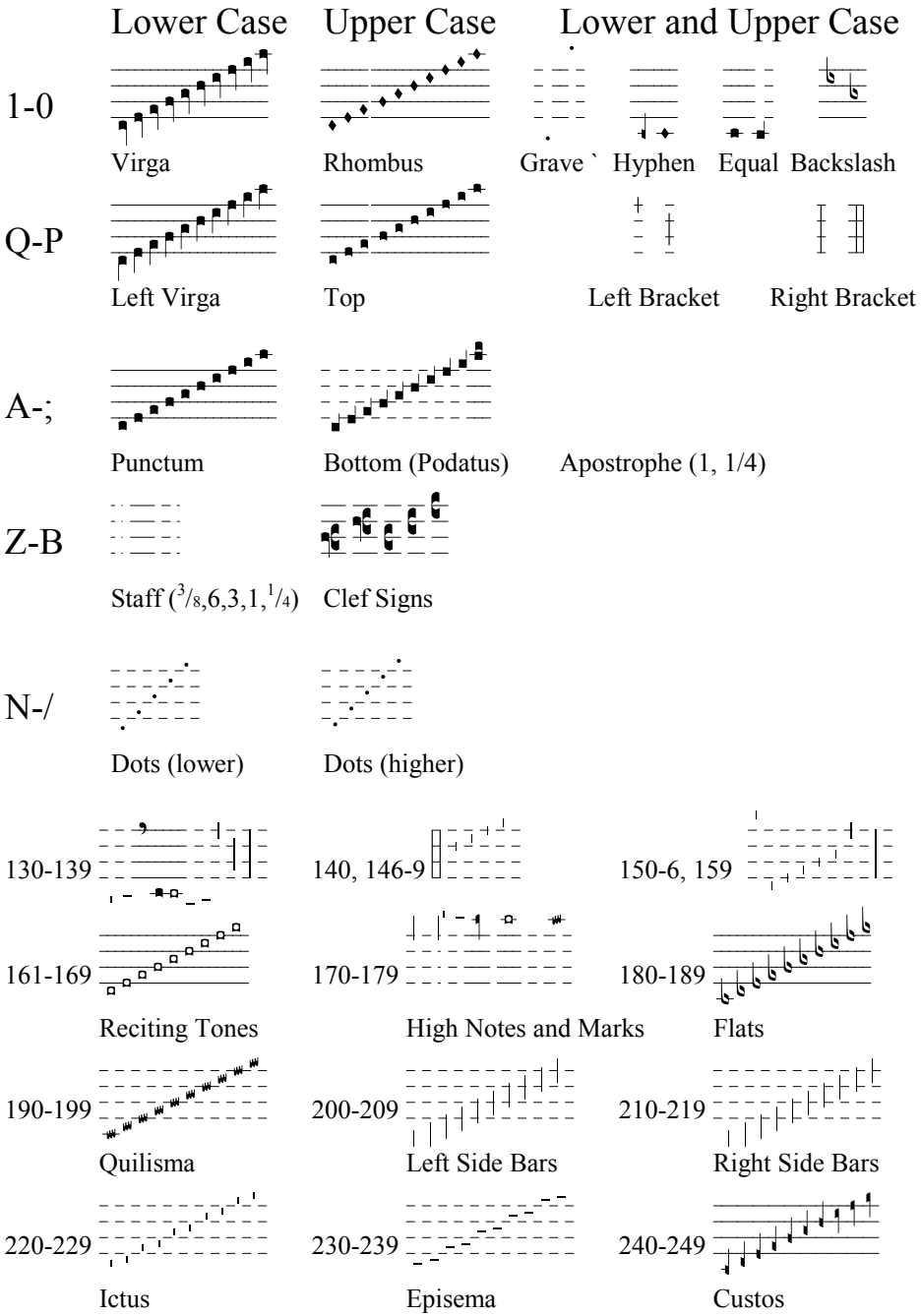
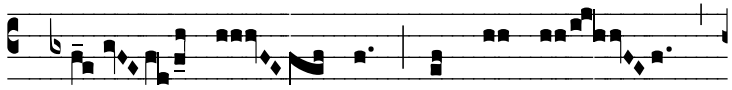
Meinrada



