MATTALX symbol list

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Introduction

MatTalX uses, most of the time, the same command as LaTeX. Some important differences are, for instance, \mathbb{R} is \mathbbR in MatTalX, instead of \mathbb{R} in LaTex. The same goes for \mathbb{R} , which is obtained with \mathbfR instead of \mathbf{R}. The same goes for every other letter. The same difference, but applied somewhere else is \haty instead of \hat{y} for \hat{y} .

Another important change from LaTex is that you can't "build" a symbol in MatTalX. As an example, $\stackrel{\mbox{\tiny def}}{=}$ in LaTex. As a last example, $^{\mbox{\tiny def}}{=}$ in LaTex. As a last example, $^{\mbox{\tiny def}}{=}$ is \sqrt3 2 instead of \sqrt[3]{2}.

For fractions, since MatTalX renders symbol in UTF format, it is recommended to represent f(x) divided by g(x) as f(x)/g(x) or $f(x)(g(x))^{-1}$. If it is a simple fraction (like one half), you can use \frac1/2 $\rightarrow \frac{1}{2}$, but it won't work for every fraction (see page 7). It is however possible to build your own fraction with $^{1}/_{2} \rightarrow \frac{1}{2}$.

If you find a bug or have any suggestion, please tell me via https://github.com/samueleblanc/MatTalX/issues

Tutorial

It is important to know that every command, in MatTalX, must be separated by a space. For instance: Π , $\pi \rightarrow \mbox{undefined } \pi$, but Π , $\pi \rightarrow \mbox{II}$

MatTalX is a simple extension, there are only four buttons.

- 1. If you press **Convert**, the text written in the first area will be translated and the output will appear in the second area.
- 2. If you press **Copy text**, the text of the second area will be automatically copied on your clipboard, so that you can paste and send it afterwards.
- 3. If you press **Clear**, it will erase both areas.
- 4. If you hover over the question mark ? you will be able to see this document under "Documentation", the code under "Code (GitHub) and you can uncheck "Remove spaces"
 - a. With "Remove spaces" checked Input: $x > y \mid x > 0$ Output: $x > y \mid x > 0$ Input: $x > y \mid x > 0$ Input: $x \mid x > y \mid x > 0$ Output: $x \mid x > y \mid x > 0$ Output: $x \mid x > y \mid x > 0$ Output: $x \mid x > y \mid x > 0$ Output: $x \mid x > y \mid x > 0$ Input: $x \mid x > y \mid x > 0$ Output: $x \mid x > y \mid x > 0$ Input: $x \mid x > y \mid x$
 - b. With "Remove spaces" unchecked Input: $x > y \mid x > 0$ Output: $x > y \land y \geq 0 \Rightarrow x > 0$ Input: \Gamma (k) = \sum _k=1 (2k ^2 + 4) Output: $\Gamma(k) = \sum_{x = 1}^{\infty} (2k^2 + 4)$

Mathematics

Unary and binary operators

+, -, \times, /, \div	+, -, ×,/, ÷
#	#
!	!
\neg	٦

\sqrt, \sqrt3, \sqrt4	√, ∛, ∜
\prod, \sum	Π, Σ
\cdot	
\ast, \star, \circ, \diamond	*, *, ∘, ◊
\pm, \mp	±, ∓

\wr	t
-----	---

\sin, \cos, \tan	sin, cos, tan
\arcsin, \arccos, \arctan	arcsin, arccos, arctan
\cot, \csc, \sec	cot, csc, sec
\arccot, \arccsc, \arcsec	arccot, arcsc, arcsec

\ln, \log	In, log
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\det	det
------	-----

\cup, \cap	U, N
\sqcup, \sqcap	ц, п
\Cup, \Cap	⊎, ∩
\sqCup, \sqCap	□, □
\cupplus	н
\setminus	\
\amalg	Ц

\oplus, \ominus	⊕, ⊖
\otimes, \odot, \oslash	⊗,⊙,⊘
\boxplus, \boxminus	⊞, ⊟
\boxtimes, \boxdot	⊠, ⊡

Calculus

Integrals, sum, derivatives

\int, \iint \iiint, \iiiint	J, II, III,
\oint, \oiint, \oiiint	∮,∯,∰
\intclockwise	f
\ointclockwise, \ointctrclockwise	∮, ∳
\sqint, \timesint	∳, ≸
\cupint, \capint	ψ, φ
\fint	f
\overbarint, \underbarint	<u></u>], <u>[</u>

\sum	Σ

', ", \tprime ', ", "

