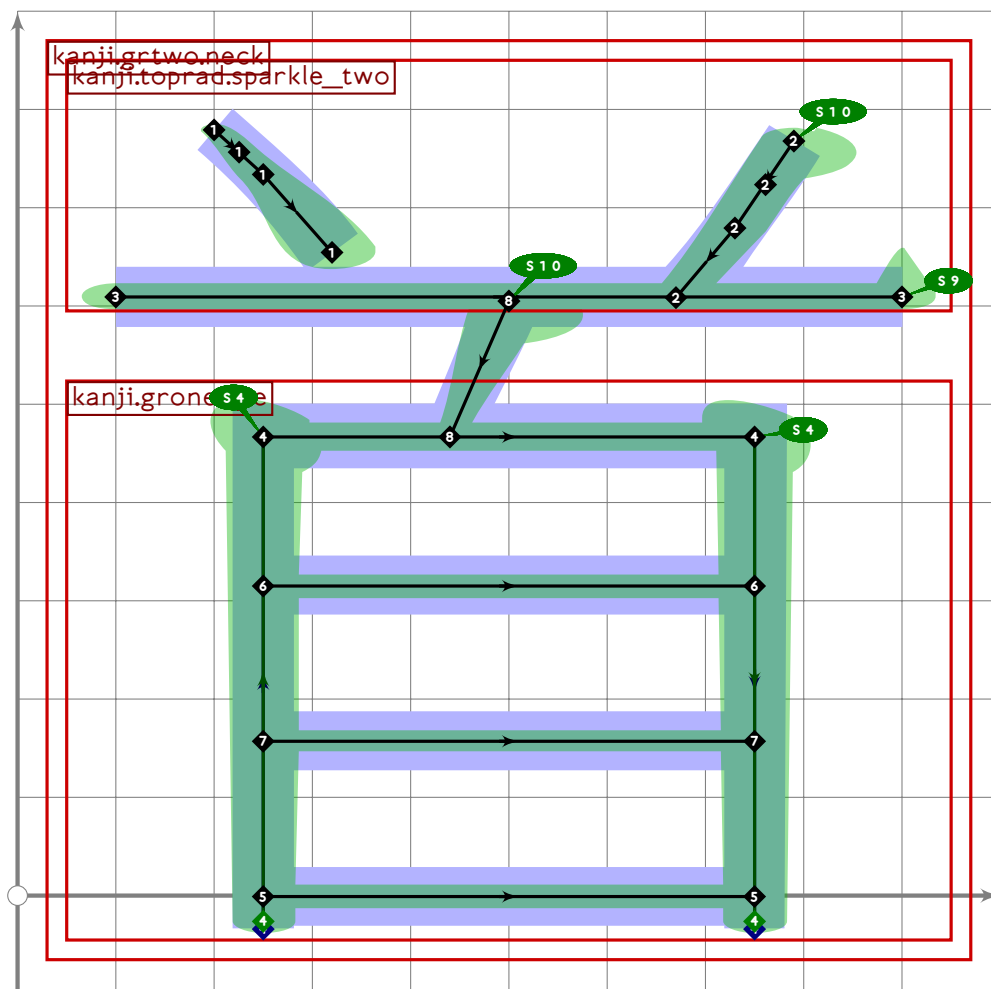


```

734 % shoku/ta "eat"
735 begintsuglyph("uni2FB7";183);
736   kanji.grtwo.eat;
737   tsu_render;
738 endtsuglyph;
739

```

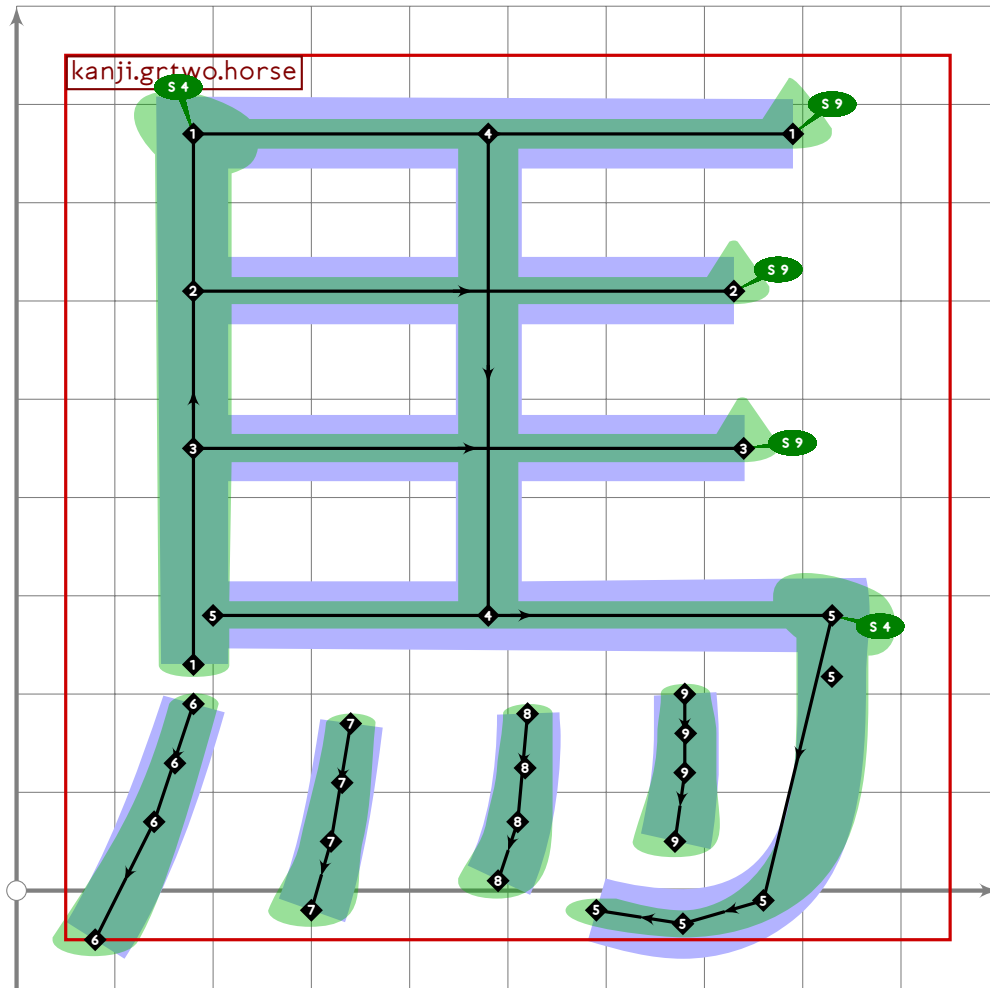
U+2FB8  
tsuku.uni2FB8



```

740 % shu/kubi "neck"
741 begintsuglyph("uni2FB8",184);
742   kanji.grtwo.neck;
743   tsu_render;
744 endtsuglyph;
745

```

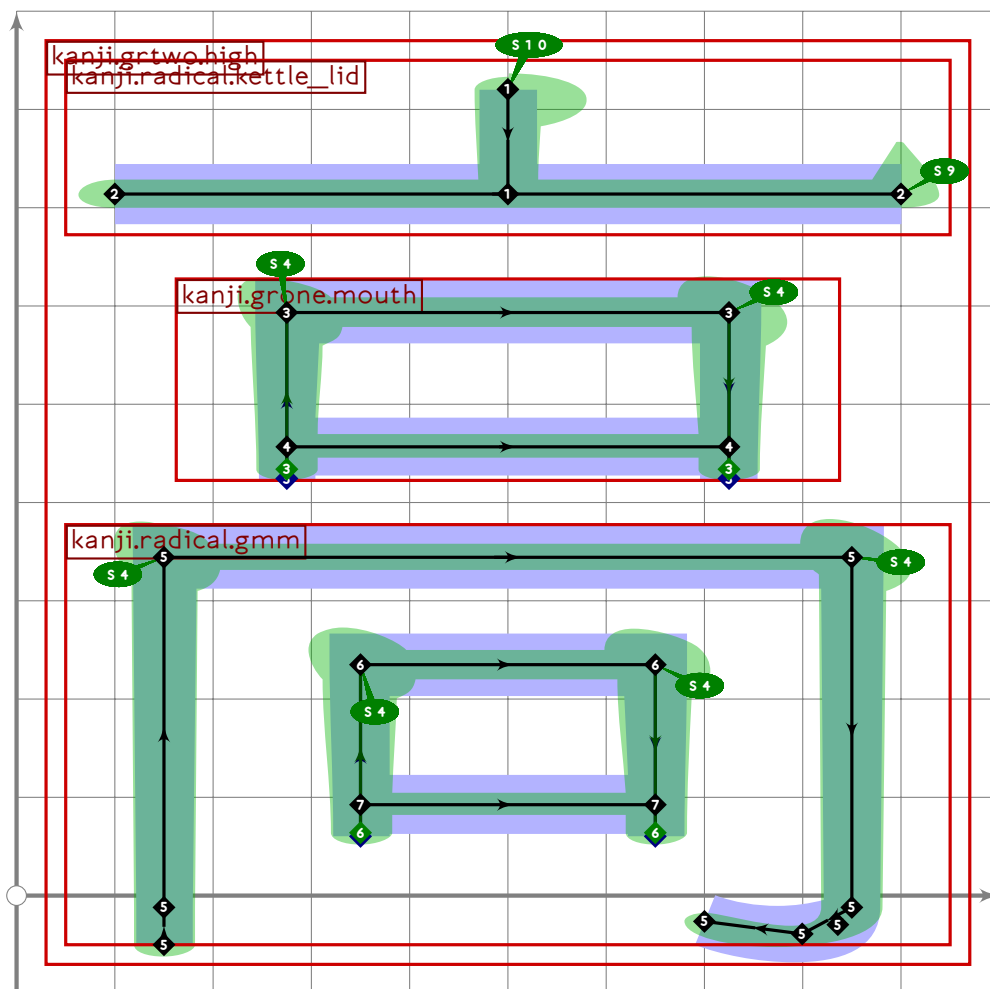


```

746 % ba/uma "horse"
747 begintsuglyph("uni2FBA";186);
748   kanji.grtwo.horse;
749   tsu_render;
750 endtsuglyph;
751