Meinrada
Meinradb
Meinradc

TrueType Fonts
for Creating Gregorian Chant
in Microsoft® Windows™



Harry Hagan, OSB

St. Meinrad Archabbey
St. Meinrad IN 47577
2002

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The fonts *MeinradA, MeinradB, and MeinradC* are Version 3.0 of fonts designed for programs running in Microsoft® Windows.™ The original fonts were created for the Macintosh™: StMeinrad-A and StMeinrad-B.

Changes from the earlier version include the following:

a. The placement of the right and left "side bars" now fall in exactly the same place.
b. A "side bar" one note high has been added in 0146-0155.
c. Slight adjustment to the shape has been made is some cases.

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The Copyright Claims of the Abbaye de Solesmes

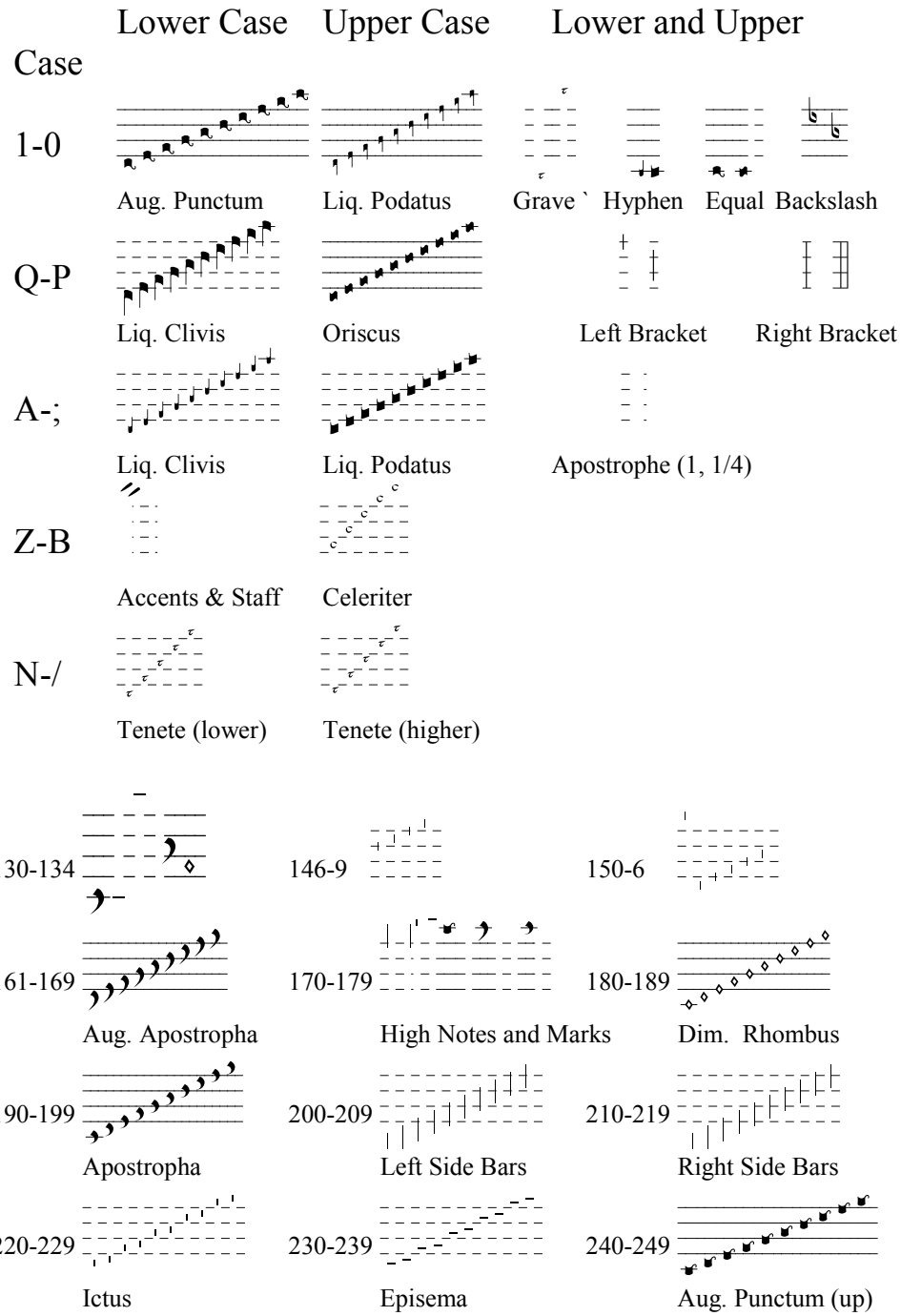
In addition to their copyright of their interpretation of the Latin chant in their various editions, the Abbaye de Solesmes also claims a French copyright of certain newly designed neums as well as certain new combinations. This font provides other designs to avoid any conflict with the claim of the Abbaye de Solesmes.

