

# *Serviços de Dados Geográficos*

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Direção-Geral do Território

# *Agenda*

## 1. Implementação de SDG INSPIRE em GeoServer

- Introdução ao GeoServer
- Criação de Serviços de Visualização e Descarregamento
- Extensão INSPIRE



# GeoServer

## Implementação de SDG INSPIRE

# **Introdução ao GeoServer**

- Criado em 2001, o GeoServer é um **servidor de mapas** Java-based que permite aos utilizadores criar, editar, visualizar, transformar e publicar dados espaciais.
- É um projecto Open Source incubado pela OSGeo.
- Desenvolvido utilizando a biblioteca GeoTools.
- As correções de problemas e melhorias de recursos são realizadas com frequência.
- Possibilidade de correr em distintos sistemas operativos (Linux, Windows, Mac OS X).



# **Introdução ao GeoServer**

- Suporte a múltiplos formatos de dados raster e vectorial.
- Suporte para Bases de Dados PostgreSQL/PostGIS e por extensões, o Oracle, MySQL, MS SQL Server, ArcSDE.
- Compatível com as especificações do OGC (WMS, WFS, WCS, etc).
- Suporte a projecções em tempo real.
- Pré-visualização integrada utilizando OpenLayers;
- Utiliza SLD (Styled Layer Descriptor) e CSS (Cascading Style Sheets) para representação de simbologias.
- Integração com o QGIS - **GeoCat Bridge for QGIS** (pago)
- Documentação em: <http://docs.geoserver.org/stable/en/user/index.html>

# Introdução ao GeoServer

## Vector files

Shapefile  
GeoPackage

## DBMS

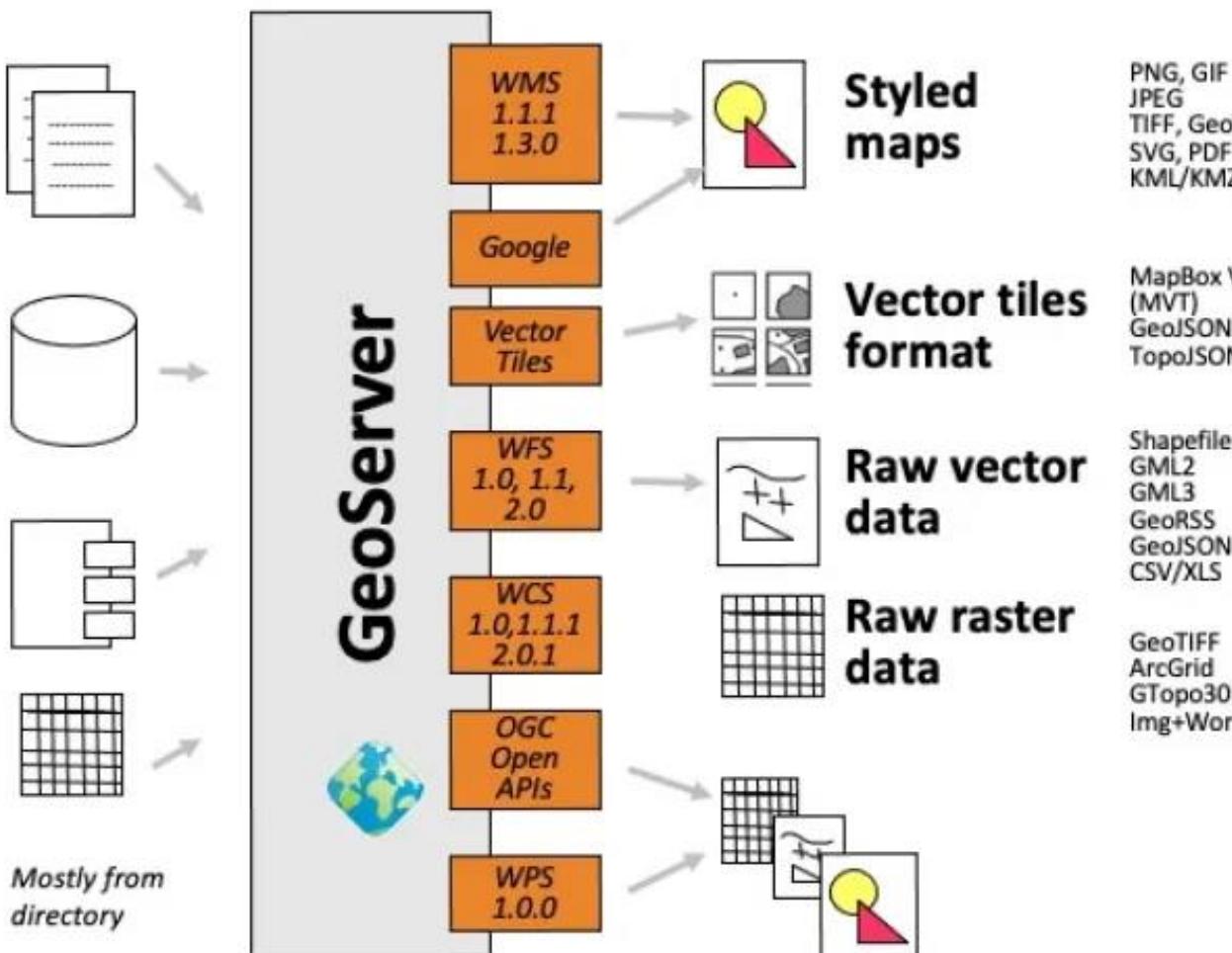
PostGIS      Server  
Oracle      MySQL  
H2      Spatialite  
DB2      GeoCouch  
SQL

## Servers

ArcSDE  
WFS

## Raster files

GeoTIFF	JPEG 2000
WMS	ECW, Pyramid
ArcGrid	Oracle
GTopo30	GeoRaster,
Img+world	PostGis Raster
Mosaic	NetCDF
MrSID	GeoPackage



# Introdução ao GeoServer

- Extensível

## Vector Formats

- App Schema
- ArcSDE
- DB2
- H2
- MySQL
- Oracle
- Pregeneralized Features
- SQL Server
- Teradata

