

# FOSS4G 2010

Free and Open Source Software  
for Geospatial Conference

## CONFERENCE PROGRAMME



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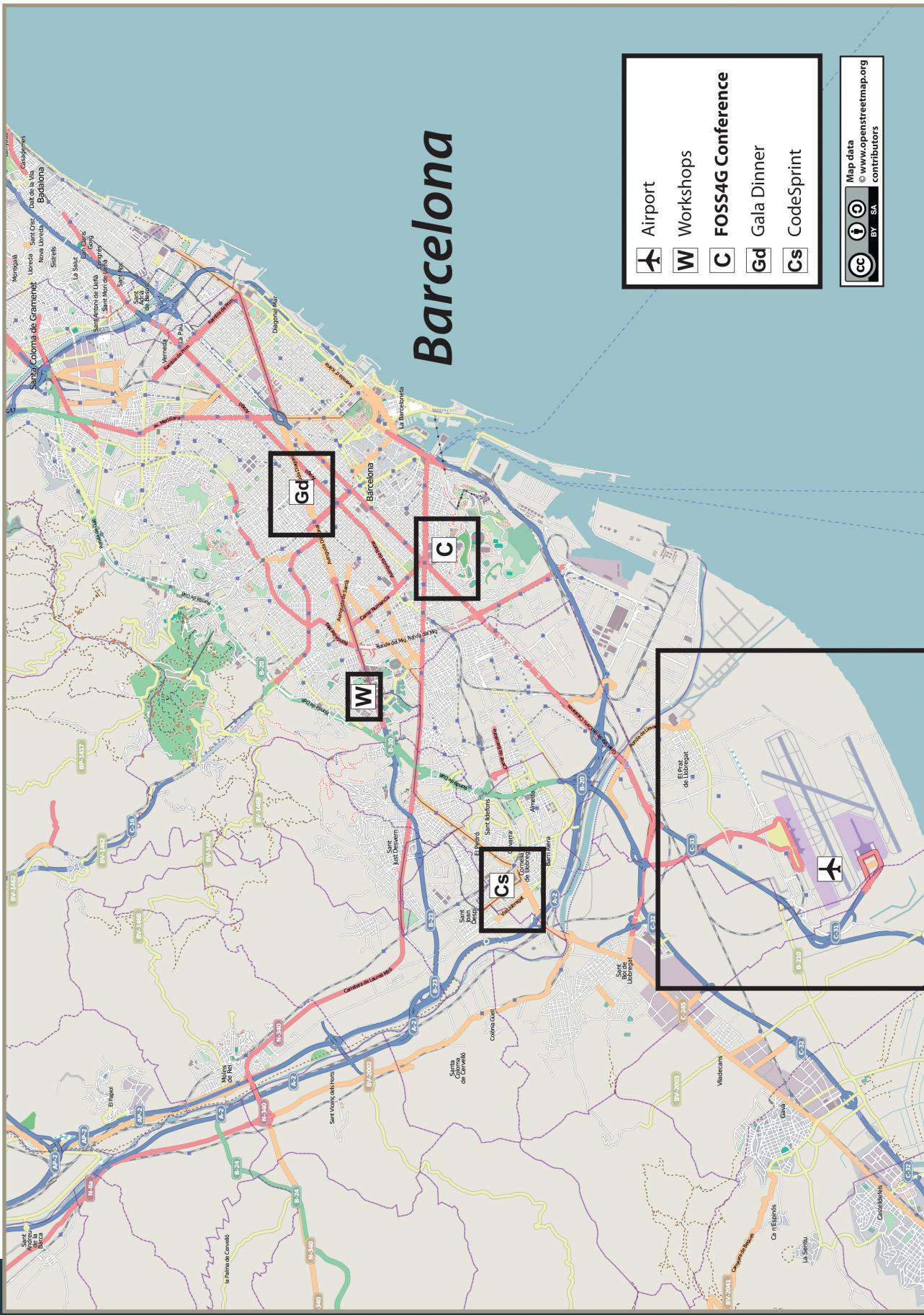


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## Barcelona Map





## Welcome to Barcelona

### Welcoming

Barcelona is a compact city, neither too small nor too big, which makes it very welcoming and gives it a cosy atmosphere. As well, it boasts significant cultural, social and commercial diversity.

### Mediterranean

Barcelona displays the characteristics of Mediterranean cities: it is dynamic and open, inviting for leisure activities, walking through and enjoying. It is the only large city in Europe that boasts 5 kilometres of beaches in the city itself.

### Climate

Barcelona enjoys a very agreeable and mild climate all yearlong, which makes it possible to organise outdoor events in spring, summer and autumn.

### Historical

Barcelona has over 2000 years of history and conserves important testimonies of its past.

### Cultural

Barcelona offers a very intense cultural life all yearlong: Opera, Ballet, Concert, Theatres, festivals, exhibitions, museums...

### Gourmet city

Barcelona has developed a cuisine style based on creativity and this made in the top "gourmet" city outside France, according to the magazine Gourmet. Furthermore, Mediterranean cuisine, considered by many as the healthiest in the world, is used even in the simplest restaurants.

### Avant Guard

Catalonia has always been played host to famous people in the avant-guard movements in Europe: Picasso, Miró, Dali, Gaudi are just some of the many examples of the constant desire for renovation and creation, a true quality that is also present in today's Catalan artists like its architects or designers.

### Well connected

Barcelona has an excellent network of flights specially to Spanish and European cities. Its international airport, located only 15 minutes from the city is currently undergoing full expansion works.

### Well equipped

Barcelona offers a variety of places to organise large and small meetings. It also has a wide range of historical charming venues -ideal for banquets, cocktails, exhibitions and products presentations- in modern and fully-equipped facilities. Its stock of hotels is abundant and modern.

### Reliable

Catalans are hardworking and reliable people. Throughout their history they have shown their capacity to organise successful events with precision, creativity and efficiency. Organizers and suppliers in Barcelona have inherited those qualities. You can trust members of BCB.

### A life style

Barcelona has its own way of life that makes it truly unique and special. Come and experiment it!

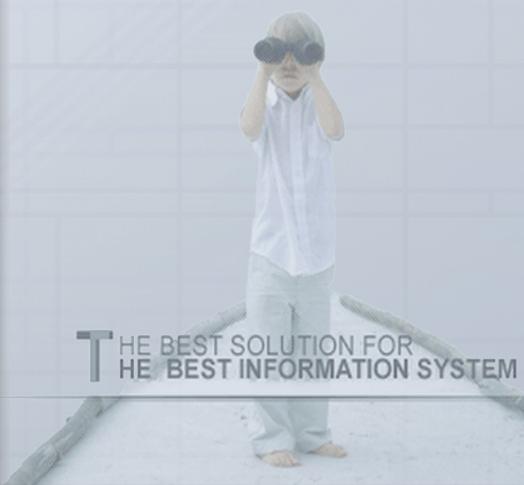


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Plaza Don Juan de Villarrasa, 14,  
entlo, 5. 46001-Valencia, Spain.  
E-mail: prode@prodevelop.es  
Tel: + 3 4 963 510 612  
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<http://www.prodevelop.es/>

- Geospatial Technologies
- Business Intelligence
- Model Driven Engineering
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- Development of powerful Geoportals
- Corporate mapping customization, access and visualization
- Selection of free map services
- Cool map design
- Spatial Data Infrastructure deployment
- Optimization and tuning of critical services
- Integration with enterprise systems (back-office)
- Multiplatform mobility GIS Solutions
- OpenLayers (Mapping JavaScript Control)
- GeoExt (advanced users controls for WebMapping)
- Mapfish (advanced user services)
- GeoServer/MapServer (map servers with standards support)
- TileCache tile (web mapping accelerator)
- PostGIS (geospatial database)



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## Conference Organization

### The Local Organization Committee

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**Cárol Puig**

Lecture of Geomatics at Universitat Politècnica de Catalunya (UPC)

**Oscar Fonts**

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### OSGeo Board Representative

