

The LibertinusT1 Math Package

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This package is a \LaTeX math package to accompany the \LaTeX Libertine text package, serving as an alternative to `newtxmath` with the `libertine` option. Both packages use the Greek and Roman letters from Libertine, but `LibertinusT1Math` symbols are mostly taken from the `LibertinusMath` font which extends and corrects Libertine, while `newtxmath` uses symbols matching Times in weight and size, and so are a bit heavier and larger. I've changed a number of glyphs from `LibertinusMath` and added dozens of new glyphs. Like `LibertinusMath`, `LibertinusT1Math` does not contain calligraphic, script or gothic alphabets. The package sets `\mathcal` to the (unscaled) STIX calligraphic font and `\mathbb` to the `LibertinusT1Math` double-struck alphabet. The `mathalfa` package (loaded AFTER `libertinust1math`) offers a convenient way to change these default choices and to set the script and gothic alphabets. See the sample invocation below, which assumes you have `mathalfa` version 1.08 (March 2016) or higher.

PACKAGE OPTIONS:

- `lcgreekalpha` makes lower-case Greek letters be of type `mathalpha` rather than `mathord`, forcing them to respond to alphabet changing commands such as `\mathnormal`, `\mathrm`, `\mathit` and `\mathst`.
- `upint` changes the style of integrals from the default *slanted* to *upright*.
- `frenchmath` changes the math style to use upright Greek and Roman capital letters rather than math italic shapes.
- `slantedGreek` makes uppercase Greek math letters slanted.
- `uprightGreek` makes uppercase Greek math letters upright. This is the default.

There is no scaled option, as the scale is normally set to match that in `libertine` by means of a macro in that package: `\LinuxLibertineT@scale`. If you use `libertinust1math` with a font package other than `libertine`, you can adjust the scale of `libertinust1math` with, e.g.,

```
\makeatletter
\newcommand*{\LinuxLibertineT@scale}{1.03}
\makeatother
```

SAMPLE INVOCATION:

```
\usepackage[sb]{libertine}
\usepackage[T1]{fontenc}
\usepackage{textcomp}
\usepackage[varqu,varl]{zi4}% inconsolata for mono, not LibertineMono
\usepackage{amsthm} % libertinust1math loads amsmath
\usepackage{libertinust1math} % slanted integrals, by default
\usepackage[cal=stix,scr=boondoxo,bb=boondox]{mathalfa}
%If you want to use LibertinusT1 bb, omit bb=boondox
```

SOME THINGS TO NOTE:

- The `amsmath` package is loaded, if necessary, by `libertinust1math`. The package depends on a number of its features and improvements to math typesetting.

- There are no bold symbols in LibertinusMath, but there are bold Roman and Greek letters, and the same is true of LibertinusT1Math.
- The italic letter v (ν) in LibertinusMath is easily confused with Greek ν (ν), so the math italic letter v is set to ν , and similarly in the bold math version.
- The layout of the type1 math fonts follows STIX to some extent, as does the sty file, though the content of this package is much less rich.
- Dotlessi and dotlessj are available in four math styles—`mathit`, `mathrm`, `mathbf` and `mathbfit`. For example:

Macro	Result
<code>\imath</code>	\imath
<code>\mathrm{\imath}</code>	\mathbf{i}
<code>\mathbf{\imath}</code>	\mathbf{i}
<code>\mathbfit{\imath}</code>	$\boldsymbol{\imath}$

- There are Greek alphabets in upright and italic shapes, regular and bold weights. Upright Greek letters have names like `\alphaup` (and `\upalpha`) while the italic forms have names like `\alphait`. According to the options you set, `\alpha` and so on are `\let` to the appropriate choice, but you may always use the underlying forms if you wish to use both upright and italic forms in your document.
- Uppercase Greek letters are of type `mathalpha`, so when you write `\mathit{\Gamma}`, you'll get Γ . However, unless you chose the option `lcgreekalpha`, `\mathrm{\beta}` would produce β , as it is of type `mathord` by default.
- There is an upright partial derivative symbol named `\upartial` that typesets as ∂ , for those who wish to follow ISO rules.

The next pages show the font tables for LibertinusT1Math. If you see an unfamiliar symbol and wish to learn its \LaTeX name, get the \LaTeX name of the font (e.g., `operators`, `letters`, `symbols`, `largesymbols`) and the hex location of the glyph (e.g., "FF is hex notation for 255) and search `libertinust1math.sty` by hex number.

libertinust1-mathrm (operators):