## Output Formats

- Excel
- Image Map
- OGR
- XSLT
- DXF
- JPEG Turbo

## Miscellaneous

- Chart Symbolizer
- Control Flow
- Cross Layer Filtering
- CSS Styling
- GeoSearch
- CAS
- Monitor (Core, Hibernate)
- Importer (Core, BDB Backend)
- INSPIRE
- Printing

## Coverage Formats

- GDAL
- Image Pyramid
- JPEG2K
- JDBC Image Mosaic

## Services

- CSW
- WCS 2.0 EO
- WPS
- WPS Hazelcast

# Introdução ao GeoServer

- Acesso ao GeoServer Web Administration Interface:  
<http://localhost:8080/geoserver/web/>

The screenshot shows the GeoServer web interface. At the top, there is a navigation bar with links for 'About & Status', 'Data', and 'Demos'. Below this is a main content area with a 'Welcome' message. To the right, a sidebar displays 'Service Capabilities' for various geospatial services.

**Welcome**

Welcome

This GeoServer belongs to [The Ancient Geographers](#).

This GeoServer instance is running version **2.10.1**. For more information please contact the [administrator](#).

**Service Capabilities**

<b>WCS</b>	<a href="#">1.0.0</a>
	<a href="#">1.1.0</a>
	<a href="#">1.1.1</a>
	<a href="#">1.1</a>
	<a href="#">2.0.1</a>
<b>WFS</b>	<a href="#">1.0.0</a>
	<a href="#">1.1.0</a>
	<a href="#">2.0.0</a>
<b>WMS</b>	<a href="#">1.1.1</a>
	<a href="#">1.3.0</a>
<b>TMS</b>	<a href="#">1.0.0</a>
<b>WMS-C</b>	<a href="#">1.1.1</a>
<b>WMPS</b>	<a href="#">1.0.0</a>



# Introdução ao GeoServer

Logged in as admin.

[Logout](#)

## Welcome

### About & Status

- [Server Status](#)
- [GeoServer Logs](#)
- [Contact Information](#)
- [About GeoServer](#)

### Data

- [Layer Preview](#)
- [Workspaces](#)
- [Stores](#)
- [Layers](#)
- [Layer Groups](#)
- [Styles](#)

### Services

- [CSW](#)
- [WMTS](#)
- [WCS](#)
- [WFS](#)
- [WMS](#)

### Settings

- [Global](#)
- [Image Processing](#)
- [Raster Access](#)

### Tile Caching

- [Tile Layers](#)
- [Caching Defaults](#)
- [Gridsets](#)
- [Disk Quota](#)
- [BlobStores](#)

### Security

- [Settings](#)
- [Authentication](#)
- [Passwords](#)
- [Users, Groups, Roles](#)
- [Data](#)
- [Services](#)

### Demos

### Tools

## Informações do ambiente GeoServer

19 Layers [Add layers](#)

9 Stores [Add stores](#)

7 Workspaces [Create workspaces](#)

## Gestão dos dados espaciais

The administrator password for this server has not been changed from the default. It is

**highly recommended that you change it now.** [Change it](#)

## Configuração dos serviços OGC

This GeoServer instance is running version **2.12.0**. For more information please contact

[the administrator](#)

## Configurações gerais

## Visão geral

## Serviços cache

## Descrição (metadados) dos serviços disponíveis

## Configurações de segurança

links para exemplos de aplicações

### Service Capabilities

#### CSW

2.0.2

#### WCS

1.0.0

1.1.0

1.1.1

1.1

2.0.1

#### WFS

1.0.0

1.1.0

2.0.0

#### WMS

1.1.1

1.3.0

#### TMS

1.0.0

#### WMS-C

1.1.1

#### WMPS

1.0.0

# Introdução ao GeoServer

- **Layer preview:** permite visualizar uma lista de temas com as seguintes informações:

## Layer Preview

List of all layers configured in GeoServer and provides previews in various formats for each.

<< < 1 > >> Results 1 to 22 (out of 22 items)

Search

Type	Name	Title	Common Formats	All Formats
tiger:poly_landmarks	tiger_poly_landmarks	Manhattan (NY) landmarks	OpenLayers KML GML	Select one
tiger:roads	tiger_roads	Título do tema		
tiger:giant_polygon	tiger_giant_polygon	World rectangle	OpenLayers KML GML	Select one
nurc:Img_Sample	nurc_Img_Sample	Manhattan (NY) points of interest	OpenLayers KML GML	Select one
nurc:mosaic	nurc_mosaic	North America sample imagery	OpenLayers KML	Select one
nurc:Arc_Sample	nurc_Arc_Sample	mosaic	OpenLayers KML	Select one
nurc:Pk50095	nurc_Pk50095	A sample ArcGrid file	OpenLayers KML	Select one
		Pk50095 is a A raster file accompanied by a spatial data file	OpenLayers KML	Select one

- Permite efectuar o download dos temas em vários formatos.

# Introdução ao GeoServer

- Configurações

GeoServer

Logged in as admin. [Logout](#)