**Tyler Mitchell**

OSGeo Executive Director

### Media Director

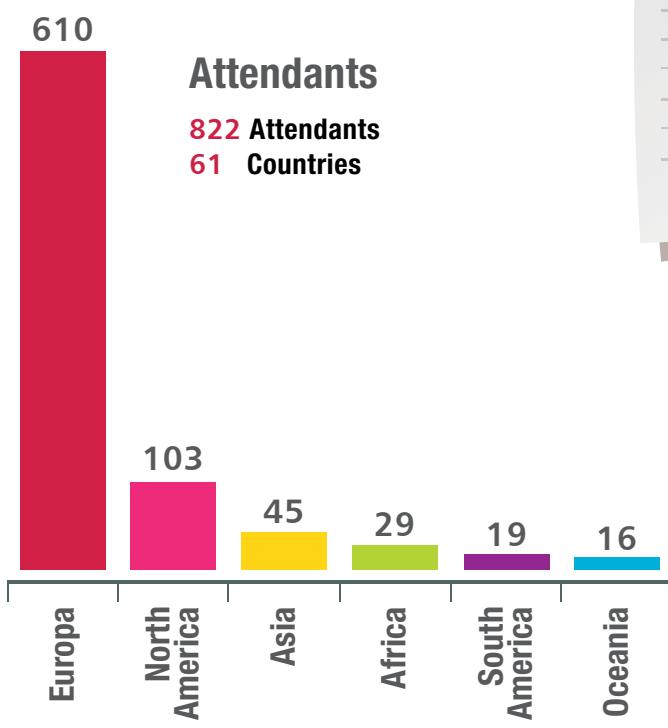
**Jorge L. Batista**

Board Member of OSGeo Spanish-speaking Chapter

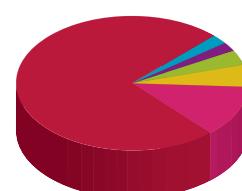
### Graphic Designer

**Katerine Ocaña Serret**

## Attendants by Continent

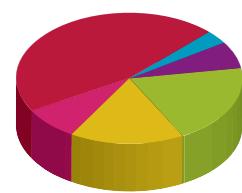


Continent	Attendats	Percent	Countries	Percent
Europe	610	74.21%	28	45.90%
North America	103	12.53%	5	8.20%
Asia	45	5.47%	10	16.39%
Africa	29	3.53%	12	19.67%
South America	19	2.31%	4	6.56%
Oceania	16	1.95%	2	3.28%
	822	100.00%	61	100.00%



Attendants by Continent

- Europe
- North America
- Asia
- Africa
- South America
- Oceania



Countries by Continent

- Europe
- North America
- Asia
- Africa
- South America
- Oceania

# Data Download Centre of the IGN-CNIG

[www.cnig.es](http://www.cnig.es)

The Download Centre of the IGN-CNIG is the fulfilment of the policy for free dissemination of data in the form of a Web page.

Two different interfaces allow users to perform a search in the viewer or to carry out an advanced search of the digital products in the IGN-CNIG catalogue.



Results of the catalogue search

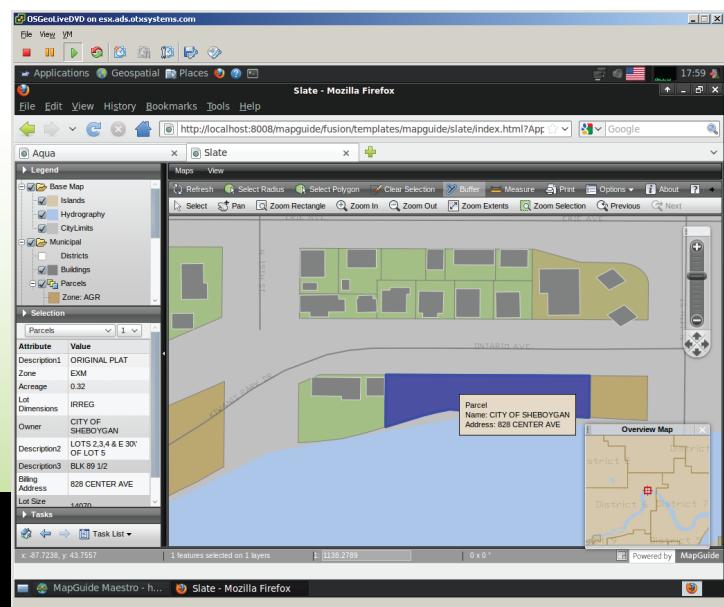


## MapGuide Open Source

An advanced server-based platform for authoring and delivering mapping and design information over the web. MapGuide Open Source helps organizations get the full value from existing data and reduces the cost of disseminating spatial information.

Visit <http://mapguide.osgeo.org> and check out MapGuide Open Source on the OSGeo LiveDVD // INSERT IMAGE: MapGuideXubuntu2.PNG //

Autodesk is a Premier Sponsor of OSGeo, and supports the MapGuide Open Source, FDO, and MetaCRS projects.



For more information, please go to <http://www.autodesk.com>

# Autodesk®

## Program at a Glance

### Sept 06th, Monday

- 13:00 - 15:00 Workshop registration
- 15:00 - 18:00 Workshop sessions

### Sept 07th, Tuesday

- 08:00 - 09:00 Workshop registration
- 09:00 - 12:00 Workshop sessions
- 12:00 - 15:00 Break and transfer to the Conference Center
- 15:00 - 16:00 Opening Session
- 16:30 - 18:00 Conference sessions
- 18:00 - 19:00 OSGeo Annual General Meeting

### Sept 08th, Wednesday

- |               |                     |
|---------------|---------------------|
| 08:00 - 09:00 | Registration        |
| 09:00 - 10:30 | Plenary Session     |
| 11:00 - 13:30 | Conference sessions |
| 13:30 - 14:30 | Lunch               |
| 14:30 - 18:00 | Conference sessions |
| 18:00 - 19:00 | Break-out sessions  |
| 20:00 - 24:00 | Gala dinner         |

### Sept 09th, Thursday

- |               |                     |
|---------------|---------------------|
| 08:00 - 09:00 | Registration        |
| 09:00 - 13:00 | Conference sessions |
| 13:00 - 14:00 | Lunch               |
| 14:00 - 17:00 | Conference sessions |
| 17:00 - 18:00 | Closing Session     |



# Scientific Committee

## Academic chairs

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Politecnico di Milano (Italy)

**Marco Ciolfi**

Università di Trento (Italy)

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**Songnian Li**

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**Chris Holmes**

OpenGeo (United States)

**Ari Jolma**

Aalto University (Finland)

**Miguel Ángel Manso**

Universidad Politécnica de Madrid (Spain)

# Scientific Committee

## Committee

---

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BC Housing (Canada)

**Miguel Montesinos**

Prodevelop (Spain)

**Nuno Neves**

Universidade de Évora (Portugal)

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**Geoff Zeiss**

Autodesk Inc. (Canada)

# Plenary Speakers

Opening Session, Sept. 7th, 3:00 pm



Miguel Montesinos



Schuyler Erle



Arnulf Christl



Michael Gould



Ioannis Kanellopoulos



Iván Sánchez



Helena Mitasova



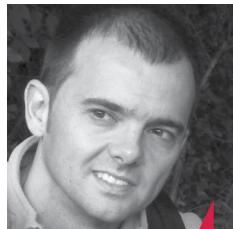
Raj Singh



Tyler Mitchell

# Plenary Speakers

Opening Session, Sept. 7th, 3:00 pm

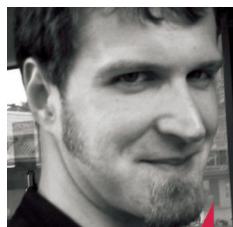


Sept. 7th  
3:00 pm

## Beyond Open Source Software

***Miguel Montesinos (Prodevelop)***

Miguel Montesinos has been working in the geospatial industry since 1993. He is a partner and CTO of the Spanish firm Prodevelop, specialized in FOSS4G, where he leads the geospatial team. Miguel leaded the company's redeploy towards open source at the beginning of the 2000's. He helped to the establishment of OSGeo Spanish local chapter, and has been working the last years in the gvSIG project. Miguel is an advocate of open-source, being the president of Asolival (Valencian association of open-source software companies) and member of the board of the gvSIG Association.



Sept. 7th

## How Crowdsourcing Changed Disaster Relief Forever

***Schuyler Erle***

Schuyler Erle has been a Free Software developer and evangelist for over a dozen years. He was a co-author of 'Mapping Hacks' and 'Google Maps Hacks'. Schuyler is a co-founder of the OpenLayers and TileCache projects, and a charter member of the OSGeo Foundation. He currently resides in San Francisco, where he works for SimpleGeo.



Sept. 7th

## The State of OSGeo

***Arnulf Christl (OSGeo)***

For more than a decade Arnulf has been a troubleshooter from outer spatial. His entrepreneurial career started with his first geospatial business in 1998 up to his latest fledgling Metaspacial in 2010 that addresses the fact that meta and data are same-same but different. Arnulf helped to give birth to OSGeo in 2006 and has been an active Charter Member since.

He is fond of openness and connectedness and favors do-ocracy ove hierarchy. Which is why he is sometimes frowned upon for being friendly with the spatial standards incarnation OGC. Sometimes he appears to be bonkers for wanting to reconcile national data bunkers with OpenStreetMap but in the end the world is round and geographic data boundless.

