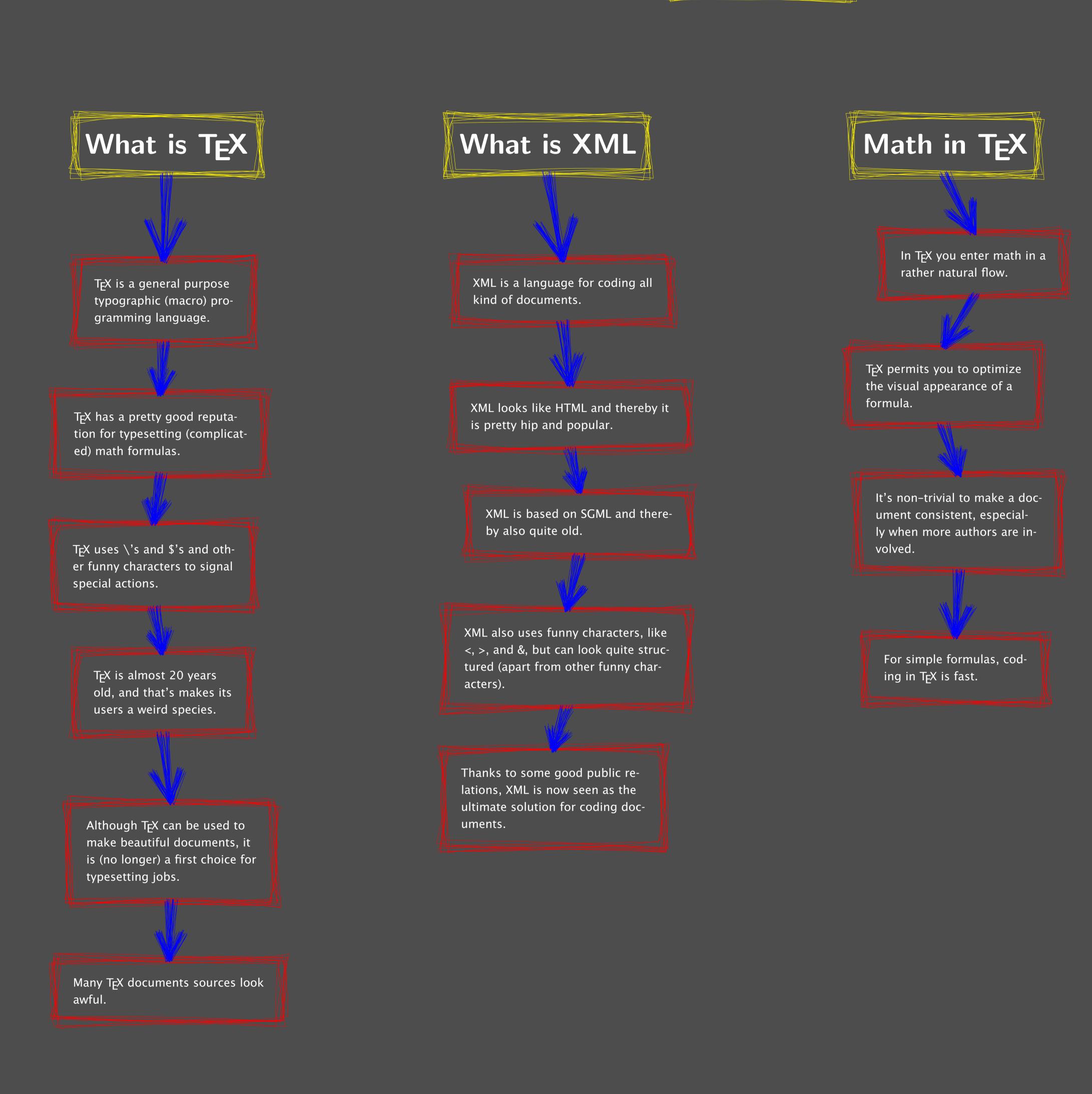
Welcome to MathML how to present your math content

Hans Hagen







Coding math in XML is more verbose than in T_EX, and is called MathML.

You can code in either presentational, or in content MathML.

In presentational markup, you compose a formula of its base typographic components.

In content markup, you define a formula in terms of what it means (represents).

