

A) About output code positions:

In document diff_0[1].9_1.0.pdf, one can find the following points that need clarification:

1) section 2.4.2 Our code

Thus the first neume group from figure 1 were encoded as (the actual neume names depend on the names chosen during training):

```
(primary.oligon[-7,0];kendima[-3,1];klasma[-4,-2])
```



Firstly, the primary oligon's box should have its inferior right edge on the origin = [0,0]

Secondly, a kenima ABOVE is annotated with a POSITIVE y value [y=1], whereas in the toolkit manual

<http://lionel.kr.fh-niederrhein.de/~dalitz/data/projekte/psaltiki/doc/usermanual.html>

kendimata above

```
(primary.oligon[0,0];kendimata[-3,-2];gorgon.mono-gorgon[-5,-3])
```

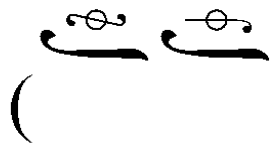


there seems to be an overall confusion as concerns the y co-ordinates: signs are inverted in the Manual. I prefer the first example, where anything ABOVE the baseline is indicated by y=positive.

B) about redundant neumes, and their classification:

In the neumes table of diff_0[1].9_1.0.pdf, the following are to be considered:

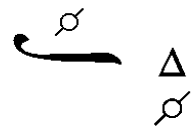
1- Neumes 88 and 89 are fthora only neumes



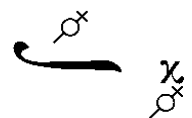
() Neume 88 is to be named fthora_chromatic_hard_small_interval ///

Neume 89 is to be named fthora_chromatic_soft_small_interval

2- Neumes 77 and 87 are identical, and are to be named martyria-fthora_chromatic_hard_large_interval

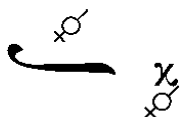


3- Neumes 76 and 90 are identical, and should be named martyria-fthora_chromatic_soft_large_interval



4- Neume 78 should be called martyria-fthora.chroa-chromatic-zygos

:



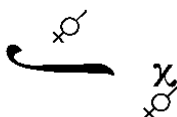
5- Neume 75 is a martyria only: it is hard chromatic small, and, when one adds dots above it, it becomes soft chromatic small. Since we will leave combining of dots to the post-processing phase, we only need to call this neume as follows:

martyria.chromatic-large-interval 



before any post-processing

In the Gamera psaltiki toolkit, we have the following classes:

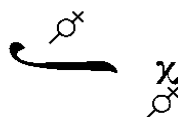


martyria-fthora.chroa-chromatic-zygos

martyria-fthora.chromatic.small-interval = ELIMINATE

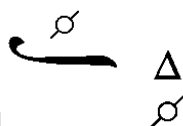
martyria-fthora.chromatic.smallest-interval = ELIMINATE

martyria-fthora.chromatic.soft-large = RENAME to (add the word „interval”)



martyria-fthora.chromatic.soft-large-interval

and we should add the following:



martyria-fthora_chromatic_hard_large_interval

because chromatic scales proceed by paired intervals = small interval, large interval: in hard chromatic these values are more extreme (smaller/larger) as opposed to soft chromatic

(small/larger). So, it would be preferable if we'd simply use the terms „soft/hard” in combination with „small/large”. This is what weems to have been done.

C) Concerning class names

a) In each of the following lists, either ZO or Ni is missing

letter.capital.bou

letter.capital.di

letter.capital.ga

letter.capital.ke

letter.capital.pa

letter.capital.zo

add: letter.capital.ni

letter.small.bou

letter.small.di

letter.small.ga

letter.small.ke

letter.small.ni

letter.small.pa

add: letter.small.zo

(as a matter of fact, there is really no small letter Ga, Di or Zo... either we should include these 3 names for „decoration” or we should completely remove them. Since there are some contemporary writers who may add extra letters (for ison ndiations), I suggest we leave them.. so, please add the small letter Zo to the list)

letter.tonos

b) I wonder if wouldn't be better to regroup some neumes in the list, instead of just having them listed in alphabetical order

These convey information
that may be classified as **quantitative** (relative pitch), **qualitative** (melismatic vocalizations), **temporal** (dividing and extending neume durations), **modulative** (fthora indicating modulation from one type of tri-, tetra- or pentachord scale to another), **intonative** (giving information as to the mode and musical gender used: diatonic, chromatic or enharmonic), **martyric** (giving “witness” attestations as to the a secondary neume belonging to the following group, except when it is followed by dots (Hapli or Stigmi); in that case it is a primary neume with the Hapli belonging to its neume group.
Psaltiki uses melodic patterns that can be encoded and classified....

I forgot to also make reference

- to “chronos” and we might as well call them “**chronic**” (indicating tempo and ways of counting the various measures)

- and “rhythmos” and we might call them “**rhythmic**” (indicating measures as defined by a unit of duration equivalent to one undivided, unprolonged ison)

This might add to the length of the code, but at least neumes are “grouped”. If full name such as “tempora” or “rhythmos” are too long, we may just replace them by one letter “t.”, “r.”, etc..

For instance

temporal.argon.argon

temporal.argon.diargon

temporal.argon.triargon

temporal.gorgon.di-gorgon

temporal.gorgon.di-hemi-gorgon
temporal.gorgon.hepta-gorgon
temporal.gorgon.hexa-gorgon
temporal.gorgon.mono-gorgon
temporal.gorgon.mono-hemi-gorgon
temporal.gorgon.penta-gorgon
temporal.gorgon.tetra-gorgon
temporal.gorgon.tri-gorgon
temporal.gorgon.tri-hemi-gorgon

rhythmos.diastole.1
rhythmos.diastole.2
rhythmos.diastole.3
rhythmos.diastole.4
rhythmos.diastole.5
rhythmos.diastole.6
rhythmos.diastole.7
rhythmos.diastole.8
rhythmos.diastole.9

<In the following:

primary.diastole
primary.diastole-hyphen-kato
primary.diastole-hyphen-ano
primary.diastolic hyphen-ano
primary.diastolic hyphen-kato

.... I guess we are distinguishing between short and long diastoles. There are also double diastoles, but these will most likely be treated separately.

Perhaps we should be naming the diastoles as follows:

primary.diastole-short
primary.diastole-tall
primary.diastole-short hyphen-kato
primary.diastole-tall-hyphen-ano
primary.diastole-short-hyphen-ano
primary.diastole-tall-hyphen-kato

In the above case, the HYPHEN of diastoles  is usually small, and touches the diastole = hence the “combined” neume/

However, it may be found above a diastole WITHOUT touching it. In this case, we’ll simply call it

rhythmos.diastolic.hyphen-ano which means that it will be a secondary neume, facing downwards and
rhythmos.diastolic.hyphen-kato

d) concerning combinations

Combinations including petasti, oligon, oxeia, hamili, elaphron for which groups PRIORITIES (orimlary neumes) must be redefined.

From all the combinations listed below, only a few contain two or more neumes of a SAME group that may cross the baseline CONCURRENTLY, in which case only one will be defined as primary.

