

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: + - = < > - — { [()] } \ | %₀ %₀₀ □

LGR: + - = < > - — { [()] } \ | %₀ ‰ (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, Ϝ archaic koppa, Ϛ archaic Koppa, Ϸ stigma, ϸ stigma variant, Ϲ Stigma (Sigma-Tau-Ligature in CB-fonts), Ϻ sampi, ϻ Sampi, Ϸ digamma, ϸ Digamma, Ϲ Dexia keraia, Ϻ Aristeri keraia,

Variant symbols for pi (ϖ), kappa (*no TeX symbol available*), rho (ϱ), and theta (ϑ) 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]
$$\grave{\alpha} \acute{\alpha} \tilde{\alpha} \ddot{\alpha} \hat{\alpha} \bar{\alpha} \alpha' \alpha \alpha^{\circ} \alpha \check{\alpha} \alpha \alpha \mapsto \text{A A A \AA \AA \AA \AA \AA \AA \AA \AA \AA}$$
$$\text{'A 'A \tilde{A} \ddot{A} \hat{A} \bar{A} \text{'A} \dot{A} \mathring{A} \breve{A} \check{A} A A A \mapsto A A A \ddot{A} \hat{A} \bar{A} \text{'A} \dot{A} \mathring{A} \breve{A} \check{A} A A A}$$

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

Additional Greek diacritics

$$\grave{\alpha} \acute{e} \grave{i} \acute{t} \grave{t} \check{i} \check{i} \tilde{\eta} \textcircled{\scriptsize\text{A}} \textcircled{\scriptsize\text{B}} \textcircled{\scriptsize\text{C}} \textcircled{\scriptsize\text{D}} \mapsto A E I \ddot{I} \ddot{I} \ddot{I} H O O \Upsilon \Omega$$
$$\mathbb{A}^{\epsilon} \mathbb{E}^{\epsilon} \mathbb{I}^{\epsilon} \mathbb{I}^{\epsilon} \mathbb{I}^{\epsilon} \mathbb{H}^{\epsilon} \mathbb{O}^{\epsilon} \mathbb{O}^{\epsilon} \mathbb{Y}^{\epsilon} \mathbb{Q}^{\epsilon} \mapsto \mathbb{A} \mathbb{E} \mathbb{I} \mathbb{I} \mathbb{I} \mathbb{H} \mathbb{O} \mathbb{O} \mathbb{Y} \mathbb{Q}$$

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,
 ǔ ǔ, ǔ ǔ, ǔ ǔ, ǖ, ǖ, ǘ ǘ, ǘ ǘ.

$$\begin{array}{l} \text{A A A, A A A A A, H H H H H H, H H, I I, I I, } \ddot{\text{I}} \ddot{\text{I}} \text{---I,} \\ \Upsilon \Upsilon, \Upsilon \Upsilon, \ddot{\Upsilon} \ddot{\Upsilon}, \Omega, \Omega, \Omega \Omega, \Omega \Omega. \end{array}$$
$${}^vA {}^vA {}^vA {}^vA \mapsto A A A A.$$

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

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

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

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

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

The dialytika must be kept in UPPERCASE, e. g. μαῖστρος \mapsto ΜΑΪΣΤΡΟΣ or εὐζωΐα \mapsto ΕΥΖΩΪΑ.

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

$$\text{ı ı ı ı ı ı ı ı} \mapsto \text{İ İ İ İ Ÿ Ÿ Ÿ Ÿ},$$

Tonos and dasia mark a *hiatus* (break-up of a diphtong) if placed on the first vowel of a diphtong (ἄι, ἄυ, εἴ). A dialytika must be placed on the second vowel if they are dropped: (Αἶ, Αῦ̃, Εῖ̃).

ἄυλος \mapsto AÿΛOΣ, ἄυλος \mapsto AÿΛOΣ, μάϊνα \mapsto MAÏNA, κείκ, \mapsto KEÏK ἀυπνία \mapsto AÿΠΝΙΑ

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

A B: space beween A and B kept

[illegible]

Lookahead (to check for a hiatus) breaks kerning before A with tonos or psili.

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?)

The uppercase of the zero-width space at the place of “v” is the DasiaOxia accent ˇ, the glyph at the position of “V”. It is suppressed for uppercased accents:

$$\begin{array}{cccccccccccccccccccc} \textcircled{c} & \textcircled{d} & \textcircled{e} & \textcircled{f} & \textcircled{g} & \textcircled{h} & \textcircled{i} & \textcircled{j} & \textcircled{k} & \textcircled{l} & \textcircled{m} & \textcircled{n} & \textcircled{o} & \textcircled{p} & \textcircled{q} & \textcircled{r} & \textcircled{s} & \textcircled{t} & \textcircled{u} & \textcircled{v} & \textcircled{w} & \textcircled{x} & \textcircled{y} & \textcircled{z} \\ \textcircled{1} & \textcircled{2} & \textcircled{3} & \textcircled{4} & \textcircled{5} & \textcircled{6} & \textcircled{7} & \textcircled{8} & \textcircled{9} & \textcircled{0} & \textcircled{A} & \textcircled{B} & \textcircled{C} & \textcircled{D} & \textcircled{E} & \textcircled{F} & \textcircled{G} & \textcircled{H} & \textcircled{I} & \textcircled{J} & \textcircled{K} & \textcircled{L} & \textcircled{M} & \textcircled{N} & \textcircled{O} \end{array} \mapsto \begin{array}{cccccccccccccccccccc} \textcircled{a} & \textcircled{b} & \textcircled{c} & \textcircled{d} & \textcircled{e} & \textcircled{f} & \textcircled{g} & \textcircled{h} & \textcircled{i} & \textcircled{j} & \textcircled{k} & \textcircled{l} & \textcircled{m} & \textcircled{n} & \textcircled{o} & \textcircled{p} & \textcircled{q} & \textcircled{r} & \textcircled{s} & \textcircled{t} & \textcircled{u} & \textcircled{v} & \textcircled{w} & \textcircled{x} & \textcircled{y} & \textcircled{z} \end{array}$$

Downcasing should keep diacritics (of course, it cannot regenerate “manually” dropped ones): ‘A Ĩ Ÿ Ä ↦ á ĩ ü ä