Coding in presentational markup is not so much different from coding in T_EX, although it's more strict and verbose.

> Coding in content markup is less flexible, but more promising from the point of view of reusing information and consistent typography.

Presentational Markup

You can summarize presentational markup as: what you key is what you get.

x = 1<math> <mrow>

<mi>x</mi> <mo>=</mo> <mn>1</mn> </mrow>

 $x \le 1$

<math> <mrow> <mi>x</mi> <mo>≤</mo> <mn>1</mn> </mrow>

 $\sin x^2$

<math> <mrow>

<mi>sin</mi> <mo>⁡</mo> <msup> <mi>x</mi> <mn>2</mn> </msup> </mrow>

 $(\sin x)^2$

<math> <msup>

> <mfenced> <mi>sin</mi> <mi>x</mi> </mfenced> <mn>2</mn> </msup>

x = 1<math> <apply> <eq/> </apply> $x \le 1$ <math> <apply> <leq/> </apply>

you think.

 $\sin(x^2)$

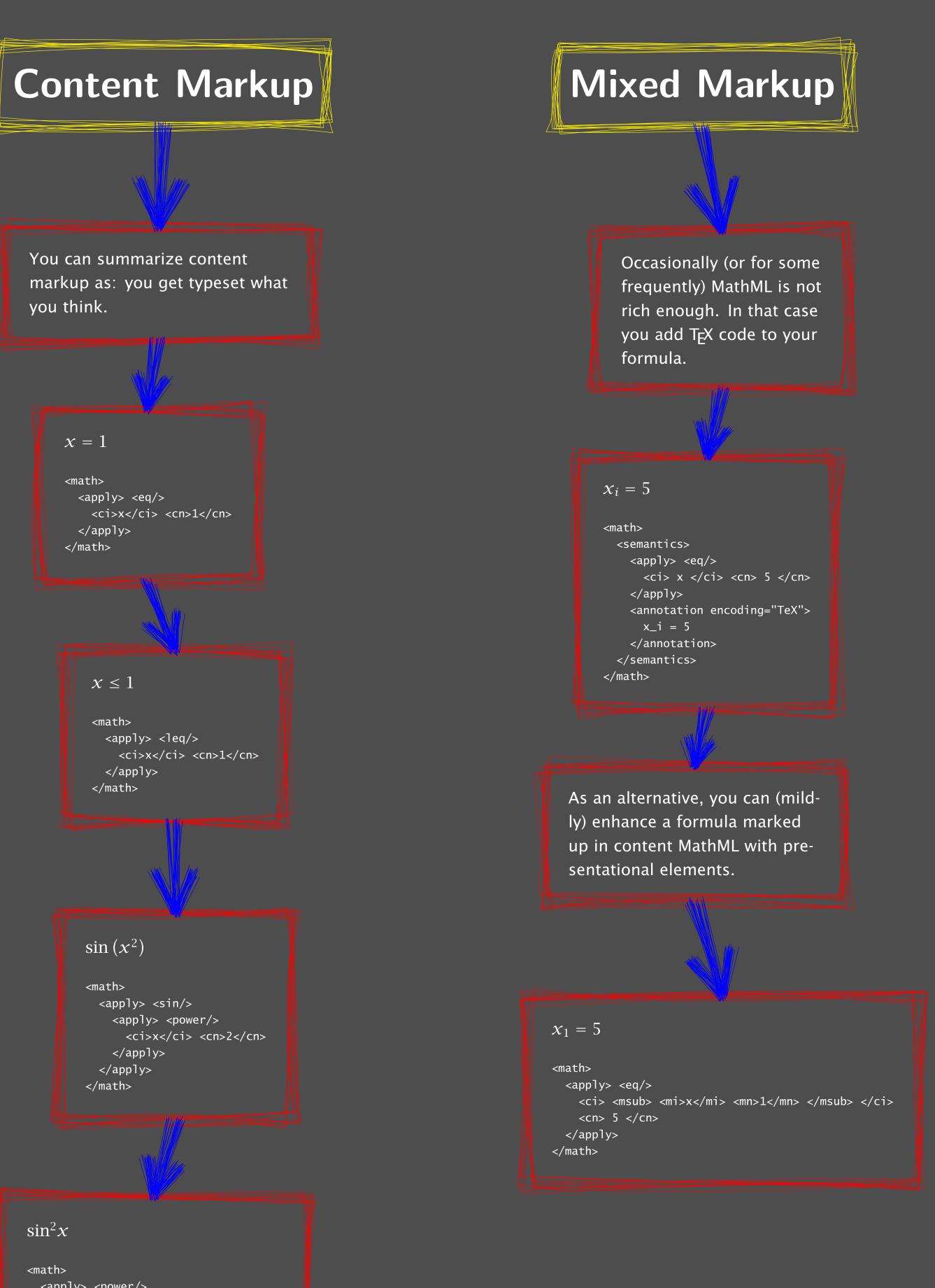
<math>