# Plenary Speakers

Sept. 8th, 9:00 am



Sept. 8th  
9:00 am

## Shades of Grey: Opportunities for Collaboration

***Michael Gould (ESRI)***

Michael Gould is director of the global education program at ESRI. His team supports the academic community, including developers, to help make them personally successful and to provide societal benefit. Previously he was GIS professor in Spain for 15 years, during which time his research group participated in the gvSIG project. Over the years he has actively supported the OGC, INSPIRE, and various other international interoperability initiatives.



Sept. 8th

## Progress in the implementation of The Infrastructure for Spatial Information In Europe (INSPIRE)

***Ioannis Kanellopoulos (JRC)***

Ioannis Kanellopoulos holds a position as a Scientific Officer at the Institute for Environment and Sustainability of the Joint Research Centre (JRC), European Commission, Ispra, Italy. His expertise concerns the research and development of advanced processing techniques for the analysis and interpretation of spatial data and has published over 40 papers related to spatial data infrastructures, remote sensing, image processing and neural computation. Ioannis is currently working on issues related to the establishment of European Spatial Data Infrastructures (INSPIRE), and in particular he is Project manager for the ENABLE Action at JRC dealing with the implementation of INSPIRE in the EU as well as the development of the INSPIRE geoportal, an entry point to finding and accessing geographic information in Europe. Ioannis is also chairing the INSPIRE Initial Operating Capability Task Force which was set up to help and support the implementation of INSPIRE Network Services in the Member States and to ensure interoperability with the INSPIRE geoportal and among Member States.



Sept. 8th

## Another Game of Chess, Professor Falken?

***Iván Sánchez (OSM)***

Iván is a vocational computer scientist, and has been active in the OpenStreetMap project since 2006, entering data, developing software and, most of all, increasing awareness about the issue of map data licensing.

# Plenary Speakers



**Sept. 8th**

## Open Source Approach to Geospatial Research and Education: Accomplishments and Challenges

***Helena Mitasova***

Helena Mitasova is Associate Professor at the Department of Marine, Earth and Atmospheric Sciences, North Carolina State University (NCSU) in Raleigh, NC, USA. She has been active in the open source geospatial community as a member of the GRASS development team since 1991. She co-authored the first book on open source GRASS GIS, now in its third edition, and she published more than 50 papers on methods and applications of GRASS GIS for topographic analysis, modeling of landscape processes, coastal dynamics, and visualization. Helena has been elected OSGeo charter member in 2006 and serves in the education and conference committees. She has developed graduate courses based on FOSS4G software that are offered at NCSU as core of the Geospatial Information Science and Technology program. Her PhD is from the Slovak Technical University, Bratislava, Slovakia.

## Closing Session, Sept. 9th, 5pm



**Sept. 9th  
5:00 pm**

## The Tao of Information Sharing: Standards, Open Source and The Future Information Ecosystem

***Raj Singh (OGC)***

Dr. Raj Singh serves as a Director of Interoperability Programs and the Compliance Testing Coordinator for OGC. He manages a variety of multi-vendor software prototyping projects based on cutting-edge information architectures. Recently, he has led efforts to make information exchange better in the building industry -- particularly at the early design stage for cost estimation and energy performance, and has shepherded OGC's mass market efforts to better align geospatial standards with the general IT industry. Raj has played a central role in the development of GeoRSS ([georss.org](http://georss.org)), Geosynchronization, and conformance testing procedures for OGC's web services and encoding standards. Dr. Singh has a PhD in Planning Information Systems and a Master's in City Planning from MIT.



**Sept. 9th**

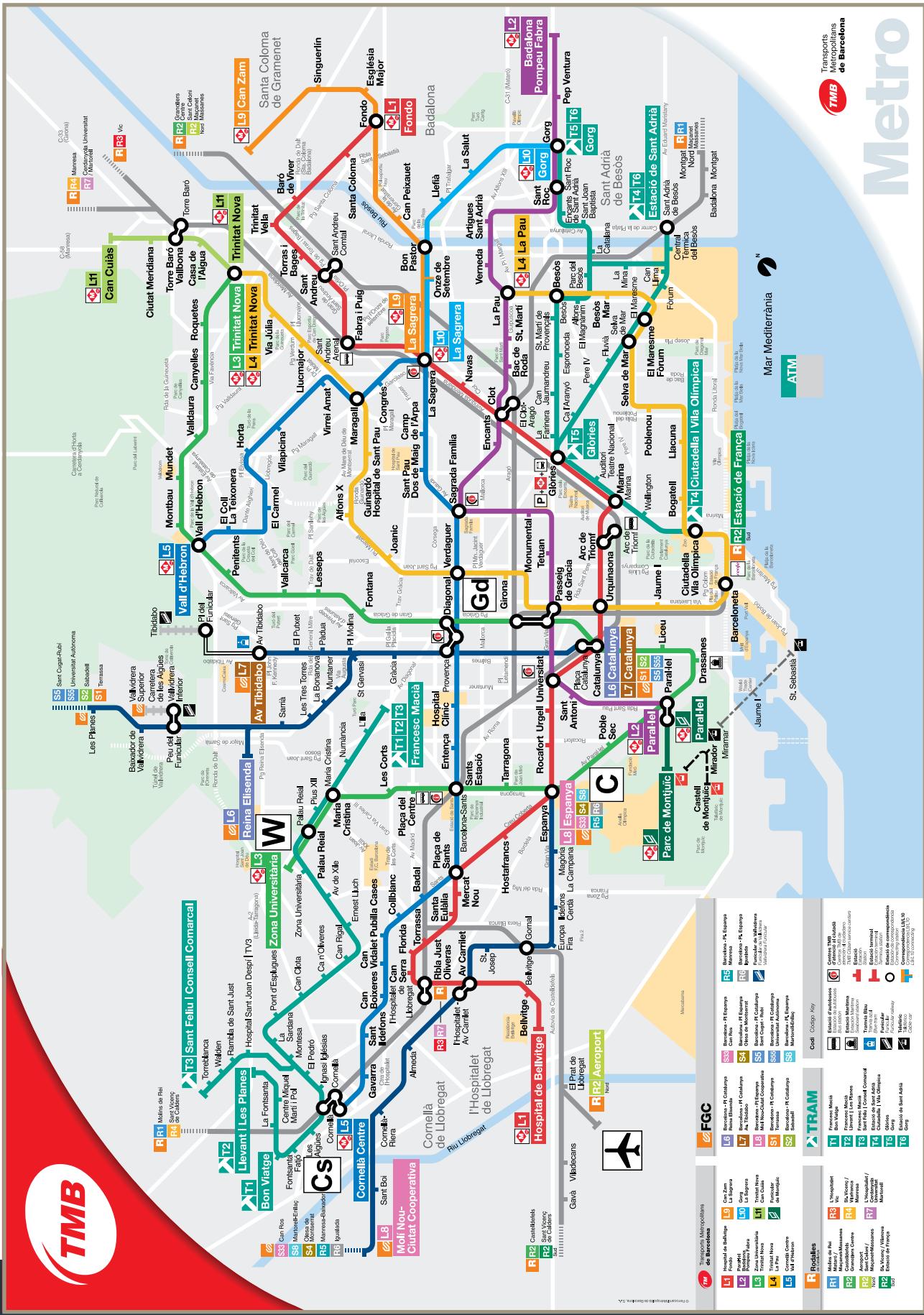
## OSGeo: Open Source Projects and Communities

***Tyler Mitchell (OSGeo)***

Tyler is the Executive Director of the Open Source Geospatial Foundation where he helps lead and run the day-to-day operations of the organisation. He is also the author of Web Mapping Illustrated - the first book of its kind focused on teaching a variety of popular Open Source Geospatial Toolkits. He has a dozen years of industrial mapping and GIS experience in natural resource management in western Canada. He is an avid proponent of OSGeo software solutions and enjoys working with people around the world to help extend OSGeo's reach.



# Metro Map



# FOSS4G Workshops

## Introduction

Workshops are 3-hour sessions in a PC classroom, and Tutorials are 90-minute sessions in a conference room. The FOSS4G 2010 Workshop Committee is responsible for the organization of both Workshops and Tutorials.

