

ZOO-Project version 1.3.0

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Qu'est-ce que le WPS ?

Le standard Web Processing Service définit la manière de s'informer à propos puis d'appeler des services SIG à travers internet.

WPS specifies a mean for a client to request the execution of a spatial calculation from a service.

WPS intends to automate geoprocessing by employing geospatial semantics in a service-oriented architecture (SOA).



Open Geospatial Consortium interoperability standards since 2005

Pourquoi utiliser le WPS ?

Le Web Processing Service vous permet de déployer et d'orchestrer des services SIG avancés coté serveur.

Le WPS peut se connecter à différents types de moteurs cartographiques et autres bases de données spatiales, offrant ainsi la possibilité de gérer des infrastructure de données spatiales complexes.

Le WPS est un manière générique et standardisé d'utiliser les SIG dans le nuage.



Le WPS permet aux logiciels de l'OSGeo d'être utilisé les uns avec autres.

WPS implementation since 2009

ZOO-Project is a **WPS (Web Processing Service)** compliant server-side platform based on OGC's WPS 1.0.0

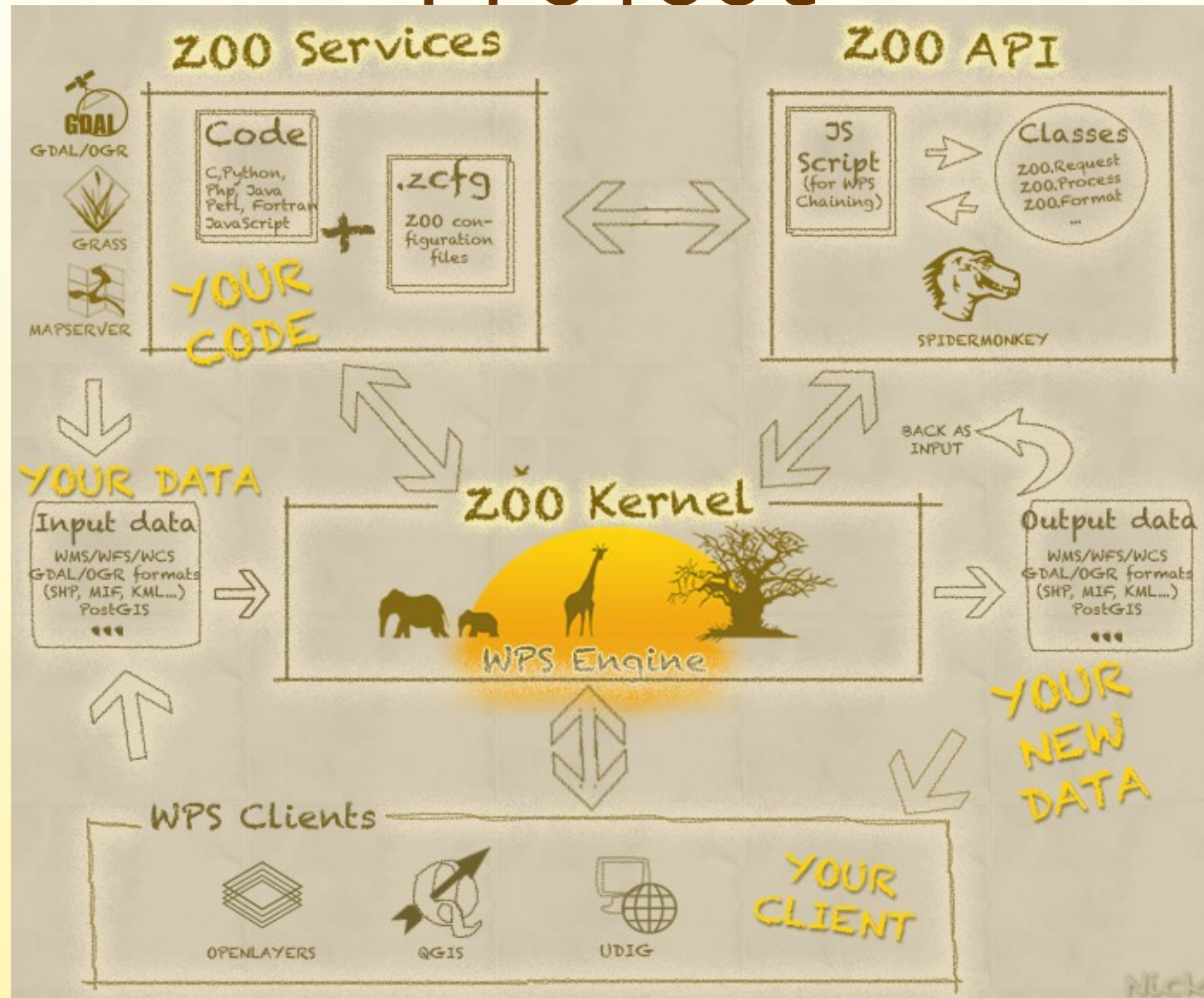
ZOO-Project is **open source software** released under MIT/X-11 license since 2009.

