

Byzantine Musical Notation: Proposal for Changes

Draft 1.0: May 2005

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For supporting documentation for the proposals here presented, see Unicode Technical Note #20, which I have authored.

At this stage, I have identified several neumes I believe should be added to the Byzantine musical notation repertoire; but without any feedback from experts, I am not prepared to propose them for encoding now. My investigation strongly suggests, however, that a supplementary Byzantine Musical Notation block of at least another 64 codepoints will prove necessary. Early notation, especially with its kontakarian variant, will likely provide a substantial number of additional codepoints, although musicological research is likely still at too preliminary a stage to allow for a normalised repertoire.

I already believe the following additions to be necessary ultimately; they are alluded to in the technical note:

- *Synagmas or Quickeners*: (3) Byzantine Musical Note Tetragorgon, Byzantine Musical Note Pentagorgon, Byzantine Musical Note Exagorgon (markers of quintuplets, sextuplets and septuplets, used widely in Greek folk music transcription).
- *Phthorae*: (3) The middle notation Mode I Plagal modulant; the four-line flat and sharp differentiators (1D0D3 and 1D0D7, used in theoretical treatises though not in practical notation).
- *Signatures*: (1) the pre-modern beta and nenano mode letters, conflated in the modern neume 1D0A5, will need to be disunified.

1. Annotations

I propose the following explanatory annotations be added to the Byzantine Musical Notation code charts. Given the impracticality of deprecating codepoints at this stage, I address codepoints I believe should not have been adopted by compatibility rather than canonical decomposition; I discuss them separately, however.

1.1. Deprecated

1D000 Byzantine Musical Symbol Psili
≈ 0313 [Combining Comma Above]

1D001 Byzantine Musical Symbol Daseia
≈ 0314 [Combining Reversed Comma Above]

1D002 Byzantine Musical Symbol Perispomeni
≈ 0342 [Combining Greek Perispomeni]

The Alexandrian ‘Prosodic’ system, referred to in the Byzantine Musical Notation rubric, introduced diacritics into Greek: it was used to indicate Classical Greek pitch accent (acute, grave, circumflex), vowel length (breve, macron), the presence of initial *h* (smooth

and rough breathing), and the position of word-breaks (hyphen, hypodiastole). The Alexandrian system has obviously influenced the development of Byzantine musical notation; from the ecphonetic period on, the musical use of Acute and Grave (1D003, 1D048; 1D005, 1D058) was distinct from their textual use as 0301 0300, and their disunification can be defended. I am not aware of any musical usage for the psili, daseia, and perispomeni, however. Indeed, for the psili and daseia (the absence or presence of an initial *h*-), it is hard to conceive of such usage. I believe the signs have been copied across uncritically into the Byzantine Musical Notation block because they were part of the Alexandrian system; but that does not make them distinct musical signs.

1D0E7 Byzantine Musical Symbol Diftoggos Ou

≈ 03BF 03C5 [Greek Small Letter Omicron + Greek Small Letter Upsilon]

→ 0223 [Latin Small Letter Ou]

1D0E8 Byzantine Musical Symbol Stigma

≈ 03C3 03C4 [Greek Small Letter Sigma + Greek Small Letter Tau]

→ 03DB [Greek Small Letter Stigma]

1D0E6 Byzantine Musical Symbol Digamma GG

≈ 03B3 03B3 [Greek Small Letter Gamma + Greek Small Letter Gamma]

These codepoints are for textual use only, referring to ligatures of *ou*, *στ*, *γγ*, formerly widespread in Greek typography but now restricted to the typographically conservative church domain (and little used even there). Since the ligatures are purely textual, and the Byzantine symbols purely musical, their inclusion in the notation encoding is imprudent. In any case, as with all ligation, they are outside the scope of Unicode codepoints, and should be handled at a higher level protocol.¹

1.2. Equivalences

Although it is too late to do anything about it now, several of the codepoints allocated in the Byzantine Musical Notation block are redundant.