## Registration desk

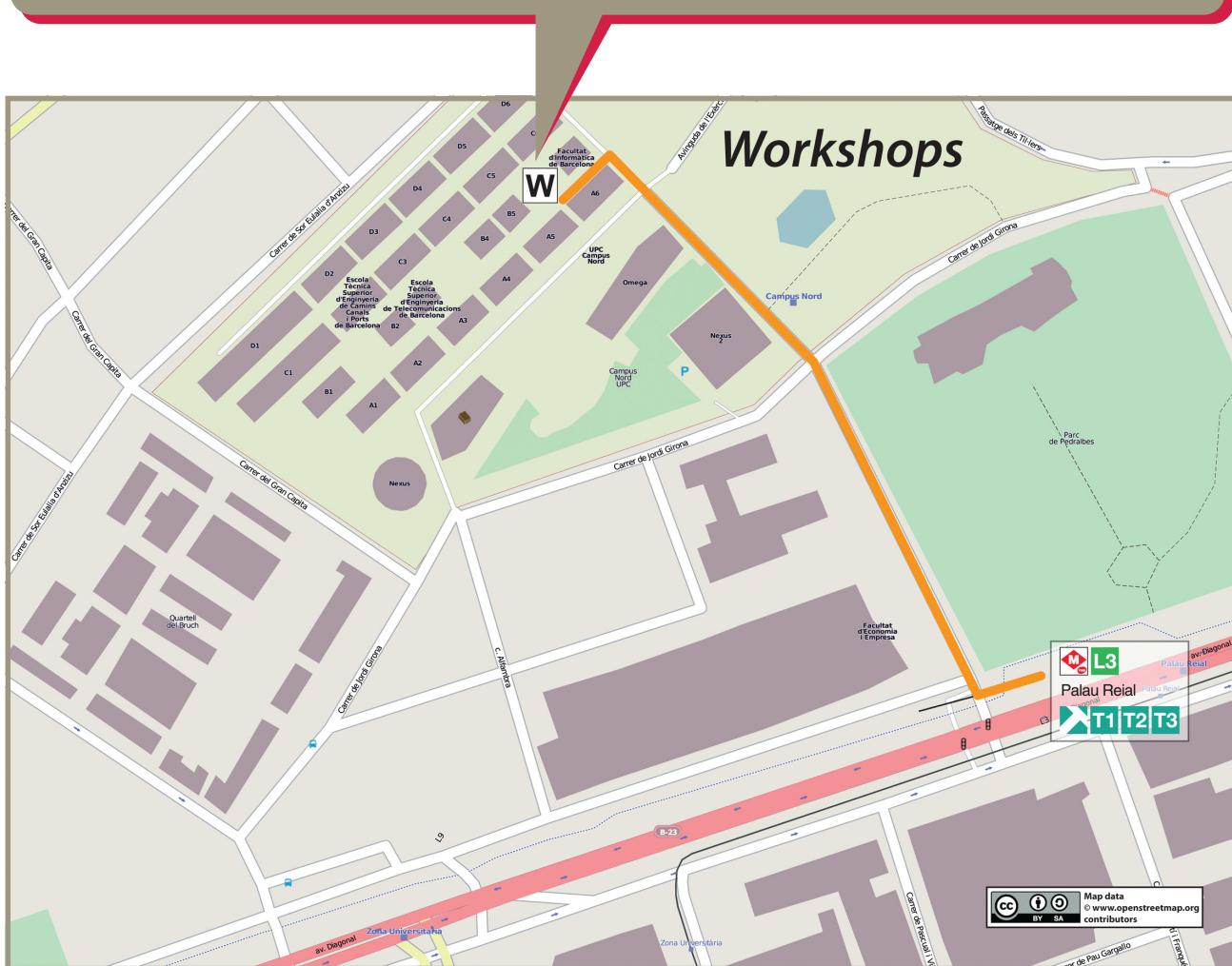
Opening Monday 6 from 1:00 pm to 3:00 pm.

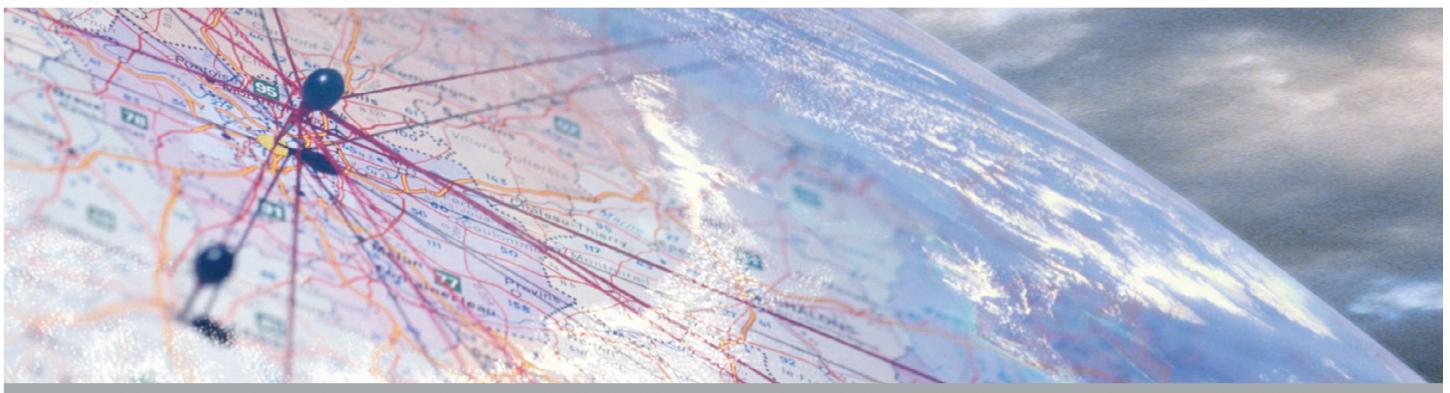
**W01 to W07: Monday September 6,  
3:00 pm to 6:00 pm.**

**W08 to W14: Tuesday September 7,  
9:00 am to 12:00 am.**

Barcelona School of Informatics

Address Mòdul B5 del Campus Nord C/Jordi Girona Salgado, 1-3 08034 BARCELONA Espanya  
Telephone 93 401 70 00 Fax 93 401 71 13 eMail informacio@fib.upc.edu Web <http://www.fib.upc.edu>





# The latest news in one location

## DATA

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Visualisation  
WebMapping  
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Geomarketing  
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Speech Recog. & Voice Output Tech.  
Analogue & Digital Airborne Cameras  
Laser Range Finders  
GPS/GIS Data Capture  
Photogrammetric Workstations  
Bulk Data Storage  
Wireless Technology  
Surveying Instruments

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1-212-796-4220 x6



OpenGeo is a social enterprise that engages traditional GIS software markets to contribute to our open source projects and communities.

Our flagship product, The OpenGeo Suite, encourages enterprises to adopt open source by providing a best-of-breed geospatial stack as one fully-supported product that is backed by a reliable professional services organization.

Stop by Booth #15 to learn more about OpenGeo, our software, and ways to work with us.

# Sep 6-7, FOSS4G Workshops

## SCHEDULE

<b>Classroom</b>	<b>Capacity</b>	<b>Session 1 (Mon 6 Sep 15-18h)</b>	<b>Session 2 (Tue 7 Sep 9-12h)</b>
B5.S101	42	<b>W1 - Web mapping with GeoServer</b> Andrea Aime, Mike Pumphrey (OpenGeo)	<b>W8 - Getting started with MapServer</b> Tyler Mitchell (OSGeo), Jeff McKenna (Gateway Geomatics), Perry Nacionales (University of Minnesota)
B5.S201	42	<b>W2 - gvSIG 1.9 user workshop</b> Jorge Sanz (Prodevelop - gvSIG Association), José Vicente Higón (Software Colaborativo - gvSIG Association), Victoria Agazzi (Prodevelop - gvSIG Association)	<b>W9 - Quantum GIS and PostGIS: Solving spatial problems and creating web-based analysis tools</b> Paul Wickman (Northstar Geographics)
B5.S202	42	<b>W3 - Setting up an OpenStreetMap rendering toolchain</b> Iván Sánchez Ortega (OpenStreetMap España), Dane Springmeyer (Mapnik)	<b>W10 - FOSS4G routing with pgRouting tools, OpenStreetMap road data and GeoExt</b> Daniel Kastl (Georepublic), Frédéric Junod (CAMPtOCamp)
C6.S302	48	<b>W4 - Introduction to PostGIS</b> Paul Ramsey (OpenGeo), Mark Cave-Aylard (Sirius)	<b>W11 - Working with OpenLayers</b> Tim Schaub, Charles David Winslow (OpenGeo)
C6.S306	40	<b>W5 - Introduction to the Mapbender geoportal framework</b> Astrid Emde, Christoph Baudson (WhereGroup)	<b>W12 - GeoNetwork for dummies, or how to setup an SDI in 3 hours</b> Jeroen Ticheler, Jose Garcia, Heikki Doeleman (GeoCat)
C6.S308	40	<b>W6 - Solid web mapping with Python</b> Éric Lemoine, Bruno Binet (CAMPtOCamp)	<b>W13 - Geospatial for Java</b> Jody Garnett (LISASoft), Justin De Oliveira (OpenGeo)
C6.S309	40	<b>W7 - Practical introduction to ZOO, the powerful WPS platform</b> Gérald Fenoy (GeoLabs), Nicolas Bozon (3LIZ)	<b>W14 - Practical introduction to GRASS</b> Paolo Zatelli, Clara Tattoni, Marco Ciolfi (University of Trento)



# Workshops

Monday afternoon, September 6

## W-01: Web mapping with GeoServer

Attendees will learn how to load, publish, and share geospatial data with GeoServer. Discussion will include navigating the GeoServer user interface, loading and publishing data, OGC web services, and styling data with SLD. Also showcased will be Styler, a browser-based graphical style (SLD) editor.