```

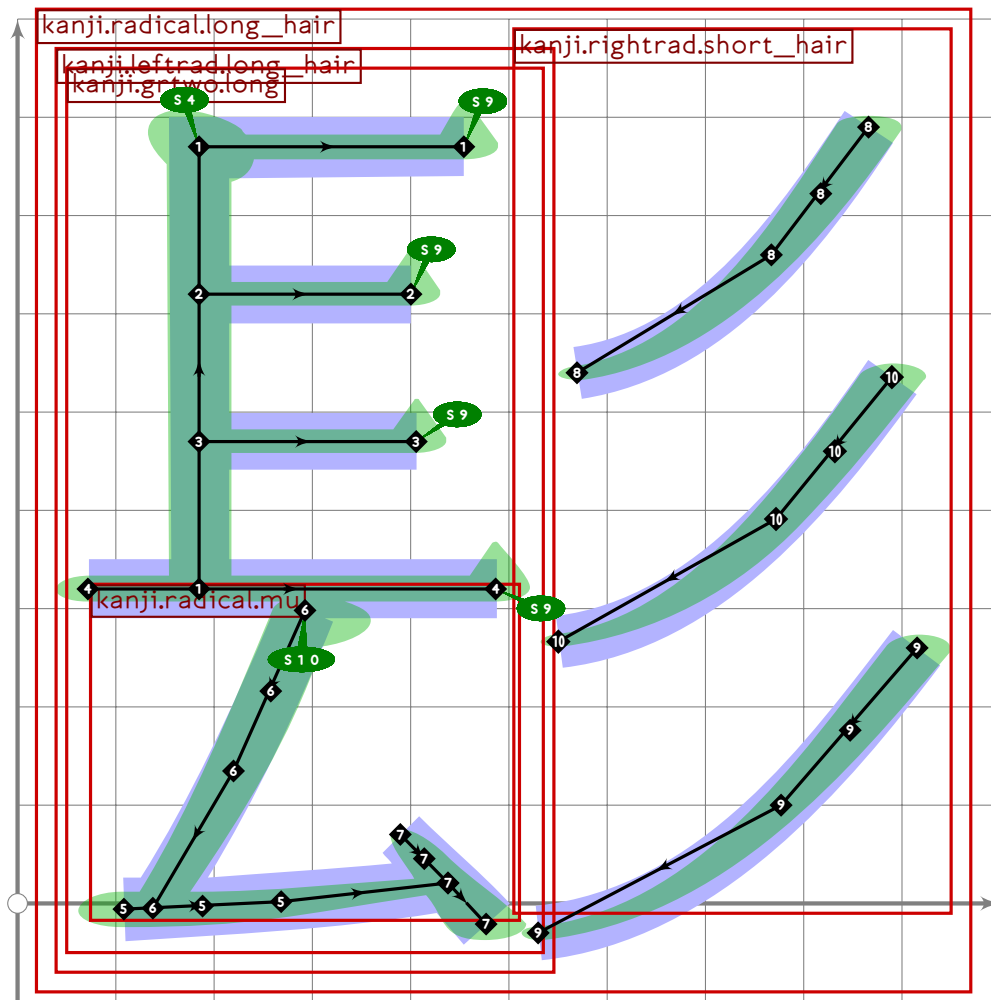
U+2FBC  
tsuku.uni2FBC



```

752 % kou/taka "high"
753 begintsuglyph("uni2FBC",188);
754   kanji.grtwo.high;
755   tsu_render;
756 endtsuglyph;
757

```

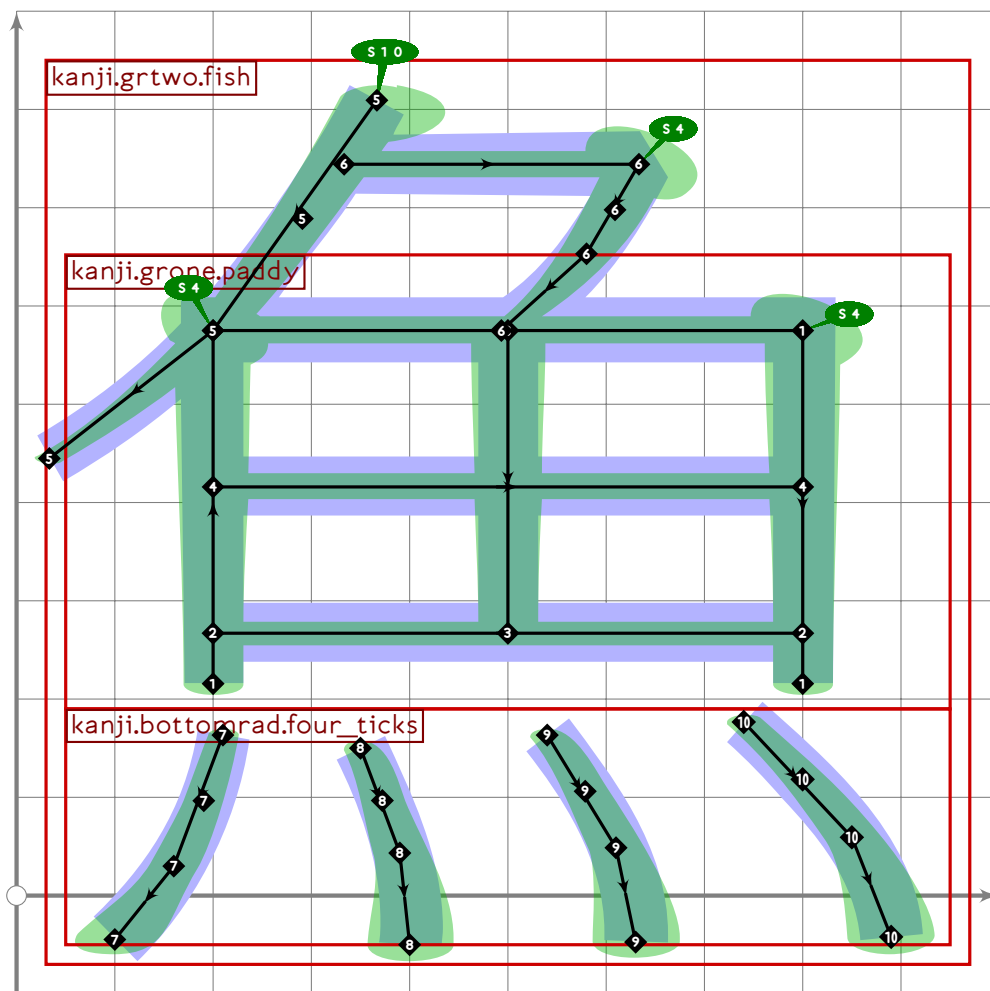


```

758 % hyuu/kamigashira "long hair radical"
759 begintsuglyph("uni2FBD";189);
760 kanji.radical.long_hair;
761 tsu_render;
762 endtsuglyph;
763

