

nabc language for gregorio

AL II

A L-le- lú-ia. ¶ ¶. Ve- ni

Sancte Spí- ri- tus, replé tu- ó- rum corda fi- dé- li- um:

et tu- i a-mór- is in e- is ignem ac- cénde.

This image shows a page of Gregorian chant notation in nabc language. The notation is written on four-line red staves. Red rubrics are placed above certain notes, primarily in the first two systems. The lyrics are written below the staves, corresponding to the musical phrases. The notation uses black square neumes on the staves, and red neumes are used for the rubrics. The page is framed by a thin black border.

The nabc language provides the ability to describe some adiastematic neumes, for now just the St. Gallen style. The language is partially based on Dom Eugène Cardine's Table of neumatic signs, but for more complex neumes doesn't always match how the neumes are called; instead attempts to make it easier to compose complex neumes from basic glyphs. To describe adiastematic neumes in gabc, the header should contain nabc-lines: 1; line, like:

```
nabc-lines: 1;
(f3) AL(ef~|ta>)le(fg/hggf|peclhgpi)lú(ef~|ta>)ia.(f.|ta-) (, )
(ii//|bv-|gh!ivHG//|vi-hhppu2su1sut1|fhg/|to|eef.|pt) (;
```

The nabc snippets are then separated by | character from gabc snippets or other nabc snippets. Every gabc snippet may be followed by multiple nabc snippets. The maximum number of consecutive nabc snippets is the number declared in the header field nabc-lines: x;. After reaching that number of consecutive nabc snippets another gabc snippet followed by nabc snippets can follow. A single nabc snippet is not split into multiple lines, so for larger melismatic pieces it is desirable to synchronize the gabc snippets with corresponding nabc snippets. With nabc-lines: 1; the gabc and nabc snippets form an alternating pattern, like (gabc|nabc|gabc|nabc|gabc), in this case the last gabc snippet does not have any corresponding nabc neumes. With nabc-lines: 2; the snippets ordering could be e.g. (gabc|nabc1|nabc2|gabc|nabc1).

Each nabc snippet consists of a sequence of *complex neume descriptors*. Each *complex neume descriptor* consists of optional *horizontal spacing adjustment descriptor*, then *complex glyph descriptor*, optionally followed by a sequence of *subpunctis and prepunctis descriptors*, optionally followed by a sequence of *significant letter descriptors*.

The *horizontal spacing adjustment descriptor* consists of a sequence of horizontal spacing adjustment characters / and `.

- // move by nabclargerspace skip to the right
- / move by nabcinterelementspace skip to the right
- `` move by nabclargerspace skip to the left
- ` move by nabcinterelementspace skip to the left

The *complex glyph descriptor* consists of a *glyph descriptor*, optionally followed by a sequence of other *glyph descriptors*, all separated by the ! character. This is used to describe more complex glyphs, where certain basic glyphs are connected together.

Each *glyph descriptor* consists of a *basic glyph descriptor*, followed by optional *glyph modifiers*, followed by optional *pitch descriptor*. The *basic glyph descriptor* is a two-letter string from the following table:

vi ✓ virga	po ↗ porrectus	tr ↗ torculus resupinus	tv ↗ trivirga	pq ✓ pes quassus
pu . punctum	to ↗ torculus	st , stropha	pr ↗ pressus maior	ql ↗ quilisma (3 loops)
ta . tractulus	ci ↗ climacus	ds .. distropha	pi ~ pressus minor	qi ↗ quilisma (2 loops)
gr , gravis	sc ↗ scandicus	ts .. tristropha	vs ↗ virga strata	pt ↗ pes stratus
cl ↗ clivis	pf ↗ porrectus flexus	tg .. trigonus	or , oriscus	
pe ✓ pes	sf .. scandicus flexus	bv ↗ bivirga	sa .. scandicus	

The *glyph modifiers* is a possibly empty sequence of following characters optionally followed by a number:

- S modification of the mark
- G modification of the grouping (neumatic break)
- M melodic modification
- - addition of episema
- > augmentive liquescence
- ~ diminutive liquescence

If Dom Cardine's table contains multiple glyphs with the same modifiers, a positive number is added afterwards. E.g. for augmentive liquescent clivis the table shows two different glyphs, the ancus cl> ↗ and then another neume - cl>1 ↗, the first neume does not contain any number after it, while the 1 indicates first variant.

The *pitch descriptor* allows to specify the vertical position of the neume. There are no staves, so the vertical position is only rough. For pitches the same letters as in gabc are used, a through m. If the *pitch descriptor* is missing, the default is hf, otherwise it consists of the letter h followed by the pitch letter. Within the *complex glyph descriptor*, each *basic glyph descriptor* has its own pitch, but in the current fonts there are no glyphs with different relative pitches, so if you use a *pitch descriptor* on any of the *basic glyph descriptors* in the *complex glyph descriptor*, it is best to use the same one on all the other *basic glyph descriptors* in the same *complex glyph descriptor*. The *subpunctis and prepunctis descriptor* consists of the letters su for subpunctis or pp for prepunctis, followed optionally by a modifier letter from the following table and finally a mandatory positive number of repetitions. If the modifier letter is missing, it is a punctum.

- t ↗ tractulus
- u ↗ tractulus with episema
- v ↗ tractulus with double episema

- w, gravis
 - x, liquefescens strophæ
 - y, gravis with episema

Only subpunctis are normally used in neume classification, the prepunctis is a nabc concept to describe the rising sequence of punctis, tractulis etc. in the left low corner of some neume. While e.g. vipp2  describes the same neume as sc , the former form allows better control on how many punctis or tractulis or tractulis with episema etc. there are. Some examples: ppt3  stands for 3 raising tractulis with episema, while su1sut1sux1  stands for a punctum, followed by tractulus, followed by liquescens stropha.

The *significant letter descriptor* consists of the letters `ls`, followed by a shorthand of the significant letter or common group of them, followed by a number - a rough position relative to the *complex glyph descriptor* glyph with prepunctis and subpunctis attached to it. If more than one *significant letter descriptor* is used on the same *complex neume descriptors* for the same position, then they are ordered in the order they are written in the nabc snippet at that position. The position numbers are:

1 ↘ left upper corner	2 ↙ above the neume	3 ↗ right upper corner
4 ↙ to the left of the neume		6 ↚ to the right of the neume
7 ↙ left bottom corner	8 ↘ below the neume	9 ↛ right bottom corner

The shorthands, including the 1s prefix, which should be followed by the above mentioned position digit:

lsal ✕ altius	lsiv ✿ iusum valde	lssb ✕ sursum bene
lsam ✿ altius mediocriter	lsk ✕ klenche	lssc ✏ sursum celeriter
lsb ✕ bene	lsl ✕ levare	lssimil ✕ similiter
lsc ✏ celeriter	lslb ✕ levare bene	lssimul ✏ simul
lscm ✏ celeriter mediocriter	lslc ✏ levare celeriter	lssm ✏ sursum mediocriter
lscn ✏ coniunguntur	lslen ✏ leniter	lsst ✏ sursum tenere
lscw ✏ celeriter (wide form)	lslm ✏ levare mediocriter	lssta ✏ statim
lsd ✕ deprimatur	lslp ✏ levare parvum	lst ✏ tenere
lse ✏ equaliter	lslt ✏ levare tenere	lstb ✕ tenere bene
lseq ✏ equaliter	lsm ✏ mediocriter	lstm ✏ tenere mediocriter
lsew ✏ equaliter (wide form)	lsmoll ✏ molliter	lstw ✏ tenere (wide form)
lsfid ✏ fideliter	lsp ✏ parvum	lsv ✏ valde
lsfr ✏ frendor	lspar ✏ paratim	lsvol ✏ volubiliter
lsg ✏ gutture	lspfec ✏ perfecte	lsx ✏ expectare
lsi ✏ iusum	lspm ✏ parvum mediocriter	
lsim ✏ iusum mediocriter	lss ✏ sursum	