\partial	д
\nabla	∇

\lim lim

Relation

= , \neq	=, ≠
\equiv	≡
\cong, \ncong	≅, ≇
\approx	≈
\sim, \nsim, \simeq	~, +, ≅
\doteq, \def, \equest	≐, <u>^{def}</u> , ≟
\triangleq, \mquest	<u>△</u> , <u>m</u>
<,>	<,>
\nless, \ngtr	≮,≯
\II, \gg, \III, \ggg	«,», «,»
\lquest, \rquest	₹, ≯
\leq, \geq, \leqslant, \geqslant	≤, ≥, ≤, ≽
\lnsim, \gnsim	\$, \$
\Inapprox, \gnapprox	≨, ≩
\Ineq, \gneq, \Ineqq, \gneqq	<i>≨</i> , <i>≩</i> , <i>≨</i>
\propto	«

\prec, \succ, \nprec, \nsucc	<, >, ≮, ≯
\preceq, \succeq	≼, ≽
\precneqq, \succneqq	≨, ≨
\precnsim, \succnsim	⋦ , ⋧

\precnapprox, \succnapprox	≨, ≩

\in, \ni, \notin	€, ∋, ∉
\subset, \supset	⊂, ⊃
\nsubset, \nsupset	⊄,⊅
\subseteq, \supseteq	⊆, ⊇
\nsubseteq, \nsupseteq	₫, ₫
\Subset, \Supset	€, ⊃
\sqsubset, \sqsupset	□, □
\sqsubseteq, \sqsupseteq	⊑, ⊒
\subsetplus, \supsetplus	Ç, ⊋

\triangleleft, \triangleright	⊲, ⊳
\ntriangleleft, \ntriangleright	4 , b
\ntrianglelefteq, \ntrianglerighteq	⊈, ⋭

, \nmid	[, ∤
---------	------

\emptyset	Ø
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Delimiters

(,)	(,)
\llparenthesis, \rrparenthesis	((,))
{, }	{, }
\IBrace, \rBrace	{∫, }}
[,]	[,]

\libracket, \rrbracket	[[,]]
	1
\langle, \rangle	ζ, ⟩
\llangle, \rrangle	⟨⟨, ⟩⟩
\lceil, \rceil, \lfloor, \rfloor	Г, ٦, L, Ј

Logic

\exists, \nexists, \exists!	∃,∄,∃!
\land or \wedge, \lor or \vee	Λ, V
\doublewedge, \doublevee	∧ , ₩
\curlywedge, \curlyvee	А, Ү
\forall	∀

\vdash, \dashv, \nvdash	⊣, ⊢, ⊬
\Dashv, \vDash, \nvDash	∃ , ⊨ , ⊭
\dashV, \Vdash, \nVdash	-II, II - , II /
\DashV, \VDash, \nVDash	⊐ I, ⊫, ⊯
\top, \bot	⊤, ⊥

\qed	
·	

Geometry

\parallel, \nparallel	// , */
\asymp	×
\perp, \notperp	上, 主
\angle, \rightangle	∠,⊾

\measuredangle, \sphericalangle	∡, ∢
, \nmid	[, ∤
\between	Ŏ

Arrows

\leftarrow, \rightarrow	\leftarrow , \rightarrow
\leftrightarrow	\leftrightarrow
\uparrow, \downarrow	↑,↓
\updownarrow	1
\nleftarrow, \nrightarrow	↔ , <i>→</i>
\nleftrightarrow	↔
\Leftarrow, \Rightarrow	€ , ⇒
\Leftrightarrow, \iff	⇔,⇔
\Longleftarrow, \implies	←, ⇒
\Uparrow, \Downarrow	↑, ↓
\Updownarrow	•
\nLeftarrow, \nRightarrow	∉ , ∌
\nLeftrightarrow	⇔
\mapsto	\mapsto

\rightharpoonup, \rightharpoondown	∸, →
\leftharpoonup, \leftharpoondown	∠, ←
\leftrightharpoons, \rightleftharpoons	≒ , ≓
\upharpoonleft, \upharpoonright	1, 1
\downharpoonleft, \downharpoonright	١, ١

\twoheadleftarrow, \twoheadrightarrow	≪ , →
\twoheadleftarrow, \twoheadrightarrow	«, »

* , *
← , ⇒
↑↑, ↓↓
≒ , ₹
← , ↔
€ P, 9>
٩, ١٠
√, ⊅
↘, ✓
€, ⇒
\leftarrow , \rightarrow
← , →
↔
ڻ , ٿ
∿, ∿

Fractions

\frac1/2	1/2
\frac1/3, \frac2/3	1/3, 2/3
\frac1/5, \frac2/5, \frac3/5, \frac4/5	½, ½, ¾, ½
\frac1/6, \frac5/6	½, ½
\frac1/7	
\frac1/8, \frac3/8, \frac5/8, \frac7/8	1/8, 3/8, 5/8, 7/8
\frac1/9	
\frac1/10	
\fraca/c, \fraca/s, \fracc/o, \fracc/u	%, %, %, %