```

U+2FC2  
tsuku.uni2FC2

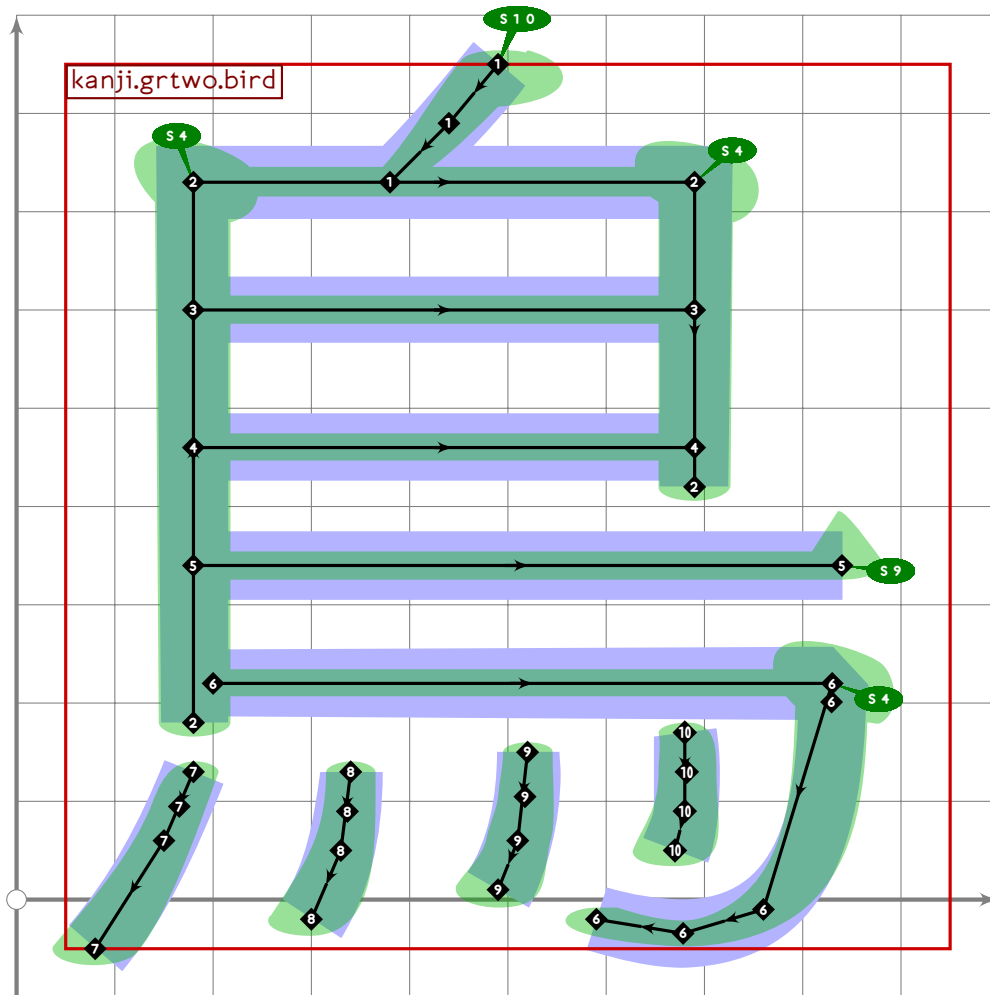


```

764 % gyo/sakana "fish"
765 begintsuglyph("uni2FC2";194);
766   kanji.grtwo.fish;
767   tsu_render;
768 endsuglyph;
769

```



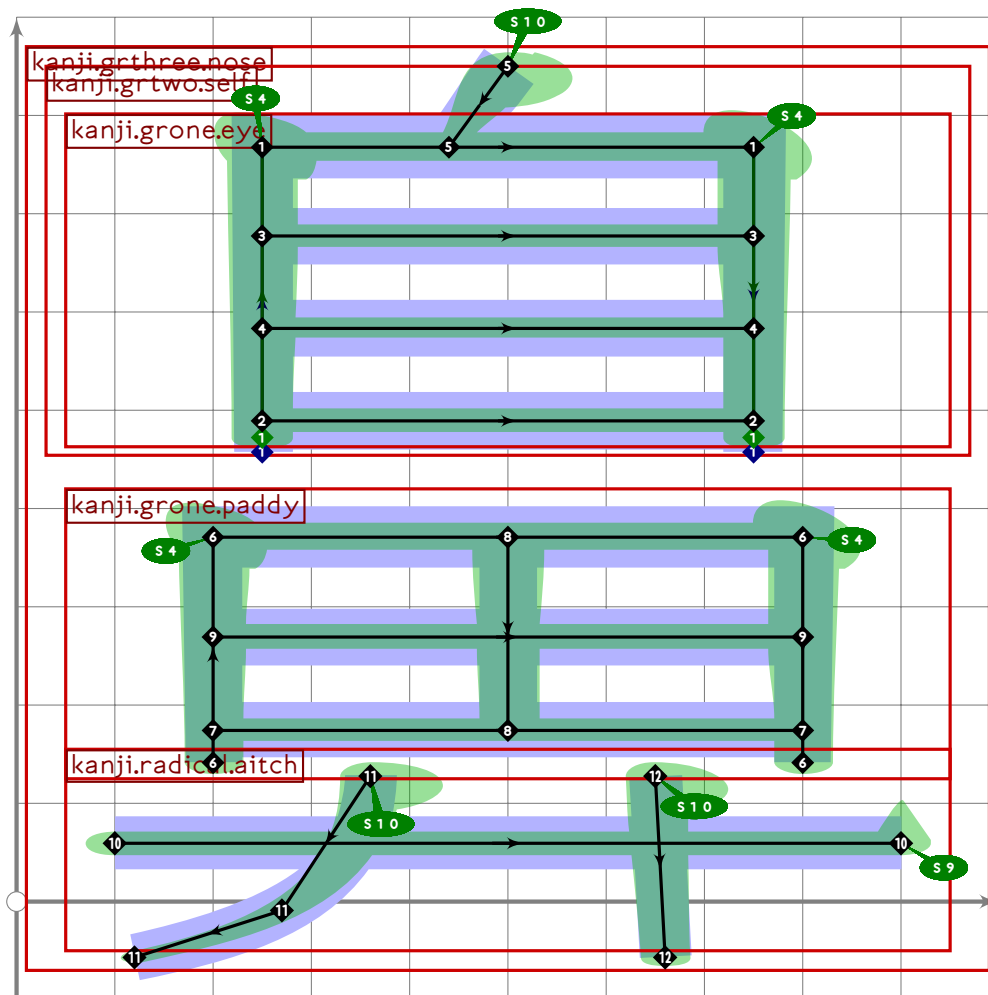


```

770 % chou/tori "bird"
771 begintsuglyph("uni2FC3";195);
772   kanji.grtwo.bird;
773   tsu_render;
774 endtsuglyph;
775

```

U+2FD0  
tsuku.uni2FD0



```

776 % bi/hana "nose"
777 begintsuglyph("uni2FD0";208);
778   kanji.grthree.nose;
779   tsu_render;
780 endtsuglyph;
781
782
783

```

## Ideographic Description Characters

```

784 % IDEOGRAPHIC DESCRIPTION CHARACTERS
785
786 numeric idc_corners;
787
788 vardef idc_horiz(expr v,ha,hb) =
789   for h:=ha upto hb:
790     if h<hb: idc_corners[h][v].r:=1; fi;
791     if h>ha: idc_corners[h][v].l:=1; fi;
792   endfor;
793 enddef;
794