	´0	´1	´2	´3	´4	´5	´6	´7	
´00x	Γ_0	Δ_1	Θ_2	Λ_3	Ξ_4	Π_5	Σ_6	Y_7	"0x
´01x	Φ_8	Ψ_9	Ω_{10}	α_{11}	β_{12}	γ_{13}	δ_{14}	ϵ_{15}	
´02x	ζ_{16}	η_{17}	θ_{18}	ι_{19}	κ_{20}	λ_{21}	μ_{22}	ν_{23}	"1x
´03x	ξ_{24}	π_{25}	ρ_{26}	σ_{27}	τ_{28}	υ_{29}	ϕ_{30}	χ_{31}	
´04x	ψ_{32}	ω_{33}	ϵ_{34}	ϑ_{35}	ω_{36}	ϱ_{37}	ς_{38}	φ_{39}	"2x
´05x	∇_{40}	∂_{41}	$-_{42}$	$+_{43}$	\pm_{44}	\mp_{45}	$(_{46}$	$)_{47}$	
´06x	0_{48}	1_{49}	2_{50}	3_{51}	4_{52}	5_{53}	6_{54}	7_{55}	"3x
´07x	8_{56}	9_{57}	$:_{58}$	$;_{59}$	$*_{60}$	$=_{61}$	$\$_{62}$	$?_{63}$	
´10x	$!_{64}$	A_{65}	B_{66}	C_{67}	D_{68}	E_{69}	F_{70}	G_{71}	"4x
´11x	H_{72}	I_{73}	J_{74}	K_{75}	L_{76}	M_{77}	N_{78}	O_{79}	
´12x	P_{80}	Q_{81}	R_{82}	S_{83}	T_{84}	U_{85}	V_{86}	W_{87}	"5x
´13x	X_{88}	Y_{89}	Z_{90}	$[_{91}$	\backslash_{92}	$]_{93}$	$\{_{94}$	$/_{95}$	
´14x	$\}_96$	a_{97}	b_{98}	c_{99}	d_{100}	e_{101}	f_{102}	g_{103}	"6x
´15x	h_{104}	i_{105}	j_{106}	k_{107}	l_{108}	m_{109}	n_{110}	o_{111}	
´16x	p_{112}	q_{113}	r_{114}	s_{115}	t_{116}	u_{117}	v_{118}	w_{119}	"7x
´17x	x_{120}	y_{121}	z_{122}	l_{123}	j_{124}	$\#_{125}$	$\%_{126}$	$'_{127}$	
´20x	$\`_{128}$	$\^{\prime}_{129}$	$\hat{_}_{130}$	$\tilde{_}_{131}$	$\bar{_}_{132}$	$\check{_}_{133}$	\cdot_{134}	$\ddot{_}_{135}$	"8x
´21x	$\^{\prime}_{136}$	\circ_{137}	$\check{_}_{138}$	$\grave{_}_{139}$	$\^{\prime}_{140}$	$\^{\prime}_{141}$	$\^{\prime}_{142}$	$\^{\prime}_{143}$	
´22x	$\vec{_}_{144}$	\leftarrow_{145}	\rightarrow_{146}	\cdots_{147}	\cdots_{148}	\leftarrow_{149}	\lceil_{150}	\rceil_{151}	"9x
´23x	$*_{152}$	$\&_{153}$	$@_{154}$	\neg_{155}	\cdot_{156}	\times_{157}	\leq_{158}	\div_{159}	
´24x	Z_{160}	\i_{161}	\exists_{162}	\dagger_{163}	\ddagger_{164}	\bullet_{165}	\dots_{166}	\dots_{167}	"Ax
´25x	\prime_{168}	$\prime\prime_{169}$	$\prime\prime\prime_{170}$	\backslash_{171}	$\backslash\backslash_{172}$	$\backslash\backslash\backslash_{173}$	\wedge_{174}	$!!_{175}$	
´26x	\blacksquare_{176}	\sphericalangle_{177}	$??_{178}$	$_179$	$\prime\prime\prime\prime_{180}$	\lrcorner_{181}	$_182$	$_183$	"Bx
´27x	\asymp_{184}	$_185$	\mathcal{E}_{186}	\mathcal{O}_{187}	$_188$	$\mathring{_}_{189}$	\lrcorner_{190}	\complement_{191}	
´30x	\lrcorner_{192}	\lrcorner_{193}	\mathcal{L}_{194}	$_195$	\mathcal{X}_{196}	\mathcal{V}_{197}	\mathcal{C}_{198}	\exists_{199}	"Cx
´31x	\mathcal{A}_{200}	\mathcal{O}_{201}	Δ_{202}	\mathcal{E}_{203}	\mathcal{E}_{204}	\mathcal{E}_{205}	\mathcal{D}_{206}	\mathcal{D}_{207}	
´32x	\mathcal{D}_{208}	\blacksquare_{209}	\dagger_{210}	\geq_{211}	\backslash_{212}	\circ_{213}	\bullet_{214}	α_{215}	"Dx
´33x	∞_{216}	\perp_{217}	\angle_{218}	\mathcal{A}_{219}	\mathcal{A}_{220}$	|_{221}$	\dagger_{222}	\parallel_{223}	
´34x	\parallel_{224}	\wedge_{225}	\vee_{226}	\cap_{227}	\cup_{228}	\cdot_{229}	$\ddot{_}_{230}$	\mathcal{O}_{231}	"Ex
´35x	$\ddot{_}_{232}$	\div_{233}	\neg_{234}	$\ddot{_}_{235}$	\dagger_{236}	\sim_{237}	\sim_{238}	∞_{239}	
´36x	\sim_{240}	\sphericalangle_{241}	\dagger_{242}	\approx_{243}	\approx_{244}	\neq_{245}	\cong_{246}	\cong_{247}	"Fx
´37x	\neq_{248}	\approx_{249}	\neq_{250}	\cong_{251}	\cong_{252}	\cong_{253}	\mathcal{K}_{254}	\mathcal{D}_{255}	
	"8	"9	"A	"B	"C	"D	"E	"F	

libertinust1-mathrm (bold-operators):

