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LaTeX and MathML Support via MathJax

How to use LaTeX Syntax in SCDocs using MathJax

See also: [Writing Help](#), [SCDoc](#), [SCDocHTMLRenderer](#), [Various Non-code punctuations, brackets and symbols](#), [Symbol LaTeX, MathML and HTML in SCDocs](#)

LaTeX and MathML syntax is available through MathJax scripts. The scripts are shipped with the SuperCollider installation and are automatically included by the [Getting Started](https://www.mathjax.org/#gettingstarted) (<https://www.mathjax.org/#gettingstarted>) when rendering the SC-Doc to HTML. In principle, SuperCollider users do not have to deal with these scripts.

LaTeX support

This document only covers the inline and display modes. For details of LaTeX syntax, see the LaTeX documentation: [<https://www.latex-project.org/help/documentation/>](https://www.latex-project.org/help/documentation/).

Inline mode

Inline mode is used to insert a mathematical expression into the text flow and is achieved by enclosing the LaTeX code in a pair of `\(` and `\)` delimiters. For example, the following LaTeX code will display the rendered mathematical expression $a^2 + b^2 = c^2$ within a line of text:

```
1 \ (a^2 + b^2 = c^2\)
```

It also works in inline teletype text ($a^2 + b^2 = c^2$)

```
1 teletype::\ (a^2 + b^2 = c^2\)::
```

and teletype block:

```
| a^2 + b^2 = c^2
```

```
1 teletype::
2 \ (a^2 + b^2 = c^2\ )
3 ::
```

Display mode

Display mode is used to insert a mathematical expression on its own line and is achieved by enclosing the LaTeX code in a pair of `\[` and `\]` delimiters. For example, the following LaTeX code will display the rendered mathematical expression

$$a^2 + b^2 = c^2$$

on a separate line from the text paragraph:

```
1 \ [a^2 + b^2 = c^2\]
```

The use of display math in teletext is not recommended as it reduces readability in the following ways: In inline teletype text (

$$a^2 + b^2 = c^2$$

)

```
1 teletype::\[a^2 + b^2 = c^2\>::
```

and teletype block:

```

1  teletype::
2  \[a^2 + b^2 = c^2\]
3  ::

```

MathML support

WARNING: The attribute should be written in single quotation marks.

This document only covers inline and block representation. For details of the MathML syntax, see the MathML documentation: <<https://developer.mozilla.org/en-US/docs/Web/MathML>>. Based on <<https://w3c.github.io/mathml-core/#mathml-elements-and-attributes>>, the following MathML tags are currently bridged to MathJax by the `*renderSubTree` classmethod of the `SCDocHTMLRenderer` class:

1. <annotation>, </annotation>
2. <annotation-xml>, <annotation-xml , </annotation-xml>
3. <maction>, <maction , </maction>
4. $,$, <math display='block'>, $,$
5. <merror>, </merror>
6. <mfrac>, </mfrac>
7. <mi>, </mi>
8. <mmultiscripts>, <mmultiscripts , </mmultiscripts>
9. <mn>, </mn>
10. <mo>, </mo>
11. <mover>, </mover>
12. <mpadded>, </mpadded>
13. <mphantom>, </mphantom>
14. <mprescripts>, </mprescripts>
15. <mroot>, </mroot>
16. <mrow>, </mrow>
17. <ms>, </ms>
18. <mspace>, </mspace>
19. <msqrt>, </msqrt>
20. <mstyle>, </mstyle>
21. <msub>, </msub>
22. <msubsup>, </msubsup>
23. <msup>, </msup>
24. <mtable>, </mtable>
25. <mtd>, </mtd>
26. <mtext>, </mtext>
27. <mtr>, </mtr>
28. <munder>, </munder>
29. <munderover>, </munderover>
30. <semantics>, </semantics>

Inline

Inline display is used to insert a mathematical expression into the text flow and is achieved by using <math> or <math display='inline'> tag. For example, the following MathML code will display the rendered mathematical expression $a^2 + b^2 = c^2$ within a line of text:

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3	<mi>a</mi>	3	<mi>a</mi>
4	<mn>2</mn>	4	<mn>2</mn>
5	</msup>	5	</msup>
6	<mo>+</mo>	6	<mo>+</mo>
7	<msup>	7	<msup>
8	<mi>b</mi>	8	<mi>b</mi>
9	<mn>2</mn>	9	<mn>2</mn>
10	</msup>	10	</msup>
11	<mo>=</mo>	11	<mo>=</mo>
12	<msup>	12	<msup>
13	<mi>c</mi>	13	<mi>c</mi>
14	<mn>2</mn>	14	<mn>2</mn>
15	</msup>	15	</msup>
16	</math>	16	</math>

Block

Block mode is used to insert a mathematical expression on its own line and is achieved by using `<math display='block'>` tag. For example, the following MathML code will display the rendered mathematical expression

$$a^2 + b^2 = c^2$$

on a separate line from the text paragraph:

```

1 <math display='block'>
2   <msup>
3     <mi>a</mi>
4     <mn>2</mn>
5   </msup>
6   <mo>+</mo>
7   <msup>
8     <mi>b</mi>
9     <mn>2</mn>
10  </msup>
11  <mo>=</mo>
12  <msup>
13    <mi>c</mi>
14    <mn>2</mn>
15  </msup>
16 </math>

```

The use of display math in teletext is not recommended as it reduces readability in the following ways: In inline teletype text (

$$a^2 + b^2 = c^2$$

)

```

1 <math display='block'>
2   <msup>
3     <mi>a</mi>
4     <mn>2</mn>
5   </msup>
6   <mo>+</mo>
7   <msup>
8     <mi>b</mi>
9     <mn>2</mn>
10  </msup>
11  <mo>=</mo>
12  <msup>
13    <mi>c</mi>
14    <mn>2</mn>
15  </msup>

```

and teletype block:

$$a^2 + b^2 = c^2$$

```
1 teletype::
2 <math display='block'>
3   <msup>
4     <mi>a</mi>
5     <mn>2</mn>
6   </msup>
7   <mo>+</mo>
8   <msup>
9     <mi>b</mi>
10    <mn>2</mn>
11  </msup>
12  <mo>=</mo>
13  <msup>
14    <mi>c</mi>
15    <mn>2</mn>
16  </msup>
17 </math>
18 ::
```

helpfile source: /Users/prko/Dropbox/prko/___myDocs/Writings/Making Sound using Open Sources/mixed/dev - Bleeding edge/SuperCollider.app/Contents/Resources/HelpSource/Reference/MathJax_LaTeX_MathML.schelp
link::Reference/MathJax_LaTeX_MathML::