Finally a commented example of a nabc snippet:

```po///pe>2lse7ls13qlhh!vshhppt1sut2ql>ppu3

`---` stands for a negative horizontal skip (move to the left) by `nabcinterelementspace` and `nabclargerspace`.

~~po~~ **po** is a basic porrectus, at the default pitch (height hf).

//// stands for a horizontal skip (move to the right) by two times nabclargerspace.

`pe>21se7ls13 e-cl` stands for the 3rd augmentive liquefusus form of podatus (epiphonus with tractulus, see the following page) at the default pitch, with equaliter in the low left corner and leveare in the upper right corner.

the default pitch, with ~~equus~~ in the low left corner and levare in the upper right corner.

ql>ppu3  is a 3 loop liquefent quilisma with 3 tractulis with episema before it.

| Names of Symbols   | Simple Symbols | Symbols differentiated by              |                            |                    |                                  | Symbols indicating a special meaning |                  |           |
|--------------------|----------------|----------------------------------------|----------------------------|--------------------|----------------------------------|--------------------------------------|------------------|-----------|
|                    |                | the addition                           |                            | the modification   |                                  | melodic                              | phonetic         |           |
|                    |                | of letters                             | of episemas                | of the mark        | of the grouping (neumatic break) |                                      | liquef. augment. | dimi nut. |
| virga              | / vi           | vilsc3 vilst1 vipp1lsc2                | vi-                        |                    |                                  | / viM                                | / vi>            |           |
| tractulus          | - ta           | talsc3 talst2                          |                            |                    |                                  | / ta>                                |                  |           |
| punctum            | · pu           |                                        |                            |                    |                                  | , ,                                  | st visuisux1     |           |
| gravis             | \ gr           |                                        |                            |                    |                                  |                                      |                  |           |
| clivis             | cl             | cl1sc3 cl1st2 cl-1st2                  | cl- clS-                   | clS clS1           |                                  | / clM                                | / cl>            | / cl-     |
| pes                | pe             |                                        | pe- pe-1                   | pes                | peG                              | / peG                                | pe> pe>1 pe>2    | pe-       |
| porrectus          | po             | polsc2                                 | po- po-1                   |                    | poG                              | / po>                                |                  | / po-     |
| torculus           | to             | tolsc3 tolsc4lst3 tolst2               | to- to-1                   | toS toS1 toS2 toS3 | toG                              | / toM toM1                           |                  | / to>     |
| climacus           | ci ci1         | cilsc3 cilst2                          | ci-                        | ciS ciS1 visutisu2 | ciG ciG1                         | / ciM                                |                  | / ci>     |
| scandicus          | sc             |                                        | sc-                        | scS                | scG scG1                         | / scM1                               |                  | / sc>     |
| porrectus flexus   | pf             | pf1sc2 pf1sc2 pf1st2                   | pf-                        | pfs                | sfM                              | / pfM                                |                  | / pf-     |
| pes subbipunctis   | pesu2          | vipp1su21sc3                           | pe-su2 pe-1su2<br>pe-1sut2 | peSu2 peSut2       | toSut1                           | / vi-!ci pesu1suw1                   |                  | / to>     |
| scandicus flexus   | sf             | sflsc3                                 | sf-                        | sfS                |                                  | / sfM                                |                  | / sc>     |
| torculus resupinus | tr             | trlsc2 trlst2                          | tr-1                       | trS                | trG trG1 trG2                    | / trM                                |                  | / tr-     |
| apostropha         | ' st           |                                        | st-                        | stS                |                                  |                                      |                  | / st>     |
| distropha          | '' ds          | ds-lsx6                                | ds-                        |                    |                                  |                                      |                  | / ds>     |
| tristropha         | ''' ts         | ts-lsx6                                | ts-                        |                    |                                  |                                      |                  | / ts>     |
| trigonus           | .. tg tg1      |                                        |                            | tgS tgS1 tgS3      |                                  |                                      |                  | / ds>     |
| bigirga & trivirga | // // bv tv    |                                        | bv- tv-                    |                    |                                  |                                      |                  | / bv>     |
| pressus            | pr pi          | prlsc2 pr-lsc2 prlst2<br>pilsc2 pilst2 | pr-                        |                    |                                  | / prM                                |                  | / vs>     |
| virga strata       | vs             | vs1sc3 vs1st2                          | vs-                        |                    |                                  |                                      |                  | / or>     |
| oriscus            | or             |                                        |                            |                    |                                  |                                      |                  | / ta>     |
| salicus            | sa sa1         | salsfr1 saM1sfr1                       | sa- sa-1                   |                    | saG                              | saM saM1 saM2                        | sa> sa->1        | / pe>2    |
| pes quassus        | pq             | pqlsfr1                                | pq-                        |                    |                                  |                                      |                  |           |
| quilisma           | ql qi          |                                        | ql- qi-                    |                    |                                  |                                      |                  |           |
| pes stratus        | pt             |                                        |                            |                    |                                  |                                      |                  |           |

Table from Cardine's Gregorian Semiology, pp. 12-13 with nabc strings and gregall glyphs.

Table with nabc strings and corresponding gregall and gresgmodern glyphs:

|               |         |         |         |     |     |              |         |         |
|---------------|---------|---------|---------|-----|-----|--------------|---------|---------|
| bv            | //      | //      | clpp2   | ..^ | ..^ | pe-1su1suu1  | ✓       |         |
| bv-           | //      | //      | clppt1  | -^  | -^  | pe-1su1suw1  | ✓       |         |
| bv>           | ..^     | //      | clppt2  | ..^ | ..^ | pe-1su2      | ✓       |         |
| ci            | ..^     | ..^     | cl~     | ..^ | ..^ | pe-1sut1sux1 | ✓       |         |
| ci-           | ..^     | ..^     | ds      | ..^ | ..^ | pe-1sut2     | ✓       |         |
| ci-pp2        | ..^     | ..^     | ds-     | ..^ | ..^ | pe-1sut3     | ✓       |         |
| ci1           | ..^     | ..^     | ds>     | ..^ | ..^ | pe-1suw2     | ✓       |         |
| ci>           | ..^     | ..^     | dslsx6  | ..^ | ..^ | missing      | pe->    |         |
| ciG           | ..^     | ..^     | gr      | ..^ | ..^ | pe->1        | ✓       |         |
| ciG1          | ..^     | ..^     | gr-     | ..^ | ..^ | pe-su1sut1   | ✓       |         |
| ciM           | ..^     | ..^     | gr-lsc6 | ..^ | ..^ | pe-su2       | ✓       |         |
| ciM-          | missing | ..^     | lsal    | ..^ | ..^ | pe-su2suy1   | ✓       |         |
| ciS           | ..^     | ..^     | lsam    | ..^ | ..^ | pe-su3sut1   | ✓       |         |
| ciS1          | ..^     | ..^     | lsb     | ..^ | ..^ | pe>          | ✓       |         |
| ciSppt1       | ..^     | ..^     | lsc     | ..^ | ..^ | pe>1         | ✓       |         |
| cilsc3        | ..^     | missing | lscm    | ..^ | ..^ | pe>2         | ✓       |         |
| cipp1         | ..^     | ..^     | lscm    | ..^ | ..^ | pe>ppt1      | missing |         |
| cipp1lsc3     | ..^     | missing | lscw    | ..^ | ..^ | peG          | ✓       |         |
| cippu1        | ..^     | ..^     | lsd     | ..^ | ..^ | peS          | ✓       |         |
| cippu1lsc3    | ..^     | missing | lse     | ..^ | ..^ | peSsu1sux1   | ✓       |         |
| ci~           | ..^     | ..^     | lseq    | ..^ | ..^ | peSsu2       | ✓       |         |
