

SugarTeX

SugarTeX is a more readable LaTeX language extension and a transcompiler to LaTeX.

See [PDF version of this documentation](#) - it nicely renders all Unicode characters and LaTeX example at the end. See original markdown version [here](#).

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Command line interfaces

1. sugartex:

- sugartex reads from stdin and writes to stdout,
- `sugartex T0` - run Pandoc filter that iterates over math blocks,
- `sugartex --kiwi` - same as above but with kiwi flavor,

2. pre-sugartex:

- pre-sugartex reads from stdin and writes to stdout,
- `pre-sugartex` - replace `\` with `$` only,
- `pre-sugartex --all` - replace everything with regexp,
- `pre-sugartex --kiwi` - same as above but with kiwi flavor.

[Panflute](#) scripts are also installed so you can use it in default Panflute [automation interface in metadata](#) or in it's CLI wrapper from [pandoctools](#):

- `panfl sugartex_panfl --to markdown,`
- `panfl sugartex_kiwi -t markdown.`

Examples. Windows:

```
chcp 65001 > NUL
set PYTHONIOENCODING=utf-8

type doc.md | ^
pre-sugartex | ^
pandoc -f markdown --filter sugartex -o doc.md.md
```

Unix:

```
export PYTHONIOENCODING=utf-8
```

```
cat doc.md | \  
pre-sugartex | \  
pandoc -f markdown --filter sugartex -o doc.md.md
```

Or splitting Pandoc reader-writer:

```
chcp 65001 > NUL  
set PYTHONIOENCODING=utf-8  
  
type doc.md | ^  
pre-sugartex | ^  
pandoc -f markdown -t json | ^  
sugartex --kiwi | ^  
pandoc -f json -o doc.md.md
```

Tweaking SugarTeX

SugarTeX is written in python and has a tweakable architecture. As you can see in [this filter](#) tweaks can be made in between:

```
sugartex = SugarTeX(delay=True)  
...  
sugartex.ready()
```

Attributes of instance of `SugarTeX` class can be changed. See them in defining of `SugarTeX` class and in it's `__init__` method [here](#). List of attributes:

- `.brackets`

- `.brackets_types`
- `.simple_pre`
- `.superscripts`
- `.subscripts`
- `.regex_pre`
- `.null_ops` (class `NullOps`)
- `.pref_un_ops` (class `PrefUnOps`), including:
 - `.styles` (class `Styles`)
 - `.other_styles` (class `OtherStyles`)
 - `.pref_un_greedy` (class `PrefUnGreedy`)
- `.postf_un_ops` (class `PostfUnOps`)
- `.bin_centr_ops` (class `BinCentrOps`), including:
 - `.matrices` (class `Matrices`)
 - `.bin_centr_greedy` (class `BinCentrGreedy`)
- `.loop_regexps`
- `.regex_post`
- `.simple_post`
- `.escapes`

SugarTeX replacements and operators

Many replacements use amsmath macros.

Math delimiters

In default use-case SugarTeX first preprocesses text replacing `\` with `$` (modifier letter low grave accent U+02CE). Can be escaped: `_`

SugarTeX Completions for Atom:

- `_ ← _``.

New escape character

In SugarTeX the default escape character is `\`. But it's a special symbol in LaTeX. In cases when `\` would work as escaping character you can use `␣` or ``` (modifier letter grave accent). At the end it will be replaced with `\`.

SugarTeX Completions for Atom:

- `␣` ← `\\alt` (modifier letter grave accent).

Brackets

Independently replace brackets:

- `.(` → `\left({` and `.)` → `}\right)` (modifier letter low ring U+02F3),
- `..(` → `\bigl(` and `)..` → `\bigr)`,
- `..(` → `\Bigl(` and `)..` → `\Bigr)`,
- `..(` → `\biggl(` and `)..` → `\biggr)`,
- `..(` → `\Biggl(` and `)..` → `\Biggr)` (modifier letter low vertical line U+02CC).