1.2.1. Diachronic equivalents

Several pairs belong to the Early and Post-Early systems respectively, but have the same basic functions, if not necessarily the same exact glyphs. I propose these be cross-referenced, with the early glyphs referring to the more widely used post-early glyphs (which are in current liturgical use). Note that these have typically been differentiated in the character names by the adjectives *archaion* ‘ancient’ and *neo* ‘modern’.

1D015 Byzantine Musical Symbol Oligon Archaion

→ 1D047 Byzantine Musical Symbol Oligon Neo

1D016 Byzantine Musical Symbol Gorgon Archaion

→ 1D08F Byzantine Musical Symbol Gorgon Neo Ano

¹The other codepoints in the Letters rubric are note initials used in signatures. Though they are stylised versions of letters, their usage is musical and not textual, and there is no reason to conflate them with the normal textual letters.

- 1D018 Byzantine Musical Symbol Oligon Chamilon
→ 1D056 Byzantine Musical Symbol Chamili²
- 1D01A Byzantine Musical Symbol Ison Archaion
→ 1D046 Byzantine Musical Symbol Ison Neo
- 1D01B Byzantine Musical Symbol Kentima Archaion
→ 1D04F Byzantine Musical Symbol Kentima Neo Ano
- 1D01C Byzantine Musical Symbol Kentimata Archaion
→ 1D04E Byzantine Musical Symbol Kentimata Neo Ano
- 1D022 Byzantine Musical Symbol Apoderma Archaion
→ 1D084 Byzantine Musical Symbol Apoderma Neo
- 1D024 Byzantine Musical Symbol Klasma
→ 1D07F Byzantine Musical Symbol Klasma Ano³
- 1D026 Byzantine Musical Symbol Piasma Archaion
→ 1D059 Byzantine Musical Symbol Piasma Neo
- 1D02A Byzantine Musical Symbol Synagma Archaion
→ 1D065 Byzantine Musical Symbol Synagma Neo
- 1D02C Byzantine Musical Symbol Oyransima Archaion
→ 1D075 Byzantine Musical Symbol Oyransima Neo
- 1D036 Byzantine Musical Symbol Tromikon Archaion
→ 1D063 Byzantine Musical Symbol Tromikon Neo
- 1D038 Byzantine Musical Symbol Pelaston
→ 1D04D Byzantine Musical Symbol Pelaston Neo
- 1D039 Byzantine Musical Symbol Psifiston
→ 1D05A Byzantine Musical Symbol Psifiston Neo
- 1D03B Byzantine Musical Symbol Chorevma Archaion
→ 1D067 Byzantine Musical Symbol Chorevma Neo
- 1D03D Byzantine Musical Symbol Parakalesma Archaion
→ 1D05F Byzantine Musical Symbol Parakalesma Neo
- 1D03E Byzantine Musical Symbol Paraklitiki Archaion
→ 1D05E Byzantine Musical Symbol Paraklitiki Neo
- 1D053 Byzantine Musical Symbol Yporroi
→ 1D07A Byzantine Musical Symbol Katavasma⁴

²The two signs appear to have been interchangeable in Middle notation; the names—which are merely the feminine and neuter form—were already interchangeable in Early notation.

³1D07F is the ‘Above’ glyph. The ‘Below’ equivalent 1D0F4 is a presentation variant, as discussed below.

⁴These signs are semantically identical though their names and glyphs are different, the yporroi being the newer symbol and the katavasma the older.

1.2.2. *Specials*

The following signs are explicitly intended as presentation variants of the same sign: they have the same shape and meaning, and differ only in the position of the sign, in accordance with the traditional combinatorics of the signs. The position of the sign is conditioned only syntactically, and there is no semantic distinction made. The positions of the signs are mentioned in the codepoint names: *ano* ‘above’, *meso* ‘middle’, *kato* ‘below’. These signs should have been made canonically equivalent; failing that they should be compatibility-equivalent. For convenience, the sign above is taken as the reference sign.