```

```

795 vardef idc_vert(expr h,va,vb) =
796   for v:=va upto vb:
797     if v<vb: idc_corners[h][v].d:=1; fi;
798     if v>va: idc_corners[h][v].u:=1; fi;
799   endfor;
800 enddef;
801
802 vardef idc_rect(expr ur,ll) =
803   idc_horiz(ypart ur,xpart ur,xpart ll);
804   idc_vert(xpart ur,ypart ll,ypart ur);
805   idc_vert(xpart ll,ypart ll,ypart ur);
806   idc_horiz(ypart ll,xpart ur,xpart ll);
807 enddef;
808
809 transform idc_drawxf;
810 (-1,1) transformed idc_drawxf=(50,50);
811 (97,1) transformed idc_drawxf=(950,50);
812 (97,97) transformed idc_drawxf=(950,850);
813
814 vardef idc_render =
815   begingroup
816     save glyph;
817     path glyph;
818     for h:=0 upto 6:
819       for v:=0 upto 6:
820         if (known idc_corners[h][v].l) or (known idc_corners[h][v].r)
821           or (known idc_corners[h][v].u) or (known idc_corners[h][v].d):
822           if fine_idcs:
823             glyph:=(
824               (-1,1)-if known idc_corners[h][v].d: (-1,2.5)-(-1,2.5)- fi
825               (1,1)-if known idc_corners[h][v].r: (2.5,1)-(2.5,1)- fi
826               (1,-1)-if known idc_corners[h][v].u: (1,2.5)-(-1,2.5)- fi
827               (-1,-1)-if known idc_corners[h][v].l: (-2.5,-1)-(-2.5,-1)- fi
828               cycle) shifted ((h,v) scaled 16);
829             dangerousFill glyph transformed idc_drawxf;
830             if known idc_corners[h][v].d:
831               glyph:=((-1,5.5)-(-1,10.5)-(1,10.5)-(1,5.5)-cycle)
832               shifted ((h,v) scaled 16);
833               dangerousFill glyph transformed idc_drawxf;
834             fi;
835             if known idc_corners[h][v].r:
836               glyph:=((5.5,-1)-(5.5,1)-(10.5,1)-(10.5,-1)-cycle)
837               shifted ((h,v) scaled 16);
838               dangerousFill glyph transformed idc_drawxf;
839             fi;
840           else:
841             glyph:=(
842               (-2,2)-if known idc_corners[h][v].d: (-2,6)-(-2,6)- fi

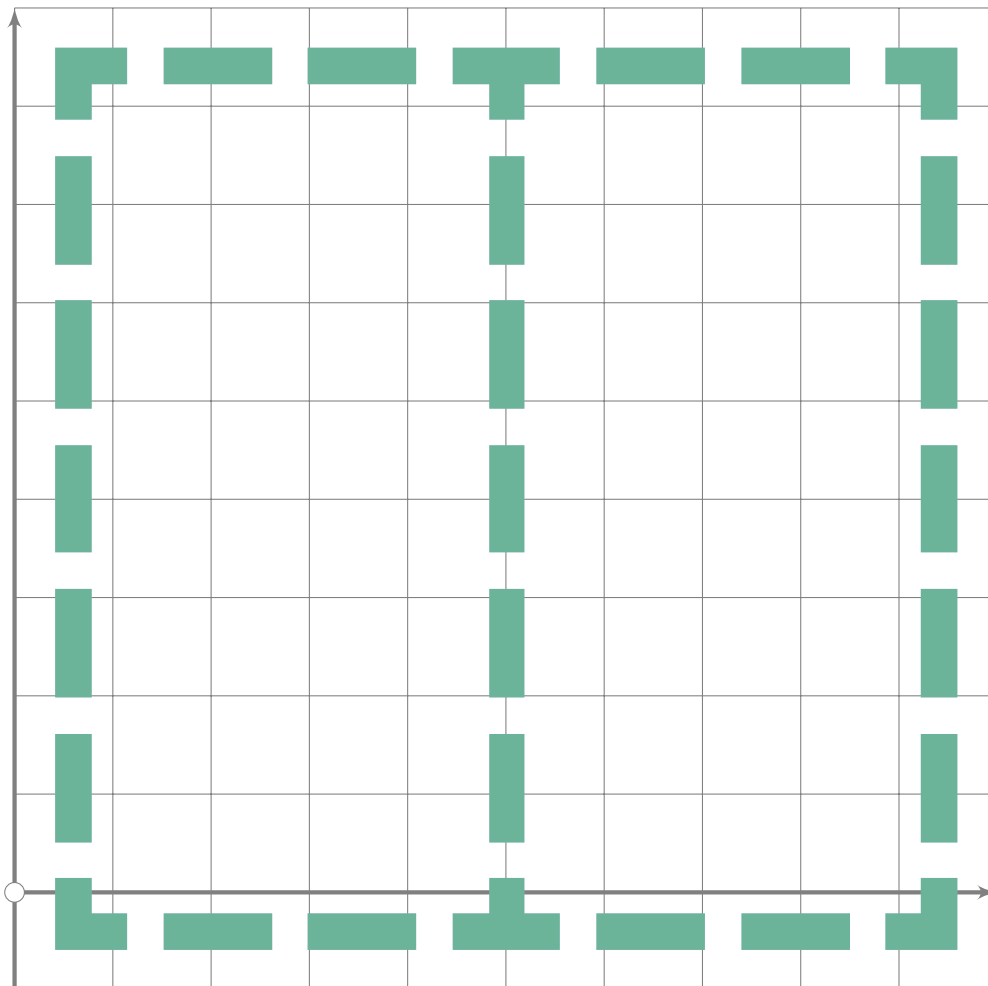
```

U+2FF0  
tsuku.uni2FF0

```

843         (2,2)-if known idc_corners[h][v].r: (6,2)-(6,2)- fi
844         (2,2)-if known idc_corners[h][v].u: (2,6)-(-2,6)- fi
845         (-2,2)-if known idc_corners[h][v].l: (-6,2)-(-6,2)- fi
846         cycle) shifted ((h,v) scaled 16);
847         dangerousFill glyph transformed idc_drawxf;
848     fi;
849     fi;
850     idc_corners[h][v].l:=whatever;
851     idc_corners[h][v].r:=whatever;
852     idc_corners[h][v].u:=whatever;
853     idc_corners[h][v].d:=whatever;
854 endfor;
855 endfor;
856 endgroup;
857 enddef;
858

```



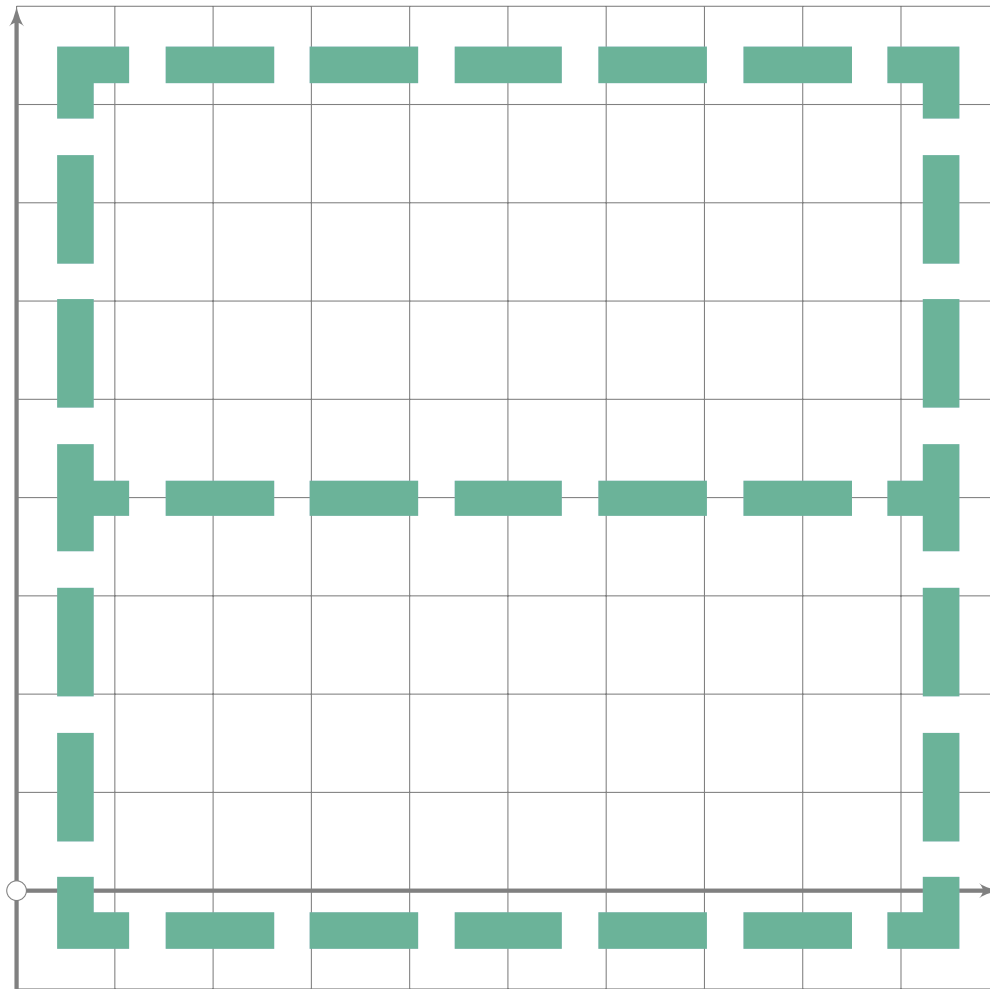
```

859 % left to right
860 begintsuglyph("uni2FF0";240);
861 idc_rect((0,6),(6,0));
862 idc_vert(3,0,6);
863 idc_render;

```

864 endtsuglyph;

865



866 % above to below

867 begintsuglyph("uni2FF1";241);

868 idc\_rect((0,6),(6,0));

