

# Test the Greek support for Babel

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The babel option “greek” activates the support for the Greek language defined in the file `greek.ldf` (source `greek.dtx`).

## 1 Language Switch

The declaration `\selectlanguage` switches between languages.

Τί φής; Ἴδὼν ἐνθ' ἔδε παῖδ' ἔλευθέραν τὰς πλησίον Νύμφας στεφανοῦσαν, Σώστρατε, ἔρῳ ἀπῆλθες εὐθύς;

The macro `\foreignlanguage` sets its second argument in the specified language. This is intended for short text parts or single words like Βιβλιοθήκη.

There should be no inserted space before or after the language switch (may happen if there are unescaped linebreaks in the font or language definitions):

Change script with `ensuregreek`: |δοῦλος|. Change language with `\foreignlanguage`: |δοῦλος|.

## 2 Font Encoding

In Greek text parts, the font encoding is automatically set to LGR if an 8-bit TeX engine is used. (See `test-unicode-greek.tex` for usage of babel-greek with XeTeX or LuaTeX.)

LGR has Greek characters in the slots reserved in a TeX *standard text font encoding*. This means you need an explicit font encoding change for every Latin letter and some other symbols if the current font encoding is LGR.

The Babel core defines the declaration `\latintext` and the command `\textlatin` to switch to the T1 or OT1 font encoding or typeset the argument using this encoding.

Switching to a font encoding supporting the Greek script is possible without switching the Babel language using the declarations `\greekscript` (no switch if the current encoding supports Greek script (e.g. the Unicode font encoding TU)) or `\greektext` (always switch to LGR) and the corresponding macros `\ensuregreek` or `\textgreek`. These commands do not start a new paragraph:

Φίλων τοῦ TeX (EΦT) – Friends (Φίλων) of TeX.



### 3.1 Greek and Coptic

Characters of the Greek and Coptic Unicode Block:

```

'̀; '̀A·E·HTO·Y·Ω·ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩΪΫϞϟϠ
άέήίύαβγδεζηθικλμνξοπρστυφχψωϊϋόύώϑϒϓϔ

```

MakeUppercase:

```

'̀; '̀A·E·H·I·O·Y·Ω·Α·Β·Γ·Δ·Ε·Ζ·Η·Θ·Ι·Κ·Α·Μ·Ν·Ξ·Ο·Π·Ρ·Σ·Τ·Υ·Φ·Χ·Ψ·Ω·Ϊ·Ϋ·Ϟ·ϟ·Ϡ
ΑΕΗΙΥΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩΪΫΟΥϞϟϠϑϒϓϔϕ

```

Letters and sub-iota upcased, other diacritics except dialytika dropped.

There is no capital Koppa in LGR, therefore ϣ is left unchanged with MakeUppercase.

MakeLowercase:

```

'̀; '̀ά·έ·ή·ί·ό·ύ·α·β·γ·δ·ε·ζ·η·θ·ι·κ·λ·μ·ν·ξ·ο·π·ρ·σ·τ·υ·φ·χ·ψ·ω·ϊ·ϋ·ό·ύ·ώ·ϑ·ϒ·ϓ·ϔ·ϕ
άέήίύαβγδεζηθικλμνξοπρστυφχψωϊϋόύώϑϒϓϔϕ

```

The lowercase of Σ is the «auto-sigma» (`\textautosigma`): ΣΣ ↦ σς. Add a ZWNJ or use the `\noboundary` macro to prevent conversion to final sigma: σσ. The lowercase of GREEK LETTER STIGMA Ϟ is ϑ not `\textvarstigma` (ς).

