

# OPENLAYERS

## LEVEL 1 - INTRODUCTION

### PEDAGOGICAL OBJECTIVES

This course is designed for anyone with basic development skills (HTML, JavaScript) who wishes to display and distribute cartographic data.

At the end of the course, participants will be able to:

- Understand the fundamentals of OpenLayers
- Set up a basic cartographic website including OpenLayers
- Add data and manipulate it in a dynamic web page
- Use various plugins
- Integrate data from a spatial database



#### TARGET AUDIENCE

Technicians, IT specialists, GIS engineers and web developers



#### PREREQUISITES

Some knowledge of web development and GIS

Bring your own laptop and have the Administrator profile for your machine.



#### TEACHING RESOURCES

Software license provided: yes

Digital training aids given to trainees

Evaluation questionnaires and end-of-training certificate



#### DURATION

> 3 days (21h training)



#### RATES

> on quotation



#### TERMS AND CONDITIONS

No pre-requisite selection

Dates to be agreed



#### REGISTRATIONS

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For disabled access, please consult us.

### CONTENTS

#### DAY 1

##### INTRODUCTION

Introduction to OpenLayers

Reminder of JavaScript, HTML and CSS development (if necessary)

Discovering and using jQuery

##### GETTING STARTED WITH OPENLAYERS

Downloading and installing the OpenLayers API

Creating a simple map

#### DAY 2

##### ADDING RASTER DATA

Backgrounds, available tiling

Generate your own tiling with QGIS

Add raster data to the map

##### ADDING VECTOR DATA

Discover the GeoJSON format

Generate a GeoJSON layer with QGIS

Add vector data to the map and control its display

##### STYLES AND SYMBOLOGY

Set the appearance of vector data (colors, opacity, thickness)

Create markers on point layers

Perform thematic analysis (categorized symbols)

#### DAY 3

##### ATTRIBUTE DATA

Access entity attributes

Display tooltips (on click or hover)

Open parameterized popups

Generate a label layer

##### PLUGINS

Discover and implement useful plug-ins (scanning, clustering, etc.)

##### DATABASE CONNECTION

Create a PostGIS database

Generate a GeoJSON service in PHP

Displaying data on the OpenLayers map

Real-time interaction QGIS / PostGIS / OpenLayers