| cl            | ..^     | ..^     | lsew    | ..^ | ..^ | peSsut1su2   | ✓       |         |
| cl!cl>1       | ..^     | ..^     | lsfid   | ..^ | ..^ | missing      | peSsut2 |         |
| cl!cls        | ..^     | ..^     | lsfr    | ..^ | ..^ | peSsut3      | ✓       |         |
| cl!clsut2     | ..^     | ..^     | lsg     | ..^ | ..^ | pept1        | ✓       |         |
| cl!pi         | ..^     | ..^     | lsi     | ..^ | ..^ | pesu1sut1    | ✓       |         |
| cl!pilsc1lst3 | ..^     | missing | lsim    | ..^ | ..^ | pesu1sut3    | ✓       |         |
| cl!pilsc2     | ..^     | missing | lsiv    | ..^ | ..^ | pesu1suu1    | ✓       |         |
| cl!po         | ..^     | ..^     | lsk     | ..^ | ..^ | pesu1suw1    | ✓       |         |
| cl!po-1       | ..^     | ..^     | lsl     | ..^ | ..^ | pesu1sux1    | ✓       |         |
| cl!po>        | ..^     | ..^     | lslb    | ..^ | ..^ | pesu2        | ✓       |         |
| cl!po>ppt1    | ..^     | ..^     | lslc    | ..^ | ..^ | pesu2suv1    | ✓       |         |
| cl!pr         | ..^     | ..^     | lslen   | ..^ | ..^ | missing      | pesu3   |         |
| cl-           | ..^     | ..^     | lslm    | ..^ | ..^ | pesu2        | ✓       |         |
| cl!pi         | ..^     | ..^     | lslp    | ..^ | ..^ | pe~          | ✓       |         |
| cl-1su2       | ..^     | ..^     | lslt    | ..^ | ..^ | pf           | ✓       |         |
| cl->          | ..^     | ..^     | lsm     | ..^ | ..^ | pf!cl-       | ✓       |         |
| cl->1         | ..^     | ..^     | lsmoll  | ..^ | ..^ | pf!clM-      | ✓       |         |
| cl-lst2       | ..^     | missing | lsp     | ..^ | ..^ | pf!clM-ppt1  | ✓       |         |
| cl-ppt1       | ..^     | missing | lspar   | ..^ | ..^ | pf!cl~       | ✓       |         |
| cl-ppt2       | ..^     | ..^     | lspfec  | ..^ | ..^ | pf!cl~ppt1   | ✓       |         |
| cl>           | ..^     | ..^     | lspm    | ..^ | ..^ | pf!pr        | ✓       |         |
| cl>1          | ..^     | ..^     | lss     | ..^ | ..^ | pf-          | ✓       |         |
| cl>pp2        | missing | ..^     | lssb    | ..^ | ..^ | pf1lsc2      | ✓       | missing |
| cl>ppt2       | ..^     | ..^     | lssc    | ..^ | ..^ | pf>          | ✓       |         |
| clM           | ..^     | ..^     | lssimil | ..^ | ..^ | pfG          | ✓       |         |
| clM-          | ..^     | ..^     | lssimul | ..^ | ..^ | missing      | pfM     |         |
| clMpp2        | missing | ..^     | lssm    | ..^ | ..^ | pfM-         | ✓       |         |
| clS           | ..^     | ..^     | lsst    | ..^ | ..^ | missing      | pfMsut1 |         |
| clS-          | ..^     | ..^     | lssta   | ..^ | ..^ | pfMsuu1      | ✓       |         |
| clS-1         | ..^     | ..^     | lst     | ..^ | ..^ | pfS          | ✓       |         |
| clS-su2       | ..^     | ..^     | lstb    | ..^ | ..^ | pflsc2       | ✓       | missing |
| clS1          | ..^     | ..^     | lstm    | ..^ | ..^ | pflst2       | ✓       | missing |
| clSsu1sut1    | ..^     | ..^     | lstw    | ..^ | ..^ | missing      | pf~     |         |
| clSsu2        | ..^     | ..^     | lsv     | ..^ | ..^ | missing      | pi      |         |
| clSsut1       | ..^     | ..^     | lsvol   | ..^ | ..^ | missing      | pi>     |         |
| clSsut1sux1   | missing | ..^     | lsx     | ..^ | ..^ | missing      | piM     | missing |
| clSsut2       | ..^     | ..^     | or      | ..^ | ..^ | missing      | pilsc2  |         |
| clSsux1       | ..^     | ..^     | or>     | ..^ | ..^ | missing      | pilst2  |         |
| clllsc3       | ..^     | missing | pe      | ..^ | ..^ | po           | ✓       |         |
| clllst2       | ..^     | missing | pe!     | ..^ | ..^ | po-          | ✓       |         |
|               |         | missing | pe-     | ..^ | ..^ | po-1         | ✓       |         |

|                |         |                  |                |    |                |   |
|----------------|---------|------------------|----------------|----|----------------|---|
| po-1pp2su1sux1 | N.      | qi-su1sux1       | w,             | w, | sa!cl>         |   |
| po-1su1sux1    | N.      | qi-su2           | w,             | w, | sa!clS-1       |   |
| po-1su2        | N.      | qi-sut2          | w,             | w, | sa!clS1        |   |
| po-2           | missing | qi>              | w,             | w, | sa!clS1lsc2    |   |
| po>            | N       | qi>ppt1          | w,             | w, | sa-            |   |
| poG            | N       | qippt1           | w,             | w, | sa-1           |   |
| poG-           | N       | qisut1sux1       | w,             | w, | sa->1          |   |
| poG-1          | missing | ql               | w,             | w, | sa-lsfr1       |   |
| poG1           | missing | ql!cl            | w,             | w, | sa1            |   |
| polsc2         | N       | ql!cl!cl>        | w,             | w, | sa1!cl->       |   |
| posu2          | N.      | ql!cl!cl>ppt1    | w,             | w, | sa1!cl>        |   |
| po~            | N       | ql!cl!pi         | w,             | w, | sa>            |   |
| pp1            | .       | ql!cl!pippt1     | w,             | w, | sa>1           |   |
| pp2            | .       | ql!cl-           | w,             | w, | sa>2           |   |
| pp3            | .       | ql!cl->          | w,             | w, | saG            |   |
| pp4            | .       | ql!cl->ppt1      | w,             | w, | saM            |   |
| pp5            | missing | ql!cl-ppt1       | w,             | w, | saM-1          |   |
| ppt1           | -       | ql!cl>           | w,             | w, | saM-4          |   |
| ppt2           | -       | ql!cl>ppt1       | w,             | w, | saM1           |   |
| ppt3           | -       | ql!clM           | w,             | w, | saM2           |   |
| ppt4           | -       | ql!clMppt1       | w,             | w, | saM3           |   |
| ppt5           | -       | ql!cls           | missing        | w, | saM4           |   |
| ppu1           | -       | ql!cls-2ppt1     | w,             | w, | salsfr1        |   |
| ppu2           | -       | ql!cls-2ppt1sut1 | w,             | w, | sa~            |   |
| ppu3           | -       | ql!cls-2sut1     | w,             | w, | sc             |   |
| ppu4           | -       | ql!clppt1        | w,             | w, | sc-            |   |
| ppu5           | -       | ql!pf            | w,             | w, | sc-1           |   |
| pq             | ✓       | ql!po            | w,             | w, | sc1            |   |
| pq!cl          | ✓       | ql!po-1          | w,             | w, | sc>            |   |
| pq!cl-         | ✓       | ql!po-1ppt1      | w,             | w, | scG            |   |
| pq!cl>         | ✓       | ql!po>           | w,             | w, | scG-1          |   |
| pq-            | ✓       | ql!poppt1        | w,             | w, | scG1           |   |
| pq>            | ✓       | ql!po~           | w,             | w, | scM            |   |
| pqS            | ✓       | ql!po~ppt1       | w,             | w, | scM1           |   |
| pqS-           | missing | ql!vs            | w,             | w, | scM2           |   |
| pqS>           | ✓       | ql!vsppt1        | w,             | w, | scS            |   |
| pqlsfr1        | ✓       | missing          | ql!vsppt1su2   | w, | sc~            |   |
| pr             | ✓       | ql!vsppt1sut2    | w,             | w, | sf             |   |
| pr-            | ✓       | ql!vssu2         | w,             | w, | sf-            |   |
| pr-lsc3        | ✓       | missing          | ql!vssut2      | w, | sf>            |   |
| pr>            | ✓       | ql-ppt1          | w,             | w, | sfG            |   |
| prM            | ✓       | ql-ppt1su1sut2   | w,             | w, | sfG1           |   |
| prlsc2         | ✓       | missing          | ql-ppt1su1sux1 | w, | sfM            |   |
| prlst2         | ✓       | missing          | ql-ppt1su2     | w, | sfM1           |   |
| pr~            | ✓       | ql-ppt1sut2uu1   | w,             | w, | sfS            |   |
| pt             | ✓       | ql-ppt1suu2      | w,             | w, | sflsc3         |   |
| pu             | .       | ql-su1sut2       | w,             | w, | st             | , |
| qi             | w       | ql-su1suu2       | w,             | w, | st-            | , |
| qi!cl          | w       | ql-su1sux1       | w,             | w, | st>            | , |
| qi!cl-         | ✓       | ql-su2           | w,             | w, | stS            | , |
| qi!cl>         | w       | ql-sut1sux1      | w,             | w, | su1            | . |
| qi!clppt1      | w       | ql-sut2          | w,             | w, | su1sut1        | - |
| qi!po          | w       | ql-sut2uu1       | w,             | w, | su1sut1su1sut1 | - |
| qi!vs          | w       | ql-suu2          | w,             | w, | su1sut1su2     | - |
| qi!vsppt1      | w       | ql>              | w,             | w, | su1sut1sux1    | - |
| qi!vsppt1su2   | w       | ql>ppt1          | w,             | w, | su1sut1suy1    | - |
| qi!vssu2       | w       | qlppt1           | w,             | w, | su1sut2        | - |
| qi-            | w       | qlsut2           | w,             | w, | su1sut2su1     | - |
| qi-ppt1su1sut2 | -w      | sa               | w,             | w, | su1sut3        | - |
| qi-su1sut2     | w       | sa!cl            | w,             | w, | su1suum1       | - |
|                |         | sa!cl-           | w,             | w, | su1suum1su1    | - |



|            |         |            |  |        |  |         |
|------------|---------|------------|--|--------|--|---------|
| visut1su2  |         | visut3suw1 |  | vs-    |  | r       |
| visut1sux1 |         | visut3suy1 |  | vs->   |  |         |
| visut2     |         | visut4     |  | vs>    |  |         |
| visut2su2  |         | visuu1su2  |  | vslsc3 |  |         |
| visut2sux1 | missing | visuu2su2  |  | vslt2  |  |         |
| visut2suy1 |         | visuv1su2  |  | vs~    |  |         |
| visut3     |         | vs         |  |        |  | missing |

