

# Test LGR font encoding definitions

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The file `lgrenc.def` provides a comprehensive set of macros to typeset Greek with LGR encoded fonts. It works for both, monotonic and polytonic Greek, independent of the *Babel* package.

The example from `usage.tex` in *babel-greek* input using the LICR macros:

Τί φής; Ἴδὼν ἐνθέδε παῖδ' ἐλευθέραν  
τάς πλησίον Νύμφας στεφανοῦσαν, Σώστρατε,  
ἐρῶν ἀπῆλθεσ εὐθύς;

## 1 Symbols

See the source file [lgrenc-test.tex](#) for the macros used to access the symbols.

### 1.1 Generic text symbols

Latin: + - = < > - - { [ ( ) ] } \ | % ‰ ‹

LGR: + - = < > - - { [ ( ) ] } \ | ‰ ‹ (Per-mille symbol is missing in LGR.)

Quotes: «a» «α», ‘a’ ‘α’, “a” “α” (double quotes wrong with Kerkis fonts),

Single quotes need special attention to prevent conversion to accents.  
Test the input conventions: ‘α’ ‘α’ ‘α’ ‘α’ but not ἄ ἔ ἶ

Single guillemots and base-quotes (‹a› „a” ,a’) are missing in LGR.

Ligature break up: AY fi AY ῖ ↦ AY fi AY ῖ

Spacing accent chars:  $\hat{a}$   $\hat{\alpha}$   $\hat{i}$   $\tilde{a}$   $\tilde{\alpha}$   $\tilde{i}$   $\check{a}$   $\check{\alpha}$   $\check{i}$   $\bar{a}$   $\bar{\alpha}$   $\bar{i}$   $\grave{a}$   $\acute{\alpha}$   $\grave{i}$   $\grave{\alpha}$   $\grave{i}$

Symbols for SI-units: 5  $\mu\text{m}$ , 5  $\text{k}\Omega$ ; 5  $\mu\text{m}$ , 5  $\text{k}\Omega$

Letter schwa and Euro symbol: ə, €

Some symbol definitions expect a Latin font. *babel-greek* redefines them with `\latintext`, however this macro is not guaranteed to be defined, so it should

not be used in a font encoding definition file. The `textcomp.sty` package provides copyright, registered, and trademark symbols for use with any font encodings. (Like any other Latin character, the “sharp s” (ß) is not safe to use when LGR is the active font encoding.)

Latin: © ® ™ SS (uppercase of ß).

LGR (with `textcomp`): © ® ™ ΣΣ (uppercase of ß).

## 1.2 Greek alphabet

Greek letters via Latin transcription and LICR macros:

A B Γ Δ E Z H Θ I K Λ M N Ξ O Π P Σ T Υ Φ X Ψ Ω

α β γ δ ε ζ η θ ι κ λ μ ν ξ ο π ρ σ τ υ φ χ ψ ω

A B Γ Δ E Z H Θ I K Λ M N Ξ O Π P Σ T Υ Φ X Ψ Ω

α β γ δ ε ζ η θ ι κ λ μ ν ξ ο π ρ σ τ υ φ χ ψ ω

The small sigma is set with a different glyph if it ends a word:

σ `textsigma`

ς `textfinalsigma` or `textvarsigma`

In the Latin transcription, the letter ‘s’ stands for `\textautosigma` which automatically chooses the glyph according to the position.

## 1.3 Additional Greek symbols

ϝ `textkoppa`

Ϟ `textqoppa` (archaic koppa)

ϙ `textQoppa` (archaic Koppa)

Ϛ `textstigma`

ϛ `textvarstigma`

Ϝ `textStigma` (Sigma-Tau-Ligature in CB-fonts)<sup>1</sup>

ϝ `textsampi`

Ϟ `textSampi`

ϟ `textdigamma`

Ϡ `textDigamma`

ϡ `textnumeralsigngreek` (Dexia keraia)

Ϣ `textnumeralsignlowergreek` (Aristeri keraia)

Mathematical notation sometimes uses variant shapes for pi ( $\varpi$ ), kappa (*no TeX symbol available*), rho ( $\varrho$ ), and theta ( $\vartheta$ ). These variations have no syntactic

<sup>1</sup>the name “stigma” originally applied to a medieval sigma-tau ligature, whose shape was confusably similar to the cursive digamma



Combinations with named accents: ǎ ǎ ǎ.

The dialytika must be kept in UPPERCASE, e. g. μάστρος ↦ MAΪΣΤΡΟΣ or εὐζωΐα ↦ EΥΖΩΪΑ.

This is implemented for all input variants of diacritics with dialytika:

ĩ ĩ ĩ ü ö ò ü ↦ Ī Ī Ī Ŷ Ŷ Ŷ Ŷ,

Tonos and dasia mark a *hiatus* (break-up of a diphthong) if placed on the first vowel of a diphthong (ái, áu, éi). A dialytika must be placed on the second vowel if they are dropped: (AĪ, AŶ, EĪ).

άλος ↦ AŶΛΟΣ, ἄλος ↦ AŶΛΟΣ, μάνα ↦ MAĪNA, κέικ, ↦ KEĪK άπνία ↦ AŶΠΝΙΑ

Test the auto-hiatus feature for side-effects:

A B: keep space after A.

|                            |
|----------------------------|
| AO AΨ AI AY PA OA TA ΔΥ [  |
| ˆAO AΨ AI AY PA OA TA ΔΥ [ |
| ˆAO AΨ AĪ AŶ PA OA TA ΔΥ [ |
| ˆAO AΨ AĪ AŶ PA OA TA ΔΥ [ |
| ˆAO AΨ AĪ AŶ PA OA TA ΔΥ [ |
| ˆAO AΨ AĪ AŶ PA OA TA ΔΥ [ |
| ˆAO AΨ AĪ AŶ PA OA TA ΔΥ [ |
| ˆAO AΨ AI AY PA OA TA ΔΥ [ |
| ˆAO AΨ AI AY PA OA TA ΔΥ [ |
| ˆAO AΨ AI AY PA OA TA ΔΥ [ |
| ˆAO AΨ AI AY PA OA TA ΔΥ [ |
| ˆAO AΨ AI AY PA OA TA ΔΥ [ |
| ˆAO AΨ AI AY PA OA TA ΔΥ [ |
| ˆAO AΨ AI AY PA OA TA ΔΥ [ |
| ˆAO AΨ AĪ AŶ PA OA ŶA ΔΥ [ |
| ˆÄO ÄΨ ÄI ÄŶ PÄ ÖA TÄ ΔŶ [ |
| ˆÄO ÄΨ ÄI ÄŶ PÄ ÖA TÄ ΔŶ [ |

Rows 3 . . . 7: Look-ahead (to check for a hiatus) breaks kerning before A with Tonos or Psili.

Rows 15 and 16: Like in any font encoding, there is no kerning for non-defined accent-letter-combinations (dialytika on A O Δ).

Downcasing should keep diacritics (of course, it cannot regenerate "manually" dropped ones): 'A Ī Ŷ "A ↦ á ĩ ü ǎ