The remaining combinations are presented in case there are prints where they may be slightly off the baseline: in such situations, they may require to be treated as the cases mentionned above.

Only the first situation (authetic „concurrent baseline intersection combinations”) are treated here.

S1_0072	
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refer to petasti plus kendima above

S1_0070	
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= (see above)

S1_0071	
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= (see above)

Ps_0075	
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(see above)

Case of Pestasti + inserted kendima

Ps_0065	
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If kendima touches baseline, it becomes secondary to petasti

Case of Petasti plus apostrophos above

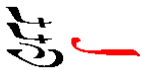
Ps_0051



S1_0052



S1_005E



Case of petasti + inserted hyporrhoe

S2_002D



Case of oxeia.

Ox_0031



Ox_0039



Any group containing an oxeia will be defined by that oxeia, which will be the obligate primary neume of the group

Case of combined hamili ()

Ps_0028

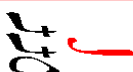


= for any hamili on the baseline, check for secondary apostrophos, elaphron, and hamili below, as well as hamili above: a new combination will need to be defined, in each of these cases.

Ps_0028

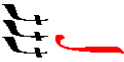
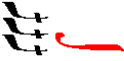


S1_0029



S1_0021



S1_0040	
S1_0021	
S1_0040	

Case of elaphron + inserted apostrophos

Elaphron with inserted apostrophos, both touching the baseline, should be treated as a pre-combined group, with elaphron as primary component. They are then to be recombined in the post-processing phase.

Ps_0023	
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Case of petasti + inserted apostrophos

Petasti with inserted apostrophos, both touching the baseline, should be treated as a pre-combined group, with petasti as primary component.

In the following situations, the petasti is primary. Should there be any confusion with the apostrophos, the petasti should be given priority.

Ps_0045	
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S1_0052	
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S1_0057	
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S1_005E	
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Case of oligon + apostrophos above

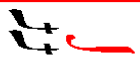
Ps_0049	
S2_0029	

Table with some precombined neumes in EZ psaltica (by decreasing order of number of constituent neumes) (just to look at)

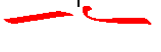
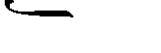
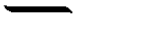
special HEX code			HEX code
S1_0065		e	0065
S1_0072		r	0072
Ox_006A		j	006A
Ox_00BA		o	00BA
S1_0028		(	0028
S1_0070		p	0070
S1_0071		q	0071
S1_0077		w	0077
Ox_0039		9	0039
Ox_0051		Q	0051
Ox_0057		W	0057
Ox_0045		E	0045
Ox_002A		*	002A
Ox_0028		(	0028
Ox_004A		J	004A

Ox_0054		T	0054
Ps_0079		y	0079
Ps_0075		u	0075
Ps_0069		i	0069
Ps_0028		(	0028
S1_0029		)	0029
S1_0021		!	0021
S1_0040		@	0040
S1_0045		E	0045
S1_0052		R	0052
S1_0025		%	0025
S1_005E		^	005E
Ox_0036		6	0036
Ox_0037		7	0037
Ox_0038		8	0038
Ox_002D		-	002D
Ox_0023		#	0023
Ox_0050		P	0050

Ox_006C		l	006C
Ox_004C		L	004C
Ox_003D		=	003D
Ox_0025		%	0025
Ox_005E		^	005E
Ox_0055		U	0055
Ox_0059		Y	0059
Ox_0052		R	0052
Ox_0026		&	0026
Ox_005F		–	005F
Ps_0070		p	0070
Ps_0077		w	0077
Ps_0065		e	0065
Ps_0072		r	0072
Ps_0074		t	0074
Ps_0025		%	0025
Ps_005E		^	005E
Ps_0026		&	0026

Ps_002A		*	002A
Ps_0051		Q	0051
Ps_0057		W	0057
Ps_0045		E	0045
Ps_007C			007C
Ps_003C		<	003C
S1_0051		Q	0051
S1_0057		W	0057
S1_004F		O	004F
S1_0041		A	0041
S1_0061		a	0061
S1_0053		S	0053
S1_0073		s	0073
S1_0078		x	0078
S1_0058		X	0058
S1_005A		Z	005A
S1_003F		?	003F

S2_002D		-	002D
S2_0039		9	0039
S2_0030		0	0030
S2_0029		)	0029
S2_005F		-	005F
Ps_0049			
S2_005D		]	005D
Ox_0049		I	0049
Ox_0032		2	0032
Ox_0033		3	0033
Ox_0034		4	0034
Ox_0035		5	0035
Ox_0021		!	0021
Ox_0060		`	0060
Ox_0040		@	0040
Ox_006F		o	006F
Ox_004F		O	004F

Ox_005C		\	005C
Ox_0068		h	0068
Ox_0048		H	0048
Ox_006B		k	006B
Ox_004B		K	004B
Ox_0072		r	0072
Ox_00A9		©	00A9
Ps_0030		o	0030
Ps_0031		l	0031
Ps_0060		`	0060
Ps_007E		~	007E
Ps_0071		q	0071
Ps_0021		!	0021
Ps_0040		@	0040
Ps_005F		—	005F
Ps_0029		)	0029
Ps_0023		#	0023
Ox_0031		l	0031

Ox_0024		\$	0024
Ox_0063		c	0063
Ox_0022		"	0022
Ox_007B		{	007B
Ox_0027		'	0027
Ox_005B		[	005B
Ox_005D		]	005D
Ox_002F		/	002F

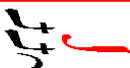
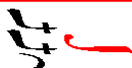
E) Concerning output to EZ FONTS

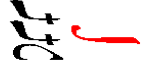
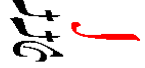
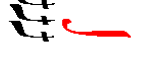
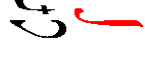
(some neumes that appear in this font system are NOT part of CPN, and we'll let others, mainly those who defend their use, to take care of them). The OXEIA is not part of CPN, but has been used in CPN editions at the very early phase, and this is the reason why it will be the ONLY non-CPN neume we will take into consideration.

