

COMBINE (archive) meta data

MARTIN SCHARM¹

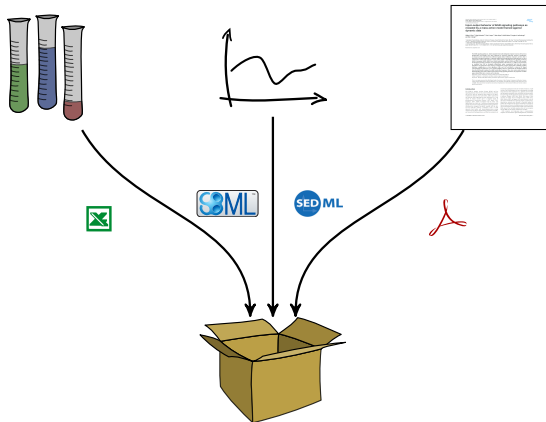
¹Department of Systems Biology & Bioinformatics, University of Rostock

²Department of Information Management, University of Manchester

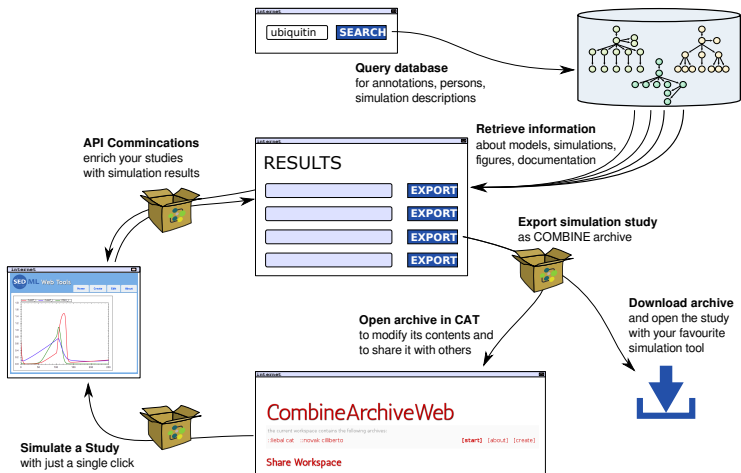
<http://sems.uni-rostock.de>

COMBINE 2015,
Salt Lake City, Utah, US





COMBINE archive and OMEX format: one file to share all information to reproduce a modeling project.
Bergmann *et. al.*, BMC Systems Biology (2014)



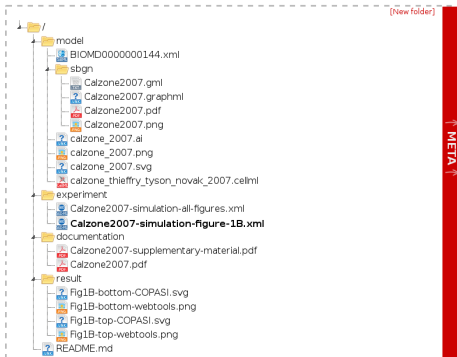
Extracting reproducible simulation studies from model repositories using the CombineArchive Toolkit.
Scharm et. al., DM4LS @ BTW 2015, Hamburg, GER

CombineArchiveWeb

the current workspace contains the following archives:

::allsingingalldancing ::exported archive ::penlder [start] [about] [stats] [create]

Archive Content



Find the archive on GitHub:

github.com/SemsProject/CombineArchiveShowCase

The CombineArchiveWeb Application - A Web-based Tool to Handle Files Associated with Modelling Results.
Scharm et. al., SWAT4LS 2014, Berlin, GER

BIOMD0000000144.xml

```
dc:creator=[enuo@caltech.edu, lenov@ebi.ac.uk, laurence.calzone@curie.fr]
dcterms:created=[6/8/2007, 12:29:58 AM]
dcterms:modified=[3/27/2008, 5:00:00 PM] [8/20/2008, 4:00:00 PM] [12/2/2008, 4:00:00 PM]
[3/24/2009, 5:00:00 PM] [9/1/2009, 4:00:00 PM] [1/25/2010, 4:00:00 PM] [9/29/2010, 4:00:00 PM]
[4/14/2011, 4:00:00 PM] [2/7/2012, 4:00:00 PM] [5/19/2012, 4:00:00 PM] [7/5/2012, 8:48:32 AM]
[8/10/2012, 4:00:00 PM] [12/11/2012, 4:00:00 PM]
dcterms:description="Model encoded in SBML as described in /documentation/Calzone2007.pdf .
This model was downloaded from the BioModels Database Jun 11th, 2015. Modification times were
taken from the model code and enriched by comparing all releases of the BioModels Database."
```