## W-02: gvSIG 1.9 user workshop

The main objective of the workshop is to show the new features included in the last stable version of gvSIG desktop (1.9). Also a brief introduction on gvsig.org, the main collaborative web portal of the gvSIG project.

## W-03: Setting up an OpenStreetMap rendering toolchain

This workshop will walk the participants through getting raw OpenStreetMap data, rendering map tiles with Mapnik, and displaying them with OpenLayers. They will learn how to install and configure a mimic of the main OpenStreetMap toolchain, using the same technologies, that can be later customised to render other datasets.

## W-04: Introduction to PostGIS

PostGIS is an open source spatial extension to the PostgreSQL open source enterprise relational database. Spatial databases such as PostGIS, Oracle Spatial and DB Spatial are used for high-performance multi-user access to large seamless data sets. If you are managing large volumes of read/write spatial data, using a spatial database can improve access speed, ease management overhead and guarantee data integrity. Built as an object extension to PostgreSQL, PostGIS has been certified as "Simple Features for SQL" compliant by the Open Geospatial Consortium.

## W-05: Introduction to the Mapbender geoportal framework

This workshop gives an in-depth introduction to the software Mapbender, a managed, web based geoportal framework. Mapbender is implementing the publish / register, find, bind, execute paradigm for geospatial data. The focus of the workshop lies on building web mapping applications with distributed Spatial Data Infrastructure components and how to manage user access. All this will be done by using Mapbender's administration interfaces, without the need to modify any source code.

## W-06: Solid web mapping with Python

Covers the Shapely and GeoJSON libraries from the GIS Python Lab. It shows how to use these libraries together with SQLAlchemy and its GIS extension, GeoAlchemy, to create HTTP web services in an application developed with the Pylons web development framework. The workshop then teaches how to use MapFish to make the development of GIS web services easier.



## W-07: Practical introduction to ZOO, the powerful WPS platform

The ZOO-Project provides a WPS (Web Processing Service) compliant and developer-friendly framework to easily create and connect OGC Webservices. During this workshop, participants will install the ZOO-Kernel and related material on their computers; upon installation the users will be ready to use and implement WPS 1.1.0 services.

# Workshops

Tuesday morning, September 7

## W-08: Getting started with MapServer

This hands-on workshop is intended as an introduction to Web mapping with the University of Minnesota MapServer. The participants will go through the process of setting up a MapServer environment which includes configuring a Web server and creating a MapServer application.



## W-09: Quantum GIS and PostGIS: Solving spatial problems and creating web-based analysis tools

Quantum GIS (QGIS) is a powerful open source GIS desktop application. It excels at viewing and manipulating a wide variety of GIS data and services, performing geographic analysis and preparing data for MapServer and GeoServer applications. QGIS has an extensible "plug-in" architecture and now provides comprehensive support for using and managing PostGIS databases. This workshop/tutorial will give students hands-on experience for applying QGIS to real-world spatial analysis problems and the development of PostGIS tools for web-based mapping and services.

## W-10: FOSS4G routing with PgRouting tools, OpenStreetMap road data and GeoEXT

pgRouting adds routing functionality to PostGIS. This introductory workshop will show you how. It gives a practical example of how to use pgRouting with OpenStreetMap road network data. It explains the steps to prepare the data, make routing queries, assign costs and use GeoExt to show your route in a web-mapping application.

## W-11: Working with OpenLayers

This workshop will guide participants through the library core, providing the experience necessary to build interactive mapping applications. We will cover best practices for dealing with a variety of raster and vector data sources, investigate client side styling, and discuss options for integrating OpenLayers with other JavaScript libraries.

## W-12: GeoNetwork for dummies, or how to setup an SDI in 3 hours

The workshop will focus on the implementation of a GeoNetwork opensource based catalog to serve and access geospatial data in a Spatial Data Infrastructure. A local catalog will be installed and configured. Harvesting of spatial data resources from remote servers will be configured and geospatial web map services will be set up using the embedded GeoServer and configured for access through the catalog web interface.

## W-13: Geospatial for java

This GeoTools session is back by popular demand in a new long format workshop. Offering a visual introduction for Java developers we will exploring how you can integrate GIS services into your next project. For those new to the GeoSpatial scene we provide an introduction to current concepts and projects, and how to avoid common pitfalls.

## W-14: Practical introduction to GRASS

The workshop has two parts: a brief GRASS overview and a hands-on session by the attendees. The aim is to allow the first time users to understand the logic of the software and to experiment some significant, although necessarily limited, data processing for technical and environmental GIS applications. The workshop provides a brief introduction to GRASS and then a step by step tutorial to guide beginners in the basic applications of the software, highlighting GRASS' interoperability with other FOSS and proprietary software.



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# FOSS4G Tutorials

## SCHEDULE

- Tutorials are 1½ hours long.
- Tutorials are open to all conference registrants.
- Tutorials Labs run concurrent with the presentation program from *Tuesday to Thursday (September 7 to 9)*

Tutorials at FOSS4G provide regular attendees the opportunity to explore one topic in detail, often in a hands on setting.

<b>Room</b>	<b>Date&amp;Time</b>	<b>Tutorial</b>
Sala 12	Sept 08    12:00	T-01 gvSIG Mobile and Mini tutorial Javier Carrasco, Alberto Romeu (Prodevelop)
Sala 11	Sept 07    16:30	T-02 PyWPS Luca Casagrande (Università degli Studi di Perugia), Jorge de Jesus (Plymouth Marine Laboratory)
Sala 12	Sept 08    14:30	T-03 Building web based GIS applications with GeoEXT Pierre Giraud (CAMPTOCAMP), Andreas Hocevar (OpenGeo), Yves Jacolin (CAMPTOCAMP)
Sala 11	Sept 08    16:30	T-04 Mastering advanced GeoNetwork Jeroen Ticheler, Jose Garcia, Heikki Doeleman (GeoCat)
Sala 12	Sept 09    09:00	T-05 Hands-on introduction to Mapguide Open Source Gordon Luckett (Arrow Geomatics)
Sala 12	Sept 09    11:00	T-06 First steps with MapFish Pierre Mauduit, Antoine Abt (CAMPTOCAMP France)
Sala 12	Sept 09    14:00	T-07 A hands-on introduction to spatial ETL with Geokettle Thierry Badard (Spatialytics)
Sala 11	Sept 08    12:00	T-08 How to generate billions of tiles using distributed cloud-computing Oliver Christen, Cedric Mouillet, François Van Der Biest (CAMPTOCAMP)
Sala 11	Sept 09    09:00	T-10 SDI best practices with Geonode Sebastian Bentall (OpenGeo), Stuart Gill (World Bank)
Sala 11	Sept 08    14:30	T-11 Standardized geoprocessing with 52°North open source software Bastian Schaeffer (52°North)
Sala 11	Sept 09    14:00	T-12 Sensor Web Enablement - Integrating sensor data into Spatial Data Infrastructures Simon Jirka (52° North), Arne Bröring (University of Münster - Institute für Geoinformatics), Eike Hinderk Jürgens (52° North)
Sala 11	Sept 09    11:00	T-13 Conquering complex application schemas (INSPIRE Data Themes, GeoSciML, ...) with deegree 3 web services Markus Schneider (lat/lon GmbH )

# FOSS4G Tutorials

## Sep 7-9

### T-01: gvSIG Mobile and Mini tutorial

This tutorial is aimed to show the last developments on gvSIG mobile and gvSIG mini projects. It will be user oriented. The tutorial will be interesting for anyone looking for a mobile mapping applications, to grab data on field, view local and remote servers, etc.

### T-02: PyWPS

PyWPS is Python implementation of OGC Web Processing Service (WPS) in its current 1.0.0 version. It is possible to run it as CGI application, in mod\_python environment or as Java servlet. PyWPS does not implement any analytical functionality by itself, this has to be done by specific process, which has to be configured or programmed by the user. PyWPS offers just the WPS communication.