Ea) Complete table of pre-combined neumes in EZ FONTS (by decreasing order of number of constituent neumes)

special HEX code	Number of neumes after post- processing I				HEX code
S1_0065	5			e	0065
S1_0072	5			r	0072
S1_0036	5			6	0036
S1_0037	5			7	0037
S1_0039	5			9	0039
S1_0049	5			I	0049
S1_0059	5			Y	0059
S1_0055	5			U	0055
Ox_006A	5			j	006A
Ox_00BA	5			o	00BA
S1_0030	4			0	0030
S1_0031	4			1	0031
S1_0032	4			2	0032

S1_0033	4			3	0033
S1_0034	4			4	0034
S1_0028	4			(	0028
S1_0070	4			p	0070
S1_0071	4			q	0071
S1_0077	4			w	0077
S1_006F	4			o	006F
S1_003D	4			=	003D
S1_0035	4			5	0035
S1_0038	4			8	0038
S1_0054	4			T	0054
Ox_0039	4			9	0039
Ox_0051	4			Q	0051
Ox_0057	4			W	0057
Ox_0045	4			E	0045
Ox_002A	4			*	002A
Ox_0028	4			(	0028

Ox_004A	4			J	004A
Ox_0054	4			T	0054
Ps_0036	3			6	0036
Ps_0038	3			8	0038
Ps_0039	3			9	0039
Ps_003D	3			=	003D
Ps_0079	3			y	0079
Ps_0075	3			u	0075
Ps_0069	3			i	0069
Ps_0028	3			(	0028
Ps_006C	3			l	006C
Ps_004C	3			L	004C
Ps_0050	3			P	0050
Ps_0055	3			U	0055
Ps_0059	3			Y	0059
Ps_0054	3			T	0054
Ps_0052	3			R	0052
Ps_003D	3			=	003D

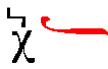
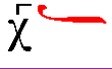
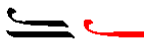
S1_0075	3			u	0075
S1_0069	3			i	0069
S1_0029	3			)	0029
S1_0021	3			!	0021
S1_0040	3			@	0040
S1_0045	3			E	0045
S1_0052	3			R	0052
S1_0025	3			%	0025
S1_005E	3			^	005E
S1_0079	3			y	0079
S1_0074	3			t	0074
S1_005D	3			]	005D
S1_007D	3			}	007D
S1_005F	3			_	005F
S1_007B	3			{	007B
S1_003B	3			;	003B
S1_003A	3			:	003A

S1_007A	3			z	007A
Ox_0036	3			6	0036
Ox_0037	3			7	0037
Ox_0038	3			8	0038
Ox_002D	3			-	002D
Ox_0023	3			#	0023
Ox_0050	3			P	0050
Ox_006C	3			1	006C
Ox_004C	3			L	004C
Ox_003D	3			=	003D
Ox_0025	3			%	0025
Ox_005E	3			^	005E
Ox_0055	3			U	0055
Ox_0059	3			Y	0059
Ox_0052	3			R	0052
Ox_0026	3			&	0026
Ox_005F	3			_	005F
Ps_0070	2			p	0070

Ps_0032	2			2	0032
Ps_0033	2			3	0033
Ps_0034	2			4	0034
Ps_0035	2			5	0035
Ps_0037	2			7	0037
Ps_0077	2			w	0077
Ps_0065	2			e	0065
Ps_0072	2			r	0072
Ps_0074	2			t	0074
Ps_002D	2			-	002D
Ps_0025	2			%	0025
Ps_005E	2			^	005E
Ps_0026	2			&	0026
Ps_002A	2			*	002A
Ps_0051	2			Q	0051
Ps_0057	2			W	0057
Ps_0045	2			E	0045
Ps_004F	2			O	004F

Ps_006F	2			o	006F
Ps_0049	2			I	0049
Ps_002D	2			-	002D
Ps_0068	2			h	0068
Ps_0048	2			H	0048
Ps_006B	2			k	006B
Ps_004B	2			K	004B
Ps_00A9	2			©	00A9
Ps_007C	2				007C
Ps_003C	2			<	003C
S1_0051	2			Q	0051
S1_0057	2			W	0057
S1_004F	2			O	004F
S1_005C	2			\	005C
S1_002D	2			-	002D
S1_005B	2			[	005B
S1_0050	2			P	0050
S1_0026	2			&	0026

S1_0068	2	ḥ	ḥ	h	0068
S1_0048	2	Ḥ	Ḥ	H	0048
S1_0064	2	ḏ	ḏ	d	0064
S1_0044	2	Ḑ	Ḑ	D	0044
S1_006B	2	ḱ	ḱ	k	006B
S1_004B	2	Ḳ	Ḳ	K	004B
S1_0043	2	ḥ	ḥ	C	0043
S1_0066	2	ḥ	ḥ	f	0066
S1_0046	2	Ḥ	Ḥ	F	0046
S1_0062	2	ḏ	ḏ	b	0062
S1_0042	2	Ḑ	Ḑ	B	0042
S1_0076	2	ḏ	ḏ	v	0076
S1_0056	2	Ḑ	Ḑ	V	0056
S1_006C	2	ḥ	ḥ	l	006C
S1_0027	2	Ḥ	Ḥ	'	0027
S1_0022	2	ḥ	ḥ	"	0022
S1_004C	2	Ḑ	Ḑ	L	004C

S1_0041	2			A	0041
S1_0061	2			a	0061
S1_0053	2			s	0053
S1_0073	2			s	0073
S1_0078	2			x	0078
S1_0058	2			X	0058
S1_005A	2			Z	005A
S1_003F	2			?	003F
S2_002D	2			-	002D
S2_0039	2			9	0039
S2_0030	2			0	0030
S2_0029	2			)	0029
S2_005F	2			-	005F
S2_005D	2			]	005D
Ox_0049	2			I	0049
Ox_0032	2			2	0032
Ox_0033	2			3	0033

Ox_0034	2			4	0034
Ox_0035	2			5	0035
Ox_0021	2			!	0021
Ox_0060	2			`	0060
Ox_0040	2			@	0040
Ox_006F	2			o	006F
Ox_004F	2			O	004F
Ox_005C	2			\	005C
Ox_0068	2			h	0068
Ox_0048	2			H	0048
Ox_006B	2			k	006B
Ox_004B	2			K	004B
Ox_0072	2			r	0072
Ox_00A9	2			©	00A9
Ps_0030	1			0	0030
Ps_0031	1			1	0031
Ps_0060	1			`	0060
Ps_007E	1			~	007E

Ps_0071	1			q	0071
Ps_0021	1			!	0021
Ps_0040	1			@	0040
Ps_005F	1			-	005F
Ps_0029	1			)	0029
Ps_0023	1			#	0023
Ps_0024	1			\$	0024
Ps_0053	1			S	0053
Ps_0078	1			x	0078
Ps_0058	1			X	0058
Ps_0064	1			d	0064
Ps_0044	1			D	0044
Ps_0066	1			f	0066
Ps_0046	1			F	0046
Ps_0067	1			g	0067
Ps_0047	1			G	0047
Ps_003B	1			;	003B
Ps_003A	1			:	003A

Ps_0061	1			a	0061
Ps_0041	1			A	0041
Ps_007A	1			z	007A
Ps_005A	1			Z	005A
Ps_005C	1			\	005C
Ps_0027	1			'	0027
Ps_0022	1			"	0022
Ps_007D	1			}	007D
Ps_005B	1			[	005B
Ps_007B	1			{	007B
Ps_005D	1			]	005D
Ps_004A	1			J	004A
Ps_006A	1			j	006A
Ps_0063	1			c	0063
Ps_0076	1			v	0076
Ps_0062	1			b	0062
Ps_006E	1			n	006E
Ps_006D	1			m	006D

