

MathML: Preparing NIMAS File Sets

1. The MathML declaration

Be sure to use the declaration that is correct for the version of MathML that you are including in the file set. See below for correct examples of the first lines of NIMAS XML files that include MathML. Note that the highlighted section below in the MathML 2.0 example is not included for MathML 3.0.

MathML 2.0

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE dtbook PUBLIC "-//NISO//DTD dtbook 2005-3//EN"
"http://www.daisy.org/z3986/2005/dtbook-2005-3.dtd" [
  <!ENTITY % MATHML.prefixed "INCLUDE" >
  <!ENTITY % MATHML.prefix "m">
  <!ENTITY % MATHML.Common.attrib
    "xlink:href CDATA #IMPLIED
    xlink:type CDATA #IMPLIED
    class CDATA #IMPLIED
    style CDATA #IMPLIED
    id ID #IMPLIED
    xref IDREF #IMPLIED
    other CDATA #IMPLIED
    xmlns:dtbook CDATA #FIXED 'http://www.daisy.org/z3986/2005/dtbook/'
    dtbook:smilref CDATA #IMPLIED" >
  <!ENTITY % mathML2 PUBLIC "-//W3C//DTD MathML 2.0//EN"
    "http://www.w3.org/Math/DTD/mathml2/mathml2.dtd" >
  %mathML2;
  <!ENTITY % externalFlow "| m:math">
  <!ENTITY % externalNamespaces "xmlns:m CDATA #FIXED
'http://www.w3.org/1998/Math/MathML'">]>
<dtbook version="2005-3" xml:lang="en-US"
xmlns="http://www.daisy.org/z3986/2005/dtbook/"
xmlns:m="http://www.w3.org/1998/Math/MathML">
```

MathML 3.0

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE dtbook PUBLIC "-//NISO//DTD dtbook 2005-3//EN"
"http://www.daisy.org/z3986/2005/dtbook-2005-3.dtd" [
<!ENTITY % MATHML.prefix "INCLUDE" >
<!ENTITY % MATHML.prefix "m">
<!ENTITY % mathML3 PUBLIC "-//W3C//DTD MathML 3.0//EN"
"http://www.w3.org/Math/DTD/mathml3/mathml3.dtd">
    %mathML3;
<!ENTITY % externalFlow "| m:math">
<!ENTITY % externalNamespaces "xmlns:m CDATA #FIXED
'http://www.w3.org/1998/Math/MathML'">]>
<dtbook version="2005-3" xml:lang="en-US"
xmlns="http://www.daisy.org/z3986/2005/dtbook/"
xmlns:m="http://www.w3.org/1998/Math/MathML">
```

2. Fallback images

Fallback images are **required** for NIMAS that includes MathML. These images are referenced on the `altimg` attribute of the `<m:math>` opening tag.

For example:

```
<m:math altimg="/images/thruout/Eqoneandoneovertwo_icon.jpg" alttext="">
```

3. Alt text

Alt text is not required for MathML in NIMAS. However, the `alttext` attribute is required to be present on the MathML tag.

For example:

```
<m:math altimg="/images/thruout/Eqoneandoneovertwo_icon.jpg" alttext="">
```

If you are not including a meaningful description of the math expression, please leave this attribute empty.

Please do not include placeholder text, such as “math,” in the attribute.