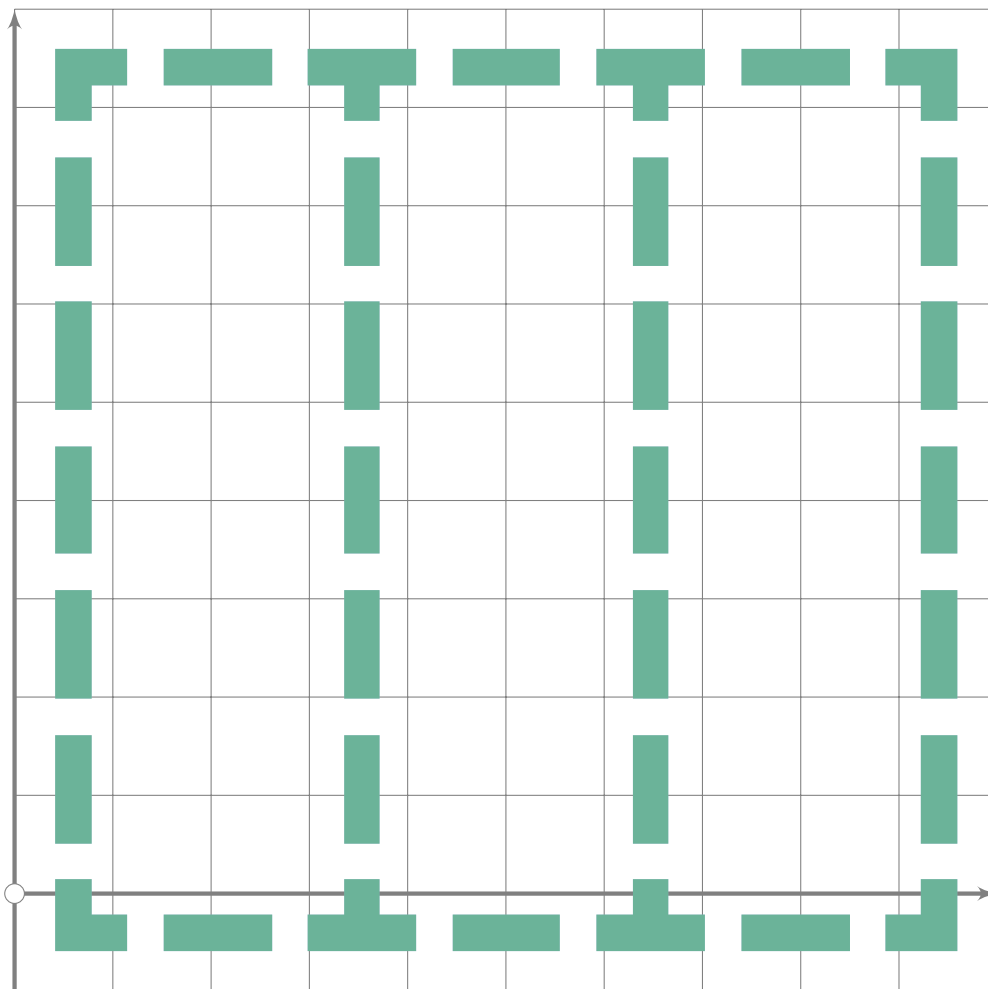
869 idc\_horiz(3,0,6);

870 idc\_render;

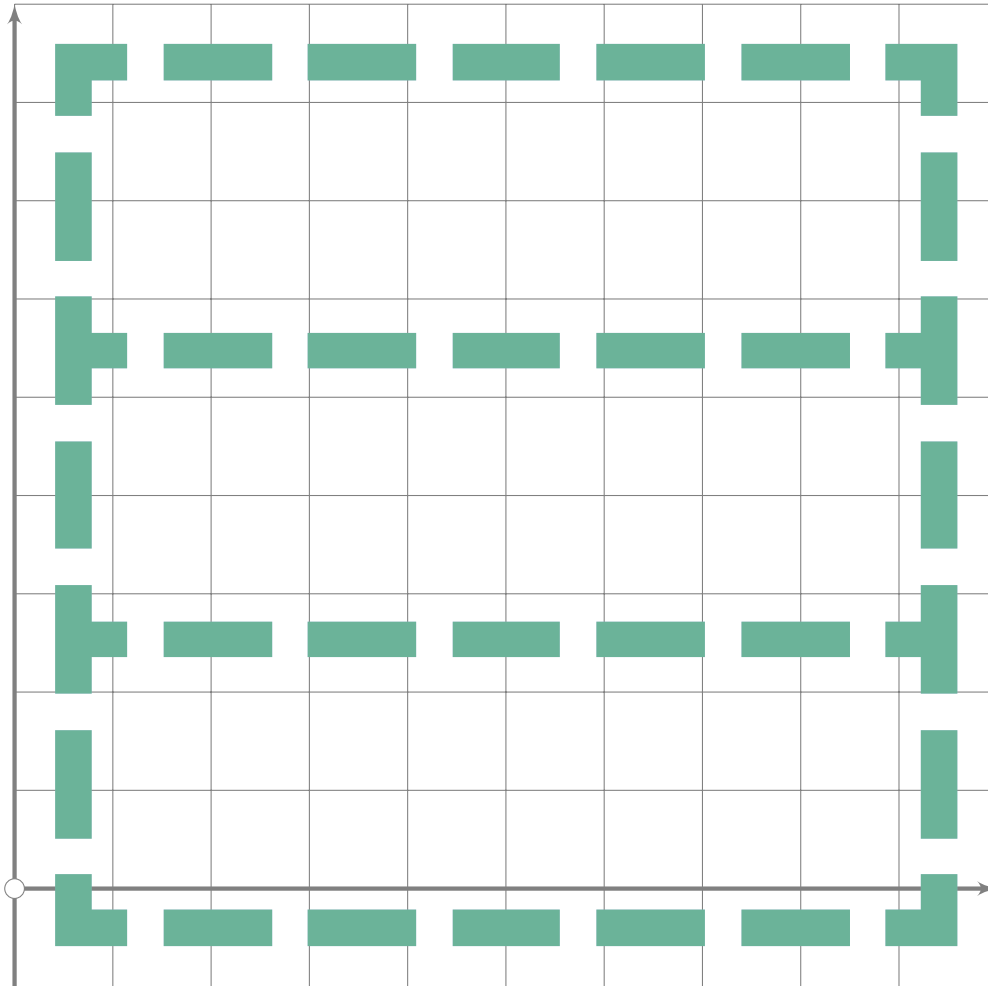
871 endtsuglyph;

872

U+2FF2  
tsuku.uni2FF2



```
873 % left to middle to right
874 begintsuglyph("uni2FF2",242);
875   idc_rect((0,6),(6,0));
876   idc_vert(2,0,6);
877   idc_vert(4,0,6);
878   idc_render;
879 endtsuglyph;
880
```