	´0	´1	´2	´3	´4	´5	´6	´7	
´00x	Γ_0	Δ_1	Θ_2	Λ_3	Ξ_4	Π_5	Σ_6	Y_7	"0x
´01x	Φ_8	Ψ_9	Ω_{10}	α_{11}	β_{12}	γ_{13}	δ_{14}	ϵ_{15}	
´02x	ζ_{16}	η_{17}	θ_{18}	ι_{19}	κ_{20}	λ_{21}	μ_{22}	ν_{23}	"1x
´03x	ξ_{24}	π_{25}	ρ_{26}	σ_{27}	τ_{28}	υ_{29}	ϕ_{30}	χ_{31}	
´04x	ψ_{32}	ω_{33}	ϵ_{34}	ϑ_{35}	ϖ_{36}	ϱ_{37}	ς_{38}	φ_{39}	"2x
´05x	∇_{40}	∂_{41}	$-_{42}$	$+_{43}$	\pm_{44}	\mp_{45}	$(_{46}$	$)_{47}$	
´06x	0_{48}	1_{49}	2_{50}	3_{51}	4_{52}	5_{53}	6_{54}	7_{55}	"3x
´07x	8_{56}	9_{57}	$:_{58}$	$;_{59}$	$*_{60}$	$=_{61}$	$\$_{62}$	$?_{63}$	
´10x	$!_{64}$	A_{65}	B_{66}	C_{67}	D_{68}	E_{69}	F_{70}	G_{71}	"4x
´11x	H_{72}	I_{73}	J_{74}	K_{75}	L_{76}	M_{77}	N_{78}	O_{79}	
´12x	P_{80}	Q_{81}	R_{82}	S_{83}	T_{84}	U_{85}	V_{86}	W_{87}	"5x
´13x	X_{88}	Y_{89}	Z_{90}	$[_{91}$	\backslash_{92}	$]_{93}$	$\{_{94}$	$/_{95}$	
´14x	$\}_{96}$	a_{97}	b_{98}	c_{99}	d_{100}	e_{101}	f_{102}	g_{103}	"6x
´15x	h_{104}	i_{105}	j_{106}	k_{107}	l_{108}	m_{109}	n_{110}	o_{111}	
´16x	p_{112}	q_{113}	r_{114}	s_{115}	t_{116}	u_{117}	v_{118}	w_{119}	"7x
´17x	x_{120}	y_{121}	z_{122}	l_{123}	J_{124}	$\#_{125}$	$\%_{126}$	$'_{127}$	
´20x	$\`_{128}$	$\^_{129}$	$\^_{130}$	$\~_{131}$	$__{132}$	$__{133}$	\cdot_{134}	$\cdot\cdot_{135}$	"8x
´21x	$\^_{136}$	$\^{\circ}_{137}$	$\^{\vee}_{138}$	$\^{\smile}_{139}$	$\^{\prime}_{140}$	$\^{\prime}_{141}$	$\^{\prime}_{142}$	$\^{\prime}_{143}$	
´22x	$\^{\leftarrow}_{144}$	$\^{\leftarrow}_{145}$	$\^{\rightarrow}_{146}$	$\^{\dots}_{147}$	$\^{\dots}_{148}$	$\^{\leftrightarrow}_{149}$	$\^{\lrcorner}_{150}$	$\^{\lrcorner}_{151}$	"9x
´23x	$\^{\ast}_{152}$	$\^{\&}_{153}$	$\^{\@}_{154}$	$\^{\neg}_{155}$	$\^{\cdot}_{156}$	$\^{\times}_{157}$	$\^{\leq}_{158}$	$\^{\div}_{159}$	
´24x	Z_{160}	$_161$	$_162$	$_163$	$_164$	\bullet_{165}	\dots_{166}	\dots_{167}	"Ax
´25x	$_168$	$_169$	$_170$	$_171$	$_172$	$_173$	$_174$	$\!_{175}$	
´26x	$_176$	$_177$	$_178$	$_179$	$_180$	$_181$	$_182$	$_183$	"Bx
´27x	$_184$	$_185$	$_186$	$_187$	$_188$	$_189$	$_190$	$_191$	
´30x	$_192$	$_193$	$_194$	$_195$	$_196$	$_197$	$_198$	$_199$	"Cx
´31x	$_200$	$_201$	$_202$	$_203$	$_204$	$_205$	$_206$	$_207$	
´32x	$_208$	$_209$	$_210$	$_211$	$_212$	$_213$	$_214$	$_215$	"Dx
´33x	$_216$	$_217$	$_218$	$_219$	$_220$	$_221$	$_222$	$_223$	
´34x	$_224$	$_225$	$_226$	$_227$	$_228$	$_229$	$_230$	$_231$	"Ex
´35x	$_232$	$_233$	$_234$	$_235$	$_236$	$_237$	$_238$	$_239$	
´36x	$_240$	$_241$	$_242$	$_243$	$_244$	$_245$	$_246$	$_247$	"Fx
´37x	$_248$	$_249$	$_250$	$_251$	$_252$	$_253$	$_254$	$_255$	
	"8	"9	"A	"B	"C	"D	"E	"F	

libertinust1-mathit (letters):