Calzone2007-simulation-figure-1B.xml

```
dc:creator=[martin.scharm@uni-rostock.de]
dcterms:created=[6/11/2015, 4:58:55 AM]
dcterms:modified=[6/11/2015, 4:58:55 AM] [6/11/2015, 5:16:25 AM]
dcterms:description="Simulation description adapted from
/experiment/Calzone2007-simulation-all-figures.xml . This SED-ML script
reproduces Figure 1B of the article /documentation/Calzone2007.pdf ."
```

Fig1B-bottom-webtools.png

```
dc:creator=[martin.scharm@uni-rostock.de]
dcterms:created=[6/11/2015, 5:10:05 AM]
dcterms:modified=[6/11/2015, 5:10:05 AM]
dcterms:description="Simulation result obtained by executing the SED-ML script
/experiment/Calzone2007-simulation-figure-1B.xml using the SED-ML Web Tools."
```

Did they all really create the model?

BIOMD0000000144.xml

```
dc:creator=[enuo@caltech.edu, lenov@ebi.ac.uk, laurence.calzone@curie.fr]
dcterms:created=[6/8/2007, 12:29:58 AM]
dcterms:modified=[3/27/2008, 5:00:00 PM] [8/20/2008, 4:00:00 PM] [12/2/2008, 4:00:00 PM]
[3/24/2009, 5:00:00 PM] [9/1/2009, 4:00:00 PM] [1/25/2010, 4:00:00 PM] [9/29/2010, 4:00:00 PM]
[4/14/2011, 4:00:00 PM] [2/7/2012, 4:00:00 PM] [5/19/2012, 4:00:00 PM] [7/5/2012, 8:48:32 AM]
[8/10/2012, 4:00:00 PM] [12/11/2012, 4:00:00 PM]
dcterms:description="Model encoded in SBML as described in /documentation/Calzone2007.pdf .
This model was downloaded from the BioModels Database Jun 11th, 2015. Modification times were
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Calzone2007-simulation-figure-1B.xml

```
dc:creator=[martin.scharm@uni-rostock.de]
dcterms:created=[6/11/2015, 4:58:55 AM]
dcterms:modified=[6/11/2015, 4:58:55 AM] [6/11/2015, 5:16:25 AM]
dcterms:description="Simulation description adapted from
/experiment/Calzone2007-simulation-all-figures.xml . This SED-ML script
reproduces Figure 1B of the article /documentation/Calzone2007.pdf ."
```

What happend?

Fig1B-bottom-webtools.png

```
dc:creator=[martin.scharm@uni-rostock.de]
dcterms:created=[6/11/2015, 5:10:05 AM]
dcterms:modified=[6/11/2015, 5:10:05 AM]
dcterms:description="Simulation result obtained by executing the SED-ML script
/experiment/Calzone2007-simulation-figure-1B.xml using the SED-ML Web Tools."
```

Where does it come from??

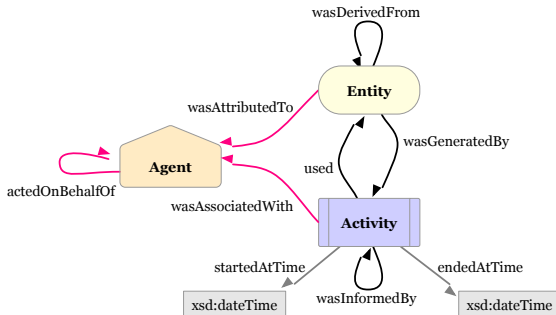
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+++
<annotation>
+++
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           xmlns:dc="http://purl.org/dc/elements/1.1/"
           xmlns:dcterms="http://purl.org/dc/terms/"
           xmlns:vcard="http://www.w3.org/2001/vcard-rdf/3.0#"
           xmlns:bqbiol="http://biomodels.net/biology-qualifiers/"
           xmlns:bqmodel="http://biomodels.net/model-qualifiers/" >
  <rdf:Description   rdf:about="#SBML_META_ID">
    [HISTORY]
    <RELATION_ELEMENT>
      <rdf:Bag>
        <rdf:li   rdf:resource="URI"   />
        ...
      </rdf:Bag>
    </RELATION_ELEMENT>
  </rdf:Description>
  +++
</rdf:RDF>
+++
</annotation>
+++
</ SBML_ELEMENT >
```