**Contact Information**  
Set the contact information for this server.

**Contact**

**Organization**

**Position**

**Address Type**

**Address**

**Address Delivery Point**

**City**

**State**

**ZIP code**

**Country**

**Address Electronic Mail Address**

**Telephone**

**Fax**

**Email**

**Submit** **Cancel**

**Data**

- Layer Preview
- Workspaces
- Stores
- Layers
- Layer Groups
- Styles

**Services**

- CSW
- WCS
- WFS
- WMS

**Settings**

- Global
- JAI
- Coverage Access

**Tile Caching**

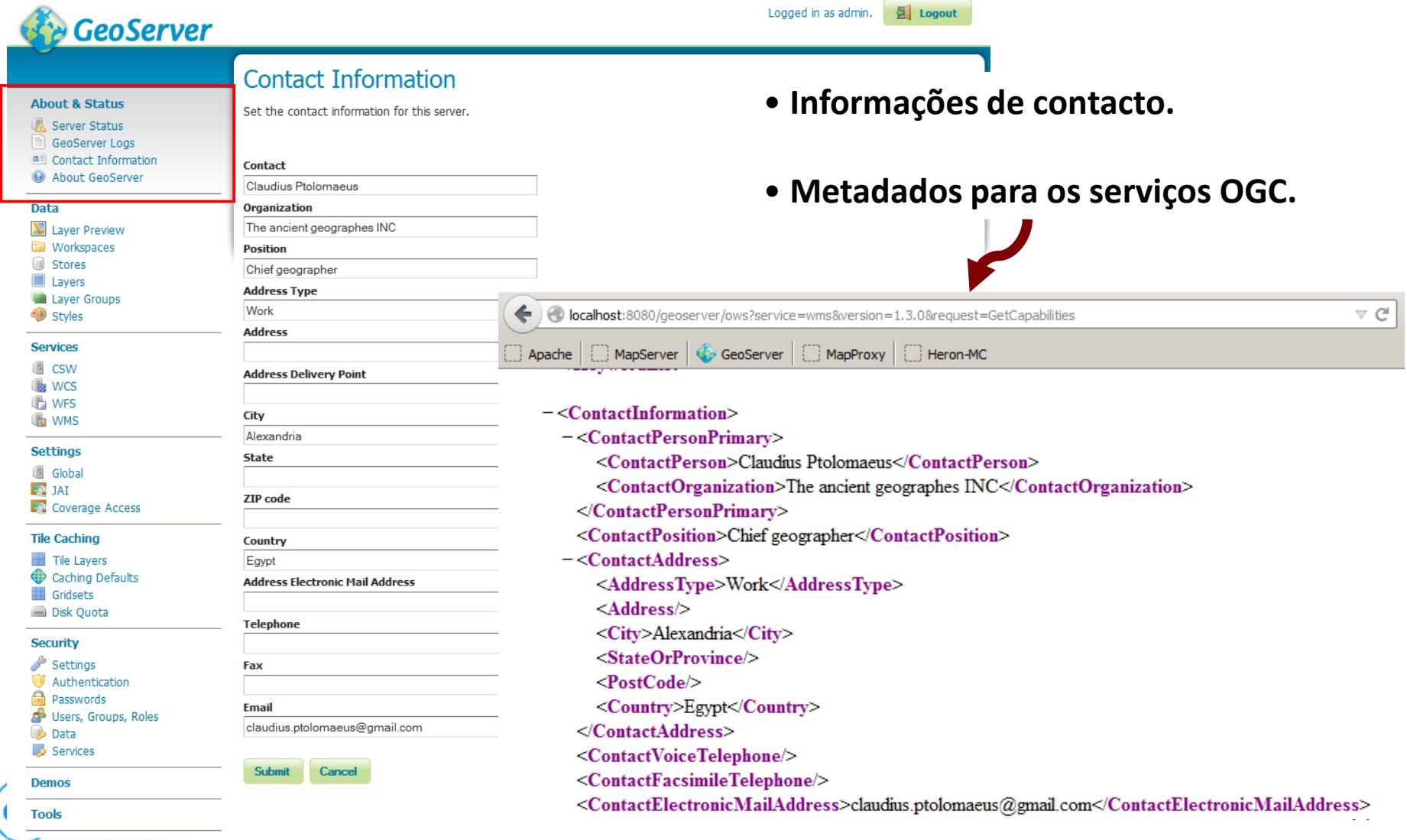
- Tile Layers
- Caching Defaults
- Gridsets
- Disk Quota

**Security**

- Settings
- Authentication
- Passwords
- Users, Groups, Roles
- Data
- Services

**Demos**

**Tools**



• Informações de contacto.

• Metadados para os serviços OGC.

```
<?xml version="1.0" encoding="UTF-8"?>
<ContactInformation>
    <ContactPersonPrimary>
        <ContactPerson>Claudius Ptolomaeus</ContactPerson>
        <ContactOrganization>The ancient geographies INC</ContactOrganization>
    </ContactPersonPrimary>
    <ContactPosition>Chief geographer</ContactPosition>
    <ContactAddress>
        <AddressType>Work</AddressType>
        <Address/>
        <City>Alexandria</City>
        <StateOrProvince/>
        <PostCode/>
        <Country>Egypt</Country>
    </ContactAddress>
    <ContactVoiceTelephone/>
    <ContactFacsimileTelephone/>
    <ContactElectronicMailAddress>claudius.ptolomaeus@gmail.com</ContactElectronicMailAddress>
```

# Introdução ao GeoServer

- Configurações

GeoServer

Logged in as admin. Logout

**Global Settings**

Settings that apply to the entire server.

Verbose Messages

Verbose Exception Reporting

Enable Global Services

Handle data and configuration problems in capabilities documents by...

Choose One

Number of Decimals

8

Character Set

UTF-8

Proxy Base URL

Logging Profile

DEFAULT\_LOGGING.properties  
GEOSERVER\_DEVELOPER\_LOGGING.properties  
GEOTOOLS\_DEVELOPER\_LOGGING.properties  
PRODUCTION\_LOGGING.properties  
QUIET\_LOGGING.properties  
TEST\_LOGGING.properties  
VERBOSE\_LOGGING.properties

Log to StdOut

**Settings**

- Global (highlighted)
- JAI
- Coverage Access

**About & Status**

- Server Status
- GeoServer Logs
- Contact Information
- About GeoServer
- Process status

**Data**

- Layer Preview
- Workspaces
- Stores
- Layers
- Layer Groups
- Styles

**Services**

- CSW
- WCS
- WFS
- WMS
- WPS

**Tile Caching**

- Tile Layers
- Caching Defaults
- Gridsets
- Disk Quota

**dg** Direção-Geral do Território

**Por questões de segurança desactivar esta opção.**

**Configurações:**

- global (tem prevalência)
- local

# Introdução ao GeoServer

- Configurações

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## Services



- Configurar metadados globais comuns a todos os workspaces
  - Metadados
    - Maintainer
    - Online resource
    - Title
  - WMS Limited SRS list (3763, 4326, 4258, 3857). Caso contrário é apresentado todos os SRS que o Geoserver suporta (cerca de 4000).
  - WMS Settings → Queryable e Opaque
  - Maximum number of features (WFS)
  - Extra SRS codes for WFS 2.0 (WFS)
  - Service Level (WFS), colocar como **basic**

# **Introdução ao GeoServer**

- Configurações - WFS
  - Por defeito, o WFS está sempre activo, pelo que caso não se pretenda disponibilizar um serviço de descarregamento, é necessário desactivar esta opção.