	´0	´1	´2	´3	´4	´5	´6	´7	
´00x	Γ_0	Δ_1	Θ_2	Λ_3	Ξ_4	Π_5	Σ_6	Y_7	"0x
´01x	Φ_8	Ψ_9	Ω_{10}	α_{11}	β_{12}	γ_{13}	δ_{14}	ϵ_{15}	
´02x	ζ_{16}	η_{17}	θ_{18}	ι_{19}	κ_{20}	λ_{21}	μ_{22}	ν_{23}	"1x
´03x	ξ_{24}	π_{25}	ρ_{26}	σ_{27}	τ_{28}	υ_{29}	ϕ_{30}	χ_{31}	
´04x	ψ_{32}	ω_{33}	ϵ_{34}	ϑ_{35}	ω_{36}	ϱ_{37}	ζ_{38}	φ_{39}	"2x
´05x	∇_{40}	∂_{41}	\aleph_{42}	\beth_{43}	\aleph_{44}	\daleth_{45}	\triangleright_{46}	\triangleleft_{47}	
´06x	0_{48}	1_{49}	2_{50}	3_{51}	4_{52}	5_{53}	6_{54}	7_{55}	"3x
´07x	8_{56}	9_{57}	$.5_8$	$.5_9$	$<_{60}$	\hbar_{61}	$>_{62}$	\star_{63}	
´10x	\cong_{64}	A_{65}	B_{66}	C_{67}	D_{68}	E_{69}	F_{70}	G_{71}	"4x
´11x	H_{72}	I_{73}	J_{74}	K_{75}	L_{76}	M_{77}	N_{78}	O_{79}	
´12x	P_{80}	Q_{81}	R_{82}	S_{83}	T_{84}	U_{85}	V_{86}	W_{87}	"5x
´13x	X_{88}	Y_{89}	Z_{90}	b_{91}	$\#_{92}$	$\#_{93}$	\smile_{94}	\frown_{95}	
´14x	\hbar_{96}	a_{97}	b_{98}	c_{99}	d_{100}	e_{101}	f_{102}	g_{103}	"6x
´15x	h_{104}	i_{105}	j_{106}	k_{107}	l_{108}	m_{109}	n_{110}	o_{111}	
´16x	p_{112}	q_{113}	r_{114}	s_{115}	t_{116}	u_{117}	v_{118}	w_{119}	"7x
´17x	x_{120}	y_{121}	z_{122}	h_{123}	J_{124}	\cong_{125}	\ll_{126}	\frown_{127}	
´20x	$\grave{\ }_{128}$	$\acute{\ }_{129}$	$\hat{\ }_{130}$	$\tilde{\ }_{131}$	$\bar{\ }_{132}$	$\check{\ }_{133}$	\cdot_{134}	$\ddot{\ }_{135}$	"8x
´21x	$\overset{\circ}{\ }_{136}$	$\overset{\circ}{\ }_{137}$	$\underset{\sim}{\ }_{138}$	$\underset{\sim}{\ }_{139}$	$\overset{\prime}{\ }_{140}$	$\overset{\prime}{\ }_{141}$	$\overset{\prime}{\ }_{142}$	$\overset{\prime}{\ }_{143}$	
´22x	$\overleftarrow{\ }_{144}$	$\overleftarrow{\ }_{145}$	$\overrightarrow{\ }_{146}$	$\overrightarrow{\ }_{147}$	$\overleftarrow{\ }_{148}$	$\overleftarrow{\ }_{149}$	$\overline{\ }_{150}$	$\overline{\ }_{151}$	"9x
´23x	\ast_{152}	$\bar{\ }_{153}$	$\hat{\ }_{154}$	$\tilde{\ }_{155}$	$\check{\ }_{156}$	$\hat{\ }_{157}$	\sim_{158}	$\underset{\sim}{\ }_{159}$	
´24x	$\overbrace{\ }_{160}$	$\overbrace{\ }_{161}$	$\overbrace{\ }_{162}$	$\overbrace{\ }_{163}$	$\overbrace{\ }_{164}$	$\overbrace{\ }_{165}$	$\overbrace{\ }_{166}$	$\overbrace{\ }_{167}$	"Ax
´25x	$\overbrace{\ }_{168}$	$\overbrace{\ }_{169}$	$\overbrace{\ }_{170}$	$\overbrace{\ }_{171}$	$\overbrace{\ }_{172}$	$\overbrace{\ }_{173}$	$\overbrace{\ }_{174}$	$\overbrace{\ }_{175}$	
´26x	$\overbrace{\ }_{176}$	$\overbrace{\ }_{177}$	$\overbrace{\ }_{178}$	$\overbrace{\ }_{179}$	$\overbrace{\ }_{180}$	$\overbrace{\ }_{181}$	$\overbrace{\ }_{182}$	$\overbrace{\ }_{183}$	"Bx
´27x	\gg_{184}	$\#_{185}$	$\#_{186}$	$\#_{187}$	$\#_{188}$	$\#_{189}$	$\#_{190}$	$\#_{191}$	
´30x	\geq_{192}	$\#_{193}$	$\#_{194}$	$\#_{195}$	$\#_{196}$	$\#_{197}$	$\#_{198}$	$\#_{199}$	"Cx
´31x	$>_{200}$	\leq_{201}	\geq_{202}	\leq_{203}	\geq_{204}	$\#_{205}$	$\#_{206}$	\subset_{207}	
´32x	\supset_{208}	$\#_{209}$	$\#_{210}$	\subset_{211}	\supset_{212}	$\#_{213}$	$\#_{214}$	$\#_{215}$	"Dx
´33x	$\#_{216}$	$\#_{217}$	$\#_{218}$	$\#_{219}$	$\#_{220}$	$\#_{221}$	$\#_{222}$	$\#_{223}$	
´34x	Π_{224}	\sqcup_{225}	\oplus_{226}	\ominus_{227}	\otimes_{228}	\oslash_{229}	\odot_{230}	\odot_{231}	"Ex
´35x	\odot_{232}	\ominus_{233}	\ominus_{234}	\boxplus_{235}	\boxminus_{236}	\boxtimes_{237}	\boxdiv_{238}	\vdash_{239}	
´36x	\dashv_{240}	\top_{241}	\perp_{242}	\vdash_{243}	\vDash_{244}	\vDash_{245}	\vDash_{246}	\vDash_{247}	"Fx
´37x	\vDash_{248}	\vDash_{249}	\vDash_{250}	\vDash_{251}	\vDash_{252}	$\#_{253}$	$\#_{254}$	$\#_{255}$	
	"8	"9	"A	"B	"C	"D	"E	"F	