Finally, just as the creator of a new Roman font cannot take responsibility for the plagiarizing of material, so also St. Meinrad Archabbey assumes no responsibility for the infringement of any copyright by means of this font. In all cases, permission must be sought from the holder of any copyright.

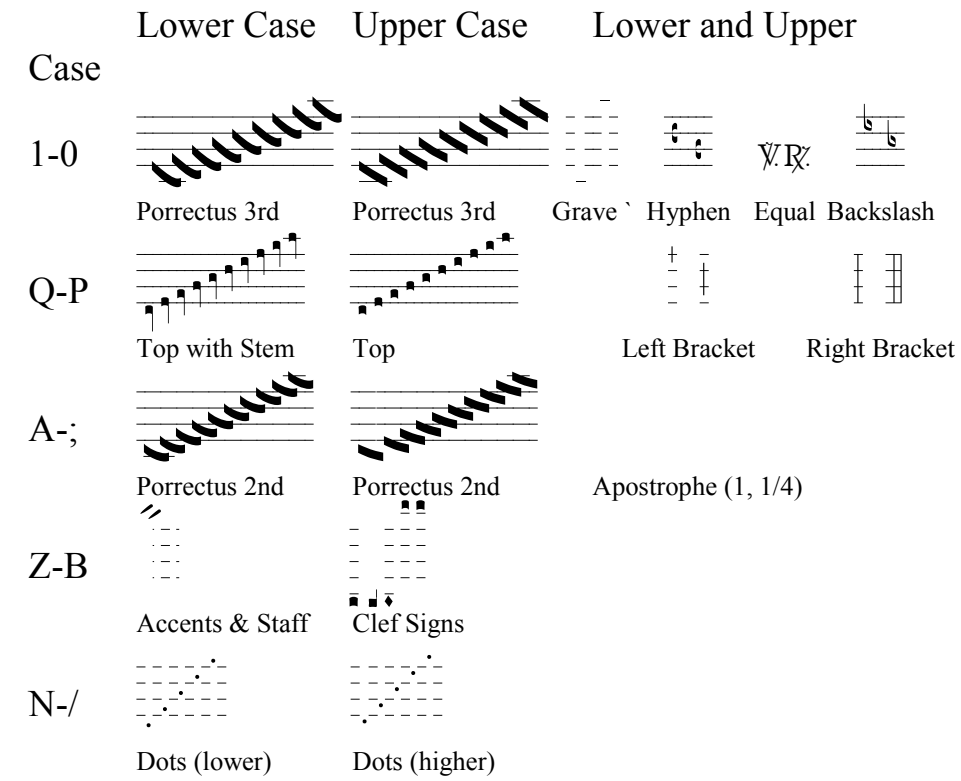
As noted in the original introduction, the Abbaye de Solesmes claims a French copyright of certain newly designed notes and has asked that we not reproduce them: i.e. the *oriscus*, the *augmented punctum* (up and down), the *apostropha* and the *augmented apostropha*. In addition, Solesmes claims under French law the exclusive use of the following new combitions of older signs: the *initio debolis* for the *podatus* and *torculus*, the use of the small note of the *diminished podatus* to for the *diminished porrectus*, and the use of the *rhombus* to form the *trigon*. Although one cannot copyright a font under American law, we have withdrawn these designes in recognition of the great contribution made by the Abbaye of Solesmes, and we offer substituttes which were newly designed to avoid the conflict with the Abbaye de Solesmes.