# manuscript sources of the gregall font

The list of glyphs uses following abbreviations for manuscript references; the page number is always for the start of some antiphon, responsory, mass propers, even when the actual neume is on a later page. At the end of lines, GT stands for Graduale Triplex, Solesmes, 1979, OT for Offertoriale Triplex, Solesmes, 1985, AM for Antiphonale Monasticum, Solesmes, 1934, ARII for Antiphonale Romanum II, Solesmes, 2009 and NR for Nocturnale Romanum, Hartker Verlag, 2002, followed by page number which also contains the corresponding propers, antiphons or responsories.

Most of the glyphs taken from the e-codices Virtual Manuscript Library of Switzerland, <http://www.e-codices.unifr.ch/en>, with permission from Stiftsbibliothek, St. Gallen <http://www.stib.ch/> and Stiftsbibliothek, Einsiedeln <http://kloster-einsiedeln.ch/>, the picture fragments from there are only present in the font source file to help drawing the glyphs.

## Cantatorium codex 359

C1 = [http://www.e-codices.unifr.ch/en/download/csg-0359\\_001/max](http://www.e-codices.unifr.ch/en/download/csg-0359_001/max)  
C25U Universi GT16  
C26A Alleluia Ostende GT16  
C26D Dilexisti iustitiam GT499  
C27E Ex Sion GT18  
C27Q Qui sedes GT22  
C28A Alleluia. Excita Domine GT23  
C28T Tollite portas GT25  
C32B Benedictus es in firmamento GT664  
C35Q Qui regis Israel intende  
C37A Alleluia. Veni, Domine GT36  
C38T Tecum principium GT42  
C38A Alleluia Dominus dixit GT43  
C39B Benedictus qui GT45  
C40A Alleluia Dies sanctificatus GT49  
C40V Viderunt omnes GT48  
C42A Alleluia. Hic est discipulus GT636  
C43A Anima nostra GT453  
C43L Laus tibi Christe  
C44E Ecce sacerdos GT486  
C44D Diffusa est gratia GT408  
C45S Speciosus forma GT54  
C46O Omnes de Saba GT57  
C46B Benedictus Dominus GT257  
C46A Alleluia Vidimus stellam GT58  
C47I Iuravit Dominus GT486  
C49I Inveni David GT445  
C50G Gloriosus Deus GT456  
C52T Timebunt gentes GT265  
C52P Posuisti Domine GT477  
C53S Suscepimus Deus GT360  
C53A Alleluia. Adorabo ad templum GT270  
C54A Audi filia GT417  
C56B Beatus vir GT475  
C56D Desiderium animae GT432  
C58A Adiutor GT69  
C59D De profundis GT673  
C60S Sciant gentes GT88  
C60C Commovisti Domine GT89  
C61T Tu es Deus GT275  
C61I Iubilate Domino GT185  
C62M Miserere mei GT63  
C64Q Qui habitat GT73  
C67D Dirigatur GT340  
C71L Laudate Dominum GT187  
C73P Propitius esto GT288  
C74B Bonum est GT327  
C780 Oculi omnium GT343  
C79L Leatatus sum GT336  
C80Q Qui confidunt GT109  
C81E Exsurge Domine GT114  
C82B Beata gens GT333  
C82R Respice Domine GT320  
C82V Venite filii GT298  
C84T Tibi Domine GT118  
C87E Exaltabo te GT112  
C88T Tollite hostias GT272  
C89T Tenuisti manum GT133  
C95D Domine exaudi GT172  
C97D Domine audivi  
C100C Crux fidelis GT182  
C103C Cantemus Domino GT186  
C104V Vinea facta GT188  
C107A Alleluia Pascha nostrum GT197  
C118C Clamaverunt iusti GT454  
C122I In omnem terram GT427  
C123C Constitues eos GT426  
C134B Benedicte Dominum GT608

## C137A Audi filia GT406

C139A Alleluia Benedictus es GT375  
C139B Benedictus es GT372  
C145L Liberasti nos GT366  
C148A Alleluia Domine refugium GT321  
C148Q Alleluia Quoniam Deus GT327  
C148V Alleluia Venite GT324  
C149A Alleluia. Paratum cor meum GT344  
C150L Alleluia Laetatus GT19  
C153S Alleluia Sancti tui, Domine, benedicent GT463  
C154A Alleluia Gaudete iusti GT430  
**Einsiedeln codex 121**  
E1 = [http://www.e-codices.unifr.ch/en/download/sbe-0121\\_001/max](http://www.e-codices.unifr.ch/en/download/sbe-0121_001/max)  
E2R Respice in me OT5  
E2D Dominus dabit GT17  
E3D Deus tu convertens GT20  
E10P Prope est Dominus GT35  
E11C Confortamini OT9  
E13P Prope es tu GT24  
E16B Benedictus es  
E20E Exsulta satis GT28  
E23T Tollite portas OT14  
E26L Lux fulgebit GT44  
E29E Exsulta filia sion GT47  
E31T Tui sunt caeli OT18  
E33V Viderunt omnes GT50  
E34I In virtute tua OT152  
E35E Elegerunt apostoli OT161  
E39E Exiit sermo inter GT636  
E42A Anima nostra GT466  
E51R Reges tharsis OT21  
E69P Posuisti Domine GT477  
E75G Gaudeamus omnes GT545  
E82D De profundis GT673  
E92I Immutemur GT65  
E104S Sicut oculi GT77  
E125P Precatus est Moyses GT317  
E130I Illumina oculos GT290  
E131O Oculi mei semper GT96  
E133I Iustitiae Domini GT309  
E147L Laetare Ierusalem GT108  
E148L Laudate Dominum GT110  
E155B Benedicte gentes Domino GT231  
E158D Domine ad adiuvandum OT42  
E161S Sipientes venite GT114  
E162F Factus est Dominus GT119  
E166C Confitebor tibi Domine OT44  
E173E Eripe me GT129  
E193D Domine, exaudi orationem OT53  
E195D Dominus Iesus GT165  
E205R Resurrexi GT196  
E248V Viri Galilaei GT235  
E255S Spiritus Domini GT252  
E256C Confirma hoc OT79  
E262S Sapientiam sanctorum GT452  
E272M Mihi autem nimis OT128  
E293V Vindica Domine  
E320I Inclina aurem GT300  
E327O Oravi Deum meum OT107  
E324R Respice, Domine GT320  
E336I In voluntate tua GT346  
E339S Si iniquitates GT350  
E373B Benedictus es GT372  
**Hartker codex 390/391**  
H1 = [http://www.e-codices.unifr.ch/en/download/csg-0390\\_001/max](http://www.e-codices.unifr.ch/en/download/csg-0390_001/max)  
H195 = [http://www.e-codices.unifr.ch/en/download/csg-0391\\_001/max](http://www.e-codices.unifr.ch/en/download/csg-0391_001/max)  
H16A Aspiciebam in visu NR111  
H16M Missus est Gabriel NR111

H16V Ave Maria NR113  
H22S Sicut mater consolator NR127  
H23E Egregieatur Dominus de Samaria NR129  
H25E Ecce mitto Angelum AM201  
H26G Grata facta est NR25\*  
H28Q Qui venturus est NR134  
H29E Ecce radix Jesse NR137  
H32N Nascetur nobis NR149  
H33I Iuravi dicit Dominus NR151  
H34F Festina ne tardaveris NR130  
H35G Germinaverunt campi NR144  
H36A Adnuntiatum est  
H48B Beata et venerabilis  
H50Q Quem vidistis pastores AM240  
H72V Venit lumen tuum AM290  
H72H Hodie in Iordane NR229  
H73O Omnes de Saba NR237  
H73S Stella ista NR242  
H74I Illuminare, illuminare NR236  
H75I In columbae specie NR231  
H75V Videntes stellam NR242  
H77S Stella ista AM291  
H77A Ab Oriente AM297  
H87E Exaudi Deus  
H103S Spes nostra salus NR512  
H103M Magnus Dominus NR516  
H104T Te Deum patrem  
H112S Stans a dextris AM798  
H114C Corde et animo AM1033  
H114N Nativitas tua AM1035  
H118G Gaude, Maria Virgo NR130\*  
H119C Cum inducerent  
H179L Liberavit Dominus ARII183  
H179A Amicus meus osculi NR381  
H179I Iudas mercator NR382  
H266D Domino si in tempore  
H269S Spiritus Sanctus  
H269D Dum complerentur NR493  
H269R Repleti sunt omnes NR494  
H270S Spiritus Domini AM520  
H271L Loquebantur variis AM521  
H367V Viri sancti NR [54]  
H424M Magnificat  
H428A Ascendens Iesus AM593  
**St. Gall codex 339**  
G1 = [http://www.e-codices.unifr.ch/en/download/csg-0339\\_033/max](http://www.e-codices.unifr.ch/en/download/csg-0339_033/max)  
G56 = [http://www.e-codices.unifr.ch/en/download/csg-0339\\_088/max](http://www.e-codices.unifr.ch/en/download/csg-0339_088/max)  
G57 = [http://www.e-codices.unifr.ch/en/download/csg-0339\\_088a/max](http://www.e-codices.unifr.ch/en/download/csg-0339_088a/max)  
G58 = [http://www.e-codices.unifr.ch/en/download/csg-0339\\_089/max](http://www.e-codices.unifr.ch/en/download/csg-0339_089/max)  
G8E Exulta satis OT11  
G9A Alleluia Veni Domine GT36  
G11P Puer natus est GT47  
G11V Viderunt omnes GT48

G12T Tui sunt caeli OT18  
G20I Iubilate Deo universa terra GT227  
G22D Domine quinque talenta GT515  
G25P Posuisti Domine GT477  
G30E Exsurge quare obdormis GT91  
G35D Domine vivifica me OT31  
G42D Domine Deus salutis OT112  
G44P Precatus est Moyses GT317  
G45D Domine in auxilium OT106  
G51I Intende voci GT280  
G51S Si ambulabem GT125  
G57F Factus est Dominus GT119  
G89D Domine Deus in simplicitate OT159  
G113A Alleluia. Dilexit Andream GT625  
G116C Cantabo Domino GT283  
G126D Alleluia. Domine Deus meus GT282  
G128A Alleluia. Attendite popule  
G132A Alleluia. Mirabilis Dominus GT462  
G132V Alleluia. Vox exultationis  
G139A Asperges me Domine  
G140O Oremus dilectissimi nobis  
G141O Omnipotens Deus  
**St. Gall codex 376**  
N1 = [http://www.e-codices.unifr.ch/en/download/csg-0376\\_001/max](http://www.e-codices.unifr.ch/en/download/csg-0376_001/max)  
N39H Hodie cantandus est nobis  
N53A Audite fratres dilecti  
N59N Nativitatem venerandam  
N65G Gloriatis laus tua Deus  
N67G Gloria in excelsis Deo  
N68G Gloria in excelsis Deo  
N69G Gloria in excelsis Deo  
N73G Kyrie eleison  
N86D Dilexisti iustitiam GT498  
N100T Tui sunt caeli OT18  
N171D Deus exaudi orationem GT107  
N221N Alleluia. Non vos relinquam GT242  
N270A Alleluia. Benedictus es GT375  
N293A Alleluia. Sancti tui, Domine, benedicent GT463  
N296V Alleluia. Veni Sancte Spiritus GT263  
N363C Carmen suo dilecto  
N368L Letamente canamus Domino nostro  
N372O O quam mira sunt Deus  
**St. Gall codex 374**  
A1 = [http://www.e-codices.unifr.ch/en/download/csg-0374\\_001/max](http://www.e-codices.unifr.ch/en/download/csg-0374_001/max)  
A17T Tui sunt caeli OT18  
A22V Vox in Rama GT638  
A26F Fili quid fecisti GT51  
A56C Custodi me Domine GT304  
A127E Exultabunt sancti OT143  
A167O Oravi Deum meum OT107  
A174A Alleluia. Eripe me GT308  
**Bamberg, lit. 6, Gradual of St. Emmeram**  
B9v = <http://bsbsbb.bsb.lrz-muenchen.de/~db/0000/sbb00000128/images/index.html?id=00000128&no=19&seite=22&signatur=Msc.Lit.6>  
B9vA Anima nostra GT466

|                  |           |               |               |      |
|------------------|-----------|---------------|---------------|------|
| <b>virga</b>     |           |               |               |      |
| vi               | C780      | tu            |               |      |
| vilsc3           | C82R      | testamentum   |               |      |
| vilst1           | E29E      | rex           | 2.166x        |      |
| vi-              | C80Q      | montes        |               |      |
| vi>              | C27E      | eius          |               |      |
| vi-lst3          | H50Q      | Quem          |               |      |
| vi->             | E20E      | santus        | 2.166x        |      |
| <b>tractulus</b> |           |               |               |      |