Instead of `(` and `)` can be other brackets:

- `[` → `[` and `]` → `]`,
- `(` → `(` and `)` → `)`,
- `{` → `\{` and `}` → `\}`,
- `|` → `\vert` (box drawings light vertical U+2502, for math in markdown tables),
- `|` → `\vert`,
- `||` → `\Vert` (double vertical line U+2016),
- `◀` → `◀` and `▶` → `▶` (modifier letter low left/right arrowhead U+02F1/U+02F2),
- `⟨` → `\langle` and `⟩` → `\rangle` (mathematical left/right angle bracket U+27E8/27E9),
- `⌊` → `\lfloor` and `⌋` → `\rfloor` (left/right floor U+230A/U+230B),
- `⌈` → `\lceil` and `⌉` → `\rceil` (left/right ceiling U+2308/U+2309).

SugarTeX Completions for Atom:

Use these shortcuts for fast Unicode typing in Atom:

- $\&$ \leftarrow `\&`,
- \small \leftarrow `_o\small`,
- \prime \leftarrow `_'\small`.
- $|$ \leftarrow `\|`,
- $||$ \leftarrow `\||`,
- $_<$ \leftarrow `_<`,
- $_>$ \leftarrow `_>`,
- $_<>$ \leftarrow `_<>`,
- \langle \leftarrow `\<\big`,
- \rangle \leftarrow `\>\big`,
- $\langle \rangle$ \leftarrow `\<>\big`,
- \lfloor \leftarrow `\lfloor`,
- \rfloor \leftarrow `\rfloor`,
- \lceil \leftarrow `\lceil`,
- \rceil \leftarrow `\rceil`.

Simple pre-replacements

- $\sqrt[3]{}$ \rightarrow `3\sqrt{}` (cube root U+221B),
- $\sqrt[4]{}$ \rightarrow `4\sqrt{}` (fourth root U+221C),
- $\,$ \rightarrow `\,` (thin space U+2009).

SugarTeX Completions for Atom:

- $\,$ \leftarrow `\,` (thin space),
- $\, \,$ \leftarrow `\, \,` (thin space),
- $\sqrt{}$ \leftarrow `\^1/2`,
- $\sqrt[3]{}$ \leftarrow `\^1/3`,
- $\sqrt[4]{}$ \leftarrow `\^1/4`.

Superscripts and Subscripts

Groups of superscript Unicode characters like $1^2 3$ are replaced with $\wedge\{123\}$. Unless they are escaped with \backslash or followed by $\sqrt{}$:

- $\backslash 1^2 3 \sqrt{} \rightarrow 1^2 3 \sqrt{}$ (square root U+221A),
- $\backslash 1^2 3 \rightarrow 1^{\wedge\{23\}}$,
- $1^2 3 a b c \rightarrow \wedge\{123abc\}$.

Same is for groups of subscript Unicode characters:

- $\backslash 1_2 3 \rightarrow 1_{_}\{23\}$.
- $1_2 3 k l m \rightarrow _{_}\{123klm\}$.

List of supported characters can be found in the beginning of the SugarTeX [source code](#).

UPDATE

Now $\langle \rangle$ and $\ulcorner \urcorner$ from [Styles with special brackets](#) end up inside $_{}\{ \}/^{\{ \}}$, like: $A_{\langle a e \rangle} \rightarrow A_{_}\{\langle a e \rangle\}$. Does not work if there are non-subscript/superscript characters inside $\langle \rangle/\ulcorner \urcorner$, like: $A_{\ulcorner a e \urcorner} \rightarrow A_{_}\{\ulcorner a \urcorner e \urcorner\}$.

SugarTeX Completions for Atom:

- $1 \leftarrow \backslash_1$,
- $a \leftarrow \backslash_a$,
- $1 \leftarrow \backslash^1$,
- $a \leftarrow \backslash^a$.

Regular expressions pre-replacements

Nothing. But can be tweaked.

Nullary operators

Big operators replacements:

- $\sum \rightarrow \backslash sum$ (n-ary summation U+2211),
- $\sum: \rightarrow \backslash sum \backslash nolimits$,

- \sum → `\sum\limits` (braille pattern dots-48 U+2888).

Supported symbols for limits:

- $\dot{:}$ → `\limits` (braille pattern dots-48/dots-17 U+2888/U+2841),
- $\ddot{:}$, $\dot{:}$ → `\nolimits` (braille pattern dots-23/dots-56 U+2806/U+2830).