1D0F0 Byzantine Musical Symbol Kentimata Neo Meso

≈ 1D04E Byzantine Musical Symbol Kentimata Neo Ano

1D0F1 Byzantine Musical Symbol Kentima Neo Meso

≈ 1D04F Byzantine Musical Symbol Kentima Neo Ano

1D0F2 Byzantine Musical Symbol Kentimata Neo Kato

≈ 1D04E Byzantine Musical Symbol Kentimata Neo Ano

1D0F3 Byzantine Musical Symbol Kentima Neo Kato

≈ 1D04F Byzantine Musical Symbol Kentima Neo Ano

1D0F4 Byzantine Musical Symbol Klasma Kato

≈ 1D07F Byzantine Musical Symbol Klasma Ano

1D0F5 Byzantine Musical Symbol Gorgon Neo Kato

≈ 1D08F Byzantine Musical Symbol Gorgon Neo Ano

The flexible positioning of these particular signs does not differentiate them from any number of other Byzantine neumes: all vocal signs can appear above one another, and any system rendering Byzantine notation has to be flexible about the relative placement of neumes.

1.2.3. *Mode Signatures*

The Proto-Varys and Plagal IV signatures, are clearly compound and analysable in terms of constituent neumes. This should be annotated through compatibility decomposition:

1D0B2 Byzantine Musical Symbol Martyria Protovarys Ichos

≈ U+1D0B1 U+1D0A3 U+1D0AD [Byzantine Musical Symbol Martyria Varys Ichos + Byzantine Musical Symbol Martyria Alli Protos Ichos + Byzantine Musical Symbol Apostrofoi Telous Ichimatos]

1D0B3 Byzantine Musical Symbol Martyria Plagios Tetartos Ichos

≈ U+1D0AB U+1D0A8 U+1D0AD [Byzantine Musical Symbol Martyria Plagios Ichos + Byzantine Musical Symbol Martyria Tetartos Ichos + Byzantine Musical Symbol Apostrofoi Telous Ichimatos]

I do not suggest that the signature formants (neume remnants: U+1D0AC – U+1D0B1) be conflated with the neumes that they originated in. The glyph variation of 1D0A6, the Mode III signature, likewise argues against its obvious decomposition into 0393 1D0AF

1D0B0, since some variants exclude the dipli.

1.2.4. *Gorthmic nus*

The gorthmic nus, used to notate extratextual/melismatic inserted /n/, are specific to musical notation. Nonetheless they are textual and not musical signs, even if the words they spell out are nonsensical, and they are clearly contextual variants of the Greek letter nu (with which they are often replaced where the gorthmic glyphs are unavailable). Although this context is not recoverable in plain text (it involves the distinction between text proper and intonation formulas), the gorthmic nus should have a compatibility decomposition to the normal Greek letter nu, with their conditioning annotated

1D0B4 Byzantine Musical Symbol Gorthmikon N Aploun

≈ U+03BD [Greek Small Letter Nu]

- Used in intonation formulas instead of nu, before phonemes a, i, o, u

1D0B5 Byzantine Musical Symbol Gorthmikon N Diploun

≈ U+03BD [Greek Small Letter Nu]

- Used in intonation formulas instead of nu, before phoneme e

U+1D0B4 occurs as a reduplication in U+1D0A7 Byzantine Musical Symbol Matryria Trifonias because historically this sign is the old spelling out of the intonation formula νανν, using two gorthmic single nus. 1D0B4 could therefore be decomposed to 1D0A7 1D0A7; but I do not believe that would be useful, given the different contexts of use of the two signs, and that decomposing the gorthmic nu to normal textual nu would be preferable overall.

1.2.5. *Retard Combinations*

The current code chart treats several combinations of retards or quickeners and other neumes as precombined. These combinations do not exhaust all possibilities found in use—particularly for quickeners, where some interpretations of the notation use the dipli as well as the apli. The combinations should have compatibility decompositions to their decomposed equivalents where practical, which will encourage implementers to think of retard dots in combining terms. In the case of quickeners, the relative positioning of the retard and quickener is a matter for higher level markup, but the compatibility marking is still appropriate.