Ps_002C	1	$\varkappa$	$\varkappa$ 	,	002C
Ps_002E	1	z	z 	.	002E
Ps_002F	1	,	 ,	/	002F
Ps_002B	1	+	+		002B
Ps_00BA	1	,	 ,	°	00BA
Ps_0043	1	$\mathfrak{A}$	$\mathfrak{A}$ 	C	0043
Ps_0056	1	q	q 	V	0056
Ps_0042	1	$\varkappa$	$\varkappa$ 	B	0042
Ps_004E	1	$\mathfrak{n}$	$\mathfrak{n}$ 	N	004E
Ps_004D	1	$\mathfrak{r}$	$\mathfrak{r}$ 	M	004D
Ps_003E	1	$\sim$	$\sim$ 	>	003E
Ps_003F	1	$\hookrightarrow$	$\hookrightarrow$ 	?	003F
Ft_002B	1	α	α 	+	002B
Ft_003D	1	α	α 	=	003D
Ft_007D	1	α	α 	}	007D
Ft_005D	1	α	α 	]	005D
Ft_003A	1	α^*	α^* 	:	003A
Ft_003B	1	α^*	α^* 	;	003B

Ft_005F	1	Ɔ	Ɔ	—	005F
Ft_002D	1	Ɔ	Ɔ	-	002D
Ft_007B	1	Ɔ	Ɔ	{	007B
Ft_005B	1	Ɔ	Ɔ	[	005B
Ft_0022	1	Ɔ	Ɔ	"	0022
Ft_0027	1	Ɔ	Ɔ	'	0027
Ft_0064	1	Ɔ	Ɔ	d	0064
Ft_0044	1	Ɔ	Ɔ	D	0044
Ft_007A	1	Ɔ	Ɔ	z	007A
Ft_005A	1	Ɔ	Ɔ	Z	005A
Ft_0066	1	Ɔ	Ɔ	f	0066
Ft_0046	1	Ɔ	Ɔ	F	0046
Ft_0061	1	Ɔ	Ɔ	a	0061
Ft_0041	1	Ɔ	Ɔ	A	0041
Ft_0067	1	Ɔ	Ɔ	g	0067
Ft_0047	1	Ɔ	Ɔ	G	0047
Ft_0068	1	Ɔ	Ɔ	h	0068
Ft_0048	1	Ɔ	Ɔ	H	0048

Ft_006A	1	ꝶ	ꝶ	j	006A
Ft_004A	1	ꝶ	ꝶ	J	004A
Ft_0073	1	ꝶ	ꝶ	s	0073
Ft_0053	1	ꝶ	ꝶ	S	0053
Ft_006B	1	ꝷ	ꝷ	k	006B
Ft_004B	1	ꝷ	ꝷ	K	004B
Ft_0078	1	ꝷ	ꝷ	x	0078
Ft_0058	1	ꝷ	ꝷ	X	0058
Ft_006C	1	ꝸ	ꝸ	l	006C
Ft_004C	1	ꝸ	ꝸ	L	004C
Ft_0037	1	Ꝺ	Ꝺ	7	0037
Ft_0026	1	Ꝺ	Ꝺ	&	0026
Ft_0032	1	ꝺ	ꝺ	2	0032
Ft_0040	1	ꝺ	ꝺ	@	0040
Ft_0077	1	ꝺ	ꝺ	w	0077
Ft_0057	1	ꝺ	ꝺ	W	0057
Ft_0034	1	Ꝼ	Ꝼ	4	0034
Ft_0024	1	Ꝼ	Ꝼ	\$	0024

Ft_0072	1			r	0072
Ft_0052	1			R	0052
Ft_00A9	1			©	00A9
Ft_0075	1			u	0075
Ft_0055	1			U	0055
Ft_0031	1			!	0031
Ft_0021	1			q	0021
Ft_0071	1			q	0071
Ft_0051	1			Q	0051
Ft_0036	1			6	0036
Ft_005E	1			^	005E
Ft_0079	1			y	0079
Ft_0059	1			Y	0059
Ft_0060	1			'	0060
Ft_007E	1			~	007E
Ft_0035	1			5	0035
Ft_0025	1			%	0025
Ft_0074	1			t	0074

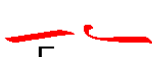
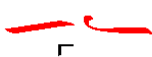
Ft_0054	1	♀	♀	T	0054
Ft_0033	1	♂	♂	3	0033
Ft_0023	1	♂	♂	#	0023
Ft_0065	1	♂	♂	e	0065
Ft_0045	1	♂	♂	E	0045
Ft_0030	1	♂	♂	0	0030
Ft_0029	1	♂	♂	)	0029
Ft_0070	1	♂	♂	p	0070
Ft_0050	1	♂	♂	P	0050
Ft_0039	1	♂	♂	9	0039
Ft_0028	1	♂	♂	(	0028
Ft_006F	1	♂	♂	o	006F
Ft_004F	1	♂	♂	O	004F
Ft_0038	1	♂	♂	8	0038
Ft_002A	1	♂	♂	*	002A
Ft_0069	1	♂	♂	i	0069
Ft_0049	1	♂	♂	I	0049
Ft_0063	1	♂	♂	c	0063

Ft_0043	1	γ		C	0043
Ft_0076	1	π		v	0076
Ft_0056	1	π		V	0056
Ft_003F	1	π		?	003F
Ft_0062	1	δ		b	0062
Ft_0042	1	δ		B	0042
Ft_006E	1	r'		n	006E
Ft_004E	1	r'		N	004E
Ft_006D	1	Δ		m	006D
Ft_004D	1	Δ		M	004D
Ft_002F	1	Δ		/	002F
Ft_002C	1	$\varkappa$		,	002C
Ft_003C	1	$\varkappa$		<	003C
Ft_002E	1	z		.	002E
Ft_003E	1	z		>	003E
S1_004A	1	ζ		J	004A
S1_007E	1	ζ		$\sim$	007E
S1_006A	1	ζ		j	006A

S1_004E	1	ᳵ	ᳵ 	N	004E
S1_004D	1	ᳶ	ᳶ 	M	004D
S1_003C	1	᳷	᳷ 	<	003C
S1_002F	1	᳸	᳸ 	/	002F
S1_006E	1	᳹	᳹ 	n	006E
S1_006D	1	ᳺ	ᳺ 	m	006D
S1_002C	1	᳻	᳻ 	,	002C
S2_0032	1	2	2 	2	0032
S2_0040	1	2	2 	@	0040
S2_0033	1	3	3 	3	0033
S2_0023	1	3	3 	#	0023
S2_0034	1	4	4 	4	0034
S2_0024	1	4	4 	\$	0024
S2_0035	1	5	5 	5	0035
S2_0025	1	5	5 	%	0025
S2_0036	1	6	6 	6	0036

S2_0037	1	7		7	0037
S2_0038	1	8		8	0038
S2_003F	1	(M)		?	003F
S2_002F	1	(M)		/	002F
S2_007E	1	(Δ↓)		~	007E
S2_0060	1	(Δ↓)		`	0060
S2_0021	1	(K↓)		!	0021
S2_0031	1	(K↓)		1	0031
S2_003E	1	(Z)		>	003E
S2_002E	1	(Z)		.	002E
S2_0043	1	(N)		C	0043
S2_0063	1	(N)		c	0063
S2_0056	1	(Π)		V	0056
S2_0076	1	(Π)		v	0076
S2_0042	1	(B)		B	0042
S2_0062	1	(B)		b	0062