libertinust1-mathit-bold (bold-letters):

	´0	´1	´2	´3	´4	´5	´6	´7	
´00x	Γ_0	Δ_1	Θ_2	Λ_3	Ξ_4	Π_5	Σ_6	Y_7	"0x
´01x	Φ_8	Ψ_9	Ω_{10}	α_{11}	β_{12}	γ_{13}	δ_{14}	ϵ_{15}	
´02x	ζ_{16}	η_{17}	θ_{18}	ι_{19}	κ_{20}	λ_{21}	μ_{22}	ν_{23}	"1x
´03x	ξ_{24}	π_{25}	ρ_{26}	σ_{27}	τ_{28}	υ_{29}	ϕ_{30}	χ_{31}	
´04x	ψ_{32}	ω_{33}	ϵ_{34}	ϑ_{35}	ϖ_{36}	ϱ_{37}	ς_{38}	φ_{39}	"2x
´05x	V_{40}	∂_{41}	\aleph_{42}	\beth_{43}	\aleph_{44}	\beth_{45}	\triangleright_{46}	\triangleleft_{47}	
´06x	0_{48}	1_{49}	2_{50}	3_{51}	4_{52}	5_{53}	6_{54}	7_{55}	"3x
´07x	8_{56}	9_{57}	\cdot_{58}	\cdot_{59}	$<_{60}$	\hbar_{61}	$>_{62}$	\star_{63}	
´10x	\cong_{64}	A_{65}	B_{66}	C_{67}	D_{68}	E_{69}	F_{70}	G_{71}	"4x
´11x	H_{72}	I_{73}	J_{74}	K_{75}	L_{76}	M_{77}	N_{78}	O_{79}	
´12x	P_{80}	Q_{81}	R_{82}	S_{83}	8_4	U_{85}	V_{86}	W_{87}	"5x
´13x	X_{88}	Y_{89}	Z_{90}	b_{91}	h_{92}	$\#_{93}$	\smile_{94}	\frown_{95}	
´14x	\hbar_{96}	a_{97}	b_{98}	c_{99}	d_{100}	e_{101}	f_{102}	g_{103}	"6x
´15x	h_{104}	i_{105}	j_{106}	k_{107}	l_{108}	m_{109}	n_{110}	o_{111}	
´16x	p_{112}	q_{113}	r_{114}	s_{115}	t_{116}	u_{117}	v_{118}	w_{119}	"7x
´17x	x_{120}	y_{121}	z_{122}	l_{123}	J_{124}	\cong_{125}	\ll_{126}	\frown_{127}	
´20x	$\grave{\cdot}_{128}$	$\acute{\cdot}_{129}$	$\hat{\cdot}_{130}$	$\tilde{\cdot}_{131}$	$\bar{\cdot}_{132}$	$\check{\cdot}_{133}$	\cdot_{134}	$\ddot{\cdot}_{135}$	"8x
´21x	$\overset{\cdot}{\sim}_{136}$	$\overset{\circ}{\sim}_{137}$	$\underset{\cdot}{\sim}_{138}$	$\underset{\circ}{\sim}_{139}$	$\overset{\cdot}{\sim}_{140}$	$\overset{\circ}{\sim}_{141}$	$\overset{\cdot}{\sim}_{142}$	$\overset{\circ}{\sim}_{143}$	
´22x	$\overleftarrow{\sim}_{144}$	$\overleftarrow{\sim}_{145}$	$\overrightarrow{\sim}_{146}$	$\overrightarrow{\sim}_{147}$	$\overleftarrow{\sim}_{148}$	$\overleftarrow{\sim}_{149}$	$\overrightarrow{\sim}_{150}$	$\overleftarrow{\sim}_{151}$	"9x
´23x	$\overset{*}{\sim}_{152}$	$\overset{-}{\sim}_{153}$	$\overset{\wedge}{\sim}_{154}$	$\overset{\sim}{\sim}_{155}$	$\overset{\vee}{\sim}_{156}$	$\overset{\wedge}{\sim}_{157}$	$\overset{\sim}{\sim}_{158}$	$\overset{\vee}{\sim}_{159}$	
´24x	$\overbrace{\sim}_{160}$	$\overbrace{\sim}_{161}$	$\overbrace{\sim}_{162}$	$\overbrace{\sim}_{163}$	$\overbrace{\sim}_{164}$	$\overbrace{\sim}_{165}$	$\overbrace{\sim}_{166}$	$\overbrace{\sim}_{167}$	"Ax
´25x	$\overbrace{\sim}_{168}$	$\overbrace{\sim}_{169}$	$\overbrace{\sim}_{170}$	$\overbrace{\sim}_{171}$	$\overbrace{\sim}_{172}$	$\overbrace{\sim}_{173}$	$\overbrace{\sim}_{174}$	$\overbrace{\sim}_{175}$	
´26x	$\overbrace{\sim}_{176}$	$\overbrace{\sim}_{177}$	$\overbrace{\sim}_{178}$	$\overbrace{\sim}_{179}$	$\overbrace{\sim}_{180}$	$\overbrace{\sim}_{181}$	$\overbrace{\sim}_{182}$	$\overbrace{\sim}_{183}$	"Bx
´27x	\gg_{184}	\ll_{185}	\nless_{186}	\nless_{187}	\nless_{188}	\nless_{189}	\nless_{190}	\nless_{191}	
´30x	\gtrsim_{192}	\lesssim_{193}	\lesssim_{194}	\lesssim_{195}	\lesssim_{196}	\lesssim_{197}	\lesssim_{198}	\lessdot_{199}	"Cx
´31x	\succ_{200}	\preceq_{201}	\succcurlyeq_{202}	\succcurlyeq_{203}	\succcurlyeq_{204}	\succcurlyeq_{205}	\succcurlyeq_{206}	\subset_{207}	
´32x	\supset_{208}	\subsetneq_{209}	\supsetneq_{210}	\subseteq_{211}	\supseteq_{212}	\subsetneq_{213}	\supsetneq_{214}	\subsetneq_{215}	"Dx
´33x	$\not\subseteq_{216}$	$\not\subseteq_{217}$	$\not\subseteq_{218}$	$\not\subseteq_{219}$	$\not\subseteq_{220}$	$\not\subseteq_{221}$	$\not\subseteq_{222}$	$\not\subseteq_{223}$	
´34x	Π_{224}	\sqcup_{225}	\oplus_{226}	\ominus_{227}	\otimes_{228}	\oslash_{229}	\odot_{230}	\odot_{231}	"Ex
´35x	\odot_{232}	\ominus_{233}	\ominus_{234}	\boxplus_{235}	\boxtimes_{236}	\boxtimes_{237}	\boxtimes_{238}	\vdash_{239}	
´36x	\dashv_{240}	\top_{241}	\perp_{242}	\vdash_{243}	\vDash_{244}	\vDash_{245}	\vDash_{246}	\vDash_{247}	"Fx
´37x	\vDash_{248}	\vDash_{249}	\vDash_{250}	\vDash_{251}	\vDash_{252}	\vDash_{253}	\vDash_{254}	\vDash_{255}	
	"8	"9	"A	"B	"C	"D	"E	"F	