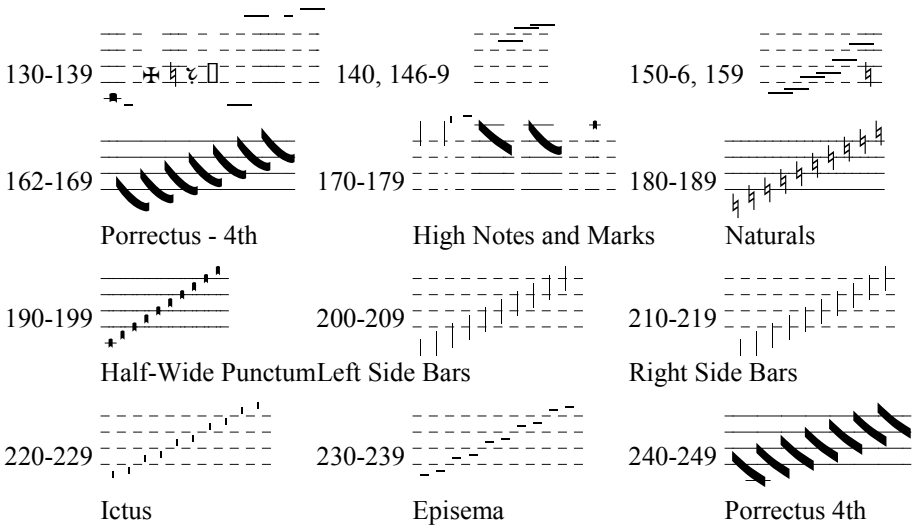
While the pitches of Latin chant belong to the tradition, the interpretation with various rhythmic marks by the monks of Solesmes or by others is under their copyright. Newly composed music for the vernacular chants also maay be copyrighted, and each publisher must negotiate with the holders of these copyrights.

Meinradc



Meinradb





Introduction

A first version of these fonts was produced in the early 1990s which has spread widely throughout the world. It has been simple to use and has allowed composers, music directors, and teachers to use various programs for setting Gregorian chant.

Recently, I have produced a refinement of the font. Basically I have left symbols where they were found in the original font. The main difference lies in the placement of the "side bars." In the original font, the right and left side bars were in slightly different positions. In this version, both the right and left side bars fall in exactly the same places.

POTENTIAL PROBLEM FOR THOSE REPLACING THE FONT:
The 1996 version of the font was encoded for Windows95 instead of Windows 3.1 (ANSI). Because of the timing of Microsoft's release of Windows95 and Fontographer 4.1, fonts encoded for Windows95 were given a custom encoding. As a result, MSWord may not read documents using the 1996 font. It may show those fonts as empty boxes. It is possible to save a document in WordPerfect as a Word document (.doc) and then open the document in MSWord. Or one can use the fonts in the file named "Replacement."

These fonts have been produced with Fontographer 4.1 to provide fonts of great sophistication. Still we take no responsibility for any incompatibility with any hardware. If there are any problems, I would appreciate hearing about them. I am also open to suggestions.

Fr. Harry Hagan, OSB

Meinrada, Meinradb, Meinradc

TrueType Fonts

Meinrada, *Meinradb*, and *Meinradc* come as TrueType™ and Type 1 PostScript® fonts created by Fontographer 4.0 for applications using Microsoft® Windows™. The Type 1 PostScript fonts can be used with Adobe Type Manager®. The TrueType fonts are installed with the Font option of the Control Panel in Microsoft Windows.