S2_004E	1	(Γ)	(Γ)	N	004E
S2_006E	1	(Γ)	(Γ)	n	006E
S2_004D	1	(Δ)	(Δ)	M	004D
S2_006D	1	(Δ)	(Δ)	m	006D
S2_003C	1	(κ)	(κ)	<	003C
S2_002C	1	(κ)	(κ)	,	002C
S2_005A	1	($z\uparrow$)	($z\uparrow$)	Z	005A
S2_003A	1	(	(	:	003A
S2_0022	1	(	(	"	0022
S2_003B	1	)	)	;	003B
S2_0027	1	)	)	'	0027
S2_007D	1	┐	┐	}	007D
S2_005C	1	~	~	\	005C
S2_007A	1	,	,	z	007A
S2_002B	1	$\circ^*$	$\circ^*$	+	002B
S2_003D	1	$\circ^*$	$\circ^*$	=	003D

Ox_0069	1			i	0069
Ox_007E	1			~	007E
Ox_0031	1			l	0031
Ox_0024	1			\$	0024
Ox_0063	1			c	0063
Ox_0022	1			"	0022
Ox_007B	1			{	007B
Ox_0027	1			'	0027
Ox_005B	1			[	005B
Ox_005D	1			]	005D
Ox_002F	1			/	002F
Ox_0073	1			s	0073
Ox_0053	1			S	0053
Ox_0078	1			x	0078
Ox_0058	1			X	0058
Ox_0077	1			w	0077
Ox_003B	1			;	003B
Ox_003A	1			:	003A

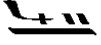
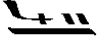
Ox_0064	1			d	0064
Ox_0044	1			D	0044
Ox_0066	1			f	0066
Ox_0046	1			F	0046
Ox_0067	1			g	0067
Ox_0047	1			G	0047
Ox_0079	1			y	0079
Ox_0075	1			u	0075
Ox_0074	1			t	0074

Eb) Complete table of pre-combined neumes in EZ FONTS (by order of appearance in their respective fonts, and EZ editor character tables)

special HEX code	Number of neumes after post- processing 1				HEX code
		Psaltica	Psaltica	Psaltica	Psaltica
Ps_0030	1			0	0030
Ps_0070	2			p	0070
Ps_0020					0020
Ps_0031	1			1	0031
Ps_0032	2			2	0032
Ps_0033	2			3	0033
Ps_0034	2			4	0034
Ps_0035	2			5	0035
Ps_0036	3			6	0036
Ps_0037	2			7	0037
Ps_0038	3			8	0038
Ps_0039	3			9	0039
Ps_0060	1			`	0060
Ps_007E	1			~	007E

Ps_003D	3	ۛ	ۛ	=	003D
Ps_0020					0020
Ps_0071	1	ۛ	ۛ	q	0071
Ps_0077	2	ۛ	ۛ	w	0077
Ps_0065	2	ۛ	ۛ	e	0065
Ps_0072	2	ۛ	ۛ	r	0072
Ps_0074	2	ۛ	ۛ	t	0074
Ps_0079	3	ۛ	ۛ	y	0079
Ps_0075	3	ۛ	ۛ	u	0075
Ps_0069	3	ۛ	ۛ	i	0069
Ps_0021	1	ۛ	ۛ	!	0021
Ps_0040	1	ۛ	ۛ	@	0040
Ps_005F	1	ۛ	ۛ	-	005F
Ps_0029	1	ۛ	ۛ	)	0029
Ps_002D	2	ۛ	ۛ	-	002D
Ps_0023	1	ۛ	ۛ	#	0023
Ps_0024	1	ۛ	ۛ	\$	0024
Ps_0025	2	ۛ	ۛ	%	0025

Ps_005E	2	٢	٢	^	005E
Ps_0026	2	٢٦	٢٦	&	0026
Ps_002A	2	٢٢	٢٢	*	002A
Ps_0028	3	٢٢٨	٢٢٨	(	0028
Ps_0051	2	٢١	٢١	Q	0051
Ps_0057	2	٢٧	٢٧	W	0057
Ps_0045	2	٢٥	٢٥	E	0045
Ps_0020					0020
Ps_0020					0020
Ps_0020					0020
Ps_004F	2	٢١	٢١	O	004F
Ps_006F	2	٢١١	٢١١	o	006F
Ps_006C	3	٢١٢	٢١٢	l	006C
Ps_004C	3	٢١٢	٢١٢	L	004C
Ps_0050	3	٢١٢	٢١٢	P	0050
Ps_0020					0020
Ps_0049	2	٢١	٢١	I	0049
Ps_0055	3	٢١٢	٢١٢	U	0055

Ps_0059	3			Y	0059
Ps_0054	3			T	0054
Ps_0052	3			R	0052
Ps_0020					0020
Ps_0073				s	0073
Ps_0053	1			S	0053
Ps_0078	1			x	0078
Ps_0058	1			X	0058
Ps_002D	2			-	002D
Ps_0068	2			h	0068
Ps_0048	2			H	0048
Ps_0020					0020
Ps_0064	1			d	0064
Ps_0044	1			D	0044
Ps_0066	1			f	0066
Ps_0046	1			F	0046
Ps_0067	1			g	0067
Ps_0047	1			G	0047

Ps_0020					0020
Ps_003B	1	.		;	003B
Ps_003A	1	,		:	003A
Ps_006B	2	..		k	006B
Ps_004B	2	..		K	004B
Ps_0020					0020
Ps_0061	1	,		a	0061
Ps_0041	1	,		A	0041
Ps_007A	1	,		z	007A
Ps_005A	1	,		Z	005A
Ps_005C	1	~		\	005C
Ps_0027	1	~		'	0027
Ps_0020					0020
Ps_0022	1	~		"	0022
Ps_007D	1	~		}	007D
Ps_003D	3	ff		=	003D
Ps_0020					0020
Ps_005B	1	~		[	005B

Ps_007B	1			{	007B
Ps_005D	1			]	005D
Ps_0020					0020
Ps_0020					0020
Ps_004A	1			J	004A
Ps_006A	1			j	006A
Ps_00A9	2	↑	↑	©	00A9
Ps_0020					0020
Ps_0063	1	ν	ν	c	0063
Ps_0076	1	π	π	v	0076
Ps_0062	1	ε	ε	b	0062
Ps_006E	1	r'	r'	n	006E
Ps_006D	1	Δ	Δ	m	006D
Ps_002C	1	ℵ	ℵ	,	002C
Ps_002E	1	ℵ	ℵ	.	002E
Ps_002F	1	,	,	/	002F
Ps_002B	1	+	+	+	002B
Ps_00BA	1	,	,	o	00BA

Ps_007C	2				007C
Ps_0020					0020
Ps_0043	1			C	0043
Ps_0056	1			V	0056
Ps_0042	1			B	0042
Ps_004E	1			N	004E
Ps_004D	1			M	004D
Ps_003E	1			>	003E
Ps_003F	1			?	003F
Ps_003C	2			<	003C