| ta               | C26A      | Domine        |               |      |
| talsc3           | E262S     | saeculum      | 2.166x        |      |
| talst2           | C56D      | Desiderium    |               |      |
| ta-              | C81E      | antiquis.     |               |      |
| ta>              | C25U      | et            |               |      |
| su1 Cf. ✓        | pesu2suv1 |               |               |      |
| <b>punctum</b>   |           |               |               |      |
| pu               | C137A     | Audi          |               |      |
| Cf. ✓            |           |               |               |      |
| Cf. ✓            |           |               |               |      |
| <b>gravis</b>    |           |               |               |      |
| gr               | H271L     | Loquebantur   |               |      |
| gr-              | H270S     | Spiritus      |               |      |
| gr-lsc6          | H270S     | replevit      |               |      |
| <b>clivis</b>    |           |               |               |      |
| cl               | C780      | esperant      |               |      |
| cllsc3           | C26A      | nobis         |               |      |
| cllst2           | C25U      | exspectant    |               |      |
| cl-lst2          | C52P      | pretiosos.    |               |      |
| cl-              | C780      | omnium        |               |      |
| cls-             | C81E      | opem          |               |      |
| c1S              | C780      | opportuno.    |               |      |
| cls1             | H424M     | potentiam     |               |      |
| c1M              | C148V     | nostro        |               |      |
| Cf. ✓            | cl>       |               |               |      |
| ✓                | cl>1      | H36A          | virginis      |      |
| Cf. ✓            | vi>       |               |               |      |
| ✓                | cl->1     | H50Q          | natum         |      |
| ✓                | cl->      | H50Q          | angelorum     |      |
| ✓                | c1M-      | C27Q          | super         |      |
| ✓                | cls-1     | H428A         | navem         |      |
| <b>pes</b>       |           |               |               |      |
| pe               | C80Q      | Domine        |               |      |
| pe-              | C80Q      | aeternum      |               |      |
| pe-1             | C64Q      | Scapulis      |               |      |
| peS              | C780      | in            |               |      |
| peG              | B9vA      | erepta        | 0.5x          |      |
| Cf. ✓            | peG       |               |               |      |
| ✓                | pe>       | C100C         | germine       |      |
| ✓                | pe>1      | C27E          | eius          |      |
| ✓                | pe>2      | C71L          | misericordia  |      |
| Cf. ✓            | ta>       | N296V         | tuorum        |      |
| ✓                | pe->1     | H35G          | Germinaverunt | 1.7x |
| <b>porrectus</b> |           |               |               |      |
| po               | C139B     | super         |               |      |
| polsc2           | C82R      | iudica        |               |      |
| po-              | G20I      | anime         | 0.85x         |      |
| po-1             | C26A      | tuum          |               |      |
| poG              | C40V      | salutare      |               |      |
| po>              | C80Q      | commovebitur  |               |      |
| po~              | C58A      | aeternum      |               |      |
| poG-             | A1670     | meum          |               |      |
| posu2            | C460      | gloria        |               |      |
| po-1su2          | H269R     | alleluia      |               |      |
| <b>torculus</b>  |           |               |               |      |
| to               | C780      | Domine        |               |      |
| tolsc3           | C39B      | nomine        |               |      |
| tolsc4lst3       | E125P     | Domine,       | 2.166x        |      |
| tolst2           | C74B      | misericordiam |               |      |
| to-              | G44P      | animaes       |               |      |
| to-1             | C139A     | nostrorum     |               |      |
| toS              | C38A      | hodie         |               |      |
| ✓                | toS1      | E205R         | Resurrexi,    | 0.5x |

|       |                   |                                |               |        |
|-------|-------------------|--------------------------------|---------------|--------|
| ✓     | toS2              | E161S                          | Sipientes     | 1.75x  |
| ✓     | toS3              | C104V                          | circumfodit   |        |
| ✓     | toG               | G12T                           | eius          |        |
| ✓     | toM               | C49I                           | servum        |        |
| ✓     | toM1              | H22S                           | auxilium      | 1.71x  |
| ✓     | toM3              | C39B                           | mirabile      |        |
| ✓     | to>               | C26A                           | misericordiam |        |
| Cf. ✓ | pe>               |                                |               |        |
| ✓     | toS3lst2          | C59D                           | tuae          |        |
| ✓     | pq!cl-            | C87E                           | sanasti       | 2.166x |
| ✓     | to>1              | E130I                          | obdormiam     | 2.166x |
| ✓     | to->              | E158D                          | respxit       | 2.166x |
| ✓     | toS2sux1          | C460                           | Surge         |        |
|       | <b>climacus</b>   |                                |               |        |
| ✓     | ci                | C26A                           | tuum          |        |
| ✓     | ci1               | G73P                           | gentes        |        |
| ✓     | cilsc3            | C74B                           | tuo           |        |
| ✓     | ci-               | C81E                           | nos           |        |
| ✓     | ciS               | C81E                           | Domine        |        |
| ✓     | ciS1              | C139A                          | Deus          |        |
| ✓     | visut1su2         | C53A                           | Adorabo       |        |
| ✓     | ciG               | C64Q                           | lapidem       |        |
| ✓     | ciG1              | C42A                           | ille          |        |
| ✓     | ciM               | C154A                          | Alleluia      |        |
| ✓     | ci>               | C460                           | orta          |        |
| ✓     | cl>               | C79L                           | domum         |        |
| ✓     | visuv1su2         | C35Q                           | nos           |        |
| ✓     | visut3            | C38T                           | meo           |        |
| ✓     | visu1suu1         | C26D                           | laetitia.     |        |
| ✓     | visut4            | C25U                           | me.           |        |
| ✓     | cl-1su2           | C40A                           | magna         |        |
| ✓     | visu1sut2         | C43L                           | Domine        |        |
| ✓     | visu1suv1         | C53S                           | terrae.       |        |
| ✓     | visuu1su2         | C56D                           | eius          |        |
| ✓     | visuu2su2         | H103S                          | salus         |        |
| ✓     | vi-suu2su2        | H103S                          | o             |        |
| ✓     | visu2suw1         | G113A                          | Alleluia      | 0.85x  |
| ✓     | visut2su2         | G128A                          | Alleluia      | 0.85x  |
| ✓     | visut3suw1        | C153S                          | dicent.       |        |
| ✓     | visuisut1sux1     | G126D                          | salvum        | 0.85x  |
| ✓     | visuisut1su2      | N39H                           | puer          |        |
| ✓     | visuisut1su1suti1 | N39H                           | generavit     |        |
| ✓     | vi-suisutisu2     | N39H                           | enim          |        |
| ✓     | visut1sux1        | N59N                           | filium        |        |
| ✓     | clSsu1suti1       | N65G                           | tui           |        |
| ✓     | vi-su4            | N68G                           | Amen.         |        |
| ✓     | vi-suisut2su1     | N73K                           | Christe       |        |
| ✓     | visuisut1suy1     | N221N                          | Alleluia.     |        |
| ✓     | visut3suy1        | N293A                          | dicent.       |        |
| ✓     | visut2suy1        | N363C                          | sacro         | 1.25x  |
| ✓     | visu5             | N368L                          | fornacibus    | 1.25x  |
| ✓     | visuisu1su2       | N372D                          | erogatione    | 1.25x  |
| ✓     | vi-suisu2         | A174A                          | meus          |        |
| ✓     | vi-suisu1su1      | A174A                          | Alleluia.     |        |
| ✓     | vi-sut2           | H74I                           | illuminare    |        |
| ✓     | clSsu2            | C46A                           | eius          |        |
| ✓     | vi-su1su2         | H75I                           | sanctus       |        |
| ✓     | clSsut2           | E51R                           | suscipient    | 2.0x   |
| ✓     | vi-sut3           | H269D                          | dicentes      |        |
| ✓     | vi-suisut1 Cf. ✓  | vi-suisut1su2 minus subpunctis |               |        |
| ✓     | vi-su2suti1       | N296V                          | alleluia      |        |
| ✓     | vi-su1sux1        | E373B                          | Sanctum       | 2.133x |