libertinust1-mathsym (symbols):

	'0	'1	'2	'3	'4	'5	'6	'7	
'00x	ε_0	\circlearrowleft_1	\circlearrowright_2	\int_3	\iint_4	\iiint_5	\oint_6	\iiint_7	"0x
'01x	\int_8	\iint_9	\iiint_{10}	\oint_{11}	\cdot_{12}	\iiint_{13}	\bowtie_{14}	\llcorner_{15}	
'02x	\times_{16}	\amalg_{17}	\amalg_{18}	\simeq_{19}	\forall_{20}	\wedge_{21}	Σ_{22}	\perp_{23}	"1x
'03x	\S_{24}	\setminus_{25}	\daleth_{26}	\sphericalangle_{27}	\lessgtr_{28}	\gtrless_{29}	\lll_{30}	\ggg_{31}	
'04x	\lesseqgtr_{32}	\gtrlessseq_{33}	\lessgtr_{34}	\gtrless_{35}	\lessgtr_{36}	\gtrless_{37}	\lessgtr_{38}	\gtrless_{39}	"2x
'05x	∇_{40}	∇_{41}	∇_{42}	∇_{43}	∇_{44}	∇_{45}	∇_{46}	∇_{47}	
'06x	∇_{48}	∇_{49}	∇_{50}	∇_{51}	∇_{52}	∇_{53}	∇_{54}	∇_{55}	"3x
'07x	∇_{56}	∇_{57}	∇_{58}	∇_{59}	∇_{60}	∇_{61}	∇_{62}	∇_{63}	
'10x	\exists_{64}	\complement_{65}	\supset_{66}	\longleftarrow_{67}	\uparrow_{68}	\longrightarrow_{69}	\downarrow_{70}	\longleftrightarrow_{71}	"4x
'11x	\updownarrow_{72}	\nwarrow_{73}	\nearrow_{74}	\searrow_{75}	\swarrow_{76}	\nleftarrow_{77}	\nrightarrow_{78}	\leftarrow_{79}	
'12x	\mapsto_{80}	\longleftarrow_{81}	\longrightarrow_{82}	\longleftrightarrow_{83}	\longleftarrow_{84}	\longleftarrow_{85}	\longrightarrow_{86}	\longrightarrow_{87}	"5x
'13x	\longleftrightarrow_{88}	\longleftrightarrow_{89}	\longleftrightarrow_{90}	\longleftrightarrow_{91}	\longleftrightarrow_{92}	\longleftrightarrow_{93}	\longleftrightarrow_{94}	\emptyset_{95}	
'14x	\doteq_{96}	\doteq_{97}	\doteq_{98}	\doteq_{99}	\doteq_{100}	\doteq_{101}	\doteq_{102}	\doteq_{103}	"6x
'15x	\doteq_{104}	\doteq_{105}	\doteq_{106}	\doteq_{107}	\doteq_{108}	\doteq_{109}	\doteq_{110}	\doteq_{111}	
'16x	\doteq_{112}	\doteq_{113}	\doteq_{114}	\doteq_{115}	\doteq_{116}	\doteq_{117}	\doteq_{118}	\doteq_{119}	"7x
'17x	\geq_{120}	\leq_{121}	\geq_{122}	\Re_{123}	\Im_{124}	\wp_{125}	\square_{126}	\frown_{127}	
'20x	\clubsuit_{128}	\diamond_{129}	\heartsuit_{130}	\spadesuit_{131}	$\♩_{132}$	$\overset{\circ}{\circ}_{133}$	\S_{134}	\P_{135}	"8x