Fthora		Fthora	Fthora	Fthora	Fthora
Ft_002B	1			+	002B
Ft_003D	1			=	003D
Ft_007D	1			}	007D
Ft_005D	1			]	005D
Ft_003A	1			:	003A
Ft_003B	1			;	003B
Ft_005F	1			—	005F

Ft_002D	1			-	002D
Ft_007B	1			{	007B
Ft_005B	1			[	005B
Ft_0022	1			"	0022
Ft_0027	1			'	0027
Ft_0064	1			d	0064
Ft_0044	1			D	0044
Ft_007A	1			z	007A
Ft_005A	1			Z	005A
Ft_0066	1			f	0066
Ft_0046	1			F	0046
Ft_0061	1			a	0061
Ft_0041	1			A	0041
Ft_0067	1			g	0067
Ft_0047	1			G	0047
Ft_0068	1			h	0068
Ft_0048	1			H	0048
Ft_006A	1			j	006A

Ft_004A	1	ꝶ	ꝶ	J	004A
Ft_0073	1	ꝶ	ꝶ	s	0073
Ft_0053	1	ꝶ	ꝶ	S	0053
Ft_006B	1	ꝷ	ꝷ	k	006B
Ft_004B	1	ꝷ	ꝷ	K	004B
Ft_0078	1	ꝷ	ꝷ	x	0078
Ft_0058	1	ꝷ	ꝷ	X	0058
Ft_006C	1	ꝸ	ꝸ	l	006C
Ft_004C	1	ꝸ	ꝸ	L	004C
Ft_0020					0020
Ft_0020					0020
Ft_0037	1	Ꝺ	Ꝺ	7	0037
Ft_0026	1	Ꝺ	Ꝺ	&	0026
Ft_0032	1	ꝺ	ꝺ	2	0032
Ft_0040	1	ꝺ	ꝺ	@	0040
Ft_0077	1	ꝺ	ꝺ	w	0077
Ft_0057	1	ꝺ	ꝺ	W	0057
Ft_0034	1	Ꝼ	Ꝼ	4	0034

Ft_0024	1			\$	0024
Ft_0072	1			r	0072
Ft_0052	1			R	0052
Ft_0020					0020
Ft_00A9	1			©	00A9
Ft_0075	1			u	0075
Ft_0055	1			U	0055
Ft_0031	1			l	0031
Ft_0021	1			!	0021
Ft_0071	1			q	0071
Ft_0051	1			Q	0051
Ft_0036	1			6	0036
Ft_005E	1			^	005E
Ft_0079	1			y	0079
Ft_0059	1			Y	0059
Ft_0060	1			`	0060
Ft_007E	1			~	007E
Ft_0035	1			5	0035

Ft_0025	1	♀		%	0025
Ft_0074	1	♀		t	0074
Ft_0054	1	♀		T	0054
Ft_0033	1	♂		3	0033
Ft_0023	1	♂		#	0023
Ft_0065	1	♂		e	0065
Ft_0045	1	♂		E	0045
Ft_0020					0020
Ft_0020					0020
Ft_0020					0020
Ft_0020					0020
Ft_0030	1	♂		0	0030
Ft_0029	1	♂		)	0029
Ft_0070	1	♂		p	0070
Ft_0050	1	♂		P	0050
Ft_0039	1	♂		9	0039
Ft_0028	1	♂		(	0028
Ft_006F	1	♂		o	006F

Ft_004F	1			O	004F
Ft_0038	1			8	0038
Ft_002A	1			*	002A
Ft_0069	1			i	0069
Ft_0049	1			I	0049
Ft_0063	1			c	0063
Ft_0043	1			C	0043
Ft_0076	1			v	0076
Ft_0056	1			V	0056
Ft_003F	1			?	003F
Ft_0062	1			b	0062
Ft_0042	1			B	0042
Ft_006E	1			n	006E
Ft_004E	1			N	004E
Ft_0020					0020
Ft_0020					0020
Ft_0020					0020
Ft_006D	1			m	006D

Ft_004D	1	Δ		M	004D
Ft_002F	1	Δ		/	002F
Ft_002C	1	$\propto$		,	002C
Ft_003C	1	$\propto$		<	003C
Ft_002E	1	z		.	002E
Ft_003E	1	z		>	003E
Ft_0020					0020
Ft_0020					0020
Ft_0020					0020
Ft_0020					0020
Ft_0020					0020
Ft_0020					0020
Ft_0020					0020
Ft_0020					0020
Ft_0020					0020
Ft_0020					0020
Ft_0020					0020
Ft_0020					0020
Special I		Special I	Special I	Special I	Special I

S1_0030	4			0	0030
S1_0031	4			1	0031
S1_0032	4			2	0032
S1_0033	4			3	0033
S1_0034	4			4	0034
S1_0028	4			(	0028
S1_0070	4			p	0070
S1_0071	4			q	0071
S1_0077	4			w	0077
S1_0065	5			e	0065
S1_0072	5			r	0072
S1_0020					0020
S1_0075	3			u	0075
S1_0069	3			i	0069
S1_006F	4			o	006F
S1_003D	4			=	003D
S1_0020					0020

S1_0020					0020
S1_0029	3	𐤒	𐤒	)	0029
S1_0021	3	𐤒𐤕	𐤒𐤕	!	0021
S1_0040	3	𐤒𐤕	𐤒𐤕	@	0040
S1_0051	2	𐤒	𐤒	Q	0051
S1_0057	2	𐤒	𐤒	W	0057
S1_0045	3	𐤒𐤕	𐤒𐤕	E	0045
S1_0052	3	𐤒𐤕	𐤒𐤕	R	0052
S1_0025	3	𐤒𐤕	𐤒𐤕	%	0025
S1_005E	3	𐤒𐤕	𐤒𐤕	^	005E
S1_0020					0020
S1_0020					0020
S1_0079	3	𐤒𐤕	𐤒𐤕	y	0079
S1_0074	3	𐤒𐤕	𐤒𐤕	t	0074
S1_0035	4	𐤒𐤕	𐤒𐤕	5	0035
S1_0036	5	𐤒𐤕	𐤒𐤕	6	0036
S1_0037	5	𐤒𐤕	𐤒𐤕	7	0037

S1_0038	4			8	0038
S1_0039	5			9	0039
S1_0049	5			I	0049
S1_0054	4			T	0054
S1_0059	5			Y	0059
S1_0055	5			U	0055
S1_0020					0020
S1_004F	2			O	004F
S1_005C	2			\	005C
S1_005D	3			]	005D
S1_007D	3			}	007D
S1_002D	2			-	002D
S1_005F	3			—	005F
S1_005B	2			[	005B
S1_007B	3			{	007B
S1_0020					0020
S1_0020					0020