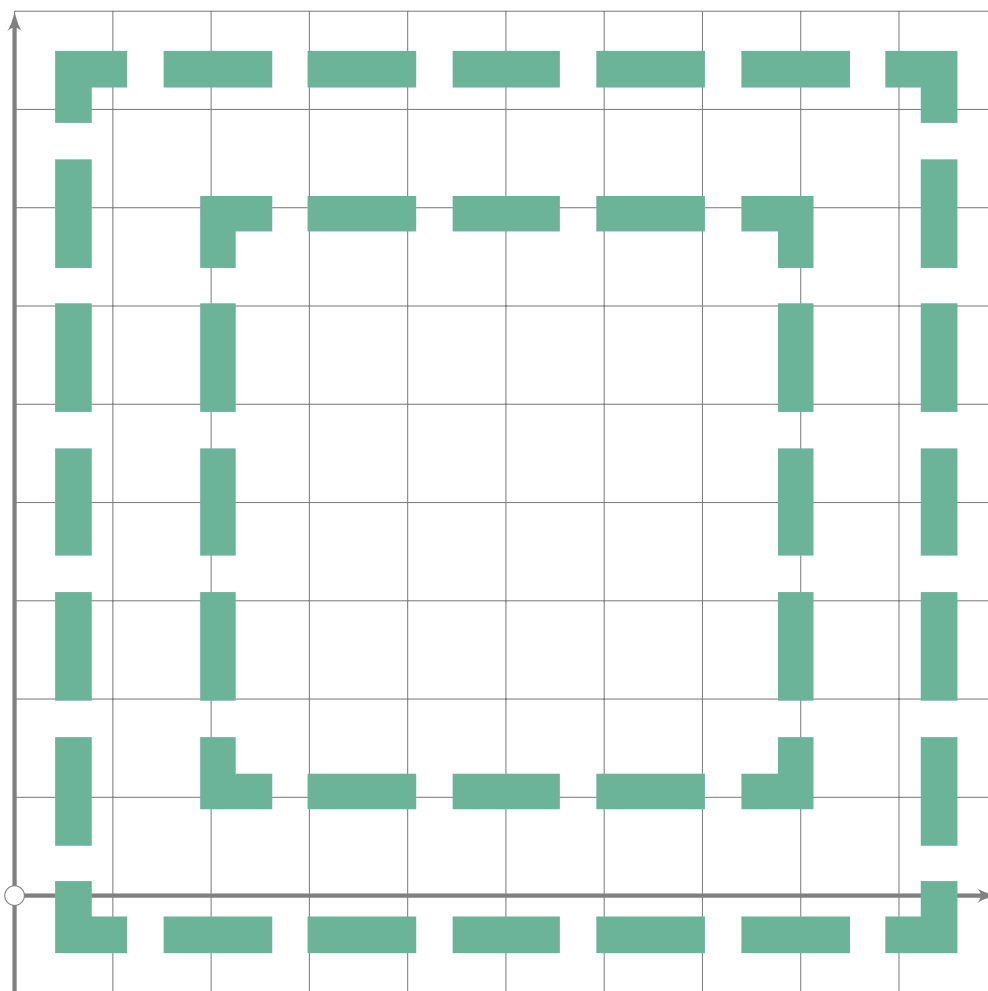


```

881 % above to middle to below
882 begintsuglyph("uni2FF3",243);
883   idc_rect((0,6),(6,0));
884   idc_horiz(2,0,6);
885   idc_horiz(4,0,6);
886   idc_render;
887 endtsuglyph;
888

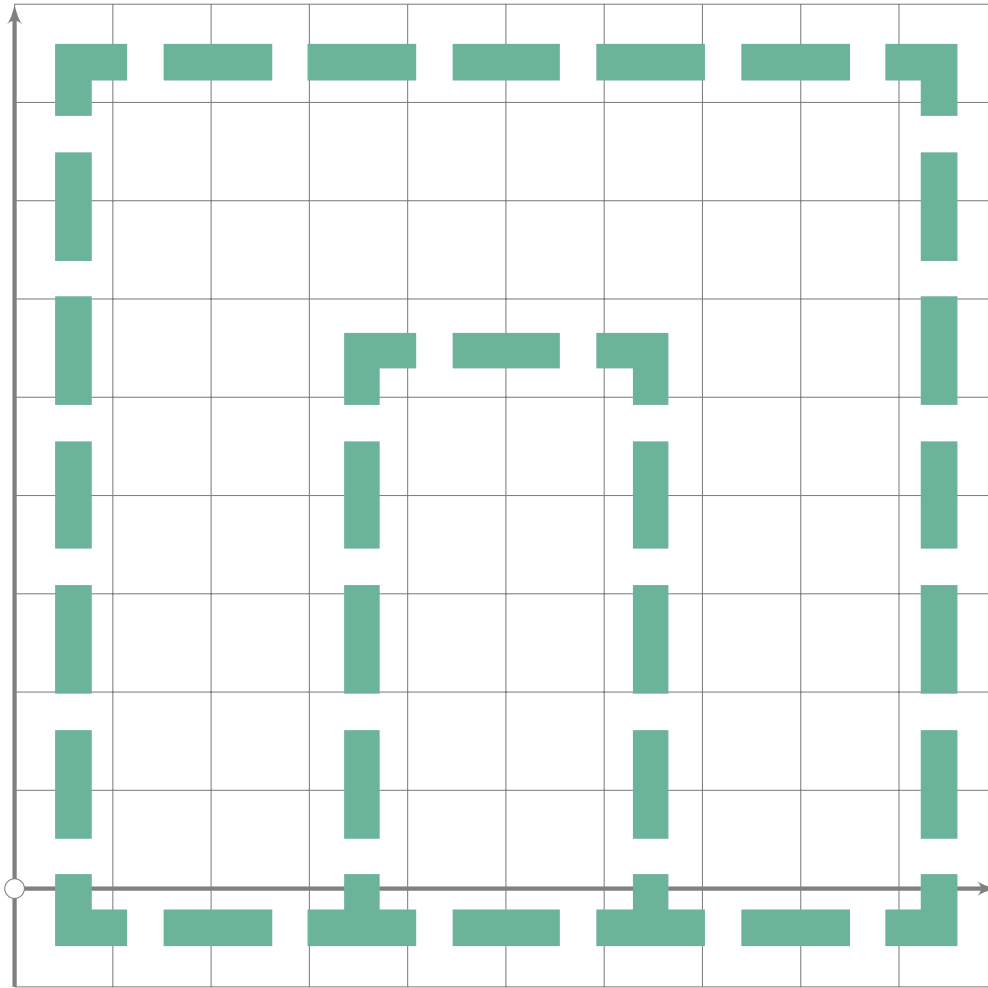
```

U+2FF4  
tsuku.uni2FF4



```
889 % full surround
890 begint Suglyph("uni2FF4",244);
891   idc_rect((0,6),(6,0));
892   idc_rect((1,5),(5,1));
893   idc_render;
894 endtsuglyph;
895
```



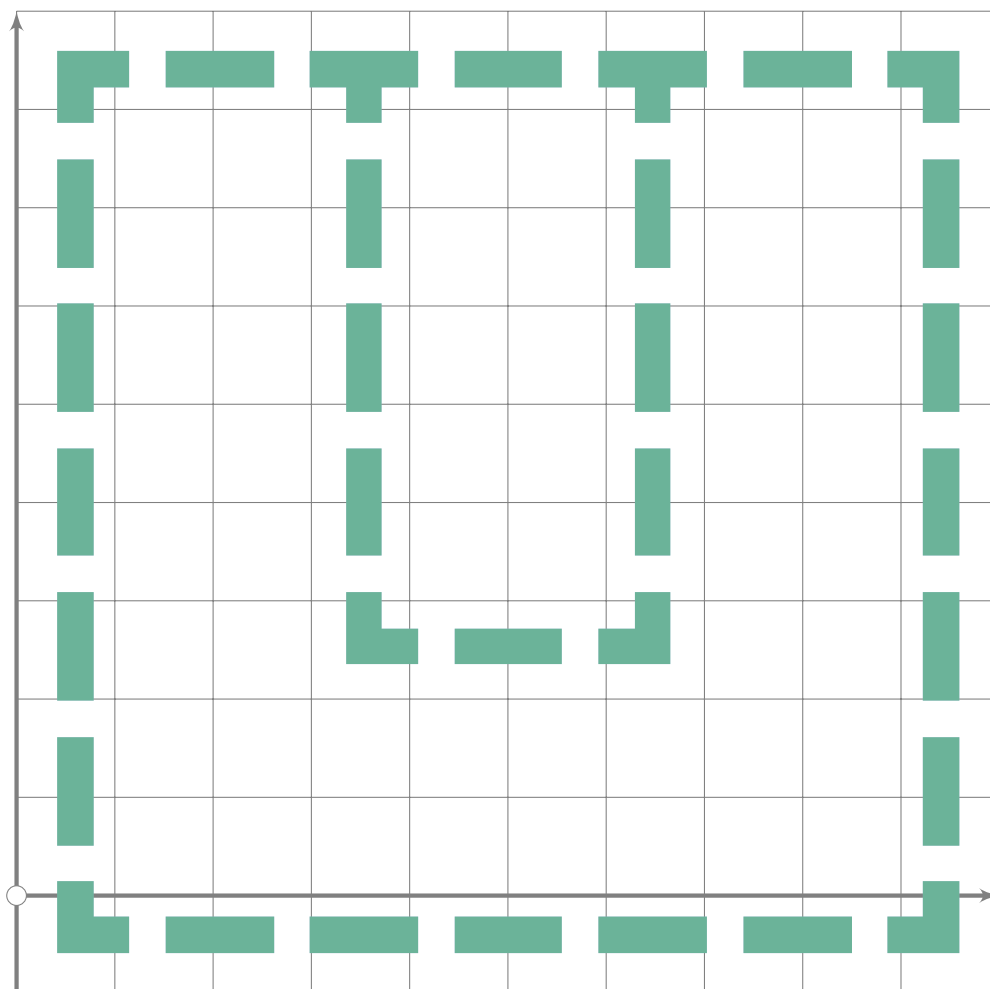


```

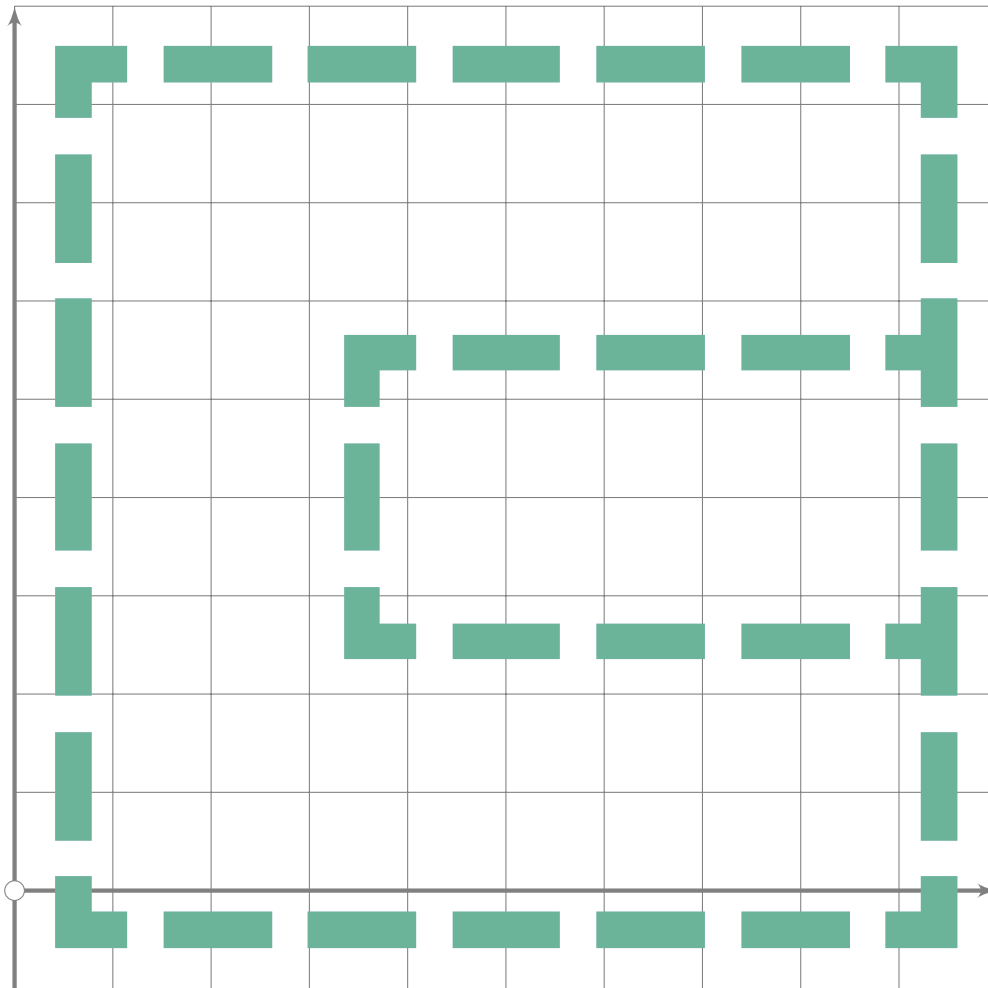
896 % surround from above
897 begint Suglyph("uni2FF5",245);
898   idc_rect((0,6),(6,0));
899   idc_rect((2,4),(4,0));
900   idc_render;
901 endtsuglyph;
902