## Web Feature Service

Manage the publishing of feature data.

### **Workspace**



### **Service Metadata**

Enable WFS

Strict CITE compliance

# Introdução ao GeoServer

- Configurações - WFS
  - **Basic**: só permite o download dos dados.
  - **Transactional**: além das características do Basic, permite criar, apagar e actualizar os dados no servidor.
  - **Complete**: inclui também o **lock** da entidade a editar.

## Service Level

---

- Basic
- Transactional
- Complete

# Introdução ao GeoServer

- Configurações - WFS
  - Nº máximo de entidades permitidas para descarregamento.

## Features

---

Maximum number of features

1000000

Maximum number of features for preview (Values <= 0 use the maximum number of features)

50

Return bounding box with every feature

Ignore maximum number of features when calculating hits

# **Introdução ao GeoServer**

- Configurações - WFS
  - O WFS 1.1.0 e 2.0 permitem transformação on-the-fly para outros SRS.

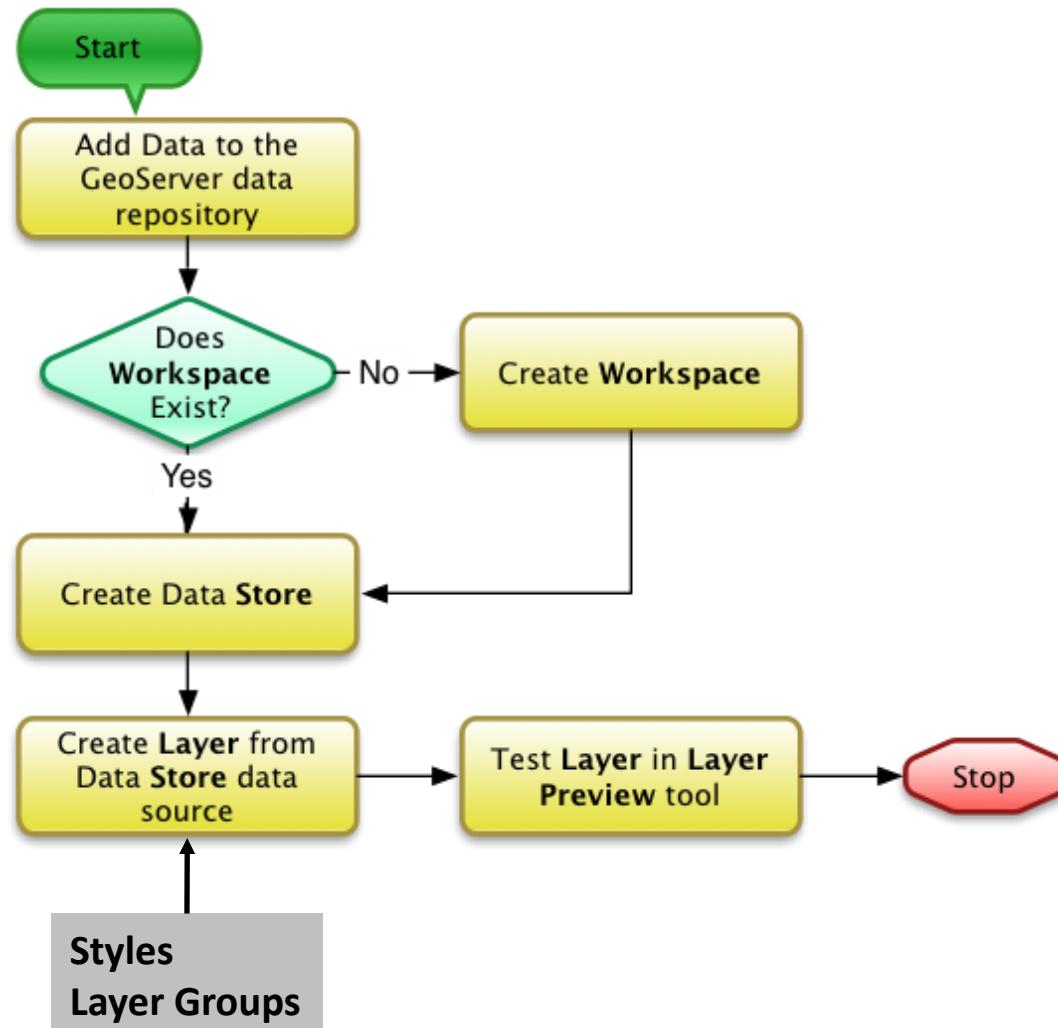
## **Extra SRS codes for WFS capabilities generation**

4326, códigoEPSG, códigoEPSG



# Introdução ao GeoServer

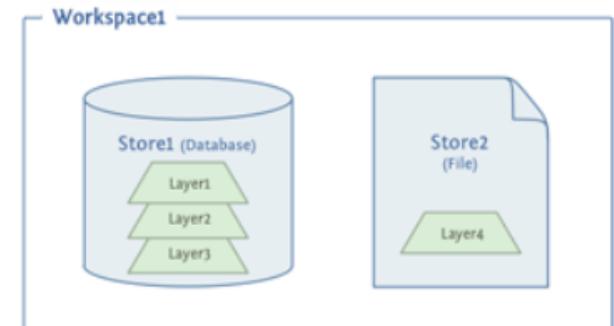
- Workflow de carregamento dos dados



# Introdução ao GeoServer

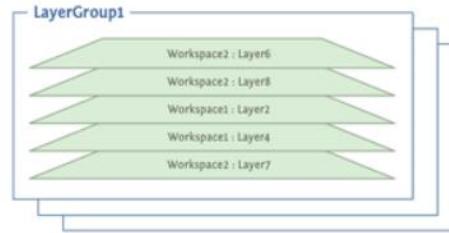
- Conceitos
  - **Workspace:** área utilizada para agrupar temas semelhantes.
    - Pode-se associar quantos temas quisermos a um workspace
    - Podem existir vários temas com o mesmo nome desde que estejam em workspaces diferentes.
    - O nome de um tema é dado pelo par **workspace:layer** (eg. topp:states).
  - Com a configuração **Global**
- **Store:** repositório de dados e indica ao GeoServer a forma de se ligar a eles.
  - Uma store tem de estar numa workspace.
- **Layers:** raster, vectores ou WMS.