1D08A Byzantine Musical Symbol Leimma Enos Chronou

≈ 1D058 1D085 [Byzantine Musical Symbol Vareia Neo + Byzantine Musical Symbol Apli]

1D08B Byzantine Musical Symbol Leimma Dyo Chronon

≈ 1D058 1D086 [Byzantine Musical Symbol Vareia Neo + Byzantine Musical Symbol Dipli]

1D08C Byzantine Musical Symbol Leimma Trion Chronon

≈ 1D058 1D087 [Byzantine Musical Symbol Vareia Neo + Byzantine Musical Symbol Tripli]

1D08D Byzantine Musical Symbol Leimma Tessaron Chronon

≈ 1D058 1D088 [Byzantine Musical Symbol Vareia Neo + Byzantine Musical Symbol

Tetrapli]

1D08E Byzantine Musical Symbol Leimma Imiseos Chronou

≈ 1D058 1D08F [Byzantine Musical Symbol Vareia Neo + Byzantine Musical Symbol Gorgon Neo Ano]

1D090 Byzantine Musical Symbol Gorgon Parestigmenon Aristera

≈ 1D08F 1D085 [Byzantine Musical Symbol Gorgon + Byzantine Musical Symbol Apli]

1D091 Byzantine Musical Symbol Gorgon Parestigmenon Dexia

≈ 1D08F 1D085 [Byzantine Musical Symbol Gorgon + Byzantine Musical Symbol Apli]

1D093 Byzantine Musical Symbol Digorgon Parestigmenon Aristera
Kato

≈ 1D092 1D085 [Byzantine Musical Symbol Digorgon + Byzantine Musical Symbol Apli]

1D094 Byzantine Musical Symbol Digorgon Parestigmenon Aristera
Ano

≈ 1D092 1D085 [Byzantine Musical Symbol Digorgon + Byzantine Musical Symbol Apli]

1D095 Byzantine Musical Symbol Digorgon Parestigmenon Dexia

≈ 1D092 1D085 [Byzantine Musical Symbol Digorgon + Byzantine Musical Symbol Apli]

1D0DF Byzantine Musical Symbol Simansis Theseos Disimou

≈ 1D0DE 1D085 [Byzantine Musical Symbol Simansis Theseos + Byzantine Musical Symbol Apli]

1D0E0 Byzantine Musical Symbol Simansis Theseos Trisimou

≈ 1D0DE 1D086 [Byzantine Musical Symbol Simansis Theseos + Byzantine Musical Symbol Dipli]

1D0E1 Byzantine Musical Symbol Simansis Theseos Tetrasimou

≈ 1D0DE 1D087 [Byzantine Musical Symbol Simansis Theseos + Byzantine Musical Symbol Tripli]

1D0E3 Byzantine Musical Symbol Simansis Arseos Disimou

≈ 1D0E2 1D085 [Byzantine Musical Symbol Simansis Arseos + Byzantine Musical Symbol Apli]

1D0E0 Byzantine Musical Symbol Simansis Arseos Trisimou

≈ 1D0E2 1D086 [Byzantine Musical Symbol Simansis Arseos + Byzantine Musical Symbol Dipli]

1D0E1 Byzantine Musical Symbol Simansis Arseos Tetrasimou

≈ 1D0E2 1D087 [Byzantine Musical Symbol Simansis Arseos + Byzantine Musical Symbol Tripli]

1.2.6. Western borrowings

Borrowings into the Modern system from Western musical notation should be so cross-referenced:

1D07C Byzantine Musical Symbol Yfen Kato

≈ 1D175 Musical Symbol Begin Slur, 1D176 Musical Symbol End Slur

1D07D Byzantine Musical Symbol Yfen Ano

≈ 1D175 Musical Symbol Begin Slur, 1D176 Musical Symbol End Slur

1D089 Byzantine Musical Symbol Koronis

≈ 1D110 Musical Symbol Fermata

1.2.7. Other

There is clearly no semantic distinction between the Diastoli Mikri and the Diastoli Megali; the two should therefore be conflated (and cross-referenced to the Western equivalent Single Barline), notwithstanding the distributional differentiation that seems to be used by Efthymiadis (Figure AA21 in technical note).