ZOO-Project is designed to create and chain web processing services easily, using **FOSS4G libs or existing code**.

ZOO-Project is based on a C Kernel (**ZOO Kernel**) able to load dynamic libraries and to orchestrate Web services coded in six different programming languages.



Vue d'ensemble du ZOO-Project



Principales fonctionnalités

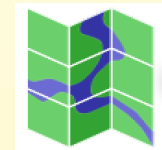
- **Support GDAL** depuis 2009

(Programmes GDAL et OGR disponible sous la forme de services)



- **Support MapServer** depuis 2011

(le ZOO-Kernel permet de diffuser automatiquement le résultat de l'exécution d'un service grâce aux protocoles WMS/WFS/WCS)



- **Support GRASS GIS** depuis 2012

(Utilisation possible de modules GRASS GIS comme ZOO-Services en ayant recours ou non au projet GRASS-Bridge)



svn checkout <http://svn.zoo-project.org/svn/trunk> zoo



ZOO-Project new features (1)

ZOO-Project Python API

- *SERVICE_SUCCEEDED*
- *SERVICE_FAILED*
- *UPDATE STATUS*

ZOO-Project JavaScript API

- *SERVICE_SUCCEEDED*
- *SERVICE_FAILED*
- *UPDATE STATUS*

Building and interacting with WPS Services becomes even more easier.



ZOO-Project new features (2)

ZOO-Project translation function

zoo._("My String")

Internal mechanism to translate chains of characters
from Python or Javascript

Allows to use WPS Services in several natural languages directly



ZOO-Project new features (3)

ZOO-Project on Win32 (*ZOO4W BuildKit*)

Compilation buildkit for installing FOSS4G on Windows platform

- ZOO-Project
- Mapserver
- GDAL/OGR
- Shapely
- PostGreSQL
- PgRouting



THE POWER OF WPS AND
FOSS4G ALSO ON WINDOWS

ZOO-Project as a SDI Engine

ZOO-Project is used as the engine of the **MapMint** software.

MapMint is a *commercial open source* stack dedicated to deploy complete spatial data infrastructure.