workspace      layer



# Introdução ao GeoServer

- Conceitos
  - **Layers Group:** permite compor um mapa a partir dos diferentes temas.
  - **Styles:** por defeito via SLD - Styled Layer Descriptor.
    - Existe uma extensão para css - Cascading Style Sheets (compacto).
    - **QGIS exporta para sld.**



**Style Editor**

Edit the current SLD style. The editor can provide syntax highlight and be brought to full screen. Click on the "validate" button to verify the style is a valid SLD document.

Name: burg  
Workspace:   
Format: SLD  Format only editable for new styles  
Copy from existing style: Choose One

**CSS Styles**

Create and modify GeoCSS styles.

No CSS file was found for this style. Please make sure this is the style you intended to edit, since saving the CSS will destroy the existing SLD.

1 <?xml version="1.0" encoding="ISO-8859-1"?>  
2 <StyledLayerDescriptor xmlns="http://www.opengis.net/sld"  
3 xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:xs1="http://www.w3.org/2001/XMLSchema"  
4 xsi:schemaLocation="http://www.opengis.net/sld http://schemas.opengis.net/sld/1.0.0  
/StyledLayerDescriptor.xsd">  
5 <NamedLayer>  
6 <UserStyle>  
7 <FeatureTypeStyle>  
8 <Rule><Name>  
9 <Text></Name>  
10 <Abstract>A sample of how to use an SVG based symbolizer</Abstract>

**Submit**

- Editing style population
- Previewing on layer: top:states
- Create new CSS style
- Set style "population" as the default style for layer "top:states"
- Change layer associations for this style.