'21x	\surd_{136}	—_{137}	—_{138}	ℓ_{139}	\mathbb{H}_{140}	\mathbb{H}_{141}	142	143	
'22x	144	145	146	147	148	149	150	151	"9x
'23x	152	153	154	\lrcorner_{155}	156	157	158	159	
'26x	176	177	178	179	180	181	\lrcorner_{182}	\blacksquare_{183}	"Bx
'27x	\square_{184}	185	186	187	188	189	190	191	
'30x	192	193	194	195	196	197	198	199	"Cx
'31x	200	\blacktriangle_{201}	\triangle_{202}	203	204	$\blacktriangleright_{205}$	\triangleright_{206}	207	
'32x	208	209	210	\blacktriangledown_{211}	\triangledown_{212}	213	214	\blacktriangleleft_{215}	"Dx
'33x	\triangleleft_{216}	$\longleftrightarrow_{217}$	\Longrightarrow_{218}	$\longleftrightarrow_{219}$	$\longleftrightarrow_{220}$	\blacklozenge_{221}	\diamond_{222}	$\longleftrightarrow_{223}$	
'34x	\odot_{224}	\diamond_{225}	\circ_{226}	\neg_{227}	\doteq_{228}	\circ_{229}	\bullet_{230}	231	"Ex
'35x	232	233	234	235	236	237	238	∇_{239}	
'36x	\nleftrightarrow_{240}	\nleftrightarrow_{241}	\longleftarrow_{242}	\upuparrows_{243}	\Rightarrow_{244}	\downdownarrows_{245}	$\longleftrightarrow_{246}$	\updownarrow_{247}	"Fx
'37x	\nleftrightarrow_{248}	\nleftrightarrow_{249}	\nleftrightarrow_{250}	\nleftrightarrow_{251}	\longleftarrow_{252}	\circ_{253}	\diamond_{254}	$\longleftrightarrow_{255}$	
	"8	"9	"A	"B	"C	"D	"E	"F	

libertinust1-mathex (largesymbols):

	´0	´1	´2	´3	´4	´5	´6	´7	
´00x	(₀) ₁		₂	₃	[₄] ₅		₆	₇	"0x
´01x	[₈]	]₉	[₁₀]	]₁₁	{ ₁₂ }	{ ₁₃ }	₁₄	₁₅	
´02x	< ₁₆	> ₁₇	₁₈	₁₉	₂₀	₂₁	/ ₂₂	\ ₂₃	"1x
´03x	(₂₄) ₂₅		₂₆	₂₇	[₂₈] ₂₉		₃₀	₃₁	
´04x	[₃₂]	]₃₃	[₃₄]	]₃₅	{ ₃₆ }	{ ₃₇ }	₃₈	₃₉	"2x
´05x	< ₄₀	> ₄₁	₄₂	₄₃	₄₄	₄₅	/ ₄₆	\ ₄₇	
´06x	(₄₈) ₄₉		₅₀	₅₁	[₅₂] ₅₃		₅₄	₅₅	"3x
´07x	[₅₆]	]₅₇	[₅₈]	]₅₉	{ ₆₀ }	{ ₆₁ }	₆₂	₆₃	
´10x	< ₆₄	> ₆₅	₆₆	₆₇	₆₈	₆₉	/ ₇₀	\ ₇₁	"4x
´11x	(₇₂) ₇₃		₇₄	₇₅	[₇₆] ₇₇		₇₈	₇₉	
´12x	[₈₀]	]₈₁	[₈₂]	]₈₃	{ ₈₄ }	{ ₈₅ }	₈₆	₈₇	"5x
´13x	< ₈₈	> ₈₉	₉₀	₉₁	₉₂	₉₃	/ ₉₄	\ ₉₅	
´14x	[₉₆]	]₉₇	[₉₈]	]₉₉	[₁₀₀]	]₁₀₁	[₁₀₂]	]₁₀₃	"6x
´15x	{ ₁₀₄ }	{ ₁₀₅ }	{ ₁₀₆ }	{ ₁₀₇ }	{ ₁₀₈ }	{ ₁₀₉ }	[₁₁₀]	]₁₁₁	
´16x	{ ₁₁₂ }	{ ₁₁₃ }	[₁₁₄]	]₁₁₅	√ ₁₁₆	√ ₁₁₇	√ ₁₁₈	√ ₁₁₉	"7x
´17x	[₁₂₀]	]₁₂₁	√ ₁₂₂	√ ₁₂₃	√ ₁₂₄	√ ₁₂₅	∫ ₁₂₆	∫ ₁₂₇	

