

ZOO project : An Open WPS Platform

Gérald FENOY, GeoLabs SARL

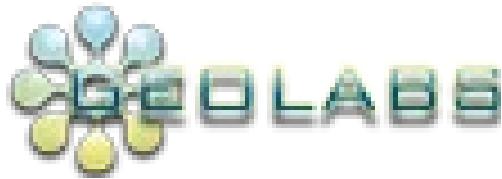
Nicolas BOZON, 3LIZ SARL

Venkatesh RAGHAVAN, Osaka City Univ.

zoo-project.org
Open OWS Platform



Welcome to the ZOO Tribe



zoo-project.org
Open OWS Platform



What is ZOO ?

OSGeo softwares are usefull for many GIS projects but used in many different ways

- > Many services available online
- > Many specific Javascript API



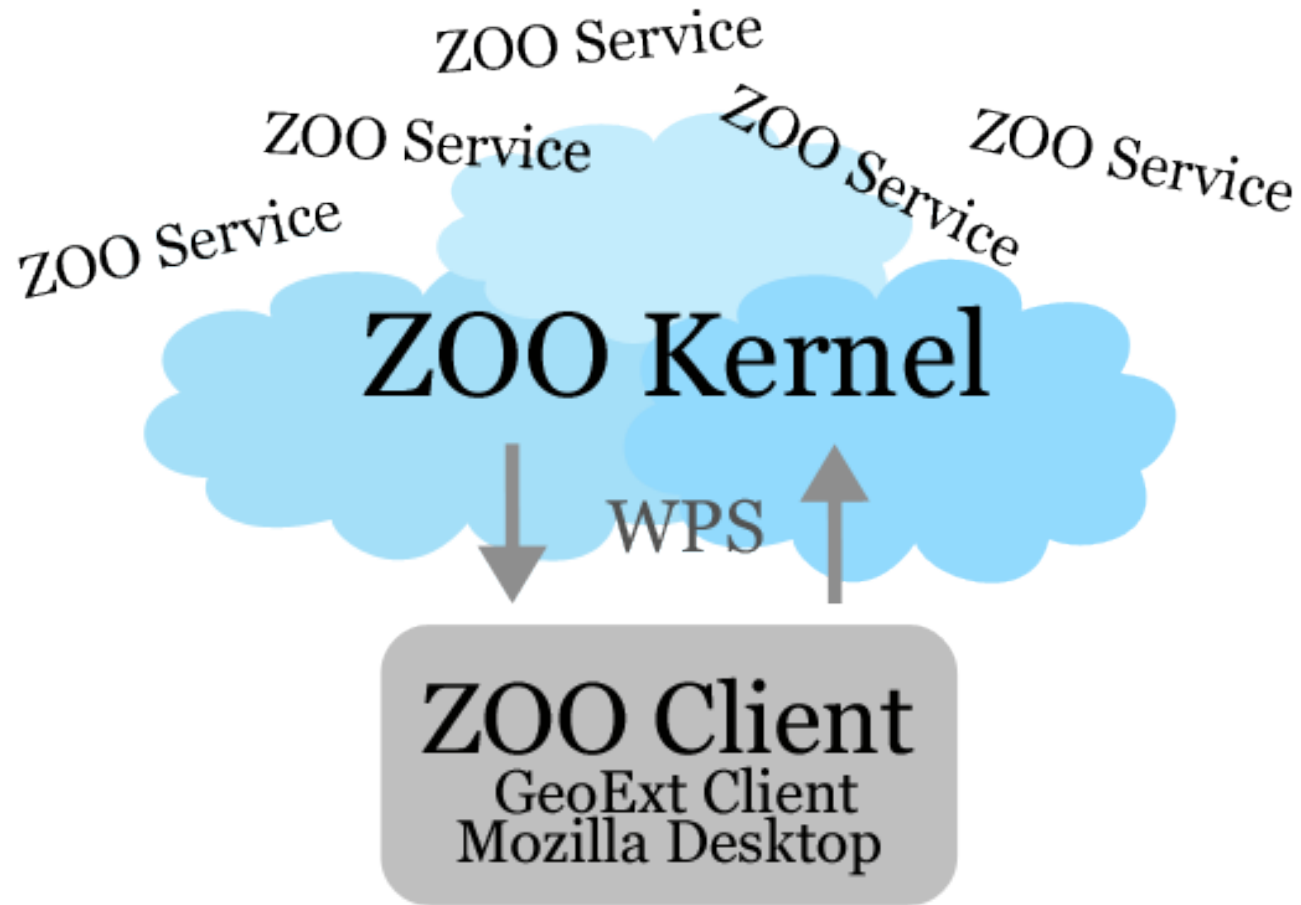
Is that really sustainable ?

Let's build standardised OSGeo ecosystem using WPS and also other OGC Web Services

zoo-project.org
Open OWS Platform



Platform Overview



zoo-project.org
Open OWS Platform



How does it work ?

A **ZOO service** is made of:

A .zcfg metadata file (Title, Metadata, Inputs, Output...)

« Service shared object » (Dynamic library, Python, PHP ...)

WPS GetCapabilities and **DescribeProcess** requests are resolved only by parsing the .zcfg file metadata

The ZOO Kernel is able to dynamically load and run specific functions to respond to **WPS Execute** requests.





KISS ! (Keep it simple stupid !)



ZOO Kernel make it simple for the end-developer to implement any kind of services.

- Zoo Kernel uses KVP to treat the parameters coming from a GET method request.
- For the POST method, Zoo Kernel will use the request parameter sent as an XML file containing a specific operation request document (GetCapabilities, DescribeProcess or Execute).

zoo-project.org
Open OWS Platform



Hello World

HelloWorld.py

```
def HelloPy(conf,inputs,outputs):  
    outputs["output1"]={"value": "helloworld","datatype": "string"}  
    return SERVICE_SUCCEEDED
```

HelloWorld.zcfg

```
[HelloWorld]  
Title = Get the HelloWorld string.  
serviceProvider = test_service  
serviceType = Python  
<DataOutputs>  
[output1]  
Title = HelloString  
<LiteralData>  
DataType = string  
</LiteralData>  
</DataOutputs>
```

zoo-project.org
Open OWS Platform



ZOO Sample Services

DescribeProcess and Execute for:

Multiply

Buffer

Distance

Boundary

ConvexHull



ZOO Kernel next steps

Get some more services running !

- GRASS and/or SEXTANTE service
- Statistical service using R
- SOS implementation (Zoo Box)
- OpenOffice reporting service



Developer guide to be written by March 2010

zoo-project.org
Open OWS Platform



ZOO Client plans

Mozilla Desktop GIS Client

- XULRunner hybrid GIS application
- Implementation of ZOO Kernel in the heart of the Mozilla platform (ZOO Kernel as an XPCOM component)

ZOO Client Javascript API

- GeoExt Web GIS client
- Automated Toolbar creation (ZooSkins)

zoo-project.org
Open OWS Platform



ZOO Asia Pacific tour

Oct 14th 2009: ZOO Tshirt printing in Hanoi

Oct 15th 2009 : ZOO presentation at Asian Institute of Technology (Bangkok)

Oct 16th 2009: ZOO presentation at OSGeo-Thai Chapter meeting held in Chulalongkorn University (Bangkok)

Oct 20th to 23rd : ZOO Poster at FOSS4G 2009 (Drift-X WPS)

Nov 1st and 2nd 2009: ZOO @



zoo-project.org
Open OWS Platform



www.zoo-project.org

Thank you for your time !

Thanks to Frank Warmerdam for his great GDAL /OGR
and constant support !

zoo-project.org
Open OWS Platform