Supported big operators:

- Σ → `\sum`,
- Π → `\prod`,
- \int → `\int`,
- \iint → `\iint`,
- \iiint → `\iiint`,
- \iiint → `\iiint`,
- \oint → `\oint`.

Who knows what I was thinking about by adding them here instead of Regular expressions replacements...

SugarTeX Completions for Atom:

- $\dot{:}$ ← `\:\big`,
- $\dot{:}$ ← `\:\small`,
- Σ ← `\sum`,
- Π ← `\prod`,
- \int ← `\int`,
- \iint ← `\iint`,
- \iiint ← `\iiint`,
- \iiint ← `\iiint`,
- \oint ← `\oint`.

Prefix unary operators

Styles

Text inside standard brackets ($()$, $[]$, $\{\}$) with special prefix is replaced with style operator. For example:

$[^{\text{r}}\text{text}]$ or $[^{\{r\}}\text{text}] \rightarrow \mathrm{\text{text}}$.

First SugarTeX finds opening part like $[^{\{r\}}$ then searches for the first non-escaped closing part $]$ that is not inside $\{\}$ or $\langle \rangle$ – SugarTeX counts opening and closing $\{\}$ ($\langle \rangle$ would later be replaced with $\{\}$ so both are counted together). For example:

$(^{\text{r}}\text{some}\{\text{te}\}(\text{t})) \rightarrow \mathrm{\text{some}\{\text{te}\}(\text{t})}$.

List of available styles:

- $\{\text{r}\text{text}\} / \{\wedge\{r\}\text{text}\} \rightarrow \mathrm{\text{text}}$ (**math regular**),
- $\{\text{i}\text{x}\} / \{\wedge\{i\}\text{x}\} \rightarrow \mathrm{\textit{x}}$ (**math italic**),
- $\{\text{b}\text{x}\} / \{\wedge\{b\}\text{x}\} \rightarrow \mathrm{\textbf{x}}$ (**math bold**),
- $\{\text{B}\text{x}\} / \{\wedge\{\beta\}\text{x}\} \rightarrow \mathrm{\textbf{\textit{x}}}$ (**math bold italic**),
- $\{\text{m}\text{text}\} / \{\wedge\{m\}\text{text}\} \rightarrow \mathrm{\texttt{text}}$ (**math monospace**),
- $\{\text{c}\text{A}\} / \{\wedge\{c\}\text{A}\} \rightarrow \mathrm{\textcal{A}}$ (**math calligraphic**, no cyrillic support, see Monotype Corsiva),
- $\{\text{t}\text{text}\} / \{\wedge\{t\}\text{text}\} \rightarrow \text{text}$ (**text**),
- $\{\text{ti}\text{text}\} / \{\wedge\{ti\}\text{text}\} \rightarrow \textit{text}$ (**text italic**),
- $\{\text{tb}\text{text}\} / \{\wedge\{tb\}\text{text}\} \rightarrow \textbf{text}$ (**text bold**),
- $\{\text{tB}\text{text}\} / \{\wedge\{t\beta\}\text{text}\} \rightarrow \textit{\textbf{text}}$ (**text bold italic**),
- $\{\text{r}\text{x}\} / \{\text{r}\text{x}\} \rightarrow \mathrm{\textbf{x}}$ (**vector bold notation**, combining right arrow above U+20D7, first one is ‘space’ + \rightarrow),
- $\{\text{:}\text{x}\} / \{\text{:}\text{x}\} \rightarrow \mathrm{\textbf{x}}$ (**vector bold notation**, braille pattern dots-45/dots-12 U+2818/U+2803 [right upper 2/left upper 2]),
- $\{\text{:}\text{A}\} / \{\text{:}\text{A}\} \rightarrow \mathrm{\textbf{A}}$ (**matrix bold notation**, braille pattern dots-124/dots-1245 U+280B/U+281B).

SugarTeX Completions for Atom:

- $\rightarrow \leftarrow \wedge ->$,
- $\text{:} \leftarrow \wedge \text{:}$,
- $\text{:}\text{:} \leftarrow \wedge \text{:}\text{:}$,
- $\text{:}\text{:} \leftarrow \wedge \text{:}\text{:}\text{\textbackslash rot}$.

