

Greek diacritics with standard accent macros

`lgrxenc.def` is a comprehensive font encoding definition file. LICR macros are defined for all non-ASCII characters. Diacritics can be input using an extension of the standard macro commands with composite diacritics input as backslash followed by the LGR transliteration.¹

The example in `greek-usage.pdf`:

Τί φής; Ἰδὼν ἐνθέδε παῖδ' ἔλευθέραν τὰς πλησίον Νύμφας στεφανοῦσαν, Σώστρατε, ἐρῶν
ἀπῆλθες εὐθύς;

can be input as

```
T\'i f\'hic? \<Id\'wn \>enj\'ede pa\~id\'
\>eleuj\'eran t\'ac plhs\'ion N\'umfac stefano\~usan,
S\'wstrate, \>er\~wn \'ap\~hljec e\>uj\'uc?
```

Improvements:

- Accents can be placed on any character:² ῃ ῥ ῖ ῡ ΰ ῥ ῖ ῡ ΰ
- Kerning is preserved

	roman	italic	cbleipzig
accent macro:	αὐτός	<i>αὐτός</i>	<i>aŭtós</i>
transliteration:	αὐτός	<i>aŭtós</i>	<i>aŭtós</i>

Like in any font encoding, kerning only works with pre-composed glyphs: $\text{A}\tilde{\text{T}}\text{A} \neq \text{A}\tilde{\text{T}}\text{A}$, $\text{A}\tilde{\text{V}}\text{A} \neq \text{A}\tilde{\text{V}}\text{A}$.

- Compatible with `hyperref` (see `greekhyperref.pdf`).
- Following Greek typesetting convention, diacritics (except the dialytika) are placed to the left of capital letters and are dropped by `\MakeUppercase`:

άντροπος \mapsto ANTPOΠOΣ, ἄντροπος \mapsto ANTPOΠOΣ,
Αχιλλέας \mapsto AXIΛΛEΑΣ, Ἀχιλλεύς \mapsto AXIΛΛEΥΣ.

The dialytika is printed even in cases where it's not needed in lowercase:

άλος \mapsto AŶΛOΣ, ἄλος \mapsto AŶΛOΣ, μάινα \mapsto MAĬNA,
κέικ, \mapsto KEĬK, ἄσπνία \mapsto AŶΠNIA.

Composite diacritics can be specified as backslash + LGR transliteration or combined accent macros, e.g. $\tilde{\alpha}$ can be written as

`\~>a`, `\>~a`, `\~\>\{a\}`, or `\~\>a`.

However, braces in composite accents (`\~\>\{a\}`, `\~\>\{a\}`, or `\~\>\{a\}`) lead to errors.

`\MakeUppercase` works with most input variants but fails with

- `\"'`, `\"'` or `\>'` if the language is `greek` or `polutonikogreek` (which maps `'` and `'` to an empty character preventing the correct placing of the dialytika via `TextComposite` definitions
 $\acute{\alpha} \mapsto \text{.}\mathcal{A}$, $\grave{\alpha} \mapsto \text{.}\mathcal{A}$, $\alpha\lambda\omicron\varsigma \mapsto \text{A}\mathcal{Y}\Lambda\text{O}\Sigma$), or
- a tilde in a document which does **not** define the `greek` or `polutonikogreek` language (it will produce a no-break space).

Combining “symbol macros” (`\"\'`, `\>\'`, `\>\~`) or reversing the order (`\"\'`, `\>'`, `\>\~`) resolves these cases.

$\acute{\alpha} \mapsto \text{I}$, $\acute{\alpha} \mapsto \text{I}$, $\acute{\alpha} \mapsto \text{I}$, $\acute{\alpha} \mapsto \text{I}$, $\alpha\lambda\omicron\varsigma \mapsto \text{A}\mathcal{Y}\Lambda\text{O}\Sigma$

Accent macros can start with `\a` instead of `\` when the short form is redefined, e.g. inside a *tabbing* environment. This also works for the new-defined *Dasia* and *Psili* shortcuts (`\a<` and `\a>`):

Τί φής; Τί φής;
Ἰδὼν ἐνθέδε παῖδ'

¹This makes it easy to follow the advice in *teubner-doc*: “typeset your paper with the regular accent vowel ligatures and [...] substitute them in the final revision with the accented vowel macros only in those instances where the lack of kerning is disturbing”.

²Babel’s *polutonikogreek* option re-defines `\~` (even for Latin with `\textlatin`). This document reverts the babel definition in the preamble to make the tilde/perispomeni-accent work as usual in both, English ($\nu\tilde{\omega}$ $\text{ni}\tilde{\omega}$) and Greek .