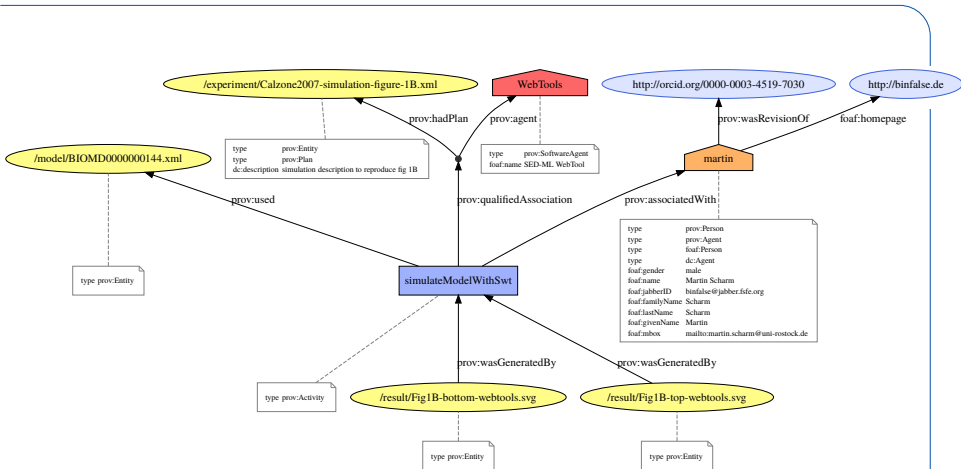
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+++
<annotation>
+++
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xmlns:dc="http://purl.org/dc/elements/1.1/"
xmlns:dcterms="http://purl.org/dc/terms/"
xmlns:vcard="http://www.w3.org/2001/vcard-rdf/3.0#"
xmlns:bqbiol="http://biomodels.net/biology-qualifiers/"
xmlns:bqmodel="http://biomodels.net/model-qualifiers/" >
<rdf:Description rdf:about="#SBML_META_ID">
[HISTORY]
<RELATION_ELEMENT>
<rdf:Bag>
<rdf:li rdf:resource="URI" />
...
</rdf:Bag>
</RELATION_ELEMENT>
...
</rdf:Description>
+++
</rdf:RDF>
+++
</annotation>
+++
</ SBML_ELEMENT >
```

```
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<rdf:Bag>
<rdf:li rdf:parseType="Resource">
+++
<vCard:N rdf:parseType="Resource">
<vCard:Family> FAMILY_NAME </vCard:Family>
<vCard:Given> GIVEN_NAME </vCard:Given>
</vCard:N>
+++
[<vCard:EMAIL> EMAIL_ADDRESS </vCard:EMAIL>]
+++
[<vCard:ORG rdf:parseType="Resource" >
<vCard:Orgname> ORGANIZATION_NAME </vCard:Orgname>
</vCard:ORG>]
+++
</rdf:li>
...
</rdf:Bag>
</dc:creator>
<dcterms:created rdf:parseType="Resource">
<dcterms:W3CDTF> DATE </dcterms:W3CDTF>
</dcterms:created>
<dcterms:modified rdf:parseType="Resource">
<dcterms:W3CDTF> DATE </dcterms:W3CDTF>
</dcterms:modified>
...