Styles with special brackets

- `<^{\beta}text>` / `<^{\beta}text>` → `\textit{\textbf{text}}` (**text bold italic**),
- `<^i text>` / `<^i text>` → `\textit{text}` (**text italic**),
- `<^b text>` / `<^b text>` → `\textbf{text}` (**text bold**),
- `<text>` → `\text{text}` (**text regular**,
single left/right-pointing angle quotation mark U+2039/U+203A),
- `'text'` → `\mathrm{text}` (**math regular**,
modifier letter begin/end high tone U+02F9/U+02FA).

SugarTeX Completions for Atom:

- `<` ← `\<`,
- `>` ← `\>`,
- `<>` ← `\<>`,
- `''` ← `\^r\small.`

Greedy prefix unary operators

- `{\in smth}` / `\in smth` → `\begin{cases} smth\end{cases}` (**piecewise**,
element of with long horizontal stroke U+22F2).

```
``
. |x|. = { \in x. <if> x ≥ 0 |
          -x. <if> x < 0 }
``
```

SugarTeX finds non-escaped `{\in` or `\in` first then searches for non-escaped `}` or `,` that is not inside `{}` or `\,` – SugarTeX counts opening and closing `{}` `\,` (`\,` would later be replaced with `{}` so both are counted together).

SugarTeX Completions for Atom:

- `\in` ← `\-e`,
- `\in` ← `\-E`.

Standard prefix unary operators

- `<matrix a → \begin{matrix} a`
(left-pointing curved angle bracket U+29FC),
- `Ⓐ² a → \vphantom{A^2} a`
(**invisible characters that adjust height**, ghost U+1F47B),
- `→̄ text a → \xrightarrow{text} a`
(**arrow with text above that adjusts to the text length**, rightwards arrow U+2192, top square bracket U+23B4),
- `←̄, long text, a → \xleftarrow{{long text}} a`
(leftwards arrow U+2190).

SugarTeX finds non-escaped `< *` first (for example) then searches for a place before non-escaped `}`, `,`, space, newline or end of the string that is not inside `{}` or `<,>` – SugarTeX counts opening and closing `{}` `<,>` (`<,>` would later be replaced with `{}` so both are counted together).

SugarTeX Completions for Atom:

- `< ← \<\big2,`
- `> ← \>\big2,`
- `<> ← \<>\big2,`
- `Ⓐ ← \ghost,`
- `→̄ ← \^^,`
- `→̄ ← \^]\rot,`
- `→ ← \->,`
- `← ← \<-.`

Postfix unary operators

- `a x̄ → a \vec{x} }` (**vector**, combining right arrow above U+20D7),
- `a x̄ → a \overrightarrow{x} }` (**arrow above**, combining right harpoon above U+20D1),
- `a x^ → a \widehat{x}` **warning:** works only if the next character after `^` is `}`, `,`, newline or end of the string,

- $a \hat{x} \rightarrow a \ \hat{x}$ (modifier letter circumflex accent U+02C6),
- $a \bar{x} \rightarrow a \ \bar{x}$ (macron U+00AF),
- $a \overline{x} \rightarrow a \ \overline{x}$ (overline U+203E),
- $a \dot{x} \rightarrow a \ \dot{x}$ (dot above U+02D9),
- $a \ddot{x} \rightarrow a \ \ddot{x}$ (diaeresis U+00A8),
- $x + y+z \rightarrow x + \overbrace{y+z}$
(top curly bracket U+23DE),
- $x + \{y + z\} \rightarrow x + \underbrace{\{y + z\}}$
(bottom curly bracket U+23DF),
- $a \underline{x} \rightarrow a \ \underline{x}$
warning: works only if the next character after `_` is `}`, `,`, newline or end of the string (modifier letter low macron U+02CD),
- $a \matrix{x} \rightarrow a \ \end{matrix}$
(right-pointing curved angle bracket U+29FD),

SugarTeX finds non-escaped `*>` first (for example) then before it searches for a place after non-escaped `{`, `,`, space, newline or start of the string that is not inside `{}` or `<>` – SugarTeX counts opening and closing `{}` (`<>` would later be replaced with `{}` so both are counted together).