| ✓     | vi-sut4           | H16A                           | servient      | 1.7x   |
| ✓     | vi-suu2           | H23E                           | ecce          | 1.7x   |
| ✓     | vi-suu3           | H35G                           | veniet        | 1.7x   |
| ✓     | visu2sux1         | H48B                           | mater         | 1.7x   |
| ✓     | vi-sut1su2        | H22S                           | elegi         | 1.71x  |
| ✓     | vi-su1suu1        | H114C                          | gloriam       | 1.71x  |
| ✓     | vi-su1su1su2      | H114N                          | nobis         | 1.71x  |
|       | <b>scandicus</b>  |                                |               |        |
| ✓     | sc                | G11P                           | imperium      | 0.85x  |
| ✓     | sc1 Cf. ✓         | vipp4 minus first punctum      |               |        |
| ✓     | sc-               | C123C                          | terram        |        |

|                           |                 |       |                   |
|---------------------------|-----------------|-------|-------------------|
| ✓                         | scS             | C154A | Alleluia          |
| ✓                         | scG             | H179I | Iudas             |
| ✓                         | scG1            | C52P  | Posuisti          |
| ✓                         | scM1            | C67D  | Domine            |
| ✓                         | sc>             | C26A  | Alleluia          |
| Cf. ✓                     | pe>2            |       |                   |
| ✓                         | vi-pp2          | C26A  | Domine            |
| ✓                         | vi-ppt3         | C27E  | veniet.           |
| ✓                         | scM2            | C44E  | Ecce              |
| ✓                         | vi>ppt3         | E2R   | non               |
| ✓                         | c1>ppt2         | H730  | annuntiantes      |
| ✓                         | vi-!vi>vi       | E155B | Benedicite        |
| ✓                         | vipp3           | G1400 | ae                |
| ✓                         | vi-pp4          | C154A | rectos            |
| ✓                         | vi-!vi-!vi      | H118G | erubescat         |
| ✓                         | vipp4           | A127E | eum               |
| ✓                         | vi>ppt2         | H75V  | apertis           |
| <hr/>                     |                 |       |                   |
| <b>porrectus flexus</b>   |                 |       |                   |
| ✓                         | pf              | C27E  | sacrificia        |
| ✓                         | pflsc2          | C58D  | intendentes       |
| ✓                         | pflsc2          | C61I  | Ipse              |
| ✓                         | pflst2          | C122I | fines             |
| ✓                         | pf-             | C81E  | antiquis.         |
| ✓                         | pfS             | G116C | tribuit           |
| ✓                         | sfM             | E248V | alleluia,         |
| ✓                         | pfM             | E39E  | manere            |
| ✓                         | pf>             | C95D  | manducare         |
| Cf. ✓                     | po>             |       |                   |
| ✓                         | pfMsut1         | E34I  | eum               |
| <hr/>                     |                 |       |                   |
| <b>pes subbipunctis</b>   |                 |       |                   |
| ✓                         | pesu2           | C81E  | antiquis.         |
| ✓                         | vipp1su2lsc3    | C61T  | solus:            |
| ✓                         | pe-su2          | H73S  | adoraverunt       |
| ✓                         | pe-1su2         | C64Q  | habitat           |
| ✓                         | pe-1sut2        | H104T | confitemur        |
| ✓                         | peSu2           | A17T  | eius              |
| ✓                         | peSut2          | C27E  | sanctos           |
| ✓                         | vipp1su2        | C56B  | benedicetur.      |
| ✓                         | toS2sut1        | C139A | Alleluia          |
| ✓                         | vi-!ci          | E272M | cognovisti        |
| ✓                         | pesu1suw1       | G8E   | plebem            |
| ✓                         | pe-su1sut1      | N296V | alleluia          |
| ✓                         | pe-su2suy1      | N296V | alleluia          |
| ✓                         | pe-1sut3        | H179A | malum             |
| Cf. ✓                     | to>             |       |                   |
| ✓                         | pesu1suu1       | C27E  | Deus              |
| ✓                         | pesu3           | C27Q  | regis             |
| ✓                         | vipp1su1sut1    | C40V  | omnes             |
| ✓                         | vippu1su2       | C74B  | Altissime.        |
| ✓                         | pesu1sut3       | C60S  | venti.            |
| ✓                         | pesu2suv1       | C60C  | Sana              |
| ✓                         | vippu1su2lsc3   | C32B  | caeli             |
| ✓                         | pe-1su1suu1     | C61I  | pascuae           |
| ✓                         | peSut1su1x1     | G89D  | fili              |
| ✓                         | pe-su3sut1      | N270A | saecula.          |
| ✓                         | pe-1sut1su1x1   | H72V  | orta              |
| ✓                         | peSut3          | C460  | Jerusalem         |
| ✓                         | pesut2          | H77S  | magi              |
| ✓                         | pe-1suw2        | E255S | Domini            |
| ✓                         | peSut1su2       | E13P  | Domine            |
| ✓                         | pesu1sux1       | H25E  | angelum           |
| ✓                         | pe-1su1suw1     | H29E  | deprecabuntur     |
| ✓                         | pesu1sut1 Cf. ✓ |       | minus 2 tractulis |
| <hr/>                     |                 |       |                   |
| <b>scandicus flexus</b>   |                 |       |                   |
| ✓                         | sf              | C64Q  | habitat           |
| ✓                         | sflsc3          | C27E  | Deus              |
| ✓                         | sf-             | C39B  | est               |
| ✓                         | sfS             | C97D  | Deus              |
| ✓                         | toppu1          | C103C | Cantemus          |
| Cf. ✓                     | sfM             |       |                   |
| Cf. ✓                     | sc>             |       |                   |
| ✓                         | to>pp2          | E324R | testamentum       |
| <hr/>                     |                 |       |                   |
| <b>torculus resupinus</b> |                 |       |                   |

|                     |         |       |                 |
|---------------------|---------|-------|-----------------|
| ✓                   | tr      | C25U  | edoce           |
| ✓                   | trlst2  | E69P  | eius            |
| ✓                   | tr-1    | C38T  | meo             |
| ✓                   | trS     | C58A  | Domine          |
| ✓                   | trG     | E336I | fecisti         |
| ✓                   | trG1    | G25P  | ei              |
| ✓                   | trG2    | E147L | Laetare         |
| ✓                   | trM     | E336I | resistere       |
| ✓                   | tr>     | C82V  | nonconfundentur |
| ✓                   | tr~     | C60S  | Altissimus      |
| ✓                   | tr--    | C27Q  | et              |
| ✓                   | tr--1   | C107A | Alleluia.       |
| ✓                   | trS-    | C89T  | pedes,          |
| ✓                   | trS1    | E26L  | eeiieue         |
| <hr/>               |         |       |                 |
| <b>stropha</b>      |         |       |                 |
| ✓                   | st      | C80Q  | commovebitur    |
| ✓                   | st-     | C52P  | Desiderium      |
| ✓                   | stS     | E263V | est.            |
| ✓                   | st>     | C49I  | servum          |
| <hr/>               |         |       |                 |
| <b>distropha</b>    |         |       |                 |
| ✓                   | ds      | C460  | super           |
| ✓                   | dslsx6  | C45S  | forma           |
| ✓                   | ds-     | C81E  | Domine          |
| ✓                   | ds>     | C38A  | Alleluia        |
| <hr/>               |         |       |                 |
| <b>tristropha</b>   |         |       |                 |
| ✓                   | ts      | C80Q  | Dominus         |
| ✓                   | tslsx6  | C44D  | mansuetudinem   |
| ✓                   | ts-     | C150L | ibimus          |
| ✓                   | tsM     | C62M  | anima           |
| ✓                   | ts>     | C62M  | conculcantes    |
| ✓                   | tsM-    | A26F  | ego             |
| <hr/>               |         |       |                 |
| <b>trigonus</b>     |         |       |                 |
| ✓                   | tg      | C80Q  | aeternum        |
| ✓                   | tg1     | C81E  | antiquis.       |
| ✓                   | tgS     | C139B | omnibus         |
| ✓                   | tgS1    | N171D | mei             |
| ✓                   | tgS3    | C61I  | laetitia.       |
| ✓                   | tgM     | C118C | Dominus         |
| ✓                   | tgS-    | C118C | Dominus         |
| ✓                   | tgS4    | C86D  | mei             |
| <hr/>               |         |       |                 |
| <b>bivirga</b>      |         |       |                 |
| ✓                   | bv      | C26D  | Propterea       |
| ✓                   | bv-     | C82B  | populus         |
| ✓                   | bv>     | H33I  | montes          |
| <hr/>               |         |       |                 |
| <b>trivirga</b>     |         |       |                 |
| ✓                   | tv      | C56D  | pretioso        |
