

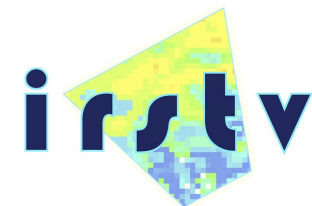
Map Servers

OPEN SOURCE OPPORTUNITIES IN GIS

Summer School

28th June - 9th July, 2010. Girona

Partners Contribution



Partner Collaboration



This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Installing UMN MapServer as a WMS & WFS server

<http://dl.dropbox.com/u/126186/ss2010.html>



Installing UMN MapServer: requirements

- Apache** web server
sudo apt-get install apache2
- PROJ** library
sudo apt-get install proj
- GDAL** (data I/O)
sudo apt-get install libgdal-dev
- GD2** (graphic library)
sudo apt-get install libgd2-xpm-dev
- CURL** (data transfer through URLs)
sudo apt-get install curl libcurl3 libcurl3-dev
- XML** support
sudo apt-get install libxml2-dev
- XLST** support
sudo apt-get install libxslt-dev
- PAM** (authentication library)
sudo apt-get install libpam0g-dev
- OPTIONAL
- GEOS** (topology suite, spatial operations)
sudo apt-get install libgeos-dev
- GeoTIFF**
sudo apt-get install libtiff-tools libgeotiff1.2
- PHP** scripting language
sudo apt-get install php5

Installing UMN MapServer: compilation

- **Download** & extract Mapserver

<http://map.server.org/download>

- **Configure** MapServer

```
sudo ./configure --with-proj=/usr/local --with-ogr --with-gdal --with-wfs  
--with-curl-config --with-gd --with-jpeg --with-png --with-postgis --with-wcs  
--with-freetype --with-geos --with-tiff --with-wmsclient --with-wfsclient
```

- **Make**

- **Copy** file to /usr/lib/cgi-bin

- **Test** it at <http://localhost/cgi-bin/mapserv>

Installing UMN MapServer: bash script

```
#!/bin/bash
# Installs the web server Apache2
sudo apt-get -y install apache2
# Installs a web server scripting language: PHP
sudo apt-get -y install php5
# Installs the PROJ library (on-the-fly reprojection)
sudo apt-get -y install proj
# Installs the GD2 library (graphic library)
sudo apt-get -y install libgd2-xpm-dev
# Installs the GDAL/OGR library (geo data I/O functions)
sudo apt-get -y install libgdal-dev
# Installs the CURL library (ability to transfer data via URLs)
sudo apt-get -y install curl libcurl3 libcurl3-dev
# Installs XML support
sudo apt-get -y install libxml2-dev
# Installs XSLT support
sudo apt-get -y install libxslt-dev
# Installs authentication library (PAM)
sudo apt-get -y install libpam0g-dev
# Installs optionals ... GEOS library, geoTIFF
sudo apt-get -y install libgeos-dev
sudo apt-get -y install libtiff-tools libgeotiff1.2
# MapServer Download
wget http://download.osgeo.org/mapserver/mapserver-5.6.3.tar.gz
tar -zxvf mapserver-5.6.3.tar.gz
rm mapserver-5.6.3.tar.gz
# MapServer Compilation and Installation
# Configure
sudo chown -R summerschool mapserver-5.6.3
sudo chgrp -R summerschool mapserver-5.6.3
cd mapserver-5.6.3
```

```
sudo ./configure --with-proj=/usr/local --with-ogr --with-gdal
--with-wfs --with-curl-config --with-gd --with-jpeg --with-png
--with-postgis --with-wcs --with-freetype --with-geos --with-tiff
--with-wmsclient --with-wfscient
# Make
sudo make
# Copy file to cgi-bin directory
sudo cp mapserv /usr/lib/cgi-bin
# Get the tutorial data
cd /home/summerschool/Downloads
wget http://download.osgeo.org/mapserver/docs/mapserver-
tutorial.zip
unzip mapserver-tutorial.zip
rm mapserver-tutorial.zip
sudo chown -R summerschool ms4w
sudo chgrp -R summerschool ms4w
sudo mkdir /ms4w
sudo cp -R ms4w/* /ms4w
sudo cp -R /ms4w/apps/tutorial/htdocs/* /var/www
# Set privileges on www directory
sudo chown -R summerschool /var/www
sudo chgrp -R summerschool /var/www
sudo chmod -R 755 /var/www
sudo chown -R summerschool /var/www
sudo mkdir /ms4w/tmp
sudo mkdir /ms4w/tmp/ms_tmp
sudo chmod -R 777 /ms4w/tmp
wget http://dl.dropbox.com/u/126186/ss2010/default
sudo cp default /etc/apache2/sites-available/
sudo /etc/init.d/apache2 restart
# Check it on a broser
firefox http://localhost
exit 0
```

Installing UMN MapServer: make it serve WMS

```
MAP
  [...]
  NAME          "my_wms_server"
  WEB
    METADATA
      "wms_title" "my_wms"
      "wms_resource" "http://localhost/cgi-bin/mapserv"
      "wms_srs" "EPSG:2163"
    END
  END
  [...]

  LAYER
    NAME          "states"
    STATUS        ON
    DUMP          TRUE
    [...]
    METADATA
      "wms_title" "states"
      "wms_abstract" "summary"
      "wms_srs" "EPSG:4326"
    END
  [...]
END
END
```

Installing UMN MapServer: make it serve WFS

```
MAP
  [...]
  NAME          "my_wfs_server"
  WEB
    METADATA
      "wfs_title" "my_wms"
      "wfs_onlineresource" "http://localhost/cgi-bin/mapserv"
      "wfs_srs" "EPSG:2163"
    END
  END
  [...]

  LAYER
    NAME          "states"
    STATUS        ON
    DUMP          TRUE
    [...]
    METADATA
      "wfs_title" "states"
      "wfs_abstract" "summary"
      "wfs_srs" "EPSG:4326"
    END
  [...]
END
END
```

Installing UMN MapServer: make it serve WFS

More ...

Main site: <http://mapserver.org>

Compilation info: <http://mapserver.org/installation/unix.html>

Mapfile Reference: <http://mapserver.org/mapfile/>

OGC related: <http://mapserver.org/ogc/>



Installing Geoserver: installation

- Download & extract geoserver
- Move to /usr/local/geoserver
- Define environment variables (edit /usr/local/geoserver/bin/startup.sh)
 GEOSERVER_HOME=/usr/local/geoserver
 JAVA_HOME=/usr/lib/jvm/java-6-sun
- Get ownership
 sudo chown -R summerschool /usr/local/geoserver/
- Start server
- Query WMS & WFS
 <http://localhost:8080/geoserver/wms?service=wms&version=1.1.1&request=GetCapabilities>
 <http://localhost:8080/geoserver/wfs?service=wfs&version=1.1.0&request=GetCapabilities>
- Go to webadmin
 <http://localhost:8080/geoserver>



Installing UMN MapServer: make it serve WFS

More ...

Main site: <http://geoserver.org/>

Documentation: <http://docs.geoserver.org/>