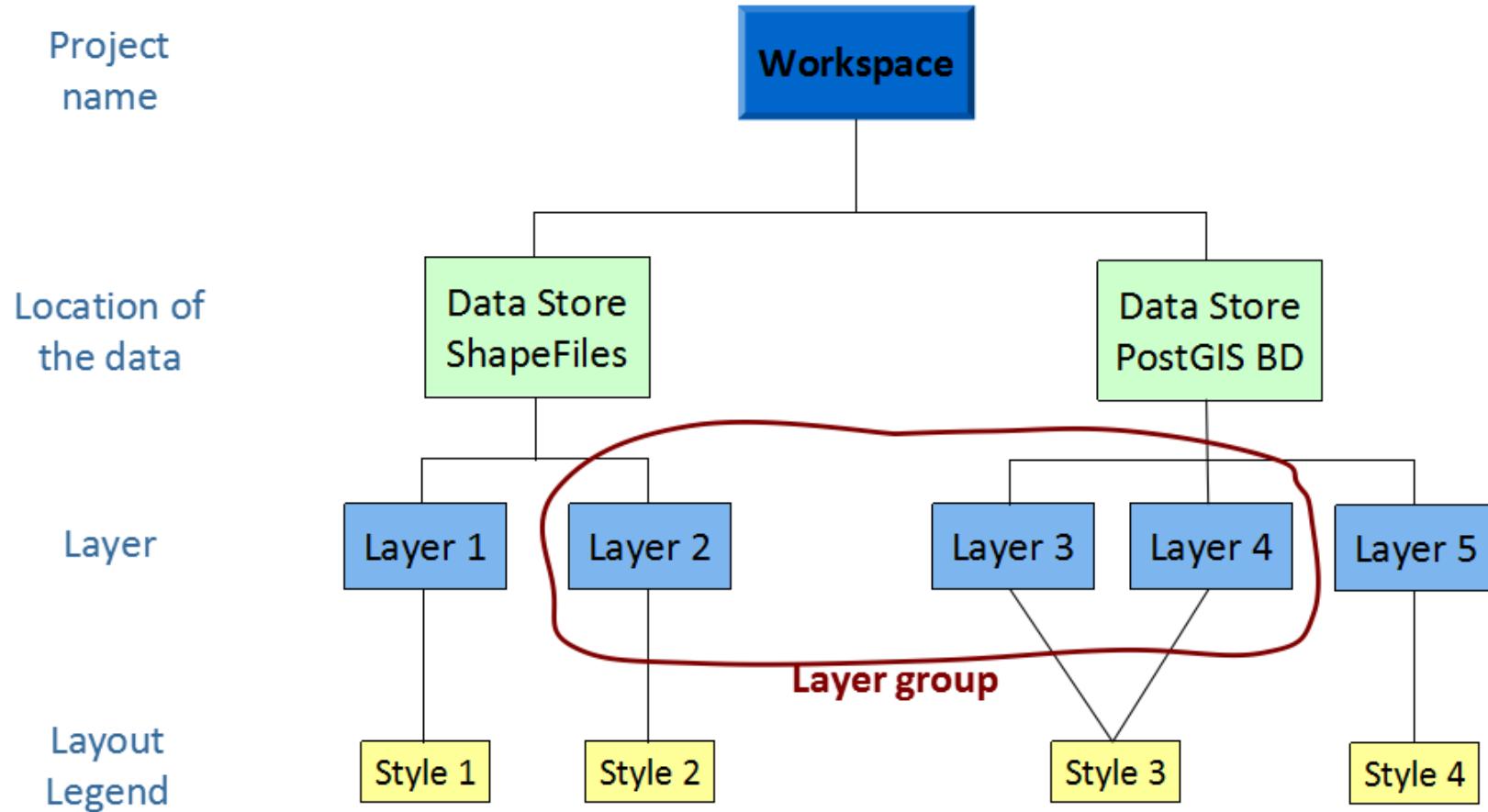
# Introdução ao GeoServer

- SLD - Styled Layer Descriptor

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<StyledLayerDescriptor version="1.0.0"
    xsi:schemaLocation="http://www.opengis.net/sld StyledLayerDescriptor.xsd"
    xmlns="http://www.opengis.net/sld"
    xmlns:ogc="http://www.opengis.net/ogc"
    xmlns:xlink="http://www.w3.org/1999/xlink"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <NamedLayer>
    <Name>Simple point</Name>
    <UserStyle>
      <Title>Simple point</Title>
      <FeatureTypeStyle>
        <Rule>
          <PointSymbolizer>
            <Graphic>
              <Mark>
                <WellKnownName>circle</WellKnownName>
                <Fill>
                  <CssParameter name="fill">#FF0000</CssParameter>
                </Fill>
              </Mark>
              <Size>6</Size>
            </Graphic>
          </PointSymbolizer>
        </Rule>
      </FeatureTypeStyle>
    </UserStyle>
  </NamedLayer>
</StyledLayerDescriptor>
```

# Introdução ao GeoServer

- Conceitos



# Criação de Serviços de Dados

- Workspace

The screenshot shows the GeoServer interface with the following details:

- Left Sidebar (Data):** Includes links for Layer Preview, Import Data, Workspaces (highlighted with a red circle 1), Stores, Layers, Layer Groups, and Styles.
- Workspaces Page:** Shows a list of workspaces: cite, it.geosolution:, nurc, sde, sf, tiger, and topp. The 'nurc' workspace is highlighted with a red circle 2.
- New Workspace Dialog:** A modal window titled "New Workspace" is open, prompting to "Configure a new workspace". It contains fields for "Name" (set to "dgt") and "Namespace URI" (set to "http://dgterritorio.pt/dgt"). A checkbox for "Default Workspace" is present but unchecked. Buttons for "Submit" and "Cancel" are at the bottom.
- Flowchart (Right):** A process flow for creating a workspace:
  - Start
  - Add Data to the GeoServer data repository
  - Decision: Does Workspace Exist?
    - If No: Create Workspace
    - If Yes: Proceed to next step

# Criação de Serviços de Dados

- Workspace

Logged in as admin.

## GeoServer

### Workspaces

Manage GeoServer workspaces

[Add new workspace](#) [Remove selected workspace\(s\)](#)

<< < 1 > >> Results 1 to 8 (out of 8 items)  Search

Workspace Name	Default
cite	✓
dgt	✓
it.geosolutions	
nurc	
sde	
sf	
tiger	
topp	

A red arrow points to the 'dgt' workspace name in the list.

# Criação de Serviços de Dados

- Workspace – Edit

The screenshot shows the 'Edit Workspace' page of the GeoServer interface. The left sidebar has a '4' icon and sections for 'About & Status' (Server Status, GeoServer Logs, Contact Information, About GeoServer), 'Data' (Layer Preview, Workspaces, Stores, Layers, Layer Groups, Styles), and 'Services' (WCS, WFS, WMS). The main area is titled 'Edit Workspace' and contains fields for 'Name' (with a placeholder 'workspace'), 'Namespace URI' (with a placeholder 'http://example.com/workspace'), 'Default Workspace' (checkbox checked), 'Settings' (checkbox 'Enabled' unchecked), and 'Services' (checkboxes for WCS, WFS, and WMS all unchecked). A large red arrow points from the 'Enabled' checkbox down to the text 'Metadados Global ou local'.

4

**Edit Workspace**

Edit existing workspace

**Name**

**Namespace URI**

The namespace uri associated with this workspace

**Default Workspace**

**Settings**

**Enabled**

**Services**

WCS

WFS

WMS

Metadados  
Global ou local

# Criação de Serviços de Dados

- Workspace – Edit

The screenshot shows the GeoServer interface for managing a Web Map Service (WMS). The left sidebar contains navigation links for About & Status, Data, Services, Settings, Tile Caching, and Security. The main content area is titled "Web Map Service" and "Manage map publishing". It shows a workspace named "dgt". Under "Service Metadata", the "Enable WMS" checkbox is checked, and the "Strict CITE compliance" checkbox is unchecked. The "Maintainer" field contains "http://www.dgterritorio.pt". The "Online resource" field contains "http://mapas.dgterritorio.pt/geoserver/web". The "Title" field is "DGT Web Map Service". The "Abstract" field contains "Implementação de um serviço WMS.". The "Fees" field is "sem restrições". The "Access Constraints" field is "nenhum". The "Current Keywords" section lists "WMS", "INSPRECORE", and "infoMapAccessService [ISO]". A "Remove selected" button is next to the keyword list. The "New Keyword" field contains "infoMapAccessService", and the "Vocabulary" field is empty. A "Add Keyword" button is at the bottom.

# Criação de Serviços de Dados

- Workspace – Edit

Data  
Services

Demos  
Tools

**Authority URLs for the root WMS Layer**

Authority Name	Authority URL	Remove
DGT	http://www.dgterritorio.pt	<a href="#">Remove</a>

[Add new authority URL](#)

**Root Layer Identifiers**

Authority	Identifier	Remove
DGT	PT_DGT_CAOP2016	<a href="#">Remove</a>

[Add new layer identifier](#)

**Limited SRS list**

3763, 4326, 4258, 3857

Output bounding box for every supported CRS

• • •

**INSPIRE**

Create INSPIRE ExtendedCapabilities element

Language

por [▼](#)

Service Metadata URL

/xml&outputSchema=http://www.isotc211.org/2005/gmd

Service Metadata Type

CSW GetRecord by ID request [▼](#)

[Submit](#) [Cancel](#)

# Criação de Serviços de Dados

- Stores



Logged in as admin.

## Stores

Manage the stores providing data to GeoServer

