

Phonetic characters: Greek and Latin?

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The characters (1DF3B, 1DF3C, 1DF3D)
GREEK SMALL LETTER BETA WITH PALATAL HOOK
GREEK SMALL LETTER THETA WITH PALATAL HOOK
GREEK SMALL LETTER CHI WITH PALATAL HOOK

should be changed to

LATIN SMALL LETTER BETA WITH PALATAL HOOK
LATIN SMALL LETTER THETA WITH PALATAL HOOK
LATIN SMALL LETTER CHI WITH PALATAL HOOK
along with changing their Script Property to Latin.

In [L2/24-146](#), *Unicode request for Greek letters with palatal hook*, the 3 letters beta, theta and chi with palatal hook are proposed as Greek characters. The document states that “Subsequent review by SAH decided that they should be encoded as Greek script, though added to a Latin extended block as other Greek-derived phonetic characters are.”

It may be consistent with Greek-derived modifier letters β , γ , β , χ (1D5D, 1D61, 1D66, 1D6A) [Unicode 4.0, [L2/02-141](#)] and θ (1DBF) [Unicode 4.1, [L2/04-044](#)], which decompose to Greek characters β , θ , χ (03B2, 03B8, 03C7) [Unicode 1.0], which themselves unify Latin and Greek forms used in phonetics transcriptions like the IPA, and added before Latin forms β (A7B2) [Unicode 8.0, [L2/12-270](#)] and Latin χ (AB53) [Unicode 7.0, [N4296](#)] were disunified for casing.

However, this is not consistent with Greek-derived letters with attached diacritics, closed forms or turned forms that do not decompose, which are typically encoded in Latin script as they are not used in Greek script.

For example [Unicode 1.1 characters]:

- λ 019B LATIN SMALL LETTER LAMBDA WITH STROKE
- ω 0277 LATIN SMALL LETTER CLOSED OMEGA
- ϱ 018D LATIN SMALL LETTER TURNED DELTA

or any of υ , \mathfrak{z} , \mathfrak{z} , \mathfrak{e} , \mathfrak{e} , \mathfrak{z} (0252, 025C, 025D, 025E, 029A, 1D08) [Unicode 1.1], \mathfrak{t} , \mathfrak{v} , \mathfrak{a} , \mathfrak{e} , \mathfrak{z} (1D7C, 1D7F, 1D90, 1D93, 1D94) [Unicode 4.1], \mathfrak{a} , \mathfrak{x} , \mathfrak{x} , σ (AB30, AB54, AB55, AB64) [Unicode 7.0], which are Greek-derived or sometimes identified as such [see [L2/22-071](#) for \mathfrak{e} \mathfrak{e} or [L2/22-101r](#) for \mathfrak{a}] while there are both Latin α , ϵ , ι , υ (0251, 025B, 0269, 028A) [Unicode 1.1], δ (1E9F) [Unicode 5.1], ω (A7B7) [Unicode 8.0], λ , (A7DB) [Unicode 16.0] and Greek Ω , α , δ , ϵ , ι , λ ,

ω (03A9, 03B1, 03B4, 03B5, 03B9, 03BB, 03C9). $\overset{\circ}{\alpha}$ 1DE7 COMBINING LATIN SMALL LETTER ALPHA and $\overset{\circ}{\beta}$ 1DE9 COMBINING LATIN SMALL LETTER BETA [[L2/11-202](#)] are also relevant.

Besides modifier letters, other exceptions to Latin script are some small capitals. For example, due to casing forms, Ω (AB65) LATIN LETTER SMALL CAPITAL OMEGA was renamed GREEK LETTER SMALL CAPITAL OMEGA [Unicode 8.0] to avoid it having the small capital form of Ω (A7B6) LATIN CAPITAL LETTER OMEGA [Unicode 8.0], allocated at the time, and instead have the form of a Greek small capital like an unturned υ (028A) LATIN SMALL LETTER UPSILON [[L2/12-266r](#), [L2/13-148](#), [L2/13-154](#), [N4403](#)]. For UPA, the symbols for devoiced γ , κ , λ , π , ρ , τ , ψ (03B3, 03BA, 03BB, 03C0, 03C1, 03C4, 03C8) are Greek γ , λ , π , ρ , ψ (1D26, 1D27, 1D28, 1D29, 1D2A) [Unicode 4.0, [L2/02-141](#)], except the small capitals of κ and τ can only be represented with Latin κ and τ (1D0B, 1D1B).

IPA uses Greek β , θ , χ (03B2, 03B8, 03C7) because they unify various forms since Unicode 1.1. IPA has a history of having Latin forms, including when with palatal hook [Henderson 1949 in [L2/24-146](#) or below].

While LATIN SMALL LETTER CHI was encoded for chi in Teuthonista, first identified as LATIN SMALL LETTER STRETCHED X [[L2/11-202](#)], it was corrected after being allocated [[N4296](#)]. Its superscript is χ (1D61). The capital was added for the Lepsius Standard Alphabet usage. Similarly Latin beta β (A7B5) LATIN SMALL LETTER BETA has a specific capital form in the Gabon Scientific Alphabet. Both sets of Latin β , χ (AB53, A7B5) and Greek β , χ (03B2, 03C7), or others mentioned above, can have Greek and Latin forms depending on fonts or typographic preference. What makes them distinct is mainly casing forms.