In combination with styles:

When combining **one-character** postfix unary operators with styles the order in which operators are applied changes:

$[^b x^{\rightarrow}] \rightarrow \vec{\mathbf{x}}$

SugarTeX Completions for Atom:

- $\rightarrow \leftarrow \hat{}$, $\hat{} \rightarrow \hat{}$,
- $\rightarrow \leftarrow \bar{}$, $\bar{} \rightarrow \bar{}$,
- $\hat{} \leftarrow \hat{} \small$,
- $\bar{} \leftarrow \hat{} \small$ (macron),
- $\bar{} \leftarrow \hat{} \small$ (macron),
- $\bar{} \leftarrow \hat{}$ (overline),
- $\dot{} \leftarrow \hat{} \cdot$,
- $\ddot{} \leftarrow \hat{} \cdot \cdot$,
- $\overset{\sim}{} \leftarrow \hat{} \text{rot}$,
- $\underset{\sim}{} \leftarrow \hat{} \text{rot}$,
- $\underline{} \leftarrow \hat{}$,

- $\langle \leftarrow \backslash<\big2,$
- $\rangle \leftarrow \backslash>\big2,$
- $\langle \rangle \leftarrow \backslash<>\big2.$

Center binary operators

Matrices

Family of `*matrix` amsmath macros is given by `|:` operator (broken bar U+00A6, braille pattern dots-124 U+280B):

```
<[a .b |: c .d]> →
\begin{bmatrix}a .b|c .d\end{bmatrix} →
\begin{bmatrix}a &b\\c &d\end{bmatrix}
```

All brackets:

- `<a .b |: c .d>` → `...matrix...` (**no brackets**, modifier letter low left/right arrowhead U+02F1/U+02F2),
- `{a .b |: c .d}` → `...Bmatrix...` (**curly brackets**),
- `<(a .b |: c .d)>/{(a .b |: c .d)}` → `...pmatrix...`,
- `<[a .b |: c .d]>/{[a .b |: c .d]}` → `...bmatrix...`,
- `<|a .b |: c .d|>/{|a .b |: c .d|}/<|a .b |: c .d|>/{|a .b |: c .d|}` → `...vmatrix...`
(box drawings light vertical U+2502, for math in markdown tables),
- `<||a .b |: c .d||>/{||a .b |: c .d||}` → `...Vmatrix...`
(double vertical line U+2016).

SugarTeX finds non-escaped binary operator separator `|:` first then:

- searches for a place after non-escaped `{` or `<` that is not inside `{}` or `<>`,
- searches for a place before non-escaped `}` or `>` that is not inside `{}` or `<>`,
- it also figures out bracket type properly,
- this way it finds two arguments (SugarTeX counts opening and closing `{}``<>`, `<>` would later be replaced with `{}` so both are counted together).

SugarTeX Completions for Atom:

- $\&$ ← `\&`,
- \small ← `_o\small`,
- $|$ ← `\|`,
- $||$ ← `\||`,
- $_<$ ← `_<`,
- $_>$ ← `_>`,
- $_<>$ ← `_<>`,
- $||$ ← `\|`,
- $|/2$ ← `\|/2`,
- $\dot{\cdot}$ ← `\^:.\rot`.

General fractions without bars

Fractions works almost the same as Matrices - they add brackets and stack arguments: first arg is atop of the second arg. But with some differences:

- they use $\dot{\cdot}$ or $\dot{\cdot}$ as a separator (broken bar U+00A6, braille pattern dots-45 U+2818 / dots-12 U+2803),
- cannot handle more than one line break (so two args only),
- they use `\genfrac` amsmath macro,
- they can have size modifiers after $\dot{\cdot}$:
 - $\dot{\cdot}^d\{d\}$ - display mode,
 - $\dot{\cdot}^t\{t\}$ - text mode,
 - $\dot{\cdot}^s\{s\}$ - smaller,
 - $\dot{\cdot}^{xs}\{xs\}$ - extra small,
- left and right brackets can be different.

