

Engineering eXchange For Free - Links

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1. exff EXPRESS Tool Links

Following are the EXPRESS tools for which some *exff* development has been tested. *exff* is agnostic with respect to EXPRESS tools. As long as the tool can generate the required XML representation of a schema, it should be possible to link it into the *exff* infrastructure as an EXPRESS source. For EXPRESS tools that do not support the required representation of schemas, simply feed the EXPRESS they produce into EEP or another tool that can generate the required XML.

A simple Web search will yield information on other EXPRESS services and toolkits - commercial and otherwise. Remember, the EXPRESS language reference manual is actually an ISO standard, ISO 10303-11 to be precise.

1.1. Eurostep EXPRESS Parser (EEP)

EEP is a Windows-based EXPRESS parser with an XML generation capability that supports the XML representation of EXPRESS used in *exff*. The EXPRESS XML DTD was defined by the STEP Modules Repository project. EEP is not an open source parser but is freely available as an executable at the [Eurostep](http://www.eurostep.com) (<http://www.eurostep.com>) Web site under "products & services".

1.2. GraphicalEXPRESS (GE)

GraphicalEXPRESS is an EXPRESS-G template for use with the Microsoft Visio tool. It includes significant improvements over the standard template delivered with Visio. It enables EXPRESS models to be developed in either the published EXPRESS language (ISO 10303-11:1994), the Draft amendment (ISO DAM 10303-11:1999) or the proposed EXPRESS edition 3. GE can produce the XML representation of EXPRESS required for *exff*. GE is not an open source parser but is freely available at the [Eurostep](http://www.eurostep.com) (<http://www.eurostep.com>) Web site under "products & services".

1.3. OSEXPRESSION

[OSEXPRESSION](https://sourceforge.net/projects/osexpress/) (<https://sourceforge.net/projects/osexpress/>) is an open-source, Java/ANTLR EXPRESS parser initiated by NIST.

2. exff UML Tool Links

Following are the UML tools/IDEs for which some *exff* development has been tested. *exff* is agnostic with respect to UML tools and IDEs. As long as the tool has an XMI or XML-based import/export capability, it should be possible to link it into the *exff* infrastructure.

2.1. Poseidon Community Edition

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[Poseidon CE](http://www.gentleware.com/index.php?id=editions) (<http://www.gentleware.com/index.php?id=editions>) is a free, limited function edition of a commercial UML tool. The *exff* stylesheets for Poseidon CE were tested against version 1.6 and 2.6.

2.2. ArgoUML

[The ArgoUML Web site](http://argouml.tigris.org) (<http://argouml.tigris.org>) is the host for the open-source development. The software can be downloaded from there. [ArgoUML v0.12](http://argouml.tigris.org/files/documents/4/1088/ArgoUML-0.12.zip) (<http://argouml.tigris.org/files/documents/4/1088/ArgoUML-0.12.zip>) is the only version against which any Release 0.1 testing has occurred. [User documentation](http://argouml.tigris.org/documentation/defaulthtml/manual/) (<http://argouml.tigris.org/documentation/defaulthtml/manual/>) is also available.

3. OWL Tool Links

3.1. Protégé

[The Stanford Protégé](http://protege.stanford.edu) (<http://protege.stanford.edu>) ontology editor and knowledge-base editor is an Open-Source project that provides an extensible architecture for the creation of customized knowledge-based applications. Protégé-2000 now provides [plug-in](http://protege.stanford.edu/plugins/owl/index.html) (<http://protege.stanford.edu/plugins/owl/index.html>) for editing Semantic Web ontologies in OWL. There is also a graphical [plug-in](http://iweb.etri.re.kr/ezowl/) (<http://iweb.etri.re.kr/ezowl/>) for drawing OWL ontologies in Protégé.