### T-03: Building web based GIS applications with GeoEXT

GeoExt is a pure JavaScript toolkit for building rich web GIS applications, merging the power of Ext JS and OpenLayers.

Starting from a simple web page with a draggable map window, attendees will get familiar with Ext JS concepts like data management, UI components and layouts.

### T-04: Mastering advanced GeoNetwork

The tutorial Mastering advanced GeoNetwork is intended for intermediate or advanced users with previous knowledge of GeoNetwork opensource based catalog.

Focus will be on configuration of GeoNetwork for a production environment using an enterprise-ready database (like MySql or PostgreSQL) and deploying the application on Tomcat.



### T-05: Hands-on introduction to Mapguide Open Source

This class is for those who want to fast-track into installing and using MapGuide Open Source.

### T-06: First steps with MapFish

MapFish is an open-source development framework for building web-mapping applications. It is based on the GeoExt library (which is a combination of ExtJS and OpenLayers), and extends the Pylons general-purpose web development framework with geo-specific functionalities. This tutorial aims to present the framework, by giving a tour of the different functionalities offered, and a first developer / user experience.



### T-07: A hands-on introduction to spatial etl with Geokettle

ETL (Extract, Transform and Load) tools are conceived to facilitate the integration of heterogeneous data sources, often in order to feed data warehouses. This tutorial is a practical introduction to the open source spatial ETL tool GeoKettle.

### T-08: How to generate billions of tiles using distributed cloud-computing

This tutorial aims to describe the tile generation process, with software like TileCache or GeoWebCache and to describe the usage of Cloud Computing infrastructure to parallelize and speed up the tile generation process. Usage of Cloud Computing for the storage of large number of tiles will also be presented.

### T-10: SDI best practices with Geonode

Attendees to this introduction to the GeoNode will learn how to bring the best practices of the web to their Spatial Data Infrastructure. After an overview of the bottom-up philosophy guiding the GeoNode project, we will explore how its features embody these ideas.

### T-11: Standardized geoprocessing with 52°north open source software

After a brief introduction to the basic concepts of standardized geoprocessing, the participants will set up a scenario installation of the different 52°North geoprocessing components. With the help of these free components, a common geoprocessing problem will be solved

### T-12: Sensor Web Enablement - integrating sensor data into spatial data infrastructures

Within this tutorial the participants will learn how the Sensor Web Enablement (SWE) Architecture of the Open Geospatial Consortium (OGC) can be applied in practice. The SWE framework consists of a set of standards for sensor data and metadata formats as well as web service interfaces offering sensor related functionality (e.g. accessing sensor data, alerting, sensor tasking).

### T-13: Conquering complex application schemas (INSPIRE Data Themes, GeoSciML, ...) with deegree 3 web services

This hands-on tutorial covers the setup of the upcoming deegree 3 featureService and its configuration for complex application schemas. As working examples, (all!) INSPIRE Annex I Data Themes and GeoSciML 2.1 will be served from both GML files and a PostGIS database. We will explore requesting the features using the WFS protocol as well as performing transactions using WFS-T. Finally, real-time styling and rendering of the features will be demonstrated using the deegree mapService.



# Abstracts and Presentations

The presentation program consists of 120 twenty-five minute talks, in five tracks.

We have selected for the public:

**120 general oral presentations**

**100 general posters**

**16 academic oral presentations**

**40 academic posters**

**Thanks to all the 360 authors that has submitted an abstract to the FOSS4G this year.**



## About Presentations

FOSS4G presentations are 25 minute talks, with a 5 minute question and answer session at the end.

Presentations cover aspects of the use or development of open source geospatial software. Anyone can submit a presentation proposal and take part in the conference as a speaker.

## Poster Session

There will be a poster session at FOSS4G, providing space for 4' by 4' posters and a time slot for attendees to circulate among the posters and ask the presenters questions.

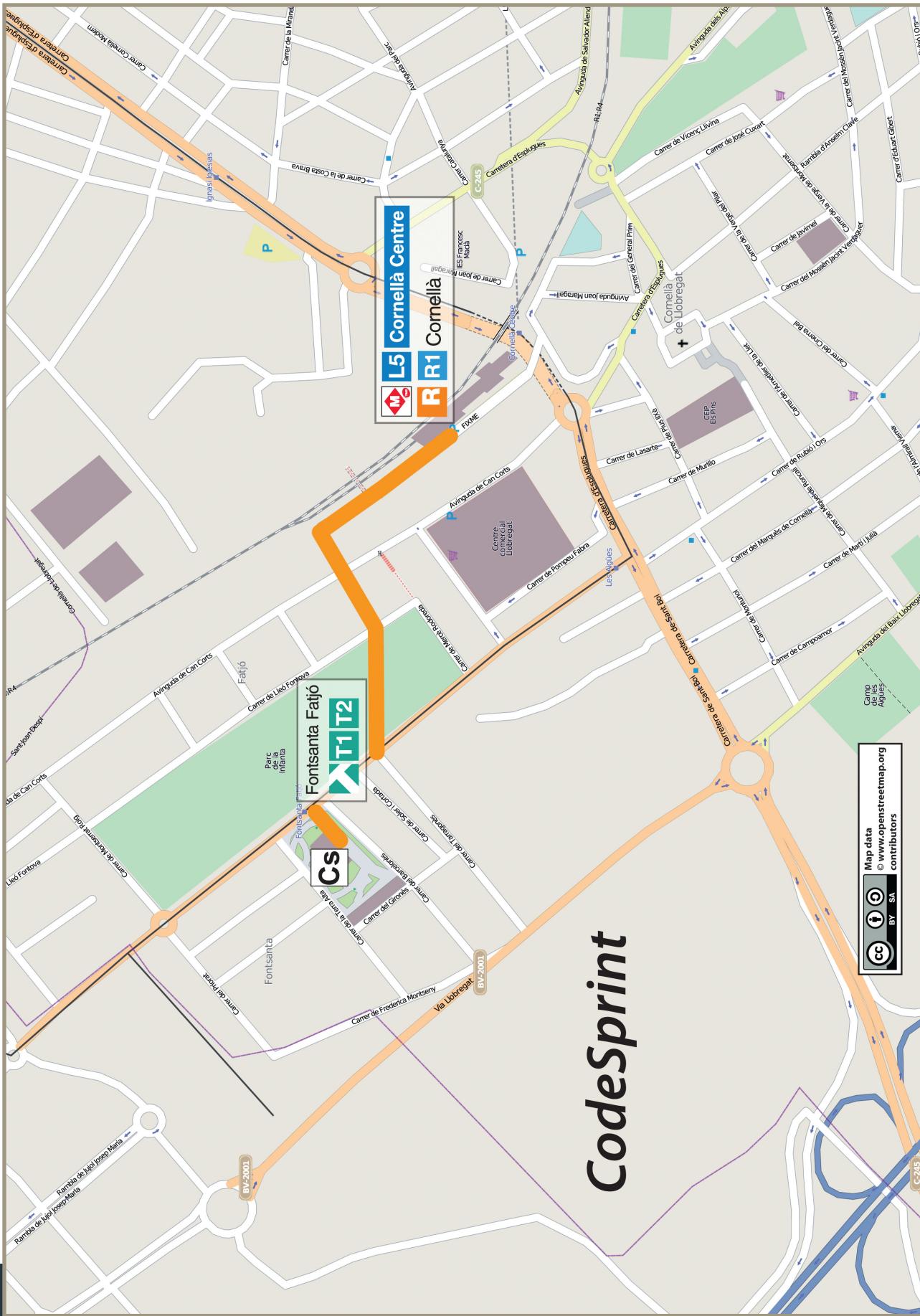
## Academic Track

The academic track is the right forum to highlight the most important research challenges and trends in the domain, and let them become the basis for an informal OSGeo research agenda.