```

U+2FF6  
tsuku.uni2FF6



```
903 % surround from below
904 begint Suglyph("uni2FF6",246);
905   idc_rect((0,6),(6,0));
906   idc_rect((2,6),(4,2));
907   idc_render;
908 endtsuglyph;
909
```

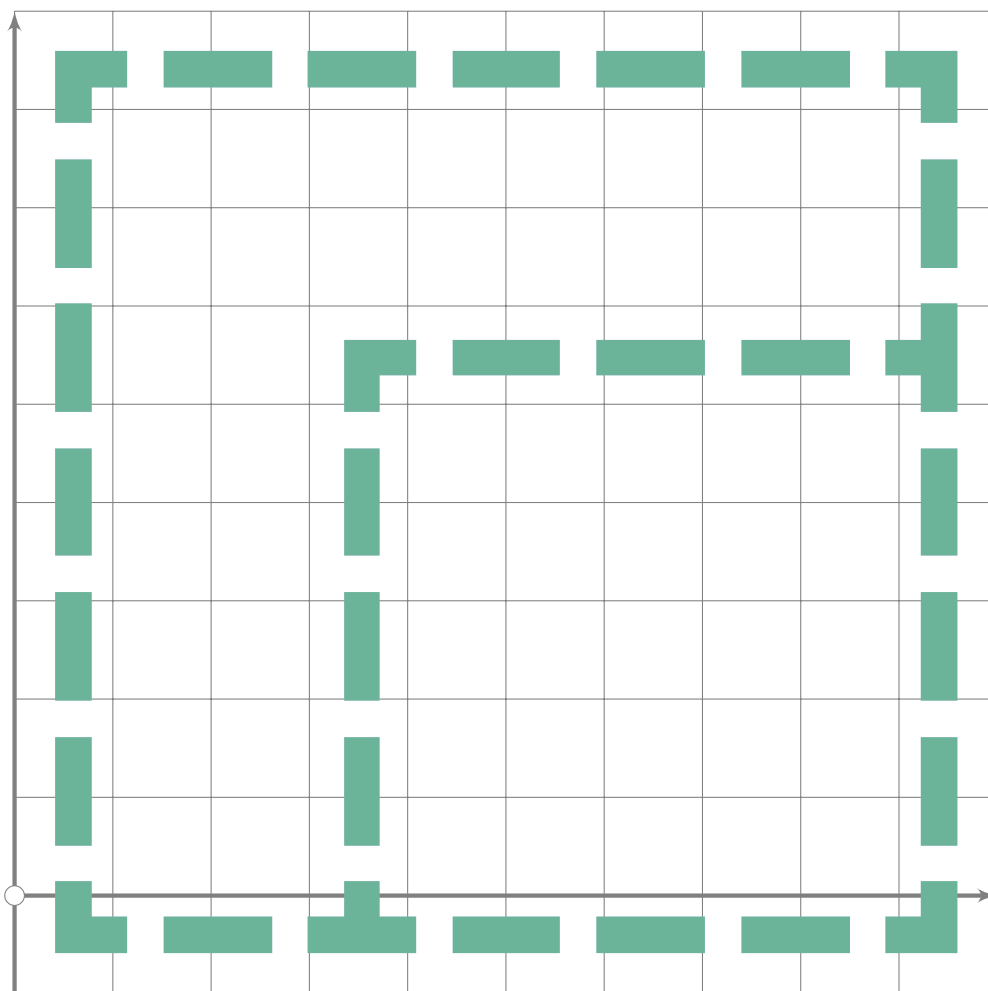


```

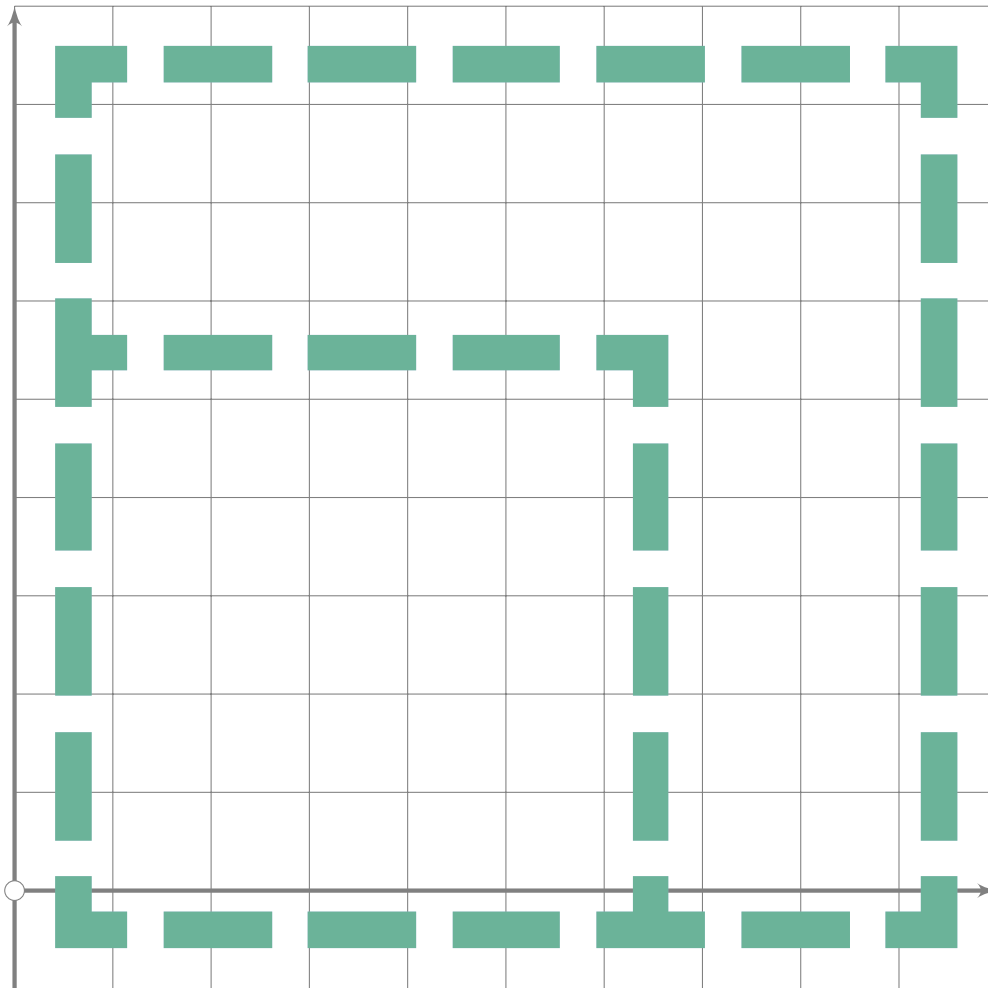
910 % surround from left
911 begint Suglyph("uni2FF7";247);
912   idc_rect((0,6),(6,0));
913   idc_rect((2,4),(6,2));
914   idc_render;
915 endtsuglyph;
916