[Add new Store](#) [Remove selected Stores](#)

Data Type	Works
	nurc
	nurc
	tiger
	sf
	sf
	topp
	topp
	nurc

**About & Status**

- [Server Status](#)
- [GeoServer Logs](#)
- [Contact Information](#)
- [About GeoServer](#)

**Data**

- [Layer Preview](#)
- [Import Data](#)
- [Workspaces](#)
- [Stores](#)
- [Layers](#)
- [Layer Groups](#)
- [Styles](#)

**Services**

- [WMTS](#)
- [WCS](#)
- [WFS](#)
- [WMS](#)

**Settings**

- [Global](#)

**New data source**

Choose the type of data source you wish to configure

### Vector Data Sources

- [CSV - Comma delimited text file](#)
- [Directory of spatial files \(shapefiles\) - Takes a directory of shapefiles and exposes it as a data source](#)
- [PostGIS - PostGIS Database](#)
- [PostGIS \(JNDI\) - PostGIS Database \(JNDI\)](#)
- [Properties - Allows access to Java Property files containing Feature information](#)
- [Shapefile - ESRI\(tm\) Shapefiles \(\\*.shp\)](#)
- [Web Feature Server \(NG\) - Provides access to the Features published a Web Feature Service \(when supported / allowed\).](#)

### Raster Data Sources

- [ArcGrid - ARC/INFO GRID Coverage Format](#)
- [GeoTIFF - Tagged Image File Format with Geographic information](#)
- [Gtopo30 - Gtopo30 Coverage Format](#)
- [ImageMosaic - Image mosaicking plugin](#)
- [WorldImage - A raster file accompanied by a spatial data file](#)

### Other Data Sources

- [WMS - Cascades a remote Web Map Service](#)



# Criação de Serviços de Dados

- Stores - SHP

The diagram illustrates the process of creating a data store. A yellow box labeled "Create Data Store" is positioned at the top right. Arrows point from this box to two windows below it: a "New Vector Data Source" dialog on the left and a "Shapefile location" file browser on the right.

**New Vector Data Source**

Add a new vector data source

Shapefile  
ESRI(tm) Shapefiles (\*.shp)

**Basic Store Info**

Workspace \*  
dgt

Data Source Name \*  
caop

Description

Enabled

**Connection Parameters**

Shapefile location \*  
file:data/example.extension [Browse...](#)

DBF charset  
ISO-8859-1

Create spatial index if missing/outdated

Use memory mapped buffers (Disable on Windows)

Cache and reuse memory maps (Requires 'Use Memory mapped buffers' to be enabled)

**Shapefile location**

Data directory [GeoServer\\_Data\\_Dir/](#)

Name	Last modified	Size
coverages/	28/jan/2017 17:15	
data/	7/fev/2017 4:49	
demo/	28/jan/2017 17:15	
gwc/	28/jan/2017 17:15	
gwc-layers/	11/fev/2017 15:47	
layergroups/	28/jan/2017 17:15	
layouts/	28/jan/2017 17:15	
legendsamples/	29/jan/2017 16:57	
logs/	28/jan/2017 17:15	
palettes/	28/jan/2017 17:15	
plugIns/	28/jan/2017 17:15	
security/	28/jan/2017 18:34	
styles/	7/fev/2017 4:49	

**Save** **Cancel**

Direção-Geral do Território

# Criação de Serviços de Dados

- Stores – Raster Tiff

The diagram illustrates the process of creating a raster data store in GeoServer. It features a yellow box labeled "Create Data Store" with two arrows: one pointing down to the "Add Raster Data Source" dialog, and another pointing up to a file browser window.

**Add Raster Data Source Dialog:**

- Left Sidebar (About & Status):**
  - Server Status
  - GeoServer Logs
  - Contact Information
  - About GeoServer
- Data Section:**
  - Layer Preview
  - Import Data
  - Workspaces
  - Stores (highlighted)
  - Layers
  - Layer Groups
  - Styles
- Services Section:**
  - WMTS
  - WCS
  - WFS
  - WMS
- Settings Section:**
  - Global
  - Image Processing
  - Raster Access

**Dialog Fields (highlighted in yellow):**

- Description: GeoTIFF
- Basic Store Info:
  - Workspace: dgt
  - Data Source Name: ortos
  - Description: (empty)
  - Enabled: checked
- Connection Parameters:
  - URL: file:/data/example.extension| Browse...
- Buttons: Save, Cancel

**File Browser Window:**

- URL:** Data directory  GeoServer\_Data\_Dir/ data/
- Table:**

Name	Last modified	Size
PorNorte-PT/	11/fev/2017 17:10	
431_4_21_15.tif	29/dez/2016 1:14	33,9M

# Criação de Serviços de Dados

- Layer

## New Layer

Add a new layer

You can create a new feature type by manually configuring the attribute names and types. [Create new feature type...](#)  
Here is a list of resources contained in the store 'Norte'. Click on the layer you wish to configure

Results 1 to 1 (out of 1 items)					<input type="button" value="Search"/>
Published	Layer name	Action			
	PorNorte-PT	<input type="button" value="Publish"/>			
Results 1 to 1 (out of 1 items)					

# Criação de Serviços de Dados

- Layer

The screenshot shows a user interface for managing a data layer. At the top, there are tabs: Data, Publishing, Dimensions, and Tile Caching. The Publishing tab is selected, indicated by a red arrow. Below the tabs, the interface is divided into sections:

- Edit Layer**
- Basic Resource Info**
- Name:** PorNorte-PT
- Enabled:**
- Advertised:**  (highlighted with a yellow box and a red arrow)
- Title:** PorNorte-PT

To the right of the interface, several items are listed with red arrows pointing from them to specific parts of the interface:

- Keywords
- CRS
- Bounding Boxes
- Simbologia Atributos
- Esconder o tema:
  - capabilities
  - preview

# Criação de Serviços

## Edit Layer

Edit layer data and publishing

### dgt:PorNorte-PT

Configure the resource and publishing information for the current layer



#### Edit Layer

##### Basic Resource Info

Name  
PorNorte-PT

Enabled

Advertised

Title  
PorNorte-PT

Abstract  
Dados IHRU