Fractional Width Display

These fonts can only be used effectively with programs which produce exactly on the screen what is printed. While many software programs claim to be WYSIWYG, they do not provide an exact representation called fractional width display. Without this feature, it is impossible to line up the music with the text. PageMaker® and recent versions of sophisticated wordprocessing programs with proper hardware supply this feature.

Point Size

These fonts have been designed for normal use at 48 points with text at 11 or 12 points. For altar books, musical notation at 72 poits and text at 18 poiints offers the singer a more readable text. Lower point sizes are also vialbe. The printer will need a resolution of 300 dpi to capture the nuances of these fonts.

Some very small marks (e.g. the *ictus* or *episema*) may not be visible on the screen at normal resolutions. At the higher resolutions of 200% or 400%, these marks will appear. Although staff lines may appear uneven on the screen at normal resolution, they should print correctly.

Layout of Notes for the US Keyboard*

Cards showing the layout of these fonts on the U.S. keyboard are included. While you may need to consult these cards often in the beginning, there is a certain logic to the layout. By taking time to look for the logic, a person will be able to use the fonts much more easily. One of the cards also shows examples of complex notes and indicates the keys used for constructing them and adding various accents.

*Consult your documentation for changing to the U.S. keyboard layout.

BASIC TYPES	BASIC NOTES	LIQUESCENTS	
		AUGMENTED	DIMINSIHED
9. PODATUS INITIO DEBILIS			
10. TORCULUS			
11. TORCULUS INITIO DEBOLIS			
12. PORRECTUS			
13. CLIMACUS			
14. SCANDICUS			
15. SALICUS			
16. TRIGONIS			

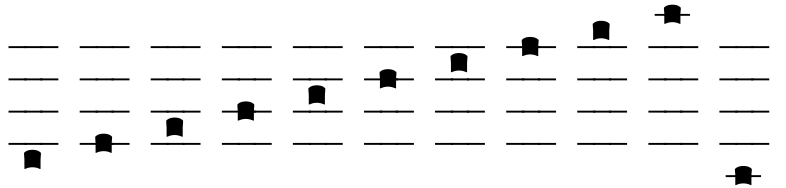
BASIC TYPES	BASIC NOTES	LIQUESCENTS	
		AUGMENTED	DIMINSIHED
1. PUNCTUM			
2. VIRGA			
3. APOSTROPHA			
4. ORISCUS			
5. CLIVIS			
6. PODATUS			
7. PES QUASSUS			
8. QUILISMA PES			

The Top Three Rows of the Keyboard

Each of the top three rows of the keyboard, in both the lower and upper (shifted) cases, is dedicated to one particular note or mark.

The far left keys (1,q,a) place the note or sign in the space below the staff, the next key (2,w,s) puts the note or mark on the bottom line of the staff. The third key puts the note in the next higher position and so forth.

In order to put a note or mark on the staff, you must find the row assigned to this particular sign. Then you must choose the key in the row corresponding to the proper place on the staff.

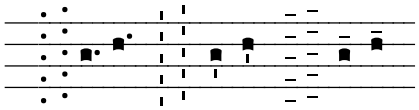


The Bottom Row: Two Groups of Five

The bottom row is divided into two groups of five.

The keys “z,x,c,v,b” create the staff lines used between notes. The most important of these is the “v” key which is one note or one unit wide. The “b” key is only one quarter of a unit wide and is used to align the notes and the text. The apostrophe key also produces staff lines of one unit and one quarter unit in width; however, this key will not work properly if the automatic quotation marks are turned on. The “z” key is three-eighths of a unit wide and is used between two notes as in a bivirga. The “x” key is 6 units wide, and the “c” key is three units wide. The shifted keys “Z,X,C, V,B” produce the clef signs.

The keys “n” through “/” put dots in the five spaces below, between and above the staff lines. The lower case position puts the dot lower in the space for a note on a line. The upper case key puts the dot high in the space for a note which fall in the space.