Examples:

- $_<(x\dot{\cdot}^ty)_>$,
- $_<[x\dot{\cdot}y]_>$,
- $\{x\dot{\cdot}y\}$ (**curly brackets**),
- $_<x\dot{\cdot}y_>$ (**no brackets**, modifier letter low left/right arrowhead U+02F1/U+02F2),
- $_<|x\dot{\cdot}y|_>$, $_<|x\dot{\cdot}y|_>$ (box drawings light vertical U+2502, for math in markdown tables),

3. `\smth1 |# smth2` \rightarrow
`\begin{aligned}smth1|smth2\end{aligned},`

```
``
.|x|. = .{< x. <if> x≥0 |#
        -x. <if> x<0 > >.
``
```

4. `\smth1 |_ smth2` / `\smth1 |_ smth2` \rightarrow
`\substack{smth1|smth2},`
(modifier letter shelf U+02FD / bottom square bracket U+23B5)

```
.. \sum_{0≤i≤N |_ 0≤j≤M} (ij)^3 ..
```

5. `\smth1 |_1 smth2` / `\smth1 |_1 smth2` \rightarrow
`\begin{subarray}{l}smth1|smth2\end{subarray},`
(modifier letter shelf U+02FD / bottom square bracket U+23B5)

```
.. \sum_{0≤i≤N |_1 0≤j≤M} (ij)^3 ..
```

Instead of `_1` (left) it can also be `_c` (center) or `_r` (right).

SugarTeX Completions for Atom:

- `^` \leftarrow `\^::`,
- `_` \leftarrow `_`,
- `_` \leftarrow `_]\rot`,
- `_` \leftarrow `_]\rot2`,
- `|` \leftarrow `\|`,
- `|` \leftarrow `\|/2`.

Standard center binary operators

Fractions

- $x/y \rightarrow \frac{x}{y}$ (division slash U+2215),
- $1+x/y \rightarrow \frac{1+x}{y}$,
- $1 + \{x + z\}/y \rightarrow 1 + \frac{\{x + z\}}{y}$,
- $x/^dy \rightarrow \frac{x}{^dy}$,
- $x/^ty \rightarrow \frac{x}{^ty}$,
- $x/^cy \rightarrow \frac{x}{^cy}$,
- $x/^sy$ and $x/^x^sy$ are the same as $x/^ty$ but smaller and use `\genfrac` macros. Bar thickness can be set this way: `\genfrac{0.5pt}{x}{x}{s}y`.

Roots, overset, underset

- $\sqrt{64} \rightarrow \sqrt{64}$ (square root U+221A),
- $\sqrt[6]{64} \rightarrow \sqrt[6]{64}$,
- $1 + \sqrt[6]{64} \rightarrow 1 + \sqrt[6]{64}$,
- $\lim_{x \rightarrow 0} / \lim_{x \rightarrow 0} \rightarrow \underset{x \rightarrow 0}{\lim}$ (modifier letter shelf U+02FD / bottom square bracket U+23B5),
- $\{x + \dots + x\}^{\sim k \text{ times}} \rightarrow \overset{\{k \text{ times}\}}{\{x + \dots + x\}^{\sim}}$ (top square bracket U+23B4).

Binomial coefficients

- $(i|c n) \rightarrow \binom{i}{n}$,
- $(i|c^d n) \rightarrow \dbinom{i}{n}$ (display),
- $(i|c^t n) \rightarrow \tbinom{i}{n}$ (text).

In this case SugarTeX finds non-escaped binary operator separator `|c` first then searches for `(` and `)`. Other stop symbols do not work.

SugarTeX finds non-escaped binary operator separator (like `/`) first then:

- searches for a place after non-escaped `{`, `,`, space, newline or start of the string that is not inside `{}` or `<>`,
- searches for a place before non-escaped `}`, `,`, space, newline or end of the string that is not inside `{}` or `<>`,
- this way it finds two arguments (SugarTeX counts opening and closing `{}``<>`, `<>` would later be replaced with `{}` so both are counted together).

SugarTeX Completions for Atom:

- $_$ \leftarrow `_`,
- $_$ \leftarrow `_]\rot`,
- $_$ \leftarrow `_]\rot2`,
- $\^$ \leftarrow `\^^`,
- $\^$ \leftarrow `\^]\rot`,
- $/$ \leftarrow `\/`,
- $\sqrt{}$ \leftarrow `\^1/2`,
- $|$ \leftarrow `\|`,
- $|$ \leftarrow `\|/2`.

Regular expressions loop replacements

Nothing. But can be tweaked.

Regular expressions post-replacements

Nothing. But can be tweaked.