The 3 Greek-derived symbols are only used within a Latin transcription system, having them in a different script creates shaping issues with implementations that handle scripts separately. For example, $\overset{\circ}{\beta}$ or $\overset{\circ}{\theta}$ may be split per script and font features adjusting the ligature tie would not be applied, or non-IPA forms β , θ , χ may be used.

βθχ βχ Unicode charts	βθχ βχ Times New Roman	βθχ βχ Doulos SIL	βθχ βχ Charis SIL	βθχ βχ Noto Serif	βθχ βχ Brill
βθχ βχ Arial	βθχ βχ Segoe UI	βθχ βχ Noto Sans	βθχ βχ Calibri	βθχ βχ Gentium Plus	βθχ βχ Minion 3

Table 1. Greek βθχ (03B2, 03B8, 03C7) and Latin βχ (A7B2, AB53) in Unicode and in system or common fonts.

<p>ϕ, β, θ, δ, χ, γ, ζ, ξ, η, ι, κ, λ, μ, ν, ξ, ο, π, ρ, σ, τ, υ, φ, χ, ψ.</p>
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Figure 1. *Le Maître phonétique*, 1934, p. 77, showing IPA Latin forms.

For instance, the Greek letters included in the International Alphabet are cut in roman adaptations. Thus, since the ordinary shape of the Greek letter β does not harmonise with roman type, in the International Phonetic Alphabet it is given the form β. And of the two form of Greek theta, θ and ϑ, it has been necessary to choose the first (in vertical form), since the second cannot be made to harmonise with roman letters.

Figure 2. *The Principles of the International Phonetic Association*, 1949, p. 1-2, with IPA Latin forms.

<p>ϕ β f v θ δ s z ʃ ʒ ʒ ʒ ɟ j x y χ ψ</p>
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Figure 3. *Principles of the International Phonetic Association*, 1949, p. 10, with IPA Latin forms.

<p>χ is a voiceless fricative, usually uvular, pre-uvular, with accompanying action sufficient to justify its description as a voiceless fricative.</p>	<p>χist xist χets'on xecon</p>	<p>raχes</p>
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Figure 4. E. J. A. Henderson, "A Phonetic Study of Western Ossetic (Digoron)", *Bulletin of the School of Oriental and African Studies*, 13(1), 1949, p. 51, showing IPA Latin forms of chi and chi with palatal hook.

<p>one consonant phonemes: /p t̪ t k tʳ ʧ β ʝ γ r s l̪ l λ m n ŋ w/.</p>	<p>special symbol), together with the non-occurrence of the totally unvoiced [θ]. To assume</p>
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Figure 5. "The phonemes of an Auracanian dialect", *IJAL*, 25(3), 1959, p.179, with Americanist lambda and Greek forms.

<p>ϕ, β bi-labial fricatives. θ, δ dental fricatives (F)</p>	<p>β f pϕ</p>
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Figure 6. D. Jones, *The phoneme*, 1962, p. xv, showing sans-serif IPA forms.

Figure 7. E. Dunstan, "Towards a phonology of Ngwe", *JWAL*, 1(1), 1964, p. 39, showing sans-serif IPA forms.

A good source from which letters can be borrowed is the Greek of roman letters. The preceding six characters, for example, have for alphabet, and β γ ε θ φ χ, for example, have been made use of for this reason been modified as follows: β γ ε θ φ χ. The Cyrillic alphacenturies in roman-based phonetic notations. Borrowed Greek letters bet can also offer possible new characters, such as ъ ѣ, and the script are sometimes redesigned so as to fit in with the general appearance form ъ ѣ.

Figure 8. David Abercrombie, *Elements of General Phonetics*, 1967, p. 122, showing Greek and IPA Latin forms.

<p>ϕ β f v θ δ s z ʃ ʒ ʒ ʒ ɟ j x y χ ψ</p>
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Figure 10. *The International Phonetic Alphabet (revised to 1979)* with IPA mixed forms.

<p>Fricative ϕ β f v θ δ s z ʃ ʒ ʃ ʒ ɟ j x y χ ψ ħ ʕ h ɦ</p>
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Figure 11. *The International Phonetic Alphabet (revised to 2015)* with IPA mixed forms.

<p>ϑ Ε Β Ο β Ε Le γεβοβε est parlé</p>	<p>B305 γεβοβε puvi</p>
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Figure 12. *Revue gabonaises des sciences*, no.2, 1990, p.193 showing Latin forms of Gabon IPA-derived symbol.

Figure 13. R. Ollomo Ella, *Description linguistique du shiwa, langue bantu du Gabon*, 2013, p.31 showing Greek form of Gabon IPA-derived symbol.

<p>χ : d. i. der sog. „ich-Laut“, z. B. dörχ durch</p>	<p>D., 34 Einw., 11 Wgb., ma. leiχdnek^h [S].</p>
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Figure 14. R. Mehlem, *Atlas der Celler Mundart*, 1967, p. 24 showing Teuthonista Greek form.

Figure 15. H. Frank et al., *Sulzbach-Rosenberg*, 2002, p.79 showing Teuthonista Latin form.