This feature of lower and high positions ised for other marks as well, such as the *ictus* and *episema*. The lower *ictus* goes under notes on the line; the higher *ictus* goes under notes in the spaces. For the *episema*, the high mark goes over the notes on the line, and the lower marks go over notes in spaces. The *episema* can be linked together to form a single line over a *torculus*.

Accessing Symbols with the Alt Key

Half of the signs in a font are accessed by holding down the Alt key and using the number pad (NOT the tope row) to type “zero” plus a number between 128 and 256. To assist the typist, different shapes are assigned to groups of ten. For example, the *quilisma* is found in the 190s. The last digit of the number determines its position on the staff. These numbers are directly related to the positions of the numbers in the number row (“1-9”). Therefore, both the number “8” key and Alt-0198 will put a symbol on the top lines of the staff.

The lowerst number of a group, in this case Alt-0190, puts a note on the line below the staff. The notes on the line above the staff are located in the 170s. Here the final digit corresponds to the tens digit where the other symbols are located. Thus Alt 017**0** corresponds to the 02**0**0s; 017**1** to the 02**1**0s, 017**8** corresponds to the 1**8**0s, 017**9** corresponds to the 1**9**0s and so forth.

Dead Keys

Since chant sometimes piles notes and accents one on top of the other, some of the keys are “dead.” The cursor does not move to the next position when these keys are used. A second and even third note or mark can be added to the same position. The dead keys are indicated on the charts by the broken lines.

porrectus
0206 h Y

0206 H u

g h Y

0206 6 T

0206 ^ y

0206 ^ 0216 0196

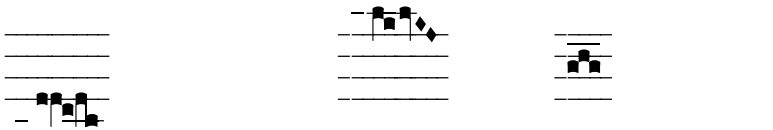
0206 H v h 0206 f

Notes with dots
f ,

g <

G Y < . v

F T M < v



Line below staff (b`)
` v s v w ` a ` w 0202 =

Line Above (b~)
~ vvp ~ lb0b98

connected episema
0237 g 0237 h 0237 g

ictus (low)
0224 h

ictus (high)
0225 j

episema (low)
0236 g

episema high
0237 h

apostrapha
0196 0196 0166

clivis diminished
u h

podatus dim.
G 6

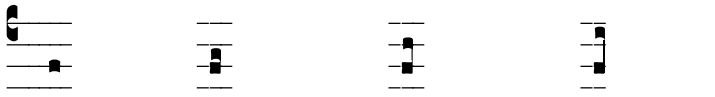
rhombus diminished
6 b b % 0184

Sign for the Christus: B 132 =

Cistercian *flexus* 134 =

Some Examples for the Construction of Notes and the Use of Accents

Meinrada is normal Meinradb is underlined.
Meinradc is double underlined.



punctum
B v v f

podatus (2nd)
F T

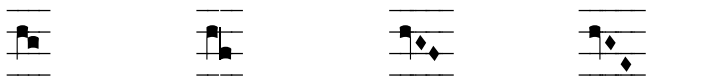
podatus (3rd)
F Y

podatus (4th)
F 0216 U

quilisma
f 0195 Y

quilisma
f 0195 v h 0206 f v v 0244

custos

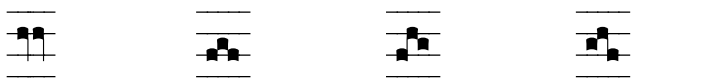


clivis
y g

clivis (3rd)
y 0206 f

climacus
6 b b % $

climacus
6 b b % b b #

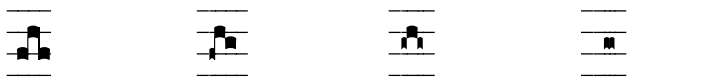


bivirga
6 b b 6

torculus
f g f

f Y g

g 6 f



torculus
f Y 0206 f

torculus diminished
0195 Y g

0195 h 0195

new shape
0195 0195

For example in constructing the *podatus*, you must first type the bottom note (shifted "A" to ":") which is a dead key. The top note (shifted "Q-P") is added last. If you want to add the *ictus* and/or *episema*, you must add one or both before the "top" note.

