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 ␣

LGR: + - = < > – — { [()] } \ | ‰ ␣ (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 AΥ ï ↦ AY fi AΥ ï

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 (the sharp s (ß) is used in German text that cannot be set with LGR anyway).

Greek alphabet

Greek letters via Latin transscription in LGR font encoding:

Α Β Γ Δ Ε Ζ Η Θ Ι Κ Λ Μ Ν Ξ Ο Π Ρ Σ Τ Υ Φ Χ Ψ Ω

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

Additional Greek symbols

ϟ koppa, ϙ archaic koppa, Ϙ archaic Koppa, ϝ stigma, ϛ stigma variant, Ϛ Stigma (Sigma-Tau-Ligature in CB-fonts), ϡ sampi, Ϡ Sampi, ϝ digamma, F Digamma, ʹ Dexia keraia, ͵ 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 Greek 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 (but not, e.g., Ã).

LaTeX standard accents (Latin, Greek, Greek Capitals) $\mapsto$ UPPERCASE

à á ã ä â ā ắ ȧ å ắ ǎ a̱ ą ą ą $\mapsto$ À Á Ã Ä Â Ā Ắ Ȧ Å Ắ Ǎ A̱ Ą Ą Ą

ὰ ά ᾶ ä ᾶ ᾱ ắ ȧ ᾶ ᾶ ᾶ α̱ α α $\mapsto$ A A A Ä Â Ā Ắ Ȧ Å Ắ Ǎ A̱ Ą Ą

Ὰ Ά Ã Ä Â Ā Ắ Ȧ Å Ắ Ǎ A̱ Ą Ą $\mapsto$ A A A Ä Â Ā Ắ Ȧ Å Ắ Ǎ A̱ Ą Ą

The komma-below (**\k**) is not defined in LGR.

Additional Greek diacritics[1]

ἀ ἐ ῖ ἵ ῗ ῇ ŏ ŏ ῦ ῶ $\mapsto$ A E I Ï Ï H O O Υ Ω

Ἀ Ἐ Ῐ Ἵ Ϊ͂ Ἧ Ὄ Ὅ Ὗ Ὦ $\mapsto$ A E I Ï Ï H O O Υ Ω

Input variants and their conversion with MakeUppercase:

ᾶ ᾶ ᾶ, ᾶ ᾶ ᾶ ᾶ ᾶ, ῆ ῆ ῆ ῆ ῆ ῇ, ῇ ῇ, ῖ ῗ, ῖ ῗ, ῖ ῗ ῗ,
ῦ ῦ, ῦ ῦ, ῦ ῦ, ὼ, ώ, ῶ ῶ, ῶ ῶ.

A A A, A A A A A, H H H H H H₁, H H, I I, I I, Ï Ï ¨ I,
Υ Υ, Υ Υ, Ϋ Ϋ, Ω, Ω, Ω Ω, Ω Ω.

῝Α ῝Α ῝Α ῝Α $\mapsto$ A A A A.

The tilde character can be used in combined accents. However, in documents not defining the Babel language *greek* or *polutonikogreek*, it will produce a no-break space if converted with **\MakeUppercase**:

ῗ ῗ ῧ ῧ ῧ $\mapsto$ ¨ I I ¨ Υ Υ Υ
Use the tilde-accent macro: Ï Ϋ.

Combinations with named accents: ᾶ ᾶ ᾶ.

The dialytika must be kept in UPPERCASE, e. g.

μαΐστρος $\mapsto$ ΜΑΪΣΤΡΟΣ or εὐζωΐα $\mapsto$ ΕΥΖΩΪΑ.

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

ῗ ῗ ῗ ῧ ῧ ῧ ῧ $\mapsto$ Ï Ï Ï Ϋ Ϋ Ϋ Ϋ,

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[1]The dialytika is not used on Initial letters, therfore the combined "something + dialytika" accents are not moved befor the capital Iota.

Tonos and dasia mark a *hiatus* (break-up of a diphtong) if placed on the first vowel of a diphtong (άι, άυ, έι). A dialytika must be placed on the second vowel if they are dropped: (AÏ, AŸ, EÏ).

άυλος ↦ AΫΛΟΣ, ἄυλος ↦ AΫΛΟΣ, μάινα ↦ MAΪNA, κέικ, ↦ KEΪK ἀυπνία ↦ AΫΠNIA

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

A B: keep space after A.

```
  AO AΨ AI AΥ PA OA ΥA ΔΥ [
ˏ AO AΨ AI AΥ PA OA ΥA ΔΥ [
ʼ AO AΨ AÏ AŸ PA OA ΥA ΔΥ [
῎ AO AΨ AÏ AŸ PA OA ΥA ΔΥ [
ʹ AO AΨ AÏ AŸ PA OA ΥA ΔΥ [
῍ AO AΨ AÏ AŸ PA OA ΥA ΔΥ [
῏ AO AΨ AÏ AŸ PA OA ΥA ΔΥ [
` AO AΨ AI AΥ PA OA ΥA ΔΥ [
῍ AO AΨ AI AΥ PA OA ΥA ΔΥ [
~ AO AΨ AI AΥ PA OA ΥA ΔΥ [
῏ AO AΨ AI AΥ PA OA ΥA ΔΥ [
῎ AO AΨ AI AΥ PA OA ΥA ΔΥ [
῎ AO AΨ AI AΥ PA OA ΥA ΔΥ [
¨ AO AΨ AÏ AŸ PA OA ŸA ΔΥ [
¨ ÄO ÄΨ ÄI ÄΥ ṔA ÖA ΥÄ ΔŸ [
῏ ÄO ÄΨ ÄI ÄΥ ṔA ÖA ΥÄ ΔŸ [
```

rows 3...7: Lookahead (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 (dialytica on A O Δ).

The uppercase of the zero-width space at the place of "v" is the Dasia-Oxia accent ῞, the glyph at the position of "V". It is suppressed for uppercased accents:

ˏ ῎ ʹ ῍ ῏ ` ῍ ~ ῏ ῎ ῎ ¨ ῞ ↦ ῎ ῎ ῎ ῎ ῎ ῎ ῎ ῎ ῎ ῎ ῎ ῎ ¨ ¨

Downcasing should keep diacritics (of course, it cannot regenerate "manually" dropped ones): Ά Ï Ÿ Ἃ ↦ ά ï ϋ ᾃ