PyWPS in General

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“Connecting of GRASS GIS with UMN MapServer” was the kick-start project of pyWPS in 2006

Project supported by the “Deutche Bundesstiftung Umwelt”

First presentation held at FOSS4G 2006 Lausanne: “GRASS was to the web: pyWPS”

First webGUI developments: Embryo in ka-Maps, by Lorenzo Becchi
2007 – Release of pyWPS 2.0.0
- Code restructuring, better process implementation, more object oriented approach

2008 – Release of pyWPS 3.0.0
- Support of WPS 1.0.0
- XML Template structure that defines WPS structure

2009 – Release of pyWPS 3.1.0
- OpenLayers WPS client

2010 – Release of pyWPS 3.1.0
- Support for mod_python and tomcat :)
Current situation

Major development done by Jachym working for “Help Service Remote Sensing” company

PyWPS to be accepted in the OSGeo “incubator” structure

PyWPS community hosted in Wald Open source repository
So?! how it works?

Assemble factory approach as a functional script:

1. Load Process
2. Get Input
   - run
   - setOutput

1. POST GET SOAP
   - GetCapabilities
   - DescribeProcess
   - Execute

WPS output
So ?! How it works ?

- WPS working as a python module that in turn loads processes as modules

- Process as an extended class WPSProcess, with method run() that will execute code
The exotic features!!!

- Basic SOAP support, no authentication structure

- Apache's mod_python support in version 3.2....meaning no need to run as CGI

- Running as a Tomcat servlet by the use of Jython interpreter
The exotic features!!!

- Mapserver response object

Mapserver=false

http://foo/bar/outputs/output-12435.tif

Mapserver=true

http://foo/bar/cg-bin/mapserv?map=/outputs/output-123.map&service=WCS&request=GetCoverage&....

Simple image

Web Service
The exotic features!!!

- **WSDL file descriptor generation**
  
  Still underdevelopment, and untested :(

- **Sphinx python documentation generator**

  It's coming !!!!!!!

  http://pywps.wald.intevation.org/documentation/course
The end

“Don't panic a few lines of python code can fix anything”