<apply> <sin/> </apply> </apply>

 $\sin^2 x$ <math> <apply> <power/> <cn>2</cn>

</apply>





<apply> <sin/> <ci>x</ci> </apply>



Processing Instruction

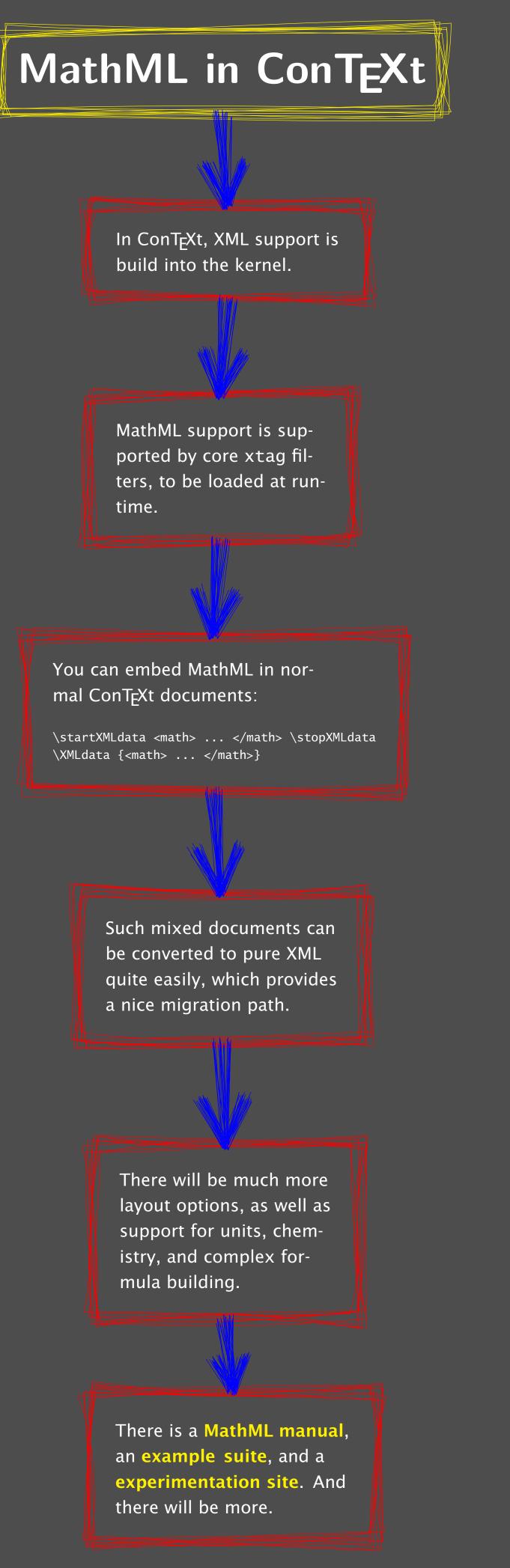
Given that the formulas are coded consistently, you can influence the layout by providing local or global processing instructions.

$\log_7 x$

<math> <apply> <log/> <logbase> <ci>7</ci> </logbase> <ci>x</ci> </apply>

$^{7}\log x$

<math> <?context-mathml-directive log location left?> <apply> <log/> <logbase> <ci>7</ci> </logbase> <ci>x</ci> </apply>



Some observations

Presentational MathML is not that useful.

Content MathML is not rich enough.

For inline math we need something different.

For presentational MathML we need editors with restrictions.

For content MathML we need conceptual editors.

So ... we're not yet there.