

Test Greek LaTeX internal character representations (LICR macros)

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This document tests the compatibility of “luainputenc” and the Greek font setup for TU and PU. It uses only ASCII input.

See the source `test-inputenc.tex` for the input used in the examples.

TODO: Compiling with LuaTeX fails: `tuenc-greek.def` uses literal Unicode characters which is incompatible with legacy 8-bit encodings defined via "luainputenc".

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2	Greek in section headings	5
2.1	0374 ' , ; ' ^ ' A ' E H T O ' Y M i	5
2.2	0391 A B G D E Z H T H I K A M N E O I P P S T Y F X P S I	5
2.3	03AA I Y ^ a e h i t	5
2.4	03B1 a b g d e z h i t i k l m n x o p r s t u p h c h s o	5
2.5	03CA u o s u w b t p p F F F F l l l l x r e	5
2.6	1F00 a a a a a A A A A A A A	5
2.7	1F10 e e e e e E E E E E E	5
2.8	1F20 h h h h h H H H H H H H H	5
2.9	1F30 i i i i i I I I I I I I	5
2.10	1F40 o o o o o O O O O O O	5
2.11	1F50 u u u u u Y Y Y Y Y	5
2.12	1F60 w w w w w W W W W W W	5
2.13	1F70 a a e e h i t o s u w	5
2.14	1F80 a a a a a A A A A A A A A	5
2.15	1F90 h h h h h H H H H H H H H	5
2.16	1FA0 o o o o o O O O O O O O O	5
2.17	1FB0 a a a a a A A A A A A A	5
2.18	1FC0 ~ ~ h h h h h E E H H H A ~	5

ligature definition (set the Babel language or wrap in `\ensuregreek`): A_{ι} but Λ_{ι} .

The shape and position of the mute iota with pre-composed capital letters depends on the selected font, both sub-iota and adscript iota are possible.

- `\prosgegrammeni` sets an adscript iota (GREEK PROSGEGRAMMENI), e.g. A_{ι} . In Unicode fonts the `prosgegrammeni` is spaced similar to the letter iota. In the CB Greek fonts, the only visible difference to the pre-composed characters is a slightly increased spacing.

Copy/Paste may convert the adscript iota to a small letter iota!

`\ypogegrammeni` and `prosgegrammeni` following matching/not-matching base character (unchanged, lowercase, uppercase):

$A_{\iota}A_{\iota}$ $\alpha\alpha$ $A_{\iota}A_{\iota}$
 $\Lambda_{\iota}\Lambda_{\iota}$ $\lambda\lambda$ $\Lambda_{\iota}\Lambda_{\iota}$
 $\alpha\alpha_{\iota}$ $\alpha\alpha$ $A_{\iota}A_{\iota}$

Using `\ypogegrammeni` for the mute iota with both, small and capital letters usually gives better results.

1.3 Additional Greek symbols

1.3.1 symbols for Greek numbers

\textkappa `textkoppa`
 \textKoppa `textKoppa`
 \textqoppa (archaic koppa) `textqoppa`
 \textQoppa (archaic Koppa) `textQoppa`
 \textstigma `textstigma`
 \textStigma (Sigma-Tau-Ligature in CB-fonts)¹ `textStigma`
 \textsampi `textsampi`
 \textSampi `textSampi`
 \textdigamma `textdigamma`
 \textDigamma `textDigamma`
 \textdexiakeraia `textdexiakeraia`
 $\text{\textaristerikeraia}$ `textaristerikeraia`

1.3.2 generic text symbols

LICR macros for some symbols from the 8-bit font encoding LGR that are not confined to Greek but not defined in `tuenc.def` [2018/08/11 v2.0j].

\textsemicolon `textsemicolon`
 \textmicro `textmicro`
 \textschwa `textschwa`

The SI unit prefix MICRO SIGN is not upcased with `MakeUppercase`:

`textmu`: $\mu \mapsto M$ but `textmicro`: $\mu \mapsto \mu$.

¹the name “stigma” originally applied to a medieval sigma-tau ligature, whose shape was confusingly similar to the cursive digamma

text		mathematics	
macro	output	macro	output
<code>\textpi</code>	π	<code>\pi</code>	π
<code>\textvarpi</code>	missing	<code>\varpi</code>	ϖ
<code>\textpisymbol</code>	π		
<code>\textrho</code>	ρ	<code>\rho</code>	ρ
<code>\textvarrho</code>	missing	<code>\varrho</code>	ϱ
<code>\textrhosymbol</code>	ρ		
<code>\texttheta</code>	ϑ	<code>\theta</code>	θ
<code>\textvartheta</code>	missing	<code>\vartheta</code>	ϑ
<code>\textthetasymbol</code>	ϑ		
<code>\textepsilon</code>	ε	<code>\epsilon</code>	ϵ
<code>\textvarepsilon</code>	missing	<code>\varepsilon</code>	ε
<code>\textepsilonsymbol</code>	ε		
<code>\textphi</code>	φ	<code>\phi</code>	ϕ
<code>\textvarphi</code>	missing	<code>\varphi</code>	φ
<code>\textphisymbol</code>	φ		
<code>\textbeta</code>	β	<code>\beta</code>	β
<code>\textvarbeta</code>	missing	<i>missing</i>	
<code>\textbetasymbol</code>	β		
<code>\textkappa</code>	\varkappa	<code>\kappa</code>	κ
<code>\textvarkappa</code>	missing	<code>\varkappa</code>	\varkappa
<code>\textkappasymbol</code>	\varkappa		
<code>\textTheta</code>	Θ	<code>\Theta</code>	Θ
<code>\textvarTheta</code>	missing	<i>missing</i>	
<code>\textThetasymbol</code>	Θ		

Table 1: Macros for Greek symbol variants