3.2. e2ont

[e2ont](https://sourceforge.net/projects/e2ont/) (<https://sourceforge.net/projects/e2ont/>) translates EXPRESS to OWL using the [OSEXPRESS](https://sourceforge.net/projects/osexpress/) (<https://sourceforge.net/projects/osexpress/>) open-source, Java/ANTLR EXPRESS parser and [Jena](http://jena.sourceforge.net/index.html) (<http://jena.sourceforge.net/index.html>), A Semantic Web Framework for Java, an open-source project supporting OWL and other ontology languages. e2ont was developed as part of the [OMPEK](http://www.ompek.org/) (<http://www.ompek.org/>) project - Ontologies for Modeling Process Engineering Knowledge.

4. Python Tool Links

4.1. PEAK

[The Python Enterprise Application Kit](http://peak.telecommunity.com/) (<http://peak.telecommunity.com/>) is an application kit, and applications are made from components. PEAK provides you with a component architecture, component infrastructure, and various general-purpose components and component frameworks for building applications. PEAK supports MOF and XMI. Modelling standard published by the OMG as a MOF 1.3 models in XMI format can be converted into a Python object model. Currently, that means UML 1.3 through 1.5, and CWM 1.0 through 1.1.

5. exff Standards Links

[NASA AP233 Page](http://step.jpl.nasa.gov/AP233/) (<http://step.jpl.nasa.gov/AP233/>) .

[Eurostep AP233 Page](http://ap233.eurostep.com) (<http://ap233.eurostep.com>) .

[SysML Partners Page](http://www.sysml.org) (<http://www.sysml.org>) .

[OWL Full and UML 2.0 Compared](http://www.itee.uq.edu.au/~colomb/Papers/UML-OWLont04.03.01.pdf)

(<http://www.itee.uq.edu.au/~colomb/Papers/UML-OWLont04.03.01.pdf>) will be included in the OMG OWL-related standards.

[ISO 10303-25 2003 Draft TS](http://www.omg.org/cgi-bin/doc?liaison/2003-07-01) (<http://www.omg.org/cgi-bin/doc?liaison/2003-07-01>)

EXPRESS to UML mapping going through standardization within ISO available from OMG as an ISO SC4/OMG liaison document.

[The standards page](http://www.omg.org/technology/documents/modeling_spec_catalog.htm)

(http://www.omg.org/technology/documents/modeling_spec_catalog.htm) at the OMG Web site contains the actual specifications for UML, XMI, etc.

[The UML area at OMG](http://www.omg.org/uml/) (<http://www.omg.org/uml/>) contains links to many other UML resources including tutorials and the standard UML specifications themselves.

[The XMI area](http://www.omg.org/technology/xml/index.htm) (<http://www.omg.org/technology/xml/index.htm>) at the OMG Web site has useful XMI-related links.

[The XSLT area](http://www.w3.org/Style/XSL/) (<http://www.w3.org/Style/XSL/>) at the W3C Web site defines XSLT itself and has useful links.

[The XML 1.0 Recommendation](http://www.w3.org/TR/REC-xml/) (<http://www.w3.org/TR/REC-xml/>) at the W3C Web site defines XML and DTDs.

The [ManTIS Task Force at OMG](http://mantis.omg.org/index.html) (<http://mantis.omg.org/index.html>) , formerly the MfgDTF, is where the harmonization effort between EXPRESS and UML is addressed in the Object Management Group.

[W3C](http://www.w3.org/) (<http://www.w3.org/>) - The World Wide Web Consortium

[RDF](http://www.w3.org/TR/REC-rdf-syntax/) (<http://www.w3.org/TR/REC-rdf-syntax/>) - Resource Description Framework (RDF) Model and Syntax Specification

[OWL](http://www.w3.org/TR/owl-features/) (<http://www.w3.org/TR/owl-features/>) Web Ontology Language Overview

[XMLS Datatypes](http://www.w3.org/TR/xmlschema-2/) (<http://www.w3.org/TR/xmlschema-2/>) - XML Schema Part 2: Datatypes