1D0DA Byzantine Musical Symbol Diastoli Mikri

≈ 1D0DB Byzantine Musical Symbol Diastoli Megali

→ 1D100 Musical Symbol Single Barline

1D0DB Byzantine Musical Symbol Diastoli Megali

→ 1D100 Musical Symbol Single Barline

The conduits in Greek practice (U+1D09A – U+1D0A0) are composed from chi (from χρόνος, ‘time’) and a quickener or retard. Rumanian (and possibly South Slavic) practice is to indicate tempo with a letter other than chi: Rumanian uses T for *timp*. The currently encoded conduits reflect only Greek practice, and an informative note should be inserted to that effect.

1D09A Byzantine Musical Symbol Agogi Poli Argi

- Glyphs shown for conduits reflects Greek practice, with chi as the base letter; different national traditions use glyphs with different base letters (e.g. T in Romanian)

1.3. Variant names

The imidiargon and diargon are called by some authorities *diargon* and *triargon* respectively; this should be annotated.

1D098 Byzantine Musical Symbol Imidiargon

- Called by some authorities Diargon

1D099 Byzantine Musical Symbol Diargon

- Called by some authorities Triargon

2. Rubrics

In the code chart, the rubrics from *Fthores* ‘Destroyers’ up to *Grammata* ‘Letters’ are out by one codepoint; this needs to be changed:

U+1D0B5 Byzantine Musical Symbol Gorthmikon N Diploun belongs to *Ichimas and Evidentials*, not *Destroyers*.

U+1D0CA Byzantine Musical Symbol Chroa Spathi belongs to *Destroyers*, not *Differentiators*.

U+1D0D9 Byzantine Musical Symbol Geniki Yfesis belongs to *Differentiators*, not *Rhythmics*.

U+1D0E5 Byzantine Musical Symbol Simansis Arseos Tetrasimou

belongs to *Rhythmics*, not *Letters*.

3. Glyph errors

The reference glyphs of 1D09C and 1D09F, the *Agogi Argi* and *Agogi Gorgi* (Slow Conduit, Fast Conduit) need to be swapped, as should be clear from inspection.

4. DUCET revision

I propose that the equivalences I have identified here be incorporated into DUCET, with full equivalents distinguished at the tertiary level, and compatibility equivalents at the secondary level (excluding the retard combinations):

