

# OpenMath XML Translation Server Manual

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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.

Author of OMproxy : Yasushi Tamura.

## 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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