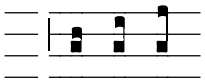
"Tops"

"Tops" designate those notes which have been specifically constructed to go immediately over the "bottom" of the *podatus* or over the slanting line of the *porrectus*. You cannot used the simple *punctum* ("a" to ";") in these cases

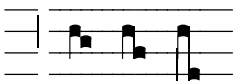
Side Bars: Left and Right

Side bars are lines added to connect notes. In earlier versions, there was a difference between the placement of the left and right side bars. In this version, the two signs still fall to the right and left, but they straddle the line as does the line for the virga and left virga. All of them can be used interchangeably..

1. The right side bar (210-217) is used to connect the notes of the *podatus* and the final notes of the *porrectus*.

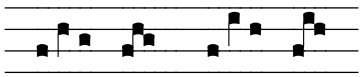


2. The left side bar (200-209) is used to connect the two notes of a clivis

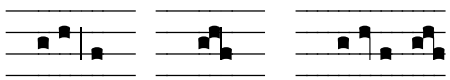


3. The side bars are often used to connect the notes of the *torculus*. The basic principle is rather simple: The combination depends on which notes must be extended.

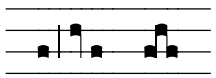
a) If the first note must be connect to the second, then use a left virga if the interval is a third or fourth. Otherwise use the needed left side bars (200-209):



b) If the second note must be connected to the last note, then type a left side bar before typing the last note or use a virga.



c) If both the first and the last notes must be connected to the middle note, type the first note, then the needed left side bar before the first note and then a virga followed by the final note..

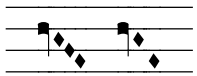


Porrectus: Its Curved and Straight Forms

The *porrectus* must be construced from various parts. Generally it begins with a left side bar followed by the slanting line which has two forms. A curved form is used if the final note is immediately above the slanting line. The straight form is used if the final note rises by an interval of third or more. There are two different "tops" in *Meinradb*. One has a descender ("q-p") and is sued with the straight *porrectus*. The other is just the "top" ("Q-P") which is placed immediately over the curved *porrectus*.

Rhombus: The Diamond Shaped Note

In the *climacus*, the *rhombus* is separated from the bivirga by half of a unit ("bb"). The *rhombus* is only three-quarters of a unit wide so that these notes will line up and form a straight line. If a *rhombus* drops a third, then half of a unit of staff lines ("bb") must be added so that the notes will continue to form a straight line.



NOTE: There is a half unit (bb) after the virga and a half unit before rhombus which drops a third.

Also the *rhombus* and the *diminished rhombus* are a full unit wide and no longer three-quarters of a unit as in previous versions.

Flats and Naturals

The two most used flats and naturals are located on the backslash key. A full range of flats and naturals are located in the 180s of *Meinrada* and *Meinradb*.

PROBLEM: The flat and natural symbol Alt-0183 does notwork in some programs; it can be accessed by Alt-0149.

Liquescents

The symbols for the liquescents are contained in *Meinradc*. Several keys are dead so that the needed gymnastics can be performed. To avoid any problems with the claim of a French copyright by Abbey of Solesmes, some of the forms have been redesigned. Also a new half-wide punctum has been added for the *diminished punctum*. (This note could be typed twice to create another new symbol if needed.) A chart of notes can be found on pages 12-13. The *augmented punctum* (both its up and down forms) is one and a half units wide.

Other Symbols

Meinradb contains two accent marks ("z" and "x") to indicate the note which goes with the accented syllable in a psalm tone. It also contains the signs for the versicle and response (℣. ℟.) as well as a cross (Alt-0132) to mark the Christus part in the Passion.

Meinradc contains a small "C" and "T" which were used in the ancient manuscripts to indicate *celeriter* ("quickly") and *tenete* ("hold").