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1D000 ; [*0217.0020.0002.1D000] # BYZANTINE MUSICAL SYMBOL PSILI: made equivalent to 1FBF
GREEK PSILI
1D001 ; [*0218.0020.0002.1D001] # BYZANTINE MUSICAL SYMBOL DASEIA: made equivalent to 1FFE
GREEK DASIA
1D002 ; [*021D.0020.0002.1D002] # BYZANTINE MUSICAL SYMBOL PERISPOMENI: made equivalent to
1FC0 GREEK PERISPOMENI
1D0E6 ; [.10EA.0020.0002.1D0E6][.10EA.0020.0002.1D0E6] # BYZANTINE MUSICAL SYMBOL DIGRAMMA
GG: made equivalent to 03B3 GREEK SMALL LETTER GAMMA + 03B3 GREEK SMALL LETTER GAMMA
1D0E7 ; [.10FB.0020.0002.1D0E7][.1104.0020.0002.1D0E7] # BYZANTINE MUSICAL SYMBOL DIFTOGGOS
OU: made equivalent to 03BF GREEK SMALL LETTER OMICRON + 03C5 GREEK SMALL LETTER UPSILON
1D0E8 ; [.1102.0020.0002.1D0E8][.1103.0020.0002.1D0E8] # BYZANTINE MUSICAL SYMBOL STIGMA:
made equivalent to 03C3 GREEK SMALL LETTER SIGMA + 03C4 GREEK SMALL LETTER TAU
1D015 ; [*0C23.0020.0002.1D015] # BYZANTINE MUSICAL SYMBOL OLIGON ARCHAION
1D047 ; [*0C23.0021.0002.1D047] # BYZANTINE MUSICAL SYMBOL OLIGON NEO: made equivalent to
1D015
1D016 ; [*0C24.0020.0002.1D016] # BYZANTINE MUSICAL SYMBOL GORGON ARCHAION
1D08F ; [*0C24.0021.0002.1D08F] # BYZANTINE MUSICAL SYMBOL GORGON NEO ANO: made equivalent to
1D016
1D0F5 ; [*0C24.0021.0003.1D0F5] # BYZANTINE MUSICAL SYMBOL GORGON NEO KATO: made equivalent
to 1D08F
1D018 ; [*0C26.0020.0002.1D018] # BYZANTINE MUSICAL SYMBOL CHAMILON
1D056 ; [*0C64.0021.0002.1D056] # BYZANTINE MUSICAL SYMBOL CHAMILI1: made equivalent to 1D018
1D01A ; [*0C28.0020.0002.1D01A] # BYZANTINE MUSICAL SYMBOL ISON ARCHAION
1D046 ; [*0C28.0021.0002.1D046] # BYZANTINE MUSICAL SYMBOL ISON NEO: made equivalent to 1D01A
1D01B ; [*0C29.0020.0002.1D01B] # BYZANTINE MUSICAL SYMBOL KENTIMA ARCHAION
1D04F ; [*0C29.0021.0002.1D04F] # BYZANTINE MUSICAL SYMBOL KENTIMA NEO ANO: equivalent to
1D01B
1D0F1 ; [*0C29.0021.0004.1D0F1] # BYZANTINE MUSICAL SYMBOL KENTIMA NEO MESO: made equivalent
to 1D04E
1D0F3 ; [*0C29.0021.0004.1D0F3] # BYZANTINE MUSICAL SYMBOL KENTIMA NEO KATO: made equivalent
to 1D04F
1D01C ; [*0C2A.0020.0002.1D01C] # BYZANTINE MUSICAL SYMBOL KENTIMATA ARCHAION
1D04E ; [*0C2A.0021.0002.1D04E] # BYZANTINE MUSICAL SYMBOL KENTIMATA NEO ANO: made equivalent
to 1D01C
1D0F0 ; [*0C29.0021.0003.1D0F0] # BYZANTINE MUSICAL SYMBOL KENTIMATA NEO MESO: made
equivalent to 1D04E
1D0F2 ; [*0C29.0021.0003.1D0F2] # BYZANTINE MUSICAL SYMBOL KENTIMATA NEO KATO: made
equivalent to 1D04F
1D022 ; [*0C30.0020.0002.1D022] # BYZANTINE MUSICAL SYMBOL APODERMA ARCHAION
1D084 ; [*0C30.0021.0002.1D084] # BYZANTINE MUSICAL SYMBOL APODERMA NEO: made equivalent to
1D022
1D024 ; [*0C32.0020.0002.1D024] # BYZANTINE MUSICAL SYMBOL KLASMA
1D07F ; [*0C32.0021.0002.1D07F] # BYZANTINE MUSICAL SYMBOL KLASMA ANO: made equivalent to
1D024
1D0F4 ; [*0C32.0021.0003.1D0F4] # BYZANTINE MUSICAL SYMBOL KLASMA KATO: made equivalent to
1D07F
1D026 ; [*0C34.0020.0002.1D026] # BYZANTINE MUSICAL SYMBOL PIASMA ARCHAION
1D059 ; [*0C34.0021.0002.1D059] # BYZANTINE MUSICAL SYMBOL PIASMA NEO: made equivalent to
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1D026