##### Keywords

###### Current Keywords

PorNorte-PT  
features  
IHRU

###### New Keyword

###### Vocabulary

##### Metadata links

No metadata links so far

Note only FGDC and TC211 metadata links show up in WMS 1.1.1 capabilities

##### Data links

No data links so far

#### Coordinate Reference Systems

##### Native SRS

UNKNOWN

ETRS89\_Portugal\_TM06...

##### Declared SRS

EPSG:3763

EPSG:ETRS89 / Portugal TM06...

##### SRS handling

Force declared

#### Bounding Boxes

##### Native Bounding Box

Min X	Min Y	Max X	Max Y
-127.096,8068700	-301.702,0293137	173.081,7938279	278.541,6694684

##### Lat/Lon Bounding Box

Min X	Min Y	Max X	Max Y
-8,849925542431	40,819198085690	-6,745756730782	41,819636603058

#### Curved geometries control

Linear geometries can contain circular arcs

Linearization tolerance (useful only if your data contains curved geometries)

#### Feature Type Details

Property	Type	Nillable	Min/Max Occurrences
the_geom	MultiPolygon	true	0/1
OID_	Integer	true	0/1
Name	String	true	0/1
FolderPath	String	true	0/1
SymbolID	Integer	true	0/1
AltMode	Integer	true	0/1
Base	Double	true	0/1
Clamped	Integer	true	0/1
Extruded	Integer	true	0/1
Snippet	String	true	0/1
PopupInfo	String	true	0/1
Shape_Leng	Double	true	0/1
Shape_Area	Double	true	0/1

« Back to Services



# Criação de Serviços de Dados

## Edit Layer

Edit layer data and publishing

### dgt:PorNorte-PT

Configure the resource and publishing information for the current layer

Data    **Publishing**    Dimensions    Tile Caching

#### HTTP Settings

##### Caching Settings

Response Cache Headers

Cache Time (seconds)

#### WFS Settings

##### Feature Settings

Per-Request Feature Limit

Maximum number of decimals

##### NumberMatched skip

Skip the counting of the numberMatched attribute

##### Extra SRS codes for WFS capabilities generation

Override WFS wide SRS list

#### WMS Settings

##### Layer Settings

Queryable

Opaque

Default Style



Additional Styles

Available Styles
burg
capitals
cite_lakes
dem
generic
giant_polygon
grass
green
line
poi

Selected Styles

Default Rendering Buffer

Default WMS Path

#### Authority URLs for this WMS Layer

No authority URLs so far

#### Layer Identifiers

No layer identifiers so far

#### WMS Attribution

Attribution Text

Attribution Link

Logo URL

Logo Content Type

Logo Image Width

Logo Image Height

Auto-detect image size and type

#### KML Format Settings

Default Regionating Attribute

Default Regionating Method

Features Per Regionated Tile

# Criação de Serviços de Dados

- Layer

## Layers

Manage the layers being published by GeoServer

 Add a new layer  
 Remove selected layers

[!\[\]\(8fd3b1cac8e48a4d6a0420005aa0c945\_img.jpg\)](#) [!\[\]\(60efaf78d272c4e0572ddb447456b9b9\_img.jpg\)](#) [!\[\]\(9400f4172c00d5e40b94062014cf6b0c\_img.jpg\) 1](#) [!\[\]\(d3d873895e9bb502d6da8b8575789c2c\_img.jpg\)](#) [!\[\]\(89ea2bbf0fe2b0a1c19a6ffd1dfad954\_img.jpg\)](#) Results 1 to 20 (out of 20 items)

 Search

<input type="checkbox"/>	Type	Title	Name	Store	Enabled	Native SRS
<input type="checkbox"/>		A sample ArcGrid file	nurc:Arc_Sample	arcGridSample		EPSG:4326
<input type="checkbox"/>		North America sample imagery	nurc:Img_Sample	worldImageSample		EPSG:4326
<input type="checkbox"/>		Pk50095	nurc:Pk50095	img_sample2		EPSG:32633
<input type="checkbox"/>		PorNorte-PT	<u>dgt:PorNorte-PT</u>	Norte		EPSG:3763
<input type="checkbox"/>		Spearfish archeological sites	sf:archsites	sf		EPSG:26713
<input type="checkbox"/>		Spearfish bug locations	sf:bugsites	sf		EPSG:26713
<input type="checkbox"/>		World rectangle	tiger:giant_polygon	nyc		EPSG:4326

# Criação de Serviços de Dados

- Layer Preview

**Layer Preview**

List of all layers configured in GeoServer and provides previews in various formats for each.

<< < 1 > >> Results 1 to 23 (out of 23 items)

Type	Title	Name	Common Formats	All Formats
	PorNorte-PT	dgt:PorNorte-PT	OpenLayers	KML GML Select one
	A sample ArcGrid file	nurc:Arc_Sample		
	North America sample imagery	nurc:Img_Sample		
	Pk50095	nurc:Pk50095		
	mosaic	nurc:mosaic		
	Spearfish archeological sites	sf:archsites		
	Geodatabase layer	sf:geodatabase		

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dgTerritório  
Direção-Geral do Território

# Criação de Serviços de Dados

- Serviços OGC – documento GetCapabilities

## Welcome

Welcome

This GeoServer belongs to The Ancient Geographers.

20 Layers	<a href="#">+ Add layers</a>
10 Stores	<a href="#">+ Add stores</a>
8 Workspaces	<a href="#">+ Create workspaces</a>

⚠ The master password for this server has not been changed from the default. It is **highly** recommended that you change it now. [Change it](#)

⚠ The administrator password for this server has not been changed from the default. It is **highly** recommended that you change it now. [Change it](#)

⚠ No strong cryptography available, installation of the unrestricted policy jar files is recommended

This GeoServer instance is running version **2.10.1**. For more information please contact the [administrator](#).

Service Capabilities
WCS
1.0.0
1.1.0
1.1.1
1.1
2.0.1
WFS
1.0.0
1.1.0
2.0.0
WMS
1.1.1
1.3.0
TMS
1.0.0
WMS-C
1.1.1
WMPS
1.0.0

- Recursos:

- GeoServer User Manual

<http://docs.geoserver.org/stable/en/user/>

- GeoServer Training Modules

<http://geoserver.geo-solutions.it/edu/en/>

INSPIRE Support

# *Serviços de Dados Geográficos*

*Danilo Furtado*

Direção-Geral do Território