'20x	\iint_{128}	\iint_{129}	\iiint_{130}	\iiint_{131}	\oint_{132}	\oint_{133}	\iiiii_{134}	\iiiii_{135}	"8x
'21x	\int_{136}	\int_{137}	\int_{138}	\int_{139}	\int_{140}	\int_{141}	\oint_{142}	\oint_{143}	
'22x	\iiiii_{144}	\iiiii_{145}	\oint_{146}	\oint_{147}	\oint_{148}	\oint_{149}	150	151	"9x
'23x	152	153	154	155	156	157	158	159	
'26x	176	Π_{177}	Π_{178}	Σ_{179}	\wedge_{180}	\vee_{181}	\cap_{182}	\cup_{183}	"Bx
'27x	$/_{184}$	\backslash_{185}	\odot_{186}	\oplus_{187}	\otimes_{188}	\bullet_{189}	\uplus_{190}	\sqcap_{191}	
'30x	\sqcup_{192}	193	194	195	196	197	198	Π_{199}	"Cx
'31x	Π_{200}	Σ_{201}	\wedge_{202}	\vee_{203}	\cap_{204}	\cup_{205}	$/_{206}$	\backslash_{207}	
'32x	\odot_{208}	\oplus_{209}	\otimes_{210}	\bullet_{211}	\uplus_{212}	\sqcap_{213}	\sqcup_{214}	215	"Dx
'33x	216	217	218	219	(220)	)221	222	223	
'34x	\llbracket_{224}	\rrbracket_{225}	\lfloor_{226}	\rfloor_{227}	\lceil_{228}	\rceil_{229}	\int_{230}	\int_{231}	"Ex
'35x	232	233	\langle_{234}	\rangle_{235}	236	237	238	239	
'36x	$|_{240}$	\parallel_{241}	242	$|_{243}$	\parallel_{244}	245	246	247	"Fx
'37x	248	$\sqrt{\quad}_{249}$	250	251	252	253	254	255	
	"8	"9	"A	"B	"C	"D	"E	"F	

libertinust1-mathbb (mathbb):

	´0	´1	´2	´3	´4	´5	´6	´7	
´10x	64	A ₆₅	B ₆₆	C ₆₇	D ₆₈	E ₆₉	F ₇₀	G ₇₁	"4x
´11x	H ₇₂	I ₇₃	J ₇₄	K ₇₅	L ₇₆	M ₇₇	N ₇₈	O ₇₉	
´12x	P ₈₀	Q ₈₁	R ₈₂	S ₈₃	T ₈₄	U ₈₅	V ₈₆	W ₈₇	"5x
´13x	X ₈₈	Y ₈₉	Z ₉₀	91	92	93	94	95	
´14x	96	a ₉₇	b ₉₈	c ₉₉	d ₁₀₀	e ₁₀₁	f ₁₀₂	g ₁₀₃	"6x
´15x	h ₁₀₄	i ₁₀₅	j ₁₀₆	k ₁₀₇	l ₁₀₈	m ₁₀₉	n ₁₁₀	o ₁₁₁	
´16x	p ₁₁₂	q ₁₁₃	r ₁₁₄	s ₁₁₅	t ₁₁₆	u ₁₁₇	v ₁₁₈	w ₁₁₉	"7x
´17x	x ₁₂₀	y ₁₂₁	z ₁₂₂	l ₁₂₃	J ₁₂₄	125	126	ˆ ₁₂₇	
	"8	"9	"A	"B	"C	"D	"E	"F	

libertinust1-mathsf (mathsf):

	´0	´1	´2	´3	´4	´5	´6	´7	
´02x	I ₁₆	J ₁₇	18	19	20	21	22	23	"1x
´03x	24	25	26	27	28	29	30	31	
´06x	0 ₄₈	1 ₄₉	2 ₅₀	3 ₅₁	4 ₅₂	5 ₅₃	6 ₅₄	7 ₅₅	"3x
´07x	8 ₅₆	9 ₅₇	58	59	60	61	62	63	
´10x	64	A ₆₅	B ₆₆	C ₆₇	D ₆₈	E ₆₉	F ₇₀	G ₇₁	"4x
´11x	H ₇₂	I ₇₃	J ₇₄	K ₇₅	L ₇₆	M ₇₇	N ₇₈	O ₇₉	
´12x	P ₈₀	Q ₈₁	R ₈₂	S ₈₃	T ₈₄	U ₈₅	V ₈₆	W ₈₇	"5x
´13x	X ₈₈	Y ₈₉	Z ₉₀	91	92	93	94	95	
´14x	96	a ₉₇	b ₉₈	c ₉₉	d ₁₀₀	e ₁₀₁	f ₁₀₂	g ₁₀₃	"6x
´15x	h ₁₀₄	i ₁₀₅	j ₁₀₆	k ₁₀₇	l ₁₀₈	m ₁₀₉	n ₁₁₀	o ₁₁₁	
´16x	p ₁₁₂	q ₁₁₃	r ₁₁₄	s ₁₁₅	t ₁₁₆	u ₁₁₇	v ₁₁₈	w ₁₁₉	"7x
´17x	x ₁₂₀	y ₁₂₁	z ₁₂₂	123	124	125	126	⌒ ₁₂₇	
	"8	"9	"A	"B	"C	"D	"E	"F	