ZOO-Project



MapServer



GDAL



OpenLayers



100% geospatial SaaS

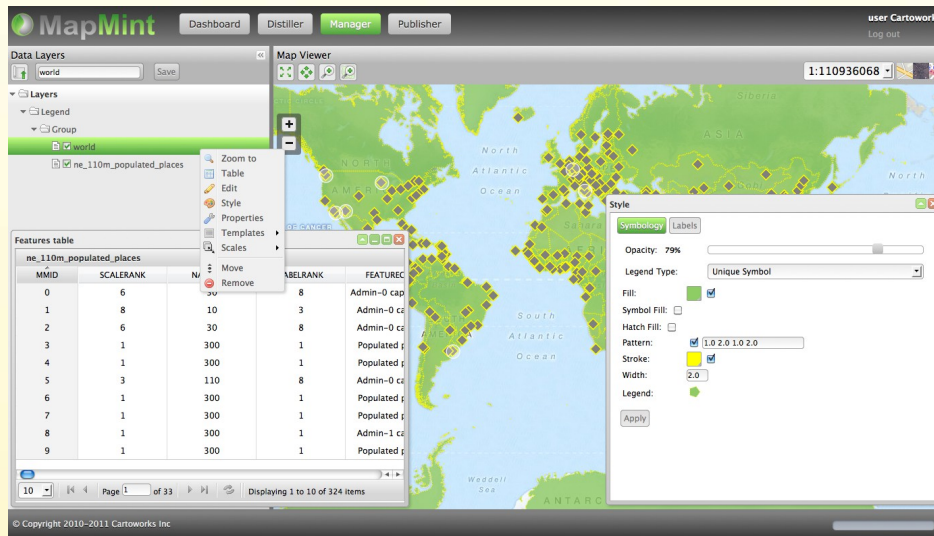


WPS + WMS + WFS + WMTS

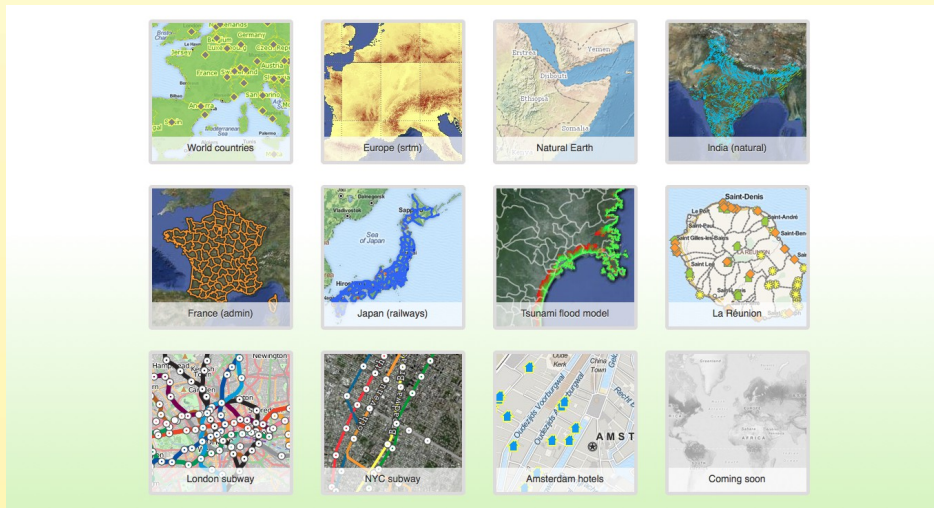
Everything is a Service

- GIS data access
- GDAL/OGR functions
- MapServer configuration
- OpenLayers configuration
- HTML5 output maps creation

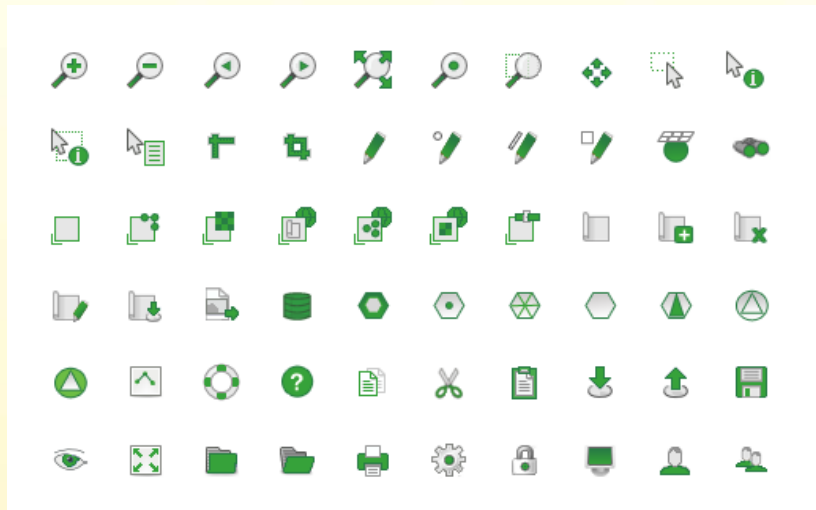
The web maps generator



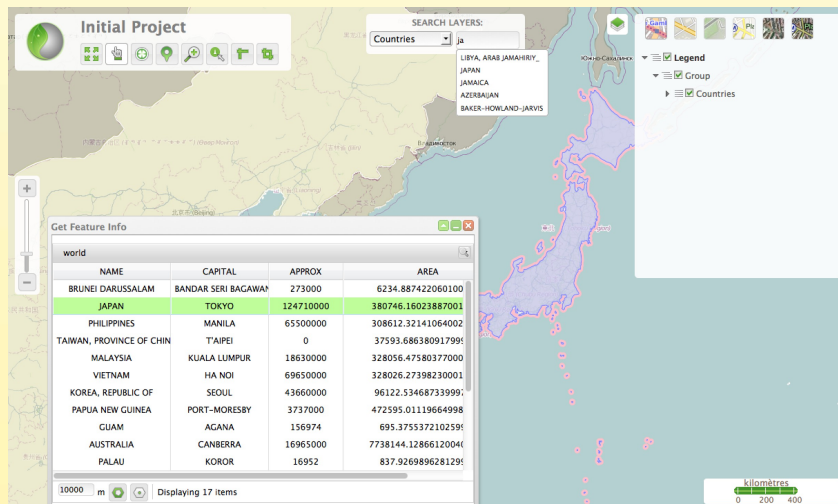
- 50+ GIS formats
- PostGIS databases
- Full MapServer editor
- Full OpenLayers editor
- HTML5 layouts
- CSS3 themes
- Web mobile output



