

## Test the extended LGR font encoding definitions

The file lgrxenc.def allows convenient typesetting of Greek letters with diacritics. It works independent of the babel package.

### Symbols

See the source file lgrenc-test.tex for the macros used to produce the symbols.

#### Generic text symbols

Latin: + - = < > - — { [ ( ) ] } \ | %<sub>0</sub> %<sub>00</sub> □

LGR: + - = < > - — { [ ( ) ] } \ | %<sub>0</sub> ‰ (Per-mille symbol is missign in LGR.)

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

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

Ligature break up: AY fi AY ĩ ↔ AY fi AY ĩ

Spacing accent chars: ^a ^α ^ι ~a ~α ~ι ˘a ˘α ˘ι ¯a ¯α ¯ι ¨a ¨α ¨ι ´a ´α ´ι `a `α `ι

Symbols for SI-units: 5 μm, 5 kΩ; 5 μm, 5 kΩ

Letter schwa and Euro symbol: ə, €

Some symbol definitions expect a Latin font: © ® ™ SS (uppercase of ß) Babel’s lgrenc.def defines them with `\latintext`, however this macro is not guaranteed to be defined, so it should not be used in a font encoding definition file. Instead, the textcomp.sty package should be used to provide the symbols for all font encodings (using the sharp s (ß) in Greek is bound to fail anyway).

#### Greek alphabet

Greek letters via Latin transscription in LGR font encoding:

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

#### Additional Greek symbols

ι koppa, ϣ archaic koppa, Ϟ archaic Koppa, Ϸ stigma, ϸ stigma variant, Ϲ Stigma (Sigma-Tau-Ligature in CB-fonts), Ϻ sampi, ϻ Sampi, ϼ digamma, Ͻ Digamma, Ͼ Dexia keraia, Ͽ Aristeri keraia,

Variant symbols for pi ( $\varpi$ ), kappa (*no TeX symbol available*), rho ( $\varrho$ ), and theta ( $\vartheta$ ) are missing in LGR.

## Diacritics

Capital Greek letters have diacritics (except the dialytika) to the left (instead of above) and drop them in UPPERCASE. This is implemented for all combinations for which a precomposed Unicode character exists.

LaTeX standard accents (Latin, Greek, Greek Capitals)  $\mapsto$  UPPERCASE[illegible]
$$\grave{\alpha} \acute{\alpha} \tilde{\alpha} \ddot{\alpha} \hat{\alpha} \bar{\alpha} \alpha' \alpha \alpha^{\circ} \alpha \check{\alpha} \alpha \alpha \mapsto \text{A A A \AA \AA \AA \AA \AA \AA \AA \AA \AA}$$
$$\text{'A 'A \tilde{A} \ddot{A} \hat{A} \bar{A} \ddot{A} \dot{A} \mathring{A} \breve{A} \check{A} A A \mapsto A A A \ddot{A} \hat{A} \bar{A} \ddot{A} \dot{A} \mathring{A} \breve{A} \check{A} A A A}$$

The komma-below ( $\backslash \mathbf{k}$ ) is not defined in LGR.

### Additional Greek diacritics

 $\alpha \varepsilon \imath \check{\imath} \text{t} \text{t} \check{\imath} \tilde{\eta} \text{o} \text{o} \text{v} \text{w} \mapsto \mathrm{A}\,\mathrm{E}\,\mathrm{I}\,\mathrm{I}\,\mathrm{I}\,\mathrm{I}\,\mathrm{H}\,\mathrm{O}\,\mathrm{O}\,\Upsilon\,\Omega$ 
$$\mathfrak{A} \, \mathfrak{E} \, \mathfrak{I} \, \mathfrak{I} \, \mathfrak{I} \, \mathfrak{H} \, \mathfrak{O} \, \mathfrak{O} \, \mathfrak{Y} \, \mathfrak{O} \mapsto \mathsf{A} \, \mathsf{E} \, \mathsf{I} \, \mathfrak{I} \, \mathfrak{I} \, \mathfrak{H} \, \mathsf{O} \, \mathsf{O} \, \mathfrak{Y} \, \mathfrak{O}$$

Input variants and their conversion with MakeUppercase:

ǎ ǎ ǎ, ǎ ǎ ǎ ǎ ǎ, ħ ħ ħ ħ ħ ħ, ħ ħ, ı ı, ı ı, ı ı ı,  
 ǖ ǖ, ǖ ǖ, ǖ ǖ, ǖ, ǖ, ǖ ǖ, ǖ ǖ.

A A A, A A A A A, H H H H H H<sub>I</sub>, H H, I I, I I, İ İ, I, Ƴ Ƴ, Ƴ Ƴ, Ȳ Ȳ, Ω, Ω, Ω Ω, Ω Ω.

$${}^vA {}^vA {}^vA {}^vA \mapsto A A A A.$$

The tilde character can be used in combined accents. However, if converted with `\MakeUppercase` it will produce a no-break space:

$$\mathfrak{I} \mathfrak{I} \mathfrak{I} \mathfrak{U} \mathfrak{U} \mathfrak{U} \mapsto \cdot \text{I} \text{ I I} \cdot \Upsilon \quad \Upsilon \quad \Upsilon$$

Use the tilde-accent macro: `~i ~y`.

Combinations with named accents are not defined:  $\acute{\alpha}$   $\grave{\alpha}$   $\circ\alpha$ .

Use long name (ǎ ǎ ǎ) or shortcut (ǎ ǎ ǎ).

The dialytika must be kept in UPPERCASE, e.g. μαῖστρος  $\mapsto$  ΜΑΪΣΤΡΟΣ

$$\text{ı ı̇ ı̈ ı̋ ı̌ ı̍ ı̎ ı̏ ı̐} \mapsto \text{İ İ İ İ Ÿ Ÿ Ÿ Ÿ},$$

even where it is redundant in lowercase, e. g.

$$\acute{\alpha}\upsilon\lambda\omicron\varsigma \mapsto A\check{\Upsilon}\Lambda O\Sigma, \check{\alpha}\upsilon\lambda\omicron\varsigma \mapsto A\check{\Upsilon}\Lambda O\Sigma, \mu\acute{\alpha}\iota\nu\alpha \mapsto MA\check{I}NA,$$
$$\kappa\epsilon\iota\chi, \mapsto \text{KEÏK} \text{ } \acute{\alpha}\upsilon\pi\nu\acute{\iota}\alpha \mapsto \text{AÿPINIA}$$

Test: The auto-hiatus feature must keep proper working of tonos and psili:

[illegible]

Like in any font encoding, there is no kerning for non-defined accent-letter-combinations (dialytica on A O Δ). (However, with the Kerkis fonts, kerning is kept. Why?)

[illegible]

Downcasing should keep diacritics (of course, it cannot regenerate dropped ones): 'A Ī Ÿ Ä ↦ á ĭ ü ä