



European Union Aviation Safety Agency

FAQ n.136270**FAQs:****Easy Access Rules XML****Question:**


Since the format of the formulas inside OOXML is OMML, can you recommend a way to transform those to MathML (which is the standard for HTML)?

Answer:**Automated approach**

The OMML is found in the actual text content of the EASA XML files. E.g.:

```
<w:p w14:paraId="7D495C0B" w14:textId="1AD0660E" w:rsidR="00BC703"
w:rsidRDefault="00355B60">
  <m:oMathPara>
    <m:oMath>
      <m:sSup>
        <m:sSupPr> [6 lines]
        <m:e>
          <m:d>
            <m:dPr> [7 lines]
            <m:e>
              <m:r>
                <w:rPr> [3 lines]
                <m:t>x+a</m:t>
              </m:r>
            </m:e>
          </m:d>
        </m:e>
      <m:sup>
        <m:r>
          <w:rPr> [2 lines]
          <m:t>n</m:t>
        </m:r>
      </m:sup>
    </m:oMath>
  </m:oMathPara>
</w:p>
```

On a computer with a reasonably new version of Microsoft Word installed, you should be able to locate this XSLT file, used by Word to enable the manual process described below:

 **OMML2MML.XSL**
C:\Program Files\Microsoft Office\root\Office16

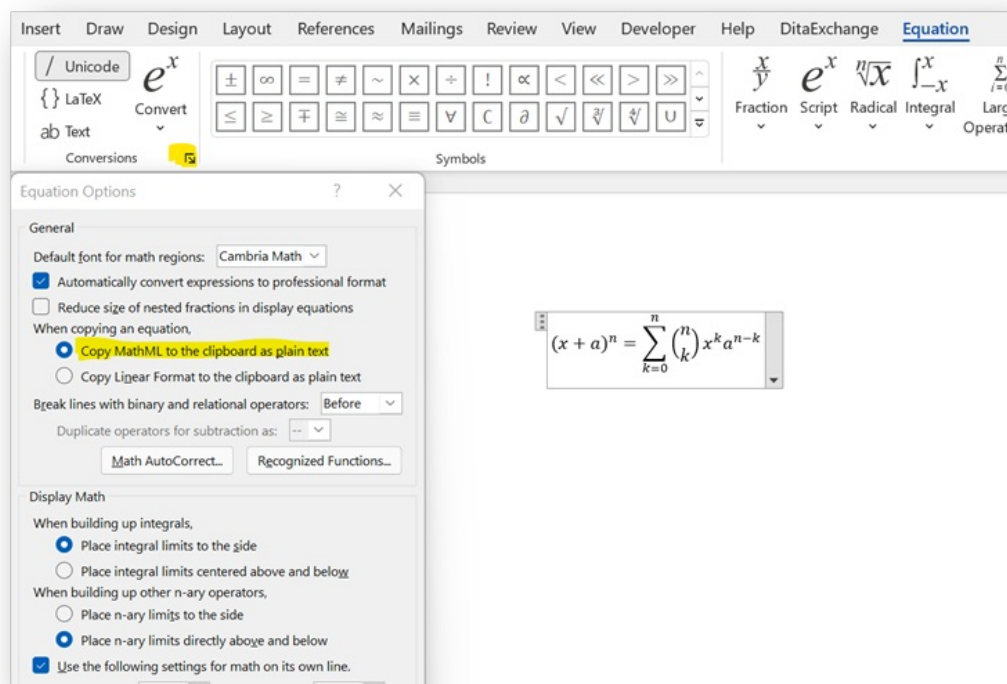
Using normal XML-DOM processing, you can extract the OMML content – and then apply this OMML2MML.XSL stylesheet to transform the OMML to MathML.

Manual approach

To manually transform the OMML to MathML:

A. One time preparation (settings):

1. Open the XML file in Word
2. Select the formula and the “Equations” tab
3. Select the little dropdown sign in the Conversions group on the ribbon (highlighted)
4. In the Equation Options dialog, be sure to turn the “Copy MathML to the clipboard” button on. This only needs to be done once – Word will persist the setting.



B. To get MathML for an equation (see the screenshot above for the sample equation):

1. Open the XML in Word
2. Select the equation (as you would select any text)
3. Copy (Ctrl+C)
4. Open an editor (for example an XML editor)
5. Create an empty XML file
6. Paste (Ctrl+V) to get this result:

```

mml:math
1 <math xmlns:mml="http://www.w3.org/1998/Math/MathML"
2   xmlns:m="http://schemas.openxmlformats.org/officeDocument/2006/math">
3   <msup>
4     <mrow>
5       <mml:mfenced separators="|">
6         <mrow>
7           <mi>x</mi>
8           <mo>+</mo>
9           <mi>a</mi>
10        </mrow>
11      </mml:mfenced>
12    </mrow>
13    <mrow>
14      <mi>n</mi>
15    </mrow>
16  </msup>
17  <mo>=</mo>
18  <mrow>
19    <msubsup>
20      <mo stretchy="true">Σ</mo>
21      <mrow>
22        <mi>k</mi>
23        <mo>=</mo>
24        <mn>0</mn>

```

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Link:

<https://www.easa.europa.eu/en/faq/136270>