### 3.2 Greek extended

Characters of the Greek extended Unicode block:

```

ά ά̂ ά̄ ά̆ ά̈ ά̊ ά̌ ά̍ ά̎ ά̏ ά̐ ά̑ ά̒ ά̓ ά̔ ά̕ ά̖ ά̗ ά̘ ά̙
έ έ̂ έ̄ έ̆ έ̈ έ̊ έ̌ έ̍ έ̎ έ̏ έ̐ έ̑ έ̒ έ̓ έ̔ έ̕ έ̖ έ̗ έ̘ έ̙
ή ή̂ ή̄ ή̆ ή̈ ή̊ ή̌ ή̍ ή̎ ή̏ ή̐ ή̑ ή̒ ή̓ ή̔ ή̕ ή̖ ή̗ ή̘ ή̙
ί ί̂ ί̄ ί̆ ί̈ ί̊ ί̌ ί̍ ί̎ ί̏ ί̐ ί̑ ί̒ ί̓ ί̔ ί̕ ί̖ ί̗ ί̘ ί̙
ό ό̂ ό̄ ό̆ ό̈ ό̊ ό̌ ό̍ ό̎ ό̏ ό̐ ό̑ ό̒ ό̓ ό̔ ό̕ ό̖ ό̗ ό̘ ό̙
ύ ύ̂ ύ̄ ύ̆ ύ̈ ύ̊ ύ̌ ύ̍ ύ̎ ύ̏ ύ̐ ύ̑ ύ̒ ύ̓ ύ̔ ύ̕ ύ̖ ύ̗ ύ̘ ύ̙
ώ ώ̂ ώ̄ ώ̆ ώ̈ ώ̊ ώ̌ ώ̍ ώ̎ ώ̏ ώ̐ ώ̑ ώ̒ ώ̓ ώ̔ ώ̕ ώ̖ ώ̗ ώ̘ ώ̙
ά̇ ά̈ ά̉ ά̊ ά̋ ά̌ ά̍ ά̎ ά̏ ά̐ ά̑ ά̒ ά̓ ά̔ ά̕ ά̖ ά̗ ά̘ ά̙
έ̇ έ̈ έ̉ έ̊ έ̋ έ̌ έ̍ έ̎ έ̏ έ̐ έ̑ έ̒ έ̓ έ̔ έ̕ έ̖ έ̗ έ̘ έ̙
ή̇ ή̈ ή̉ ή̊ ή̋ ή̌ ή̍ ή̎ ή̏ ή̐ ή̑ ή̒ ή̓ ή̔ ή̕ ή̖ ή̗ ή̘ ή̙
ί̇ ί̈ ί̉ ί̊ ί̋ ί̌ ί̍ ί̎ ί̏ ί̐ ί̑ ί̒ ί̓ ί̔ ί̕ ί̖ ί̗ ί̘ ί̙
ό̇ ό̈ ό̉ ό̊ ό̋ ό̌ ό̍ ό̎ ό̏ ό̐ ό̑ ό̒ ό̓ ό̔ ό̕ ό̖ ό̗ ό̘ ό̙
ύ̇ ύ̈ ύ̉ ύ̊ ύ̋ ύ̌ ύ̍ ύ̎ ύ̏ ύ̐ ύ̑ ύ̒ ύ̓ ύ̔ ύ̕ ύ̖ ύ̗ ύ̘ ύ̙
ώ̇ ώ̈ ώ̉ ώ̊ ώ̋ ώ̌ ώ̍ ώ̎ ώ̏ ώ̐ ώ̑ ώ̒ ώ̓ ώ̔ ώ̕ ώ̖ ώ̗ ώ̘ ώ̙
ϑ ϑ̂ ϑ̄ ϑ̆ ϑ̈ ϑ̊ ϑ̌ ϑ̍ ϑ̎ ϑ̏ ϑ̐ ϑ̑ ϑ̒ ϑ̓ ϑ̔ ϑ̕ ϑ̖ ϑ̗ ϑ̘ ϑ̙
ϒ ϒ̂ ϒ̄ ϒ̆ ϔ ϒ̊ ϒ̌ ϒ̍ ϒ̎ ϒ̏ ϒ̐ ϒ̑ ϒ̒ ϒ̓ ϒ̔ ϒ̕ ϒ̖ ϒ̗ ϒ̘ ϒ̙
ϓ ϓ̂ ϓ̄ ϓ̆ ϓ̈ ϓ̊ ϓ̌ ϓ̍ ϓ̎ ϓ̏ ϓ̐ ϓ̑ ϓ̒ ϓ̓ ϓ̔ ϓ̕ ϓ̖ ϓ̗ ϓ̘ ϓ̙
ϔ ϔ̂ ϔ̄ ϔ̆ ϔ̈ ϔ̊ ϔ̌ ϔ̍ ϔ̎ ϔ̏ ϔ̐ ϔ̑ ϔ̒ ϔ̓ ϔ̔ ϔ̕ ϔ̖ ϔ̗ ϔ̘ ϔ̙
ϕ ϕ̂ ϕ̄ ϕ̆ ϕ̈ ϕ̊ ϕ̌ ϕ̍ ϕ̎ ϕ̏ ϕ̐ ϕ̑ ϕ̒ ϕ̓ ϕ̔ ϕ̕ ϕ̖ ϕ̗ ϕ̘ ϕ̙

```

MakeUppercase:

```

Α Α Α Α Α Α Α Α Α Α Α Α Α Α Α Α
Ε Ε Ε Ε Ε Ε Ε Ε Ε Ε Ε Ε Ε Ε Ε Ε
Η Η Η Η Η Η Η Η Η Η Η Η Η Η Η Η
Ι Ι Ι Ι Ι Ι Ι Ι Ι Ι Ι Ι Ι Ι Ι Ι
Ο Ο Ο Ο Ο Ο Ο Ο Ο Ο Ο Ο Ο Ο Ο Ο
Υ Υ Υ Υ Υ Υ Υ Υ Υ Υ Υ Υ Υ Υ Υ Υ
Ω Ω Ω Ω Ω Ω Ω Ω Ω Ω Ω Ω Ω Ω Ω Ω

```



23 Ιουνίου 2020  
23 Ιουλίου 2020  
23 Αυγούστου 2020  
23 Σεπτεμβρίου 2020  
23 Οκτωβρίου 2020  
23 Νοεμβρίου 2020  
23 Δεκεμβρίου 2020

## 5 Greek Numerals

See greek.pdf for the formation rules of Greek numerals. Some examples:

α', β', γ', δ', ε', ς', ζ', η', θ', ι', ια', ιβ', κ', τμε', φ', ,αλφζ', ,βιγ',

A', B', Γ', Δ', E', Γ', Z', H', Θ', I', IA', IB', K', TME', Φ', ,ΑΛΦΖ', ,ΒΙΓ',

Enumerated lists use Greek numerals in the second and fourth level:

1. Item 1
  - (α) Item 1.1
    - i. Item 1.1.1
      - A'. Item 1.1.1.1
      - B'. Item 1.1.1.2
    - ii. Item 1.1.2