```

U+2FF8  
tsuku.uni2FF8



```
917 % surround from upper left
918 begint Suglyph("uni2FF8",248);
919   idc_rect((0,6),(6,0));
920   idc_rect((2,4),(6,0));
921   idc_render;
922 endtsuglyph;
923
```

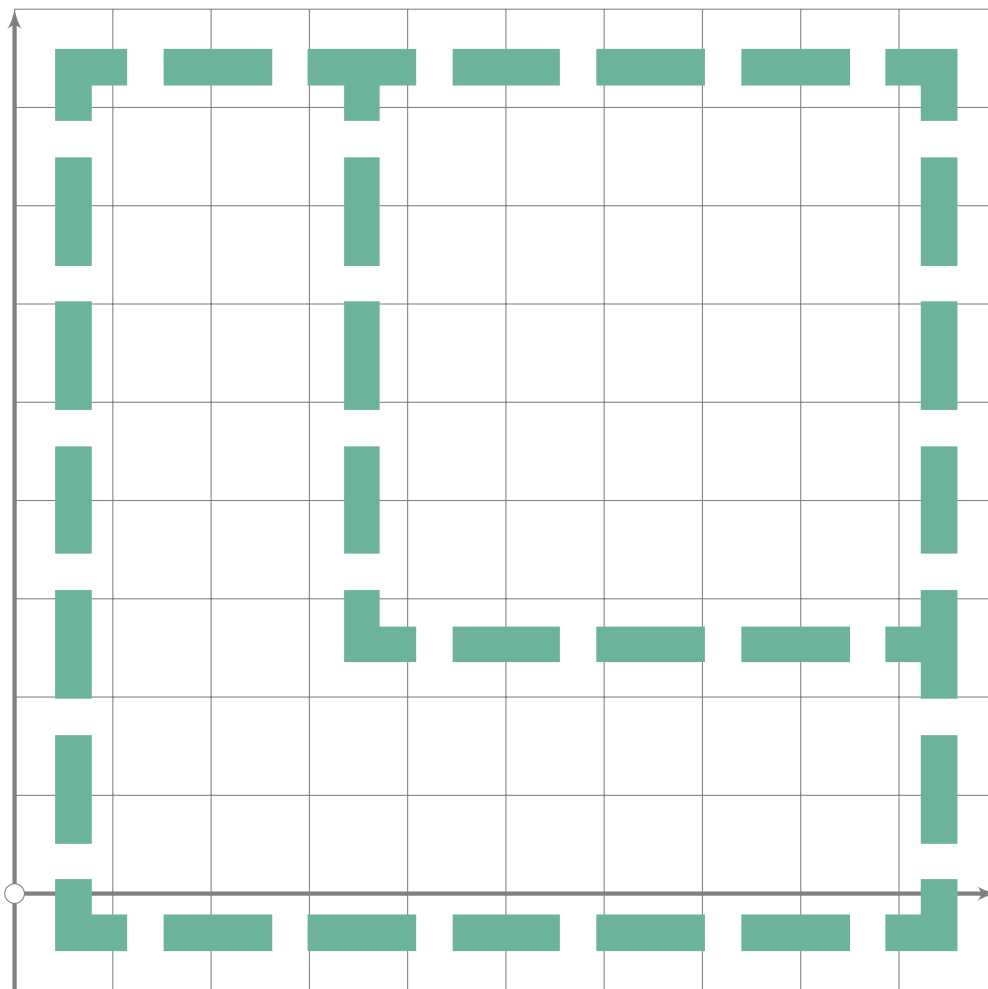


```

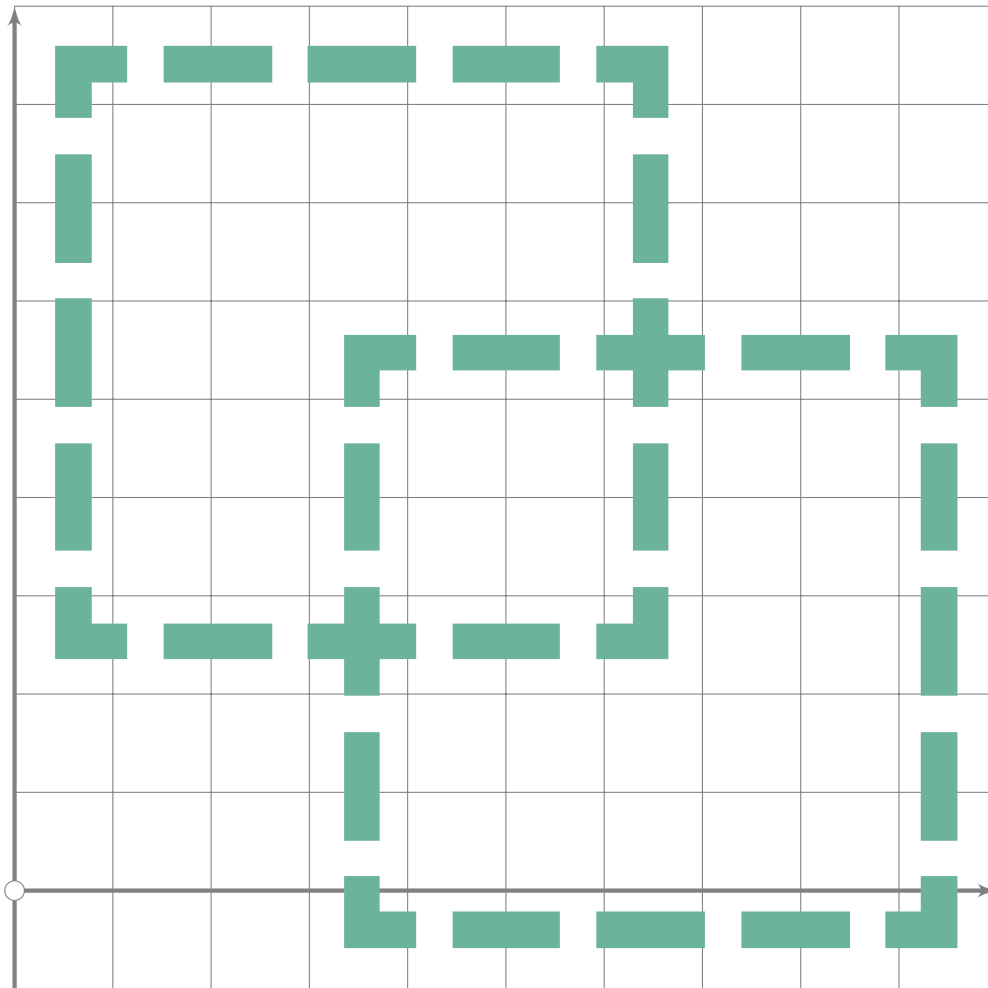
924 % surround from upper right
925 begint Suglyph("uni2FF9",249);
926   idc_rect((0,6),(6,0));
927   idc_rect((0,4),(4,0));
928   idc_render;
929 endtsuglyph;
930

```

U+2FFA  
tsuku.uni2FFA



```
931 % surround from lower left
932 begint Suglyph("uni2FFA",250);
933   idc_rect((0,6),(6,0));
934   idc_rect((2,6),(6,2));
935   idc_render;
936 endtsuglyph;
937
```



```

938 % overlaid
939 begintsuglyph("uni2FFB",251);
940   idc_rect((0,6),(4,2));
941   idc_rect((2,4),(6,0));
942   idc_render;
943 endtsuglyph;
944
945
946
947 endfont;
948
949

```