1D02A ; [*0C38.0020.0002.1D02A] # BYZANTINE MUSICAL SYMBOL SYNAGMA ARCHAION
 1D065 ; [*0C38.0021.0002.1D065] # BYZANTINE MUSICAL SYMBOL SYNAGMA NEO: made equivalent to 1D02A
 1D02C ; [*0C3A.0020.0002.1D02C] # BYZANTINE MUSICAL SYMBOL OYRANISMA ARCHAION
 1D075 ; [*0C3A.0021.0002.1D075] # BYZANTINE MUSICAL SYMBOL OYRANISMA NEO: made equivalent to 1D02C
 1D036 ; [*0C44.0020.0002.1D036] # BYZANTINE MUSICAL SYMBOL TROMIKON ARCHAION
 1D063 ; [*0C44.0021.0002.1D063] # BYZANTINE MUSICAL SYMBOL TROMIKON NEO: made equivalent to 1D036
 1D038 ; [*0C46.0020.0002.1D038] # BYZANTINE MUSICAL SYMBOL PELASTON
 1D04D ; [*0C46.0021.0002.1D04D] # BYZANTINE MUSICAL SYMBOL PELASTON NEO: made equivalent to 1D038
 1D039 ; [*0C47.0020.0002.1D039] # BYZANTINE MUSICAL SYMBOL PSIFISTON
 1D05A ; [*0C47.0021.0002.1D05A] # BYZANTINE MUSICAL SYMBOL PSIFISTON NEO: made equivalent to 1D039
 1D03B ; [*0C49.0020.0002.1D03B] # BYZANTINE MUSICAL SYMBOL CHOREVMA ARCHAION
 1D067 ; [*0C49.0021.0002.1D067] # BYZANTINE MUSICAL SYMBOL CHOREVMA NEO: made equivalent to 1D03B
 1D03D ; [*0C4B.0020.0002.1D03D] # BYZANTINE MUSICAL SYMBOL PARAKALESMA ARCHAION
 1D05F ; [*0C4B.0021.0002.1D05F] # BYZANTINE MUSICAL SYMBOL PARAKALESMA NEO: made equivalent to 1D03D
 1D03E ; [*0C4C.0020.0002.1D03E] # BYZANTINE MUSICAL SYMBOL PARAKLITIKI ARCHAION
 1D05E ; [*0C4C.0021.0002.1D05E] # BYZANTINE MUSICAL SYMBOL PARAKLITIKI NEO: made equivalent to 1D03E
 1D053 ; [*0C61.0020.0002.1D053] # BYZANTINE MUSICAL SYMBOL YPORROI
 1D07A ; [*0C61.0021.0002.1D07A] # BYZANTINE MUSICAL SYMBOL KATAVASMA: made equivalent to 1D053
 1D073 ; [*0C81.0020.0002.1D073] # BYZANTINE MUSICAL SYMBOL ARGOSYNTHETON
 1D074 ; [*0C81.0021.0002.1D074] # BYZANTINE MUSICAL SYMBOL ETERON ARGOSYNTHETON: made equivalent to 1D073
 1D081 ; [*0C8F.0020.0002.1D081] # BYZANTINE MUSICAL SYMBOL KRATIMA ARCHAION
 1D082 ; [*0C90.0021.0002.1D082] # BYZANTINE MUSICAL SYMBOL KRATIMA ALLO: made equivalent to 1D081
 1D083 ; [*0C91.0022.0002.1D083] # BYZANTINE MUSICAL SYMBOL KRATIMA NEO: made equivalent to 1D081
 1D0B2 ; [*0CBF.0020.0002.1D0B1][*0CB0.0021.0002.1D0A3][*0CBB.0020.0002.1D0AD] # BYZANTINE MUSICAL SYMBOL MARTYRIA PROTOVARYS ICHOS: decomposed
 1D0B3 ; [*0CB9.0020.0002.1D0AB][*0CB6.0020.0002.1D0A8][*0CBB.0020.0002.1D0AD] # BYZANTINE MUSICAL SYMBOL MARTYRIA PLAGIOS TETARTOS ICHOS: decomposed
 1D0B4 ; [.10F9.0020.0006.1D0B4] # BYZANTINE MUSICAL SYMBOL GORTHMIKON N APLOUN: made equivalent to 03BD GREEK SMALL LETTER NU
 1D0B5 ; [.10F9.0020.0007.1D0B5] # BYZANTINE MUSICAL SYMBOL GORTHMIKON N DIPLOUN: made equivalent to 03BD GREEK SMALL LETTER NU
 1D0DB ; [*0CE9.0020.0002.1D0DB] # BYZANTINE MUSICAL SYMBOL DIASTOLI APLI MEGALI
 1D0DA ; [*0CE9.0021.0002.1D0DA] # BYZANTINE MUSICAL SYMBOL DIASTOLI APLI MIKRI: made equivalent to 1D0DB