Printing in a web mapping application

MapFish print module
Outline

- Camptocamp
- Examples
- Architecture
- Supported Readers
- Components
- Typical Configuration
- Future Work
- Wrap up
- Resources
- Open Source solutions provider as editor and integrator
- Staff of 35 in Switzerland and France
- Camptocamp helps you move forward with the latest Open Source technologies
Camptocamp activity domains

Geospatial Solutions
- Webmapping
- GIS
- Geospatial databases
- Spatial Data Infrastructure
- OGC Web Services

Business Solutions
- ERP
- Business Intelligence
- ETL

Infrastructure Solutions
- Linux
- HTTP, Apache Load balancing
- Cloud computing (AWS)
- VoIP

CONSULTING, RESEARCH & DEVELOPMENT

ENGINEERING, IMPLEMENTATION

OPEN SOURCE SUPPORT

TRAINING
Sightings

- EPFL Plan
  - http://plan.epfl.ch/

- Swisstopo Geoadmin
  - http://map.geo.admin.ch/

- Mapfish demo site
  - http://demo.mapfish.org/mapfishsample/1.2/examples/print/

- GeoOrchestra (Not yet released)

- Geoserver integration (No photos)
EPFL (Ecole Polytechnique Fédérale de Lausanne)
Swisstopo Geoadmin

The Federal Authorities of the Swiss Confederation

map.geo.admin.ch

Catalog [INSPIRE] Search
- Base data
- Surface representation
- Infrastructure and communication
- Environment, Biology and Geology
- Energy and economy
- Land use
- Energy resources
- Geoethnologie CH

Selection
- Opacity: 94%
- Opacity: 100%
- Opacity: 56%

PDF
- Scale:
  - 1:200,000
  - 1:5,000
  - 1:10,000
  - 1:20,000
  - 1:25,000
  - 1:50,000
  - 1:100,000
  - 1:200,000
  - 1:500,000
  - 1:1,000,000
  - 1:2,500,000

Coordinates (m): 572525, 206400
GeoOrchestra (Not yet in production)

Geobretagne Example

Sources: GeoBretagne, c2cpc83.camptocamp.com, geolittoral.application.equipement.gouv.fr, geobretagne.fr, kartenn.region-bretagne.fr

31/08/2010
MapFish example: advanced print

- Title: Map title
- Comments: Some comments
- Layout: A4 portrait
- DPI: 56
- Scale: 1:1,000,000
- Rotation: 40

Print single page

Print multi page
MapFish example: advanced print

West
Help
Print single page
Print multi page

Scale | Rotation | Title | Comments
--- | --- | --- | ---
1:1,000,000 | 48 |  |  
1:4,000,000 | 22 |  |  
1:1,000,000 | 49 |  |  

Add page | Remove page | Clear all
--- | --- | ---
Layout: A4 portrait
DPI: 56

Print
Architecture

GeoExt print components

Java Print Server

- Rest API
- Page Layouts
- Data Readers
- Page Components
Outline of Rest API

- GeoExt uses Rest API
  - info.json (GET) – get print parameters
    - Scales
    - DPIs
    - Layouts
  - print.pdf (GET) – create and obtain pdf
  - create.json (POST) – create pdf and obtain URL for later download of PDF
Layouts

- YAML file describes layouts
- Several layouts
- info.json lists layouts
- Layout components and maps
- No restriction on number of components or page
Layout Areas

- Title Page
  ▪ Optional
- Main Page
  ▪ Required
- Last Page
  ▪ Optional
- Header
  ▪ Optional
- Footer
  ▪ Optional
Components

- Map
  - Restrict DPI, Scale, servers
  - Overview option

- Scalebar
  - Text
  - Graphic

- Legend

- Text

- Image

- Dynamic Copyright

- Attributes
  - Display table of attributes read from GeoJSON features

- Columns
  - Table with arbitrary data
Supported Readers

- Web Map Server (WMS)
- Google Maps
- Tile Map Server (TMS)
- Image
- KaMap
- KaMapCache
- Open Street Map (OSM)
- Tile Cache
- GeoJSON
Configuration Snippet

layouts:
 A4 landscape:
  mainPage:
   rotation: false
   pageSize: A4
   landscape: true

#---------------------------------------
# header
#---------------------------------------

header:
 height: 75
 items:
  - !columns
    widths: [70, 30]
    items:
      - !text
        fontSize: 24
        fontColor: #333333
Future Direction

- Plugin architecture
  - Components (Exists somewhat)
  - Readers
- Embedded jetty solution for those who want scalability but not Java web-server configuration
- Print to image
- Unlimited scales
Wrap up

- Nice, simple printing
- Flexible
- Standalone or Mapfish integration
Resources

- Camptocamp
  - http://www.camptocamp.com/

- Mapfish
  - http://www.mapfish.org

- Print subproject
  - http://www.mapfish.org/doc/print/

- Mapfish Print Examples
  - http://demo.mapfish.org/mapfishsample/1.2/examples/print/

- Geoserver printing Module:
Thank you for your attention

Camptocamp SA

info@camptocamp.com  +41 21 619 10 10  +33 4 79 44 44 94