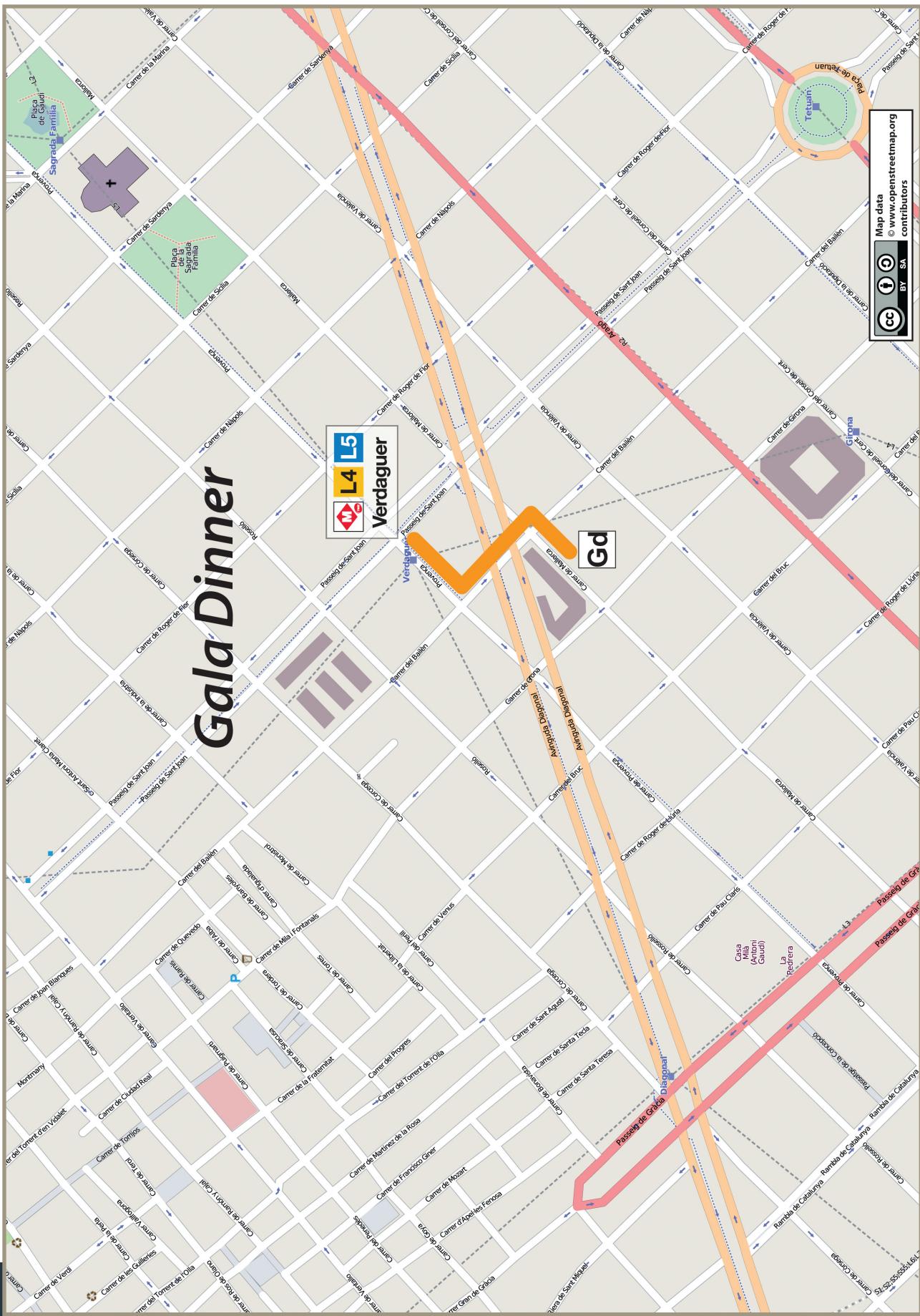


# CodeSprint Map





## Gala Dinner Map





## Airport Map



## TIMETABLE

Sept 07th

CONFERENCE Programme

		CONFERENCE Programme						
date/time		room 6	room 5	room 3	room 8	room 4	room 12	room 11
Sept 07th 15:00	Opening Session (auditorium)							
Sept 07th 16:00	break							
Sept 07th 16:30	Web Map Printing with GeoExt Andreas Hocevar (OpenGeo)	Mobile Augmented Reality using FOSS Sophia Parafina (OpenGeo)	New functionalities in gvSIG Mobile 1.0 Javier Carrasco (Prodevelop. gvSIG Association.)	Building a New Generation of Sensor Web Implementations for Hydrology Simon Jirka (52° North)	How to Discover Sensors in the Sensor Web? Maribel Bernál (URBIOTICA S.L.)	Vertical Datum: Introduction and Software Review Frank Warmerdam (OSGeo)	istSOS: Sensor Observation Service in Python Massimiliano Cannata (SUPSI)	T-02: PyWPS - a tutorial for beginners and developers J. Cepicky (Help Service - Remote Sensing Ltd. )
	GeoExt and MapFish Client components - how to migrate Till Adams (terrestris GmbH & Co. KG)					OpenLayers: SOS and INSPIRE Bart van den Eijnden (OSGIS)	A typification of Open Source web mapping client software and frameworks Christoph Baudson (WhereGroup GmbH & Co. KG)	Using Open Source OSGeo Live Lightning Overview
	Where's MapFish going? Eric Lemoine (Campocamp Geospatial Department)							
	A comparison of GIS mobile applications Miguel Montesinos (PRODEVELOP)							
	Why Schools must use FOSS4G Ricardo Pinho (CM Oliveira de Azeméis)							
Sept 07th 18:00	OSGeo Annual General Meeting - AGM (auditorium room)							

## TIMETABLE

## CONFERENCE Programme

date/time	room 6	room 5	room 3	room 8	room 4	room 12	room 11
Sept 08th 09:00	Plenary Session (auditorium)						
Sept 08th 10:30	break	break	break	break	break		
Sept 08th 11:00	Enhancing the European Forest Fire Information System (EFFIS) with Open Source Software Cristiano Giovando (Joint Research Centre of the European Commission Institute for Environment and Sustainability)	Comparison of SOS-Servers: 52°North, UMN and degreee Mayer Christian (terrestris GmbH & Co KG)	Shortest path search for real road networks with pgRouting Anton Patrushev (Georepublic)	An extension of PGRouting library functions for visibility-graph-based course calculations in a Vessel Traffic Management System (VTMS) Angela Pappagallo (Intecs S.p.A.)	Case Study: Upgrading Guatemala's SDI portal to a GeoNode Byron Bobadilla (Secretaría de Planificación y Programación de la Presidencia SEGEPLAN SINUIT)	Geospatial layers and features: from virtual base classes to platforms for planning and modeling Ari Jolma (Aalto University School of Science and Technology)	T-08: How to generate billions of tiles using distributed cloud-computing O. Christen C. Moullet, F. Van Der Biest (Camptocamp SA )
	Flexible, Open, Free: The New OGC WCS 2.0 and its Reference Implementation Peter Baumann (Jacobs University)	SOS vs. WFS – Coupling 52° North's Sensor Observation Service and Geoserver's Web Feature Service Carsten Hollmann (University of Muenster Institute for Geoinformatics)			FOS GIS and FOS simulation: Free open source analysis and simulation of housing markets Harald Scherthanner (Geography department)	T-01: gvSIG Mobile and Mini tutorial J. Carrasco, A. Romeu (PRODEVELOP)	
					Can WFS-T replace SQL? Hugo De Groot (Alterra, Wageningen University and Research Centre Centre for Geo-information)		
					Developing a Line-of-Sight Based Algorithm for Urban Street Network Generalization Wen-Chieh (Jeffrey) Wang (ChaoYang University of Technology, Landscape and Urban Planning)		
Sept 08th 12:00	The State of PostGIS Paul Ramsey (OpenGeo)	The New Time Series Toolbox - Next Generation of Sensor Web and Time Series Processing David Winslow (Open Plans)	The World Meteorological Organization Information System Timo Proescholdt (World Meteorological Organization)	ecoRelevé: An open source response to the biodiversity crisis Olivier Coullet (Natural Solutions)			
	Running long and complex processes with PostGIS Vincent Picavet (Oslandia)	GeoServer cartographic rendering: new features for map makers Andrea Aime (OpenGeo)	WMS Inspector: a Firefox add-on with tools for working with Web Map Services Adrià Mercader (Geodata Sistemas)	Performance and statistical analysis of WMS servers Pirmin Kalberer (Sourcepole)			
	PostGIS meets the third dimension Olivier Courtin (Oslandia)	Graphical style editing with Styler: Make a basemap without seeing SLD Mike Pumphrey (OpenGeo)			Potential distribution of the tiger mosquito Aedes albopictus in Northern Italy derived from reconstructed MODIS Land Surface Temperature maps Markus Neteler (Fondazione Edmund Mach GIS and Remote Sensing Unit)		

