

# OpenMath XML Translation Server Manual

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Edition : auto generated by oxgentexi on 28 January 2008

OpenXM.org

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# 1 OpenMath Functions (Version 1999)

The functions in this section is defined in the file ‘om.rr’. An environment to execute Java codes must be set to call the functions described in this section.

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## 1.0.1 om\_start

**om\_start()**

:: Start OMproxy server to make a translation between CMO and OpenMath XML (CD's in 1999) expressions.

**return**      Number

```
[155] load("om.rr");
1
[160] om_start();
control: wait 0X
Trying to connect to the server... Done.
0
[161] om_xml(<<1,0>>+2*<<0,1>>);
<OMOBJ><OMA><OMS name="DMP" cd="poly"/>
<OMA><OMS name="PolyRing" cd="poly"/>
  <OMI>2</OMI></OMA><OMA>
  <OMS name="SDMP" cd="poly"/>
  <OMA><OMS name="Monom" cd="poly"/><OMI>1</OMI><OMI>1</OMI><OMI>0</OMI></OMA>
  <OMA><OMS name="Monom" cd="poly"/><OMI>2</OMI><OMI>0</OMI><OMI>1</OMI></OMA>
</OMA></OMA></OMOBJ>
[162] om_xml_to_cmo(@);
(1)*<<1,0>>+(2)*<<0,1>>
```

## 1.0.2 om\_xml

**om\_xml(s|proc=p)**

:: Translate CMO expression of *s* to a XML expression of OpenMath (CD's in 1999).

**return**      String

**p**            Number

**s**            Object

- Translate CMO *s* to a XML expression of OpenMath (CD's in 1999).

```
For (I=0; I<10; I++) {
  A = 2^I;
  B = om_xml(A);
  C = om_xml_to_cmo(B);
  print(A == C);
}
```

### 1.0.3 om\_xml\_to\_cmo

`om_xml_to_cmo(s | proc=p)`

:: Translate XML expression (CD's in 1999) *s* of OpenMath to a CMO.

*return*      Object

*p*            Number

*s*            String

- Translate XML expression (CD's in 1999) *s* of OpenMath to a CMO.

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