S1_0020					0020
S1_0020					0020
S1_0050	2			P	0050
S1_0026	2			&	0026
S1_0068	2			h	0068
S1_0048	2			H	0048
S1_0064	2			d	0064
S1_0044	2			D	0044
S1_006B	2			k	006B
S1_004B	2			K	004B
S1_0043	2			C	0043
S1_0020					0020
S1_0020					0020
S1_0020					0020
S1_0020					0020
S1_0066	2			f	0066
S1_0046	2			F	0046

S1_0062	2			b	0062
S1_0042	2			B	0042
S1_0076	2			v	0076
S1_0056	2			V	0056
S1_004A	1			J	004A
S1_007E	1			~	007E
S1_003B	3			;	003B
S1_003A	3			:	003A
S1_006A	1			j	006A
S1_0020					0020
S1_006C	2			l	006C
S1_0027	2			'	0027
S1_0022	2			"	0022
S1_004C	2			L	004C
S1_0020					0020
S1_0020					0020
S1_0041	2			A	0041

S1_0061	2	χ^{L}	χ^{L}	a	0061
S1_0053	2	χ^{S}	χ^{S}	S	0053
S1_0073	2	χ^{s}	χ^{s}	s	0073
S1_0020					0020
S1_0020					0020
S1_007A	3	χ^{z}	χ^{z}	z	007A
S1_0078	2	χ^{x}	χ^{x}	x	0078
S1_0058	2	χ^{X}	χ^{X}	X	0058
S1_005A	2	χ^{Z}	χ^{Z}	Z	005A
S1_0020					0020
S1_0020					0020
S1_004E	1	χ^{N}	χ^{N}	N	004E
S1_004D	1	χ^{M}	χ^{M}	M	004D
S1_003C	1	$\chi^{\text{<}}$	$\chi^{\text{<}}$	<	003C
S1_003F	2	$\chi^{\text{?}}$	$\chi^{\text{?}}$	?	003F
S1_002F	1	$\chi^{\text{/}}$	$\chi^{\text{/}}$	/	002F
S1_0020					0020

S2_0034	1	4		4	0034
S2_0024	1	4		\$	0024
S2_0035	1	5		5	0035
S2_0025	1	5		%	0025
S2_0036	1	6		6	0036
S2_0037	1	7		7	0037
S2_0038	1	8		8	0038
S2_0020					0020
S2_003F	1	(M)		?	003F
S2_002F	1	(M)		/	002F
S2_007E	1	(Δ↓)		~	007E
S2_0060	1	(Δ↓)		`	0060
S2_0021	1	(K↓)		!	0021
S2_0031	1	(K↓)		1	0031
S2_003E	1	(Z)		>	003E
S2_002E	1	(Z)		.	002E

S2_0043	1	(N)	(N)	C	0043
S2_0063	1	(N)	(N)	c	0063
S2_0056	1	(Π)	(Π)	V	0056
S2_0076	1	(Π)	(Π)	v	0076
S2_0042	1	(B)	(B)	B	0042
S2_0062	1	(B)	(B)	b	0062
S2_004E	1	(Γ)	(Γ)	N	004E
S2_006E	1	(Γ)	(Γ)	n	006E
S2_004D	1	(Δ)	(Δ)	M	004D
S2_006D	1	(Δ)	(Δ)	m	006D
S2_003C	1	(K)	(K)	<	003C
S2_002C	1	(K)	(K)	,	002C
S2_005A	1	(Z↑)	(Z↑)	Z	005A
S2_0020					0020
S2_0020					0020
S2_0020					0020

S2_0068	1	$\text{ῥH}\chi\omicron\varsigma$	$\text{ῥH}\chi\omicron\varsigma$	h	0068
S2_0048	2	$\frac{\lambda}{\pi}$	$\frac{\lambda}{\pi}$	H	0048
S2_0061	2	α' .	α' .	a	0061
S2_0041	2	A' .	A' .	A	0041
S2_0073	2	ϵ' .	ϵ' .	s	0073
S2_0053	2	B' .	B' .	S	0053
S2_0064	2	γ' .	γ' .	d	0064
S2_0044	2	Γ' .	Γ' .	D	0044
S2_0066	2	δ' .	δ' .	f	0066
S2_0046	2	Δ' .	Δ' .	F	0046
S2_0075	1	$\beta\alpha\rho\upsilon\varsigma$	$\beta\alpha\rho\upsilon\varsigma$	u	0075
S2_007C	1	$\tau\omicron\varsigma$	$\tau\omicron\varsigma$		007C
S2_0071	2	$\ddot{q}$	$\ddot{q}$	q	0071
S2_0051	3	$\overset{\frown}{\ddot{q}}$	$\overset{\frown}{\ddot{q}}$	Q	0051
S2_0077	2	𐤒	𐤒	w	0077
S2_0057	4	𐤒𐤕	𐤒𐤕	W	0057

S2_0065	2			e	0065
S2_0045	3			E	0045
S2_0072	2			r	0072
S2_0052	3			R	0052
S2_0079	2			y	0079
S2_0054	1			T	0054
S2_0070	5			p	0070
S2_0020					0020
S2_0069	1			i	0069
S2_0059	1			Y	0059
S2_0055	2			U	0055
S2_0049	2			I	0049
S2_0020					0020
S2_0020					0020
S2_0020					0020
S2_0020					0020

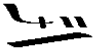
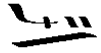
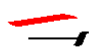
S2_0020					0020
S2_0067	2	$\Pi\alpha$	$\Pi\alpha$	g	0067
S2_0047	2	$\overline{B}\varepsilon$	$\overline{B}\varepsilon$	G	0047
S2_0074	2	$\Delta t.$	$\Delta t.$	t	0074
S2_003A	1	(	(	:	003A
S2_0022	1	(	(	"	0022
S2_003B	1	)	)	;	003B
S2_0027	1	)	)	'	0027
S2_007D	1	┐	┐	}	007D
S2_005C	1	~	~	\	005C
S2_007A	1	,	,	z	007A
S2_0020					0020
S2_002B	1	α_*	α_*	+	002B
S2_003D	1	$\circ_*$	$\circ_*$	=	003D
S2_0020					0020
S2_002D	2	$\hookleftarrow$	$\hookleftarrow$	-	002D

[illegible]

S2_0020					0020
S2_0020					0020
S2_0020					0020
S2_0020					0020
S2_0020					0020
S2_0020					0020
S2_0020					0020
S2_0020					0020
S2_0020					0020
S2_0020					0020
S2_0020					0020
S2_0020					0020
S2_0020					0020
S2_0020					0020
S2_0020					0020
Oxeia					
Oxeia					
Oxeia					
Oxei a					
Ox_0069	1	1	1	i	0069

Ox_0049	2			I	0049
Ox_007E	1			~	007E
Ox_0020					0020
Ox_0020					0020
Ox_0020					0020
Ox_0031	1			1	0031
Ox_0032	2			2	0032
Ox_0033	2			3	0033
Ox_0034	2			4	0034
Ox_0035	2			5	0035
Ox_0036	3			6	0036
Ox_0037	3			7	0037
Ox_0038	3			8	0038
Ox_0039	4			9	0039
Ox_0051	4			Q	0051
Ox_0057	4			W	0057
Ox_0045	4			E	0045
Ox_0021	2			!	0021