date/time	room 6	room 5	room 3	room 8	room 4	room 12	room 11
Sept 08th 13:30	lunch	lunch	lunch	lunch	lunch	lunch	lunch
Sept 08th 14:30	Introducing PostGIS WKT Raster: Seamless raster/vector operations in a spatial database Pierre Racine (University Laval Centre d'étude de la Forêt)	INSPIRE Geoportal a platform for INSPIRE services Gianluca Luraschi (European Commission - JRC)	GeoNetwork opensource - The geospatial metadata catalogue Jeroen Tricheler (GeoCat bv)	GeoSocial, a tool for geospatial analysis and data mining of social networks Manuel de la Calle (IGO SOFTWARE)	Drift-X WPS: Pesticide Atmospheric Dispersion Web GIS Nicolas Bazon (3LZ)	T-03: Building web based GIS applications with GeoExt P. Giraud (1), A. Hoevar (2), Y. Jacolin (3) ((1) campiocamp, (2) OpenGeo, (3) Campiocamp)	T-11: Standardized Geoprocessing with 52°North Open Source Software B. Schaeffer (52°North )
PostGIS WKT Raster: An Open Source alternative to Oracle GeoRaster Jorge Arevalo (Deimos Space Internet & Mobility Section)	Implementing INSPIRE with FOSS4G: a Success Story Just van den Broeke (Just Objects B.V.)	Implementation of ISO and OGC (INSPIRE) metadata standards – MEDARD	Introduction of flood evacuation route search system? using QGIS, PostGIS, GRASS and PgRouting Yuchi Kayama (Aero Asahi corporation Spatial Information Unit Research & Development Center)	OGC WMTS and OSGeo-TMS standards: motivations, history and differences Joan Masó (CREAF)	TimeMapper – using animated SVG in a WMTS to visualise moving object data Barend Köbben (ITC - University of Twente, Faculty of Geo-information Science and Earth Observation)	Tuning Principal Component Analysis for GRASS GIS on Multicore and GPU Architectures Peng Du (University of Tennessee Knoxville Department of Computer Science)	
State of Ingres geospatial 2010 Andrew Ross (Ingres)	Applied SDI in Germany - Complying with INSPIRE Arnulf Christl (Metaspacial)	Leszek Litwin (Institute of Spatial and Cadastral Systems (ISPiK))	Real-time position analysis during soccer matches Oliver May (DFC software engineering)				
Sept 08th 16:00	break	break	break	break	break	break	break
Sept 08th 16:30	Tips for the PostGIS Power User Paul Ramsey (OpenGeo)	S3XTANTE, a Java 3D GIS Framework Diego Gómez (igosoftware)	Geomajas: new kid on the block Pieter De Graef (Geosparc)	From the crowd sourcing to the institutional sourcing: a way to cooperate between regional and local administration Maria Pla (Institut Cartogràfic de Catalunya Cartografia)	WMS Shootout (Benchmarking)	T-04: Mastering advanced GeoNetwork J. Ticheler, J. García, H. Doelemans (GeoCat)	
Moving from Oracle/ArcGIS to PostGresql/PostGIS Yves Choquette (Centre for Topographic Information)	3D Web Mapping: yes, we can ! Yves Bolognini (Campiocamp SA)	degree project report: past, present, future Markus Schneider (lat/lon GmbH)	Raster data support in GeoServer and GeoTools: recent achievements, unsolved issues and future developments Simone Giannecchini (GeoSolutions S.A.S.)	OldMapsOnline.org: Open Source & Online Tools for Old Maps Petř Pridal (Moravian Library Brno, Czech Republic)	Developing Cadastral Web Services with Free and Open Source Geospatial Software Cemre Yilmaz (Karadeniz Technical University)	Accounting for Geospatial Uncertainties in an Energy - Air Quality Decision Support Tool Ulrich Leopold (Public Research Centre Henri Tudor Resources Centre for Environmental Technologies)	Geoinformation analysis for Conservation: experiences with OSS in the Natural Parks of Barcelona Agustín Lobo (Institut de Ciències de la Terra "Jaume Almera" (CSIC))
What You See: Comparing two web-based open source approaches to display the results of spatial SQL queries Marc Jansen (terrestris GmbH & Co. KG)	Comparison of Open Source Virtual Globes Mathias Walker (Sourcepole AG)	OpenStreetMap-in-a-Box - A Ready-Made Highly Configurable Map Server Stefan Keller (Univ. of Applied Sciences Rapperswil Computer Science)					
Sept 08th 18:00	Breakout Sessions	Breakout Sessions					
Sept 08th 20:00	Gala Dinner						

## TIMETABLE

Sept 09th

CONFERENCE Programme

date/time	room 6	room 5	room 3	room 8	room 4	room 12	room 11
Sept 09th 09:00							
Sept 09th 11:00	MapProxy -An accelerating proxy for web map services Oliver Tonhofer (Omnisciale)	GeoServer WPS: an integrated processing service Andrea Aime (OpenGeo)	Printing in web mapping application: MapFish print module Jesse Eichar (Cumptocamp SA)	Developing Desktop-like Web GIS Applications with HTML and JavaScript Alper Dincer (Ministry of Environment and Forestry Technology Department)	OpenAddresses - geocoded addresses worldwide free and open Hans-Jörg Stark (FHINW IVGI)	T-05: Hands-on Introduction to MapGuide Open Source. G. Luckett (Arrow Geomatics Inc )	T-10: SDI Best Practices with GeoNode S. Benthal (1), S. Gill (2) (1) OpenGeo, (2) World Bank
Sept 09th 10:30							
Sept 09th 11:00	A WebGIS application to monitor Road Trafic David JONGLEZ (Capgemini)	52° North WPS framework with ArcGIS geoprocessing support - Open Source solution meets closed source software Bastian Schaeffer (52°North Initiative for Geospatial Open Source Software Geoprocessing Community)	GeoServer: backing a GIS with a true graph database Craig Taverner (Amanzi)	Squeeze: Configuring MapServer and KML to Get The Most Out Of Google Earth Michael Ross (BC Integrated Land Management Bureau GeobC Information Management Branch)	Evolution of GIS data Joachim Van der Auwera (Geosparc)	T-06: First steps with MapFish P. Mauduit, A. Abt. (Cumptocamp France SAS )	T-13: Conquering complex application schemas (INSPIRE Data Themes, GeoSciML, ...) with deegree 3 web services M. Schneider (latlon GmbH )
Sept 09th 11:00	TileSeeder; a new tile management tool Steven Ottens (Geodan)	Operational use of the Orfeo Tool Box for the Venus Mission Thomas Feuvrier (CS-SI)	ZOO Project: The powerful WPS Platform Gérald FENOY (GeoLabs SARL)	PostGIS – Universal WebAPI Platform for Visualizing Geospatial Analysis-Routing, Geocoding, Thematic Mapping and More! Jun Koike (Orkney Inc )	break	break	break
Sept 09th 11:00							
Sept 09th 11:00							

date/time	room 6	room 5	room 3	room 8	room 4	room 12	room 11
Sept 09th 13:00	lunch	lunch	lunch	lunch	lunch	lunch	
Sept 09th 14:00	Introducing OpenScales Sébastien Deleuze (Atos Worldline)  OpenLayers' Future Tim Schaub (OpenGeo)	OSSIM - advanced open source remote sensing Mark Lucas (Radiantblue technologies Inc Open Technologies Division)	Compliance Testing of Open Source software for Web Processing Services Theodor Foerster (Institute for Geoinformatics Sensor web, Web-based geoprocessing and Simulation Lab)	A geospatial data collection system for organisations Neil Penman (IBM)	T-07: A hands-on introduction to Spatial ETL with Geokettle T. Badard (Spatialalytics)	T-12: Sensor Web Enablement - Integrating Sensor Data into Spatial Data Infrastructures S. Jirka (1), A. Bröring (2), E. H. Jürgens (1) (1) 52° North GmbH, (2) University of Münster - Institute für Geoinformatics	
Sept 09th 15:30	break	break	break	break	break	break	
Sept 09th 16:00	Distributed Spatial Indexing in the Cloud Schuyler Erle (SimpleGeo)	MapServer Project Status Report Jeff McKenna (Gateway Geomatics)	Integrating SEXTANTE and GRASS Víctor Olaya (Universidad de Extremadura)	Semantic Web approach for thematic structuring of geographic objects julien bardé (IRD (Research for Development Institute), CRHMT UMR EME)	GeoNode Architecture: Wrangling \$100 million worth of open source software to make SDI building a walk in the park David Winslow (Open Plans)	GeoServer, GeoTools, GeoBatch: relying on the "usual suspects" for supporting operational Meteorology and Oceanography Simone Giannecchini (GeoSolutions S.A.S.)	BeETLE project: a free geospatial ETL tool César Martínez (European Topic Centre on Land Use and Spatial Information (ETC-LUSI) / Universitat Autònoma de Barcelona)
Sept 09th 17:00	Closing Session (auditorium room)						GeoKettle: A powerful open source spatial ETL tool Thierry Badard (Spatialalytics)



## Notes



## Notes

# FOSS4G 2010

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