| ✓                   | tv-     | C61I  | eius.           |
| <hr/>               |         |       |                 |
| <b>pressus</b>      |         |       |                 |
| ✓                   | pr      | C26A  | Alleluia        |
| ✓                   | pi      | C82R  | Domine,         |
| ✓                   | prlsc2  | E339S | Si              |
| ✓                   | pr-lsc3 | C122I | Dei             |
| ✓                   | prlst2  | C145L | tuo             |
| ✓                   | pilsc2  | C122I | Dei             |
| ✓                   | pilst2  | C26A  | Alleluia        |
| ✓                   | pr-     | C59D  | Si              |
| ✓                   | prM     | E173E | insurgentibus   |
| ✓                   | pr>     | H72H  | in              |
| ✓                   | pi>     | H103M | Magnus          |
| Cf. ✓               | vs>     |       |                 |
| Cf. ✓               | or>     |       |                 |
| <hr/>               |         |       |                 |
| <b>virga strata</b> |         |       |                 |
| ✓                   | vs      | C148A | generatio       |
| ✓                   | vslsc3  | C39B  | nomine          |
| ✓                   | vslst2  | E195D | suis,           |
| ✓                   | vs-     | C82B  | Domini          |
| ✓                   | vs>     | C64Q  | pennis          |
| Cf. ✓               | ta>     |       |                 |
| ✓                   | vs->    | A22V  | Rama            |
| <hr/>               |         |       |                 |
| <b>oriscus</b>      |         |       |                 |
| ✓                   | or      | H112S | candidior       |
| ✓                   | or>     | C148V | salutari        |
| <hr/>               |         |       |                 |
| <b>salicus</b>      |         |       |                 |

|            |       |               |        |
|------------|-------|---------------|--------|
| sa         | C27E  | super         |        |
| sa1        | C148A | Alleluia.     |        |
| salsfr1    | E3D   | Deus          | 2.166x |
| sa-        | C25U  | tuas          |        |
| sa-1       | G30E  | tribulationis |        |
| saG        | C107A | Alleluia.     |        |
| saM        | H16V  | venient       | 1.7x   |
| saM1       | H23E  | homo          | 1.71x  |
| saM2       | C27Q  | regis         |        |
| saM4       | E10P  | omnis         | 2.166x |
| sa>        | C27E  | sanctos       |        |
| sa->1      | H77A  | magi          |        |
| Cf.        | pe>2  |               |        |
| sa!cls1    | C80Q  | sicut         |        |
| sa!cls1    | C27Q  | tuam          |        |
| sa!cls1sc2 | C46B  | Deus          |        |
| sa-lsfr1   | C134B | nomen         |        |
| sa!cl>     | G45D  | respexit      | 0.85x  |
| sa!cl>     | G22D  | euge          | 0.85x  |
| sa!cl      | G1410 | fortitudo     | 0.85x  |
| saM-1      | G139A | Domine        | 0.85x  |
| sa!cl-     | G132V | Alleluia.     | 0.85x  |
| saM3       | N53A  | fratres       |        |
| saM-4      | N296V | amoris        |        |
| sa>2       | H73S  | viderunt      |        |
| sa!cl->    | H32N  | eius          | 1.7x   |

#### pes quassus

|         |       |             |        |
|---------|-------|-------------|--------|
| Pq      | C27E  | sacrificia. |        |
| pqlsfr1 | C150L | nostri      |        |
| pq-     | C148V | nostro      |        |
| pq>     | C84T  | pupillo     |        |
| pqS     | C52T  | maiestate   |        |
| pqS>    | H424M | potentiam   |        |
| pq!cl>  | G57F  | firmamentum | 0.85x  |
| pq!cl   | E23T  | Domini      | 2.166x |

#### quilisma

|     |       |              |  |
|-----|-------|--------------|--|
| ql  | C80Q  | commovebitur |  |
| qi  | C103C | Hic          |  |
| ql- | C148A | generatio    |  |
| qi- | H28Q  | veniet.      |  |
| ql> | C40V  | gentium      |  |
| qi> | C28A  | et           |  |

#### pes stratus

|    |       |    |       |
|----|-------|----|-------|
| pt | G1400 | ae | 0.85x |
|----|-------|----|-------|

#### subpunctis

|                 |  |                  |  |
|-----------------|--|------------------|--|
| su2 Cf.         |  | ci               |  |
| su3 Cf.         |  | ci1              |  |
| su1sut1 Cf.     |  | cis              |  |
| sut2 Cf.        |  | cis1             |  |
| suu1su2 Cf.     |  | visuu1su2        |  |
| suu1su1 Cf.     |  | cim              |  |
| suu1su1 Cf.     |  | ci>              |  |
| suu1sut2 Cf.    |  | visu1sut2        |  |
| suu1su1 Cf.     |  | visu1suu1        |  |
| suu2su1 Cf.     |  | visu2suu1        |  |
| sut1su2 Cf.     |  | visutisu2        |  |
| sut3 Cf.        |  | visut3           |  |
| suv1su2 Cf.     |  | visuv1su2        |  |
| sut4 Cf.        |  | visut4           |  |
| su1sut1 Cf.     |  | visu1suv1        |  |
| suu2su2 Cf.     |  | vi-suu2su2       |  |
| sut2su2 Cf.     |  | visut2su2        |  |
| su1sut3 Cf.     |  | pesu1sut3        |  |
| su2sut1 Cf.     |  | pesu2sut1        |  |
| sut3suw1 Cf.    |  | visut3suw1       |  |
| su1sut1sux1 Cf. |  | visu1sut1sux1    |  |
| su1sut1su2 Cf.  |  | visu1sut1su2     |  |
| su1sut1sut1 Cf. |  | visu1sut1suisut1 |  |
| sut1sux1 Cf.    |  | visut1sux1       |  |
| su4 Cf.         |  | vi-su4           |  |
| su1sut2su1 Cf.  |  | vi-suisut2su1    |  |
| su1sut1suy1 Cf. |  | visu1sut1suy1    |  |

|                |  |                 |  |
|----------------|--|-----------------|--|
| sut3suy1 Cf.   |  | visut3suy1      |  |
| sut2suy1 Cf.   |  | visut2suy1      |  |
| su5 Cf.        |  | visu5           |  |
| su1suu1su2 Cf. |  | visu1suu1su2    |  |
| su1suu2 Cf.    |  | vi-su1suu2      |  |
| su1suu1su1 Cf. |  | vi-su1suu1su1   |  |
| su3sut1 Cf.    |  | pe-su3sut1      |  |
| suu2 Cf.       |  | ql-ppt1suu2     |  |
| su2sut1 Cf.    |  | vi-su2sut1      |  |
| su2suy1 Cf.    |  | pe-su2suy1      |  |
| suw2 Cf.       |  | pe-1suw2        |  |
| sut2suu1 Cf.   |  | ql-ppt1sut2suu1 |  |
| suu3 Cf.       |  | vi-su3          |  |
| su1 Cf.        |  | ci              |  |
| sut1 Cf.       |  | ci1             |  |

|            |  |         |           |
|------------|--|---------|-----------|
| prepunctis |  |         |           |
| pp2 Cf.    |  | vi-pp2  |           |
| ppu2 Cf.   |  | scS     |           |
| ppt2 Cf.   |  | sfS     |           |
| ppu3       |  | C47I    | Sede      |
| ppu4       |  | C58A    | Domine    |
| ppu5       |  | C50G    | confredit |
| pp4        |  | C780    | escam     |
| pp3 Cf.    |  | pp4     |           |
| ppt3 Cf.   |  | vi>ppt3 |           |
| ppt4       |  | N69G    | amin.     |
| ppt5       |  | A56C    | videant   |
| pp1 Cf.    |  | vi-pp2  |           |

#### combined glyphs

|                 |  |                                 |           |
|-----------------|--|---------------------------------|-----------|
| cl!pi           |  | C82R                            | Domine    |
| cl!pilsc1lst3   |  | C89T                            | manum     |
| cl!pilsc2       |  | C149A                           | cantabo   |
| cl!pr           |  | G51S                            | ipsa      |
| cl!-pi          |  | E35E                            | illis     |
| ql!cl           |  | C148A                           | Domine    |
| ql!cl!cl> Cf.   |  | ql!cl!cl>ppt1 minus tractulus   |           |
| ql!cl!pi Cf.    |  | ql!cl!pi pipp1 minus tractulus  |           |
| ql!pf-          |  | G42D                            | mane      |
| ql!pf           |  | G35D                            | Domine    |
| ql!cl-          |  | C26A                            | Alleluia  |
| ql!clM Cf.      |  | ql!clMppt1 minus tractulus      |           |
| ql!cl-> Cf.     |  | ql!cl->ppt1 minus tractulus     |           |
| ql!cl>          |  | H26L                            | salva     |
| ql!po           |  | C148V                           | nostro    |
| ql!po-1         |  | C148A                           | Alleluia. |
| ql!po>          |  | H33I                            | terram    |
| ql!vs           |  | C148A                           | refugium  |
| ql!vssu2 Cf.    |  | ql!vspp1su2 minus tractulus     |           |
| ql!vssut2 Cf.   |  | ql!vsppt1sut2 minus tractulus   |           |
| qi!vs Cf.       |  | qi!vssu2 minus subbipunctis     |           |
| qi!vssu2 Cf.    |  | qi!sppt1su2 minus tractulus     |           |
| ql-su2 Cf.      |  | ql-ppt1su2 minus tractulus      |           |
| ql-sut2         |  | H73S                            | cedebat   |
| ql-suisux1 Cf.  |  | ql-ppt1su1sux1 minus tractulus  |           |
| ql-suisut2 Cf.  |  | ql-ppt1su1sut2 minus tractulus  |           |
| ql-sut1sux1     |  | H72H                            | complacui |
| ql-su2 Cf.      |  | ql-ppt1suu2 minus tractulus     |           |
| ql-sut2suu1 Cf. |  | ql-ppt1sut2suu1 minus tractulus |           |
| qi-su2          |  | H73S                            | cedebat   |
| qi-su1sut2 Cf.  |  | qi-ppt1su1sut2 minus tractulus  |           |
| qi-su1sux1      |  | H26G                            | certamine |
| ql-su1suu2      |  | H34F                            | facinora  |
| qi!cl           |  | C82B                            | spiritu   |
| qi!cl-          |  | C148A                           | factus    |
| qi!cl>          |  | H77S                            | Magi      |
| qi!po           |  | H87E                            | Deus      |
| pf!clM-ppt1     |  | E3270                           | narante   |
| cl!po>ppt1      |  | E3270                           | narante   |
| qlppt1          |  | C38T                            | Sede      |
| qippt1          |  | C37A                            | Domine    |
| qi!clppt1       |  | C88T                            | hostias,  |

|                             |                                    |            |        |                |       |            |                    |
|-----------------------------|------------------------------------|------------|--------|----------------|-------|------------|--------------------|