Simple post-replacements

- $|$ \rightarrow `\|` (broken bar U+00A6, this should be after other $|$ replacements),
- $_$ \rightarrow `&` (modifier letter low ring U+02F3, this should be after brackets and other $_$ replacements),
- $_$ \rightarrow `{` and $_$ \rightarrow `}` (modifier letter low left/right arrowhead U+02F1/U+02F2),
- $_$ \rightarrow `_` (modifier letter low macron U+02CD),
- $_$ \rightarrow `\`,
- $_$ \rightarrow `\` (modifier letter grave accent U+02CB),
- $\updownarrow^{\{d\}}$ \rightarrow `\displaystyle` (up down arrow U+2195),
- $\updownarrow^{\{t\}}$ \rightarrow `\textstyle`,
- $\updownarrow^{\{s\}}$ \rightarrow `\scriptstyle`,
- $\updownarrow^{\{xs\}}$ \rightarrow `\scriptscriptstyle`,
- Superscripts and Subscripts replacements give:

- $\updownarrow^d \rightarrow \backslash displaystyle,$
- $\updownarrow^t \rightarrow \backslash textstyle,$
- $\updownarrow^s \rightarrow \backslash scriptstyle,$
- $\updownarrow^{xs} \rightarrow \backslash scriptscriptstyle.$

SugarTeX Completions for Atom:

- $| \leftarrow \backslash,$
- $| \leftarrow \backslash / 2,$
- $\cdot \leftarrow \backslash \& ,$
- $\cdot \leftarrow \backslash _o \backslash small,$
- $\prec \leftarrow \backslash _< ,$
- $\succ \leftarrow \backslash _> ,$
- $\prec \succ \leftarrow \backslash _<> ,$
- $_ \leftarrow \backslash _ ,$
- $\` \leftarrow \backslash \backslash \backslash \text{alt}$ (modifier letter grave accent).
- $\updownarrow \leftarrow \backslash <-> \backslash rot.$

Escapable characters

All one-character replacements from:

- Prefix unary operators,
- Postfix unary operators,
- Center binary operators,
- Nullary operators,
- Simple pre-replacements,
- Simple post-replacements,

and €, ›, ´, ⇕, ¸

(element of with long horizontal stroke U+22F2, single right-pointing angle quotation mark U+203A, modifier letter end high tone U+02FA, up down arrow U+2195, modifier letter low vertical line U+02CC)

are escapable with \backslash .

Examples

```
\documentclass{article}
\usepackage{amsmath}
\begin{document}

$$\begin{aligned} \nabla \times \vec{B} - \frac{1}{c} \frac{\partial \vec{E}}{\partial t} &= 4\pi/c \vec{j} \\ \nabla \cdot \vec{E} &= 4\pi\rho \\ \nabla \times \vec{E} + \frac{1}{c} \frac{\partial \vec{B}}{\partial t} &= \vec{0} \\ \nabla \cdot \vec{B} &= 0 \end{aligned}$$

\end{document}
```

where $\vec{B}, \vec{E}, \vec{j}: \mathbb{R}^4 \rightarrow \mathbb{R}^3$ – vector functions of the form $(t, x, y, z) \mapsto \vec{f}(t, x, y, z)$, $\vec{f} = (f_x, f_y, f_z)$.

renders to:

$$\begin{aligned} \nabla \times \mathbf{B} - \frac{1}{c} \frac{\partial \mathbf{E}}{\partial t} &= \frac{4\pi}{c} \mathbf{j} \\ \nabla \cdot \mathbf{E} &= 4\pi\rho \\ \nabla \times \mathbf{E} + \frac{1}{c} \frac{\partial \mathbf{B}}{\partial t} &= 0 \\ \nabla \cdot \mathbf{B} &= 0 \end{aligned},$$

{#eq:max}

where $\mathbf{B}, \mathbf{E}, \mathbf{j}: \mathbb{R}^4 \rightarrow \mathbb{R}^3$ – vector functions of the form $(t, x, y, z) \mapsto \mathbf{f}(t, x, y, z)$, $\mathbf{f} = (f_x, f_y, f_z)$

(you can see it in the [PDF version of this documentation](#)).

You can find more SugarTeX examples [here](#).

TODO

- Add examples to every section,