For any other simple fractions that are not on this list, you can create them with a superscript, a "/" and a subscript (e.g. $^53/_19 \rightarrow ^{53}/_{19}$ and $^5/_12 \rightarrow ^{53}/_19$ and $^5/_12 \rightarrow ^{53}/_19$

Greek letters

A, \alpha	Α, α
B, \beta	Β, β
\Gamma, \gamma	Γ, γ
\Delta, \delta	Δ, δ
E, \epsilon, \varepsilon	Ε, ε, ε
Z, \zeta	Ζ, ζ
H, \eta	H, η
\Theta, \theta, \vartheta	Θ, θ, ϑ
I, \iota	Ι, ι
K, \kappa, \varkappa	Κ, κ, χ
\Lambda, \lambda	Λ, λ
N, \nu	N, v
\Xi, \xi	Ξ, ξ
O, o	O, o
\Pi, \pi, \varpi	Π, π, ϖ
P, \rho, \varrho	Р, Q, Q
\Sigma, \sigma, \varsigma	Σ, σ, ς
T, \tau	Τ, τ
\Upsilon, \upsilon	γ, v
\Phi, \phi, \varphi	Φ, φ, φ
X, \chi	Χ, χ
\Psi, \psi	Ψ , ψ
\Omega, \omega	Ω, ω
\Pi, \pi, \varpi P, \rho, \varrho \Sigma, \sigma, \varsigma T, \tau \Upsilon, \upsilon \Phi, \phi, \varphi X, \chi \Psi, \psi	Π, π, ϖ P, ϱ, ϱ $\Sigma, \sigma, \varsigma$ T, τ Υ, v Φ, ϕ, φ X, χ Ψ, ψ

Fonts

A, a, z	$A, a, \dots z$
\mathbfA, \mathbfa, \mathbfz	$A, a, \dots z$
\mathbbA, \mathbba, \mathbbz	A, a, z

0, 1, 9	0, 1, 9
\mathbf0, \mathbf1, \mathbf9	0, 1, 9
\mathbb0, \mathbb1, \mathbb9	0, 1, 9

Greek letters

\mathbbPi, \mathbbpi	Π, π
\mathbbGamma, \mathbbgamma	Γ, γ
\mathbbSigma	Σ

^{*} These are the only one as of v 0.1.1

\mathbfalpha, \mathbfomega $lpha$, $oldsymbol{\omega}$	
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Every greek letters that exists in the regular font exists in mathbf

Hat and overline

\hatA, \hata, \hatz	\hat{A} , \hat{a} , \hat{z}
\hatalpha, \hatomega*	$\hat{\alpha_i}, \dots \hat{\omega_i}$
\overlineA, \overlinez	$\overline{A_7} \dots \overline{Z}$
\overlinealpha, \overlineomega	$\bar{\alpha},\bar{\omega}$

^{*} Some are missing due to a bad rendering (e.g. \hatA in the example above. However, the hat will be positioned adequately in some app or software).

Subscript and superscript

x ^abc123, o ^1+2=3	$x^{abc^{123}}, o^{1+2=3}$
y _ijk456, i _2(3)=6	$y_i = i_{2(3)=6}$

Some characters are missing because they do not exist in unicode

\^beta, _beta	β, β
\^Gamma, \^gamma, _gamma	г, ү, ү
\^Delta, \^delta	Δ, δ
\^epsilon	3
\^Lambda	٨
\^Theta	θ
\^iota	ı
\^nu	υ
_rho	9
\^phi, _phi	φ, φ
\^chi, _chi	Х, х

Chess & card games

\wking, \bking	₽ , ₽
\wqueen, \bqueen	₿, ¥
\wrook, \brook	簟, 堂
\wbishop, \bbishop	Q , Q
\wknight, \bknight	2 , 2
\wpawn, \bpawn	£1, £ 1

\wspade, \bspade	۵, 🛦
\wheart, \bheart	♡, ♥
\wclub, \bclub	Ф, ♣
\wdiamond, \bdiamond	◊, ♦

Money and currency

\dollar, \cent	\$, ¢
\euro, \franc, \ruble, \pound, \hryvnia	€, F, ₽, £, 8
\yen, \rupee, \won, \baht	¥, ₹, ₩, B
\lira, \tlira	ല, ₩
\peso	₽
\austral	A
\bitcoin	₿

Other symbols

\infty	∞
\hbar	ħ
\wp	နာ
\ell	Ł
\dagger, \ddagger	†, ‡
\section, \paragraph, \bullet	§, ¶, •
\copyright, \registered	©, ®
/dc	\$
\smile, \frown	~ , ~
\ldots, \cdots, \udots, \vdots, \ddots	, **, *, *, *

Space, line break, tab

Space: " \: "
Line break: " \\ "
Tab: " \tab"

Also note that it's possible to uncheck "Remove spaces" (more info in "Tutorial") and to make modifications, including adding or removing spaces, skipping a line, etc., once the converted text is in the second area.