| <i>ql</i> -ppt1             | C26D                               | laetitiae. |        | <i>lsg</i>     | C27Q  | ovem       | gutture            |
| <i>ql&gt;</i> ppt1          | C38T                               | virtutis   |        | <i>lsi</i>     | C87E  | Domine     | iustum             |
| <i>qi&gt;</i> ppt1          | C60S                               | terram.    |        | <i>lsim</i>    | E336I | universa   | iustum mediocriter |
| <i>qisut1sux1</i>           | H269S                              | linguarum  |        | <i>lsiv</i>    | E92I  | misericors | iustum valde       |
| <i>qlsut2</i>               | H269D                              | alleluia   |        | <i>lsk</i>     | C62M  | confidit   | klenge             |
| <i>qi-sut2</i>              | H269D                              | alleluia   |        | <i>lsl</i>     | C38T  | Tecum      | levare             |
| <i>qi-ppt1s1sut2</i>        | H269R                              | magnalia   |        | <i>lslb</i>    | C58A  | non        | levare bene        |
| <i>ql!cl&gt;</i> ppt1       | H730                               | aurum      |        | <i>lslc</i>    | E151A | ab         | levare celeriter   |
| <i>ql!clpp1</i>             | C39B                               | Domini:    |        | <i>lslen</i>   | C59D  | servitui.  | leniter            |
| <i>ql!cl!cl&gt;</i> ppt1    | E133I                              | corda      | 2.166x | <i>lslm</i>    | C38T  | Tecum      | levare mediocriter |
| <i>ql!cl!pippt1</i>         | E31T                               | maris      | 2.166x | <i>lslp</i>    | E161S | dicit      | levare parvum      |
| <i>ql!cl-ppt1</i>           | C40A                               | terram.    |        | <i>lslt</i>    | E148L | Laudate    | levare tenete      |
| <i>ql!clMppt1</i>           | E324R                              | tuum       | 2.166x | <i>lsm</i>     | C38T  | principium | mediocriter        |
| <i>ql!cl-&gt;</i> ppt1      | G132A                              | Alleluia.  | 0.85x  | <i>lsmoll</i>  | E33V  | fines      | molliter           |
| <i>ql!cls-2ppt1sut1</i>     | E3D                                | et.        | 2.0x   | <i>lsp</i>     | C64Q  | altissimi  | parvum             |
| <i>ql!cls-2sut1 Cf. ...</i> | ql!cls-2ppt1sut1 minus tractulus   |            |        | <i>lspar</i>   | E104S | miserere   | paratim            |
| <i>ql!cls-2ppt1 Cf. ...</i> | ql!cls-2ppt1sut1 minus tractulus   |            |        | <i>lspfec</i>  | E2D   | fructum    | perfecte           |
| <i>ql!cls-2 Cf. ...</i>     | ql!cls-2ppt1sut1 minus 2 tractulis |            |        | <i>lspm</i>    | C40V  | suam.      | parvum mediocriter |
| <i>ql!poppt1</i>            | C59D                               | Domine.    |        | <i>lss</i>     | C27E  | sanctos    | sursum             |
| <i>ql!po-1ppt1</i>          | C58A                               | homo.      |        | <i>lssb</i>    | C40V  | iustitiam  | sursum bene        |
| <i>ql!po~ppt1</i>           | H179L                              | pauperem   |        | <i>lssc</i>    | C84T  | Tibi       | sursum celeriter   |
| <i>ql!po~ Cf. ...</i>       | ql!po~ minus tractulus             |            |        | <i>lssimil</i> | E193D | ne         | similiter          |
| <i>ql-ppt1su2</i>           | H72V                               | Jerusalem  |        | <i>lssimul</i> | E42A  | sumus.     | simul              |
| <i>ql-ppt1s1sux1</i>        | H730                               | Reges      |        | <i>lssm</i>    | C59D  | Si         | sursum mediocriter |
| <i>ql-ppt1s1sut2</i>        | H75I                               | patris     |        | <i>lsst</i>    | C87E  | Domine     | sursum tenere      |
| <i>ql-ppt1suu2</i>          | H72H                               | Hic        |        | <i>lssta</i>   | C27E  | Congregate | statim             |
| <i>ql-ppt1sut2suu1</i>      | H16M                               | altissimi  | 1.7x   | <i>lst</i>     | C39B  | Domino     | tenete             |
| <i>ql!vspp1t1su2</i>        | H730                               | Domino     |        | <i>lstw</i>    | C58A  | non        | tenete (wide form) |
| <i>ql!vspp1 Cf. ...</i>     | ql!vspp1t1su2 minus subbipunctis   |            |        | <i>lstb</i>    | C39B  | Domino     | tenete bene        |
| <i>ql!vspp1t1sut2</i>       | H73S                               | gaudio     |        | <i>lstm</i>    | E3D   | tu         | tenete mediocriter |
| <i>qi!vspp1t1su2</i>        | H74I                               | Domini     |        | <i>lsv</i>     | E1310 | semper     | valde              |
| <i>to!ciG</i>               | C28T                               | gloriae.   |        | <i>lsvol</i>   | C58A  | aeternum   | volutibiliter      |
| <i>to!cl</i>                | C84T                               | pupillo    |        | <i>lsx</i>     | C87E  | me:        | expectare          |
| <i>to!cl!cl!cl</i>          | C64Q                               | sepavit,   |        |                |       |            |                    |
| <i>to!cl!po</i>             | E31T                               | veritas    | 2.166x |                |       |            |                    |
| <i>to!cl!po-1</i>           | N100T                              | veritas    |        |                |       |            |                    |
| <i>to!cl!pi</i>             | C45S                               | mea        |        |                |       |            |                    |
| <i>to!cl-</i>               | N86D                               | propterea  |        |                |       |            |                    |
| <i>to!cl-!cl-</i>           | C54A                               | Adducentur |        |                |       |            |                    |
| <i>to!cl-1</i>              | C45S                               | filiis     |        |                |       |            |                    |
| <i>to!cls</i>               | C43A                               | terram.    |        |                |       |            |                    |
| <i>to!cl!cl</i>             | C43A                               | Domini,    |        |                |       |            |                    |
| <i>to!po</i>                | C64Q                               | sagitta    |        |                |       |            |                    |
| <i>to!pr</i>                | G11V                               | Deo        | 0.85x  |                |       |            |                    |
| <i>to!pi</i>                | C60C                               | tui.       |        |                |       |            |                    |
| <i>toSsu2</i>               | H72H                               | mihi       |        |                |       |            |                    |
| <i>pf!cl-</i>               | G51I                               | meus       |        |                |       |            |                    |
| <i>pf!clM- Cf. ...</i>      | pf!clM- ppt1 minus tractulus       |            |        |                |       |            |                    |
| <i>pf!pr</i>                | G9A                                | Alleluia   |        |                |       |            |                    |
| <i>cl!po&gt; Cf. ...</i>    | cl!po> ppt1 minus tractulus        |            |        |                |       |            |                    |
| <i>cl!cl&gt;1</i>           | N67G                               | mundi      |        |                |       |            |                    |
| <i>cl!clSsut2</i>           | E256C                              | psallite   | 2.166x |                |       |            |                    |
| <i>cl!cls Cf. ...</i>       | cl!clSsut2 minus 2 tractulis       |            |        |                |       |            |                    |
| <i>cl!po</i>                | C26A                               | nobis.     |        |                |       |            |                    |
| <i>cl!po-1</i>              | H119C                              | in.        |        |                |       |            |                    |
| <i>tr-1su2</i>              | H730                               | dona       |        |                |       |            |                    |
| <i>ci-pp2</i>               | H73S                               | magno      |        |                |       |            |                    |
| <i>toS2su2</i>              | H73S                               | eam        |        |                |       |            |                    |
| <i>toS2sut2</i>             | C150L                              | dicta      |        |                |       |            |                    |
| <i>po-1pp2su1sux1</i>       | E75G                               | filium     | 2.2x   |                |       |            |                    |
| <i>po-1su1sux1 Cf. ...</i>  | po-1pp2su1sux1 minus bipunctis     |            |        |                |       |            |                    |

#### significative letters

|              |       |             |                       |        |
|--------------|-------|-------------|-----------------------|--------|
| <i>lsam</i>  | C87E  | abstraxisti | altius                |        |
| <i>lsal</i>  | E20E  | Sion,       | altius mediocriter    | 2.166x |
| <i>lsb</i>   | C39B  | Domino      | bene                  |        |
| <i>lsc</i>   | C27E  | eius        | celeriter             |        |
| <i>lscw</i>  | C148V | nostro.     | celeriter (wide form) |        |
| <i>lSCO</i>  | C134B | nomen       | coniunguntur          |        |
| <i>lscm</i>  | C58A  | oblivio     | celeriter mediocriter |        |
| <i>lsd</i>   | E11C  | Virgo       | deprimatur            | 1.85x  |
| <i>lse</i>   | C84T  | adiutor     | equaliter             |        |
| <i>lsew</i>  | H266D | si          | equaliter (wide form) |        |
| <i>lseq</i>  | C64Q  | viis        | equaliter             |        |
| <i>lsfid</i> | E16B  | Domino      | fideliter             | 2.166x |
| <i>lsfr</i>  | C58A  | non         | frendor               |        |