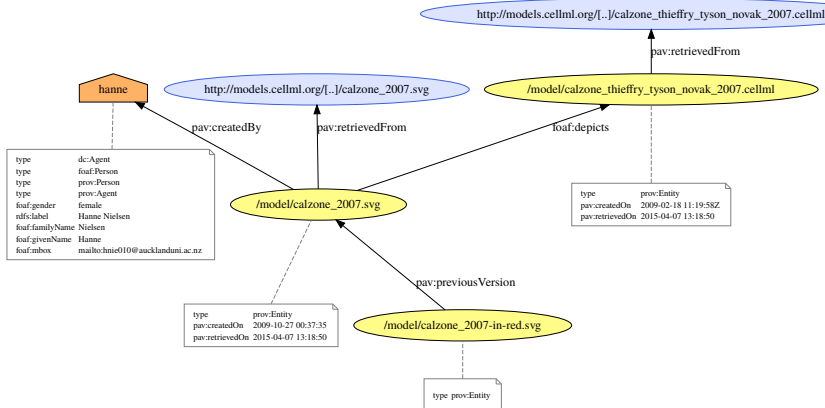
```


PROV

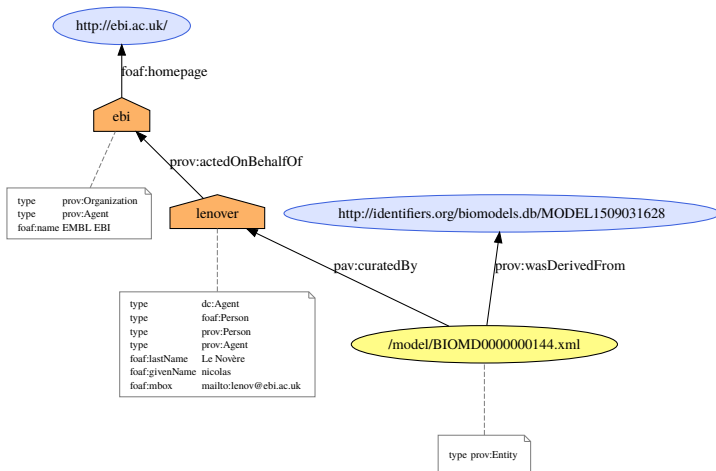




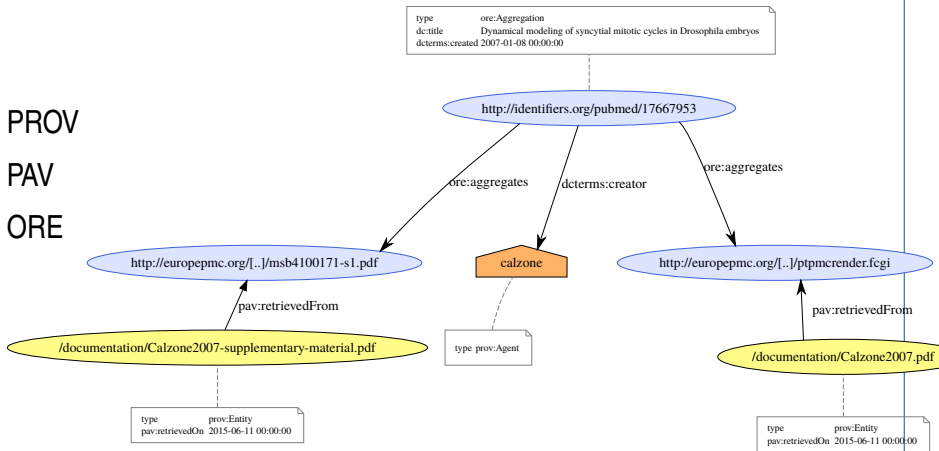
PROV
PAV



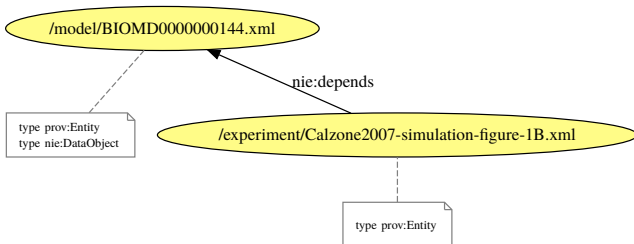
PROV
PAV



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NEPOMUK





- interested?
- want to contribute and/or discuss?
- sign up for groups.google.com/forum/#!forum/combine-meta