Ox_0060	2	𐤁	𐤁	`	0060
Ox_002D	3	𐤁𐤅	𐤁𐤅	-	002D
Ox_0040	2	𐤁𐤊	𐤁𐤊	@	0040
Ox_0023	3	𐤁𐤊𐤅	𐤁𐤊𐤅	#	0023
Ox_0024	1	𐤁𐤊𐤅	𐤁𐤊𐤅	\$	0024
Ox_0050	3	𐤁𐤊𐤅𐤊	𐤁𐤊𐤅𐤊	P	0050
Ox_006F	2	𐤁𐤊𐤅𐤊	𐤁𐤊𐤅𐤊	o	006F
Ox_004F	2	𐤁𐤊𐤅𐤊	𐤁𐤊𐤅𐤊	O	004F
Ox_006C	3	𐤁𐤊𐤅𐤊𐤅	𐤁𐤊𐤅𐤊𐤅	l	006C
Ox_004C	3	𐤁𐤊𐤅𐤊𐤅	𐤁𐤊𐤅𐤊𐤅	L	004C
Ox_003D	3	𐤁𐤊𐤅𐤊𐤅	𐤁𐤊𐤅𐤊𐤅	=	003D
Ox_0025	3	𐤁𐤊𐤅𐤊𐤅𐤊	𐤁𐤊𐤅𐤊𐤅𐤊	%	0025
Ox_005E	3	𐤁𐤊𐤅𐤊𐤅𐤊𐤅	𐤁𐤊𐤅𐤊𐤅𐤊𐤅	^	005E
Ox_0020					0020
Ox_0020					0020
Ox_0020					0020
Ox_0020					0020
Ox_0055	3	𐤁𐤊𐤅𐤊𐤅𐤊𐤅𐤊	𐤁𐤊𐤅𐤊𐤅𐤊𐤅𐤊	U	0055

Ox_0059	3			Y	0059
Ox_0054	4			T	0054
Ox_0052	3			R	0052
Ox_0026	3			&	0026
Ox_002A	4			*	002A
Ox_0028	4			(	0028
Ox_006A	5			j	006A
Ox_004A	4			J	004A
Ox_00BA	5			°	00BA
Ox_005F	3			_	005F
Ox_005C	2			\	005C
Ox_0063	1			c	0063
Ox_0022	1			"	0022
Ox_007B	1			{	007B
Ox_0027	1			'	0027
Ox_005B	1			[	005B
Ox_005D	1			]	005D
Ox_002F	1			/	002F

Ox_0020					0020
Ox_0070	1			p	0070
Ox_002B	1			+	002B
Ox_0029	1			)	0029
Ox_0030	1			0	0030
Ox_0020					0020
Ox_0071	1			q	0071
Ox_0061	1			a	0061
Ox_0041	1			A	0041
Ox_007A	1			z	007A
Ox_005A	1			Z	005A
Ox_0076	1			v	0076
Ox_0062	1			b	0062
Ox_002C	1			,	002C
Ox_007C	1				007C
Ox_007D	1			}	007D
Ox_003F	1			?	003F
Ox_002E	1			.	002E

Ox_0065	2			e	0065
Ox_006E	1			n	006E
Ox_006D	1			m	006D
Ox_0020					0020
Ox_003E	1			>	003E
Ox_0043	1			C	0043
Ox_0056	1			V	0056
Ox_0042	1			B	0042
Ox_004E	1			N	004E
Ox_004D	1			M	004D
Ox_003C	1			<	003C
Ox_0073	1			s	0073
Ox_0053	1			S	0053
Ox_0078	1			x	0078
Ox_0058	1			X	0058
Ox_0077	1			w	0077
Ox_0068	2			h	0068
Ox_0048	2			H	0048

Ox_0020					0020
Ox_003B	1	.		;	003B
Ox_003A	1	,		:	003A
Ox_006B	2	..		k	006B
Ox_004B	2	..		K	004B
Ox_0064	1	┐		d	0064
Ox_0044	1	┐		D	0044
Ox_0066	1	┐┐		f	0066
Ox_0046	1	┐┐		F	0046
Ox_0067	1	┐		g	0067
Ox_0047	1	┐		G	0047
Ox_0020					0020
Ox_0079	1			y	0079
Ox_0075	1			u	0075
Ox_0074	1			t	0074
Ox_0072	2	ˆ		r	0072
Ox_00A9	2	ˆ		©	00A9
Ox_0020					0020

Ox_0020					0020
Ox_0020					0020
Ox_0020					0020
Ox_0020					0020
Ox_0020					0020

F) Questions about Gamera – EZ FONTS output

First, we need to determine all the post processing modules. I've seen that you have used „horizontal” grid limiting factors:

```
neume1,neume2,dist: neume3
```

can we add a y-distance factor.

Furthermore can't we add some sort of module like the following:

```
neume1),neume2,dist(x,y): neume3
```

or even

```
neume1(x1,y1),neume2(x2,y2),neume3 (x3,y3), neume N (xN,yN):neume Z (new  
neume)
```

where x and y can be defined as RANGES ($0 < x < 3$, or $x \geq 3$), ($2 \leq y < 5$)

this will allow us to make a table (for EZ FONTS, we don't need more than 5 neumes in the above array (yet, let's put in six, or even 7 neumes, just to be „safe”)

using such a table/module, we can post-process neumes quite efficiently, especially so as to export them to some particular FONT SET.

Now, I suppose that the post-processing occurs by steps and that the first command line of the table will actually convert and SUBSTITUTE neumes before the second command line is applied (run).

If this is so, and if you can provide me with such a module, we can easily make the Gamera code combinations necessary for EZ (we'll first have to give „Gamera names” to these EZ neume combinations – see tables provided above)

Once this is done, the EZ-post-processed output will be converted to the corresponding EZ fonts (codes provided) using another, gamera-EZ CONVERSION table (using the corresponding EZ-Font codes provided in the tables above): (substituted and non substituted fonts will be converted to pre-combined and non-combined EZ font equivalents).

If this can be achieved, we'll at least have an „export” system that „works”. Although EZ FONTS are limited (no pentagorgons, for instance, and complex combinations require formatting and are, most of the time, impossible to achieve), they can nevertheless be used to output all classical books.

One normaly outputs and applies not with NO formatting whatsoever, given that EZ is supplied with Word macros for „polishing” the output (that is, the initial output as visualized in EZ will not be quite as „precise” as the Gamera out).. Furthermore, non-formatted EZ FONT outputs can be exported to BZ fonts (there is a conversion macro available) and can be „poslised” even further. After „polishing”, however, the output will be semantically correct, and a perfect „rendering” of an otherwise „imperfect” original (because of the „ranges” applied in the module suggested above)! !

EZ and BZ are free, and are attached to this e-mail. They work in Windows, and require WORD.

Although this does not substitute the necessity for „cross-checking” the numerical results of gamera, it will provide us with a readable output which will allow us to further check quite quickly „masses” of documents.