Advanced features

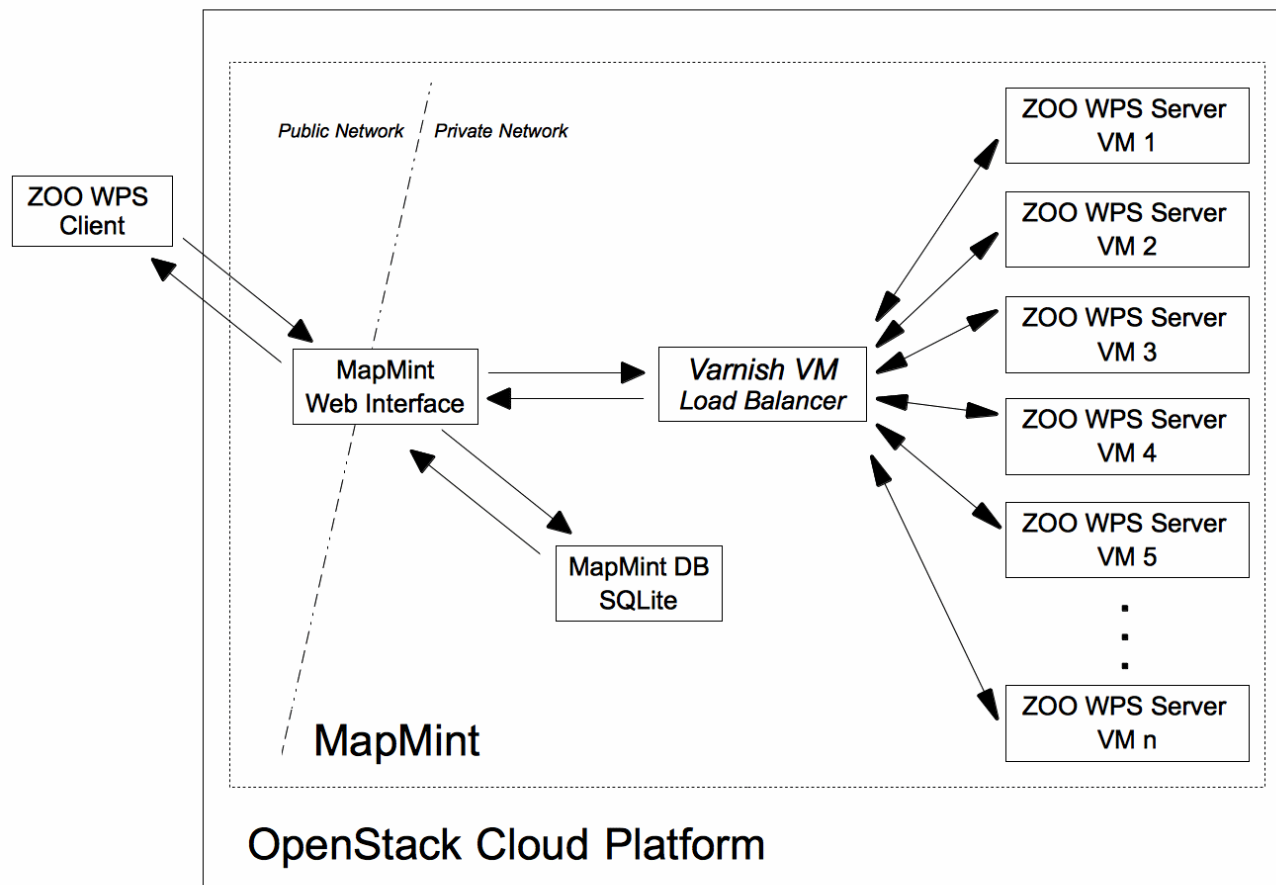


- Windows and Trees
- Search engine (WFS)
- Editing (WFS-T)
- Thematic mapping MapServer



- Spatial analysis (GDAL)
- Routing (PgRouting)
- Raster analysis (GDAL)
- GeoReferencer (GDAL)

MapMint in the Cloud (Paas4G !!)



GeoSpatial Cloud

OpenStack + MapMint

Multiple ZOO-Kernel for one MapMint instance

Scaling and fault-tolerant functions according to the number of WPS requests

